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# **Power Struggle: Manitoba Hydro and the Spectre of Privatization**

**By Lynne Fernandez, with John Ryan, PhD.**

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## **About the Authors**

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## **Acknowledgements**

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The author would like to thank Dr. George Chuchman for sharing his considerable expertise on the economics of hydroelectricity in North America.

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# Power Struggle: Manitoba Hydro and the Spectre of Privatization

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## Executive Summary

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For the past 40 years political leaders — supported by the majority of professional economists in the academy and private sector — have reduced the role government plays and increased the degree of competitiveness in the economy. The number of public-sector enterprises that have been sold off (such as Manitoba Telephone Services, Petro Canada and Air Canada), and the increasing willingness of governments to downsize the public sector and deregulate key sectors of the economy (e.g., transportation, energy, telecommunications), are testimonies to this shift in governance.

The rationale for this sea change is found in a particular and popular economic theory called neo-liberalism, or free market (also referred to as neo-conservative) ideology. Under free-market philosophy, a private competitive market will allocate resources more efficiently than a government-regulated market. It doubts the ability of the welfare state to improve the lot of society because the government is thought to be protected from the rigours of competition, which is needed to make enterprises efficient. Lack of competition is assumed to cause government enterprises to become bloated and complacent.

Public enterprises, such as Crown corporations, have long been in the crosshairs of free-market proponents. Chapter 15 in The North American Free Trade Agreement (NAFTA) constrains Canada's Crown corporations and The Comprehensive Economic Trade Agreement (CETA), being negotiated between Canada and the European Union, threatens to quash Crown corporations' procurement powers. BC Hydro, a Crown corporation very similar to Manitoba Hydro, is in the process

of been carved up, and its purpose and activities being radically changed as it slowly gets integrated into the deregulated U.S. electricity market. There is every reason to suspect that Manitoba Hydro is on several hit lists for privatization.

This report explores the flaws in the free-market argument and gives examples of how Manitoba Hydro belies the predictions of economic theory. As an enterprise owned by Manitobans, Manitoba Hydro is able to:

- provide the lowest electricity rates in North America;
- provide the most reliable power in North America;
- advance regional development in the North;
- provide opportunities to First Nations communities, who are particularly disadvantaged, through targeted procurement and labour training policies;
- encourage conservation through Power Smart;
- advance the goals enshrined in The Sustainable Development Act by routing Bipole III down the west side of Lake Winnipeg and continuing with its wildlife conservation programs;
- attract businesses and workers to the Province with the lowest energy rates and highest reliability of service;
- be one of the top 100 employers in Canada;
- provide Manitobans with valuable export revenues that help pay for important social services such as healthcare and education;

- maintain low hydro rates that offset the marginally lower tax rates paid in Saskatchewan and Alberta, who keep taxes low through resource royalties;
- continue developing leading edge technology that remains a public asset.

What would be lost if Manitoba Hydro were privatized? This report explains that the most immediate effects would be experienced by Manitoba Hydro customers:

- wholesale competition will lead to a tilting of electricity rates in favour of large industrial and commercial customers whose rates will decline and result in significantly higher electricity rates for residential consumers;
- the momentum for electric utility re-structuring and for deregulation of electricity markets and for privatization of public sector utilities has been largely generated by private-sector companies looking to exploit opportunities for large-scale wealth transfers from public sector assets;
- in the US, deregulation of electricity rates and elimination of the “obligation to serve” has created conditions for tremendous electric power price volatility, and for electric generating capacity and transmission construction cycles;
- overall electricity rates may go up if transactions costs due to additional marketing and intermediation of electricity distribution exceed the cost savings from competitive generation;
- in deregulated electricity markets, rates will be cyclical and volatile.
- we could experience soaring electricity rates and lack of new generating capacity such as experienced in Alberta and Ontario.

In the long term, Manitoba Hydro would cease to be an instrument of government to steer regional economic development. It would also lose its ability to promote equity across society while adhering to the Sustainable Development Act. Manitobans, the shareholders of Manitoba Hydro, would lose ownership of the cutting-edge technology developed and employed by the corporation, as well as some of the most valuable infrastructure in Canada.

Proponents of deregulation and privatization know that Manitobans do not want to lose Manitoba Hydro. They disguise their plans in double speak and euphemisms such as the need to bring in “private-sector” expertise (although Manitoba Hydro already has the best technical expertise in the world) and the need to meet the coming energy crisis (which would be largely caused by private-sector players funneling energy to the power-hungry US). Conservative leader Hugh McFayden is on record as wanting to explore the use of public/private partnerships to “expand hydro capacity in the province<sup>1</sup>.” All these references should raise red flags for Manitobans.

Despite the claims of private-market theory, private-sector opportunism has been a major driving force in electric utility re-structuring, deregulation, and privatization policy (one only need think of ENRON). Manitobans need to ask if they would want MH to be owned by a multi-national off-shore conglomerate based in Australia, France, Brazil or the US *especially* considering the implications of existing and future free-trade agreements.

Manitobans derive great benefit from Manitoba Hydro being a Crown corporation. It needs to be protected and maintained.

# Power Struggle: Manitoba Hydro and the Spectre of Privatization

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For the past thirty years or more, economic orthodoxy has become firmly entrenched in neo-liberal or free-market philosophy<sup>i</sup> and globally governments have embraced policies that conform to this theory. With the move towards free trade and away from the welfare state — through the shrinking of government and deregulation of key sectors of the economy, no public enterprise, regardless of its success and efficiency, is free from the danger of privatization.

The Canadian public sector has sold off significant portions of its assets, whether it be through outright privatization of public enterprises like Alberta Government Telephones (AGT), Manitoba Telephone System (MTS), Petro Canada and Air Canada, or the plethora of public/private partnerships (P3s) being implemented in various jurisdictions throughout the country<sup>2</sup>. Globally and at home, even the electrical industry — where natural monopoly conditions still exist for distribution and transmission<sup>3</sup> — has sold off billions of dollars of public assets to private interests. There is no reason to assume that Manitoba Hydro is immune to these forces, especially given that:

[e]ven countries like Canada, [. . .] that have no supply and prices problems that “need fixing,” are succumbing to the lure of an international, deregulated electricity market. A complex web of factors conspired to spread the deregulation process, even in jurisdictions where exist-

ing public utilities serve the population exceedingly well<sup>4</sup>.

This paper will argue that, contrary to the assertions of private-market proponents, Manitobans are served exceedingly well by their public utility, Manitoba Hydro (MH). MH is a provincial Crown corporation with over \$12B in assets, providing Manitobans with the cheapest electricity in North America<sup>5</sup>. According to its corporate profile as of March, 2010, it boasted \$2B in annual revenue; serves 532,000 electricity customers, 264,000 natural gas customers, exports to more than 30 wholesale customers in Canada and the US and is ranked number 1 in customer satisfaction by the Canadian Electricity Association (CEA)<sup>6</sup>. Given its popularity with customers, why privatize? Would power rates escalate and customer satisfaction decrease? And where would the profits flow? Not to all the citizens of Manitoba, but to those few — many of whom wouldn't live in Canada, let alone Manitoba — who could afford to buy shares in private enterprises. Furthermore, does a narrow analysis of profit, in the private-enterprise sense of the word, provide us with a definitive answer? In the case of Crown corporations, we must consider other factors.

This report will explain why the privatization attempt could take place, and if it did, how it would probably unfold and what the consequences would be if the attempt were successful. We will first provide a short background on Crown corporations, then review

i Free-market philosophy refers to an economic theory that promotes the ability of a private, competitive market to allocate resources more efficiently than a government-regulated market. It recommends the liberalization of markets from government intervention (in the form of tariffs, regulations and taxes) and the minimization of government in terms of both size and the powers it can bring to bear on the market.

MH's characteristics, including governance, finances, technical capabilities and its stakeholders. We'll also examine the environment in which it operates, including the nature of its export market and the implications of free trade agreements. Finally, we will analyse the ever-present pressure for privatization and the various forms it can take, including a survey of some examples and consequences of deregulation<sup>ii</sup> and privatization in the electricity sector.

## Crown Corporations

Crown corporations are government-owned enterprises. They are government instruments used for industrial development, creation of national markets and in building infrastructure where so-called natural monopoly exists, such as the hydroelectric, transportation and nuclear energy sectors<sup>7</sup>. Crown corporations have been an integral part of Canada's nation building and have been noted as an important factor in resisting regionalization and continentalism, as well as in distinguishing Canada's political economy from America's<sup>8</sup>. This differentiation was not lost on the Americans who negotiated NAFTA<sup>iii</sup>; Chapter 15 constrains Canadian public corporations and Chapter 10 limits public spending that promotes regional development<sup>9</sup>. And should foreign ownership take hold in the electricity sector, NAFTA's Chapter 11 could change the policy landscape, diminishing Crown corporations' effectiveness as agents for public good<sup>10</sup>.

Notwithstanding NAFTA's restrictions, these public enterprises can invest at a lower cost than can private firms, allowing them to lower

the cost of delivery of essential services such as energy and automobile insurance<sup>11</sup> (Manitoba's provincially-owned Manitoba Public Insurance is another example of a Crown corporation that serves the public well).

There are federally-owned Crown corporations, such as Canada Post, and provincial Crown corporations like Manitoba Hydro, Hydro Quebec and Manitoba Public Insurance. Crown corporations share the following characteristics:

- They are regulated by legislation<sup>iv</sup>.
- They often arise as a result of market failure from the existence of a natural monopoly<sup>12</sup>. When provision of a product or service requires such an unusually large capital expenditure that no private corporation will invest and there is, therefore, no possibility of competition, Crown corporations are the only entities capable of undertaking such endeavours.
- They serve a larger policy purpose by advancing net public good. For example, MH can be seen as an instrument the Province uses to advance economic development in Manitoba. Kirsch, quoting Trebilcock and Prichard, notes that every Crown corporation must be assumed to maximize a policy objective whose value is greater than any loss of profit that may occur. It is also assumed that the policy objective in question is worthy from an economic, political and social perspective<sup>13</sup>.
- The founding documents of Crown corporations outline the public-interest

ii Deregulation refers to a tendency to remove government control from a sector (airline industry, energy, telecommunications, for example) thereby exposing the industry to a freer, more competitive market with private-sector players.

iii NAFTA is an example of free-market principles being advanced by governments. This is evident in its name, The North American *Free Trade Agreement*.

iv MH exists by virtue of *The Manitoba Hydro Act* (1961) and is further regulated by *The Public Utilities Board Act* and *The Crown Corporations Public Review and Accountability Act*.



objectives of concern to the corporation and they have government-appointed boards<sup>14</sup>.

Crown corporations are not to be confused with profit-maximizing private enterprises, and to judge them by the same criteria as we judge private corporations is to miss their point. Whereas a private corporation's *raison d'être* is to maximize profit for its shareholders, a Crown corporation is first a tool of public policy used to advance the broader interests of its shareholders (the citizens)<sup>15</sup>. By assessing a Crown corporation's performance by level of profit, rather than by how it is improving the lives of its citizen shareholders, is either to overlook the opportunities available via the public sector, or to ignore the inability, in many cases, of the private market to properly allocate resources. As we will see, both public-sector opportunities and private-market imperfections are particularly relevant to the electricity sector.

## **Manitoba Hydro**

### *The Government and Electric Power in Manitoba*<sup>16</sup>

In Manitoba, as in most of the rest of Canada historically, the adoption of the *public ownership* form of government intervention rather than *regulation* of private investor-owned electric utilities led to the creation of Manitoba Hydro. Public ownership was a response to concerns that some important public policy objectives would not be otherwise achieved. In addition to the objective of efficient and reliable electricity supply, the other important public policy objectives connected with electricity supply in Manitoba, and generally, in Canadian provinces with hydro-electric resources have been:

1. Hydro-electric resource development as a major instrument for economic development;

2. Development of other forms of power. For example, in Ontario the government has invested in a domestic nuclear power industry to benefit from new technology and for utilization of domestic uranium resources. MH is expanding into wind power;
3. Rural electrification, undertaken partly for equitable access to electric service, a modern necessity;
4. Low cost power for the attraction and development of electric-energy intensive industries like metal refining (e.g. aluminum and nickel smelting and refining).

At least two other critically important roles of public-owned electric utilities have evolved as part of the public policy objectives of large scale hydro-electric resource development and domestic nuclear power industry development in Canada. These roles need to be elaborated here because there has been little recognition of their importance under many economic conditions in a country with the geography and population of Canada. These roles are:

1. Governments have been compelled to act as *risk-taker or insurer of last resort* and public-owned electric utilities have served the role of instruments of government risk-taking;
2. Canadian public-owned electric utilities have performed substantial leading edge Research and Development (R&D), and *innovations* in hydro and nuclear generation as well as long-distance transmission and other technologies. These two points will be elaborated in this report.

### *Governance/organization*

As a provincial Crown corporation, MH is responsible to the government of Manitoba, and Manitobans are both its shareholders and customers. A board, appointed by order of the Lieutenant Governor in Council, oversees the

affairs of MH and ensures government control. Control is also exercised through legislative oversight of capital borrowing; the requirement that the cabinet must approve extra-provincial electricity sales and provincial licensing requirements for certain activities<sup>17</sup>. Retail electricity rates are overseen by The Manitoba Public Utilities Board (PUB) — in accordance with the *Manitoba Public Utilities Board Act* — and administered ultimately by the Province who considers PUB recommendations before making its final decisions<sup>18</sup>. MH activities are also monitored by the Clean Environment Commission and Manitoba Conservation.

### **Finances-Economics of MH**

For 2009/10, consolidated net earnings for MH were \$163M, and retained earnings increased to \$2.2B<sup>19</sup>. Retained earnings have increased steadily from \$734M in 2004<sup>20</sup>. Plans to invest a further \$15B in new generation and transmission infrastructure will increase MH's ability to export energy.

MH export sales totaled \$427 million in 2009-10, with 85 per cent earned in the U.S. market and 15 per cent from sales to Canadian markets<sup>21</sup>. Hydro exports constituted close to 21 per cent of total revenues, but have been as high as almost 28 per cent (in 2008)<sup>22</sup>.

MH contributes a significant amount to the province's coffers. In 2009/10, it paid \$121M to the Province for water rentals and \$76M in capital and other taxes<sup>23</sup>.

Many provinces, including Manitoba, were able to take on the risk and expense of hydro development because it was financed and controlled publically. It is doubtful that the private sector would ever have taken on the risk, nor could they have raised the capital, to take on large-scale hydro development:

The 20/20 vision of historical hindsight demonstrates that the risks borne by gov-

ernments in five or six provinces in connection with remote Northern hydro-electric resource development have in all instances paid off, producing much higher than expected returns and creating productive hydro-electric generation and long-range transmission assets that today have a much higher capital value than ever anticipated. It can be argued that privatization of these hydro-electric assets at anything like replacement cost would be very lucrative for private sector investors<sup>24</sup>.

The other advantage Manitobans have realized is the considerable technical expertise gained through public investment in hydro-electric resource development.

### ***Technical Capabilities***<sup>25</sup>

Right from its very beginnings, there is evidence that as a publicly owned utility, Manitoba Hydro had the ability and determination to be at the forefront of technological development in most of its operations.

When the Winnipeg River's 560 MW of power were fully developed in the 1950s, the growing need for electricity could be met only from hydropower projects in the north, but these presented daunting challenges. Attention was first directed to Grand Rapids on the Saskatchewan River, but the bulk of the projects would be on the distant Nelson River.

The Grand Rapids 479-MW generating station was completed in 1968. With this being a limestone and dolomite region, Hydro engineers had the problem of preventing water from seeping out of the storage reservoir through numerous crevices, cracks and separations in these rocks. To resolve this serious problem it was necessary to form an underground seal beneath the dykes. About 100,000 tonnes of cement were used in the sealing or "grouting" procedure. This was one of the largest operations of its kind ever attempted in the world.



Fortuitously, the development of high voltage transmission technology at this time made it possible for Manitoba Hydro to engage in these distant northern projects. In the case of Grand Rapids, 400 km by air northwest of Winnipeg, Hydro had to build an AC transmission line to operate at 230 kV, double the voltage ever used in Manitoba up to that time.

Because the proposed hydropower stations on the Nelson River were about 900 km from the Winnipeg area, Manitoba Hydro was faced with the challenge of having to use high voltage DC transmission lines that would operate at 450 or 500 kV. In the mid-1960s such transmission lines were on the leading edge of technology. In fact, at that time there were no such lines in operation in North America — they existed only in Sweden and in Siberia in the Soviet Union. So the risk was substantial and Hydro's decision was controversial, even among Hydro's own engineers.

For long distance transmission of electricity, DC offers distinct advantages. First, the losses of power over long distances are considerably less with DC than with AC and DC lines are more stable than AC. Second, the cost of a DC transmission line system is about two-thirds the cost of an AC transmission line because only two conductor cables are required compared with three for AC. Moreover, the towers or pylons for AC have to be larger and stronger so more steel would be required, adding to the costs.

The downside of a DC transmission system is the necessity for converter stations which are even more expensive than the transmission lines themselves. A converter station is required at each end of a DC transmission line. A hydro generating station produces AC electricity, therefore a converter station near the plant is required to convert the AC current to DC. In the Winnipeg area another converter is required to change the DC power to AC. In all, there are two converter stations along the

Nelson River and one in the Winnipeg area. DC becomes economical only when savings on transmission line system costs offset the conversion costs. Over long distances, such as those from the Nelson River, DC is definitely advantageous.

The decision to use DC transmission lines proved to be highly successful and Manitoba Hydro has since become world renowned for its research and development in this field. Interestingly, during the same mid-1960s period, Quebec Hydro did not choose the daring DC option but instead expanded the technological frontiers of AC. They innovated the use of 735 kV AC power lines and this formed the backbone of their entire transmission system. These high voltage lines are expensive to build but they reduce line losses to a level that makes their operation feasible. As such, Manitoba Hydro and Quebec Hydro, both publicly owned utilities, became world leaders in high voltage transmission technology, with Manitoba in the forefront in DC and Quebec in AC.

To transmit electricity from the four power stations that were built on the Nelson River, two DC transmission lines were built — Bipole I (450 kV) with a length of 895 km was completed in 1972, and Bipole II (500kV), 937 km in length, was completed in 1978. Each line took three years to build. The construction of these lines also proved to be a challenge. Extending from about midway along the Nelson River and then proceeding through the Interlake region, about 75 metres apart, these lines had to cross all kinds of terrain — water, marsh, muskeg, barren rock, permafrost — so a variety of anchoring systems had to be used for the towers holding up the conductor cables. To haul the massive amounts of material for these lines, much of the work had to be done in winter when the ground was frozen.

The three main power stations on the Nelson River — Kettle, Long Spruce and Limestone

— were all built ahead of schedule and under budget. All three were massive undertakings.

The concept of harnessing power on the Nelson River necessitated the regulation of water flow from Lake Winnipeg into the Nelson. In Manitoba the highest demand for power is during the winter months, but the natural outflow of Lake Winnipeg into the Nelson River is greatest in summer and least in the winter — just the opposite of what was required. To deal with this, the Lake Winnipeg Regulation project was developed in the late 1960s to alter the annual flow pattern. This entailed the excavation of channels to increase the natural outflow capacity of the lake, and the construction of the Jenpeg power station and control dam to regulate the outflow of water. Bulb-type turbine generators, especially designed for a low head of water, were installed in the Jenpeg station in 1977, the first such generators to be used in North America. At the time only the USSR manufactured such generators so once again Manitoba Hydro took the lead in using such equipment. The complex water regulation project enabled Lake Winnipeg to act as a reservoir, supplying water as needed to the generating stations further downstream.

To further increase the power potential of the Nelson River, it was decided to divert water from the Churchill River into the Nelson. The Churchill River had a hydroelectric potential of more than 3000 MW, but instead of harnessing this potential by building power stations on the Churchill River itself, considerable economic advantage could be gained by diverting most of its flow into the Nelson River. This was accomplished by the construction of control dams and excavated channels, but the project was rushed and proper negotiations did not take place with the affected First Nations which led to considerable controversy, extra long-term costs, and hardship for the

people affected by these changes. However, this was a learning experience and Hydro has conducted its affairs differently since that time (see section on Stake Holders).

As an example of its ongoing commitment to research and development, Hydro appointed a special research panel in 2009 to investigate the possibility of using submarine cable for future long-distance hydro-electric transmission<sup>v</sup>. The use of submarine cable has been highly successful in many projects throughout the world, but it has never been used in a lake within the interior of a continent.

The foremost problem for an inland lake is the procedure for transporting long lengths of submarine cable by rail. Until now it has been possible to transport cable in lengths of only 1.5 km on reels on rail cars, but for a project on Lake Winnipeg lengths of up to 50 km would be required in order to make such a venture feasible. In its report the research panel has put forth a detailed proposal on how it may be possible to transport cable in 50-km lengths on a train consisting of 29 flatcars. The proposal has the informal approval of two high ranking submarine cable engineers from two cable manufacturing companies. The proposal would still need final testing to ensure its viability but it appears that such a procedure could be validated. If Manitoba Hydro would construct a future transmission line using submarine cable in an inland lake, it would once again be a world leader in such a venture.

A final example of Manitoba Hydro's innovative and dynamic operations is its decision to construct its new headquarters in downtown Winnipeg in a 22-story building that has been acknowledged to be one of the most energy-efficient large-scale office towers in the world and a model for extreme climate design. Completed in 2010 the building is targeting

v See report at [http://www.hydro.mb.ca/corporate/research\\_and\\_development/post\\_bipoleIII\\_concepts\\_review.pdf](http://www.hydro.mb.ca/corporate/research_and_development/post_bipoleIII_concepts_review.pdf).

a 60%-plus reduction in energy consumption which would result in savings of \$15 million in annual operating costs. Recognizing that the quality of indoor air and natural light is crucial to worker productivity, Hydro instructed the designers of the building to provide 100% fresh outdoor air 24 hours of the day, 365 days a year — and this was accomplished. Manitoba Hydro has set a sterling example of environmentally responsible construction in this bold and confident project.

Overall, Manitoba Hydro has been strikingly successful in a variety of challenging projects that required imagination, innovation and courage to carry out daring concepts. Proof of Hydro's successful and efficient operations is the fact this publicly owned utility has managed to provide the citizens of Manitoba with the lowest electricity rates, in most categories, in all of North America, along with some of the most reliable service in the world.

## **Stake Holders**

In this section we will argue that one of the reasons Manitobans benefit so much from MH is because of its mandate as a Crown corporation. We will break the beneficiaries into various stakeholders for a closer look.

### *First Nations and the Environment*

MH is able to promote northern economic development through its training and hiring policies. Projects such as the Wuskwatim and Keeyask Generation Projects include a Project Development Agreement (PDA) with the First Nations community that will be affected by the project. The PDA includes The Northern Training and Employment Initiative so that local Aboriginal people can benefit from the

development. Forty four per cent of the workers on the Wuskwatim project are of Aboriginal descent and traditional ceremonies are part of the work culture<sup>26</sup>. Through the Joint Keeyask Development Agreement, four Keeyask Cree Nations collectively have the right to own up to 25 per cent of the partnership. To date over 2250 Aboriginal workers have received training as caterers, carpenters, electricians and heavy equipment operators. MH, the federal government (Human Resource and Skills Development, Indian and Northern Affairs Canada and Western Economic Diversification) and the provincial government have contributed \$60M to the initiative<sup>27</sup>. Future generating station projects (such as Conawapa) will include similar agreements.

Hydro also purchases from Aboriginal owned CED ventures, which also increase Aboriginal employment and local surpluses.

Given the responsibility the government has to assist Aboriginal Peoples — who have suffered greatly from past hydro development — it is clear that MH is an important tool for mitigating past injustices and ensuring that all Manitobans have the opportunity to succeed. The Province is also responsible for spending on healthcare and other social services, so it sees spending in northern communities as a long-term investment that will lower public costs in the future. A private enterprise, whose scope and mandate is much narrower, would likely not voluntarily structure its investment to benefit First Nations communities.

MH also has a commitment to protect the environment — a responsibility it didn't meet in the past<sup>vi</sup>. Today it is taking difficult decisions such as running Bipole III down a longer, more expensive but less environmentally sensitive route on the west side of Manitoba a route that

vi Large-scale hydro development in the 1960s and 70s was extremely damaging to the environment and First Nations communities. Under the Northern Flood Agreement, MH has paid over \$700 million in compensation to First Nations that were affected by this development. It would have been far more difficult, if not impossible, to make private corporations take responsibility for such destruction.

would be avoided by a profit-maximizing firm, despite the dangers of losing exports to the US and a UNESCO World Heritage Site designation. To minimize environmental impact, MH is also engaged in several wildlife studies, including wolf, caribou and lake sturgeon, in collaboration with Manitoba Conservation<sup>28</sup>. MH also promotes energy conservation through its Power Smart program.

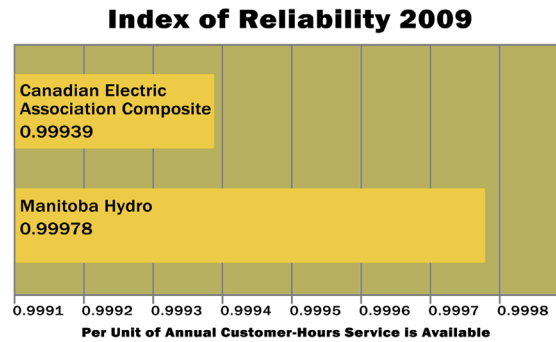
## MH Customers

### Household customers

Manitobans enjoy the lowest electricity rates in North America. Table One below compares Winnipeg's rates with other cities in North America. In all instances but three, Winnipeg has the lowest rates across the spectrum of 375 kWh to 5,000 kWh. It is interesting to note that the only two utilities that are competitive with MH are in Quebec and B.C. which both also have Crown corporations that specialize in hydro power.

In some cases the difference in customers' monthly bills is significant. For example, in Charlottetown P.E.I., where the electric utility

is privately owned, rates are more than double Winnipeg's. MH customers also enjoy a high degree of energy reliability. According to MH, it provides higher than average reliability when compared to other utilities:



Graph data source: Manitoba Hydro website<sup>30</sup>.

The combination of low cost and high reliability show why the Canadian Electricity association ranks MH as number one in customer satisfaction.

### Industrial customers

Tables Two through Four (page 11 and 12) give representative samples of MH's industrial rates which are the lowest across the country. These low rates help MH meet its mandate to

**Table One<sup>29</sup>: Residential Bill Calculations**

**One Month Bill (as of May 1, 2010) For:**

Cities	375 kWh	750 kWh	1,000 kWh	2,000 kWh	5,000 kWh
Calgary AB	\$50.56	\$83.23	\$105.00	\$192.09	\$453.37
Charlottetown PE	\$75.76	\$126.95	\$161.07	\$297.57	\$627.87
Edmonton AB	\$48.39	\$77.47	\$96.85	\$174.39	\$407.01
Englehart ON	\$69.46	\$118.56	\$152.35	\$291.27	\$708.01
Halifax NS	\$55.10	\$99.37	\$128.88	\$246.93	\$601.08
Kenora ON	\$52.16	\$90.44	\$116.88	\$226.99	\$557.28
Moncton NB	\$56.07	\$92.41	\$116.63	\$210.24	\$486.84
Montreal QC	\$32.63	\$53.07	\$68.75	\$143.85	\$369.15
Regina SK	\$55.68	\$94.00	\$119.55	\$221.75	\$528.35
Saskatoon SK	\$55.67	\$93.99	\$119.54	\$221.72	\$528.26
Saint John NB	\$48.83	\$82.50	\$107.33	\$189.35	\$445.25
St. John's NL	\$49.59	\$84.33	\$110.19	\$199.31	\$475.28
Toronto ON	\$59.81	\$101.32	\$129.89	\$248.60	\$604.74
Vancouver BC	\$28.70	\$55.10	\$77.93	\$169.24	\$443.18
Winnipeg MB	\$30.78	\$54.70	\$70.84	\$136.54	\$333.64

provide low cost power to industry, making it particularly attractive to energy-intensive industries. Manitoba's low electricity rates are noted in information to prospective businesses and families thinking of moving to Manitoba<sup>34</sup>. MH's Power Smart program promotes energy conservation so as to help offset the harmful effects of energy-intensive activities.

## Power Smart

Power Smart is a Demand Side Management (DSM) program that lowers the demand for electricity and natural gas. Controlling demand for energy complies with three key policies:

1. To reduce domestic demand, thereby requiring lower capital expenditure on generation stations that provide the supply;
2. To reduce domestic demand so that there is more energy to export;
3. To reduce domestic demand and put less stress on the environment.

Power Smart has initiatives for both housing and industrial/commercial customers. The 2010 Plan claims it will lower electricity demand by 626MW and 2,133 GW.h<sup>35</sup>. It will also reduce natural gas consumption by 1.6 tonnes by 2025<sup>36</sup>. By 2025 the total cost to realize these reductions will be \$572M, but greenhouse gases are estimated to come down in that same period by 2.6 million tonnes. From the inception of Power Smart to 2025, it is anticipated that the program will save customers over \$2 billion<sup>37</sup>.

Power Smart is an example of a successful DSM program. It is similar to a program of the same name that is run by B.C. Hydro. Before B.C. became less integrated, it also saw the logic in reducing demand so that it could avoid borrowing large sums for new power generation plants as well as fulfilling its mandate to be greener<sup>38</sup>. B.C. Hydro is now much less regulated than MH as it transforms to meet the demands of the competitive U.S. energy market and as a result, the mindset has changed. Cohen points out that:

**Table Two<sup>34</sup>: General Service (Small Loads) Bill Calculations**

**One Month Bill (as of May 1, 2010):**

<b>Cities</b>	<b>6 kW (6.6 kVA) 750 kWh</b>	<b>7 kW (7.8 kVA) 1,000 kWh</b>	<b>20 kW (22.2 kVA) 5,000 kWh</b>	<b>40 kW (44.4 kVA) 10,000 kWh</b>
Calgary AB	\$90.82	\$112.71	\$462.94	\$795.50
Charlottetown PE	\$149.00	\$190.47	\$854.07	\$1,679.67
Edmonton AB	\$79.69	\$101.98	\$458.82	\$904.87
Englehart ON	\$134.35	\$169.53	\$732.55	\$1,436.32
Halifax NS	\$104.60	\$134.20	\$635.66	\$1,271.32
Kenora ON	\$96.96	\$122.78	\$535.83	\$1,052.13
Moncton NB	\$108.22	\$137.52	\$606.32	\$1,209.42
Montreal QC	\$78.48	\$100.53	\$453.33	\$894.33
Regina SK	\$93.57	\$117.71	\$503.95	\$986.75
Saskatoon SK	\$93.56	\$117.70	\$503.88	\$986.61
Saint John NB	\$107.63	\$138.30	\$592.30	\$1,169.00
St. John's NL	\$99.58	\$126.91	\$548.43	\$1,076.60
Toronto ON	\$111.88	\$143.27	\$645.41	\$1,273.09
Vancouver BC	\$69.08	\$90.29	\$429.75	\$875.81
Winnipeg MB	\$68.95	\$86.05	\$359.65	\$701.65



**Table Three<sup>32</sup>: General Service (Medium Loads)****One month bill (as of May 1, 2010) for:****Utility-Owned Transformation Service at less than 750 Volts, 90% Power Factor**

	<b>500 kW (556 kVA) 200,000 kWh</b>	<b>¢/kWh</b>
Maritime Electric	\$24,795	12.398
1 Hydro One Networks Inc.	\$22,663	11.332
NB Power	\$21,313	10.657
Nova Scotia Power	\$21,023	10.512
2 Toronto Hydro-Electric System Ltd.	\$20,992	10.496
Saint John Energy	\$20,546	10.273
3 Kenora Hydro	\$17,694	8.847
Saskatoon Light & Power	\$17,165	8.583
SaskPower	\$17,161	8.581
4 Newfoundland Power	\$16,519	8.260
Hydro Quebec	\$15,740	7.870
5 ENMAX Corporation	\$13,226	6.613
BC Hydro	\$12,250	6.125
Manitoba Hydro	\$10,904	5.452

Note:

1. Based on an average energy price of 6.503 ¢/kWh
2. Based on an average energy price of 6.48 ¢/kWh.
3. Based on an average energy price of 6.00 ¢/kWh.
4. Summer/Winter average bill.
5. Based on an annual average Alberta Pool Price of 4.374 ¢/kWh.

**Table Four<sup>33</sup>: General Service (Large Industrial Loads)****One month bill for:****Customer-Owned Transformation Service at Transmission Voltage Exceeding 100 kV, 100% Power Factor**

	<b>100,000 kW / kVA 62,000,000 kWh</b>	<b>¢/kWh</b>
Maritime Electric	\$5,895,400	9.509
1 Toronto Hydro-Electric System Ltd.	\$5,689,006	9.176
2 Hydro One Networks Inc.	\$5,261,645	8.487
3 Nova Scotia Power	\$4,262,680	6.875
NB Power	\$4,114,200	6.636
SaskPower	\$3,387,968	5.464
Hydro Quebec	\$2,805,670	4.525
BC Hydro	\$2,689,565	4.338
Newfoundland & Labrador Hydro	\$2,460,420	3.968
Manitoba Hydro	\$2,164,400	3.491

Note:

1. Based on an average energy price of 6.48 ¢/kWh.
2. Based on an average energy price of 6.503 ¢/kWh. Transmission customers billed by the IESO.
3. Assumes load is interruptible.

If conservation initiatives succeeded in stopping the growth of energy demand, all firms would end up with lower sales, lower profits and no prospect of future growth. While this may make sense from the perspective of conservation, it is fundamentally in opposition to the prevailing logic of markets, where no individual firm is expected to forego sales — and profit — opportunities, and where no individual firm is responsible for the cumulative impact of the market. The logic of market competition is clear: expand sales and energy use<sup>39</sup>.

Clearly a privately-run hydro company would not be nearly as interested in conservation as its goal would be to maximize profit. It would be likely that a private firm would pay lip service to conservation by insisting that prices would have to be increased as a disincentive to consumption, but the real reason for the increase would be to raise capital to expand generating capacity to be able to expand into the growing need for energy in North America. MH exports effectively subsidize local consumption, whereas private firms would raise prices not just to expand capacity but also to raise returns to capital.

### **Staff**

MH is one of Canada's top 100 employers, based on its performance in physical workplace, financial benefits and compensation, health and family-friendly benefits, training and community involvement<sup>40</sup>. It employs more than 6,000 workers<sup>41</sup> and 1200 clerical and IT staff are members of CUPE 998; 681 employees belong to CEP 681; and 3,000 workers are part of the IBEW. MH is one of the most important employers in the Province, providing high-quality jobs with solid pay and benefits, helping to boost average wages in a province that has typically had lower than national-average wages. Its commitment to

diversify its employee base and ensure that Aboriginal employees are fairly representing in its workforce, although arguably slow in coming, is one element of the Province's plan to increase opportunities for all Manitobans. The high union density in MH helps keep standards high for all its employees.

From low energy bills and reliable service to its mandate to promote equitable economic growth throughout the Province, MH is able to improve the lives of Manitobans. But as new opportunities opened up in the North American energy sector, the Province saw the possibility to expand the Crown corporation's mandate to include increasing government revenues that could be invested in Manitoba. The next sections explain how that transition occurred and the ongoing expansion of capital investment and export sales.

### **MH as a Player in the North American Electricity Sector**

The original rationale for electricity exports by Canadian electric utilities, including Manitoba Hydro, was the same as the rationale for electricity sales to other provinces — to improve efficiency by gainfully selling surplus electric energy. Surplus energy was often available because of daily and seasonal fluctuations in demand and the fact that it is not possible to differentiate between firm (non-interruptible) and secondary (interruptible) generation. In the case of Manitoba Hydro, the development of generating capacity for purposes of firm electric energy exports had been precluded by the Manitoba Hydro Act. The Act restricted development of generating capacity to that required to meet the needs of Manitoba. In the 1980s, Manitoba Hydro had to rationalize development of generating capacity for firm export or extra-provincial sales by demonstrating that a portion of that capacity would be required in Manitoba, with the remainder only in the very distant future<sup>42</sup>.

In 1997, the Bill 55 changes to the Manitoba Hydro Act represented a major shift in the mandate of Manitoba Hydro to conform to US FERC regulations, allowing exports to deregulated US markets. Manitoba Hydro was allowed to re-structure its operations into separate Generation, Transmission, Distribution and System Operation entities and Bill 55 broadened the mandate of Manitoba Hydro and also, change its fundamental obligations to Manitobans, as follows:

1. Manitoba Hydro was given the power to enter into joint ventures with other (even non-electric) utilities and become involved in *foreign ventures*, i.e. to make investments that are not directly related to domestic electricity supply. This means that Manitoba Hydro can now take risks in business ventures that are unrelated to its traditional primary mandate of providing power for the needs of Manitoba. Investments over \$5 million require Cabinet approval.
2. Manitoba Hydro now has the power to develop hydro-electric sites *dedicated to serve export markets*, without meeting any test that these are surplus to the future needs of Manitoba consumers. In the past, new hydro-electric capacity development was only permitted if it was required to meet the needs of Manitoba consumers.
3. Manitoba Hydro was given the power to allow purchasers of wholesale power in Manitoba (anyone entitled to resell power in Manitoba) or to allow sellers of power outside Manitoba, to use its transmission system, at rates it established<sup>43</sup>.

As an external participant of the Midwest Independent Transmission System Operator, Manitoba Hydro can buy and sell energy in one of the largest electric energy markets in North America<sup>44</sup>. MH has both long and short-term agreements in North America: it has long-term export agreements with seven electric utilities and short-term agreements

with electric utilities and marketers in the mid-western U.S., and in Canada, in Saskatchewan and Ontario<sup>45</sup>.

The Province announced on May 25, 2011 that agreements were reached with Minnesota Power and Wisconsin Public Services. These new sales combined with previous sales to Northern States Power have a total estimated value of \$4 billion<sup>46</sup>. Considerable capital investment in the form of a new Bipole line and the Keeyask Generating Station is required to accommodate this increase in exports<sup>47</sup>. The question is whether or not MH is going to follow a similar path as B.C. Hydro by becoming closer aligned with the U.S. market, thereby losing its autonomy — and even privatizing parts, or if it will remain more at arm's length. In order to better understand the environment that MH now moves in, we need to understand the history and implications of electric utility deregulation.

### **Electric Utility Deregulation, Competition and Privatization: An Overview of the Issues<sup>48</sup>**

Since the late 1980s, in North America and Europe, competitive re-structuring of electric utilities and deregulation of electric power markets has proceeded and gained momentum. In Canada, the major impetus for re-structuring and deregulation came from developments in the U.S. During the 1970's and 1980's, the performance of the U.S. electric utilities sector and the efficiency of the practices of government regulatory agencies came under widespread criticism, while the 'public interest' rationale for government regulatory intervention and public ownership of electric utilities came under severe attack corresponding to the rising neo-conservative global trend to reducing the role of governments and limiting government intervention in the economy. Traditional policy concerns about natural monopoly "market failure"

gave way to preoccupation with “government failure” or “regulatory failure.”

In the popular economic literature of the day, known as “Public Choice”, it was claimed that governments were inefficient at resource allocation because the utilities engaged in ‘rent-seeking’. Rent seeking happens when organizations competitively lobby governments for legislation giving them access to above-normal profits, also called economic rents<sup>vii</sup>. One way in which the utilities supposedly took advantage of their position was to ‘capture’, or control, the regulatory process. In the electric utilities literature, another major indicator of ‘government failure’ was the perception of inefficiency and waste due to widespread over-capacity in the electric utilities sector. This over-capacity was thought to occur because the utilities were not using the right sort of pricing mechanism (‘marginal price’) and to the existence of ‘regulatory lags’ in the regulated system that, hypothetically, would not be problems in a highly competitive market environment. The irony is that with hindsight we now see how private-sector players, who were supposed to have eliminated the temptation for rent-seeking activities, have proven to be very efficient at the rent-seeking game, particularly when it comes to lobbying government for changes that benefit their ability to make considerable profit.

### **The U.S. Regulatory Model<sup>49</sup>**

Earlier in the 20th century, in developed industrialized countries world-wide, only competitive markets were considered to be efficient and fair. In electric utility markets, absence of competition due to natural monopoly — considered ‘market failure’ — brought about government policy interventions to counter monopoly power and protect electricity users against overpricing as well as against artificial and inefficient undersupply in the

market. Traditionally, electric utilities have been viewed as prime examples of natural monopoly and government intervention was either in the form of regulation or through public sector ownership of electric utilities.

The Public Interest regulation model evolved in the U.S. during the twentieth century to regulate the pricing practices of vertically integrated investor-owned electric utility monopolies. An independent regulatory board or commission was appointed by government to regulate the market price and the non-price conditions of electricity sales. Utilities were licensed and granted a geographical monopoly franchise, but were charged with ‘an obligation to serve,’ which required reliably supplying all market demand at the regulated prices. This obligation, accepted in return for the license, is another way of advancing the public interest, much the same way Canada’s Crown corporations ensure affordable power to their customers.

Electricity prices were set on the principle of covering the ‘cost-of-service’ which includes an ‘allowable rate-of-return’ on invested capital. This generally was perceived as ‘average cost pricing,’ which critics pointed out did not conform to ‘marginal cost pricing’ principles of allocative efficiency. But economies of scale and scope combined with conditions of indivisibilities of generating capacity meant it was difficult to realize allocative efficiency under any pricing regime. Even with predominance of regulation of U.S. IOUs (investor owned utilities — over two thirds of U.S. supply), almost one third of U.S. electricity supply still involves public sector ownership: federal TVA (Tennessee Valley) and BPA (Bonneville in the Pacific NW), as well as APPA: municipal and co-op electric utilities. These publicly-owned utilities are seemingly untouchable by privatizing forces, a point we will examine in detail later in this paper.

vii Economic rents are the above-normal profit derived from the control of one or more essential and scarce productive factors.

In Canada, except for Alberta, electric utility ownership by provincial Crown corporations under ministerial control was the predominant form of government intervention with some municipal electric utilities, but by the 1980s, the U.S. regulatory model became widely adopted, even for crown utilities, where final approval of regulated prices was by provincial governments.

### **Overview of Deregulation<sup>50</sup>**

Beginning in the 1970s, there was a lot of turmoil in the U.S. electric utilities sectors due to mounting criticism of the performance of regulated electric utilities and cost-of-service regulation. In the 1980s — a period of slow economic growth caused by the ‘oil crisis’ — criticism grew because of conditions of over-capacity and the availability of technological advances. These criticisms fit neatly with the increasing public acceptance of political ideas emphasizing the inefficiency and failure of government interventions in the economy. These changes fueled the trend to widespread electric utility deregulation that came to fruition by the 1990s.

Internationally, global economic recessions and low electricity demand growth in 1970s and 1980s, created pressures for changes affecting electric utilities. In the early 1990s in the UK, disastrous financial effects of policies, requiring subsidization of the coal industry by the nationalized electric monopoly, provided justification for the Thatcher government’s competitive re-structuring and privatization of England’s economy. This move became the leading edge of a rising global trend to deregulation, and sometimes privatization, of electric utilities.

In the US, in addition to ideological perceptions of ‘regulatory failure’ as a greater evil than ‘market failure,’ the deregulation trend was made possible and further fueled by a

combination of conditions and factors:

1. The advance of technology in small scale generation (Combined Cycle Gas-fired Thermal technology, small scale hydro, and wind), which was perceived to create possibilities for the competitive elimination of economies of scale of large electric generation by technological changes and environmental externalities (of coal thermal and nuclear generation), along with the spectre of ‘stranded assets. Stranded assets refers to the possibility of capital losses — even bankruptcy — that occurs when legislation forces changes in regulations, allowing independent power producers to compete with vertically-integrated utilities;
2. The availability of natural gas and unexpected lower natural gas prices in the 1980s and 1990s;
3. The financial effects of expenditures on conservation and demand side management in the 1980s, when electric utility over-capacity existed;
4. The rate gaps between wholesale market prices and the higher cost-based regulated rates made evident a problem of lack of Non-Discriminatory Transmission Access to wholesale markets for Non-Utility Generators and other Utilities;
5. The perceived inefficiency in the failure of regulation to provide cost-cutting and marginal cost pricing incentives and failure to overcome perceived disincentives to technological and economic innovation (lack of ‘customer choice’).

In summary, the main argument for re-structuring and deregulation of electricity markets was that technological changes in small scale generation had eliminated economies of scale so that generation was no longer a natural monopoly but could be supplied in highly competitive wholesale markets without regulatory intervention. The dominant policy approach



that evolved was that electric utilities should be re-structured to separate the generation function from transmission and distribution (which would remain as regulated natural monopolies). We even saw the complete dismantling of large vertically integrated utilities, to permit competitive market setting of wholesale electricity rates, as well as elimination of the 'obligation to serve' wholesale customers. Provision of electricity relied only on market pricing forces to balance supply and demand. In return users and customers would benefit from freedom of 'choice' of suppliers, and this ability to choose was supposed to more than compensate them for the loss of the security they previously enjoyed under the obligation-to-serve system.

This kind of electric utility re-structuring and wholesale deregulation of electricity generation and supply was mandated in the U.S. by the federal 1992 Energy Policy Act and implemented by FERC (Federal Energy Regulatory Commission) facilitating and forcing deregulation by States in the late 1990s all over the U.S. (including California).

After the late 1990s, the same approach was extended to retail deregulation of electricity. The approach included larger industrial users and independent marketer/re-sellers competing with distribution utilities for electricity in the wholesale power markets. It also allowed residential, farm, and commercial customer/subscribers to supply (as providers) power in retail electricity markets. As yet, retail deregulation has not been widely implemented in the North American electric utility sectors.

Also, the FERC process for re-structuring and deregulation of the U.S. electricity supply industry required several changes. Vertically integrated utilities that participated in transmission of power in the U.S. had to open up their transmission systems to wholesale wheel-

ing<sup>vii</sup> of power. They also had to open their wholesale markets to competition by allowing access to independent power producers and other interconnected utilities. FERC implemented rules that required Canadian utilities seeking competitive access into the U.S. transmission systems to open up their transmission systems and their wholesale power markets to competition. By 1997, in Canada, the major electricity exporting provinces: Quebec, B.C., and Manitoba were legislating amendments in compliance with FERC regulations in order to maintain access to U.S. export markets. These involved re-structuring of Crown electric utilities to permit wholesale competition and to open up their transmission systems on a non-discriminating basis to all interconnected wholesale suppliers of power.

### *Deregulation in Alberta*

As early as 1996, even prior to what happened in the US, Alberta implemented radical deregulation. The two major investor-owned utilities (Transalta and Alberta Power) and the municipal utility (Edmonton Power), were vertically integrated and together formed the Alberta Interconnected System, along with thirteen independent power producers and two utilities from outside Alberta. Participants were required to sell electricity into the newly-created Alberta Power Pool which created a daily spot market for electricity. The competing buyers of power in this market, in addition to the three major utilities and the two non-Alberta utilities, included three city distribution companies, four power marketers and other approved participants<sup>51</sup>.

Since launching the Alberta Power Pool experiment, Alberta has experience ongoing stability problems with market clearing and power supply stability and reliability. In the high growth Alberta economy, with rising demand growth and rising natural gas prices,

viii Wheeling allows a producer of electricity to transmit power through lines owned by another entity.

just as in California, the Alberta System began to experience generating capacity shortages at the end of the 1990s<sup>52</sup>.

In the summer and fall of 2000, the deregulated price of electricity rose from 5 cents/kWH to 25 cents/kWH and in December 2000, the average Alberta Power Pool price was 18.99 cents/kWH, almost three times the estimated 6.38 cents/kWH generating costs when factoring in higher natural gas prices<sup>53</sup>.

In the midst of a provincial election, the Alberta Conservative government introduced a \$2.3 billion rebate program for households and businesses to compensate them for steep increases in energy prices<sup>54</sup>. The Parkland Institute found that without this rebate, Albertans would have paid 500% more for electricity in the same period<sup>55</sup>. Price increases continue to hit Alberta consumers, with a 66 per cent increase forecast for the Edmonton area in April, 2011<sup>56</sup>. These increases inevitably hit small businesses and low-income households hardest, but, as we'll see with changes to B.C. Hydro, large industries are often successful at negotiating lower rates.

Six years after the Alberta government deregulated the electricity sector, Wallace found that rather than the promised increase in competition and efficiency, Albertans were faced with "... a complex system of buying and selling that can allow collusion between sellers, and enables producers to sell electricity at prices well above the cost of production<sup>57</sup>."

### *Deregulation in Ontario*

In 1992 in Ontario, debate on deregulation and privatization of Ontario Hydro was very heated. It intensified in the wake of a report favouring privatization as well as deregulation, by the McDonald Commission in 1996. This resulted in the Conservative government's *Energy Competition Act* in 1988, which allowed the re-structuring and later the dismantling of Ontario Hydro, with generation, transmission

and distribution assets being broken up into separate corporate entities so that it ceased to be a single vertically integrated utility. Later the Bruce Nuclear Generating Station was leased to British nuclear utility interests (British Energy), and in 2002, the Ontario government commenced a process of privatization of the bulk of Ontario's generating capacity (that was being operated as Hydro One) The process was aborted in the face of mounting criticism and growing negative public opinion, and as the potentially disastrous financial implications became apparent.

Myron Gordon (Professor Emeritus of Finance at University of Toronto) estimated that the financial value of Ontario public sector generating assets (Niagara Falls and other Hydro, Thermal, and Nuclear) at over \$40 Billion (over \$51 Billion when transmission assets are included)<sup>58</sup>. These generating assets were acquired at a historical cost of \$26 Billion over the lifetime of Ontario Hydro. These assets were valued by the government's Canadian and U.S. financial advisors at \$8.5 Billion, leaving most of the \$38 Billion Debt associated the Ontario electric utility sector stranded as a liability of the Province of Ontario. All this was in order to make privatization attractive enough to investors. According to Gordon, the market value of Niagara Falls Hydro Generation alone could be estimated at over \$16 Billion<sup>59</sup>.

The private sector found that controlling Ontario's public utility assets was very lucrative. Brascan — a large conglomerate that coincidentally was the largest corporate donor to Ernie Eves' leadership campaign — bought the newly-privatized Ontario Hydro plants only two weeks after Eves' victory<sup>60</sup>. Less than 2 months after becoming premier, Eves implemented Ontario's foray into energy deregulation by creating a market based on supply and demand.

This change in regulation and ownership was followed by a particularly hot, humid summer. Demand soared and energy prices increased

by more than 800% (5.2 cents/kilowatt hour to 47 cents). By September, peak prices had increased by a staggering 1827% (from 5.2 cents per kilowatt hour to \$1.03/kilowatt hour)<sup>61</sup>.

To add to the crisis, 9 of Ontario's nuclear power reactors were out of commission and in order to avoid blackouts, Ontario had to import energy from the US. A Brascan subsidiary was able to take advantage of the supply shortage by selling power from the 4 highly-efficient hydro plants it had just purchased from the public sector<sup>62</sup>. As reported in the *Ottawa Citizen*:

"Those plants put Brascan in a very special situation," says Tom Adams, a power industry analyst with the watchdog group Energy Probe. "They are the only non-OPG producer positioned to set power prices at times of peak demand in Ontario. They can hold power back, let the price climb, then let 'er rip."<sup>63</sup>

According to Mike Brown, Liberal MPP, "The government knew those plants would be profit-making when they sold them. [...] There's no question the public paid a huge premium for the power that was sold last summer."<sup>64</sup>

Prices have stabilized since the early 2000s (although they are still considerably higher than Manitoba's), but Ontario's wild and bumpy ride into the world of privatized energy deserves a careful look by Manitobans. The selling off of public assets at bargain-basement prices allowed private interests to sell power at cutthroat rates and may have permanently deprived Ontarians of a stable supply of power.

### *Deregulation in British Columbia*

The case of BC Hydro is of particular interest to Manitobans. BC Hydro is also a Crown corporation and primarily a producer of hydro-electric power. Like MH, it offers its

customers some of the lowest-cost power in North America (second only to MH), operates a successful Power Smart program, and traded energy with the US under mutually beneficial agreements<sup>65</sup>. But changes to B.C. Hydro started in 2002 with a new energy plan called "Energy for Our Future: A Plan for B.C."

This plan fundamentally changes the structure and mandate of BC Hydro. It will no longer be an investor/owner of energy, and is banned from building new generating facilities. BC Hydro will transform into a purchaser and distributor of privately produced energy, rather than a fully integrated system that produces and sells energy for its shareholders, the citizens of B.C.<sup>66</sup>.

The government restructured BC Hydro to accommodate its new role. Its administrative (including accounting and IT functions) section has been contracted out to the privately-owned Accenture Business Services for Utilities, and the transmission segment has been carved off into its own company, B.C. Transmission Corporation (BCTC)<sup>67</sup>.

Under instruments called Energy Purchase Agreements (EPAs) BC Hydro will have to provide energy to its customers by first buying it from investor-owned generator plants. The agreements highly favour private entities and do not discriminate between domestic and foreign owners (see section on NAFTA). Calvert claims that BC Hydro is now paying up to double current rates on its long-term contracts, thereby passing much of the capital cost of new privately-owned power projects onto BC Hydro customers<sup>68</sup>. He notes:

[. . .] at the end of the day, despite the very high prices it pays for private energy, the public gets no assets, no guarantees that the energy will not be exported in future, and no price protection once contracts have expired<sup>69</sup>.

The new structure and attendant EPAs provide huge benefits to private investors who see the opportunity for rent seeking as they siphon off the value of publically-built assets and turn them into privately-owned instruments. They can effectively lower the cost for using public infrastructure while downloading all the risk-taking to BC Hydro<sup>70</sup>. According to Calvert, B.C. now has a new growth industry of private sector lobbyist who:

[. . .] now expect that provincial energy policy will accommodate the need for B.C. and foreign investors to continue to reap a high rate of return from their energy developments, regardless of the impact on ratepayers<sup>71</sup>.

Calvert also documents the impact the changes will have on BC Hydro's Power Smart program, the environment and on First Nations communities. Introducing a market-based system will cause demand to grow in order to use the supply produced by profit-maximizing entities. He also expects the benefits to First Nations of private-sector investment to be minimal, and certainly less than what they have been under the stewardship of a Crown corporation.

The experience of BC Hydro would seem to indicate that the sort of changes it is experiencing greatly hamper the ability of the corporation to act as an agent to advance the public good of B.C.'s residents, while they promote the ability of private interests to engage in rent-seeking activities.

Finally, a 2001 study of the situation in British Columbia made the point that a deregulated electricity industry is open to challenges under the NAFTA if power is sold wholesale to supply local customers at preferential rates<sup>72</sup>. Obviously, this could also become a potential problem for Manitoba, Ontario, and Quebec electricity exports, not to mention new concerns arising from free-trade negotiations between Canada and the European Union.

## **MH and International Trade Agreements**

### **NAFTA**

As noted earlier, NAFTA impacts MH in various ways, but for the most part MH can still realize its mandate to provide low-cost, clean energy (relative to other existing forms of energy) to Manitobans while increasing Provincial revenues through export sales. MH must tread carefully, however, when dealing with the Americans who were very successful in enshrining protection of their interests in the NAFTA.

NAFTA's Chapter 11 has long been of concern to many Canadians who see the benefit of government policy steering domestic interests. Chapter 11 protects Mexican and American investors from state regulation or policy that is considered "tantamount to expropriation". The term "tantamount to expropriation" is simply a way of saying "interferes with profit making"<sup>73</sup>. Should Manitoba allow foreign ownership to creep into its electricity sector — a danger now found in B.C., any government activity that interferes with foreign companies' profits — no matter how much that activity advances the public good — will be subject to litigation under Chapter 11. And whereas pre-existing Canadian laws that contravene NAFTA are grand-parented and remain in effect, the government cannot implement new laws that would impinge on foreign corporations' rights to make profit. The Province could, however, enact new regulations that would "liberalize" the sector from regulations, but once it does so, it can never recapture the ability to regulate<sup>74</sup>. Nonetheless, MH sales seem to be exempt from some aspects of NAFTA that are worrisome elsewhere, e.g. the need to maintain proportionate sales in the event of a local shortage of hydro generation.

Assuming that MH continues to be prudent in its dealings with the US, it should be able to continue profiting from exports while



engaging in regional development. However, ongoing negotiations with the European Union (EU) concerning the Comprehensive Economic Trade Agreement (CETA) may threaten MH's continuing ability to guide economic growth.

### *The Comprehensive Economic Trade Agreement (CETA)*

One of the most worrisome aspects of the CETA being negotiated is how it will impact sub-national governments' ability to procure goods and services — including labour — in a way that promotes local development. According to Sinclair,

Crown corporations have long used preferential procurement policies as tools for regional economic development and to assist marginalized groups.... Manitoba Hydro's Northern Training and Employment Initiative creates employment and training opportunities for aboriginal and northern Manitoba inhabitants within their own region<sup>75</sup>.

MH's general purchasing philosophy includes "increasing the participation of Manitoba northern and northern aboriginal residents or companies in business opportunities arising from hydro development projects in northern Manitoba<sup>76</sup>." If the CETA proceeds as the parties hope, Canadian provinces, territories and municipalities will lose their ability to engage in this kind of economic development, much to the detriment of the stakeholders who stand to gain<sup>77</sup>. And any provisions ceded to the EU will immediately be extended to the US and Mexico under the most-favoured-nation provisions of the NAFTA, effectively whipsawing MH's status as a force in Manitoba's economic development<sup>78</sup>. Should the CETA go forward, the very survival of MH will be highly questionable.

The NAFTA and CETA are forcing Crown

corporations to negotiate some turbulent waters and it is not clear if they will be able to stay afloat. These free-trade agreements are designed in the spirit of neo-liberal economic theory, in spite of evidence that the theory itself does not hold water.

### **Deregulation — twenty years on**

The fullness of time has tested the popular theory that private enterprise offers superior service in both price and cost. In spite of the empirical research claiming to demonstrate without doubt that private utilities outperform public, there are significant studies that show the opposite<sup>79</sup>. There is now theory suggesting advantages to public utilities, especially in response to the issue of informational asymmetry found when privately owned monopolies are regulated by the state<sup>80</sup>. Even in the US, fully integrated public utilities are still common: several large American cities are served by such municipally-owned entities<sup>81</sup>. When Kwoka compared the evidence for performance of private investor-owned utilities (IOUs) and municipally-owned utilities (munis) he found that:

[. . .] the quest for superior performance is not simply a matter of prescribing privatization. There are identifiable circumstances in which public enterprise is an appropriate, if not perfect, policy prescription<sup>82</sup>.

The argument for keeping federal power agencies — similar to Canadian Crown corporations — in public hands is even stronger. In the US, one must consider that most hydro-electric generation has been developed by public-sector agencies such as the Tennessee Valley Authority (TVA)<sup>83</sup>. The TVA was formed in the 1930s as part of the New Deal. The TVA website explains that:

The Tennessee Valley Authority, a corporation owned by the U.S. government, provides electricity for 9 million people in



parts of seven southeastern states at prices below the national average. TVA, which receives no taxpayer money and makes no profits, also provides flood control, navigation and land management for the Tennessee River system and assists utilities and state and local governments with economic development<sup>84</sup>.

The TVA is willing to work with the private sector, but it is important to note that:

TVA has taken on important public tasks that transcend the capabilities or willingness of the private sector. No private enterprise or single-purpose government agency could have succeeded in simultaneously carrying out TVA's broad scope of missions to serve the people<sup>85</sup>.

It is significant that in spite of the strong pressure to deregulate and privatize the US energy sector, the popularity of the TVA keeps it off the list of utilities considered for privatization.

Nonetheless, over the last twenty years, deregulation proponents have argued that generation of electricity is no longer a natural monopoly and that it would be better handled by competitive, unregulated markets<sup>86</sup>. But some point out that the technical changes that now make smaller-scale generation possible, thereby eroding the economies of scale typical of electrical generation, are found in thermal or nuclear sources, not in hydro generation<sup>87</sup>.

## **The Final Analysis**

This paper has explained why Crown corporations exist, who they benefit and outlined the challenges they face from those who promote free-market principles. We have also reviewed the implications of NAFTA and the CETA to Crown corporations, and delved into the complicated world of the North American electricity market. Unfortunately, the arcane

language of economic theory and electrical market technicalities hampers the public from actively participating in any discussion and therefore, protecting its interests. Calvert notes that in B.C., the province was able to implement controversial policy changes by masking them in inaccessible technical language<sup>88</sup>.

Although we have just touched on these issues, it is our hope that by reading this primer, citizens will better understand the environment that MH operates in, the benefits they derive from its operations and what they will lose should MH be privatized. A summary of these points follows.

Economic and technological changes, criticisms of the performance of electric supply industries and of regulatory practices, and the increasing influence of free-market ideas over the last two decades have all contributed to the emergence of deregulation, re-structuring of electric utilities for competition, and privatization of public-owned utilities as major public policy issues in the U.S. and Canada. By 2000-2001, in spite of serious problems in California and Alberta, the momentum for electric utility deregulation has continued, but many of the emerging implications of these virtually irreversible and poorly analyzed deregulation experiments are barely evident and under dispute, and will only become apparent over the next few years. Electricity supply problems in California rekindled the debate about whether these problems have been due to 'regulatory failures' or due to 'market failures' and the ENRON debacle has introduced new dimensions into this debate. It is likely that in North America, with the rapid rush to deregulation, through 'uncharted territory' that has occurred, there remain major problems ahead<sup>89</sup>.

For example the following issues could arise regarding pricing and reliability of service:

- wholesale competition will lead to a tilting of electricity rates in favour of large in-

dustrial and commercial customers whose rates will decline and result in significantly higher electricity rates for residential consumers;

- the momentum for electric utility re-structuring and for deregulation of electricity markets and for privatization of public sector utilities has been largely generated by “rent-seeking” activities, exploiting opportunities for large-scale wealth transfers from public sector assets;
- deregulation of electricity rates and elimination of the “obligation to serve” has created conditions for tremendous electric power price volatility, and for electric generating capacity and transmission construction cycles;
- overall electricity rates may go up if transactions costs due to additional marketing and intermediation of electricity distribution exceed the cost savings from competitive generation (or if the promised generation cost savings are illusory)<sup>90</sup>.

In deregulated electricity markets, electricity rates will be cyclical and volatile. Long-term firm power contracts allow retail distribution utilities and large industrial users, as well as electric generation utilities, some degree of insurance against risks in different parts of an electricity rate cycle. But new generating capacity will only be undertaken by electric utilities when rates have risen enough to offset the risks of operating in this volatile rates and uncertain revenues environment (i.e. when generation asset values have increased sufficiently above their replacement costs). Thus, the recent problems of soaring electricity rates and non-responsiveness of new generating capacity construction in Alberta should not be surprising<sup>91</sup>.

Furthermore, natural monopoly could still exist in a deregulated market because of the presence of economies of scope, technical externalities and higher transactions costs as

long-run barriers to contestability of electricity markets. These conditions could result in a deregulated and de-integrated electric utility industry evolving through mergers and acquisitions into oligopoly<sup>92</sup>.

Also, the problem of stranded assets arises. Stranded assets pose a major financial threat to large vertically-owned utilities forced to operate in a deregulated setting. If there is excess capacity — that may be caused by mistimed large capital expansion, or unexpected decreases in demand — that excess capacity lowers the competitiveness of the utility relative to that of independent power producers (IPPs) who are part of the deregulated environment. When the IPPs can offer lower prices, demand for the vertically-integrated utility’s power is further eroded; if the process allows more IPPs to enter the market, they can contract for more of the most accessible market segments and the larger utility is confronted with financial ruin. In the case of MH, it would be the citizens of Manitoba who would be adversely affected, while the privately-owned IPPs would be left to take advantage of the infrastructure built by taxpayers (i.e. it’s the publically-owned utility that played the role of risk-taker, *not* the private sector).

Despite the claims of private-market theory, rent-seeking has been a major driving force in electric utility re-structuring, deregulation, and privatization policy (one only need think of ENRON). Manitobans need to ask if they would want MH to be owned by a multinational off-shore conglomerate based in Australia, France Brazil or the US especially considering the implications of evolving free-trade agreements<sup>93</sup>.

Public good aspects of economic and resource development objectives of electricity supply are still important to governments. This is becoming increasingly obvious as inequities grow in Canada and forty years of neo-liberal economic policies have further tilted the play-

ing field in favour of corporations and away from the average Canadian<sup>94</sup>. As a Crown corporation, MH can help ameliorate the growing income gap and address environmental concerns with policies to:

- advance regional development in the North;
- provide opportunities to First Nations communities, who are particularly disadvantaged, through targeted procurement and labour training policies;
- encourage conservation through Power Smart;
- advance the goals enshrined in The Sustainable Development Act by routing Bipole III down the west side of Lake Winnipeg and continuing with its wildlife conservation programs;
- attract businesses and workers to the Province with the lowest energy rates and highest reliability of service;
- be one of the top 100 employers in Canada;
- provide Manitobans with valuable export revenues that help pay for important social services such as healthcare and education;
- maintain low hydro rates that offset the marginally higher tax rates paid in Saskatchewan and Alberta, who keep taxes low through resource royalties;
- continue developing leading edge technology that remains as a public asset.

Given this extensive list of problems with electricity deregulation and what would be lost should MH be privatized, one may reasonably conclude that privatization is unlikely. But the same scenario existed in other provinces, with B.C. being particularly similar to Manitoba, and yet the deregulating/privatization process

is marching on regardless of what citizens stand to lose<sup>ix</sup>. Private energy lobbyists and their supporters in government know that the public, if fully informed, would be against changes to their Crown corporations, so besides using arcane language to explain policy changes, they employ a form of “incremental privatization” so that it is not so obvious what is occurring.

If MH is privatized, it won’t happen in a sweeping, obvious way. Rather, it will likely occur much the same way as in B.C., with politicians offering all kinds of assurances that it is not privatizing BC Hydro. According to Calvert, a more insidious form of privatization is occurring, despite the fact that the corporation’s legal status has remained the same. He claims:

Nor is it necessary to sell all the Crown utility’s assets to transfer control — and the benefits attendant to that control — to the private sector: Rather, this can be done by transforming, over time, the public utility’s basic function from that of a producer of B.C.’s electricity to that of a distributor of energy from private sources. The deliberate creation of a split between purchaser and provider recasts — and diminishes — BC Hydro’s role as a generator of electricity to that of a purchaser of energy. This constitutes a fundamental — a perhaps irreversible — change in B.C.’s electricity system<sup>95</sup>.

### **The Story of Manitoba Telephone System: a cautionary tale**

MTS was also a Manitoba Crown corporation, and its privatization was highly controversial. Despite the denials of the Conservative government, led by Garry Filmon, that they would privatize MTS, they began that process in 1994 when they sold off its coaxial cable system for

ix According to BC Citizens for Public Power, 68% of those polled were against privatization and deregulation of BC Hydro.

\$11.5 million. The sale went through despite an Ernst and Young report saying that ownership of the system gave MTS a strategic advantage and that its sale “could be dangerous and compromising to MTS’s future”<sup>96</sup>.

Then the government struck a deal for \$47 million with an American company to run its telemarketing services. In spite of these actions, during the 1995 election campaign, Filmon continued to deny that his party was preparing to sell MTS. They then carved MTS into four separate divisions, claiming that the restructuring had nothing to do with privatization. Next, they commissioned three separate reports from brokerage firms (who would benefit handsomely from privatization) and, far from anyone’s surprise, the reports recommended privatization. On May 2, 1996, Filmon’s government announced to Manitobans that MTS was to be privatized<sup>97</sup>.

The vast majority of Manitobans did not want to sell MTS. Hundreds of them attended hearings to speak against its sale, and hundreds more were unable to speak because of scheduling issues<sup>98</sup>. Manitobans were against the sale for good reason, as the following points made by Tim Sale illustrate:

- Thirty-five million dollars in commissions went mostly to CIBC-Wood-Gundy and BOM’s Nesbitt Burns;
- Approximately \$10 million in expenses was paid to four law firms and for marketing campaigns;
- Share prices appreciated to the tune of \$68 million, in spite of the government’s contention that MTS was a “bad” company that needed to be privatized in order to be saved;
- Sale of shares was so popular that some brokers paid students \$50.00 each to use their social insurance numbers so the brokers could buy more shares than their clients were allowed to<sup>99</sup>.

Premier Filmon said that prices would not go up after privatization, but they did. Over a ten-year period, rates increased 14% above the rate of inflation. Furthermore, hundreds of unionized workers lost their jobs, full-time jobs were converted to part-time and some services were contracted to out-of-province providers, sending Manitoba jobs to other parts of the country<sup>100</sup>.

Staff also complain of the culture change since privatization. Under the Crown corporation, there was a commitment to “staff, craft and service”; ten years later the attitude was that clients would eventually get used to the poor service being offered since privatization<sup>101</sup>.

MTS’s privatization is now history, but its story should not be forgotten. Indeed its legacy still appears in the news; a letter to the editor of the Winnipeg Free Press on May 28, 2011 recounts how the sale made fortunes for a few Tories while telephone rates skyrocketed<sup>102</sup>.

## **Privatize Manitoba Hydro?**

There are voices that have and or probably would support privatization of MH: the Frontier Centre, the Canadian Tax Payers Federation and the present Conservative party, who has expressed interest in using a public/private partnership model to change the way MH is run<sup>103</sup>. This strategy is suggested because it sounds more benign than outright privatization, but it is often part of a “creeping privatization” agenda.

McFayden’s plan to increase industrial rates to “market rates” and offset that increase with tax reductions<sup>104</sup> is fraught with danger. Industry seeks low energy costs much more than incrementally lower marginal tax rates which have much less affect on their bottom line than energy and labour costs. By taking this move, Manitoba could lose the strong advantage it has over neighbouring provinces.

One wonders if the Conservatives' dogged opposition to running Bipole III down the less environmentally-sensitive west side has more to do with setting the stage for private interests – once they privatize MH – than protecting rate payers<sup>x</sup>.

Privatization of MH would not happen quickly nor overtly. Interested parties understand that the public is against privatization, so they first must present MH as an inefficient entity that needs to be reformed (see, for example, Bryan Schwartz's piece "Manitoba Hydro: Reforming the Jurassic Crown" available on the Frontier Centre for Public Policy's website: <http://www.fcpp.org/publication.php/3615?> This piece also ran in the Winnipeg Free Press). Schwartz compares MH to a private corporation and finds it wanting, while ignoring the man-

date of Crown corporations and the obvious benefits MH has bestowed on Manitobans, benefits that the private sector never could have provided.

Privatization of MH would likely follow a similar path as MTS: denial at the same time as the corporation is carved into discrete entities (just as is happening with B.C. Hydro), contracts with private corporations to manage administrative aspects of the company (as with B.C. Hydro) followed by increased harmonization with the US electricity market and opening up of generating capacity to private interests.

The process would be long and hard-fought, just as it was with MTS and BC Hydro.

Considering all that is at stake, Manitobans must remain vigilant.

x If this is their plan, it is ill-conceived. Running Bi Pole III down the east side of Lake Winnipeg would result in years of delays and very likely jeopardize valuable export sales to the US; realities the Conservatives choose to ignore.



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