



“When You Talk - We Listen!”



MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
GENERAL RATE APPLICATION
2012/13 AND 2013/14

Before Board Panel:

Regis Gosselin - Board Chairman
Raymond Lafond - Board Member
Larry Soldier - Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
January 10, 2013
Pages 2896 to 3142

1 APPEARANCES

2 Bob Peters)Board Counsel

3

4 Patti Ramage)Manitoba Hydro

5 Odette Fernandes)

6

7 Byron Williams)CAC (Manitoba)

8

9 William Gange (np))GAC

10 Peter Miller)

11

12 Antoine Hacault (np))MIPUG

13

14 Michael Anderson (np))MKO

15

16 Denise Pambrun (np))City of Winnipeg

17

18

19

20

21

22

23

24

25

1		TABLE OF CONTENTS	
2		Page No.	
3	List of Exhibits	2899	
4	List of Undertakings	2900	
5			
6	MANITOBA HYDRO PANEL 4 - DSM, RESUMED:		
7	DARREN RAINKIE, Resumed		
8	ROBIN WIENS, Resumed		
9	LOIS MORRISON, Resumed		
10	TERRY MILES, Resumed		
11			
12	Continued cross-examination by Mr. Bob Peters	2902	
13	Cross-examination by Mr. Byron Williams	3007	
14			
15	Certificate of Transcript	3142	
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

1		LIST OF UNDERTAKINGS	
2	No.	Description	Page No.
3	62	Manitoba Hydro to provide a	
4		qualitative description of how the	
5		generation marginal value is	
6		determined	2931
7	63	Manitoba Hydro to provide a breakdown	
8		into generation, transmission, and	
9		distribution components for the	
10		marginal values listed under	
11		MIPUG/MH Round 1 7A	2941
12	64	Manitoba Hydro to provide the	
13		percentage of participants in the	
14		Water & Energy Savers Program	
15		compared to general population	
16		of participants in the program	3117
17	65	Manitoba Hydro to provide a	
18		comparison of all electric uptake	
19		of the five (5) residential	
20		programs, as compared to the	
21		general population	3123
22			
23			
24			
25			

1 --- Upon commencing at 9:03 a.m.

2

3 THE CHAIRPERSON: Good morning,
4 everyone. I think that we're ready to -- to proceed.
5 And I turn it back to -- turn the mic -- do we have to
6 acknowledge some documents?

7 MS. ODETTE FERNANDES: Yes, we do.

8 Thank you, Mr. Chairman. Manitoba Hydro is filing one
9 (1) response to Undertaking number 56, which was taken
10 yesterday at transcript page 2,747. And that was a
11 request for Manitoba Hydro to provide the RFP that was
12 submitted with respect to the DSM market potential
13 study. And that would be marked as Manitoba Hydro
14 Exhibit number 65.

15

16 --- EXHIBIT NO. MH-65: Response to Undertaking 56

17

18 THE CHAIRPERSON: Thank you. Over to
19 you, Mr. Peters.

20

21 MANITOBA HYDRO PANEL 4 - DSM, RESUMED:

22 DARREN RAINKIE, Resumed

23 ROBIN WIENS, Resumed

24 LOIS MORRISON, Resumed

25 TERRY MILES, Resumed

1

2 CONTINUED CROSS-EXAMINATION BY MR. BOB PETERS:

3 MR. BOB PETERS: Yes, thank you. Good
4 morning, to the panel. Thank you, Ms. Morrison for the
5 prompt return on that Undertaking number 56 that your
6 counsel has just entered into evidence.

7 I haven't had much time to look at it,
8 but on page 25 of 82 there's an indication that the
9 work schedule under this provision of a demand-side
10 management market potential study was to have been
11 completed before December 1st of 2011.

12 Have I got that right?

13 MS. LOIS MORRISON: That is correct.

14 MR. BOB PETERS: So when you said
15 yesterday it was behind schedule, it's a couple of
16 years behind schedule?

17 MS. LOIS MORRISON: We were late in
18 awarding it, and so that deadline wouldn't have been --
19 wouldn't have been appropriate, given the timing when
20 we did actually end up awarding it. And in addition to
21 that, yes, we are significantly behind schedule.

22 MR. BOB PETERS: But the -- the finish
23 line is in sight, is what I gathered from your evidence
24 yesterday?

25 MS. LOIS MORRISON: Yes.

1 MR. BOB PETERS: All right. Thank you.
2 One (1) of the matters yesterday, Ms. Morrison, when
3 you and I were talking about Mr. Dunsky's evidence is
4 that you had indicated that one (1) of the factors that
5 one has to be cognizant of when assessing the Dunsky
6 evidence about the different jurisdictions and the
7 savings ratios that are applicable to those
8 jurisdictions is that the marginal cost may be
9 different in those jurisdictions, correct?

10 MS. LOIS MORRISON: That is correct.

11 MR. BOB PETERS: And in fact, the
12 marginal cost will be different in every jurisdiction.
13 Wouldn't that also follow?

14 MS. LOIS MORRISON: Yes.

15 MR. BOB PETERS: So when we look at the
16 -- Manitoba Hydro's screening tests, in terms of
17 designing demand-side management projects, would it be
18 correct, at a high level, for the Board to understand
19 that there's a two (2) stage process, the first of
20 which Manitoba Hydro runs ideas and programs through a
21 -- an economic screen; and if they pass through an
22 economic screen and they make it down to the program
23 design level, Manitoba Hydro runs them through a few
24 more filters?

25 MS. LOIS MORRISON: Yes. They're all

1 economic analyses though.

2 MR. BOB PETERS: The first economic
3 analysis that is run is called the marginal resource
4 cost test, run by Manitoba Hydro?

5 MS. LOIS MORRISON: That is correct.

6 MR. BOB PETERS: And the marginal
7 resource cost test is used as the preliminary, high
8 level screen to assess the benefits associated with an
9 energy savings opportunity?

10 MS. LOIS MORRISON: Yes.

11 MR. BOB PETERS: And the marginal
12 resource cost test is used to determine if there is a -
13 - if there are benefits, regardless of who gets the
14 benefits and regardless of who pays the benefits?

15 MS. LOIS MORRISON: Primarily from an
16 energy perspective. However, we will, in our analysis,
17 include some non-energy benefits that are quantifiable,
18 such as water savings, in the assessment of whether or
19 not a technology should be pursued, whether it's
20 economic.

21 So we look at: Is it economic from --
22 from -- on the benefit side from the long-term
23 projection of the value of the energy, plus the long-
24 term savings associated with, say, water savings?

25 Then we look at -- and that's on the

1 benefits side. And on the cost side, we're primarily
2 looking at: What's the cost of installing that
3 kilowatt hour of savings? So what does it cost to get
4 it in place? And that would be the -- in most cases,
5 the incremental product cost.

6 MR. BOB PETERS: When you're at that
7 high level -- and I'm trying to stay at that level, Ms.
8 Morrison -- does it matter if the benefit goes to
9 Manitoba Hydro or the benefit goes to the consumer?

10 In that first test?

11 MS. LOIS MORRISON: The benefit is from
12 more of a broad perspective. You're correct.

13 MR. BOB PETERS: So at that point in
14 time, you're not looking to see whether the benefit
15 falls solely or totally to Manitoba Hydro? It could
16 also fall to the consumer?

17 MS. LOIS MORRISON: Yes.

18 MR. BOB PETERS: And then, likewise, in
19 terms of the costs, the costs of installing that level
20 of savings that you referenced, that's the point where
21 Manitoba Hydro has to determine -- again, it's not --
22 it -- how much it costs, regardless of who has to pay
23 that, at that point in time?

24 MS. LOIS MORRISON: Yes. At that
25 point, we're not assessing who's investing in the -- in

1 the energy savings. We're assessing: What does it
2 cost to get it in place? Is this a potential
3 technology that benefits -- that will provide greater
4 benefit from an energy perspective than cost?

5 MR. BOB PETERS: On page 328 of Board
6 counsel's book of documents is an extract from one (1)
7 of the Information Requests; specifically, First Round
8 107A, asked by the Public Utilities Board. And in
9 addition to that, we've had some other discussions
10 about marginal cost.

11 At this first test that we're talking
12 about, Ms. Morrison, it -- it's called the marginal
13 resource cost test.

14 Is that the -- the acronym used, the
15 name used?

16 MS. LOIS MORRISON: That's correct.

17 MR. BOB PETERS: And it measures the
18 present value of the benefit -- the marginal benefits,
19 and it compares them to the present value of the
20 incremental product costs?

21 MS. LOIS MORRISON: That's correct.

22 MR. BOB PETERS: And the objective is
23 that the ratio that comes out of that test has to be
24 greater than one point zero (1.0) for the -- for the
25 identified option to proceed for further analysis?

1 MS. LOIS MORRISON: Yes.

2 MR. BOB PETERS: And when we look at
3 the present value of the marginal benefits, Manitoba
4 Hydro has quantified that on page 328 as eight point
5 five-two (8.52) cents?

6 MS. LOIS MORRISON: The eight point
7 five-two (8.52) cents represents a levelized
8 representation of our marginal value cost stream. When
9 we do the analysis, we are looking at the individual
10 technologies and how those energy savings present
11 within the mark -- within the market.

12 So we would look at a differential
13 between winter energy, summer energy, capacity
14 contribution to winter peak capacity, summer peak
15 capacity. So the eight point five (8.5) is -- is a
16 representation of what that value may be. But given
17 how those energy savings may actually present in our
18 system is how they are valued.

19 So we -- what we do is we get a thirty
20 (30) year projection from our counterparts in Mr.
21 Miles's group, that identifies, year by year, over
22 thirty (30) years of value -- of forecast value of the
23 marginal costs. And it's broken out based on, as I
24 mentioned, a winter value, a summer value for energy.
25 And it's also broken out for capacity components.

1 So one (1) measure -- say, for example,
2 home insulation -- would have a greater value because
3 it has more energy savings occurring in the winter
4 months. A chiller program for our commercial sector
5 may have less value on a levelized benefit stream,
6 because it has greater savings occurring in the summer
7 months. So what we're presenting here is -- is a -- is
8 a...

9

10 (BRIEF PAUSE)

11

12 MR. TERRY MILES: Just to clarify, what
13 the -- so what the eight point five-two (8.52)
14 represents, if that's what the question is, the eight
15 point five-two (8.52) represents the levelized value of
16 that energy in the system, sort of the average level
17 across the whole system, over that thirty (30) year
18 period.

19 So if we have that savings of energy
20 that's there, this is the benefit and the value that we
21 get for that. So for a -- a DSM saving, if you will,
22 in one (1) year, or over the life of the DSM program,
23 the value of that saving to the Manitoba Hydro system
24 is eight point five-two (8.52) cents times however many
25 kilowatt hours are associated with that program in

1 every year going out into the future. That would be the
2 levelized value of that.

3 So if a program has a twenty (20) year
4 life or a thirty (30) year life and there's a hundred
5 gigawatt hours of saving with that program, it would be
6 a hundred gigawatt hours times twenty (20), times that
7 levelized value, would be the value of that energy. So
8 it's persistent over the whole life of the -- of the
9 program. So that's the value to the system that's
10 there.

11 MR. BOB PETERS: All right. Let's --
12 let's make sure that the record is clear on that, Mr.
13 Miles. And thank you for your assistance. I did not
14 put in the book of documents the response that Manitoba
15 Hydro gave in its Second Round question to CAC/MSOS --
16 I'm sorry to CAC, number 27B.

17 I did, though, try to provide a copy to
18 the Board members yesterday, stapled together. So I
19 think the Board members may have it closer at hand.
20 But it -- if you could look in your binder for that
21 document, Mr. Miles, maybe we can assist the Board.

22 MR. TERRY MILES: Okay. I have it
23 here.

24 MR. BOB PETERS: And people are ahead
25 of me, looking at Mr. Williams's book of documents.

1 And perhaps it's -- it's also in -- in that document.

2 And I'm not sure that Mr. Williams's book of documents
3 has been circulated yet, but I think the Board -- I
4 think the Board has located the copy from yesterday.

5 On the second page of what I gave the
6 Board yesterday is a copy of the CAC/Manitoba Hydro
7 Second Round 27B question. And I'll just let everybody
8 have an opportunity to locate it.

9 Mr. Miles, we're still talking about the
10 -- the formula where the present value of the marginal
11 benefits is the numerator, and the denominator is the
12 present value of the incremental costs, correct?

13 MS. LOIS MORRISON: That's correct.

14 MR. BOB PETERS: Thank you, Ms.
15 Morrison. What -- what -- Mr. Miles, what CAC/Manitoba
16 Hydro Second Round 27B identifies for the Board is a
17 breakdown of the marginal costs.

18 But before we get there, Manitoba Hydro
19 does not want to put its various marginal costs on
20 public display, does it?

21 MR. TERRY MILES: No, not the annual
22 marginal cost numbers. And we've indicated that in --
23 in our responses.

24 MR. BOB PETERS: So what we -- what we
25 have here is -- is essentially a proxy for the -- for

1 the marginal cost. Would that be fair?

2 MR. TERRY MILES: No, I don't think
3 it's a proxy. It's a levelized value of our -- of our
4 marginal cost. So it's -- it's not a proxy for it. It
5 is calculated from the marginal values that we have.

6 MR. BOB PETERS: But it's a calculation
7 of over thirty (30) -- of -- of a number over thirty
8 (30) years?

9 MR. TERRY MILES: It's a levelized
10 number over thirty (30) years, that's correct.

11 MR. BOB PETERS: And in terms of
12 calculating that number, you've -- you've indicated on
13 CAC/Manitoba Hydro Second Round 27B that transmission
14 is given a value over the course of a year of sixty
15 dollars and forty-six cents (\$60.46) a kilowatt hour
16 per year?

17 MR. TERRY MILES: That's correct.

18 MR. BOB PETERS: Just explain to the
19 Board how you came to that conclusion, how Manitoba
20 Hydro came to that conclusion that that was the -- the
21 appropriate value of transmission.

22 MR. TERRY MILES: That's based on a --
23 a methodology that the transmission and distribution
24 area is calculated, and it's a one (1) year deferral of
25 costs associated with -- with those projects. So if we

1 look at the transmission -- and I'll do this similar
2 for distribution, because it is similar for
3 distribution. It's the same sort of methodology for
4 that.

5 If we look at the transmission projects
6 that we have in place over the next ten (10) years, so
7 out in time -- likewise with distribution, the projects
8 that we have in place and the cost associated with
9 those -- we look at the incremental load growth that's
10 associated in -- in a year going out -- years going out
11 in time over ten (10) years and -- and, I guess, the --
12 the projects associated with serving that particular
13 load -- load growth out in time.

14 If we have savings, if you will -- if
15 you were able to defer, for example, those costs by one
16 (1) year, because of some savings with -- with -- on
17 the load -- on the peak load, the avoided cost or the
18 benefit of doing that would be in the order of sixty
19 dollar (\$60) -- for transmission, it would be sixty
20 dollars and forty-six cents (\$60.46) per year. And
21 that is a -- that would be a levelized value again over
22 that -- based on a levelized value over that ten (10)
23 year -- ten (10) year period. Likewise with
24 distribution.

25 MR. BOB PETERS: I'm sorry, you said a

1 ten (10) year period, or you meant thirty (30) year
2 period?

3 MR. TERRY MILES: These values are
4 based -- these values are based on analysis for a ten
5 (10) year period and extended out in time over that
6 period, yes.

7 MR. BOB PETERS: I'm sorry, I didn't
8 mean to interrupt. But you were then going to just go
9 to distribution?

10 MR. TERRY MILES: And then to
11 distribution, so -- so similarly, yes. So we take the
12 -- the distribution projects, the -- the load growth
13 that we would ex -- that's expected over the next --
14 over the next number of years, ten (10) years, the
15 projects in place associated to deal with those -- to
16 deal with that load growth.

17 We would levelize the -- levelize the
18 cost of the projects over that ten (10) year period and
19 get a levelized cost for the projects. And we would
20 take the average load growth over that period that's
21 there and essentially -- essentially divide the two
22 (2). But then you would defer that cost stream one (1)
23 year. And that becomes then your -- the saving of
24 doing that becomes the value that we see here, the
25 sixty-three dollars and eighty-three cents (\$63.83) per

1 kilowatt hour for distribution.

2 MR. BOB PETERS: All right. And those
3 amounts are modest when compared to the -- the value --
4 the marginal value of the generation?

5 MR. TERRY MILES: That's correct.
6 That's been our experience to date, that the -- the --
7 compare the generation of the marginal value that we
8 have for -- on the generation side, yes, the
9 transmission distribution costs are -- are about 20
10 percent.

11 MR. BOB PETERS: Briefly explain to the
12 Board how that generation marginal cost of seven point
13 one-one (7.11) cents per kilowatt hour is derived.

14 MR. TERRY MILES: I -- I can do that.
15 In that value we use our -- we -- we use our model, a
16 SPLASH model that we -- that we have. We model the
17 system based on the current state that we have, based
18 on the current load growth going out in time.

19 We look at a thirty-five (35) year -- a
20 thirty-five (35) year period in our model. Through our
21 model, we run through the ninety (90) -- it's ninety-
22 nine (99) flow years now going out into time ever year,
23 out in time, given the load growing out.

24 From that model then we get a -- a --
25 well, revenue stream from that -- from the model for

1 that case. We then reduce the load by 500 gigawatt
2 hours to represent a -- a saving, if you will, in -- in
3 load. We run the model again. From that model, then
4 we get a difference in -- there's difference in -- in
5 revenues and costs.

6 So by reducing the load when we run that
7 model, what happens is a system then is operated
8 differently. And there's potentially savings on
9 imports, savings on exports. And there's, as well,
10 additional opportunity for export sales associated with
11 the firm and opportunity.

12 Based on a comb -- combination of those
13 then, the savings that we get with that -- associated
14 with that reduction in -- in loads -- let's say 500
15 gigawatt hours -- dividing those two (2) out, you end
16 up with a marginal value. And we do that every year out
17 in time. So for every year out in time and every load
18 growth we would get a marginal value for every year out
19 in time. And the number that you see here then is a
20 levelized value of that number out in -- out in time.

21 MR. RAYMOND LAFOND: Can I ask a
22 question? This is based strictly on projected future
23 load growth and, therefore, required growth in
24 generation. So if the interest rate is 6 percent and
25 depreciation is what, 1 1/4 -- 1 1/2 percent, you come

1 up to your seven point eleven (7.11) cents per kilowatt
2 hour.

3 And when you look at your cos -- your
4 projected costs of generation -- for instance, for
5 building Keeyask or Conawapa -- it seems to me it's
6 higher than that.

7 MR. TERRY MILES: Well, the calculation
8 that we do is not based on the -- on the cost of -- of
9 generation moving out in -- out in time. The value
10 that we get from this is the value of the energy in the
11 system itself. It's not based on the deferred -- the
12 deferred cost of generation in our evaluation.

13 MR. RAYMOND LAFOND: So -- so the
14 current costs of generating electricity?

15

16 (BRIEF PAUSE)

17

18 MR. TERRY MILES: I'm not -- I'm not
19 sure I understand your question. I'll try something
20 here, and maybe it'll help -- help understand that. So
21 for generation, to determine what the marginal value or
22 marginal cost of generation is, there's two (2)
23 methodologies that we could use.

24 One (1) of them is to look at deferring
25 the generation, or an avoided cost of generation. And

1 where we would have a -- a load reduce or load
2 increase, if you will, a load reduction that would
3 allow you to defer the building of generation. And in
4 such doing so, you would incur less cost, if you will,
5 or you would defer some cost associated with building
6 that generation. So that would be one (1) methodology
7 that -- that we do.

8 And we were doing that prior to about
9 year 2000. That was a methodology that we had used for
10 -- for the generation that's there. What occurred is
11 that there were some significant changes in the
12 marketplace that actually increased the value of -- of
13 energy and -- or increased the value that we could
14 extract from the -- from the export market.

15 At that point, the -- the best value, if
16 you will, that we -- that -- the best -- the value of
17 actually going to the marketplace then or having this
18 energy -- the value of energy from the marketplace was
19 more than the value of deferring the generation.

20 So since 2000, our methodology has not
21 been to look at what is the cos -- what -- what saving
22 do we have from deferring generation as such. It's the
23 value that we can get from that energy from -- from the
24 export market.

25 So at -- at some point, yeah, if the

1 export market changes and that, that may change again,
2 where then there is a value in -- in -- the highest
3 value of fuel comes from deferring the generation.
4 Currently, it's not. Currently is the highest value
5 that we can get is from the export market in the long -
6 - in the long run that we -- that we look at.

7 Now, the -- from a -- I think from a DSM
8 perspective overall though, yes, you know, DSM -- if we
9 have DSM, it does defer the need for generation. But
10 that's -- but we don't calculate our marginal value
11 based on that currently. We have in past, but that has
12 changed. So that methodology has changed. And it
13 would be, you know, unlike if you will, the methodology
14 that we had for -- for the transmission and
15 distribution -- it wouldn't be the same, but it would
16 be not unlike that type of a -- of a...

17 MR. RAYMOND LAFOND: So -- so this --
18 these numbers here, seven point eleven (7.11) cents and
19 point six-nine (.69) cents per kilowatt hour, are
20 essentially more based on market values than your
21 costs?

22 MR. TERRY MILES: They are based on the
23 -- they are based on market values that we can extract,
24 they are based on the reduced export cost, and they
25 would be based on reduced thermal costs in the system.

1 So it's a combination of those three (3), but largely
2 linked to, yes, the export -- the export market -- the
3 export prices, yes.

4 MR. RAYMOND LAFOND: And that's export
5 value as expected over the next how many years, again?

6 MR. TERRY MILES: For this -- for this
7 calculation, this is thirty (30) years out in time.
8 That would be the forecast of export values thirty (30)
9 years out in time. So it reflects a real escalation in
10 export or electricity values over that time.

11 THE CHAIRPERSON: I'm having trouble
12 wrapping my head around the -- we -- we're using values
13 and costs interchangeably here, and I think that that's
14 partly where the confusion's coming from.

15 But the addition of Wuskwatim would have
16 what effect on the value that, described in this page,
17 would have no effect from -- based on what I'm hearing
18 -- in as much as you're basing the value of
19 calculations on the value of export energy?

20 MR. TERRY MILES: The addition of
21 Wuskwatim, or any resource in this, can change the
22 value. Once a resource is in the system, it becomes
23 operated as part of the system. So extracting value
24 from the export market, if you will -- or it is based
25 on system operation. So as Wuskwatim is put into the

1 system, it adds dependable energy. It changes the way
2 the system is operated.

3 So, it changes the way we regulate
4 reservoirs. It changes our import and export costs, et
5 cetera. So, if you change the system itself -- so you
6 put Wuskwatim in, or Keeyask, or Conawapa out in time,
7 you put those into the system -- and then you change
8 the load growth, if there was a different scenario
9 associated with that, that marginal value would be
10 different for that.

11 So given the system that you have -- for
12 example, in a recommended development plan with a new
13 interconnection and those types of things in it, you
14 could extract more value from the export market for --
15 per -- you know, per incremental DSM, et cetera.

16 So, yes, adding Wuskwatim will change
17 the way the system is operated and, as such, would
18 change potentially the value that a reduction in -- in
19 the lower DSM saving would have.

20 THE CHAIRPERSON: So the numbers we're
21 looking at now would be post-Wuskwatim?

22 MR. TERRY MILES: These -- these
23 numbers are based on the recommended development plan.
24 So they include Wuskwatim, and they include the -- the
25 recommended development plan, so Keeyask, Conawapa, and

1 the new interconnection, yes.

2 THE CHAIRPERSON: Just to clarify
3 something that Ms. Morrison talked about, which is
4 different values depending on the time of year, winter
5 value versus summer value, how do you factor that into
6 the equation?

7 MR. TERRY MILES: Well, in -- in our
8 analysis we also look at the value of energy at
9 different times of year, so winter versus summer, and -
10 - in our calculations. And we determine or assess what
11 the -- what the incremental benefit of that energy is
12 in the winter and in summer, just...

13 THE CHAIRPERSON: Now, in -- in
14 examination of the -- of the -- the marginal benefits
15 relative to the marginal cost, is it purely
16 quantifiable? Is it qual -- some qualitative factors
17 go into that examination?

18 MR. TERRY MILES: I'm sorry, I don't
19 understand the question.

20 THE CHAIRPERSON: I'm sorry. We -- we
21 talked about, you know, the -- the examination that's
22 done on the marginal resource cost test. And we talked
23 about, you know, comparing the marginal benefits as a
24 way to describe versus the -- the incremental product
25 cost.

1 And I guess my question is: Are those
2 purely quantitative calculations? I mean, are you also
3 looking at some of the qualitative factors? For
4 example, my house is more comfortable.

5 MS. LOIS MORRISON: When we're looking
6 at the analysis, we take into consideration measurable
7 non-energy benefits when we're looking at the
8 technology screen -- or what we call a technology
9 screen or a product screen. So when we're deciding if
10 we're going to promote -- or we're investigating
11 whether increased insulation is valuable or -- or
12 something we want to promote, or better efficiency
13 showerheads, or even if we're looking at, say, CO2
14 sensors in commercial operations, we look at the
15 marginal value identi -- as outlined by Mr. Miles.

16 And if there's additional non-energy
17 benefits that can be measured, we include that value.
18 So the easiest one (1), of course, is water savings.
19 So we include the -- the reduced cost of water. But we
20 would -- and we will look at -- when we -- when we get
21 further into the discussion, we talk about societal
22 benefits. We talk of the societal test. We do look at
23 it from adding in just a 10 percent add --- adder to
24 say, Well, how close is it to being cost effective with
25 a 10 percent rider? You know, bring it into -- you

1 know, into account for those non-quantifiable benefits.

2 But it's not -- so -- so we will look at
3 it to see how close it is to being economic and if
4 those additional -- if that 10 percent might bring it
5 up. But we don't specifically say -- try to quantify
6 those things like increased comfort or higher
7 productivity for -- for -- because we've got more
8 daylight in -- in the work environment.

9 MR. RAYMOND LAFOND: My question is
10 more technical. When you talk of levelized costs,
11 what's the different between levelized costs for the
12 next thirty (30) years versus average costs for the
13 next thirty (30) years?

14 MR. TERRY MILES: Well, as I
15 understand, average costs would be a simple
16 mathematical average or mean of the numbers out in
17 time. Levelized cost uses a discount rate to bring
18 things back in time --

19 MR. RAYMOND LAFOND: So it's a
20 discounted rate?

21 MR. TERRY MILES: Yes.

22 MR. RAYMOND LAFOND: And you use a
23 discount rate of, what, 6 percent?

24 MR. TERRY MILES: Yeah, it varies, but
25 it's in that order for this, yeah.

1 MR. RAYMOND LAFOND: I -- I'm sorry, I
2 missed the answer.

3 MR. TERRY MILES: I said it -- it
4 varies, but it's in that order, yes.

5

6 CONTINUED BY MR. BOB PETERS:

7 MR. BOB PETERS: And, Ms. Morrison, I
8 think the discount rate in these calculations was six
9 point one (6.1) for the present value discount?

10 MS. LOIS MORRISON: Yes, that's
11 correct.

12 MR. BOB PETERS: Okay. Mr. Miles, not
13 to pretend I followed all of the mathematic gymnastics
14 you took the Board through, but would you be able to
15 provide a spreadsheet with your calculations of the
16 numbers that are contained on CAC/Manitoba Hydro Second
17 Round 27B, with sufficient data or formulas to allow
18 for an understanding as to how they were -- how it was
19 derived?

20

21 (BRIEF PAUSE)

22

23 MR. TERRY MILES: The -- for the
24 transmission and distribution components of them, there
25 is a report that was submitted. It is a 2004 support

1 that -- report that talks about -- or discusses,
2 anyways -- how the marginal values are calculated for
3 that.

4 MR. BOB PETERS: Ju -- just let me jump
5 in on that comment.

6 MR. TERRY MILES: Okay.

7 MR. BOB PETERS: I -- I believe Mr.
8 Chernick had some criticism of -- of the marginal cost
9 of transmission and distribution.

10 And I had understood, I think from the
11 Manitoba Hydro rebuttal evidence, that Manitoba Hydro
12 was reviewing the 2004 methodology for -- for possible
13 changes?

14 MR. TERRY MILES: We are reviewing it
15 for some possible changes, yes. And that process is --
16 is ongoing. We're in the process of putting together
17 that report or updating that report.

18 Our intention is if that -- or when that
19 report becomes available, because it will -- will
20 become available, we will file that with these
21 proceedings, whether it's during the hearings or
22 whatever. We will file that updated report for --

23 MR. BOB PETERS: And that's expected
24 when?

25 MR. TERRY MILES: I can't say exactly

1 when it is expected. I will say sooner than later. I
2 will say it is in draft form. It has to go through the
3 -- it does have to go through the formal approval
4 processes with Manitoba Hydro, but --

5 MR. BOB PETERS: Will it be provided
6 before the next Power Smart Program, just in terms of
7 timeline?

8

9 (BRIEF PAUSE)

10

11 MR. TERRY MILES: I would -- I would
12 expect that, yes.

13 MR. BOB PETERS: And just while we're
14 on the transmission and distribution marginal costs,
15 those do not include line losses as -- as an example,
16 correct?

17

18 (BRIEF PAUSE)

19

20 MR. TERRY MILES: In the -- in the
21 numbers shown in this -- in this IR that's here, the
22 losses are at the generation level right here. We do -
23 - there is another IR that we do indicate the marginal
24 values at the generation, transmission, and
25 distribution levels, with the losses incorporated at

1 those levels. I was just going to -- I was just going
2 to see if I could find that quickly here. It is right
3 here.

4

5

(BRIEF PAUSE)

6

7 MR. BOB PETERS: I appreciate, Mr.
8 Miles, that when the microphones are live, it's
9 difficult to -- to locate everything that your -- your
10 mind tells you that you have at hand. I know it well.

11 The -- the point, you're -- you did find
12 it?

13 MR. TERRY MILES: I -- I did find it,
14 yeah. It's actually CAC -- CAC/GAC/MH Round 1 4B. And
15 it gives the net generation cost, the transmission
16 level cost, and the distribution level cost, which
17 would include losses at each of those levels.

18 And just as a note, the generation level
19 is six point two (6.2) cents per kilowatt hour; the
20 transmission level at seven point five (7.5) cents per
21 kilowatt hour; and at the distribution level, it's
22 eight point five (8.5) cents per kilowatt hour.

23 MR. BOB PETERS: It comes to the same
24 number?

25 MR. TERRY MILES: In the end at the

1 distribution level, yes, because that's what the -- so
2 the -- the long-run marginal value incor -- is -- is
3 all of the -- all of the components with the losses
4 associated with it, yes.

5 MR. BOB PETERS: And Mr. Chernick was
6 suggesting that the -- with the addition of the line
7 losses and other adjustments, that those marginal costs
8 would be higher.

9 And -- and you don't come to the same
10 conclusion?

11 MR. TERRY MILES: I think what we've
12 responded to before, to Mr. Chernick's comments on
13 those in -- in previous hearings was that the values
14 that we -- that are represented here represent average
15 system losses overall and not specific components of
16 such. So their average system losses, their average
17 costs associated with them.

18 So in light of that, given those -- how
19 we determine the losses or how they're assessed and how
20 they're used, that these values are representative of
21 the losses at those levels. I think under -- there are
22 -- I think your reference of cost of service report
23 that's there -- and I'm not intimately familiar with
24 the losses that are associated in there, but I do
25 understand that we do use slightly different losses at

1 the different load levels or customer levels that are a
2 little different than these overall average system
3 losses that we have quoted here for these numbers.

4 MR. BOB PETERS: From a conceptual
5 level, Manitoba Hydro would agree that unless you
6 included the line losses, you would be understating
7 your marginal value?

8 MR. TERRY MILES: I believe the line
9 losses need to be included in those calculations, yes.

10 MR. BOB PETERS: Now, we were talking
11 about the specific calculation for the Board, and we
12 segued on to the transmission and distribution
13 discussion.

14 But I wasn't looking for confidential
15 information, but in terms of methodology at least, in
16 terms of how Manitoba Hydro derived the various
17 calculations that you spoke with the Board about?

18 MR. TERRY MILES: So from the T&D
19 perspective, I'm -- I'm assuming that the 2004 report
20 methodology with an update of the -- if a -- an updated
21 report is provided, that would be sufficient for those
22 -- for those?

23 MR. BOB PETERS: Yes, for the
24 transmission/distribution. And then what would you
25 propose for the generation?

1 MR. TERRY MILES: From the generation
2 side, it's not a -- a -- in terms of the calculation
3 that's there, it's all done within a model. Any
4 details associated with that, we have indicated that
5 providing details around those are linked -- or give
6 definite insights into our long-term electricity price
7 forecast. And that is a commercially sensitive item
8 and confidential.

9 We could provide a -- a description or
10 example of how we could -- I don't think it would be
11 numerical; I think it would be more qualitative -- of
12 how we determine the marginal cost of generation.
13 That's there; we have described generally how that
14 happens.

15 MR. BOB PETERS: Well, let's -- let's
16 accept the undertaking for the qualitative discussion
17 at this point in time. And if there -- if the Board
18 requires additional information, we can get back to
19 Manitoba Hydro through your counsel.

20 MR. TERRY MILES: Okay. That would be
21 fair. I guess that's an undertaking. Yes, I'll --
22 I'll do my best to -- it's my first one (1), so I'll do
23 my best to -- to characterize that. I've worked on --
24 I've worked on many, many undertakings, but it's the
25 first one (1) that I've had to really commit to, so --

1 no, I shouldn't say that. Yes, that's right.

2 So we will undertake to provide a
3 qualitative description of how the generation marginal
4 value is determined.

5

6 --- UNDERTAKING NO. 62: Manitoba Hydro to provide a
7 qualitative description of
8 how the generation marginal
9 value is determined

10

11 THE CHAIRPERSON: I'm intrigued about
12 the evolution of the basis for determining marginal
13 value. I -- I would just paraphrase what I heard,
14 which is that prior to 2000 -- 2000, you were examining
15 val -- marginal value on a deferred generation basis,
16 and then after 2000 you were based on values of energy
17 to ex -- to the export market. So it seem -- it
18 appears to me that's a pretty fundamental change. And
19 I guess looking ba -- you probably weren't there at the
20 time.

21 But looking back at why that was done,
22 that was done in an environment of rising export
23 prices, wasn't it, where export prices for electricity
24 were rising?

25 MR. TERRY MILES: I think there's been

1 a number of changes in the marketplace over the last --
2 over the last twenty (20) years, I guess. That's my
3 understanding of -- of the history of that.

4 I believe what we were finding was that
5 when we were looking at the deferral method, there
6 wasn't -- we weren't seeing the -- the benefits, or we
7 weren't seeing any marginal value in doing that. The
8 real value was from -- from the marketplace because of
9 the changes.

10 When we run the model and we were
11 looking at where the value was coming from, when we saw
12 those load lo -- load changes, the -- the more value
13 was coming from additional export sales, you know,
14 reduced cost of -- reduced production costs in our
15 system.

16 And at that point then, that was the --
17 the review of why it was happening and what was
18 associated with that and the decision to then
19 essentially change the methodology that was -- that was
20 used and adopt that -- the other one.

21 MR. RAYMOND LAFOND: Can I -- can may -
22 - I -- thought our Chairman was going to ask a
23 supplementary question.

24 If that was the case and you change your
25 method in 2000, when you're revisiting it at this time,

1 are you likely going to go back to the pre-2000 method?

2 MR. TERRY MILES: I think what we're --
3 in terms of revisiting, what's being updated now is the
4 transmission and distribution marginal cost report
5 that's there. From a generation perspective, we are
6 looking at that. We are -- we haven't specific --
7 specifically looked at it over the last number of
8 years.

9 As, though, the marketplace is changing,
10 and -- and costs are rising, if you will, on the -- on
11 the generation side, that is something that is in the
12 back of our minds. And we are starting to look at --
13 at when -- when -- you know, there may be indications
14 that we might be heading in another way.

15 We wouldn't look at one (1) or two (2)
16 years. It would have to be in the long term. So it
17 would have to be something that changed in the long
18 term associated with those from the marketplace.

19 Right now the market has changed. The
20 market mechanisms and those things are in place. It's
21 a pretty established marketplace in MISO that we --
22 that we have. So the market mechanisms that we're
23 dealing with are -- are there. So in terms of the
24 values that we -- that we have we -- I think we would
25 have to see a pretty substantial change in the long-

1 term value that was in the marketplace before that
2 happened.

3 But that is something that we are
4 considering now and starting to look at there. It --
5 it's not something that we'll, you know, have available
6 in any -- any near future. But that is something that
7 we are definitely look at and thinking about in light
8 of the current times, in terms of market changes and
9 cost changes, yes.

10

11 CONTINUED BY MR. BOB PETERS:

12 MR. BOB PETERS: Mr. Miles, as I had
13 understood the exchange -- and I want to follow up on
14 that exchange with the Chairman and Board member Lafond
15 -- the marginal value that you've placed before the
16 Board is tied to Manitoba Hydro's forecast of the long-
17 term market value of -- of its energy?

18 MR. TERRY MILES: It is, yes.

19 MR. BOB PETERS: And would you agree
20 then that that means it's tied to Manitoba Hydro's IFF
21 forecast? That's where the Board will see what
22 Manitoba Hydro values in the future its -- its energy
23 at?

24 MR. TERRY MILES: I think that would be
25 correct, yeah.

1 MR. BOB PETERS: And would you also
2 agree that since 2009, export forecasts have declined,
3 in terms of value, each and every year?

4 MR. TERRY MILES: They -- they have,
5 yes.

6 MR. BOB PETERS: And does it follow
7 then that the marginal cost has decreased accordingly?

8 MR. TERRY MILES: That's correct. The
9 marginal value has been declining -- the long-run
10 marginal value has been declining over the last several
11 years, yes.

12 MR. BOB PETERS: But because it's the
13 long-run marginal cost, it hasn't been declining in
14 lockstep with what the Board will see on the IFF,
15 declines of export values?

16 MR. TERRY MILES: I would suggest in
17 the near term there have been -- as -- as things are
18 related to the price forecast, in the near term there
19 have been more -- the market prices have declined more
20 in the near term than they have in the long term.

21 MR. BOB PETERS: Which means that the
22 marginal cost hasn't -- hasn't been tied to that near-
23 term reduction in export values?

24 MR. TERRY MILES: That -- that would be
25 correct, yes.

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: Are you able, as you
4 have on CAC/Manitoba Hydro Second Round 27A -- I'm
5 sorry, 27B, Mr. Miles -- are you able to give the Board
6 what the marginal value that is now eight point five-
7 two (8.52), what that value was, say, back in 2009,
8 what it was in 2010, what it was in 2011?

9 MR. TERRY MILES: If you refer to IR
10 MIPUG/MH Round 1 7A, there is a table provided in
11 there, the marginal values that have been used under
12 the -- the Power Smart plan. And they go back to 2001,
13 Power Smart plan 2001, from 2001 to 2011, the most
14 recent value on the table being the eight point five-
15 two (8.52), and then the other values on the -- on the
16 table. I can read a couple off if you'd like to, if
17 you don't have the...

18 MR. BOB PETERS: No, we'll -- we'll
19 print it off for the benefit of the Board so that they
20 have it at hand. I know it's in the volumes of
21 materials behind me.

22 But the point that -- that I wanted to -
23 - to just make sure the Board understood was that
24 because Manitoba Hydro levelizes that over a thirty
25 (30) year period, it doesn't -- it doesn't track

1 directly proportionate with the export values in the --
2 in the annual IFFs.

3

4 (BRIEF PAUSE)

5

6 MR. TERRY MILES: I'm not sure --
7 proportionally over -- you're referring sort of near
8 term, long term, or proportionally over --

9 MR. BOB PETERS: I -- I was meaning
10 near term, as opposed to long term in the levelized
11 cost methodology used by Manitoba Hydro.

12 MR. TERRY MILES: That would be -- that
13 would be correct, yes.

14 MR. BOB PETERS: Now...

15

16 (BRIEF PAUSE)

17

18 MR. BOB PETERS: Mr. Miles, just to put
19 a finishing point on that discussion we've had, if one
20 looks at the IFFs since -- since 2009 -- and I was
21 looking at Manitoba Hydro's Exhibit 36, which was one
22 (1) of the undertakings filed. But -- but all it did
23 was it tracked different unit export revenue forecasts.

24 And if the -- if the unit export values
25 have declined 30 percent in the last three (3) or four

1 (4) years, the marginal cost has not declined
2 approximately 30 percent in that period of time?

3 MR. TERRY MILES: So the unit revenues
4 in the near term have declined 30 percent?

5 MR. BOB PETERS: Well, if you -- if you
6 accept that as -- if you -- if you accept that Manitoba
7 Hydro's showing that export unit values have declined
8 in the longer -- in the long term approximately 30
9 percent, that isn't reflected in the near-term marginal
10 cost values being used by Manitoba Hydro?

11 MR. TERRY MILES: I think, if I
12 understand, the IFF numbers go out twenty (20) years.
13 This is a thirty (30) year levelized value. So it
14 wouldn't be proportionate to the values we see here,
15 thirty (30) years, twenty (20) years. And in the --
16 obviously in the twenty (20) year period -- no.

17

18 (BRIEF PAUSE)

19

20 MR. TERRY MILES: Yeah, I think that
21 essentially that would be correct. Given the twenty
22 (20) year, thirty (30) year -- the twenty (20) year, I
23 think in the longer term, we're seeing less -- less
24 decline, if you will, in the longer term. The near
25 term decrease will -- will have a greater impact on the

1 numbers in -- obviously, in the IFF.

2 But your -- your question of if the
3 values in the IFF have decreased by about 30 percent,
4 will we see a 30 percent decrease in the -- in this
5 value? I wouldn't believe so, no.

6 MR. BOB PETERS: Is the eight point
7 five (8.5) cents based on -- on which IFF? Just for
8 the confirmation before the Board.

9
10 (BRIEF PAUSE)

11
12 MR. TERRY MILES: Subject to check, I
13 believe it's based on -- I think it's based on the
14 marginal values associated with two thousand (2,000)
15 and ...

16
17 (BRIEF PAUSE)

18
19 MR. TERRY MILES: Just -- just give me
20 one (1) minute and I'll have an answer, so.

21
22 (BRIEF PAUSE)

23
24 MR. TERRY MILES: Sorry about that.
25 The values that -- that are here should reflect the --

1 are associated, anyways, with the -- the inputs that
2 went into IFF10/11. And in these -- these numbers here
3 -- it's IFF11, I guess it would be. Okay. Just -- the
4 engineering side, not the financial side. How about
5 IFF11-2?

6 MR. BOB PETERS: All right. We're
7 familiar with that one and...

8 MR. TERRY MILES: I would also like to
9 add as well, with -- with these, recognize that -- so
10 these numbers are quoted in 2011 dollars and changes.
11 The values in the IFF are nominal dollars. So they're
12 in -- the year out in time. So when you just do
13 percentage changes, in -- in terms of the IFF numbers
14 or the unit average revenue numbers that are in the
15 IFF, you -- you do have to take that into
16 consideration, in terms of those differences.

17 MR. BOB PETERS: Now, good point, and
18 thank you for that. Mr. Miles, you brought the Board's
19 attention to the response at MIPUG First Round 7A, in
20 terms of marginal values going back at least a decade.

21 Do you remember that discussion?

22 MR. TERRY MILES: I do, yes.

23 MR. BOB PETERS: Are you, for each of
24 those years depicted in MIPUG First Round 7A, able to
25 provide a breakdown for the generation, transmission,

1 and distribution values as you have done on
2 CAC/Manitoba Hydro Second Round 27B?

3 MR. TERRY MILES: I -- I believe we
4 can.

5 MR. BOB PETERS: Would you take that as
6 your second-ever undertaking?

7 MR. TERRY MILES: I will take that as
8 my second-ever undertaking, to provide the -- the
9 breakdown into generation, transmission, and
10 distribution components for the marginal values listed
11 under MIPUG/MH Round 1 7A.

12

13 --- UNDERTAKING NO. 63: Manitoba Hydro to provide a
14 breakdown into generation,
15 transmission, and
16 distribution components for
17 the marginal values listed
18 under MIPUG/MH Round 1 7A

19

20 CONTINUED BY MR. BOB PETERS:

21 MR. BOB PETERS: Ms. Morrison, maybe
22 back to you, ma'am. The marginal costs that we've now
23 been discussing, does Manitoba Hydro find that they
24 vary by customer class?

25 MS. LOIS MORRISON: When we work with

1 our resource, planning, and market analysis group, they
2 do provide us with marginal values for different rate
3 classes of customers. And it's based -- and what it
4 does is, it recognizes what level of transformation
5 they are at or what level of service they are at.

6 So, for example, a -- if we're looking
7 at an analysis for a program that would, say, basically
8 serve transmission-level customers only, we would not
9 include the distribution benefit in that analysis.

10 MR. BOB PETERS: But the values remain
11 the same?

12 MS. LOIS MORRISON: Yes.

13 MR. BOB PETERS: And it's just a
14 question then as to whether or not the value is
15 applicable to that customer class for which the
16 specific DSM program is being designed?

17 MS. LOIS MORRISON: Correct.

18 MR. BOB PETERS: Does the marginal cost
19 calculation vary by program, or does it -- other than
20 by customer class that you've mentioned, but based on
21 the -- the initiative being considered?

22 MS. LOIS MORRISON: For the
23 conservation-based programs, the marginal values are
24 the same.

25 MR. BOB PETERS: Now, we've hopefully

1 not bogged down in the eyes of the Board, but we've had
2 a considerable discussion about the eight point five
3 (8.5) cents number. And that's the numerator.

4 That's the -- the marginal benefit
5 number that we've talked about?

6 MS. LOIS MORRISON: That is correct.

7 MR. BOB PETERS: And so the -- the
8 present value of the marginal benefits is the eight
9 point five-two (8.52) cents that we've now talked of?

10 MS. LOIS MORRISON: That is correct.

11 MR. BOB PETERS: So then the
12 denominator in the -- in the equation is then the
13 incremental product costs, correct?

14 MS. LOIS MORRISON: Yes, when we are
15 looking at technology to determine whether or not it's
16 economic to pursue, we look at the incremental product
17 costs under the marginal resource costs, yes.

18 MR. BOB PETERS: And -- and what you
19 are telling the Board is that so long as the
20 incremental product costs is -- is not greater than the
21 eight point five-two (8.52) cents, then the initiative
22 will make it past the first screen?

23 MS. LOIS MORRISON: That's correct.

24

25

(BRIEF PAUSE)

1 MR. BOB PETERS: There was a comment
2 that I think the Board would like explanation on. And
3 to make sure I understand it, Ms. Morrison, that if the
4 export price declines to a point where there's no
5 offsetting value, then Manitoba Hydro would no longer
6 use part of the export value in its marginal benefit
7 calculation?

8 MS. LOIS MORRISON: Would you be
9 referring to our response to PUB/Manitoba Hydro First
10 Round 107C, by chance?

11 MR. BOB PETERS: Page 330 of the book
12 of documents, yes, that's...

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: Thank you for the
17 reference, Ms. Morrison. Specifically, the second
18 sentence in the -- in the first paragraph of Manitoba
19 Hydro's response indicates that if incremental export
20 revenues were to decline to a level where they were no
21 longer offered an offsetting value, then the marginal
22 benefits of DSM would shift to the value of -- of
23 export market -- from the value of export market to a
24 valuation of the benefit of deferring new generation
25 facilities, recognizing that there's an economic

1 benefit to achieving load savings in the province?

2 MR. TERRY MILES: Yeah. Yeah, I think
3 this -- I'll take this. This is -- generally what I
4 was referring, I think, to the discussion with Monsieur
5 Lafond.

6 I think the -- maybe one (1) clarifying
7 thing with this response, the incremental export
8 revenues, I think when I was talking with Mr. Lafond,
9 we talked about, sort of, persistence or longer-term
10 changes that are there. Not sure if "incremental"
11 covers it right. But in essence, I believe this is
12 heading in that direction.

13 In other words, if the value from the
14 export market is such that there is more benefit to
15 defer generation than to -- than to get value out of
16 the export market, the methodology -- the initial part
17 of this question anyways -- that the methodology would
18 change as to how we determine marginal value. It
19 wouldn't necessarily mean the marginal value would go
20 down. It would mean that it would change. And that's
21 probably the -- I think in light of what we were
22 meaning in this response here.

23 MR. BOB PETERS: Is that what's
24 happening right now with this review that you mentioned
25 to the Board?

1 MR. TERRY MILES: Okay, just to
2 clarify, I've talked about a review,
3 transmission/distribution, of what it costs review.
4 That's a separate item in here. In terms of a review
5 of our methodol -- or -- or how we might determine a
6 marginal value in the -- on an ongoing basis for
7 generation?

8 MR. BOB PETERS: Yes, is that not also
9 subject to ongoing review?

10 MR. TERRY MILES: It's -- it's subject
11 to -- to consideration. I wouldn't say that we've --
12 we've reviewed it in detail. I did say that it is
13 something that we're thinking about now. We do not
14 currently have a, you know, major evaluation in place
15 going and doing that or a study in place to do that
16 type of thing. That is not something we're doing, that
17 we don't believe we're at that point yet. But that is
18 a consideration that we are monitoring, yes.

19 MR. BOB PETERS: And, as you've told
20 the Chairman this morning, the export values have --
21 have -- have dropped -- dropped significantly over the
22 nas -- the last number of years?

23 MR. TERRY MILES: In the near term, the
24 -- the market prices have declined considerably in the
25 near term, yes.

1 MR. BOB PETERS: And to -- and for this
2 -- for this change in methodology to kick in, how low
3 would the export prices have to go?

4 MR. TERRY MILES: That is something
5 that we are looking into and -- and would be part of
6 any review and consideration that we carry out, in
7 light of costs and that associated on the generation
8 side as well.

9 MR. BOB PETERS: From methodological
10 point of view, Ms. Morrison and Mr. Miles, if we
11 hypothetically suggest that the in-service unit cost of
12 new generation is, say, ten (10) cents a kilowatt hour,
13 why wouldn't that become the marginal cost that would
14 be used by Manitoba Hydro in -- in their program
15 evaluations?

16

17 (BRIEF PAUSE)

18

19 MR. TERRY MILES: Mr. Peters, I think
20 from a -- from the economic evaluation perspective,
21 when we look at the projects out in time, in terms of
22 what defines maybe where we develop new resources or
23 how we calculate the marginal value, we are still
24 finding in our analysis there's an advantage to have
25 these projects -- have the generation projects, if you

1 will -- advanced to serve export sales from contracts
2 and the like, at which point then that is indicating
3 that the marginal value is not in the deferral of
4 generation resources. There's actually still enough
5 value to be extracted from our export market relative
6 to the incremental cost in -- in incremental cost in --
7 in developing that additional generation.

8 MR. RAYMOND LAFOND: Can I further
9 this? And -- and I don't want to belabour this
10 forever, because we've -- we've had this discussion a
11 few minutes ago. But it seems to me that once you're -
12 - all your assumptions for the IFF have been put in
13 place -- your discount rates, your future generation
14 cost, et cetera -- is it -- and -- and you've had the
15 method developed pre-2000, and now you're using a
16 different method.

17 Is it not just a matter of plugging in
18 these numbers in -- in these form -- in these
19 worksheets and having an understanding of both results,
20 and there make -- and thereby then making a decision as
21 to whether or not you want to use the lowest of the two
22 (2), or the average of the two (2), or something to
23 that effect?

24 Because I keep hearing that this is a
25 lengthy report. I view this, presumptuously, yes,

1 definitely as like a few hours of work.

2 MR. TERRY MILES: I understand that
3 it's a little more than a few hours of work to do that.
4 There's some assumptions that have to be undertaken
5 when we look at what cost we consider deferring with --
6 with the generating station and how we go about doing
7 that.

8 MR. RAYMOND LAFOND: I understand that
9 --

10 MR. TERRY MILES: It is --

11 MR. RAYMOND LAFOND: -- but it seems to
12 me you would do all this analysis and this thinking and
13 this reflection to produce the IFF. So therefore, it's
14 a matter of simply using this information which is
15 revised every year.

16

17 (BRIEF PAUSE)

18

19 MR. TERRY MILES: In doing -- I believe
20 in doing the calculation for this it's not just capital
21 costs. It does involve the use of our model as well,
22 because there are production costs in that associated
23 with that as well. So when we do have a load
24 reduction, there is a potential deferral in generation.
25 There's a potential change in operational cost in the

1 system.

2 So because we haven't done this for a
3 while, in terms of doing this -- this is not an
4 analysis that we carry out every year that's there. It
5 is not -- we do not have -- I guess what I'm saying is
6 we do not have a spreadsheet, if you will, of one or
7 the other that we can plug some new numbers in and do
8 that. So I can't say one way or the other right now
9 whether or not that is a -- a calculation that we can
10 provide in the very near term on that.

11 At the highest level, your -- your
12 perspective on it may be correct. But in terms of the
13 analysis that's there and doing the comparison it's
14 that there's more to it than that because of the
15 operational effects as well and those costs that go
16 into it. And there are some additional assumptions in
17 the model we have to make when we do that. So that's -
18 - that's how we look at it. I think what I can say is
19 that is something that we are revisiting.

20 MR. RAYMOND LAFOND: Thank you. I have
21 to say that, as CEO of an organization, my IT manager
22 always thought it looked a lot easier at my level than
23 his level.

24 MR. TERRY MILES: I would -- I would
25 reference the groan yesterday when we talked about

1 producing the -- the report.

2 MR. DARREN RAINKIE: Mr. Lafond, just
3 to be clear, too, I think when we're talking about the
4 IFF, we're talking about a financial forecast of what
5 we -- of our expected situation based on the costs and
6 revenues. What Mr. Miles is talking about is an
7 economic analysis, so just to -- I think he covered
8 this in his answer.

9 By producing an IFF, you don't have the
10 economic analysis. That's a -- that's a different
11 analysis to make. So just to -- to make sure that
12 that's clear, the difference between a financial
13 forecast and an economic analysis.

14 THE CHAIRPERSON: The change in the
15 marginal cost to eight point five-two (8.52) from eight
16 point nine-five (8.95) that was on the other table,
17 what would have caused that drop?

18 MR. TERRY MILES: Well, at -- at that
19 time, I think that's -- I believe, subject to a quick
20 check behind me, but that between the 2009 and the 2010
21 there was some -- some changes in the -- in the
22 marketplace. So we had started to see some of the
23 effects of economic downturn in the marketplace that
24 was there, and that was the onset of -- of that.

25

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: Ms. Morrison, once a
3 DSM measure gets past test number 1, as we called it,
4 or the first threshold, then it goes into -- into
5 program design, if I understand the process correctly?

6 MS. LOIS MORRISON: That is correct.
7 We'll take a high-level look into whether -- whether or
8 not we can run a program, what type of program approach
9 we would take for it.

10 MR. BOB PETERS: And on page 335 of the
11 book of documents is a narrative of the two (2) tests
12 that Manitoba Hydro uses under its program design, one
13 (1) being the levelized utility cost and one (1) being
14 the -- the rate impact measure test?

15 MS. LOIS MORRISON: Actually, we use
16 more than just these two (2) in the determination of
17 the design for the program. We will also use the total
18 resource cost test, which is located on page 334 of
19 your book of documents. And we will also look at the
20 customer payback. We -- we look at it from all aspects
21 when we're putting together a design.

22 MR. BOB PETERS: When Manitoba Hydro
23 looks at the levelized utility cost test that -- that's
24 defined here, and we see back on page 315, if the Board
25 reviews the chart of the various programs, we see the

1 end product under the levelized utility cost test
2 that's -- that a -- that a measure has gone through?

3 MS. LOIS MORRISON: Yes. Page 315 of
4 the book of documents lists the levelized utility cost.
5 It -- it's not a test; it's a metric. I think that Mr.
6 -- that we -- that Mr. Dunsky actually pointed out.
7 But we just put it in as part of our economic analyses.
8 We've listed it there. But, yes, that's what the
9 levelized utility cost is for the individual programs.

10 MR. BOB PETERS: And when you look at
11 that number, what -- what is Manitoba Hydro seeking to
12 determine from that calculation?

13 MS. LOIS MORRISON: We look at both the
14 rate impact measure test and the levelized utility cost
15 test as a gauge by which to assess the level of
16 investment that the utility should make on behalf of
17 the ratepayer, in terms of affecting the market or
18 investing in -- in a change in the marketplace.

19 We -- what those tests will tell us is
20 to the extent which -- first, under the rate impact
21 measure test, the extent to which the program
22 investment may or may not affect rates going forward.
23 And I believe in -- I think that was -- that was quite
24 art -- well articulated by Mr. Thomson in his
25 testimony, that given our current financial position,

1 any new business case -- any new DSM programs that
2 Manitoba Hydro puts forward should have a sound
3 business case and that any of the programs going
4 forward should reduce the upward pressure on rates, not
5 increase the pressure on rates. And so we take that
6 into consideration in our design.

7 Now, when we're looking at our overall
8 portfolio, we were -- we're attempting not to have an
9 in -- an upward pressure on rates. We are taking that
10 into consideration, what's the best way to reach that
11 market. We also consider: What does the customer
12 who's participating benefit from, in terms of that
13 analysis?

14 And that -- that's going into some of
15 your -- the discussion on page 336 of the book of
16 documents. We're trying to balance to Utility's
17 investment against the customers' investments and the
18 benefit that they receive.

19 MR. BOB PETERS: Well, the levelized
20 utility cost is the level of investment the Utility is
21 prepared to make in the program?

22 MS. LOIS MORRISON: The levelized
23 utility cost is demonstrating what it's costing us to
24 achieve that kilowatt hour of energy.

25 MR. BOB PETERS: And is it arguable

1 that the increase in the levelized utility cost will
2 increase the uptake in the program?

3

4 (BRIEF PAUSE)

5

6 MS. LOIS MORRISON: If you were to draw
7 the conclusion that by increasing the cost that the
8 Utility is investing -- or increasing the amount of
9 money that the Utility is investing on behalf of the
10 ratepayers into the program would drive additional
11 incentive payments and, say, additional marketing
12 efforts and such, there would be possibly a
13 corresponding increase in the amount of participation.

14 However, there would also be a
15 corresponding increase in the impact on our rates
16 overall. And it's not a directionally proportional
17 increase, I believe. You would, say, increase the
18 amount of people participating, but you're not going to
19 say -- so if you increase your investment by -- if you
20 double your investment, you're not going to double your
21 participation necessarily, because you're going to have
22 to take into consideration the market barriers. And
23 there's people that are just not going to still
24 participate. So it's not a directly proportional
25 increase.

1 MR. BOB PETERS: All right. And let's
2 just then go to the rate impact measure test. What --
3 what are you trying to accomplish by using the rate
4 impact measure test?

5 MS. LOIS MORRISON: Under the rate
6 impact measure test, we're trying to gauge whether or
7 not our intervention and our investment is going to
8 basically have no negative impact on our overall
9 ratepayer.

10 As we mentioned, some customers --
11 really, what it comes down to is a matter of equity.
12 So you have the customer who did build the Power Smart
13 home and now has less opportunities to go that much
14 further into energy savings. So he's build the hower -
15 - Power Smart home, whereas you still may have
16 opportunities with the person who has, say, the 1950s
17 house to upgrade the insulation in their house.

18 Well, the person with -- you don't
19 necessarily want to increase rates for the individual
20 who's already done what they can do to the benefit of
21 the -- and -- whereas the person who still has the
22 opportunity should possibly provide some investment to
23 return that benefit to themselves, along with the
24 Utility making an investment.

25 MR. BOB PETERS: Let's follow that

1 further, Ms. Morrison. The person that has already
2 come into a situation where their energy efficiency is
3 at the highest percentile, isn't it by definition that
4 any additional steps taken by the Utility will put
5 upward pressure on that person's rates?

6 MS. LOIS MORRISON: If the net benefit
7 -- if -- if we are spending beyond -- if we're spending
8 beyond the differential between the marginal value and
9 the domestic rates, what it means is that any amount
10 going beyond that will put pressure, theoretically,
11 upon the -- the rates of the cust -- the -- the non-
12 participating customer will have to pay. It will
13 impact rates.

14 So when we're looking at the rate impact
15 measure test, what we're doing is we're looking at the
16 benefit stream and we're comparing it to all the costs
17 associated with those energy savings. So we're
18 recognizing that to -- to generate those energy
19 savings, we're -- we're paying out dollars and
20 incentives to the customer. We're paying out dollars
21 to promote the program, to -- to set up the
22 infrastructure to promote that program, which would be
23 a program cost. But we're also -- with every kilowatt
24 hour that we save, that's domestic revenue that's not
25 being captured.

1 Now, all of those components together
2 should be recouped through the marginal benefit or the
3 -- or the return -- the long term -- with the -- with
4 the idea of it over the long term, that the -- the
5 Utility is neutral or the -- the ratepayer is neutral.

6 So that's part of what goes into how we
7 design the program. It doesn't mean we won't par -- we
8 won't pursue an initiative. What it means is, to what
9 level will we invest on behalf of the ratepayer to --
10 to gain those energy savings?

11 MR. BOB PETERS: And then now let's
12 bring it back to your president's comments to this
13 Board that in light of the financial position of the
14 Corporation, the upward pressure on rates has to be --
15 has to be carefully watched or avoided through the DSM
16 program.

17 How -- how is that accomplished?

18 MS. LOIS MORRISON: When we put
19 together our business case for pursuing a program, we
20 take into consideration what the impact -- potential
21 impact on -- long-term impact on rates will be.

22 It doesn't necessarily mean that we
23 won't pursue a program if it has a rate impact measure
24 test that falls below one (1). But we will consider:
25 Is there -- is there another opportunity for pursuing

1 that energy savings under a different model or a
2 different program approach that might still achieve
3 that level of energy savings, but with less investment
4 by the -- by the Utility? Or as a whole for the
5 portfolio, is it still in the best interest of the --
6 of the ratepayer as a whole?

7 So we may have some programs that are
8 very economic that may balance off programs that we
9 might invest a little bit more in. The example I would
10 use is a Refrigerator Retirement Program. I believe
11 the rate impact measure test on that shows a -- a ratio
12 below one (1). However, if you look at the residential
13 sector as a whole, we're about one (1), so -- because
14 there's other programs that are offsetting that -- that
15 impact. And -- and that's coming back to that trying
16 to have a -- a balanced or a -- a comprehensive
17 offering for customers.

18 MR. BOB PETERS: So let's -- in my
19 words, let's turn back to page 315, if we could, with
20 the Board. And let's look at that chart containing the
21 rate-impact measure results. And I guess we'll focus
22 in on the fridge recycling program that you've
23 mentioned.

24 And the Board will see that the -- that
25 under the rate impact measure, it's zero decimal eight

1 (0.8), correct?

2 MS. LOIS MORRISON: That is correct.

3 MR. BOB PETERS: By definition, that
4 means it's putting upward pressure on consumer rates,
5 that program in and of itself?

6 MS. LOIS MORRISON: On its own, yes.

7 MR. BOB PETERS: So what you've also
8 told the Board is that when you combine the fridge
9 recycling program with the other suite of residential
10 incentive programs, the RIM measurement becomes above
11 one point zero (1.0) and goes up to actually -- it's
12 one point three (1.3) on my chart, meaning that as on
13 the whole, there is negative pressure on consumer
14 rates?

15 MS. LOIS MORRISON: That is correct.

16 MR. BOB PETERS: And I -- am I correct
17 in understanding that the recent methodology or the --
18 the, perhaps, policy change of the Corporation is your
19 president wants fewer programs that have RIMs below one
20 point zero (1.0) and more that have rate impact
21 measures that are above one point zero (1.0)?

22 MS. LOIS MORRISON: I wouldn't say that
23 that's a recent change. We've always been, in our --
24 terms of our Power Smart programs, attempting to
25 provide a balanced approach with -- and minimizing the

1 impact on the ratepayer where -- where we can.

2 In the past few years, we've -- when
3 marginal values were significantly higher, it was much
4 easier to do that. And we recognize that with marginal
5 values decreasing, it'll be more difficult to do that.

6

7 (BRIEF PAUSE)

8

9 MR. BOB PETERS: Manitoba Hydro --
10 let's just take the -- the Home Insulation Program. It
11 has the rate impact measure of one point five (1.5)?

12 MS. LOIS MORRISON: That is correct.

13 MR. BOB PETERS: If Manitoba Hydro
14 redesigned that program so the rate impact measure was
15 -- was one point zero (1.0), that would still have no
16 negative effect on rates, correct?

17 MS. LOIS MORRISON: No negative long-
18 term impact on rates.

19 MR. BOB PETERS: But at that point, the
20 participation may decline. Is that the offset?

21 MS. LOIS MORRISON: No, the
22 participation may incline if we were -- increase,
23 sorry, if we were to increase the -- the incentives,
24 per se. But it's not necessarily, as I said, going to
25 be a direct proportional relationship.

1 One (1) of the things we have to
2 consider -- and that's a good example, is we recently
3 had quite a large amount of incentives in place to
4 support insulation upgrades in Manitoba through a
5 combination of the ecoENERGY grants through the federal
6 government, through Manitoba Hydro's home insulation
7 program, and then more recently during the last re --
8 resurgence of the ecoENERGY program, where Manitoba
9 Hydro also did a 20 percent top-up on the ecoENERGY
10 grant in order to encourage that increased activity in
11 the -- in -- in these energy efficiency projects.

12 And we did see an increase in
13 participation, but it was not a directly proportional
14 increase in participation. We didn't see a doubling of
15 the number of insulation projects undertaken during
16 that period of time. So it's not going to be a
17 doubling of participation.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: Ms. Morrison, on the -
22 - the rate impact measure -- and again, back on page
23 335 is the -- is the formula for those who want to get
24 into the specifics.

25 But when you're taking the present value

1 of the -- the benefits and the costs that are included,
2 is that present value over a thirty (30) year period?

3 MS. LOIS MORRISON: The planning
4 horizon that we look over is thirty (30) years. And so
5 when we're looking at a program design, we will look at
6 the participation that we are projecting and then the -
7 - the accruing benefits associated with over the thirty
8 (30) years.

9 MR. BOB PETERS: And so what happens if
10 one (1) of your programs only has a shelf life of five
11 (5) years?

12 MS. LOIS MORRISON: What'll influence
13 it more so is the life of the measures or the products
14 that are being promoted through that program. So the
15 thirty (30) year planning horizon, we may have a
16 program that runs for five (5) years, but the
17 technology -- such as home insulation -- have a life
18 much beyond that thirty (30) years. And so the time-
19 stream of benefits will be associated with the measures
20 being installed.

21 MR. BOB PETERS: All right. But do you
22 have -- have you introduced DSM measures where the
23 program benefit is less than thirty (30) years?

24 MS. LOIS MORRISON: Yes.

25 MR. BOB PETERS: And how do you measure

1 the -- the present value benefit then over thirty (30)
2 years of such a program?

3 MS. LOIS MORRISON: Depending on the
4 technology, we will -- we will include the measure
5 benefit for the life of the measure. And if we can,
6 through other means, ensure that there's market
7 transformation, we will continue to -- we will assume
8 some level of reinvestment. So when we're developing
9 the program, a good example of that would have been our
10 Power Smart New Home Program, where we are -- we are
11 running the program for -- for say three (3), five (5)
12 years, and then we're expecting -- oh, sorry, no,
13 that's not, because that has -- I apologize. That's
14 not the best example, because that one (1) has a long-
15 term benefit.

16 Generally, what you will see is for the
17 shorter-term measures the savings will drop off unless
18 there is a code change brought into place that would
19 support that savings going onto the future. That code
20 change would come in under our -- would come in not to
21 -- to neces -- unless we're able to bring that code
22 change in ourselves with the province, say, that code
23 change won't come into the effect -- cost effect --
24 cost effectiveness of that program. So generally, it's
25 tied more so to the life of the measure.

1 MR. BOB PETERS: I just want to move to
2 the consumer payback, or customer payback measurement
3 or metric. Also on page 315, we can see that for some
4 of the programs that are put down.

5 But is that used as a -- as a screening
6 filter, or is that just a -- a result of math?

7 MS. LOIS MORRISON: It's -- it's not
8 used as a screening filter or necessarily just to
9 calculate the math. What we're doing there is we're
10 trying to get a gauge for what level of investment the
11 customer might be willing to, or is normally willing
12 to, bear in order to realize those benefits.

13 So when you're looking at a residential
14 customer and they're looking at possibly a -- an
15 insulation upgrade, are they willing to bear the cost
16 of returning their investment? Will they invest if the
17 return on the investment's going to happen within two
18 (2) years? If it's going to happen in three (3) years?
19 Do we need to buy down that level of invest -- that --
20 that investment requirement to shorten up their --
21 their return on their investment?

22 So if -- if we feel that we need to
23 intervene in the market to bring -- say, buy down their
24 payback by one (1) year, will that encourage more
25 participation versus buying down an -- buying it down

1 to two (2) years?

2 So those are parts of what we look at
3 when we're doing the design. So we report what the
4 customer is -- because we consider it as part of the
5 design, we incorporate it into what we report.

6 MR. BOB PETERS: And in terms of that
7 customer, the customer that participates can expect to
8 have reduced energy consumption, which would translate
9 to a lower energy bill.

10 But that would be offset by any rate
11 increases needed to fund the net cost of the program?

12 MS. LOIS MORRISON: Yes, if there were
13 increases.

14 MR. BOB PETERS: And the non-
15 participants would not see a reduction in their energy
16 consumption, but they'd likely see higher utility bills
17 because of increased rates for the -- for the programs
18 that are being introduced?

19 MS. LOIS MORRISON: That is correct.

20 MR. BOB PETERS: Manitoba Hydro
21 conducts a -- a review of their DSM program on a
22 regular basis?

23 MS. LOIS MORRISON: That is correct.

24 MR. BOB PETERS: I was going to say
25 annual. I -- I'm on page 339 and 338, and it does say,

1 "annual review."

2 But I -- I suppose -- has there been an
3 annual review, since there's no new Power Smart
4 Program?

5 MS. LOIS MORRISON: We would still
6 review every year, yes.

7 MR. BOB PETERS: And is this the latest
8 annual review that we have?

9 MS. LOIS MORRISON: We're still
10 finalizing the '11/'12.

11 MR. BOB PETERS: And when is that
12 expected?

13

14 (BRIEF PAUSE)

15

16 MS. LOIS MORRISON: Within the next
17 couple of months, we expect it to be finalized.

18 MR. BOB PETERS: All right. And it --
19 it carries through some of the same measurements that
20 the Board sees in -- in the Power Smart annual review
21 for 2010/'11?

22 MS. LOIS MORRISON: Yes.

23 MR. BOB PETERS: And when the Board
24 looks at page 339, as an example, Manitoba Hydro goes
25 back and, with the benefit then of hindsight, it

1 valuates whether the program is performing as it was
2 forecast to perform?

3 MS. LOIS MORRISON: That is correct.

4 MR. BOB PETERS: And Manitoba Hydro
5 grades itself on that, or is that a -- an external
6 consultant that would be engaged?

7 MS. LOIS MORRISON: We have an
8 evaluation group internally that provides the
9 evaluations of the individual programs.

10 MR. BOB PETERS: Let's just focus on
11 the Lower Income Energy Efficiency Program that's noted
12 on page 339 of Board counsel's book of documents,
13 Exhibit 14.

14 And the measurement here sets out the
15 rate impact analysis on the various programs?

16 MS. LOIS MORRISON: That's correct.

17 MR. BOB PETERS: It -- does it appear
18 that the rate -- the Lower Income Energy Efficiency
19 Program, in essence, failed the RIM test the year
20 before, but now currently it's passing the RIM test?

21

22 (BRIEF PAUSE)

23

24 MS. LOIS MORRISON: What the -- what
25 the 2010 actual shows is -- is the activity in that

1 year with the cost associated with that year. And so -
2 - and it had a rate impact measure for that one (1)
3 year, that one (1) activity year, of one point two
4 (1.2), assuming all future benefits being net-present-
5 valued and compared to the costs of that year.

6 The plan had anticipated it to have a
7 nat -- have a -- to realize a rate impact measure of
8 zero point eight (0.8), but we actually have,
9 apparently, did better than we had planned. When you
10 look at the total, what that is presenting is the total
11 activity to date. So, of all activity to do, what is
12 the rate-impact measure as a result of all activity for
13 that program for -- for all the years its been running
14 versus the benefits its been accruing.

15 MR. BOB PETERS: Does this suggest that
16 there's been modifications to the plan in the past
17 year?

18 MS. LOIS MORRISON: I would actually
19 state that at this point, in -- specifically in terms
20 of this program, no. It's more a result of lower cost
21 associated with the installations than what we had
22 originally targeted.

23 Actually, that's subject to check. I ha
24 -- there might be one (1) change. I'm -- I'm having
25 difficulty recalling between two (2) different plans.

1

2

(BRIEF PAUSE)

3

4

MS. LOIS MORRISON: I will have to
5 check on that one (1) item, because the original is not
6 here.

7

MR. BOB PETERS: All right. We'll --
8 we'll leave it in your court on that.

9

When we turn to page 340 and the Board
10 looks at the average levelized utility cost at
11 generation, is this table attempting to show the cost
12 incurred for every kilowatt hour saved under the
13 various programs?

14

MS. LOIS MORRISON: That is correct.
15 For that -- so, the 2010/'11 actual year will show the
16 cost per kilowatt hour saved for -- of kilowatt hours
17 saved as a result of activity in that year.

18

MR. BOB PETERS: So, if I go to the
19 bottom of the 2010/'11 column down the actual and I see
20 an overall program cost and support costs of one point
21 nine (1.9), does that signal to the Board that it cost
22 one point nine (1.9) cents for every kilowatt hour
23 saved in that year?

24

MS. LOIS MORRISON: Yes.

25

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: Just to be clear, is
4 the one point nine (1.9) cents levelized over a thirty
5 (30) year period, or is it -- reflect an actual fiscal
6 year cost?

7 MS. LOIS MORRISON: What it represents
8 is the cost for the kilowatt hours over the lives of
9 those that are being claimed. That kilowatt hour -- so
10 it's the cost that we incurred that year to achieve
11 that time-frame of energy savings.

12 So, basically, what it -- to do the
13 calculation, you would take the energy savings and
14 present value of the energy savings, and you would take
15 the costs incurred that year, and you would divide the
16 -- the costs of that year by the energy savings -- the
17 -- the time-frame of energy savings that you've just
18 present-valued to come up with a levelized cost. So
19 cost per kilowatt hour for that -- those savings you're
20 going to be getting into the future.

21 MR. BOB PETERS: What's the duration of
22 the present-value calculation?

23 MS. LOIS MORRISON: It's over the --
24 it's specific to -- it's over thirty (30) years, but it
25 will vary based on the technologies that are being

1 included. So, it's not that we took all the energy and
2 just net-present-valued it; each program would have
3 technologies. Those technologies -- the savings
4 associated with that -- so a program with -- sorry, a
5 technology with ten (10) year life would have the
6 energy savings for ten (10) years present-valued. And
7 --

8 MR. BOB PETERS: Present-valued only
9 over ten (10) years?

10 MS. LOIS MORRISON: Only over ten (10)
11 years.

12 MR. BOB PETERS: All right. Now, Mr.
13 Dunsky suggests that Manitoba Hydro would incorporate -
14 - should incorporate into their testing a -- a societal
15 test.

16 would that be your understanding of his
17 evidence?

18 MS. LOIS MORRISON: Yes.

19 MR. BOB PETERS: And on page 334 of the
20 book of documents, is the societal test, which is
21 really the total resource class test with the addition
22 of indirect benefits, correct?

23 MS. LOIS MORRISON: That is correct.

24 MR. BOB PETERS: Does Manitoba Hydro
25 add in the additional indirect benefits?

1 MS. LOIS MORRISON: We have in the past
2 looked at what the impact would be to our total
3 resource cost test if we added in, if there's
4 initiatives that would be close or not close as a
5 result of it being present or not, but it's not what we
6 use to necessarily drive our investment.

7 MR. BOB PETERS: It doesn't signal pass
8 or fail to the program?

9 MS. LOIS MORRISON: No.

10 MR. BOB PETERS: Now, some of the add -
11 - additional indirect benefits of which Mr. Dunsky
12 refers, you have here is:

13 "Avoided environmental or societal
14 externalities, such as reduced
15 healthcare costs, increased
16 productivity and employment, or non-
17 price benefits such as improved
18 comfort
19 Chairman earlier] or improved
20 health."

21 Those are not quantified at this point
22 in time by Manitoba Hydro and added into your total
23 resource cost test?

24 MS. LOIS MORRISON: No. As I
25 mentioned, when we look at our -- when we do look at

1 what the impact on the -- from a societal perspective
2 is for the -- under the societal test, we added on a 10
3 percent rider just to -- what would it look like if we
4 were to do that, how does it influence the -- how does
5 it affect our economics?

6 MR. BOB PETERS: The -- the 10 percent
7 number was -- would be perhaps arbitrary, as opposed to
8 calculated?

9 MS. LOIS MORRISON: It's not
10 calculated, but it was consistent with what some other
11 jurisdictions we're looking at.

12 MR. BOB PETERS: Do you know which
13 other jurisdictions use the societal cost test as a
14 screen in determining whether or not the DSM program
15 makes it to market?

16

17 (BRIEF PAUSE)

18

19 MS. LOIS MORRISON: A number of
20 utilities use, and -- and I do believe Mr. Dunsky
21 referenced this in his evidence. There are a number of
22 utilities that use -- that -- that augment their
23 resource benefits by adding a rider on it, and that
24 rider has been designated or -- or denoted or -- or
25 established by their -- either their regulator or their

1 provincial government through policy, or through the
2 state government through policy.

3 And those utilities would be such as BC
4 Hydro, Efficiency from -- Efficiency Nova Scotia uses
5 it as part of their -- they're not a utility, but they
6 are the representative of the government for delivering
7 energy efficiency programs.

8 MR. BOB PETERS: I want to turn to page
9 343 of the book of documents and discuss another
10 concept raised by -- in the evidence of Mr. Dunsky.
11 And in essence I interpret Mr. Dunsky to be saying that
12 presently Manitoba Hydro has a sales -- sorry, a
13 savings to sales ratio of about decimal four-three
14 (.43).

15 Do you recall that from our previous
16 discussion, Ms. Morrison; the -- the savings to sales
17 ratio by Mr. Dunsky for Manitoba Hydro was
18 approximately point four-three (.43)?

19 MS. LOIS MORRISON: Yes, that's
20 correct.

21 MR. BOB PETERS: And if Manitoba Hydro
22 was to -- to increase its savings to sales ratio and
23 move up to the top quartile, it would probably have to
24 double its expenditures on DSM from 34 million up to
25 probably 65 million.

1 Do you recall his suggestion on that, or
2 his --

3 MS. LOIS MORRISON: I -- I recall that
4 that was his -- his testimony, yes.

5 MR. BOB PETERS: And his -- his
6 suggestion is that if Manitoba Hydro was prepared to do
7 that, one (1) of the benefits would be that Manitoba
8 Hydro would save sufficient energy, that it could
9 actually defer the in-service date on a couple of the
10 major capital projects that are in Manitoba Hydro's
11 preferred capital development plan.

12 MS. LOIS MORRISON: I believe that was
13 his testimony.

14 MR. BOB PETERS: And let's just look at
15 the chart then on page 343. The present Keeyask in-
16 service date recorded in his chart is fiscal 2020 for
17 Manitoba Hydro, correct?

18 MS. LOIS MORRISON: That's correct.

19 MR. BOB PETERS: And by increasing
20 Manitoba Hydro's DSM target, his suggestion is that
21 that could be deferred by as much as three (3) years?

22 MS. LOIS MORRISON: He states that,
23 yes.

24 MR. BOB PETERS: All right. And he
25 likewise says if Manitoba Hydro wants to get even more

1 aggressive and up their DSM target to a 1.5 percent,
2 then there could even -- there could potentially be
3 even further deferral capabilities, correct?

4 MS. LOIS MORRISON: This is what he
5 states, yes.

6 MR. BOB PETERS: All right. And Mr.
7 Miles is going to tell the Board what -- what Manitoba
8 Hydro suggests is -- is a more accurate view, from
9 their perspective.

10 MR. TERRY MILES: Okay. I'll do my
11 best. I think one (1) of the assumptions that Mr.
12 Dunsky makes in here is he says that his assumptions
13 are based on no new generation in -- in his
14 calculations. And -- or he -- no, he assumes that
15 there's no change in imports or export activity, I
16 believe is what he states. I don't know if that's
17 exact or not.

18 And I think he -- he can't make -- it's
19 not appropriate to make his determinations here based
20 on that. And I looked at this and I looked at our no-
21 new-generation tables that we have in our -- in our
22 power resource plan and based my -- estimated the
23 numbers on that.

24 If you assume that all exports stay the
25 same -- or in order to assume all exports stay the

1 same, you in fact have to have Keeyask in service in
2 '19/'20. You have to have Conawapa in service in 2025.
3 You have to have a new interconnection. You have to
4 have all those things, because it changes imports, it
5 changes sales activities, it changes the available
6 dependable energy in the system.

7 So when I looked at that -- and we
8 provided information in our rebuttal -- I found that
9 additional savings of 1,385 gigawatt hours would be
10 required to defer Keeyask to -- he said by three (3)
11 years, I think that's what he said, by three (3) years.
12 To defer -- to defer Keeyask to '24/'25, we would have
13 to have 1,385 gigawatt hours of additional DSM savings.
14 To defer it further, out to 2031, would require an
15 additional 3,000 gigawatt hours on -- on top of that.

16 Currently, out in 2031, under the no-
17 generation tables there's 4,400 gigawatt hours of
18 shortfall. So the DSM savings, if he was talking about
19 under the no-new-generation scenario, would not achieve
20 the deferral of Keeyask that he was referring to.

21 MR. BOB PETERS: All right. Let's --
22 let's perhaps dust off Volume II of Board counsel's
23 book of documents and -- and just bring the Board to
24 page 246 to see if we can understand -- it's Volume II.
25 It's been marked PUB doc -- Board -- book of documents

1 for all PUB -- Exhibit 14, and this is Volume II. And
2 I'm looking at page 246 under Tab 22, if -- if you have
3 it handy. And this is the -- this is the supply/demand
4 balances for the last three (3) years.

5

6 (BRIEF PAUSE)

7

8 MR. BOB PETERS: And, Mr. Miles, while
9 we're turning to that, I'm -- I'm just going to also
10 provide the Board members with a ready copy of an
11 extract from Manitoba Hydro's Exhibit 11, which is your
12 most current power resource plan. And it's got some of
13 my scribbled notes on it. And you're certainly welcome
14 to a copy of mine, or you probably have your own at
15 hand.

16 I'm not sure you'll need it, Mr. Miles.
17 And -- and if you do, certainly you're welcome to it.
18 But what I want to take the -- take you to is this is
19 the -- this is the supply/demand balances in the last
20 three (3) IFFs that's depicted.

21 And we see that IFF -- the -- sorry, for
22 the power resource plan for '10, for '11, and for '12,
23 there are various circles on both the energy and also
24 on the capacity charts to show the Board where the
25 capacity or where the energy shortage commences,

1 correct?

2 MR. TERRY MILES: That's correct.

3 MR. BOB PETERS: Now, I also -- if you
4 were -- I was also suggesting that in light of the new
5 document that was Manitoba Hydro Exhibit 11, the new
6 power resource plan, there's an additional indication
7 that there was 321 gigawatt hours of a shortfall under
8 2022/'23. And I had handwritten that in on the notes
9 that I have. And that's the -- the new chart that you
10 have.

11 You'll accept that, subject to check?

12 MR. TERRY MILES: Subject to check,
13 yeah.

14 MR. BOB PETERS: And you corrected me
15 when we talked about the winter peak capacity, that
16 under the most current power resource plan, winter
17 peaking capacity shortfall of 323 megawatts arises in
18 2025/'26, the last year on the chart, correct?

19 MR. TERRY MILES: That's correct.

20 MR. BOB PETERS: Now, the -- the upshot
21 of Mr. Dunsky's evidence is to suggest to Manitoba
22 Hydro and the Board that if there is an investment in
23 DSM, then these shortfalls can be met through the DSM
24 savings, correct?

25 MR. TERRY MILES: DSM is already

1 included in these shortfalls. But any additional DSM,
2 yes, could meet these shortfalls, that's correct.

3 MR. BOB PETERS: Oh, okay. Good
4 clarification. His -- his point is, these tables
5 reflect current ex -- current DSM plans?

6 MR. TERRY MILES: That's correct, yeah.

7 MR. BOB PETERS: And if Manitoba Hydro
8 became more aggressive in their DSM plans, he was
9 seeing opportunities to defer generation out into some
10 further years, correct?

11 MR. TERRY MILES: That's my
12 understanding, yes.

13 MR. BOB PETERS: Now, you went and used
14 not your recommended plan, but you went to the no-
15 development plan, I think, or the no new generation...

16 MR. TERRY MILES: Yes, the no-new-
17 generation plan. It's the plan that's reflected by the
18 table on page 246 of your book of documents. In
19 essence, that's what the -- that's what the 2011 line
20 and these lines reflect, are the outcomes of that plan,
21 yes.

22 MR. BOB PETERS: All right. So now
23 let's take -- let's now look at Manitoba Hydro having
24 an energy -- a dependable energy shortfall of 321
25 gigawatt hours in the year 2023.

1 And Mr. Dunsky is suggesting that that
2 can be met through increased DSM, as shown on page 343
3 of the third volume of Board counsel's book of
4 documents?

5 MR. TERRY MILES: I'm -- I'm just going
6 to pull out my '12/'13 power resource plan. I think
7 that's what you're -- you're referencing?

8 MR. BOB PETERS: I -- I -- well, I was
9 referencing the number, yes, so you might want to look.
10 It's on page 17, if you're looking for the same chart.

11 MR. TERRY MILES: Okay.

12

13 (BRIEF PAUSE)

14

15 MR. TERRY MILES: Okay. I have it
16 here.

17 MR. BOB PETERS: And then let's look
18 also -- if you have page 343 open from the book of
19 documents. If Manitoba Hydro's DSM target ends up
20 being a 1 percent DSM target, that contains additional
21 savings, according to Mr. Dunsky, of as -- of as much
22 of 634 gigawatt hours, correct?

23 MR. TERRY MILES: I see six thirty-
24 seven (637). But six thirty-four (634), is that
25 correct?

1 MR. BOB PETERS: No, six thirty-seven
2 (637) is correct. Sorry.

3 MR. TERRY MILES: Okay. I just want to
4 make sure.

5 MR. BOB PETERS: And -- and that would
6 certainly meet the shortfall in the 2023 year, but it -
7 - it wouldn't necessarily meet the shortfall in 2024?

8 MR. TERRY MILES: That's correct.

9 MR. BOB PETERS: Is that the conclusion
10 you reached in your rebuttal?

11 MR. TERRY MILES: I was using the
12 2011/'12 numbers that he was using. But for the
13 2012/'13 plan, that would be my conclusion, yes.

14 MR. BOB PETERS: All right. And then
15 let's look at the -- the winter peaking capacity
16 shortfall. Actually, he didn't -- he didn't include
17 that on his table, so I won't go there either at this
18 time.

19 But the -- but in principle, Manitoba
20 Hydro agrees that additional DSM can result in
21 generation deferral, but in this particular case at
22 best it would be one (1) year, if those numbers of Mr.
23 Dunsky were accurate?

24 MR. TERRY MILES: That's correct.

25 MR. BOB PETERS: And how does Manitoba

1 Hydro value that one (1) year of deferral? I'm not
2 sure if that's a Mr. Rainkie question or a -- how --
3 how is it valued from a -- from the engineering side of
4 the business?

5

6 (BRIEF PAUSE)

7

8 MR. TERRY MILES: Well, from the
9 engineering side of the business, first of all, the
10 numbers would -- the numbers I would come out of this
11 would have to come out of the DSM program if we were
12 going to look at this.

13 We produce -- we produced a marginal
14 value for this. The DSM or the -- the Power Smart
15 group, Ms. Morrison would go through and determine
16 whether or not this plan in particular was economic
17 based on that marginal value that we associated with
18 that. If that was the case, we would get revised DSM
19 targets, and that would end up in our power resource
20 plan currently.

21 That's how we're currently analyzing
22 that -- that plan. Now --

23 MR. BOB PETERS: What you're -- what
24 you're basically telling the Board is that before
25 Manitoba Hydro's going to get excited about

1 incorporating any additional DSM into its power
2 resource plan, it has to work its way through, from Ms.
3 Morrison's group back to -- back to you, to -- to see
4 it in concrete terms?

5 MR. TERRY MILES: That's correct.
6 That's --

7 MR. BOB PETERS: But let's make that
8 assumption that it -- that it can be delivered and that
9 it can be delivered as Mr. Dunsky suggests on page 343
10 of Board counsel's -- Exhibit PUB-14.

11 MR. TERRY MILES: In -- in terms of the
12 value of it, if that's the case and it ends up in our
13 plan, it becomes a base assumption for all of our
14 ongoing analysis. And it's -- it's assumed to --
15 assumed then to be economic from that perspective, and
16 it's in -- all of base analysis.

17 So any development plan that we take
18 forward, that's a base assumption as to new resources
19 that we need. What it would do is it would defer the
20 need for -- it would defer the need for new resources
21 out in time. That may affect how we prepare the
22 development plans that are in -- in the power resource
23 plan. And it would definitely -- it would definitely
24 have impacts in the end on the overall economic
25 analysis that we carry out.

1 Incrementally, it wouldn't affect plan
2 to plan typically, because plan to plan, it's a base
3 assumption. I would suggest any additional revenues in
4 that associated with that plan, from an absolute
5 perspective, make their way into the IFF through our
6 long-term generation -- our extraprovincial revenue
7 forecast. And that's, in the end, where that would go.

8 So changes from DSM year to year would
9 funnel through that way, if that makes se -- if you can
10 follow that --

11 MR. BOB PETERS: I think I have, but
12 let's turn it over to the financial side and see if Mr.
13 Rainkie can provide the Board with an indication as to
14 how financially, that deferral, if it was factually
15 attainable, would be received by the Corporation.

16 MR. TERRY MILES: I -- I would just add
17 that -- that would get embedded in -- in the values
18 that go -- it wouldn't -- it wouldn't be separate -- it
19 wouldn't be singled out in our analysis in terms of
20 additional revenue associated with that. It would be
21 overall from the system revenue that we would derive
22 from -- from that DSM saving in the system.

23 So there wouldn't be a number associated
24 with that DSM that would go to financial analysis. It
25 would be -- any changes in revenue related to that and

1 any other changes that happen from year to year would
2 funnel through into the IFF as extraprovincial
3 revenues. It wouldn't be singled out. This is from
4 DSM, this is from something else, this is from that.
5 So I don't believe Mr. Rainkie would see that
6 difference specifically.

7 MR. BOB PETERS: Do you think Mr.
8 Rainkie could calculate a -- a revenue requirement
9 impact of a three (3) year deferral or a five (5) year
10 deferral from that information?

11

12 (BRIEF PAUSE)

13

14 MR. DARREN RAINKIE: Mr. Peters, I
15 wouldn't be comfortable in -- in answering that
16 question. I think we're maybe straying into NFAAT
17 territory here myself. But, I mean, as Mr. Miles said,
18 if -- if they change -- if there's a change in the
19 power resource plan, we take the revenues and the
20 expenses that come out of that plan into our IFF.

21 But we haven't done any analysis around
22 this hypothetical situation. I think we're starting
23 with a hypothetical in the first place that -- that
24 this -- this would be possible. And I think that's a
25 stretch, from what I know. And so we haven't prepared

1 anything, obviously, in that regard.

2 MR. BOB PETERS: Thank you Mr. Rainkie.
3 Mr. Miles, anything further on that from your
4 discussion, or...

5

6 (BRIEF PAUSE)

7

8 MR. TERRY MILES: I think in addition
9 to the discussion I think Mr. Rainkie was referring to,
10 in terms of NFAAT territory, if we looked at deferring
11 a resource, I think there's implications on the
12 existing sales -- or the -- the proposed sales that we
13 have or the signed term sheets -- or signed sales
14 agreements that we have with out counterparties, where
15 deferring a resource now under that would have
16 implications there.

17 From the hypothetical perspective, maybe
18 there's some analysis that could be done. But I think
19 from that perspective, in terms of doing a calculation
20 right now based on the IFF, deferring a generation
21 resource would have implications on the sales aspect.

22 I would also add, in terms of how we
23 might analyze that, we had some discussion about this
24 market potential study in terms of additional DSM that
25 we might incorporate into that. As we move into the --

1 the NFAAT process, I think that's probably a topic that
2 we would deal with there, in terms of additional
3 incremental DSM, that we would carry out and evaluate
4 that more specifically as a resource, much like you're
5 referring to in here.

6 If there is any potential to do that, I
7 think that would be -- or at least our intention anyway
8 is to consider looking at that under the NFAAT process.

9 MR. BOB PETERS: All right. Thank you
10 for those answers. Mr. Chairman, in light of the hour,
11 this would be a good time for me to go through my notes
12 and see if I have any further questions of this panel.

13 THE CHAIRPERSON: Okay. Let's take ten
14 (10) minutes.

15

16 --- Upon recessing at 10:58 a.m.

17 --- Upon resuming at 11:13 a.m.

18

19 THE CHAIRPERSON: I believe everyone is
20 in position, and we'll resume the proceedings. I had
21 some questions that I wanted to ask the -- ask the --
22 members of the panel with respect to the conversion of
23 heating from -- from electricity to -- to gas. And I
24 had some earlier questions, and I want to go back at it
25 again.

1 I guess I'm looking at -- at Tab 7 of
2 the -- Volume I of the book of documents, but also
3 looking at exhibit -- Manitoba Hydro's Exhibit number
4 20, which was handed out earlier to -- to members of
5 the panel.

6 And in this -- you know, what's clearly
7 evident to me is that in respect of your conversion to
8 -- to space heating from -- pardon me, on the space
9 heating side, the lifetime cost of electricity relative
10 to natural gas is considerably more. You're looking at
11 a very significant difference. And so from the -- from
12 the customer's standpoint, it makes sense for the
13 customer to make that conversion.

14 And I guess what I want to know is, in
15 terms of your programs, are there any programs at all
16 that facilitate the conversion of customers' heating
17 supplies from -- from electricity to gas?

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: We don't have any
22 incentive-based programs that will allow for doing
23 that, but we will be allowing that under the new
24 residential PAYS program. So if you wish to finance
25 that conversion, we will -- and the cost of that

1 conversion is -- is less than what your bill savings
2 would be, you can do so.

3 THE CHAIRPERSON: Now, you -- you have
4 -- when -- when calculating the -- the marginal
5 benefits from that PAYS program, you would have
6 included the savings from the conversion to gas from
7 electricity?

8 MS. LOIS MORRISON: The PAYS program
9 would not have incorporated the marginal benefit
10 analysis or the marginal -- the value of the marg --
11 the energy. What it's doing is it's solely looking at
12 the customer bill savings by converting to a -- under -
13 - by -- by converting to a different -- a more energy-
14 efficient system. Or in this case they would have a
15 bill savings by going from electric to natural gas.

16 THE CHAIRPERSON: The follow-up
17 question would be, in terms of the various tests -- I
18 mean, simply from the standpoint of looking at it from
19 the customer perspective, it -- it seems to make sense
20 to make the conversion.

21 But from the perspective of Manitoba
22 Hydro, looking at the other tests that are -- that such
23 a program, a program to -- to encourage the conversion
24 from elect -- from electricity to gas, it seems to me
25 that you would need to run the tests from your

1 perspective to see if they make sense from your
2 perspective, right?

3 MS. LOIS MORRISON: When we -- when we
4 did the fuel switching report that you're -- that
5 you're referring to, we did look at what you're
6 describing. And that's where we came up with those
7 benefits that were to the Utility; that analysis
8 presents -- that -- that -- the assessment of the
9 benefits and such.

10 And that is why, from the Utility
11 perspective, we are undertaking the education campaign
12 and a more targeted approach to encourage customers or
13 to make sure that they're better informed and that they
14 are making decisions that best meet their needs,
15 recognizing that there differences in product costs.

16 One (1) customer will get a quote for
17 putting in an elec -- a natural gas furnace that's
18 seventy-five hundred dollars (\$7,500). Another
19 customer will get a quote that's three thousand dollars
20 (\$3,000), which is also why we encourage customers to
21 get more than one (1) quote.

22 So what -- we're recognizing the unique
23 situations that each customer is going to face. And
24 what we want to do is we're not adverse to looking at
25 an incentive-based program or something like that. But

1 right now, we're thinking that we would be better
2 served -- that we'd like to see what we can do more so
3 from the education perspective. We think customers
4 will make that decision. And if we have enabling
5 financial tools in place to assist them, then they'll
6 make those -- those choices that are right for them.

7 THE CHAIRPERSON: The conversion, from
8 -- from the client's perspective, you know, clearly the
9 sig -- significant savings. But I guess the question
10 is:

11 Are there energy conservation savings
12 that are generated that accrue to -- to Manitoba Hydro?

13 MS. LOIS MORRISON: From an energy
14 conservation perspective, changing fuel sources is not
15 energy efficiency. Changing fuel sources does reduce
16 our electricity requirements. And so it's more of a --
17 you could look at it as a load-displacement-type
18 approach. But it's not a conservation or energy
19 efficiency approach, changing -- simply changing fuel
20 sources when you're looking at your more traditional
21 fuels.

22 MR. RAYMOND LAFOND: How many homes
23 would there be in the gas-serviced areas of Manitoba,
24 Centra Gas-serviced areas in Manitoba? Give me an
25 approximate number. Is it five hundred thousand

1 (500,000)? Is it four hundred thousand (400,000)?

2 MS. LOIS MORRISON: No, no. I think we
3 have in the realm of about two hundred and thirty
4 thousand (230,000) natural gas customers. I'm thinking
5 it's about that.

6 MR. RAYMOND LAFOND: How many of these
7 would be using gas for space and water heating?

8 MS. LOIS MORRISON: They would all be -
9 - thos -- that -- that number I refer to is the number
10 of customers that currently have natural gas space and
11 water heating. Space heating for sure, not -- not --

12 MR. RAYMOND LAFOND: The two hundred --
13 the two hundred and fifty thousand (250,000)?

14 MS. LOIS MORRISON: Yeah.

15 MR. RAYMOND LAFOND: What's the
16 potential number?

17

18 (BRIEF PAUSE)

19

20 MS. LOIS MORRISON: I -- I think we
21 have to look more in detail at that. It depends on
22 where -- outside of the City of Winnipeg, it's more
23 difficult to delineate exactly what that potential is,
24 because it depends on whether or not they actually have
25 a gas line close to them and such. We would have to do

1 a full in-depth market analysis as to what's -- how
2 close that -- which towns have gas, whether gas is
3 fully extended in that town, and if those people have
4 it available.

5 Now, we could give you a ballpark
6 number, based on the undertaking that we provided that
7 talked about the new construction just in the last
8 little bit. But we are thinking it's around twenty
9 thousand (20,000).

10 MR. RAYMOND LAFOND: Twenty thousand
11 (20,000)...?

12 MS. LOIS MORRISON: I think twenty
13 thousand (20,000) houses, if I remember correctly.

14 MR. RAYMOND LAFOND: That would be...?

15 MS. LOIS MORRISON: That are
16 electrically heated now that could possibly be close to
17 gas. That's in -- that's in the new construction. I
18 think it's...

19

20 (BRIEF PAUSE)

21

22 MR. RAYMOND LAFOND: Let me rephrase my
23 question. An approximate -- an approximate number of
24 houses or homes, residential users, located in Centra
25 Gas-serviced areas, and of that, how many would be

1 using Centra Gas or gas -- natural gas for space and
2 water heating and how many would be using electricity
3 for space and water heating? Again, in approximate
4 numbers.

5 MS. LOIS MORRISON: Okay. If we look
6 at the Undertaking number 12, Exhibit 43, we
7 identified, for all of the -- the areas in -- in --
8 that are in Manitoba that have gas service available,
9 the percentage that have electric -- the number of
10 dwellings and the number that ha -- and the percentage
11 that have electric heat. And so, conversely, the other
12 percentage would likely have natural gas heat.

13 So the percentage here that have
14 electric heat would be ones that you're of inter --
15 that you're interested in. So, let's see...

16

17 (BRIEF PAUSE)

18

19 MS. LOIS MORRISON: There's about -- it
20 appears to be about sixty thousand (60,000) customers
21 that have electric heat in that area. Now, whether or
22 not they are economically close to natural gas, even
23 though they're in the gas-serviced area -- just because
24 it's a gas-serviced area doesn't mean that we actually
25 have a gas main near their property or close to their

1 actual property.

2 What we are more concerned with is the -
3 - are the larger centres that would have gas service
4 and are installing electric heat, such as we've
5 observed in -- in areas like Brandon, Portage la
6 Prairie, Morden, and Steinbach.

7 MR. RAYMOND LAFOND: Okay. If I
8 restricted my question to places you've just mentioned,
9 plus the City of Winnipeg?

10 MS. LOIS MORRISON: The City of
11 Winnipeg number I don't have at the -- at the tip of my
12 fingers, but the majority of Winnipeg is electric -- is
13 natural gas heated.

14 MR. RAYMOND LAFOND: A majority, is
15 this like 51 percent, or is this 85 percent?

16 MS. LOIS MORRISON: Closer to the
17 eighty-five (85).

18 MR. RAYMOND LAFOND: Thank you.

19

20 (BRIEF PAUSE)

21

22 MS. LOIS MORRISON: If you look at the
23 table, you'll see that in Steinbach, 50 percent of
24 existing housing is electrically heated. And the --
25 but the -- the concern and the reason that we were

1 looking at the fuel switching report is that the
2 growth, or the new housing being connected to the
3 system, is at a higher proportion of electric heat.

4 So you would have seen -- of the
5 eighteen hundred (1,800) houses that were constructed
6 from the period of 2005 to 2009, 78 percent of them
7 were putting in electric heat. So we've got about
8 fourteen hundred (1,400) houses that could have put in
9 natural gas heat that put in electric heat.

10 MR. RAYMOND LAFOND: So really, if I
11 look at the totals overall to date, does that not take
12 -- tell me that within these regions, 47 percent are
13 heated with electricity?

14 MS. LOIS MORRISON: Yes.

15 MR. RAYMOND LAFOND: So why would you
16 give -- were you giving me the 85 percent figure? I
17 think that seems a bit off.

18 MS. LOIS MORRISON: I -- earlier on I
19 mentioned that the 47 percent of the area has electric
20 heat. And what I was denoting there is that's the
21 existing population to date.

22 What our concern with -- and what that
23 references is that there were people that would have
24 had electric service prior to us bringing natural gas
25 service to the area. They're -- so they would be

1 people that they were already electrically heated and -
2 - or they may not be close to existing services --
3 existing mains in the area.

4 So the -- what we were -- the reason
5 we've been focussing on this issue is more so related
6 to the growth of electric heat in natural gas areas,
7 primarily concerned with areas where -- say, for
8 example, looking at the Steinbach line, 40 percent --
9 sorry, 40 percent of the houses built prior to 2005
10 were electrically heated. If you look at the period of
11 2005 to 2009, we see that the new houses being built,
12 78 percent of them are electrically heated. And so
13 what we are concerned with is that -- is that change,
14 or that -- that growth in electric heat where gas is
15 available and -- and an economic option for the
16 customer.

17 MR. RAYMOND LAFOND: Would numbers for
18 general service customers be more or less similar?

19 MS. LOIS MORRISON: As a percentage?

20 MR. RAYMOND LAFOND: Yes.

21 MS. LOIS MORRISON: We are thinking
22 they would be. We -- we don't have as good a handle on
23 that. And we made estimates based upon that.

24 MR. RAYMOND LAFOND: So, again, if I
25 come back to this chart, looking at a hundred and

1 twenty-seven thousand (127,000) homes or residential
2 customers, 47 percent are using electric heat which
3 makes up -- electric and water heating make up about 75
4 percent of your total consumption, correct?

5 MS. LOIS MORRISON: That is correct.

6 MR. RAYMOND LAFOND: So if -- if, for
7 instance, theoretically speaking, they move to gas,
8 that would greatly reduce the amount of electricity
9 being required?

10 MS. LOIS MORRISON: That is correct,
11 but it may not be economic from the customer's
12 perspective in all those cases, depending on how -- as
13 I said, how close they are to gas and whether they heat
14 with electric baseboards. If you have electric
15 baseboards, you're not going to be able to put in a
16 natural gas system in an economic way.

17 MR. RAYMOND LAFOND: Thank you.

18 MR. LARRY SOLDIER: I'm not sure if you
19 were involved with analyzing Waverley West. And I was
20 just wondering if -- I know that opportunity is
21 probably now -- well, it's not lost., but do you have
22 any other potential opportunities, I guess, in other
23 areas, maybe Oak Bluff or Headingley, that may go to
24 geothermal?

25 MS. LOIS MORRISON: Well, primarily the

1 areas you're denoting are close to gas and served by
2 gas. And similar to the issues that were faced by
3 Waverley West -- well, Waverley West was a different
4 situation where we were not economically able to bring
5 in natural -- geothermal for the entire subdivision.

6 But looking at -- we -- we would be
7 willing to be partner with and help other jurisdictions
8 bring that in, but that's a -- more of a community
9 based approach and it would be more appropriate in an
10 area that's only served by electric load, as opposed to
11 natural gas. Because as denoted in the fuel switching
12 report, customers are better off if they choose a
13 natural gas furnace as opposed to a geothermal system
14 in the long run over the life of the heating system.

15 MR. RAYMOND LAFOND: My last question.
16 I -- I understand your comment that Manitoba Hydro,
17 from at least the electricity division, is certainly
18 quite concerned about the future impact over twenty
19 (20), thirty (30) years of houses in the great
20 majority, 80 percent or more in many cases, using
21 electricity.

22 But how about the concern of people
23 starting to really switch to gas, which would totally -
24 - totally change the game plan and -- and the financial
25 fut -- future of Manitoba Hydro? Is that often

1 reflected on also?

2

3

(BRIEF PAUSE)

4

5

MS. LOIS MORRISON: I don't think we're
6 anticipating a full scale switch in terms of what we're
7 projecting. We will be -- hope -- what we're trying to
8 do is address the growing trend towards electric
9 heating in areas that are served by gas, because it's
10 not benefiting the customer or the Utility from either
11 the gas or the electric side.

12

So I don't think we're going to see the
13 full scale switching of customers with electric heat to
14 natural gas. And even with the -- the customers that
15 are in this area you were talking about, even if we
16 were to get that, we wouldn't see that full proportion
17 switch. So I'm -- I'm less concerned about that --
18 more -- in -- in the existing customers; it's the new
19 ones that we're concerned about, that growth.

20

THE CHAIRPERSON: So we're back to --
21 we're back to the Exhibit number 20. Specifically, I
22 would like to know the calculation of -- of costs for
23 electricity that are embedded in this document, are
24 they based on IFF11-2 or are they based on a more
25 recent IFF?

1 Specifically, given the significant
2 increases in rates that are being projected, does that
3 change this table at all, in terms of savings?

4 MS. LOIS MORRISON: What this table
5 presents is the cost -- the operating cost in today's
6 rates -- one (1) year of operating cost at today's
7 rates at the six-point-seven (6.7) cents a kilowatt
8 hour. I -- I believe we had discussed this earlier,
9 that there's concerns about putting in here a forecast
10 rates that haven't yet been approved, or -- and -- and
11 they may change.

12 THE CHAIRPERSON: If I understand your
13 response though, that would suggest to me that the
14 operating costs of having electrical furnaces or
15 baseboards are likely to become significantly more than
16 what those -- what the costs are for natural gas. I
17 mean, that's assuming, of course, natural gas doesn't
18 follow a similar trend.

19 But it seems to me that the -- the
20 difference of -- would become much more dramatic, in
21 terms of costs, if the projected operating cost -- pro
22 -- projected rates that we're considering were included
23 in the costs, right?

24 MS. LOIS MORRISON: Yes. There will be
25 more of a -- assuming that -- we don't know what -- in

1 this -- specifically where natural gas pricing is going
2 to go, but under today's direction there would be a --
3 there would be more of a differential between the two
4 (2). Or if natural gas continued to track just at the
5 same difference between, you would see that continuing
6 -- they would still see --continue to see an ongoing
7 benefit of having natural gas space heating, as opposed
8 to electric space heating.

9 THE CHAIRPERSON: Now, in your
10 projections that you have used going forward, what kind
11 of penetration rate have you used for new consumers
12 using electricity relative to natural gas?

13 MS. LOIS MORRISON: I believe we -- we
14 did outline what our projections were for new customers
15 choosing electric heat in natural gas available areas
16 in one (1) of our IRs. If you'll give me a moment,
17 I'll look for it.

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: I believe, if you
22 refer to Manitoba Hydro's response to GAC/Manitoba --
23 MH Round 2 Question 12-0(i), we've identified there the
24 number of new homes in gas available areas installing
25 electric heat, as what we had projected under the fuel

1 switching report and is included in our 2012 load
2 forecast.

3

4 (BRIEF PAUSE)

5

6 THE CHAIRPERSON: Now, the -- the --
7 we've talked about -- that is -- this is -- a
8 conversion -- a program to convert from -- from
9 electricity to gas was not an efficiency program --
10 energy conservation program, I think is what you -- you
11 suggested. So, it doesn't necessarily fall under the
12 DSM umbrella?

13 MS. LOIS MORRISON: That is correct.

14 THE CHAIRPERSON: Okay. So, from the
15 standpoint of how such a program would be managed, it
16 would be managed through some other sector of Manitoba
17 Hydro?

18 MS. LOIS MORRISON: No, it'd still be
19 mine.

20 THE CHAIRPERSON: So, I understand that
21 -- I guess the question I'm asking is -- is whether or
22 not the study that will be -- that's going to be done
23 will encompass a program to convert from electricity to
24 gas on the space-heating side?

25 MS. LOIS MORRISON: If you're referring

1 to our demand-side management market potential study,
2 it does not -- it's not looking at fuel conversions
3 from electricity -- from electricity and natural gas.
4 However, we are -- we are monitoring the market and we
5 are establishing some -- we will be establishing some
6 targets as to what we'd like to see happen in terms of
7 this growth that we were observing, and that will be
8 incorporated into our load forecast going forward.

9 So, it will -- you -- we are
10 anticipating seeing an adjustment to our load forecast
11 as a result of this initiative.

12 THE CHAIRPERSON: That's it for the
13 panel's question.

14 MR. BOB PETERS: And, Mr. Chairman,
15 I've had an opportunity to review my notes and also
16 speak briefly with counsel opposite, and I'm wanting to
17 thank the panel for their responses to my questions, as
18 I'll hand the microphone over to Mr. Williams for his
19 cross-examination questions.

20 MR. BYRON WILLIAMS: Yes and thank you,
21 Mr. Peters. Members of the panel, good morning; not
22 quite afternoon yet. There should be additional
23 materials -- the materials for the -- supporting
24 materials of CAC (Manitoba) for January 9th, which I
25 believe should be marked as CAC Exhibit number 9. I'm

1 getting the nod from Mr. Singh.

2

3 --- EXHIBIT NO. CAC-9: Supporting materials for
4 CAC (Manitoba)

5

6 MR. BYRON WILLIAMS: And we went get to
7 it this morning now, but you should also keep Board
8 counsel's Volume III nearby.

9

10 CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

11 MR. BYRON WILLIAMS: Ms. Morrison, I'm
12 -- good morning. I'm going off of -- we'll just wait
13 till the panel is set up here.

14 Ms. Morrison, I'm going off of script
15 here a little bit, just to follow up on some of the
16 panel's discussion of fuel switching. And -- and just
17 focussing on the -- the concern articulated by Manitoba
18 Hydro in terms of recent developments, in terms of more
19 consumers preferring electricity, notwithstanding the
20 opportunity perhaps to have more economic natural gas
21 for heating purposes. So, that's what I'm foc --
22 focussing on, okay?

23 MS. LOIS MORRISON: Yes.

24 MR. BYRON WILLIAMS: And, just a couple
25 things I want -- I want to follow through with you, and

1 I -- I certainly picked this up, I thought in your
2 conversation with My Friend Mr. Peters, oh, so many
3 weeks ago on this -- on this topic. But leaving aside
4 kind of the -- the bias's of developers but in terms
5 of consumer perceptions, behind the reluctance of some
6 of the potential space heating cus -- new customers to
7 choose natural gas, is it your view that there -- there
8 -- there may be a sense that the price of gas heating
9 is -- is more volatile, as compared to elec -- to
10 electric?

11 MS. LOIS MORRISON: Yes, we believe
12 that con -- some consumers, because of the -- leading
13 up to 2008, there was quite a bit of discussion in --
14 in most media and such where customers were seeing
15 price fluctuations in the natural gas market, which
16 would then have some consumers believing that there's -
17 - there's volatility attached to natural gas, because
18 it's not -- it's driven by the market price as opposed
19 to a regulated price.

20 MR. BYRON WILLIAMS: And so under that
21 line of reasoning, consumers who may have lower risk
22 tolerance might be willing to trade off some price
23 advantage in order to -- to secure what they perceive
24 to be a more stable price under electricity?

25 MS. LOIS MORRISON: Yes, some customers

1 may choose to do that.

2

3

(BRIEF PAUSE)

4

5

MR. BYRON WILLIAMS: I hesitate to --

6

to ask any questions about the future of market

7

developments in terms of natural gas. But looking

8

forward, would it be Hydro's view that we can expect

9

the natural gas product to continue to be more volatile

10

in terms of price fluctuations, as compared to the

11

electric product?

12

13

(BRIEF PAUSE)

14

15

MS. LOIS MORRISON: I am not an expert

16

in natural gas pricing and that would definitely be a

17

different panel entirely. What we are looking at is

18

commonly available information; I can comment on that,

19

in terms of what we see in -- as being reported in the

20

Alberta markets. We have that actually on our web

21

site. We have a link to the AECO, which shows what

22

they see to be as future pricing, and that pricing is

23

still around the three (3) to five dollars (\$5) a

24

gigajoule for natural gas.

25

So we're -- they're -- they're obviously

1 not projecting the price fluctuations that we've seen
2 in the past, but I think as with any commodity, you'll
3 see day-to-day price -- price fluctuations. You'll see
4 short-term price -- price fluctuations, but some of the
5 industry partners are seeing -- not predicting the
6 fluctuations we've seen in the past.

7 MR. BYRON WILLIAMS: And recognizing
8 that some of these questions should go to -- to a
9 different panel, but in terms of the Alberta
10 information and in terms of the reduced volatility that
11 you're seeing in terms of natural gas, how far out in
12 time frame are -- are they looking at that?

13 MS. LOIS MORRISON: I honestly don't
14 recall how far the AECO projects.

15 MR. BYRON WILLIAMS: Now, I'm going to
16 come back to -- for a -- for a question in -- in just a
17 second on this -- this issue, but, Mr. Wiens, I'm not
18 going to have many questions for you today, but I -- I
19 just want to go to a -- a question of economic theory
20 and I'm assuming that you're the man, or -- or the
21 person.

22 And, Mr. Wiens, at a -- at -- at a high
23 level are -- are you familiar with the -- the
24 behavioural school of -- of economics?

25 MR. ROBIN WIENS: I -- I'm not going to

1 get into a discussion of the behavioural school of
2 economics today.

3 MR. BYRON WILLIAMS: Fair -- fair
4 enough, but Mr. Wiens, just well -- can we agree that
5 there are many economic thinkers out there who would
6 suggest that the model of rational economic agents does
7 not well describe human behaviour?

8 MR. ROBIN WIENS: That debate's been
9 going on for a long time, Mr. Williams, and certainly
10 there have been suggestions that -- that that
11 particular underlying principle, which is so convenient
12 in economic theory, may not always hold in -- in the
13 real world.

14 MR. BYRON WILLIAMS: And I won't ask
15 you to step except for one (1) more question along that
16 line, Mr. Wiens. And certainly you're aware of a -- a
17 fair bit of empirical work suggesting that many risk
18 adverse consumers may choose what they consider to be a
19 less risky consumer decision, as compared to one (1)
20 that mathematically might appear to be in their best
21 interest?

22 MR. ROBIN WIENS: Mr. Williams, we --
23 we don't have to depart the -- the theory of the -- of
24 the rational economic decision-maker. For that,
25 consumers will make choices based on -- even if we

1 assume they're completely rational -- based on their
2 own attributes, their relative tolerance for risk,
3 their perception of the risk of -- associated with
4 various options that are in front of them to choose.

5 So that a consumer might ought to pay
6 what may appear objectively more in order to have price
7 stability, I mean, we build in produ -- suppliers build
8 in products to -- to cater to that risk averseness of
9 the population all the time.

10 MR. BYRON WILLIAMS: Now, Ms. -- and
11 thank you, Mr. Wiens. Ms. Morrison, in your --
12 Manitoba Hydro's analysis of the -- the issue of --
13 issues related to fuel switching, has it come to your
14 attention that some consumers within the marketplace
15 are demanding electric heating as compared to natural
16 gas because they perceive it to be a -- a more
17 environmentally friendly option?

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: I don't have
22 empirical data to support that necessarily, but that is
23 anecdotally what we've heard from some people.

24

25 (BRIEF PAUSE)

1
2 MR. BYRON WILLIAMS: I'll -- I'll move
3 -- and I thank you and -- and Mr. Wiens for your --
4 your attention. Moving on to my scripted questions,
5 Ms. Morrisons -- Ms. Morrison, just for the purposes of
6 our conversation today, I may use the words "low
7 income" and -- almost as an equivalent to persons whose
8 income threshold is at or below the LICO-125 for their
9 particular family size and -- and commu -- and the
10 community in which they live.

11 So is that satisfactory to you? We can
12 use those words interchangeably?

13 MS. LOIS MORRISON: Yes, that's fine.

14 MR. BYRON WILLIAMS: Ms. Morrison, just
15 -- just in terms of -- you had a bit of a discussion
16 with the Chair yesterday about the fact that you're --
17 you're from the marketing side of -- of programming.

18 Apart from your work in terms of energy
19 efficiency on behalf of Manitoba Hydro or Centra, have
20 you been engaged on a professional basis with -- with
21 any other North American utility?

22 MS. LOIS MORRISON: No.

23 MR. BYRON WILLIAMS: And so I would be
24 accurate in suggesting to you that you have not been
25 retained as an independent expert or consultant by any

1 other utility for the purposes of performing
2 independent program evaluation?

3 MS. LOIS MORRISON: I have actually
4 done, on behalf of Manitoba Hydro International,
5 consulting work for the Utility in Costa Rica. And I
6 have actually been engaged by SaskPower to assist them
7 in putting together a DSM market -- a DSM plan.

8 MR. BYRON WILLIAMS: So those would be
9 the --

10 MS. LOIS MORRISON: As -- as Manitoba
11 Hydro.

12 MR. BYRON WILLIAMS: MHI or -- okay.
13 Now, and just in terms of -- if I have a few questions
14 about load forecast, you're the -- you're the person as
15 well?

16 MS. LOIS MORRISON: Yes.

17 MR. BYRON WILLIAMS: Mr. Rainkie,
18 likewise, I won't have many questions for you, but I
19 didn't want to neglect you as I did the other day, sir.
20 But let's recognize that the NFAAT is still to come.

21 Can we agree that, as a backdrop both to
22 IFF12 and our deliberations in this hearing, is the
23 reality that Manitoba Hydro is planning many billion
24 dollars in expenditures, including those related to BP3
25 -- Bipole 3, excuse me, Keeyask, and Conawapa?

1 MR. DARREN RAINKIE: Yes, that's our
2 official forecast, Mr. Williams.

3 MR. BYRON WILLIAMS: And assuming
4 regulatory approval, we -- Manitoba Hydro expects to
5 finance to -- in -- to a large degree these capital
6 projects by borrowing many billions of dollars, agreed?

7 MR. DARREN RAINKIE: That's a fair
8 summation, yes.

9 MR. BYRON WILLIAMS: I'm not sure I've
10 head you describe one (1) of my questions as fair
11 before, Mr. Rainkie, so I want to express my
12 appreciation.

13 MR. DARREN RAINKIE: Mr. Williams, I
14 think I've always been fair with you, and we have a
15 pretty good rapport, but -- and I don't feel bad at all
16 if you don't have a lot of questions of me so, no -- no
17 need to apologize.

18 MR. BYRON WILLIAMS: I have just a few
19 more, Mr. Rainkie. Also, as a -- a back -- our --
20 certainly in this Hearing we can agree that on April
21 1st, 2012, Hydro received a 2 percent interim rate
22 increase?

23 MR. DARREN RAINKIE: That's correct.

24 MR. BYRON WILLIAMS: And that Manitoba
25 ratepayers experienced, effective September 1st, 2012,

1 an additional 2.5 percent rate increase on average?

2 MR. DARREN RAINKIE: I think it was
3 two-point-four (2.4), as we were talking about
4 yesterday, on average, but I'm not going to quibble
5 with you, Mr. Williams.

6 MR. BYRON WILLIAMS: Thank you for
7 that. And of course, the Corporation is seeking
8 something in the range of 3.5 percent for April 1st,
9 2013.

10 MR. DARREN RAINKIE: That is our
11 Application, yes.

12 MR. BYRON WILLIAMS: And --

13 MR. DARREN RAINKIE: I might add the
14 2.4 percent was on an interim basis on September 1,
15 just for clarity.

16 MR. BYRON WILLIAMS: Fair enough. And
17 I -- I meant to point that out. And recognizing that
18 Hydro's projections are subject to change, looking out,
19 Manitoba Hydro's projecting a series of three-point-
20 five (3.5) -- excuse me, 3.95 percent annual increases
21 for many years?

22 MR. DARREN RAINKIE: Well, I think that
23 we've called those indicative rate increases, and we've
24 -- we've -- Mr. Warden's been clear that -- that that
25 is a calculation to get us back to our 25 percent debt-

1 to-equity ratio at the end of the forecast period.

2 I think we've also been clear that,
3 whether or not we request those rate increases will be
4 based on the circumstances of the day and -- and the
5 approval of our Board. So I think I refer -- prefer to
6 look at them as indicative rate increases at this
7 point, if we could use that term, Mr. Williams.

8 MR. BYRON WILLIAMS: So recognizing
9 that -- that they're subject to change, the best
10 indicator of rate increases moving into the future that
11 we have, Mr. Rainkie, Hydro's best guess is 3.95
12 percent out for many years?

13 MR. DARREN RAINKIE: I think that --
14 that's fair with the caveats that I just put on the
15 record.

16 MR. BYRON WILLIAMS: Mr. Wiens,
17 focussing on the residential consumer, and assuming few
18 immediate substitutes, and assuming as well a change in
19 electricity price, the price of all other goods
20 remaining constant, in those circumstances would I be
21 correct in suggesting to you that, from the perspective
22 of that consumer, either electricity usage must decline
23 or the consumption of other substitute goods must be
24 reduced to redalan -- rebalance their budget?

25 MR. ROBIN WIENS: Well, I think you've

1 -- I think you've limited the scope of the question
2 such, Mr. Williams, that I would have to agree that one
3 (1) or the other of those things would happen.

4 Just a minor quibble, that it -- it's
5 not necessarily substitute goods that -- that would
6 experience the decline in the consumer's budget,
7 although, I guess it's possible, and -- and even --
8 indeed even likely. But it could be the whole range of
9 goods and services other than electricity, if the
10 consumer were to maintain their electricity purchases
11 in the face of a price increase, all other prices
12 remaining the same, and, Mr. Williams, consumer income
13 remaining the same.

14 MR. BYRON WILLIAMS: I thought I had
15 all the caveats in there, Mr. Wiens, but I guess I
16 missed one (1). Members of the panel, I'm -- I'm happy
17 to keep going but this is a nice break time. I'm at --
18 certainly at your beck and call.

19 THE CHAIRPERSON: Then let's us --
20 let's recess for an hour, back here at one o'clock.

21
22 --- Upon recessing at 11:56 a.m.

23 --- Upon resuming at 1:03 p.m.

24

25 THE CHAIRPERSON: I believe everyone's

1 in position, so I wonder if we could restart the
2 proceedings. Do we have any documents to acknowledge?
3 No? Okay. Over to you, Maitre Williams.

4 MR. BYRON WILLIAMS: Mr. Chair, I'm
5 suffering with a bit of a cold and -- and it seems a
6 bit hot. Do I have your permission to...

7

8 CONTINUED BY MR. BYRON WILLIAMS:

9 MR. BYRON WILLIAMS: Ms. Morrison, no
10 disrespect is intended when I'm taking off my jacket.
11 I'm just -- it's a little hot in here, so.

12 Just for the panel's benefit, I'll be
13 mostly working on CAC-9 -- Exhibit 9. But in about a
14 few minutes, I -- I also will be referring to page 315
15 of Volume III of My Friend, Mr. Peters's, document. So
16 that's page 315; if you wanted to have it open, it
17 might save -- save you some flipping in a few moments.

18 Ms. Morrison, if I could get you to turn
19 to CAC Exhibit 9, page 1, numbered in the right-hand
20 corner.

21 And you'll -- you'll agree with me that
22 this is the Corporation's response to CAC 1-60 asking,
23 in essence, for a comparison between the anticipated
24 savings from -- DSM savings from incentive programs at
25 the time of the initial filing of the 2010 general rate

1 application as compared to Manitoba Hydro's current
2 projection and recent actuals, agreed?

3 MS. LOIS MORRISON: Yes.

4 MR. BYRON WILLIAMS: And if we look the
5 table, Ms. Morrison, we're only going to look at a few
6 years.

7 But just for descriptive purposes,
8 you'll agree with me that the -- the second column in
9 looks at the -- the current projection of -- or actuals
10 of Manitoba Hydro as presented in -- in this rate
11 hearing, agreed?

12 MS. LOIS MORRISON: Yes.

13 MR. BYRON WILLIAMS: And when we see
14 those asterisks, not that I can pronounce the word, but
15 when we see them, those are actual numbers as opposed
16 to projections?

17 MS. LOIS MORRISON: Yes.

18 MR. BYRON WILLIAMS: And if we got to
19 the -- the third column in, those are the projections
20 that were presented in the initial filing at the 2010
21 general rate application, agreed?

22 MS. LOIS MORRISON: Yes.

23 MR. BYRON WILLIAMS: So I'd like to
24 direct your attention to the second line being the year
25 '09/'10 and when we look to the projections for that

1 year, as presented in the 2010 general rate
2 application, we see that Manitoba Hydro was
3 anticipating 241 gigawatt hours in DSM savings from
4 incentive programs, correct?

5 MS. LOIS MORRISON: That is correct.

6 MR. BYRON WILLIAMS: And the actual
7 figure was about 212 gigawatt hours or some 29 gigawatt
8 hours less, agreed?

9 MS. LOIS MORRISON: Yes.

10 MR. BYRON WILLIAMS: Similarly, if we
11 go down to the 2010/'11 year, we'll see that Manitoba
12 Hydro was projecting a saving of 262 gigawatt hours,
13 correct?

14 MS. LOIS MORRISON: That is correct.

15 MR. BYRON WILLIAMS: The actual results
16 were somewhat lower at 216 gigawatt hours?

17 MS. LOIS MORRISON: Yes.

18 MR. BYRON WILLIAMS: And the difference
19 is in -- in a negative sense, amounts to 46 gigawatt
20 hours, agreed?

21 MS. LOIS MORRISON: Yes.

22 MR. BYRON WILLIAMS: And finally, we
23 look to line -- the 2011/'12 year where we see that the
24 projection at the 2010 GRA was 234 gigawatt hours, but
25 the most recent projection of Manitoba Hydro is 182

1 gigawatt hours, correct?

2 MS. LOIS MORRISON: That is correct.

3 MR. BYRON WILLIAMS: And that's a
4 difference between those two (2) projections of
5 negative 52 gigawatt hours?

6 MS. LOIS MORRISON: Yes.

7 MR. BYRON WILLIAMS: Ms. Morrison, does
8 Manitoba Hydro have the actual results for the 2011/'12
9 year?

10

11 (BRIEF PAUSE)

12

13 MS. LOIS MORRISON: As mentioned
14 earlier, we have not yet finalized the -- the review
15 for the '11/'12 year. However, we do have interim
16 results that may be subject to change, but the change
17 would be somewhat -- would -- would not be great. We
18 wouldn't see a 50 percent decrease or anything. We've
19 -- interim results as of March 31st, 2012, would be 240
20 gigawatt hours.

21 MR. BYRON WILLIAMS: So it's -- Ms.
22 Morrison, in terms of this particular year, Manitoba
23 Hydro's fairly close to the actual projection?

24 MS. LOIS MORRISON: Yes.

25 MR. BYRON WILLIAMS: Now, flipping to -

1 - to page 2 of the CAC Exhibit 9, just one (1) small
2 point there.

3 Ms. Morrison, am I correct in suggesting
4 to you that if one was to compare the 2010 plan --
5 Power Smart plan with the 2011 Power Smart plan, that
6 the electric energy savings are expected to decrease by
7 8.9 percent from the 2010 plan?

8 MS. LOIS MORRISON: I haven't done the
9 math on that. Could you provide a reference?

10 MR. BYRON WILLIAMS: I'm actually --
11 sorry, Ms. Morrison. If you look to --

12 MS. LOIS MORRISON: Yes, sorry, I found
13 it.

14 MR. BYRON WILLIAMS: And so just
15 because my question was inelegantly asked or answered -
16 - I'm not sure which -- we're agreeing that the
17 projected electric energy savings in the 2011 plan are
18 expected to -- to decrease by 8.9 percent as compared
19 to the 2010 plan, correct?

20 MS. LOIS MORRISON: Yes.

21 MR. BYRON WILLIAMS: And, Ms. Morrison,
22 I'm going to just ask you to flip to page 4 of CAC
23 Exhibit 9. And I note My Friend, Mr. Peters, who
24 clearly as a -- a bigger photocopying budget than I
25 did, put in a more colourful -- more colourful version

1 of this.

2 But hopefully you'll agree with me that
3 this is a -- this is a graphical depiction of Manitoba
4 Hydro's planned incremental DSM savings from 2011/'12
5 to 2025/'26, agreed?

6 MS. LOIS MORRISON: Yes.

7 MR. BYRON WILLIAMS: And if we start
8 towards the left-hand side of the -- of the graph,
9 we'll see that in the 2011/'12 year, Hydro's planned
10 incremental DSM savings are well in excess of 80
11 gigawatt hours, agreed?

12 MS. LOIS MORRISON: Yes.

13 MR. BYRON WILLIAMS: Moving over
14 towards the right, to the 2019/2020 year, we can see by
15 that point in time that there is a -- planned
16 incremental DSM savings for that particular year are in
17 the range of only 60 gigawatt hours, correct?

18 MS. LOIS MORRISON: Yes.

19 MR. BYRON WILLIAMS: And we can see, as
20 we move towards the 2021/'22 year, that indeed the
21 planned incremental DSM savings are below 40 gigawatt
22 hours for that particular year?

23 MS. LOIS MORRISON: That is correct.

24 MR. BYRON WILLIAMS: Ms. Morrison,
25 turning to page 5 of CAC Exhibit 9, and directing you

1 to the second paragraph if you're looking for my
2 sources, can we agree in terms of the Lower Income
3 Energy Efficiency Plan or, as I will hereafter describe
4 it, LIEEP -- L-I-E-E-P -- in the 2009 Power Smart plan,
5 Manitoba Hydro was anticipating that participation
6 would average about eight hundred and eighty-three
7 (883) homes per year, agreed?

8 MS. LOIS MORRISON: Yes.

9 MR. BYRON WILLIAMS: And if one were to
10 turn to the 2011 power resource plan -- excuse me, the
11 Power Smart plan, I apologize -- Hydro is now pre --
12 projecting an average of five hundred and twenty-six
13 (526) homes per year, agreed?

14 MS. LOIS MORRISON: Yes.

15

16 (BRIEF PAUSE)

17

18 MR. BYRON WILLIAMS: Ms. Morrison, I'd
19 like to keep chatting with you about LIEEP, so if you
20 could pull up -- go to page 18, still in CAC-9. "Page
21 18" in the top right corner. And also have nearby page
22 315 from My Friend, Mr. Peters's, Volume III of his
23 materials.

24 Do you have those, Ms. Morrison?

25 MS. LOIS MORRISON: Yes, I do. Thank

1 you.

2 MR. BYRON WILLIAMS: Just, first of
3 all, in terms of clarifying what LIEEP currently does,
4 am I correct in suggesting to you that under this
5 program, first of all, income-qualifying customers can
6 be visited by an energy advisor who reviews the energy
7 efficiency of their home and, based on the results, can
8 recommend free insulation upgrades to attic, basement,
9 crawlspace, or wall cavity?

10

11 (BRIEF PAUSE)

12

13 MS. LOIS MORRISON: Yes, that's
14 correct.

15 MR. BYRON WILLIAMS: And I'm also
16 correct in suggesting to you that during that energy
17 efficiency review, the advisor can also provide free
18 basic energy-efficient items, such as low-flow shower
19 heads?

20 MS. LOIS MORRISON: Yes.

21 MR. BYRON WILLIAMS: And do they still
22 provide compact -- compact fluorescent lights?

23 MS. LOIS MORRISON: Yes, they do.

24 MR. BYRON WILLIAMS: So that's what
25 LIEEP does. Would I be correct in suggesting to you

1 that it does not do windows and doors?

2

3

(BRIEF PAUSE)

4

5

MS. LOIS MORRISON: We don't cover
6 windows and doors, per se, but what we do do is leave a
7 tube of caulking and a caulking gun along -- and explain
8 how to go about properly caulking your windows, and
9 then we also provide the plastic film to go over the
10 windows.

11

MR. BYRON WILLIAMS: Fair enough. And
12 -- and just for greater clarity -- clarity for my
13 client's sake, if within a home the -- the windows are
14 not sufficiently thick or -- or there's drafty doors
15 does, am I correct in suggesting to you that LIEEP does
16 not cover those expenditures?

17

MS. LOIS MORRISON: No, LIEEP does not
18 cover those expenditures. Those -- the cost of
19 changing out a window generally isn't economic to
20 pursue based on the energy savings alone. It's
21 generally -- and -- and that's when -- the majority of
22 our positioning and our programming around windows and
23 doors is if you're making the choice to change out your
24 windows, go to that next level of energy efficiency,
25 because that's where it's economic and that's where it

1 -- you'll get your -- your greatest return. But from a
2 window perspective it doesn't represent as much
3 opportunity for improving the energy efficiency of the
4 home or you don't get as muc -- as -- as good of a
5 return on your en -- energy investment.

6 MR. BYRON WILLIAMS: Okay. And I
7 certainly wasn't meaning to criticize, just -- just to
8 understand. Am I also correct in suggesting to you
9 that -- that LIEEP would not assist if one wanted, in
10 an all-electric home, to -- to purchase a new electric
11 furnace?

12 MS. LOIS MORRISON: No, we would not
13 assist with the purchase of a new electric furnace,
14 because there's no energy efficiency savings attached
15 to that.

16 MR. BYRON WILLIAMS: Now, directing
17 your attention to page 315, Volume III of Board
18 counsel's document, what we -- and you did cover a bit
19 of this with My Friend. I just want to make sure I
20 clean up his -- his questioning. I'm just teasing, Mr.
21 Peters.

22 But what we see here is a presentation
23 of Power Smart plan, economic cost-effectiveness ratios
24 and levelized costs, agreed?

25 MS. LOIS MORRISON: Yes.

1 MR. BYRON WILLIAMS: And when we go
2 down to the depiction under residential of low-income
3 energy efficiency programming we see two (2) stars or
4 asterisks -- let's call them stars -- behind -- behind
5 that line. And that's to denote the fact that the --
6 the numbers presented on this line do not include
7 expenditures associated with the Affordable Energy
8 Fund, correct?

9 MS. LOIS MORRISON: That is correct.

10 MR. BYRON WILLIAMS: But let's stick
11 with this line, first of all. So excluding expenses
12 associated with the Affordable Energy Fund, the results
13 from the RIM test are one point five (1.5) for the Low
14 Income Energy Efficiency Program, agreed?

15 MS. LOIS MORRISON: Yes, and that would
16 be consistent with what you're seeing under the Home
17 Insulation Program.

18 MR. BYRON WILLIAMS: And in terms of
19 the LUC, which we've agreed is not a test, the -- the
20 cents per kilowatt is one point one (1.1) cents,
21 excluding affordable energy expenditures, agreed?

22 MS. LOIS MORRISON: That is agreed.

23 MR. BYRON WILLIAMS: Now, if we go down
24 to the bot -- the notes section of the page, I am
25 correct in suggesting to you that, on a forward-looking

1 basis, even including AEF or Affordable Energy --
2 Energy Fund ex -- expenditures, LIEEP's RIM -- R-I-M --
3 is still one point two (1.2)?

4 MS. LOIS MORRISON: For electrically
5 heated customers, yes.

6 MR. BYRON WILLIAMS: And again, on a
7 forward-looking basis, even including Affordable Energy
8 Fund expenditures, well, the -- the LUC for -- for
9 LIEEP is three point five (3.5) cents per kilowatt
10 hour, correct?

11 MS. LOIS MORRISON: Yes.

12 MR. BYRON WILLIAMS: And you'll recall
13 a bit of a discussion with My Friend, Mr. Peters, in
14 terms of the -- the historic R-I-M, or RIM, for -- for
15 -- for the LIEEP program being less than one (1).

16 Do you recall that from earlier this
17 morning?

18 MS. LOIS MORRISON: In terms of the
19 program activity to date.

20 MR. BYRON WILLIAMS: But you were --
21 and in that conversation though, you pointed out to him
22 that for the 2010/'11 year, the RIM was positive,
23 agreed?

24 MS. LOIS MORRISON: Yes.

25 MR. BYRON WILLIAMS: And what you're

1 telling me now, is that on a forward-looking basis,
2 again, the numbers are looking fairly positive for
3 LIEEP, using RIM as the -- as the test?

4 MS. LOIS MORRISON: Yes.

5 MR. BYRON WILLIAMS: And that's quite
6 natural, you'll agree with me, understanding that there
7 would be some growing pains and -- and some -- and some
8 learning when you started out with this program back in
9 2007?

10 MS. LOIS MORRISON: Yes.

11 MR. BYRON WILLIAMS: So while the
12 historical results or current results are not yet at --
13 at positive looking forward, as measured by RIM,
14 there's a -- a relatively positive outlook?

15 MS. LOIS MORRISON: It looks favourable
16 economically, yes.

17 MR. BYRON WILLIAMS: Now, taking into
18 account for all electric all LIEEP expenditures,
19 including the Affordable Energy Funds, we've agreed
20 that the LUC is three point five (3.5) cents per
21 kilowatt hour?

22 MS. LOIS MORRISON: Yes.

23 MR. BYRON WILLIAMS: Ms. Morrison, have
24 you compared that for Manitoba Hydro's low-income
25 programming as compared to what your sister and brother

1 utilities across North America may be spending per
2 kilowatt hour, in terms of low-income programming?

3 MS. LOIS MORRISON: No, we haven't
4 compared it in terms of a per-kilowatt-hour basis.
5 We've generally looked at other jurisdictions, in terms
6 of what they're offering in their programming, as
7 opposed to specifically what it's cost them on a per-
8 kilowatt-hour basis.

9 MR. BYRON WILLIAMS: So you would not
10 be in a position to either confirm or deny that the
11 expenditure of -- of other utilities, as Ma -- as
12 reflected in an a -- in LUC, in other jurisdictions
13 might be considerably higher?

14 You're not aware of that?

15 MS. LOIS MORRISON: No, I'm not aware
16 of that.

17 MR. BYRON WILLIAMS: So in examining
18 the LIEEP program as compared to other programs, you
19 focus more on the nature of the offerings as compared
20 to the intensity of the offerings?

21 MS. LOIS MORRISON: What we focussed on
22 was what they were being provided to the customer and
23 to what level we felt we could deliver in our market
24 and meet our Power Smart standards.

25 MR. BYRON WILLIAMS: So, in essence, in

1 terms of the service offerings, you've done kind of
2 checklist: Have they got it? Have we got it? And
3 then in terms of the costing and kind of the management
4 of the program, you've really had a Manitoba-specific
5 kind of outlook?

6 MS. LOIS MORRISON: When we looked at
7 how we were going to deliver the program, we did look
8 at other jurisdictions to see what mechanisms might be
9 best available to reach that market. It's a very --
10 it's a difficult market to identify customers in and
11 have them self-select into the program. And so we've
12 had to take quite a bit of effort to identify customers
13 who might be eligible and to get them to agree to
14 participate.

15 MR. BYRON WILLIAMS: And I just want to
16 talk to you and -- and you used the language, I believe
17 yesterday, in terms of energy effic -- efficiency
18 programs, words -- you spoke of barriers to
19 participants.

20 Would those be the type of words you
21 might use?

22 MS. LOIS MORRISON: Yes, there are --
23 there are different barriers to participation for
24 members of the low-income group.

25 MR. BYRON WILLIAMS: And we -- we're

1 going to speak in -- in generalities, comparing the
2 low-income group to the general population. Would --
3 would I be correct in suggesting to you that as
4 compared to the general population low-income persons
5 tend to have less discretionary income?

6 MS. LOIS MORRISON: I would not
7 disagree with that statement, in general.

8 MR. BYRON WILLIAMS: And again, we talk
9 at a high level. And all other things being equal,
10 would it be fair to say that with less discretionary
11 income low-income persons tend to have a more limited
12 ability to respond to pricing increases?

13

14 (BRIEF PAUSE)

15

16 MS. LOIS MORRISON: Similar to what Mr.
17 Wiens commented on earlier, if all things are held
18 equal, yes.

19 MR. BYRON WILLIAMS: Based on your
20 knowledge of the -- of the Manitoba marketplace, would
21 it be fair to say that, as compared to the general
22 population, low-income persons tend to occupy older
23 housing stock?

24

25 (BRIEF PAUSE)

1 MS. LOIS MORRISON: I would have to
2 check, based on our assessment through the 2009
3 residential energy use survey, but I do believe that we
4 did find that there was a -- there was a slightly
5 larger percentage of customers in older housing stock
6 that would meet the LICO-125 cutoff.

7 MR. BYRON WILLIAMS: And again based
8 upon your -- your knowledge of the Manitoba low --
9 marketplace, would it be fair to say that low-income
10 persons, as compared to the general population, would
11 also tend to be disproportionately represented in --
12 inferior or poorer quality housing stock?

13

14 (BRIEF PAUSE)

15

16 MS. LOIS MORRISON: I would have to
17 check. And I'm assuming you are referring to the
18 poorer quality of housing stock related to the
19 efficiency of the home in terms of the insulation
20 levels, and not to other qualifications that would make
21 a house poorer housing stock.

22 MR. BYRON WILLIAMS: And your answer
23 was better than my question. That -- that's exactly
24 what I'm referring...

25 MS. LOIS MORRISON: I would have to

1 check our survey data. When we look at -- when we
2 specifically looked at the low-income market, we looked
3 at the percentage of homes that would meet the LICO-
4 125, that reported that their homes required -- that
5 had fair or poor insulation levels. And that's how we
6 identified the target market for that customer group as
7 to being where the opportunities to improve, and -- and
8 those customers would most likely see the greatest
9 benefit from our interaction with them and bringing the
10 program to them.

11 MR. BYRON WILLIAMS: And just -- you've
12 referenced a couple of times the -- the 2009
13 residential survey. Recognizing that Manitoba Hydro
14 would certainly start out attempting to have a
15 representative sample of the marketplace, would there
16 be any, in terms of the survey data, any particular
17 populations that are under represented? I can think of
18 one (1).

19 MS. LOIS MORRISON: Mr. Williams is
20 referring to a conversation we had previously, where we
21 indicated that in the 2009 residential energy survey we
22 extended the survey distribution to First Nation
23 communities or reserves. And in terms of our response
24 rate in those communities I would have to double check,
25 but traditionally whenever we do surveys we have a

1 lower response rate in those communities.

2 MR. RAYMOND LAFOND: Whenever we're
3 talking of low-income homes, are we talking mostly
4 owned homes by the low-income person, or rented?

5 MR. BYRON WILLIAMS: Mr. Chair, or Ms.
6 -- Board member Lafond, we're -- we're going to come to
7 a table that discusses that, and -- and I'm -- I'll try
8 and -- rather than give you -- give evidence, I will
9 try and put those questions to Ms. Morrison in -- in
10 the form of questions and we'll -- we'll get the
11 evidence. And if that's satisfactory, we'll -- we'll
12 come there fairly -- fairly quickly.

13 MR. RAYMOND LAFOND: That's fine.

14

15 CONTINUED BY MR. BYRON WILLIAMS:

16 MR. BYRON WILLIAMS: And, Ms. Morrison,
17 just so I understand, to the extent that the low income
18 energy efficiency programming has been targeted, that
19 is -- is based upon ratepayers' self-identified
20 description of their -- their insulation? It -- it's
21 not based -- based upon home audits? I was -- you
22 spoke about...

23 MS. LOIS MORRISON: Yes, the survey
24 asks customers to describe their -- their insulation
25 levels in regards to general characteristics of fair,

1 poor -- sorry, poor, fair, average, and such.

2 MR. BYRON WILLIAMS: And, of course,
3 Hydro has no way of -- of knowing if -- if the -- the
4 resident describing those insulation conditions was up
5 checking the attic, or their -- their competence to
6 assess the -- the quality of their insulation?

7 MS. LOIS MORRISON: No, we don't
8 specifically go out and then verify people's assessment
9 of the survey against what we would deem within their
10 home.

11 MR. BYRON WILLIAMS: We'll move off
12 this line in -- in just a couple seconds. But in terms
13 of low-income persons, as compared to the general
14 population, would it be fair to say that they tend to
15 face more barriers in -- in terms of their
16 participation in energy efficiency programming?

17

18 (BRIEF PAUSE)

19

20 MS. LOIS MORRISON: Could you perhaps
21 provide an example of what you mean?

22 MR. BYRON WILLIAMS: Well, isn't the
23 very purpose -- isn't the very existence of a low
24 income energy efficiency program recognition that
25 traditional programs by Manitoba Hydro were more

1 difficult to excess -- to access for low-income
2 persons?

3 MS. LOIS MORRISON: As I mentioned in
4 my testimony yesterday, we recognize that one (1) of
5 the significant cat -- barriers to someone who is in a
6 low-income household to participate in the Energy
7 Efficiency Program is the fact that our existing
8 programs require you to come up with the dollars
9 upfront to pay for the insulation, or to pay for the
10 measure, and then we rebate you or credit your bill.

11 And we recognize that customers who are
12 in a low-income situation may be less able to come up
13 with that upfront capital. And, therefore, the low
14 income program was designed in such a way to help
15 customers participate and -- and remove that barrier.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: We're just going
20 to turn to page 22 and -- and -- of the CAC Exhibit 9.
21 And would -- Mr. Lafond, that may assist in -- in the
22 question you were posing to me.

23 Ms. Morrison, you'll agree with me that
24 -- that what we have presented here is a table titled,
25 "LICO-125 Households in Manitoba - Manitoba Hydro

1 Residential Energy Use Survey," agreed?

2 MS. LOIS MORRISON: Yes.

3 MR. BYRON WILLIAMS: And just in terms
4 of what LICO is, am -- am I correct in suggesting to
5 you that it is a comp -- a comparison of the -- of the
6 population -- let me back up.

7 Assuming, for example, that the average
8 family of a certain size and within a particular
9 community spent 43 percent on -- of their -- their
10 income on goods such as food, clothing, and shelter.
11 The LICO, what it essentially does, is identify those
12 who are -- who would require 20 percent more of their
13 income to -- to purchase a comparable basket of goods.

14 Is that your understanding?

15 MS. LOIS MORRISON: I'm not an expert
16 in how LICO has been determined. I do understand that
17 -- how we apply it is based upon the concept of the
18 number of pes -- persons per household versus the
19 income within certain sizes of communities designates
20 whether or not the customer or the household meets that
21 low-income cutoff, and therefore would be designated as
22 low income.

23 MR. BYRON WILLIAMS: So it's a
24 comparison of the -- the relative purchasing power of
25 persons, as compared to the average family of a

1 particular size in a particular community? You don't
2 want to go there, that's -- that's fine.

3 In terms of the -- the -- the population
4 of LICO-125 households or low-income households in
5 Manitoba, going to the bottom right-hand side, can we -
6 - we agree that Hydro's estimate of -- of the total
7 population interim is one hundred and five (105) --
8 roughly, one hundred and five thousand (105,000)
9 households?

10 MS. LOIS MORRISON: This would be the
11 estimate of our customer base, and would not include
12 customers who do not receive a Manitoba Hydro bill.

13 MR. BYRON WILLIAMS: Thank you for
14 that. And staying on the -- the bottom line, "total by
15 ownership," of the Manitoba Hy -- Hydro customer base,
16 those households which are at LICO-125 or -- or lower,
17 Hydro estimates that seventy-nine -- there are seventy-
18 nine thousand (79,000) who own their dwelling. Agreed?

19 MS. LOIS MORRISON: Yes.

20 MR. BYRON WILLIAMS: And in terms of
21 moving up the column of own -- or moving from the
22 bottom -- top down, in terms of those who, Hydro
23 estimates at about sixty-seven thousand (67,000), own
24 single detached with smaller amounts own -- owning
25 multiple attached or apartment suites. Agreed?

1 MS. LOIS MORRISON: Agreed.

2 MR. BYRON WILLIAMS: And in terms of
3 the Hydro customer base -- the low-income Hydro
4 customer base, in terms of re -- the population who
5 rents, you estimate the total is about twenty --
6 twenty-five (25) -- twenty-five (25) to twenty-six
7 thousand (26,000). Agreed?

8 MS. LOIS MORRISON: Agreed.

9 MR. BYRON WILLIAMS: And in terms of
10 renters, by far the largest percentage of that are
11 those who live in apartment suites?

12 MS. LOIS MORRISON: Agreed.

13 MR. BYRON WILLIAMS: Mr. Lafond, I hope
14 that -- that assists.

15 Ms. Morrison, if we could go back to
16 page 18. In terms of the -- and directing your
17 attention to the first paragraph of that response, in
18 terms of the population of -- the low-income population
19 of the Hydro ratepayers, that Manitoba Hydro sees the
20 greatest opportunities in -- in terms of programming
21 through LIEEP, that focus is really on those who own
22 their homes, agreed?

23 MS. LOIS MORRISON: Agreed.

24 MR. BYRON WILLIAMS: And essentially,
25 we're talking a population of seventy-four thousand

1 (74,000) households of which roughly 34 percent are
2 electrically heated?

3 MS. LOIS MORRISON: Agreed.

4 MR. BYRON WILLIAMS: And Ms. Morrison,
5 you can do the -- the math if you wish, but -- or you
6 could accept, subject to check, that if we took 34
7 percent of seventy-four thousand (74,000) households,
8 we'd get in the range of twenty-five thousand (25,000)
9 households, all electric households, who are the focus
10 of the Manitoba Hydro LIEEP all-electricity program?

11 MS. LOIS MORRISON: Correct.

12 MR. BYRON WILLIAMS: So, in terms of
13 LIEEP, Manitoba Hydro sees the greatest opportunity
14 with those all electric customers who own their homes.
15 Agreed?

16 MS. LOIS MORRISON: With the
17 qualification that -- if we go further into this
18 analysis, which I'm sure you're going to take us --
19 based on the level of insulation in their home, not all
20 low-income customers are living in homes that require
21 additional insulation.

22 MR. BYRON WILLIAMS: Fair enough. And
23 we will get into that in a variety of ways. But can we
24 also agree that the -- the low-income households in the
25 Hydro rate base who offer the least opportunities for -

1 - in Manitoba Hydro's eyes are tenants?

2 And -- and to put it more directly, in
3 terms of LIEEP programming, you see the greatest
4 opportunity in terms of homeowners and you see fewer
5 opportunities in terms of tenants.

6 MS. LOIS MORRISON: The primary reason
7 for that is -- to qualify it, there are fewer tenants
8 in single attached houses compared to where the
9 opportunities are in the -- the homeowner -- the houses
10 that are owned. There's also few -- so -- so in terms
11 of the -- just the size of the market there's fewer
12 opportunities, but then when you look at the tenants --
13 the -- the larger portion of the tenants being in
14 apartments, there there's fewer opportunities inside
15 the apartment, because it's primarily tied to plug
16 loads. Where the cust -- if the customer is not paying
17 for their heat on their bill, then you're really
18 looking -- but they are being individually -- they have
19 individual suite metres, then really you're -- you're
20 tied to what they're plugging in -- in the unit to
21 where those opportunities might be.

22 So there's -- there's -- in terms of the
23 -- the size of the savings, the size of the savings are
24 much greater in the ones that are -- the single-
25 attached, multi-attached homes that are owned.

1 MR. BYRON WILLIAMS: We have agreed
2 though that in terms of LIEEP programming, tenants are
3 -- are not the high priority.

4

5 (BRIEF PAUSE)

6

7 MS. LOIS MORRISON: I would disagree
8 with that. We have worked with Manitoba housing to
9 insulate, I think it's fourteen hundred (1,400)
10 homes...

11 MR. BYRON WILLIAMS: Ms. Morrison,
12 we'll come to those numbers, if that'll help.

13 MS. LOIS MORRISON: Yeah. So those --
14 those would represent our -- the tenant market. So
15 it's not that they aren't a priority for us; it's just
16 that in terms of how we reach them, we reach them in
17 different ways.

18 MR. BYRON WILLIAMS: Now, in -- in
19 terms of -- let's go back to that figure of roughly
20 twenty-five thousand (25,000) all-electric, low-income
21 households within the Hydro -- population of Hydro
22 ratepayers.

23 Would I be correct in suggesting to you
24 that that would not include a lot of homes on First
25 Nations, in that many homes on reserve are owned by the

1 Band as opposed to individuals?

2

3

(BRIEF PAUSE)

4

5

MS. LOIS MORRISON: We will have to
6 check how we qualified First Nation homes within the
7 survey itself.

8

MR. BYRON WILLIAMS: And -- and we'll
9 also get to -- in a couple moments, Ms. -- Ms.
10 Morrison, to Manitoba Hydro's estimates of First Nation
11 households, so I'll give you -- we'll have another
12 change to -- to chat about it.

13

14

(BRIEF PAUSE)

15

16

MR. BYRON WILLIAMS: Ms. Morrison,
17 directing your attention to page 19 of this same --
18 same CAC Exhibit 9, am I correct in suggesting to you
19 that between December 2007 and no -- and -- and the
20 writing of this Information Response in September of
21 2012, that the -- Manitoba Hydro insulated one thousand
22 one hundred and forty-five (1,145) electric --
23 electrically heated home?

24

MS. LOIS MORRISON: That is correct.

25

MR. BYRON WILLIAMS: So if we look at

1 the first four (4) or five (5) years of the program, it
2 would be fair to say that you insulated, on average,
3 less than three hundred (300) homes a year?

4 MS. LOIS MORRISON: Electrically heated
5 homes.

6 MR. BYRON WILLIAMS: And if we look to
7 the breakdown of those eleven hundred and forty-five
8 (1,145) electrically heated homes, about a hundred and
9 thirty-one (131) were customer owned, five hundred and
10 twenty-three (523) for rent -- were rental homes, and
11 about four hundred and ninety-one (491) were First
12 Nation homes, agreed?

13 MS. LOIS MORRISON: That is correct.

14 MR. BYRON WILLIAMS: So the -- the
15 rental homes would be primarily those Manitoba housing
16 populations of which you spoke?

17 MS. LOIS MORRISON: Yes. And some
18 social non-profit housing init -- groups.

19 MR. BYRON WILLIAMS: And in terms of
20 the population of owned all-elect -- electric home,
21 you've reached one (1) -- at the time of the writing of
22 this Information Response, one hundred and thirty-one
23 (131) out of a population of roughly twenty-five
24 thousand (25,000)?

25 MS. LOIS MORRISON: Out of a population

1 of twenty-five thousand (25,000), yes; but out of a
2 target market that -- as to what we based on our -- our
3 projections being about eight (8) -- seventeen (17) to
4 eighteen hundred (1,800) houses. As I mentioned, our
5 focus was on -- was attempting to reach those customers
6 who had fair and poor insulation levels. And so to say
7 that the program has only reached a hundred and --
8 sorry, a hundred and thirty-one (131) of twenty-five
9 thousand (25,000) homes isn't really a -- appropriate
10 assessment of the performance of that program.

11 MR. BYRON WILLIAMS: We'll come --
12 we'll come back to that point. So you would prefer
13 that we assess you in terms of the seven (7) -- what --
14 what you -- the seventeen hundred and fifty (1,750)
15 homes that you've -- you've targeted?

16 MS. LOIS MORRISON: Yes, in terms of
17 what we've identified as being the potential within
18 that marketplace.

19 MR. BYRON WILLIAMS: And just for a
20 moment, assuming that that's the right comparison,
21 you've reached one hundred and thirty-one (131) out of
22 one thousand seven hundred and fifty (1,750). Agreed?

23 MS. LOIS MORRISON: Agreed, subject to
24 check, that I don't have my First Nation community
25 housing in the number.

1 MR. BYRON WILLIAMS: That was going to
2 be my -- my next question, Ms. Morrison, because there
3 is reference to a low income energy efficiency First
4 Nation program, correct?

5 MS. LOIS MORRISON: Yes.

6 MR. BYRON WILLIAMS: And my question
7 was: Are the one thousand one hundred and forty-five
8 (1,145) -- or excuse me. With -- within the -- the
9 population here you reference four hundred and ninety-
10 one (491) First Nation homes.

11 Do you see that?

12 MS. LOIS MORRISON: Yes.

13 MR. BYRON WILLIAMS: Is that the First
14 Nation LIEEP program? Are those members?

15 MS. LOIS MORRISON: Yes, that is on
16 reserve housing.

17 MR. BYRON WILLIAMS: And so, if we see
18 reference elsewhere in Hydro's documentation to
19 insulation related to the First Nation LIEEP program,
20 or Power Smart Program, that's -- those are the same
21 house as -- as the four hundred and ninety-one (491)
22 here?

23 MS. LOIS MORRISON: Yes.

24

25 (BRIEF PAUSE)

1 MR. BYRON WILLIAMS: We've discussed
2 this previously, but you've agreed that in your 2009
3 Power Smart plan you're estimating that you would be
4 reaching eight hundred and eight -- eighty-three (883)
5 homes per year through LIEEP?

6 MS. LOIS MORRISON: That is correct.

7 MR. BYRON WILLIAMS: And now you're
8 targeting five hundred and twenty-six (526) homes per
9 year through LIEEP?

10 MS. LOIS MORRISON: That is correct.

11 MR. BYRON WILLIAMS: Roughly, that's a
12 difference of three hundred and fifty-seven (357) homes
13 per year, subject to check?

14 MS. LOIS MORRISON: Yes. And the --
15 the primary reason for that adjustment is because when
16 we first put together the program design, we were, I
17 guess you could say, overly optimistic as to how well
18 we'd be able to move into that marketplace and get
19 customer participation. Our revised targets are based
20 on what we're actually realizing through our
21 coordinated efforts working with a number of community
22 groups and social agencies trying to identify customers
23 to participate.

24 MR. BYRON WILLIAMS: So you've had a --
25 a roughly 40 percent drop in your expectations, in

1 terms of annual -- annual homes to be insulated through
2 LIEEP?

3 MS. LOIS MORRISON: Based on actual
4 experience, yes.

5 MR. BYRON WILLIAMS: Drawing your
6 attention to page 20 of CAC Exhibit 9, you'll -- you'll
7 agree with me, Ms. Morrison, that we have a table
8 portraying forecasted spending on electric LIEEP for
9 the years 2011/'12 through 2013/'14, agreed?

10 MS. LOIS MORRISON: Yes.

11 MR. BYRON WILLIAMS: And on the first
12 line we see electric participation of -- for the
13 '11/'12 year of five hundred and thirty -- thirty-three
14 (533), correct?

15 MS. LOIS MORRISON: Yes.

16 MR. BYRON WILLIAMS: And that's the
17 number of homes that you're planning to insulate in
18 that particular year?

19 MS. LOIS MORRISON: Yes.

20 MR. BYRON WILLIAMS: And if you don't
21 have it available, you could provide it to me by way of
22 undertaking. But in -- in terms of those homes for the
23 2011/'12 year, do you have a breakdown in terms of
24 owned all-electric homes, versus First Nation homes,
25 versus rental homes?

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: And -- and, Ms.
4 Morrison, if you're back there, I'd be interested in
5 your targets for the next two (2) years with that
6 similar breakdown.

7 MS. LOIS MORRISON: For our individual
8 approach, which would be the homeowners, we're
9 targeting a hundred and twenty (120) units per year.
10 Under our community approach, working with Manitoba
11 Housing and non-profits, we are projecting two hundred
12 and sixty-three (263) units for both the 2011, 2012,
13 and 2012/'13 years, increasing to two hundred and fifty
14 (250) in the year 2013 and '14. And for First Nation
15 communities, we are targeting a hundred and fifty (150)
16 homes for 2011/'12, a hundred and fifty (150) homes for
17 2012/'13, and a hundred and forty-three (143) homes in
18 2013/'14.

19

20 (BRIEF PAUSE)

21

22 MR. BYRON WILLIAMS: I -- I thank you
23 for that, Ms. -- Ms. Morrison. So in terms of the --
24 this particular programming, the -- the largest target
25 is that -- that rental market -- market, whether with

1 non-profits or Manitoba Housing, over the next three
2 (3) years?

3 MS. LOIS MORRISON: They would
4 represent a larger proportion of the -- of the
5 projected participation.

6 MR. BYRON WILLIAMS: And the -- the
7 second-highest percentage would -- in -- in terms of
8 numbers, would be the First Nation homes, agreed?

9 MS. LOIS MORRISON: Yes.

10 MR. BYRON WILLIAMS: And did you reach
11 your 2011/'12 target?

12

13 (BRIEF PAUSE)

14

15 MS. LOIS MORRISON: We sometimes find
16 this quite challenging, because it's a program that's
17 offered to both -- to all customers that are low income
18 regardless of their fuel source. So we can say that
19 for the 2011/'12 year we met our overall target. We
20 need to confirm if we met it for electric.

21 MR. BYRON WILLIAMS: Just flipping back
22 to page 19 for a second, on the third line you see a
23 reference to energy efficiency measures being installed
24 in twelve hundred and twenty-one (1,221) elec --
25 electrically heated homes.

1 Do you see that?

2 MS. LOIS MORRISON: Yes.

3 MR. BYRON WILLIAMS: Just for my
4 client's understanding, is that twelve hundred and
5 twenty-one (1,221) electrically heated homes over and
6 above the eleven hundred and forty-five (1,145)
7 electrically heated homes, or are they -- or is the
8 eleven hundred and forty-five (1,145) captured within
9 the twelve twenty-one (1,221)?

10 MS. LOIS MORRISON: No, it's in
11 addition to.

12

13 (BRIEF PAUSE)

14

15 MS. LOIS MORRISON: Sorry, I need to
16 correct the record; I've been told that's not true.
17 The twelve twenty-one (1,221) electrically heated homes
18 would include the eleven forty-five (1,145), but it
19 would include additional homes that didn't have
20 insulation done but did receive the basic package of
21 energy efficiency improvements.

22 MR. BYRON WILLIAMS: So, that's an
23 extra seventy-six (76) homes or so?

24 MS. LOIS MORRISON: Yes.

25

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: Ms. Morrison,
4 you've -- you've referenced some challenges in -- in
5 meeting this particular population, agreed?

6 MS. LOIS MORRISON: Yes.

7 MR. BYRON WILLIAMS: And you're
8 familiar with the concept of independent program
9 process evaluation?

10 MS. LOIS MORRISON: I take it by that
11 you mean an external party providing the evaluation?

12 MR. BYRON WILLIAMS: Yes, but when I
13 use the word "process evaluation", I'm -- I'm --

14 MS. LOIS MORRISON: Yes.

15 MR. BYRON WILLIAMS: -- speaking of an
16 evaluation not of your numbers, but of how you run the
17 program, its strengths, its weaknesses.

18 You're familiar with that?

19 MS. LOIS MORRISON: Yes, I'm familiar
20 with process evaluation.

21 MR. BYRON WILLIAMS: And -- and has an
22 independent process evaluation of the LIEEP program
23 been undertaken?

24 MS. LOIS MORRISON: We have not
25 formally requested an external party to -- or an

1 internal party to do a formal process evaluation. We
2 regularly look at how our programs are running and, if
3 we're not meeting target, ways to adjust it and to
4 better reach those targets. We -- it's part of our
5 internal, everyday operations as to, you know, how do
6 we better reach our customers and how do we make sure
7 we are achieving the targets as outset.

8 We did have -- when Mr. Dunsky came to
9 Manitoba Hydro and did the review of Manitoba Hydro's
10 DSM programs, the low-income program is one of the ones
11 he did look at and make suggestions related to.

12 The other -- the other thing I would
13 refer to is that through a number of the consultations
14 that we've done with external parties during the
15 development and the ongoing running of this program,
16 we've received quite a bit of feedback from outside
17 parties as to how to better reach these tes -- targeted
18 customer groups.

19 MR. BYRON WILLIAMS: Understood. And -
20 - and I'm -- I probably just lost your answer in the
21 more complete one that you -- you chose to give me.

22 But just so I'm clear, there's been no
23 independent process evaluation, in terms of the LIEEP
24 program and looking at its strengths and -- and
25 weaknesses?

1 MS. LOIS MORRISON: Not in terms to
2 what you would probably be referring to as a formal
3 process evaluation, with a report saying, This is what
4 we did.

5 MR. BYRON WILLIAMS: And we're on
6 common ground; you know I'm -- I'm speaking of
7 independent third-party process evaluation, agreed?

8 MS. LOIS MORRISON: Agreed.

9 MR. BYRON WILLIAMS: Now, it seems so
10 long ago, but you -- you had a discussion both with the
11 -- the Chair and Board member Lafond yesterday about
12 doorknocking.

13 And -- and do you recall a discussion
14 about attempting to go door to door with regard to the
15 low-income energy efficiency programming or doing some
16 efforts at doorknocking?

17 MS. LOIS MORRISON: Yes, we have
18 undertaken some -- some initiatives where we are going
19 door to door.

20 MR. BYRON WILLIAMS: And are any of
21 those initiatives focussed on all-electric households,
22 whether in rural Manitoba or upon First Nations?

23 MS. LOIS MORRISON: No. Sorry, I need
24 to qualify. The one (1) for First Nations, we have a
25 completely different approaching, working with the

1 First Nation communities. We work with the Mani --
2 with the -- with the band housing representative who
3 identifies houses for us to work with. And so in that
4 case we aren't going door to door, but we are working
5 directly with the individual bands and their housing
6 coordinators to identify which houses really need to
7 have the -- the insulation upgraded and the additional
8 energy efficiency measures installed.

9 So they will identify for us, in ten
10 (10) to fifteen (15) increment, houses -- they'll --
11 they'll identify ten (10) to fifteen (15) houses.
12 We'll send in our energy sur -- our First Nation energy
13 advisor. He'll go and he'll look at the -- the houses,
14 see if they qualify, meaning the insulation level needs
15 to be brought to -- you know, could be brought be
16 brought up to R50, has less than -- R30 existing now in
17 the attic. Those types of qualifiers.

18 And then we will work with the -- with
19 the First Nation to ensure that the materials are in
20 place, that they have labour in place to do so, quali -
21 - trained labour to do -- to do the upgrades. So in
22 terms of the doorknocking approach, in the First Nation
23 community I guess you could say we're -- we're one (1)
24 better. We're working directly with -- with the people
25 responsible for the housing to make sure those houses

1 that need to have the in -- the upgrades done, done.

2 MR. BYRON WILLIAMS: Okay. And we'll
3 come to those numbers in -- in just a second. In terms
4 of -- so I have your answer on First Nations and -- and
5 just so I'm clear, in terms of rural all-electric
6 communities, that would not be where the -- the
7 doorknocking for LIEEP, for example, is -- is taking
8 place?

9 MS. LOIS MORRISON: Not to date. We
10 are working with neighbourhood renewal corporations and
11 such to try and increase our participation in the
12 program. And generally, it's through those
13 partnerships that we're identifying people to go door
14 to door. Those partnerships to date have been in
15 natural-gas-available areas, such as Winnipeg and
16 Brandon.

17 MR. BYRON WILLIAMS: And in your
18 discussion with the Chair and Board member Lafond
19 yesterday, I believe you also referred to door-to-door
20 efforts relating to the Water & Energy Savers packages.

21

22 Do you recall that?

23 MS. LOIS MORRISON: Yes.

24 MR. BYRON WILLIAMS: And am I correct
25 in suggesting to you that your evidence was that some

1 of these efforts were in rural communities?

2 MS. LOIS MORRISON: To date, they have
3 been in rural communities, more so close to the capital
4 region. So they are in the areas -- not Northern
5 Manitoba, but in areas around the City of Winnipeg. So
6 basically, if you were to -- to look at it, they're --
7 they're expanding outwards from Winnipeg --

8 MR. BYRON WILLIAMS: And I --

9 MS. LOIS MORRISON: -- but with a focus
10 on areas that have a higher proportion of electric
11 water heating.

12 MR. BYRON WILLIAMS: And I believe in
13 the -- that conversation you also referenced metrics
14 associated with your evaluation of -- of the success of
15 the doorknocking campaigns? Not ringing a bell?

16 MS. LOIS MORRISON: Yes. Which ones
17 would you be referring to in specific?

18 MR. BYRON WILLIAMS: Well, certainly my
19 client would be interested, by way of undertaking, if -
20 - if you could identify the -- the community visited --
21 the rural community visited, the number of doors
22 visited, and the results of those efforts?

23 MS. LOIS MORRISON: We -- I don't know
24 how quickly we'd be able to get the specifics for each
25 community. I can tell you that overall we're achieving

1 about 19 percent of doors knocked to installations.

2 MR. BYRON WILLIAMS: And that -- that's
3 fine. And that's kind of the aggregation of the rural
4 and urban efforts?

5 MS. LOIS MORRISON: Yes.

6 MR. BYRON WILLIAMS: And that 19
7 percent success rate, is that limited to Water & Energy
8 Savings packages, or does it also extend to the -- the
9 LIEEP program?

10 MS. LOIS MORRISON: The 19 percent
11 represents only the Water & Energy Saver Program. It
12 does not represent the -- the results of the -- the
13 door-to-door of the low-income efforts.

14 MR. BYRON WILLIAMS: And what would
15 those results be, in terms of the door-to-door and the
16 low-income efforts?

17 MS. LOIS MORRISON: I can speak to the
18 ones that have most recently been undertaken, where we
19 haven't seen a lot of success, in terms of the door to
20 door. So we've recently, with the launch of the
21 neighbourhood PAYS approach, we've approached -- I
22 think we've approached about seventy (70) houses. And
23 we received -- as a result of that uptake, we've had
24 interest expressed by about five (5) to six (6)
25 households.

1 MR. BYRON WILLIAMS: Now, directing
2 your attention to page 21 of CAC-9. In this response,
3 Ms. Morrison, you were asked to discuss the target --
4 targeted market pen -- penetration for various programs
5 reviewed in the Power Smart Program, agreed?

6 MS. LOIS MORRISON: Agreed.

7 MR. BYRON WILLIAMS: And towards the
8 bottom of this page, we can -- we can see reference to
9 the -- the LIEEP program. And am I correct in
10 suggesting to you that Hydro anticipates market
11 penetration among electrically heated homes to be
12 approximately 10 percent by the end of March 2017?

13 MS. LOIS MORRISON: That is correct.

14 MR. BYRON WILLIAMS: And in terms of
15 that target total population, you're looking at
16 achieving thirty-three hundred (3,300) homes insulated
17 by March 2017?

18 MS. LOIS MORRISON: That is correct.

19 MR. BYRON WILLIAMS: And you est -- you
20 estimate the potential market size to be thirty-one
21 thousand, five hundred (31,500) lower-income dwellings,
22 correct?

23 MS. LOIS MORRISON: Yes, that would
24 represent, as we mentioned before, the -- the
25 percentage of -- and I see now that it -- the previous

1 number did not include my First Nation customers. It
2 would represent the -- the overall number of
3 electrically heated customers in -- that meet the LICO-
4 125 that would be in Manitoba. But it would not
5 represent the further definition of our target, where
6 we look at the 7 percent being at a certain insulation
7 level.

8 MR. BYRON WILLIAMS: And so if we look
9 at that thirty-one thousand, five hundred (31,500)
10 population in -- in the lower-income range for those
11 households and we assume that -- or -- and -- and I
12 remind you that we calculated the non-First Nation
13 numbers to be in the range of twenty-five thousand
14 (25,000), agreed?

15 MS. LOIS MORRISON: Agreed.

16 MR. BYRON WILLIAMS: So it's Hydro's
17 estimate that there are six thousand, five hundred
18 (6,500) First Nation households at the LICO times one
19 twenty-five (125)?

20

21 (BRIEF PAUSE)

22

23 MS. LOIS MORRISON: So the math isn't
24 simple. So the thirty-one (31) -- the thirty-one
25 thousand, five hundred (31,500) homes represents the

1 twenty-five thousand (25,000) homes roughly that we
2 talked about earlier that are semi -- single and semi-
3 detached homes. It also represents a projection of
4 what we can work with, in terms of single and semi-
5 detached rented homes.

6 And because we were unsure of the exact
7 number of First Nations homes who would qual -- like,
8 be qualifying for this program, we put in our target,
9 and our target was bas -- was three thousand (3,000)
10 homes in the First Nation communities, to come up with
11 the thirty-one thousand, five hundred (31,500).

12

13 (BRIEF PAUSE)

14

15 MS. LOIS MORRISON: And the three
16 thousand (3,000) homes that we are identifying in here
17 was actually 20 percent of the homes in the First
18 Nation communities. So we were -- we were targeting 20
19 perc -- our target market was assumed to be 20 percent
20 of First Nation homes requiring insulation. So, I
21 apologize, there is a bit of a mixture of what's been
22 included in this number, and perhaps we should
23 undertake to correct this for you.

24 MR. BYRON WILLIAMS: Yes, that would be
25 -- that would be helpful. And let -- but let's play

1 with this number --

2 MS. LOIS MORRISON: Okay.

3 MR. BYRON WILLIAMS: -- a little bit,
4 first of all. And then we'll -- we'll come back to the
5 -- the First -- First Nations.

6 But just to make sure that I understand,
7 of the population of thirty-one thousand (31,000),
8 twenty-five thousand (25,000) is related to Hydro
9 ratepayers who own all-electric homes?

10 MS. LOIS MORRISON: Correct.

11 MR. BYRON WILLIAMS: Another three
12 thousand (3,000) is related to rental properties. And
13 is that the target for rental properties or is that
14 the...

15 MS. LOIS MORRISON: That would be all-
16 electric single detached/semi-detached rental homes.

17 MR. BYRON WILLIAMS: So that's Hydro's
18 estimate of that entire population as compared to the
19 population which it estimates requires insulation
20 upgrades?

21 MS. LOIS MORRISON: Yes, that would be
22 the popul -- that would be the population. Then we
23 would say, if we were to look at what we think would be
24 -- we would then adjust that to reflect what we think
25 the insulation values would be.

1 MR. BYRON WILLIAMS: And then when we
2 come to the First Nation numbers, the figure of three
3 thousand (3,000) is not -- it is the actual target of
4 three thousand (3,000) households?

5 MS. LOIS MORRISON: Yes.

6 MR. BYRON WILLIAMS: Now, that's based
7 upon an estimate that there are only fifteen thousand
8 (15,000) -- let me back up.

9 That's based upon an estimate that there
10 are fifteen thousand (15,000) LICO households on -- on
11 reserve?

12 MS. LOIS MORRISON: Yes.

13 MR. BYRON WILLIAMS: And can you
14 provide your source for that estimate?

15

16 (BRIEF PAUSE)

17

18 MS. LOIS MORRISON: So the fourteen
19 thousand (14,000) units comes from our -- our customer
20 information billing system, which identifies housing on
21 reserve. And we are assuming maybe -- so we are maybe
22 over-assuming that all houses meet the LICO-125 in
23 those communities. And so, as I mentioned, the number
24 comes from our banner billing system, identifying the
25 number of homes on reserves, along with data from AANDC

1 provided to qualify that.

2 MR. BYRON WILLIAMS: So just -- and you
3 can -- we'll -- we'll get the undertaking from -- for -
4 - in a -- in a second, or maybe we don't need to.

5 But roughly, the -- the overall
6 population, if you were to do an apples to apples, you
7 would be looking at twenty five thousand (25,000), in
8 terms of single homeowners; three thousand (3,000), in
9 terms of the rental market; and then roughly another
10 fourteen thousand (14,000), in terms of First Nations
11 estimated to -- to be at LICO?

12 MS. LOIS MORRISON: Yes, LICO-125.

13 MR. BYRON WILLIAMS: And then with the
14 population of the all-electric homeowners of twenty-
15 five thousand (25,000) and the renters of three
16 thousand (3,000), whether my clients agree with the
17 figure or not, you would multiply that by point seven
18 (.7) -- point zero-seven (.07) and get around two
19 thousand (2,000) homes -- nin -- one thousand, nine
20 hundred and sixty (1,960)?

21 MS. LOIS MORRISON: Yes.

22 MR. BYRON WILLIAMS: And to that, you
23 would add three thousand (3,000), your -- which is your
24 estimate of houses on reserve requiring additional
25 insulation?

1 MS. LOIS MORRISON: Yes. The three
2 thousand (3,000) units in the -- on reserve are based
3 on an estimate of houses that were built prior to 1980.

4 MR. BYRON WILLIAMS: And we'll see how
5 those figures compare with what's going on in the
6 diesel communities in -- in just a second. But in
7 essence, you're targeting about five thousand (5,000)
8 households?

9 MS. LOIS MORRISON: Yes.

10 MR. BYRON WILLIAMS: And by 2017, after
11 nine (9) or ten (10) years of the program, you're
12 hoping to have reached thirty-three hundred (3,300) of
13 them?

14 MS. LOIS MORRISON: That is correct.

15 MR. BYRON WILLIAMS: Ms. Morrison, I'm
16 not going to ask for an undertaking to -- well, to redo
17 those numbers unless you -- you double-check them and
18 you -- and you think my math on the fly is egregiously
19 off.

20 MS. LOIS MORRISON: That sounds fine.

21

22 (BRIEF PAUSE)

23

24 MR. BYRON WILLIAMS: In developing its
25 estimate of households on First Nations requiring

1 insulation upgrades of roughly twent -- 20 percent, or
2 three thousand (3,000) households, did Manitoba Hydro
3 consult with or have reference to the housing
4 conditions assessment of Aboriginal Affairs and
5 Northern Development Canada?

6 MS. LOIS MORRISON: Not that we're
7 aware of.

8 MR. BYRON WILLIAMS: So you didn't
9 double-check your estimate against their assessment of
10 homes where major renovations were required, minor
11 renovations were required, replacements were required?

12

13 (BRIEF PAUSE)

14

15 MS. LOIS MORRISON: Mr. Williams, no,
16 we did not use that document. However, as I
17 understand, that document is related to renovations in
18 general and not simply to the condition of the energy -
19 - say, the -- the thermal barrier of the house or the
20 level of insulation that might be required.

21 An example might be where a house now
22 may have been built in or constructed in 1990 and have
23 what we would deem to be reasonable insulation levels,
24 but may require repair to the -- to -- to an exterior
25 door or such.

1 MR. BYRON WILLIAMS: Okay. Fair
2 enough. So you're working off an estimate of -- of 20
3 percent. Can we turn to page 26 of CAC Exhibit 9?

4 And, Ms. Morrison, you'll agree with me
5 that this is a response to Information Request
6 CAC/Hydro Diesel 1-17A?

7

8 (BRIEF PAUSE)

9

10 MS. LOIS MORRISON: I recognize that it
11 is one (1), yes.

12 MR. BYRON WILLIAMS: And for those like
13 Mr. Rainkie, who have memorized the file, that -- we
14 can find that in Appendices 22. I'm not asking you to
15 confirm that.

16 MS. LOIS MORRISON: I appreciate that.

17 MR. BYRON WILLIAMS: In terms of
18 Manitoba Hydro's target market in the diesel
19 communities -- sorry, let's go back to page 26, and
20 you'll see a table titled, on the bottom half of that
21 page, "Diesel Target Market."

22 Do you have that?

23 MS. LOIS MORRISON: Yes.

24 MR. BYRON WILLIAMS: So you see that --
25 the target market, in -- in terms of the total number

1 of homes within those communities, is four hundred and
2 seventy (470), agreed?

3 MS. LOIS MORRISON: Agreed.

4 MR. BYRON WILLIAMS: And Hydro's
5 original estimate of homes requiring insulation was one
6 hundred and ninety-two (192)?

7 MS. LOIS MORRISON: By this IR, yes.

8

9 (BRIEF PAUSE)

10

11 MR. BYRON WILLIAMS: Roughly 40
12 percent?

13 MS. LOIS MORRISON: Yes.

14 MR. BYRON WILLIAMS: And can you advise
15 me how that original estimate was developed? Was it
16 again through that contact with the -- the band
17 officials?

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: So when we're
22 working with a First Nation community, we will go in
23 with an estimate of what we think, ballpark, what the
24 housing stock will require. And then once our First
25 Nation rep -- advisor works with the band housing

1 coordinator, we may identify and adjust those targets.

2 So in this case here, because of the
3 unique requirements of the diesel communities, we spent
4 quite a bit more time in those communities, identifying
5 what opportunities there might be. And so our numbers
6 have been adjusted to reflect that. And that, I guess,
7 would represent more of that door-to-door assessment.

8 MR. BYRON WILLIAMS: Would that
9 original estimate have been, going in, 20 percent?

10 MS. LOIS MORRISON: I don't know, to be
11 honest, Mr. Williams. We would have -- we might have
12 used twenty (20); but given that this pre -- was
13 probably prepared quite early on in the program, we
14 might not have had a specific number identified.

15 MR. BYRON WILLIAMS: Fair enough. And
16 -- and what you're telling me is that, given the
17 situation of the diesel communities, there was a
18 particularly intense effort, more akin to the door-to-
19 door discussion that we had -- in terms of develop --
20 identifying the houses in need?

21 MS. LOIS MORRISON: But we would also
22 be doing that with all the First Nation communities as
23 we go forward. We would be adjusting our targets as we
24 get better information from the housing coordinator.

25 THE CHAIRPERSON: Ms. Morrison,

1 "eligible", in this context means what?

2

3 CONTINUED BY MR. BYRON WILLIAMS:

4 MR. BYRON WILLIAMS: Mr. Chair, you
5 beat me to the punch. That was my next question.

6 MS. LOIS MORRISON: I just wanted to --
7 to confirm, it's based on the insulation requirement
8 that the -- that there's basically in -- there's an
9 opportunity to insulate the home in those communities,
10 meaning that there's less than R30 in the attic. That
11 house then becomes qualified for the First Nation
12 program.

13 MR. BYRON WILLIAMS: So the -- just to
14 expand on the Chair's question, the -- the two (2)
15 qualifications would be LICO-125 plus the assessment of
16 insulation?

17 MS. LOIS MORRISON: I believe I -- we --
18 - we assume that all the housing meets the LICO-125.

19 MR. BYRON WILLIAMS: And in -- and
20 these communities, Hydro is in -- I don't mean this in
21 a pejorative way -- indifferent to who pays the bill,
22 whether it's the band or the individual?

23 And just to be more precise, what I'm
24 trying to get at, Ms. Morrison, is to be eligible in --
25 in the diesel communities, did one have to be

1 personally paying one's bill, or -- or did it -- it
2 didn't matter?

3 MS. LOIS MORRISON: It's a little more
4 difficult to discern that in the First Nation
5 communities because of the way income assistance is
6 applied to the bill itself. If there's one (1) person
7 working in the household, then income assistance only
8 covers a portion of the bill. So, really, for us to
9 implement a program that took that into account would
10 be administratively burdensome.

11 MR. BYRON WILLIAMS: And I wasn't
12 meaning to be critical. I was just trying to
13 understand how the program works. If -- if we go to
14 page 24, you'll agree with me that we see a part of a
15 response of Manitoba Hydro to PUB First Round
16 Information Request 1-150(a)?

17 MS. LOIS MORRISON: Yes.

18 MR. BYRON WILLIAMS: And if -- if we
19 look at this update to the First Nations Power Smart
20 Program for the diesel communities, you'll agree with
21 me that, to date -- or at least at the time of the
22 writing of this response, one hundred and sixteen (116)
23 -- one-one-six (116) -- for the record, homes had been
24 completed, with Hydro estimating that a further eighty-
25 five (85) homes might be eligible for upgrades?

1 MS. LOIS MORRISON: Yes.

2 MR. BYRON WILLIAMS: And I'm not sure
3 how good my math has been today, but it's been not bad.
4 So if we -- if we add the one sixteen (116) and the
5 eighty-five (85), we get about two hundred and one
6 (201), or a bit more than the previous response?

7 MS. LOIS MORRISON: That is correct.

8

9 (BRIEF PAUSE)

10

11 MR. BYRON WILLIAMS: Going back to the
12 First Nations Power Smart Program, leaving the diesel
13 communities and -- and moving to the other communities
14 would it be fair to say that there is a significant
15 degree of uncertainty associated with the estimate that
16 only one (1) in five (5) homes on reserve would require
17 these upgrades?

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: Mr. Williams, in
22 terms of the 20 percent target, we are not at this
23 point feeling uncomfortable with it, given that the
24 cutoff is really houses that are built prior to 1980.
25 And if you're looking across the province, we've seen

1 quite a bit of construction in a number of the new --
2 in a number of the First Nation communities, and we're
3 very happy that a lot of the homes that have been built
4 in -- the newer homes that have been built, have been
5 built to Power Smart standards, or have been built to
6 that higher standard of home.

7 So you're right, the 20 percent might
8 change. Will it change from -- to see what we saw in
9 the diesel communities as 40 percent? I would -- I
10 would not see that, given that what we've seen in a
11 number of the communities to date,

12 You have to recognize that the diesel
13 communities have a unique circumstance, in that getting
14 material up there and constructing homes is a little
15 more difficult than, say, some of the communities we
16 would have in the southern part of the province who
17 have easier access to materials. And so they are -- I
18 -- I -- given what we have been seeing to date in some
19 of the other communities, I'm not about to say that
20 it's a -- a double of the target, but at this point in
21 time we're comfortable with the target generally across
22 the province being 20 percent. But we will adjust it
23 as we get better experience.

24 And in -- in our case, the target itself
25 is less of the -- is less driving our activity, as the

1 speed at which we work with the communities. As the
2 communities come on board and as the communities work
3 with us to -- to bring in the measures, that's as fast
4 as we can get these installations in place.

5 MR. BYRON WILLIAMS: Now, I'll ask you
6 to turn to page 27 of CAC Exhibit 9. And you'll --
7 you'll see on this Information Response, I'll suggest
8 to you, Ms. Morrison, a discussion of the efforts being
9 undertaken in terms of delivering LIEEP on First Nation
10 communities. Agreed?

11 MS. LOIS MORRISON: Agreed.

12

13 (BRIEF PAUSE)

14

15 MR. BYRON WILLIAMS: And -- and just
16 when we -- we -- the table halfway down the page, the
17 first table, is an assessment of the completed homes
18 that have been insulated and otherwise power-smarted,
19 as of August 24th, 2012. Agreed?

20 MS. LOIS MORRISON: Agreed.

21 MR. BYRON WILLIAMS: And -- and that's
22 five hundred and ninety-seven (597), correct?

23 MS. LOIS MORRISON: Correct.

24 MR. BYRON WILLIAMS: And then the --
25 the second table is portrayed as the target number of

1 completed homes in each fiscal year from 2012/'13 to
2 2016/'17, correct?

3 MS. LOIS MORRISON: Yes.

4 MR. BYRON WILLIAMS: Now, just if I was
5 trying to estimate the -- the number of these homes
6 that Manitoba Hydro was targeting upon having insulated
7 by 2016/'17 -- I'll tell you what I did, Ms. Morrison,
8 and you can tell me if you disagree with me. I took
9 the actuals for the -- the first three (3) fiscal years
10 of '09/'10 through '11/'12. I didn't take the actuals
11 for 2012/'13, but instead used your higher estimate for
12 2012/'13 and -- and for the years subsequent to
13 2016/'17, and came up with a total of one thousand
14 three hundred and forty-eight (1,348).

15 And I was wondering if you'd accept
16 that, subject to check?

17 MS. LOIS MORRISON: Just so I
18 understand what you've done; you've taken the twenty-
19 nine (29), the one thirty-three (133), the two forty-
20 four (244), plus our target for 2012/'13, and then
21 added to it the periods of '13/'14, which is the two-o-
22 seven (207), one eighty-seven (187), one sixty-eight
23 (168), one fifty-one (151)?

24 MR. BYRON WILLIAMS: All, with the
25 exception that for 2014/'15, I -- I did one eighty-six

1 (186) instead of one eighty-seven (187).

2 MS. LOIS MORRISON: 2014 --

3 MR. BYRON WILLIAMS: You just misspoke,
4 Ms. --

5 MS. LOIS MORRISON: Oh, sorry. Subject
6 to check on the math, I'll accept your number.

7 MR. BYRON WILLIAMS: And so that would
8 be roughly 45 percent of the three thousand (3,000) --
9 three thousand (3,000) home currently targeted by
10 Manitoba Hydro? Subject to check.

11 MS. LOIS MORRISON: Subject to check.

12 MR. BYRON WILLIAMS: Now, based on --
13 on one (1) of your prior responses, Ms. Morrison, I --
14 I was just trying to reconcile the -- the two (2)
15 responses. I believe earlier you had indicated to me
16 that for the First Nation targets for the LIEEP Power
17 Smart, you were looking at one fifty (150) for '11/'12;
18 one fifty (150) for '12/'13; and one forty-three (143)
19 for '13/'14.

20 Did I have your earlier results correct?

21

22 (BRIEF PAUSE)

23

24 MS. LOIS MORRISON: Well, I'm happy to
25 report that these are our updated numbers. The two

1 thou -- the one fifty (150) that we -- that I
2 identified earlier, reflected in the previous testimony
3 is what is ref -- what is reflected in our 2011 plan,
4 and the numbers presented here are what will be filed
5 or what we -- we are hoping to file in what will be the
6 updated plan not yet filed.

7 MR. BYRON WILLIAMS: So if -- if we're
8 -- in terms of the actuals -- are targeted for the
9 '11/'12, '12/'13, and '13/'14 year, we should rely upon
10 the response to PUB 1-110 rather than the -- the answer
11 that you -- you gave me a little while ago?

12 MS. LOIS MORRISON: The previous one
13 (1), yes.

14 MR. BYRON WILLIAMS: Yeah.

15 MS. LOIS MORRISON: It would -- it
16 would reflect the more up-to-date numbers.

17 MR. BYRON WILLIAMS: Ms. Morrison, of
18 that total completed to date of five hundred and
19 ninety-seven (597), I'm correct in suggesting to you
20 that of that -- of that total there's about a hundred
21 and sixteen (116) which are the diesel communities?

22

23 (BRIEF PAUSE)

24

25 MS. LOIS MORRISON: For the most part,

1 yes. However, the one sixteen (116) was as of
2 recently, and the five ninety-seven (597) is as of
3 August, so there would be a couple of houses off.

4 MR. BYRON WILLIAMS: So leaving aside
5 the diesel communities, there's roughly four hundred
6 and eighty (480) non-diesel community First Nation
7 homes that have been upgraded to date?

8 MS. LOIS MORRISON: Yes.

9 MR. BYRON WILLIAMS: Okay. Well, I --
10 I hope you found that as rivetting as -- as I did, Ms.
11 Morrison. Sadly, I blame myself for those questions.
12 I -- in a few moments I have some more like that from
13 my client, so we'll blame her for those ones. But,
14 hopefully, to take us to the break we can change --
15 change speeds a little bit.

16 And do you -- I'm sure you recall a
17 conversation that Board member Lafond had with both you
18 and Mr. Miles yesterday, and I'm going to paraphrase
19 him, probably not do justice to his question. But he
20 was asking you, I'll suggest to you, whether you
21 calculated, on a year-over-year basis, the value of
22 each kilowatt saved associated with the DSM program and
23 sold into the energy market.

24 Do -- do you recall that conversation?

25 MS. LOIS MORRISON: Yes, I recall that.

1 MR. BYRON WILLIAMS: And I -- I'm not
2 intending to revisit, but I thought it was a useful
3 starting point for my conversation.

4 In your direct evidence yesterday, you
5 also estimated, I'll suggest to you, that about one (1)
6 out of three (3) ratepayers had subscribed to one (1)
7 Power Smart program or another.

8 Did I hear you correct -- correctly?

9 MS. LOIS MORRISON: Yes. Based on
10 recent surveys, we've identified that we have -- well,
11 2009 survey we -- 33 percent of our customers
12 identified having participated in at least one (1) of
13 our programs.

14 MR. BYRON WILLIAMS: And not much turns
15 on it but just for greater precision, was that the
16 aggregated Hydro Centra programs, or was that a
17 electricity?

18 MS. LOIS MORRISON: That would be our
19 customers in general, which would be any Power Smart
20 program that we offer.

21 MR. BYRON WILLIAMS: And I'm sure I
22 know the answer to this, Ms. Morrison, but I just want
23 to confirm it. Not speaking of the LIEEP program, but
24 the residential -- family of residential programs in
25 general, on the electric side Hydro does not fund a

1 furnace replacement program because they don't see a
2 conservation saving associated with it.

3 MS. LOIS MORRISON: That is correct.
4 There are no energy efficiency improvements resulting
5 from replacing an electric furnace with an electric
6 furnace.

7 MR. BYRON WILLIAMS: And leaving aside
8 the Low Income Energy Efficiency Program and speaking
9 to the broader family of residential electric DSM
10 programs, I'm also correct in suggesting to you that in
11 terms of window replacement, door replacement, those
12 are not part of the Power Smart offering?

13 MS. LOIS MORRISON: What we do for
14 Power Smart, in terms of the opportunities presented by
15 windows and doors, is we do allow windows and doors to
16 be replaced under our Power Smart Residential Loan
17 Program, which is the convenient on-bill financing
18 program. But, to qualify -- to have a window or a door
19 qualify for that program, they have to meet a certain
20 energy efficiency level.

21 And -- and what's driven out of that, is
22 that -- it's coming back to the comment I made earlier,
23 where to replace a window solely for the purposes of
24 energy savings is not economic; however, if a customer
25 has decided to replace their windows -- and I'll use

1 myself as an example. We did an addition on our home
2 at the back; we were -- with that addition came
3 windows. I didn't want my windows to not match in the
4 back, so I'm making a decision to replace windows
5 that's not tied to energy efficiency. However, because
6 I am now making that choice to replace my windows, we
7 encourage customers -- at that point, it is economic
8 for them to invest that additional dollar in that
9 higher performance window.

10 And so what we do is under our -- our
11 financing program, is we allow you to finance that
12 upgrade on your bill; however, you must have that
13 higher level of performance window in order to qualify
14 for that financing.

15 MR. BYRON WILLIAMS: Thank you for
16 that. And just to follow up two (2) questions further.
17 In terms of the financing you're not speaking of the
18 PAYS financing.

19 MS. LOIS MORRISON: No, because that
20 comes back to that original discussion I had, where the
21 -- you won't pay for that upgrade with the energy
22 savings. So, no, the Power Smart residential loan is
23 simply a financing program, but it's convenient and
24 it's on your bill.

25 MR. BYRON WILLIAMS: And -- and so if a

1 -- just to go back to low-income persons for a moment -
2 - notionally, a low-income person could access that
3 program but they would know that their electricity bill
4 would be higher in so much as there's financing charges
5 on that bill?

6 MS. LOIS MORRISON: Yes. They would be
7 able to access the program, but they would have to pay
8 the the financing charge in addition to their energy
9 charge. And there would -- we would tell them right
10 upfront there's no -- that the offsetting savings would
11 not cover that.

12 MR. BYRON WILLIAMS: And would Manitoba
13 Hydro have detail at a fine enough granular level to
14 tell me, in terms of those windows and doors and that
15 financing option, the percentage population of low-
16 income persons, as compared to the general population?

17 MS. LOIS MORRISON: We've never done
18 that type of analysis. Although, for the -- for the
19 qualifying for the financing we do ask for income
20 information. We don't then ask for the number of
21 peoples in the home. We don't qua -- income qualify
22 them when they're doing that financing. It's simply a
23 credit check on -- to see if they pass our credit
24 worthiness check.

25 And so we don't -- when we offer

1 financing under the Power Smart residential loan, we
2 don't identify whether they are low income or LICO-125
3 or not. They're -- we're simply credit checking them;
4 as long as they pass the credit check, they -- they can
5 get the financing.

6 MR. BYRON WILLIAMS: We'll come back to
7 my train of conversation in just a moment, Ms.
8 Morrison. But it may be an urban legend, but are there
9 any restrictions on the Hydro LIEEP programs, or
10 affordable energy programs, or other residential
11 programs, which might deny eligibility in cases where
12 the tenant is on welfare and their rent is paid
13 directly by Social Services? Are there any policies
14 that you're aware of that -- that may...

15

16 (BRIEF PAUSE)

17

18 MS. LOIS MORRISON: The answer depends
19 on who the tenant -- who the landlord is. We have an
20 arrangement with Manitoba Housing where we will fund
21 the upgrade, but if it is a private landlord and the
22 tenant is on social assistance, they will not qualify
23 for LIEEP.

24 But, under the new PAYS program, the
25 tenant and the landlord can apply to have the upgrade

1 impro -- to their home, and the -- the -- the energy
2 efficiency upgrade can be paid for through the bill.

3 And, it's subject to check it's -- it's
4 very recent, but as we understand it, Welfare has
5 agreed to take the non-energy charge of the -- of the
6 low income -- sorry, of the PAYS program on the bill.
7 So -- so, we are -- we have covered that off now.

8 So there is that situation where that if
9 the -- if the tenant is on income assistance and the --
10 the landlord and the tenant come to an agreement, then
11 we can -- they can participate in the PAYS Program and
12 have the month -- the PAYS portion of the energy bill
13 paid for.

14 MR. BYRON WILLIAMS: I really hate "it
15 depends" answers, Ms. Morrison, because -- but it was a
16 helpful one.

17 So let me break it into pieces. In
18 terms of the LIEEP program, did I understand you
19 correctly that if -- in situations where there's an
20 application for assistance, with a tenant on welfare
21 and a private landlord, they would not qualify under
22 the LIEEP program?

23 MS. LOIS MORRISON: They would not
24 qualify for the insulation upgrade because the property
25 is owned by a landlord as opposed to the tenant, and

1 the tenant would be the one that would be income
2 qualified. However, we have -- and the tenant is on --
3 now with the PAYS program, previous -- sorry.

4 MR. BYRON WILLIAMS: Could -- could I
5 stop you? Just -- and I'm not trying to interrupt your
6 answer. I just want to do one (1) piece at a time and
7 then -- so, please accept that not as an interruption.

8 But in terms of the -- the situation
9 where there's a private sector landlord and a welfare
10 recipient, does it matter whether the welfare recipient
11 pays their own utility bill, or whether Welfare
12 directly pays the utility bill? Is -- is that a
13 factor, or not?

14

15 (BRIEF PAUSE)

16

17 MS. LOIS MORRISON: If we have a -- a
18 situation where it's a private landlord, and the
19 individual in the home is qual -- inco -- LICO-125
20 qualified, and is paying their own bill and not on
21 social assistance, we would entertain an -- we would --
22 we would enter into a discussion with them if they
23 brought forward a proposal to us. We would definitely
24 look at what options there are. We do not have a
25 specific program geared to those private landlords, but

1 we would definitely be willing to work with them.

2 And we have had discussions in the past
3 with some non-profit landlord social agencies. If the
4 customer is in a privately -- a private rental, like a
5 private -- it's a private landlord, and the customer is
6 receiving -- is LICO-125, but is receiving social
7 assistance benefits, we do not pay for the upgrade.
8 They do not qualify for the program.

9 MR. BYRON WILLIAMS: We'll -- we'll
10 come to PAYS in just one (1) second, but can we agree
11 that the majority of -- of households on social
12 assistance would live in -- would -- would rent from
13 private sector landlords, rather than public sector
14 landlords?

15

16 (BRIEF PAUSE)

17

18 MS. LOIS MORRISON: I don't believe I
19 can answer that question.

20 MR. RAYMOND LAFOND: I'm sorry? The
21 question was that people receiving social benefits
22 would be -- for housing, would live more so in private
23 housing than social housing?

24 MR. BYRON WILLIAMS: Yes. And it's
25 unfortunate that I'm not -- I'm not lecturing in my

1 Poverty and the Law class.

2 Yeah. So the -- the suggestion I made
3 to Ms. Morrison, which she's unable to answer, which I
4 -- I don't criticize her for, is that more social
5 assistance recipients rent from private sector
6 landlords as compared to public sector. But we -- we
7 can't resolve that today, so that -- that's fine.

8 MR. RAYMOND LAFOND: I'm sorry, is that
9 more in terms of numbers, or in terms of percentage?

10 MR. BYRON WILLIAMS: I can't give
11 evidence, Mr. Lafond, but the thrust of my question
12 would have been numbers, absolutely. But I think the
13 thrust of my question, the -- the percentage would have
14 fallen out. And you'd have to put me under oath to get
15 anything more from me.

16

17 CONTINUED BY MR. BYRON WILLIAMS:

18 MR. BYRON WILLIAMS: And, you know, Ms.
19 Morrison I did interrupt you in terms of -- of PAYS.
20 So -- but -- but just a last question in -- in terms of
21 LIEEP. All other things being equal, the -- the -- am
22 I correct in suggesting to you that the -- is LIEEP a
23 better deal than PAYS, from the -- in -- in terms of
24 impacts on the -- on the low-income person?

25 MS. LOIS MORRISON: I would agree that

1 LIEEP offers much greater benefits to a customer who is
2 in a low-income position because we -- Manitoba Hydro
3 is paying for the entire upgrade.

4 MR. BYRON WILLIAMS: And I did about
5 ten (10) minutes ago interrupt you on PAYS, so if
6 there's anything more you want to say on that, please
7 go ahead.

8 I think you were making the case that --
9 that there is an opportunity through PAYS, even though
10 it's not as beneficial as LIEEP, for a welfare
11 recipient who -- who rents from a private sector
12 landlord.

13 MS. LOIS MORRISON: Yes. Thank you,
14 Mr. Williams. It -- it is yet another offering,
15 recognizing that there is that unique circumstance that
16 a customer and -- and a landlord who are working
17 together can have the upgrade done.

18 And -- and generally we would be looking
19 at oper -- we would encourage opportunities that --
20 where the tenant would be coming away with a bill lower
21 overall. And, of course, in those cases we would be
22 encouraging insulation upgrades, because those are --
23 those the ones where you would actually most likely see
24 the reduction -- an actual reduction in their bill, as
25 opposed to just keeping the bill neutral: no net

1 increase to the -- no net change -- no net increase to
2 the bill.

3 So it does offer yet another opportunity
4 for us to work with the landlord-tenant arrangement,
5 recognizing some of the difficulties with privately
6 owned land -- landlords.

7 MR. BYRON WILLIAMS: And before we go
8 to the - the break -- and you may want to consult with
9 My Friend Ms. Fernandes -- but in terms of the policy -
10 - in terms of the treatment of welfare recipients
11 renting from private sector landlords under LIEEP, is
12 there a Hydro policy that -- that documents that, and
13 if so could you undertake to provide it?

14

15 (BRIEF PAUSE)

16

17 MS. ODETTE FERNANDES: Mr. Williams,
18 just -- in order to assist you, I believe it's not a
19 Manitoba Hydro policy, it was a legal opinion that was
20 provided.

21 MR. BYRON WILLIAMS: Okay. Then I
22 won't seek that. Mr. Chair, I -- I'm certainly
23 prepared to continue, but if -- if anyone needs a break
24 after hearing me talk about this stuff, you're more
25 than welcome.

1 THE CHAIRPERSON: I do have a couple of
2 questions that flow from the current discussion.

3 So when I'm looking at page 22, the
4 number of rental households that are the potential
5 market for the LIEEP program, namely the twenty-five
6 thousand eight hundred (25,800), it sounds like that
7 figure does not include people living on social
8 assistance, or does it?

9 MS. LOIS MORRISON: That would include
10 all individuals -- all customers who meet the LICO-125,
11 which would include those people on social assistance
12 who own their homes. So the twenty-five thousand
13 (25,000) is the number of all-electric customers.

14 So if you took the sixty-seven thousand
15 (67,000) who own their home -- single-detached homes,
16 and there -- and added on the six (6) thou -- or the
17 sixty-six hundred (6,600) customers who own multi-
18 attached homes, and then times it by -- I believe it's
19 about 23 percent, you get the -- the twenty-five
20 thousand (25,000) -- or I have -- I have to double
21 check the numbers as to what per -- the percentage of
22 electrically heated houses.

23 So that would include customers who are
24 on social assistance, because they would meet the LICO-
25 125, and are electrically heated. So it's all in that

1 number. If they own their own home and are on social
2 assistance

3 It's just that, as Mr. Williams pointed
4 out, there may be fewer people -- there may be -- there
5 may be more people on social assistance renting as
6 opposed to owning their homes.

7 THE CHAIRPERSON: And -- and that was
8 my question, is whether or not those people who are on
9 social assistance are renting, are they part of the
10 twenty-five point eight (25.8)?

11 MS. LOIS MORRISON: Oh. Yes, they
12 would be part of that twenty-five thousand (25,000).

13 THE CHAIRPERSON: And the -- and the
14 difference between somebody living on -- somebody on
15 social assistance living in -- in non-profit housing,
16 is that the landlord would then be assuming the
17 responsibility for the debt owed to Hydro for -- for
18 example, if the -- if the tenant leaves the housing,
19 does that responsibility stay with the tenant, or does
20 it stay with the -- the non-profit housing entity?

21 MS. LOIS MORRISON: I assume you're
22 referring to the PAYS loan program, where the --

23 THE CHAIRPERSON: Yes.

24 MS. LOIS MORRISON: Yes. Under that
25 arrangement, the landlord and the tenant will take out

1 the -- what -- what's happening is, the landlord is
2 essentially taking out the loan and assigning the pay -
3 - and the tenant is agreeing to -- to have that charge
4 on their bill, and -- but the understanding being that
5 their bill will not change; it will actually, on
6 average, be the same, or less than. And so when that
7 tenant moves, the obligation reverts back to the
8 landlord. And then when he has a new tenant come in,
9 that obligation goes to the new tenant's energy bill.
10 So it transfers back and forth.

11 THE CHAIRPERSON: And the difference
12 between the non-profit entity and the private landlord
13 is that the private landlord would need to agree that -
14 - that those investments are a worthwhile investment
15 for them to agree to a PAYS program?

16 MS. LOIS MORRISON: The agreement --
17 the -- the situation is the same for that, regardless
18 of whether they are a private or a public landlord
19 under the PAYS program. The difference that Mr.
20 Williams was referring to was how the LIEEP program,
21 which is where Manitoba Hydro pays for the insulation
22 upgrade and does not charge anyone back for it.

23 So the PAYS one, we're expecting --
24 we're asking to be paid back through a financing
25 charge. Under the LIEEP program, the customer has qual

1 -- income qualified and will be receiving the benefit
2 of it and, therefore, we -- Manitoba Hydro funds that
3 entire upgrade.

4 MR. RAYMOND LAFOND: Just on page 22
5 again, and I think you answered it, but I want to make
6 sure I -- I understood that correctly. The rentals,
7 there are twenty-five thousand eight-o-eight (25,808)
8 as was just mentioned by the Chairperson. These are
9 rentals for ho -- for people who receive a bill from
10 Manitoba Hydro and not, for instance, for someone
11 renting a suite in the basement, or the second floor of
12 a home which only has one (1) electricity bill,
13 correct?

14 MS. LOIS MORRISON: That is correct.
15 It will also include those bulk meter apartments where
16 you have an apartment. It could be a complex with say
17 -- with two hundred (200) or a hundred units, meaning a
18 hundred households. However, in our system we comm --
19 we classify it as a commercial customer, because
20 there's one (1) meter -- one (1) electric meter, one
21 (1) gas meter, and they get one (1) bill and the
22 landlord pays.

23 So it could be -- it's the difference
24 between who's -- all their utilities are included in
25 their rent, they pay no -- they -- they may rent an

1 apartment and pay no -- directly -- may not directly
2 pay for their utilities.

3 MR. RAYMOND LAFOND: So these twenty-
4 five thousand eight hundred (25,800) would not include
5 the people who pay rent and -- and do not get a bill
6 from yourself, because it's included in the price of
7 the rent from the homeowner or -- or landlord?

8 MS. LOIS MORRISON: That is correct.

9 THE CHAIRPERSON: I think that's all
10 the questions for now. Let's adjourn, and -- recess,
11 rather, and -- and get together again at twenty (20)
12 after.

13

14 --- Upon recessing at 3:04 p.m.

15 --- Upon resuming at 3:23 p.m.

16

17 CONTINUED BY MR. BYRON WILLIAMS:

18 MR. BYRON WILLIAMS: Ms. Mor --
19 Morrison, just a few cleanup questions from our
20 discussion before the -- the break.

21 Subject to check, can we agree that
22 there are between fifty-five thousand (55,000) and
23 sixty thousand (60,000) Manitoba households on welfare?
24 By the look...

25

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: I don't know.

4

5 (BRIEF PAUSE)

6

7 MR. BYRON WILLIAMS: Can we agree at
8 least that, by very definition, to be in receipt of
9 welfare is to be a low-income person and -- and below
10 the -- the legal cutoff?

11 MS. LOIS MORRISON: Yes.

12 MR. BYRON WILLIAMS: And just in terms
13 of LIEEP and welfare, just to confirm my understanding,
14 if a welfare recipient has a private-sector landlord,
15 that particular premises is not eligible for LIEEP
16 funding?

17 MS. LOIS MORRISON: No.

18 MR. BYRON WILLIAMS: You're agreeing
19 with me or you're...

20 MS. LOIS MORRISON: They are not
21 available -- they are not eligible for funding.

22 MR. BYRON WILLIAMS: In circumstances
23 where the landlord -- the -- the tenant is on welfare -
24 - or the tenants are on welfare and it's provincial or
25 government housing, there would be an eligibility for

1 LIEEP or, I guess, as you say it, LIEEP?

2 MS. LOIS MORRISON: We -- yeah, we
3 refer to it as LIEEP. They -- we are in a partnership
4 with Manitoba Housing to provide the insulation, but we
5 don't pay for the installation.

6 MR. BYRON WILLIAMS: So welfare --

7 MS. LOIS MORRISON: Essentially, it's a
8 -- it's a slightly different funding arrangement, but
9 we do -- it's not as -- as much as what we provide
10 under -- because we're working with a provincial
11 government agency.

12

13 (BRIEF PAUSE)

14

15 MR. BYRON WILLIAMS: So just when -- in
16 -- in terms that in -- in your discussion with My
17 Friend, Mr. Peters, previously about the cost of -- of
18 LIEEP programming -- I'm just going to say LIEEP,
19 because I'm -- I'm not going to pronounce it the way
20 you would like to -- that -- Hydro's figure, in terms
21 of the -- the cost per household for insulation, would
22 include the financial -- or the -- the dollars
23 associated with a non-government and then the dollars
24 associated with -- with government?

25 Let me try the question again. The

1 estimated cost per home of insulating LIEEP homes, the
2 inputs into it are the costs associated with Hydro with
3 private-sector landlords and the cost associated with
4 Hydro is -- is part of its partnership with government
5 landlords?

6 MS. LOIS MORRISON: I -- I apologize.
7 I'm still having difficulty following --

8 MR. BYRON WILLIAMS: I don't think you
9 have to apologize; it's me, for the question. So we'll
10 move on, because it's -- it's not that -- that
11 critical.

12 Now, where I wasn't clear, in terms of
13 LIEEP and welfare recipients, is in the context of non-
14 profit housing as opposed to -- to government housing,
15 whether it's a co-op or arrangements like that.

16 Are those units eligible for LIEEP
17 funding?

18

19 (BRIEF PAUSE)

20

21 MS. LOIS MORRISON: If it is a non-
22 profit landlord, they are eligible for LIEEP unless --
23 for that unit if that unit -- the tenant in that unit
24 is receiving welfare, they would not be eligible for
25 that unit. Sorry, if their utility bill is paid by

1 Welfare, they are not eligible for that.

2

3 (BRIEF PAUSE)

4

5 MR. BYRON WILLIAMS: So -- and we'll
6 use the word social housing. Is the arrangement
7 different than for social housing and provincial
8 government housing, in terms of LIEEP?

9

10 (BRIEF PAUSE)

11

12 MS. LOIS MORRISON: It's a somewhat
13 similar relationship with Manitoba Housing, where
14 Manitoba Housing has a tenant who is on social
15 assistance, Manitoba Hydro provides the Power Smart
16 funding, and the -- Manitoba Housing has agreed to pay
17 the -- what would be the affordable energy com --
18 contribution under our program.

19 MR. BYRON WILLIAMS: So of the five
20 hundred and twenty-three (523) rental homes to date
21 insulated under LIEEP, would I be correct in suggesting
22 to you that all of them are provincial or government
23 housing?

24 MS. LOIS MORRISON: Sorry, can you
25 repeat that, please?

1 MR. BYRON WILLIAMS: Of the five
2 hundred and twenty-three (523) rental homes to date
3 insulated under LIEEP -- I'll rephrase it slightly --
4 is the major -- are the -- is the majority of them
5 provincial or government housing?

6

7 (BRIEF PAUSE)

8

9 MS. LOIS MORRISON: Yes, the majority
10 of them would be government housing.

11 MR. BYRON WILLIAMS: Virtually all?

12

13 (BRIEF PAUSE)

14

15 MR. BYRON WILLIAMS: Ms. Morrison, we
16 can -- we can carry on and -- and, you know, if the --
17 let's move to -- to a different topic.

18 Going back to your statement that about
19 a third of Manitoba Hydro ratepayers had subscribed to
20 at least one (1) Power Smart Program, would it also be
21 fair to say that two-thirds (2/3s) of ratescra --
22 ratepayers have yet to subscribe to a Power Smart
23 Program?

24 MS. LOIS MORRISON: Had yet to
25 subscribed or had opted not to.

1 MR. BYRON WILLIAMS: And would it be
2 fair to say that more than two-thirds (2/3s) of low-
3 income ratepayers had not opted to or had -- have yet
4 to describe -- subscribe to -- to a Power Smart
5 Program?

6 MS. LOIS MORRISON: I don't think I can
7 qualify that statement. We didn't -- when we did our
8 survey, we did not state that it was based on income.
9 But I don't have that data based on income.

10 MR. BYRON WILLIAMS: So -- and just --
11 just to be clear, similarly, you wouldn't be able to
12 break down the percentage of First Nation -- Nation
13 peoples living on reserve who have -- have taken Power
14 Smart programming, as compared to the percentage of
15 First Nations persons who had not.

16 MS. LOIS MORRISON: Because we work in
17 a different wa -- capacity with First Nation
18 communities, the individuals in the home may not know
19 whether it was through Manitoba Hydro that they
20 received the upgrade or simply through their -- their
21 housing coordinator or their housing program.

22 MR. BYRON WILLIAMS: Fair enough. So,
23 that two thirds (2/3) of the population who have yet to
24 subscribe or -- or have not subscribed to DSM
25 programming, I'm going to just describe them to you as

1 the non-subscribing majority. Okay? The -- and let's
2 assume that I am one (1) of the two-thirds (2/3) of
3 Manitoba ratepayers who have -- who are -- who have yet
4 to subscribe to a Power Smart Program.

5 Would it be fair to say, as one (1) of
6 those persons, that I would have no personal
7 consumption saving that I could relate to DSM?

8 MS. LOIS MORRISON: It would depend on
9 your behaviour. If you have, on your own, undertaken
10 measures to improve the energy efficiency of your home
11 or to change the energy consumption pattern in your
12 home, you may still be receiving the benefit of that
13 activity whether or not you've actually physically
14 participated in our program.

15 Case in point, I up -- I changed out my
16 furnace and I didn't participate in our program. So
17 although I am receiving the benefits of having a
18 higher-efficiency natural gas furnace, I'm not in the
19 count of the people that have participated in the
20 Manitoba Hydro program.

21 MR. BYRON WILLIAMS: Let's go back to
22 me, just because I will -- I'll get confused -- even
23 more confused talking about me. But if I haven't
24 subscribed to -- to Power Smart programming, I haven't
25 registered for one (1) of the programs, some portion of

1 my rates has gone to a program which I -- I do not
2 directly benefit from, in terms of my rate savings.
3 We'll get to deferred distribution and transmiss --
4 mission in a minute.

5 MS. LOIS MORRISON: The -- the -- not
6 to make it more difficult, but we -- part of what we do
7 is also work on the side of codes and standards. And
8 so though -- although you may not have physically
9 applied for a rebate, or gone and gotten your free CFL
10 when we were giving them away, or changed in your
11 seasonal lighting, we -- we have been working with the
12 federal -- at the federal level and the provincial
13 level to -- to bring in codes and standards that will
14 ultimately affect -- so if you in the -- if you have
15 purchased in the last little while a new appliance or
16 such, you would be receiving the benefit of that, but
17 you would not be cognizant of receiving that benefit.

18 MR. BYRON WILLIAMS: And there may be a
19 fair bit of me not being cognizant of -- of matters,
20 Ms. Morrison. So I'll go with you part way. And so
21 let's accept I've benefited, to some degree, from codes
22 and standards.

23 Looking around, I'm thinking, I'm paying
24 for these rates and I'm not subscribing to the program;
25 I'm benefiting less than other persons even though I'm

1 paying the same into the program.

2 MS. LOIS MORRISON: Okay.

3 MR. BYRON WILLIAMS: So let's -- you
4 know, we may quibble around the edges of that, but
5 let's -- let's just take that -- that consumer, that
6 non-subscribing consumer. To -- to me, the -- one (1)
7 of the benefits that would come to me from the Power
8 Smart Program would be the deferral of transmission and
9 distribution costs associated with the DSM savings of
10 others?

11 MS. LOIS MORRISON: That is correct.
12 Where we are able to generate economic benefits as a
13 result of our investment in DSM that are greater than
14 the cost of -- of bringing that benefit to -- to the
15 Corporation and to the ratepayer. Yes, you will
16 benefit.

17 MR. BYRON WILLIAMS: And, again,
18 looking at the -- the non-subscribing ratepayer and the
19 -- the perception of the non-subscribing ratepayer,
20 leaving aside any societal benefits which may come from
21 conservation, the primary benefit to me, as a non-
22 subscriber from -- that flows from the DSM spending of
23 others, would have to come from the hope that Mr.
24 Cormie can take those kilowatt hours of saved by the
25 DSM spending on others, and tran -- transform that into

1 handsome sales in the American marketplace. That's --
2 that'll be a major benefit to the non-subscriber?

3 MS. LOIS MORRISON: Subject to any
4 qualification by Mr. Miles, given that the marginal
5 values are not my area of expertise, I would agree with
6 that.

7 MR. BYRON WILLIAMS: I think this could
8 -- could go either to you or Mr. Miles. When we look
9 at that American marketplace and we focus really, Mr.
10 Miles, on the short-term, we can agree that the value
11 of non-firm opportunity sales into the American
12 marketplace is not currently -- not what it once was?

13 MR. TERRY MILES: I think we all agree
14 that the opportunity market prices have declined in the
15 last number of years, yes.

16 MR. BYRON WILLIAMS: And they've
17 declined materially, sir?

18 MR. TERRY MILES: Yes, they have.

19 MR. BYRON WILLIAMS: So, Ms. -- Ms.
20 Morrison, back to you as the marketing expert, is it
21 fair to say that at a time when the prices associated
22 with opportunity sales to the US marketplace are not
23 robust, and also at a time that Hydro is proposing rate
24 increases significantly above inflation, would it be
25 fair to say that the DSM programming of Manitoba Hydro

1 has a real marketing challenge in demonstrating to non
2 -- the non-subscribing majority that the energy-
3 efficiency monies expended on others have sufficient
4 utility?

5

6 (BRIEF PAUSE)

7

8 MS. LOIS MORRISON: I don't believe
9 we've actually faced that challenge yet, in terms of
10 people questioning -- non-subscribers -- say, to -- to
11 a great extent, questioning our investment in DSM. For
12 the most part, we're able to justify it based on the
13 long-term benefits overall, and have done so to date by
14 offering a portfolio that is -- has a solid business
15 case.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: Ms. Morrison, I --
20 I want to talk to you a little bit more about tenants,
21 so we're -- when we -- not about low -- low-income
22 ones, specifically, but tenants in -- in general, who
23 are Manitoba Hydro -- who may be Manitoba Hydro
24 ratepayers, or who may pay to their -- to their
25 landlord a fee in terms of rent that also includes

1 utilities.

2 It would be fair to say that -- that
3 Manitoba Hydro and other utilities has faced a
4 challenge in delivering energy efficiency opportunities
5 to those living in apartments, because of the split
6 incentive that may exist in circumstances where the
7 tenant pays the rent, but the landlord is responsible
8 for the property?

9 MS. LOIS MORRISON: If the land -- if
10 the tenant is only paying rent and not paying
11 utilities, and then the -- then the landlord is
12 receiving both the energy benefit and -- on the bills -
13 - on any bill undertakings -- sorry, any -- under --
14 under any energy efficiency undertakings, the landlord
15 would receive the benefit and receive as a -- as result
16 of their investment in any upgrade, you're correct.

17 MR. BYRON WILLIAMS: But I misspoke,
18 because the -- the issue of split incentives exists --
19 and I apologize for misspeaking -- in circumstances
20 where the tenant pays the utility bill, but the land --
21 landlord's responsible for -- for investments in the
22 property.

23 MS. LOIS MORRISON: In those
24 circumstances there are -- there's few opportunities
25 depending on what is included in their energy bill. So

1 a tenant who -- who is -- who is being served by a
2 central heat plant, essentially the -- what they are
3 responsible for in terms of their energy charges would
4 be the plug loads in -- in -- lighting and the plug
5 loads in -- in the unit.

6 So -- although, they have fewer -- we
7 have -- they have -- we have fewer offerings, or fewer
8 -- there -- there's also fewer opportunities in those
9 areas. So we have -- what we have done is -- is worked
10 with -- we work with property owners to try and
11 encourage them to participate, and in those cases we
12 did have -- we -- we previously had programs around
13 lighting and -- which was not tied to whether or not a
14 person owned their house. Regardless of -- regardless
15 of -- of whether you owned or rented you could
16 participate in our lighting program.

17 Now, we have also -- we recognize that
18 there is the -- that potential for split incentives
19 between where the heat is included in the tenant's
20 bill, and -- because they're being heated by baseboard
21 heating and -- and their -- so in those circumstances
22 though, when you look to assisting that customer,
23 essentially that customer would have to undertake a
24 upgrade to the envelope. And so in those cases you
25 have to work with the landlord.

1 And one (1) of the options -- one (1) of
2 the things that we -- we do, is we do have programs to
3 assist the landlord in making that upgrade to the
4 building envelope. And what we're -- our -- our hope
5 is that by bringing in the PAYS program for commercial
6 customers, which -- we are looking at the opportunities
7 as to whether or not we could bring something like that
8 forward -- but working with them to see if we can --
9 and assist them with financing tools.

10 But right now if there is an apartment
11 owner who has -- and this is primarily apartments.
12 This isn't usually multi -- row housing or multi-unit -
13 - sorry, single-detached; it's primarily in the areas
14 of the -- the larger -- the multi-units, where it's
15 more difficult to upgrade the envelope on a -- on a
16 tenant-by-tenant basis.

17 So the PAYS program will help those
18 customers that are in a tenant situation in a single
19 detached or a multi-unit attached. But the issue
20 becomes, when we're getting into apartments where
21 there's less opportunities, if the customer is
22 attempting to upgrade -- wants to improve the energy
23 efficiency of their -- their unit, they need to work
24 with the -- the building owner. And in that case, we
25 have incentives for upgrading the insulation of -- the

1 insulation and windows, and we also are looking at what
2 opportunities we might have in terms of financing.

3 MR. BYRON WILLIAMS: So that was a
4 helpful and -- and lengthy -- lengthy answer, so we're
5 going to move our way back through it.

6 You and my client can agree that
7 historically there have been challenges in delivering
8 energy efficiency programming in circumstances where
9 the tenant pays the utility bill, whether it's
10 baseboard heating or not, and the landlord is
11 responsible for the proper -- property?

12 MS. LOIS MORRISON: Yes, that
13 circumstance exists wherever you're dealing with a
14 landlord-tenant arrangement, whether it be residential
15 or commercial.

16 MR. BYRON WILLIAMS: And -- and we'll
17 come into specifics in a moment. But not only
18 historically, but that -- the challenges continue
19 today?

20 MS. LOIS MORRISON: Yes, that is one
21 (1) market barrier that must be addressed when
22 designing programs.

23 MR. BYRON WILLIAMS: Can -- I -- I
24 recognize, based upon your discussion with Board member
25 Lafond, that -- that Hydro can't tell us how many

1 tenants are in buildings where the landlord is
2 responsible for the utility bill.

3 But can Manitoba Hydro, based upon their
4 billing records, advise us how many tenants in
5 apartments it has in its billing records who are
6 responsible for their -- their own bill?

7 MS. LOIS MORRISON: We can. I'm just
8 trying to remember if we have it as an under -- if we
9 have responded to that already as -- in regards to an
10 interrogatory.

11

12 (BRIEF PAUSE)

13

14 MR. BYRON WILLIAMS: Ms. Morrison, I'm
15 not sure we're going to finish today, so I'll ask Ms.
16 DeSorcy just to -- to take a note to remind me and --
17 and we'll chat -- just to -- to move things along.
18 We'll -- we'll chat -- perhaps we could chat about that
19 offline in the presence of your counsel just to --
20 rather than you digging through for it right now.

21 MS. LOIS MORRISON: I'm sure everybody
22 here appreciates that.

23

24 (BRIEF PAUSE)

25

1 MR. BYRON WILLIAMS: And so just so I
2 understand your answer, you have that information.
3 You're not sure whether it's on the record or not. And
4 we'll figure that out offline. That's -- that's
5 basically where we are.

6 Now, in your -- your answer to me -- do
7 Hydro's records enable it to dist -- distinguish
8 between tenants who live in Manitoba housing and -- and
9 pay their own bills and those who do not?

10

11 (BRIEF PAUSE)

12

13 MS. LOIS MORRISON: We can't, through
14 our billing systems, specifically identify all. There
15 may be occasionally, when you look on an account-by-
16 account basis, you can identify if the bill is being
17 sent somewhere other than that customer's location.
18 But, no, Mr. Williams, I can't give you a definitive
19 number based on our billing system.

20 MR. BYRON WILLIAMS: Okay. Now, let --
21 let's go into programming as it affects tenants, DSM
22 programming. In -- in your -- your more lengthy answer
23 a couple ago, you mentioned that a -- a prior program
24 of Manitoba Hydro relating to lighting was accessible
25 both to homeowners and to tenants, correct?

1 MS. LOIS MORRISON: That is correct.

2 MR. BYRON WILLIAMS: And in terms of
3 that program, can you -- would Manitoba Hydro track the
4 percentage of tenants subscribing to that program as
5 compared to the percentage of the general population?

6 MS. LOIS MORRISON: Not directly. The
7 way the program ran forward it was a -- to begin with,
8 it was a giveaway program at the retail outlet; so buy
9 one (1), get two (2) free. So we didn't have customers
10 come up and give us their account number so that we
11 could then correlate it to their -- we didn't -- we
12 weren't getting rebate forms and such that we could
13 then correlate it to that individual.

14 And then we -- we revamped that program
15 to be an up -- to be at -- at-the-till incentive. So
16 again, we weren't collecting forms on -- on -- a rebate
17 form or an application form on the customer.

18 MR. BYRON WILLIAMS: Now, in terms of
19 the -- the five (5) remaining DSM residential programs,
20 I'd be correct in suggesting to you that the New Home
21 Program is not one (1) in which we can expect that many
22 tenants to -- to subscribe?

23 It could happen, but we're -- that --
24 that's not really designed for --

25 MS. LOIS MORRISON: Yeah.

1 MR. BYRON WILLIAMS: -- tenants?

2 MS. LOIS MORRISON: What it -- what it
3 is, is we -- we would -- we would expect to see multi-
4 unit, row housing type arrangements come in those
5 places where you could see a tenant come in. And also,
6 our past experience has been that the First Nation
7 communities -- which I guess if you were to look at it
8 technically being a landlord/tenant arrangement in
9 those cases, the First Nation communities tend to adopt
10 or work with us to bring Power Smart new homes into
11 place. But you are right, the majority of tenants
12 would not be participating in that program.

13 MR. BYRON WILLIAMS: And assuming that
14 in most circumstances, within an apartment the -- the
15 landlord would -- would own the fridge and -- and the
16 stove, or the fridge specifically.

17 Would it be fair to say that we wouldn't
18 expect a lot of tenants to -- in apartments to benefit
19 from the fridge recycling program?

20 MS. LOIS MORRISON: That is correct.

21 MR. BYRON WILLIAMS: Now, in terms of
22 the Water & Energy Saver Program, does Manitoba Hydro
23 track the percentage of tenants benefiting from that
24 program as compared to the general population?

25 MS. LOIS MORRISON: Yes.

1 MR. BYRON WILLIAMS: And could you
2 provide those -- those numbers, please?

3 MS. LOIS MORRISON: We can undertake to
4 provide those numbers.

5 MR. BYRON WILLIAMS: And the specific
6 undertaking is to provide the percentage of tenants
7 participating in the Water & Energy Savers Program as
8 compared to the general population of participants in
9 the Water & Energy Saving Program.

10 MS. LOIS MORRISON: Yes.

11

12 --- UNDERTAKING NO. 64: Manitoba Hydro to provide
13 the percentage of
14 participants in the Water &
15 Energy Savers Program
16 compared to general
17 population of participants
18 in the program

19

20 CONTINUED BY MR. BYRON WILLIAMS:

21 MR. BYRON WILLIAMS: And likewise, for
22 the Home Insulation Program, are you able to track the
23 percentage of tenants participating as compared to the
24 general population?

25

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: Although a landlord
4 can participate -- someone who owns a house can
5 insulate the house. The own -- the owner of the home
6 would be the one (1) that would be qualifying for the
7 program and may be doing it on a -- on a rental home.
8 We can not specifically identify in our program the
9 numbers of people -- which customers are those
10 customers.

11 MR. BYRON WILLIAMS: Just going back to
12 the -- kind of the -- when I first asked this question,
13 you gave a -- the lengthy answer and -- and a helpful
14 one. You -- you talked about situations where the
15 tenant doesn't directly pay Hydro, but the -- the
16 landlord pays Hydro.

17 And I believe you -- you talked about
18 programs to encourage property owners to participate in
19 energy efficiency programmings in those circumstances.

20 MS. LOIS MORRISON: We ac -- we have a
21 -- I mentioned in my previous testimony, we have Power
22 Smart sales force. These individuals work with certain
23 sectors to encourage participation in the Power Smart
24 offerings. And we have one (1) individual who works
25 specifically with property managers and to encourage

1 them to participate in our -- in any of our portfolio
2 of commercial offerings: for building envelope, heating
3 systems, lighting, all of those initiatives.

4 MR. BYRON WILLIAMS: And somewhere --
5 somewhere on the record, can I -- can I expect to find,
6 with regard to that program, Hydro's targets in, terms
7 of participation from property managers and also its
8 success rate?

9 MS. LOIS MORRISON: No, we have not put
10 on the record a -- a -- at least in this filing, we
11 have not put on the record a target specifically for
12 property managers or for -- for rental properties or
13 apartment buildings and targets. The individual sales
14 force -- that the sales group has targets for their
15 different sectors, in terms of how many cold calls, how
16 many projects they want to see, what kind of savings
17 they want to see. And those savings -- those targets
18 go into their day-to-day operations and how they manage
19 their work in order to make sure that they're achieving
20 their set goals. It's a sales goal.

21 MR. BYRON WILLIAMS: So, just so I
22 understand, in -- in terms of this area of commercial
23 energy efficiency and the target market being property
24 managers, am I correct in suggesting to you that, while
25 there are targets in terms of cold calls, et cetera,

1 Manitoba Hydro does not have targets in terms of
2 success?

3 MS. LOIS MORRISON: No, I need to
4 requalify that. Their targets, for each of these
5 sectors, are used to develop our overall targets for
6 the commercial sector. So we are looking at -- so they
7 will have targets each year for the number of units
8 they are going to influence.

9 And so the Power Smart sect -- sales
10 sector deals primarily in the Winnipeg and capital
11 region. But then, as I mentioned, we have a sales
12 force outside of the City of Winnipeg that deals with
13 all manners of customer service initiatives for cus --
14 for all -- for customers. And so they would also be
15 promoting the programs.

16 So it's one (1) component of the targets
17 that roll up to here, and they are accountable for
18 meeting their targets.

19 MR. BYRON WILLIAMS: So, in terms of
20 the subject man -- matter of property managers, is
21 there a target that you can share with -- with my
22 clients, and a demonstration of Manitoba Hydro's
23 success in meeting that target, in terms of influencing
24 the behaviour of property managers?

25

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: It's -- it's --
4 we're having difficulty under -- deciding what we can
5 and can't share, in terms of what's there. I'm trying
6 to remember what the monthly reports look like that I
7 get, in terms of their -- their activities and what
8 they're reporting. So --

9 MR. BYRON WILLIAMS: Okay, Ms. -- Ms.
10 Morrison, what I'd do -- I'd suggest, and this is not
11 an undertaking, but that we will -- we will chat
12 offline about it and see if we can achieve something
13 that would make my client happy, and -- and your client
14 happy.

15 MS. LOIS MORRISON: That would be nice.

16 MR. BYRON WILLIAMS: Again, in that
17 kind of initial answer that you gave, Ms. Morrison, you
18 did talk about the PAYS program, as it relates to -- to
19 tenants. And I believe your evidence was that while
20 there are some opportunities there in terms of single-
21 family and multi-family homes, you still experience
22 some challenges with PAYS as it relates to apartments.

23 Did I hear you correctly?

24

25 (BRIEF PAUSE)

1 MS. LOIS MORRISON: We're in the
2 process right now of developing an initiative that
3 could be offered to the commercial sector, which would
4 include multi -- would include the apartment blocks.
5 So it's not -- we haven't yet come to market with it,
6 but we're recognizing that that might be an opportunity
7 that we could implement to assist those customers in
8 addressing that split-incentive.

9 MR. BYRON WILLIAMS: And we're going to
10 come back to PAYS in just a second. But in terms of
11 all electric customers now, all electric homeowners,
12 not just low income, all electric homeowners, but --
13 all electric homeowners, would Manitoba Hydro have data
14 comparing the subscription of all electric homeowners
15 to the existing portfolio of residential DSM programs,
16 as compared to the general population?

17 MS. LOIS MORRISON: We would be able to
18 identify participation in the individual -- individual
19 programs, based upon space heating and fuel type.

20 MR. BYRON WILLIAMS: And recognizing
21 the carefully worded -- based upon that kind of
22 criteria, would Manitoba Hydro be in a position to
23 provide a comparison of all electric uptake of the five
24 (5) residential programs, as compared to the general
25 population?

1 MS. LOIS MORRISON: Yes. We could do
2 so.

3
4 --- UNDERTAKING NO. 65: Manitoba Hydro to provide a
5 comparison of all electric
6 uptake of the five (5)
7 residential programs, as
8 compared to the general
9 population

10

11 CONTINUED BY MR. BYRON WILLIAMS:

12 MR. BYRON WILLIAMS: Just a couple of
13 questions more about PAYS. In your discussion -- you
14 had a discussion with my -- My Learnered Friend Mr.
15 Peters yesterday about PAYS. I wonder if -- if
16 Manitoba Hydro has prepared an estimate -- an uptake
17 related to PAYS?

18 MS. LOIS MORRISON: We did put together
19 a forecast, as what we think the participation might
20 be. And -- but recognizing this is a new initiative
21 and we don't have a lot of experience with this type of
22 financing plan, although we have experience with
23 previous -- with obv -- obviously with offering a
24 finance plan, we recognize that this program would
25 probably capture some of the savings that we would have

1 al -- or captured some participation from what we were
2 already offering, so there would be some
3 cannibalization in -- between product lines.

4 The -- what we were projecting for
5 participation, as -- as I mentioned, is very much a
6 ballpark: a thousand Applications a year.

7 MR. BYRON WILLIAMS: And is there an
8 estimated incremental energy savings associated with
9 that, in -- in ballpark figures?

10

11 (BRIEF PAUSE)

12

13 MS. LOIS MORRISON: I was expecting Mr.
14 Peters to ask me that. High level estimate, we're
15 expecting about 9 gigawatt hours by 2025/'26.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: And thank you for
20 that. In -- in Mr. Peters' material, and I don't think
21 anyone needs to turn there, but there's also reference
22 to the Power Smart Neighbourhood Program. And -- and -
23 - so, Ms. Morrison, similarly, has Manitoba Hydro got
24 an estimate -- estimate of the uptake for the Power
25 Smart Neighbourhood Program, as well as the estimated

1 incremental savings, ballpark?

2 MS. LOIS MORRISON: The PAYS val -- the
3 -- the 9 gigawatt hours that I identified includes the
4 PAYS component of this, so it would include anyone
5 participating in PAYS. I just want to check on the low
6 income participation. I...

7

8 (BRIEF PAUSE)

9

10 MS. LOIS MORRISON: The values
11 presented in our program projections to date would iden
12 -- would including the low income, or the LIEEP-
13 qualified customers, in here. It's just that we're
14 using it as a better way of accessing those customers,
15 at the same time reaching more customers through PAYS.

16 MR. BYRON WILLIAMS: And just so I
17 understand that, within the -- kind of the estimated
18 uptake of one thousand (1,000) applications and 9
19 gigawatt hours out -- out to that point in time in the
20 future, is that exclusive of the low-income uptake or
21 inclusive of the low-income uptake?

22 MS. LOIS MORRISON: Exclusive.

23 MR. BYRON WILLIAMS: And the low-income
24 uptake would be reflected in the estimates for the Low
25 Income Energy Efficiency Program?

1 MS. LOIS MORRISON: That is correct.

2 MR. BYRON WILLIAMS: Thank you. I
3 wonder if you could turn to page 29 of CAC Exhibit 9.

4

5 (BRIEF PAUSE)

6

7 MR. BYRON WILLIAMS: Ms. Morrison,
8 essentially, in -- in this Information Request, CAC and
9 their partners in energy efficiency to some degree, at
10 least GAC, had -- had asked Manitoba Hydro to provide a
11 complete list of measures or programs that the
12 Utility has chosen not to pursue because they failed to
13 address -- failed to meet cost-effectiveness tests,
14 fair enough?

15 MS. LOIS MORRISON: That is correct.

16 MR. BYRON WILLIAMS: And we're going to
17 go through -- through each response. But you did
18 reference two (2) different answers that are set there.

19 But I -- I want to turn to page 30 of --
20 of Manitoba -- of the CAC Exhibit 9, which is, you'll
21 agree with me, a response that Manitoba Hydro provided
22 to a similar question in a prior -- prior general rate
23 application?

24 MS. LOIS MORRISON: That is correct.

25

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: And in this
4 Information Response, directing your attention to the
5 table on page 30, Manitoba identifies a -- a number of
6 measures which essentially fail to -- to screen in,
7 fair enough?

8 MS. LOIS MORRISON: That's correct.

9 MR. BYRON WILLIAMS: And as Mr. Peters
10 discussed with you earlier today, when a technology is
11 -- is screened against the MRC and the rate -- relat --
12 ratio falls below one (1), generally no program would
13 be pursued, correct?

14 MS. LOIS MORRISON: That is correct.

15 MR. BYRON WILLIAMS: And so if we just
16 look at that table, we'll see, for example, about
17 halfway down:

18 "Commercial griddle --griddles being
19 screened out."

20 And that's because their MRC result was
21 zero point four (0.4), which is materially less than
22 one (1), correct?

23 MS. LOIS MORRISON: That is correct.

24 MR. BYRON WILLIAMS: And so as a
25 consequence, commercial -- no commercial griddle

1 program was pursued?

2 MS. LOIS MORRISON: That is correct, or
3 nor -- neither was it included in an existing program.
4 Sometimes when we're screening technologies, it's to
5 add it to an existing program. It wouldn't necessarily
6 be a standalone program; it would just add a new
7 measure.

8 MR. BYRON WILLIAMS: And likewise, if
9 we go just to the bottom of this table, we see
10 commercial electric deep fryers not passing the MRC,
11 because they're at a ratio of zero point two (0.2),
12 agreed?

13 MS. LOIS MORRISON: That is correct.

14 MR. BYRON WILLIAMS: And in total, in
15 this response Manitoba Hydro identifies seven (7)
16 measures that failed to screen in against the MRC test,
17 either in standalone programs or as part of a larger
18 program?

19 MS. LOIS MORRISON: Yes.

20 MR. BYRON WILLIAMS: Now, Ms. Morrison,
21 I don't wish to belittle the makers of commercial
22 griddles, but would it -- would it be accurate to say
23 that -- that even if commercial griddles were screened
24 in, would it be fair to say that they would not have
25 added substantial savings to your portfolio?

1 MS. LOIS MORRISON: That would be an
2 accurate assessment.

3 MR. BYRON WILLIAMS: And can we agree
4 as well that adding electric deep fryers to the
5 portfolio, either on a standalone basis or with others,
6 would not have added substantial savings to the
7 portfolio?

8 MS. LOIS MORRISON: That is correct.

9 MR. BYRON WILLIAMS: And -- and can we
10 make that observation about all seven (7) of the
11 screened-out measures, and can we conclude that -- that
12 they would not have added any substantial savings to
13 the portfolio?

14 MS. LOIS MORRISON: I agree.

15 MR. BYRON WILLIAMS: And I don't mean
16 to pick on griddles too much, but would it indeed be
17 fair to say that any savings they would have added to
18 the portfolio would have been negligible?

19 MS. LOIS MORRISON: Yes, but likely --
20 but due to the fact that there's -- there's marginal
21 savings, off -- being offset by -- there's two (2)
22 things you have to look at. Sometimes the savings
23 individually on the technology might be small, but if -
24 - the volume of that technology's presence in the
25 market place might drive larger savings. So, yes, in -

1 - in this case, both of those measures would not be
2 met.

3 MR. BYRON WILLIAMS: Now, Ms. Morrison,
4 just flipping back to page 29 for a second, when --
5 when CAC (Manitoba) and GAC asked for a complete list
6 of measures, Mani -- Manitoba Hydro also referenced its
7 response to GAC/Manitoba Hydro 1-9B, correct?

8 MS. LOIS MORRISON: That is correct.

9 MR. BYRON WILLIAMS: And, Mr. Chair, I
10 don't believe -- I haven't put that in the materials
11 and I don't believe the -- the panel needs to turn
12 there.

13 But, Ms. Morrison, do you have that
14 response near at hand?

15 MS. LOIS MORRISON: I'm getting there.

16 MR. BYRON WILLIAMS: And, Ms. Morrison,
17 you could probably trust me on this one (1). In -- but
18 -- but would it be correct that, in terms of the --
19 that in terms of this response, Manitoba Hydro
20 identified two (2) other programs -- Power Smart Shops
21 and Power Smart Energy Manager -- which were not
22 included in the two (2) -- 2011 Power Smart plan
23 because they were considered not to be cost effective?

24

25

(BRIEF PAUSE)

1 MR. BYRON WILLIAMS: Ms. Morrison, do
2 you want my response?

3 MS. LOIS MORRISON: No, I have that
4 already.

5 MR. BYRON WILLIAMS: Okay.

6 MS. LOIS MORRISON: I sometimes have
7 notes on the pages, so I'd rather have my notes.

8 MR. BYRON WILLIAMS: I've got some good
9 notes, Ms. Morrison.

10 MS. LOIS MORRISON: Oh, well, yours
11 might be better than mine.

12 MR. BYRON WILLIAMS: Not on this page.

13 MS. LOIS MORRISON: Oh, okay, mine
14 neither.

15 MR. BYRON WILLIAMS: And, essentially,
16 what this response tells us is that the Power Smart
17 Shops Program and the Power Smart Energy Manger Program
18 were not included in the 2011 Power Smart plan because
19 they were considered to not be cost effective?

20 MS. LOIS MORRISON: That is true. They
21 were not meeting -- the forward picture of those
22 programs were no longer meeting what we had hoped to
23 achieve with them and were no longer cost effective.
24 So they are on re -- redesign.

25 MR. BYRON WILLIAMS: And with regard to

1 those programs -- let's start with Power Smart Shops.
2 The determination that it was not cost effective such
3 as to mot -- meet pro -- the objectives was made using
4 what criteria?

5

6 (BRIEF PAUSE)

7

8 MR. BYRON WILLIAMS: And, Ms. Morrison,
9 if you're checking, you might as well do it for the --
10 the other program as well.

11

12 (BRIEF PAUSE)

13

14 MS. LOIS MORRISON: Under the Power
15 Smart Shops Program, what we were finding was the -- we
16 were not achieving the deeper savings that were needed
17 to support the program, going forward. What we were
18 getting were just the very -- the direct installs that
19 were being done that were not going to be able to
20 support the program going forward. So we needed to
21 take a look at what -- a different option for reaching
22 that small commercial market.

23

24 So it was -- it was an assessment,
25 future forward -- we -- basically, we're not achieving
the target set for it. And I can't recall what the TRC

1 ended up being going forward on that program, but the
2 program wasn't achieving the participation levels, in
3 terms of the deeper savings.

4 So -- although, someone might go and do
5 the direct install of the light, we weren't getting
6 those additional -- getting them to take the next step
7 to the -- to -- to go from, say, change out their T12s
8 to T8 lighting and all that. We were only getting just
9 a couple of compact fluorescents installed and pipe
10 insulation in the small commercial. It wasn't meeting
11 the targets that we had set out for the program, and
12 was not going to achieve the targets that we had set,
13 in terms of the long term.

14 MR. BYRON WILLIAMS: So let -- let me
15 just stop you on that one. And just -- that -- that
16 doesn't -- it does not sound analogous to the seven (7)
17 that we just discussed a few moments ago that were
18 screened out because they didn't meet MRC.

19 Is -- is that a fair statement?

20 MS. LOIS MORRISON: Yes, that would be
21 a fair statement.

22 MR. BYRON WILLIAMS: And in terms of
23 this specific program, you're not certain what the TRC
24 was, but it -- the -- you've identified a number of
25 issues, in terms of program design?

1 MS. LOIS MORRISON: Yes, they would be
2 more so program design related issues. And the same
3 thing would be -- could be said for the Power Smart
4 Energy Manager Program. Under the design that was
5 presented, we were -- there was -- we were having a
6 very difficult time reaching the target market and
7 getting participation.

8 MR. BYRON WILLIAMS: So if -- if my
9 client is looking for programs screened out, they --
10 they should return to -- to the -- the seven (7) that
11 were screened out under the MRC?

12 MS. LOIS MORRISON: Yes.

13 MR. BYRON WILLIAMS: Mr. Chair, I'm --
14 I'm not going to quite finish today. I'll probably
15 have, not a lengthy piece for tomorrow, but -- but I
16 propose at least to continue to 4:30, subject to the
17 Board's disc -- direction.

18 THE CHAIRPERSON: No, that's fine.
19 4:30 is fine. But I have a commitment at 4:30, another
20 meeting, so I wonder if we could adjourn by 4:30?

21

22 (BRIEF PAUSE)

23

24 MR. BYRON WILLIAMS: Ms. -- Ms.
25 Morrison, I hesitate to embark upon a discussion of

1 various tests after your discussion with Mr. Peters
2 today, but I just want to make sure that my client's
3 understanding of the RIM test is the same as -- as your
4 understanding of the RIM test. And I've got a -- a
5 lengthy statement and -- and I'll -- I can give you a
6 reference to assist you. Perhaps, I already have done
7 that.

8 If my client were to describe the RIM
9 test, they would say:

10 "This test provides an indication of
11 the impact of energy efficiency
12 programs on utility rates. The
13 results of this test provide an
14 indication of the impact on energy
15 efficiency on those customers that do
16 not participate in the energy
17 efficiency programs.

18 "The costs include all the
19 expenditures -- expenditures by the
20 program administrator, plus the lost
21 revenues to the utility as a result
22 of the inability to recover fixed
23 costs over fewer sales. The benefits
24 include the voided utility's costs."

25 Is that a definition, in terms of RIM,

1 that -- that Manitoba Hydro can live with?

2 MS. LOIS MORRISON: I believe that to
3 be a generally accepted definition of the rate impact
4 measure test.

5 MR. BYRON WILLIAMS: And, Ms. Morrison,
6 you had a discussion earlier today with both the panel
7 and My Friend Mr. Peters, in terms of the commentary of
8 Hydro CEO Scott Thomson on -- on day 1 of this -- this
9 Hearing.

10 Do you recall discussing that?

11 MS. LOIS MORRISON: Yes.

12 MR. BYRON WILLIAMS: And -- and subject
13 to check, Ms. -- Mr. Thomson's exact words were:

14 "It's important, particularly given
15 our current financial condition, that
16 any new DSM programs have a sound
17 basis. I believe that DSM should
18 reduce the upward pressure on rates,
19 not increase it. That is the
20 approach that we're taking."

21 Are you prepared to accept that that's a
22 fair statement of his words?

23 MS. LOIS MORRISON: Yes.

24 MR. BYRON WILLIAMS: And -- and, Ms.
25 Morrison, my client has struggled with those words, and

1 -- and just want to clarify, from your perspective,
2 does this suggest that -- that now RIM is king?

3 MS. LOIS MORRISON: I don't believe it
4 is on the individual program design level. Again, it
5 goes back to what I had talked about before, where we
6 are -- what we do is we look at the -- RIM is -- is an
7 indication of whether or not it'll have a -- a general
8 impact on rates. It's not the only thing we look at.

9 As we've mentioned before, we also look
10 at the levelized utility cost of the measure and
11 compare it to the benefit that we anticipate to see --
12 to see in the future, and in -- and making sure that
13 that is -- that we're able to recover through our
14 investment. The -- that the -- that the offsetting
15 benefits are there to match the -- there's the
16 investment that the Utility is making, and making sure
17 that the lost revenue, or the -- the -- it's -- it's --
18 that the differential between the revenue, or what
19 would be our cost of generation, and the benefit, we
20 don't want to go beyond that. It's that differential
21 that we would attempt to try to keep our investment to,
22 which would then not negatively impact the -- the
23 ratepayer.

24 And in our case that -- that value is
25 the difference -- you could say that our imbedded costs

1 right now is -- is our domestic rate. And the -- the
2 benefit value is the eight point five (8.5) cents that
3 we've used as a levelled amount; just to use round
4 numbers.

5 And -- and we did speak to that in our
6 rebuttal, as to terms of -- of what the benefits are to
7 the Utility, to the customer, and to the -- from an
8 integrated perspective.

9 What we're looking at when we're looking
10 at the levelized utility cost and the rate impact
11 measure test as -- as a guide, is simply to the degree
12 that the Utility will invest on the ratepayer's behalf --
13 behalf. It doesn't mean that we won't pursue or -- or
14 encourage in certain energy efficiency opportunities.

15 Also, we look at it as a portfolio
16 level. So we would want to make sure that -- I believe
17 that we would look at it from the perspective of --
18 from the residential sector -- we would want the
19 residential sector to be having enough opportunities to
20 participate, balancing that off with not putting undo
21 pressure on our rates.

22 MR. BYRON WILLIAMS: And we'll comb
23 back to LUC in -- in a second. So in response to my
24 question, your -- your answer was that RIM is not king
25 at the program design level.

1 Would it be unfair to suggest that RIM
2 is king at the portfolio level for a specific class?
3 The primary determinate.

4

5 (BRIEF PAUSE)

6

7 MS. LOIS MORRISON: I think it's a
8 consideration. I don't -- I have not -- although Mr.
9 Thomson has said this; it's a very important thing to
10 consider and going forward a business case could
11 support it. So we should always consider that when
12 we're putting forward a portfolio of programs. And we
13 have traditionally done that.

14

15 (BRIEF PAUSE)

16

17 MR. BYRON WILLIAMS: At the portfolio
18 level, would you expect a portfolio with the RIM of
19 less than one (1) to -- to be endorsed?

20 MS. LOIS MORRISON: I believe I would
21 have a very difficult time selling that.

22 THE CHAIRPERSON: Okay. Now, just --
23 just so I understand your point on LUC, and -- and if
24 I'm con -- conflating your answer, you'll correct me.
25 And I'll -- this will be my -- my last question, Mr.

1 Chair.

2 But you -- you spoke of the -- the gap
3 between the Corporation's marginal cost let's say round
4 at eight point five (8.5) cents per kilowatt hour, and
5 the actual rate, you know, for residential, if all your
6 applications are approved, seven point two (7.2),
7 effective April 1st, 2013.

8 Is -- is that, in your view, an upper-
9 bound on the LUC?

10 MS. LOIS MORRISON: The differential
11 would be the upper-bound.

12 MR. BYRON WILLIAMS: So, the
13 differential between the eight point five (8.5) and the
14 seven point two (7.2) would be the upper-bound, in
15 terms of what you're looking for -- for the LUC? I'm
16 trying to understand this more.

17 MS. LOIS MORRISON: Yeah. again, it's
18 -- it's -- it's what we -- when we're -- when we're
19 designing a program, we would say -- we would -- we
20 would -- we would look at it, go, Oh, well, what is the
21 levelized utility cost? The levelized utility cost is
22 coming in at that differential, say -- two cen --
23 sorry, one point five (1.5) cents a kilowatt hour, and
24 that's -- let's -- let's use rounding -- nice round
25 numbers to make this easy; you know, eight point five

1 (8.5) versus seven (7) cents.

2 So, if the levelized utility cost is
3 coming in at one point five (1.5), and then -- then
4 we're thinking that generally there's not going to be
5 too much of an impact to the customer, and okay. But
6 if say, for example, the program comes in with a
7 levelized utility cost of two point three (2.3) or two
8 point five (2.5), we would then take a closer look and
9 say, Oh, well, do we think it's going to come -- if
10 it's going to have an impact on rates? Because that
11 may in itself not really impact rates, because it
12 depends on when those energy savings are achieved.

13 MR. BYRON WILLIAMS: And I don't want
14 to interrupt you, but I think my promise to the Chair
15 was 4:30 so I'm going to open it up for you to resume
16 your explanation tomorrow morning, and I do apologize
17 for interrupting.

18 MS. LOIS MORRISON: No, that -- no I --
19 I completely understand.

20

21 (PANEL RETIRES)

22

23 THE CHAIRPERSON: Thank you very much
24 for that. Are there any matters to attend to? If
25 there -- there are no matter, so we will adjourn for

1 today and resume proceedings tomorrow morning at nine
2 o'clock. So, have a good evening everyone.

3

4 --- Upon adjourning at 4:30 p.m.

5

6

7

8

9 Certified correct,

10

11

12

13

14 _____

15 Cheryl Lavigne, Ms.

16

17

18

19

20

21

22

23

24

25

<p> <u> </u> \$ \$3,000 2992:20 \$5 3009:23 \$60 2912:19 \$60.46 2911:15 2912:20 \$63.83 2913:25 \$7,500 2992:18 <hr/> 0 0.2 3128:11 0.4 3127:21 0.8 2960:1 2969:8 07 3067:18 09/'10 3020:25 3078:10 <hr/> 1 1 2900:11 2901:9 2903:2,4 2906:6 2908:1,22 2911:24 2912:16 2913:22 2915:25 2916:24 2917:6 2922:18 2927:14 2930:22,25 2933:15 2936:10 2937:22 2939:20 2941:11,18 2945:6 2952:3,13 2958:24 2959:12,13 2962:1 </p>	<p> 2963:10 2964:14 2965:24 2969:2,3,2 4 2970:5 2976:7 2977:11 2982:20 2983:22 2984:1 2992:16,21 3003:6 3004:16 3011:15,19 3015:10 3016:14 3018:3,16 3019:19 3023:1 3030:15 3036:18 3039:4 3047:21 3057:24 3058:23 3070:11 3074:6 3075:16 3079:13 3080:13 3082:5,6,1 2 3088:6 3089:10 3096:12,20 ,21 3102:20 3104:2,5,2 5 3106:6 3111:1 3112:21 3115:9,21 3118:6,24 3120:16 3127:12,22 3130:17 3136:8 3139:19 1,000 3125:18 1,145 3046:22 3047:8 3049:8 </p>	<p> 3054:6,8,1 8 1,221 3053:24 3054:5,9,1 7 1,348 3078:14 1,385 2978:9,13 1,400 2998:8 3045:9 1,750 3048:14,22 1,800 2998:5 3048:4 1,960 3067:20 1.0 2906:24 2960:11,20 ,21 2961:15 1.1 3029:20 1.2 2969:4 3030:3 1.3 2960:12 1.5 2961:11 2977:1 3029:13 3140:23 3141:3 1.9 2970:21,22 2971:4 1/2 2915:25 1/4 2915:25 1:03 3018:23 10 2896:23 2912:6,11, 22,23 2913:1,5,1 4,18 2922:23,25 2923:4 2947:12 2972:5,6,9 </p>	<p> ,10 2974:2,6 2979:22 2989:14 3058:10,11 3062:12 3068:11 3091:5 10:58 2989:16 105 3041:7 105,000 3041:8 107A 2906:8 107C 2944:10 11 2979:11,22 2980:5 11/'12 2967:10 3022:15 3051:13 3078:10 3079:17 3080:9 11:13 2989:17 11:56 3018:22 1-110 3080:10 1-150 (a) 3074:16 116 3074:22,23 3075:4 3080:21 3081:1 1-17A 3070:6 12 2979:22 2996:6 12/'13 2982:6 3079:18 3080:9 120 3052:9 </p>	<p> 125 3036:4 3063:4,19 3093:25 127,000 3000:1 12-O(i) 3004:23 13/'14 3078:21 3079:19 3080:9 131 3047:9,23 3048:8,21 133 3078:19 14 2968:13 2979:1 3052:14 14,000 3066:19 3067:10 143 3052:17 3079:18 15 3058:10,11 15,000 3066:8,10 150 3052:15,16 3079:17,18 3080:1 151 3078:23 1-60 3019:22 168 3078:23 17 2982:10 3048:3 18 3025:20,21 3042:16 182 3021:25 186 3079:1 187 3078:22 3079:1 19 3046:17 3053:22 </p>
---	--	--	--	--

3061:1,6,1 0	2.5 3016:1 3141:8	3025:4 3035:2	2013 2896:23 3016:9	23 3093:19
19/'20 2978:2	2/3 3103:23 3104:2	3036:12,21 3050:2	3052:14 3140:7	230,000 2994:4
192 3071:6	2/3s 3102:21 3103:2	3082:11	2013/14 2896:8	234 3021:24
1950s 2956:16	20 2909:3,6 2914:9	201 3075:6	2013/'14 3051:9	24 3074:14
1980 3068:3 3075:24	2932:2 2938:12,15	2010 2936:8 2951:20	3052:18	24/'25 2978:12
1990 3069:22	,16,22 2962:9	2968:25 3019:25	2014 3079:2	240 3022:19
1-9B 3130:7	2990:4 3001:19	3020:20 3021:1,24	2014/'15 3078:25	241 3021:3
1st 2902:11 3015:21,25	3002:21 3040:12	3023:4,7,1 9	2016/'17 3078:2,7,1	244 3078:20
3016:8 3140:7	3051:6 3064:17,18	2010/'11 2967:21	3 2017 3062:12,17	246 2978:24 2979:2
<hr/> <u>2</u> <hr/>	,19 3069:1 3070:2	2970:15,19 3021:11	3068:10	2981:18
2 2903:19 2913:22	3072:9,12 3075:22	3030:22	2019/2020 3024:14	24th 3077:19
2915:15 2916:22	3076:7,22 3097:11	2011 2902:11 2936:8,13	2020 2976:16	25 2902:8 3016:25
2933:15 2948:22	20,000 2995:9,11,	2940:10 2981:19	2021/'22 3024:20	3042:6
2952:11,16 2965:18	13 200 3096:17	3023:5,17 3025:10	2022/'23 2980:8	25,000 3043:8
2966:1 2969:25	2000 2917:9,20	3052:12 3080:3	2023 2981:25 2983:6	3045:20
3004:4,23 3015:21	2931:14,16 2932:25	3130:22 3131:18	2024 2983:7	3047:24
3022:4 3023:1	2001 2936:12,13	2011/'12 2983:12	2025/'26 2980:18	3048:1,9
3029:3 3052:5	2004 2924:25 2925:12	3022:8 3024:4,9	2980:8 3024:5	3063:14
3073:14 3079:14	2929:19 2005 2998:6	3051:9,23 3052:16	3124:15	3064:1
3084:16 3115:9	2007 3031:9 3046:19	3053:11,19 2012 3005:1	2025 2978:2	3065:8
3126:18 3129:21	2008 3008:13	3015:21,25 3022:19	2026/'27 2980:18	3067:7,15
3130:20,22	2009 2935:2 2936:7	3046:21 3052:12	3124:15 2031 2978:14,16	3093:13,20
2,000 2939:14	2937:20 2951:20	3077:19 2012/13 2896:8	2031 2978:14,16	3094:12
3067:19	2004 2924:25 2925:12	2012/'13 2896:8	2024 2983:7	25,800 3093:6
2,747 2901:10	2929:19 2005 2998:6	2013 2896:8	2025 2978:2	3097:4
2.3 3141:7	2999:9,11 2007 3031:9	2014/'15 2983:13	2026/'27 2980:18	25,808 3096:7
2.4 3016:3,14	3046:19 2008 3008:13	3053:11,19 2015 3052:13,17	3124:15 2031 2978:14,16	25.8 3094:10
	2009 2935:2 2936:7	3078:1,11, 12,20	207 3078:22	250 3052:14
	2937:20 2951:20		21 3062:2	250,000 2994:13
	2998:6 2999:11		212 3021:7	26 3070:3,19
			216 3021:16	26,000 3042:7
			22 2979:2 3039:20	262 3021:12
			3070:14 3093:3	263 3052:12
			3096:4	27 3077:6
				27A 2936:4

27B 2909:16 2910:7,16 2911:13 2924:17 2936:5 2941:2	3.95 3016:20 3017:11 3:04 3097:14 3:23 3097:15 30 2907:20,22 2908:17 2909:4 2911:7,8,1 0 2913:1 2919:7,8 2923:12,13 2936:25 2937:25 2938:2,4,8 ,13,15,22 2939:3,4 2963:2,4,8 ,15,18,23 2964:1 2971:5,24 3001:19 3126:19 3127:5	2981:24 323 2980:17 328 2906:5 2907:4 33 3082:11 330 2896:21 2944:11 334 2952:18 2972:19 335 2952:10 2962:23 336 2954:15 338 2966:25 339 2966:25 2967:24 2968:12 34 2975:24 3043:1,6 340 2970:9 343 2975:9 2976:15 2982:2,18 2985:9 35 2914:19,20 357 3050:12 36 2937:21 <hr/> 4 4 2898:6 2901:21 2938:1 3023:22 3047:1 4,400 2978:17 4:30 3134:16,19 ,20 3141:15 3142:4 40 2999:8,9 3024:21 3050:25 3071:11	3076:9 400 2896:21 400,000 2994:1 43 2975:14,18 2996:6 3040:9 45 3079:8 46 3021:19 47 2998:12,19 3000:2 470 3071:2 480 3081:6 491 3047:11 3049:10,21 4B 2927:14 <hr/> 5 5 2900:19 2963:11,16 2964:11 2987:9 3024:25 3047:1 3061:24 3075:16 3115:19 3122:24 3123:6 5,000 3068:7 50 2997:23 3022:18 500 2915:1,14 500,000 2994:1 51 2997:15 52 3022:5 523 3047:10 3101:20 3102:2 526 3025:13 3050:8	533 3051:14 55,000 3097:22 56 2899:3 2901:9,16 2902:5 597 3077:22 3080:19 3081:2 <hr/> 6 6 2915:24 2923:23 3061:24 3093:16 6,500 3063:18 6,600 3093:17 6.1 2924:9 6.2 2927:19 6.7 3003:7 60 3024:17 60,000 2996:20 3097:23 62 2900:3 2931:6 63 2900:7 2941:13 634 2982:22,24 637 2982:24 2983:2 64 2900:12 3117:12 65 2900:17 2901:14 2975:25 3123:4 67,000 3041:23 3093:15 69 2918:19
<hr/> 3 3 2919:1 2937:25 2964:11 2965:18 2976:21 2978:10,11 2979:4,20 2987:9 3009:23 3014:25 3053:2 3078:9 3082:6 3,000 2978:15 3064:9,16 3065:12 3066:3,4 3067:8,16, 23 3068:2 3069:2 3079:8,9 3,300 3062:16 3068:12 3.5 3016:8,20 3030:9 3031:20	300 3047:3 3007 2898:13 2899:5 31 3063:24 31,000 3065:7 31,500 3062:21 3063:9,25 3064:11 3117 2900:16 3123 2900:21 3142 2896:24 2898:15 315 2952:24 2953:3 2959:19 2965:3 3019:14,16 3025:22 3028:17 31st 3022:19 321 2980:7			

<u>7</u>	8.9	3001:4	2923:1	activities
7 2990:1	3023:7,18	3039:12	3031:18	2978:5
3048:13	8.95 2951:16	3050:18	3074:9	3121:7
3063:6	80 3001:20	3060:24	3114:16	activity
3067:18	3024:10	3085:7	3115:10	2962:10
3128:15	82 2902:8	3103:11	accountable	2968:25
3129:10	85	3106:12	3120:17	2969:3,11,
3133:16	2997:15,17	3108:12	account-by	12 2970:17
3134:10	2998:16	3117:22	3114:15	2977:15
3141:1	3074:25	3122:17	accrue	3030:19
7.11 2914:13	3075:5	3132:19	2993:12	3076:25
2916:1	883 3025:7	3137:13	accruing	3104:13
2918:18	3050:4	Aboriginal	2963:7	actual
7.2	<u>9</u>	3069:4	2969:14	2968:25
3140:6,14	9 3006:25	absolute	accurate	2970:15,19
7.5 2927:20	3019:13,19	2986:4	2977:8	2971:5
70 3061:22	3023:1,23	absolutely	2983:23	2997:1
74,000	3024:25	3090:12	3013:24	3020:15
3043:1,7	3039:20	ac 3118:20	3128:22	3021:6,15
75 3000:3	3046:18	accept	3129:2	3022:8,23
76 3054:23	3051:6	2930:16	achieve	3051:3
78 2998:6	3068:11	2938:6	2954:24	3066:3
2999:12	3070:3	2980:11	2959:2	3091:24
79,000	3077:6	3043:6	2971:10	3140:5
3041:18	3124:15	3078:15	2978:19	actually
7A 2900:11	3125:3,18	3079:6	3121:12	2902:20
2936:10	3126:3,20	3088:7	3131:23	2907:17
2940:19,24	9:03 2901:1	3105:21	3133:12	2917:12,17
2941:11,18	90 2914:21	3136:21	achieved	2927:14
<u>8</u>	99 2914:22	accepted	3141:12	2948:4
8 3048:3	9th 3006:24	3136:3	achieving	2952:15
8.5 2907:15	<u>A</u>	access	2945:1	2953:6
2927:22	a.m 2901:1	3039:1	3056:7	2960:11
2939:7	2989:16,17	3076:17	3060:25	2969:8,18,
2943:3	3018:22	3085:2,7	3062:16	23 2976:9
3138:2	AANDC	accessible	3119:19	2983:16
3140:4,13	3066:25	3114:24	3132:16,24	2994:24
3141:1	ability	accessing	3133:2	2996:24
8.52	3034:12	3125:14	acknowledge	3009:20
2907:5,7	able 2912:15	accomplish	2901:6	3014:3,6
2908:13,15	2924:14	2956:3	3019:2	3023:10
,24	2936:3,5	accomplished	acronym	3050:20
2936:7,15	2940:24	2958:17	2906:14	3064:17
2943:9,21	2964:21	according	across	3091:23
2951:15	3000:15	2982:21	2908:17	3095:5
		accordingly	3032:1	3104:13
		2935:7	3075:25	3108:9
		account	3076:21	actuals
				3020:2,9
				3078:9,10
				3080:8

add 2922:23 2940:9 2972:25 2973:10 2986:16 2988:22 3016:13 3067:23 3075:4 3128:5,6	2983:20 2985:1 2986:3,20 2988:24 2989:2 3006:22 3016:1 3043:21 3054:19 3058:7 3067:24 3084:8 3133:6	2932:20 3116:9 advanced 2948:1 advantage 2947:24 3008:23 adverse 2992:24 3011:18 advise 3071:14 3113:4 advisor 3026:6,17 3058:13 3071:25 AECO 3009:21 3010:14 AEF 3030:1 Affairs 3069:4 affect 2953:22 2974:5 2985:21 2986:1 3105:14 affecting 2953:17 affects 3114:21 affordable 3029:7,12, 21 3030:1,7 3031:19 3086:10 3101:17 afternoon 3006:22 against 2954:17 3038:9 3069:9 3127:11 3128:16	agencies 3050:22 3089:3 agency 3099:11 agents 3011:6 aggregated 3082:16 aggregation 3061:3 aggressive 2977:1 2981:8 ago 2948:11 3008:3 3057:10 3080:11 3091:5 3114:23 3133:17 agreed 3015:6 3020:2,11, 21 3021:8,20 3024:5,11 3025:7,13 3028:24 3029:14,19 ,21,22 3030:23 3031:19 3040:1 3041:18,25 3042:1,7,8 ,12,22,23 3043:3,15 3045:1 3047:12 3048:22,23 3050:2 3051:9 3053:8 3055:5 3057:7,8 3062:5,6 3063:14,15 3071:2,3 3077:10,11 ,19,20	3087:5 3101:16 3128:12 agreeing 3023:16 3095:3 3098:18 agreement 3087:10 3095:16 agreements 2988:14 ahead 2909:24 3091:7 akin 3072:18 al 3124:1 Alberta 3009:20 3010:9 all-elect 3047:20 all-electric 3028:10 3045:20 3051:24 3057:21 3059:5 3065:9 3067:14 3093:13 all- electricit y 3043:10 allow 2917:3 2924:17 2990:22 3083:15 3084:11 allowing 2990:23 alon 3027:7 alone 3027:20 already 2956:20 2957:1
--	---	--	--	---

2980:25	2922:6	3114:2,6,2	3042:11	3087:20
2999:1	2942:1,7,9	2 3118:13	3044:15	3115:17
3113:9	2947:24	3121:17	3096:16	3126:23
3124:2	2949:12	3138:24	3097:1	applications
3131:4	2950:4,13	3139:24	3111:10	3124:6
3135:6	2951:7,10,	answered	3116:14	3125:18
am 2960:16	11,13	3023:15	3119:13	3140:6
3009:15	2954:13	3096:5	3122:4	applied
3023:3	2968:15	answering	apartments	3074:6
3026:4	2985:14,16	2987:15	3044:14	3105:9
3027:15	,25	answers	3096:15	apply
3028:8	2986:19,24	2989:10	3109:5	3040:17
3029:24	2987:21	3087:15	3111:11,20	3086:25
3040:4	2988:18	3126:18	3113:5	appreciate
3046:18	2991:10	anticipate	3116:18	2927:7
3059:24	2992:7	3137:11	3121:22	3070:16
3062:9	2995:1	anticipated	apologize	appreciates
3084:6	3012:12	2969:6	2964:13	3113:22
3090:21	3043:18	3019:23	3015:17	appreciation
3104:2,17	3085:18	anticipates	3025:11	3015:12
3119:24	analyze	3062:10	3064:21	approach
America	2988:23	anticipating	3100:6,9	2952:8
3032:1	analyzing	3002:6	3109:19	2959:2
American	2984:21	3006:10	3141:16	2960:25
3013:21	3000:19	3021:3	apparently	2992:12
3107:1,9,1	Anderson	3025:5	2969:9	2993:18,19
1	2897:14	Antoine	appear	3001:9
among	anecdotally	2897:12	2968:17	3052:8,10
3062:11	3012:23	anyone	3011:20	3058:22
amount	annual	3092:23	3012:6	3061:21
2955:8,13,	2910:21	3095:22	APPEARANCES	3136:20
18 2957:9	2937:2	3124:21	2897:1	approached
2962:3	2966:25	3125:4	appears	3061:21,22
3000:8	2967:1,3,8	anything	2931:18	approaching
3138:3	,20	2988:1,3	2996:20	3057:25
amounts	3016:20	3022:18	Appendices	appropriate
2914:3	3051:1	3090:15	3070:14	2902:19
3021:19	answer	3091:6	apples	2911:21
3041:24	2924:2	anyway	3067:6	2977:19
analogous	2939:20	2989:7	appliance	3001:9
3133:16	2951:8	anyways	3105:15	3048:9
analyses	3035:22	2925:2	applicable	approval
2904:1	3056:20	2940:1	2903:7	2926:3
2953:7	3059:4	2945:17	2942:15	3015:4
analysis	3080:10	Apart	application	3017:5
2904:3,16	3082:22	3013:18	2896:7	approved
2906:25	3086:18	apartment	3016:11	3003:10
2907:9	3088:6	3041:25	3020:1,21	3140:6
2913:4	3089:19		3021:2	
2921:8	3090:3			
	3112:4			

approximate 2993:25 2995:23 2996:3	3112:14 3116:8	3039:21 3092:18 3111:3,9 3122:7 3135:6	3100:2,3 3106:9 3107:21 3124:8	2986:15
approximatel y 2938:2,8 2975:18 3062:12	arrangements 3100:15 3116:4	assistance 2909:13 3074:5,7 3086:22 3087:9,20 3088:21 3089:7,12 3090:5 3093:8,11, 24 3094:2,5,9 ,15 3101:15	assume 2964:7 2977:24,25 3012:1 3063:11 3073:18 3094:21 3104:2	attempt 3137:21
April 3015:20 3016:8 3140:7	art 2953:24	assisting 3110:22	assumed 2985:14,15 3064:19	attempting 2954:8 2960:24 2970:11 3036:14 3048:5 3057:14 3111:22
arbitrary 2974:7	articulated 2953:24 3007:17	assists 3042:14	assumes 2977:14	attend 3141:24
area 2911:24 2996:21,23 ,24 2998:19,25 2999:3 3001:10 3002:15 3107:5 3119:22	aspect 2988:21	associated 2904:8,24 2908:25 2911:25 2912:8,10, 12 2913:15 2915:10,13 2917:5 2920:9 2928:4,17, 24 2930:4 2932:18 2933:18 2939:14 2940:1 2947:7 2949:22 2957:17 2963:7,19 2969:1,21 2972:4 2984:17 2986:4,20, 23 3012:3 3029:7,12 3060:14 3075:15 3081:22 3083:2 3099:23,24	assuming 2929:19 2969:4 3003:17,25 3010:20 3015:3 3017:17,18 3035:17 3040:7 3048:20 3066:21 3094:16 3116:13	attention 2940:19 3012:14 3013:4 3020:24 3028:17 3042:17 3046:17 3051:6 3062:2 3127:4
areas 2993:23,24 2995:25 2996:7 2997:5 2999:6,7 3000:23 3001:1 3002:9 3004:15,24 3059:15 3060:4,5,1 0 3110:9 3111:13	aspects 2952:20	assess 2904:8 2921:10 2953:15 3038:6 3048:13	assumption 2985:8,13, 18 2986:3	at-the-till 3115:15
aren't 3045:15 3058:4	assessed 2928:19	assessment 2904:18 2992:8 3035:2 3038:8 3048:10 3069:4,9 3072:7 3073:15 3077:17 3129:2 3132:23	assumptions 2948:12 2949:4 2950:16 2977:11,12	attic 3026:8 3038:5 3058:17 3073:10
arguable 2954:25	assessing 2903:5 2905:25 2906:1		asterisks 3020:14 3029:4	attributes 3012:2
arises 2980:17	assigning 3095:2		assumptions 2948:12 2949:4 2950:16 2977:11,12	audits 3037:21
arrangement 3086:20 3092:4 3094:25 3099:8 3101:6	assist 2909:21 2993:5 3014:6 3028:9,13		attached 3008:17 3028:14 3041:25 3044:8,25 3093:18 3111:19	augment 2974:22
			attainable	August 3077:19 3081:3
				available 2925:19,20 2934:5 2978:5 2995:4 2996:8 2999:15 3004:15,24 3009:18 3033:9

3051:21	2960:25	, 22, 23, 24,	3060:6	3138:13
3098:21	balances	25	3073:8	behaviour
Avenue	2979:4, 19	2919:17, 24	3114:5	3011:7
2896:21	balancing	2920:23	3132:24	3104:9
average	3138:20	2931:16	basing	3120:24
2908:16	ballpark	2939:7, 13	2919:18	behavioural
2913:20	2995:5	2942:3, 20	basis	3010:24
2923:12, 15	3071:23	2951:5	2931:12, 15	3011:1
, 16	3124:6, 9	2971:25	2946:6	behind
2928:14, 16	3125:1	2977:13, 19	2966:22	2902:15, 16
2929:2	band 3046:1	, 22	3013:20	, 21
2940:14	3058:2	2984:17	3016:14	2936:21
2948:22	3071:16, 25	2988:20	3030:1, 7	2951:20
2970:10	3073:22	2995:6	3031:1	3008:5
3016:1, 4	bands 3058:5	2999:23	3032:4, 8	3029:4
3025:6, 12	banner	3001:9	3081:21	belabour
3038:1	3066:24	3002:24	3111:16	2948:9
3040:7, 25	barrier	3011:25	3114:16	believe
3047:2	3039:15	3012:1	3129:5	2925:7
3095:6	3069:19	3017:4	3136:17	2929:8
averseness	3112:21	3026:7	basket	2932:4
3012:8	barriers	3027:20	3040:13	2939:5, 13
avoided	2955:22	3034:19	BC 2975:3	2941:3
2912:17	3033:18, 23	3035:2, 7	bear	2945:11
2916:25	3038:15	3037:19, 21	2965:12, 15	2946:17
2958:15	3039:5	3040:17	beat 3073:5	2949:19
2973:13	bas 3064:9	3043:19	became	2951:19
awarding	base	3048:2	2981:8	2953:23
2902:18, 20	2985:13, 16	3050:19	beck 3018:18	2955:17
aware	, 18 2986:2	3051:3	become	2959:10
3011:16	3041:11, 15	3066:6, 9	2925:20	2974:20
3032:14, 15	3042:3, 4	3068:2	2947:13	2976:12
3069:7	3043:25	3073:7	3003:15, 20	2977:16
3086:14	baseboard	3079:12	becomes	2987:5
away 3091:20	3110:20	3082:9	2913:23, 24	2989:19
3105:10	3112:10	3103:8, 9	2919:22	3003:8
<hr/>	baseboards	3108:12	2925:19	3004:13, 21
B	3000:14, 15	3112:24	2960:10	3006:25
ba 2931:19	3003:15	3113:3	2985:13	3008:11
backdrop	based	3114:19	3073:11	3018:25
3014:21	2907:23	3122:19, 21	3111:20	3033:16
bad 3015:15	2911:22	basement	begin 3115:7	3035:3
3075:3	2912:22	3026:8	2953:16	3059:19
balance	2913:4	3096:11	2955:9	3060:12
2954:16	2914:17	basic	3073:11	3073:17
2959:8	2915:12, 22	3026:18	3111:20	3079:15
balanced	2916:8, 11	3054:20	behalf	3089:18
2959:16	2918:11, 20	basically	2953:16	3092:18
		2942:7	2955:9	3093:18
		2956:8	2958:9	3108:8
		2971:12	3013:19	3118:17
		2984:24	3014:4	3121:19

3130:10,11 3136:2,17 3137:3 3138:16 3139:20 believing 3008:16 belittle 3128:21 bell 3060:15 beneficial 3091:10 benefit 2904:22 2905:8,9,1 1,14 2906:4,18 2908:5,20 2912:18 2921:11 2936:19 2942:9 2943:4 2944:6,24 2945:1,14 2954:12,18 2956:20,23 2957:6,16 2958:2 2963:23 2964:1,5,1 5 2967:25 2991:9 3004:7 3019:12 3036:9 3096:1 3104:12 3105:2,16, 17 3106:14,16 ,21 3107:2 3109:12,15 3116:18 3137:11,19 3138:2 benefited 3105:21 benefiting 3002:10 3105:25	3116:23 benefits 2904:8,13, 14,17 2905:1 2906:3,18 2907:3 2910:11 2921:14,23 2922:7,17, 22 2923:1 2932:6 2943:8 2944:22 2963:1,7,1 9 2965:12 2969:4,14 2972:22,25 2973:11,17 2974:23 2976:7 2991:5 2992:7,9 3089:7,21 3091:1 3104:17 3106:7,12, 20 3108:13 3135:23 3137:15 3138:6 beni 3138:12 best 2917:15,16 2930:22,23 2954:10 2959:5 2964:14 2977:11 2983:22 2992:14 3011:20 3017:9,11 3033:9 better 2922:12 2969:9 2992:13 2993:1 3001:12 3035:23 3056:4,6,1	7 3058:24 3072:24 3076:23 3090:23 3125:14 3131:11 beyond 2957:7,8,1 0 2963:18 3137:20 bias's 3008:4 bigger 3023:24 bill 2966:9 2991:1,12, 15 3039:10 3041:12 3044:17 3073:21 3074:1,6,8 3084:12,24 3085:3,5 3087:2,6,1 2 3088:11,12 ,20 3091:20,24 ,25 3092:2 3095:4,5,9 3096:9,12, 21 3097:5 3100:25 3109:13,20 ,25 3110:20 3112:9 3113:2,6 3114:16 billing 3066:20,24 3113:4,5 3114:14,19 billion 3014:23 billions 3015:6 bills 2966:16 3109:12	3114:9 binder 2909:20 Bipole 3014:25 bit 2959:9 2995:8 2998:17 3007:15 3008:13 3011:17 3013:15 3019:5,6 3028:18 3030:13 3033:12 3056:16 3064:21 3065:3 3072:4 3075:6 3076:1 3081:15 3105:19 3108:20 blame 3081:11,13 blocks 3122:4 Bluff 3000:23 board 2896:3,13, 14,15,16,2 0 2897:2 2903:18 2906:5,8 2909:18,19 ,21 2910:3,4,6 ,16 2911:19 2914:12 2924:14 2929:11,17 2930:17 2934:14,16 ,21 2935:14 2936:5,19, 23 2939:8	2943:1,19 2944:2 2945:25 2952:24 2958:13 2959:20,24 2960:8 2967:20,23 2968:12 2970:9,21 2977:7 2978:22,23 ,25 2979:10,24 2980:22 2982:3 2984:24 2985:10 2986:13 3007:7 3017:5 3028:17 3037:6 3057:11 3059:18 3077:2 3081:17 3112:24 Board's 2940:18 3134:17 Bob 2897:2 2898:12 2902:2,3,1 4,22 2903:1,11, 15 2904:2,6,1 1 2905:6,13, 18 2906:5,17, 22 2907:2 2909:11,24 2910:14,24 2911:6,11, 18 2912:25 2913:7 2914:2,11 2924:6,7,1 2 2925:4,7,2 3
---	--	--	--	---

2926:5,13	2978:21	3092:8,23	3034:14,25	2978:23
2927:7,23	2979:8	3097:20	3035:14	3001:4,8
2928:5	2980:3,14,	3103:12	3038:18	3077:3
2929:4,10,	20	breakdown	3039:17	3105:13
23 2930:15	2981:3,7,1	2900:7	3045:5	3111:7
2934:11,12	3,22	2910:17	3046:3,14	3116:10
,19	2982:8,17	2940:25	3049:25	bringing
2935:1,6,1	2983:1,5,9	2941:9,14	3052:1,20	2998:24
2,21	,14,25	3047:7	3053:13	3036:9
2936:3,18	2984:23	3051:23	3054:13	3106:14
2937:9,14,	2985:7	3052:6	3055:1	3111:5
18 2938:5	2986:11	BRIEF	3063:21	broad
2939:6	2987:7	2908:10	3064:13	2905:12
2940:6,17,	2988:2	2916:16	3066:16	broader
23	2989:9	2924:21	3068:22	3083:9
2941:5,20,	3006:14	2926:9,18	3069:13	broken
21	bogged	2927:5	3070:8	2907:23,25
2942:10,13	2943:1	2936:1	3071:9,19	brother
,18,25	book 2906:6	2937:4,16	3075:9,19	3031:25
2943:7,11,	2909:14,25	2938:18	3077:13	brought
18	2910:2	2939:10,17	3079:22	2940:18
2944:1,11,	2910:2	,22	3080:23	2964:18
16 2945:23	2944:11	2943:25	3086:16	3058:15,16
2946:8,19	2952:11,19	2944:14	3088:15	3088:23
2947:1,9	2953:4	2947:17	3089:16	budget
2952:1,2,1	2954:15	2949:17	3092:15	3017:24
0,22	2968:12	2955:4	3098:1,5	3018:6
2953:10	2972:20	2961:7	3099:13	3023:24
2954:19,25	2975:9	2962:19	3100:19	build
2956:1,25	2978:23,25	2967:14	3101:3,10	2956:12,14
2958:11	2981:18	2968:22	3102:7,13	3012:7
2959:18	2982:3,18	2970:2	3108:6,17	building
2960:3,7,1	2990:2	2971:1	3113:12,24	2916:5
6	borrowing	2974:17	3114:11	2917:3,5
2961:9,13,	3015:6	2979:6	3118:1	3111:4,24
19 2962:21	bot 3029:24	2982:13	3121:1,25	3119:2
2963:9,21,	bottom	2984:6	3124:11,17	buildings
25 2965:1	2970:19	2987:12	3125:8	3113:1
2966:6,14,	3041:5,14,	2988:6	3126:5	3119:13
20,24	22 3062:8	2990:19	3127:1	built
2967:7,11,	3070:20	2994:18	3130:25	2999:9,11
18,23	3128:9	2995:20	3132:6,12	3068:3
2968:4,10,	bound 3140:9	2996:17	3134:22	3069:22
17 2969:15	BP3 3014:24	2997:20	3139:5,15	3075:24
2970:7,18	Brandon	3002:3	briefly	3076:3,4,5
2971:3,21	2997:5	3004:19	2914:11	bulk 3096:15
2972:8,12,	3059:16	3005:4	3006:16	burdensome
19,24	break	3009:3,13	bring	3074:10
2973:7,10	3018:17	3012:19,25	2922:25	
2974:6,12	3081:14	3022:11	2923:4,17	
2975:8,21	3087:17	3025:16	2958:12	
2976:5,14,		3026:11	2964:21	
19,24		3027:3	2965:23	
2977:6				

business	17,23	22	0,21	CAC/Manitoba
2954:1,3	3032:9,17,	3068:4,10,	3118:11	2910:6,15
2958:19	25	15,24	3119:4,21	2911:13
2984:4,9	3033:15,25	3069:8	3120:19	2924:16
3108:14	3034:8,19	3070:1,12,	3121:9,16	2936:4
3139:10	3035:7,22	17,24	3122:9,20	2941:2
buy	3036:11	3071:4,11,	3123:11,12	CAC/MSOS
2965:19,23	3037:5,15,	14	3124:7,19	2909:15
3115:8	16	3072:8,15	3125:16,23	CAC-9 2899:4
buying	3038:2,11,	3073:3,4,1	3126:2,7,1	3007:3
2965:25	22 3039:19	3,19	6	3019:13
Byron 2897:7	3040:3,23	3074:11,18	3127:3,9,1	3025:20
2898:13	3041:13,20	3075:2,11	5,24	3062:2
3006:20	3042:2,9,1	3077:5,15,	3128:8,14,	calculate
3007:6,10,	3,24	21,24	20	2918:10
11,24	3043:4,12,	3078:4,24	3129:3,9,1	2947:23
3008:20	22	3079:3,7,1	5	2965:9
3009:5	3045:1,11,	2	3130:3,9,1	2987:8
3010:7,15	18	3080:7,14,	6	calculated
3011:3,14	3046:8,16,	17	3131:1,5,8	2911:5,24
3012:10	25	3081:4,9	,12,15,25	2925:2
3013:2,14,	3047:6,14,	3082:1,14,	3132:8	2974:8,10
23	19	21 3083:7	3133:14,22	3063:12
3014:8,12,	3048:11,19	3084:15,25	3134:8,13,	3081:21
17	3049:1,6,1	3085:12	24	calculating
3015:3,9,1	3,17	3086:6	3136:5,12,	2911:12
8,24	3050:1,7,1	3087:14	24 3138:22	2991:4
3016:6,12,	1,24	3088:4	3139:17	calculation
16	3051:5,11,	3089:9,24	3140:12	2911:6
3017:8,16	16,20	3090:10,17	3141:13	2916:7
3018:14	3052:3,22	,18 3091:4		2919:7
3019:4,8,9	3053:6,10,	3092:7,21	C	2929:11
3020:4,13,	21	3097:17,18	CAC 2897:7	2930:2
18,23	3054:3,22	3098:7,12,	2899:4	2942:19
3021:6,10,	3055:3,7,1	18,22	2909:16	2944:7
15,18,22	2,15,21	3099:6,15	2927:14	2949:20
3022:3,7,2	3056:19	3100:8	3006:24,25	2950:9
1,25	3057:5,9,2	3101:5,19	3007:4	2953:12
3023:10,14	0	3102:1,11,	3019:19,22	2971:13,22
,21	3059:2,17,	15	3023:1,22	2988:19
3024:7,13,	24	3103:1,10,	3024:25	3002:22
19,24	3060:8,12,	22 3104:21	3039:20	3016:25
3025:9,18	18	3105:18	3046:18	calculations
3026:2,15,	3061:2,6,1	3106:3,17	3051:6	2919:19
21,24	4	3107:7,16,	3070:3	2921:10
3027:11	3062:1,7,1	19 3108:19	3077:6	2922:2
3028:6,16	4,19	3109:17	3126:3,8,2	2924:8,15
3029:1,10,	3063:8,16	3112:3,16,	0 3130:5	2929:9,17
18,23	3064:24	23 3113:14	CAC/GAC/MH	2977:14
3030:6,12,	3065:3,11,	3114:1,20	2927:14	campaign
20,25	17	3115:2,18	CAC/Hydro	
3031:5,11,	3066:1,6,1	3116:1,13,	3070:6	
	3	21		
	3067:2,13,	3117:1,5,2		

2992:11	3072:2	,22 2939:7	3130:9	2944:10
campaigns	3076:24	2943:3,9,2	3134:13	change
3060:15	3091:8	1 2947:12	3140:1	2918:1
Canada	3104:15	2970:22	3141:14	2919:21
3069:5	3108:15	2971:4	Chairman	2920:5,7,1
cannibalizat	3111:24	3003:7	2896:14	6,18
ion 3124:3	3130:1	3029:20	2901:8	2931:18
capabilities	3137:24	3030:9	2932:22	2932:19,24
2977:3	3139:10	3031:20	2934:14	2933:25
capacity	cases 2905:4	3138:2	2946:20	2945:18,20
2907:13,14	3000:12	3140:4,23	2973:19	2947:2
,15,25	3001:20	3141:1	2989:10	2949:25
2979:24,25	3086:11	CEO 2950:21	3006:14	2951:14
2980:15,17	3091:21	3136:8	Chairperson	2953:18
2983:15	3110:11,24	certain	2901:3,18	2960:18,23
3103:17	3116:9	3040:8,19	2919:11	2964:18,20
capital	cat 3039:5	3063:6	2920:20	,22,23
2949:20	cater 3012:8	3083:19	2921:2,13,	2969:24
2976:10,11	caulking	3118:22	20 2931:11	2977:15
3015:5	3027:7,8	3133:23	2951:14	2987:18
3039:13	caused	3138:14	2989:13,19	2999:13
3060:3	2951:17	certainly	2991:3,16	3001:24
3120:10	caveats	2979:13,17	2993:7	3003:3,11
capture	3017:14	2983:6	3002:20	3016:18
3123:25	3018:15	3001:17	3003:12	3017:9,18
captured	cavity	3008:1	3004:9	3022:16
2957:25	3026:9	3011:9,16	3005:6,14,	3027:23
3054:8	cen 3140:22	3015:20	20 3006:12	3046:12
3124:1	Centra	3018:18	3018:19,25	3076:8
carefully	2993:24	3028:7	3072:25	3081:14,15
2958:15	2995:24	3036:14	3093:1	3092:1
3122:21	2996:1	3060:18	3094:7,13,	3095:5
carries	3013:19	3092:22	23 3095:11	3104:11
2967:19	3082:16	Certificate	3096:8	3133:7
central	central	2898:15	3097:9	changed
3110:2	3110:2	Certified	3134:18	2918:12
centres	centres	3142:9	3139:22	2933:17,19
2997:3	2997:3	cetera	3141:23	3104:15
cents	cents	2920:5,15	Chair's	3105:10
2907:5,7	2907:5,7	2948:14	3073:14	changes
2908:24	2908:24	3119:25	challenge	2917:11
2911:15	2911:15	CFL 3105:9	3108:1,9	2918:1
2912:20	2912:20	Chair	3109:4	2920:1,3,4
2913:25	2913:25	3013:16	challenges	2925:13,15
2914:13	2914:13	3019:4	3055:4	2932:1,9,1
2916:1	2916:1	3037:5	3112:7,18	2 2934:8,9
2918:18,19	2918:18,19	3057:11	3121:22	2940:10,13
2927:19,20	2927:19,20	3059:18	challenging	2945:10
		3073:4	3053:16	2951:21
		3092:22	chance	2978:4,5
				2986:8,25
				2987:1

changing 2933:9 2993:14,15 ,19 3027:19	3087:3 3093:21 3097:21 3125:5 3136:13	s 3017:4,20 3098:22 3109:6,19, 24 3110:21 3112:8 3116:14 3118:19	3016:24 3017:2 3056:22 3059:5 3100:12 3103:11	3105:7,13, 21 cognizant 2903:5 3105:17,19
characteristics 3037:25	checking 3038:5 3086:3 3132:9	City 2897:16 2994:22 2997:9,10 3060:5 3120:12	clearly 2990:6 2993:8 3023:24	cold 3019:5 3119:15,25
characterize 2930:23	checklist 3033:2	claimed 2971:9	client 3060:19 3081:13 3112:6 3121:13 3134:9 3135:8 3136:25	collecting 3115:16
charge 3085:8,9 3087:5 3095:3,22, 25	Chernick 2925:8 2928:5	clarification 2981:4	clients 3067:16 3120:22	colourful 3023:25
charges 3085:4 3110:3	Chernick's 2928:12	clarify 2908:12 2921:2 2946:2 3137:1	client's 2993:8 3027:13 3054:4 3135:2	column 2970:19 3020:8,19 3041:21
chart 2952:25 2959:20 2960:12 2976:15,16 2980:9,18 2982:10 2999:25	Cheryl 3142:15	clarifying 2945:6 3026:3	close 2922:24 2923:3 2973:4 2994:25 2995:2,16 2996:22,25 2999:2 3000:13 3001:1 3022:23 3060:3	com 3101:17
charts 2979:24	chiller 2908:4	clarinty 3027:12	closer 2909:19 2997:16 3141:8	comb 2915:12 3138:22
chat 3046:12 3113:17,18 3121:11	choice 3027:23 3084:6	clarity 3016:15 3027:12	clothing 3040:10	combination 2915:12 2919:1 2962:5
chatting 3025:19	choices 2993:6 3011:25	class 2941:24 2942:15,20 2972:21 3090:1 3139:2	CO2 2922:13	combine 2960:8
check 2939:12 2951:20 2969:23 2970:5 2980:11,12 3035:2,17 3036:1,24 3043:6 3046:6 3048:24 3050:13 3078:16 3079:6,10, 11 3085:23,24 3086:4	choose 3001:12 3008:7 3009:1 3011:18 3012:4	classes 2942:3	code 2964:18,19 ,21,22	comes 2906:23 2918:3 2927:23 2956:11 3066:19,24 3084:20 3141:6
	choosing 3004:15	classify 3096:19	codes	comfort 2923:6 2973:18
	chose 3056:21	clean 3028:20		comfortable 2922:4 2987:15 3076:21
	chosen 3126:12	cleanup 3097:19		coming 2919:14 2932:11,13 2959:15 3083:22 3091:20 3140:22 3141:3
	circles 2979:23	clear 2909:12 2951:3,12 2971:3		
	circulated 2910:3			
	circumstance 3076:13 3091:15 3112:13			
	circumstance			

comm 3096:18	3037:1	2969:5	3080:18	2928:10
commences	3040:19	3008:9	completely	2955:7
2979:25	3052:15	3009:10	3012:1	2983:9,13
commencing	3058:1	3011:19	3057:25	concrete
2901:1	3059:6	3012:15	3141:19	2985:4
comment	3060:1,3	3020:1	complex	condition
2925:5	3064:10,18	3023:18	3096:16	3069:18
2944:1	3066:23	3031:24,25	component	3136:15
3001:16	3068:6	3032:4,18,	3120:16	conditions
3009:18	3070:19	19	3125:4	3038:4
3083:22	3071:1	3034:4,21	components	3069:4
commentary	3072:3,4,1	3035:10	2900:9	conducts
3136:7	7,22	3038:13	2907:25	2966:21
commented	3073:9,20,	3040:25	2924:24	confidential
3034:17	25	3044:8	2928:3,15	2929:14
comments	3074:5,20	3065:18	2941:10,16	2930:8
2928:12	3075:13	3085:16	2958:1	confirm
2958:12	3076:2,9,1	3090:6	comprehensiv	3032:10
commercial	1,13,15,19	3103:14	e 2959:16	3053:20
2908:4	3077:1,2,1	3115:5	con 3008:12	3070:15
2922:14	0 3080:21	3116:24	3139:24	3073:7
3096:19	3081:5	3117:8,16,	Conawapa	3082:23
3111:5	3103:18	23	2916:5	3098:13
3112:15	3116:7,9	3122:16,24	2920:6,25	confirmation
3119:2,22	community	3123:8	2978:2	2939:8
3120:6	3001:8	compares	3014:25	conflating
3122:3	3013:10	2906:19	concept	3139:24
3127:18,25	3040:9	comparing	2975:10	confused
3128:10,21	3041:1	2921:23	3040:17	3104:22,23
,23	3048:24	2957:16	3055:8	confusion's
3132:22	3050:21	3034:1	conceptual	2919:14
3133:10	3052:10	3122:14	2929:4	connected
commercially	3058:23	comparison	concern	2998:2
2930:7	3060:20,21	2900:18	2997:25	consequence
commit	,25	2950:13	2998:22	3127:25
2930:25	3071:22	3019:23	3001:22	conservation
commitment	3081:6	3040:5,24	3007:17	2993:11,14
3134:19	comp 3040:5	3048:20	concerned	,18
commodity	compact	3122:23	2997:2	3005:10
3010:2	3026:22	3123:5	2999:7,13	3083:2
common	3133:9	competence	3001:18	3106:21
3057:6	comparable	3038:5	3002:17,19	conservation
commonly	3040:13	complete	concerns	-based
3009:18	compare	3056:21	3003:9	2942:23
commu 3013:9	2914:7	3126:11	conclude	consider
communities	3023:4	3130:5	3129:11	2949:5
3036:23,24	3068:5	completed	conclusion	2954:11
	3137:11	2902:11	2911:19,20	
	compared	3074:24		
	2900:15,20	3077:17		
	2914:3	3078:1		

2958:24	s 3056:13	2898:12	2991:12,13	2960:1,2,1
2962:2	consulting	2902:2	co-op	5,16
2966:4	3014:5	2924:6	3100:15	2961:12,16
2989:8	consumer	2934:11	coordinated	2966:19,23
3011:18	2905:9,16	2941:20	3050:21	2968:3,16
3139:10,11	2960:4,13	2952:1	coordinator	2970:14
considerable	2965:2	3004:4	3072:1,24	2972:22,23
2943:2	3008:5	3019:8	3103:21	2975:20
considerably	3011:19	3037:15	coordinators	2976:17,18
2946:24	3012:5	3073:3	3058:6	2977:3
2990:10	3017:17,22	3090:17	copy 2909:17	2980:1,2,1
3032:13	3018:10,12	3097:17	2910:4,6	8,19,24
consideratio	3106:5,6	3117:20	2979:10,14	2981:2,6,1
n 2922:6	consumers	3123:11	Cormie	0
2940:16	3004:11	continuing	3106:24	2982:22,25
2946:11,18	3007:19	3004:5	corner	2983:2,8,2
2947:6	3008:12,16	contracts	3019:20	4 2985:5
2954:6,10	,21	2948:1	3025:21	3000:4,5,1
2955:22	3011:18,25	contribution	Corporation	0 3005:13
2958:20	3012:14	2907:14	2958:14	3015:23
3139:8	consumer's	3101:18	2960:18	3017:21
considered	3018:6	convenient	2986:15	3021:4,5,1
2942:21	consumption	3011:11	3016:7	3,14
3130:23	2966:8,16	3083:17	3106:15	3022:1,2
3131:19	3000:4	3084:23	corporations	3023:3,19
considering	3017:23	conversation	3059:10	3024:17,23
2934:4	3104:7,11	3008:2	Corporation'	3026:4,14,
3003:22	contact	3013:6	s 3019:22	16,25
consistent	3071:16	3030:21	3140:3	3027:15
2974:10	contained	3036:20	correct	3028:8
3029:16	2924:16	3060:13	2902:13	3029:8,9,2
constant	containing	3081:17,24	2903:9,10,	5 3030:10
3017:20	2959:20	3082:3	18 2904:5	3034:3
constructed	contains	3086:7	2905:12	3040:4
2998:5	2982:20	conversely	2906:16,21	3043:11
3069:22	CONTENTS	2996:11	2910:12,13	3045:23
constructing	2898:1	conversion	2911:10,17	3046:18,24
3076:14	context	2989:22	2914:5	3047:13
construction	3073:1	2990:7,13,	2924:11	3049:4
2995:7,17	3100:13	16,25	2926:16	3050:6,10
3076:1	continue	2991:1,6,2	2934:25	3051:14
consult	2964:7	0,23	2935:8,25	3054:16
3069:3	3004:6	2993:7	2937:13	3059:24
3092:8	3009:9	3005:8	2942:17	3062:9,13,
consultant	3092:23	conversions	2943:6,10,	18,22
2968:6	3112:18	3006:2	13,23	3064:23
3013:25	3134:16	convert	2950:12	3065:10
consultation	continued	3005:8,23	2952:6	3068:14
		converting		3075:7
				3077:22,23
				3078:2
				3079:20
				3080:19
				3082:8

3083:3,10	2916:8,12,	3141:2,7	3137:25	3087:7
3090:22	22,25	Costa 3014:5	counsel	covers
3096:13,14	2917:4,5	cost-	2897:2	2945:11
3097:8	2918:24	effectiven	2902:6	3074:8
3101:21	2921:15,22	ess	2930:19	crawlspac
3106:11	,25	3028:23	3006:16	3026:9
3109:16	2922:19,24	3126:13	3113:19	credit
3114:25	2923:17	costing	counsel's	3039:10
3115:1,20	2925:8	2954:23	2906:6	3085:23
3116:20	2927:15,16	3033:3	2968:12	3086:3,4
3119:24	2928:22	costs	2978:22	criteria
3126:1,15,	2930:12	2905:19,22	2982:3	3122:22
24	2932:14	2906:20	2985:10	3132:4
3127:8,13,	2933:4	2907:23	3007:8	critical
14,22,23	2934:9	2910:12,17	3028:18	3074:12
3128:2,13	2935:7,13,	,19	count	3100:11
3129:8	22 2937:11	2911:25	3104:19	criticism
3130:7,8,1	2938:1,10	2912:15	counterparti	2925:8
8 3139:24	2942:18	2914:9	es 2988:14	criticize
3142:9	2947:11,13	2915:5	counterparts	3028:7
corrected	2948:6,14	2916:4,14	2907:20	3090:4
2980:14	2949:5,25	2918:21,25	couple	cross-
correctly	2951:15	2919:13	2902:15	examinatio
2952:5	2952:13,18	2920:4	2936:16	n
2995:13	,23	2923:10,11	2967:17	2898:12,13
3082:8	2953:1,4,9	,12,15	2976:9	2902:2
3087:19	,14	2926:14	3007:24	3006:19
3096:6	2954:20,23	2928:7,17	3036:12	3007:10
3121:23	2955:1,7	2932:14	3038:12	current
correlate	2957:23	2933:10	3046:9	2914:17,18
3115:11,13	2964:23,24	2941:22	3081:3	2916:14
correspondin	2965:15	2943:13,17	3093:1	2934:8
g	2966:11	,20 2946:3	3114:23	2953:25
2955:13,15	2969:1,20	2947:7	3123:12	2979:12
cos 2916:3	2970:10,11	2949:21,22	3133:9	2980:16
2917:21	,16,20,21	2950:15	course	2981:5
cost	2971:6,8,1	2951:5	2911:14	3020:1,9
2903:8,12	0,18,19	2957:16	2922:18	3031:12
2904:4,7,1	2973:3,23	2963:1	3003:17	3093:2
2	2974:13	2969:5	3016:7	3136:15
2905:1,2,3	2990:9,25	2970:20	3038:2	currently
,5	3003:5,6,2	2971:15,16	3091:21	2918:4,11
2906:2,4,1	1 3027:18	2973:15	court 2970:8	2946:14
0,13	3032:7	2992:15	cover	2968:20
2907:8	3099:17,21	3002:22	3027:5,16,	2978:16
2910:22	3100:1,3	3003:14,16	18 3028:18	2984:20,21
2911:1,4	3106:14	,21,23	3085:11	2994:10
2912:8,17	3130:23	3028:24	covered	3026:3
2913:18,19	3131:19,23	3100:2	2951:7	3079:9
,22	3132:2	3106:9		
2914:12	3137:10,19	3135:18,23		
	3138:10	,24		
	3140:3,21			

3107:12	2996:20	3016:2,10,	2940:20	2939:3
cus 3008:6	2999:18	13,22	December	decreasing
3120:13	3000:2	3017:13	2902:11	2961:5
cust 2957:11	3001:12	data 2924:17	3046:19	deem 3038:9
3044:16	3002:13,14	3012:22	decided	3069:23
customer	,18	3036:1,16	3083:25	deep 3128:10
2929:1	3004:14	3066:25	deciding	3129:4
2941:24	3008:6,14,	3103:9	2922:9	deeper
2942:15,20	25 3026:5	3122:13	3121:4	3132:16
2952:20	3030:5	date 2914:6	decimal	3133:3
2954:11	3035:5	2969:11	2959:25	defer
2956:12	3036:8	2976:9,16	2975:13	2912:15
2957:12,20	3037:24	2998:11,21	decision	2913:22
2965:2,11,	3039:11,15	3030:19	2932:18	2917:3,5
14	3041:12	3059:9,14	2948:20	2918:9
2966:4,7	3043:14,20	3060:2	2993:4	2945:15
2990:13	3048:5	3074:21	3011:19	2976:9
2991:12,19	3050:22	3076:11,18	3084:4	2978:10,12
2992:16,19	3053:17	3080:18	decision-	,14 2981:9
,23	3056:6	3081:7	maker	2985:19,20
2999:16	3063:1,3	3101:20	3011:24	deferral
3002:10	3082:11,19	3102:2	decisions	2911:24
3032:22	3084:7	3108:13	2992:14	2932:5
3036:6	3093:10,13	3125:11	decline	2948:3
3040:20	,17,23	day 3014:19	2938:24	2949:24
3041:11,15	3111:6,18	3017:4	2944:20	2977:3
3042:3,4	3115:9	3136:8	2961:20	2978:20
3044:16	3118:9,10	daylight	3017:22	2983:21
3047:9	3120:14	2923:8	3018:6	2984:1
3050:19	3122:7,11	day-to-day	declined	2986:14
3056:18	3125:13,14	3010:3	2935:2,19	2987:9,10
3066:19	,15	3119:18	2937:25	3106:8
3083:24	3135:15	deadline	2938:1,4,7	deferred
3089:4,5	customer's	2902:18	2946:24	2916:11,12
3091:1,16	2990:12	deal	3107:14,17	2931:15
3095:25	3000:11	2913:15,16	declines	2976:21
3096:19	3114:17	2989:2	2935:15	3105:3
3110:22,23	cutoff	3090:23	2944:4	deferring
3111:21	3035:6	dealing	declining	2916:24
3115:17	3040:21	2933:23	2935:9,10,	2917:19,22
3120:13	3075:24	3112:13	13	2918:3
3138:7	3098:10	deals	decrease	2944:24
3141:5	<hr/>	3120:10,12	2938:25	2949:5
customers	D	debate's	2939:4	2988:10,15
2942:3,8	DARREN	3011:8	3022:18	,20
2954:17	2898:7	debt 3016:25	3023:6,18	defined
2956:10	2901:22	3094:17	decreased	2952:24
2959:17	2951:2	decade	2935:7	defines
2990:16	2987:14			2947:22
2992:12,20	3015:1,7,1			
2993:3	3,23			
2994:4,10				

definite 2930:6	n 3120:22	2929:16	DeSorcy 3113:16	3071:15
definitely 2934:7 2949:1 2985:23 3009:16 3088:23 3089:1	Denise 2897:16 denominator 2910:11 2943:12 denote 3029:5 denoted 2974:24 3001:11 denoting 2998:20 3001:1 deny 3032:10 3086:11 depart 3011:23 depend 3104:8 dependable 2920:1 2978:6 2981:24 depending 2921:4 2964:3 3000:12 3109:25 depends 2994:21,24 3086:18 3087:15 3141:12 depicted 2940:24 2979:20 depiction 3024:3 3029:2 depreciation 2915:25 derive 2986:21 derived 2914:13 2924:19	describe 2921:24 3011:7 3015:10 3025:3 3037:24 3103:4,25 3135:8 described 2919:16 2930:13 describing 2992:6 3038:4 description 2899:2 2900:2,4 2930:9 2931:3,7 3037:20 descriptive 3020:7 design 2903:23 2952:5,12, 17,21 2954:6 2958:7 2963:5 2966:3,5 3050:16 3133:25 3134:2,4 3137:4 3138:25 designated 2974:24 3040:21 designates 3040:19 designed 2942:16 3039:14 3115:24 designing 2903:17 3112:22 3140:19	detached 3041:24 3064:3,5 3111:19 detached/ semi- detached 3065:16 detail 2946:12 2994:21 3085:13 details 2930:4,5 determinate 3139:3 determinatio n 2952:16 3132:2 determinatio ns 2977:19 determine 2904:12 2905:21 2916:21 2921:10 2928:19 2930:12 2943:15 2945:18 2946:5 2953:12 2984:15 determined 2900:6 2931:4,9 3040:16 determining 2931:12 2974:14 develop 2947:22 3072:19 3120:5 developed 2948:15	developers 3008:4 developing 2948:7 2964:8 3068:24 3122:2 development 2920:12,23 ,25 2976:11 2981:15 2985:17,22 3056:15 3069:5 developments 3007:18 3009:7 diesel 3068:6 3070:6,18, 21 3072:3,17 3073:25 3074:20 3075:12 3076:9,12 3080:21 3081:5 difference 2915:4 2951:12 2987:6 2990:11 3003:20 3004:5 3021:18 3022:4 3050:12 3094:14 3095:11,19 3096:23 3137:25 differences 2940:16 2992:15 different 2903:6,9,1 2

2920:8,10	3121:4	y	2910:20	documents
2921:4,9	digging	3034:5,10	disproportio	2901:6
2923:11	3113:20	discuss	nately	2906:6
2928:25	direct	2975:9	3035:11	2909:14,25
2929:1,2	2961:25	3062:3	disrespect	2910:2
2937:23	3020:24	discussed	3019:10	2944:12
2942:2	3082:4	3003:8	dist 3114:7	2952:11,19
2948:16	3132:18	3050:1	distinguish	2953:4
2951:10	3133:5	3127:10	3114:7	2954:16
2959:1,2	directing	3133:17	distribution	2968:12
2969:25	3024:25	discusses	2900:9	2972:20
2991:13	3028:16	2925:1	2911:23	2975:9
3001:3	3042:16	3037:7	2912:2,3,7	2978:23,25
3009:17	3046:17	discussing	,24	2981:18
3010:9	3062:1	2941:23	2913:9,11,	2982:4,19
3033:23	3127:4	3136:10	12	2990:2
3045:17	direction	discussion	2914:1,9	3019:2
3057:25	2945:12	2922:21	2918:15	3092:12
3099:8	3004:2	2929:13	2924:24	dod 2912:13
3101:7	3134:17	2930:16	2925:9	dollar
3102:17	directionall	2937:19	2926:14,25	2912:19
3103:17	y 2955:16	2940:21	2927:16,21	3084:8
3119:15	directly	2943:2	2928:1	dollars
3126:18	2937:1	2945:4	2929:12	2911:15
3132:21	2955:24	2948:10	2933:4	2912:20
differential	2962:13	2954:15	2941:1,10,	2913:25
2907:12	3044:2	2975:16	16 2942:9	2940:10,11
2957:8	3058:5,24	2988:4,9,2	3036:22	2957:19,20
3004:3	3086:13	3 3007:16	3105:3	2992:18,19
3137:18,20	3088:12	3008:13	3106:9	3009:23
3140:10,13	3097:1	3011:1	divide	3014:24
,22	3105:2	3013:15	2913:21	3015:6
differently	3115:6	3030:13	2971:15	3039:8
2915:8	3118:15	3057:10,13	dividing	3099:22,23
difficult	disagree	3059:18	2915:15	domestic
2927:9	3034:7	3072:19	division	2957:9,24
2961:5	3045:7	3077:8	3001:17	3138:1
2994:23	3078:8	3084:20	doc 2978:25	done 2921:22
3033:10	disc 3134:17	3088:22	document	2930:3
3039:1	discern	3093:2	2909:21	2931:21,22
3074:4	3074:4	3097:20	2910:1	2941:1
3076:15	discount	3099:16	2980:5	2950:2
3105:6	2923:17,23	3112:24	3002:23	2956:20
3111:15	2924:8,9	3123:13,14	3019:15	2987:21
3134:6	2948:13	3134:25	3028:18	2988:18
3139:21	discounted	3135:1	3069:16,17	3005:22
difficulties	2923:20	3136:6	documentatio	3014:4
3092:5	discretionar	discussions	n 3049:18	3023:8
difficulty		2906:9		3033:1
2969:25		3089:2		3054:20
3100:7		display		3056:14

3059:1	drafty	3019:24	2973:19	2996:22
3078:18	3027:14	3021:3	2989:24	3001:4
3085:17	dramatic	3024:4,10,	2990:4	3031:16
3091:17	3003:20	16,21	2998:18	economics
3108:13	draw 2955:6	3056:10	3003:8	2974:5
3110:9	Drawing	3081:22	3022:14	3010:24
3132:19	3051:5	3083:9	3030:16	3011:2
3135:6	drive	3103:24	3034:17	edges 3106:4
3139:13	2955:10	3104:7	3064:2	education
door	2973:6	3106:9,13,	3079:15,20	2992:11
3057:14,19	3129:25	22,25	3080:2	2993:3
3058:4	driven	3107:25	3083:22	effect
3059:13,14	3008:18	3108:11	3127:10	2919:16,17
3061:19,20	3083:21	3114:21	3136:6	2948:23
3069:25	driving	3115:19	early	2961:16
3072:19	3076:25	3122:15	3072:13	2964:23
3083:11,18	drop 2951:17	3136:16,17	easier	effective
doorknocking	2964:17	due 3129:20	2950:22	2922:24
3057:12,16	3050:25	Dunsky	2961:4	3015:25
3058:22	dropped	2903:5	3076:17	3130:23
3059:7	2946:21	2953:6	easiest	3131:19,23
3060:15	DSM 2898:6	2972:13	2922:18	3132:2
doors	2901:12,21	2973:11	easy 3140:25	3140:7
3027:1,6,1	2908:21,22	2974:20	ecoENERGY	effectiveness
4,23	2918:7,8,9	2975:10,11	2962:5,8,9	s 2964:24
3060:21	2920:15,19	,17	economic	effects
3061:1	2942:16	2977:12	2903:21,22	2950:15
3083:15	2944:22	2982:1,21	2904:1,2,2	2951:23
3085:14	2952:3	2983:23	0,21	effic
door-to	2954:1	2985:9	2923:3	3033:17
3072:18	2958:15	3056:8	2943:16	efficiency
door-to-door	2963:22	Dunsky's	2944:25	2922:12
3059:19	2966:21	2903:3	2947:20	2957:2
3061:13,15	2974:14	2980:21	2951:7,10,	2962:11
3072:7	2975:24	duration	13,23	2968:11,18
double	2976:20	2971:21	2953:7	2975:4,7
2955:20	2977:1	during	2959:8	2993:15,19
2975:24	2978:13,18	2925:21	2984:16	3005:9
3036:24	2980:23,25	2962:7,15	2985:15,24	3013:19
3076:20	2981:1,5,8	3026:16	2999:15	3025:3
3093:20	2982:2,19,	3056:14	3000:11,16	3026:7,17
double-check	20 2983:20	dust 2978:22	3007:20	3027:24
3068:17	2984:11,14	dwelling	3010:19	3028:3,14
3069:9	,18 2985:1	3041:18	3011:5,6,1	3029:3,14
doubling	2986:8,22,	dwelling	2,24	3033:17
2962:14,17	24 2987:4	2996:10	3027:19,25	3035:19
downturn	2988:24	3062:21	3028:23	3037:18
2951:23	2989:3	<hr/>	3083:24	3038:16,24
draft 2926:2	3005:12	<hr/>	3084:7	3039:7
	3014:7	E	3106:12	3049:3
		earlier	economically	

3053:23	3138:2	3002:8,11,	3002:23	2962:10
3054:21	3140:4,13,	13	3004:12	2965:24
3057:15	25	3004:8,15,	3005:9,23	2991:23
3058:8	eighteen	25 3008:10	3006:3	2992:12,20
3083:4,8,2	2998:5	3009:11	3007:19	3084:7
0 3084:5	3048:4	3012:15	3008:24	3091:19
3087:2	eight-o-	3023:6,17	3017:19,22	3110:11
3104:10	eight	3028:10,13	3018:9,10	3118:18,23
3108:3	eighty	3031:18	3082:17	,25
3109:4,14	3096:7	3043:9,14	3085:3	3138:14
3111:23	eighty	3046:22	3096:12	encouraging
3112:8	3074:24	3047:20	eleven	3091:22
3118:19	3081:6	3051:8,12	2916:1	endorsed
3119:23	eighty-five	3053:20	2918:18	3139:19
3125:25	2997:17	3060:10	3047:7	energy
3126:9	3075:5	3065:16	3054:6,8,1	2900:14
3135:11,15	eighty-seven	3082:25	8	2904:9,16,
,17	3078:22	3083:5,9	eligibility	23
3138:14	3079:1	3096:20	3086:11	2906:1,4
efficient	eighty-six	3122:11,12	3098:25	2907:10,13
2991:14	3078:25	,13,14,23	eligible	,17,24
effort	eighty-three	3123:5	3033:13	2908:3,16,
3033:12	2913:25	3128:10	3073:1,24	19 2909:7
3072:18	3025:6	3129:4	3074:25	2916:10
efforts	3050:4	electrical	3098:15,21	2917:13,18
2955:12	either	electrically	3100:16,22	,23
3050:21	2974:25	2995:16	,24 3101:1	2919:19
3057:16	2983:17	2997:24	else 2987:4	2920:1
3059:20	3002:10	2999:1,10,	elsewhere	2921:8,11
3060:1,22	3017:22	12 3030:4	3049:18	2931:16
3061:4,13,	3032:10	3043:2	embark	2934:17,22
16 3077:8	3107:8	3046:23	3134:25	2954:24
egregiously	3128:17	3047:4,8	embedded	2956:14
3068:18	3129:5	3053:25	2986:17	2957:2,17,
eight	elec 2992:17	3054:5,7,1	3002:23	18 2958:10
2907:4,6,1	3008:9	7 3062:11	empirical	2959:1,3
5	3053:24	3063:3	3011:17	2962:11
2908:13,14	elect	3093:22,25	3012:22	2966:8,9,1
,24	2991:24	electricity	employment	5
2927:22	electric	2916:14	2973:16	2968:11,18
2936:6,14	2900:18	2919:10	en 3028:5	2971:11,13
2939:6	2991:15	2930:6	enable	,14,16,17
2943:2,8,2	2996:9,11,	2931:23	3114:7	2972:1,6
1 2951:15	14,21	2989:23	enabling	2975:7
2959:25	2997:4,12	2990:9,17	2993:4	2976:8
2969:8	2998:3,7,9	2991:7,24	encompass	2978:6
3025:6	,19,24	2993:16	3005:23	2979:23,25
3048:3	2999:6,14	2996:2	encourage	2981:24
3050:4	3000:2,3,1	2998:13		2991:11,13
3093:6	4 3001:10	3000:8		2993:11,13
3094:10		3001:17,21		,15,18
3097:4				3005:10

3013:18	3138:14	2921:6	3078:5,11	3142:2
3023:6,17	3141:12	2943:12	3123:16	everyone's
3025:3	energy-	equity	3124:14,24	3018:25
3026:6,16	efficient	2956:11	estimated	everything
3027:20,24	3026:18	equivalent	2977:22	2927:9
3028:3,5,1	engaged	3013:7	3067:11	evidence
4	2968:6	escalation	3082:5	2902:6,23
3029:3,7,1	3013:20	2919:9	3100:1	2903:3,6
2,14,21	3014:6	essence	3124:8,25	2925:11
3030:1,2,7	engineering	2945:11	3125:17	2972:17
3031:19	2940:4	2968:19	estimates	2974:21
3033:17	2984:3,9	2975:11	2999:23	2975:10
3035:3	ensure	2981:19	3041:17,23	2980:21
3036:21	2964:6	3019:23	3046:10	3037:8,11
3037:18	3058:19	3032:25	3065:19	3059:25
3038:16,24	enter	3068:7	3125:24	3082:4
3039:6	3088:22	essentially	estimating	3090:11
3040:1	entered	2910:25	3050:3	3121:19
3049:3	2902:6	2913:21	3074:24	evident
3053:23	entertain	2918:20	et 2920:4,15	2990:7
3054:21	3088:21	2932:19	2948:14	evolution
3057:15	entire	2938:21	3119:25	2931:12
3058:8,12	3001:5	3040:11	evaluate	ex 2913:13
3059:20	3065:18	3042:24	2989:3	2931:17
3061:7,11	3091:3	3095:2	evaluation	2981:5
3069:18	3096:3	3099:7	2916:12	3030:2
3081:23	entirely	3110:2,23	2946:14	exact
3083:4,8,2	3009:17	3126:8	2947:20	2977:17
0,24	entity	3127:6	2968:8	3064:6
3084:5,21	3094:20	3131:15	3014:2	3136:13
3085:8	3095:12	est 3062:19	3055:9,11,	exactly
3086:10	envelope	established	13,16,20,2	2925:25
3087:1,12	3110:24	2933:21	2	2994:23
3095:9	3111:4,15	2974:25	3056:1,23	3035:23
3101:17	3119:2	establishing	3057:3,7	examination
3104:10,11	environment	3006:5	3060:14	2921:14,17
3108:2	2923:8	estimate	evaluations	,21
3109:4,12,	2931:22	3041:6,11	2947:15	examining
14,25	environmenta	3042:5	2968:9	2931:14
3110:3	l 2973:13	3062:20	evening	3032:17
3111:22	environmenta	3063:17	3142:2	example
3112:8	lly	3065:18	everybody	2908:1
3116:22	3012:17	3066:7,9,1	2910:7	2912:15
3117:7,9,1	equal	4 3067:24	3113:21	2920:12
5 3118:19	3034:9,18	3068:3,25	everyday	2922:4
3119:23	3090:21	3069:9	3056:5	2926:15
3124:8	equation	3070:2	everyone	2930:10
3125:25		3071:5,15,	2901:4	2942:6
3126:9		23 3072:9	2989:19	2959:9
3130:21		3075:15		
3131:17				
3134:4				
3135:11,14				
,16				

2962:2	3051:6	3124:13,15	,8,10,19,24	2979:11
2964:9,14	3070:3	expects	4	extracted
2967:24	3077:6	3015:4	2920:4,14	2948:5
2999:8	3126:3,20	expended	2931:17,22	extracting
3038:21	Exhibits	3108:3	,23	2919:23
3040:7	2898:3	expenditure	2932:13	extraprovinc
3059:7	2899:1	3032:11	2935:2,15,	ial 2986:6
3069:21	exist 3109:6	expenditures	23	2987:2
3084:1	existence	2975:24	2937:1,23,	eyes 2943:1
3094:18	3038:23	3014:24	24 2938:7	3044:1
3127:16	existing	3027:16,18	2944:4,6,1	
3141:6	2988:12	3029:7,21	9,23	
except	2997:24	3030:2,8	2945:7,14,	<hr/>
3011:15	2998:21	3031:18	16 2946:20	F
exception	2999:2,3	3135:19	2947:3	face 2992:23
3078:25	3002:18	expenses	2948:1,5	3018:11
excess	3039:7	2987:20	2977:15	3038:15
3024:10	3058:16	3029:11	exports	faced 3001:2
3039:1	3122:15	experience	2915:9	3108:9
exchange	3128:3,5	2914:6	2977:24,25	3109:3
2934:13,14	exists	3018:6	express	facilitate
excited	3109:18	3051:4	3015:11	2990:16
2984:25	3112:13	3076:23	expressed	facilities
excluding	expand	3116:6	3061:24	2944:25
3029:11,21	3073:14	3121:21	extend	fact 2903:11
exclusive	expanding	3123:21,22	3061:8	2978:1
3125:20,22	3060:7	experienced	extended	3013:16
excuse	expect	3015:25	2913:5	3029:5
3014:25	2926:12	expert	2995:3	3039:7
3016:20	2966:7	3009:15	3036:22	3129:20
3025:10	2967:17	3013:25	extent	factor
3049:8	3009:8	3040:15	2953:20,21	2921:5
exhibit	3115:21	3107:20	3037:17	3088:13
2899:2	3116:3,18	expertise	3108:11	factors
2901:14,16	3119:5	3107:5	exterior	2903:4
2937:21	3139:18	explain	3069:24	2921:16
2968:13	expectations	2911:18	external	2922:3
2979:1,11	3050:25	2914:11	2968:5	factually
2980:5	expected	3027:7	3055:11,25	2986:14
2985:10	2913:13	explanation	3056:14	fail 2973:8
2990:3	2919:5	2944:2	externalitie	3127:6
2996:6	2925:23	3141:16	s 2973:14	failed
3002:21	2926:1	export	extra	2968:19
3006:25	2951:5	2915:10	3054:23	3126:12,13
3007:3	2967:12	2917:14,24	extract	3128:16
3019:13,19	3023:6,18	2918:1,5,2	2906:6	fair 2911:1
3023:1,23	expecting	4	2917:14	2930:21
3024:25	2964:12	2919:2,3,4	2918:23	3011:3,17
3039:20	3095:23		2920:14	3015:7,10,
3046:18				

14 3016:16	fast 3077:3	3093:7	3083:17	3048:24
3017:14	favourable	3099:20	3084:11,14	3049:3,10,
3027:11	3031:15	3114:4	,17,18,23	13,19
3034:10,21	federal	figures	3085:4,8,1	3050:16
3035:9	2962:5	3068:5	5,19,22	3051:11,24
3036:5	3105:12	3124:9	3086:1,5	3052:14
3037:25	fee 3108:25	file	3095:24	3053:8
3038:1,14	feedback	2925:20,22	3111:9	3057:22,24
3043:22	3056:16	3070:13	3112:2	3058:1,12,
3047:2	feel 2965:22	3080:5	3123:22	19,22
3048:6	3015:15	filed	finding	3059:4
3070:1	feeling	2937:22	2932:4	3063:1,18
3072:15	3075:23	3080:4,6	2947:24	3064:7,10,
3075:14	felt 3032:23	filing	3132:15	17,20
3102:21	Fernandes	2901:8	fine 3013:13	3065:4,5
3103:2,22	2897:5	3019:25	3037:13	3066:2
3104:5	2901:7	3020:20	3041:2	3067:10
3105:19	3092:9,17	3119:10	3061:3	3068:25
3107:21,25	fewer	film 3027:9	3068:20	3071:22,24
3109:2	2960:19	filter	3085:13	3072:22
3116:17	3044:4,7,1	2965:6,8	3090:7	3073:11
3126:14	1,14	filters	3134:18,19	3074:4,15,
3127:7	3094:4	2903:24	fingers	19 3075:12
3128:24	3110:6,7,8	finalized	2997:12	3076:2
3129:17	3135:23	2967:17	finish	3077:9,17
3133:19,21	fifteen	3022:14	2902:22	3078:9
3136:22	3058:10,11	finalizing	3113:15	3079:16
fairly	3066:7,10	2967:10	3134:14	3081:6
3022:23	fifty	finally	finishing	3103:12,15
3031:2	2994:13	3021:22	2937:19	,17
3037:12	3048:14,22	finance	firm 2915:11	3116:6,9
fall 2905:16	3052:13,15	2990:24	first	3118:12
3005:11	,16	3015:5	2903:19	fiscal
fallen	3079:17,18	3084:11	2904:2	2971:5
3090:14	3080:1	3123:24	2905:10	2976:16
falls	fifty-five	financial	2906:7,11	3078:1,9
2905:15	3097:22	2940:4	2930:22,25	five 2900:19
2958:24	fifty-one	2951:4,12	2940:19,24	2907:15
3127:12	3078:23	2953:25	2943:22	2927:20,22
familiar	fifty-seven	2958:13	2944:9,18	2936:6,14
2928:23	3050:12	2986:12,24	2952:4	2939:7
2940:7	figure	2993:5	2953:20	2943:2
3010:23	2998:16	3001:24	2984:9	2961:11
3055:8,18,	3021:7	3099:22	2987:23	2963:10,16
19	3045:19	3136:15	3026:2,5	2964:11
family	3066:2	financially	3029:11	2987:9
3013:9	3067:17	2986:14	3036:22	2993:25
3040:8,25		financing	3042:17	3009:23
3082:24			3045:24	3016:20
3083:9			3046:6,10	3025:12
3121:21			3047:1,11	3029:13
				3030:9
				3031:20

3041:7,8	fluorescent	2935:2	3088:23	2993:14,15
3047:1,9	3026:22	2937:23	3111:8	,19 2998:1
3050:8	fluorescents	forever	3115:7	3001:11
3051:13	3133:9	2948:10	3131:21	3004:25
3061:24	fly 3068:18	form 2926:2	3132:17,20	3006:2
3062:21	foc 3007:21	2948:18	,24 3133:1	3007:16
3063:9,17, 25 3064:11	focus	3037:10	3139:10,12	3012:13
3067:7,15	2959:21	3115:17	forward-	3053:18
3068:7	2968:10	formal	looking	3122:19
3074:25	3032:19	2926:3	3029:25	fuels
3075:16	3042:21	3056:1	3030:7	2993:21
3077:22	3043:9	3057:2	3031:1	full 2995:1
3080:18	3048:5	formally	fourteen	3002:6,13, 16
3081:2	3060:9	3055:25	2998:8	fully 2995:3
3097:4	3107:9	forms	3045:9	fund 2966:11
3101:19	focussed	3115:12,16	3066:18	2966:11
3102:1	3032:21	formula	3067:10	3029:8,12
3115:19	3057:21	2910:10	four-three	3030:2,8
3122:23	focussing	2962:23	2975:13,18	3082:25
3123:6	2999:5	formulas	frame	3086:20
3138:2	3007:17,22	2924:17	3010:12	fundamental
3140:4,13, 23,25	3017:17	forth	free	2931:18
3141:3,8	follow-up	3095:10	3026:8,17	funding
five-two	2991:16	forty	3105:9	3098:16,21
2907:5,7	food 3040:10	3078:19	3115:9	3099:8
2908:13,15 ,24	force	forty-eight	fridge	3100:17
2943:9,21	3118:22	3078:14	2959:22	3101:16
2951:15	3119:14	forty-five	2960:8	funds
fixed	3120:12	3046:22	3116:15,16 ,19	3031:19
3135:22	forecast	3047:7	Friend	3096:2
flip 3023:22	2907:22	3049:7	3008:2	funnel
flipping	2919:8	3054:6,8,1 8	3019:15	2986:9
3019:17	2930:7	forty-six	3023:23	2987:2
3022:25	2934:16,21	2911:15	3025:22	furnace
3053:21	2935:18	2912:20	3028:19	2992:17
3130:4	2951:4,13	forty-three	3030:13	3001:13
floor	2968:2	3052:17	3092:9	3028:11,13
3096:11	2986:7	3079:18	3099:17	3083:1,5,6
flow 2914:22	3003:9	forward	3123:14	3104:16,18
3093:2	3005:2	2953:22	3136:7	furnaces
flows	3006:8,10	2954:2,4	friendly	3003:14
3106:22	3014:14	2985:18	3012:17	fut 3001:25
fluctuations	3015:2	3004:10	front 3012:4	future
3008:15	3017:1	3006:8	fryers	2909:1
3009:10	3123:19	3009:8	3128:10	2915:22
3010:1,3,4 ,6	forecasted	3031:13	3129:4	2934:6,22
	3051:8	forecasts	fuel 2918:3	2948:13
	forecasts	3072:23	2992:4	2964:19

2969:4	3104:18	3141:4	3076:13	gone 2953:2
2971:20	gas-serviced	generate	3111:20	3105:1,9
3001:18,25	2993:23,24	2957:18	3115:12	goods
3009:6,22	2995:25	3106:12	3130:15	3017:19,23
3017:10	2996:23,24	generated	3132:18	3018:5,9
3125:20	gathered	2993:12	3133:5,6,8	3040:10,13
3132:24	2902:23	generating	3134:7	Gosselin
3137:12	gauge	2916:14	gigajoule	2896:14
<hr/>	2953:15	2949:6	3009:24	gotten
G	2956:6	generation	gigawatt	3105:9
GAC 2897:9	2965:10	2900:5,8	2909:5,6	government
3126:10	geared	2914:4,7,8	2915:1,15	2962:6
3130:5	3088:25	,12	2978:9,13,	2975:1,2,6
GAC/Manitoba	general	2915:24	15,17	3098:25
3004:22	2896:7	2916:4,9,1	2980:7	3099:11,24
3130:7	2900:15,21	2,21,22,25	2981:25	3100:4,14
gain 2958:10	2999:18	2917:3,6,1	2982:22	3101:8,22
game 3001:24	3019:25	0,19,22	3021:3,7,1	3102:5,10
Gange 2897:9	3020:21	2918:3,9	2,16,19,24	GRA 3021:24
gap 3140:2	3021:1	2926:22,24	3022:1,5,2	0
gas 2989:23	3034:2,4,7	2927:15,18	3024:11,17	grades
2990:10,17	,21	2929:25	,21	2968:5
2991:6,15,	3035:10	2930:1,12	3124:15	grant
24 2992:17	3037:25	2931:3,8,1	3125:3,19	2962:10
2994:4,7,1	3038:13	5	giveaway	grants
0,25	3069:18	2933:5,11	3115:8	2962:5
2995:2,17	3082:19,25	2940:25	given	granular
2996:1,8,1	3085:16	2941:9,14	2902:19	3085:13
2,22,25	3108:22	2944:24	2907:16	graph 3024:8
2997:3,13	3115:5	2945:15	2911:14	graphical
2998:9,24	3116:24	2946:7	2914:23	3024:3
2999:6,14	3117:8,16,	2947:7,12,	2920:11	great
3000:7,13,	24	25	2928:18	3001:19
16	3122:16,24	2948:4,7,1	2938:21	3022:17
3001:1,2,1	3123:8	3 2949:24	2953:25	3108:11
1,13,23	3126:22	2970:11	3003:1	greater
3002:9,11,	3137:7	2977:13	3072:12,16	2906:3,24
14	generalities	2978:17	3075:23	2908:2,6
3003:16,17	3034:1	2981:9,15,	3076:10,18	2938:25
3004:1,4,7	generally	17 2983:21	3107:4	2943:20
,12,15,24	2930:13	2986:6	3136:14	3027:12
3005:9,24	2945:3	2988:20	gives	3044:24
3006:3	2964:16,24	3137:19	2927:15	3082:15
3007:20	3027:19,21	geothermal	giving	3091:1
3008:7,8,1	3032:5	3000:24	2998:16	3106:13
5,17	3059:12	3001:5,13	3105:10	greatest
3009:7,9,1	3076:21	gets 2904:13	goal 3119:20	3028:1
6,24	3091:18	2952:3	goals	3036:8
3010:11	3127:12	getting	3119:20	3042:20
3012:16	3136:3	2971:20		
3096:21		3007:1		

3043:13	2940:3	3006:6	heads	2989:23
3044:3	2950:5	3018:3	3026:19	2990:8,9,16
greatly	2959:21	3115:23	health	2994:7,11
3000:8	2990:1,14	happened	2973:20	2996:2,3
griddle	2993:9	2934:2	healthcare	3000:3
3127:18,25	3000:22	happens	2973:15	3001:14
griddles	3005:21	2915:7	hear 3082:8	3002:9
3127:18	3017:11	2930:14	3121:23	3004:7,8
3128:22,23	3018:7,15	2963:9	heard	3007:21
3129:16	3050:17	happy	2931:13	3008:6,8
groan	3058:23	3018:16	3012:23	3012:15
2950:25	3072:6	3076:3	hearing	3060:11
ground	3099:1	3079:24	2919:17	3110:21
3057:6	3116:7	3121:13,14	2948:24	3112:10
group	guide	hate 3087:14	3014:22	3119:2
2907:21	3138:11	haven't	3015:20	3122:19
2942:1	gun 3027:7	2902:7	3020:11	held 2896:19
2968:8	gymnastics	2933:6	3092:24	3034:17
2984:15	2924:13	2950:2	3136:9	he'll
2985:3	<hr/>	2987:21,25	hearings	3058:13
3033:24	H	3003:10	2925:21	help 2916:20
3034:2	ha 2969:23	3023:8	2928:13	3001:7
3036:6	2996:10	3032:3	heat	3039:14
3119:14	Hacault	3061:19	2996:11,12	3045:12
groups	2897:12	3104:23,24	,14,21	3111:17
3047:18	half 3070:20	3122:5	2997:4	helpful
3050:22	halfway	3130:10	2998:3,7,9	3064:25
3056:18	3077:16	having	,20	3087:16
growing	3127:17	2917:17	2999:6,14	3112:4
2914:23	hand 2909:19	2919:11	3000:2,13	3118:13
3002:8	2927:10	2948:19	3002:13	hereafter
3031:7	2936:20	2969:24	3004:15,25	3025:3
growth	2979:15	2981:23	3044:17	he's 2956:14
2912:9,13	3006:18	3003:14	3110:2,19	hesitate
2913:12,16	3130:14	3004:7	heated	3009:5
,20	handed	3078:6	2995:16	3134:25
2914:18	2990:4	3082:12	2997:13,24	high 2903:18
2915:18,23	handle	3100:7	2998:13	2904:7
2920:8	2999:22	3104:17	2999:1,10,	2905:7
2998:2	handsome	3121:4	12 3030:5	3010:22
2999:6,14	3107:1	3134:5	3043:2	3034:9
3002:19	handwritten	3138:19	3046:23	3045:3
3006:7	2980:8	head 2919:12	3047:4,8	3124:14
guess	handy 2979:3	3015:10	3053:25	higher
2912:11	happen	heading	3054:5,7,1	2916:6
2922:1	2965:17,18	2933:14	7 3062:11	2923:6
2930:21	2987:1	2945:12	3063:3	2928:8
2931:19	Headingley	Headingley	3093:22,25	2961:3
2932:2		3000:23	3110:20	2966:16
			heating	

2998:3	3087:1	3066:25	,22	3057:21
3032:13	3088:19	3067:19	2971:9,19	3061:25
3060:10	3093:15	3069:10	2989:10	3063:11,18
3076:6	3094:1	3071:1,5	3003:8	3066:4,10
3078:11	3096:12	3074:23,25	3018:20	3068:8,25
3084:9,13	3100:1	3075:16	3030:10	3069:2
3085:4	3103:18	3076:3,4,1	3031:21	3089:11
higher-	3104:10,12	4 3077:17	3032:2	3093:4
efficiency	3115:20	3078:1,5	3140:4,23	3096:18
3104:18	3117:22	3081:7	hours	3097:23
highest	3118:5,7	3093:12,15	2908:25	houses
2918:2,4	homeowner	,18 3094:6	2909:5,6	2995:13,24
2950:11	3044:9	3100:1	2915:2,15	2998:5,8
2957:3	3097:7	3101:20	2949:1,3	2999:9,11
high-level	homeowners	3102:2	2970:16	3001:19
2952:7	3044:4	3116:10	2971:8	3044:8,9
hindsight	3052:8	3121:21	2978:9,13,	3048:4
2967:25	3067:8,14	honest	15,17	3058:3,6,1
historic	3114:25	3072:11	2980:7	0,11,13,25
3030:14	3122:11,12	honestly	2981:25	3061:22
historical	,13,14	3010:13	2982:22	3066:22
3031:12	homes	hope 3002:7	3021:3,7,8	3067:24
historically	2993:22	3042:13	,12,16,20,	3068:3
3112:7,18	2995:24	3081:10	24	3072:20
history	3000:1	3106:23	3022:1,5,2	3075:24
2932:3	3004:24	3111:4	0	3081:3
ho 3096:9	3025:7,13	hoped	3024:11,17	3093:22
hold 3011:12	3036:3,4	3131:22	,22	housing
home 2908:2	3037:3,4	hopefully	3106:24	2997:24
2956:13,15	3042:22	2942:25	3124:15	2998:2
2961:10	3043:14,20	3024:2	3125:3,19	3034:23
2962:6	3044:25	3081:14	house 2922:4	3035:5,12,
2963:17	3045:10,24	hoping	2956:17	18,21
2964:10	,25 3046:6	3068:12	3035:21	3045:8
3026:7	3047:3,5,8	3080:5	3049:21	3047:15,18
3027:13	,10,12,15	horizon	3069:19,21	3048:25
3028:4,10	3048:9,15	2963:4,15	3073:11	3049:16
3029:16	3049:10	hot	3110:14	3052:11
3035:19	3050:5,8,1	3019:6,11	3118:4,5	3053:1
3037:21	2	hour 2905:3	household	3058:2,5,2
3038:10	3051:1,17,	2911:15	3039:6	5 3066:20
3043:19	22,24,25	2914:1,13	3040:18,20	3069:3
3046:23	3052:16,17	2916:2	3074:7	3071:24,25
3047:20	3053:8,25	2918:19	3099:21	3072:24
3073:9	3054:5,7,1	2927:19,21	households	3073:18
3076:6	7,19,23	,22	3039:25	3086:20
3079:9	3062:11,16	2947:12	3041:4,9,1	3089:22,23
3084:1	3063:25	2954:24	6	3094:15,18
3085:21	3064:1,3,5	2957:24	3043:1,7,9	,20
	,7,10,16,1	2970:12,16	,24	3098:25
	7,20		3045:21	3099:4
	3065:9,16		3046:11	3100:14
				3101:6,7,8

, 13, 14, 16, 23 3102:5, 10 3103:21 3111:12 3114:8 3116:4 hower 2956:14 human 3011:7 hundred 2909:4, 6 2992:18 2993:25 2994:1, 3, 1 2, 13 2998:5, 8 2999:25 3025:6, 12 3041:7, 8 3045:9 3046:22 3047:3, 7, 8 , 9, 11, 22 3048:4, 7, 8 , 14, 21, 22 3049:7, 9, 2 1 3050:4, 8, 1 2 3051:13 3052:9, 11, 13, 15, 16, 1 7 3053:24 3054:4, 6, 8 3062:16, 21 3063:9, 17, 25 3064:11 3067:20 3068:12 3071:1, 6 3074:22 3075:5 3077:22 3078:14 3080:18, 20 3081:5 3093:6, 17 3096:17, 18 3097:4 3101:20 3102:2 Hy 3041:15	Hydro 2896:6 2897:4 2898:6 2900:3, 7, 1 2, 17 2901:8, 11, 13, 21 2903:20, 23 2904:4 2905:9, 15, 21 2907:4 2908:23 2909:15 2910:6, 16, 18 2911:13, 20 2924:16 2925:11 2926:4 2929:5, 16 2930:19 2931:6 2934:22 2936:4, 24 2937:11 2938:10 2941:2, 13, 23 2944:5, 9 2947:14 2952:12, 22 2953:11 2954:2 2961:9, 13 2962:9 2966:20 2967:24 2968:4 2972:13, 24 2973:22 2975:4, 12, 17, 21 2976:6, 8, 1 7, 25 2977:8 2980:5, 22 2981:7, 23 2983:20 2984:1 2991:22 2993:12 3001:16, 25 3005:17 3007:18	3013:19 3014:4, 11, 23 3015:4, 21 3020:10 3021:2, 12, 25 3022:8 3025:5, 11 3036:13 3038:3, 25 3039:25 3041:12, 15 , 17, 22 3042:3, 19 3043:10, 13 , 25 3045:21 3046:21 3056:9 3062:10 3065:8 3069:2 3073:20 3074:15, 24 3078:6 3079:10 3082:16, 25 3085:13 3086:9 3091:2 3092:12, 19 3094:17 3095:21 3096:2, 10 3100:2, 4 3101:15 3102:19 3103:19 3104:20 3107:23, 25 3108:23 3109:3 3112:25 3113:3 3114:24 3115:3 3116:22 3117:12 3118:15, 16 3120:1 3122:13, 22 3123:4, 16 3124:23 3126:10, 21	3128:15 3130:6, 7, 1 9 3136:1, 8 Hydro's 2903:16 2934:16, 20 2937:21 2938:7 2944:19 2962:6 2976:10, 20 2979:11 2982:19 2984:25 2990:3 3004:22 3009:8 3012:12 3016:18, 19 3017:11 3020:1 3022:23 3024:4, 9 3031:24 3041:6 3044:1 3046:10 3049:18 3056:9 3063:16 3065:17 3070:18 3071:4 3099:20 3114:7 3119:6 3120:22 hypothetical 2987:22, 23 2988:17 hypothetical ly 2947:11 <hr/> I <hr/> I'd 3020:23 3025:18 3052:4 3115:20 3121:10 3131:7 idea 2958:4	ideas 2903:20 iden 3125:11 identi 2922:15 identified 2906:25 2996:7 3004:23 3036:6 3048:17 3072:14 3080:2 3082:10, 12 3125:3 3130:20 3133:24 identifies 2907:21 2910:16 3058:3 3066:20 3127:5 3128:15 identify 3033:10, 12 3040:11 3050:22 3058:6, 9, 1 1 3060:20 3072:1 3086:2 3114:14, 16 3118:8 3122:18 identifying 3059:13 3064:16 3066:24 3072:4, 20 IFF 2934:20 2935:14 2938:12 2939:1, 3, 7 2940:11, 13 , 15 2948:12 2949:13 2951:4, 9 2979:21 2986:5
---	---	---	---	--

2987:2,20	2912:25	3083:10	impacts	3109:18
2988:20	2913:7	3084:4	2985:24	3110:18
3002:25	2916:18	3088:5	3090:24	3111:25
IFF10/11	2919:11,17	3089:20,25	implement	incline
2940:2	2921:18,20	3090:8	3074:9	2961:22
IFF11 2940:3	2924:1	3092:22	3122:7	include
IFF11-2	2928:23	3093:3	implications	2904:17
2940:5	2929:19	3099:18,19	2988:11,16	2920:24
3002:24	2931:11	3100:7	,21	2922:17,19
IFF12	2936:4	3103:25	import	2926:15
3014:22	2937:6	3104:18	2920:4	2927:17
IFFs	2950:5	3105:23,24	important	2942:9
2937:2,20	2966:25	,25	3136:14	2964:4
2979:20	2969:24	3113:7,14,	3139:9	2983:16
II	2979:2,9,1	21 3121:5	imports	3029:6
2978:22,24	6 2982:5	3130:15	2915:9	3041:11
2979:1	2984:1	3134:13,14	2977:15	3045:24
III 3007:8	2990:1	3139:24	2978:4	3054:18,19
3019:15	2994:4	3140:15	impro 3087:1	3063:1
3025:22	3000:18	3141:15	improve	3093:7,9,1
3028:17	3002:17	imbedded	3036:7	1,23
I'11 2910:7	3005:21	3137:25	3104:10	3096:15
2912:1	3006:16,25	immediate	3111:22	3097:4
2916:19	3007:11,12	3017:18	improved	3099:22
2930:21,22	,14,21	impact	2973:17,19	3122:4
2939:20	3010:15,17	2938:25	improvements	3125:4
2945:3	,20,25	2952:14	3054:21	3135:18,24
2977:10	3015:9	2953:14,20	3083:4	included
3004:17	3016:4	2955:15	improving	2929:6,9
3006:18	3018:16,17	2956:2,4,6	3028:3	2963:1
3013:2	3019:4,10,	,8	inability	2972:1
3019:12	11	2957:13,14	3135:22	2981:1
3037:7	3023:10,16	,22	incentive	2991:6
3046:11	,22	2958:20,21	2955:11	3003:22
3077:5,7	3026:15	,23	2960:10	3005:1
3078:7	3028:20	2959:11,15	3019:24	3064:22
3079:6	3032:15	,25	3021:4	3096:24
3081:20	3035:17,24	2960:20	3109:6	3097:6
3082:5	3037:7	2961:1,11,	3115:15	3109:25
3083:25	3040:15	14,18	incentive-	3110:19
3102:3	3043:18	2962:22	based	3128:3
3104:22	3055:13,19	2968:15	2990:22	3130:22
3105:20	3056:20,22	2969:2,7	2992:25	3131:18
3113:15	3057:6	2973:2	incentives	includes
3134:14	3059:5	2974:1	2957:20	3108:25
3135:5	3068:15	2987:9	2961:23	3125:3
3139:25	3070:14	3001:18	2962:3	including
I'm 2905:7	3073:23	3135:11,14		3014:24
2909:16	3075:2	3136:3		3030:1,7
2910:2	3076:19	3137:8,22		3031:19
	3079:24	3138:10		3125:12
	3080:19	3141:5,10,		
	3081:16,18	11		
	3082:1,21			

inclusive 3125:21	2962:12,14 2975:22 3015:22 3016:1 3018:11 3059:11 3092:1 3136:19	2970:12 2971:10,15	2956:19 2968:9 3044:19 3052:7 3058:5 3073:22 3088:19 3115:13 3118:24 3119:13 3122:18 3137:4	3074:16 3077:7 3085:20 3114:2 3126:8 3127:4
inco 3088:19		indeed 3018:8 3024:20 3129:16		informed 2992:13
income 2968:11,18 3013:7,8 3018:12 3025:2 3029:14 3034:5,11 3037:17 3038:24 3039:14 3040:10,13 ,19,22 3049:3 3053:17 3074:5,7 3083:8 3085:16,19 ,21 3086:2 3087:6,9 3088:1 3096:1 3103:3,8,9 3122:12 3125:6,12, 25	increased 2917:12,13 2922:11 2923:6 2962:10 2966:17 2973:15 2982:2	independent 3013:25 3014:2 3055:8,22 3056:23 3057:7	individually 3044:18 3129:23	infrastructure 2957:22
income- qualifying 3026:5	increases 2966:11,13 3003:2 3016:20,23 3017:3,6,1 0 3034:12 3107:24	indicate 2926:23	individuals 3046:1 3093:10 3103:18 3118:22	init 3047:18
incor 2928:2	increasing 2955:7,8 2976:19 3052:13	in-depth 2995:1	inelegantly 3023:15	initial 2945:16 3019:25 3020:20 3121:17
incorporate 2966:5 2972:13,14 2988:25	increment 3058:10	indicates 2944:19	industry 3010:5	initiative 2942:21 2943:21 2958:8 3006:11 3122:2 3123:20
incorporated 2926:25 2991:9 3006:8	incremental 2905:5 2906:20 2910:12 2912:9 2920:15 2921:11,24 2943:13,16 ,20 2944:19 2945:7,10 2948:6 2989:3 3024:4,10, 16,21 3124:8 3125:1	indicating 2948:2	inf 3035:11	initiatives 2973:4 3057:18,21 3119:3 3120:13
incorporatin g 2985:1	incorporating 2905:5 2906:20 2910:12 2912:9 2920:15 2921:11,24 2943:13,16 ,20 2944:19 2945:7,10 2948:6 2989:3 3024:4,10, 16,21 3124:8 3125:1	indication 2902:8 2980:6 2986:13 3135:10,14 3137:7	inferior 3035:12	inputs 2940:1 3100:2
increase 2917:2 2954:5 2955:1,2,1 3,15,17,19 ,25 2956:19 2961:22,23	Incrementall y 2986:1	indications 2933:13	inflation 3107:24	in-service 2947:11 2976:9
	incur 2917:4	indicative 3016:23 3017:6	influencing 3120:23	inside 3044:14
	incurred	indicator 3017:10	information 2906:7 2929:15 2930:18 2949:14 2978:8 2987:10 3009:18 3010:10 3046:20 3047:22 3066:20 3070:5 3072:24	insights 2930:6
		indifferent 3073:21		install 3133:5
		indirect 2972:22,25 2973:11		installation 3099:5
		individual 2907:9 2953:9		installation s 2969:21 3061:1 3077:4
				installed

2963:20	3049:19	3061:24	3138:12	3109:18
3053:23	3054:20	interested	investigatin	3111:19
3058:8	3058:7,14	2996:15	g 2922:10	issues
3133:9	3063:6	3052:4	investing	3001:2
installing	3064:20	3060:19	2905:25	3012:13
2905:2,19	3065:19,25	interim	2953:18	3133:25
2997:4	3067:25	3015:21	2955:8,9	3134:2
3004:24	3069:1,20,	3016:14	investment	it'd 3005:18
installs	23 3071:5	3022:15,19	2953:16,22	item 2930:7
3132:18	3073:7,16	3041:7	2954:17,20	2946:4
instance	3087:24	internal	2955:19,20	2970:5
2916:4	3091:22	3056:1,5	2956:7,22,	items
3000:7	3095:21	internally	24 2959:3	3026:18
3096:10	3099:4,21	2968:8	2965:10,16	it'll
instead	3111:25	Internationa	, 20,21	2916:20
3078:11	3112:1	l 3014:4	2973:6	2961:5
3079:1	3117:22	interpret	2980:22	3137:7
insulate	3133:10	2975:11	3028:5	it's 2902:15
3045:9	integrated	interrogator	3095:14	2904:19
3051:17	3138:8	y 3113:10	3106:13	2905:21
3073:9	intended	interrupt	3108:11	2906:12
3118:5	3019:10	2913:8	3109:16	2907:23,25
insulated	intending	3088:5	3137:14,16	2909:8
3046:21	3082:2	3090:19	, 21	2910:1
3047:2	intense	3091:5	investments	2911:3,4,6
3051:1	3072:18	3141:14	2954:17	, 9,24
3062:16	intensity	interrupting	3095:14	2912:3
3077:18	3032:20	3141:17	3109:21	2914:21
3078:6	intention	interruption	investment's	2916:5,11
3101:21	2925:18	3088:7	2965:17	2917:22
3102:3	2989:7	intervene	involve	2918:4
insulating	inter	2965:23	2949:21	2919:1
3100:1	2996:14	intervention	involved	2923:2,19,
insulation	interaction	2956:7	3000:19	25 2924:4
2908:2	3036:9	intimately	IR	2925:21
2922:11	interchangea	2928:23	2926:21,23	2927:8,14,
2956:17	bly	intrigued	2936:9	21
2961:10	2919:13	2931:11	3071:7	2930:2,3,2
2962:4,6,1	3013:12	introduced	IRs 3004:16	2,24
5 2963:17	interconnect	2963:22	isn't 2938:9	2933:20
2965:15	ion	2966:18	2957:3	2934:5,20
3026:8	2920:13	invest	3027:19	2935:12
3029:17	2921:1	2958:9	3038:22,23	2936:20
3035:19	2978:3	2959:9	3048:9	2939:13
3036:5	interest	2965:16,19	3063:23	2940:3
3037:20,24	2915:24	3084:8	3111:12	2942:3,13
3038:4,6	2959:5	invest	issue 2999:5	2943:15
3039:9	3011:21	2958:9	3010:17	2946:10
3043:19,21		2959:9	3012:12	2949:3,13,
3048:6		2965:16,19		20 2950:13
		3084:8		2953:5

2954:23	3089:5,24	3001:7	3035:8	3088:9,18
2955:16,24	3091:10	3032:5,12		3089:3,5
2959:25	3092:18	3033:8	<hr/>	3091:12,16
2960:4,11	3093:18,25	justice	<hr/> L <hr/>	3094:16,25
2961:24	3094:3	3081:19	la 2997:5	3095:1,8,1
2962:16	3096:23	justify	labour	2,13,18
2964:24	3097:6	3108:12	3058:20,21	3096:22
2965:7,18	3098:24	<hr/>	Lafond	3097:7
2968:20	3099:7,8,9	<hr/> K <hr/>	2896:15	3098:14,23
2969:20	3100:9,10,	Keeyask	2915:21	3100:22
2971:10,23	15 3101:12	2916:13	2916:13	3108:25
,24 2972:1	3111:13,14	2918:17	2918:17	3109:7,11,
2973:5	3112:9	2919:4	2919:4	14 3110:25
2974:9	3114:3	2923:9,19,	2923:9,19,	3111:3
2977:18	3119:20	22 2924:1	22 2924:1	3112:10
2978:24,25	3120:16	2932:21	2932:21	3113:1
2979:12	3121:3	2934:14	2934:14	3116:15
2981:17	3122:5	2945:5,8	2945:5,8	3118:3,16
2982:10	3125:13	2948:8	2948:8	landlord/
2985:14,16	3128:4	2949:8,11	2949:8,11	tenant
2986:2	3136:14	2950:20	2950:20	3116:8
2991:11	3137:8,17,	2951:2	2951:2	landlords
2993:16,18	20	2993:22	2993:22	3088:25
2994:5,22	3139:7,9	2994:6,12,	2994:6,12,	3089:13,14
2995:8,18	3140:17,18	15	15	3090:6
2996:24	3141:9,10	2995:10,14	2995:10,14	3092:6,11
3000:21	I've	,22	,22	3100:3,5
3002:9,18	2930:23,24	,22	2997:7,14,	landlord's
3006:2	,25 2946:2	2947:12	18	3109:21
3008:18	3006:15	2954:24	2998:10,15	landlord-
3018:4,7	3015:9,14	2957:23	2999:17,20	tenant
3019:11	3054:16	2970:12,16	,24	3092:4
3022:21	3105:21	,22	3000:6,17	3112:14
3027:20,25	3131:8	2971:8,9,1	3001:15	language
3032:7	3135:4	9 3003:7	3037:2,6,1	3033:16
3033:9,10	<hr/>	3029:20	3 3039:21	large 2962:3
3037:20	<hr/> J <hr/>	3030:9	3042:13	3015:5
3040:23	jacket	3031:21	3057:11	largely
3044:15	3019:10	3032:2	3059:18	2919:1
3045:9,15	January	3081:22	3081:17	larger
3053:16	2896:23	3106:24	3089:20	2997:3
3054:10	3006:24	3140:4,23	3090:8,11	3035:5
3056:4	Ju 2925:4	kilowatt-	3096:4	3044:13
3059:12	jump 2925:4	hour	3097:3	3053:4
3063:16	jurisdiction	3032:8	3112:25	3111:14
3073:7,22	2903:12	king 3137:2	land 3092:6	3128:17
3074:3	jurisdiction	3138:24	3109:9,20	3129:25
3075:3	s	3139:2	landlord	largest
3076:20	2903:6,8,9	knocked	3086:19,21	3042:10
3083:22	2974:11,13	3061:1	,25	
3084:23,24		knowledge	3087:10,21	
3085:22		3034:20	,25	
3087:3				
3088:18				

3052:24	3027:6	2915:14	3032:23	3048:6
Larry	leaves	2930:15	3034:9	3069:23
2896:16	3094:18	2956:1,25	3043:19	3133:2
3000:18	leaving	2958:11	3058:14	LICO 3036:3
last	3008:3	2959:18,19	3063:7	3040:4,11,
2932:1,2	3075:12	,20	3069:20	16
2933:7	3081:4	2961:10	3083:20	3063:3,18
2935:10	3083:7	2968:10	3084:13	3066:10
2937:25	3106:20	2976:14	3085:13	3067:11
2946:22	lecturing	2978:21,22	3105:12,13	3093:24
2962:7	3089:25	2981:23	3124:14	LICO-125
2979:4,19	left-hand	2982:17	3137:4	3013:8
2980:18	3024:8	2983:15	3138:16,25	3035:6
2995:7	legal	2985:7	3139:2,18	3039:25
3001:15	3092:19	2986:12	levelize	3041:4,16
3090:20	3098:10	2989:13	2913:17	3066:22
3105:15	legend	2996:15	levelized	3067:12
3107:15	3086:8	3014:20	2907:7	3073:15,18
3139:25	lengthy	3018:19,20	2908:5,15	3086:2
late 2902:17	2948:25	3029:4,10	2909:2,7	3088:19
later 2926:1	3112:4	3045:19	2911:3,9	3089:6
latest	3114:22	3064:25	2912:21,22	3093:10
2967:7	3118:13	3070:19	2913:19	LIEEP
launch	3134:15	3097:10	2915:20	3025:4,19
3061:20	3135:5	3102:17	2923:10,11	3026:3,25
Lavigne	less 2908:5	3104:1,21	,17	3027:15,17
3142:15	2917:4	3105:21	2937:10	3028:9
Law 3090:1	2938:23	3106:3,5	2938:13	3030:9,15
leading	2956:13	3114:21	2952:13,23	3031:3,18
3008:12	2959:3	3132:1	2953:1,4,9	3032:18
Learnered	2963:23	3140:3,24	,14	3042:21
3123:14	2991:1	level	2954:19,22	3043:10,13
learning	2999:18	2903:18,23	2955:1	3044:3
3031:8	3002:17	2904:8	2970:10	3045:2
least	3011:19	2905:7,19	2971:4,18	3049:14,19
2929:15	3021:8	2908:16	3028:24	3050:5,9
2940:20	3030:15	2926:22	3137:10	3051:2,8
2989:7	3034:5,10	2927:16,18	3138:10	3055:22
3001:17	3039:12	,20,21	3140:21	3056:23
3043:25	3047:3	2928:1	3141:2,7	3059:7
3074:21	3058:16	2929:5	levelizes	3061:9
3082:12	3073:10	2942:4,5	2936:24	3062:9
3098:8	3076:25	2944:20	levelled	3077:9
3102:20	3095:6	2950:11,22	3138:3	3079:16
3119:10	3105:25	,23	levels	3082:23
3126:10	3111:21	2953:15	2926:25	3086:9,23
3134:16	3127:21	2954:20	2927:1,17	3087:18,22
leave 2970:8	3139:19	2958:9	2928:21	3090:21,22
	3209:11,12	2959:3	2929:1	3091:1,10
		2964:8	3035:20	3092:11
		2965:10,19	3036:5	3093:5
		3010:23	3037:25	3095:20,25
		3027:24		

3098:13,15	2976:25	3074:3	3095:2	6,24
3099:1,3,1	3014:18	3076:14	locate	2969:18
8	3117:21	3080:11	2910:8	2970:4,14,
3100:1,13,	3128:8	3081:15	2927:9	24
16,22	limited	3105:15	located	2971:7,23
3101:8,21	3018:1	3108:20	2910:4	2972:10,18
3102:3	3034:11	live 2927:8	2952:18	,23
3125:12	3061:7	3013:10	2995:24	2973:1,9,2
L-I-E-E-P	line 2902:23	3042:11	location	4
3025:4	2926:15	3089:12,22	3114:17	2974:9,19
LIIEP's	2928:6	3114:8	lockstep	2975:19
3030:2	2929:6,8	3136:1	2935:14	2976:3,12,
life 2908:22	2981:19	lives 2971:8	LOIS 2898:9	18,22
2909:4,8	2994:25	living	2901:24	2977:4
2963:10,13	2999:8	3043:20	2902:13,17	2990:21
,17	3008:21	3093:7	,25	2991:8
2964:5,25	3011:16	3094:14,15	2903:10,14	2992:3
2972:5	3020:24	3103:13	,25	2993:13
3001:14	3021:23	3109:5	2904:5,10,	2994:2,8,1
lifetime	3029:5,6,1	lo 2932:12	15	4,20
2990:9	1 3038:12	load	2905:11,17	2995:12,15
light	3041:14	2912:9,13,	,24	2996:5,19
2928:18	3051:12	17	2906:16,21	,22
2934:7	3053:22	2913:12,16	2907:1,6	2998:14,18
2945:21	lines	,20	2910:13	2999:19,21
2947:7	2981:20	2914:18,23	2922:5	3000:5,10,
2958:13	3124:3	2915:1,3,6	2924:10	25 3002:5
2980:4	link 3009:21	,17,23	2941:25	3003:4,24
2989:10	linked	2917:1,2	2942:12,17	3004:13,21
3133:5	2919:2	2920:8	,22	3005:13,18
lighting	2930:5	2929:1	2943:6,10,	,25
3105:11	list	2932:12	14,23	3007:23
3110:4,13,	2898:3,4	2945:1	2944:8	3008:11,25
16 3114:24	2899:1	2949:23	2952:6,15	3009:15
3119:3	2900:1	3001:10	2953:3,13	3010:13
3133:8	3126:11	3005:1	2954:22	3012:21
lights	3130:5	3006:8,10	2955:6	3013:13,22
3026:22	listed	3014:14	2956:5	3014:3,10,
likely	2900:10	load-	2957:6	16
2933:1	2941:10,17	displaceme	2958:18	3020:3,12,
2966:16	2953:8	nt-type	2960:2,6,1	17,22
2996:12	lists 2953:4	2993:17	5,22	3021:5,9,1
3003:15	little	loads	2961:12,17	4,17,21
3018:8	2929:2	2915:14	,21	3022:2,6,1
3036:8	2949:3	3044:16	2963:3,12,	3,24
3091:23	2959:9	3110:4,5	24 2964:3	3023:8,12,
3129:19	2995:8	loan 3083:16	2965:7	20
likewise	3007:15	3084:22	2966:12,19	3024:6,12,
2905:18	3019:11	3086:1	,23	18,23
2912:7,23	3065:3	3094:22	2967:5,9,1	3025:8,14,
			6,22	25
			2968:3,7,1	3026:13,20
				,23

3027:5,17	3066:5,12,18	3114:13	24	24
3028:12,25	3067:12,21	3115:1,6,25	2944:5,21	lower
3029:9,15,22	3068:1,9,14,20	3116:2,20,25	3131:22,23	2920:19
3030:4,11,18,24	3069:6,15	3117:3,10	longer-term	2966:9
3031:4,10,15,22	3070:10,16,23	3118:3,20	2945:9	2968:11,18
3032:3,15,21	3071:3,7,13,21	3119:9	long-run	2969:20
3033:6,22	3072:10,21	3120:3	2928:2	3008:21
3034:6,16	3073:6,17	3121:3,15	2935:9,13	3021:16
3035:1,16,25	3074:3,17	3122:1,17	long-term	3025:2
3036:19	3075:1,7,21	3123:1,18	2904:22	3037:1
3037:23	3077:11,20,23	3124:13	2930:6	3041:16
3038:7,20	3078:3,17	3125:2,10,22	2958:21	3091:20
3039:3	3079:2,5,11,24	3126:1,15,24	2986:6	lower-income
3040:2,15	3080:12,15,25	3127:8,14,23	3108:13	3062:21
3041:10,19	3081:8,25	3128:2,13,19	losses	3063:10
3042:1,8,12,23	3082:9,18	3129:1,8,14,19	2926:15,22,25	lowest
3043:3,11,16	3083:3,13	3130:8,15	2927:17	2948:21
3044:6	3084:19	3131:3,6,10,13,20	2928:3,7,15,16,19,21,24,25	low-flow
3045:7,13	3085:6,17	3132:14	2929:3,6,9	3026:18
3046:5,24	3086:18	3133:20	lost	low-income
3047:4,13,17,25	3087:23	3134:1,12	3000:21	3029:2
3048:16,23	3088:17	3136:2,11,23	3056:20	3031:24
3049:5,12,15,23	3089:18	3137:3	3135:20	3032:2
3050:6,10,14	3090:25	3139:7,20	3137:17	3033:24
3051:3,10,15,19	3091:13	3140:10,17	lot	3034:2,4,11,22
3052:7	3093:9	3141:18	2950:22	3035:9
3053:3,9,15	3094:11,21,24	long	3015:16	3036:2
3054:2,10,15,24	3095:16	2904:23	3045:24	3037:3,4
3055:6,10,14,19,24	3096:14	2918:5,6	3061:19	3038:13
3057:1,8,17,23	3097:8	2933:16,17,25	3076:3	3039:1,6,12
3059:9,23	3098:3,11,17,20	2934:16	3116:18	3040:21
3060:2,9,16,23	3099:2,7	2935:20	3123:21	3041:4
3061:5,10,17	3100:6,21	2937:8,10	low	3042:3,18
3062:6,13,18,23	3101:12,24	2938:8	2947:2	3043:20,24
3063:15,23	3102:9,24	2943:19	3013:6	3045:20
3064:15	3103:6,16	2958:3,4	3029:13	3056:10
3065:2,10,15,21	3104:8	2961:17	3035:8	3057:15
	3105:5	2964:14	3037:17	3061:13,16
	3106:2,11	3001:14	3038:23	3085:1,2
	3107:3	3011:9	3039:13	3090:24
	3108:8	3057:10	3040:22	3091:2
	3109:9,23	3086:4	3049:3	3098:9
	3112:12,20	3133:13	3053:17	3108:21
	3113:7,21	longer	3083:8	3125:20,21,23
		2938:8,23,	3085:15	
			3086:2	
			3087:6	LUC
			3103:2	3029:19
			3108:21	3030:8
			3122:12	3031:20
			3125:5,12,	3032:12
				3138:23

3139:23 3140:9,15	24 3120:20,24	2980:5,21 2981:7,23 2982:19 2983:19,25 2984:25 2990:3 2991:21 2993:12,23 ,24 2996:8 3001:16,25 3004:22 3005:16 3006:24 3007:4,17 3012:12 3013:19 3014:4,10, 23 3015:4,24 3016:19 3020:1,10 3021:2,11, 25 3022:8,22 3024:3 3025:5 3031:24 3034:20 3035:8 3036:13 3038:25 3039:25 3041:5,12, 15 3042:19 3043:10,13 3044:1 3045:8 3046:10,21 3047:15 3052:10 3053:1 3056:9 3057:22 3060:5 3063:4 3069:2 3070:18 3074:15 3078:6 3079:10 3085:12 3086:20 3091:2 3092:19	3095:21 3096:2,10 3097:23 3099:4 3101:13,14 ,15,16 3102:19 3103:19 3104:3,20 3107:25 3108:23 3109:3 3113:3 3114:8,24 3115:3 3116:22 3117:12 3120:1,22 3122:13,22 3123:4,16 3124:23 3126:10,20 ,21 3127:5 3128:15 3130:5,6,1 9 3136:1	2916:21,22 2918:10 2920:9 2921:14,15 ,22,23 2922:15 2925:2,8 2926:14,23 2928:2,7 2929:7 2930:12 2931:3,8,1 2,15 2932:7 2933:4 2934:15 2935:7,9,1 0,13,22 2936:6,11 2938:1,9 2939:14 2940:20 2941:10,17 ,22 2942:2,18, 23 2943:4,8,1 7 2944:6,21 2945:18,19 2946:6 2947:13,23 2948:3 2951:15 2957:8 2958:2 2961:3,4 2984:13,17 2991:4,9,1 0 3107:4 3129:20 3140:3
<hr/> M <hr/>	Manger			
Ma 3032:11	3131:17			
ma'am	Mani 3058:1			
2941:22	3130:6			
main 2996:25	Manitoba			
mains 2999:3	2896:3,6,2 2 2897:4,7 2898:6 2899:5 2900:3,7,1 2,17 2901:8,11, 13,21 2903:16,20 ,23 2904:4 2905:9,15, 21 2907:3 2908:23 2909:14 2910:18 2911:19 2925:11 2926:4 2929:5,16 2930:19 2931:6 2934:16,20 ,22 2936:24 2937:11,21 2938:6,10 2941:13,23 2944:5,18 2947:14 2952:12,22 2953:11 2954:2 2961:9,13 2962:4,6,8 2966:20 2967:24 2968:4 2972:13,24 2973:22 2975:12,17 ,21 2976:6,7,1 0,17,20,25 2977:7 2979:11			
maintain				
3018:10				
Maitre				
3019:3				
major				
2946:14 2976:10 3069:10 3102:4 3107:2				
majority				
2997:12,14 3001:20 3027:21 3089:11 3102:4,9 3104:1 3108:2 3116:11				
makers				
3128:21				
man 3010:20				
manage				
3119:18				
managed				
3005:15,16				
management				
2902:10 2903:17 3006:1 3033:3				
manager				
2950:21 3130:21 3134:4				
managers				
3118:25 3119:7,12,				
			Manitoba-specific 3033:4	
			mann 3120:20	
			manners 3120:13	
			March 3022:19 3062:12,17	
			marg 2991:10	
			marginal 2900:5,10 2903:8,12 2904:3,6,1 1 2906:10,12 ,18 2907:3,8,2 3 2910:10,17 ,19,22 2911:1,4,5 2914:4,7,1 2 2915:16,18	
				mark 2907:11
				marked 2901:13 2978:25 3006:25
				market 2901:12 2902:10 2907:11 2917:14,24

2918:1,5,2 0,23 2919:2,24 2920:14 2931:17 2933:19,20 ,22 2934:8,17 2935:19 2942:1 2944:23 2945:14,16 2946:24 2948:5 2953:17 2954:11 2955:22 2964:6 2965:23 2974:15 2988:24 2995:1 3006:1,4 3008:15,18 3009:6 3014:7 3032:23 3033:9,10 3036:2,6 3044:11 3045:14 3048:2 3052:25 3062:4,10, 20 3064:19 3067:9 3070:18,21 ,25 3081:23 3093:5 3107:14 3112:21 3119:23 3122:5 3129:25 3132:22 3134:6 marketing 2955:11 3013:17 3107:20 3108:1 marketplace	2917:12,17 ,18 2932:1,8 2933:9,18, 21 2934:1 2951:22,23 2953:18 3012:14 3034:20 3035:9 3036:15 3048:18 3050:18 3107:1,9,1 2,22 markets 3009:20 match 3084:3 3137:15 material 3076:14 3124:20 materially 3107:17 3127:21 materials 2899:4 2936:21 3006:23,24 3007:3 3025:23 3058:19 3076:17 3130:10 math 2965:6,9 3023:9 3043:5 3063:23 3068:18 3075:3 3079:6 mathematic 2924:13 mathematical 2923:16 mathematical ly 3011:20 matter	2905:8 2948:17 2949:14 2956:11 3074:2 3088:10 3120:20 3141:25 matters 2903:2 3105:19 3141:24 may 2903:8 2907:16,17 2908:5 2909:19 2918:1 2932:21 2933:13 2950:12 2953:22 2956:15 2959:7,8 2961:20,22 2963:15 2985:21 2999:2 3000:11,23 3003:11 3008:8,21 3009:1 3011:12,18 3012:6 3013:6 3022:16 3032:1 3039:12,21 3069:22,24 3072:1 3086:8,14 3092:8 3094:4,5 3096:25 3097:1 3103:18 3104:12 3105:8,18 3106:4,20 3108:23,24 3109:6 3114:15 3118:7	3141:11 maybe 2909:21 2916:20 2941:21 2945:6 2947:22 2987:16 2988:17 3000:23 3066:21 3067:4 mean 2913:8 2922:2 2923:16 2945:19,20 2958:7,22 2987:17 2991:18 2996:24 3003:17 3012:7 3038:21 3055:11 3073:20 3129:15 3138:13 meaning 2937:9 2945:22 2960:12 3028:7 3058:14 3073:10 3074:12 3096:17 means 2934:20 2935:21 2957:9 2958:8 2960:4 2964:6 3073:1 meant 2913:1 3016:17 measurable 2922:6 measure 2908:1 2952:3,14	2953:2,14, 21 2956:2,4,6 2957:15 2958:23 2959:11,21 ,25 2961:11,14 2962:22 2963:25 2964:4,5,2 5 2969:2,7,1 2 3039:10 3128:7 3136:4 3137:10 3138:11 measured 2922:17 3031:13 measurement 2960:10 2965:2 2968:14 measurements 2967:19 measures 2906:17 2960:21 2963:13,19 ,22 2964:17 3053:23 3058:8 3077:3 3104:10 3126:11 3127:6 3128:16 3129:11 3130:1,6 mechanisms 2933:20,22 3033:8 media 3008:14 meet 2981:2 2983:6,7 2992:14 3032:24
---	--	---	--	--

3035:6	3048:4	2901:16	2940:8,18,	2948:11
3036:3	3062:24	MHI 3014:12	22	2989:14
3063:3	3066:23	mic 2901:5	2941:3,7	3019:14
3066:22	3096:8	Michael	2945:2	3091:5
3083:19	3114:23	2897:14	2946:1,10,	MIPUG
3093:10,24	3118:21	microphone	23	2897:12
3126:13	3120:11	3006:18	2947:4,10,	2940:19,24
3132:3	3124:5	microphones	19	MIPUG/MH
3133:18	3137:9	2927:8	2949:2,10,	2900:11
meeting	met 2980:23	Miles	19 2950:24	2936:10
3055:5	2982:2	2898:10	2951:6,18	2941:11,18
3056:3	3053:19,20	2901:25	2977:7,10	MISO 2933:21
3120:18,23	3130:2	2908:12	2979:8,16	missed
3131:21,22	meter	2909:13,21	2980:2,12,	2924:2
3133:10	3096:15,20	,22	19,25	3018:16
3134:20	,21	2910:9,15,	2981:6,11,	mission
meets	method	21	16	3105:4
3040:20	2932:5,25	2911:2,9,1	2982:5,11,	misspeaking
3073:18	2933:1	7,22	15,23	3109:19
megawatts	2948:15,16	2913:3,10	2983:3,8,1	misspoke
2980:17	methodol	2914:5,14	1,24	3079:3
member	2946:5	2916:7,18	2984:8	3109:17
2896:15,16	methodologic	2918:22	2985:5,11	mixture
2934:14	al 2947:9	2919:6,20	2986:16	3064:21
3037:6	methodologie	2920:22	2987:17	MKO 2897:14
3057:11	s 2916:23	2921:7,18	2988:3,8	model
3059:18	methodology	2922:15	3081:18	2914:15,16
3081:17	2911:23	2923:14,21	3107:4,8,1	,20,21,24,
3112:24	2912:3	,24	0,13,18	25
members	2917:6,9,2	2924:3,12,	Miles's	2915:3,7
2909:18,19	0	23	2907:21	2930:3
2979:10	2918:12,13	2925:6,14,	Miller	2932:10
2989:22	2925:12	25	2897:10	2949:21
2990:4	2929:15,20	2926:11,20	million	2950:17
3006:21	2932:19	2927:8,13,	2975:24,25	2959:1
3018:16	2937:11	25 2928:11	mind 2927:10	3011:6
3033:24	2945:16,17	2929:8,18	minds	modest
3049:14	2947:2	2930:1,20	2933:12	2914:3
memorized	2960:17	2931:25	mine 2979:14	modification
3070:13	metres	2933:2	3005:19	s 2969:16
mentioned	3044:19	2934:12,18	3131:11,13	moment
2907:24	metric	,24	minimizing	3004:16
2942:20	2953:5	2935:4,8,1	2960:25	3048:20
2945:24	2965:3	6,24	minor 3018:4	3085:1
2956:10	metrics	2936:5,9	3069:10	3086:7
2959:23	3060:13	2937:6,12,	minute	3112:17
2973:18,25	MH 3004:23	18	2939:20	moments
2997:8	MH-65 2899:3	2938:3,11,	3105:4	3019:17
2998:19		20	minutes	
3022:13		2939:12,19		
3039:3		,24		

3046:9	2942:12,17	3000:5,10,	1,16	20,23
3081:12	,22	25 3002:5	3044:6	3078:3,7,1
3133:17	2943:6,10,	3003:4,24	3045:7,11,	7
money 2955:9	14,23	3004:13,21	13	3079:2,5,1
monies	2944:3,8,1	3005:13,18	3046:5,10,	1,13,24
3108:3	7 2947:10	,25	16,24	3080:12,15
monitoring	2952:2,6,1	3007:11,14	3047:4,13,	,17,25
2946:18	5	,23	17,25	3081:8,11,
3006:4	2953:3,13	3008:11,25	3048:16,23	25
Monsieur	2954:22	3009:15	3049:2,5,1	3082:9,18,
2945:4	2955:6	3010:13	2,15,23	22
month	2956:5	3012:11,21	3050:6,10,	3083:3,13
3087:12	2957:1,6	3013:5,13,	14	3084:19
monthly	2958:18	14,22	3051:3,7,1	3085:6,17
3121:6	2960:2,6,1	3014:3,10,	0,15,19	3086:8,18
months	5,22	16	3052:4,7,2	3087:15,23
2908:4,7	2961:12,17	3019:9,18	3	3088:17
2967:17	,21	3020:3,5,1	3053:3,9,1	3089:18
Mor 3097:18	2962:21	2,17,22	5	3090:3,19,
Morden	2963:3,12,	3021:5,9,1	3054:2,10,	25 3091:13
2997:6	24 2964:3	4,17,21	15,24	3093:9
morning	2965:7	3022:2,6,7	3055:3,6,1	3094:11,21
2901:3	2966:12,19	,13,22,24	0,14,19,24	,24
2902:4	,23	3023:3,8,1	3057:1,8,1	3095:16
2946:20	2967:5,9,1	1,12,20,21	7,23	3096:14
3006:21	6,22	3024:6,12,	3059:9,23	3097:8,19
3007:7,12	2968:3,7,1	18,23,24	3060:2,9,1	3098:3,11,
3030:17	6,24	3025:8,14,	6,23	17,20
3141:16	2969:18	18,24,25	3061:5,10,	3099:2,7
3142:1	2970:4,14,	3026:13,20	17	3100:6,21
Morrison	24	,23	3062:3,6,1	3101:12,24
2898:9	2971:7,23	3027:5,17	3,18,23	3102:9,15,
2901:24	2972:10,18	3028:12,25	3063:15,23	24
2902:4,13,	,23	3029:9,15,	3064:15	3103:6,16
17,25	2973:1,9,2	22	3065:2,10,	3104:8
2903:2,10,	4	3030:4,11,	15,21	3105:5,20
14,25	2974:9,19	18,24	3066:5,12,	3106:2,11
2904:5,10,	2975:16,19	3031:4,10,	18	3107:3,20
15	2976:3,12,	15,22,23	3067:12,21	3108:8,19
2905:8,11,	18,22	3032:3,15,	3068:1,9,1	3109:9,23
17,24	2977:4	21	4,15,20	3112:12,20
2906:12,16	2984:15	3033:6,22	3069:6,15	3113:7,14,
,21	2990:21	3034:6,16	3070:4,10,	21 3114:13
2907:1,6	2991:8	3035:1,16,	16,23	3115:1,6,2
2910:13,15	2992:3	25 3036:19	3071:3,7,1	5
2921:3	2993:13	3037:9,16,	3,21	3116:2,20,
2922:5	2994:2,8,1	23	3072:10,21	25
2924:7,10	4,20	3038:7,20	,25	3117:3,10
2941:21,25	2995:12,15	3039:3,23	3073:6,17,	3118:3,20
	2996:5,19	3040:2,15	24	3119:9
	2997:10,16	3041:10,19	3074:3,17	3120:3
	,22	3042:1,8,1	3075:1,7,2	3121:3,10,
	2998:14,18	2,15,23	1	15,17
	2999:19,21	3043:3,4,1	3077:8,11,	3122:1,17

3123:1,18	3017:10	3051:24	3031:6	2966:11
3124:13,23	3024:13	3052:14	3104:18	3091:25
3125:2,10, 22	3041:21	3053:8	natural-gas- available	3092:1
3126:1,7,1 5,24	3075:13	3058:1,12, 19,22	3059:15	net-present 2969:4
3127:8,14, 23	MRC 3127:11,20	3063:1,12, 18	nature	net-present- valued 2972:2
3128:2,13, 19,20	3128:10,16	3064:10,18 ,20 3066:2	3032:19	neutral
3129:1,8,1 4,19	3133:18	3071:22,25	nearby 3007:8	2958:5
3130:3,8,1 3,15,16	3134:11	3072:22	3025:21	3091:25
3131:1,3,6 ,9,10,13,2 0	muc 3028:4	3073:11	near-term 2938:9	newer 3076:4
3132:8,14	multi 3093:17	3074:4	neces	new- generation 2977:21
3133:20	3111:12	3076:2	2964:21	NFAAT
3134:1,12, 25	3116:3	3077:9	necessarily 2945:19	2987:16
3136:2,5,1 1,23,25	3122:4	3079:16	2955:21	2988:10
3137:3	multi- attached 3044:25	3081:6	2956:19	2989:1,8
3139:7,20	multi-family 3121:21	3103:12,17 3116:6,9	2958:22	3014:20
3140:10,17	multiple 3041:25	Nations 3045:25	2961:24	nice 3018:17
3141:18	multiply 3067:17	3057:22,24	2965:8	3121:15
Morrison's 3013:5	multi-unit 3111:12,19	3059:4	2973:6	3140:24
Morrison's 2985:3	multi-units 3111:14	3064:7	2983:7	nin 3067:19
mostly 3019:13	myself 2987:17	3065:5	3005:11	nine 2914:22
3037:3	3081:11	3067:10	3012:22	2970:21,22
mot 3132:3	3084:1	3068:25	3018:5	2971:4
move 2965:1	<hr/> N <hr/>	3074:19	3128:5	3041:18
2975:23	namely 3093:5	3075:12	negative 2956:8	3067:19
2988:25	narrative 2952:11	3103:15	2960:13	3068:11
3000:7	nas 2946:22	natural 2990:10	2961:16,17	3078:19
3013:2	nat 2969:7	2991:15	3021:19	3142:1
3024:20	Nation 3036:22	2992:17	3022:5	nine-five 2951:16
3038:11	3046:6,10	2994:4,10	negatively 3137:22	ninety 2914:21
3050:18	3047:12	2996:1,12, 22 2997:13	neglect 3014:19	3049:9
3100:10	3048:24	2998:9,24	negligible 3129:18	ninety-one 3047:11
3102:17	3049:4,10, 14,19	2999:6	neighbourhoo d 3059:10	3049:21
3112:5		3000:16	3061:21	ninety-seven 3077:22
3113:17		3001:5,11, 13 3002:14	3124:22,25	3080:19
moves 3095:7		3003:16,17	neither 3128:3	3081:2
moving 2916:9		3004:1,4,7 ,12,15	3131:14	ninety-two 3071:6
3013:4		3006:3	net 2927:15	nod 3007:1
		3007:20	2957:6	
		3008:7,15, 17		
		3009:7,9,1 6,24		
		3010:11		
		3012:15		

nominal 2940:11	19 3108:2	observation 3129:10	3091:1	3114:20
non 2957:11	nor 3128:3	obv 3123:23	official 3015:2	3121:9
2966:14	normally 2965:11	obviously 2938:16	officials 3071:17	3131:5,13
2973:16	North	2939:1	offline	3139:22
3100:13,21	3013:21	2988:1	3113:19	3141:5
3106:21	3032:1	3009:25	3114:4	older 3034:22
3108:1	Northern 3060:4	3123:23	3121:12	3035:5
non-diesel 3081:6	3069:5	occasionally 3114:15	offset 2961:20	on-bill 3083:17
non-energy 2904:17	note 2927:18	occupy 3034:22	2966:10	one-one 2914:13
2922:7,16	3113:16	occurred 2917:10	3129:21	one-one-six 3074:23
3087:5	noted 2968:11	occurring 2908:3,6	offsetting 2944:5,21	ones 2996:14
no-new 2981:16	notes 2979:13	o'clock 3018:20	2959:14	3002:19
no-new- generation 2978:19	2980:8	3142:2	3085:10	3044:24
non-firm 3107:11	2989:11	Odette 2897:5	3137:14	3056:10
non-First 3063:12	3006:15	2901:7	oh 2964:12	3060:16
non- government 3099:23	3029:24	3092:17	2981:3	3061:18
non-profit 3047:18	3131:7,9	offer 3043:25	3008:2	3081:13
3089:3	notionally 3085:2	3082:20	3079:5	3091:23
3094:15,20	Nova 2975:4	3085:25	3094:11	3108:22
3095:12	np 2897:9,12, 14,16	3092:3	3131:10,13	one's 3074:1
non-profits 3052:11	numerator 2910:11	offered 2944:21	3140:20	ongoing 2925:16
3053:1	2943:3	3053:17	3141:9	2946:6,9
non- quantifiab le 2923:1	numerical 2930:11	offering 2959:17	okay 2909:22	2985:14
non- subscriber 3107:2	o	3032:6	2924:12	3004:6
non- subscriber s 3108:10	Oak 3000:23	3083:12	2925:6	3056:15
non- subscribin g 3104:1	oath 3090:14	3091:14	2930:20	onset 2951:24
3106:6,18,	objective 2906:22	3108:14	2940:3	onto 2964:19
	objectively 3012:6	3123:23	2946:1	open 2982:18
	objectives 3132:3	3124:2	2977:10	3019:16
	obligation 3095:7,9	offerings 3032:19,20	2981:3	3141:15
		3033:1	2982:11,15	oper 3091:19
		3110:7	2983:3	operated 2915:7
		3118:24	2989:13	2919:23
		3119:2	2996:5	2920:2,17
		offers	2997:7	operating 3003:5,6,1 4,21
			3005:14	operation 2919:25
			3007:22	operational
			3014:12	
			3019:3	
			3028:6	
			3059:2	
			3065:2	
			3070:1	
			3081:9	
			3092:21	
			3104:1	
			3106:2	

2949:25	3032:7	3077:18	owned 3037:4	2972:19
2950:15	3046:1	ought 3012:5	3044:10,25	2975:8
operations	3087:25	ourselves	3045:25	2976:15
2922:14	3091:25	2964:22	3047:9,20	2978:24
3056:5	3094:6	outcomes	3051:24	2979:2
3119:18	3100:14	2981:20	3087:25	2981:18
opinion	opposite	outlet	3092:6	2982:2,10,
3092:19	3006:16	3115:8	3110:14,15	18 2985:9
opportunitie	opted	outline	owner	3019:14,16
s	3102:25	3004:14	3111:11,24	,19
2956:13,16	3103:3	outlined	3118:5	3023:1,22
2981:9	optimistic	2922:15	owners	3024:25
3000:22	3050:17	outlook	3110:10	3025:20,21
3036:7	option	3031:14	3118:18	3028:17
3042:20	2906:25	3033:5	ownership	3029:24
3043:25	2999:15	outset	3041:15	3039:20
3044:5,9,1	3012:17	3056:7	owning	3042:16
2,14,21	3085:15	outside	3041:24	3046:17
3072:5	3132:21	2994:22	3094:6	3051:6
3083:14	options	3056:16	owns 3118:4	3053:22
3091:19	3012:4	3120:12	<hr/>	3062:2,8
3109:4,24	3088:24	outwards	p	3070:3,19,
3110:8	3111:1	3060:7	<hr/>	21 3074:14
3111:6,21	order	overall	p.m 3018:23	3077:6,16
3112:2	2912:18	2918:8	3097:14,15	3093:3
3121:20	2923:25	2928:15	3142:4	3096:4
3138:14,19	2924:4	2929:2	package	3126:3,19
opportunity	2962:10	2954:7	3054:20	3127:5
2904:9	2965:12	2955:16	packages	3130:4
2910:8	2977:25	2956:8	3059:20	3131:12
2915:10,11	3008:23	2970:20	3061:8	pages
2956:22	3012:6	2985:24	page 2898:2	2896:24
2958:25	3084:13	2986:21	2899:2	3131:7
3000:20	3092:18	2998:11	2900:2	paid 3086:12
3006:15	3119:19	3053:19	2901:10	3087:2,13
3007:20	organization	3060:25	2902:8	3095:24
3028:3	2950:21	3063:2	2906:5	3100:25
3043:13	original	3067:5	2907:4	pains 3031:7
3044:4	2970:5	3091:21	2910:5	Pambrun
3073:9	3071:5,15	3108:13	2919:16	2897:16
3091:9	3072:9	3120:5	2944:11	panel
3092:3	3084:20	over-	2952:10,18	2896:13
3107:11,14	originally	assuming	,24 2953:3	2898:6
,22 3122:6	2969:22	3066:22	2954:15	2901:21
opposed	others	overly	2959:19	2902:4
2937:10	3106:10,23	3050:17	2962:22	2989:12,22
2974:7	,25 3108:3	owed 3094:17	2965:3	2990:5
3001:10,13	3129:5		2966:25	3006:17,21
3004:7	otherwise		2967:24	3007:13
3008:18			2968:12	3009:17
3020:15			2970:9	3010:9
				3018:16

3130:11	2955:13,21	partnerships	2988:6	3127:1
3136:6	2961:20,22	3059:13,14	2990:19	3130:25
3141:21	2962:13,14	party	2994:18	3132:6,12
panel's	,17 2963:6	3055:11,25	2995:20	3134:22
3006:13	2965:25	3056:1	2996:17	3139:5,15
3007:16	3025:5	pass 2903:21	2997:20	pay 2905:22
3019:12	3033:23	2973:7	3002:3	2957:12
par 2958:7	3038:16	3085:23	3004:19	3012:5
paragraph	3050:19	3086:4	3005:4	3039:9
2944:18	3051:12	passing	3009:3,13	3084:21
3025:1	3053:5	2968:20	3012:19,25	3085:7
3042:17	3059:11	3128:10	3022:11	3089:7
paraphrase	3118:23	past 2918:11	3025:16	3095:2
2931:13	3119:7	2943:22	3026:11	3096:25
3081:18	3122:18	2952:3	3027:3	3097:1,2,5
pardon	3123:19	2961:2	3034:14,25	3099:5
2990:8	3124:1,5	2969:16	3035:14	3101:16
participants	3125:6	2973:1	3038:18	3108:24
2900:13,16	3133:2	3010:2,6	3039:17	3114:9
2966:15	3134:7	3089:2	3045:5	3118:15
3033:19	particular	3116:6	3046:3,14	payback
3117:8,14,17	2912:12	pattern	3049:25	2952:20
participate	2983:21	3104:11	3052:1,20	2965:2,24
2955:24	2984:16	Patti 2897:4	3053:13	paying
3033:14	3011:11	PAUSE	3054:13	2957:19,20
3039:6,15	3013:9	2908:10	3055:1	3044:16
3050:23	3022:22	2916:16	3063:21	3074:1
3087:11	3024:16,22	2924:21	3064:13	3088:20
3104:16	3036:16	2926:9,18	3066:16	3091:3
3110:11,16	3040:8	2927:5	3068:22	3105:23
3118:4,18	3041:1	2936:1	3069:13	3106:1
3119:1	3051:18	2937:4,16	3070:8	3109:10
3135:16	3052:24	2938:18	3071:9,19	payments
3138:20	3055:5	2939:10,17	3075:9,19	2955:11
participated	3098:15	,22	3077:13	pays 2904:14
3082:12	particularly	2943:25	3079:22	2990:24
3104:14,19	3072:18	2944:14	3080:23	2991:5,8
participates	3136:14	2947:17	3086:16	3061:21
2966:7	parties	2949:17	3088:15	3073:21
participatin	3056:14,17	2955:4	3089:16	3084:18
g 2954:12	partly	2961:7	3092:15	3086:24
2955:18	2919:14	2962:19	3098:1,5	3087:6,11,12
2957:12	partner	2967:14	3099:13	3088:3,11,12
3116:12	3001:7	2968:22	3100:19	3089:10
3117:7,23	partners	2970:2	3101:3,10	3090:19,23
3125:5	3010:5	2971:1	3102:7,13	3091:5,9
participatio	3126:9	2974:17	3108:6,17	3094:22
n	partnership	2979:6	3113:12,24	3095:15,19
	3099:3	2982:13	3114:11	,21,23
	3100:4	2984:6	3118:1	3096:22
		2987:12	3121:1,25	3109:7,20
			3124:11,17	
			3125:8	
			3126:5	

3111:5,17	2920:15	3063:6	3007:20	22 3035:10
3112:9	2927:19,20	3064:17,19	3038:20	3038:13
3118:16	,22	3069:1	3064:22	3039:2
3121:18,22	2961:24	3070:3	3113:18	3040:18,25
3122:10	2970:16	3071:12	3135:6	3085:1,16
3123:13,15	2971:19	3072:9	period	3103:15
,17	3025:7,13	3075:22	2908:18	3104:6
3125:2,4,5	3027:6	3076:7,9,2	2912:23	3105:25
,15	3029:20	2 3079:8	2913:1,2,5	person's
peak 2907:14	3030:9	3082:11	,6,18,20	2957:5
2912:17	3031:20	3093:19	2914:20	perspective
2980:15	3032:1,7	percentage	2936:25	2904:16
peaking	3040:18	2900:13	2938:2,16	2905:12
2980:17	3050:5,8,1	2940:13	2962:16	2906:4
2983:15	3 3052:9	2996:9,10,	2963:2	2918:8
pejorative	3093:21	12,13	2971:5	2929:19
3073:21	3099:21	2999:19	2998:6	2933:5
pen 3062:4	3100:1	3035:5	2999:10	2947:20
penetration	3140:4	3036:3	3017:1	2950:12
3004:11	perc 3064:19	3042:10	periods	2974:1
3062:4,11	perceive	3053:7	3078:21	2977:9
people	3008:23	3062:25	per-	2985:15
2909:24	3012:16	3085:15	kilowatt-	2986:5
2955:18,23	percent	3090:9,13	hour	2988:17,19
2995:3	2914:10	3093:21	3032:4	2991:19,21
2998:23	2915:24,25	3103:12,14	permission	2992:1,2,1
2999:1	2922:23,25	3115:4,5	3019:6	1
3001:22	2923:4,23	3116:23	persistence	2993:3,8,1
3012:23	2923:4,23	3117:6,13,	2945:9	4 3000:12
3058:24	2937:25	23	person	3017:21
3059:13	2938:2,4,9	percentile	2956:16,18	3028:2
3089:21	2939:3,4	2957:3	,21 2957:1	3137:1
3093:7,11	2962:9	perception	2909:8	3138:8,17
3094:4,5,8	2974:3,6	3012:3	personally	pes 3040:18
3096:9	2977:1	3106:19	3010:21	Peter
3097:5	2982:20	perceptions	3014:14	2897:10
3104:19	2997:15,23	3008:5	3037:4	Peters
3108:10	2998:6,12,	perform	3074:6	2897:2
3118:9	16,19	2968:2	3085:2	2898:12
peoples	2999:8,9,1	performance	3090:24	2901:19
3085:21	2 3000:2,4	3048:10	3098:9	2902:2,3,1
3103:13	3001:20	3084:9,13	3110:14	4,22
people's	3001:20	performing	personal	2903:1,11,
3038:8	3015:21	2968:1	3104:6	15
per 2911:16	3016:1,8,1	3014:1	personally	2904:2,6,1
2912:20	4,20,25	perhaps	3074:1	1
2913:25	3017:12	2910:1	persons	2905:6,13,
2914:13	3022:18	2960:18	3013:7	18
2916:1	3023:7,18	2974:7	3034:4,11,	2906:5,17,
2918:19	3040:9,12	2978:22		22 2907:2
	3043:1,7			2909:11,24
	3050:25			2910:14,24
	3061:1,7,1			
	0 3062:12			

2911:6,11, 18 2912:25 2913:7 2914:2,11 2924:6,7,1 2 2925:4,7,2 3 2926:5,13 2927:7,23 2928:5 2929:4,10, 23 2930:15 2934:11,12 ,19 2935:1,6,1 2,21 2936:3,18 2937:9,14, 18 2938:5 2939:6 2940:6,17, 23 2941:5,20, 21 2942:10,13 ,18,25 2943:7,11, 18 2944:1,11, 16 2945:23 2946:8,19 2947:1,9,1 9 2952:1,2,1 0,22 2953:10 2954:19,25 2956:1,25 2958:11 2959:18 2960:3,7,1 6 2961:9,13, 19 2962:21 2963:9,21, 25 2965:1 2966:6,14, 20,24 2967:7,11, 18,23 2968:4,10, 17 2969:15 2970:7,18	2971:3,21 2972:8,12, 19,24 2973:7,10 2974:6,12 2975:8,21 2976:5,14, 19,24 2977:6 2978:21 2979:8 2980:3,14, 20 2981:3,7,1 3,22 2982:8,17 2983:1,5,9 ,14,25 2984:23 2985:7 2986:11 2987:7,14 2988:2 2989:9 3006:14,21 3008:2 3023:23 3028:21 3030:13 3099:17 3123:15 3124:14,20 3127:9 3135:1 3136:7 Peters's 3019:15 3025:22 photocopying 3023:24 physically 3104:13 3105:8 pick 3129:16 picked 3008:1 picture 3131:21 piece 3088:6 3134:15	pieces 3087:17 pipe 3133:9 placed 2934:15 places 2997:8 3116:5 plan 2920:12,23 ,25 2936:12,13 2969:6,16 2976:11 2977:22 2979:12,22 2980:6,16 2981:14,15 ,17,20 2982:6 2983:13 2984:16,20 ,22 2985:2,13, 17,23 2986:1,2,4 2987:19,20 3001:24 3014:7 3023:4,5,7 ,17,19 3025:3,4,1 0,11 3028:23 3050:3 3080:3,6 3123:22,24 3130:22 3131:18 planned 2969:9 3024:4,9,1 5,21 planning 2942:1 2963:3,15 3014:23 3051:17 plans 2969:25 2981:5,8	2985:22 plant 3110:2 plastic 3027:9 play 3064:25 please 3088:7 3091:6 3101:25 3117:2 plice 3010:4 plug 2950:7 3044:15 3110:4 plugging 2948:17 3044:20 plus 2904:23 2997:9 3073:15 3078:20 3135:20 point 2905:13,20 ,23,25 2906:24 2907:4,6,1 5 2908:13,15 ,24 2914:12 2916:1 2917:15,25 2918:18,19 2924:9 2927:11,19 ,20,22 2930:17 2932:16 2936:6,14, 22 2937:19 2939:6 2940:17 2943:2,9,2 1 2944:4 2946:17 2947:10 2948:2 2951:15,16 2960:11,12	,20,21 2961:11,15 ,19 2969:3,8,1 9 2970:20,22 2971:4 2973:21 2975:18 2981:4 3016:17 3017:7 3023:2 3024:15 3029:13,20 3030:3,9 3031:20 3048:12 3067:17,18 3075:23 3076:20 3082:3 3084:7 3094:10 3104:15 3125:19 3127:21 3128:11 3138:2 3139:23 3140:4,6,1 3,14,23,25 3141:3,7,8 pointed 2953:6 3030:21 3094:3 policies 3086:13 policy 2960:18 2975:1,2 3092:9,12, 19 poor 3036:5 3038:1 3048:6 poorer 3035:12,18 ,21 popul
---	--	---	---	---

3065:22	portrayed	2915:8	3077:18	2964:1
population	3077:25	2920:18	Prairie	2971:14
2900:15,21	portraying	2977:2	2997:6	2973:5
2998:21	3051:8	Poverty	pre 3025:11	2976:15
3012:9	posing	3090:1	3072:12	presentation
3034:2,4,2	3039:22	power 2926:6	pre-2000	3028:22
2 3035:10	position	2936:12,13	2933:1	presented
3038:14	2953:25	2956:12,15	2948:15	3020:10,20
3040:6	2958:13	2960:24	precise	3021:1
3041:3,7	2989:20	2964:10	3073:23	3029:6
3042:4,18,	3019:1	2967:3,20	precision	3039:24
25 3045:21	3032:10	2977:22	3082:15	3080:4
3047:20,23	3091:2	2979:12,22	predicting	3083:14
,25 3049:9	3122:22	2980:6,16	3010:5	3125:11
3055:5	positioning	2982:6	prefer	3134:5
3062:15	3027:22	2984:14,19	3017:5	presenting
3063:10	positive	2985:1,22	3048:12	2908:7
3065:7,18,	3030:22	2987:19	preferred	2969:10
19,22	3031:2,13,	3023:5	2976:11	presently
3067:6,14	14	3025:4,10,	preferring	2975:12
3085:15,16	possible	11 3028:23	3007:19	presents
3103:23	2925:12,15	3032:24	preliminary	2992:8
3115:5	2987:24	3040:24	2904:7	3003:5
3116:24	3018:7	3049:20	premises	present-
3117:8,17,	possibly	3050:3	3098:15	value
24	2955:12	3062:5	prepare	2971:22
3122:16,25	2956:22	3074:19	2985:21	present-
3123:9	2965:14	3075:12	prepared	valued
populations	2995:16	3076:5	2954:21	2971:18
3036:17	post-	3079:16	2976:6	2972:6,8
3047:16	Wuskwatim	3082:7,19	2987:25	president
Portage	2920:21	3083:12,14	3072:13	2960:19
2896:21	potential	,16	3092:23	president's
2997:5	2901:12	3084:22	3123:16	2958:12
portfolio	2902:10	3086:1	3136:21	pressure
2954:8	2906:2	3101:15	presence	2954:4,5,9
2959:5	2949:24,25	3102:20,22	3113:19	2957:5,10
3108:14	2958:20	3103:4,13	3129:24	2958:14
3119:1	2988:24	3104:4,24	present	2960:4,13
3122:15	2989:6	3106:7	2906:18,19	3136:18
3128:25	2994:16,23	3116:10	2907:3,10,	3138:21
3129:5,7,1	3000:22	3118:21,23	17	presumptuous
3,18	3006:1	3120:9	2910:10,12	ly 2948:25
3138:15	3008:6	3124:22,24	2924:9	pretend
3139:2,12,	3048:17	3130:20,21	2943:8	2924:13
17,18	3062:20	,22	2962:25	pretty
portion	3093:4	3131:16,17	2963:2	2931:18
3044:13	3110:18	,18		2933:21,25
3074:8	potentially	3132:1,14		
3087:12		3134:3		
3104:25		power-		
		smarted		

3015:15	3044:6	3072:13	products	3030:15,19
previous	3050:15	3081:19	2963:13	3031:8
2928:13	3106:21	3123:25	3012:8	3032:18
2975:15	3139:3	3130:17	professional	3033:4,7,1
3062:25	principle	3134:14	3013:20	1 3036:10
3075:6	2983:19	proceed	profit	3038:24
3080:2,12	3011:11	2901:4	3100:14,22	3039:7,14
3088:3	print	2906:25	program	3043:10
3118:21	2936:19	proceedings	2900:14,16	3047:1
3123:23	prior 2917:8	2925:21	2903:22	3048:7,10
previously	2931:14	2989:20	2908:4,22,	3049:4,14,
3036:20	2998:24	3019:2	25	19,20
3050:2	2999:9	3142:1	2909:3,5,9	3050:16
3099:17	3068:3	process	2926:6	3053:16
3110:12	3075:24	2903:19	2942:7,16,	3055:8,17,
pri 3126:22	3079:13	2925:15,16	19 2947:14	22
price 2930:6	3114:23	2952:5	2952:5,8,1	3056:10,15
2935:18	3126:22	2989:1,8	2,17	,24
2944:4	priority	3055:9,13,	2953:21	3059:12
2973:17	3045:3,15	20,22	2954:21	3061:9,11
3008:8,15,	private	3056:1,23	2955:2,10	3062:5,9
18,19,22,2	3086:21	3057:3,7	2957:21,22	3064:8
4 3009:10	3087:21	3122:2	,23	3068:11
3010:1,3,4	3088:9,18,	processes	2958:7,16,	3072:13
3012:6	25	2926:4	19,23	3073:12
3017:19	3089:4,5,1	produ 3012:7	2959:2,10,	3074:9,13,
3018:11	3,22	produce	22	20 3075:12
3097:6	3090:5	2949:13	2960:5,9	3081:22
prices	3091:11	2984:13	2961:10,14	3082:7,20,
2919:3	3092:11	produced	2962:7,8	23
2931:23	3095:12,13	2984:13	2963:5,14,	3083:1,8,1
2935:19	,18	producing	16,23	7,18,19
2946:24	privately	2951:1,9	2964:2,9,1	3084:11,23
2947:3	3089:4	product	0,11,24	3085:3,7
3018:11	3092:5	2905:5	2966:11,21	3086:24
3107:14,21	private-	2906:20	2967:4	3087:6,11,
pricing	sector	2921:24	2968:1,11,	18,22
3004:1	3098:14	2922:9	19	3088:3,25
3009:16,22	3100:3	2943:13,16	2969:13,20	3089:8
3034:12	pro 3003:21	,20 2953:1	2970:20	3093:5
primarily	3132:3	2992:15	2972:2,4	3094:22
2904:15	probably	3009:9,11	2973:8	3095:15,19
2905:1	2931:19	3124:3	2974:14	,20,25
2999:7	2945:21	production	2984:11	3101:18
3000:25	2975:23,25	2932:14	2990:24	3102:20,23
3044:15	2979:14	2949:22	2991:5,8,2	3103:5,21
3047:15	2989:1	productivity	3 2992:25	3104:4,14,
3111:11,13	3000:21	2923:7	3005:8,9,1	16,20
3120:10	3056:20	2973:16	0,15,23	3105:1,24
primary	3057:2		3014:2	3106:1,8
			3026:5	3110:16
			3029:14,17	3111:5,17
				3114:23
				3115:3,4,7

, 8, 14, 21	2954:1, 3	3016:19	3027:8	2941:8, 13
3116:12, 19	2959:7, 8, 1	3021:12	properties	2942:2
, 22, 24	4	3025:12	3065:12, 13	2950:10
3117:7, 9, 1	2960:10, 19	3052:11	3119:12	2956:22
5, 18, 22	, 24	3124:4	property	2960:25
3118:7, 8	2963:10	projection	2996:25	2979:10
3119:6	2965:4	2904:23	2997:1	2986:13
3121:18	2966:17	2907:20	3087:24	3023:9
3123:24	2968:9, 15	3020:2, 9	3109:8, 22	3026:17, 22
3124:22, 25	2970:13	3021:24, 25	3110:10	3027:9
3125:11, 25	2975:7	3022:23	3112:11	3038:21
3127:12	2990:15, 22	3064:3	3118:18, 25	3051:21
3128:1, 3, 5	3019:24	projections	3119:7, 12,	3066:14
, 6, 18	3021:4	3004:10, 14	23	3092:13
3131:17	3032:18	3016:18	3120:20, 24	3099:4, 9
3132:10, 15	3033:18	3020:16, 19	proportion	3117:2, 4, 6
, 17, 20	3038:25	, 25 3022:4	2998:3	, 12
3133:1, 2, 1	3039:8	3048:3	3002:16	3122:23
1, 23, 25	3056:2, 10	3125:11	3053:4	3123:4
3134:2, 4	3062:4	projects	3060:10	3126:10
3135:20	3082:13, 16	2903:17	proportional	3135:13
3137:4	, 24	2911:25	2955:16, 24	provided
3138:25	3083:10	2912:5, 7, 1	2961:25	2926:5
3140:19	3086:9, 10,	2	2962:13	2929:21
3141:6	11 3104:25	2913:12, 15	proportionally	2936:10
programming	3110:12	, 18, 19	2937:7, 8	2978:8
3013:17	3111:2	2947:21, 25	proportionately	2995:6
3027:22	3112:22	2962:11, 15	2937:1	3032:22
3029:3	3115:19	2976:10	proportionate	3067:1
3031:25	3118:18	3010:14	2937:1	3092:20
3032:2, 6	3120:15	3015:6	2938:14	3126:21
3037:18	3122:15, 19	3119:16	proposal	provides
3038:16	, 24 3123:7	promise	3088:23	2968:8
3042:20	3126:11	3141:14	propose	3101:15
3044:3	3128:17	promote	2929:25	3135:10
3045:2	3130:20	2922:10, 12	3134:16	providing
3052:24	3131:22	2957:21, 22	proposed	2930:5
3057:15	3132:1	promoted	2988:12	3055:11
3099:18	3134:9	2963:14	proposing	province
3103:14, 25	3135:12, 17	promoting	3107:23	2945:1
3104:24	3136:16	3120:15	provide	2964:22
3107:25	3139:12	prompt	2900:3, 7, 1	3075:25
3112:8	projected	2902:5	2, 17	3076:16, 22
3114:21, 22	2915:22	pronounce	2901:11	provincial
programmings	2916:4	3020:14	2906:3	2975:1
3118:19	3003:2, 21,	3099:19	2909:17	3098:24
programs	22 3004:25	proper	2924:15	3099:10
2900:20	3023:17	3112:11	2930:9	3101:7, 22
2903:20	3053:5	properly	2931:2, 6	3102:5
2942:23	projecting		2940:25	3105:12
2952:25	2963:6			provision
2953:9	3002:7			
	3010:1			

2902:9	3138:13	3085:21	3004:23	2962:3
proxy	pursued	3086:22	3005:21	3001:18
2910:25	2904:19	3087:21,24	3006:13	3006:22
2911:3,4	3127:13	3089:8	3010:16,19	3008:13
PUB 2978:25	3128:1	3103:7	3011:15	3031:5
2979:1	pursuing	qualifying	3018:1	3033:12
3074:15	2958:19,25	3064:8	3023:15	3053:16
3080:10	puts 2954:2	3085:19	3035:23	3056:16
PUB/Manitoba	putting	3118:6	3039:22	3072:4,13
2944:9	2925:16	qualitative	3049:2,6	3076:1
PUB-14	2952:21	2900:4	3073:5,14	3134:14
2985:10	2960:4	2921:16	3081:19	quote
public	2992:17	2922:3	3089:19,21	2992:16,19
2896:3,20	2998:7	2930:11,16	3090:11,13	,21
2906:8	3003:9	2931:3,7	,20 3094:8	quoted
2910:20	3014:7	quality	3099:25	2929:3
3089:13	3138:20	3035:12,18	3100:9	2940:10
3090:6	3139:12	3038:6	3118:12	
3095:18		quantifiable	3126:22	
pull 2982:6	<hr/>	2904:17	3138:24	<hr/>
3025:20	Q	2921:16	3139:25	R
punch 3073:5	qua 3085:21	quantified	questioning	R30 3058:16
purchase	qual 2921:16	2907:4	3028:20	3073:10
3028:10,13	3064:7	2973:21	3108:10,11	R50 3058:16
3040:13	3088:19	quantify	questions	Rainkie
purchased	3095:25	2923:5	2989:12,21	2898:7
3105:15	quali	quantitative	,24	2901:22
purchases	3058:20	2922:2	3006:17,19	2951:2
3018:10	qualificatio	quartile	3009:6	2984:2
purchasing	n 3043:17	2975:23	3010:8,18	2986:13
3040:24	3107:4	question	3013:4	2987:5,8,1
purely	qualificatio	2908:14	3014:13,18	4 2988:2,9
2921:15	ns 3035:20	2909:15	3015:10,16	3014:17
2922:2	3073:15	2910:7	3037:9,10	3015:1,7,1
purpose	qualified	2915:22	3081:11	1,13,19,23
3038:23	3046:6	2916:19	3084:16	3016:2,10,
purposes	3073:11	2921:19	3093:2	13,22
3007:21	3088:2,20	2922:1	3097:10,19	3017:11,13
3013:5	3096:1	2923:9	3123:13	3070:13
3014:1	3125:13	2932:23	quibble	raised
3020:7	qualifiers	2939:2	3016:4	2975:10
3083:23	3058:17	2942:14	3018:4	Ramage
pursue	qualify	2945:17	3106:4	2897:4
2943:16	3044:7	2984:2	quick	ran 3115:7
2958:8,23	3057:24	2987:16	2951:19	range 3016:8
3027:20	3058:14	2991:17	quickly	3018:8
3126:12	3067:1	2993:9	2927:2	3024:17
	3083:18,19	2995:23	3037:12	3043:8
	3084:13	2997:8	3060:24	3063:10,13
		3001:15	quite	rapport
			2953:23	3015:15

rate 2896:7	3042:19	3028:23	3134:6	2925:11
2915:24	3045:22	Raymond	ready 2901:4	2978:8
2923:17,20	3065:9	2896:15	2979:10	2983:10
,23 2924:8	3082:6	2915:21	real 2919:9	3138:6
2942:2	3102:19,22	2916:13	2932:8	recall
2952:14	3103:3	2918:17	3011:13	2975:15
2953:14,20	3104:3	2919:4	3108:1	2976:1,3
2956:2,3,5	3108:24	2923:9,19,	reality	3010:14
2957:14	ratepayer's	22 2924:1	3014:23	3030:12,16
2958:23	3138:12	2932:21	realize	3057:13
2959:11,25	rates	2948:8	2965:12	3059:22
2960:20	2948:13	2949:8,11	2969:7	3081:16,24
2961:11,14	2953:22	2950:20	realizing	,25
2962:22	2954:4,5,9	2993:22	3050:20	3132:25
2966:10	2955:15	2994:6,12,	really	3136:10
2968:15,18	2956:19	15	2930:25	recalling
2969:2,7	2957:5,9,1	2995:10,14	2956:11	2969:25
3004:11	1,13	,22	2972:21	receipt
3015:21	2958:14,21	2997:7,14,	2998:10	3098:8
3016:1,23	2960:4,14	18	3001:23	receive
3017:3,6,1	2961:16,18	2998:10,15	3033:4	2954:18
0 3019:25	2966:17	2999:17,20	3042:21	3041:12
3020:10,21	3003:2,6,7	,24	3044:17,19	3054:20
3021:1	,10,22	3000:6,17	3048:9	3096:9
3036:24	3105:1,24	3001:15	3058:6	3109:15
3037:1	3135:12	3037:2,13	3074:8	received
3043:25	3136:18	3089:20	3075:24	2986:15
3061:7	3137:8	3090:8	3087:14	3015:21
3105:2	3138:21	3096:4	3107:9	3056:16
3107:23	3141:10,11	3097:3	3115:24	3061:23
3119:8	ratescra	re 2896:6	3141:11	3103:20
3126:22	3102:21	2962:7	realm 2994:3	receiving
3127:11	rather	3042:4	reason	3089:6,21
3136:3	3037:8	3131:24	2997:25	3096:1
3138:1,10	3080:10	reach	2999:4	3100:24
3140:5	3089:13	2954:10	3044:6	3104:12,17
rate-impact	3097:11	3033:9	3050:15	3105:16,17
2959:21	3113:20	3045:16	reasonable	3109:12
2969:12	3131:7	3048:5	3069:23	recent
ratepayer	ratio	3053:10	reasoning	2936:14
2953:17	2906:23	3056:4,6,1	3008:21	2960:17,23
2956:9	2959:11	7	rebalance	3002:25
2958:5,9	2975:13,17	reached	3017:24	3007:18
2959:6	,22 3017:1	2983:10	rebate	3020:2
2961:1	3127:12	3047:21	3039:10	3021:25
3106:15,18	3128:11	3048:7,21	3105:9	3082:10
,19	rational	3068:12	3115:12,16	3087:4
3137:23	3011:6,24	reaching	rebuttal	recently
ratepayers	3012:1	3050:4		2962:2,7
2955:10	ratios	3125:15		3061:18,20
3015:25	2903:7	3132:21		
3037:19				

3081:2	3079:14	2915:14	3036:20	registered
recess	record	2917:2	3057:2	3104:25
3018:20	2909:12	2920:18	3060:17	regular
3097:10	3017:15	2935:23	3094:22	2966:22
recessing	3054:16	2949:24	3095:20	regularly
2989:16	3074:23	2966:15	refers	3056:2
3018:22	3114:3	3091:24	2973:12	regulate
3097:14	3119:5,10, 11	ref 3080:3	reflect	2920:3
recipient	recorded	refer 2936:9	2939:25	regulated
3088:10	2976:16	2994:9	2971:5	3008:19
3091:11	records	3004:22	2981:5,20	regulator
3098:14	3113:4,5	3017:5	3065:24	2974:25
recipients	3114:7	3056:13	3072:6	regulatory
3090:5	recouped	3099:3	3080:16	3015:4
3092:10	2958:2	reference	reflected	reinvestment
3100:13	recover	2928:22	2938:9	2964:8
recognition	3135:22	2944:17	2981:17	relat
3038:24	3137:13	2950:25	3002:1	3127:11
recognize	recycling	3023:9	3032:12	relate
2940:9	2959:22	3049:3,9,1	3080:2,3	3104:7
2961:4	2960:9	8 3053:23	3125:24	related
3014:20	3116:19	3062:8	reflection	2935:18
3039:4,11	redalan	3069:3	2949:13	2986:25
3070:10	3017:24	3124:21	reflects	2999:5
3076:12	redesign	3126:18	2919:9	3012:13
3110:17	3131:24	3135:6	Refrigerator	3014:24
3112:24	redesigns	referenced	2959:10	3035:18
3123:24	2961:14	2905:20	regard	3049:19
recognizes	redesigned	2974:21	2988:1	3056:11
2942:4	3068:16	3036:12	3057:14	3065:8,12
recognizing	redo	3055:4	3119:6	3069:17
2944:25	reduce	3060:13	3131:25	3123:17
2957:18	2915:1	3130:6	regardless	3134:2
2992:15,22	2917:1	references	2904:13,14	relates
3010:7	2954:4	2998:23	2905:22	3121:18,22
3016:17	2993:15	referencing	3053:18	relating
3017:8	3000:8	2982:7,9	3095:17	3059:20
3036:13	3136:18	referred	3110:14	3114:24
3091:15	reduced	3059:19	regards	relationship
3092:5	2918:24,25	referring	3037:25	2961:25
3122:6,20	2922:19	2937:7	3113:9	3101:13
3123:20	2932:14	2944:9	region	relative
recommend	2966:8	2945:4	3060:4	2921:15
3026:8	2973:14	2978:20	3120:11	2948:5
recommended	3010:10	2988:9	regions	2990:9
2920:12,23	3017:24	2989:5	2998:12	3004:12
,25	reducing	2992:5	Regis	3012:2
2981:14	2915:6	3005:25	2896:14	
reconcile	reduction	3019:14		
		3035:17,24		

3040:24	3096:6,9	3079:25	2906:7	2960:9
relatively	rented	reported	require	2965:13
3031:14	3037:4	3009:19	2978:14	2990:24
reluctance	3064:5	3036:4	3039:8	2995:24
3008:5	3110:15	reporting	3040:12	3000:1
rely 3080:9	renters	3121:8	3043:20	3017:17
remain	3042:10	reports	3069:24	3029:2
2942:10	3067:15	3121:6	3071:24	3035:3
remaining	renting	represent	3075:16	3036:13,21
3017:20	3092:11	2915:2	required	3040:1
3018:12,13	3094:5,9	2928:14	2915:23	3082:24
3115:19	3096:11	3028:2	2978:10	3083:9,16
remember	rents 3042:5	3045:14	3000:9	3084:22
2940:21	3091:11	3053:4	3036:4	3086:1,10
2995:13	rep 3071:25	3061:12	3069:10,11	3112:14
3113:8	repair	3062:24	,20	3115:19
3121:6	3069:24	3063:2,5	requirement	3122:15,24
remind	repeat	3072:7	2965:20	3123:7
3063:12	3101:25	representati	2987:8	3138:18,19
3113:16	rephrase	on	3073:7	3140:5
remove	2995:22	2907:8,16	requirements	resolve
3039:15	3102:3	representati	2993:16	3090:7
renewal	replace	ve 2928:20	3072:3	resource
3059:10	3083:23,25	2975:6	requires	2904:3,7,1
renovations	3084:4,6	3036:15	2930:18	2 2906:13
3069:10,11	replaced	3058:2	3065:19	2919:21,22
,17	3083:16	represented	requiring	2921:22
rent 3047:10	replacement	2928:14	3064:20	2942:1
3086:12	3083:1,11	3035:11	3067:24	2943:17
3089:12	replacements	3036:17	3068:25	2952:18
3090:5	3069:11	represents	3071:5	2972:21
3096:25	replacing	2907:7	reserve	2973:3,23
3097:5,7	3083:5	2908:14,15	3045:25	2974:23
3108:25	report	2971:7	3049:16	2977:22
3109:7,10	2924:25	3061:11	3066:11,21	2979:12,22
rental	2925:1,17,	3063:25	3067:24	2980:6,16
3047:10,15	19,22	3064:3	3068:2	2982:6
3051:25	2928:22	requalify	3075:16	2984:19
3052:25	2929:19,21	3120:4	3103:13	2985:2,22
3065:12,13	2933:4	request	reserves	2987:19
,16 3067:9	2948:25	2901:11	3036:23	2988:11,15
3089:4	2951:1	3017:3	3066:25	,21 2989:4
3093:4	2966:3,5	3070:5	reservoirs	3025:10
3101:20	2992:4	3074:16	2920:4	resources
3102:2	2998:1	3126:8	resident	2947:22
3118:7	3001:12	requested	3038:4	2948:4
3119:12	3005:1	3055:25	residential	2985:18,20
rentals	3057:3	Requests	2900:19	respect
			2959:12	2901:12
				2989:22
				2990:7
				respond

3034:12	3086:9	3141:21	reviews	3081:10
responded	result	return	2952:25	ROBIN 2898:8
2928:12	2965:6	2902:5	3026:6	2901:23
3113:9	2969:12,20	2956:23	revised	3010:25
response	2970:17	2958:3	2949:15	3011:8,22
2899:3	2973:5	2965:17,21	2984:18	3017:25
2901:9,16	2983:20	3028:1,5	3050:19	robust
2909:14	3006:11	3134:10	revisit	3107:23
2940:19	3061:23	returning	3082:2	roll 3120:17
2944:9,19	3106:13	2965:16	revisiting	roughly
2945:7,22	3109:15	revamped	2932:25	3041:8
3003:13	3127:20	3115:14	2933:3	3043:1
3004:22	3135:21	revenue	2950:19	3045:19
3019:22	resulting	2914:25	RFP 2901:11	3047:23
3036:23	3083:4	2937:23	Rica 3014:5	3050:11,25
3037:1	results	2940:14	rider	3064:1
3042:17	2948:19	2957:24	2922:25	3067:5,9
3046:20	2959:21	2986:6,20,	2974:3,23,	3069:1
3047:22	3021:15	21,25	24	3071:11
3062:2	3022:8,16,	2987:8	right-hand	3079:8
3070:5	19 3026:7	3137:17,18	3019:19	3081:5
3074:15,22	3029:12	revenues	3041:5	round
3075:6	3031:12	2915:5	RIM 2960:10	2900:11
3077:7	3060:22	2938:3	2968:19,20	2906:7
3080:10	3061:12,15	2944:20	3029:13	2909:15
3126:17,21	3079:20	2945:8	3030:2,14,	2910:7,16
3127:4	3135:13	2951:6	22	2911:13
3128:15	resume	2986:3	3031:3,13	2924:17
3130:7,14,	2989:20	2987:3,19	3135:3,4,8	2927:14
19	3141:15	3135:21	,25	2936:4,10
3131:2,16	3142:1	reverts	3137:2,6	2940:19,24
3138:23	Resumed	3095:7	3138:24	2941:2,11,
responses	2898:6,7,8	review	3139:1,18	18 2944:10
2910:23	,9,10	2932:17	R-I-M	3004:23
3006:17	2901:21,22	2945:24	3030:2,14	3074:15
3079:13,15	,23,24,25	2946:2,3,4	RIMs 2960:19	3138:3
responsibili	resuming	,9 2947:6	ringing	3140:3,24
ty	2989:17	2966:21	3060:15	rounding
3094:17,19	3018:23	2967:1,3,6	rising	3140:24
responsible	3097:15	,8,20	3006:15	row 3111:12
3058:25	resurgence	3006:15	3022:14	3116:4
3109:7,21	2962:8	3026:17	3026:17	run 2904:3,4
3110:3	retail	3056:9	3056:9	2914:21
3112:11	3115:8	reviewed	risk 3008:21	2915:3,6
3113:2,6	retained	2946:12	3011:17	2918:6
restart	3013:25	3062:5	3012:2,3,8	2932:10
3019:1	Retirement	reviewing	risky	2952:8
restricted	2959:10	2925:12,14	3011:19	2991:25
2997:8	RETIRES		rivetting	3001:14
restrictions				3055:16

running 2964:11 2969:13 3056:2,15	3116:22	16,21 3027:20	3134:9,11	3029:24
runs 2903:20,23 2963:16	Savers 2900:14 3059:20 3117:7,15	3028:14 3044:23 3061:8 3083:24 3084:22 3085:10 3105:2 3106:9 3119:16,17 3123:25 3124:8 3125:1 3128:25 3129:6,12, 17,21,22,2 5 3132:16 3133:3 3141:12	screened-out 3129:11	sector 2908:4 2959:13 3005:16 3088:9 3089:13 3090:5,6 3091:11 3092:11 3120:6,10 3122:3 3138:18,19
rural 3057:22 3059:5 3060:1,3,2 1 3061:3	saving 2908:21,23 2909:5 2913:23 2915:2 2917:21 2920:19 2986:22 3021:12 3083:2 3104:7 3117:9	3128:25 3129:6,12, 17,21,22,2 5 3132:16 3133:3 3141:12	screening 2903:16 2965:5,8 3128:4	sectors 3118:23 3119:15 3120:5
<hr/> S <hr/>	savings 2903:7 2904:9,18, 24 2905:3,20 2906:1 2907:10,17 2908:3,6,1 9 2912:14,16 2915:8,9,1 3 2922:18 2945:1 2956:14 2957:17,19 2958:10 2959:1,3 2964:17,19 2971:11,13 ,14,16,17, 19 2972:3,6 2975:13,16 ,22 2978:9,13, 18 2980:24 2982:21 2991:1,6,1 2,15 2993:9,11 3003:3 3019:24 3021:3 3023:6,17 3024:4,10,	saw 2932:11 3076:8	script 3007:14	secure 3008:23
Sadly 3081:11		scale 3002:6,13	scripted 3013:4	seeing 2932:6,7 2938:23 2981:9 3006:10 3008:14 3010:5,11 3029:16 3076:18
sake 3027:13		scenario 2920:8 2978:19	se 2961:24 2986:9 3027:6	seek 3092:22
sales 2915:10 2932:13 2948:1 2975:12,13 ,16,22 2978:5 2988:12,13 ,21 3107:1,11, 22 3118:22 3119:13,14 ,20 3120:9,11 3135:23		schedule 2902:9,15, 16,21	seasonal 3105:11	seeking 2953:11 3016:7
sample 3036:15		school 3010:24 3011:1	second 2909:15 2910:5,7,1 6 2911:13 2924:16 2936:4 2941:2 2944:17 3010:17 3020:8,24 3025:1 3053:22 3059:3 3067:4 3068:6 3077:25 3089:10 3096:11 3122:10 3130:4 3138:23	seem 2931:17
SaskPower 3014:6		scope 3018:1	second-ever 2941:6,8	seems 2916:5 2948:11 2949:11 2991:19,24 2998:17 3003:19 3019:5 3057:9
satisfactory 3013:11 3037:11		Scotia 2975:4	second-highest 3053:7	seen 2998:4 3010:1,6 3061:19 3075:25 3076:10
save 2957:24 2976:8 3019:17		Scott 3136:8	seconds 3038:12	sees 2967:20 3042:19 3043:13
saved 2970:12,16 ,17,23 3081:22 3106:24		screen 2903:21,22 2904:8 2922:8,9 2943:22 2974:14 3127:6 3128:16	sect 3120:9	
Saver 3061:11		screened 3127:11,19 3128:23 3133:18	section	

segued 2929:12	2997:3 2998:24,25	2988:13	2902:23	3044:8,24 3064:2,4
self- identified 3037:19	2999:18 3033:1 3120:13	shelf 2963:10	signal 2970:21 2973:7	3065:16 3067:8 3111:18 3121:20
self-select 3033:11	services 2999:2 3018:9	shelter 3040:10	signed 2988:13	singled 2986:19 2987:3
selling 3139:21	sets 2968:14	she's 3090:3	significant 2917:11 2990:11	single- detached 3093:15 3111:13
semi 3064:2,4	seven 2914:12	shortage 2979:25	significantl y 2902:21	sir 3014:19 3107:17
send 3058:12	seven 2916:1 2918:18 2927:20 2982:24 3048:13,22 3067:17 3078:22 3128:15	shorten 2965:20	2946:21 2961:3 3003:15 3107:24	sister 3031:25
sense 2990:12 2991:19 2992:1 3008:8 3021:19	sets 2968:14	shorter-term 2964:17	similar 2912:1,2 2999:18 3001:2 3003:18 3034:16 3052:6 3101:13 3126:22	situation 2951:5 2957:2 2987:22 3001:4 3039:12 3072:17 3087:8 3088:8,18 3095:17 3111:18
sensitive 2930:7	seven 2914:12 2916:1 2918:18 2927:20 2982:24 3048:13,22 3067:17 3078:22 3128:15	shortfall 2978:18 2980:7,17 2981:24 2983:6,7,1 6	3001:2 3003:18 3034:16 3052:6 3101:13 3126:22	situations 2992:23 3087:19 3118:14
sensors 2922:14	seventeen 3048:3,14	shortfalls 2980:23 2981:1,2	3034:16 3052:6 3101:13 3126:22	six 2924:8 2927:19 2982:23,24 2983:1 3061:24 3063:17 3093:16
sent 3114:17	seventy 3041:17 3061:22 3071:2	short-term 3010:4 3107:10	3052:6 3101:13 3126:22	six-nine 2918:19
sentence 2944:18	seventy-five 2992:18	shower 3026:18	similarly 2913:11 3021:10 3103:11 3124:23	six-point- seven 3003:7
separate 2946:4 2986:18	seventy-four 3042:25 3043:7	showerheads 2922:13	3021:10 3103:11 3124:23	sixteen 3074:22 3075:4 3080:21
September 3015:25 3016:14 3046:20	seventy-five 2992:18	showing 2938:7	simple 2923:15 3063:24	
series 3016:19	seventy-six 3054:23	shown 2926:21 2982:2	simply 2949:14 2991:18 2993:19 3069:18 3084:23 3085:22 3086:3 3103:20 3138:11	
serve 2942:8 2948:1	seventy-nine 3041:17	shows 2959:11 2968:25 3009:21	Singh 3007:1	
served 2993:2 3001:1,10 3002:9 3110:1	seventy-four 3042:25 3043:7	sig 2993:9	single 3041:24	
service 2928:22 2942:5 2976:16 2978:1,2 2996:8	several 2935:10	sight		
	share 3120:21 3121:5			
	sheets			

3081:1	3074:19	3083:23	sort 2908:16	3117:5
sixty	3075:12	solid	2912:3	3133:23
2911:14	3076:5	3108:14	2937:7	3139:2
2912:18,19	3079:17	somebody	2945:9	specifically
2996:20	3082:7,19	3094:14	sound 2954:2	2906:7
3067:20	3083:12,14	someone	3133:16	2923:5
3097:23	,16	3039:5	3136:16	2933:7
sixty-eight	3084:22	3096:10	sounds	2944:17
3078:22	3086:1	3118:4	3068:20	2969:19
sixty-seven	3101:15	3133:4	3093:6	2987:6
3041:23	3102:20,22	somewhat	source	2989:4
3093:14	3103:4,14	3021:16	3053:18	3002:21
sixty-six	3104:4,24	3022:17	3066:14	3003:1
3093:17	3106:8	3101:12	sources	3004:1
sixty-three	3116:10	somewhere	2993:14,15	3032:7
2913:25	3118:22,23	3114:17	,20 3025:2	3036:2
3052:12	3120:9	3119:4,5	southern	3038:8
size 3013:9	3124:22,25	sooner	3076:16	3108:22
3040:8	3130:20,21	2926:1	space 2990:8	3114:14
3041:1	,22	sorry	2994:7,10,	3116:16
3044:11,23	3131:16,17	2909:16	11	3118:8,25
3062:20	,18	2912:25	2996:1,3	3119:11
sizes	3132:1,15	2913:7	3004:7,8	specifics
3040:19	3134:3	2921:18,20	3008:6	2962:24
slightly	social	2924:1	3122:19	3060:24
2928:25	3047:18	2936:5	space-	3112:17
3035:4	3050:22	2939:24	heating	speed 3077:1
3099:8	3086:13,22	2961:23	3005:24	speeds
3102:3	3088:21	2964:12	speak	3081:15
small 3023:1	3089:3,6,1	2972:4	3006:16	spending
3129:23	1,21,23	2975:12	3034:1	2957:7
3132:22	3090:4	2979:21	3061:17	3032:1
3133:10	3093:7,11,	2983:2	3138:5	3051:8
smaller	24	2999:9	speaking	3106:22,25
3041:24	3094:1,5,9	3023:11,12	3000:7	spent 3040:9
Smart 2926:6	,15	3038:1	3055:15	3072:3
2936:12,13	3101:6,7,1	3048:8	3057:6	SPLASH
2956:12,15	4	3054:15	3082:23	2914:16
2960:24	societal	3057:23	3083:8	split
2964:10	2922:21,22	3070:19	3084:17	3109:5,18
2967:3,20	2972:14,20	3079:5	specific	3110:18
2984:14	2973:13	3087:6	2928:15	split-
3023:5	2974:1,2,1	3088:3	2929:11	incentive
3025:4,11	3 3106:20	3089:20	2933:6	3122:8
3028:23	sold 3081:23	3090:8	2942:16	spoke
3032:24	Soldier	3100:25	2971:24	2929:17
3049:20	2896:16	3101:24	3060:17	3033:18
3050:3	3000:18	3109:13	3072:14	3037:22
3062:5	solely	3111:13	3088:25	3047:16
	2905:15	3140:23		
	2991:11			

3140:2	3102:18	2915:22	substantial	3029:25
spreadsheet	3103:7	struggled	2933:25	3034:3
2924:15	3133:19,21	3136:25	3128:25	3040:4
2950:6	3135:5	stuff	3129:6,12	3045:23
stability	3136:22	3092:24	substitute	3046:18
3012:7	states	subdivision	3017:23	3059:25
stable	2976:22	3001:5	3018:5	3062:10
3008:24	2977:5,16	subject	substitutes	3080:19
stage	station	2939:12	3017:18	3083:10
2903:19	2949:6	2946:9,10	success	3090:22
standalone	stay 2905:7	2951:19	3060:14	3101:21
3128:6,17	2977:24,25	2969:23	3061:7,19	3115:20
3129:5	3094:19,20	2980:11,12	3119:8	3119:24
standard	staying	3016:18	3120:2,23	suggestion
3076:6	3041:14	3017:9	suffering	2976:1,6,2
standards	Steinbach	3022:16	3019:5	0 3090:2
3032:24	2997:6,23	3043:6	sufficient	suggestions
3076:5	2999:8	3048:23	2924:17	3011:10
3105:7,13,	step 3011:15	3050:13	2929:21	3056:11
22	3133:6	3078:16	2976:8	suggests
standpoint	steps 2957:4	3079:5,10,	3108:3	2972:13
2990:12	stick	11 3087:3	sufficiently	2977:8
2991:18	3029:10	3097:21	3027:14	2985:9
3005:15	stock	3107:3	suggest	suite 2960:9
stapled	3034:23	3120:20	2935:16	3044:19
2909:18	3035:5,12,	3134:16	2947:11	3096:11
stars	18,21	3136:12	2969:15	suites
3029:3,4	3071:24	submitted	2980:21	3041:25
start 3024:7	stop 3088:5	2901:12	2986:3	3042:11
3036:14	3133:15	2924:25	3003:13	summation
3132:1	stove	subscribe	3011:6	3015:8
started	3116:16	3102:22	3077:7	summer
2951:22	straying	3103:4,24	3081:20	2907:13,14
3031:8	2987:16	3104:4	3082:5	,24 2908:6
starting	stream	3115:22	3121:10	2921:5,9,1
2933:12	2907:8	subscribed	3137:2	2
2934:4	2908:5	3082:6	3139:1	supplementar
2987:22	2913:22	3102:19,25	suggested	y 2932:23
3001:23	2914:25	3103:24	3005:11	suppliers
3082:3	2957:16	3104:24	suggesting	3012:7
state	2963:19	subscriber	2928:6	supplies
2914:17	strengths	3106:22	2980:4	2990:17
2969:19	3055:17	subscribing	2982:1	supply/
2975:2	3056:24	3105:24	3011:17	demand
3103:8	stretch	3115:4	3013:24	2979:3,19
statement	2987:25	subscription	3017:21	support
3034:7	strictly	3122:14	3023:3	2924:25
		subsequent	3026:4,16,	2962:4
		3078:12	25 3027:15	
			3028:8	

2964:19	3103:8	2990:1	3137:5	3064:18
2970:20	surveys	table 2898:1	talking	3068:7
3012:22	3036:25	2936:10,14	2903:3	3078:6
3132:17,20	3082:10	,16	2906:11	targets
3139:11	switch	2951:16	2910:9	2984:19
supporting	3001:23	2970:11	2929:10	3006:6
2899:4	3002:6,17	2981:18	2945:8	3050:19
3006:23	switching	2983:17	2951:3,4,6	3052:5
3007:3	2992:4	2997:23	2978:18	3056:4,7
suppose	2998:1	3003:3,4	3002:15	3072:1,23
2967:2	3001:11	3020:5	3016:3	3079:16
sur 3058:12	3002:13	3037:7	3037:3	3119:6,13,
sure 2909:12	3005:1	3039:24	3042:25	14,17,25
2910:2	3007:16	3051:7	3104:23	3120:1,4,5
2916:19	3012:13	3070:20	talks 2925:1	,7,16,18
2936:23	system	3077:16,17	target	3133:11,12
2937:6	2907:18	,25	2976:20	teasing
2944:3	2908:16,17	3127:5,16	2977:1	3028:20
2945:10	,23 2909:9	3128:9	2982:19,20	technical
2951:11	2914:17	tables	3036:6	2923:10
2979:16	2915:7	2977:21	3048:2	technically
2983:4	2916:11	2978:17	3052:24	3116:8
2984:2	2918:25	2981:4	3053:11,19	technologies
2992:13	2919:22,23	taking	3056:3	2907:10
2994:11	,25	2954:9	3062:3,15	2971:25
3000:18	2920:1,2,5	2962:25	3063:5	2972:3
3015:9	,7,11,17	3019:10	3064:8,9,1	3128:4
3023:16	2928:15,16	3031:17	9 3065:13	technology
3028:19	2929:2	3059:7	3066:3	2904:19
3043:18	2932:15	3095:2	3070:18,21	2906:3
3056:6	2950:1	3136:20	,25	2922:8
3058:25	2978:6	talk	3075:22	2943:15
3065:6	2986:21,22	2922:21,22	3076:20,21	2963:17
3075:2	2991:14	2923:10	,24	2972:5
3081:16	2998:3	3033:16	3077:25	3127:10
3082:21	3000:16	3034:8	3078:20	3129:23
3096:6	3001:13,14	3092:24	3119:11,23	technology's
3113:15,21	3066:20,24	3108:20	3120:21,23	3129:24
3114:3	3096:18	3121:18	3132:25	ten
3119:19	3114:19	talked	3134:6	2912:6,11,
3135:2	systems	2921:3,21,	targeted	22,23
3137:12,16	3114:14	22	2969:22	2913:1,4,1
3138:16	3119:3	2943:5,9	2992:12	4,18
survey	<hr/>	2945:9	3037:18	2947:12
3035:3	T	2946:2	3048:15	2972:5,6,9
3036:1,13,	T&D 2929:18	2950:25	3056:17	,10
16,21,22	T12s 3133:7	2980:15	3062:4	2989:13
3037:23	T8 3133:8	2995:7	3079:9	3058:9,11
3038:9	Tab 2979:2	3005:7	3080:8	3068:11
3040:1		3064:2	targeting	
3046:7		3118:14,17	3050:8	
3082:11			3052:9,15	

3091:5	2937:8,10	3032:2,4,5	23	23
tenant	2938:4,8,2	3033:1,3,1	3121:5,7,2	2947:4,19
3045:14	3,24,25	7 3035:19	0 3122:10	2949:2,10,
3086:12,19	2946:23,25	3036:16,23	3130:18,19	19 2950:24
,22,25	2950:10	3038:12,15	3133:3,13,	2951:18
3087:9,10,	2958:3,4	3040:3	22,25	2977:10
20,25	2961:18	3041:3,20,	3135:25	2980:2,12,
3088:1,2	2964:15	22	3136:7	19,25
3091:20	2988:13	3042:2,4,9	3138:6	2981:6,11,
3094:18,19	3017:7	,16,18,20	3140:15	16
,25	3133:13	3043:12	territory	2982:5,11,
3095:3,7,8	terms	3044:3,4,5	2987:17	15,23
3098:23	2903:16	,10,22	2988:10	2983:3,8,1
3100:23	2905:19	3045:2,16,	TERRY	1,24
3101:14	2911:11	19 3047:19	2898:10	2984:8
3109:7,10,	2926:6	3048:13,16	2901:25	2985:5,11
20 3110:1	2929:15,16	3051:1,22,	2908:12	2986:16
3111:18	2930:2	23 3052:23	2909:22	2988:8
3112:9	2933:3,23	3053:7	2910:21	3107:13,18
3116:5	2934:8	3056:23	2911:2,9,1	tes 3056:17
3118:15	2935:3	3057:1	7,22	test
tenant-by-	2940:13,16	3058:22	2913:3,10	2904:4,7,1
tenant	,20 2946:4	3059:3,5	2914:5,14	2 2905:10
3111:16	2947:21	3061:15,19	2916:7,18	2906:11,13
tenants	2950:3,12	3062:14	2918:22	,23
3044:1,5,7	2953:17	3064:4	2919:6,20	2921:22
,12,13	2954:12	3067:8,9,1	2920:22	2922:22
3045:2	2960:24	0	2921:7,18	2952:3,14,
3098:24	2966:6	3070:17,25	2923:14,21	18,23
3108:20,22	2969:19	3072:19	,24	2953:1,5,1
3113:1,4	2985:4,11	3075:22	2924:3,23	4,15,21
3114:8,21,	2986:19	3077:9	2925:6,14,	2956:2,4,6
25	2988:10,19	3080:8	25	2957:15
3115:4,22	,22,24	3083:11,14	2926:11,20	2958:24
3116:1,11,	2989:2	3084:17	2927:13,25	2959:11
18,23	2990:15	3085:14	2928:11	2968:19,20
3117:6,23	2991:17	3087:18	2929:8,18	2972:15,20
3121:19	3002:6	3088:8	2930:1,20	,21
tenant's	3003:3,21	3090:9,19,	2931:25	2973:3,23
3095:9	3006:6	20,23	2933:2	2974:2,13
3110:19	3007:18	3092:9,10	2934:18,24	3029:13,19
tend	3008:4	3098:12	2935:4,8,1	3031:3
3034:5,11,	3009:7,10,	3099:16,20	6,24	3128:16
22 3035:11	19	3100:12	2936:9	3135:3,4,9
3038:14	3010:9,10,	3101:8	2937:6,12	,10,13
3116:9	11	3105:2	2938:3,11,	3136:4
term 2904:24	3013:15,18	3108:9,25	20	3138:11
2933:16,18	3014:13	3110:3	2939:12,19	testimony
2934:1,17	3022:22	3112:2	,24	2953:25
2935:17,18	3025:2	3115:2,18	2940:8,22	2976:4,13
,20,23	3026:3	3116:21	2941:3,7	3039:4
	3029:18	3119:6,15,	2945:2	3080:2
	3030:14,18	22,25	2946:1,10,	
		3120:1,19,		

3118:21	2919:4,13	3005:22	3096:2	3069:19
testing	2921:21	3006:12	there's	they'd
2972:14	2924:10	3007:21	2902:8	2966:16
tests	2925:23	3013:13	2903:19	they'll
2903:16	2926:21	3015:1,7,2	2909:4	2993:5
2952:11	2928:1,23	3 3017:14	2915:4,8,9	3058:10,11
2953:19	2930:3,13,	3019:16	2916:22	they're
2991:17,22	21	3022:3	2922:16	2903:25
,25	2931:1,18	3026:13,24	2931:25	2928:19,20
3126:13	2932:2	3027:21,25	2944:4,25	2940:11
3135:1	2933:5	3029:5	2947:24	2965:14
thank	2934:21	3031:5	2948:4	2975:5
2901:8,18	2935:8	3035:23	2949:4,25	2992:13
2902:3,4	2943:3,4,2	3036:5	2950:14	2996:23
2903:1	3 2944:12	3037:11,13	2955:23	2998:25
2909:13	2945:20	3041:2	2959:14	3009:25
2910:14	2946:4	3048:20	2964:6	3012:1
2940:18	2950:4,13,	3049:20	2967:3	3017:9
2944:16	17,18	3050:11	2969:16	3032:6
2950:20	2951:10,12	3051:16	2973:3	3044:20
2988:2	,19	3053:16	2977:15	3060:6,7
2989:9	2952:23	3054:16,22	2978:17	3085:22
2997:18	2953:2,8	3061:2,3	2980:6	3086:3
3000:17	2954:14	3065:17	2987:18	3110:20
3006:17,20	2957:24	3066:6,9	2988:11,18	3119:19
3012:11	2958:6	3077:3,21	2996:19	3121:8
3013:3	2959:15	3084:5	3003:9	3128:11
3016:6	2960:23	3090:7	3008:16,17	they've
3025:25	2962:2	3097:9	3027:14	3107:16
3041:13	2964:13	3107:1	3028:14	thick
3052:22	2968:11,16	3114:4	3031:14	3027:14
3084:15	2969:23	3115:24	3044:10,11	thinkers
3091:13	2975:19	3127:8,20	,14,22	3011:5
3124:19	2976:18	3134:18	3056:22	third 2982:3
3126:2	2977:16	3136:21	3073:8,10	3020:19
3141:23	2978:11	3140:24	3074:6	3053:22
that'll	2979:20	themselves	3080:20	3102:19
3045:12	2980:2,9,1	2956:23	3081:5	third-party
3107:2	9	theoreticall	3085:4,10	3057:7
that's	2981:2,6,1	y 2957:10	3087:19	thirds
2904:25	1,17,19	3000:7	3088:9	3103:23
2905:20	2982:7	theory	3091:6	thirty
2906:16,21	2983:8,24	3010:19	3096:20	2907:19,22
2908:14,20	2984:2,21	3011:12,23	3109:24	2908:17
2909:9	2985:5,6,1	thereby	3110:8	2909:4
2910:13	2,18	2948:20	3111:21	2911:7,10
2911:10,17	2986:7	therefore	3124:21	2913:1
,22 2912:9	2987:24	2915:23	3129:20,21	2919:7,8
2913:13,20	2989:1	2949:13	3137:15	2923:12,13
2914:5,6	2992:6,17,	3039:13	3141:4	
2917:10	19 2995:17	3040:21	thermal	
2918:10	2998:20		2918:25	
	3001:8,10			
	3003:17			

2936:24	3042:7,25	titled	3078:13	2966:8
2938:13,15	3043:7,8	3039:24	3080:18,20	transmiss
,22	3045:20	3070:20	3128:14	3105:3
2963:2,4,7	3046:21	today	totally	transmission
,15,18,23	3047:24	3010:18	2905:15	2900:8
2964:1	3048:1,9,2	3011:2	3001:23,24	2911:13,21
2971:4,24	2 3049:7	3013:6	totals	,23
2982:23	3062:21	3075:3	2998:11	2912:1,5,1
2994:3	3063:9,13,	3090:7	towards	9 2914:9
3001:19	17,25	3112:19	3002:8	2918:14
3051:13	3064:1,9,1	3113:15	3024:8,14,	2924:24
thirty-five	1,16	3127:10	20 3062:7	2925:9
2914:19,20	3065:7,8,1	3134:14	town 2995:3	2926:14,24
thirty-four	2	3135:2	towns 2995:2	2927:15,20
2982:24	3066:3,4,7	3136:6	track	2929:12
thirty-one	,10,19	3142:1	2936:25	2933:4
3047:9,22	3067:7,8,1	today's	3004:4	2940:25
3048:8,21	0,15,16,19	3003:5,6	3115:3	2941:9,15
3062:20	,23	3004:2	3116:23	3106:8
3063:9,24	3068:2,7	to-equity	3117:22	transmission
3064:11	3069:2	3017:1	tracked	/
3065:7	3078:13	tolerance	2937:23	distributi
thirty-seven	3079:8,9	3008:22	trade	on 2929:24
2983:1	3093:6,12,	3012:2	3008:22	2946:3
thirty-three	14,20	tomorrow	traditional	transmission
3051:13	3094:12	3134:15	2993:20	-level
3062:16	3096:7	3141:16	3038:25	2942:8
3068:12	3097:4,22,	3142:1	traditionall	TRC 3132:25
3078:19	23 3124:6	tools 2993:5	y 3036:25	3133:23
Thomson	3125:18	3111:9	3139:13	treatment
2953:24	three-point	top 2975:23	train 3086:7	trend 3002:8
3136:8	3016:19	2978:15	trained	3003:18
3139:9	threshold	3025:21	3058:21	trouble
Thomson's	2952:4	3041:22	tran 3106:25	2919:11
3136:13	3013:8	topic 2989:1	transcript	true 3054:16
thos 2994:9	thrust	3008:3	2898:15	3131:20
thou 3080:1	3090:11,13	3102:17	2901:10	trust
3093:16	tied	top-up	transfers	3130:17
thousand	2934:16,20	2962:9	3095:10	try 2909:17
2939:14	2935:22	total	transform	2916:19
2992:19	2964:25	2952:17	3106:25	2923:5
2993:25	2964:25	2969:10	transformati	3037:7,9
2994:1,4,1	3044:15,20	2972:21	on 2942:4	3059:11
3	3084:5	2973:2,22	2964:7	3099:25
2995:9,10,	3110:13	3000:4	translate	3110:10
13 2996:20	till 3007:13	3041:6,14		3137:21
3000:1	time-frame	3042:5		trying
3041:8,18,	2971:11,17	3062:15		
23	timeline	3070:25		
	2926:7			
	tip 2997:11			

2905:7	3097:3,11	2986:2	3031:6	undo 3138:20
2954:16	twenty-five	<hr/> U <hr/>	3040:14	unfair
2956:3,6	3042:6	ultimately	3054:4	3139:1
2959:15	3043:8	3105:14	3095:4	unfortunate
2965:10	3045:20	umbrella	3098:13	3089:25
3002:7	3047:23	3005:12	3135:3,4	unique
3050:22	3048:1,8	unable	understating	2992:22
3073:24	3063:13,19	3090:3	2929:6	3072:3
3074:12	3064:1	uncertainty	understood	3076:13
3078:5	3065:8	3075:15	2925:10	3091:15
3079:14	3093:5,12,19	uncomfortabl	2934:13	unit
3088:5	3094:10,12	e 3075:23	2936:23	2937:23,24
3113:8	3096:7	underlying	3056:19	2938:3,7
3121:5	twenty-one	3011:11	3096:6	2940:14
3140:16	3053:24	understand	undertake	2947:11
tube 3027:7	3054:5,9,17	2903:18	2931:2	3044:20
turn 2901:5	twenty-seven	2916:19,20	3064:23	3100:23,25
2959:19	3000:1	2921:19	3092:13	3110:5
2970:9	twenty-six	2923:15	3110:23	3111:23
2975:8	3025:12	2928:25	3117:3	3116:4
2986:12	3042:6	2938:12	undertaken	units
3019:18	3050:8	2944:3	2949:4	3052:9,12
3025:10	twenty-three	2949:2,8	2962:15	3066:19
3039:20	3047:10	2952:5	3055:23	3068:2
3070:3	3101:20	2978:24	3057:18	3096:17
3077:6	3102:2	3001:16	3061:18	3100:16
3124:21	two-o	3003:12	3077:9	3120:7
3126:3,19	3078:21	3005:20	3104:9	unless
3130:11	two-point-	3028:8	undertaking	2929:5
turning	four	3037:17	2899:3	2964:17,21
2979:9	3016:3	3040:16	2901:9,16	3068:17
3024:25	two-thirds	3065:6	2902:5	3100:22
turns	3102:21	3069:17	2930:16,21	unlike
3082:14	3103:2	3074:13	2931:6	2918:13,16
twelve	3104:2	3078:18	2941:6,8,13	unsure
3053:24	type 2918:16	3087:4,18	2992:11	3064:6
3054:4,9,17	2946:16	3114:2	2995:6	update
7	2952:8	3119:22	2996:6	2929:20
twent 3069:1	3033:20	3125:17	3051:22	3074:19
twenty	3085:18	3139:23	3060:19	updated
2909:3,6	3116:4	3140:16	3067:3	2925:22
2932:2	3122:19	3141:19	3068:16	2929:20
2938:12,15,16,21,22	3123:21	understandin	3068:16	2933:3
2995:8,10,12	types	g 2924:18	3117:6,12	3079:25
3001:18	2920:13	2932:3	3121:11	3080:6
3042:5	3058:17	2948:19	3123:4	updating
3052:9	typically	2960:17	undertakings	2925:17
3067:7,14		2972:16	2898:4	upfront
3072:12		2981:12	2900:1	
3078:18			2930:24	
			2937:22	
			3109:13,14	

3039:9,13 3085:10	upper-bound 3140:11,14	2958:5 2959:4 2966:16 2970:10 2975:5 2992:7,10 3002:10 3013:21 3014:1,5 3088:11,12 3100:25 3108:4 3109:20 3112:9 3113:2 3126:12 3135:12,21 3137:10,16 3138:7,10, 12 3140:21 3141:2,7	2916:9,10, 21 2917:12,13 ,15,16,18, 19,23 2918:2,3,4 ,10 2919:5,16, 18,19,22,2 3 2920:9,14, 18 2921:5,8 2922:15,17 2924:9 2928:2 2929:7 2931:4,9,1 3,15 2932:7,8,1 1,12 2934:1,15, 17 2935:3,9,1 0 2936:6,7,1 4 2938:13 2939:5 2942:14 2943:8 2944:5,6,2 1,22,23 2945:13,15 ,18,19 2946:6 2947:23 2948:3,5 2957:8 2962:25 2963:2 2964:1 2971:14 2984:1,14, 17 2985:12 2991:10 3081:21 3107:10 3137:24 3138:2	values 2900:10 2911:5 2913:3,4 2918:20,23 2919:8,10, 12 2921:4 2925:2 2926:24 2928:13,20 2931:16 2933:24 2934:22 2935:15,23 2936:11,15 2937:1,24 2938:7,10, 14 2939:3,14, 25 2940:11,20 2941:1,10, 17 2942:2,10, 23 2946:20 2961:3,5 2986:17 3065:25 3107:5 3125:10
upgrade 2956:17 2965:15 3084:12,21 3086:21,25 3087:2,24 3089:7 3091:3,17 3095:22 3096:3 3103:20 3109:16 3110:24 3111:3,15, 22	upshot 2980:20	uptake 2900:18 2955:2 3061:23 3122:23 3123:6,16 3124:24 3125:18,20 ,21,24		
upgraded 3058:7 3081:7	up-to-date 3080:16	upward 2954:4,9 2957:5 2958:14 2960:4 3136:18	utility's 2954:16 3135:24	
upgrades 2962:4 3026:8 3058:21 3059:1 3065:20 3069:1 3074:25 3075:17 3091:22	urban 3061:4 3086:8		<hr/> val 2931:15 3125:2	
upgrading 3111:25	usage 3017:22		valuable 2922:11	
upon 2901:1 2957:11 2989:16,17 2999:23 3018:22,23 3035:8 3037:19,21 3040:17 3057:22 3066:7,9 3078:6 3080:9 3097:14,15 3112:24 3113:3 3122:19,21 3134:25 3142:4	useful 3082:2		valuates 2968:1	
upper 3140:8	users 2995:24		valuation 2944:24	
	usually 3111:12		value 2900:5 2904:23 2906:18,19 2907:3,8,1 6,22,24 2908:2,5,1 5,20,23 2909:2,7,9 2910:10,12 2911:3,14, 21 2912:21,22 2913:24 2914:3,4,7 ,15 2915:16,18 ,20	varies 2923:24 2924:4
	utilities 2896:3,20 2906:8 2974:20,22 2975:3 3032:1,11 3096:24 3097:2 3109:1,3,1 1			variety 3043:23
	utility 2952:13,23 2953:1,4,9 ,14,16 2954:20,23 2955:1,8,9 2956:24 2957:4		valued 2907:18 2969:5 2984:3	various 2910:19 2929:16 2952:25 2968:15 2970:13 2979:23 2991:17 3012:4 3062:4 3135:1
				vary 2941:24 2942:19 2971:25
				verify 3038:8

version 3023:25	3016:24	3097:23	2951:3,4	3132:24
versus 2921:5,9,2 4 2923:12 2965:25 2969:14 3040:18 3051:24,25 3141:1	wasn't 2929:14 2931:23 2932:6 3028:7 3074:11 3100:12 3133:2,10	3098:9,13, 14,23,24 3099:6 3100:13,24 3101:1	2952:21 2954:7,8,1 6 2956:6 2957:7,14, 15,16,17,1 9,20,23 2959:13 2963:5 2964:8,12, 21 2965:9 2966:3 2967:9 2974:11 2979:9 2984:21 2987:16,22 2992:22,24 2993:1 3002:5,6,7 ,12,19,20, 21 3003:22 3009:25 3020:5 3023:16 3033:25 3037:2,6 3039:19 3042:25 3050:20 3052:8 3056:3 3057:5 3058:23,24 3059:13 3060:25 3069:6 3071:21 3076:2,21 3080:7 3086:3 3095:23,24 3099:10 3108:12,21 3111:4,20 3112:4 3113:15 3115:23 3121:4 3122:1,6,9 3124:14 3125:13 3126:16 3128:4	3136:20 3137:13 3138:9 3139:12 3140:18 3141:4 West 3000:19 3001:3 we've 2906:9 2910:22 2923:7 2928:11 2937:19 2941:22 2942:25 2943:1,5,9 2946:11,12 2948:10 2953:8 2960:23 2961:2 2997:4 2998:7 2999:5 3004:23 3005:7 3010:1,6 3012:23 3016:23,24 3017:2 3022:18 3029:19 3031:19 3032:5 3033:11 3048:17 3050:1 3056:14,16 3061:20,21 ,22,23 3075:25 3076:10 3082:10 3085:17 3108:9 3137:9 3138:3
view 2947:10 2948:25 2977:8 3008:7 3009:8 3140:8	watched 2958:15	we'll 2934:5 2936:18 2952:7 2959:21 2970:7,8 2989:20 3007:12 3021:11 3024:9 3037:10,11 3038:11 3045:12 3046:8,11 3048:11,12 3058:12 3059:2 3065:4 3067:3 3068:4 3081:13 3086:6 3089:9 3100:9 3101:5 3105:3 3112:16 3113:17,18 3114:4 3127:16 3138:22		
viewed 3102:11	water 2900:14 2904:18,24 2922:18,19 2994:7,11 2996:2,3 3000:3 3059:20 3060:11 3061:7,11 3116:22 3117:7,9,1 4			
visited 3026:6 3060:20,21 ,22	Waverley 3000:19 3001:3			
voided 3135:24	ways 3043:23 3045:17 3056:3			
volatile 3008:9 3009:9	weaknesses 3055:17 3056:25			
volatility 3008:17 3010:10	web 3009:20	we're 2901:4 2905:1,25 2906:1,11 2908:7 2910:9 2919:12 2920:20 2922:5,7,9 ,10,13 2925:16 2926:13 2933:2,22 2938:23 2940:6 2942:6 2946:13,16 ,17		
volume 2978:22,24 2979:1 2982:3 2990:2 3007:8 3019:15 3025:22 3028:17 3129:24	weeks 3008:3			
volumes 2936:20	welcome 2979:13,17 3092:25			
<hr/> W <hr/>	welfare 3086:12 3087:4,20 3088:9,10, 11 3091:10 3092:10			
wa 3103:17				
wait 3007:12				whatever 2925:22
wall 3026:9				What'll 2963:12
Warden's				

whenever 3036:25 3037:2	who's 2905:25 2954:12 2956:20 3096:24	,21 3024:7,13, 19,24 3025:9,18 3026:2,15, 21,24 3027:11 3028:6,16 3029:1,10, 18,23 3030:6,12, 20,25 3031:5,11, 17,23 3032:9,17, 25 3033:15,25 3034:8,19 3035:7,22 3036:11,19 3037:5,15, 16 3038:2,11, 22 3039:19 3040:3,23 3041:13,20 3042:2,9,1 3,24 3043:4,12, 22 3045:1,11, 18 3046:8,16, 25 3047:6,14, 19 3048:11,19 3049:1,6,1 3,17 3050:1,7,1 1,24 3051:5,11, 16,20 3052:3,22 3053:6,10, 21 3054:3,22 3055:3,7,1 2,15,21 3056:19 3057:5,9,2 0 3059:2,17, 24	3060:8,12, 18 3061:2,6,1 4 3062:1,7,1 4,19 3063:8,16 3064:24 3065:3,11, 17 3066:1,6,1 3 3067:2,13, 22 3068:4,10, 15,24 3069:8,15 3070:1,12, 17,24 3071:4,11, 14 3072:8,11, 15 3073:3,4,1 3,19 3074:11,18 3075:2,11, 21 3077:5,15, 21,24 3078:4,24 3079:3,7,1 2 3080:7,14, 17 3081:4,9 3082:1,14, 21 3083:7 3084:15,25 3085:12 3086:6 3087:14 3088:4 3089:9,24 3090:10,17 ,18 3091:4,14 3092:7,17, 21 3094:3 3095:20 3097:17,18 3098:7,12, 18,22 3099:6,15	3100:8 3101:5,19 3102:1,11, 15 3103:1,10, 22 3104:21 3105:18 3106:3,17 3107:7,16, 19 3108:19 3109:17 3112:3,16, 23 3113:14 3114:1,18, 20 3115:2,18 3116:1,13, 21 3117:1,5,2 0,21 3118:11 3119:4,21 3120:19 3121:9,16 3122:9,20 3123:11,12 3124:7,19 3125:16,23 3126:2,7,1 6 3127:3,9,1 5,24 3128:8,14, 20 3129:3,9,1 5 3130:3,9,1 6 3131:1,5,8 ,12,15,25 3132:8 3133:14,22 3134:8,13, 24 3136:5,12, 24 3138:22 3139:17 3140:12 3141:13
whereas 2956:15,21	whose 3013:7			
wherever 3112:13	Wiens 2898:8 2901:23 3010:17,22 ,25 3011:4,8,1 6,22 3012:11 3013:3 3017:16,25 3018:15 3034:17			
whether 2904:18,19 2905:14 2922:11 2925:21 2942:14 2943:15 2948:21 2950:9 2952:7 2956:6 2968:1 2974:14 2984:16 2994:24 2995:2 2996:21 3000:13 3005:21 3017:3 3040:20 3052:25 3057:22 3067:16 3073:22 3081:20 3086:2 3088:10,11 3094:8 3095:18 3100:15 3103:19 3104:13 3110:13,15 3111:7 3112:9,14 3114:3 3137:7	William 2897:9			
	Williams 2897:7 2898:13 3006:18,20 3007:6,10, 11,24 3008:20 3009:5 3010:7,15 3011:3,9,1 4,22 3012:10 3013:2,14, 23 3014:8,12, 17 3015:2,3,9 ,13,18,24 3016:5,6,1 2,16 3017:7,8,1 6 3018:2,12, 14 3019:3,4,8 ,9 3020:4,13, 18,23 3021:6,10, 15,18,22 3022:3,7,2 1,25 3023:10,14			
whole 2908:17 2909:8 2959:4,6,1 3 2960:13 3018:8				Williams's 2909:25 2910:2
				willing

2965:11,15	work 2902:9	wrapping	3010:2,3
3001:7	2923:8	2919:12	3019:21
3008:22	2941:25	writing	3020:8
3089:1	2949:1,3	3046:20	3024:2
window	2985:2	3047:21	3028:1
3027:19	3011:17	3074:22	3030:12
3028:2	3013:18	Wuskwatim	3031:6
3083:11,18	3014:5	2919:15,21	3039:23
,23	3058:1,3,1	,25	3051:6
3084:9,13	8 3064:4	2920:6,16,	3070:4,20
windows	3077:1,2	24	3074:14,20
3027:1,6,8	3089:1		3077:6,7
,10,13,22,	3092:4		3126:20
24	3103:16		3139:24
3083:15,25	3105:7	<hr/>	yours
3084:3,4,6	3110:10,25	year-over-	3131:10
3085:14	3111:23	year	yourself
3112:1	3116:10	3081:21	3097:6
Winnipeg	3118:22	yesterday	you've
2896:22	3119:19	2901:10	2911:12
2897:16	worked	2902:15,24	2934:15
2994:22	2930:23,24	2903:2	2942:20
2997:9,11,	3045:8	2909:18	2946:19
12 3059:15	3110:9	2910:4,6	2948:14
3060:5,7	working	2950:25	2959:22
3120:10,12	3019:13	3013:16	2960:7
winter	3050:21	3016:4	2971:17
2907:13,14	3052:10	3033:17	2997:8
,24 2908:3	3057:25	3039:4	3017:25
2921:4,9,1	3058:4,24	3057:11	3018:1
2	3059:10	3059:19	3033:1,4
2980:15,16	3070:2	3081:18	3036:11
2983:15	3071:22	3082:4	3047:21
wish 2990:24	3074:7	3123:15	3048:15,21
3043:5	3091:16	yet 2910:3	3050:2,24
3128:21	3099:10	2946:17	3055:4
withstanding	3105:11	3003:10	3078:18
3007:19	3111:8	3006:22	3104:13
wonder	works	3022:14	3133:24
3019:1	3071:25	3031:12	
3123:15	3074:13	3080:6	<hr/>
3126:3	3118:24	3091:14	Z
3134:20	worksheets	3092:3	zero 2906:24
wondering	2948:19	3102:22,24	2959:25
3000:20	world	3103:3,23	2960:11,20
3078:15	3011:13	3104:3	,21
wont 3007:6	worthiness	3108:9	2961:15
worded	3085:24	3122:5	2969:8
3122:21	worthwhile	you'll	3127:21
	3095:14	2979:16	3128:11
		2980:11	zero-seven
		2997:23	3067:18
		3004:16	