

Presentation to the Toronto Board of Trade

by

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INTRODUCTION

Good morning, everyone. It's a pleasure to be back with you today to talk briefly about developments effecting electric utilities in Canada.

Since I last spoke to this audience in October 2002, Fortis has undergone considerable change:

- Our assets have grown from \$2 billion to over \$10 billion. In 2004, we acquired electric utilities serving substantial parts of Alberta and British Columbia; and in 2006, we acquired the principal electric utility in the Turks and Caicos Islands.
- Earlier this year, we entered the natural gas distribution business when we acquired Terasen Gas in British Columbia, which serves 95 per cent of gas users in the Province.
- Fortis has become the largest investor-owned distribution utility in Canada with almost 2 million gas and electricity customers.
- Our growth has been *profitable*. Earnings applicable to common shares grew from approximately \$63 million in 2002 to more than \$147 million in 2006. Over that period, earnings per common share have grown from 97 cents to \$1.42. Our market cap today exceeds \$4 billion, almost four-and-a-half times the size in 2002.

Our success has occurred during a period when the electric utility industry is being challenged by developments extending beyond Canada that are changing the priorities of our customers. I will refer to 3 that have significant long term implications for us:

- Many of you will recall the largest power outage in *North America* which occurred in 2003. Fifty million people in Ontario and the Northeastern U.S. were affected with an estimated \$6 billion in financial losses. The incident originated with an outage at a generating plant in Ohio and power lines that tripped when they came in contact with trees. Computer software problems were also said to have contributed. The cascading effect shut down more than 100 power plants. Many other smaller outages occur every year because of accidents, storms or human error. It is only when the power goes off that most people think about electricity and its growing importance in their daily lives. Our electrical grids are being stretched just as our customers are demanding greater reliability.
- The second challenge is the sharp rise in the cost of primary energy. Since I last spoke to this audience, the price of a barrel of oil rose from about \$25 to \$100, the price of a pound of uranium peaked at \$138 up from \$10 five years ago. And the price of a tonne of coal rose from \$44 in 2002 to about \$110. The conventional

wisdom is that the rise in primary energy costs is driven by the continuing rapid growth and demand from developing countries, particularly China.

- The third challenge is the emergence of global warming due to greenhouse gas emissions as a major issue for the general public and political leaders in the more developed countries. Canadians in general, but politicians in particular, have jumped on this issue as if it were solely of our making and totally within our power to solve. The unrealistic commitments our political leaders made at Kyoto only served to show they didn't have a good understanding of the issue.

While these challenges have significant implications for electric utilities, our mandate remains the same: to provide reliable energy to our customers at rates that are a reasonable level and are reasonably stable. It is the interpretation of that mandate which is altered by the changing expectations and priorities of our customers.

First on Price

Electricity is not a primary energy form – it is a form in which energy gets delivered safely and cleanly. The transformation of the primary fuel into electricity is capital intensive, as is the transmission and delivery. The cost of capital is consequently a major item in determining the cost to customers. However, it is the cost of the primary energy or fuel that produces most of the disparity in rates between utilities and jurisdictions. It is also the cost of the primary energy that dictates most of the volatility. Customers have, in recent years, gained a greater appreciation of the volatility of primary fuel prices and more tolerance of volatility in electricity prices.

The absolute price level for electricity has long been secondary to price volatility and reliability as a customer concern. We are becoming more efficient in our use of electricity but we are finding more ways to use it. While the price of primary energy fuels has reached record levels, it has been more than offset by the increasing value proposition of electricity.

Electricity Security and Reliability on the other hand have gained greater significance because of changes in our society and because of destabilizing global events and not simply a reflection of 9/11.

Electricity is increasingly important to modern society, reflecting in part the growing importance of digital and information technology. As our economy expands and demand for energy continues to grow, the reliability and security of the electricity system becomes even more critical.

For more than a decade now, the gap between generation supply and electricity demand in Canada has been widening, with annual growth in electricity consumption more than double that in generation. To fill this gap, significant investment will be required in generation facilities.

With the planned retirement of the coal-fired plants and the uncertainty surrounding some nuclear units here in Ontario, we have some additional challenges.

We should not forget that diversity of energy supply sources is also a critical component in meeting the needs of our customers as it reduces risks associated with supply disruptions and also provides a hedge against price volatility.

Significant investment in transmission assets (both east-west and north-south) will also be necessary to alleviate existing constraints on the North American grid and to link new generation supply to high-growth areas. Improved transmission capacity to facilitate cross-border energy trade between Canada and the U.S. has proven to be particularly difficult.

If electrical grids are to remain efficient and secure, additional investment is required in technologies for monitoring power quality and to maintain system stability as well as mitigate the risk of potential threats from cyber and physical attacks.

It is estimated that, over the next three decades, \$1.7 trillion of investment is needed in the electricity infrastructure of North America.

While ours is a very capital intensive industry, let's not forget the human element. Like most other industries, we are facing significant human resource challenges. Our systems and their reliability can be no better than the people operating them. In Canada we have a critical shortage of power system engineers and technicians. In many instances, electrical engineering schools are turning out graduates with no training in power systems as the focus has turned to software and communications.

Because electricity is increasingly the lifeblood of modern society, standards for security and reliability have risen and will continue to do so for the foreseeable future. We will be challenged to secure the financial and human resources required.

So what about **the environment and, particularly, global warming?**

It comes as a surprise to many Canadians that, as a country, we have been very successful in meeting the needs of our customers for reliable and reasonably priced electricity, without substantial adverse environmental impact, particularly as it relates to greenhouse gas emissions.

In Canada, about 60 per cent of our electricity generation capacity is derived from hydro and another 15 per cent comes from nuclear, so the majority of our electricity is generated from sources which do not emit greenhouse gases. The 25 per cent of our electricity generation capacity derived from conventional thermal power *is*, admittedly, a major contributor to emissions. Coal-fired electricity generation in Canada accounts for about 75 per cent of greenhouse gas emissions pertaining to our industry. Coal-fired generation has been significant in Alberta, Saskatchewan, Ontario, New Brunswick and Nova Scotia. In the province of BC, where there is no coal-fired generation, electric

generation accounts for only 3 per cent of emissions. In Ontario, it accounts for about 15 per cent.

Global economic expansion is driving significant growth in energy demand. By the year 2030, world demand for energy is expected to increase by more than 50 per cent; 70 per cent of which is projected to come from developing countries with China alone accounting for about one-third. Last year, China added approximately 60,000 megawatts of new electrical generating capacity and was expected to add at least as much this year. That's almost three times the electrical load of Ontario.

World electricity generation, which was 16.5 petawatt hours in 2004, is expected to rise to over 30 petawatt hours by 2030. Fossil fuels will remain a significant part of the global supply mix for the foreseeable future as there are still vast reserves of coal, oil and natural gas throughout the world. Coal-fired generation, which accounted for 41 per cent of the total in 2004, is expected to increase to 45 per cent by 2030. To put this in perspective, the total electricity generation in Canada is about 0.58 petawatt hours or 580 billion kilowatt hours.

Undeniably, the most effective way for the electricity industry to reduce its carbon dioxide emissions is to use energy sources other than fossil fuels, particularly coal and oil. Significant reductions can also be achieved by substituting to a cleaner fossil fuel, natural gas. Substituting natural gas for coal would reduce greenhouse gas emissions in electricity generation by about 2/3's.

Hydroelectricity remains the predominant renewable energy source. Canada has been the world's largest producer of hydroelectricity with a total installed hydroelectric capacity of approximately 69,000 megawatts. There are still significant untapped hydro resources but, for the most part, these are remote from the market or entail significant other environmental problems. Alternative sources of renewable energy such as wind and solar power are limited because of their intermittent nature and high costs.

Natural gas is likely to continue to comprise a significant portion of the energy-supply mix in North American, given that its environmental impact is substantially less than coal and that it has a significant price advantage over oil. Global estimates put proven natural gas reserves at 70 times the size of current world annual consumption. The growth in liquefied natural gas and the development of nonconventional natural gas deposits will provide added opportunities.

Nuclear power is resurging as a preferred source of energy supply over coal, mainly because it emits no greenhouse gases. There are 438 nuclear reactors operating worldwide and there are another 214 reactors proposed for construction. In France, about 80 per cent of all generation is nuclear. The last reactor built in Canada was at Darlington, here in Ontario, in 1993. New nuclear facilities are being considered for Ontario and Alberta. The Government of New Brunswick recently announced that it is considering a second nuclear unit at Point Lepreau. Earlier this year, regulatory approval

was given to build a nuclear plant in Illinois, which would be the first plant built in the U.S. in over 30 years.

While nuclear can potentially be a much greater contributor to addressing the global climate change issue, it faces significant challenges as regards nuclear waste disposal, safety and security - not to mention financial.

The not-in-my-backyard syndrome is always a hurdle for the electricity industry, as there is usually considerable public opposition to the siting of generating facilities, transmission lines, substations and other electrical infrastructure.

Environmental extremists may view it as choosing between poisons but compromises will have to be made. With all the concern about greenhouse gas emissions, it seems that for the most part, Canadian utilities historically made the right decisions!

Everything in the utility industry eventually comes back to

REGULATION

Regulation, in the most general sense, is where the relative importance of reliability, cost and environmental protection get weighted and apportioned by society for the utility. Regulatory oversight remains pervasive in the utility business with various forms of regulation covering the spectrum. To have been successful over the last decade, a utility had to be responsive and adjust quickly to shifting regulatory structures. This, I believe, is one of the greatest strengths of Fortis.

The structure of the electricity industry in Canada varies widely by province, with Alberta having moved closest to a fully competitive market structure and, I might add, is paying a heavy price for so doing. PEI went a full 360 degrees from full regulation to deregulation and back again. Ontario halted the restructuring of its electricity market, and is left with a hybrid market with elements of regulation and competition that has discouraged private investment.

The electricity business is very capital intensive. Regulatory issues can be quite complex at the best of times. Significant lead times are required to plan and develop new generation and transmission facilities. Timely investment in energy infrastructure is also impeded by complex permitting processes particularly with respect to the environment.

Another major impediment to utility investments in Canada has been the lower allowed rates of returns relative to investments in other infrastructure and relative to U.S. utility reforms. This in part is due to greater reliance on formulas, tied to interest rates, in setting the rates of return in Canada.

Opportunities to consolidate municipal electric utilities in Ontario are impeded by government legislation which imposes a 33 per cent tax that adversely affects the ability

of private-sector companies to acquire municipal utilities. Hydro One and other municipal electric utilities are currently exempt from this tax.

Greater regulatory certainty and fairness as well as higher returns are needed to get the job done.

CONCLUSION

The issues of price, reliability, environmental protection and regulation are clearly inter-related and vary from jurisdiction to jurisdiction. Their relative importance can vary depending upon many factors including:

- (i) the generation mix and primary energy source;
- (ii) the current state of utility infrastructure and projected demands;
- (iii) environmental constraints and
- (iv) regulatory structure

Canada is blessed with hydroelectric, gas and nuclear resources that has made it a world leader in clean electricity generation. Much of our infrastructure will however have to be upgraded and expanded.

The issues I've raised this morning are critical ones from the perspective of our customers and consequently critical for us in the electric utility industry.

As Canadians we should not lose sight of the fact that approximately 25 per cent of the world's population does not have any access to electricity; and a similar percentage have only rudimentary service.

Developing countries are demanding reliable cost-effective electricity supply. They will use the cheapest, most convenient primary energy form available. For many, if not most, this means coal in significant quantities, which will increase greenhouse gas emissions significantly. Canada generates about 3 per cent of the world's total electrical energy, mostly from hydro and nuclear. Clearly, nothing we do in Canada on electricity generation will have a meaningful impact on the global picture for greenhouse gas emissions. However, we can continue to be the leaders in clean electricity generation, as we always have been.

Fortis is focused primarily on distribution and hydroelectric generation in Canada. We are well-positioned to serve our customers and to provide them with safe, reliable and clean electrical power in the most cost-effective manner possible. We are also using our expertise to benefit electricity users in other countries.

Our recent expansion into natural gas distribution will help us provide the best overall energy solution for our customers and the environment.

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Gas and electric utilities in Canada have been world leaders. We have been challenged by recent developments but we will meet those challenges.

Thank you.