



“When You Talk - We Listen!”



MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
2017/18 and 2018/19
GENERAL RATE APPLICATION
PUBLIC HEARING

Before Board Panel:

Robert Gabor	- Board Chairperson
Marilyn Kapitany	- Vice-Chairperson
Larry Ring, QC	- Board Member
Shawn McCutcheon	- Board Member
Sharon McKay	- Board Member
Hugh Grant	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
January 15th, 2018
Pages 4610 to 4922

1 APPEARANCES

2 Bob Peters) Board Counsel

3 Dayna Steinfeld)

4

5 Patti Ramage) Manitoba Hydro

6 Odette Fernandes (np))

7 Helga Van Iderstine (np))

8 Doug Bedford)

9 Marla Boyd (np))

10

11 Byron Williams) Consumers Coalition

12 Katrine Dilay)

13

14 William Gange) GAC

15 Peter Miller)

16 David Cordingley (np))

17

18 Antoine Hacault) MIPUG

19

20 George Orle) MKO

21

22 Senwung Luk) Assembly of

23 Corey Shefman (np)) Manitoba Chiefs

24

25

1 LIST OF APPEARANCES (cont'd)

2

3 Kevin Williams) Business Council

4 Douglas Finkbeiner (np)) of Manitoba

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6 Daryl Ferguson (np)) City of Winnipeg

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8 Christian Monnin)General Service

9)Small, General

10)Service Medium

11)Customer Classes

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13 William Haight (np))Independent Expert

14 William Gardner (np))Witnesses

15 Kimberley Gilson (np))

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LIST OF UNDERTAKINGS

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3	51	Consumers Coalition to model a scenario including the marginal propensity to save, with saving going into expenditures, as well as a scenario of some of the revenue from rate increases not to go to reserves but spent by Hydro. Also to consider the difference between economic impact and economic effect and how that might effect	4662
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1 --- Upon commencing at 9:04 a.m.

2

3 THE CHAIRPERSON: good morning,
4 everyone. I apologize for the elevator situation
5 which is, I guess, everyone's experience today.

6 Mr. Peters, would you like to take us
7 through today.

8 MR BOB PETERS: Thank you, Mr. Chair,
9 and with your permission not only will I take you
10 through today, but I think I will also give people a
11 sneak preview of tomorrow.

12 But, let's start with today and we're
13 pleased to welcome Dr. Simpson and Dr. Compton to the
14 hearing room to provide evidence as they've been
15 retained by the Consumer Coalition. Their testimony
16 this morning will be -- they have some direct evidence
17 and they'll be cross-examined by the Intervenors
18 followed by Manitoba Hydro and then Board counsel.

19 I can indicate there's been some
20 perhaps shuffling of the timelines as between
21 Intervenors. We'll go with what's published on the
22 screen until we're told otherwise. But we do
23 understand that counsel are working amongst themselves
24 to make it efficient and make it work.

25 We do expect that the questions for

1 Doctors Simpson and Compton will take us into the
2 perhaps early afternoon. And we'll see on the
3 schedule that we have the direct evidence from a
4 further panel from the Consumer Coalition that is the
5 Consumer Coalition and MIPUG have jointly sponsored
6 Morrison Park Advisors -- Morrison Park Associates, I
7 apologize and their direct evidence will be this
8 afternoon.

9 I want to also just flip ahead to
10 tomorrow because tomorrow may have gone under the
11 radar of many people and because Morrison Park
12 Associates will be providing their direct evidence
13 this afternoon, they will be cross-examined tomorrow,
14 and we're going to start at nine o'clock and by 9:45
15 we have to adjourn for the morning, but we can still
16 accomplish the timelines requested by some of the
17 Intervenors. So we're still going to proceed at nine
18 o'clock tomorrow morning with the cross-examination of
19 Morrison Park.

20 We're then going to take a break from
21 approximately 9:45 to 12:30, so it's their morning
22 break and lunch hour rolled together and then we're
23 going to continue with the cross examinations
24 according to the schedule. There's no further
25 additional lunch break. It's going to be built into

1 that morning recess. I just wanted to remind parties
2 of that.

3 So with that, and subject any
4 questions, Mr. Chair, I think we can turn back to
5 Doctors Simpson and Compton. We can ask Mr. Simonsen
6 to administer the oath and we can hear their direct
7 evidence. Thank you.

8 THE CHAIRPERSON: Thank you. Mr.
9 Simonsen.

10

11 COALITION WITNESS PANEL:

12

13 WAYNE SIMPSON, Sworn

14 JANICE COMPTON, Sworn

15

16 THE CHAIRPERSON: Ms. Dilay...?

17

18 EXAMINATION-IN-CHIEF BY MS. KATRINE DELAY:

19 MS. KATRINE DILAY: Thank you, Mr.

20 Chair and good morning.

21 Before I pass it over the witnesses for
22 their presentations, I'd just like to take a few
23 minutes to highlight their qualifications and I'll
24 start with Dr. Compton.

25 Good morning, Dr. Compton, and thank

1 you for joining us. It is our understanding that you
2 have already been prequalified with the Board and that
3 your CV has been filed but before you begin your
4 presentation, I'd just like to ask you a few questions
5 to highlight your qualifications as they relate
6 specifically to your testimony today and the written
7 evidence that you have already provided.

8 Dr. Compton, in terms of your education
9 you received an MA in Economics from Dalhousie
10 University in 1997?

11 DR. JANICE COMPTON: Yes.

12 MS. KATRINE DILAY: And you also
13 received an MA in Economics from the Washington
14 University in St. Lewis, Missouri in 2001.

15 DR. JANICE COMPTON: That's right.

16 MS. KATRINE DILAY: And you received a
17 PhD in Economics from the Washington University in
18 2005?

19 DR. JANICE COMPTON: Yes.

20 MS. KATRINE DILAY: As well as a
21 graduate certificate --

22 DR. JANICE COMPTON: I'm sorry, speak
23 up?

24 MS. KATRINE DILAY: And Dr. Compton,
25 you also received a graduate certificate in New

1 Institutional Social Sciences from the Washington
2 University in 2005?

3 DR. JANICE COMPTON: Yes.

4 MS. KATRINE DILAY: In terms of your
5 experience, you are currently an associate professor
6 in the Department of Economics at the University of
7 Manitoba?

8 DR. JANICE COMPTON: Yes.

9 MS. KATRINE DILAY: And you have been
10 an associate professor there since 2013?

11 DR. JANICE COMPTON: Yes.

12 MS. KATRINE DILAY: And prior to this
13 you were assistant professor in the Department of
14 Economics at the University of Manitoba since 2006?

15 DR. JANICE COMPTON: That's right.

16 MS. KATRINE DILAY: And you were also
17 a Fellow at the Centre For New Institutional Social
18 Sciences at the Washington University from 2002 to
19 2005?

20 DR. JANICE COMPTON: Yes.

21 MS. KATRINE DILAY: In terms of your
22 areas of academic expertise, those would include
23 labour economics, applied econometrics, applied
24 microeconomics economics, household economics and
25 migration?

1 DR. JANICE COMPTON: Yes.

2 MS. KATRINE DILAY: And, Dr. Compton,
3 you have co-authored or authored a book chapter and
4 numerous peer-reviewed articles on these and related
5 topics?

6 DR. JANICE COMPTON: Yes.

7 MS. KATRINE DILAY: And just to
8 highlight a few of those publications, your book
9 chapter was entitled Intergenerational Households and
10 Proximity and was published in the volume Family
11 Economics - How Households Impact Markets and Economic
12 Growth?

13 DR. JANICE COMPTON: Yes.

14 MS. KATRINE DILAY: And you have had
15 articles published in the journal Review of the
16 Economics of the Households, as well as Canadian
17 public policy?

18 DR. JANICE COMPTON: Yes.

19 MS. KATRINE DILAY: As well as an
20 article in Canadian Business Economics, an article in
21 Small Business Economics and the Journal of Labour
22 Economics and the Journal of --

23 DR. JANICE COMPTON: Urban Economics.

24 MS. KATRINE DILAY: And urban
25 economics.

1 DR. JANICE COMPTON: That's right,
2 yes.

3 MS. KATRINE DILAY: And in terms of
4 the courses you have taught, those would include
5 Principles of Microeconomics and Principles of
6 Macroeconomics?

7 DR. JANICE COMPTON: Yes.

8 MS. KATRINE DILAY: It would also
9 include Labour Economics 1 and 2?

10 DR. JANICE COMPTON: Yes.

11 MS. KATRINE DILAY: As well as
12 Honours Microeconomics Theory, Public Finance and,
13 finally, Economic History at the graduate level?

14 DR. JANICE COMPTON: Yes, that's
15 right.

16 MS. KATRINE DILAY: And, Dr. Compton,
17 prior to your academic positions, you worked as an
18 economist for the Government of Canada, Ministry of
19 Finance and Economic studies and Policy Analysis
20 Division from 1999 to 2000?

21 DR. JANICE COMPTON: Yes.

22 MS. KATRINE DILAY: And you have also
23 worked as a research analyst for Statistics Canada in
24 the Labour Force Survey Division and the Business and
25 Labour Market Analysis Division from 1997 to 1999?

1 DR. JANICE COMPTON: Yes.

2 MS. KATRINE DILAY: And in those
3 positions you worked extensively with large national
4 data sets micro simulation models?

5 DR. JANICE COMPTON: Yes.

6 MS. KATRINE DILAY: And, Dr. Compton,
7 in terms of your experience before the Public
8 Utilities Board, can you confirm that this is the
9 first time you're appearing before the PUB?

10 DR. JANICE COMPTON: Yes, first time.

11 MS. KATRINE DILAY: And just in terms
12 of your qualifications, Dr. Compton, you have been
13 prequalified in this proceeding as an expert in
14 applied microeconomics and econometric, labour and
15 household economics, quantitative data analysis and
16 social policy?

17 DR. JANICE COMPTON: Yes.

18 MS. KATRINE DILAY: And to confirm
19 what those are, the fields of applied microeconomics
20 and econometrics focus on the changing behaviour of
21 households in reaction to policy and market signals
22 such as prices and the effects of such policy changes
23 on outcomes such as employment, household structure
24 and spending patterns.

25 DR. JANICE COMPTON: Yes.

1 MS. KATRINE DILAY: And the
2 methodologies used in these fields are advanced
3 statistical techniques and primarily regression
4 analysis?

5 DR. JANICE COMPTON: Yes.

6 MS. KATRINE DILAY: And your expertise
7 in applied microeconomics and econometrics and
8 household economics is especially relevant to studying
9 the impact of hydro rate increases on Manitoban
10 families and the Manitoba economy?

11 DR. JANICE COMPTON: Yes.

12 MS. KATRINE DILAY: And in terms of
13 the evidence that you have prepared for this
14 proceeding, you were co-author with Dr. Simpson of the
15 report entitled The Effect of the Proposed Hydro Rate
16 Increase on the Manitoba Economy, which was filed as
17 Exhibit CC-18 in this proceeding?

18 DR. JANICE COMPTON: That's right.

19 MS. KATRINE DILAY: And you were also
20 responsible for a number of Information Request
21 responses regarding this report?

22 DR. JANICE COMPTON: That's right.

23 MS. KATRINE DILAY: And can you
24 confirm, Dr. Compton, that this written material was
25 prepared under your direction and control and is

1 accurate to the best of your knowledge and belief?

2 DR. JANICE COMPTON: Yes.

3 MS. KATRINE DILAY: Thank you very
4 much, Dr. Compton. And now, I have a few questions
5 for Dr. Simpson.

6 Good morning, Dr. Simpson.

7 DR. WAYNE SIMPSON: Hello.

8 MS. KATRINE DILAY: Just as for Dr.
9 Compton, it's also our understanding that you have
10 been prequalified with the Board and your CV has been
11 filed but I'll just ask you a few questions to
12 highlight your qualifications.

13 In terms of your education, Dr.
14 Simpson, you received an MSC in economics from the
15 London School of Economics in 1974?

16 DR. WAYNE SIMPSON: Yes.

17 MS. KATRINE DILAY: And a PhD from the
18 London School of Economics in 1977?

19 DR. WAYNE SIMPSON: Yes.

20 MS. KATRINE DILAY: And, Dr. Simpson,
21 you're currently a full professor in the Department of
22 Economics at the University of Manitoba?

23 DR. WAYNE SIMPSON: That's correct.

24 MS. KATRINE DILAY: And you have
25 taught there since 1979?

1 DR. WAYNE SIMPSON: Yes.

2 MS. KATRINE DILAY: And you served as
3 Department head on two (2) separate occasions from
4 1997 to 2008?

5 DR. WAYNE SIMPSON: Yes.

6 MS. KATRINE DILAY: And your areas of
7 academic expertise include labour economics, applied
8 econometrics, applied microeconomics, quantitative
9 methods and economic and social policy analysis?

10 DR. WAYNE SIMPSON: Yes.

11 MS. KATRINE DILAY: And Dr. Simpson,
12 you have co-authored or authored three (3) books and
13 more than sixty 60 (60) peer-reviewed articles on
14 these and related topics?

15 DR. WAYNE SIMPSON: That's correct.

16 MS. KATRINE DILAY: And you have
17 special social policy expertise in the analysis and
18 remediation of poverty?

19 DR. WAYNE SIMPSON: Yes.

20 MS. KATRINE DILAY: And on that topic,
21 you have published one (1) book and multiple articles
22 that relate to poverty in Manitoba specifically and in
23 Canada, more generally?

24 DR. WAYNE SIMPSON: Yes.

25 MS. KATRINE DILAY: And you have also

1 recently served on an expert Federal government panel
2 on poverty remediation strategies in Ottawa; is that
3 right?

4 DR. WAYNE SIMPSON: Yes, last
5 September.

6 MS. KATRINE DILAY: And, Dr. Simpson,
7 you have also published and taught in the area of
8 urban and regional economics and you have expertise in
9 the determination of the regional impact of decisions
10 by firms and government?

11 DR. WAYNE SIMPSON: Yes.

12 MS. KATRINE DILAY: And you are
13 currently on the editorial board of the journal
14 Canadian Public Policy?

15 DR. WAYNE SIMPSON: Yes.

16 MS. KATRINE DILAY: And that is
17 Canada's foremost peer-reviewed academic journal for
18 economic and social policy?

19 DR. WAYNE SIMPSON: Yes.

20 MS. KATRINE DILAY: You have also
21 served on the executive council of the Canadian
22 Economics Association?

23 DR. WAYNE SIMPSON: Yes.

24 MS. KATRINE DILAY: And in 2014 you
25 were the recipient of the McCracken Award for the

1 development and analysis of economic statistics from
2 the Canadian Economics Association?

3 DR. WAYNE SIMPSON: That's right.

4 MS. KATRINE DILAY: And prior to your
5 academic experience, you have also worked at the Bank
6 of Canada, the Federal Department of Labour and the
7 Economic Council of Canada?

8 DR. WAYNE SIMPSON: Yes.

9 MS. KATRINE DILAY: And you have
10 served as a consultant both to the private sector and
11 government, primarily in the areas of labour economics
12 and policy evaluation?

13 DR. WAYNE SIMPSON: Yes.

14 MS. KATRINE DILAY: And you have
15 served as an expert advisor to Prairie Research
16 Associates and Human Resources Canada?

17 DR. WAYNE SIMPSON: Yes.

18 MS. KATRINE DILAY: And, Dr. Simpson,
19 in terms of your experience before the Public
20 Utilities Board of Manitoba, you have -- you
21 participated by providing expert evidence at the 2014
22 Needs For and Alternatives To Review of Manitoba
23 Hydro's preferred development plan?

24 DR. WAYNE SIMPSON: Yes.

25 MS. KATRINE DILAY: And also the 2007

1 and 2008, as well as 2016 hearings to determine
2 maximum fees for Payday loans?

3 DR. WAYNE SIMPSON: Yes.

4 MS. KATRINE DILAY: And the 2007, the
5 2010, 2013, 2014 and 2016, Manitoba Public Insurance
6 rate application?

7 DR. WAYNE SIMPSON: Yes.

8 MS. KATRINE DILAY: And you have been
9 qualified as having expertise in applied
10 microeconomics and applied econometrics before the PUB
11 on a number of occasions?

12 DR. WAYNE SIMPSON: Yes.

13 MS. KATRINE DILAY: And in terms of
14 your qualifications in this hearing, you have been
15 prequalified as an expert in applied econometrics,
16 applied microeconomics, quantitative methods and
17 social policy and application?

18 DR. WAYNE SIMPSON: Right.

19 MS. KATRINE DILAY: And to confirm
20 what those areas are, applied econometrics is the
21 study of behaviour of individual agents whether firms
22 or households in the market using modern theory and
23 empirical methods?

24 DR. WAYNE SIMPSON: Yes.

25 MS. KATRINE DILAY: And applied

1 microeconomics is the study of the behaviour of
2 individual agents, for example, firms and house -
3 households in the market using modern theory and
4 empirical methods as well?

5 DR. WAYNE SIMPSON: Yes.

6 MS. KATRINE DILAY: And applied
7 econometrics uses specific statistical techniques,
8 particularly, regression methods to analyze and
9 predict economic behaviour and apply it to practical
10 social problems?

11 DR. WAYNE SIMPSON: Right.

12 MS. KATRINE DILAY: And your expertise
13 in applied microeconomics and econometrics,
14 quantitative methods and social policy is especially
15 relevant to studying the impact of hydro rate
16 increases on the Manitoba families, as well as the
17 economy?

18 DR. WAYNE SIMPSON: Yes.

19 MS. KATRINE DILAY: And in terms of
20 the evidence you have prepared in this proceeding, you
21 were the author of the report entitled Energy Poverty
22 In Manitoba and the Impact of the Proposed Hydro Rate
23 Increase and Assessment of the Bill Affordability
24 Study in the Manitoba Hydro GRA which was filed as
25 Exhibit CC-21?

1 DR. WAYNE SIMPSON: Yes.

2 MS. KATRINE DILAY: And you were also
3 co-author with Dr. Compton of the report entitled The
4 Effect of the Proposed Hydro Rate Increase on the
5 Manitoba Economy which was Exhibit CC-18?

6 DR. WAYNE SIMPSON: Yes.

7 MS. KATRINE DILAY: And you were also
8 responsible for a number of Information Request
9 responses regarding the two (2) reports that you
10 prepared?

11 DR. WAYNE SIMPSON: Yes.

12 MS. KATRINE DILAY: And can you
13 confirm that the written material was prepared under
14 your direction and control, and is accurate to the
15 best of your knowledge and belief?

16 DR. WAYNE SIMPSON: Yes.

17 MS. KATRINE DILAY: Thank you very
18 much, Dr. Simpson.

19 I will now pass it over Dr. Compton for
20 the presentation.

21 DR. JANICE COMPTON: Good morning.

22 Thanks for having me to present this research here
23 today. So I'll start by -- I'll start by just going
24 over some of the results and describing the model, in
25 general, that we used to -- to obtain our estimates.

1 Next slide. So the purpose of our
2 study was to estimate the impact of the Manitoba
3 proposed -- Manitoba Hydro proposed rate increases on
4 the Manitoba economy. We did this by estimating the
5 effect using data available from Statistics Canada
6 which outlines the web of interactions within the
7 Manitoba economy in an input-output model.

8 Now, these models are widely used
9 typically to estimate the impact of an investment into
10 the economy, or a withdrawal of resources from the
11 economy. For example, if a new business entities the
12 economy with an initial investment of \$10 million, we
13 would expect the economy to grow by more than \$10
14 million as the initial effect creates ripples in the
15 economy. This model allows us to estimate the
16 additional effects. Likewise, if a business moved out
17 of the economy, the effect would be more than just the
18 value of the business itself since other related
19 businesses would also suffer.

20 Typically a price change would not be
21 modelled using this framework since it would be a
22 transfer from one (1) sector to the other. In this
23 case, however, the resources raised from the rate
24 increases, the resources -- the rate increases above
25 inflation are not expected to be reinvested into the

1 economy but rather meant for debt relief, thus, the
2 price increase creates a withdrawal from the economy
3 in the form of decreased demand for other goods and
4 services.

5 So it's this decreased demand for other
6 goods and services that we initially estimate. Rather
7 than a specific targeted withdrawal like a business
8 leaving the economy, this is a widespread broad-based
9 withdrawal as the rate reduce slightly -- reduces
10 slightly the amounts spent on other goods and services
11 across all sectors.

12 We chose this type of model as it
13 provides a clear base prediction of the impact of the
14 proposed rate increases on the Manitoba economy.
15 Because there are many factors influencing the economy
16 it's often difficult to tease out the effects of one
17 (1) change.

18 The model then assumes that nothing
19 else in the economy is changing, so, we can isolate
20 the effect of the hydro rate proposed -- the hydro
21 rate increase alone.

22 Next slide. The data that we used come
23 from Statistics Canada supply and youth tables which
24 outline all inputs and outputs for Manitoba. This is
25 from 2013. I'd like to point out that in the initial

1 report, we had a typo that had it as 2014, which was
2 corrected in one of the IRs and its 2013 data.

3 The Statistics Canada tables then allow
4 us to identify the flows of expenditure between
5 industries, households and governments. There's four
6 hundred and eighty-nine (489) categories of goods and
7 services across two hundred and thirty-seven (237)
8 industries and government services. So, for example,
9 we could tell how much an industry -- any industry
10 spent on good acts, aware that good came from the
11 other industries and which industries produced it.

12 It also allows us to determine the
13 proportion of goods that were produced in Manitoba,
14 consumed in Manitoba or imported and exported. And we
15 calculate the impact of the proposed hydro rate
16 increases for the one (1) year proposed 7.9 nominal
17 price increase and also for the planned seven (7) year
18 rate hikes.

19 Next. So this slide just shows the --
20 the proposed rate increases. We should note that the
21 model is done in real terms. There are -- so we're --
22 we're taking out the inflationary effects. So the 7.9
23 percent increase, we're looking at a 6 percent real
24 increase above CPI for six (6) years, followed by a
25 1.9 percent real increase in the seventh year.

1 Next. So with start with the initial
2 or direct effect and, as I mentioned, this is the
3 effect of the withdrawal of the demand for other goods
4 and services in the economy. So as noted previously,
5 the model is typically used to estimate the effect of
6 a targeted injection or withdrawal. We're estimating
7 the broad-based decline in spending on other goods and
8 services as households, businesses and governments
9 must real -- reallocate their budgets to adjust for
10 the higher hydro prices.

11 Therefore, we're assuming that the rate
12 increase will result in increased spending on hydro
13 and decrease spending on other goods and services.

14 Next. For households, we assume that
15 households offset spending on hydro by decreasing
16 other goods and services. The data show that hydro
17 comprises 2.2 percent of all household spending. And
18 we make two (2) assumptions about how the rate
19 increases will alter spending patterns.

20 First, we assume a price elasticity of
21 demand equal to .29 percent. So this 7.9 percent
22 nominal increase or 6 percent real increase will
23 induce households to reduce the amount of hydro they
24 use and so total hen -- total spending on hydro
25 increases by 4.26 percent, not the full 6 percent.

1 Since hydro spending on hy -- sorry,
2 since household spending on hydro is 2.2 percent of
3 their budget, this leads to an increase of .09 percent
4 of household spending.

5 So if spending on hydro increases by
6 .09 percent and we assume that same the household
7 budget remains the same, the spending on other goods
8 and services has to be reduced by the same amount, by
9 .09 percent. However, we also assume income
10 elasticities. So not all goods and services are going
11 to be declining at the same rate. Some will decline
12 less; some more, depending on their income
13 elasticities which was previously estimated for
14 Manitoba by Stevens and Simpson.

15 Next. For industry and government, we
16 initially make the assumption that spending on hydro
17 increases by the full 6 percent. So, we assume a
18 weight price elasticity and, basically, assume that
19 firms and governments do not reduce hydro use in
20 reaction to the increased rates. For each industry,
21 we calculate hydro as a proportion of total inputs and
22 then adjust their other inputs accordingly.

23 So, for example, hydro is 1.19 percent
24 of inputs in manufacturing and .67 percent of inputs
25 in fin -- finance, insurance and real estate. So for

1 all of the two hundred and thirty-seven (237)
2 industries, we -- we can calculate the proportion of
3 their inputs that are hydro. So the reduced -- the
4 increased rates require then that other inputs or --
5 decline proportionally and that will differ by
6 industry.

7 We -- we redid this estimation assuming
8 a .29 price elasticity of demand; the same that is
9 used for households. For industry we don't have a
10 comparable measure to income elasticity of demand.
11 So, the -- all other inputs are going to be reduced by
12 the same amount. This is a restrictive assumption to
13 be sure that since we're concerned with the overall
14 impact on the Manitoba economy and not necessarily the
15 impact on specific industries, adjusting these to
16 allow for different inputs changing at different rates
17 will change the results only slightly.

18 So these calculations provide us with
19 the initial shock, if you will, the decreased demands
20 in spending that has resulted from the rate increase.

21 Next. To that initial decline we then
22 considered the ripple or cascading effects. The
23 initial decline in spending on goods and services
24 reduces sales achieved by firms. Firms will respond
25 by then reducing their planned production in the next

1 cycle. This further reduces demands for their inputs
2 which further reduces sales, which further reduces
3 planned production, et cetera.

4 This cycle doesn't collapse entirely
5 because the effect becomes smaller in every round.
6 The size of the secondary effect depends on the
7 proportion of goods and services that are imported
8 from other provinces or countries. The more goods
9 that are imported, the smaller is the size of the
10 secondary effects as we're in a way exporting the
11 cascading effect.

12 Statistics Canada has calculated the
13 type 1 multiplier for each industry in the province.
14 To determine the secondary effect then, we multiplied
15 the direct effect, the decline in the goods and
16 services that are initially demanded with the
17 multiplier for each industry that these goods and
18 services are coming from.

19 Next. Up to this point the model is
20 concerned only with the relationship between
21 production processes in the economy. The full effect
22 is not found until we add in the addu -- induced
23 effects. The second multipliers add the effect of the
24 declining labour demands and household spending. So
25 the initial fall in industry demands may lead to lower

1 wages, fewer jobs, closer of some companies and this
2 further reduces household demand which adds to the
3 cascading effect.

4 These multipliers, again, calculated
5 from Statistics Canada are called the Total
6 Multipliers. So to give you an idea of the size of
7 the multipliers for the economy as a whole, although
8 we do these for each industry separately, the simple
9 multiplier is approximately 1.35 and the total
10 multiplier is 1.5. So this implies that for every
11 dollar withdrawn from the economy due to the increase
12 in real hydro rates, there will be an additional \$.35
13 cent decline in GDP or labour income if we consider
14 the indirect effect and \$0.50 cents if we consider
15 both the indirect and induced effect.

16 Next. So we calculate the -- the
17 effects for both the one (1) year proposed rates and
18 also for the seven (7) years. To capture the effect
19 for seven (7) years, we run the model for year 1, we
20 calculate the direct and -- and indirect effect and
21 then use this as a starting point for the next year.
22 The changes in spending over the seven (7) years are
23 shown in the table. So we're looking at the
24 cumulative behavioural effect for households and
25 either without the behavioural effect or with it for

1 the industry and government sectors. So you can see
2 by the end of 2025 we're looking at a 45 percent
3 increase in spending. If we include the behavioural
4 response -- or sorry, without the behavioural response
5 and 32 percent if we do include the behavioural
6 response.

7 Next. Before I outline the final
8 results, let me note the major limitations of the
9 model. First, to maintain tractability the model
10 imposes the assumption that the structure of the
11 economy is constant throughout the time period. So
12 this is holding all else constant. So the economy may
13 shrink and grow but the proportion of inputs are going
14 to rise and fall at the same rate. There is no
15 substitution among inputs modelled in the economy.

16 Second, the economy is assumed to
17 operate under conditions of excess capacity, increases
18 in sectorial demand can be met. That just means that
19 we don't have a case where there's an increase in
20 demand that we -- but we're working under full
21 employment and we can't meet those demands. Although
22 since we're looking at a reduction or withdrawal from
23 the economy, that assumption isn't really binding.

24 Third, the model does not include
25 relative price changes or behavioural responses. We

1 adjusted for this manually by including the
2 behavioural response to the hydro prices and we
3 maintained fixed relative prices on other goods.

4 Next. So our main results are shown in
5 the top two (2) rows. This is where we apply a .29
6 price elasticity on households and zero price
7 elasticity of demand on industry. For the first year
8 effect, we estimate that GDP will fall by .08 percent
9 using the simple multiplier and .11 percent using the
10 total multiplier. I should actually correct that,
11 we're not saying that the GDP falls by this amount but
12 that the GDP will be .08 percent lower than it would
13 have been in the absence of the hydro price increase.

14 Similarly, we would be looking at 95
15 fewer jobs in the province after one (1) year. Using
16 the simple multiplier and a hundred and twenty-six
17 (126) jobs fewer than we would see if we were looking
18 at the total multiplier.

19 If we move this out to the seven (7)
20 years, so, you look at the -- the fall planned
21 proposal. At the end of the seven (7) years, the --
22 we would expect GDP to be 2.6 percent lower than it
23 would have otherwise, or 3.4 percent lower if we're
24 looking at the full effect with the total multiplier.
25 Job -- the decline in jobs would be approximately

1 three thousand (3000) to thirty-eight hundred (3800)
2 after the seven (7) years.

3 We also did a lower and an upper bound
4 to -- with different assumptions. The lower bound
5 assumes a .29 price elasticity of demand on industry,
6 as well as households. This is going to reduce the
7 effect that that initial fall in goods and services
8 occurs. So with the -- assuming a -- a higher price
9 elasticity of demand on industry, we have a small
10 effect of GDP and jobs throughout both the first year
11 and the seven (7) years.

12 The upper bound we -- we have a -- the
13 households price elasticity of demand stays the same.
14 For industry, for the upper bound, we assume a zero
15 price elasticity of demand and on top of that, we
16 assume that there's a 10 percent decline in the ten
17 (10) top hydro intensive industries. And this has a -
18 - so assuming that, you know, some of the companies
19 will leave the province altogether, for example. This
20 gives us a higher effect on the GDP of .11 percent
21 after one (1) year and a hundred and twenty-six (126)
22 jobs and the -- after seven (7) years it is raised to
23 -- to 3.63 decline in GDP and forty-one hundred (4100)
24 jobs. This -- I should say, this 10 percent decline
25 comes -- we modeled it as after the first year, and so

1 that's why you see the effect on the first year being
2 the same for this upper bound.

3 MS. KATRINE DILAY: And, Dr. Compton,
4 just to confirm, in terms of the -- the jobs number
5 that you have in there and I think you did this for
6 the GDP, that number is compared to what it could have
7 been?

8 DR. JANICE COMPTON: Right, so
9 relative to the -- what we would expect jobs -- job
10 growth to be. So actually the next slide provides
11 some perspective here. The decline in GDP suggests
12 that over seven (7) years the rate increases will
13 create a loss of approximately one (1) year's growth
14 in the Manitoba economy relative to where the economy
15 would be absent the rate increases -- or I should --
16 absent the rate increases above inflation.

17 So, we're looking at this relative to
18 an inflationary rate increase.

19 THE CHAIRPERSON: Sorry, Dr. Compton,
20 can I just ask for clarification. When you're doing
21 10 percent decline, is the 10 percent decline in these
22 specific categories? Are you saying 10 percent
23 decline --

24 DR. JANICE COMPTON: It's a 10 percent
25 decline --

1 THE CHAIRPERSON: -- is GDP, labour,
2 income, jobs or is it some other -- some other --

3 DR. JANICE COMPTON: With the upper
4 bound, so the -- the 10 percent decline is in the
5 industry itself. So the output of the top ten (10)
6 industries. So --

7 THE CHAIRPERSON: But what does that -
8 - what does that mean? Would --

9 DR. JANICE COMPTON: So after --

10 THE CHAIRPERSON: -- decline of what?

11 DR. JANICE COMPTON: Decline in the
12 size of the industry. So we would assume that after
13 one (1) year, so the top -- we would just look at what
14 the top ten (10) hydro intensive industries are --

15 THE CHAIRPERSON: Yes.

16 DR. JANICE COMPTON: -- and just cut
17 them by 10 percent.

18 THE CHAIRPERSON: Sorry, I guess I'm
19 not making it clear. What's the measurement though?
20 You're cutting what by 10 percent --

21 DR. JANICE COMPTON: We're cutting
22 industry output --

23 THE CHAIRPERSON: -- is it jobs,
24 revenues?

25 DR. JANICE COMPTON: It would be

1 industry output.

2 THE CHAIRPERSON: Okay.

3 DR. JANICE COMPTON: So the value of
4 industry output.

5 THE CHAIRPERSON: Okay.

6 BOARD MEMBER GRANT: And could I just
7 ask --

8 DR. JANICE COMPTON: Yeah. Total
9 invoices? Is that what you said? Sorry, total --
10 total revenue, right.

11 BOARD MEMBER GRANT: But relative
12 to what baseline? Sorry.

13 THE CHAIRPERSON: Sorry. Go ahead.

14 BOARD MEMBER GRANT: Relative to what
15 baseline? What's the counterfactual here? Seven (7)
16 point -- a 7.9 percent increase has this impact
17 relative to what would've happened.

18 What's the what would've happened
19 scenario?

20 DR. JANICE COMPTON: Oh, it would be
21 the 1.9 inflationary in --

22 BOARD MEMBER GRANT: Okay. So
23 everything's moving up. Thanks.

24 DR. JANICE COMPTON: -- expected rate
25 increase with inflation.

1 BOARD MEMBER GRANT: So it would be,
2 in this case, 10 percent less than would've been the
3 case. Okay.

4 DR. JANICE COMPTON: So the -- the --
5 well, 10 percent less than -- sorry, I can't hear you.

6 BOARD MEMBER GRANT: It would be less
7 than the bench -- than this scenario, this --

8 DR. JANICE COMPTON: 10 percent less
9 than the -- the benchmark for those industries.

10 BOARD MEMBER GRANT: So it may not be
11 an absolute decline in the economy rele -- but it
12 would be 10 percent less than what would've happened?

13 DR. JANICE COMPTON: Yes. We're not
14 looking -- in any case there's -- there's no absolute
15 decline in the -- right. It's -- it's 10 percent
16 lower than what would have occurred. That's right.
17 Okay. So the -- the job loss then, again, is
18 counterfactual to inflationary growth. So our
19 estimates of after seven (7) years of a twenty-four
20 hundred (2,400) to forty-one hundred (4,100) reduction
21 in jobs relative to where we would have been.

22 Over the past ten (10) years, the
23 average monthly growth in the economy is four (4)
24 point -- four hundred and sixty-seven (467) jobs or
25 individuals. So seven (7) year rate increases would

1 cost the economy approximately five (5) to eight (8)
2 months of employment growth. So we would be lower
3 compared to the inflationary growth.

4 Okay. Next slide. As part of the IRs
5 we ran the model for alternative rate proposals using
6 the same seven (7) year scenario as the comparison
7 time frame. The MH-219, I think if I got that right,
8 assumes -- proposes a four-point-one-four (4.14)
9 nominal rate increase. And we can see here what the
10 cumulative increase would be at the real level without
11 -- with and without the price elasticity of demand.

12 For the other alternative with a
13 nominal rate increase of three-point-nine-five (3.95),
14 we have calculated the real cumulative increase with
15 and without price elasticity of demand. So then we
16 just plugged these back into the model and the next
17 slide shows the results there.

18 The top two (2) rows show the Hydro
19 proposal with the -- the -- and we're comparing these
20 to the lower bound. So a price elasticity of demand
21 of point-two-nine (.29) on all sectors. So these are
22 replicated from the earlier slide. And the second and
23 third panel show the results for the alternatives.
24 And so you can just take a look at it there.

25

1 (BRIEF PAUSE)

2

3 MS. KATRINE DILAY: And can you maybe
4 take one (1) -- one (1) minute to two (2) minutes to
5 just walk us through these slide results?

6 DR. JANICE COMPTON: Oh, to the
7 slides?

8 MS. KATRINE DILAY: Yes.

9 DR. JANICE COMPTON: Okay. Sure. So
10 for the -- the first year effect with the Hydro
11 proposal, again, we're looking at a point-zero-seven
12 (.07) to point-zero-nine (.09) decline -- or lower GDP
13 than otherwise would have been. A seventy-nine (79)
14 to one-o-four (104) job -- fewer jobs. With the MH-
15 219 alternative the decline in GDP would be estimated
16 at .03 percent lower with twenty-nine (29) to thirty-
17 nine (39) fewer jobs. And the MH-134 alternative
18 would have an even lower effect, just because the rate
19 is lower of .02 to .03 percent of GDP and twenty-seven
20 (27) to thirty-six (36) fewer jobs.

21 If we take that up to seven (7) years
22 you can see that the effect on both would be lower.
23 And this is even lower because with the multiplier
24 effect its starting at the lower base. It's going to
25 be lower even after seven (7) years. So we're looking

1 at less than a 1 percent decline in GDP -- or, sorry,
2 less than a 1 percent lower GDP than would have
3 otherwise been, compared to 2 percent with the Hydro
4 proposal, and job loss -- job losses straddling a
5 thousand jobs rather than twenty-four (24) to thirty-
6 two hundred (3,200).

7 THE VICE-CHAIRPERSON: Dr. Compton, I
8 think I heard you say that there would be a one (1)
9 year lag in this? So, for example, we were asked to
10 give a rate for April 1st, 2018, so the first year
11 effect would begin then April 1st, 2018, but we
12 wouldn't see the changes that you indicate here until
13 a year later.

14 Is that correct?

15 DR. JANICE COMPTON: Well, just in --
16 in the -- the model that we're looking at we're
17 thinking of it as an annual model. And so it's -- the
18 -- the results that we're looking at are sort of after
19 a year. The timeline is difficult to nail down
20 exactly when all of this would happen. So the model
21 is very -- you know, it's -- it's one (1) year later.

22 And we -- we sort of -- we run the
23 model for a year and then the model is run as though
24 we -- you -- you change the price demands for all
25 these other goods and services fall, and the -- the

1 multiplier kicks in. And then the next year -- and so
2 it's a very specific timeline for the model, putting
3 that into what would happen in reality. We would, you
4 know, assume that these are looking at a short run
5 within the year, and then after every year. So it's
6 hard to pin it down exactly, but approximately a year
7 for the model.

8 BOARD MEMBER GRANT: Could I explore
9 just a bit about the modelling process, because it's -
10 - it's an ambitious undertaking. This is essentially
11 -- a rate increase would be almost analogous to an
12 income -- pure income transfer. So the monies coming
13 away -- let's just deal with residential customers.
14 You're taxing residential customers, then the money
15 moves over to Hydro. So pretty important here is the
16 assumption that Hydro would not spend any of this
17 additional rate increase. They -- it just disappears
18 into retained earnings, or some other form.

19 The analogous case, though, is you're
20 also assuming that all reduction into the household
21 income, if you like, would -- it's going to lead to a
22 contraction in consumption. Is there no savings
23 effect whatsoever? The -- surely there's a marginal
24 propensity to save or consume, and so in -- in
25 response to this inc -- rate increase one (1) thing

1 households will do is increase -- reduce their
2 savings.

3 Wouldn't that be a plausible
4 alternative?

5

6 (BRIEF PAUSE)

7

8 DR. JANICE COMPTON: Yes, so you could
9 have the -- so we're assuming that household spending
10 stays the same. If we wanted to imagine that part of
11 this would go into savings -- or come from savings so
12 that savings would be decreased, then you would be --
13 you could -- you -- you could add that into the --
14 into the model by reducing -- reducing spending.

15 It would be -- it wouldn't -- I don't
16 think it would be a large effect since we are looking
17 at the marginal propensity to consume out of this.
18 We're looking at, you know, 90 percent. So it -- it's
19 not really going to -- I wouldn't think that it would
20 have a large effect. It would be just one (1) other
21 aspect of household budgeting.

22 BOARD MEMBER GRANT: It's just when
23 you look at the literature on, you know, lump-sum
24 taxes or increases in tax rates then sometimes these -
25 - this marginal savings is much more volatile than

1 anticipated, right? Especially if it's an
2 unanticipated change.

3 But the other -- the one (1) I'm more
4 concerned about is, you know, the difference between
5 econ -- economic impact and economic effect. And that
6 relates to the assumption that we are in a less than
7 full employment economy. And so you've got -- there's
8 absolutely no response -- the economy doesn't respond
9 in any way. The labour market doesn't respond. So,
10 for example, these hundred and twenty-six (126) jobs
11 that are lost in the first year, they're permanently
12 unemployed.

13 DR. JANICE COMPTON: M-hm.

14 BOARD MEMBER GRANT: The labour market
15 doesn't adjust. There's no reduction in wages that
16 causes hiring going on, right? So it's -- it's that
17 assumption that we're not anywhere near a full
18 employment economy. And -- and in most cases, because
19 I think people will view that is not a realistic
20 assumption in this setting, then you'd have to do some
21 sort of sensitivity analysis for that, don't you
22 think? This is the -- so in other words, we're
23 looking at one (1) side of it. This is the job loss.

24 Is there any job creation that goes on
25 at the same time?

1 DR. JANICE COMPTON: Right. Yeah,
2 this is -- would be relative to -- so absolutely
3 there's going to be job creation going on. And if
4 you're looking at -- if you -- so usually we would
5 look at the -- the difference between the simple and
6 the total multiplier to give you that sensitivity
7 analysis, right? The induced in a -- the induced
8 multiplier -- the induced effect is where you're
9 adding into this -- this labour market where you're
10 losing jobs because of this.

11 And so if we're thinking that the
12 economy is going to respond to the lost jobs of the --
13 due to the Manitoba Hydro in a way that they would
14 respond differently to lost jobs in other areas, then
15 you would -- you know, you could -- you could argue
16 that the -- the simple multiplier, you might prefer to
17 use that one (1). I think the total multiplier is
18 actually a more -- because we're looking at it
19 relative to what we would expect the economy to do.
20 So we're not looking at -- so we're -- we're allowing
21 for the increase in jobs, the -- the --

22 BOARD MEMBER GRANT: This is outside
23 of the input/output table. Input-output tables tell
24 you economic impact. They don't tell you economic
25 effect.

1 And so if a hundred and twenty-six
2 (126) jobs are lost in Winnipeg, do you think those
3 people would all stay unemployed for the period? Or
4 do you think labour markets would adjust in some way?

5 Wages would fall. It might attract
6 more -- and so most technologies, economic impact is
7 in this unemploy -- unemp -- you know, complete
8 unemployed resource scenario. But if we're anywhere
9 closer to full employment then markets respond in such
10 a way that some of those jobs come back. Let me just
11 give you one (1) simple one (1).

12 If a hundred and twenty-six (126)
13 people lost their job in Winnipeg would any of them
14 qualify for EI benefits?

15 DR. JANICE COMPTON: Sure.

16 BOARD MEMBER GRANT: And so some of
17 that spending would not be accounted? Some of that
18 would come back into this?

19

20 (BRIEF PAUSE)

21

22 DR. JANICE COMPTON: So the spend --
23 oh, so for the EI --

24 BOARD MEMBER GRANT: Labour incomes
25 wouldn't fall as much as -- or...

1 DR. JANICE COMPTON: So -- but if
2 you're looking at the induced multiplier then they're
3 -- they're being calculated based on...

4

5 (BRIEF PAUSE)

6

7 DR. JANICE COMPTON: Yeah, it would
8 dep -- I would -- I think I'd -- you'd have -- I'd
9 have to back and see how the -- how they're calcula --
10 what -- how they're calculating the induced
11 multiplier. I -- I would assume that they're allowing
12 for the fact that, you know, you're not losing your
13 job and your income isn't falling to zero.

14 I don't think that Statistics Canada
15 would expect that to occur, that they're looking at
16 the loss of jobs and because of the loss of jobs
17 households income declined, not to zero though. So
18 that would -- and then that would reduce spending from
19 households. So I don't the -- the specifics on how
20 they calculate that, but I -- I would assume that
21 they're going to allow for, you know, not a zero
22 there.

23 BOARD MEMBER GRANT: So let me leave
24 it -- I'll leave it there. Thanks.

25 MS. KATRINE DILAY: And perhaps if --

1 if Dr. Grant was interested -- I'm not sure if that's
2 something Dr. Compton would be able to explore
3 further.

4 DR. JANICE COMPTON: I think just,
5 like, if you're -- if you're concerned about the fact
6 that the total multiplier is looking at adding in that
7 job effect, and so the -- the jobs are reduced that's
8 going to reduce household spending. If you're
9 concerned that that's reducing household spending too
10 much because then there's the possibility that they'll
11 get the jobs back, then the -- consider the simple
12 multiplier as closer to what you are referring.

13 BOARD MEMBER GRANT: I guess -- no, my
14 concern is mainly between the different in economic
15 impact of economic effect, and whether you would
16 qualify these results if you consider the economic
17 effect. And so, you know, Shaffer's multiple accounts
18 cost benefit analysis goes through that pretty
19 carefully.

20 So that's -- I'm just saying, you know,
21 how do -- and that's a shortcoming of the input-output
22 tables, that markets can't respond -- you -- you know,
23 it doesn't allow for markets to respond or to adjust
24 to some of these things. And -- and I think in most
25 cases you'd be right -- inclined to go to economic

1 impact, but we are fairly close to -- I mean,
2 employment rates are fairly robust in the province
3 right now, so I do think there'd be some sort of
4 adjustment that would go on that would dampen some of
5 these effects, but...

6 DR. JANICE COMPTON: Absolutely.

7 Yeah.

8 DR. WAYNE SIMPSON: Yeah, well, one
9 (1) -- one (1) column that Janice didn't talk about is
10 the labour income column. And I think what I hear you
11 saying is that if there's a job loss which puts -- or
12 restrains job growth then there would be more people
13 looking for work and that'll restrain wage growth. So
14 the likelihood would be that that would show up in
15 terms of less job loss and more loss of labour income.
16 So that's one (1) area.

17 But the other question is a good one
18 (1) that I -- I don't really -- I guess that's
19 something we could explore, how well the -- the model
20 handles the question of the employment insurance,
21 which, of course, is short-term. But still, you're
22 right, people losing jobs would qualify for employment
23 insurance. At least some of them would.

24 BOARD MEMBER GRANT: But I'd put it
25 this way and -- because I do think this is a useful

1 exercise to try to, you know, put some orders of
2 magnitude to this. Could you consider a sensitivity
3 analysis that looked at some scenario for a marginal
4 propensity to save, so that not all of the -- not all
5 of the increased in rates would go into reduced
6 consumption. Some of -- some would lead to an
7 increase in -- sorry a decrease in savings.

8 There's also the potential that -- and
9 because -- not to prejudge the Board's decision, but
10 not all of the rate increase would necessarily go into
11 some reserve fund and disappear out of Hydro. So if a
12 fraction of that is spent then, you know, it's going
13 to have an effect.

14 DR. JANICE COMPTON: And that would
15 definitely affect --

16 BOARD MEMBER GRANT: And then just to
17 think about the economic effects as opposed to
18 economic impacts would be sort of a useful extension I
19 think.

20 DR. JANICE COMPTON: It would be a
21 useful extension, although I think that looking at the
22 -- the case where we're holding -- you know, you're
23 just saying, This is the effect of the proposed Hydro
24 rate increase in it, and assuming away everything else
25 gives us a nice baseline to start with.

1 So then if you're thinking, Okay.

2 Well, then you could imagine on top of that how well
3 the economy is going to absorb these jobs and how well
4 the -- the industries are going to, whether they --
5 they move or whether they stay, whether this comes out
6 of profit. There's a -- a -- you know, multitude of
7 assumptions that you could make on how -- how
8 different sectors in -- of the economy are going to
9 react to this. But this gives us a baseline saying,
10 Assuming nothing changes, this is what the effect is
11 going to be.

12 BOARD MEMBER GRANT: Okay. I just
13 think that weakens -- I mean, if -- if all you're
14 testifying to is this is a worst case scenario which,
15 you know, we load all the assumptions to make this the
16 worst case scenario possible. It sort of weakens what
17 you're testifying to, I think.

18 DR. JANICE COMPTON: I don't -- sorry,
19 I don't think it's the -- I don't see it as the weak -
20 - the -- the worst case scenario. I think this is the
21 -- the effect the Manitoba Hydro rate increase will
22 have on the economy. And the -- the -- so if we look
23 at where the economy ends up after seven (7) years, we
24 could say, Assuming that there was no rate increase,
25 this is where we could have been.

1 So, you know, you say, Well, people
2 lose their jobs. They can get other jobs. But then -
3 - well, you could say, Well, in -- in the absence of
4 them losing their jobs there would be more people who
5 could have -- could -- could be employed. So it's --
6 I don't think that the -- that this is the worst case
7 scenario. I think this is giving us the
8 counterfactual scenario of -- of where the -- the
9 effect of the -- the Hydro rate. All the other things
10 that can camouflage what happens, that's camouflaging.

11 MS. KATRINE DILAY: And, Dr. Grant, I
12 -- did you wish Dr. Compton and Dr. Simpson to look at
13 those items as an undertaking?

14 BOARD MEMBER GRANT: Not if they don't
15 find it worthwhile.

16 DR. JANICE COMPTON: I think -- I -- I
17 actually think it would be interesting to see how the
18 total multiplier looks at spending, the effect that
19 they're looking at spending. The proportion of
20 savings, that would be a quick run through of the
21 model. We would just -- just really reduce total
22 spending by an amount and then run through the model
23 with -- in -- so it would come out of savings, so that
24 would increase -- yeah. So we could easily run that
25 through to see about the marginal propensity of

1 savings and how that would affect the model.

2 BOARD MEMBER GRANT: And has any
3 potential scenarios for Hydro actually spending some
4 of a rate increase if it were to happen?

5

6 (BRIEF PAUSE)

7

8 DR. JANICE COMPTON: Yeah, we could do
9 that as well. Yeah.

10 DR. WAYNE SIMPSON: Well, we spent
11 some time in -- in the actual paper talking about why
12 we think this can be treated approximately at least as
13 a withdrawal. If you look at the -- what Hydro says
14 they're likely to do with the improved earnings.
15 They're going to improve their debt/equity ratio, and
16 that is a withdrawal.

17 And there is also specific reference to
18 the deferral account for Bipole, which is -- is again
19 a clear withdrawal. In other words, they will reduce
20 the amount of money that they have to borrow. So I
21 think it's fair to treat that as a withdrawal in terms
22 of the economic impact on the -- on the -- yes,
23 economic impact on the province. You've made me
24 careful about my terms there.

25 MS. KATRINE DILAY: And so I think

1 just to -- just to confirm the undertaking, I think I
2 understand there's two (2) parts to it. It would be
3 to explore in a scenario, including the marginal
4 propensity to save, so including some of -- savings
5 into -- going into expenditures, as well as a scenario
6 if some of the revenue from rate increases were not to
7 go to reserves but were rather spent by Hydro.

8 DR. JANICE COMPTON: What proportion
9 of the -- would -- would we be looking at?

10 BOARD MEMBER GRANT: It's up to you.
11 I mean, the other thing I -- the third part I would
12 like is to consider the difference between economic
13 impact and economic effect and -- and how that might
14 effect the results.

15 MS. KATRINE DILAY: Thank you.

16

17 --- UNDERTAKING NO. 51: Consumers Coalition to
18 model a scenario including
19 the marginal propensity to
20 save, with saving going
21 into expenditures, as well
22 as a scenario of some of
23 the revenue from rate
24 increases not to go to
25 reserves but spent by

1 Hydro. Also to consider
2 the difference between
3 economic impact and
4 economic effect and how
5 that might effect the
6 results

7

8 THE CHAIRPERSON: Okay. If we could
9 go on to --

10 MS. KATRINE DILAY: Yeah.

11 THE CHAIRPERSON: -- Dr. Simpson's
12 presentation.

13 MS. KATRINE DILAY: So I think we'll -
14 - we'll move on to the second presentation.

15

16 (BRIEF PAUSE)

17

18 DR. WAYNE SIMPSON: Thank you for
19 listening to it. When we think about poverty, we
20 usually think about incomes, low incomes. But it's
21 incomes in relation to prices, in the sense that if
22 you take the extreme case, if -- if all necessities
23 were free there would be no poverty because everyone
24 could afford them. So the real issue in poverty is
25 incomes in relation to prices.

1 And the energy poverty question is --
2 is a component of that in the sense that it is a
3 question of how much energy prices impinge on the
4 ability of low income households to afford other
5 necessities. And it's really that context that the
6 affordability report looks at, and that I'll -- I'll
7 discuss in my reflections on that report.

8 So we'll have, again, this -- this
9 diagram simply here to show that the increases over
10 inflation are roughly 6 percent a year for six (6)
11 years in the proposal -- the Hydro proposal, and the
12 2.64 percent and '24/'25. I would point out that
13 compared to earlier proposals of 3.95 percent increase
14 instead of a -- an increase of 2 percent in a -- in a
15 real increase, now we've got a 6percent real increase.
16 So we've tripled the -- the real increase implied in
17 the new proposals.

18

19 CONTINUED BY MS. KATRINE DILAY:

20 MS. KATRINE DILAY: And, Dr. Simpson,
21 before we move off -- off of this slide, can you just
22 confirm your understanding in terms of what Hydro is
23 applying for so that they're applying -- is it your
24 understanding that they're applying bef -- before this
25 Board for the '18/'19 year --

1 DR. WAYNE SIMPSON: That's correct.

2 MS. KATRINE DILAY: -- and that the
3 rest is a forecast?

4 DR. WAYNE SIMPSON: The rest is
5 forecast. I guess that's one (1) way of phrasing it,
6 yes. A forecast. Not what I would think of as a
7 forecast, but that's -- that's fine.

8 So then the question is: What effect
9 would this have on Manitoba Hydro customers, and in
10 particular the energy poor? And I would point out
11 that the PUB thought this would impose hardship on
12 Manitobans when it proposed rate increases were only
13 3.95 percent, and about 2 percent above inflation, and
14 directed Manitoba Hydro to lead a -- a collaborative
15 process which became the Bill Affordability Working
16 Group with interested stakeholders.

17 And the working group commissioned
18 research by PRA and issued a summary report and
19 recommendations, which is appendix 10.5 of their
20 application. And this is the main emphasis of my
21 report. And I'm simply going to selectively draw from
22 that affordability report to look at the affordability
23 issues.

24 So the key objectives stated by the
25 Affordability Working Group, there's five (5) there,

1 that's my summary of it. And I'm going to take them
2 in this order. First I'm going to look at number 1,
3 the creation of made in Manitoba definition of energy
4 poverty. Then I'm going to look at 4, which is the
5 analysis of impact of the projected rate increases on
6 low income customers. Then I'm going to look at the
7 number 2, the assessment of low -- of existing
8 programs aimed at energy affordability for low income
9 citizens. Then I'm going to look at number 5, which
10 is the policies, the recommendations for new or
11 improved programming to address energy poverty.

12 I'm not going to say very much about
13 number 3, which is the analysis of customer arrears.
14 This is quite prominent in the report. And, of
15 course, quite important and of interest to Ontario --
16 to Manitoba Hydro. But I don't think we learned very
17 much from that analysis, because the overlap between
18 customer arrears and energy poverty is not that
19 strong. I think that case is made.

20 So what -- what about the made in
21 Manitoba definition of energy poverty? Well, as I
22 said in terms of poverty we look at the necessities
23 deprivation, if you will. And in this case we're
24 talking about necessities. We typically think of
25 food, shelter, and clothing. In terms of shelter

1 include energy, and so energy is a component of -- of
2 necessities and certainly necessities in a northern
3 prairie climate like Manitoba.

4 And so from that standpoint, it makes
5 sense to look at energy consumption in the context of
6 -- of overall low incomes and prices. And what we see
7 is that -- or what we expect to see is that incomes
8 fall, the necessities will take a larger portion of
9 the household budget. And insofar as energy
10 consumption is one (1) of those necessities, what
11 we'll see is there will be more and more money spent
12 on energy as incomes fall leaving less and less room
13 for the consumption of other necessities and -- and
14 any other room available for what we would
15 characterize as non-necessities or luxuries.

16 And the answer really -- or part of an
17 answer, if you will, is provided by the response to
18 Coalition/Manitoba Hydro-244, which is a graph which
19 shows the substantial rise in hydro expenditure share
20 as household incomes decline. There is no real
21 analysis of this in the report. And in my own report
22 I talk a little bit about why I don't find that
23 satisfactory.

24 I don't think the information drawn
25 from the literature is probably that accurate in the

1 context of energy consumption in Manitoba. We are a
2 fairly unique case in terms of our winters, and there
3 probably should have been more time spent in thinking
4 about how the literature applies to the Manitoba case.

5 Rather, the report defines energy
6 poverty based on two (2) criteria. This seems to be
7 the standard way in which energy poverty has been
8 defined in terms of measurement. The threshold
9 expenditure on energy of 10 percent or 6 percent, and
10 I think was pretty much on the 6 percent share. The
11 10 percent share certainly is a more stringent share.
12 People are much more energy poor if they're spending
13 more than 10 percent of their budget on energy. But
14 what I say pretty much holds whether you think of the
15 -- the ener -- expenditure share is 10 percent or 6
16 percent in terms of the threshold.

17 And then a level of household income.
18 This is where incomes come into it. That is 125
19 percent of the low income cutoff which is, I guess,
20 still, although it's more and more criticized, the
21 poverty standard that is used that was developed by
22 the Statistics Canada about fifty (50) years ago.

23 Okay. Let's go on to the next slide.
24 So the definition of the energy poor is based on
25 criteria for other climates and economies than

1 Manitoba. In addition to that, the LICO-125
2 definition of low income accounts for family size, but
3 it doesn't account for community size because they
4 simply restrict community to major centres. So this
5 just really reads as the LICO-125 applied to the City
6 of Winnipeg and other major communities.

7 But more than that it also compares
8 Winnipeg to other major communities across the
9 country. There's no regional variation in the low
10 income cutoff produced by Statistics Canada. And so,
11 for example, Winnipeg is compared to Vancouver and
12 Toronto whose shelter costs are considerably higher
13 than ours. And I think that tends to exaggerate the
14 degree of poverty, and maybe to some extent the degree
15 of energy poverty and in the Manitoba context.

16 Nonetheless, taking the numbers that
17 they have produced, they find that -- the
18 affordability report finds that about twenty thousand
19 (20,000) Hydro customers, or 14 percent, spend more
20 than 6 percent of their income on energy. And about
21 six thousand (6,000), or 4.2 percent, spend more than
22 10 percent. Now, I think an important point that we
23 get from this is that almost all of the households
24 have low incomes, which they defined as 125 percent of
25 the LICO or less. In other words, it is poor

1 households who are vulnerable to energy poverty and
2 rising hydro rates.

3 So while not all of the poor, defined
4 as those with 125 percent of the LICO or less in
5 income for their family size, so are -- are poor,
6 these are the poor, while not all of them are energy
7 poor, all of those who are energy poor are in this
8 category, right. They're all low income individuals.
9 So if you think about it that makes sense, because we
10 all as Manitobans face roughly the same prices for
11 necessities. And so what determines who is able to
12 afford those necessities and who isn't, well, it's
13 obviously income.

14 So what then is the impact of the
15 proposed increases on energy poverty? And this is
16 another useful part of the affordability report. It
17 simulates the impact of various electric price
18 scenarios and energy poverty. And originally it -- it
19 considered three (3) scenarios, one (1) of 3.95
20 percent for twelve (12) years, which was an earlier
21 scenario related to the 2015 GRA; a 7.95 percent for
22 four (4) years, which is closer to what is now being
23 proposed or forecast; and an intermediate one (1) of
24 5.95 percent for six (6) years.

25 It AMC/MHP-II-23, we have the current

1 scenario or the current forecast, if you will, the
2 3.36 percent interim increase followed by a current
3 proposal of 7.9 percent for this year and for the five
4 (5) years after that; and a 4.54 percent increase for
5 the seventh year.

6 Their simulation exercises assume
7 inflation just under 2 percent. The affordability
8 report assumes 1.9. These assume 1.8, which is the
9 rate experience in Manitoba from 2009 to 2015. This 2
10 percent inflation has kind of become a reference
11 anchor, I think, that people use in thinking about
12 what are reasonable price increases for the different
13 goods that they face. And an increase in household
14 incomes of about 3 percent. And it also assumes --
15 and I'll talk a little bit about this, no behavioural
16 response to higher electricity prices, which is
17 something that economists always find curious.

18 So what are the impacts? Well, for the
19 original scenarios I think the lesson here is that
20 energy poverty increases. Using the 6 percent
21 threshold it increases from 9.7 percent to 11.9
22 percent, a 23 percent increase in the long term up to
23 2029.

24 But, in particular. that the faster you
25 increase those prices, in other words, a scenario that

1 increases them 7.95 percent for four (4) years, the
2 bigger the interim effects. So energy poverty goes up
3 more rapidly and eventually declines to 11.9 percent
4 in the 7.95 percent scenario. And it's much higher in
5 the short term than it is in the other scenarios.

6 And then I -- I want to spend most of
7 the time on what is really -- what I characterize as
8 the current scenario, which is the rise in prices from
9 -- of 3.36 percent in the first year, then 7.9 percent
10 for six (6) years and 4.5 percent in the last year.
11 Because this produces dramatically higher impacts than
12 any of the original scenarios that are in the
13 affordability report.

14 Energy poverty rises from 9.7 percent
15 in 2016 to 13 percent in 2021, a 34 percent increase.
16 It continues to rise to 15.2 percent by 2024, a 57
17 percent increase, and remains well above the original
18 scenarios, at fourteen two point two percent in 2029,
19 a 46 percent increase, and is still 13 percent, a 34
20 percent increase by 2036. So even looking almost
21 twenty (20) years ahead the current scenario is
22 dramatically higher impact on energy poverty than the
23 original scenarios that were looked at in the report.

24 And energy poverty not only grows for a
25 longer, but assumes a permanently higher level. In

1 the short-term the increases are more than a 50
2 percent increase in energy poverty, but in the long-
3 term, there are still increases of more than one-third
4 in the rate of energy poverty in the province.

5 Okay. So how will the energy poor
6 react? Well, I think they'll react more like other
7 people, in the sense that I don't think the
8 behavioural response -- no behavioural response
9 assumption is very realistic. But I would make two
10 (2) points here. One (1) is that even if you relax
11 that assumption and start looking at the responses,
12 energy demand is price inelastic.

13 And what that really means is that even
14 though they will reduce their consumption, they won't
15 reduce their consumption anywhere near sufficiently to
16 offset the increase in prices, so that the portion of
17 their budget that's taken up by energy consumption
18 will increase.

19 And Janice presented some numbers. For
20 example, a 6 percent increase in -- in real
21 electricity prices would increase -- would translate
22 to a 4.2 percent increase in consumption. And that's
23 probably -- that's reflective of the Hydro assumption
24 of an inelasticity of point-three (.3). The closer
25 that elasticity is to zero, the more of that is

1 translated into direct increases in the amount that
2 they spend on energy.

3 And I don't think -- I think you've
4 heard from Dr. Yatchew, for example. His estimates
5 aren't too far off point-three (.3). I think point-
6 three-five (.35) was a number that he produced, and
7 that's long-term. The other observations I'd make is
8 that the adjustment of energy use will take time. And
9 in the short-term, as consumers are trying to make
10 what are likely to be fairly uncomfortable
11 adjustments.

12 Given that the energy poor are already
13 probably making a lot of uncomfortable adjustments to
14 their -- to keep their energy prices down -- energy
15 consumption down to begin with, that -- that the
16 adjustments will take time and the simulated impacts
17 assuming no behavioural response may well be fairly
18 accurate in the short-term. That is to say in the
19 first few years and it is only in the longer term that
20 they will be able to make some adjustments either in
21 terms of further reductions in the actual consumption
22 of electricity or some sort of fuel switching if that
23 is -- is an option to them.

24 Okay. So turning to the policies. The
25 report lists -- it's evaluated for design principles:

1 accuracy, transparency, valuability, financial
2 sustainability, equity, and participation. This
3 didn't seem, as an economist at least, to adequately
4 cover the question of efficiency, which I think is an
5 important design principle, trying to separate the
6 payment of the cost of the -- the goods that we -- we
7 consume, in this case energy or electricity, from the
8 question of affordability. And, therefore, full cost
9 pricing and delivery of services at -- at least cost.

10 The potential policies to deal with
11 bill affordability and energy poverty can be divided
12 into two (2) types. One (1) is the rate assistance
13 programs, and the other is the energy efficiency or
14 weather -- weatherization programs. And I'll take
15 these in turn.

16 So looking at the rate assistance
17 programs, well, there are lots of rate assistance
18 programs. They provide direct relief to customers
19 with limited ability to pay, and with other customers
20 who get into problems for other reasons in ability to
21 pay. We have the Equal Payment and Deferred Payment
22 Plans from Manitoba Hydro that assist with budgeting,
23 but these really aren't directly related to the energy
24 poor, were directed to the energy poor, and they don't
25 really report, provide rate relief. They allow people

1 to spread out their payments, but if they have
2 inadequate income to cover the payments they're still
3 -- they still have a significant problem.

4 They also have the Neighbourhood --
5 Neighbours Helping Neighbours Program. It provides --
6 one (1) I've highlighted is emergency relief through
7 community agencies and private donations to low income
8 customers, but the scope is limited. It's focused on
9 one (1) time assistance to -- for temporary
10 emergencies. It isn't focused on long-term assistance
11 for people who are facing significantly rising hydro
12 prices.

13 In addition, awareness of the program
14 among the energy poor seems to be low. The afford --
15 the affordability report finds it to be a point about
16 19 percent, about 1:5, and so program participation is
17 an issue. And that's something I'll come back to.

18 What about rate assistance programs
19 elsewhere? Well, there's lots of information in the
20 report. Yes? Too -- too close now? Okay. Am I
21 shouting. Sorry. There's lots of information in the
22 report -- is that better -- on -- on rate assistance
23 programs. Most of them of the sort that provide
24 emergency assistance. And again, of limited benefit
25 to those facing sustained electric electricity rate

1 increases over a longer period.

2 And I focus on two (2) jurisdictions in
3 the rest of this discussion. One (1) is the Ontario
4 case, which is the only Canadian jurisdiction to offer
5 extended rate assistance. And the other is the rate
6 assistance design in Colorado, which may have been the
7 motivation for the Ontario program and provides some
8 other interesting elements.

9 So let's look at Ontario. The Ontario
10 Electricity Support Program involves a monthly fixed
11 credit for electricity consumption. It's based on
12 household size and income, much like a basic income or
13 a guaranteed annual income type program would be,
14 focused, however, on alleviation of electricity costs.
15 Additional credits are First Nations Metis, and
16 electrically heated households and households with
17 individuals who rely on certain medical devices.

18 Some of this would certainly be of
19 interest. The affordability report that talks a great
20 deal about the particular circumstances of First
21 Nations on reserve and that's certainly a concern,
22 although it doesn't provide much direct information on
23 that. But that's certainly something that -- that
24 would want to be considered in any sort of program
25 that Manitoba might entertain.

1 THE VICE-CHAIRPERSON: Dr. Simpson,
2 can I just ask, on this one (1), do you know whether
3 it is Hydro One or the provincial government that
4 identifies the household size and income?

5 DR. WAYNE SIMPSON: Oh, so size and
6 income is identified through the tax -- tax form.

7 THE VICE-CHAIRPERSON: So by the
8 provincial government then?

9 DR. WAYNE SIMPSON: By the provincial
10 government on -- on the tax form. Yeah.

11 THE VICE-CHAIRPERSON: Thank you.

12 DR. WAYNE SIMPSON: The original
13 funding was by ratepayers. Actually point-one-one
14 (.11) cents per kilowatt hour, I understand, which
15 works out to about eighty-two (82) cents a month for
16 the average residential user. Little bit higher rates
17 for nonresidential, roughly a dollar a month to
18 Ontario ratepayers. But changes were introduced on
19 July 1, 2017. The Fair Hydro Plan provided for 25
20 percent increase in rate relief and shifted the burden
21 from ratepayers to general revenues and all taxpayers.

22 The Colorado case, is interesting
23 because most of the US rate assistance programs are
24 targeted at those who are having immediate current
25 difficulties and are based on current usage. So they

1 essentially try to bring people down to some
2 threshold, typically, the 6 percent threshold. They
3 provide direct assistance to those with energy
4 poverty, but they, of course, the -- therefore limit
5 the incentives to conserve energy and to be energy
6 efficient. So in my view this violates a principle --
7 design principle of efficiency.

8 The Public Service Company of Colorado,
9 on the other hand, provides a fixed credit to low
10 income households to bring past total energy
11 expenditure to the 6 percent threshold. So the fixed
12 credit is based not on current consumption, but on
13 past consumption -- previous years consumption
14 essentially.

15 So it targets the energy poor, but to
16 some extent encourages energy conservation. I say
17 "somewhat" because, of course, given the state of your
18 housing and the state of your heating patterns what
19 you're consuming last year is a pretty good predictor
20 of what you're going to consume this year. So how
21 much people are going to be able to respond in the --
22 in the present year is probably fairly limited. This
23 isn't the same as Ontario. In Ontario the consumption
24 of electricity and the ability to pay are completely
25 divorced, because the transfer is to individuals

1 independent of their consumption of electricity.

2 PSCO combines its rate assistance --
3 this is the other interesting feature of the Colorado
4 case -- with arrearage forgiveness and weatherization
5 aids, requires recipients to enroll in the Low Income
6 Energy Assistance Program and the Budget Billing
7 Program. So the idea here of -- of identifying the
8 energy poor from rate assistance applications and
9 coordinating programs for low-income households to me
10 seems like a valuable thing to identify.

11 Okay. Efficiency considerations. The
12 report does recognize the importance of all Hydro
13 customers contributing something to the cost of their
14 energy consumption as an evaluative principle,
15 although it's not stated in the design in that
16 fashion. But economic efficiency considerations would
17 go further to argue that customers ideally should pay
18 the full cost of their energy consumption, that it
19 shouldn't be the fashion in which we alleviate their
20 ability to pay.

21 Affordability consideration should be
22 addressed by transfers that are independent of the
23 price customers pay for the service. This seems to me
24 a unimportant justification for the fixed credit
25 approaches taken by Colorado and Ontario. The

1 Colorado fixed credit is based on past rather than
2 current consumption to encourage energy conservation
3 among the energy poor. The Ontario fixed credit is
4 based on household size and income independent of
5 levels of consumption of energy, to support poor
6 households, energy poor or not, while maintaining
7 incentives to conserve energy.

8 So the Colorado approach, while more
9 targeted, probably isn't as efficient in the sense of
10 encouraging energy efficiency, but less -- much less
11 expensive than the Ontario plan because the Ontario
12 plan is also going to support those individuals who
13 are not energy poor, but are simply poor.

14 So in terms of financing, there's three
15 (3) alternatives that are mentioned in the
16 affordability report. And -- and certainly any sort
17 of more ambitious plan would require additional
18 financing. The Ontario plan originally was for
19 ratepayers about a dollar a month. In the revised
20 plan it's from taxpayers in the more generous plan,
21 the Fair Hydro Plan.

22 And, in addition, in the report, the
23 report cites the NFAT recommendation that a portion of
24 the incremental capital taxes and water rental fees
25 from Keeyask could be a source of revenue for

1 assistance in terms of affordability to Hydro
2 customers.

3 I would observe that other income
4 security programs that deal with poverty -- general
5 poverty to provide the basic necessities. Things like
6 the Employment and Income Assistance Program of
7 Manitoba, which is our social assistance program, but
8 other programs, say, the federal government's Canada
9 Child Benefit. These are financed from general
10 revenues. And a program to provide energy security as
11 a basic necessity funded from general taxation would
12 ensure that the burden of support would fall on higher
13 income households as in Ontario. And I think that's
14 an advantage of funding it out of the from taxpayers
15 rather than ratepayers.

16 The OESP projected annual cost is 833
17 million. And if you take that on a pro rata basis,
18 into Manitoba, that's about 80 million. This is a
19 pretty ambitious plan because as I said, it doesn't
20 just subsidize the energy poor. It subsidizes all
21 poor individuals. It's -- it's essentially an anti-
22 poverty program as opposed to an anti-energy poverty
23 program, but it does divorce affordability from energy
24 consumption.

25 Now the other one (1) -- the other part

1 of the programming is the energy efficiency, the
2 weatherization programs, which are again widespread
3 across jurisdictions, including Manitoba. And these
4 are more important in terms of addressing energy
5 poverty in the long-term, both because the energy poor
6 have the twin disadvantages, one (1) of being poor and
7 having difficulty in finding resources to upgrade
8 their housing stock, appliances, and other energy
9 saving devices for future benefits because they've got
10 to produce the money now. The savings come later. So
11 that -- their -- that's their first problem.

12 And the second problem is their housing
13 stock, because they disproportionately will occupy
14 energy-efficient (sic) older homes. And so those two
15 (2) things make it important that if there is support
16 for energy efficiency, that it is -- it is substantial
17 and up-front.

18 Hydro's Affordable Energy Program is a
19 modest starting point. It does provide assistance to
20 households below the LICO-125 threshold to implement
21 energy-efficient upgrades. The report, however, notes
22 that program uptake remains modest and significant
23 barriers to participation exist. Participation is a
24 problem and they -- these participation barriers
25 include awareness of the program and its benefits.

1 Affordability programs, therefore,
2 could be better coordinated to direct customers to
3 initiatives that might help them manage their energy
4 bills. And that's why I particularly noted the
5 Colorado model where rate assistance and arrearage
6 management programs for low income households are
7 integrated with a weatherization assistance program.
8 But that's something that should be studied.

9 So here are the -- my -- is my summary
10 of the affordability report recommendations: that
11 Hydro should continue to do what it is doing on energy
12 efficiency and bill assistance plans; to consider
13 initiatives to enhance equal payment and energy
14 efficiency programming; encourage participation of
15 landlords and tenants; mitigate cold-weather impacts
16 by alternative rate designs; and develop a bill
17 payment matching program; and should seek new funding
18 sources, including a portion of the incremental
19 capital taxes and water rental fees from Keeyask.

20 And -- and I don't dispute any of this
21 as worthwhile objectives, but I wonder if this will be
22 enough. And I think my -- what I've indicated is, I
23 don't think it will be enough. The proposed rate
24 increases represent a long-term problem for energy
25 poverty that only direct rate assistance and energy

1 efficiency plans can mitigate, and they need to be
2 more ambitious than what currently exists and what
3 Hydro and the affordability report suggests they have
4 in mind.

5 So my additional recommendations to
6 take energy poverty relief remediation seriously are:
7 1) to continue research into energy poverty and its
8 characteristics using the Manitoba evidence in a
9 fashion as I've suggested wasn't really done in this
10 report; develop an efficient rate assistance program
11 that provides assistance to low income energy poor
12 households, but is not directly tied to the level of
13 energy consumption along the lines of the fixed credit
14 programs in Colorado and Ontario; enhance its
15 Affordable Energy Program to assist lower income
16 households to implement energy-efficient upgrades.

17 And as I said some of this money -- or
18 this money has to be up-front because the costs are
19 immediate and the benefits are longer-term. And Hydro
20 should develop a plan to coordinate rate assistance,
21 energy efficiency, and bill management programs for
22 income households to increase participation in all
23 aspects of affordable energy programming. Thank you.

24 THE CHAIRPERSON: Thank you. I -- I
25 think this would be an appropriate time to take the

1 morning break. So we will reconvene at 10:45. Thank
2 you.

3

4 --- Upon recessing at 10:28 a.m.

5 --- Upon resuming at 10:46 a.m.

6

7 THE CHAIRPERSON: Okay, we'll proceed
8 with the Intervenor and the question I have is who's
9 on first? Mr. Williams...?

10 MR. KEVIN WILLIAMS: My understand --
11 no, my understanding is Manitoba Assembly of Chiefs
12 and then followed by myself and then Mr. Gange and Mr.
13 Monnin.

14 THE CHAIRPERSON: Okay, thank you.
15 Mr. Luk...?

16

17 CROSS-EXAMINATION BY MR. SENWUNG LUK:

18 MR. SENWUNG LUK: Thank you, Chair
19 Gabor. Good morning. My name is Senwunk Luk. I am
20 counsel to the Assembly of Manitoba Chiefs, an
21 organization that represents sixty-two (62) out of
22 sixty-three (63) First Nations in the province.

23 Good morning to Doctors Compton and
24 Simpson. Unfortunately, as -- as interesting, Dr.
25 Compton, as your evidence was my questions will be

1 focusing on Dr. Simpson's evidence.

2 So specifically I'd like to focus on
3 the part of Dr. Simpson's evidence that relates to how
4 the energy poor will respond to the price increases.
5 And if I could ask Ms. Villegas to pull up page 7 of
6 Dr. Simpson's report.

7 And I understand, Dr. Simpson,
8 generally, that there are a couple of stages that you
9 see in -- in the way that the energy poor might
10 respond to price increases. And the first is that an
11 increasing proportion of their income is spent on
12 energy and -- and then there's a stage 2. And if I
13 could just take us to that part of your report in the
14 middle of this -- yes, right there.

15 I think stage 2 is described in the
16 part of your report in this sentence where you begin a
17 second.

18 "The evidence also indicates that --
19 evidence cited also indicates that
20 adjustment of energy use will take
21 time so that consumers will be less
22 responsive over a short run that may
23 be several years. Thus, the
24 assumption of no behavioural
25 response may not be far from the

1 market, first, and the implied
2 impact on energy poverty may not be
3 drastically overstated in the early
4 years. But longer in adjustments
5 may allow some consumers to avoid
6 the energy poverty trap, albeit
7 perhaps by making very difficult and
8 uncomfortable energy consumption
9 choices."

10 So if I could just -- if I could just
11 ask about what you're describing here. I was curious
12 about a few of the concepts that you are employing in
13 this -- in this part of your evidence.

14 When you talk about difficult, very
15 difficult and uncomfortable energy consumption
16 choices, I just want to make sure I'm understanding
17 you correctly: Are you talking about turning down the
18 thermostat?

19 DR. WAYNE SIMPSON: That's a main
20 immediate one, yes.

21 MR. SENWUNG LUK: And maybe trying to
22 read in the dark?

23 DR. WAYNE SIMPSON: Yes, read at other
24 times of the day or in the dark -- yeah -- not read in
25 the dark I assume.

1 MR. SENWUNG LUK: And when you talk
2 about the energy poverty trap, can you discuss in what
3 way is it a trap?

4 DR. WAYNE SIMPSON: Well, I had
5 forgotten I used that term. There's a -- there's a
6 literature talking about, you know, the poverty trap
7 but I don't think -- it just means that people become
8 ensnared in that they fall below a certain income
9 level.

10 In this context, remember we're talking
11 about people falling into energy poverty as a result
12 of the proposed rate increases. And so what I'm
13 really saying here is that some people who you might
14 have expected could have fallen into energy poverty
15 can avoid that in the long run, based on the evidence
16 -- the -- the general evidence that we have; not sort
17 of anecdotal or qualitative evidence, the general
18 evidence we have. For example, the evidence that Dr.
19 Yatchew presented which is that, in the short run, the
20 response is very -- is limited, I think his elasticity
21 was .1; was the summary of the literature.

22 In the long run, it's quite a bit more
23 substantial and about a third of the increase in
24 consumption can somehow be saved by making adjustments
25 across a population as a whole, not -- not for looking

1 -- looking at any specific group, and in fact, one (1)
2 of the limitations of those -- those surveys in the
3 literature is that they don't typically focus on low
4 income households or the energy poor.

5 MR. SENWUNG LUK: So is it a trap if
6 the energy poor customer who otherwise might have been
7 able to save some money up to perform renovations
8 because they're facing higher bills, they're no longer
9 able to save that money, therefore, there are no
10 longer able to afford those renovations and then they
11 can't alleviate the -- the energy burden of -- of
12 their household?

13 DR. WAYNE SIMPSON: Well, this is a
14 good point, because it -- as energy prices begin to
15 rise and it eats a bigger and bigger portion of the
16 budget, individuals who are at or near energy poverty
17 will be less and less able to have any money savings
18 to use to weatherize or improve the energy efficiency
19 of their homes in order to realize savings down the
20 line unless there is some fashion in which they can
21 make low cost short-term loans or something else
22 through -- through programs.

23 MR. SENWUNG LUK: And so the kinds of
24 energy efficiency measures that you're -- you have in
25 mind would be things like improving the airtightness

1 of a home. Would that be one (1) of them?

2 DR. WAYNE SIMPSON: Airtightness of
3 the home, improved insulation. There may be some
4 improvements in terms of more energy-efficient
5 appliances, so on.

6 MR. SENWUNG LUK: New doors and
7 windows and --

8 DR. WAYNE SIMPSON: New doors and
9 windows, yeah. I -- I took that under your first --
10 yeah.

11 MR. SENWUNG LUK: And potentially
12 switching to other forms of fuel for heating, like,
13 natural gas; would that be...?

14 DR. WAYNE SIMPSON: Right and -- and
15 that may well be the -- the biggest single thing that
16 people can do to -- to adjust is -- is fuel switching
17 of some form. And I really don't -- it just depends
18 very much on the circumstances of the individual how
19 feasible that is.

20 MR. SENWUNG LUK: Okay, so the rest of
21 my questions are going to focus on the differences
22 that an on-reserve customer might -- customer might
23 experience in terms of taking the measures that you've
24 just described of improving the energy efficiency of
25 their own homes so as to avoid energy poverty and the

1 energy poverty trap.

2 And to assist me, I'm going to tender a
3 document entitled On-reserve Housing and
4 Infrastructure Recommendations For Change. This was
5 circulated last week and it is a report of the
6 Standing Senate Committee on Aboriginal peoples dated
7 June 2015.

8 Dr. Simpson, can you confirm that this
9 is -- the title of the document is On-reserve Housing
10 and Infrastructure Recommendations For Change?

11 DR. WAYNE SIMPSON: Yes, I can confirm
12 that.

13 MR. SENWUNG LUK: And that it is dated
14 June 2015?

15 DR. WAYNE SIMPSON: Yes.

16 MR. SENWUNG LUK: And that is
17 apparently authored by the Standing Senate Committee
18 on Aboriginal peoples?

19 DR. WAYNE SIMPSON: Yes.

20 MR. SENWUNG LUK: I would ask that we
21 mark it as AMC Number 13.

22 MR. KURT SIMONSEN: Thank you.

23

24 --- EXHIBIT NO. AMC-13: Document entitled On-
25 reserve Housing and

1 Infrastructure
2 Recommendations For Change

3

4 CONTINUED BY MR. SENWUNG LUK:

5 MR. SENWUNG LUK: Thank you. Dr.
6 Simpson, have you had a chance to review this report
7 before writing your report?

8 DR. WAYNE SIMPSON: Not carefully, but
9 I have looked at it, yes. And I am somewhat familiar
10 with the issues that it raises, yeah.

11 MR. SENWUNG LUK: Great. So -- and I
12 -- I take it you would agree that unlike Manitobans
13 who live off reserve, on-reserve Manitobans depend, to
14 some degree, on Federal -- on the Federal government
15 to maintain and renovate their houses?

16 DR. WAYNE SIMPSON: Yes.

17 MR. SENWUNG LUK: And that's, in part,
18 because many or maybe most residents don't own their
19 own homes on reserve?

20 DR. WAYNE SIMPSON: On reserve, yes,
21 that's correct. That's my understanding.

22 MR. SENWUNG LUK: If I could ask that
23 we turn to page 20 of the exhibit of the Senate
24 report. And I'm just looking under that heading,
25 Building Codes.

1 And the Senate report states:

2 "While building codes are in place
3 and systematically enforced
4 throughout Canada, the committee has
5 heard that this is not the case in
6 many First Nations communities. The
7 absence of enforceable building
8 codes on reserve has resulted in
9 housing that deteriorates rapidly,
10 as well as unsafe living conditions
11 for some people who live in First
12 Nations communities. Building codes
13 were not applied when much of the
14 existing housing stock on reserve
15 was built, which has contributed to
16 the low quality of housing on
17 reserve. This problem persists
18 today."

19 And Dr. Simpson based upon the findings
20 of the Senate Committee, would you agree that
21 ratepayers living on-reserve housing -- in reserve
22 housing are likely to have more net renovations
23 necessary in order to decrease their electricity
24 consumption?

25 DR. WAYNE SIMPSON: Yes, their --

1 their housing stock will generally be poorer than the
2 rest of the population.

3 MR. SENWUNG LUK: Thank you, Dr.
4 Simpson. If I could ask for page 25 of the Senate
5 report. And this is under heading 5, Housing In
6 Remote and Isolated Communities.

7 And the Senate report states:

8 "The cost of construction in remote
9 and isolated communities is
10 compounded by the cost of
11 transporting building supplies by
12 barge or winter road.
13 ahead a sentence there.] These
14 challenges are exacerbated by the
15 fact that many of these communities
16 have limited access to a local
17 economy and face high unemployment
18 levels, making it almost impossible
19 for individuals to build their own
20 homes. Therefore, these communities
21 are thus particularly reliant on the
22 Federal government to provide their
23 housing. While Aboriginal Affairs
24 and Northern Development Canada
25 takes into account the increased

1 costs of northern and remote
2 communities through remote and
3 isolation index in their funding
4 formula, witnesses remarked that
5 this index is not reflective of the
6 needs of these communities and that
7 the amount allocated for the
8 remoteness factor must be greatly
9 increased."

10 Now, Dr. Simpson, based on the findings
11 of the Senate Committee, would you agree that when it
12 comes to on-reserve residents who are in remote and
13 isolated communities that there may be additional
14 hurdles even further -- more hurdles than the more
15 well-connected reserve communities; that there would
16 be additional hurdles for them to be making the kinds
17 of energy efficiency renovations that you see as
18 consumer responses to the rate increase?

19 DR. WAYNE SIMPSON: Yep, that seems
20 evident, yes.

21 MR. SENWUNG LUK: Thank you, Dr.
22 Simpson. And I'm going to take you through three (3)
23 further quotes. On page 12 of this Senate report and
24 at page 12 the report states:

25 "Aboriginal Affairs and Northern

1 Development Canada's estimate of the
2 projected increase of the
3 infrastructure deficit on reserve
4 from 8.2 billion to 9.7 billion over
5 five (5) years, suggests that the
6 Department recognizes that the
7 current funding is insufficient to
8 meet on-reserve infrastructure
9 needs. There was general consensus
10 among witnesses that appeared before
11 the committee that Federal funding
12 allocations were inadequate to
13 properly manage and maintain housing
14 and infrastructure on reserve.
15 Specifically, the current levels of
16 federal funding make it difficult
17 for First Nations to construct,
18 operate and properly maintain
19 housing and community
20 infrastructure."

21 And if I could go to the next page,
22 please, and at bullet points 2 and 3 on the top of
23 page 13, I note that the Senate report says that:

24 "Funding at Aboriginal Affairs and
25 Northern Development Canada has been

1 capped and has not kept up with
2 inflation and population growth.
3 And funding which is budgeted for
4 infrastructure has been reallocated
5 to other programs within Aboriginal
6 Affairs and Northern Development
7 Canada."

8 And my final quote at page 17 --

9 THE CHAIRPERSON: Sorry, Mr. Luk, are
10 you going to put a question to him --

11 MR. SENWUNG LUK: Yes, I have.

12 THE CHAIRPERSON: -- because right now
13 you're putting a lot of evidence, but no questions.

14 MR. SENWUNG LUK: My question is
15 coming and it -- I'm -- I'm trying to be efficient as
16 the question relates to these three (3) citations that
17 -- that I'm drawing from the report.

18

19 CONTINUED BY MR. SENWUNG LUK:

20 MR. SENWUNG LUK: At page 17, please.
21 Just at the top please. Right there. The rep -- the
22 Senate report states:

23 "As the committee outlined in its
24 interim report on housing, there is
25 widespread agreement that the

1 funding amounts provided by both
2 Aboriginal Affairs and Northern
3 Development Canada and the Canada
4 Mortgage and Housing Corporation are
5 insufficient to properly maintain,
6 operate and build housing on
7 reserve."

8 So, Dr. Simpson based on these findings
9 of the Senate's Committee about the infrastructure
10 deficit on reserve, would you agree that on-reserve
11 ratepayers might have difficulty seeking meaningful
12 assistance from the Federal government to pay for
13 renovations to reduce their energy consumption?

14 DR. WAYNE SIMPSON: I would agree.
15 The only thing that occurs to me is that the report is
16 dated June 2015, which is before the current
17 government came in and certainly the rhetoric, if not
18 the dollars, suggest there -- there has been some
19 change in policy, but I really don't know how much
20 that change has filtered down to improved funding for
21 -- for housing on reserves.

22 MR. SENWUNG LUK: And you -- I think
23 you -- you -- you will have noted that the Senate
24 report described a 9.7 billion infrastructure deficit.

25 Would you agree that a deficit of that

1 magnitude is something that will take some amount of
2 time to work through and to alleviate even if there is
3 a change in direction of policy?

4 DR. WAYNE SIMPSON: Right, I agree.

5 MR. SENWUNG LUK: Thank you, Dr.
6 Simpson. Now, I think you had agreed that to one (1)
7 of the things that consumers could do in response to
8 high electricity prices is to switch their heating
9 energy source from electricity to gas?

10 DR. WAYNE SIMPSON: Gas or I suppose
11 there's other things besides gas but gas would be the
12 obvious one that's quite reasonably priced nowadays,
13 yep.

14 MR. SENWUNG LUK: But that, obviously,
15 is only possible for consumers who are able to access
16 gas service?

17 DR. WAYNE SIMPSON: That's right.

18 MR. SENWUNG LUK: And if I go --

19 DR. WAYNE SIMPSON: Don't discount the
20 fact that a -- a community could switch completely to
21 gas. I don't know enough about the economics of it
22 but if electricity price becomes more expense -- more
23 and more expensive, I guess the possibility is that a
24 community could make a decision to switch completely
25 to gas power energy.

1 MR. SENWUNG LUK: And -- but that is
2 dependent on the availability of gas infrastructure
3 exacerbated --

4 DR. WAYNE SIMPSON: Exactly --

5 MR. SENWUNG LUK: -- to the community
6 --

7 DR. WAYNE SIMPSON: -- that -- that
8 would probably have to be bought.

9 MR. SENWUNG LUK: And even if there
10 was a gas main near a particular community, the gas
11 distribution infrastructure may not have reached every
12 individual residence?

13 DR. WAYNE SIMPSON: You'd have to
14 worry about dependability of supply.

15 MR. SENWUNG LUK: Yes. Now, if I
16 could ask for AMC, (18:09 round 2, Number 32,
17 attachment 1 to be pulled up.

18 Dr. Simpson, what I've asked to be put
19 before us is data from an Information Request showing
20 the availability of gas service to every one of the
21 sixty-three (63) First Nations on reserve -- in Canada
22 -- I mean, I'm sorry, in Manitoba.

23 DR. WAYNE SIMPSON: M-hm.

24 MR. SENWUNG LUK: And if -- and I --
25 would you agree that the -- on this page of the -- of

1 the attachment, it is shown that the Dakota Tipi First
2 Nation has gas service available, and if we could move
3 to the next page.

4 DR. WAYNE SIMPSON: Yes.

5 MR. SENWUNG LUK: That it is shown
6 that Roseau River First Nation has gas service
7 available --

8 DR. WAYNE SIMPSON: Right.

9 MR. SENWUNG LUK: -- and that those
10 are the only two (2) First Nations with gas service
11 available?

12 DR. WAYNE SIMPSON: Currently, yes.

13 MR. SENWUNG LUK: And --

14 DR. WAYNE SIMPSON: That's under
15 existing electricity prices.

16 MR. SENWUNG LUK: Yes. If I could
17 just look -- if I could just draw your attention to
18 those two (2) particular First Nations, Dakota Tipi
19 and Roseau River, would it be fair to say that even
20 for those two (2) communities for whom gas service is
21 available, that the number of electric heat billed
22 accounts far outnumber the number of nonelectric heat
23 billed accounts still?

24 DR. WAYNE SIMPSON: That's right. And
25 that probably reflects the fact that the incentive to

1 switch is -- is -- is not there yet because
2 electricity prices haven't yet skyrocketed.

3 MR. SENWUNG LUK: And would it be fair
4 to say that in terms of the internal infrastructure of
5 -- of -- of a residential home, the infrastructure
6 that would be needed for gas heating may not be
7 available in -- in a house if crawl -- if a crawlspace
8 for forced air, for instance, was not part of the
9 original construction of the house?

10 DR. WAYNE SIMPSON: Yeah, more -- more
11 eff -- the more efficient heating methods using gas
12 would probably require renovations of the sort that
13 would be fairly expensive, yes, I agree.

14 MR. SENWUNG LUK: And that there are,
15 in fact, many -- would you agree also that there are
16 many communities in this province who are not even
17 geographically near gas main such that distribution of
18 gas couldn't -- it would be very difficult and -- to
19 construct the kind of infrastructure that could bring
20 gas service to many of these communities?

21 DR. WAYNE SIMPSON: Yeah, I -- I don't
22 know -- I don't know very much about gas distribution
23 in the province, I must admit, but I -- I take it that
24 it -- it would likely be complex, but of course, these
25 are the, you know, the kinds of incentives that are

1 divided by a 50 percent increase in -- in the real
2 electricity prices over a relatively short period of
3 time, like seven (7) years are the kinds of incentives
4 that cause people to start thinking about other ways
5 of getting their heating done.

6 MR. SENWUNG LUK: Okay. Thank you,
7 Dr. Simpson. I think those are -- those are the
8 questions that I have for now.

9 I understand that My Friend Mr. Orle
10 may have some questions that are -- are going to not
11 take a lot of time and I understand that I have about
12 five (5) to seven (7) minutes left in my timing.

13 With the indulgence of the Board if I
14 could alloc -- if I could pass that time along to My
15 Friend Mr. Orle?

16 THE CHAIRPERSON: Certainly.

17

18 CROSS-EXAMINATION BY MR. GEORGE ORLE:

19 MR. GEORGE ORLE: Thank you, Mr.
20 Chair, members of the Panel, Doctors Compton and
21 Simpson.

22 I represent the MKO First Nations,
23 thirty (30) First Nations all located in the northern
24 region of Manitoba. My questions are going to be
25 directed primarily to matters that -- that only affect

1 these First Nations.

2 Were either of you aware that none of
3 the First Nations and the MKO communities have
4 availability for -- for gas service for heating?

5 DR. WAYNE SIMPSON: I wasn't
6 specifically aware of that but we've just seen the
7 evidence actually. I imagine that there -- there's
8 only two (2) that do. A Roseau I know is in the south
9 of Manitoba. The other one I -- I'm not familiar with
10 its location to go to Tipi.

11 MR. GEORGE ORLE: Thank you. And in
12 terms of -- of reducing fuel expenses, you said the
13 main factor would be the ability to switch over to
14 gas.

15 This would not be an option available
16 to MKO First Nations?

17 DR. WAYNE SIMPSON: Are you asking me
18 or are you telling me, I -- I --

19 MR. GEORGE ORLE: I'm -- I'm saying
20 that if there's no gas available that is not an option
21 for them.

22 DR. WAYNE SIMPSON: Yeah, I -- I take
23 that. I take your point.

24 MR. GEORGE ORLE: So the --

25 DR. WAYNE SIMPSON: In -- in remote

1 communities in the north that probably is -- is less
2 attractive than in the south.

3 MR. GEORGE ORLE: And given the
4 condition of the housing and the fact that the
5 geographical area requires additional heat and heating
6 during the course of the winter, the only real option
7 they would have to reduce their bills would be to turn
8 down the thermostat?

9 DR. WAYNE SIMPSON: That is the first
10 and most obvious and I'm -- I'm not sure where else
11 you go from there. That's right.

12 MR. GEORGE ORLE: And if members of
13 low income communities have already taken steps to
14 reduce their thermostats to a level that they can
15 afford, a reduction beyond that might be one (1) that
16 may affect their health and their well-being?

17 DR. WAYNE SIMPSON: Yes.

18 MR. GEORGE ORLE: And in terms of
19 reductions that -- that other residential customers
20 might be able to make, you indicated that they may
21 take money or take expenses elsewhere and apply it to
22 being able to pay their fuel bills. And I believe in
23 your paper you indicated that this would normally be
24 taken from what would be luxury items as opposed to
25 necessities.

1 And would you agree with me that in
2 terms of low income residential customers, there would
3 be very little in the way of luxuries that they would
4 be able to give up?

5 DR. WAYNE SIMPSON: Yes, the -- the --
6 the measures of poverty whether the Market Basket
7 measures, the Federal one, or the ones used by the
8 provinces for social assistance and the low income
9 cutoffs used by Statistics Canada are all based on,
10 essentially, necessities gobbling up almost all of
11 your budget; that's right, food, shelter and clothing
12 and transportation, I would add. I think those are
13 the necessities that they're -- that are captured by
14 the standard measures of poverty.

15 MR. GEORGE ORLE: And I believe that
16 one (1) of the factors that you indicated might occur
17 in the event of these costs rising of fuel, that in
18 other industries, retailers, wholesalers that they
19 would have an option of either passing these costs on
20 to their customers or to reduce their profits?

21 I believe those are the two (2) options
22 that you indicated for -- for businesses?

23 DR. WAYNE SIMPSON: I'm going -- I'm
24 going to let Janice answer that one.

25 MR. GEORGE ORLE: Okay. Dr.

1 Compton...?

2 DR. JANICE COMPTON: Yes, we looked at
3 -- well, reducing profits, altering their production
4 process so that they're changing the proportion of
5 inputs that they use and then passing the prices on to
6 the consumers.

7 MR. GEORGE ORLE: Okay. And in
8 relation to those that provide essential services such
9 as food, medicine, clothing, those would be industries
10 that would be primarily within Manitoba, the retailers
11 of that selling to my clients would be primarily
12 Manitoba businesses?

13 DR. JANICE COMPTON: I can't say
14 exactly off the top of my head the proportion that are
15 imported from those. Certainly the clothing are more
16 likely to have a higher level importing -- so that
17 then -- is that the question that you were asking?

18 MR. GEORGE ORLE: Well, my clients
19 would buy food from the -- the general store or it
20 would be food brought in from southern retailers,
21 Safeway, Sobey's, things like that.

22 So to that extent, these would be
23 providers of essential goods that would be based in
24 Manitoba that they would be buying from?

25 DR. JANICE COMPTON: Yes, I agree.

1 MR. GEORGE ORLE: And to the extent
2 that those retailers would pass the cost of
3 electricity on to these essential goods my clients
4 would essentially be paying not only the increase in
5 the Hydro rates, but the increase from the Hydro rates
6 that goes on to the essential services that they
7 require.

8 DR. JANICE COMPTON: Yes, that's true.
9 The ability of the industry or the companies to pass
10 the price on is going to depend on the competitive
11 nature of the industry. And if you're looking at the
12 northern communities, then the -- they're not likely
13 to be as competitive as you would be in Winnipeg,
14 which would make it harder to raise their prices.

15 MR. GEORGE ORLE: And my last
16 question, and it relates to a question of being able
17 to ameliorate some of these increases by going into
18 your savings.

19 Do you know to what extent people that
20 would be regarded as low income would have the ability
21 to have sufficient savings to be able to take on these
22 additional costs?

23 DR. WAYNE SIMPSON: I think the simple
24 answer is no. The -- the impact study doesn't look at
25 low income customers, in particular, and the -- there

1 isn't very -- there's no evidence in the affordability
2 report on -- on -- on savings per se and I haven't
3 done any real research in that area, but I imagine
4 there is information out there. But my presumption is
5 that the savings rates of individuals rise with
6 income, along with age and those would be two (2) of
7 the obvious factors. And that low income individuals
8 would have relatively low savings rates.

9 MR. GEORGE ORLE: Okay. My very last
10 question relates to just a portion of your earlier
11 slide where you talked about the fact that -- that
12 arrears in payments you did not believe to be an
13 important factor within the low income residential
14 customers.

15 And I believe that you based that upon
16 the findings that were from that research that was
17 done for Manitoba Hydro?

18 DR. WAYNE SIMPSON: That's correct.
19 And it -- it doesn't cover reserves.

20 MR. GEORGE ORLE: Were you aware that
21 there was a very limited amount of northern First
22 Nations residents that were canvassed for -- for that
23 information?

24 DR. WAYNE SIMPSON: Yes, I was aware
25 of that in the report, yes.

1 MR. GEORGE ORLE: And were you aware,
2 sir, that among the MKO First Nations, the thirty (30)
3 nations, there is not one (1) nation that does not
4 have a substantial amount of residential arrears?

5 DR. WAYNE SIMPSON: I wouldn't --
6 wouldn't be surprised by that.

7 MR. GEORGE ORLE: Okay. And I can
8 tell you that the lowest rate of arrears was 27
9 percent in one (1) First Nation and up as high as
10 close to 70 percent in another first nation.

11 Now, given the lack of -- of
12 constituents that you polled, would the fact that
13 there was this high a rate of arrears, could that all
14 be explained by people just not wanting to pay their
15 bills?

16 DR. WAYNE SIMPSON: Oh, I'm not going
17 to go into the motivation for arrears. There's a fair
18 amount of discussion in the affordability report, but
19 as you said, it doesn't cover the situation on
20 reserves.

21 And I think it's fair to say that there
22 -- if you had -- included their experience it would be
23 substantially higher rate of customers in arrears and
24 it would probably be more closely linked to -- to
25 poverty and energy poverty, yes.

1 MR. GEORGE ORLE: Thank you. Thank
2 you very much. Those are my questions, Mr. Chair.

3 THE CHAIRPERSON: Thank you, Mr. Orle.
4 Mr. Williams...?

5

6 CROSS-EXAMINATION BY MR. KEVIN WILLIAMS:

7 MR. KEVIN WILLIAMS: Morning. Thank
8 you, Mr. Chairman, Panel members, Dr. Compton and
9 Simpson and, of course, Mr. Gange and Mr. Monnin for
10 allowing me to jump the queue.

11 Doctors Compton and Simpton -- Simpson,
12 I act for the Business Council of Manitoba. I'll
13 direct my questions to either of you, but I expect
14 that Dr. Compton will want to respond given the nature
15 of the presentations.

16 In utilizing the input-output model you
17 have in this case, I believe you said that all other
18 factors are held constant, except the proposed rate
19 increase.

20 Do I have that correct?

21 DR. JANICE COMPTON: Yes, that's
22 right.

23 MR. KEVIN WILLIAMS: So I take it,
24 therefore, that the model assumes the Manitoba economy
25 is unaffected in the event that the credit rating of

1 either Manitoba Hydro or the province are downgraded;
2 that's correct?

3 DR. JANICE COMPTON: Yes.

4 MR. KEVIN WILLIAMS: And I take the
5 mos -- model also assumes that Manitoba Hydro and the
6 province's borrowing costs would be the same with or
7 without the proposed rate increase.

8 Do I have that correct?

9 DR. JANICE COMPTON: Yes.

10 MR. KEVIN WILLIAMS: And I take it as
11 well that the model does not take into account any
12 increase in borrowing cost that Manitoba Hydro or the
13 province may experience in the event of a credit
14 downgrade; correct?

15 DR. JANICE COMPTON: Yes.

16 MR. KEVIN WILLIAMS: If I please have
17 Business Council or -- Business Council of Manitoba-
18 Coalition Compton/Simpson response number 32 put up,
19 please.

20 You'll recall that we sent some
21 Information Requests to you and in this particular
22 Information Request Number 32, we asked you -- and I'm
23 just reading from the latter part of that first
24 paragraph:

25 "To provide comment and discussion

1 of the effect a downgrade of
2 Manitoba Hydro's or the Province of
3 Manitoba's credit rating and
4 consequent increase borrowing costs
5 would have on the size of the
6 Manitoba economy. Please quantify
7 and provide specific metrics
8 wherever possible."

9 Now I take it that if we look at your
10 response, you indicate that:

11 "While a downgrade of Manitoba Hydro
12 or the Province of Manitoba's credit
13 rating may impact the economy, we
14 see this as a second order of effect
15 that's highly speculative.

16 Moreover, the analysis as requested
17 is simply not possible due to a lack
18 of information."

19 That's -- that's the response you
20 provided us; correct?

21 DR. JANICE COMPTON: That's correct.

22 MR. KEVIN WILLIAMS: And I take it
23 that if we go on and look at your response, you
24 indicate that in order to analyze the credit downgrade
25 on the economy using the input-output model that we

1 employ, you would require information and then there
2 you've listed three (3) different things. You say
3 that you need to know about whether the downgrade
4 affects borrowing costs; whether the amount of new --
5 how much amount of new borrowing would be planned by
6 the province or Manitoba Hydro in order to have -- to
7 determine the cost of the interest rates; and whether
8 the higher interest payments are funded through taxes,
9 reduce spending, more debt or higher Hydro prices.

10 Do you see that?

11 DR. JANICE COMPTON: Yes.

12 MR. KEVIN WILLIAMS: And then you go
13 on to conclude on page 2 of that Information Request
14 response that without such information, any comments
15 on this potential effect of the proposed Hydro rate
16 changes would be necessarily vague and uninformative.

17 That's how you responded, correct?

18 DR. JANICE COMPTON: That's right.

19 MR. KEVIN WILLIAMS: So now if I could
20 just take a quick look at your report itself.

21 DR. JANICE COMPTON: M-hm.

22 MR. KEVIN WILLIAMS: And have that put
23 up, please. And if we look at page 2 of the report,
24 which is sort of the summary, and you look towards the
25 bottom of that page you'll see there that you indicate

1 that the -- your preferred estimates indicate that due
2 to the proposed increases in real Hydro prices, the
3 Manitoba economy will be 3.4 percent smaller after
4 seven (7) years than it would in absence of Hydro
5 price increases above the inflation rate.

6 Do you see that?

7 DR. JANICE COMPTON: Yes.

8 MR. KEVIN WILLIAMS: Do I -- do I take
9 it that -- that the model then, therefore, pro --
10 produced a number of estimates and some of them
11 suggested smaller or larger increases in the -- or
12 shrinkage in the size of the economy?

13 DR. JANICE COMPTON: Yes, we did a
14 number of robustness tests to look at different
15 assumptions on the price elasticity of demand and the
16 behavioural response of the industries.

17 MR. KEVIN WILLIAMS: Right. And so
18 some of those --

19 DR. BYRON WILLIAMS: Mr. Williams,
20 could I -- could I just interject for a minute. Just
21 in terms of the lang -- language, I think you used
22 "shrinkage of the economy," and I think the evidence
23 this morning has been they're doing a comparison,
24 growth compared to inflation versus growth under the
25 rate increases.

1 So just for precision sake I --

2

3 CONTINUED BY MR. KEVIN WILLIAMS:

4 MR. KEVIN WILLIAMS: Okay, I'm fine
5 with that. Do -- do you -- I didn't mean to confuse
6 you anything.

7 I have it correct that some of the runs
8 that you did with the model suggested that the
9 percentage would have been smaller than 3.4 percent?

10 DR. JANICE COMPTON: Yes.

11 MR. KEVIN WILLIAMS: Okay. And I take
12 it then that some of the runs of the model also
13 suggested that the Hydro price change would result in
14 less job lost than thirty-nine hundred (3900) that
15 have been indicated here in the report?

16 DR. JANICE COMPTON: Yes.

17 MR. KEVIN WILLIAMS: Now, in terms of
18 coming to these conclusions, I take it that as we --
19 we'll sort of stop a few pages of this report. I
20 mean, the report essentially is -- is all based on
21 assumptions that you've made in order to come to those
22 conclusions; isn't that fair?

23 DR. JANICE COMPTON: Said the report
24 is basically relying on the Statistics Canada data
25 that shows the interactions of the inputs and outputs

1 in the economy. The assumptions that we are making in
2 the robustness test that we did were not wide
3 assumptions. The difference between the price
4 elasticity of demands to -- just to show if we have
5 bounded that a little bit how that would affect, but
6 other than those assumptions on the price elasticity
7 of demands, the rest is just coming out of the data
8 from Statistics Canada.

9 MR. KEVIN WILLIAMS: Well, let's --
10 let's look at page 3 of your report under Methodology
11 there, the second paragraph. You say:

12 "We modelled the additional spending
13 on Hydro that results from a price
14 increases as -- as a broad-based
15 withdrawal from the economy on the
16 assumption that that revenue from
17 the projected price increases is not
18 recirculated into the economy."

19 So, you made an assumption there; did
20 you not?

21 DR. JANICE COMPTON: Yep.

22 MR. KEVIN WILLIAMS: Do I have that
23 correct, you made an assumption there?

24 DR. JANICE COMPTON: The assumption
25 there is based on the information we received from

1 Manitoba Hydro.

2 MR. KEVIN WILLIAMS: Right. But --
3 but what I'm -- the point I'm trying to get you to
4 concede, and I don't think it's contentious actually,
5 is that there's a number of assumptions that went into
6 your ultimate conclusions that we find in the report.

7 Is that fair?

8 DR. JANICE COMPTON: Yes.

9 MR. KEVIN WILLIAMS: Now, if we can
10 turn back to Information Request Number 32 for a
11 moment --

12

13 (BRIEF PAUSE)

14

15 MR. KEVIN WILLIAMS: -- and look at
16 your response, particularly the last paragraph there.
17 And that would -- on page 1 that you just had. Just -
18 - yeah, perfect. So it would've been possible for you
19 to have made some assumptions with respect to the
20 three (3) enumerated items in your report there. And
21 -- and the first one (1), the -- the downgrade affect
22 -- affects borrowing costs.

23 You could have made some assumptions
24 with respect to that, tried to analyze it; could you
25 not?

1 DR. JANICE COMPTON: We could have,
2 yes.

3 MR. KEVIN WILLIAMS: Okay. And in
4 terms of the amount of a new borrowing plan by the
5 province and/or Manitoba Hydro in order to determine
6 the full cost of these higher interest rates, there
7 was a debt management strategy that was provided by
8 Manitoba Hydro.

9 So you could have attempted to make
10 some assumptions with respect to the borrowing costs;
11 could you have not?

12 DR. JANICE COMPTON: Yes.

13 MR. KEVIN WILLIAMS: And when the
14 higher interest rates are -- or interest payments are
15 funded through higher taxes, reduced spending, more
16 debt or higher hydro prices, you -- you certainly
17 could have made some assumptions and -- and come to --
18 and done some analytics on that basis; could you not?

19 DR. JANICE COMPTON: We could have,
20 although as I said, these are -- we -- you know, we
21 considered these as second order effects, and were --
22 were really trying to be conservative in our estimates
23 so as not to bias the results. So we tried to look at
24 conservative estimates that the -- the immediate
25 effects of the -- that the proposed rate increases

1 would have without looking at these secondary effects
2 that might further damage the economy.

3 MR. KEVIN WILLIAMS: Well, yeah, but I
4 guess if -- if we turn for a moment to -- to your
5 slide presentation this morning, page 8, slide 8 of
6 that.

7

8 (BRIEF PAUSE)

9

10 MR. KEVIN WILLIAMS: You -- you showed
11 -- these are secondary indirect effects that are --
12 are implicit in your conclusions in this case, and as
13 it relates the conclusions you're putting before the
14 Board; correct?

15 DR. JANICE COMPTON: So it's not the -
16 - I didn't mean the secondary effects in these. These
17 are -- these are sort of ripple cascading effects that
18 would -- would occur due to the initial decline in
19 demand because of the rate proposal. So we're --
20 we're trying to concentrate on the -- on the increased
21 rate proposals and that specific effect. These are
22 direct effects that emanate from that, rather than
23 looking at the other possibilities that might occur.
24 But if we had made some assumptions about the credit
25 downgrade, that would -- that would exacerbate the

1 effects on the economy, which --

2 MR. KEVIN WILLIAMS: Right. And --
3 and so -- so I guess where I'm try -- trying to get to
4 is -- is, essentially, you said that you -- you
5 couldn't respond to the Business Council's Information
6 Request on the basis of the fact that required
7 assumptions and would have to look at secondary or
8 indirect effects. But what it appears you've done is,
9 you made a number of assumptions and considered
10 secondary indirect effects in coming to the very
11 conclusion that you've put before the Board.

12 Isn't that fair?

13 DR. JANICE COMPTON: I don't think
14 these -- these are -- maybe it's just the different --
15 different idea of what the secondary indirect effects.
16 In -- in this case what I mean by secondary indirect
17 effects is that they're -- they're resulting from the
18 initial price increase. That it's a -- you know, the
19 cascading effect. This is part of the model, the
20 entire input-output multiplier. This is -- this is
21 part of it.

22 The effect of the credit downgrade is a
23 -- is a separate -- really a separate initial effect,
24 if you will. So we would -- we -- you could make a
25 number of different assumptions based on that,

1 assuming that that would happen, and then all of the
2 effects of the economy. And then would have secondary
3 effects.

4 MR. KEVIN WILLIAMS: And --

5 DR. JANICE COMPTON: And we -- we
6 wanted to focus on the rate increases in order to be
7 conservative in our estimates of how this would affect
8 the economy.

9 MR. KEVIN WILLIAMS: Well, you -- you
10 suggest that to do the analytics the Business Council
11 requested would've resulted in some results that were
12 highly speculative.

13 And I'm going to suggest to you that --
14 that there is -- the conclusions in your report are
15 highly speculative as well; are they not? That's
16 fair?

17 DR. JANICE COMPTON: I think to a
18 degree. I don't think these are -- I think these are
19 mostly based on the Statistics Canada data. We didn't
20 veer off far from the -- from the data here. We
21 didn't make too many assumptions on what was
22 happening. So I think you have to make some
23 assumptions to run the model, but we wanted to keep
24 the assumptions limited.

25 MR. KEVIN WILLIAMS: Right. But --

1 but essentially, what we're -- we're --

2 DR. JANICE COMPTON: I --

3 MR. KEVIN WILLIAMS: -- fencing over
4 is -- is highly speculative versus speculative.

5 You would agree with me that the
6 conclusions that you put before the Board as it
7 relates to the -- to your report are our speculative,
8 as are the conclusions?

9 DR. JANICE COMPTON: Well, I think
10 anything that we're going to present are -- is going
11 to be speculative. You're looking at what we're --
12 what we're proposing may happen five (5) to seven (7)
13 years in the future based on the data that we have. I
14 think that we're comfortable with -- with these
15 results, with the assumption that we make. We don't
16 think that assumptions are too wide. But I think if
17 you start thinking about all the other possible
18 effects that the -- that the proposed rate hikes might
19 have, I think then we're veering off farther than the
20 model can allow.

21 MR. KEVIN WILLIAMS: Okay. I think
22 the words you used this morning were -- was that --
23 was that in using the model you essentially assume
24 everything away except the proposed increase -- rate
25 increase.

1 Do I have that right?

2 DR. JANICE COMPTON: We assume that
3 the -- the -- yeah, the -- the -- best -- I think I --
4 I said assumed it away, the language to -- to say that
5 it's remaining constant, yeah.

6 MR. KEVIN WILLIAMS: Right. Okay. So
7 -- so -- but you'd agree with me that that's kind of a
8 fundamental amount -- assumption that's inherent in
9 the analysis, that you assume everything else remains
10 constant; correct?

11 DR. JANICE COMPTON: Right. To give
12 us a benchmark. Yeah.

13 MR. KEVIN WILLIAMS: Right. And --
14 and you would agree with me that that fundamental
15 assumption you know is incorrect.

16 Everything isn't going to remain
17 constant; is it?

18 DR. JANICE COMPTON: No, but I think
19 that the benefit of the model is that it -- it shows
20 the effect of the proposed Hydro rate hike without all
21 of the confounding effects that can camouflage the
22 results. If you look from five (5) years from now and
23 say, What was the effect of the proposed -- or of the
24 rate hikes, and just look at where the economy was
25 compared to where the economy is in five (5) years,

1 that's not giving you the effect of the rate hikes.
2 That's because there's so many other confounding
3 factors.

4 So by holding everything else constant
5 we're saying, This is the effect. This is what the
6 effect of the proposed rate hikes will be. Other
7 factors can come in and reduce that or exacerbate that
8 hide that , and so we may see, you know, five (5)
9 years from now the economy may be flourishing. It may
10 be wonderful. But that doesn't take away the effect
11 that the proposed rate hikes will bring us lower than
12 where we -- where we could be.

13 MR. KEVIN WILLIAMS: As it -- as it
14 relates to the effects, it -- when we're talking about
15 impacts, really, the point I'm -- I'm getting to, and
16 I think that you're almost there, is because you --
17 all these things you assume in your model won't ch --
18 change over time. Some or all will change over time.

19 You can't actually predict what the
20 economy's -- the -- the actual impact on the economy
21 size or the employment levels will actually be in the
22 event the rate increase is granted; can you?

23

24

(BRIEF PAUSE)

25

1 DR. JANICE COMPTON: No, I don't
2 agree.

3 DR. WAYNE SIMPSON: I think we're
4 going around in circles, so let me try -- let me
5 choose a different circle. We're using a fairly well
6 known and accepted model that does certain things.
7 It's based on Statistics Canada data gathered about
8 how the various elements of the economy interact. And
9 one (1) of the things it does, is it says that if you
10 stimulate or withdraw money from economy, these are
11 the kinds of effects that you could expect based on
12 what we know about the structure of the economy.

13 The reason why we said that the -- that
14 the rate -- the credit implications were speculative
15 is because the model really doesn't do those kinds of
16 things. And the results have to be interpreted as
17 this is the impact of this proposed set of Hydro rate
18 increases, holding other things constant in the
19 recognition other things will change.

20 But, of course, all sorts of other
21 things can change. We know, for example, July 1,
22 2018, carbon pricing. We know that. We don't know
23 what's actually going to happen there. We think,
24 again, that's a second order effect. But we still
25 think that the input/output tables provide as useful

1 an estimate as you can likely get of the impact --
2 isolated impact of the Hydro price increases that are
3 proposed.

4 MR. KEVIN WILLIAMS: Right. But --
5 but that's my point is -- is the isolated effect.
6 It's not the actual effect because of all the things
7 you've assumed to hold constant.

8 Wouldn't you agree with that?

9 DR. WAYNE SIMPSON: It is the partial
10 effect, the actual partial effect.

11 MR. KEVIN WILLIAMS: Thank you. Those
12 are my questions.

13 THE CHAIRPERSON: Thank you, Mr.
14 Williams. Mr. Gange...?

15

16 CROSS-EXAMINATION BY MR. WILLIAM GANGE:

17 MR. WILLIAM GANGE: Thank you, Mr.
18 Chair. If -- if we could go to the energy poverty
19 summary that was presented today, and to the last
20 page.

21

22 (BRIEF PAUSE)

23

24 MR. WILLIAM GANGE: Professor Simpson,
25 the first bullet point that you have there is that

1 Hydro and stakeholders should continue research into
2 energy poverty and its characteristics using Manitoba
3 evidence.

4 You see that point, sir?

5 DR. WAYNE SIMPSON: Yeah.

6 MR. WILLIAM GANGE: I -- is it your
7 position that -- that no steps should be taken until
8 such time as that research has been completed?

9 DR. WAYNE SIMPSON: Absolutely not.

10 MR. WILLIAM GANGE: So that -- your --
11 the -- what you're -- and -- and if I put words into
12 your mouth that you don't like spit them out.

13 But the -- the point here is that there
14 -- there is a lot of research that needs to be done
15 into making a made in Manitoba definition of poverty;
16 correct, sir?

17 DR. WAYNE SIMPSON: Yeah, I think the
18 existing definitions -- the -- the -- what they've
19 taken from the literature in the affordability report
20 can be challenged as not reflecting the Manitoba
21 situation and the northern prairie climate.

22 MR. WILLIAM GANGE: Right. Excuse me.
23 You know that the -- the low income cutoff of one-
24 twenty-five (125) is used by Manitoba Hydro with
25 respect to various programs; correct, sir?

1 DR. WAYNE SIMPSON: Right. And I've
2 outlined what I think are the limitations of -- of the
3 LICO.

4 MR. WILLIAM GANGE: Yes.

5 DR. WAYNE SIMPSON: Yeah.

6 MR. WILLIAM GANGE: So although it's
7 not perfect, and it may not even be adequate, it -- it
8 does serve a purpose with respect to the -- the way
9 that Manitoba Hydro runs its programs currently;
10 correct, sir?

11 DR. WAYNE SIMPSON: It identifies a
12 low income population adjusting -- perhaps not the
13 best way of adjusting, but adjusting for family size,
14 yeah.

15 MR. WILLIAM GANGE: Right. And so
16 that -- that -- until such time as that as -- as a
17 better model is developed for the northern prairie
18 climate, something has to be used.

19 And -- and would you agree with me,
20 sir, that -- that steps should still be taken by
21 Manitoba Hydro to deal with energy poverty during that
22 interim period?

23 DR. WAYNE SIMPSON: Absolutely. Yeah.

24 MR. WILLIAM GANGE: And -- and would
25 you agree with me, sir, that it's -- that from the

1 analysis that you've done it's quite apparent that --
2 that whatever the rate increases are that are approved
3 by this Board, there is going to be over the next
4 number of years during a period of rate increase, an
5 increase in the energy poverty level in Manitoba?

6 DR. WAYNE SIMPSON: Yeah, I think the
7 results in the affordability report are very strong in
8 that regard. Yes.

9 MR. WILLIAM GANGE: Right. So when
10 you were here the last time, and the old Hydro --

11 DR. WAYNE SIMPSON: This is the NFAT
12 you're referring to; is it?

13 MR. WILLIAM GANGE: At the last GRA.

14 DR. BYRON WILLIAMS: I don't believe
15 Dr. Simpson was at the last year --

16

17 CONTINUED BY MR. WILLIAM GANGE:

18 MR. WILLIAM GANGE: Oh, okay. Then --
19 then I apologize. At the last NFAT.

20 DR. WAYNE SIMPSON: Yeah.

21 MR. WILLIAM GANGE: And at the NFAT,
22 Manitoba Hydro was predicting how it would handle the
23 increase in the debt load.

24 You recall that, sir?

25 DR. WAYNE SIMPSON: The -- yes.

1 MR. WILLIAM GANGE: And -- and what I
2 mean by that is that it was proposing that the debt
3 load and the debt/equity ratio of -- of the 75/25 --

4 DR. WAYNE SIMPSON: M-hm.

5 MR. WILLIAM GANGE: -- that that could
6 be managed over a period of approximately twenty (20)
7 years.

8 DR. WAYNE SIMPSON: That sounds
9 right, yes.

10 MR. WILLIAM GANGE: Yeah.

11 DR. WAYNE SIMPSON: Subject to check.

12 MR. WILLIAM GANGE: And during that
13 time period your analysis was that -- that there was
14 going to be -- even at -- at the lower projected rate
15 increase, which was about half of the rate increase
16 that we're seeing right now for this -- at this GRA,
17 that there was going to be an increase in the level of
18 -- of ratepayers that were going to fall into the
19 energy poverty level?

20 DR. WAYNE SIMPSON: Yes. I'm not sure
21 if what you're referring to comes from the NFAT and --
22 and the report I did with Harvey Stevens, or it comes
23 from my reading of the PUB order that set up the
24 Affordability Working Group, but either way I -- I
25 agree that --

1 MR. WILLIAM GANGE: Okay.

2 DR. WAYNE SIMPSON: -- one (1) of
3 those makes that claim. Yes.

4 MR. WILLIAM GANGE: Sure. And -- and
5 obviously it just flows from what you've testified to,
6 that the rate increase at -- at the higher rate as
7 proposed by Manitoba Hydro, you're expecting -- and --
8 and the evidence is quite clear that the energy
9 poverty level is going to increase very substantially.

10 DR. WAYNE SIMPSON: Yes, and there's -
11 - there's quite a dramatic difference between the --
12 the so-called current -- the current scenario and the
13 original scenarios that were in the affordability
14 report, the one (1) that comes out of the IR. Yes.

15 MR. WILLIAM GANGE: Right. And then
16 the second point in terms of the recommendations --
17 your -- your recommendation is that Hydro should
18 develop an efficient Rate Assistance Program. And --
19 and it goes on to explain that, that it provides
20 assistance to low income energy poor households, but
21 that it is not directly tied to the level of energy
22 consumption along the lines of the fixed credit
23 programs in Colorado and Ontario.

24 Sir, are you aware that the question of
25 -- of rate assistance has been something that's been

1 before this Board since at least 1996?

2 DR. WAYNE SIMPSON: That's before my
3 time, but...

4 MR. WILLIAM GANGE: And -- and other
5 than Dr. Williams, it's before everybody's time, but -
6 - but it -- it is an issue you're aware of that has
7 been -- has been --

8 DR. WAYNE SIMPSON: It -- it goes back
9 before the NFAT, which is where I come in, yes.

10 MR. WILLIAM GANGE: Right. And you'd
11 agree with me, sir, that -- that so far Manitoba Hydro
12 hasn't done a great job at developing that -- an
13 efficient Rate Assistance Program?

14 DR. WAYNE SIMPSON: It -- it doesn't
15 appear so, no.

16 MR. WILLIAM GANGE: You mentioned,
17 sir, that -- that -- you mentioned the Colorado and
18 the Ontario programs; correct, sir?

19 DR. WAYNE SIMPSON: That's right. I
20 picked the Colorado program out of all the US
21 programs. The Ontario program is uniquely Canadian -- is
22 the unique Canadian one. Yes.

23

24 (BRIEF PAUSE)

25

1 MR. WILLIAM GANGE: And in your pre-
2 filed testimony, sir, at page 8, right at the bottom,
3 Diana. You mentioned the -- the Ontario program that
4 was originally funded by higher rates of about one
5 dollar (\$1) per month to other Ontario ratepayers?

6 DR. WAYNE SIMPSON: Right.

7 MR. WILLIAM GANGE: That -- that was a
8 program that was ordered by the Ontario equivalent of
9 the Public Utilities Board; was it not, sir?

10 DR. WAYNE SIMPSON: I -- I do not know
11 that. But it sounds like that is -- that could be --
12 well be the case, yes. It's plausible.

13 MR. WILLIAM GANGE: And following the
14 -- the implementation of the higher rates that were --
15 that were ordered with respect to other Ontario
16 ratepayers, the provincial government stepped in and
17 introduced the additional rate relief.

18 DR. WAYNE SIMPSON: The Fair Hydro
19 Plan. Exactly. Yes.

20 MR. WILLIAM GANGE: The Fair Hydro
21 Plan through legislation.

22 Is that correct, sir?

23 DR. WAYNE SIMPSON: That's right.
24 Yes.

25 MR. WILLIAM GANGE: From your analysis

1 of -- of how the fair rate program was introduced, is
2 -- can -- can you reach the conclusion that the
3 Ontario government was prodded to introduce the fair
4 rate prog -- fair rate program because of the --
5 ordering of the extra dollar per month to other
6 ratepayers?

7 DR. WAYNE SIMPSON: Well, that's a
8 reasonable conclusion because I suspect there would've
9 been some ratepayers who were fairly unhappy with
10 this, given that they may well have not been
11 participating in the -- in these programs, but may
12 have felt that they were as energy poor as other
13 people, and they're still paying the dollar rate. So
14 from that standpoint -- from the standpoint of
15 fairness, which I cited in when I -- in my
16 presentation, it makes more sense to provide the
17 relief in the form -- from general revenues, to me.

18 MR. WILLIAM GANGE: And would you
19 agree with me, sir, that although -- I'm not asking
20 you for -- for a legal opinion, but you're aware, sir,
21 that -- that this Board, the -- the Public Utilities
22 Board of Manitoba, does not have the power to force
23 the provincial government to take steps that are
24 within the jurisdiction of the -- of the provincial
25 government?

1 DR. WAYNE SIMPSON: It's a plausible
2 assumption. Again, I -- I --

3 MR. WILLIAM GANGE: Right. And -- and
4 --

5 DR. WAYNE SIMPSON: -- don't know
6 that, but that's fine.

7 MR. WILLIAM GANGE: -- and is it -- is
8 it --

9 DR. WAYNE SIMPSON: And I -- I accept
10 that, yes.

11 MR. WILLIAM GANGE: So that -- you're
12 aware, sir, that -- that this Board can only do what
13 falls within its jurisdiction?

14 DR. WAYNE SIMPSON: Yes.

15

16 (BRIEF PAUSE)

17

18 MR. WILLIAM GANGE: And, Diana, if we
19 could go back to -- let's think here. Developing the
20 efficient rate assistance program is something that
21 you are urging this Board to take steps to implement;
22 are you not, sir?

23 DR. WAYNE SIMPSON: I think if we're
24 going to take -- I -- I say if you're taking energy
25 poverty remediation seriously that that has to happen.

1 Yes.

2 MR. WILLIAM GANGE: And I take it,
3 sir, that -- that -- taking it seriously and -- and
4 developing that -- an efficient rate assistance
5 program, that ought to take place -- or you ought not
6 to be waiting for the definition of the -- of the made
7 in Manitoba energy poverty level; correct, sir?

8 DR. WAYNE SIMPSON: No. These are not
9 prioritized one (1) to four (4), and maybe one (1)
10 should be four (4).

11 MR. WILLIAM GANGE: Right.

12 DR. WAYNE SIMPSON: I could easily put
13 one (1) down at the bottom. It's -- and that -- and
14 given your line of questioning, I would -- I would
15 reconsider in that direction.

16

17 (BRIEF PAUSE)

18

19 DR. WAYNE SIMPSON: These are kind of
20 chronological in the way that I discussed them in the
21 -- in the report and the presentation.

22 MR. WILLIAM GANGE: Right. Diana, if
23 you could go to page 10 of today's presentation.
24 Professor Simpson, you also on -- on page 10 of your
25 presentation make a note in this bullet that -- that

1 the report specifically indicated that we should
2 consider efficiency as the design principle.

3 DR. WAYNE SIMPSON: Well, that's my
4 suggestion because the report doesn't specifically
5 state that. And, in fact, only talks about it all
6 Hydro customers making a contribution. Whereas,
7 efficiency would indicate that they should be paying
8 the cost of production.

9 MR. WILLIAM GANGE: Oh, I see. Okay.
10 So -- so this is a recommendation to this Board that -
11 - that efficiency should be --

12 DR. WAYNE SIMPSON: That's right. And
13 that's embedded in the second -- the second
14 recommendation about an efficient rate assistance
15 program, which is where that comes in. The idea that
16 you shouldn't be supporting lower rates, so much as
17 increased affordability.

18 MR. WILLIAM GANGE: Right.

19 DR. WAYNE SIMPSON: Increased --
20 sorry, increased ability to pay.

21 MR. WILLIAM GANGE: And -- and you
22 specifically on page 9 of your evidence recommend --
23 and -- and if you go -- yeah. So the paragraph -- I
24 think it's the sufficiency. Yeah, hat's great. So --
25 so in your evidence you had recommended that the

1 Ontario and the Colorado programs were -- were -- had
2 much to be recommended because the assistance is
3 directed to those who would be most seriously
4 disadvantaged.

5 DR. WAYNE SIMPSON: Right. I picked
6 those out of the -- the large number of -- of programs
7 surveyed in the affordability report and in -- in some
8 other information that I also had.

9

10 (BRIEF PAUSE)

11

12 MR. WILLIAM GANGE: And -- and if we
13 could go to the next page.

14

15 (BRIEF PAUSE)

16

17 MR. WILLIAM GANGE: Yes, right there,
18 Diana. Just a little bit higher where it -- yes.
19 Okay. So, sorry, stop right there. Thank you. And,
20 Professor Simpson, I have page 10 of your pre-filed
21 evidence on the screen. And I'm looking at the
22 paragraph that says -- or it's -- it's two-thirds of
23 the way through that paragraph:

24 "Since the affordability program
25 should be designed to ensure energy

1 security, funding from all taxpayers
2 rather than simply higher income
3 ratepayers or dedicated fees seems
4 most appropriate."

5 You see that one (1), sir?

6 DR. WAYNE SIMPSON: Yeah, I'm drawing
7 analogy to other income security programs. Exactly.

8 MR. WILLIAM GANGE: But would you
9 agree with me, sir, that the idea of -- of a rate
10 assistance program being funded by all taxpayers,
11 that's a decision for the provincial government.

12 DR. WAYNE SIMPSON: Right.

13 MR. WILLIAM GANGE: And it's beyond
14 the jurisdiction of this Board.

15 You're aware of that, sir?

16 DR. WAYNE SIMPSON: Yes.

17 MR. WILLIAM GANGE: And in today's
18 Manitoba political reality, you'd agree with me, sir,
19 that one (1) of the promises of the provincial
20 government is to reduce the provincial sales tax?

21 DR. WAYNE SIMPSON: Re -- reduce the
22 PST from 8 percent to 7 percent, yes. As ill advised
23 as that might be, but, yes.

24 MR. WILLIAM GANGE: Right. We're on
25 the same page on that one (1). But -- so -- so the --

1 the political climate is that -- that the provincial
2 government has, on the campaign trail, promised that
3 it would reduce its overall revenues by that reduction
4 in the provincial sales tax?

5 DR. WAYNE SIMPSON: Right. And -- and
6 I -- if I didn't take it out, I think I made a
7 reference to that in the report when I said that the
8 circumstances in Ontario are quite a bit different
9 from Manitoba, because they had a surplus budget last
10 year to work from. And I think a surplus budget this
11 year coming. Whereas, Manitoba, of course, has a
12 significant deficit.

13 MR. WILLIAM GANGE: So that --

14 DR. WAYNE SIMPSON: Did I take that
15 out? I don't know. It should be there. It's
16 probably down below here somewhere.

17 MR. WILLIAM GANGE: I've read it
18 somewhere, but I'm not sure if it's in -- in the
19 evidence, or in -- or in your presentation.

20 DR. WAYNE SIMPSON: Oh, there it is.
21 Right there, right down below the next paragraph.

22 MR. WILLIAM GANGE: Right. Right.
23 Thank you.

24 DR. WAYNE SIMPSON: Yeah.

25 MR. WILLIAM GANGE: So the --

1 DR. WAYNE SIMPSON: So there's
2 certainly diff -- different circumstances for the two
3 (2) governments, yes.

4 MR. WILLIAM GANGE: Yes. And so that
5 with respect to this Board, this Board is going to
6 have to do things within its jurisdiction; correct,
7 sir?

8 DR. WAYNE SIMPSON: Yes. And I -- I
9 take the point that I didn't entirely constrain myself
10 to that legal requirement.

11 MR. WILLIAM GANGE: I'm not trying to
12 make that point, but -- but --

13 DR. WAYNE SIMPSON: Okay.

14 MR. WILLIAM GANGE: -- somebody else
15 might.

16 DR. WAYNE SIMPSON: All right.

17 MR. WILLIAM GANGE: Have -- have you -
18 - in your preparation for this hearing, sir, are you
19 aware that -- so -- so my client is Green Action
20 Centre.

21 MR. WILLIAM GANGE: Right.

22 MR. WILLIAM GANGE: And we presented
23 our evidence last week, the evidence of Paul Chernick.
24 Are you aware of Mr. Chernick's proposal in terms of
25 rate design?

1 DR. WAYNE SIMPSON: I think I am in
2 general terms, in terms of lower rates for lower --
3 low -- low levels of consumption, and then a jump up
4 at rates higher levels.

5 MR. WILLIAM GANGE: Correct. And --
6 and also differentiated rates with respect to all
7 electric customers --

8 DR. WAYNE SIMPSON: Okay.

9 MR. WILLIAM GANGE: -- which -- which
10 primarily are in -- in -- customers in northern
11 Manitoba.

12 DR. WAYNE SIMPSON: Okay.

13 DR. BYRON WILLIAMS: Now, Mr. --
14 Gange, just in -- in terms of that factual premise, if
15 you change that to be primarily in rural Manitoba we
16 would accept that for all electric. I'm not sure that
17 Mr. -- Dr. Simpson can go all that way.

18

19 CONTINUED BY MR. WILLIAM GANGE:

20 MR. WILLIAM GANGE: Well, I'll -- I'll
21 make that -- I'll make that change. The purpose of --
22 of Mr. Chernick's proposal is to deal with energy
23 poverty.

24 Would you agree it's -- with me, sir,
25 that although this Board has -- has limited scope in

1 terms of dealing with energy poverty, Mr. Chernick's
2 analysis and rate design proposal is one (1) of the
3 ways that energy poverty could be addressed?

4 DR. WAYNE SIMPSON: Yes, it could with
5 the couple of caveats. One (1) would be that because
6 there are significant differences in housing stock and
7 the energy poor may be very much disadvantaged in
8 housing stock, a rate design that has -- that
9 essentially led to them having -- paying higher rates
10 anyway wouldn't solve their energy poverty problems.
11 I mean, the housing stock problem, the weatherization
12 issues, and so on. That would all still exist even
13 with a rate design proposal.

14 And the other one (1) would be -- and
15 this is somewhat off the top my head, but the other
16 one (1) would be that the rate design proposal, the
17 lower rates for the first so many kilowatt hours would
18 apply to everyone, right? So the revenue loss to
19 Hydro could be significant if everyone gets that
20 benefit.

21 Am I -- am I correct?

22 MR. WILLIAM GANGE: That -- sir, Mr.
23 Chernick's proposal was that -- that one would have to
24 qualify for the rate assistance.

25 DR. WAYNE SIMPSON: So then you'd have

1 the problem of targeting again. Sure.

2 MR. WILLIAM GANGE: Right.

3 DR. BYRON WILLIAMS: I just want to be
4 clear, Mr. Gange. I think you started this discussion
5 linking the all electric and the low income.

6 And so are you suggest --

7 MR. WILLIAM GANGE: We're -- we're --
8 right now -- I'm sorry, Dr. Williams. Right now, what
9 I am talking about is the low income proposal.

10 DR. BYRON WILLIAMS: Fair enough.

11

12 CONTINUED BY MR. WILLIAM GANGE:

13 MR. WILLIAM GANGE: And -- and in
14 answer to that -- that point that you raised about the
15 poor housing stock, are you aware, sir, that -- that
16 the first thing that -- that, Mr. Chernick testified
17 about was that -- that the very first step that has to
18 be addressed is the demand-side management process to
19 improve the efficiency of the housing stock?

20 DR. WAYNE SIMPSON: Well, I would
21 agree with that. That seems to me to be the -- one
22 (1) of the important ways, in the long-term, to deal
23 with -- with energy poverty.

24 MR. WILLIAM GANGE: And -- and on that
25 basis, sir, would you agree with me that -- that one

1 (1) of the other ways of dealing with it was -- or is
2 a proposal for a rate design that would benefit low
3 income customers?

4 DR. WAYNE SIMPSON: I'm generally not
5 in favour of rate designs that involve people paying,
6 in some circumstances, less than the full cost of
7 production and in other circumstances more than the
8 full cost of production because it violates the
9 efficiency principle.

10 MR. WILLIAM GANGE: Yes, sir. But --
11 and I'm not sure how familiar you are with Mr.
12 Chernick's rate design proposal, which has for the
13 second block the recapture of the full cost of
14 production.

15 Doesn't that -- doesn't that meet the
16 concern that you have, sir?

17 DR. WAYNE SIMPSON: Partially, yeah.
18 But the -- the lower -- they're -- that means that in
19 the first block they're paying less than the full cost
20 of production, which I don't think is -- is -- that
21 violence efficiency principle. I don't think that's
22 the best way to go about promoting energy conservation
23 and promoting energy efficiency. So that wouldn't be
24 a first best solution in my -- in my view.

25 MR. WILLIAM GANGE: Do you know any

1 rate design proposal, sir, that could benefit low
2 income customers that would not, to a certain extent,
3 violate the -- the conservation principles?

4 DR. WAYNE SIMPSON: Well, the Colorado
5 plan would do better, because it's based on previous
6 consumption. And the Ontario plan would -- would
7 completely separate full cost pricing from energy
8 electricity income assistance and electricity/income
9 assistance, but at a significant cost. These are the
10 kinds of trade-offs you enter into when you think
11 about policies in general.

12

13 (BRIEF PAUSE)

14

15 MR. WILLIAM GANGE: Sir, these --
16 these rates will go into effect, we're expecting,
17 April 1st. So next year's winter season will be
18 affected by whatever the rates are that are approved
19 by this Board.

20 Would you agree with me that -- that
21 this Board -- that there is an urgency for low income
22 customers to have -- to have something done to assist
23 the energy poverty problem that is identified both in
24 the affordability working report and your analysis of
25 it?

1 DR. WAYNE SIMPSON: Assuming that the
2 rate increases are significantly more than the 2
3 percent benchmark for inflation, yes.

4

5

(BRIEF PAUSE)

6

7

MR. WILLIAM GANGE: Thank you,
8 Professor Simpson. Those are my questions, Mr. Chair.

9

THE CHAIRPERSON: Thank you, Mr.
10 Gange. We'll adjourn until one o'clock for lunch.
11 Thank you.

12

MR. CHRISTIAN MONNIN: Mr. -- Mr.
13 Chair? I -- I just -- I just want to -- to give the
14 Board and the parties an understanding of time
15 expectations. I expect to be about ten (10) minutes,
16 and I'm next. Just to give you a better understanding
17 of the schedule for today. Thank you.

18

THE CHAIRPERSON: Appreciate that, Mr.
19 Monnin. Thank you.

20

21 --- Upon recessing at 11:59 a.m.

22 --- Upon resuming at 1:09 p.m.

23

24

THE CHAIRPERSON: Mr. Monnin...?

25

1 CROSS-EXAMINATION BY MR. CHRISTIAN MONNIN:

2 MR. CHRISTIAN MONNIN: Thank you, Mr.
3 Chair, members of the Board, Dr. Simpson and Dr.
4 Compton. My name is Christian Monnin, I'm counsel for
5 General Service Small and General Service Medium
6 customer class, as well as Keystone Agriculture
7 Producers.

8 I will start off with some questions
9 for Dr. Compton, I believe. Obviously, Dr. Simpson,
10 if you want to jump in, please, feel free to do so and
11 I'll round out my short cross-examination with some
12 questions for you, Dr. Simpson.

13 Dr. Compton, in your report which is
14 found at Exhibit CC-18, we don't need to go there, but
15 for the record at page 7 of 32, you indicate that in
16 comparison to the behavioural responses that is
17 expected from households, in your base scenario you
18 make no comparable responses for industry and -- and
19 government for that matter; is that correct?

20

21 (BRIEF PAUSE)

22

23 DR. JANICE COMPTON: Are you
24 referring to the -- comparing to the income
25 elasticities that we altered...

1 MR. CHRISTIAN MONNIN: Page 7 of 32.

2 DR. JANICE COMPTON: Seven and...

3 sorry.

4 MR. CHRISTIAN MONNIN: A direct

5 effect.

6 DR. JANICE COMPTON: Oh, yes, sorry.

7 Yes, that's correct.

8 MR. CHRISTIAN MONNIN: Okay. And --

9 but, however, you also state, and I'm paraphrasing
10 here, but you also state that how industries will
11 respond to an increase in rates will vary from entity
12 to entity; is that correct?

13 DR. JANICE COMPTON: That's right.

14 MR. CHRISTIAN MONNIN: However, for
15 the report, you make the simplifying assumption that
16 the direct impact is that industries will initially
17 respond to higher Hydro prices or higher rates by
18 reducing spending on other inputs.

19 DR. JANICE COMPTON: Yes.

20 MR. CHRISTIAN MONNIN: Which would
21 also have the corresponding affect, I'm suggesting to
22 you, of reducing profits; is that fair?

23 DR. JANICE COMPTON: It may or may
24 not, that doesn't come out of the model.

25 MR. CHRISTIAN MONNIN: Okay, but in

1 addition to these -- the simplifying assumption, your
2 report also recognizes the possibility that businesses
3 may also pass on the cost to consumers in the form of
4 higher prices; correct?

5 DR. JANICE COMPTON: Yes.

6 MR. CHRISTIAN MONNIN: And would you
7 agree with me that that is -- apart from the decision
8 of using the simplifying assumption, that passing on
9 the cost to consumers in the form of higher prices is
10 the more likely result of what's going to occur with
11 increasing rates?

12 DR. JANICE COMPTON: I think I'd need
13 more information to know whether or not it would be
14 more likely or not. The reason why we made this
15 simplifying assumption is because passing on the rates
16 to consumers involves changing the relative prices and
17 the model doesn't allow us to do that.

18 So we were trying to be as conservative
19 as possible in making our estimates. So the -- the
20 simple way to do that is to think that the -- the
21 firms will re -- revise their production process,
22 revise how they produce their goods and services in a
23 -- to adjust for the higher Hydro prices but that
24 their output levels would be the same, that their
25 prices would be the same. So, in a way, it's -- it's

1 really a very conservative look at how businesses
2 would respond.

3 MR. CHRISTIAN MONNIN: And do I
4 understand from -- the takeaway from that answer is
5 that because the model was limited, you chose a
6 simplifying assumption?

7 DR. JANICE COMPTON: Yes.

8 MR. CHRISTIAN MONNIN: Now, would you
9 be able to comment on this? If -- if you were to move
10 from the simplifying assumption and take into
11 consideration the others -- the other possibility that
12 they would pass on the cost to consumers in the form
13 of higher rate prices, would that have an -- an impact
14 on the economy in Manitoba as a whole?

15 DR. JANICE COMPTON: It would be hard
16 to say. You'd have to -- so that would mean that the
17 -- the demand from the firms in terms of what they
18 were demanding, we could imagine that they would stay
19 the same but then the prices would be passed on to the
20 consumer so then it would be reduced -- further
21 reducing industry household demand. So then we would
22 leave industry as is and further reduce household
23 demand, you'd have to run that through. It would
24 depend on the different mix of goods and services that
25 are being consumed by households relative to the

1 industries and how intense -- energy intensive those
2 are.

3 So without running through, it would be
4 very difficult to say whether or not it would have a
5 larger or smaller effect on the economy.

6 MR. CHRISTIAN MONNIN: Okay. And --
7 and you also refer to certain industries altering
8 their production in your report.

9 Is it -- it's at -- would you agree
10 with me that it's safe to say that some industries are
11 not nimble enough to alter their production or are
12 just not able to do so?

13 DR. JANICE COMPTON: Absolutely. And
14 some -- some would be able to do it very easily to
15 conserve and some -- and change their -- the way that
16 they produce. Some wouldn't be able to do it at all
17 if they have very -- very set production and vary
18 specific ways of producing. But because we're looking
19 at the Manitoba industry on average or -- or, you
20 know, the four hundred (400) -- sorry, four hundred
21 (400) goods and services, the two hundred and sixty
22 (260) odd industries, we just took it as some will be
23 higher, some will be lower.

24 MR. CHRISTIAN MONNIN: And you didn't
25 in your report -- and hopefully I'm stating the

1 obvious that that you didn't get as granular as that
2 in your report to go down to look at altering
3 production for certain industries; correct?

4 DR. JANICE COMPTON: No, we don't have
5 that information. You'd have to know more about the
6 production process at each industry level. We know
7 their -- their output and their inputs but in terms of
8 the substitutability between them, that not -- that
9 information is not -- that would be firm information
10 that we don't have.

11 MR. CHRISTIAN MONNIN: And you also
12 sta -- staying on the point, that you state though:

13 "Firms may respond by increasing
14 prices. Firms are less likely to
15 pass on the increased costs when
16 they face a competitive market with
17 imports from jurisdictions not
18 subject to the higher price impact."

19 How did you come to that assumption, or
20 what -- what is that based on?

21 DR. JANICE COMPTON: Well, that's --
22 so in the basic economic models of industry, the firms
23 that are looking at it -- that are competing with
24 imports that don't face the same hydro rate increases,
25 they have to -- they still have to compete with their

1 prices. So, it would be harder for those firms, those
2 industries to pass their prices on to the consumers
3 that would put their prices above their imp --
4 imported competitors and they would lose business.

5 MR. CHRISTIAN MONNIN: What about
6 exporters?

7 DR. JANICE COMPTON: Sorry?

8 MR. CHRISTIAN MONNIN: What exporters,
9 manufacturers exporting to the United States or
10 agriculture exporting in Manitoba? What -- what would
11 apply to -- would that same logic apply to them --

12 DR. JANICE COMPTON: It would be the
13 same logic as they -- they would, again, have a
14 difficult time raising their prices, passing on even
15 to the -- the Americans or the individuals in other
16 provinces buying their goods and services since they
17 would be competing with local -- local providers.

18 MR. CHRISTIAN MONNIN: And that's a
19 scenario where industries wouldn't be transferring on
20 the -- the increase in cost; for example,
21 manufacturers relying on transportation or to get
22 their goods to market, that's -- that's assuming that
23 the transportation company's not passing on those
24 costs to the manufacture; correct?

25 DR. JANICE COMPTON: I'm sorry, could

1 you re -- restate that?

2 MR. CHRISTIAN MONNIN: So the exporter
3 who would, for lack of a better term, eat their cost
4 increase, this is all based on the -- the quality --
5 or the simplifying assumption that no one's passing
6 off the increase -- increase cost of the rate
7 increase, so, a manufacturer who's relying on a
8 transportation company, would -- you're -- this is
9 assuming that the transportation company's not passing
10 on its -- its -- its increasing cost to the
11 manufacturer in order to ship those goods?

12 DR. JANICE COMPTON: I don't think --
13 I'm not sure if you have to make that assumption but
14 it would be -- it would fall in line that it's...

15

16 (BRIEF PAUSE)

17

18 DR. JANICE COMPTON: If their costs
19 are going up from the transportation cost going up,
20 then again, they still wouldn't be able to pass those
21 costs on to their final consumers if their final -- it
22 depends on the competitive -- the competitiveness of
23 their final demand. And if that's a competitive
24 industry, then wherever the costs are going up, they
25 wouldn't -- whether it was transportation or hydro,

1 they still wouldn't be able to pass that on. They'd
2 have to adjust in some other way.

3 MR. CHRISTIAN MONNIN: And that would
4 be the same answer for a scenario of agriculture where
5 an input for -- an agriculture industry, for example,
6 feed would be going up; that would be an extra cost
7 that they would have to absorb internally and not pass
8 on to the client or the consumer?

9 DR. JANICE COMPTON: Assuming that the
10 feed -- if the feed costs were going up for all of the
11 providers, then that could be passed on but if it was
12 going from -- for some and not others then it -- it
13 would be more difficult to pass that on.

14 MR. CHRISTIAN MONNIN: And is that
15 bec...

16

17 (BRIEF PAUSE)

18

19

20 DR. JANICE COMPTON: Right, if you're
21 exporting it into a competitive of again the same --
22 yeah, if it was going up for everyone, even the
23 domestic where you're -- where you're selling it to,
24 it would be passed on.

25 MR. CHRISTIAN MONNIN: Okay. I'd just

1 like to ask a few questions about job losses and you
2 covered most of that with -- with Dr. Grant from --
3 from the Board. However, I just want to clarify a few
4 points, clarify for me at least.

5 You made reference to in -- in your
6 presentation, Dr. Compton, to some industries or
7 entities leaving the province or possibly leaving the
8 province. And at slide 13 you give a number of
9 possible job losses at the tail end of seven (7)
10 years.

11 Does that scenario or that number
12 include any losses of -- of industries or businesses
13 from the province?

14 DR. JANICE COMPTON: It would
15 implicitly. It's not -- it's not spelled out where --
16 where the losses are coming from. The -- the full
17 multiplier is based on there being a decline in
18 employment and so this is why then there's household
19 demand that falls. And that -- part of that decline
20 in employment is coming from businesses that shut
21 down; others is coming from businesses that just
22 reduce their output and reduce their employment. It
23 doesn't spell out exactly where that's coming from but
24 it's -- in any -- in any case, the overall industry
25 declines in terms of its output, it's revenue. Some

1 of that might be just the industry declines or some
2 could be that some of the firms are leaving.

3 MR. CHRISTIAN MONNIN: Okay. And in
4 your exchange with Dr. Grant, Dr. Compton, I believe
5 my understanding was that there was a recognition that
6 there would be some job creation during this time, or
7 a possibility for job creation? And I'm --

8 DR. JANICE COMPTON: Sorry, based on
9 the historical patterns, about four hundred sixty-
10 seven (467) a month.

11 MR. CHRISTIAN MONNIN: Okay, so the --
12 the number of job losses that we see on the slidedeck
13 here, is that -- does that also include the job
14 creation where this would be all the job losses in the
15 seven (7) year timeframe, including the job creation
16 that's occurring at that time?

17 DR. JANICE COMPTON: So, no, this
18 would be -- so job loss is probably a bad word there.
19 It's -- it's the -- the employment level that we would
20 expect after the seven (7) relative to -- to what you
21 would have with the rate -- rate increases. So if we
22 -- we could imagine that the -- or would assume that
23 the employment is going to go up by five thousand
24 (5,000), six thousand (6,000) a year. But this would
25 be over the seven (7) years we would expect it to be

1 twenty-five (25) to forty-one (41) lower than it would
2 be otherwise.

3 MR. CHRISTIAN MONNIN: Okay, thank you
4 very much, Dr. Compton.

5 Dr. Simpson -- oh, I'm sorry, just a
6 few more questions here. I understand that the -- the
7 model is based on nothing else occurring throughout
8 this time frame, save for the increase in the hydro
9 rates; correct?

10 And therefore I'm safe to assume that
11 it doesn't include the impact of the carbon tax that
12 we're anticipating; correct?

13 DR. JANICE COMPTON: That's right. No,
14 that would be a separate analysis.

15 MR. CHRISTIAN MONNIN: Are you -- are
16 you able to advise today, and I appreciate it if
17 you're not, if you have -- in a very high level what
18 would be the perceived impact of the carbon tax that
19 we're expecting to come down on this province?

20 DR. JANICE COMPTON: On...?

21 MR. CHRISTIAN MONNIN: On -- on -- on
22 your presentation, on the evidence that you're giving?
23 Would it compound the job losses, for example?

24

25 (BRIEF PAUSE)

1
2 DR. JANICE COMPTON: Yeah, I think --
3 so if we're looking at the overall effect of the
4 carbon taxes that's a -- that's a big issue. If we're
5 looking at how the carbon taxes would affect the
6 effect of the rate proposals, I think in -- the -- the
7 key area that we would want to look at is how that
8 effect the elasticity, how that would affect the
9 response of businesses and individuals in terms of
10 their electricity consumption.

11 And if the alternatives are higher
12 priced, then we would expect that the -- the move away
13 from using electricity due to the higher price would
14 dampened. That would be our -- the main effect that -
15 - the main way that the carbon taxes would affect this
16 analysis.

17 MR. CHRISTIAN MONNIN: Dr. Simpson,
18 did you care to add anything to that?

19 DR. WAYNE SIMPSON: I was just going
20 to add that it -- that's probably, to use the term we
21 used before, a second order effect. We don't think
22 that -- I don't think we think that would be large.

23 And also, of course, the initial carbon
24 taxes are relatively small. So the impact five (5)
25 years from July 1st, 2018 at 50 percent -- fifty

1 dollars (\$50) a ton --

2 MR. CHRISTIAN MONNIN: I believe
3 Manitoba has proposed something different at half of
4 that.

5 DR. WAYNE SIMPSON: Oh, that's right,
6 the twenty-five (25) all the way through, you're right
7 so that might have a little stronger immediate impact,
8 yeah. But I -- I don't -- I don't know that we know
9 that that's going to be a -- a huge factor.

10 DR. BYRON WILLIAMS: Before the court
11 reporter chastises us, I'm going to remind both of our
12 witnesses just to speak a little more clearly.

13

14 CONTINUED BY MR. CHRISTIAN MONNIN:

15 MR. CHRISTIAN MONNIN: Thank you, Dr.
16 Simpson. In the second report at CC-21, page 13
17 thereof, under Recommendations and in your
18 presentation today, Dr. Simpson, under Recommendation
19 point number 2, as an order I -- I act for General
20 Service Small and General Service Medium customer
21 class and -- and one (1) one of the stakeholders of
22 that group is the BOMA, Building Owners and Managers
23 Association of Manitoba.

24 And your recommendation here, and I'm
25 reading this for the benefit of the record, is:

1 "Manitoba Hydro should consider
2 initiatives to enhance energy
3 efficiency programs and the
4 participation of landlords and
5 tenants in an energy affordability
6 programs... [and it goes on.]

7 In what capacity are you suggesting
8 that landlords participate?

9 DR. WAYNE SIMPSON: Well, I think here
10 I'm summarizing what the report actually -- actually
11 says rather than what I would say.

12 But I think I would agree that there
13 are some complications introduced by the -- in the
14 case of renters where the -- the renter may not
15 realize the benefits in terms of the energy efficiency
16 and/or the landlord might not, depending upon the
17 landlord-tenant agreement, right.

18 MR. CHRISTIAN MONNIN: And --

19 DR. WAYNE SIMPSON: So that -- that's
20 really where I think they have identified that there
21 are -- are questions to sort out in terms of
22 incentivizing landlords and tenants to jointly
23 participate in these programs.

24 Essentially, it's a joint participation
25 because they have a contract between them, right.

1 MR. CHRISTIAN MONNIN: And were you
2 able to -- to comment on today on what types of
3 landlords are we talking about; multi -- in -- in your
4 view, that would benefit to this participation? Would
5 it be multi-units or single home, what -- what -- what
6 would be --

7 DR. WAYNE SIMPSON: This -- this is --
8 this is multiunit.

9 MR. CHRISTIAN MONNIN: Okay. And in
10 addition to landlords, what about building managers?

11 DR. WAYNE SIMPSON: Well, there's an
12 intermediary to that -- that contract that's important
13 as well, yes.

14 MR. CHRISTIAN MONNIN: And you would
15 see some benefit to -- to adding managers also to the
16 landlords in this participation?

17 DR. WAYNE SIMPSON: I don't think
18 their role in the process of enhancing energy
19 efficiency should be excluded, no, no.

20 MR. CHRISTIAN MONNIN: Thank you, Dr.
21 Simpson, Dr. Compton. Mr. Chair, those are my
22 questions, thank you.

23 THE CHAIRPERSON: Thank you, Mr.
24 Monnin. M. Hacault...?

25

1 CROSS-EXAMINATION BY MR. ANTOINE HACAULT:

2 MR. ANTOINE HACAULT: Yes, good
3 afternoon, members of the Board, Doctors Compton and
4 Dr. Simpson. My name is Antoine Hacault. I represent
5 the Manitoba Industrial Power Users group, and I'll
6 have some questions with respect to your -- your
7 report and some of the evidence.

8 I'd like to start with page 2 of our
9 book of documents 23-3. It's our third book of
10 documents. And I appreciate you weren't here for this
11 part of the hearing, but this table was put to
12 Manitoba Hydro witnesses with the top line being the
13 plan -- and when I say "the plan" that's beyond the
14 rate increase request of Manitoba Hydro as stated by
15 it compared to a 3.95 percent scenario which -- and it
16 talks about domestic revenue.

17 Do you recall when you were doing your
18 evidence whether or not you were considering the
19 impact -- and I appreciate you said just over seven
20 (7) years in your study, but the impact of taking
21 three point six -- six -- six one six billion dollars
22 out of the ratepayer's pocketbook and putting it into
23 Manitoba Hydro's pocketbook?

24

25 (BRIEF PAUSE)

1

2 DR. JANICE COMPTON: Sorry, I'm not
3 exactly clear what you're asking. Is it -- are we
4 looking at -- are you asking whether or not the last
5 three (3) years, we -- which we did not look at?

6 MR. ANTOINE HACAULT: Let's take it in
7 small bites then. You didn't consider the impact on
8 Manitoba consumers of taking out in 2026 about half a
9 billion dollars from ratepayers' pockets and putting
10 it into Manitoba Hydro's pockets, did you?

11 DR. JANICE COMPTON: No, we only
12 looked at the seven (7) years because our
13 understanding was after that the proposal was for rate
14 increases at the rate of inflation and since the model
15 is done in real terms, then it would have no effect on
16 -- on the economy.

17 But it's assumed that there -- the rate
18 increases are increasing at the rate of inflation
19 every year.

20 MR. ANTOINE HACAULT: Okay. So your
21 model assumes that there is no impact by taking in
22 2026 \$517 million from the ratepayers' pocket because
23 we're comparing one (1) scenario to the other; am I
24 correct? It assumes that there is absolutely no
25 impact and -- and no difference in Hydro having \$517

1 million in its pocket as opposed to consumers having
2 that in their pocket?

3

4 (BRIEF PAUSE)

5

6 DR. JANICE COMPTON: I would say no --
7 no additional impact other than the -- the model
8 already is allowing for the interactions in the
9 economy. So that would have the effect there but if
10 the rates are going up by inflation, then there's no
11 additional impact that wouldn't already be captured in
12 the model so.

13 MR. ANTOINE HACAULT: I'm trying to
14 better understand that as I've indicated we act for
15 industrial companies and we put one (1) number here,
16 which was an average of how it would impact the
17 largest nine (9) customers.

18 But in 2026 under one rate path, the
19 total revenue received, including from industrials,
20 would be \$2.2 billion approximately.

21 Do you see that?

22 DR. JANICE COMPTON: Yes.

23 MR. ANTOINE HACAULT: Okay. When
24 compared to the proposed plan -- so if we go on a
25 different trajectory, those companies under that

1 different rate trajectory in 2026 won't have the
2 benefit of investing certain funds and using those
3 funds to expand their operations because they're now
4 committed to giving that money, which will be part of
5 the half million dollars, to Manitoba Hydro to allow
6 it to borrow less money.

7 Do you understand why I'm asking
8 whether your model fully considers the impact on
9 businesses of being on that rate path where annually
10 they don't stop giving the extra money in 2025, they
11 have to make business decisions each and every year
12 after that with less money.

13 Does your model capture that?

14 DR. JANICE COMPTON: Perhaps -- yeah,
15 we -- we stopped after seven (7) years but -- perhaps
16 I'm not understanding what we're comparing here. If
17 there's -- the model that we're looking at is
18 comparing the 7.9 for six (6) years and then 3.4
19 relative to a 1.9 inflationary increase.

20 So that's what our model's comparing.
21 So then if the price goes down -- the rate increases
22 go down to 1.9 after that, then there's no -- there's
23 -- there's no change in the model because it's --
24 we're looking at comparing inflation to inflation.
25 Whereas it looks like you're looking at inflation 2-0,

1 is that --

2 MR. ANTOINE HACAULT: No, the model --
3 I think maybe where the disconnect is between the
4 model and -- and what happens in actual life for
5 businesses is that your model seems to assume, am I
6 right, that once we revert to inflationary increases
7 the businesses somehow get the benefit of where they
8 would've been under a 3.95 percent plan over ten (10)
9 years. That's what your model assumes.

10 It doesn't say, for example, that
11 there's going to be \$40 million or so taking out of
12 that company's revenues and it won't have that \$40
13 million to make an expansion plan come to fruition.
14 It won't have those dollars to say, well, listen I'll
15 price my product differently because already embedded
16 in the 7.9 plan, as opposed to the rate request I
17 understand the difference, is that they're paying to
18 Manitoba Hydro a chunk of that half a billion dollars
19 each and every year and that money is no longer
20 available for them.

21 Do you understand the difference?

22 DR. JANICE COMPTON: I'm sorry, I
23 don't maybe you can...

24 DR. WAYNE SIMPSON: Let me have a
25 crack at this. Well, one (1) thing is that a 2026

1 dollar is not a 2019 dollar, right. So these numbers
2 are all nominal dollars and we've got 2 percent
3 inflation occurring each and every year, which the
4 model is discounting in the sense that it's saying
5 that if all prices go up by 2 percent, including
6 electricity prices, the model won't tell us that there
7 will be any net impact because nothing's really
8 change.

9 But I'm not sure beyond that -- I -- I
10 think what you're trying to suggest is that when we
11 stop at 2025, there would be ongoing costs to
12 businesses which we reflected in job losses,
13 additional job losses after that point.

14 And I don't think the model is telling
15 us that. The job losses would stop once the rate
16 increases went back to inflation. But -- and -- and -
17 - it's difficult to compare, as I say, because the
18 2026 dollars are not 2019 dollars. There's a 15
19 percent inflation factor in there.

20 MR. ANTOINE HACAULT: Now, Manitoba
21 Hydro's plan was portrayed in the very first day of
22 its presentations, and it was depicted on slide 30,
23 which is part of our second book of documents, MIPUG-
24 23-2. Maybe this will help better illustrate the
25 difference.

1 So, in its initial presentation it
2 depicted its plan with the dashed blue lines which go
3 up until 2027. So the ten (10) years and then have a
4 sharp decrease. And I'll bring you to the underlying
5 data. Compared to a 3.95 rate path which is in the
6 red dotted lines.

7 So as I understood you, Dr. Simpson, in
8 2026 we see that there's quite a bit of additional
9 money, and I've put an actual number to that being
10 collected under Hydro's proposed rate plan and again
11 in 2027.

12 Do you see that firstly, visually now?

13 DR. WAYNE SIMPSON: Yes. Okay.

14 MR. ANTOINE HACAULT: And if we go to
15 the data itself, it's found in Manitoba Hydro rebuttal
16 appendix 1.7, page 1 of 2. And if we can increase the
17 size of that so we can see the year 2027 and we'll see
18 the -- two (2) lines down, you'll see there is on the
19 left-hand side "price increase."

20 Have you found that, Dr. Simpson?

21 DR. WAYNE SIMPSON: Two (2) lines down
22 from where?

23 MR. ANTOINE HACAULT: On the left-hand
24 side it says "units" and then it says "price
25 increase."

1 DR. WAYNE SIMPSON: Yep.

2 MR. ANTOINE HACAULT: And if we follow
3 that column, this is the data that underscores the
4 visual that I gave you. So that we see the requested
5 rate increase, it's averaged or I mean rounded up so
6 it's not 3.36 its shown as 3.4 and then the requested
7 rate increase of 7.9 percent. And then what follows
8 after that is what has been described by Manitoba
9 Hydro as its plan.

10 Are you following me so far?

11 DR. WAYNE SIMPSON: Yeah, yep.

12 MR. ANTOINE HACAULT: Okay. And if we
13 go across to year 10, you recall visually there was a
14 sharp decline on the previous graph? So if we go --

15 DR. WAYNE SIMPSON: Yes, yes.

16 MR. ANTOINE HACAULT: -- year 10 under
17 "price increase," we see that the price increase is
18 negative 19.8 percent.

19 Do you see that?

20 DR. WAYNE SIMPSON: Yes, I do.

21 MR. ANTOINE HACAULT: And that is
22 under a table headed, if we go to the top left-hand
23 side, Manitoba Hydro Proposed Rate Path.

24 Do you see that so far, sir?

25 DR. WAYNE SIMPSON: Yep.

1 MR. ANTOINE HACAULT: So my question
2 is: Were you able to model whether or not that kind
3 of proposed rate path with a nearly 20 percent
4 decrease in year 10 would be a beneficial thing for
5 the Manitoba economy?

6 DR. WAYNE SIMPSON: Well, the short
7 answer is no, we did look at this, the 20 percent
8 reduction in price in year 10 is -- it was news to me
9 in terms of -- of the proposal and a long way into the
10 future.

11 MR. ANTOINE HACAULT: From an economic
12 -- econometric analysis, do you have any insight as to
13 whether for an economy there's a difference on how the
14 economy can and should react when we have a contrast
15 that's shown here 3.95 percent rate increases versus a
16 rate path that in year 10 would lead you to a 20
17 percent reduction?

18 DR. WAYNE SIMPSON: Well, here I think
19 we get some information from the affordability report
20 and the -- some of the scenarios they looked at
21 because in those what you saw, for example, in terms
22 of the effects on consumers in terms of energy poverty
23 was it made a great deal of difference what that
24 trajectory was and the one (1) -- the paths that
25 involved fairly sharp increases in the early years,

1 the 7.9 percent for four (4) years scenario, led to
2 much higher rates of energy poverty over the
3 intermediate term right up to 2029 than did paths that
4 were more of the sort of 3.95 percent a year for --
5 for twelve (12) years, or whatever the scenario was.

6 So from that perspective, obviously,
7 frontloading -- I think that's the correct term --
8 frontloading the rate increases has a more damaging
9 effect on -- on households in terms of -- at least in
10 terms of energy poverty than -- than having smoother
11 rate increases over a longer period.

12 MR. ANTOINE HACAULT: And I think you
13 use -- the rate increases but let's make it clear and
14 that's for the benefit of the public and the panel.

15 That apart from a 7.9 percent rate
16 increase as of April 2018, the rest is depicted as
17 Manitoba Hydro's ten (10) year plan --

18 DR. WAYNE SIMPSON: Right.

19 MR. ANTOINE HACAULT: -- on its
20 slides. Now, I want to bring your attention to page
21 58 of Manitoba Hydro's rebuttal. It's the same
22 document.

23 And you see the reason why I'm putting
24 these questions to you Doctors Compton and Dr.
25 Simpson, I want to better understand your view as to

1 whether you agree that a twenty (20) year timeframe,
2 or disagree, ought to be examined to be able to offer
3 your opinion as economists.

4 DR. WAYNE SIMPSON: Sorry, this
5 evidence is from...?

6 MR. ANTOINE HACAULT: It's the
7 rebuttal evidence of Manitoba Hydro's --

8 DR. WAYNE SIMPSON: Oh, Manitoba
9 Hydro.

10 MR. ANTOINE HACAULT: -- in reaction
11 to your evidence, sir.

12 DR. WAYNE SIMPSON: Right.

13 MR. ANTOINE HACAULT: And at line 12
14 of this evidence it indicates:

15 "However, in failing to address
16 longer term impacts of comparative
17 rate paths, Dr. Simpson and Dr.
18 Compton provide an incomplete
19 picture."

20 DR. WAYNE SIMPSON: Well, again, just
21 add on -- on the energy poverty material, it was clear
22 that the proposed increase of 7.9 percent for six (6)
23 years led to a permanently higher rate of energy
24 poverty. And if you take that as an impact on
25 households then -- and that was 20 years hence than

1 the 3.95 percent path over that period.

2 So even if you look out to twenty (20)
3 years that -- that that is the case for that. I -- we
4 don't have any other simulation evidence. We did not
5 -- we did not look at this.

6 MR. ANTOINE HACAULT: Dr. Compton, I
7 saw you also lit up your light on your microphone.

8 DR. JANICE COMPTON: Yeah. No, I
9 would -- I would agree that it's an incomplete
10 picture. I think we're providing a piece of -- a
11 piece of the evidence. We -- to provide an estimate
12 of what would occur twenty (20) years out on both.

13 Like, I think that would be pushing the
14 model to far. We want to be as accurate as we can in
15 -- in forecasting and I think, you know, with the
16 limitations of the model looking out twenty (20) years
17 with the assumptions that the -- the model is assuming
18 that there's a stability that we're looking at, all
19 else equal, then pushing it out twenty (20) is -- is
20 maybe not going to be helpful.

21 So, the seven (7) years we started with
22 looking at the 7.9 and then dropping it down for that
23 last year following that was the rate of inflation
24 that we had -- the information that we had seen,, so,
25 that was what gave us the first seven (7) years. Then

1 comparing the alternative rates with the 3.95 and 4.1
2 for over a longer period of time but we felt it was
3 only -- it was only possible with the model to, again,
4 compare it for the seven (7) years. To push that
5 further wouldn't have been informative.

6 MR. ANTOINE HACAULT: Okay, thank you.
7 I wanted to get a bit of clarification on another item
8 that was raised and it relates to considering the
9 impact of spending under a 3.95 plan equal increases
10 versus the proposed plan that I've just shown to you
11 as depicted in the appendix, and on the slides
12 presented on December 4 by Kelvin Shepherd, the
13 President and CEO.

14 First, what assumptions did you use
15 with respect to Hydro spending. Does Hydro's spending
16 change depending on the rate increase that it gets?

17 DR. WAYNE SIMPSON: No. No, their
18 spending plans are more or less set. This -- this is
19 all about paying for the investments that they've
20 committed themselves to or that the province has
21 committed jointly with them.

22 MR. ANTOINE HACAULT: Okay. So your
23 assumption is consistent then, as I understand it,
24 with the presentation made by the President and CEO on
25 December 4 that, in his view, the plan as being

1 presented would reduce the borrowings required and to
2 have more cashflow to pay for the spending; is that
3 correct?

4 DR. WAYNE SIMPSON: Right. And this
5 is why we modelled. And this is where -- this is
6 where an input-output model is effective is in
7 modelling injections and withdrawals and -- and
8 because Hydro's plans are set and they're simply
9 taking additional revenue from rate increases and
10 using it to reduce debt, we think that it looks very
11 much like a withdrawal from the economy. It's not
12 being spent and, therefore, it's not stimulating the
13 economy.

14 So this is the kind of thing that the
15 input-output models are particularly adept at
16 understanding in terms of the way the economy will --
17 will respond to that.

18 MR. ANTOINE HACAULT: Thank you. I'd
19 like to switch subjects a bit, and it relates to Dr.
20 Yatchew's report and the introductory summary comments
21 that small Roman Numeral V - as in Viktor - paragraph
22 23.

23 Dr. Yatchew, in considering the
24 forecasts and the impacts, considered an item called
25 Regulatory Signaling. I didn't see that item being

1 discussed in your report, Doctors Compton and Simpson.

2 Do you agree that this is an
3 appropriate thing to take into account in modelling?
4 I'll quote for the record, so it's easier later on to
5 see what we were talking about.

6 "The regulatory decision made in
7 this proceeding, which ostensibly
8 deals with rate increases over a two
9 year test period, will have an
10 important impact on decision-making
11 by industry because it will signal
12 the likely future path of rate
13 increases.
14 next page] Approval of increases
15 that are close to the proposed 7.9
16 percent will suggest the acceptance
17 of Manitoba Hydro's arguments and
18 its focus on the time profile of
19 future financial ratios."

20 And my question to you is: Do you
21 agree or disagree that this is an appropriate item to
22 take into account?

23 DR. JANICE COMPTON: I would say that
24 Dr. Yatchew would be the expert on this but I would --
25 I would agree with him -- well, we wouldn't -- weren't

1 able to take this into account in our model since the
2 model isn't looking at the decision making of -- of
3 businesses and industries, we're just assuming their -
4 - their response and it also doesn't take into account
5 that there's a anticipatory response to potential rate
6 increases.

7 But I do believe that the -- if they're
8 -- they're anticipating further responses of 7.9
9 percent, we will see behaviours changing in advance of
10 that reduced investment and -- and such which -- which
11 actually could exacerbate the shorter term impacts on
12 the economy since they're -- if they're looking at
13 long-term investment plans, and assuming that there
14 will be 7.9 percents, even if it's not approved, that
15 will increase their reduction and demand for goods and
16 services further than what we have modelled because
17 we're just monitoring the actual fall.

18 MR. ANTOINE HACAULT: Thank you. I'll
19 take you to a slightly different subject, and to do
20 that I'll ask Ms. Villegas to put page 31 of 161, of
21 Morrison Park Associates report on the screen,
22 particularly at lines 3 to 11. And I'll give you the
23 opportunity to read that paragraph first before I ask
24 my questions. So, lines 3 to 11.

25

1 (BRIEF PAUSE)

2

3 DR. WAYNE SIMPSON: Okay.

4 MR. ANTOINE HACAULT: And you'll
5 recall that in cross-examination Mr. Kevin Williams
6 put to you that -- or whether you took into account
7 that there would be an increased cost in borrowing
8 when one (1) of the credit rating agencies downgraded
9 the Province of Manitoba credit rating.

10 Do you recall that line of questioning?

11 DR. WAYNE SIMPSON: Yes.

12 MR. ANTOINE HACAULT: Okay. Now,
13 focusing on lines 9 to 11 where in 2016 Standard &
14 Poor's, that's S&P, downgraded the province's credit
15 rating and, similarly, in July 2017 when there was a
16 further downgrade in credit rating, you will see that
17 the yield difference actually was beneficial, in other
18 words, there wasn't a corresponding rate increase.

19 My question to you is: Is it an
20 accepted econometric analysis practice to ignore
21 actual evidence and assume the opposite facts to be
22 true?

23 DR. WAYNE SIMPSON: Well, I think what
24 you're asking is: Does this evidence raise a question
25 as to whether, in fact, a downgrade in our -- in

1 Manitoba's credit rating automatically leads to a -- a
2 higher differential with the Canada 10 year bond
3 yields and the answer seems to be no.

4 MR. ANTOINE HACAULT: And my question
5 to you is: Is it correct procedure and analysis to
6 assume that the opposite is true?

7 DR. WAYNE SIMPSON: I think this is --
8 this is very interesting counter evidence to that
9 conjecture, yes. So, without knowing more about it,
10 I -- I couldn't say more than but --

11 MR. ANTOINE HACAULT: Thank you.

12 DR. WAYNE SIMPSON: -- I think -- I
13 think your point is -- is a good one.

14 MR. ANTOINE HACAULT: Now I'd like to
15 take you to page 15 of your evidence. And this will
16 be the last area that I'll be canvassing. At the
17 bottom of the page there's a heading indicating
18 robustness tests. And I'll be asking questions with
19 respect to that particular paragraph as it relates to
20 industries.

21 Now, who should I be addressing these
22 questions to; Dr. Compton or Simpson or --

23 DR. JANICE COMPTON: I start.

24 MR. ANTOINE HACAULT: -- I guess I can
25 leave it open for either. With respect to industries

1 itself, as I understand it, you didn't do an industry-
2 specific analysis in -- in this study; correct?

3 DR. JANICE COMPTON: That's correct.

4 MR. ANTOINE HACAULT: Okay. Now, with
5 respect to the top consumers industries in Manitoba,
6 some of them are more involved in electrochemical
7 processes. And the reason why I want to go through
8 some of these items is that later in the paragraph you
9 say:

10 "Ignoring the first two adjustments
11 implies that our estimates will
12 overestimate the demand decline for
13 other inputs."

14 I want to explore that to see whether
15 or not the first two (2) items are even realistic
16 possibilities for the top consumers in this province.
17 So for electrochemical industries, which are high
18 consumers of electric power, do either of you know
19 whether it is even possible for those industries to
20 adjust their production method to a less energy
21 intensive method?

22

23 (BRIEF PAUSE)

24

25 DR. JANICE COMPTON: I wouldn't

1 pretend to know the production processes of the
2 industries but to the extent that they could switch to
3 other energy sources it may be possible. It might not
4 be done at this point given the incentives of the
5 different price ratios from -- electricity might be
6 relatively cheaper now but if the electricity prices
7 goes up it maybe become efficient for them to switch
8 to different energies sources.

9 But because we didn't know the -- we
10 don't know the ins and outs of all of the two hundred
11 and thirty-seven (237) industries, that's why we made
12 the assumptions that we did.

13 MR. ANTOINE HACAULT: Okay and just to
14 remind you that I'm focusing specifically on the top
15 consumers, and I further narrowed it down to the
16 electrochemical industry when I asked this particular
17 question. So --

18 DR. JANICE COMPTON: Can I clarify,
19 sorry. So the top consumers are you -- do you mean
20 the consumers that consume the most energy or the most
21 energy --

22 MR. ANTOINE HACAULT: Correct.

23 DR. JANICE COMPTON: -- or the most
24 energy as a proportion of their inputs?

25 MR. ANTOINE HACAULT: They would be

1 both.

2 DR. JANICE COMPTON: Okay.

3 MR. ANTOINE HACAULT: So

4 electrochemical industries, are you suggesting that an
5 electrochemical procedure, for example, the chlorate
6 plants that separate the sodium from the chloride by
7 putting big electrical processes to separate those,
8 that that somehow could be changed to a process that
9 uses gas.

10 Is that what you're suggesting?

11 DR. JANICE COMPTON: No, I'm not
12 assuming that at all. I'm saying that we don't -- we
13 don't know and so that's because it's -- it's unclear
14 how the industries are going to adjust to the -- the
15 higher Hydro prices, we begin with a zero price
16 elasticity saying that they -- they don't adjust.
17 They don't reduce and then we moved from there to look
18 at robustness tests.

19 But it would be beyond the scope of our
20 research to consider each industry separately and look
21 specifically at how each would respond.

22 MR. ANTOINE HACAULT: Okay. And if
23 they couldn't respond that way then we would not be
24 saying with respect to those industries that your
25 estimates represent an overestimate, would we?

1 Because if those are eliminated, the
2 overestimates are taken out of play; correct?

3

4 (BRIEF PAUSE)

5

6 DR. JANICE COMPTON: I think on our
7 base results where we include a zero price elasticity,
8 we're assuming that they're not adjusting; that our
9 basic assumption is that they're not adjusting their
10 electricity consumption.

11 So we're saying, to the extent that
12 they could, our results are overestimating. So if --
13 if your claim is that they can't, then our -- our base
14 assumptions would be close -- closer to -- in
15 agreement with what you're saying.

16 MR. ANTOINE HACAULT: Okay. And I'm
17 suggesting the same would hold true of the pulp and
18 paper mills and mines up north who are reliant on
19 electricity as opposed to gas for their processes
20 because they don't have access to gas.

21 DR. JANICE COMPTON: Absolutely.

22 MR. ANTOINE HACAULT: Okay.

23 THE CHAIRPERSON: Mr. Hacault, you've
24 got a couple of minutes.

25 MR. ANTOINE HACAULT: Okay, thank you.

1 CONTINUED BY MR. ANTOINE HACAULT:

2 MR. ANTOINE HACAULT: Now, with
3 respect to any northern communities where these major
4 employers would be mines or pulp and paper mills,
5 would those micro economies have much flexibility in
6 absorbing or creating jobs if a plant were to close?

7 DR. WAYNE SIMPSON: I think you're
8 asking how would a -- one (1) industry town cope with
9 the closure of its main industry? Not well.

10 MR. ANTOINE HACAULT: Okay. Now, the
11 only other thing that -- that wasn't identified in the
12 three (3) different options listed on page 15, was
13 about expansion plans.

14 Do you have any comments as to whether
15 or not different rate paths might affect expansion
16 plans that companies might have?

17 DR. JANICE COMPTON: I think we
18 considered that sort of implicit in the -- along with
19 the relocating and so it's a reduction in the industry
20 output whether or not that means that the industry
21 output falls because some firms are exiting the
22 province and leaving altogether or it falls because
23 they reduce their investment or it falls because they
24 reduce their output. Because we're looking at the
25 industry and not firm specific, we can't say whether

1 or not the decline in the industries is due to a, you
2 know, an exodus or a reduction in investment or just a
3 -- a dampening of production. It captures all -- it
4 captures all of them with the -- at the industry
5 level.

6 MR. ANTOINE HACAULT: Thank you very
7 much, Doctors Compton and Simpson. Those are my
8 questions.

9 THE CHAIRPERSON: Thank you, Mr.
10 Hacault. Mr. Bedford...?

11

12 CROSS-EXAMINATION BY MR. DOUG BEDFORD:

13 MR. DOUG BEDFORD: Thank you. Doctors
14 Compton and Simpson, good afternoon. My name is Doug
15 Bedford and I am legal counsel for Manitoba Hydro
16 today. Seated beside me is Ms. Liz Carriere who is
17 Manitoba Hydro's manager of strategic and financial
18 planning.

19 If we could look at Appendix C, for a
20 moment, of your report. I found a statement in
21 Appendix C about your methodology that to me was
22 confusing, and I'm anticipating that you'll be able to
23 sort out the confusion.

24 Page 26. At the top of the page. If I
25 look at the third sentence you wrote, and I quote:

1 "As noted in Footnote 7, we assume
2 that the revenue from the increased
3 Hydro price is re-circulated within
4 the economy." Unquote.

5 Your assumption is exactly the
6 opposite, was it not?

7 DR. JANICE COMPTON: Yeah.

8 MR. DOUG BEDFORD: And the reference,
9 I conclude, to Footnote 7 was a typo and should've
10 been Footnote 6.

11 DR. JANICE COMPTON: Okay. Sorry,
12 that was -- is that on -- no it was referring to
13 Footnote 7, unless I have an older version here. Oh,
14 I think I might. That typically price increases are
15 transfers from one (1) sector to the economy to
16 another, and the input/output model would not be the
17 best option for analyzing the impact of a price
18 change. So that is the footnote that we're looking
19 at.

20 It goes on to say that we assume the
21 revenue from the hydro price increase will not be --
22 will not be re-circulated, which should have been what
23 was noted in the paragraph that you have put up. So
24 it should say:

25 As noted in Footnote 7, we assume

1 that the revenue from the increased
2 prices will not be re-circulated in
3 the economy.

4 My apologies.

5 MR. DOUG BEDFORD: Thank you. In Dr.
6 Yatchew's written evidence filed in this proceeding,
7 he describes what you have done as a partial
8 equilibrium analysis.

9 Would you agree with that description
10 of your work?

11 DR. JANICE COMPTON: Yes.

12 MR. DOUG BEDFORD: And he contrasted
13 that with a general equilibrium analysis. And I
14 understand that it is much more difficult for people
15 practicing in your profession to do a general
16 equilibrium analysis.

17 Is that correct?

18 DR. JANICE COMPTON: Yes.

19 MR. DOUG BEDFORD: But if one had done
20 a general equilibrium analysis for this proceeding,
21 what it would have done is capture the fact that when
22 some businesses reduce employment others react by
23 taking advantage of the so-called freed-up labour to
24 hire.

25 Is that correct?

1 DR. JANICE COMPTON: It -- the -- that
2 if there was an increase in the number of job seekers,
3 the assumption is that the wages would fall for the --
4 and then that would spur employment. So the -- you're
5 correct, except that there's a step -- a step missing
6 there in that it reduces labour income.

7 MR. DOUG BEDFORD: So my understanding
8 then is if a general equilibrium analysis had been
9 done for this hearing, the conclusion or result would
10 have been to modify your calculation of jobs not
11 created if my high -- my clients rate plan comes to
12 fruition?

13 DR. WAYNE SIMPSON: Yean. And
14 increase the loss in labour income correspondingly. I
15 think this was the point that Dr. -- one of the points
16 that Dr. Grant was making.

17 MR. DOUG BEDFORD: He anticipated me
18 for once.

19 Is one (1) effect of using a simple
20 model, such as you have used, that when you hold all
21 variables constant, that the one (1) variable you're
22 interested in, employment in this case, gets
23 overstated in the analysis?

24 DR. JANICE COMPTON: I -- I don't
25 think that follows, no. It's -- no, I don't -- I --

1 perhaps you can explain why that would be the case. I
2 don't see how that -- that follows that it would be
3 overstated, except that you're -- you know, to the
4 extent that there's other things happening in the
5 economy that might increase employments. But without
6 making all those further assumptions, then you're not
7 looking at the impact of the proposed rate increases
8 alone, which is what we wanted to do.

9 MR. DOUG BEDFORD: Thank you. You
10 cite in the bibliography to the joint paper that
11 you've presented today, a paper that Dr. Simpson and
12 Harvey Stevens wrote four (4) years ago, that was
13 filed in the 2014 NFAT proceeding. I'd like us to
14 look at Table 1 from that report cited in your
15 bibliography, and my understanding is it was provided
16 to you Friday, when I decided that this might be of
17 some modest use to us this afternoon.

18 So we have on the screens Table 1. My
19 understanding of what is presented in Table 1 is that
20 it shows, just as the title indicates, percent of
21 total consumption allocated to household goods and
22 services in Manitoba. And it further goes on to show
23 fourteen (14) different typical categories of the
24 spending of Manitoba households.

25 Have I generally understood that

1 correctly?

2 DR. WAYNE SIMPSON: Yes. guess this
3 is from the survey of household spending.

4 MR. DOUG BEDFORD: And the fifteenth
5 (15th) and last line item is called in this table
6 Household Balance.

7 Am I correct in understanding that's
8 just another way of saying what percentage of
9 household income is being saved, or in the case of low
10 income, is being reduced.

11 DR. WAYNE SIMPSON: That would make
12 sense, yes.

13 MR. DOUG BEDFORD: And, Dr. Simpson, I
14 observed when I read your paper on affordability, that
15 you repeated a finding that comes out of the bill
16 affordability study that my client was involved in,
17 which concluded that 30 percent of Manitoba Hydro's
18 residential customers fall below 125 percent of the
19 low-income cutoff.

20 Do you recall that?

21 DR. WAYNE SIMPSON: Subject to check,
22 yes.

23 MR. DOUG BEDFORD: Which means then,
24 I'm sure you'll agree, that 70 percent of Manitoba
25 Hydro's residential customers must fall above 125

1 percent of the low-income cutoff, correct?

2 DR. WAYNE SIMPSON: Yes. If -- if the
3 30 percent figure is correct, yeah.

4 MR. DOUG BEDFORD: So if we returned
5 to stare at Table 1, would you agree with me that the
6 70 percent of my client's residential customers who
7 fall within the 125 percent above low-income cutoff
8 must, no doubt, be in the column headed higher income,
9 with perhaps a few in the column headed near low
10 income?

11 DR. WAYNE SIMPSON: With the caveat
12 that here -- here we use the low-income measure, which
13 is different from the LICO.

14 MR. DOUG BEDFORD: Yes. And in this
15 table, both higher income households and near low
16 income households show that some portion of their
17 income is going to savings, correct?

18 DR. WAYNE SIMPSON: Yes.

19 MR. DOUG BEDFORD: So I'd suggest to
20 you, Dr. Compton, and you, Dr. Simpson, that if a
21 residential customer of Manitoba Hydro presently is
22 allocating some of his or her income to savings, it is
23 just as likely, if there is an increase in their Hydro
24 electricity rates, that they will choose to reduce
25 their savings to pay for the increase, as opposed to

1 reducing their spending on any of the thirteen (13)
2 other categories of household expenditure.

3 Is that not correct?

4 DR. WAYNE SIMPSON: You're focusing on
5 the higher income category, I gather. The near low
6 income category, which I think contains the bulk of
7 residential customers because the -- the distribution
8 of -- of incomes is -- is humped, in that there are
9 low income in the bottom of the higher income
10 category. Their -- their household balance is -- is
11 pretty close to zero.

12 MR. DOUG BEDFORD: But the point
13 remains, where a household is presently allocating
14 some of its after-tax income to savings, it is just as
15 likely, if its electricity costs go up, that it will
16 reduce its savings, as opposed to reducing it
17 spending, correct?

18 DR. JANICE COMPTON: I would say not
19 as opposed to but in addition to.

20 MR. DOUG BEDFORD: And would not
21 another reaction to rising electricity rates be not
22 reduce spending, but a reallocation of some of your
23 spending, perhaps to buy more effec -- energy
24 efficient house -- household goods?

25 DR. WAYNE SIMPSON: That might be the

1 case, yes. That isn't captured, if that's what you're
2 asking, by -- by this analysis --

3 MR. DOUG BEDFORD: No.

4 DR. WAYNE SIMPSON: -- in Table 1.

5 MR. DOUG BEDFORD: And to the extent
6 that we now think that some savings on the part of
7 residential customers might be used to pay for an
8 increase, if one were able to factor that into the
9 analysis that you have done, that would tend to reduce
10 your estimated total of jobs not created, would it
11 not?

12 DR. JANICE COMPTON: It would, but I'd
13 -- I -- I believe the -- the effect would be very
14 similar to the results that we have now for a number
15 of reasons.

16 First, as Professor Simpson noted, most
17 of the households would not fall into that 26 percent
18 savings, but closer to the 3 percent. So if we're
19 looking at considering savings as a category of
20 spending, it would be a small category of spending for
21 most households.

22 So if we're reducing -- reducing the
23 savings in addition to reducing the other categories,
24 the difference in the reduction in other categories, I
25 believe, would be small, and it would not -- it would

1 not have a significant difference on our results.

2 DR. WAYNE SIMPSON: But -- but in
3 response to Dr. Grant's similar line of questioning, I
4 think we undertook to look at this matter further,
5 insofar as the -- the model allowed.

6 MR. DOUG BEDFORD: And thank you for
7 reminding me of the undertaking you've taken. My
8 client, having listened to the undertaking that you've
9 made, assumes that you will do a new run, I gather
10 they are called, against the base case of inflationary
11 increases.

12 And if my client's assumption is right,
13 we would ask that the undertaking be expanded by one
14 (1) further step, and that you do a run against a base
15 case assumption of 3.95 percent rate increases.

16 DR. BYRON WILLIAMS: Just to be clear,
17 Mr. Bedford, I think the counterfactual in the model
18 is the CPI of 1.9 percent. So I'm understanding your
19 question is to do it -- to do runs both at seven point
20 nine (7.9) and at three point nine five (3.95).

21 Is that what you're asking?

22 MR. DOUG BEDFORD: Ms. Carriere nods.

23 DR. BYRON WILLIAMS: And --

24 MR. DOUG BEDFORD: I agree.

25 DR. BYRON WILLIAMS: -- sub -- subject

1 to confirmation from the witnesses, so this would be
2 comparing it to the counterfactual of 1.9 percent,
3 subject to their confirmation, that would be fine.

4 DR. JANICE COMPTON: Yeah, that's just
5 running the model through twice, one (1) at seven
6 point nine (7.9), one at three point nine five (3.95),
7 with the savings as a separate category.

8 DR. WAYNE SIMPSON: Insofar as the
9 model is informative, along those lines we'll --
10 that's what -- that's really the first thing we're
11 checking, and then...

12

13 --- UNDERTAKING NO. 51 ADDITION: Run against a base
14 case assumption of
15 3.95 percent rate
16 increases

17

18 CONTINUED BY MR. DOUG BEDFORD:

19 MR. DOUG BEDFORD: Thank you. So
20 before we leave Table 1 on our screens behind, I
21 notice that four (4) years ago you used an elasticity
22 for the price of electricity of, in effect, minus zero
23 point five nine (0.59). For your purposes in the
24 joint paper you used a negative zero point two nine
25 (0.29). My client at this hearing has been using a

1 negative point -- zero point two eight (0.28). Dr.
2 Yatchew, on Friday, suggested to us all it -- for a
3 short-term, one should use a negative zero point one
4 (0.1), and for the longer term, negative zero point
5 three five (0.35).

6 I see --

7 DR. WAYNE SIMPSON: What -- can I stop
8 you there?

9 MR. DOUG BEDFORD: Yeah, sure.

10 DR. WAYNE SIMPSON: These aren't the
11 same elasticities. Those are price elasticities
12 you're quoting.

13 This is an income elasticity designed
14 to show that certain items are inc -- income inelastic
15 like electricity, so that, as incomes decline, the
16 consumption of that good actually goes up, which is
17 what we -- we see in the data, including the IR.

18 So this -- this is identifying the
19 necessities, if you will, electricity, food, shelter,
20 clothing, in terms of elasticities. Although,
21 interestingly, clothing turns out to be a more or less
22 unitary elastic.

23 So these aren't comparable to the price
24 elasticities. One (1) is a response to prices, the
25 other is a response to incomes.

1 MR. DOUG BEDFORD: Thank you. I
2 wondered whether or not I was misreading the reference
3 to zero point five nine (0.59).

4 Can I summarize the work that you've
5 done in the joint paper as being: The gist of what
6 you conclude is if one increases electricity rates in
7 this province, starting in 2018/2019 fiscal year, and,
8 in accordance with my client's plan or forecast, were
9 -- can -- were to continue to do that for seven (7)
10 years, and I'll add the assumption that you send all
11 the new revenue raised from such an increase out of
12 the province to pay down debt, that there will be
13 fewer jobs created in this province?

14 DR. JANICE COMPTON: Correct.

15 MR. DOUG BEDFORD: And conversely, can
16 we also then logically conclude that if one were to
17 decrease electricity rates, or, as you've said, hold
18 increases to the rate of inflation, that more jobs
19 would be created in the Manitoba economy?

20 DR. JANICE COMPTON: If the rates were
21 decreased and the savings to households were spent on
22 goods and services, which is the assumption -- the
23 reverse assumption that we made, then yes we would see
24 an increase in the jobs created, relative to the rate
25 of inflation. So the second part of your statement

1 was if the rates decreased or remained at inflation.
2 So this is all relative to rates being at the rate of
3 inflation.

4 MR. DOUG BEDFORD: So, to return to my
5 client's rate plan or forecast, it looks out twenty
6 (20) years. And your observation or conclusion or
7 opinion, is that there will be fewer jobs created in
8 the next seven (7) years as a consequence of increases
9 higher than the rate of inflation, seven (7) lean
10 years, so to speak, to be followed, further, what's
11 left of the twenty (20) years, eleven (11) years, when
12 rates will either fall or be held constant at the rate
13 of inflation. So seven (7) lean years of fewer jobs
14 followed by eleven (11) years creating more jobs.

15 Have I understood that correctly?

16 DR. JANICE COMPTON: Again with the
17 caveat that the -- this is the -- the model that we're
18 looking at is relative to the rate of inflation. So
19 those years that it's at the rate of inflation we
20 would be at par.

21 But yes it would make sense that it --
22 yeah, no new -- no jobs greater than or less than the
23 expected rate.

24 MR. DOUG BEDFORD: Could we look,
25 please, for a moment at page 8 of your report, the

1 joint report. The first sentence at the top of the
2 page obviously carries over from the bottom of page 7.

3 But what you endeavour to do here is
4 summarize three (3) probable, as I understand it,
5 responses of industry to an electricity rate increase
6 in this province. And in summary you suggest that
7 either businesses will pass on a rate increase, or
8 perhaps reduce their spending on other inputs to
9 accommodate a rate increase, or, thirdly and finally,
10 will reduce their profits as a response to a rate
11 increase. But I'd suggest to you that there is fourth
12 response, which many businesses will no doubt choose
13 before any of the three (3) that you've identified,
14 and that is to draw down their tax deferral accounts.

15 What that not be correct?

16

17 (BRIEF PAUSE)

18

19 DR. JANICE COMPTON: I -- I don't know
20 enough about the tax deferral accounts to make an
21 informed opinion on that.

22 MR. DOUG BEDFORD: Thank you. On
23 Friday last, we were all reminded that when oil prices
24 doubled in the mid-1970s in the space of about one (1)
25 year, the impact on US GDP was 3 percent. My client's

1 rate plan or forecast over seven (7) years will
2 result, we've heard, in a price increase of about half
3 over what Manitobans currently pay. But your model is
4 predicting that the impact on GDP in Manitoba will be
5 in the magnitude of 3.63 percent, when we are reminded
6 that a doubling of oil prices resulted in an impact to
7 GDP of 3 percent.

8 But your conclusion through use of your
9 model is that an increase of half the current price in
10 electricity will result in a GDP impact of 3.63
11 percent, I suggest to you that something seems to be
12 seriously out of order with the prediction your model
13 is giving you.

14

15 (BRIEF PAUSE)

16

17 DR. WAYNE SIMPSON: Well, the other
18 alternative is that Dr. Yatchew is making a casual
19 comment about what happened when oil prices doubled in
20 the early 70s, and what happened to the economy
21 without attributing that. Well, implicitly
22 attributing it all to the effect of oil prices, when,
23 in fact, other things are happening.

24

 What we said all along is what we're
25 doing is looking at what the impact would be of higher

1 electricity prices, not taking account of whatever
2 else would happen, so that if you get other elements
3 of robust growth, then this will simply retard growth
4 and not -- not so -- actually need to contraction.
5 And we'd have to know more about what other things
6 went on during that period.

7 I mean, he's simply taking a
8 correlation between economic growth during that period
9 and the decl -- and the energy price increases, and I
10 think if he was more careful not attributing it
11 directly to what happened to energy prices --

12 DR. JANICE COMPTON: I think that --

13 DR. WAYNE SIMPSON: -- but I'll leave
14 that to Dr. Yatchew.

15 DR. JANICE COMPTON: And I add I
16 think that's similar to the comments made about
17 Ontario, that the Ontario economy has continued to
18 grow, even following the rate increases in hydro, and
19 manufacturing has continued at a similar pace as
20 before. And again, those are -- are correlations. We
21 don't know where they would have been if-- if the
22 hydro pri -- price changes hadn't gone through.

23 The other point I'll make about the oil
24 prices, that we're looking at a withdrawal from the
25 economy, whereas with the oil price increases, there

1 were, of course, sectors that benefitted from that
2 within the economy that would have dampened the
3 negative effects.

4 DR. WAYNE SIMPSON: And that's part of
5 the story in Ontario because we have its benefit from
6 declines in oil prices, as well as declines in
7 exchange rate, and that seems to have spurred the
8 Ontario economy.

9 MR. DOUG BEDFORD: If one accepts for
10 a moment that steep electricity rate increases are
11 undesirable for the creation of employment in
12 Manitoba, is there not still merit in a rate plan that
13 seeks an increase now that should avoid even steeper
14 increases in the near future, the next five (5) years,
15 in the event of a drought, in the event of rises in
16 interest rates, in the event of even lower export
17 revenues from the United States for electricity, or in
18 the event of a recession, which Dr. Yatchew warned us
19 Friday becomes ever more likely after nine (9) years
20 of a growing economy?

21 DR. WAYNE SIMPSON: Yeah. Now we're
22 talking about risk mitigation.

23 MR. DOUG BEDFORD: Indeed.

24 DR. WAYNE SIMPSON: As opposed to the
25 setting of rates. I would -- would think that's a

1 different topic. And looking at that, you'd want to
2 know more about the nature of these risks and -- and
3 how likely they are to occur and do some -- you could
4 do some fairly sophisticated risk assessments and
5 reach some conclusions without simply throwing out the
6 risks as possibilities. If we live in a risky world
7 we except that.

8 MR. DOUG BEDFORD: And again, if one
9 accepts for the sake of argument, your conclusion,
10 that when electricity rates are kept to the rate of
11 inflation there is more job growth --

12 DR. WAYNE SIMPSON: No, that's not
13 correct. If -- if rates were kept to the rate of
14 inflation, the model says it would have no impact on
15 jobs, positive or negative, and no impact on labour
16 incomes, and no impact on GDP growth.

17 MR. DOUG BEDFORD: So rate increase is
18 undesirable because they negatively impact job growth.

19 I've got that part correct?

20 DR. WAYNE SIMPSON: Above inflation,
21 yes.

22 MR. DOUG BEDFORD: Keep rates at the
23 rate of inflation and your economy will not experience
24 that negative impact.

25 Have I understood that correct?

1 DR. WAYNE SIMPSON: Yes.

2 MR. DOUG BEDFORD: So to --

3 DR. WAYNE SIMPSON: Two percent is the
4 benchmark.

5 MR. DOUG BEDFORD: To rephrase
6 slightly, if one is persuaded by your conclusion, and
7 rates for my client were held to the rate of
8 inflation, in order that there not to be a negative
9 impact on job growth, I ask you is that job growth
10 really desirable if it comes as a consequence of my
11 client having to borrow the money that it needs from
12 outside the province, money, which obviously has to be
13 repaid in the future with interest?

14 DR. JANICE COMPTON: I think there's
15 definitely going to be benefits to a rate increase.
16 Our -- our job here was to discuss what the costs are,
17 so that the Board can balance what is being asked for
18 with our -- the potential costs to the economy.

19 DR. WAYNE SIMPSON: There -- there are
20 a lot of the positions between a rate increase that is
21 of six percent, four (4) times the rate of inflation,
22 and a rate increase at the rate of inflation. So, you
23 know, those are not the only choices I would assume
24 that the Board is looking at.

25 MR. DOUG BEDFORD: If you'll allow me

1 a moment, please.

2

3

(BRIEF PAUSE)

4

5

MR. DOUG BEDFORD: Drs. Compton and
6 Simpson, I suppose, Dr. Simpson, in particular, I
7 respect the fact that you've contributed to two (2)
8 papers filed in this proceeding. And my recollection
9 is that you do not address, in either paper, the
10 subject of capital markets, bond yield curves, and the
11 impact of rating agencies and whatever approach they
12 take to my client or to the province. That's pretty
13 obvious because I read your papers.

14

Can you tell me whether you have ever
15 testified at a hearing or written papers on those
16 topics.

17

DR. WAYNE SIMPSON: No, I don't think
18 I have. I have looked a little bit at risk analysis
19 in other context for rate hearings, but not capital
20 markets, no.

21

MR. DOUG BEDFORD: So the answers I
22 heard you give a short while ago to questions that
23 originated out of looking at bond yield curves and
24 capital markets, one can respect the fact that you
25 make your living as an economist, but economists have

1 a wide variety of specialties, and, to repeat, this is
2 not your particular area of specialty, so your opinion
3 is no doubt worth more than mine, but something less
4 than those who work in?

5 DR. WAYNE SIMPSON: I agree. And the
6 question was really about the evidence as it was
7 presented to me, and whether it seemed to contradict
8 claims that have been made earlier, and I -- I
9 couldn't discount that because the evidence was there.

10

11 (BRIEF PAUSE)

12

13 MR. DOUG BEDFORD: Thank you both. I
14 have no further questions.

15 THE CHAIRPERSON: Okay. We -- we are
16 running late, and we're -- we're going to take a
17 break. I'm just wondering, we still have re-
18 examination, we still -- we have Board counsel re-
19 examination, I have three (3) questions I'm wondering
20 if I can put to you now. They are -- they are short.

21 Diana, can you bring up the -- I'm
22 sorry, Mr. --

23 DR. BYRON WILLIAMS: I can indicate,
24 at -- at this very moment, in terms of re-examination,
25 we have a simple question of clarification, and it's

1 responsive to the comments the Board made last Friday
2 in terms of making sure we're communicating --

3 THE CHAIRPERSON: Right.

4 DR. BYRON WILLIAMS: -- clearly to the
5 public. So --

6 THE CHAIRPERSON: Okay.

7 DR. BYRON WILLIAMS: -- one (1) -- one
8 (1) question.

9 THE CHAIRPERSON: Okay. Diana, could
10 you bring up the presentation, please. On page, I
11 think it's 8, of the presentation, there's a -- sorry,
12 it's not 8. There's an impact of proposed rate
13 increases. Yes, it's -- it's that presentation, there
14 are page numbers, so.

15 Right. Okay. Sorry. Dr. Simpson, the
16 bold paragraph when you're -- when you're dealing with
17 the percentages, rises from 9.7 percent, are all these
18 numbers based on a 6 percent threshold?

19 DR. WAYNE SIMPSON: That's correct.

20 THE CHAIRPERSON: Okay. Can you
21 comment on this. This is one (1) thing that troubles
22 me, in that I'm not an economist but I read a lot of
23 studies, and throughout this there seems to be instead
24 of a single standard, there is the 6 percent threshold
25 and the 10 percent threshold, which give completely

1 different results and provide for some people pointing
2 to one (1) and other people pointed to another, based
3 on jurisdiction or ideology or whatever.

4 Why is it that there are two (2)
5 thresholds? Why isn't that the community can't agree
6 on a single threshold, so that we can actually do
7 comparisons.

8 DR. WAYNE SIMPSON: Well, I think this
9 is an inexact process because you have a relationship,
10 you see that relationship in the -- in the IR with
11 income declines, the consumption level start to rise,
12 and quite dramatically at a certain point, but picking
13 out what that point is in terms of income and -- and
14 what that threshold is, is a -- is a bit -- is more
15 art than science I think. It seems to me you might be
16 able to little bit better job with the Manitoba data
17 than has been done, but you still going to face that
18 sort of a problem.

19 And of course wanted one (1) -- one (1)
20 virtue, if you will, of picking the 6 percent or 10
21 percent threshold, is at least it -- it does allow you
22 comparability with some other -- other jurisdictions,
23 if they've got studies that also use that same
24 threshold. I just don't think that that -- that our
25 energy consumption patterns look like the energy

1 consumption patterns in Colorado.

2 So I think that's potentially the
3 problem with finding any particular with any -- with
4 any particular threshold.

5 THE CHAIRPERSON: Okay. Diana, could
6 you go the last screen in the presentation.

7 Okay, number 2, you got -- but that is
8 not directly tied to the level of energy consumption
9 along the lines of the fixed credit programs in
10 Colorado and Ontario. I guess I'm having trouble
11 reading this because I thought Colorado was related to
12 consumption, while Ontario was not.

13 DR. WAYNE SIMPSON: It's -- it's not
14 related to current consumption; it's related to past
15 consumption. So it targets the energy poor as those
16 whose previous consumption implied that they were
17 above the 6 percent threshold and had a low income.

18 THE CHAIRPERSON: Okay. So --

19 DR. WAYNE SIMPSON: But not that their
20 current consumption was --

21 THE CHAIRPERSON: It's a current
22 conception then --

23 DR. WAYNE SIMPSON: -- they can --
24 they can benefit by taking energy consumption
25 measures. But of course that will affect their --

1 their payment the following year --

2 THE CHAIRPERSON: Okay.

3 DR. WAYNE SIMPSON: -- so it's not a
4 perfect way of going about.

5 THE CHAIRPERSON: Okay.

6 DR. WAYNE SIMPSON: There -- there is
7 no perfect way of going about it.

8 THE CHAIRPERSON: Okay. Thank you.
9 We're going to have a break now for ten (10) minutes.
10 Thank you

11

12 --- Upon recessing at 2:41 p.m.

13 --- Upon resuming at 2:53 p.m.

14

15 DR. BYRON WILLIAMS: Mr. Chair, I was
16 remiss, Ms. DeSorcy --

17 THE CHAIRPERSON: Yes.

18 DR. BYRON WILLIAMS: -- the Executive
19 Director of the Consumers Association has been
20 listening here for much of the day and I neglected to
21 introduce her far earlier. So. I apologize for that.

22 THE CHAIRPERSON: Thank you. Mr.
23 Peters...?

24

25 CROSS-EXAMINATION BY MR. BOB PETERS:

1 MR. BOB PETERS: Yes, thank you, Mr.
2 Chair, I've used the recess to streamline these
3 questions. So if I could ask that we turn to the
4 Exhibit Coalition 18 and page 14 of it. It is table
5 5.

6 And Dr. Compton, the Board would be
7 correct in understanding that the total direct effect
8 on industries will have a trickle-down effect on the
9 economy.

10 Is that your evidence?

11 DR. JANICE COMPTON: Yes.

12 MR. BOB PETERS: And this will reduce
13 demand for goods and services throughout Manitoba?

14 DR. JANICE COMPTON: Yes.

15 MR. BOB PETERS: And when you say that
16 it means that the economy is going to contract with
17 the rate increases, correct? Sorry, the economy will
18 not grow as much as it would without the rate
19 increases?

20 DR. JANICE COMPTON: Yes.

21 MR. BOB PETERS: Does that also follow
22 that there would be a reduction in the tax revenues
23 for the province and for the Federal government if
24 those rate increases did not happen?

25 DR. JANICE COMPTON: Yes. The direct

1 effect might be offset by the increased taxes on
2 hydro? But -- but, yes, it would be...yeah, yeah. So
3 yes would be my answer, sorry.

4 MR. BOB PETERS: Well, I'm not sure --
5 I'm not sure that --

6 DR. JANICE COMPTON: At the revenue --
7 sorry, go ahead.

8 MR. BOB PETERS: Well, let's -- let's
9 start from the assumption that Manitoba Hydro only
10 pays a capital tax as a -- in its tax structure to the
11 province as opposed any other taxes.

12 DR. JANICE COMPTON: Okay.

13 MR. BOB PETERS: Would -- would with
14 the economy contract as a result of the rate increases
15 by more than the economy would grow as a result of any
16 tax paid by Manitoba Hydro?

17

18 (BRIEF PAUSE)

19

20 DR. WAYNE SIMPSON: Yeah, it's a --
21 that's a fairly complex public finance question but I
22 thought you were getting at the fact that the firms
23 that are realizing less revenue would likely pay less
24 tax. They'd have less profit and they'd likely pay
25 less tax and I'd expect that those rates of tax are

1 higher than the capital tax, but I don't know how that
2 washes out in --

3 MR. BOB PETERS: All right. I -- I
4 introduced the capital tax because of something that I
5 heard Dr. Compton say, but let me -- let me deal with
6 it from the perspective that you're going at, Dr.
7 Simpson.

8 You're telling the Board that industry
9 is going to reduce its output and that's because there
10 will be a reduction in the demand for its goods and
11 services throughout -- throughout the province?

12 DR. JANICE COMPTON: Yes, sorry.

13 MR. BOB PETERS: And let's deal then
14 with the provincial taxation. If there's a reduction
15 in the demand for the goods and services produced by
16 the industries, there will also be a reduction in the
17 tax revenues.

18 Does that follow?

19 DR. JANICE COMPTON: Yes.

20 MR. BOB PETERS: Did your model
21 incorporate or calculate any of that impact?

22 DR. JANICE COMPTON: There is a --
23 there -- I -- I -- it is in the model where I can see
24 the effect on taxes. I did not take that out for the
25 presentation or the report.

1 MR. BOB PETERS: And to make up the
2 revenue drop that could happen as a result of the
3 reduced taxes, that may cause a government to either
4 increase taxes or to reduce government spending?

5 DR. JANICE COMPTON: Yes or go further
6 into debt.

7 DR. WAYNE SIMPSON: Or run more debt,
8 exactly.

9 MR. BOB PETERS: And on the screen we
10 have table 5 from your evidence and what you're
11 depicting to the Panel here is that the reduction and
12 the trickle-down effect that will happen will vary by
13 industry and by sector, depending on how dependent
14 those sectors are on electricity for providing their
15 goods and services?

16 DR. JANICE COMPTON: Yes, this table
17 doesn't include any of the trickle-down effects as you
18 say. This is the direct decline in output demand so
19 just re -- from households, industry and government
20 reallocating their spending away from the other goods
21 and services and more into hydro. This is just the
22 dampening effect of that.

23 MR. BOB PETERS: And that's the point
24 I want the Panel to clearly understand from your table
25 5, is that the proportion due to declines in

1 household, industry and government are going to lead
2 to the proportion reduction in the output of the
3 specific industry?

4 DR. JANICE COMPTON: I'm sorry, could
5 you repeat that?

6 MR. BOB PETERS: Well, let's go at it
7 this way: If you look at the top line on table 5.

8 DR. JANICE COMPTON: Yes.

9 MR. BOB PETERS: Can you explain to
10 the Panel when you say "the proportion of total output
11 of manufacturing declines," what is that based on?

12 DR. JANICE COMPTON: This is -- okay,
13 so for the initial -- the initial increase in the
14 rates is going to reallocate spending from households,
15 industry and government. So household spending on
16 manufacturing is going to fall. Industry spending on
17 manufacturing is going to fall in governments. Since
18 industry spends more on manufacturing than households
19 and governments, the -- the decline in manufacturing
20 is primarily coming from the -- from -- as a -- like
21 inputs for -- for other manufacturing goods.

22 When you compare this to -- if you see
23 owner occupied dwellings farther down, I mean, this is
24 all coming from the household sector. Farther down
25 mining, quarrying, oil, gas and extraction, that's

1 coming from industry since households don't purchase
2 goods directly from that -- from that industry. So
3 this is where -- how this table's set up.

4 MR. BOB PETERS: Okay, we have your
5 point. Can we turn to Exhibit 43, please, that's
6 Consumers Exhibit 43 and slide 12 from your
7 presentation today. This material's also in your
8 report, but it's summarized here for us, Dr. Compton.

9 And it was your determination that with
10 the proposed increases in Hydro prices, the economy
11 will be approximately 3.4 percent smaller than it
12 would have without those rate increases, correct?

13 DR. JANICE COMPTON: That's right.

14 MR. BOB PETERS: And after seven (7)
15 years there would be approximately three thousand
16 eight hundred and sixty-two (3862) fewer jobs than
17 they would otherwise have been without those rate
18 increases?

19 DR. JANICE COMPTON: Yes.

20 MR. BOB PETERS: When we look at those
21 -- those numbers, how does this model, or how have you
22 taken into account that Manitoba Hydro has already
23 spent billions of dollars in the Manitoba economy on a
24 -- on a generating station up north and on a
25 transmission line around the province?

1 DR. JANICE COMPTON: It doesn't take
2 it into account. I'm not sure how it --

3 MR. BOB PETERS: Well, I just want --

4 DR. JANICE COMPTON: -- how it would
5 be taken into account.

6 MR. BOB PETERS: Well, would it --
7 would the expenditures that Manitoba Hydro has already
8 made on its capital projects form part of the baseline
9 against which these results would be measured or is it
10 not factored in at all?

11 DR. JANICE COMPTON: To the extent
12 that it would inform the statistics from Statistics
13 Canada that outlines what the economy looks like and
14 the interactions in the economy, it would be included
15 in the baseline otherwise...

16 DR. WAYNE SIMPSON: As of 2013.

17 DR. JANICE COMPTON: Right.

18 MR. BOB PETERS: And if the monies --

19 DR. WAYNE SIMPSON: Be NFAT.

20 MR. BOB PETERS: So the monies that
21 were expended after 2013 wouldn't be factored into the
22 model that you were working with?

23 DR. WAYNE SIMPSON: Not in the data.

24 MR. BOB PETERS: Understood. Thank
25 you. And just so we look again on -- on slide 12.

1 The Board will understand that your preliminary
2 analysis didn't take into account the behavioural
3 responses and that's why you conducted the robustness
4 test that are on the bottom two-thirds of the chart;
5 is that correct?

6 DR. JANICE COMPTON: We took into
7 account the behavioural responses of households since
8 it is more straightforward. For industry and
9 government, we did not take into account behavioural
10 responses in the initial estimates but included those
11 in the lower and upper bound.

12 MR. BOB PETERS: All right. And for
13 the lower bound, you treated industry the same way you
14 did residential --

15 DR. JANICE COMPTON: Yes.

16 MR. BOB PETERS: -- in terms of the
17 price elasticity of demand, correct?

18 DR. JANICE COMPTON: Yes.

19 MR. BOB PETERS: And then for the
20 upper bound you selected arbitrarily a 10 percent
21 decline in the size of the industries that are
22 Manitoba Hydro's top ten (10) intensive industries?

23 DR. JANICE COMPTON: Yes.

24

25 (BRIEF PAUSE)

1

2 MR. BOB PETERS: And these results are
3 premised on -- in the first year affect a 7.9 percent
4 rate increase on April 1 of 2018?

5 DR. JANICE COMPTON: Yes.

6 MR. BOB PETERS: Does it matter what
7 underpins that 7.9 percent rate increase as to what
8 the underlying reasons for it is, or is it simply
9 based on Hydro's getting a higher rate from the Public
10 Utilities Board?

11 DR. JANICE COMPTON: We're only
12 looking at the rates. It does matter that the rate
13 revenue is extracted from the economy.

14 MR. BOB PETERS: All right. So if
15 Manitoba Hydro uses the rate revenue to pay off debt,
16 then that is a true extraction from the economy and
17 it's not returned by when it -- by any other means; is
18 that -- is what you're saying?

19 DR. JANICE COMPTON: It --

20 DR. WAYNE SIMPSON: If it used the
21 money, for example, to expand its operations in
22 Manitoba, hire new staff and so on that, then -- then
23 it could fully replace the -- those withdrawals with
24 injections in the economy, and then you'd probably
25 have something that was close to a zero situation.

1 MR. BOB PETERS: But you've assumed
2 Manitoba Hydro uses the -- the rate increase revenues
3 to pay off debt?

4 DR. WAYNE SIMPSON: Yes, and that's --
5 that's what we interpret from the report -- the
6 application.

7 MR. BOB PETERS: All right, that's
8 fine. What if the reason for the 7.9 percent rate
9 increase was because Manitoba Hydro experienced a
10 credit rating downgrade and their borrowing costs went
11 up such that they needed a 7.9 percent rate increase.

12 Would the results on your page 12 be
13 any different because of that reason?

14 DR. JANICE COMPTON: No.

15 DR. WAYNE SIMPSON: Still a
16 withdrawal.

17 MR. BOB PETERS: I want to turn to,
18 Dr. Simpson, your review of the bill affordability
19 materials and like everybody else, I'll pick on the
20 last slide, which is slide 18.

21 Your fourth bullet what you said you
22 could have, should have, maybe should -- could have,
23 would have, next time will put up as number 1, you're
24 saying Manitoba Hydro should develop a plan to
25 coordinate rate assistance.

1 Is that telling this Board that it's
2 better for Hydro to do this than it is for government
3 to do this?

4 DR. WAYNE SIMPSON: Well, I think
5 these are -- these are the programs that Hydro is --
6 has developed and -- and -- you know, most
7 jurisdictions have emergency assistance, billing
8 assistance programs and energy efficiency programs.
9 So, the Colorado one I think is -- is advisory in the
10 sense that they've simply attempted to more directly
11 coordinate those plans when they identify people who
12 are having problems either when it's indicated by
13 application for some of these programs, or by
14 treatment of arrears and so on.

15 And so that kind of coordination is
16 what I had in mind as something that Hydro should work
17 harder on. I understand from -- I think some of the
18 communications from them that they are working hard on
19 these things and -- and if that's the case then good
20 for them.

21 MR. BOB PETERS: Dr. Simpson, can you
22 tell the Panel, is the public service company of
23 Colorado a public utility?

24 DR. WAYNE SIMPSON: I'd be surprised
25 if it wasn't given the name, but I -- is this a trick

1 question?

2 MR. BOB PETERS: Not yet.

3 DR. WAYNE SIMPSON: You know the
4 answer?

5 MR. BOB PETERS: I was -- I was going
6 to look it up at the break and I didn't.

7 DR. WAYNE SIMPSON: I assumed -- I
8 assume so.

9 MR. BOB PETERS: All right. Is it an
10 electric utility? Do you know if it's a -- if -- does
11 it sell the electrons as well as provide these
12 services or are you aware?

13 DR. WAYNE SIMPSON: I assume so,
14 subject to check.

15 MR. BOB PETERS: That's fair. The
16 message that I think you're leaving with this Board is
17 that you'd prefer low income assistance programs that
18 combine both the rate assistance with arrears
19 management or forgiveness. And then on top of that
20 layer on a weatherization program to provide
21 efficiency gains; correct?

22 DR. WAYNE SIMPSON: Right. I think
23 all of which Hydro, to some extent, is doing and --
24 and should probably enrich and coordinate better.

25 MR. BOB PETERS: Does that suggest

1 that it's better from the Utility itself and not the
2 government.

3 Is that your conclusion?

4 DR. WAYNE SIMPSON: Well, there was a
5 -- questions to the effect that the PUB can't instruct
6 the government to do anything, so from that
7 standpoint, yes.

8 One (1) of the points is simply that if
9 -- if nothing is done, it seems quite evident that
10 energy poverty will become a much greater problem than
11 it is now, given the proposed increases beyond the 7.9
12 percent for next year.

13 MR. BOB PETERS: Dr. Simpson, in your
14 opinion, would the impending transfer of the energy
15 efficiency programs from Manitoba Hydro to an entity
16 known as Efficiency Manitoba Inc., will that limit
17 Manitoba Hydro's ability to integrate low income
18 energy efficiency programs with bill management and
19 possible rate assistance programs in the future?

20 DR. WAYNE SIMPSON: In principle, no
21 but in -- it -- it could well be the case that, yes,
22 they -- they would have less control over those
23 programs so, yes. It wouldn't necessarily if there
24 was goodwill on both sides.

25 MR. BOB PETERS: Perhaps a point that

1 I'll conclude on with -- you talked to the Chairman on
2 before the break was: Why is it important for rate
3 assistance to not be tied directly to the level of
4 energy consumption?

5 DR. WAYNE SIMPSON: Well, if we're
6 talking about efficiency, we want people to take
7 account of the cost of production and any sort of
8 assistance that reduces the price that people pay per
9 kilowatt hour of energy is -- is going to encourage
10 consumption above that that would be consistent with
11 them paying the full cost, and therefore, consistent
12 with it being efficient.

13 And we're thinking of this not in the
14 provision but in the consumption as a -- as a private
15 good where the person consumes it, no one else can
16 consume it so it should be treated as a private good
17 from an efficiency sense.

18 MR. BOB PETERS: But wouldn't a link
19 to energy consumption better target low income
20 customers who are in the greatest need?

21 DR. WAYNE SIMPSON: Well, this is the
22 conundrum, right. This is the policy problem.
23 Something like the Colorado plan from that standpoint
24 recommends itself because it better targets the
25 assistance to those who have consumption problems, at

1 least in the -- in the recent past, yeah.

2 MR. BOB PETERS: But you have to layer
3 on the consumption problem with the income level?

4 DR. WAYNE SIMPSON: That's right. I
5 think you're trading off efficiency for target
6 effectiveness.

7 MR. BOB PETERS: Well, when you say
8 "target effectiveness," Manitoba Hydro doesn't possess
9 the income records of their customers.

10 Do you accept that?

11 DR. WAYNE SIMPSON: That's right.

12 MR. BOB PETERS: And so how -- is it
13 then based on people deciding that they will sign up
14 for the program as opposed to being directly targeted
15 by those with the data?

16 DR. WAYNE SIMPSON: I think they're
17 probably are -- are different ways of doing this, and
18 I'm not sure I know enough about the Colorado system
19 and the link of PSCO to the -- to the data in Colorado
20 to -- to say how they exact -- exactly how they do it.
21 But yes, you'd have to have some way in which you
22 identified households that -- whose consumption was in
23 excess of the threshold and, therefore, qualified
24 them. They'd have to probably qualify themselves;
25 that would be the most obvious way in the Manitoba

1 circumstances.

2 MR. BOB PETERS: And that would be a
3 limiting factor?

4 DR. WAYNE SIMPSON: That would
5 probably limit participation. One advantage the
6 Ontario plan doing it through general revenues and the
7 tax system is that it would increase participation
8 substantially and cost substantially.

9 Limiting participation, of course,
10 reduces the implied cost of the program as well.

11 MR. BOB PETERS: And when we talk
12 about limiting the number involved, if we turn to
13 slide 6 from your presentation, and we look at the
14 bottom half of this page.

15 What you're telling this Board is based
16 on one (1) definition of energy poverty, there could
17 be as many as twenty thousand (20,000) Hydro
18 customers. If that definition of energy poverty was
19 changed, it would to be more like six thousand (6000)
20 Manitoba Hydro customers who would be the ones that
21 what -- you would say should be targeted with bill
22 affordability measures?

23 DR. WAYNE SIMPSON: That's right. How
24 do we know it's 6 percent or 10 percent, well, since
25 is -- we don't.

1 MR. BOB PETERS: All right, I have
2 your point and I'd like to editorialize that the
3 Public Service Company of Colorado is apparently owned
4 by Xcel Energy according to our research team and I'll
5 leave you with that. We've heard of XL in these
6 proceedings before.

7 Dr. Simpson and Dr. Compton, I do want
8 to thank you for your answers to my questions. Thank
9 you, Mr. Chair.

10 THE CHAIRPERSON: Thank you, Mr.
11 Peters. Dr. Williams...?

12 DR. BYRON WILLIAMS: There's no
13 reexamination by -- by the Consumers Coalition.

14 THE CHAIRPERSON: Thank you, Dr.
15 Compton, Dr. Simpson. Thank you very much for your
16 work, for your attendance and for your participation
17 today.

18 DR. WAYNE SIMPSON: Thank you, Chair.

19 BOARD MEMBER GRANT: Could I get one
20 (1) last 30 second question comment in.

21 DR. BYRON WILLIAMS: Have to go back
22 for re-examination --

23 THE CHAIRPERSON: -- asked during the
24 break, if there were any questions. Okay.

25 BOARD MEMBER GRANT: Well, it's

1 actually not my question, it was one of my more --
2 well, let me -- I'll ask the question, if it sounds
3 smart then its mind, but actually it was suggested by
4 somebody else.

5 If Manitoba Hydro borrowed heavily in
6 order to put in place some of the largest capital
7 expenditure projects in the provincial economy's
8 history, and then they have to come get a rate
9 increase to pay for some of that capital borrowing, do
10 you think you should also compare your results to some
11 of the job creation that would be occurring because of
12 Bipole III? I just was looking at, and I think it's
13 a useful reference, in Manitoba Hydro's NFAT
14 application Chapter 13 that Shaffer wrote, he -- he's
15 careful about the gross and the net effects but he
16 also puts, you know, sort of these construction jobs
17 peeking it over, you know, a thousand per year. And
18 so these are temporary jobs as opposed to sort of
19 permanent ones you were talking about.

20 But do you think it's appropriate to
21 compare -- to balance your findings against some of
22 this job creation that's going on through the
23 borrowing that Hydro's undertaken?

24 DR. BYRON WILLIAMS: Board Member
25 Grant, can you clarify for -- for what purpose; for

1 ratesetting purposes or for evaluating the wisdom of
2 the expenditure purpose? Just if -- that might help
3 the witnesses just a little bit.

4 BOARD MEMBER GRANT: I'm thinking if
5 you're looking at net job gains, for example. In a
6 sense you're looking at one side of the equation.
7 You're looking at the rate increase to pay for the
8 borrowing but you're not looking at the job creation
9 that the borrowing funded in the construction of, say,
10 Keeyask and Bipole III and other items.

11 DR. WAYNE SIMPSON: I -- I was just
12 going to say that wasn't our mandate, but off the top
13 of my head, coffee chatter, so to speak, I think the
14 problem that's always identified here is that the --
15 the borrowing provides temporary gains to the economy,
16 but is limited by the ability to borrow. And the job
17 losses implied by trying to recover that through rates
18 would be permanent.

19 So that's -- I'm not going to say one
20 is better or worse than the other. I think probably
21 the economy has had some significant stimulus from a
22 variety of construction plans that are public or
23 quasipublic in -- in recent years in Manitoba's
24 growth, which in fact one year led -- led the country.
25 It probably has reflected that, yeah.

1 THE CHAIRPERSON: Thank you, Dr.
2 Compton and Dr. Simpson. I guess we're going to move
3 to the next witness now?

4 DR. BYRON WILLIAMS: Yes, Morrison --

5 THE CHAIRPERSON: Sorry, Mr.
6 Bedford...?

7 MR. DOUG BEDFORD: I have Undertaking
8 Number 35 from Manitoba Hydro to file. If we can put
9 that on the record, please.

10 THE CHAIRPERSON: Thank you. If you
11 could give it to the secretary.

12

13 (BRIEF PAUSE)

14

15 THE CHAIRPERSON: We will have it in
16 just a second once the secretary has it.

17

18 (BRIEF PAUSE)

19

20 MR. DOUG BEDFORD: Number 112.

21

22 --- EXHIBIT NO. MH-12: Answer to Undertaking
23 Number 35

24

25 THE CHAIRPERSON: Dr. Williams...?

1 DR. BYRON WILLIAMS: Yes, certainly,
2 if we could have the witness sworn, that would be
3 fabulous -- or affirmed.

4

5 COALITION/MIPUG PANEL:

6

7 PELINO COLAIACOVO, Sworn

8

9 DR. BYRON WILLIAMS: Members of the
10 Panel, we do have two (2) exhibits to present in
11 support of Mr. Colaiacovo's evidence. One is a
12 PowerPoint, which we'd ask be marked as Coalition 45
13 and one is a Excel spreadsheet which we ask be marked
14 as Coalition 45.1 or dash 1.

15 MR. KURT SIMONSEN: Thank you.

16

17 --- EXHIBIT NUMBER CC-45: Powerpoint in support of
18 Mr. Colaiacovo's evidence.

19

20 --- EXHIBIT NUMBER CC-45-1: Excel spreadsheet

21

22 EXAMINATION-IN-CHIEF BY DR. BYRON WILLIAMS:

23 DR. BYRON WILLIAMS: And before -- we
24 just have a couple moments of background, and I wonder
25 if, Diana, could take us to page 161 of Mr.

1 Colaiacovo's evidence with his colleagues from
2 Morrison Park.

3 And Mr. Colaiacovo, you were retained
4 jointly in this proceeding by the Consumers Coalition
5 and the Manitoba Industrial Power Users Group?

6 MR. PELINO COLAIACOVO: Yes, I was.

7 DR. BYRON WILLIAMS: And you
8 understand that it is your duty to provide evidence
9 that is fair, objective, and nonpartisan?

10 MR. PELINO COLAIACOVO: Yes, I do.

11 DR. BYRON WILLIAMS: That is related
12 only to matters that are within your area of
13 expertise?

14 MR. PELINO COLAIACOVO: Yes.

15 DR. BYRON WILLIAMS: And in signing
16 your letter of retainer, you were advised by our
17 clients, both the Consumers Coalition and the Manitoba
18 Industrial Power Users Group, that your duty in
19 providing assistance and giving evidence is to help
20 the Public Utilities Board, which overrides any
21 obligation to the clients who retained you?

22 MR. PELINO COLAIACOVO: I understood
23 that, yes.

24 DR. BYRON WILLIAMS: And, sir, you
25 bring to this proceeding expertise in financial

1 modelling, capital markets, as well as in electricity
2 planning and policy?

3 MR. PELINO COLAIACOVO: Yes.

4 DR. BYRON WILLIAMS: And you are the
5 managing director of Morrison Park Advisors Inc. or
6 MPA?

7 MR. PELINO COLAIACOVO: I'm one (1) of
8 the managing directors, yes. There are four (4).

9 DR. BYRON WILLIAMS: And MPA is an
10 employer-owned independent investment bank focusing on
11 mergers and acquisitions, capital raising, and other
12 strategic advisory services?

13 MR. PELINO COLAIACOVO: Yes.

14 DR. BYRON WILLIAMS: And you have over
15 twenty (20) years of experience in investment banking,
16 government, corporate strategy and policy development?

17 MR. PELINO COLAIACOVO: Yes.

18 DR. BYRON WILLIAMS: Currently, your
19 focus is utilities, electricity and infrastructure
20 sectors -- sectors, as well as Crown corporations, and
21 green technology, more broadly?

22 MR. PELINO COLAIACOVO: That's
23 correct.

24 DR. BYRON WILLIAMS: And in the course
25 of those duties, sir, you advise clients, whether

1 corporate, government, or otherwise on mergers and
2 acquisition transactions, the raising of new capital,
3 the valuation of corporation and major assets and the
4 financial fairness of proposed transactions?

5 MR. PELINO COLAIACOVO: Yes.

6 DR. BYRON WILLIAMS: And to perform
7 these tasks, sir, you tracked the views of the capital
8 mark -- markets on initiatives and developments in the
9 utilities, power and infrastructure sectors and
10 provide advice and assistance accordingly?

11 MR. PELINO COLAIACOVO: That's
12 correct.

13 DR. BYRON WILLIAMS: And, sir, before
14 joining Morrison Park Advisors you had a role with the
15 Ontario Minister of Energy and were involved in a
16 large number of significant reforms to -- to the
17 electricity industry in that province, sir?

18 MR. PELINO COLAIACOVO: That's
19 correct.

20 DR. BYRON WILLIAMS: And you played a
21 significant role in the creation of the Ontario Power
22 Authority and, in particular, the structuring of that
23 organization to ensure that it achieved an independent
24 credit rating one (1) notch below that of the province
25 of Ontario?

1 MR. PELINO COLAIACOVO: That was a
2 critical part of the structuring of the OPA, yes.

3 DR. BYRON WILLIAMS: And just three
4 (3) years ago you appeared before this Board as part
5 of the Need For and Alternatives process to provide
6 your views on the fairness of the proposed Hydro plan
7 for Manitoba ratepayers?

8 MR. PELINO COLAIACOVO: I did.

9 DR. BYRON WILLIAMS: And you also
10 commented on the financial viability of Manitoba
11 Hydro's plan?

12 MR. PELINO COLAIACOVO: I did.

13 DR. BYRON WILLIAMS: You also appeared
14 before the Nova Scotia Utilities and Review Board in
15 2013 on the fairness of the Maritime link project to
16 ratepayers in that project?

17 MR. PELINO COLAIACOVO: That's true,
18 yes.

19 DR. BYRON WILLIAMS: And in terms of
20 the Alberta electric system operator, you served as
21 advisor to it in terms of the capital market
22 consequences of transition to coal exit and -- and
23 capacity market corporations and green tech?

24 MR. PELINO COLAIACOVO: That's
25 correct.

1 DR. BYRON WILLIAMS: Sir, just in
2 terms of your evidence, with your colleagues at
3 Morrison Park Advisors, you were responsible for the
4 report dated October 31st, 2017 titled Review of
5 Manitoba Hydro Financial Targets which is marked as
6 Coalition 17 in this proceeding?

7 MR. PELINO COLAIACOVO: That's
8 correct.

9 DR. BYRON WILLIAMS: Other than the
10 errata which is marked as Consumer Coalition 17-1, the
11 information in that report is accurate, to the best of
12 your knowledge and ability?

13 MR. PELINO COLAIACOVO: Yes, it is.

14 DR. BYRON WILLIAMS: And you were also
15 responsible for the preparation of information
16 responses to the Public Utilities Board, Manitoba
17 Hydro, General Service customers and the Business
18 Council of Manitoba.

19 You recall that?

20 MR. PELINO COLAIACOVO: Yes. I just
21 do want to add, I had support for my colleagues in
22 preparing some of the materials for both of those
23 documents but yes.

24 DR. BYRON WILLIAMS: Okay, thank you
25 for that clarification. And recognizing the role

1 played by your colleagues, this information is
2 accurate, to the best of your knowledge and ability?

3 MR. PELINO COLAIACOVO: Yes, it is.

4 DR. BYRON WILLIAMS: Mr. Colaiacovo,
5 I believe you have a PowerPoint presentation. Feel
6 free to proceed and, as always, the Board should feel
7 free to interrupt at the appropriate times with
8 questions.

9 And I can propose to the Panel a
10 convenient break for Mr. Colaiacovo is around slide
11 19. There's a heavy subject that follows immediately
12 after that and I think that may be appropriate for the
13 Board.

14 MR. PELINO COLAIACOVO: Thank you very
15 much, Mr. Chair, members of the Board.

16 The presentation that I have prepared
17 is somewhat long. I will endeavour to work through it
18 at a good speed and good timing. If -- as counsel
19 mentioned, if there -- at any point I'm not clear, and
20 you want to clarify, please, just stop me.

21 There are some appendices at the end of
22 the presentation, which is not my intention to run
23 through, unless at some point during the presentation
24 something isn't clear and -- and it would be
25 beneficial to -- to jump to the appendices in which

1 case I will, but my intention is not to do so unless
2 necessary.

3 So I'll move through to the
4 introduction. I won't belabour Morrison Park
5 Advisors, or our credentials or my credentials as
6 counsel has just gone through most of this. But I do
7 want to emphasize one (1) point from the first section
8 on Morrison Park Advisors. We are a partner-owned
9 investment bank. We are a small boutique firm. We
10 have a few areas of specialty and -- and electricity
11 and public utilities is one (1) of those areas of
12 specialty. But one (1) of the things that we insist
13 on, as a firm, is that all the opinions of the members
14 of the firm are opinions of the firm.

15 We have a system not dissimilar from
16 most investment banks where we act as a committee, and
17 we review all opinions that we provide in committee so
18 that our entire firm supports the opinions that we
19 provide.

20 So while I'm here, and obviously I have
21 my own particular background and expertise, the
22 position that we've taken in the reports that we have
23 provided is the position of our firm and not just my
24 position.

25 Our scope -- the scope that we were

1 asked to work on in this proceeding is, in general,
2 related to financial issues. It's our background.
3 It's our specialty. The application highlights
4 financial targets and the timing of achievement of
5 financial targets, which is the principal issues that
6 we were asked to look at; both with respect to the
7 capital markets, how those financial targets and --
8 and timing would be received by capital markets. What
9 would happen -- you know, the -- the potential capital
10 markets' reactions to different targets or different
11 timing or not achieving certain targets and timings
12 once they're set.

13 We were also asked to look at potential
14 impacts on the province of Manitoba and its credit
15 rating, it's cost of credit and the impact -- the
16 potential intergenerational impacts of those choices
17 about financial targets and timing.

18 Lastly, there was the question of some
19 more technical financial issues such as debt
20 management practices and the relative sensitivity of
21 additional cost overruns on the project, but those
22 were very much secondary. The bulk of what we've
23 done, the bulk of what I'm going to spend my
24 presentation time talking about is financial targets
25 and timing and -- and performance and the consequences

1 thereof.

2 So sitting back and looking at it from
3 a high level, looking at the big picture of the issues
4 that I've been and my firm has been asked to look at,
5 I would summarize it as two (2) problems. On the one
6 (1) hand, Manitoba Hydro has been pursuing a
7 development plan for the past number of years and,
8 unfortunately, they are over budget and behind
9 schedule on major portions of that development plan
10 which has consequences.

11 At the same time, when they set out on
12 that development plan, they had a forecast for export
13 prices which was considerably higher than export
14 prices have turned out. They also had a forecast for
15 domestic demand, which was higher than has turned out.
16 And in the final instance, they had an expectation
17 about interest rates which were thankfully higher than
18 actual interest rates have turned out.

19 So on the four (4) critical variables
20 that they were looking at, unfortunately, in three (3)
21 cases life has gone in the wrong direction and only in
22 one (1) of those four (4) cases have things turned out
23 positively from that development plan's perspective.

24 So when you sum up what's happened:
25 cost overruns; behind schedule; export prices lower

1 than they hoped; domestic demand lower than they
2 expected; but then luckily interest rates also lower,
3 the total of all of those things together are that
4 debt in the Company has been rising faster than
5 expected, and it appears to be rising higher than was
6 originally planned at -- at the outset of that
7 development.

8 Their reaction, Manitoba Hydro's
9 reaction, to the set of circumstances is to propose a
10 very significant rate increase. A significant rate
11 increase that would immediately begin to provide more
12 cash flow from operations. And so that they could use
13 that cash flow from operations and avoid having to
14 take on as much more new debt as they would under
15 current rates.

16 But there's a second problem and -- and
17 this goes to a second set of issues that they've
18 raised in their application. They claim that the --
19 the timing of their targets that was agreed upon or, I
20 would say, implicitly agreed upon at the outset of
21 their development plan was too lax. That rebuilding
22 their equity position -- or what they call their
23 equity position or reducing their outstanding debt at
24 a relatively slow pace, which was what was implied in
25 all of the NFAT documents, for example, creates a

1 level of unacceptable risk.

2 Management has changed since the onset
3 of that development plan. New management believes
4 that the current circumstances are too risky; that the
5 relatively go-slow approach with respect to reducing
6 debt over time creates these risks; and so again, they
7 have proposed a solution, which is a substantial
8 increase for -- a substantial series of increases over
9 the course of seven (7) years such that debt will be
10 reduced dramatically in a much shorter time frame than
11 was contemplated at the outset of that development
12 plan.

13 So to my mind, really, you know,
14 separating, these two (2) issues: One is a response
15 to circumstance; one is a change in policy. Well, the
16 response to circumstance that they have proposed is
17 that a necessary option. Are there -- are there other
18 options that they could pursue to respond to those
19 circumstances? Or, you know, are they -- is the
20 situation forcing them into choosing six (6) years of
21 7.9 percent rate increases? Or did they have a
22 variety of options and this is the one that they
23 selected and, therefore, they're -- they have to
24 present arguments as to why this particular option is
25 better than alternatives.

1 The second issue about the go-slow
2 approach and claiming that now the go-slow approach is
3 unacceptable, is that actually a problem? Have they
4 provide em -- evidence to say, yes, it is a problem.
5 I mean, there -- there's a subtle difference between
6 the two (2) things, but there is a difference.

7 And in my view, I don't believe that
8 the significant increase in rates is actually
9 necessary in response to the conditions and I don't
10 believe they've justified their sped up or much more
11 aggressive approach to debt reduction in their
12 application. And so most of my presentation is really
13 going to be focusing on these issues.

14 Just to list off a few of the key
15 points that I'm going to make over the course of the
16 presentation and I don't -- and I mean, I'll be going
17 into -- into all of these in much greater detail so
18 this is -- is really simply just an introduction and a
19 forecasting.

20 But one (1) issue that I think really
21 comes out of the discussion is that Manitoba Hydro
22 views equity -- well, on its -- on its financial
23 statements, it makes reference to equity. And equity
24 has a certain meaning in typical corporations and --
25 and anybody who's worked in a corporation or is

1 involved with corporations understands the difference
2 between debt and equity. But, Manitoba Hydro is not
3 an investor-owned corporation. It's a public utility,
4 and even though they use the words "equity," equity in
5 the Manitoba Hydro sense is something different than
6 equity in the sense of an investor-owned corporation.

7 And I would posit to you and I'm going
8 to talk about this more later that what equity should
9 be understood as is it's a customer contribution.
10 This is customer money that Manitoba Hydro has
11 collected and is using for its own purposes and -- and
12 those purposes can be entirely valid and good, but it
13 is not equity in the traditional sense of the word for
14 a whole host of reasons. But there is an unfortunate
15 temptation to treat it because in Manitoba Hydro's
16 world, there is no return on equity. They don't pay
17 for equity in a formal accounting sense. There is a
18 temptation to treat it as free and not give it the
19 seriousness which it deserves.

20 And so my argument is going to be that,
21 in fact, these customer contributions which show up in
22 Manitoba Hydro's financial statements as equity are an
23 expensive commodity and should be treated as an
24 expensive commodity and there should be an emphasis on
25 minimizing how much of this so-called equity Manitoba

1 Hydro actually possesses. So they -- they cre -- they
2 -- they possess no more than they actually need at any
3 given time.

4 The second point is that, in fact, they
5 do need some of these cus -- customer contributions or
6 equity. And one (1) of the principal needs -- reasons
7 is because of hydrological risk. Manitoba Hydro
8 generates most of its electricity on the basis of
9 water inflows and water inflows we know, as a matter
10 of historical fact, are highly variable. So, yes,
11 absolutely some equity or customer contributions are
12 going to be required to manage those risks.

13 But how much, right? And is the
14 implied 25 percent customer contributions as part of
15 total capital that you would have if you had 75
16 percent debt, is that the right amount to manage
17 hydrological uncertainty.

18 Also is it necessary to achieve that
19 target by March 31st, 2027, which is the timing goal
20 that has been expressed in the application. And --
21 and that is significantly sooner in time than was
22 posited in the NFAT or before when longer timelines
23 for achieving that target were included.

24 A third issue is the question of
25 whether Manitoba Hydro is a self-supporting company,

1 and whether there is serious risk to Manitoba Hydro's
2 status as a self-supporting company. And this is very
3 much tied to the question of the impact of Manitoba
4 Hydro on the province of Manitoba, more broadly, with
5 respect to the province of Manitoba's access to
6 capital and cost of capital.

7 Unfortunately, Standard & Poor's
8 changed its internal policies with respect to what
9 "self-supporting" actually means a couple of years ago
10 and decided that Manitoba Hydro is no longer to be
11 treated as a self-supporting entity. My argument to
12 you, in this presentation, is going to be that that's
13 a red herring and it's a distraction from the
14 consideration of the real issues that are at stake,
15 and that the fact that Standard & Poor's changed their
16 definitions hasn't actually changed anything about
17 Manitoba Hydro in reality.

18 Next, however, I do think that managing
19 the message to the capital markets is, indeed,
20 important and in their application, Manitoba Hydro has
21 talked about credit quality and the impact on credit
22 ratings and the treatment of Manitoba Hydro in the
23 province of Manitoba by the markets. And the very
24 fact that Manitoba Hydro has made this application and
25 has requested a series of 7.9 percent increases is in

1 itself a message to the markets; a partial message, an
2 initial message but nonetheless a message. And so,
3 the Board's response to that application is also a
4 message and I think the crafting of those messages is
5 -- is important and has to be taken into account.

6 Finally, there's an overall question
7 about whether Manitoba Hydro's applied for rate
8 increases and their forecasted multiple further rate
9 increases are fair. Fair in terms of a balanced
10 approach to the risks and the opportunities, the
11 benefits and the challenges that are in front of the
12 Company and in front of the Board. My view is that it
13 -- those rate increases six (6) years of 7.9 percent
14 are not a fair and balanced response; that there are
15 other options and that, most importantly, that series
16 of rate increases is not necessary to manage the
17 capital markets appropriately.

18 So, I'm going to basically take most of
19 these issues one (1) at a time and work through them
20 but a starting point is to discuss the nature of
21 Manitoba Hydro and particularly, this issue around
22 what equity means, why is Manitoba Hydro different
23 from other Utilities from a financial perspective even
24 though it may use the same words as other companies on
25 its accounting statements.

1 So Manitoba Hydro is a pure cost
2 recovery publicly owned vertically integrated
3 provincial electricity utility. It is, in fact, the
4 last one of those left in Canada. Yes, there are
5 other provincial electricity utilities: BC Hydro,
6 SaskPower, NB Power, they're all provincial
7 electricity utilities. All of the ones that I've
8 listed are vertically integrated with the exception of
9 Ontario Power Generation which, as its name applies,
10 is exclusively generation and was separated from
11 transmission and distribution some years ago.

12 However, BC Hydro, SaskPower, Hydro
13 Quebec, NB Power and NALCOR all have a requirement in
14 their mandates that they pay dividends to their
15 governm -- to their governments, their respected --
16 respective shareholders. They are structured as a
17 private investor-owned utility. It's just that the
18 owner happens to be the government in each case. In
19 some instances, the relationship is very transparent.
20 Hydro Quebec, for example, must pay a large proportion
21 of its earnings every year to the government. Those
22 earnings fluctuate just like they would for any other
23 shareholder and, you know, they're paying 75 percent
24 of the earnings that -- that they earn.

25 Consumers in Quebec pay rates that are

1 based on a fixed amount of heritage electricity at
2 rates that increase, essentially, with inflation,
3 right. So when Man -- when Hydro Quebec builds new
4 facilities for export purposes, as you may read about
5 in the press that -- that they have been doing that,
6 it is not ratepayers in Quebec that are taking that
7 risk. It's the government because the government is
8 getting the benefit of the earnings that come out of
9 those exports. It's not ratepayers. It's not pure
10 cost recovery, it's taxpayers.

11 Similarly, NALCOR which is vertically
12 integrated and provincially owned and is in the midst
13 of building a major new facility which will provide
14 power for the province, but also significantly for
15 export. The risk is being taken by the taxpayer in
16 Nova Scotia. They have been recycling funds that were
17 generated from oil leases into investments in an
18 electricity facility. The theory there being that
19 relatively short term oil revenues were going to be
20 turned into a long-term investment in a large
21 electricity utility. And if over the course of the
22 next hundred years the province earns lots of income
23 on that, it will be great for taxpayers and the
24 province. But they're being regulated as a 60/40
25 electricity utility; 60 percent debt, 40 percent

1 equity.

2 And so the government has written
3 significant equity cheques so that the equity of
4 NALCOR can stay within its regulated bounds. So these
5 are not pure cost recovery, publicly owned, vertically
6 integrated utilities like Manitoba Hydro. The analog
7 for Manitoba Hydro, in fact, was the old Ontario
8 Hydro, which ceased to exist on April 1st of 1999.
9 Many other utilities in Canada were structured that
10 way but since have changed, and, you know, Manitoba
11 Hydro really is the last one of that style of
12 utilities that's still in existence.

13 If we look down to the United States,
14 there are, in fact, a good handful of Utilities that
15 are pure cost recovery, publicly owned, vertically
16 integrated. So Tennessee Valley Authority, Bonneville
17 Power Authority fall into that category. Santee
18 Cooper is South Carolina. They also fall into that
19 category but they don't cover the entire state. Some
20 of these Utilities are owned, quote unquote "owned"
21 sponsored by the federal government, some by state
22 governments like the New York Power Authority or
23 Santee Cooper, but they are pure cost recovery
24 Utilities.

25 They differ in many respects from

1 Manitoba Hydro because they have different kinds of
2 financial arrangements, but nonetheless they are pure
3 cost recovery. Some are regulated and respond to a
4 regulator; some set their own rates according to board
5 decisions. So, you know, there are some differences.
6 But in many ways some of these US Utilities are more
7 comparable to Manitoba Hydro than other provincial
8 Utilities in Canada, notwithstanding the names.

9 One final point I would make about
10 Manitoba Hydro that makes it unique is that it is a
11 pure cost recovery utility with an explicit export
12 mandate. Manitoba Hydro exports into the United
13 States, principally, into the MISO electricity market.
14 Manitoba Hydro is a price taker in that market. It's
15 taking effectively entrepreneurial risk on the value
16 of its exports. It has no control over the MISO
17 markets prices rising and falling and simply accepts
18 the prices that it gets. And it can earn more, or
19 less income on that basis.

20 Ratepayers are in fact -- in fact, in
21 Manitoba Hydro taking that risk. It's a pure customer
22 risk. In Quebec and in Newfoundland, two (2) other
23 provincial Utilities where there is export risk being
24 accepted and, in fact, mandated by governments in both
25 of those cases, it's the government that is taking

1 that risk. Those -- those entrepreneurial risks don't
2 affect the price of power that is being offered inside
3 the province. So Manitoba is different in that
4 respect.

5 And for the US Utilities that are
6 structured on a pure cost recovery basis, some of them
7 export, but they export as an incidental byproduct of
8 their operations. They don't export because it's
9 mandated for them to do so. Their primary focus is to
10 serve a -- a specific territory.

11 So Manitoba Hydro, yes, it is
12 different; in fact, it's unique certainly in North
13 America in that combination of characteristics that it
14 has. Actually I -- and I should add because it's
15 unique, it's important to -- to understand that
16 uniqueness and the distinctions, notwithstanding the
17 fact that it uses the same language and the same
18 financial terms as everyone else. And that's what a
19 lot of the points that I'm going to be making focus
20 on. The fact that its uniqueness is what drives some
21 of these questions.

22 So, I return to the -- to the issue of
23 equity. On Manitoba Hydro's financial statements it
24 says they have so much debt and so much equity, but
25 it's not equity as would be typical in any private-

1 sector corporation. Equity in a private-sector
2 corporation is the ownership position of the
3 shareholders.

4 Who are the shareholders, in Manitoba
5 Hydro's case? Manitoba Hydro has no shareholders to
6 whom it pays dividends. Manitoba Hydro has no
7 shareholders who can sell their shares and recoup
8 their investment. Manitoba Hydro's shareholders, if
9 you will, are really the customers that it has; it's
10 the people of Manitoba.

11 And its objective, one (1) of its
12 objectives, is to -- to only charge rates that it
13 requires. It's not to build equity, it's not to pay
14 higher returns to maximize shareholder returns or
15 shareholder value; it's to limit itself to recover
16 only its costs.

17 So if we look at the power utilities in
18 the United States that are most similar to Manitoba
19 Hydro, what language do they use? Do they say they
20 have equity? Well, in fact in most instances they
21 don't; they use other words. They say they have
22 accumulated net revenues. They say they have net
23 investment in capital assets. They say they have
24 proprietary capital. None of those is perfect either,
25 but they at least make clear that there is something

1 different going on, that it's not a debt-equity ratio,
2 and it's not a return on equity; it's something
3 different.

4 The legislation in Manitoba, in fact,
5 does not refer to equity at all. If you look at the
6 Manitoba Hydro Act or any of the other couple of acts
7 that -- that deal with Manitoba Hydro, equity is not
8 listed. What is there is reserves, and -- and that
9 raises the issue that we're going to talk about it --
10 quite a bit more about reserves and how much in the
11 way of reserves Manitoba Hydro should have.

12 But if anything, equity and reserves
13 are almost substitutable in understanding Manitoba
14 Hydro's financial statements, because the reserves are
15 potentially the excess book value after subtracting
16 debt and -- and other liabilities from the balance
17 sheet. And that would be one (1) characteristic of
18 equity, but it doesn't have the other characteristics
19 of equity that the private sector would normally
20 assume.

21 So, those reserves, it says in the
22 legislation, should be sufficient. Manitoba Hydro
23 does need some -- some reserves to manage risks. It
24 needs reserves to operate its business. And reserves,
25 in a financial sense, can often refer to a variety of

1 different things. You can have short-term liquidity,
2 and that would be part of your reserves. You could
3 have cash on hand, and that would be part of your
4 reserves. You can also have the ability to borrow,
5 and that would be part of your reserves, depending on
6 the circumstances. All of that, really, in the end,
7 is captured in equity.

8 Equity is the sum of those different
9 kinds of tools that you might use. Because having
10 equity implies that you can increase your debt and
11 reduce your equity at need. Having equity, some of
12 the equity will show up on your balance sheet as a
13 result of having cash, right. So -- so those -- those
14 notions are captured in some sense in the term
15 'equity' that Manitoba Hydro uses on its balance
16 sheet.

17 Whether it should be written as
18 reserves instead of equity, I think the formal issue
19 doesn't really matter. The fact is, on the -- the
20 financial statements it says 'equity'; where it says
21 'equity', it might be helpful to think reserves
22 instead of equity.

23 So it would be useful, I think, to keep
24 in mind some comparisons, because Manitoba Hydro has
25 talked about their situation being very challenging,

1 and risks of having a lot of debt, you know, financial
2 potential scenarios that arise from their current
3 circumstances, and to look around at some of the other
4 utilities that may be comparable peer group.

5 So, in Canada, I've listed the
6 utilities that were talked about on the previous page,
7 as well as -- as those from the United States, and I
8 picked out a couple of particular line items from
9 their balance sheets and created a ratio. I quick to
10 add that this is not a standard ratio that you would
11 normally find in analysis.

12 But what I have looked at is the
13 difference -- the comparison of long-term debt,
14 including the -- on -- on the typical financial
15 statement there would be the -- the long-term debt due
16 in one (1) year, but I've added that long-term debt,
17 as compared to property, plant, and equipment, and
18 intangibles, which are effectively the utility's
19 utility assets, the actual equipment that it uses,
20 everything from tele -- from -- from pole -- poles and
21 transformers to the computers and -- and office
22 buildings in -- that it -- that it may have.

23 The reason I chose those two (2) line
24 items to look at from the balance sheet is because
25 they're quite consistent across companies; long-term

1 debt is long-term. It doesn't matter which accounting
2 system you use, whether it's CGAAP or US GAAP or IFRS,
3 long-term debt's always the same.

4 And on the property, plant, and
5 equipment side, it's very similar. Some small
6 differences between IFRS and -- and GAAP, but
7 basically similar. And so by comparing those two (2)
8 things, I don't have to worry about making lots of
9 other adjustments because some of these utilities use
10 US GAAP, some of them use IFRS at different stages of
11 implementation. And if you were to do a debt-equity
12 ratio comparison between these companies, you have to
13 fill that comparison with caveats and explanations,
14 because you can't just willy-nilly compare the numbers
15 that you take from balance sheets that use different
16 accounting systems.

17 So in this analysis, using long-term
18 debt and PPE, we see that Manitoba Hydro is neither at
19 the top nor at the bottom of ranges. There are
20 utilities that have a lot more debt relative to their
21 utility assets, there are utilities that have a lot
22 less.

23 Some of these utilities are quite
24 comfortable in -- in their circumstances, and some of
25 them are very worried about their future. And there

1 is no correlation between their debt ratios and that
2 comfort or worry. Each utility has a different story.
3 And each utility also faces other things that don't
4 show up on these numbers, like concern around nuclear
5 risk, or environmental risk, or failed projects's,
6 right.

7 SaskPower is facing a big concern, is
8 that almost its entire fleet is not conforming to the
9 country's policy to get off coal by 2030. So despite
10 the fact that they have only 50 percent debt-to-
11 assets, to utility assets, they have a big problem on
12 their hands.

13 On the other hand, Bonneville Power,
14 which has 93 percent debt-to-assets doesn't really
15 have a lot of problems. They are quite comfortable
16 with where they are. They're quite comfortable with
17 the way they -- they manage their -- their finances.

18 So I think this is instructive in two
19 (2) ways: 1) Manitoba Hydro doesn't really stand out,
20 and 2) it actually isn't in isolation, much of an
21 indication of whether there are challenges or not,
22 because you really have to get into the details of
23 stories.

24 And -- and so this is a caution about
25 peer group analysis in a sense, right. If you're

1 going to do peer group analysis in -- in a real
2 detailed way, you have to go very deeply into the
3 stories of each different utility, look for
4 similarities and differences, look for their story and
5 understand their story.

6 DR. BYRON WILLIAMS: Mr. Colaiacovo,
7 just before you leave this slide, it's a small point,
8 in terms of SaskPower, I believe you said the ratio
9 was 50 percent.

10 MR. PELINO COLAIACOVO: Fifty-eight
11 (58).

12 DR. BYRON WILLIAMS: Okay. Thank you.

13 MR. PELINO COLAIACOVO: Sorry.

14 MR. ANTOINE HACAULT: Mr. Colaiacovo,
15 I have -- I'm co-counsel, so I've got one (1) other
16 point.

17 Could you relate this back to the last
18 point on slide 10. You didn't touch that last point,
19 sir.

20 MR. PELINO COLAIACOVO: Sorry. I'm
21 going to go back to slide 10.

22 Different public utilities choose
23 different balances. So this is a question -- as I
24 mentioned, it does make sense to have reserves. Some
25 level of reserves are required because every utility

1 has to manage risks and needs reserves to manage its
2 risks.

3 But managing risks can be done by
4 having reserves to account for the risks. It can also
5 be done by being willing to change rates to manage
6 risks, and -- and I'll get into this a little bit more
7 deeply, but it's almost a trade-off. The higher your
8 reserves, the less often you need to adjust your rates
9 to manage risks if they materialize. On the other
10 hand, if you have very low reserves, you may have to
11 adjust your rates more often if bad things happen and
12 you need to raise rates to cover those costs. It's a
13 choice that utilities make: reserves or amendments to
14 rates at need.

15 And I think if you look at these, you
16 know, this list of utilities, every utility makes
17 different set of choices. And we'll talk about this a
18 little bit more in -- in terms of examples, a little
19 later on in the presentation. But some of the
20 utilities that have higher debt, for example, are
21 simply more willing to make changes to rates. And
22 some of the utilities that have lower debt are much
23 less willing to make changes to rates. And it's a
24 choice, right.

25 And the point is that capital markets

1 except all of these choices, right, as long as if you
2 -- as long as you make clear what your choice is and
3 stick to it and come through on that choice, so either
4 use your reserves or change your rates when you need
5 to, if you need to, capital markets are going to be
6 satisfied. And I'll be coming back to that a little
7 bit more as we go.

8 So what is the cost of equity? I've
9 already said, you know, in -- in my view, even though
10 the return on equity, in Manitoba Hydro's financial
11 statements is zero, that doesn't mean that equity in
12 Manitoba Hydro's case, what they understand as equity,
13 is free.

14 In actual fact, it's a customer
15 contribution, and every customer has a cost of capital
16 that they face. For some customers, it's going to be
17 extremely high. For low income customers, the cost of
18 capital is potentially defined by credit card
19 statements or check-cashing services. For other
20 customers, it's going to be -- for a business
21 customer, it's going to be their own cost of capital
22 facing their business. For high-income residential
23 consumers who have significant discretionary in -- you
24 know, wealth, potentially the cost of capital for them
25 is quite low.

1 Manitoba Hydro serves an entire
2 population. It serves the whole population of the
3 Province of Manitoba. They cannot, you know, in any
4 reasonable way try and micromanage the cost of capital
5 that their customers face. They set rates that apply
6 to customers across the province, so they have to
7 choose some kind of a typical or balanced or median or
8 -- or average choice for the cost of capital that
9 their customers are going to face.

10 One (1) that I've suggested, which I
11 suggested in -- in the analysis in the NFAT a few
12 years ago when I was here, was the social cost of
13 capital. For at least for purposes of analysis, they
14 could make some reference to the social cost of
15 capital.

16 And Canada, and the Federal Government
17 of both the United States and Canada, in the last few
18 years have used 3 percent real plus inflation as their
19 social cost of capital for purposes of analysis when
20 they're doing different kinds of long-term policy
21 analysis. That is at least a starting point, not
22 necessarily perfect for Manitoba, not necessarily the
23 -- the best rate to use, but at least it's a starting
24 point, and it's not zero. And so in one (1) example,
25 that I worked through in my report, that's what I

1 used; I used 5 percent.

2 But, you know, the -- the point really
3 is that it -- equity or customer contributions or
4 reserves or whatever you want to call them should not
5 be considered free.

6 Next I want to move onto talk about
7 Manitoba Hydro and major investments because, as we
8 noted earlier, it's the cost overrun and the schedule
9 overrun on major investments that is, to some degree,
10 driving the reasons for the application that Manitoba
11 Hydro made.

12 So in thinking about utility economics
13 more generally, it is, I think, a truism to say that
14 it's easiest to manage companies that have lots of
15 small assets that are replaced relatively
16 inexpensively on a regular basis. If you're running a
17 pure distribution utility and the vast majority of
18 your assets are poles and small transformers, and you
19 know you have a collection of stations, and every year
20 you have to replace a certain number of poles, and
21 every year you have to replace one (1) of your
22 stations and some of your transformers, figuring out
23 your economics and how those economics can be managed
24 by ratepayers and rate increases is -- is a much
25 easier proposition.

1 When you move to generation, and you're
2 talking typically about very large assets that are
3 very expensive that are replaced every twenty-five
4 (25) years, every fifty (50) years, every hundred
5 years, it becomes much more complicated because
6 traditional utility economics deals with those large
7 lumpy assets in typically abst -- how to describe this
8 -- in ways that are not necessarily ratepayer
9 friendly, right. A lumpy the asset causes a lumpy
10 rate progression over time, whereas small assets that
11 are replaced smoothly lead to eas -- much more easily
12 smoothed rates.

13 If you look at the accounting treatment
14 of assets, the traditional method in accounting to
15 deal with -- with asset construction, particularly
16 large assets that have to be constructed over a period
17 of years, is that you accumulate those assets, that --
18 that large generation asset, if you will, or
19 transmission asset, in CWIP, in Construction Work In
20 Progress, as it's usually termed, and it accumulates
21 in that account for a period of years. And included
22 in the CWIP account is the accumulated funds used
23 during construction.

24 Now, in an investor-owned Utility, that
25 would consist both of return on equity as well as

1 interest. Because the cost of the asset, from an
2 accounting perspective, is not only the cash cost of
3 construction, but also the financing costs that's
4 associated with that cost -- cash cost of
5 construction. And only when the asset is placed in
6 service does the whole amount go into property, plant,
7 and equipment, it gets termed as being used and
8 useful, and then you start depreciating it after that
9 point and typically on a straight-line basis over its
10 full life.

11 So relating back -- that back to the
12 first point that I made, that this is difficult for
13 ratepayers, pretend that you have a large asset that
14 costs a billion dollars, and the life of that asset is
15 ten (10) years, for argument's sake, depreciation of a
16 billion dollars over ten (10) years is a hundred
17 million dollars a year. If you assume that the cost
18 of capital is 10 percent -- again, just to keep things
19 easy -- you know, 10 percent cost of capital of a
20 billion dollars is a hundred million dollars.

21 So in the first year, you need 10
22 percent depreciation because it's a ten (10) year life
23 asset, plus you need 10 percent of its initial capital
24 cost, so a hundred million dollars of depreciation
25 plus hundred million dollars of capital cost; you have

1 to collect from ratepayers \$200 million. But in the
2 second year, you have a hundred million of
3 depreciation but you have 10 percent of only \$900
4 million. So in the second year you have to collect
5 \$90 million of capital cost. It's a hundred plus
6 ninety (90) is a hundred and ninety (190).

7 And in effect, each year you'll collect
8 less and less from ratepayers. In the first year you
9 collect 200 million, but in the last year you only
10 collect -- collect a hundred and ten (110). Your
11 collection from customers actually goes down over time
12 in the traditional accounting treatment of an
13 expensive asset.

14 And if you replacing the asset every
15 ten (10) years, what your rates end up looking like is
16 a sawtooth. Your rates have to go up immediately upon
17 in-service, and then they fall for the -- the life of
18 the asset. That's difficult for ratepayers because
19 everything else in the economy is going up by
20 inflation, more or less; that's the meaning of
21 inflation. Things don't typically go up by large
22 amounts, and then fall over time; that's not how most
23 products actually work -- most markets actually work.
24 Utilities are kind of peculiar in that respect. You
25 have to deal with this problem of having a sawtooth

1 rate impact for large assets.

2 So there's a bunch of different ways to
3 try and deal with this from a financial perspective.
4 You can finance things a hundred ways under the sun,
5 or you call somebody like me and we help you organize
6 a plan between debt and equity management to -- to
7 organize a different way of paying for. You don't
8 necessarily have to pay for it that way. You think of
9 a mortgage, where mortgages have flat payments over
10 time; they don't have a sawtooth. Or you could
11 actually structure a financial arrangement where your
12 payments every year go up. They -- they might go up
13 by the rate of inflation or by -- they might go up by
14 some other rate that would be more comfortable for
15 your company to manage or your customers to manage.
16 But in the regulated world, you know, the traditional
17 way of doing it is to have that sawtooth, right.

18 And so looking at it in the -- on the
19 next slide, regulators have tried to figure out a way
20 to manage these things, so that the sawtooth doesn't
21 affect ratepayers. One (1) way is sinking funds. And
22 in fact, the PUB has made use of -- of sinking puns --
23 of sinking funds over the last few years. And -- and
24 in the theory behind sinking funds is we'll have,
25 ratepayers before or during construction, pay some

1 money into a sinking fund, so that they can moderate
2 the sawtooth. So that in the year after in-service,
3 you're not going to have such a massive jump in rates,
4 and things will be smoothed out a little bit over
5 time.

6 You can also -- and another strategy
7 that has been used in some jurisdictions is pre-
8 payment of the funds used during construction, pre-
9 payment of interest, for example. Instead of
10 accumulating it in CWIP, you pay it in real time; have
11 -- have customers absorb some of that cost. It's
12 similar to the effect of sinking funds, but it
13 actually changes the book value of the asset at in-
14 service.

15 But in order to do either of these
16 things, you have to set up regulatory asset accounts,
17 which is what regulators do. They make use of
18 regulatory asset accounts, just as you have in -- in
19 the sinking fund that you -- you've created.

20 But the only point here is that there
21 are options. Nothing is required. I mean, over the -
22 - the past, well, frankly, a hundred and fifty (150)
23 years of development of regulatory economics, people
24 have come up with options to try and address the
25 sawtooth effect, because it makes sense for ratepayers

1 to manage that impact, right. Because it is so
2 abnormal as compared to most of the rest of the
3 economy.

4 But then we look at Manitoba Hydro.
5 Manitoba Hydro is a pure cost recovery utility, so
6 Manitoba Hydro actually has problems two (2) problems
7 to deal with, with -- with a large asset. Not only
8 does it have to try and manage the sawtooth effect
9 that occurs for all regulated utilities, but then
10 Manitoba Hydro has the problem of contribution of what
11 is termed on their balance sheets as 'equity', or
12 could otherwise be considered reserves or customer
13 contributions. Who's going to put that money in?

14 If you have to spend that hundred
15 million dollars on an asset, who's going to put in the
16 equity that -- "equity", quote/unquote, that's
17 associated with that asset? If you have, for example,
18 a target of 75 percent debt, that implies that that
19 hundred million dollars asset is only going to have
20 \$75 million of debt and \$25 million of customer
21 contributions. So which customers, at what point in
22 time, are going to contribute that \$25 million. Is it
23 going to be the customers who happen to be customers
24 during the time of construction, or is it going to be
25 customers after construction is completed, or is to be

1 customers before construction even starts, you know,
2 putting money into a fund that will be used at the
3 time of construction? It's a choice. It's also an
4 important fact for customers who are going to be asked
5 to make that contribution.

6 An asset, a utility asset, only
7 provides value when it's in-service. Before it's in-
8 service, the ratepayers aren't actually getting value
9 out of it. This is a cost causality principle that
10 most ratepayers would prefer only to pay for things
11 that they actually use. And the challenge with the
12 contribution of equity in a pure cost recovery utility
13 like Manitoba Hydro is, if the equity or the customer
14 contribution has to be provided during construction,
15 then the ratepayers who are making that contribution
16 are not actually getting any value from it; its going
17 to be ratepayers later who get value from it.

18 If you're building a hundred million
19 dollar asset that's going to have thirty (30) years of
20 life starting on the day it goes in-service, well,
21 theoretically, maybe it should be the ratepayers for
22 that thirty (30) years of life who put that money in.
23 But, unfortunately, that means you would have to
24 finance it with a hundred percent debt while you're
25 actually constructing it, and -- and it would only

1 never really get to 75 percent debt because it will be
2 depreciating over time, right. So it becomes a thorny
3 problem, that Manitoba Hydro, as a pure cost recovery
4 utility has to face. And there is no question that is
5 a thorny -- both thorny and a problem. And that's
6 what really is being talked about when -- when you
7 look at the size of the investments that Manitoba
8 Hydro has been making, and their concern about their
9 debt levels.

10 A couple of the consequences for a pure
11 cost recovery utility like Manitoba Hydro are that
12 when you are constructing a very large asset, the
13 company's debt ratio almost must inevitably rise
14 because it's highly unlikely that your ratepayers
15 today, if the -- the investment is truly large, that -
16 - that your ratepayers would have the capacity to make
17 that contribution, right.

18 And I think if you look at Manitoba
19 Hydro's investments over the last five years, they
20 have been truly large, and they're going to continue
21 to be truly large for the next few years, until this
22 phase of major investments is done. So that -- the
23 debt ratio must rise during that phase and it has.

24 If you look at what Manitoba Hydro said
25 in its NFAT, they said, essentially, that: our debt

1 ratio is going to rise while we're in this period of
2 construction. The only question today is whether it's
3 higher than they had planned or wanted and what
4 they're going to do about it.

5 At the same time, other financial
6 metrics also suffer during this kind of construction.
7 Cash flow-to-debt and cash flow-to-interest, which are
8 of primary concern to credit rating agencies and --
9 and debt investors generally, those metrics suffer for
10 -- well, suffer during the construction of a large
11 asset. And I would point out that in fact they suffer
12 for every kind of company. Every kind of utility sees
13 those financial metrics suffer during construction.
14 The difference between Manitoba Hydro and investor-
15 owned utility, for example, is the those metrics
16 suffer more for Manitoba Hydro than they would for an
17 investor-owned utility.

18 In an investor-owned utility, by
19 definition, they are required to keep their capital
20 ratio at a certain level by regulation, whether it's
21 60/40 or 70/30 or 50/50. And if an investor-owned
22 utility is making a very large investment in a very
23 large asset, they will go to the public markets and
24 they will raise equity so that they contribute certain
25 amount of equity along with debt.

1 In Manitoba Hydro's case, there are no
2 investors. There -- there are no shareholders who can
3 contribute this equity other than ratepayers
4 contributing that equity through rates. So, you know,
5 you're not going to be able to have a 60/40 ratio in
6 the -- at the time of investment itself, or 70/30 or
7 75/25, or whatever the target, and so you are going to
8 rely more on debt during the period of construction,
9 and your debt ratio will unfortunately go up.

10 So we look at what actually happened
11 with Manitoba Hydro. So if you go back to March 31,
12 2012 -- and these are just numbers taken from the
13 statements that have already been filed -- the
14 Manitoba Hydro debt ratio was 74 percent at the time.
15 And I would point out, that in 2012 Manitoba Hydro had
16 almost finished constructing the Wuskwatim generation
17 station and associated infrastructure, which, I
18 believe, if I remember correctly, was a \$1.8 billion
19 investment. Despite the fact that they were spending
20 that \$1.8 billion, their debt ratio had actually been
21 falling for the five (5) years during construction,
22 which implies the fact that those customer
23 contributions were in fact more than 25 percent of the
24 cost of Wuskwatim because the debt ratio was actually
25 falling during that period.

1 So there were substantial customer
2 contributions going in, which meant rates were high
3 enough -- and to be clear here, we are talking about
4 total revenue, so it's domestic rates plus export
5 revenues -- were high enough that they're -- the
6 effective customer contributions were allowing the
7 debt ratio to fall. And so in March 31, 2012, you
8 have a debt ratio of 74 percent. March 31, 2012 was
9 conveniently before expenditures started on Keeyask.
10 The Keeyask infrastructure project, as I understand
11 it, began in 2012, in the summer of 2012. And -- and
12 it's also before construction fully started on Bipole.

13 Since that time, 6.5 -- almost \$6.5
14 billion has been spent on Bipole and on Keeyask and
15 related projects such as the Minnesota -- Manitoba-
16 Minnesota Transmission Project and the Great Northern
17 Transmission Line. And -- and with a caveat there, as
18 you'll see on the presentation, that only the 2016
19 number was provided in the public information for
20 Great Northern; the 2017 number had -- was blacked out
21 for confidentiality reasons, so I don't know what that
22 was.

23 But those projects, at \$6.5 billion,
24 are currently all sitting in the CWIP account on the
25 balance sheet. The CWIP account is actually well over

1 \$7 billion right now, because there's these projects
2 plus a certain amount of other activity that is more
3 typical for Manitoba Hydro.

4 During that intervening five (5) years,
5 Manitoba Hydro also changed from CGAAP accounting to
6 IFRS accounting, which kind of complicates the picture
7 a little bit. Because when you change from one (1)
8 type of accounting to a different type of accounting,
9 your ratios are not necessarily consistent. So the
10 first couple of years, the ratios are on CGAAP, and
11 then you switch over to IFRS. Even though they've
12 just been presented in a line, they're not actually
13 necessarily comparable.

14 But, at March 31, 2017, what they show
15 on their statements, in -- in the same place is a debt
16 ratio of 82 percent. So, consistent with the story I
17 was telling, you're building a large asset, you are a
18 pure cost recovery utility, you can't ask your current
19 customers to make enormous contributions to help you
20 finance the construction, so what do you do? You
21 basically finance most of the construction using debt,
22 right. And as a result, your debt ratio goes up, and
23 it's gone up by eight percent in those five (5) years.

24 But I wanted to actually tease that
25 apart a little bit. And -- and so if we flip to the

1 next slide.

2 I tried to at least approximate a
3 reversal of the change from IFRS to -- sorry for --
4 from CGAAP to IFRS, because that change in accounting
5 standards actually has an impact on the ratio. And --
6 and the biggest part of the change in accounting
7 standards from CGAAP to IFRS is the treatment of this
8 one (1) line account called AOCI; it's Accumulated
9 Other Comprehensive Income. And the -- the item that
10 is critical there is a pension item. It's actually a
11 non-cash pension item.

12 So under CGAAP, that particular pension
13 item was off-book, and it's in the notes to the
14 financial statements. IFRS, the -- the organizers --
15 the international committee that manages IFRS rules,
16 in their wisdom has decided that it shouldn't be off-
17 book, and they wanted included in the balance sheet,
18 and so they changed the accounting standard such that
19 that cas -- non-cash item is now represented on the
20 balance sheet. It has an impact on the AOCI account.

21 And the consequence of that change in
22 accounting standards is approximately 2 to 3 percent
23 of the debt ratio in any given year. So if you
24 reverse that change, then the actual debt ratio
25 shouldn't be eighty-two (82), it should be more like

1 eighty (80), seventy-nine (79) to eighty (80). And
2 then if we look at the \$6.5 billion that are sitting
3 in the CWIP account, and we -- we pretend for a moment
4 -- well, let's pretend that that was all a hundred
5 percent debt financed, and so we'll just take it off
6 the balance sheet. You take the \$6.5 billion off the
7 debt and look at the rest of the company.

8 And if you look at the rest of the
9 company, what you find is that when you've normalized,
10 or at least approximately normalized for accounting
11 systems, and you take those projects out, the debt
12 ratio of the company is actually 73 percent. So it
13 was 74 percent in 2012, and it's basically 73 almost
14 the same 73 to 74 percent as of March 31, 2017. What
15 that suggests to me is that the normal operations of
16 the company have been consistently funded over the
17 past five (5) years. It's just these projects that
18 are being debt financed; these very large, very
19 expensive, long term, long life projects that have
20 been debt financed.

21 It's actually kind of appropriate by
22 some arguments, that they have been debt financed over
23 that period of time. But you are going to have to
24 eventually pay the piper, so to speak. Somebody's
25 going to have to contribute some equity for those

1 projects. And given the fact that one (1) of them,
2 Bipole, is going to be coming into service relatively
3 soon, you know, equity is going to have to be
4 contributed for that, customer contributions are going
5 to have to be contributed for that.

6 The question is how much, and by whom,
7 and when, and to what level over time, right. But
8 there have been some statements made over the course
9 of -- of this hearing so far that customers weren't
10 putting in enough money for the basic operations of
11 the company. And I think the financial statements
12 don't support that, particularly when you normalize
13 for the accounting standards.

14 DR. BYRON WILLIAMS: Mr. Chair, I
15 think this is the -- the break that we anticipated.
16 It's an important in time, and we're right on track.

17 THE CHAIRPERSON: Okay. We'll take
18 ten (10) minutes. We'll -- twenty (20) to -- twenty
19 (20) to 5:00. Thank you.

20

21 --- Upon recessing at 4:27 p.m.

22 --- Upon resuming at 4:43 p.m.

23

24 THE CHAIRPERSON: Dr. Williams...?

25

1 CONTINUED BY DR. BYRON WILLIAMS:

2 DR. BYRON WILLIAMS: I think we're
3 ready to recommence at slide 19.

4 MR. PELINO COLAIACOVO: So the -- the
5 next section, Mr. Chair, is to talk about capital
6 markets, which have been much discussed through the
7 hearing process so far. Manitoba Hydro gets all of
8 its long-term debt from the Province of Manitoba and
9 doesn't directly interact with the capital markets in
10 general.

11 It does have its own short-term debt
12 funds -- not a fund. It has a -- a short-term credit
13 line, which it has not called on any time recently,
14 and that is directly arranged with syndicate banks.
15 But the long-term debt is almost 100 percent from the
16 Province.

17 There are a few remnant funds, which I
18 think have already been discussed at some point during
19 the process, that they have some bonds outstanding
20 which were issued on their own account, but they have
21 not done that in quite a long time. So technically,
22 the lender to Manitoba Hydro is the Province of
23 Manitoba, and the Province of Manitoba, then, in turn
24 interacts with the capital markets.

25 Is there any practical risk that

1 Manitoba Hydro could not get the long-term debt money
2 that it needs? And I think the only short answer to
3 that question is no. Now, a -- a caveat on that is,
4 in fact, there has been in living memory, in recent
5 memory, a time when the capital markets froze, and
6 that was in September of 2008, and I was in the middle
7 of three (3) deals that month which did not close
8 until after January.

9 And the capital markets did freeze in
10 that one (1) instance, but that's pretty much the only
11 instance in the memory of most people who work in the
12 capital markets and otherwise, is there a practical
13 risk that Manitoba Hydro cannot get that? No, there
14 is not, because its debt comes from the Province, and
15 the Province raises money week in and week out on the
16 capital markets.

17 There is a very legit -- legitimate
18 issue, however, which is, what's the cost of that
19 debt? And, you know, the -- the financials of
20 Manitoba Hydro do have an impact on the cost of that
21 debt. A muted impact, because the cost of debt is --
22 for every issuer is a combination of global factors,
23 and regional factors, and very specific local factors.
24 And so Manitoba Hydro's contribution to the cost of
25 debt for the Province of Manitoba is a relatively

1 small fraction of the total picture of how the cost of
2 debt for the Province of Manitoba is determined, but
3 it is a component. It's a legitimate component.

4 But I want to quickly jump to the issue
5 of ratings, because credit ratings have also been much
6 discussed. And I just want to stress that markets are
7 not ratings, and ratings are not markets. The two (2)
8 are related, but they're not the same thing. Capital
9 markets in Canada, practically speaking, for
10 provincial debt, are really a hundred and fifty (150)
11 to two hundred (200) institutions, financial
12 institutions, and these consist of banks, insurance
13 companies, pension funds, and other very large pools
14 of capital.

15 And those hundred and fifty (150) to
16 two hundred (200) institutions each have either a
17 single buyer or a small group that pays attention to
18 provincial debt issues, and they manage the portfolio
19 that that particular institution has of their
20 provincial debt holdings. They buy and sell, draw up,
21 draw down on any given day. They might, depending on
22 how large their portfolio is, depending on what the
23 construction of their portfolio is between liquid and
24 nonliquid provincial debt assets is, they may be
25 buying. They may be selling. They may be taking a

1 long position or a short position. They're making
2 decisions all the time in managing their portfolio.

3 When Provinces the -- you know, decide
4 to issue some more debt, they may choose to
5 participate. They may not. Every one (1) of the guys
6 on that list of a hundred and fifty (150) to two
7 hundred (200) gets a notice about it, and they might
8 choose to buy some or not, right? Some are very
9 reliable that they buy a piece of every issue that
10 comes out, and some just do it selectively depending
11 on their needs. That's the actual market for
12 provincial debt.

13 And in, you know, the financial
14 industry parlance, it's a -- it's guys, it's names.
15 There are a hundred and fifty (150) to two hundred
16 (200) names on that list. It's not credit-rating
17 agencies. Credit-rating engines are -- credit-rated -
18 - rating agencies are not the market, right? Credit-
19 rating agencies are a useful service. They provide,
20 once or twice a year, some analysis. And some players
21 in the market make use of that analysis, and some
22 players in the market don't, because they have a whole
23 group of analysts to do nothing but watch provincials
24 every day, and they pay attention to budgets, and they
25 pay attention to economic statements, and they pay

1 attention to, you know, elections, and changes of
2 government strategy, and they adjust their portfolios
3 accordingly, and they don't wait for a credit-rating
4 agency to give them advice, right?

5 But credit-rating agencies are really
6 useful, particularly because you can actually get
7 access to their information. So Canada's big pension
8 funds are all holders of an enormous amount of
9 provincial debt. Whether you're talking about CPPIB,
10 or OMERS, or Teachers, or the Caisse de depot et
11 placement, it doesn't really matter. They're all big
12 holders of provincial debt.

13 But if you go to talk to their debt guy
14 and -- and want to find out about their analysis of
15 the Province's, well, you -- they're just going to
16 tell you. It's highly unlikely, unless you have a
17 really good relationship with them.

18 On the other hand, if you want a
19 credit-rating agency analysis of a Province, you just
20 pay a fee and you get the analysis. And that's why
21 it's incredibly valuable. It's not necessarily
22 because it's privileged in any way. In fact, it's
23 valuable because it's not privileged, because you can
24 get access to it, right? But it's not the market.
25 And -- and so I think care has to be taken to not put

1 too much value on what credit-rating agencies say.

2 The other aspect to a credit-rating
3 agencies, is there are a number of them, and each of
4 them has their own particular methodology, and each of
5 them comes out with their own decisions about credit
6 ratings.

7 And so even in the case of Canadian
8 Provinces, and there are only ten (10), right, if we
9 look at the three (3) agencies that rate the ten (10)
10 Canadian Provinces, we find not only different
11 ratings, but different rank orderings of ratings in
12 each agency. And that just is a testament to the fact
13 that these are subtle distinctions, difficult
14 distinctions, and each credit-rating agency has,
15 again, a small committee of analysts who do all the
16 work, and then they have a committee meeting. And
17 they say, okay, what's the rating we're going to give
18 to this particular Province today based on things that
19 happened recently and what we believe about the
20 future? And each of those committees comes up with a
21 different answer, and -- and hence, the ratings are
22 all different, right?

23 It doesn't lessen their value to -- to
24 talk about these things. I mean, in -- in my report,
25 I actually have the table of the -- the ten (10)

1 Provinces and what each of the three (3) credit-rating
2 agencies, their ratings for the -- for them are in
3 their rank ordering. It -- it doesn't make them less
4 valuable, but it also does bracket the amount of
5 emphasis I think you should put on how important these
6 credit ratings are, because they're not as important
7 as they are sometimes perceived to be.

8 Having said that, it is important to
9 manage expectations in the capital markets and to
10 manage the perception that capital markets have of an
11 issuer, and -- and by "issuer," I mean Manitoba Hydro.
12 Manitoba Hydro needs a lot of debt. It has a lot of
13 debt, and it actually needs more debt in the next few
14 years before its debt needs will start to ebb away a
15 little bit. It's in a major investment period, and it
16 -- it needs the continued confidence of the markets
17 that it knows how to manage its business.

18 And so what are the kinds of resources
19 that Manitoba Hydro has in managing its relationship
20 with the capital markets, albeit that it's not that
21 direct a relationship, right, always pointing out the
22 fact that it's actually the Province that has the
23 direct relationship and not Manitoba Hydro.

24 But number 1 is the debt guarantee.
25 Manitoba Hydro is a provincially-guaranteed entity.

1 All of its long-term debt is guaranteed by the
2 Province. That's incredibly important. In fact, it's
3 so important, it puts Manitoba Hydro into a different
4 category of issuer, right?

5 Secondly, there is the regulatory
6 regime. Again, incredibly important. Utilities are
7 treated by credit-rating agencies as a special
8 category, right? So there is a -- a category for
9 normal corporates, and a special category for
10 utilities. So Manitoba Hydro is in two (2) subsets.
11 It's, you know, different from corporates because it's
12 a utility, and it's different from other utilities
13 because it's government-guaranteed. It puts it into a
14 very small universe, all right?

15 And for all that in the capital
16 markets, people who specialize in utilities are a
17 small minority of the capital markets, because
18 utilities and utility economics are different from
19 typical economics. When you talk about government-
20 guaranteed utilities, right, pure cost recovery
21 government-guaranteed utilities, you're talking about
22 a very specialized category of the capital markets.
23 It's a subset of a subset, all right? So there is
24 actually very few people writ large who pay close
25 attention to that, right? It's a -- it's a small

1 group of highly specialized analysts that pay close
2 attention to these issues. But -- so the regulatory
3 regime is incredibly important in defining the, you
4 know, the -- the relationship between Manitoba Hydro
5 and capital markets.

6 Then the third item is their ability to
7 raise rates. In other words, the ability to control
8 their own cash flow. Well, that comes straight out of
9 the regulatory regime, but it's more than just the --
10 the formal regulatory regime. It's also their
11 relationship, their relationship with the regulator,
12 their relationship with government, their standing in
13 their community, you know, and -- and it has a lot to
14 do with the risks that they face, right, and being
15 able to manage those risks. What's the history of
16 rate increases? What's the pattern? How are they
17 decided on? All of that is a resource to call upon in
18 managing your relationship with the capital markets.

19 And then finally, financial reserves,
20 or equity, as it says on the balance sheet. That's a
21 resource in managing your relationship with the
22 capital markets. Clearly, if a company has what are
23 often called strong fundamentals, they're going to be
24 well-regarded. It's -- it's another ingredient, but
25 very different from a typical corporate. Because

1 we're dealing with a subset of a subset of a
2 specialized corporation, those financial fundamentals
3 are actually, relatively speaking, a lot less
4 important for Manitoba Hydro than they are for ABC
5 Corporation that competes in the general market
6 selling widgets, all right, because it is a special
7 category.

8 On the challenges side, I've listed
9 three (3) things. One (1) is the perception of cost
10 overruns. It -- cost overruns is something that the
11 markets have learned over bitter experience to pay
12 attention to, especially when it comes to pure cost
13 recovery provincially-guaranteed utilities. Cost
14 overruns on nuclear power plants is what destroyed
15 Ontario Hydro, right? Cost overruns is what's
16 currently roiling Nalcor. Cost overruns is what's
17 roiling the relationship of BC Hydro with the people
18 of British Columbia, and with the British Columbia
19 government. Capital markets pay attention to cost
20 overruns. It's a big issue, all right?

21 Secondly, drought. If you learn
22 anything about Manitoba Hydro, you quickly learn that
23 it is 99 percent hydroelectric and is fundamentally
24 dependent on water inflows. Drought is a bad thing.
25 It's a big risk, and capital markets want to

1 understand how that risk is going to be managed. Is
2 the risk going to be managed because the government is
3 just guaranteeing everything, and it's going to put
4 the money in? Is the risk being managed because rates
5 are going to go up? Is the risk being managed because
6 there's lots of reserves to cover those to -- drought
7 risks? So drought is, for knowledgeable analysts, a
8 very big thing.

9 And then I've somewhat glibly said,
10 There's everything else. There's interest rates.
11 There's export prices. There's inflation. There's
12 operating costs. There's everything else, and
13 analysts will want to know that the everything else is
14 covered, but they also know that those kinds of risks
15 are not what break companies. What breaks the
16 economics of this kind of company is either cost
17 overruns, or droughts, or both, all right?

18 Finally, what's not relevant to capital
19 markets analysts is a whole lot of the principles that
20 are very important to regulation. Intergenerational
21 equity, cost causality, rate stability and
22 predictability, they -- they are knowledgeable enough
23 that these things are relevant, but in the end, they
24 trust to the fact that the company, and the regulator,
25 and the government are going to manage all of these

1 items so that the market gets paid, all right?
2 Because the ultimate nightmare for the capital markets
3 is not getting paid. And the reason why low interest
4 rates are attached to utilities and especially public
5 utilities that are government -- government-guaranteed
6 is that the markets expect to get paid. And -- and
7 how you manage that, which ratepayers pay for it, it's
8 up to you, as long as they get paid, and that's why
9 the interest rates are so low, that premiums over
10 Canada's are so low.

11 So this raises the issue of what's the
12 impact on the provincial credit rating? Cs those
13 people in the cap -- capital markets look at Manitoba
14 Hydro and its debt needs, and it's spending on its
15 projects, what does that do to the Province of
16 Manitoba? DBRS and Moody's have for many years and
17 continue to have a pretty simple position. Their
18 position is as long as we are comfortable, as long as
19 we are reasonably certain that Manitoba Hydro is going
20 to pay all of its costs through ratepayer bills, then
21 there is no impact practically on the provincial
22 credit rating or on the cost of credit. That's been
23 their position consistently. It's in all the credit
24 rating reports.

25 THE CHAIRPERSON: Mr. Colaiacovo, can

1 I just ask you for a clarification on that? You say,
2 As long as it pays its own bills through rates over
3 time. Does that mean 'eventually', or does that mean
4 'continually'?

5 MR. PELINO COLAIACOVO: I think the --
6 the best example is the year in the early 2000's, and
7 I believe it was 2003, when there was an extremely
8 short, sharp shock, a -- a drought for one (1) year.
9 Very, very low -- think it was the second-lowest water
10 inflows in history in that one (1) year. And so
11 Manitoba Hydro's cash flow plummeted through the
12 floor. And, you know, all of the metrics about
13 interest coverage, and capital coverage, and -- and so
14 on, they did not meet those -- those metrics in that
15 year, and yet they continue to raise debt in that
16 year, right?

17 The markets were not terribly
18 concerned, because the one (1) year problem was
19 handled, and the next year following, in fact, water
20 inflows went back up again. So there's not an
21 expectation that cash flow is going to be managed
22 every single year, that -- that costs are necessarily
23 going to be recovered every single year, but that over
24 a reasonable period of time, because they understand
25 that water goes up and down, but over a reasonable

1 period of time, the recoveries are going to be made.
2 The same thing applies to large capital investments,
3 because Manitoba Hydro is not the only utility that
4 makes large capital investments.

5 And yes, during a certain period, that
6 ratios are going to rise, as they have been rising, as
7 they've also been rising in BC and in -- well, in
8 Newfoundland, there is a -- a slightly different
9 issue, because the government's debt is rising as they
10 contribute equity into the -- into Nalcor as a
11 corporation, but its capital is still rising. But,
12 you know, the markets do understand that in a period
13 of construction, the debt ratio is going to go up, but
14 their belief is that -- or their -- they have to have
15 confidence that those costs are going to be absorbed
16 by ratepayers, all right? And as long as that
17 confidence is maintained, then there isn't an impact
18 on the Province.

19 The nightmare scenario is that rates
20 don't cover those costs, and that eventually, the
21 Province does have to directly put money into Manitoba
22 Hydro. But the legislation says all costs are
23 supposed to be recovered through rates. So as long as
24 that confidence is maintained that, yes, all those
25 costs are to be recovered through rates, that's what

1 the capital markets want to hear.

2 Standard & Poor's changed their
3 methodology in 2016. They decided that 'self-
4 supporting' did not any longer mean covering all of
5 your costs through rates, which is what DBRS and
6 Moody's defined 'self-supporting' as. S & P decided
7 that 'self-supporting' means that if you didn't have a
8 government guarantee, your financial fundamentals are
9 strong enough that you would still be investment-
10 grade. That's a very different definition. Prior to
11 July of 2016, they did not use that definition. They
12 decided their committee and analysts, their company
13 decided to take a different position on what the
14 meaning of that term was.

15 Did it actually change anything that
16 Standard & Poor's changed their definition? I would
17 argue that there is no evidence that they had any
18 impact on the market. You've already seen in my
19 report, and -- and others have -- have looked at the
20 same issue of spreads. There has not been -- there
21 was not substantial impact on the cost of credit for
22 the Province of Manitoba when Standard & Poor's made
23 that announcement. It was a departure on their part
24 from their own policies. They shifted the definition.
25 It resulted in some different numbers.

1 Manitoba Hydro has chosen to highlight
2 that change in its application in some of the added
3 materials. I just don't think that it's particularly
4 valuable to focus on that one (1) company's choice of
5 what the definition of self-supporting would mean as a
6 driver of rate policy in Manitoba.

7 So, capital markets do like to
8 understand. They -- they like to be spoon-fed. They
9 like to be given information that is easily
10 digestible. They like clear statements. They like
11 rules. If this happens, then we will do that. All of
12 you will get paid. Don't worry about it. They --
13 they like clear guidance. We're going to make this
14 much money. If we don't make that much money, we're
15 going to fix it in the following ways. And then
16 they'll watch and they'll say, Did you actually make
17 that much -- much money? If you didn't make that much
18 money, did you fix it in the way you said you were
19 going to fix it?

20 That's the kind of thing the capital
21 markets like. That's what creates confidence, track
22 records, rules, clear statements, clear guidance, and
23 communication, all right? Everything that you as a
24 Board choose to do with Manitoba Hydro contributes to
25 that picture.

1 Manitoba Hydro obviously contributes
2 that picture in their own actions and their own
3 statements. They have come forward with an
4 application that has asked for 7.9 percent increases
5 over six (6) years because they've claimed that they
6 have to manage a bunch of risks, and that does create
7 a conversation. Are -- are those risks all real? Do
8 they actually need that amount of money? If they
9 don't get that much money, are they going to have a
10 problem? Should we be worried about it in the capital
11 markets? Should we be worried about this -- this debt
12 over time?

13 Unfortunately, a -- a consequence of
14 being pessimistic is other people having pessimism
15 about you, and there's -- there's nothing to do about
16 that except respond. And the more clearly and
17 objectively the Board chooses to respond, you know,
18 you will either cement that narrative and -- and
19 create a self-fulfilling prophecy around the need for
20 those reserves, or you can counter it, or moderate it,
21 or what you choose to do.

22 My advice to you would be to be clear
23 when, you know, you -- you make that decision, because
24 clarity and -- and ease of understanding is important
25 to capital markets, particularly since you're dealing,

1 as I said earlier, with the subset of a subset of a
2 group of analysts that actually pay attention to these
3 things, and not all the time, all right? As I say
4 here on the slide, it is an art, not a science, to
5 manage these expectations, and -- and all you can have
6 is -- is sort of suggestions and -- and guidelines to
7 help you along that process.

8 So to -- to turn to the issue of their
9 actual targets and the timing goal. Manitoba Hydro's
10 application is built around an argument that Manitoba
11 Hydro requires 75 percent debt ratio, and that the
12 debt ratio target needs to be achieved by March 31st
13 of 2027. The application talks about the fact that
14 previously, the Company had either explicitly or
15 implicitly allowed the perception to form that
16 achieving a 75 percent ratio could be done later.

17 If you look back at the NFAT
18 proceedings, many of the -- the scenarios that were
19 run during the NFAT proceedings showed the 75 percent
20 debt ratio being achieved sometime in the mid-2030s,
21 depending on which scenario we're looking at, and
22 which set of conditions. There were are all sorts of
23 -- of, you know, high and low cases, and so on and so
24 forth.

25 But there certainly, in the NFAT

1 proceedings, was not an emphasis on an early
2 achievement of the 75 percent debt ratio. And in
3 fact, in many of the NFAT statements, there were
4 discussions about the achievement of that target being
5 delayed in adverse conditions. And there wasn't a lot
6 of emphasis, as I recall, subject to -- to check, that
7 it was necessary to meet that 75 percent target by a
8 specific 'X' on such day.

9 But now, in this application, Manitoba
10 Hydro has said with -- in clear terms that 2027 is
11 very important. So in order to achieve that, what
12 does that mean? Well, half an hour ago, I had a
13 discussion about where things are at the moment. And
14 you know, I would argue that not including Bipole,
15 Keeyask, and -- and related projects, Manitoba Hydro's
16 at approximately 25 percent equity, a 75 percent debt,
17 73 percent debt today, not including those projects.

18 So if you want to get to 75 percent by
19 2027, it means customers have to contribute one
20 quarter (1/4) of that \$6.5 billion that's been spent
21 to date, plus they have to contribute one quarter
22 (1/4) of whatever gets spent on those projects in the
23 next five (5) years till they're finished, plus the
24 customers have to contribute one quarter (1/4) of the
25 difference between capital spending and depreciation

1 over this period. And only if they contribute all of
2 that capital will you get to a 75 percent debt ratio
3 by March 31, 2027.

4 So customers between now and then are
5 going to pick up all of that contribution burden,
6 right, for assets that, in some cases, have a hundred
7 year life. Keeyask is going to be coming into service
8 in 2022. So, five (5) years after the coming into
9 service, you will have fully funded the 25 percent
10 customer contribution into Keeyask, and yet Keeyask
11 will last for a hundred years. So for the other
12 ninety-five (95) years of Keeyask's life, customers
13 won't have to contribute anything to it. They'll pay
14 their depreciation. They'll pay the cost of capital,
15 but they won't be contributing to that portion of the
16 capital. It's all going to be done in five (5) years,
17 right?

18 That's in effect what Manitoba Hydro
19 has been arguing is required, right? So is it
20 actually required? Is it necessary? Is the -- is the
21 75 percent necessary? Is the timing necessary? Have
22 they provided enough evidence to justify those --
23 those claims?

24 And then a broader question is: Is the
25 debt ratio target actually the right kind of target

1 for a pure cost recovery public utility that's going
2 through a major investment period? Maybe it's the
3 right kind of target to have when you're not in a
4 major investment period. Maybe it was the right kind
5 of target -- target to have in 1995, when they came up
6 with the target. And by the way, they were at about
7 95 percent debt, right, so they had a target. Let's
8 get down from ninety-five (95) to seventy-five (75).

9 I think the real question is: Is it
10 the right kind of target today in these circumstances?
11 Beyond that, there is an unfortunate issue which is in
12 the context of this GRA, How should you, the Board, be
13 managing really what amounts to a capital structure
14 question? Because in a lot of other jurisdictions,
15 capital structure issues are determined, and the
16 process is separate from rate hearings.

17 Now, Manitoba has only one (1)
18 electricity utility company. So it's unlike some
19 jurisdictions which have multiple electricity
20 companies, where you have to come up with a policy
21 that applies to multiple companies, but it's -- it's
22 just unfortunate, because the issues that you have to
23 deal with in determining capital structure questions
24 are -- are different, usually, from the issues that
25 you deal with for a normal every couple of years rate

1 hearing. But you'd been put in this position because
2 Manitoba Hydro made it the centrepiece of their
3 application, so you have to deal with it.

4 So what are these targets and timing
5 goals? The 75 percent debt and -- and 2027, what does
6 it actually mean? So the application claims that if
7 their rate path -- their forecasted rate path were
8 followed, 7 -- 7.9 percent for a number of years,
9 there would be a 50 percent chance of achieving that
10 target debt ratio by 2027. Is that 50 percent
11 actually credible?

12 I think you've already heard from some
13 others, like, Daymark was talking about the -- the use
14 of these 50 percents, and is it actually P50, or is it
15 some other number? When you look at hydrology, are
16 they actually talking about a P50 hydrology analysis,
17 or is it something slightly different? There's a
18 question about the accuracy of that 50 percent,
19 because if they -- if they actually have a 60 or a 70
20 percent chance of achieving their target under those -
21 - under that -- that rate path, well then, maybe it's
22 too high, right? There are some legitimate questions
23 to be active -- asked about the technicalities of how
24 they came up with these analyses.

25 But the other piece is that there

1 doesn't really appear to be much of clarity in terms
2 of the trade-off between the targets, the timing, and
3 conditions, right? One (1) of the things they've said
4 is, Well, if we had this level of equity, then we
5 would be able to manage risks like droughts without
6 having to change rates. But what if you had a drought
7 while you are trying to build your equity? So if you
8 have a drought, you're going to get a lot less cash
9 flow, and you're going to have higher costs, and
10 you're not going to build equity as quickly.

11 So if the drought happens before 2027,
12 is it okay to not meet the target? How bad does the
13 drought have to be before you accept that it's okay to
14 not meet the target? There hasn't really been any
15 clarity on those trade-offs, right?

16 The 7.9 percent rate path is suggested,
17 but really, they've only applied for two (2) years of
18 rates. Everything else is just a forward forecast.
19 So if the Board were to agree to the 7.9 percent rate
20 path, are you somehow suggesting that you're not going
21 to revisit those rates every two (2) years? I don't
22 think that's what you're saying. I don't think that's
23 what they've actually asked for, right? So what
24 really is the target, and what's the timing, and what
25 value do they have?

1 Yes, it's a forecast, and they've
2 claimed some percentages around it, but you're not
3 going to abdicate your responsibility to review rates
4 every two (2) years. So, you know, is 2027 important
5 or not important?

6 And then, you know, the 75 percent
7 debt. As I mentioned, the target was decided in 1995.
8 Why is 75 percent debt important today? Well, I've --
9 I've suggested two (2) reasons. One (1) is comfort
10 and familiarity. Other people have targets that look
11 kind of like this. Other people have cost capital
12 structures that are divided 60/40, or 70/30, or 80/20,
13 and a 75 percent debt target looks kind of similar to
14 what other people have.

15 So there is comfort in that, and I
16 don't want to actually dismiss that, because there's
17 comfort not only for the Company, and for the
18 regulator, there's comfort for capital markets. If
19 something appears typical, it's easy to accept. So
20 that's a legitimate argument. I don't think it should
21 be determinative, but it's a legitimate, right?

22 The second argument, or -- that they've
23 made is that it's important for the management of
24 risks. They've claimed that a healthy equity cushion
25 would allow them to operate without sudden rate shocks

1 in the event of financial challenges. But at the same
2 time, if you look at the 3.36 percent that was already
3 approved, plus six (6) more seven point nines (7.9's)
4 and a four five-four (4.54), that's -- total is over
5 70 percent rate increase in the course of eight (8)
6 years. So by doing eight (8) years of increases at,
7 you know, for a total of 70 percent, are you actually
8 doing a rate shock to prevent a rate shock, or to
9 ensure against a rate shock? Well, doing something
10 with certainty in order to avoid its potential in the
11 future, at some level of probability, is a
12 questionable action to take.

13 The second claim that they've made is
14 that a lack of this healthy equity cushion would
15 create risks for the Province. And, you know, is that
16 a real risk? And we've already talked about self-
17 supporting, and about the recovery over time. Do
18 capital markets actually care that you necessarily
19 recover that enormous capital contribution over the
20 course of five (5) years after Keeyask is done?

21 One (1) of my contentions early on was
22 that, in fact, capital markets don't care so much
23 about timing as long as you're covering your costs as
24 long as you're covering your bills, how you distribute
25 it across your ratepayers, that's your business, from

1 a capital market's perspective. It affects -- the
2 timing of repayment affects the -- the level of
3 confidence. So there's always balancing. You have to
4 have reserves. You have to have the willingness to --
5 to have appropriate cash flow. But as long as you're
6 clear about it, as long as you have rules about it,
7 you can satisfy capital markets.

8 Having said all of that, hydrological
9 risk is real and it's -- it's one (1) of those very
10 big issues that capital markets pay attention to. You
11 have to be able to demonstrate in no uncertain terms
12 that you're managing your hydrological risk. You have
13 over a hundred (100) years of experience and -- and of
14 knowledge on hydrology in this province. You have a
15 very clear understanding of the variability from year
16 to year. And you know that -- also the potential for
17 five (5) and seven (7) year droughts, or even longer.

18 So you do need some customer
19 contributions. You do need some reserves. You do
20 need some cushion to manage those eventualities. But
21 Manitoba Hydro has not made a specific argument that
22 says, here's how much we need to manage that risk.
23 And here's how much we need this year. And here's how
24 much we need next year. And here's how much we need
25 the year after, right. They've asked for a blanket

1 target of 75 percent debt; not particularly focused in
2 on -- on this risk that needs to be managed, which is
3 a big risk and which is of import in any capital
4 markets' analysis.

5 Another Utility Bonneville Power
6 Authority, which is in a similar situation to Manitoba
7 Hydro in that it is mostly driven by hydrology has a
8 very specific rule and their rule is our rates have to
9 be sufficient so that we can manage 95 percent of all
10 hydrological outcomes, without having to go back and
11 ask for different rates for the next two (2) years.
12 It's a rule. They talk about it in their debt
13 presentations, right. And so everybody knows that's
14 how they set their rates. They set their rates so
15 that they don't have to go back for new rates as long
16 as it's not in the 5 percent tail, right. And that
17 rule provides comfort to the market. They know what
18 they're doing and they're managing.

19 And they also say if we are in the 5
20 percent tail then we will go back and ask for higher
21 rates to compensate for the fact that our hydrology
22 has deteriorated into that 5 percent risk tail. So
23 it's -- again, tell the markets what you're going to
24 do, and then you actually have to do it, if the
25 situation arises.

1 DR. BYRON WILLIAMS: Could I take you
2 back to slide 29 --

3 MR. PELINO COLAIACOVO: Sure.

4 DR. BYRON WILLIAMS: -- just for a
5 moment. And just towards the bottom of that slide you
6 described the Bonneville Power Authority as an
7 extremely short time horizon.

8 MR. PELINO COLAIACOVO: Right.

9 DR. BYRON WILLIAMS: Maybe you can
10 just elaborate on that a little bit.

11 MR. PELINO COLAIACOVO: Sure. I mean,
12 their need for reserves in their particular case is
13 quite low because they are only looking at a two (2)
14 year time horizon. And at the same time, they have a
15 high willingness to make rate adjustments. There was
16 a -- I believe, in fact, it's the same year that
17 Manitoba Hydro suffered very low water inflows 2003.

18 Bonneville Power also suffered the same
19 low water inflows that year. They responded by making
20 a very significant rate increase for one (1) year, all
21 right. They -- they -- it was over 20 percent rate
22 increase. Their customers are all by and large other
23 Utilities. They're a wholesale level provider. So
24 they passed that on to other Utilities and then
25 dropped their prices subsequent to that event when

1 water came back.

2 I'm not for a moment suggesting that
3 you should follow their example because it may not be
4 appropriate for Manitoba Hydro in your circumstances.
5 You may want to look at a five (5) year or a seven (7)
6 year or a ten (10) year period and say, We have to
7 have rates that are going to allow us to manage bad
8 water conditions over a five (5) or seven (7) or ten
9 (10) year period of time. And so we're going to need
10 reserves that are appropriate to match that level of
11 risk, at -- at some level of probability; 95 percent,
12 97 percent, 99 percent, you know, manage all of the
13 risks except for the one (1) at the most extreme tail.

14 Because you do have retail customers,
15 you have residential customers and I don't think you
16 want to do 20 percent rate swings from one (1) year to
17 the next, right. But, the point of Bonneville Power
18 is just that they have a rule. They've stated a rule.
19 They live by their rule, and that's one (1) way to
20 manage capital markets is to have those kinds of rules
21 and stick to them.

22 So should other risks be managed by
23 reserves? I've suggested that you should have
24 reserves. You should have customer contributions or
25 equity, whatever you want to term them, to manage

1 hydrological risk. But what about export price risk
2 or an interest risk or inflation risks? Most of those
3 are long-term risks. Inflation changes slowly over
4 time, all right. Interest rates change relatively
5 slowly over time and even if there is a sharp interest
6 rate shock, it only affects a small part of your debt
7 portfolio, Manitoba Hydro's debt portfolio. They
8 follow fairly strict and high-quality treasury
9 practices. Their -- you know, the amount of their
10 debt that is exposed to interest rates in any one (1)
11 year is a relatively small portion; notwithstanding
12 the fact that they're in the midst of issuing a lot of
13 debt. They have a very professional treasury practice
14 as you would expect for a sophisticated corporation.

15 And so even if interest rates spike, it
16 actually only has a muted impact on their cash flow
17 because only a small portion of their debt is either
18 short-term or coming up for renewal in any given year,
19 right. So interest rate risks change more slowly over
20 time.

21 Should you actually try to smooth that
22 risk through reserves? Well, unfortunately, while you
23 can get short or medium term forecast for interest
24 rates, you can get short or medium term forecast for
25 export prices or for inflation or a number of other

1 things, long-term forecasts aren't really worth the
2 paper they're written on. Ask an economist in 1995
3 what interest rates were going to be in 2015. No
4 economist would've told you, you could get ten (10)
5 year Canada money at 1.2 percent. Just would not
6 happen, right. And that's nothing -- there's nothing
7 wrong with the economist. It's just that inflation
8 over the long-term -- I'm sorry, interest rates over
9 the long term are not predictable. There's too many
10 factors at play that -- that drive them one way or
11 another.

12 Should you try and smooth interest
13 rates over the long term, or should you just pass on
14 the costs of those interest rates to ratepayers over
15 time as they slowly change over time? I think the
16 more logical thing to do is manage them in the short
17 term through tools that you have and you do have
18 tools, you have treasury practices to do that, and
19 over the long term you pass through things like
20 interest rates or inflation.

21 Export prices potentially are a middle
22 ground. Export prices can change unpredictably in the
23 short term, but bouncing around a mean in the short
24 term. But in the long term, export prices are
25 affected by changes in technology, which are

1 unpredictable. I was working at -- as the Minister's
2 chief of staff from 2003 to 2005 when we did an
3 analysis in Ontario about the future of our supplies.
4 Should we be refurbishing nuclear plants or building
5 wind plants or building gas or -- or what should we be
6 doing to ensure the future of our prov -- our
7 provinces supply?

8 At the time we looked at wind and
9 solar, and we said, well, wind and solar -- solar's
10 \$0.45 a kilowatt hour. It will never be anything
11 other than -- anything other than a curiosity. Yes,
12 it's -- it's green and so we'll have a small program
13 for solar but we won't really pay too much attention
14 to it. And for wind, wind is expensive and it's a
15 nice renewable edition. That was in 2004/'05.

16 Last summer there was a 500 megawatt
17 solar facility -- actually, two (2), one in Chile and
18 one in the United Arab Emirates that beat each other
19 as the cheapest power facility ever built on the
20 planet, right, twenty-three (\$23) US.

21 Then there was a wind farm in Oklahoma
22 that was done -- it was like a thousand megawatts of
23 wind for twenty-eight (\$28) US, right. Those kinds of
24 prices were not predicted ten (10) years ago.
25 Technology change has driven those -- those prices to

1 a completely different place than anybody expected.
2 You can't predict technology in the long term, so, you
3 can't smooth it in the long term either. It goes
4 where it goes and you have to just accept the
5 consequences.

6 At any given time you have to make
7 decisions. So it in the NFAT it was important to have
8 a long-term view and to -- and to make some forecasts
9 and take some risk in making a choice, but that's a
10 different exercise; that's a decision-making exercise
11 where you're choosing between one (1) future and a
12 different future, and each of them has risks. So you
13 make a choice based on the forecasts you have.

14 But a GRA, I think a ratesetting
15 process is different. Certain things should not be
16 smoothed. Certain things you just have to accept.
17 And interest rates and inflation certainly fall into
18 that category. Exports in the short term, you may
19 need to smooth, but not in the longer term. You
20 can't. There's no practical way to do it

21 So if you were going to do reserves for
22 hydrology only, if that was the only risk you were to
23 manage through reserves, how much would you need? Do
24 you need 25 percent reserves to manage hydrology?
25 Well, as it happens, Manitoba Hydro did some scenarios

1 for the PUB in the IR process looking at five (5) and
2 seven (7) year droughts under different conditions.
3 And five (5) and seven (7) year droughts have some
4 negative consequences, particularly, if they strike at
5 very inopportune times.

6 And one of the worst consequences was
7 for the 3.95 percent rate path, a seven (7) year
8 drought that began in 2022/'23. And yes, \$2 billion
9 of retained earnings of equity, of customer
10 contributions, whatever you want to call them are
11 vaporized over that seven (7) year period before water
12 starts to come back.

13 But I would hasten to point out that at
14 the beginning of that period, the ratio was nowhere
15 close to 25 percent in that model, right. And yet it
16 was still enough to manage a seven (7) year drought.
17 Twenty-five percent does not appear to be necessary,
18 according to Manitoba Hydro's own forecasts and
19 scenario modelling. Twenty-five percent does not
20 appear to be necessary to manage hydrological risk, a
21 seven (7) year drought, right.

22 Maybe if you're trying to cover not
23 only hydrology but also smooth interest rates and also
24 smooth export prices, and also smooth inflation and
25 domestic demand and everything else, you know, you

1 might get to a point where 25 percent is necessary but
2 should you be smoothing all of those things? That's
3 really the question to ask.

4 There are two (2) other targets that
5 Manitoba Hydro includes in the application as being
6 important, and to a lesser -- greater or lesser degree
7 talks about. One (1) is the capital coverage target
8 and the last is the interest coverage target.

9 I don't want to spend much time on
10 these, because I think in the application itself
11 Manitoba Hydro focuses mostly on the debt ratio
12 target. But in terms of capital coverage, there is a
13 -- a target of 1.2 times. Now, what does that mean?
14 It means that the cashflow of the Company has to be
15 1.2 times capital spending on nonmajor projects.

16 There is -- there are some issues of
17 arbitrariness and we're running out of time and so I'm
18 not going to spend much time on this, but -- but there
19 are some issues of arbitrariness in those definitions,
20 in the use of the definitions over time, but I think
21 there's a -- a more important question about what is
22 the meaning of 1.2? Where did 1.2 come from? Why is
23 it important to constantly be lowering your debt
24 ratio? Because that's what that means, right.

25 In the normal course of business if

1 your capital coverage ratio is above 1, you're
2 constantly reducing your debt ratio. And that to me
3 is associated with another statement that I -- I read
4 in one (1) of the transcripts from early in the
5 hearing process which was, you can't run a Utility
6 business at zero net income.

7 Actually, I think you can, in some
8 cases under the right conditions run a Utility
9 business with less than zero net income if you're in -
10 - in a period of very low investment and your
11 depreciation is higher than your capital spending, and
12 you've already achieved your desired debt ratio. If -
13 - if you have, in fact, a lot of net income your debt
14 ratio is going to plummet, right, and you're going to
15 be retaining a lot more customer contributions than
16 you need to retain.

17 So why wouldn't you run negative net
18 income in that -- in that scenario? You're not in
19 that scenario today. You're far from it, okay, but
20 all I'm doing is calling into question the permanence
21 of these targets and -- and why should you assume that
22 you're always going to be spending more capital than
23 your depreciation? Why should you assume that you're
24 always going to be growing?

25 Today you're doing Bipole and Keeyask;

1 one is a 60 year asset, the other on -- the other is
2 100 year asset. We know from the forecasts that
3 another major project is not going to be required
4 until at least 2040. So over the next 23 years, there
5 may be some times when depreciation is actually bigger
6 than capital spending, right. And -- and so that has
7 implications for these targets and for the rates that
8 are associated with the Company.

9 Finally, the interest coverage target.
10 The EBITDA interest target is 1.8 times. I'm not
11 going to say much about this, it's fine. Moody's in
12 the United States provides I think a -- one (1) little
13 useful tidbit. If you look at the ratings criteria,
14 as I said earlier, there's one (1) set of rating
15 criteria for general corporates; a second one for
16 investor-owned utilities; a third rating criteria for
17 publicly-owned utilities, right.

18 If you look at investor-owned
19 Utilities, a 1.8 times EBITDA to interest would not
20 qualify as investment-grade. But if you look at
21 public power utilities 1.8 times is investment-grade.
22 It's just different because you have different levels
23 of government guarantee.

24 So, Manitoba Hydro is provincially
25 guaranteed an entity. One point eight times interest

1 coverage is a fine target. There doesn't really need
2 to be a lot of discussion around it, I don't think.

3 Finally, to sum up, I said it early in
4 my presentation that regulatory princ -- there's a
5 bunch of regulatory principles: access to capital
6 markets, yes, but also cost causality and efficiency
7 and fairness and intergenerational equity. There's a
8 lot of different principles and in coming to
9 regulatory decisions, I think you have to balance
10 those principles, if you can. And it's an art not a
11 science, and it's not perfect and you have to make the
12 best of the -- the data that you're given.

13 But a question to ask yourself is
14 whether you have the flexibility to make a balanced
15 decision or if the circumstances just require you to
16 do something. And I think that in this instance the
17 question to ask is: In order to satisfy capital
18 markets, are the 7.9 percent rates actually necessary?
19 If they're not necessary is a different decision
20 potentially more balanced and fair to all concerned?

21 And given the time has run out to
22 summarize these last couple of slides, my contention
23 is and -- and I think my firm's opinion is that 7.9
24 percent for the next six (6) years is not required.
25 It's not necessary to satisfy capital markets. You

1 could manage the finances of the rates of Manitoba
2 Hydro differently. And since it's not necessary,
3 other options would, in fact, be more balanced and
4 fair because that very significant series of rate
5 increases is -- is, I think, something which for
6 ratepayers is very, very hard to accept the
7 consequences of that and what it actually means in
8 terms of ratepayer contributions, customer
9 contributions to the capital of the Company after such
10 an intense period of capital investment.

11 So, barring any other questions, I
12 think I'll just stop there. My time has run out.

13 DR. BYRON WILLIAMS: Mr. Colaiacovo,
14 will -- and this is subject to the Board's guidance
15 but I think your legal counsel may have inadvertently
16 misled you. We -- we -- I think we told the Board
17 somewhere between two and two and a half hours so if
18 there's a few points on these last slides that you
19 wish to make, for example, you know, you shou --
20 without -- I think you -- you have a bit more time,
21 subject always to the Board's direction.

22 MR. PELINO COLAIACOVO: I think I'll -
23 - I'll leave it there. The -- the --

24 THE CHAIRPERSON: I suspect there will
25 be questions tomorrow, so I think it's a good place to

1 leave it. So we will adjourn until 9:00 a.m. tomorrow
2 morning. Thank you very much, sir.

3

4 (PANEL RETIRES)

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6 --- Upon adjourning at 5:37 p.m.

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9 Certified Correct,

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14 Cheryl Lavigne, Ms.

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