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PUBLIC CHOICE ALTERNATIVES

## Divesting Hydro-Québec: Realizing Compelling Value vs. Continuing Misplaced Idolatry A VALUATION OF HYDRO-QUÉBEC OF CANADA

BY IAN MADSEN



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## EXECUTIVE SUMMARY

Hydro-Québec, (HQ), is the electric power utility for Quebec, Canada's largest province by area, and is owned entirely by the provincial government. It could theoretically be worth as much as \$162B were it divested; or, far less if investors believe that its operations cannot be improved or expanded, or that they are constrained by government or corporate policy. As a business, its value, on a fully taxed basis (as a Crown corporation, it pays no tax, now), is estimated between \$42.2B to \$54.4B. Using peer Canadian and US-listed renewable electric utility firms and other Canadian utility firms, the range is \$35.4B to \$54.1B. It could approach the highest figure if it shows clearer signs that it is evolving towards optimizing free cash flow and away from heavy reinvestment in expansion of dubious merit.

## INTRODUCTION

Hydro-Québec, (HQ), is the electric power utility for Quebec, Canada's largest province by area, and is owned entirely by the provincial government. It supplies electric power to 8.2 million people in that province, and exports power to other provinces in Canada and several states in the United States. Quebec has about 500,000 lakes and 4,500 rivers, giving it a large water power resource, which has not been fully exploited, yet.

As its name implies, hydro-electric power dominates HQ's electricity production, although it also has a small proportion of thermal power. It has 36,566 MW of hydro generation capacity, at 28 reservoirs and 63 generating stations. 542 MW of capacity is thermal, and it has access to over 10,000 MW of other capacity, 5,428 of which is the Churchill Falls facility in Labrador, just outside Quebec's territory (which it controls until 2041). Wind and biomass are relatively small factors, at 3,508 and 257 MW, respectively. It also buys power from independent hydro producers (just 65 MW of capacity in 2017).

HQ has over 34,000 km of high voltage transmission lines, taking power from mostly in the north of the province, where its enormous reservoirs are, to the more highly populated south of the province. It has 258,000 km of combined transmission and distribution lines. It is also engaged in research in battery materials, energy storage systems, electric drive trains and maintenance robots.<sup>1</sup>

## Hydro-Québec, A History

Hydro-Québec has a history stretching back to the electrification of the province, which started soon after electric arc lights were demonstrated at the Paris World's Fair in 1878. Initially, all power was provided by privately-owned companies scattered across settled areas of Québec, Royal Electric and Montreal Light, Heat and Power, 'MHL&P', in Montreal, and other companies in Shawinigan and Quebec City. Royal won the contract for the first street lighting in Montreal in 1889. The first electric streetcars appeared in the city in 1890, and became commonplace elsewhere in the province over the next 25 years.

Over the next decades, several more companies began hydroelectric power generation on over 100 of Quebec's waterways. Much early industries were attracted to the St. Maurice River by Shawinigan Power's cheap electricity. Consolidation of companies was relentless. MHL&P and Royal Electric merged, increasing the combined company's pricing power as it became a monopoly in Canada's then-largest city. Irritation with monopolistic practices began to grow.

Municipalities in Quebec started taking over local power companies in the 1920's, and nearly all local companies were owned by cities and towns by the time that the provincial government started buying them out. Popular discontent with power pricing led to investigations by the provincial government, and the eventual creation of Hydro-Québec in 1944. The biggest firm, MHL&P, was finally taken over by the province in 1947, after it refused many attempts to be regulated or disclose financial data. The extension of power to rural and underserved areas was left to the Rural Electrification Agency, established in 1945. All municipal power companies were bought up by 1963, but Hydro-Québec was not yet a monopoly.

1. See <http://www.hydroquebec.com/generation/>.

After the new Liberal government of Jean Lesage came to power in 1960, it authorized HQ to buy up all remaining private electricity distribution companies and to have control of all new hydroelectric projects not already granted to other parties. René Levesque, later the separatist Parti Québécois leader and premier of Quebec, was the Minister of Natural Resources who embarked on the complete nationalization of all remaining private electricity distributors in the province. An already heavily political strategy permeating Hydro-Québec then became synonymous and inextricably entangled with the province's independence and nationalist subculture-cum-movement. The takeover cost \$604M at the time, or over three billion dollars in today's terms. The nationalistic attachment with and identification with HQ grew.

The James Bay project on the Grand River, which was completed in several phases over a period of 25 years, from 1971 to 1996, provided HQ, and the province, with an abundance of power, and a surplus to sell to other jurisdictions. Two small nuclear power reactors were also built during this time, but both were closed down by 2012.

Hydro-Québec was a partner in Nouveler, an outfit created to develop new forms of energy and promote energy efficiency. Nouveler became a wholly owned subsidiary of Hydro-Québec, restructured in 1997, and renamed Hydro-Québec CapiTech. Hydro-Québec inaugurated its electrochemical and electrotechnologies laboratory (LTEE) in Shawinigan, to support the development of industrial applications for electricity.<sup>2</sup>

North American electricity markets were deregulated in 1997. Subsequently, Quebec opened its markets to competition and imports from producers other than HQ. HQ is also trying to position itself as the swing or backup producer for other utilities, effectively turning itself into a huge 'battery'. As most alternative energy sources are intermittent, this could be a successful strategy. It is also converting one facility to import liquefied natural gas, 'LNG', for power generation, which would also increase its flexibility, and diversify its energy portfolio.

By 2020, HQ will commission the last two generating stations in the Romaine complex and determine what will be its next major hydropower project. There could be other major projects identified in the north. It is also expanding its electric vehicle charging network (from 1,100 stations now to 2,500 by 2010) and embarking on electric vehicle power train research with foreign companies. It has already bought, operated, improved, and sold off electric utilities in Chile and Panama, and may do similar things in the future. It is forecasting and planning for a doubling of revenues by 2030, mostly through such ventures, and exports of surplus power.<sup>3</sup>

2. See <http://www.hydroquebec.com/history-electricity-in-quebec/>.

3. See <http://www.hydroquebec.com/data/documents-donnees/pdf/strategic-plan-glance.pdf>.

## INTRINSIC, DISCOUNTED FREE CASH FLOW VALUE OF HQ

An intrinsic value is the value a firm has by virtue of generating cash, specifically free cash flow, which is revenues minus cash expenses only, including capital expenditure. The **corporation's fully taxed value** could range from \$24.1B to \$169B, with a median (midpoint of the array of numbers) value of

\$42.2B and a mean value of \$54.4B. This treatment of HQ's future financial results is fairly conservative. Its operations, while profitable, could be more so, given its low variable or marginal cash cost of production.

Table 1								
Intrinsic Value, Using Present Value of Discounted Future Cash Flows								
Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return = Growth Rate)								
Projected Fully Taxed Free Cash Flow Estimate for FY2018 (\$B): -\$ 1.69								
Matrix Values (\$B) $g=v; r=>$	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	
0.00%	\$ 42.25	\$ 33.80	\$ 28.17	\$ 24.14	\$ 21.12	\$ 18.78	\$ 16.90	
1.00%	\$ 56.33	\$ 42.25	\$ 33.80	\$ 28.17	\$ 24.14	\$ 21.12	\$ 18.78	
2.00%	\$ 84.50	\$ <b>56.33</b>	\$ <b>42.25</b>	\$ <b>33.80</b>	\$ <b>28.17</b>	\$ <b>24.14</b>	\$ 21.12	
3.00%	\$ 168.99	\$ <b>84.50</b>	\$ <b>56.33</b>	\$ <b>42.25</b>	\$ <b>33.80</b>	\$ <b>28.17</b>	\$ 24.14	
4.00%	--	\$ <b>168.99</b>	\$ <b>84.50</b>	\$ <b>56.33</b>	\$ <b>42.25</b>	\$ <b>33.80</b>	\$ 28.17	
5.00%	-\$ 168.99	--	\$ 168.99	\$ 84.50	\$ 56.33	\$ 42.25	\$ 33.80	
6.00%	-\$ 84.50	-\$ 168.99	\$ --	\$ 168.99	\$ 84.50	\$ 56.33	\$ 42.25	
7.00%	-\$ 56.33	-\$ 84.50	-\$ 168.99	\$ --	\$ 168.99	\$ 84.50	\$ 56.33	
	<b>Minimum</b>	<b>Maximum</b>	<b>Median</b>	<b>Mean (Average)</b>				
<b>Total(s)</b>	<b>\$ 24.14</b>	<b>\$ 168.99</b>	<b>\$ 42.25</b>	<b>\$ 54.37</b>				

Source: Company Annual Reports, Valuation Model Formulas.



## MARKET VALUE COMPARISON VALUATION OF HQ

There are six independent Canadian publicly listed electric utilities with generation capacity dominated by renewable energy in Canada, and another six which are non-renewable-dominated. There are also seven US-listed mostly-renewable ones used here.

Several standard market valuation metrics were initially used, including Trailing Price to Earnings ratio and Forward Price to Earnings ratios (P/E); Price to Sales (P/S) ratio; Price to Book Value (P/BV); Enterprise Value to Revenue (EV/Rev), Enterprise Value to Earnings Before Interest, Depreciation and Amortization (EV/EBITDA), and Price to Operating and Free Cash Flow (P/CF, P/

FCF) (Please consult Appendix II, pg. 14, that includes a link to the valuation spreadsheet file in Excel for details). The **corporation's estimated fully taxed value** could range from \$24B to \$113B, with a median value of \$35.4B and a mean value of \$54.1B.

Some metrics had to be discarded due to insufficient information on either the comparator companies or HQ, or the inapplicability of the ratio, or negative or otherwise anomalous results. Seven ratios were ultimately used: trailing P/E, forward P/E, P/S, P/BV, EV/Rev, EV/EBITDA, and P/CF. The results are in Table 2.

Table 2							
Market Valuation Using Publicly Listed Comparison Company Valuation Metrics							
Valuation metrics applied to HQ; i.e., market value of common equity. Figures in \$B.	Price to Sales	Forward P/E (Market Value to Est. Net Income)	Enterprise Value/Revenue (subtracting net debt)	Price to Book Value	Enterprise Value/Revenue (subtracting net debt)	Enterprise Value/EBITDA (subtracting net debt)	Price to Operating Cash Flow
Average Six Canada-Listed Renewable-Dominated Utility Companies	\$ 188.45	\$ 94.08	\$ 56.26	\$ 52.15	\$ 83.06	\$ 73.27	\$ 31.47
Average Six Canada-Listed Non-Renewable-Dominated-Power Utility Companies	\$ 130.77	\$ 82.33	\$ 22.02	\$ 23.79	-\$ 4.59	\$ 50.09	\$ 43.45
Average Seven U.S.-Listed Renewable-Heavy Utility Companies	\$ 35.82	\$ 78.94	\$ 35.82	\$ 78.94	\$ 23.79	\$ 39.49	\$ 33.25
Average of All Above	\$ 113.34	\$ 85.48	\$ 35.42	\$ 33.52	\$ 24.08	\$ 53.51	\$ 33.25
Market Value Using Comparable Companies and Seven Viable Valuation Ratios:							
	Mean (Average)	Median	Minimum	Maximum			
Total Market Value (\$B)	\$ 54.08	\$ 35.42	\$ 24.03	\$ 113.34			

Source: Capital IQ via Yahoo!Finance; additional material from BMO Investorline; valuation model formulas.



## OBSERVATIONS AND ANALYSIS

Hydroelectric power, at least in Quebec, is certainly, superficially, very 'cheap'. However, its environmental impact is enormous, and new projects face considerable opposition from ecological and aboriginal organizations. This opposition may turn out to be greater than management admits. Opposition to the Northern Gateway Pipeline and the expansion of the TransMountain Pipeline are warning signs that vast, controversial megaprojects are harder to get approved governmentally or 'socially' than even in the recent past.

Also, there is no guarantee that electrical demand will increase in the future to the extent that HQ and its political masters project, or, at least, wish to be the case. Indeed, electricity demand in the United States was flat for ten years and only began to slowly rise in 2017. The Energy Information Agency in that nation forecasts electricity demand increasing by only 0.1 percent per annum right up to 2050. Economic growth in North America is nearly all, net, not in industry, but in services, which are light users of power.

As for future growth possibilities, the gradual electrification of transportation may or may not occur to the level that the optimists who hype the likes of Tesla think it will, but it will not happen soon. Computers and other electronic

equipment continue to use less and less power, as do televisions and lighting with the widespread adoption of LED technology. When it comes to displacing natural gas for heating, even HQ's low-cost power cannot compete with the flood of shale gas that is available now, nor with gas used in industrial or institutional purposes.

The only jurisdictions HQ to which can practically export surplus power are the northeastern States and neighbouring provinces. The Atlantic provinces are bogged down in slow growth, and there is surplus power that will come on line from Newfoundland & Labrador Hydro's (Nalco's) Muskrat Falls project in a few years. HQ's plans to increase capacity and sell yet more power to saturated and stagnant markets is risky, and such sales may have to be at concessional prices. This is a major risk that the citizens and taxpayers of Quebec, who are the ultimate owners of HQ, may not fully appreciate.

While HQ's untaxed profit, net income, has held up well, it is not growing significantly. Its return on equity, even if it were fully taxed, looks satisfactory, but it is only that way because it is increasing its leverage, i.e., adding debt and increasing its debt-to-equity ratio, so that a return on assets that is barely above its cost of debt is amplified when return on equity is calculated.

Table 3

Performance Metrics										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Return on Assets Using Fully Taxed Net Income</b>										
Fully Taxed Net Income	\$ 2,170.43	\$ 1,983.86	\$ 1,763.02	\$ 1,869.48	\$ 628.66	\$ 2,147.68	\$ 2,430.58	\$ 2,300.46	\$ 2,091.39	\$ 2,083.27
Average Assets	\$ 65,828	\$ 65,891	\$ 65,401	\$ 67,793	\$ 70,073	\$ 71,809	\$ 73,109	\$ 74,154	\$ 75,183	\$ 75,499
RoA, NI	3.30%	3.01%	2.70%	2.78%	0.90%	2.99%	3.32%	3.10%	2.78%	2.76%
<b>Return on Assets Using Fully Taxed Operating Cash Flow</b>										
Fully Taxed Net Income	\$ 2,938.57	\$ 2,803.14	\$ 2,875.99	\$ 3,291.52	\$ 4,139.34	\$ 2,889.32	\$ 3,442.43	\$ 3,934.54	\$ 3,412.61	\$ 3,494.73
Average Assets	\$ 65,828	\$ 65,891	\$ 65,401	\$ 67,723	\$ 70,073	\$ 71,809	\$ 73,109	\$ 74,154	\$ 75,183	\$ 75,449
RoA, OCF	4.46%	4.25%	4.40%	4.88%	5.91%	4.00%	4.71%	5.31%	4.54%	4.63%
<b>Return on Assets Using Fully Taxed Free Cash Flow</b>										
Fully Taxed Net Income	-\$ 46.57	\$ 424.86	\$ 585.02	\$ 736.48	\$ 1,215.66	-\$ 1,199.32	\$ 1,223.98	\$ 1,744.46	\$ 1,041.99	\$ 1,588.27
Average Assets	\$ 65,828	\$ 65,891	\$ 65,401	\$ 67,723	\$ 70,073	\$ 71,809	\$ 73,109	\$ 74,154	\$ 75,183	\$ 75,449
RoA, FCF	-0.07%	0.64%	0.89%	1.09%	1.73%	-1.61%	1.67%	2.39%	1.39%	2.08%
<b>Return on Equity Using Fully Taxed Net Income</b>										
Fully Taxed Net Income	\$ 2,170.43	\$ 1,983.86	\$ 1,763.02	\$ 1,869.48	\$ 628.66	\$ 2,147.68	\$ 2,430.58	\$ 2,300.46	\$ 2,091.39	\$ 2,083.27
Average Assets	\$ 21,477	\$ 20,241	\$ 18,493	\$ 18,700	\$ 18,908	\$ 19,188	\$ 18,678	\$ 18,718	\$ 19,590	\$ 19,730
RoE, NI	10.11%	9.80%	9.53%	10.00%	3.32%	11.19%	13.01%	12.29%	10.68%	10.56%
<b>Return on Equity Using Fully Taxed Operating Cash Flow</b>										
Fully Taxed Net Income	\$ 2,938.57	\$ 2,803.14	\$ 2,875.59	\$ 3,291.52	\$ 4,139.34	\$ 2,869.32	\$ 3,442.23	\$ 3,934.54	\$ 3,412.61	\$ 3,494.73
Average Assets	\$ 21,477	\$ 20,241	\$ 18,493	\$ 18,700	\$ 18,908	\$ 19,188	\$ 18,678	\$ 18,718	\$ 19,590	\$ 19,730
RoE, OCF	13.68%	13.85%	15.55%	17.60%	21.89%	14.95%	18.43%	21.02%	17.42%	17.71%
<b>Return on Equity Using Fully Taxed Free Cash Flow</b>										
Fully Taxed Net Income	-\$ 46.57	\$ 424.86	\$ 585.02	\$ 736.48	\$ 1,215.66	-\$ 1,159.32	\$ 1,223.58	\$ 1,744.46	\$ 1,041.39	\$ 1,568.27
Average Assets	\$ 21,477	\$ 20,241	\$ 18,493	\$ 18,700	\$ 18,906	\$ 19,188	\$ 18,678	\$ 18,718	\$ 19,590	\$ 19,730
RoE, FCF	-0.22%	2.10%	3.16%	3.94%	6.43%	-6.04%	6.55%	9.32%	5.32%	7.95%

Source: Company Financial Statements. Taxes were calculated using the historic federal and provincial rates in each year.

HQ gets a major share of its low-cost power from Churchill Falls in Labrador, which will revert to Nalco's control in 2041, and its price per kwh will leap enormously when that occurs. Other major power contracts HQ signed in the past with US utilities and Quebec-based companies will come up for renewal over the next few years, and the re-negotiated prices may not be as favourable to HQ as they originally were, since all these customers now have many more options than in the past, including producing their own power, or buying it from anyone, anywhere, at cheap marginal cost.

The future may belong to distributed power, and to independent producers with novel energy sources, and new forms of energy storage and distribution, especially since the vast abundance and low cost of natural gas the Shale Gas Revolution has unleashed appears to be likely to persist and even grow, indefinitely. Indeed, HQ itself intends

to convert one site to import and use of LNG, liquefied natural gas, for backstop variable power production.

The National Assembly gets nearly \$2B a year from HQ in dividends, it is true, but that money is not guaranteed, it removes it from HQ's cash flow, which it may need soon, nor is the public investment in a large utility guaranteed, when it faces daunting challenges and dangers in the future. Also, the proceeds from even a partial divestment of HQ would dwarf those dividends, and payment of income tax would partly offset it.

Not incidentally, HQ is showing some uncomfortable signs of deteriorating financial performance. Net income and operating cash flow have been gradually rising, but at the cost of rising debt, which cannot go on forever, as its debt-to-equity ratio is already at 2.7. With rising capital

demands, free cash flow is starting to slide. It is also in most years unable to cover the generous dividend it pays Quebec City, and would certainly

have to add yet more debt to do so were it fully taxable. Please see the table below.

Table 4										
Financial Strength and Dividend Coverage										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Debt/Equity	207%	226%	254%	262%	271%	274%	291%	296%	284%	282%
Dividend Paid/Free Cash Flow	227%	172%	162%	128%	135%	-175%	104%	98%	130%	92%
Dividend Paid/Fully Taxed Free Cash Flow	-4,499%	530%	371%	256%	161%	-56%	180%	145%	227%	137%

Source: Company Financial Statements. Debt and Equity are the averages for each year. Taxes were calculated using the historic federal and provincial rates in each year.

Given its low marginal cash cost of production, solid profitability and substantial free cash flow, none of which many other utility firms have, HQ is quite attractive at present. Again, with its low marginal cost of production, HQ could sell at a premium versus its estimated intrinsic or market value, whether to individual, institutional, or corporate and strategic investors and operators. However, the window to divest HQ may close sooner than anyone thinks, as the power and energy markets rapidly evolve.

The opportunity to reduce provincial debt and lower corporate and individual taxes while still improving infrastructure and public services with such divestment proceeds will not remain forever. It is hard for people to adjust to a major change such as divesting something that was a Crown corporation and source of growth, and pride, for many decades. It has filled a major public policy role in developing Quebec, but that mixes political and social goals with commercial ones, and there can be serious conflict there.

Yet nothing stays the same. Admiring and giving a pass to any entity or organization will not help it adapt to a rapidly changing industrial and economic ecosystem. Allowing it to become a fully commercial entity, and then starting to sell it into a market as it realizes its competitive potential, will allow it to survive on its own terms, which, as a state-sponsored and -controlled enterprise, it is on the point of not quite doing today. Growing its capacity simply because that is what it has always done, without assured markets, is a risk that Quebecers should not take by proxy. This course has damaged BC Hydro, and devastated Manitoba Hydro and Nalco.

## CONCLUSION AND RECOMMENDATION

The decision on whether or not to keep or sell off all, most, or part of a Crown corporation is up to the citizens and taxpayers of the province. HQ's almost mystical part of Quebecois culture may make it a difficult topic for discussion, especially among older, more nostalgic or nationalistic people.

However, although it is managed and operated by human beings, it is not itself human. It is a corporation. There is a saying in finance: "You can love a stock [or a company], but it will not love you back." Instead, a company is driven by its own dynamics, and may or may not be entirely controlled by its putative owners, the shareholders, and even less so in a more ambiguous status of a Crown corporation, where the public are the ostensible owners, but the delegated oversight is given to politicians and bureaucrats who may not have interests or vision entirely aligned with that of the taxpayers and citizens.

HQ fills a central role, but it is by no means clear that other institutions or companies would not be able to satisfy clients' power needs by other, cheaper, more innovative strategies or methods, and, now that competitors are allowed into the province, they may well do so. Its huge size, vast operations very centralization and general all-pervasiveness make it more of an unwieldy monopolistic legacy quasi-government than a single coherent, dynamic entity.

Prior to selling part or all of HQ, a change in orientation from its role as a developer of northern Quebec and fostering industrial growth everywhere in the province would have to take place. While details are secret, it is highly likely that HQ has been giving 'sweetheart' long-term deals to all sorts of customers, which means it is likely that it has failed to attain the highest sustainable price possible for its output. If it adds yet more capacity, it may have to make even more such concessional deals. After an extended period of re-orientation to be profit-maximizing, a better idea of how much HQ could be worth as a private company, or two or more companies, would be more clear.

Indeed, there would have to be serious debate about how HQ should be broken up, if it is, and how it would be regulated in the future. Ontario took the course of splitting Ontario Hydro into Hydro One and PowerGen, but that might not be how HQ should go. Power production, distribution, exporting, marketing, and retailing could all have separate companies, or there could be splitting by geographic area of service or production, or some combination of all these.

At a possible value of, say, a conservative \$35 billion for sale of HQ, that is almost \$9,000 per household in the province that could be put to use in all kinds of ways, in health, education, or reduction of provincial debt or taxes, making Quebec healthier and more competitive. Let Hydro take its own risks, and pay income tax when it is divested. If it also means letting go of the sentimentality that keeps it from doing so, that seems a small and intangible price to pay - if not, culturally or psychologically, an easy one for nostalgic traditionalists.

## APPENDIX I:

### RATIONALE FOR DIVESTITURE OR PRIVATIZATION

While it is up to the people through their elected representatives to decide if a Crown corporation or other government agency or entity should be sold or otherwise privatized and the proceeds used for the benefit of all citizens and taxpayers, there are some established reasons to embark on such a path, some or all of which are cited for divestiture of such enterprises but may not be applicable in any single, specific case.

1. The government has no mandate to own or run a commercial enterprise. The provision of citizens' safety, security and justice is the government's primary role, and its involvement in the economy should generally not extend beyond this.
2. Regulation can usually accomplish any public policy reason for direct involvement in an industry. If regulation is not easily feasible, then a direct contract or subsidy to any affected individuals, entity or entities may be more efficient or effective and less economically disruptive or costly.
3. If a government-controlled or sponsored enterprise has a monopoly position, near-monopoly, or effective monopoly in a line or lines of business or businesses, then opportunities are lost in one or more commercial or potentially commercial sectors for entrepreneurs and investors to try to create and grow businesses to enrich and sustain themselves, employees, suppliers, and others.
4. A monopoly, near-monopoly, or effective monopoly market position by a government-owned or sponsored entity could result in far higher prices for customers, the general public, or a section of the public, than would be the case in a fully competitive marketplace for the industry involved.
5. A government-owned or -sponsored enterprise may compete directly against private sector firms, which are owned by or employ citizens, or against individual citizens, all of whom the government is supposed to serve, not disadvantage.
6. The government-owned or -sponsored enterprise may compete unfairly against its private sector rivals in that it had or has access to lower-cost government-sourced and -guaranteed capital (debt). It may have a much larger debt component in its capital versus that which would be tolerated in the private sector. Thus, it may not have to meet high standards for profit and cost control, allowing it to offer lower than true free market-based competitive pricing.
7. Government-owned firms may not need to pay provincial or federal income taxes. This can allow such firms to supply goods or services more cheaply than the private sector companies they are competing with.
8. Government-owned or -sponsored enterprises may not have any kind of profit orientation or target, may be used as public policy vehicles and may be given preference in their activities or even in their transgressions, such as labour or environmental abuses.
9. Government-owned or -sponsored enterprises, by virtue of being public sector vehicles overseen by bureaucrats and politicians, may be places where favoured individuals find employment, particularly at management levels.
10. Since profit is a secondary goal of a government-owned or -sponsored enterprise, it is difficult to evaluate the effectiveness, efficiency or productivity of the enterprise or

its employees. Consequently, these employees and assets may not be very productive or effective.

choose, and thus they could inject money back into the economy in more-lucrative and -constructive ways.

11. Government-owned or -sponsored enterprises are often creations of certain time-fixed circumstances and outlive whatever use or public policy role their creators may have conceived. Often, advances in technology; the modernization of transport, telecommunication or information technology; the evolution of the economy and available products and services and the increasing standard of living make these enterprises potentially obsolete. In the private sector, firms and individuals must adapt and evolve, or decline.
12. Government-owned or -sponsored enterprises perpetuate their possibly obsolete existences by virtue of the constituencies that build up around them: employees, managers, directors and bureaucrats, customers, suppliers and associated advocates or consultants. They can lobby to keep the enterprise going, despite dysfunction or losses. They are far more motivated to do so than are the taxpayers, whose average cost is much less per person and may be indirect, hidden or difficult to calculate.
13. Because they are not profit-oriented, government-owned or -sponsored enterprises are usually less efficient, and thus they lower the overall efficiency of the entire economy. This can make a whole nation less competitive than its global rivals are, whether nations or individual companies. The effects are worse the greater the government involvement in the economy. When taken to its most extreme, as happened in 20th-century communist nations, the countries were unable to compete against capitalist companies, despite their immense direct and indirect subsidies, government support and the lack of profit requirement.
14. Funds tied up in the capital of government-owned or -sponsored enterprises could be used to reduce government debt or lower taxes on individuals or corporations, which they could then spend or invest as they freely
15. Governments, generally, have a poor record of picking winners, or creating or owning enterprises that have market-competitive profitability, or attractive returns on assets, equity, or even returns that exceed governments' own cost of debt service. If, rarely, they actually do, it generally turns out that they have been provided unusually good market, operational, regulatory, or other conditions not available to other, investor-owned firms.
16. The greater the number and size of government owned or government sponsored enterprises in an economy, the greater the size and power of the government, which is usually the largest single entity in society, increasing the dangers of abuse of power, including injuring individual citizens, companies, or groups. Effective capacity of opposition or recourse against this power diminishes as the portion of the economy the government occupies increases.

