

MIPUG Undertaking #1 (Undertaking #33)

Transcript page 1838: MIPUG to provide a list of alternative programs to this Board.

Response:

During the MIPUG member presentation on June 2, 2015, MIPUG committed to provide a list of alternative rate programs being accessed by industrial customers in other jurisdictions that allow them to be more competitive.

Attachment 1 to this undertaking provides electricity price comparison tables as well as the sources used to calculate electricity prices prepared by Canexus. The comparison is for the production of 60,000 MT of sodium chlorate per year, and uses rates in place in 2015. Similar information was provided in response to MIPUG Undertaking #2 (Undertaking No. 96) filed during the 2012 GRA.

MIPUG members are aware of the following alternative rate programs offered in other jurisdictions across North America:

- Demand Response Programs are offered in Ontario, New Jersey, Texas and California.
- Reliability Pricing Model is offered in New Jersey and allows industrial customers to curtail load during the highest demand periods and benefit by reducing capacity obligations in forward years.
- Interruptible Rate Contracts are available in a number of jurisdictions.

These programs were described during the NFAT hearing by the MIPUG member David Forsyth, Regional Energy Manager for Gerdau Long Steel North America. A transcript of the presentation which provides a description of the above programs is provided as Attachment 2 to this response and provides an overview of the types of programs available to industrial customers in other jurisdictions across North America.

Table 1: Electricity Price Comparison

Electricity Price Comparison for Manitoba PUB (May 1, 2015)

Inputs:	
Sodium Chlorate Production (MT/y)	60,000
Usage (kWh/MT)	5,300
US\$/CS	1.00

Manitoba Hydro - General Service Large (30 to 100kV) Hydro Quebec - Rate L

Production (MT)	60,000
Usage (kWh/MT)	5,300
Energy Usage (kWh/month)	26,500,000
Estimated Demand Load (kWh)	36,301
Demand (C\$/kWh/month)	6.610
Energy (C\$/kWh)	0.03105
Taxes (%)	1.4%
Interruptable Discount (%)	0.0%
Delivered (C\$/kWh)	0.04067
Delivered (C\$/MWh)	40.67

Price does not reflect 3.95% increase requested by Manitoba Hydro

British Columbia Hydro - RS 1823 Stepped Rates

Production (MT)	60,000
Usage (kWh/MT)	5,300
Estimated CBL without Utility (kWh/y)	334,736,842
Estimated % of CBL (%)	95.0%
Estimated Demand Load (kVA/month)	36,301
Demand (C\$/kVA/month)	7.341
Energy - Tier 1 (C\$/kWh)	0.03836
Energy - Tier 2 (C\$/kWh)	0.08383
Rate Rider (%)	5.0%
Clean Energy Levy (%)	0.0%
Taxes (%)	0.0%
Interruptable Discount (%)	0.0%
Demand Charge (C\$/y)	3,357,753
Energy - Tier 1 (C\$/y)	12,134,277
Energy - Tier 2 (C\$/y)	1,473,202
Delivered (C\$/kWh)	0.05335
Delivered (C\$/MWh)	53.35

Price reflects 6% increase effective Apr 1, 2015

Grant County PUB (Washington) - Rate Schedule 15

Production (MT)	60,000
Usage (kWh/MT)	5,300
Energy Usage (kWh/month)	26,500,000
Estimated Demand Load (kWh)	36,301
Base Charge (US\$)	1,000
Demand (US\$/kWh/month)	5.26
Energy - First 10,950,000 kWh (US\$/kWh)	0.02552
Energy - 10,950,001 to 21,900,000 kWh (US\$/kWh)	0.02909
Energy - 21,900,001 to 32,850,000 kWh (US\$/kWh)	0.03044
Energy - 32,850,001 to 43,800,000 kWh (US\$/kWh)	0.03044
Energy - Above 43,800,000 kWh (US\$/kWh)	0.03044
Taxes (%)	0.0%
Interruptable Discount (%)	0.0%
Demand (US\$/kWh)	0.00724
Energy (US\$/kWh)	0.02765
Delivered (US\$/kWh)	0.03609
Delivered (US\$/MWh)	36.09
Delivered (C\$/MWh)	3.69

Price reflects 0.5% increase effective Jan 1, 2015

Energy (Louisanna) - Electrochemical Energy Intensive Indus

Production (MT)	60,000
Usage (kWh/MT)	5,300
Energy Usage (kWh/month)	26,500,000
Estimated Demand Load (kW)	36,301
Customer Charge (US\$/month)	5,448
Energy - First 500 kWh per kW Load (US\$/kWh)	0.00988
Energy - >500 kWh (US\$/kWh)	0.00127
Fuel Cost Adjustment (US\$/kWh)	0.03169
Taxes (%)	0.0%
Interruptable Discount (%)	0.0%
Delivered (US\$/kWh)	0.03013
Delivered (US\$/MWh)	30.13
Delivered (C\$/MWh)	30.13

Reflects fuel adjustments from Jan to May, 2015



“When You Talk - We Listen!”



MANITOBA PUBLIC UTILITIES BOARD

Re:

MANITOBA HYDRO
NEEDS FOR AND ALTERNATIVES TO
REVIEW OF MANITOBA HYDRO'S
PREFERRED DEVELOPMENT PLAN

Regis Gosselin	- Chairperson
Marilyn Kapitany	- Board Member
Larry Soldier	- Board Member
Richard Bel	- Board Member
Hugh Grant	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
April 16, 2014
Pages 7108 to 7365

1 PRESENTATION BY GERDAU:

2 MR. DAVID FORSYTH: Chair and members
3 of the Board, thank you for allowing us to pres --
4 present the comments of Gerdau to you today. I'm Dave
5 Forsyth, the regional energy manager responsible for
6 the Manitoba mill, and with me is Gavin Tobin. He's
7 the vice president and general manager of the mill.

8 Gerdau is -- Gerdau is very proud to be
9 celebrating a hundred and thirteen (113) years in
10 business as of May 2014, and we now have forty-five
11 thousand (45,000) employees in Canada, the US, and
12 twelve (12) other countries around the globe. The
13 Manitoba mill started production in 1907, some one
14 hundred and seven (107) years ago. You probably know
15 it as Manitoba Rolling Mills.

16 The steel mill in Selkirk is one of the
17 largest manufacturers in the province. Gerdau is also
18 the largest recycler in the province, processing scrap
19 metal collected from throughout the region. We recycle
20 approximately 400,000 tonnes of scrap each year.
21 Recycling along with process innovation has made Steel
22 a leader in reducing energy intensity from the steel-
23 making process, and correspondingly reducing greenhouse
24 gas emissions.

25 We're one of the largest shippers in the

1 region, averaging over one hundred and fifty (150)
2 truckloads and twenty-five (25) railcars per week. In
3 addition to the five hundred (500) jobs at the Gerdau
4 Manitoba Mill, Gerdau has also attracted several large
5 downstream manufacturers to the province, creating
6 valuable manufacturing jobs at Monteferro America in
7 Birds Hill and Steinbach, TC Industries in Selkirk,
8 Black Cat Blades in Selkirk, Bradley Steel Processors
9 in Winnipeg, and ESCO Steel in Steinbach.

10 Including Gerdau Metallics Raw Materials
11 Group, which is our recycling operations, over eight
12 hundred (800) jobs and families are directly involved
13 with the plant. There are also many Winnipeg
14 industries that support Gerdau. They are creating a
15 significant number of collateral jobs.

16 A report by Timothy Considine, an energy
17 economics professor at the University of Wyoming,
18 reveals that every one (1) job in the US steel industry
19 supports seven (7) jobs in the economy, reflecting the
20 industry's ripple effect on employment, and the same
21 goes for Canada.

22 Gerdau takes the social responsibility
23 very seriously in Manitoba. With the help of our
24 employees, we support Selkirk hospice, Safe Workers of
25 Tomorrow, the Food Bank, Red River Toy Drive, and the

1 Manitoba Heart and Stroke Foundation, the Red River
2 Clean-up Operation, and the Selkirk Fire Department, to
3 name a few.

4 Steel is an energy- and capital-
5 intensive business. As with any investment decision,
6 Gerdau's management must consider the long-term costs
7 of doing business. Electricity costs are second only
8 to our scrap steel cost and, as such, are a very
9 important contributor to the competitive cost
10 structure. We are an energy-intensive business.

11 It's important to note that Gerdau's
12 size in North America means more than -- means more
13 than one (1) plant can typically make the products that
14 our customers require. Gerdau's financial model looks
15 at where these products can be produced and delivered
16 at the lowest cost. Energy is one of our key
17 controllable costs and is, therefore, a very important
18 consideration in Gerdau's production and investment
19 decisions.

20 Using electric arc furnace, we melt the
21 scrap. That's where most of the electricity is
22 consumed. We cast it into steel billets, fine tune the
23 temperature in the reheat furnace, and roll it in a
24 rolling mill, producing new steel products for many
25 uses.

1 We are extremely efficient at what we
2 do, and we do it in an environmentally responsible
3 manner. In fact, making steel from scrap metal reduces
4 70 percent of the energy and 60 percent of the
5 emissions when compared to making steel from iron ore.

6 Low cost, stable, and reliable
7 electricity is essential to Gerdau's operations in
8 Manitoba. All energy costs from Manitoba are presently
9 favourable. Our increasing costs, including high
10 transportation and fuel costs, and Manitoba Hydro's
11 plans are items that will consume this current
12 advantage offered by low-cost electricity.

13 Manitoba energy rates have increased
14 substantially since 2004. As Mr. Turner said, the
15 rates are up over 40 percent in that ten (10) year
16 period. Industrial customers in Manitoba have been
17 paying 10 percent more than the cost to serve them.
18 Now we are told rates could be rising anywhere from 51
19 to 114 percent in the next eighteen (18) years, and a
20 major factor in this is a choice of development plan.

21 Ten (10) years ago, Manitoba Hydro
22 probably offered the lowest industrial rates in North
23 America. There is a myth in Manitoba that electricity
24 rates are still the lowest in North America. This is
25 not the case when you consider the all-in costs of

1 delivered electricity, including optional programs that
2 are available in other jurisdictions.

3 Sixteen percent of our plants had lower
4 costs in 2013. And at the proposed pace of increases
5 in Manitoba, this number will be 37 percent by 2016.
6 At all of our nineteen (19) North American steel mills,
7 we participate in demand-response programs if they
8 exist or we work with the utility or grid operator to
9 develop new ones if they don't. This provides us the
10 opportunity to manage and control costs at the plant
11 while providing a service that the utility must pay for
12 anyways.

13 In Ontario, we can avoid the major
14 component of the demand charge by shifting consumption
15 to off-peak times and avoiding critical peaks. We also
16 participate in demand-response programs where we
17 respond to supply question issues when required by the
18 grid operator. The Ontario market rules also allow
19 loads to be dispatchable, and we participate in the
20 operating reserve markets.

21 In New Jersey, we participate in PJM's
22 reliability pricing model, which -- the RPM or the --
23 the capacity market, by curtailing our load during the
24 highest demand periods. And we benefit by reducing our
25 capacity obligation in forward years. We also

1 participate in PJM's economic demand response in the
2 synchronized reserve market to lower our costs.

3 In Texas, we reduce our fixed costs by
4 avoiding the high demand periods. And we offer demand
5 response into an emergency program and receive credits
6 for the service.

7 In California, we participate in demand
8 response, receiving credit for being on emergency
9 standby. Other jurisdictions have total variable
10 costs which directly pass through cost reductions
11 during low consumption periods. At many of our North
12 American filidly -- facilities we participate in
13 interruptible rate contracts.

14 We have approached Manitoba Hydro many
15 times to subscribe to the appropriate program, but, as
16 Mr. Turner stated earlier, their Curtailable Rate
17 Program is closed to new entrants. Hydro has also --
18 has no other options to help us control the power cost.
19 As a result, there is little we can do to help manage
20 these costs.

21 We and other members of MIPUG have
22 shared demand response program information and
23 proposals from other jurisdictions with Manitoba Hydro
24 in areas where we operate, yet Manitoba Hydro has
25 generated sixteen (16) scenarios in the Needs For And

1 Alternatives To study, and not one (1) of them
2 considers additional demand response participation by
3 Manitoba industrial customers.

4 Energy efficiency is one of the few
5 tools -- or DSM, one of the few tools at hand to help
6 Gerdau's Manitoba facility improve its competitiveness,
7 and we have invested heavily, improving our costs and
8 benefiting the environment. We have received heavy
9 support from Manitoba Hydro on this front.

10 It's alarming that this hearing is being
11 held at a point in the game where Manitoba Hydro has
12 already spent \$1 billion into the Keeyask program,
13 making it a competitive project with the gas scenario.
14 This amount, it appears, has to be paid for by
15 ratepayers whether the project is built or not. As a
16 result, there is no level playing field with lower cost
17 options like a gas scenario.

18 We're always concerned when utilities,
19 such as Manitoba Hydro, propose to take on big risk on
20 behalf of the ratepayers with projects that require a
21 long lead time to satisfy load or contracts that are
22 predicted to show up decades away. If this turns out
23 to be overbuilding or the major assumptions turn out to
24 be wrong, it could result in cost skyrocketing for
25 existing customers. These costs would be in addition

1 to the possible 51 to 114 percent increase.

2 We understand that this plan will result
3 in a current 10 billion rate base for 5,000 megawatts
4 to be nearly doubled for an additional 630 megawatts.
5 Adding Conawap -- Conawapa as well will triple the
6 rate base.

7 In summation, the outcome of these
8 hearings much achieve firm, low-cost, stable power
9 rates that are necessary to maintain investment and
10 jobs in the province. Rate stability and certainty are
11 key inputs Gerdau considers when making long-term
12 investments decisions. This cannot be achieved unless
13 additional programs to help industrial customers manage
14 their costs are developed. Thank you.

15 THE CHAIRPERSON: Thank you, Mr.
16 Forsyth. Mr. Tobin, would you like to say a few
17 comments? Okay.

18 MR. RICHARD BEL: Hi. On -- on the
19 introduction, on one of the bullets, you talked about
20 incentives for self-generation. So my question is:

21 Are there viable self-generation
22 technologies available that some of your companies use,
23 and what kind of incentives are you talking about?

24 MR. BILL TURNER: Sorry. Yes, there
25 are options out there within some of the companies