VOLUME 1

Index – MIPUG Book of Documents

Manitoba Hydro's Needs For and Alternatives To (NFAT) Review

March 3, 2014

Tab #	Description	Sources
1	a) Manitoba Hydro's Definition of 'Need'	a) MIPUG/MH I-001 from the NFAT Review. Available online: http://www.hydro.mb.ca/projects/development_plan/bc_documents/new/mipug_round_1_responses.pdf
2	a) Revenue Sources for Electricity 2002/03 – 2011/12	a) http://www.hydro.mb.ca/corporate/gid/09-19-12sources-revenue.jpg
3	a) Transcript of Scott Thomson – opening remarks for NFAT Technical Conference	a) NFAT Technical Conference Transcript, September 5, 2013; pages 6 – 11. Available online: http://www.pub.gov.mb.ca/pdf/nfat/nfat_technical_conference_transcripts_september_5_2013.pdf
4	a) Manitoba Hydro News Release - Two New Power Deals Signed with Wisconsin Public Service b) Manitoba Hydro News Release - Manitoba Hydro and Great River Energy Announce 600 MW Power Sale Memorandum of Understanding	a) News Releases by Manitoba Hydro on a) February 28, 2014 and b) February 21, 2014. Available online: https://www.hydro.mb.ca/NewsReleases/MainLaunch
5	a) Manitoba's Clean Energy Strategy	a) Manitoba's Clean Energy Strategy, December 2012. Pages 1-3, 6-7 and 9-15 . Available Online: http://www.manitoba.ca/iem/energy/pdfs/energy_strategy_2012.pdf
6	a) Legislative Assembly of Manitoba – The Standing Committee On Crown Corporations - Excerpts from April 4, 2012	a) Legislative Assembly of Manitoba – The Standing Committee On Crown Corporations, 1st Session- 40TH Legislature, Crown Corps 2, Apr 4, 2012. Pages 1, 12, 23-25. Available Online: http://www.gov.mb.ca/legislature/hansard/1st-40th/cc_02/cc_02.html

TAB 1

REFERENCE: Appendix 1.1 TOR and OIC

PREAMBLE: Definition of "need": In each answer please provide reference to the foundation for Manitoba Hydro's conclusion, e.g., the Manitoba Hydro Act, the Sustainable Development Act, the Clean Energy Strategy, any other corporate, provincial or economic policy document, or any broad social responsibility imperative.

QUESTION:

In respect of the OIC Terms of Reference, please provide Manitoba Hydro's definition of "need".

RESPONSE:

In respect of the OIC Terms of Reference, Manitoba Hydro's defines "need" generally to be the requirement for new electrical resources to supply domestic load plus to supply export obligations arising from existing approved export contracts.

The reference scenario forecast of when new resources are required to supply the "need" is 2023 utilizing 2013 assumptions. This is based on existing resources and committed export contracts which do not require new generation and related committed imports. This means that the MP 250MW, WPS 100MW, WPS 300MW and NSP 125MW sales are not considered but the existing NSP 375MW contract is. The imports available with a new interconnection are also not included. From a hypothetical perspective, if the new resources requirement date were calculated on the basis of only domestic load and resources and excluded all exports and imports, the date new resources are required would be 2019 instead of 2023.

REFERENCE: Appendix 1.1 TOR and OIC.

PREAMBLE: Definition of "need": In each answer please provide reference to the foundation for Manitoba Hydro's conclusion, e.g., the Manitoba Hydro Act, the Sustainable Development Act, the Clean Energy Strategy, any other corporate, provincial or economic policy document, or any broad social responsibility imperative.

QUESTION:

Does need including the full circumstances described in Chapter 6 (i.e., does Manitoba Hydro view that there is a "need" to pursue the present opportunity before it dissipates?).

RESPONSE:

As described in Manitoba Hydro response to MIPUG/MH I-001(a), Manitoba Hydro's definition of "need" does not specifically include the interconnection and export/import opportunities described in Chapter 6. Instead these interconnection and export/import opportunities are included in the broad definition of "alternatives to". These opportunities are available to combine with other alternatives to reduce the costs and increase the benefits of these alternatives as part of an integrated plan. New hydro alternatives are required to be part of such an integrated plan because the U.S. counterparties are not willing to enter into the negotiated export contracts or champion building a new interconnection without a new hydro plant being available to supply their requirements specified in the Power Purchase Agreements. Thus such a plan at a minimum would require Keeyask at a date earlier than required for Manitoba Load, in conjunction with the new interconnection. Other resources can be part of the plan such as DSM, gas, wind and other new hydro, specifically Conawapa. Conawapa is of particular interest to the counterparties because it would provide hydro energy and capacity over the expanded interconnection in addition to what Keeyask would provide.

REFERENCE: Appendix 1.1 TOR and OIC

PREAMBLE: Definition of "need": In each answer please provide reference to the foundation for Manitoba Hydro's conclusion, e.g., the Manitoba Hydro Act, the Sustainable Development Act, the Clean Energy Strategy, any other corporate, provincial or economic policy document, or any broad social responsibility imperative.

QUESTION:

Does Manitoba Hydro include a social imperative in its definition of need (i.e., does Manitoba Hydro view that it has a social imperative to help fulfill the "need" for economic development in Northern Manitoba, jobs, investment)?

RESPONSE:

Manitoba Hydro's definition of need does not include a social imperative to help fulfill the "need" for economic development in Northern Manitoba, jobs and investment. However in consideration of "alternatives to", Manitoba Hydro considers a range of criteria with which to evaluate the various development plans and compare them. These criteria include socio-economic impacts and benefits on Northern and aboriginal communities and consequences for the Manitoba economy. Please refer to Manitoba Hydro's response to CAC/MH I-228a for a listing of criteria.

The development plan decision process is one of striking the appropriate balance among competing factors or criteria. At the end of the day it will be for the government, as the approving authority, to determine if Hydro has struck the appropriate balance of all of the factors while at the same time meeting its statutory obligations.

Manitoba Hydro is guided by the Corporation's Sustainable Development Principles which are summarized in Appendix J, 2010/11 Sustainable Development Report, page 52. These

principles flow from and are consistent with the Manitoba Principles of Sustainable Development (provided and discussed in Appendix 14.1).

Manitoba Hydro is required to prepare and adopt such a sustainable development code by the provincial Sustainable Development Act.

REFERENCE: Appendix 1.1 TOR and OIC

PREAMBLE: Definition of "need": In each answer please provide reference to the foundation for Manitoba Hydro's conclusion, e.g., the Manitoba Hydro Act, the Sustainable Development Act, the Clean Energy Strategy, any other corporate, provincial or economic policy document, or any broad social responsibility imperative.

QUESTION:

Does Manitoba Hydro adopt a definition of "need" that encompasses item 2(j) of the PUB's scope, i.e., that Manitoba Hydro "needs" to pursue a development plan that achieves the highest and best likely socio-economic outcome for Manitoba, regardless as to whether the strict kWh are required to serve Manitoba based load for many years, if at all?

RESPONSE:

Manitoba Hydro's definition of need does not include item 2(j) of the PUB's scope, i.e., that Manitoba Hydro pursue a development plan that achieves the highest and best likely socio-economic outcome for Manitoba. The NFAT TOR does not actually state "that Manitoba Hydro "needs" to pursue a development plan that achieves the highest and best likely socio-economic outcome for Manitoba" but rather:

> *"An assessment as to whether the Plan is justified as superior to potential alternatives that could fulfill the need. The assessment will take the following factors into consideration:*
>
> *a. …….*
>
> *j. If the Plan has been justified to provide the highest level of overall socio-economic benefit to Manitobans, and is justified to be the preferable long-term electricity development option for Manitoba when compared to alternatives.*

Similar to the discussion in the response to MIPUG/MH I-001c, the comparison of alternatives is related to the "Alternatives To" aspect of the NFAT review wherein Manitoba Hydro considers a range of criteria with which to evaluate the various development plans and compare them. Please refer to the response to CAC/MH I-228a for a listing of criteria. Achieving the "highest level of overall socio-economic benefit to Manitobans" is one criterion in the comparison of the plans and selection of the preferred plan.

REFERENCE: Appendix 1.1 TOR and OIC

PREAMBLE: Definition of "need": In each answer please provide reference to the foundation for Manitoba Hydro's conclusion, e.g., the Manitoba Hydro Act, the Sustainable Development Act, the Clean Energy Strategy, any other corporate, provincial or economic policy document, or any broad social responsibility imperative.

QUESTION:

Does Manitoba Hydro view that it has an environmental/social/economic "need" to develop lower GHG emitting resources for supply to the MISO region given Manitoba possesses valuable resources in this regard (hydro sites) that are not otherwise found in MISO?

RESPONSE:

Manitoba Hydro's definition of need does not include the development of lower GHG emitting resources for supply to the MISO region.

As noted in the response to MIPUG/MH I-001c, the comparison of alternatives is related to the "Alternatives To" aspect of the NFAT review wherein Manitoba Hydro considers a range of criteria with which to evaluate the various development plans and compare them. Global emissions of GHG are one of the criteria by which Manitoba Hydro evaluates and compares resource options and development plans.

This is consistent with the NFAT TOR which states:

> *"An assessment as to whether the Plan is justified as superior to potential alternatives that could fulfill the need. The assessment will take the following factors into consideration:*

…….

The alignment of the Plan and alternatives to Manitoba's Clean Energy Strategy, The Climate Change and Emissions Reduction Act and the Principles of Sustainable Development as outlined in The Sustainable Development Act;

……..

The macro environmental impact of the Plan compared to alternatives;"

Consideration of GHG emissions in the MISO region is in keeping with the Provincial Sustainable Development Act principle #7 of Global Responsibility. It is also in keeping with a similar principle in the Manitoba Hydro Sustainable Development Policy; extracted below:

MH S.D. Principle 13: Global Responsibility

Recognize there are no political and jurisdictional boundaries to our environment, and that there is ecological interdependence among provinces and nations.

Consider environmental effects that occur outside of Manitoba when planning and deciding on new developments and major modifications to facilities and to methods of operation.

It is noted that the Climate Change and Emissions Reduction Act references reductions outside Manitoba resulting from actions in Manitoba as noted in the extract below:

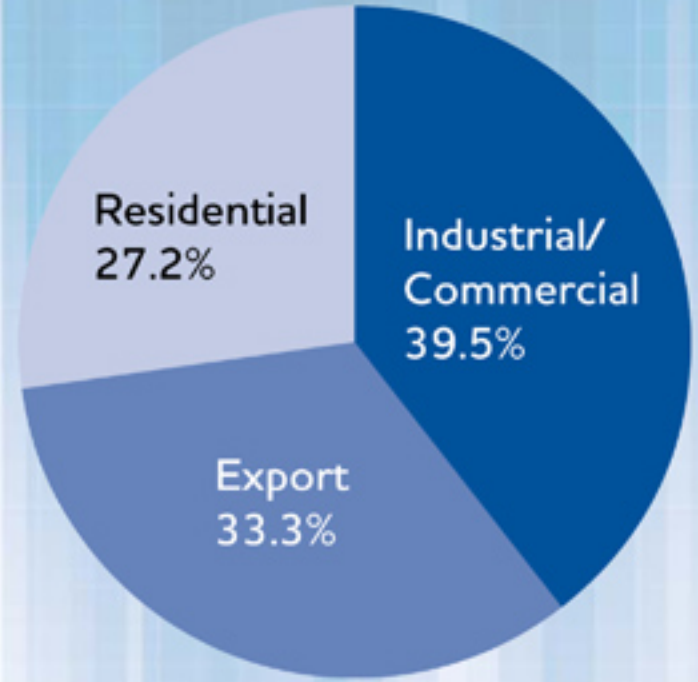
5(2) The minister's report must also set out, with reference to the emissions reduction targets established under section 3,

(a) the emissions reductions that have been achieved, in Manitoba and in other jurisdictions, as a result of actions taken in Manitoba;

(b) the future emissions reductions that are likely to be achieved, in Manitoba and in other jurisdictions, by 2020 and 2025, as a result of actions taken in Manitoba;

TAB 2

Revenue Sources - Electricity 2002/03 - 2011/12



Industrial/Commercial	$6.2 billion
Export	$5.2 billion
Residential	$4.3 billion

Source: http://www.hydro.mb.ca/corporate/gid/09-19-12sources-revenue.jpg

TAB 3

1 --- Upon commencing at 9:07 a.m.

2

3 THE FACILITATOR: Good morning,

4 everybody. My name's Ed Wojczynski. I'm the division

5 manager of Manitoba Hydro responsible for -- on behalf

6 of Manitoba Hydro for the NFAT process and making the

7 arrangements and leading the panel, and it's my

8 pleasure to kick this off today.

9 The various lawyers are still outside

10 making various arrangements, but I think we'll start

11 without them because we're already running a little bit

12 late. Just at the outset what we'd like to do is, as

13 we did at the previous technical conference, just go

14 around, quickly saying who everybody is.

15 But before we do that, we've -- our

16 president, Scott Thomson, we invited him to come and

17 just say a few words to kick this off. This is a

18 pretty important milestone for us as a company, and so

19 we thought it would be appropriate to have Scott say a

20 few words. So, Scott...?

21 MR. SCOTT THOMSON: Good morning,

22 everyone. Glad you could be here with us today, and

23 welcome to the second NFAT technical conference.

24 As you know, Manitoba Hydro's mandate is

25 to provide electricity to meet the needs for the

1 province in an economic and efficient manner. Our NFAT
2 submission sets out how we propose to fill that mandate
3 going forward.
4 The NFAT business case sets out the best
5 long-term options to meet Manitoba elec -- Manitoba's
6 electricity needs now and into the future. We've
7 examined numerous future options: in total, fifteen
8 (15) plans with underlying assumptions, resulting in
9 twenty-seven (27) different scenarios for each plan to
10 look at what we -- what we found to be the most
11 beneficial for the province as a whole.
12 First and foremost, we're committed to
13 ensuring that we serve the needs -- the energy needs of
14 Manitobans, which continue to grow due to Manitoba's
15 expanding economy and population. Our analysis based
16 on current outlook and assumptions demonstrates that
17 continuing to develop our hydro power resources is --
18 is in the best long-term interest of the province and
19 our customers.
20 Our analysis also demonstrates that
21 expanding our extraprovincial interconnection capacity,
22 and our export and import arrangements, lowers the cost
23 of supplying Manitobans and enhances the overall set of
24 benefits. Our Preferred Development Plan provides
25 Manitobans lower long-term rates, greater reliability

1 and security of supply, superior environmental and
2 socioeconomic benefits, job creation, and cash
3 transfers to the province, when we -- we compare these
4 to the other options and alternatives that we've
5 considered.
6 I'd like to assure you that the
7 executive and board at Manitoba Hydro have given these
8 issues extensive time and energy, and are in support of
9 the -- the development plan that we're putting forward.
10 I'd like to acknowledge that there have
11 been many questions raised. Welcome.
12
13 (BRIEF PAUSE)
14
15 MR. SCOTT THOMSON: I was saying that
16 many questions have been raised about our -- our plans
17 and the path that we're proposing for the future.
18 These are frequently related to our capital cost
19 estimates, future energy prices, the market for hydro
20 power in the US -- in the US, demand-side management
21 activities, wind generation, and, of course, natural
22 gas generation, which was the underlying base case that
23 we compared all of our alternative plans to.
24 In past presentations and in the media
25 I've asked that judgment on these matters and indeed

1 our Preferred Development Plan be reserved until the
2 proposals have been presented and analyzed in the
3 appropriate independent public forum. That time has
4 now come. And we're looking forward to having that
5 opportunity as we move forward with the PUB review
6 process.
7 Our filing represents the first stage of
8 the review process. You -- the panel, Intervenors, and
9 various technical experts are now going to test the
10 evidence that we've submitted. At the end of the
11 process the PUB will make their recommendations to the
12 province based on all the evidence that will be
13 presented and the testimony hear -- heard in the coming
14 proceedings.
15 I guess I'll -- I'll divert here a
16 little bit and -- and just acknowledge that as we've
17 laid out our plan, what we presented doesn't lock us
18 into a course of action for twenty (20) years, although
19 there are some decisions that need to be made in the
20 next twelve (12) to eighteen (18) months that will --
21 will set us down one (1) of the pathways that we've --
22 we've outlined in our submission.
23 And as economic circumstances change,
24 underlying assumptions are proven out or -- or need to
25 be adjusted, that will have an impact on -- on our

1 plans as we move forward. I guess what I'm trying to
2 say is that this isn't a static, you know, point of no
3 return that we're here at now, but we do have to make
4 some decisions and what -- we do have to make those
5 decisions based on all the information that we have
6 available to us today, using the best information that
7 we have available.
8 So we -- we do look forward to the
9 review process. It's going to be an extensive one.
10 And -- and your participation in it as Intervenors and
11 interested parties is -- is what will make it a success
12 for -- for Manitoba. I'd like to thank you again for
13 participating today. And I'll turn things over to Ed
14 now.
15 THE FACILITATOR: Thanks, Scott. Scott
16 had volunteered to answer a few high level, general
17 questions if anybody had -- not detailed NFAT
18 questions, not cross-examination. Patti, right?
19 Where's Patti? Not cross-examination, right, Patti?
20 MS. PATTI RAMAGE: No cross.
21 THE FACILITATOR: Yeah. But if there
22 are any general, high level questions that you might
23 have for Scott. Looks like he's getting off easy.
24 Okay. Well, thank you, Scott.
25 MR. SCOTT THOMSON: I'm sure I'll see

you all again.

THE FACILITATOR: Okay. Thanks, Scott. We're going to -- there's an agenda that had -- it's gone around before, our agenda is on the table. We're going to start off with Lois Morrison who's going to do the DSM and load forecast, but -- yes. Oh, thank you.

I know there are a lot of people here and we're going to be spending two (2) days together, so I thought maybe if we just quickly went around the room -- just one (1) time we're going to do this, I promise -- just quickly say who -- who you are and maybe, you know, which organization you're with, just very quickly. And maybe we'll start here.

(BRIEF PAUSE)

MR. WILLIAM GANGE: Bill Gange, counsel to Green Action Centre.

DR. PETER MILLER: Peter Miller, Green Action Centre.

MR. JAMES MAGNUS-JOHNSTON: James Magnus-Johnston, Green Action Centre.

MR. RUSS TYSON: Russ Tyson, TyPlan Consulting, working with the PUB.

MR. BORIS FICHOT: Boris Fichot, with

TAB 4

News Releases

DATE: 2014 02 28

Two New Power Deals Signed with Wisconsin Public Service

Manitoba Hydro has inked two major power sales to Green Bay-based Wisconsin Public Service (WPS), a subsidiary of Integrys Energy Group, Inc. (NYSE: TEG) in the United States. The first sale, running from 2016-2021, is for 108 megawatts of firm power. The second sale - which will use electricity produced by the proposed new Conawapa Generating Station on the Nelson River - is for 308 megawatts of firm power for up to 10-years. The 308-megawatt sale is scheduled to start in 2027.

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A previously announced 100-megawatt sale to WPS is scheduled to run from 2021 to 2026, bridging the gap between these two new deals.

The 308-megawatt sale also requires the new 500,000-volt Manitoba-Minnesota Transmission Line currently in the planning stages.

"This is an historic deal for our province and for Manitoba Hydro that will create thousands of good jobs and power our economic growth for decades," said Greg Selinger, Premier of Manitoba. "Our plan to build for the future now will ensure we can meet strong demand in our traditional and emerging export markets, helping to keep electricity rates for Manitoba families and businesses among the lowest on the continent."

"If approved by the Public Service Commission of Wisconsin, the agreements we signed with Manitoba Hydro are going to help WPS continue to offer our customers long-term access to an affordable, reliable supply of carbon-neutral electrical energy at stable prices," said Chuck Cloninger, President of WPS. "We have had a long and successful history with Manitoba Hydro, and these latest agreements build on that relationship."

Scott Thomson, President and CEO of Manitoba Hydro, added that the deals show the value of developing hydroelectric facilities in Manitoba ahead of when they are required to meet domestic load if export sales can help minimize the cost to ratepayers.

"Export opportunities are fundamental to our preferred development plan. The agreement we are announcing today validates our plan, and means all Manitobans will continue to benefit from exports through enhanced reliability and lower rates.

"The first 108-megawatt sale will take advantage of existing generation and transmission resources initially, then use some of the capacity from the proposed Keeyask Generating Station when that comes online in 2019," said Thomson. "But the 308-megawatt sale will also use approximately 30 percent of the energy produced by Conawapa. These are firm, non-interruptible power sales, meaning we have to have the capacity available in order to make the contract work. Long-term planning is critical."

"Between these new and existing sales to WPS, and previously-announced energy sales to SaskPower, Minnesota Power, and Xcel Energy - plus ongoing growth in Manitoba energy consumption and load - the proposed Keeyask Generating Station is already 'sold out' and significant capacity utilization of Conawapa is already starting," said Thomson.

The total value of Manitoba Hydro's recently signed export contracts now totals over $9 billion.

Read more about Manitoba Hydro's electricity exports.

About Wisconsin Public Service Corporation:

Wisconsin Public Service Corporation, a wholly owned subsidiary of Integrys Energy Group, Inc. (NYSE: TEG), is an investor-owned electric and natural gas utility headquartered in Green Bay, Wisconsin. It serves approximately 443,000 electric customers and 321,000 natural gas customers in residential, agricultural, industrial, and commercial markets. It also provides electric power to wholesale customers. The company's service area includes northeastern Wisconsin and an adjacent portion of Upper Michigan. Additional information is available at **wisconsinpublicservice.com**.

About Manitoba Hydro:

Manitoba Hydro is a Crown Corporation and the province's major energy utility, serving over 548,000 electric customers across the province and almost 270,000 natural gas customers in communities throughout southern Manitoba. Manitoba Hydro operates 15 hydroelectric generation facilities and two thermal facilities and has a total generating capacity of 5,685 megawatts.

For more information, please contact:

Scott Powell - Public Affairs, Manitoba Hydro
T: 204-360-4417
spowell@hydro.mb.ca

Wisconsin Public Service
T: (800) 977-2250 Media Hotline
wisconsinpublicservice.com

News Releases

DATE: 2014 02 21

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Manitoba Hydro and Great River Energy Announce 600 MW Power Sale Memorandum of Understanding

Manitoba Hydro and Great River Energy have signed a Memorandum of Understanding (MOU) to jointly investigate the sale of up to 600 megawatts (MW) of electricity from Manitoba Hydro to Great River Energy, commencing in approximately 2020. The MOU builds upon the strong relationship and existing power sale agreements between the two companies.

Under the MOU, the utilities have agreed to discuss supplying some of Great River Energy's long-term electricity needs from Manitoba Hydro's proposed new hydroelectric stations. An eventual agreement could also take advantage of a new Manitoba to Minnesota transmission line also proposed as part of Manitoba Hydro's preferred development plan.

The new hydro stations include the proposed Keeyask Generating Station, being developed in partnership with four local first nations - Tataskweyak First Nation, Fox Lake First Nation, War Lake First Nation, and York Factory First Nation. Keeyask builds on the partnership between Manitoba Hydro and the Nisichawayasihk Cree Nation that saw the development of the Wuskwatim Generating Station, completed in 2012.

"We are pleased to work with a trusted partner like Great River Energy to help increase the supply of virtually carbon-free, renewable hydroelectric energy in their supply mix," stated Scott Thomson, President and CEO of Manitoba Hydro. "This MOU demonstrates the continued strong interest in hydro power in U.S. markets. Expansion of electricity trade with Great River Energy will support expansion of hydropower generating capacity in Manitoba and contribute to the ongoing supply of renewable, reliable, and cost-effective electricity to Manitobans."

Read more about Electricity Exports

Manitoba Hydro and Great River Energy have signed a number of power sale and diversity agreements over the last several decades including a 200 MW agreement that runs until 2030. These new discussions under the MOU will help both utilities continue to plan for the long-term development of their generating and transmission resources for the mutual benefit of their customers on both sides of the border.

"The discussion with Manitoba Hydro opens the door to additional hydropower for Great River Energy and our members," said Jon Brekke, Great River Energy Vice President of Membership and Energy Markets. "We have reduced our carbon intensity by 20 percent since 2005. Additional hydropower may be the next logical step in the evolution of our power generation portfolio."

About Great River Energy

Great River Energy is a not-for-profit cooperative which provides wholesale electric service to 28 distribution cooperatives in Minnesota and Wisconsin. Those member cooperatives distribute electricity to approximately 655,000 member consumers - or about 1.7 million people. With $3.7 billion in assets, Great River Energy is the second largest electric power supplier in Minnesota and one of the largest generation and transmission (G&T) cooperatives in the United States. Great River Energy's member cooperatives range from those in the outer-ring suburbs of the Twin Cities to the Arrowhead region of Minnesota to the farmland of southwestern Minnesota. Great River Energy's largest distribution cooperative serves more than 125,000 member-consumers; the smallest serves about 2,500. Learn more at **Great River Energy website**.

About Manitoba Hydro

Manitoba Hydro is a Crown Corporation and the province's major energy utility, serving over 548,000 electric customers across the province and almost 270,000 natural gas customers in communities throughout southern Manitoba. Manitoba Hydro operates 15 hydroelectric generation facilities and two thermal facilities and has a total generating capacity of 5,685 megawatts. Learn more at hydro.mb.ca.

For more information, please contact:

Scott Powell - Public Affairs, Manitoba Hydro
T: 204-360-4417
spowell@hydro.mb.ca

Randy Fordice - Media Relations, Great River Energy
T: 763-445-5713
M: 612-865-1366
rfordice@grenergy.com

TAB 5

Focused on What Matters Most:

Manitoba's Clean Energy Strategy

Manitoba

MESSAGE FROM THE MINISTER

Manitoba is in the unique position of having the resources, experience and wherewithal to become Canada's renewable energy powerhouse. Already a leader in developing one of the cleanest and greenest electricity systems in the world, Manitoba plans to build on those successes and move farther down the path towards fossil fuel freedom.

To help chart that path our government is pleased to release the Manitoba Clean Energy Strategy. This strategy focuses on made-in-Manitoba solutions to harness our water, wind, solar and biomass resources in ways necessary to help provide electricity to power our homes, businesses and industries; energy to heat our buildings; and fuel to drive our vehicles. This strategy is consistent with the principles behind Tomorrow Now – Manitoba's Green Plan, which focuses on protecting the environment while ensuring a prosperous and environmentally conscious economy.

Not only does energy play a critical role in almost every part of our society, but in Manitoba's case, it has become a major cornerstone of our economy. Plans for new hydroelectric generation and transmission require a bold capital program of $20 billion over the next decade. If they are approved after environmental and economic reviews, these projects will create thousands of jobs, provide us with affordable power well into the future and support our neighbours' needs for clean electricity in the shorter term.

We recognize that fossil fuels like oil and natural gas will continue to be an important part of our society, but our goal is to reduce our reliance on these imported, greenhouse gas emitting and unpredictably priced commodities sooner rather than later. While most jurisdictions can only set 30, 40 or 50 year targets to reduce reliance on fossil fuels, Manitoba has a head start in developing our renewable energy resources in a sustainable way that is good for the economy and benefits the environment.

Our strategy focuses on building new generation hydro; expanding transmission that improves electricity reliability and security; adding more wind power as economics allow; promoting geothermal, biomass and solar for heating needs; developing our biobased fuels; and leading in new cutting edge electric transportation solutions.

Our government will do this in a way that benefits all Manitobans and ensures that our energy is affordable and clean, that it contributes to job creation and business expansion and allows opportunities for greater First Nation partnerships. As Canada's leader in energy efficiency, our government will also continue to balance new energy generation with strong demand side management programs, including Canada's first Pay-As-You-Save, on-meter financing program for efficiency retrofits.

This strategy is all about making energy choices today that will create a stronger economy and a cleaner environment for our future. Is fossil fuel freedom achievable? We're closer than you might think.

Original signed by

Dave Chomiak

Minister of Innovation, Energy and Mines

HIGHLIGHTS

Highlights of Manitoba's Clean Energy Priority Actions include the following.

Building New Hydro

- Ensure that the planning, design, consultations and negotiations necessary for developing substantial new hydroelectric generation, including Keeyask (695 MW) and Conawapa (1485 MW), proceed through environmental and economic review. These new generation hydro projects are being designed to greatly reduce environmental impacts and will be developed in partnership with First Nations.
- Improve Manitoba's transmission system reliability, increase export capabilities, and enhance the development of new hydro and wind energy by constructing a new Bipole lll line, expanding interconnections to the US, strengthening the Dorsey convertor station, adding the new Riel Station and advocating for a stronger east-west Canadian grid.
- Work to eliminate the dependence of northern off-grid communities on diesel generation and ensure all Manitoba communities have access to clean renewable power.
- Maximize the economic benefits and job creation from new hydro and transmission developments through the $30 million Renewable Energy Jobs Fund, a new Energy Opportunities Office, and training support for northern and Aboriginal communities.

Leading Canada in Energy Efficiency

- Through Manitoba Hydro, implement a new On-Meter Financing program that overcomes the high upfront costs that prevent households from implementing energy saving retrofit measures.
- Enhance Manitoba's successful Low Income Energy Efficiency programming, in partnership with social enterprises, to help build community capacity, create jobs and maximize economic benefits.
- Expand The Green Building Policy so that more government funded building construction, renovation and operations are subject to energy efficiency requirements.
- Expedite adoption of National Building Code energy efficiency updates to ensure Manitoba homes and businesses achieve the lowest lifetime costs for energy.
- Advance vehicle-related efficiency through green fleet purchasing policies, support for higher vehicle fuel efficiency standards and promotion of active transportation.
- Support the expansion of voluntary programs to benchmark, rate and label building energy performance. Manitoba will explore and pilot programs that disclose the energy performance of buildings offered for sale or lease.
- Pursue minimum energy efficiency standards for high-energy consuming products where federal standards are deemed inadequate.
- Develop and publish an annual energy efficiency plan that establishes stronger efficiency targets; identifies an expanded range of programming options; sets out costs and benefits; and reports on performance.

Keeping Rates Low

- Place Bill 18 – *The Affordable Utility Rate Accountability Act* – into law to ensure the lowest cost in Canada for a bundle of utility services – that is, the combined rates for electricity for home use, natural gas for home heating and automobile insurance.
- Within the context of *The Affordable Utility Rate Accountability Act*, support predictable, moderate rate increases for Manitoba Hydro over the coming years. The rates should be sufficient to fund the renewal of existing infrastructure; develop new generation, transmission and distribution capacity to serve growing demand; and assure continued reliable service to Manitobans.

INTRODUCTION

Energy is critical to contemporary society. How we supply energy and how we use it has a major impact both on the prosperity of our economy and on the future health of our planet.

Since the industrial revolution and the advancement of the coal burning steam engine, the world has relied primarily on fossil fuels – coal, oil and natural gas – to meet its energy needs. Today, recognizing the need to reduce the impacts of climate change and better protect the environment, human health and the well-being of their own economies, more and more countries are committed to reducing their dependence on fossil fuels and developing cleaner energy sources. Manitoba is not a mere follower in this movement, but rather a recognized leader for its efforts to become fossil fuel free.

To build on Manitoba's clean energy successes, an energy strategy must incorporate both a clear plan for the future, while at the same time meeting current needs for electric power, heat and transportation fuels. This strategy charts that path forward for Manitoba, setting out practical, clean energy steps and strengthening our position as a renewable energy powerhouse.

Looking Forward

Manitoba will capitalize on its renewable energy strengths and through innovation, will tap its homegrown clean energy resources allowing more Manitobans to transition to fossil fuel freedom, beginning today, and in the decades to come. It will do this by encouraging more efficient use of energy and by increasing production of clean, renewable energy sources. It will do so while growing its clean energy economy for the benefit of its own citizens as well as neighboring customers.

The Strategic Objectives

- Supply sufficient energy for our needs and deliver it reliably and securely.
- Provide affordable energy, particularly for those in low income, remote or vulnerable situations.
- Produce and use that energy cleanly, sustainably and in ways which reduce our greenhouse gas (GHG) emissions. This means in ways which do not degrade the world, at home or abroad, either today or for future generations.
- Ensure that energy is used efficiently, for environmental and economic reasons.
- Maximize the economic benefits from: constructing and operating energy generation facilities; manufacturing energy related equipment; low rates and improved efficiency; selling energy and expertise abroad; and reducing the economic leakage from the overall Manitoban economy due to imported fossil fuels.
- Increase local control. The value of energy independence and the need for more made-in-Manitoba energy has been made clear by recent decades of volatile energy prices.

Manitoba's clean energy strategy is a focused strategy, one which will demonstrate the government's commitment to build on our underlying and historic comparative advantage in low cost, renewable hydro electricity. It will also build on our newly arrived advantages in ground-source heat pumps, plug-in electric vehicles and other emerging renewable sources. Together, as these energy sources grow, they will offer Manitobans an increasing array of clean, cost effective, non-fossil alternatives for heating our homes, powering industry and fuelling our vehicles. Finally, woven through these power, heating and transportation initiatives is the constant need to increase energy efficiency and reduce the costs of energy waste.

We have the resources. We have the knowledge. We have the infrastructure. And we're already on the move.

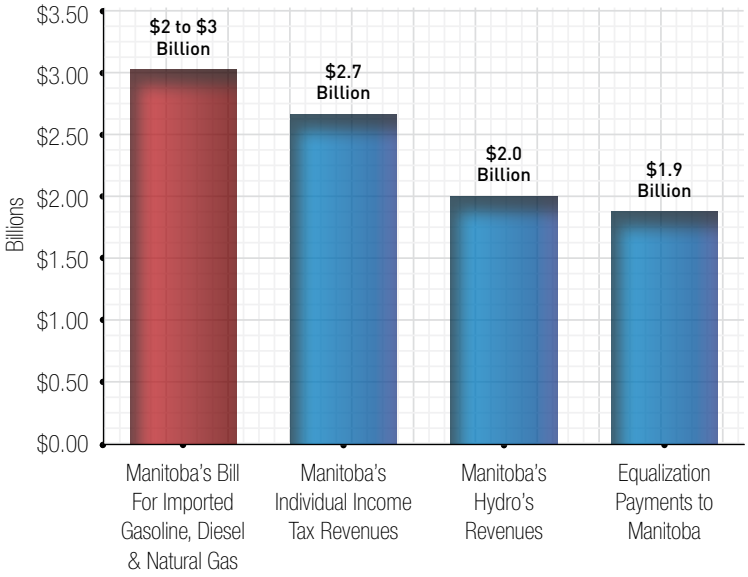
Global Challenges

The world's energy supplies have become exceedingly complicated and volatile, with four global forces in particular having significant implications:

1. Oil and natural gas prices have been enormously volatile in the 2000s. For example, natural gas prices fluctuated by as much as 600 per cent in the past decade. The rise of Asia's industrial powerhouses, with their energy needs, make it unlikely that these pressures will lessen in the years to come.

2. Economic leakage from high energy prices has challenged economies globally, with jurisdictions around the world responding by pursuing greater energy independence.

The Annual High Cost of Manitoba's Gasoline, Diesel & Natural Gas Imports



Manitoba has significant oil production in the southwest portion of the province. This oil is not refined in Manitoba but is exported as a commodity for processing. Although this oil is not directly used in Manitoba as an energy source, the industry is a significant contributor to the provincial economy. The industry pays over $100 million annually to private oil and gas rights owners and has seen investment in the province rise to $1 billion annually.

3. Energy security has frayed as grid black-outs, oil blow-outs, wars, hurricanes and tsunamis have threatened energy supplies and repeatedly triggered price spikes.

4. Climate change has been accelerated by the GHG emissions from continued fossil fuel use.

Many jurisdictions throughout the world struggle with these forces. While Manitoba has been somewhat insulated because of our strength in renewable hydroelectricity, we all still feel the effects of these forces when it comes time to heat our homes and refuel our vehicles.

Fortunately, at precisely the same time as these global energy forces have arisen, a series of global clean energy tools and innovations have begun to emerge into the mainstream. For example:

- In electricity, the past decade saw more wind-power capacity added in the US and in Europe than new coal, nuclear and hydro combined.
- In transportation, four million hybrid, plug-in hybrid and electric vehicles hit global roads.
- In heating, more than three million heat pumps have been installed globally since 2005.

THE CASE FOR MOVING FORWARD AND TODAY'S PRIORITY ACTIONS

1 BUILDING NEW HYDRO

When Manitoba made the long term, strategic decision to develop its own northern hydroelectric assets – rather than going for the quick fix of expanding the use of low cost, but imported and polluting coal – it faced potentially higher costs, as well as a series of risks that seemed, at the time, insurmountable.

Manitoba Hydro Meets and Overcomes the Challenges

Through innovation and determination, Manitoba Hydro met the challenges and constructed a series of new, northern hydroelectric sites, in the face of some of the world's harshest climates. They opted to develop new technology employing the long, high-voltage, DC transmission lines that reliably deliver Manitoba's power over enormous distances. They produced dependable power from highly variable hydraulic flows. And they managed and financed multi-billion dollar, decade-long megaprojects.

Benefits for Manitobans

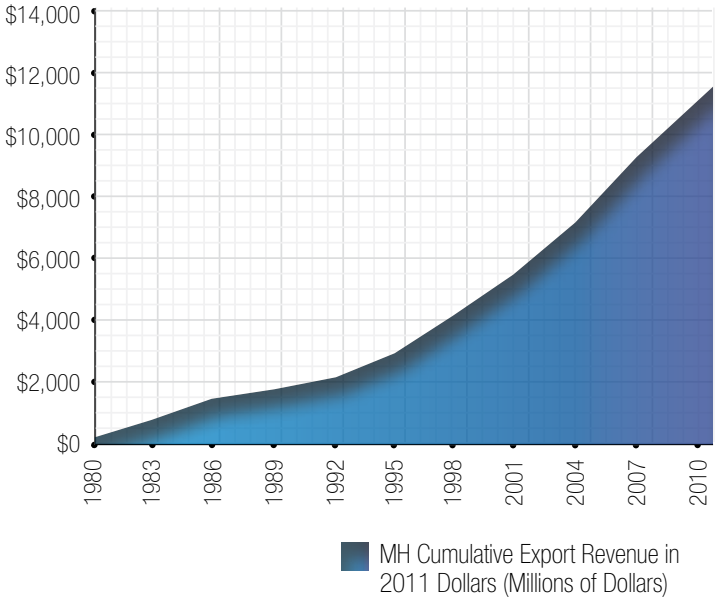
The benefits we enjoy today were built on these decades of hard work and innovation. But, at their source, was the long term, strategic decision to build on Manitoba's own renewable resources, rather than consume imported fossil fuels. The benefits of that decision have been many and have risen steadily over the years.

- Manitoba Hydro's rates have been among the lowest on the continent, saving Manitoba families and businesses $13 billion on their bills since 1998, compared to the average Canadian's rates.
- Through its operations, Manitoba Hydro annually creates 16,580 person-years of employment and adds $1.4 billion to Manitoba's GDP.
- More than 98 per cent of Manitoba's electricity is renewable, GHGs have been slashed at home; and electricity exports cut 178 million extra tonnes of GHGs from our neighbours' emissions.

Manitoba Hydro's performance provides strong evidence for the value of a fossil fuel free strategy. Using made-in-Manitoba, renewable energy, the province minimizes the need for fossil fuels to generate electricity, while creating huge economic and environmental benefits.

Manitoba Hydro's exports don't just benefit others. Since 1980, export revenues have risen to more than $11 billion, funds which have helped pay down the costs of the hydro projects themselves and kept rates low for Manitobans. For comparison, this amount is many times the $1.43 billion cost of the Limestone Generating Station, the last large hydro development prior to the Waskwatim dam.

MH Cumulative Export Revenues 1980 to 2011



Why Build New Hydro?

More electric generation is needed to meet Manitoba's rising demand. Even with the addition of the Wuskwatim dam, wind projects and energy efficiency measures, electricity load growth in Manitoba has outpaced the growth of new supply since the Limestone Generating Station came on stream in 1990.

This situation places increasing pressure on Manitoba's hard won energy independence in electricity. It makes us more dependent on fossil fuel imports during droughts and reduces export surpluses even in higher water years.

Manitoba's electricity demand today is growing by approximately 80 MWs per year. This rising demand requires the equivalent of a new Wuskwatim every two and a half years. Given the historic and sustained upsurge in Manitoba's population and housing starts, as well as continued economic growth, the pressure from rising load appears likely to continue. As domestic demand increases, exports are decreased and the revenue derived from exports – that aids in reducing domestic electricity rates – erodes over time.

Many of Manitoba's export customers have also experienced growth in electrical demand, but they too no longer view coal fired generation as a desirable alternative, whereas hydroelectricity from Manitoba is seen to be clean, renewable and stably priced. However, for export customers to be able to buy new hydro in the future, they often require lead times of many years to build the necessary new transmission.

Manitoba needs new generation to supply rising domestic load, while export customers wish to buy new hydro from Manitoba. By advancing the construction of new hydro plants ahead of domestic needs, Manitoba can both earn additional export revenues and expand valuable interconnection transmission, while also building the plants it will need to meet its own future requirements.

Windows of Opportunity

There are limited windows of opportunity within which Manitoba can sign new, long term export contracts, and receive vital new transmission links. If these windows are missed, customers will lock in with other suppliers, new transmission along with its market expansion and domestic reliability benefits will not be built and the window will close and be lost.

The past few years have offered just such a window, with the decision now before Manitoba.

Why Not Fossil Fuels, Like Coal or Natural Gas, Instead?

Decades ago, the largest fuel source used to generate electricity in North America and the world was coal. It was thought North America possessed endless coal reserves at unbeatable low prices. Manitoba Hydro, at the time, took a minority stand in the region with its decision not to use coal to generate most of its electricity. Over the decades, Manitoba's choice of hydroelectricity has proven itself to be the better one – for the environment, the global climate and the economy.

Manitoba Hydro's electricity is made from more than 98 per cent clean, renewable sources.

Today, the use of coal for electricity generation is being replaced by a new fossil fuel source– shale gas. Although coal plants still generate 44 per cent of the electricity in the United States, power generated by natural gas has doubled to 21 per cent. It is now the dominant source of new electricity in the United States and is rising quickly as old coal burning plants are shut down.

As once was said about coal, natural gas is said today to be available in the same near-endless quantities, and at the same unbeatable low prices. Natural gas has even been positioned as a cleaner fossil fuel than coal.

Manitoba's hydroelectric advantages over natural gas - jobs, stability and sustainability

When considering options, Manitoba's hydroelectricity has clear cut advantages over natural gas:

- Construction of new hydro power will create more jobs and more new business activity for Manitoba than natural gas fired imports or local plants.
- New hydro will emit far fewer GHGs than natural gas over its lifetime.
- While a natural gas plant has a life of 25 to 30 years, a key advantage of hydroelectric plants is that, once built, they will generate power for 100 years. For example, a new project like Keeyask, would likely still be generating power in the year 2100.
- Locally generated hydro will provide greater energy security for Manitoba than imported natural gas.

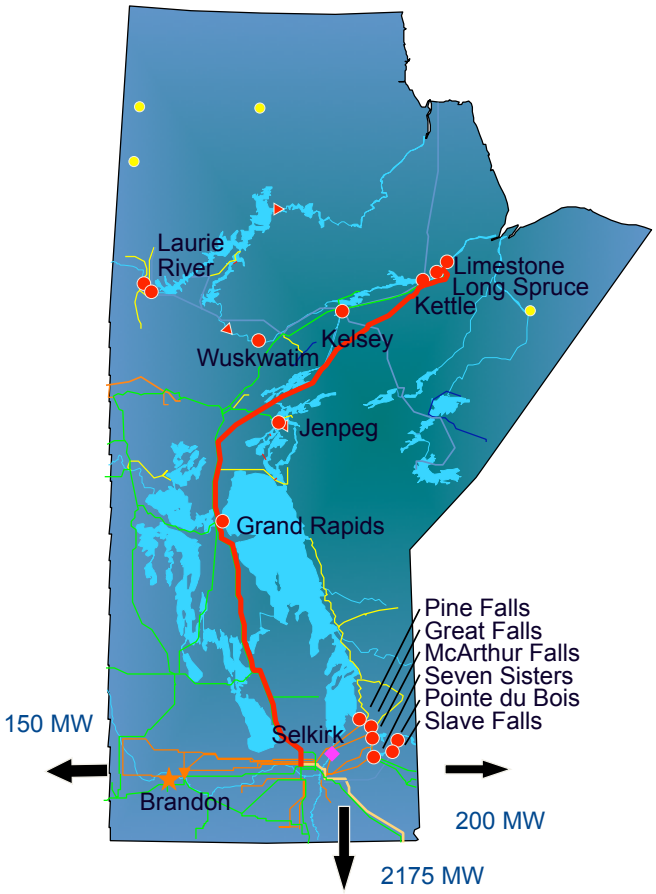
On the other hand: At 2012's natural gas prices of $2 to $3 per gigajoule (GJ), it can be used to produce electric power more cheaply than Manitoba's new hydro plants. But the price of natural gas is extremely volatile – the most volatile of any electricity source, cycling through a range of 600 per cent just over the past decade.

While prices are currently low, natural gas suppliers can't guarantee today's prices for the next 10 years, much less for the next 20 or 30 years or beyond – the years when Manitoba wishes to add new power. The difficulties this poses for long term energy planning in Manitoba can be seen clearly in the forecasts of the major energy planning bodies in North America. These bodies forecast natural gas prices ranging from $5 to $11 per GJ in the coming decades. With today's prices at $2 to $3 GJ, and Manitoba potentially looking at billions of dollars in investments, this uncertainty leaves Manitoba facing the risk of price swings of hundreds of percentage points if it chooses natural gas supplied projects.

Additional uncertainties surrounding natural gas and in particular shale gas include:

- the level of increased demand flowing from natural gas-powered electricity generation, expanded industrial end uses, transportation and Liquefied Natural Gas (LNG) exports
- the accuracy of estimates of shale gas reserves, production and depletion rates
- the long term sustainability of today's exploration and development business model, in the face of extremely low natural gas prices
- GHG emissions from shale gas exploration and production

With Manitoba's next two major hydro projects potentially coming online from 2019 to 2025, and then earning their major revenues in the decades to follow, natural gas prices in 2012 are of less relevance than the prices in 2032 or 2042. In the long term, Manitoba expects that hydroelectricity will continue to be the better option. Hydro's wide and long-lasting range of benefits – lower GHGs, more jobs and business in Manitoba, more stable prices and greater energy security – will still make hydroelectricity the superior choice.



Generating Stations and Interconnections

2011/12 - Energy

80%	Nelson River
9%	Winnipeg River
7%	Saskatchewan River
3%	Wind
1%	Thermal & Imports

- HVDC
- Other Transmission
- Selkirk - Natural Gas
- Brandon - Coal
- Brandon - Gas Combustion Turbine
- Control Structures
- Diesel Sites
- Hydraulic G.S.'s

Today's Hydroelectric Priority Actions

Clean Energy Portfolio

Given the high costs of focusing development on a single new project at a time, Manitoba has made the decision to move a portfolio of diverse, new hydro projects through to the readiness stages. As a result, the province and Manitoba Hydro are taking several projects forward through planning and design, consultation and negotiation with Aboriginal communities, environmental approvals, licensing and permitting.

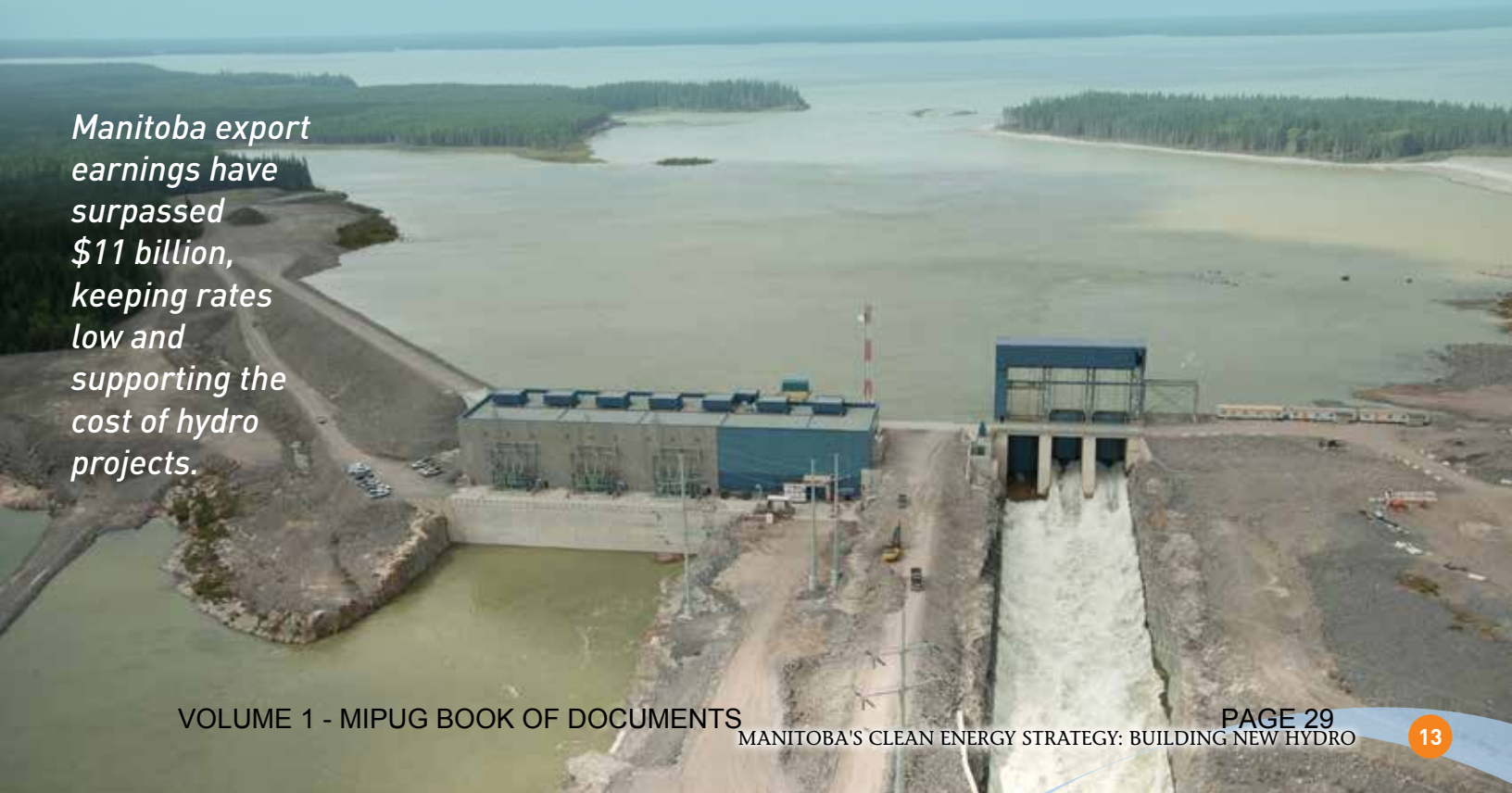
This means that as and when Manitoba's load or forecast load passes certain thresholds, and as sufficient, firm export contracts are signed, and the economic case moves in favour of approving new supply, Manitoba will be equipped with at least one, and potentially more, projects ready for development. In the same way, if domestic load declines or proposed export contracts are altered or capital costs escalate, Manitoba has the tools to flexibly adapt.

Adopting a Clean Energy Portfolio has also enabled Manitoba to add wind power and other emerging, renewable energies – as well as energy efficiency, improved transmission and the rehabilitation of older hydro projects – to its potential new supply-side projects.

Finally, use of a portfolio approach allows Manitoba to develop its hydro construction in a staged manner that promotes stability of training and employment opportunities for northern and Aboriginal communities. This allows the province to maximize the overall economic and social benefits.

New Generation Hydro

Each new hydro project has been redesigned to better meet the needs in Manitoba's northern communities and also in a way that ensures projects meet and exceed customer expectations not just today, but over the next 40 or more years. Recent years have made clear that changing customer expectations and political debate elsewhere can dramatically impact Manitoba's long term access to export markets. A new hydro project intending to sell into export markets over a period of decades could lose hundreds of millions of dollars – not by failing to meet the legal standards in place when the contract was signed, but by failing to consider long term future issues and trends.



Manitoba export earnings have surpassed $11 billion, keeping rates low and supporting the cost of hydro projects.

With this long term view in mind, Manitoba's New Generation Hydro projects embody two major shifts from historic practices:

1. Aboriginal communities are engaged from the earliest stages of planning, as participants during construction, as well as standing to become long term, financial beneficiaries. Aboriginal people are also consulted through the province's Crown consultation process on any action or decision that might affect an Aboriginal or treaty right.

2. The Manitoba government is responsible for environmental and water licensing processes that outline the responsibilities of Manitoba Hydro to be good stewards of the environment. With that in mind, each project has been redesigned to dramatically reduce its environmental impact. Wuskwatim, for example, experienced just 50 hectares (or half a square kilometre) of additional flooding – a fraction of the size of an average Manitoban farm, while Conawapa will flood an area about the same size as an average farm (500 hectares). Many modern shopping malls, residential developments and energy plants take as much or more land than is lost through a New Generation Hydro project.

The New Generation Hydro components of the Clean Energy Portfolio that are under development or potentially available for development include:

- Wuskwatim – a 200 MW project that saw construction launched in 2008 and began generating power in 2012.
- Keeyask – a 695 MW project awaiting final licensing. Construction could run from 2014 to 2021, with first power potentially flowing in 2019.
- Conawapa – a 1,485 MW project, if approved, would see full project construction run from 2018 to 2026, with first power potentially flowing in 2025.

This expansion, of as much as 2,300 MWs, would be large enough to replace the demand growth of recent decades and to meet the expected domestic demand beyond 2020. It would also provide Manitoba with a surplus large enough to support large long term firm contract sales and to gain other revenues from the opportunity export markets.

The potential economic benefits of the total expansion are as impressive, as in previous generations of hydro development.

- The province is looking at $20 billion in new economic activity over the next decade, with Keeyask and Bipole lll alone expected to create 18,000 person years of direct and indirect employment.
- New export contracts worth over $4 billion are already on offer, with the potential to be added to, if desired. The proceeds will help pay down the cost of the projects, while helping sustain Manitoba's low rates for decades.
- This path offers a reduction in any long term dependency on coal or natural gas, and will reduce long term payments to fossil fuel producers.
- Manitoba's clean, stably priced, hydro exports would add real value to neighbouring systems – being available on-peak if desired, offering greater price stability and reducing their GHG emissions by millions of tonnes a year.

Transmission - Moving Power to Market

Manitoba Hydro's transmission network is large with 11,700 kilometres of transmission lines and 75,000 kilometres of distribution lines. The transmission facilities are developed and operated as an integrated system, with the backbone being two 800-kilometre, high voltage, direct current (HVdc) transmission lines (Bipole I and II). The lines were historically located in a common corridor and transmit over 70 per cent of Manitoba Hydro's annual energy production from its northern hydro stations on the Nelson to southern load centres. The direct current is converted back to alternating current at Dorsey station, northwest of Winnipeg, before being transmitted to the transmission and distribution system, as well as to Ontario, Saskatchewan and the US.

Most of the transmission and distribution facilities are exposed to the elements and can be affected by severe winds, lightning, ice storms and forest fires. The system is planned and built to achieve a high degree of reliability and maintain the delivery of power to its customers.

Manitoba's electric system is dependent on its two backbone HVdc facilities. Should these two facilities suffer a simultaneous catastrophic loss, it could result in extensive, wide spread, lengthy power outages. The number of customers affected, and the duration of their interruption of electrical service, would mainly depend on outside temperatures, with the most severe and extensive power outages occurring during the coldest winter months. Should such a loss occur at the winter peak, Manitoba Hydro has estimated that it could result in a supply interruption of up to 300,000 customers until repairs are completed. As a result, a third HVdc transmission facility, Bipole III, has been proposed to be constructed to assure the reliability of delivery of power to Manitobans.

More widely, new interconnection capacity to electricity markets increases both the reliability of Manitoba's own system, as well as Manitoba's reach into export markets. Should new generation to service additional sales in Minnesota and Wisconsin be approved, new interconnection transmission would be also be required.

Today's Transmission Priority Actions

Manitoba Hydro's transmission work includes developing Bipole III for reliability purposes (expected to be commissioned in 2017), as well as new export transmission interconnections, of different sizes and configurations, to the United States (to be available by 2019.) In addition, strengthening the Dorsey Convertor Station will increase reliability, and developing a new Riel Convertor Station will provide a second delivery point for northern power.

Manitoba has also forged a national leadership position by advancing the idea of a stronger east-west Canadian grid. The timing and size of Manitoba's enhanced, east-west grid interconnections with Saskatchewan and other provinces will ultimately be determined by the results of ongoing power sale talks. Manitoba will continue to advocate for an improved national electrical grid that can transport clean, renewable energy to every region in Canada.

Taken together, these transmission projects will:

- dramatically improve the long term reliability of Manitoba's system in the face of climatic instability and extreme weather
- enhance the development of new northern hydro as well as southern wind development
- reduce the potential cost of imports by achieving greater market access
- boost both the range and the scale of Manitoba's exports
- strengthen Canada's east-west ties

TAB 6

LEGISLATIVE ASSEMBLY OF MANITOBA

THE STANDING COMMITTEE ON CROWN CORPORATIONS

Wednesday, April 4, 2012

TIME – 6 p.m.

LOCATION – Winnipeg, Manitoba

CHAIRPERSON – Mr. Bidhu Jha (Radisson)

VICE-CHAIRPERSON – Ms. Melanie Wight (Burrows)

ATTENDANCE – 11 QUORUM – 6

Members of the Committee present:

Hon. Mr. Chomiak, Hon. Ms. Marcelino

Messrs. Allum, Cullen, Dewar, Helwer, Jha, Marcelino, Ms. Wight, Mr. Wishart

Substitutions:

Mr. McFadyen for Mrs. Stefanson

APPEARING:

Hon. Jon Gerrard, MLA for River Heights

Mr. Scott Thomson, President and Chief Executive Officer, Manitoba Hydro

Mr. Bill Fraser, Chair, Manitoba Hydro-Electric Board

MATTERS UNDER CONSIDERATION:

Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2008
Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2009
Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2010
Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2011

* * *

Madam Vice-Chairperson: Good evening. Will the Standing Committee on Crown Corporations please come to order.

Your first item of business is the election of a Chairperson. Are there any nominations for this position?

Mr. Gregory Dewar (Selkirk): I nominate Mr. Jha.

Madam Vice-Chairperson: Mr. Jha has been nominated. Are there any other nominations?

Hearing no other nominations, Mr. Jha, will you please take the Chair.

Mr. Chairperson: Good evening and welcome everyone here today to this committee meeting.

The meeting has been called to order and the following reports are to be considered: Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2008; Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2009; Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2010; Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31, 2001–2011.

Before we get started, are there any suggestions from the committee as to how long are we going to sit this evening?

Mr. Cliff Cullen (Spruce Woods): I see we're having a–looks like a presentation tonight. Just wondering if we could maybe sit till 8 o'clock and then review things at that time and see how the questioning's going.

Mr. Chairperson: So 10 o'clock has been suggested. Is it agreed by the committee?

Mr. Chairperson: Kindly address the chair.

Mr. Thomson: Sorry. Generally speaking, we're–what our outlook over the next 10 years, and with regard to the financial position that we find ourselves in or that we anticipate, the leverage that will be built into our capital structure as we build out these major capital projects. And again, it's not unique to Manitoba Hydro as you enter into a period of capital renewal and growth. The outlook is–and we projected on the order of the level of rate increases that we're seeking in the current application. So, you know, it's our desire to maintain low rate increases as we move out, but the nature of a capital intensive business like ours does drive, at periods of high investment, you know, a requirement to go higher.

If we hadn't made the investments in the '70s and '80s for the generation stations up north, we wouldn't have, you know, sub 6 per cent power today. We'd be looking at, you know, what BC is looking at right now, where rates are six to nine cents residentially, depending on the block that you're in, with probably 50 per cent increases over the next five years.

Mr. McFadyen: So if I can just ask for–just to clarify the point about the projection going forward, I think you'd–you said that you anticipate that on a go-forward basis, we'd be looking at increases in the order of magnitude of what's currently being asked for. So are you saying you're anticipating in the range of 3.5 per cent for a number of years, going forward, going beyond the next two years?

Mr. Thomson: Based on the outlook today and with the revised consensus forecasts on power pricing on the order of what we've had, it is going to depend significantly on interest rates, export pricing, and we'll adjust as we can and respond to those. So we're certainly not going–trying to get out in front of the curve here, but it is on that order.

Mr. McFadyen: Just on the export sale projections, in that slide, the slide that you put up, there was a–an estimate of about $7 billion in sales from existing contracts or contracts that are in the process, I think, of being negotiated. On the capital expenditure side, it seems to be about $20 billion in planned expenditures over the coming decade or a little bit more than that. So just with a simplistic analysis of $7 billion in export sales and $20 billion in capital expenditures, looks like about a $13-billion gap. And I'm wondering if you can just outline what the forecast is on the export sale side, in particular, and how that gap is going to get closed.

Mr. Thomson: Yes, I think we need to be careful to compare apples to apples. We wouldn't anticipate funding the $20-billion capital program on the strength of–that for assets that'll last for a hundred years from export contracts that span the next two decades and components of the next two decades. So we will pay for and recover the cost of those investments over decades, not over the lifetime of the existing export contracts, and we'll pay for them from domestic sales too.

* (19:20)

I mean, we're not building them to export. That's a–we get the benefit of export revenues to help pay for them and allow us to grow into the capacity that we build, because we can't match our demand to the capacity blocks that we bring on.

So it's really in the fullness of time, I would expect, that we'll have additional export revenue contracts as the ones that we've entered into expire. So we'll extend where there's capacity available, but we'll also be generating domestic revenues as we grow into the–as our demand grows into the capacity.

Mr. McFadyen: Thanks for that, and that makes sense in terms of the life of the assets. I guess the real issue is, just in light of uncertainty over what may transpire with export sales, there's a factor there that you need to be mindful of as you're–as you moving ahead with the major projects, and, as we've indicated, probably once or twice, would that be about right? The minister is–has been around the debate for longer than the new present CEO, so I don't want him to feel as though he's missed out on anything.

So the project within that mix that we've got concerns about is the west-side bipole, the length of the route, the cost associated with the line losses, reliability issues that the engineers have raised. And one thing that–that's interesting is that there seems to be a shift in the numbers that you're presenting today from the estimates that we've received up until this point.

I think the last–I know Hydro publishes capital expenditure forecasts, CEFs, in connection with all of its capital projects, and I believe–and I stand to be corrected by my colleagues–but certainly, I think up until CEF 11, which was filed just before–I think completed just before Christmas, the estimate for the project was $2.2 billion, and the presentation now says that it's $3.28 billion, which is a billion-dollar jump. I wonder if you can just comment on that–

about Mr. Brennan's pay and whether it was high or whether it was low and some people estimated he was underpaid, but obviously this is a question about what Mr. Thomson's settled on for a contract and is that open for disclosure?

* (20:30)

Mr. Chairperson: Well, let me ask the committee. The time being close to 8:30, we'd like to know the will of the committee.

Mr. Cullen: With the committee's indulgence, I think the critic just has a few more questions, so I don't think it will take too long for us to wrap up if–with the committee's indulgence on that.

Mr. Chairperson: Is that agreed? *[Agreed]*

Mr. Chomiak: Yes, we will continue to–the practice that we have in the past with regard to that.

Mr. Chairperson: Thank you.

Mr. Helwer: And that would be what?

Mr. Chomiak: I think, generally, the pay scales and benefits payable to senior management across corporations, both in the–in the public sector has generally been disclosed to Manitoba.

Mr. Helwer: I understand Manitoba Hydro International is working in the Nigerian area, and they have recently been awarded a contract for some $24 million to work with the Nigerian government on privatizing their hydro in that area. Can you comment on that, and if that's something that you see as an important part of Hydro's mandate?

Mr. Chomiak: Manitoba Hydro International is a very important component, and is recognized worldwide, in fact, for some of the activities that they undertake and has been encouraged in its roles and as a consultive capacity providing service around the world, and will continue to do so. And it's–the experience, for example, in the direct, current field and the utilization of HVDC transformation has been world setting in–from Manitoba, and has been utilized around the world in terms of transmission. And Manitoba Hydro International will continue to work around the world, as they have in the past, on projects, many in Third World countries.

Mr. Helwer: Well, I understand that this particular project is to prepare the company for privatization, and is that a project that this government supports and is that the plan that you have for Manitoba Hydro down the road?

Mr. Chomiak: I guess the best way I could answer this, Mr. Chairperson, is to say, no. And I'll leave it at that, insofar as I know there's time considerations.

Mr. Helwer: Well, I think we–I just have a couple more questions that I think we've asked of past board chairs. So seeing as we have a new one, perhaps we should ask the current chair, Mr. Fraser, through you, Mr. Chair, how often do the board chair and CEO meet with the minister? Is a regular scheduled meeting?

Mr. Fraser: Well, again, Scott and I have only been involved for a relatively short period of time, but I would anticipate that we would probably meet once a week or every two weeks, something like that, depending on the issues and what's going on. It may vary in terms of more frequently at certain times and less frequently, depending on the issues at Hydro, and so on. There isn't an ongoing schedule that I'm aware of, but–I mean, that's my understanding would basically be a weekly meeting.

Mr. Helwer: Through you to Mr. Fraser, Mr. Chair. You've operated in a number of board environments and seen several boards operate. Do you get a lot of guidance from the minister, from other elected officials in this regard, and is it more so than in other boards that you've participated in?

Mr. Fraser: Well, again, I mean, in–the minister and I have probably met three or four times in, you know, the short period that I've been there, and they've basically been a sharing of information. So there–but there hasn't been specific direction on any issues.

I mean, the hydro planning cycle is a very long planning cycle, as we see in terms of the construction projects and the capital projects. I mean, it's generally a 10-year rolling plan, and in some cases, the–there's been a need for providing a 20-year rolling plan. So it's not something where there's dramatic changes in a short period of time. I mean, these things–projects take literally eight, nine, 10 years in a lot of cases, from planning and the various licensing and approval and being able to get access to locations and that kind of thing. So, I mean, the framework is pretty well established in what they refer to as the IFF, which is continually updated.

And as Mr. McFadyen has indicated on a number of occasions today, I mean, based on the best estimates available at any given time which continually change as a result of change assumptions, interest rates, foreign exchange rates,

construction costs, commodity costs, various things. So, I mean, it is a very fluid thing that needs to be monitored on an ongoing basis, because it is very dynamic.

Mr. Helwer: Through you, Mr. Chair, to Mr. Fraser. You have a number of new board members that are new to the Hydro board. They may have served in other board capacities elsewhere, but do you have particular training for new board members?

Mr. Fraser: There is orientation package, and we are in the throes of convening orientation for the board. There's also a number of seminars, courses, that are put on by the Crown Corporations Council. And I got a letter from them just a few days ago on–kind of the next round of courses that are coming up, and which would be distributed to all board members, not just new board members, in terms of various issues that board members should be up to date on.

Mr. Helwer: I guess from other Crown committees, we've heard about their boards and how they're treated, and I'm just curious on this particular one, is there a stipend for being a board member, a vice-chair and a chair, and what might those amounts be?

Mr. Fraser: I can only speak from my personal experience.

I've been on the board for, I guess, approximately six years and the stipend has been, I believe, $7,200 a year; it's like $600 a month. I believe all board members get that. I haven't been aware of–I think at one point in time there was vice-chair. For recent time, I don't think anybody has been vice-chair. And the chairperson normally has a contract, which I don't have yet, and I haven't been paid yet. But I'm sure that you'll get around to that. So I'm not sure what I'm making, to be honest.

Mr. Helwer: For those new board members and for all board members, are there certain qualifications or credentials that you look for in order for appointing someone to the board?

Mr. Chomiak: Yes, I don't–it's probably more appropriate that I answer that question, as generally the minister responsible is ultimately–signs off on board appointments after reviewing through their committee and through Cabinet, and there's a variety of factors depending on the type of board. And clearly we want to have–and we've had very good success, particularly with the Hydro board, of the kind of responsibilities they have.

One of the issues that we're very proud of with respect to this particular board is the fact that people of First Nation-Aboriginal background are four members on a board of 11, which I think is a first time in Manitoba. And it reflects the importance of First Nations to the development of Hydro and to the future of Manitoba.

So, for example, Chief Crate, who's on the board, has been chairperson of one of the committees of the AMC for a number of years in dealing with complex financial matters, and is now on the board of Hydro. That's an example of not only diversity but also an example of strength and of the variant type of personalities on the board.

Clearly a financial background, public service; all of those issues are looked at with respect to balancing boards and ensuring that there's a fair representation of Manitobans on the board. So, in general, that's the process for board selection and board governance in Manitoba.

* (20:40)

Mr. Helwer: Are the board meetings open to the public and are the minutes of those board meetings available to the public?

Mr. Fraser: The board meetings themselves are not open to the public.

With regard to the minutes, I must admit I'm not sure. I mean, I presume that there are policies in government with regard to those things that I would presume that Hydro is following whatever those policies are. But I know certainly the provincial auditor attends all of the board meetings, all of the audit committee and finance committee meetings and has access to all that information, and certainly the external auditors who are Ernst & Young have access to all that. Whether the general public does and what the provisions are under the freedom for information legislation with regard to those specific things, I must admit I'm not aware of them.

Mr. Helwer: Just one more question, I think, probably, through you to Mr. Thomson, didn't want him to feel bored here at the end, but in your presentation you were talking about Keeyask, and the statement was if we build Keeyask. So is it under debate whether that particular structure will be built?

Mr. Thomson: No, not internally. I mean, we've got to go through a review process and get it certificated to build,

possibly a poor choice of words on my part, but our expectation is that we will build it and we're going to pursue that project. As I'd mentioned, we have a need for new generation by 2020-2021, and the plan is to get that built a year in advance of when we–in and around the time that we need it. So that's the course that we're on.

Mr. Helwer: Well, Mr. Chair, I think we've exhausted our questions for the evening, and we do have a suggestion of whether we should pass a report and the suggestion, I guess, we could make is that we pass the report for the year ending March 34th–31st, 2008.

Mr. Chairperson: Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31st, 2008–pass.

Shall the Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31st, 2009 pass?

Some Honourable Members: Pass.

Some Honourable Members: No.

Mr. Chairperson: The report is accordingly passed. No? The report is not passed.

Shall the Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31st, 2010 pass?

Some Honourable Members: Pass.

Some Honourable Members: No.

Mr. Chairperson: The report is not passed.

Shall the Annual Report of the Manitoba Hydro-Electric Board for the fiscal year ending March 31st, 2011 pass?

Some Honourable Members: Pass.

Some Honourable Members: No.

Mr. Chairperson: The report is not passed.

The reports which are not passed, kindly leave them on the table here.

The hour being 8:42, what is the will of the committee?

Some Honourable Members: Committee rise.

Mr. Chairperson: Committee rise. Thank you.

COMMITTEE ROSE AT: *8:43 p.m.*