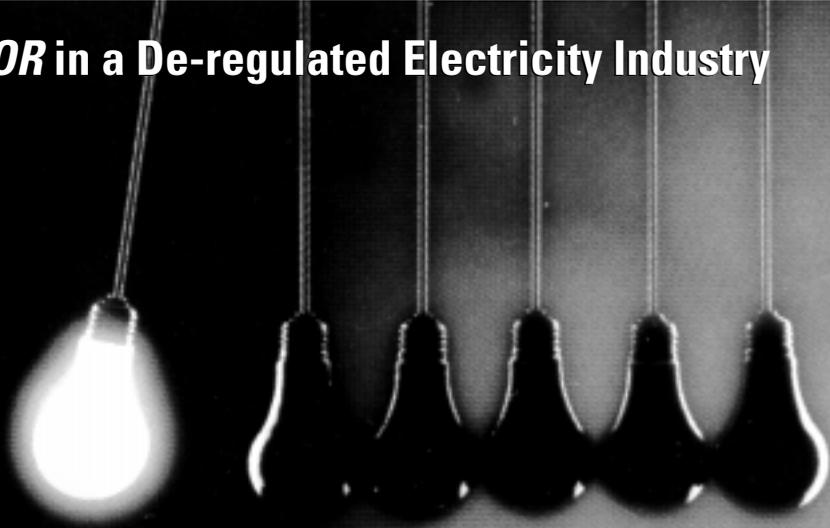


CHANGE & OPPORTUNITY

***EPCOR* in a De-regulated Electricity Industry**



A study for The Parkland Institute, University of Alberta

by

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Executive Summary

In July 1999, after months of debate, Edmonton City Council voted against selling EPCOR's electrical assets. In the lead-up to that decision the Parkland Institute produced two reports that addressed both the value of EPCOR and the nature of its business environment (Taft, 1999; Taft and Gordon, 1999). This study extends those analyses and examines EPCOR's standing in the throes of the de-regulation of Alberta's electricity industry. It finds that EPCOR provides remarkable value to the City of Edmonton, and despite unexpected shifts in regulatory positions by the Alberta government, this value is likely to hold in the medium and long term.

This study draws four major conclusions:

- First, as of late November 2000, EPCOR's value to the City of Edmonton, based on a net present value analysis, ranged from \$4.2 billion to \$5.4 billion, markedly higher than the \$1.3 billion estimated by RBC-Dominion Securities in 1999.
- Second, the sudden and unexpected changes in regulations announced by the Alberta Government in late November and early December, 2000, especially the cap on electricity prices, could reduce EPCOR's value to a range of \$2.1 to \$2.8 billion, if those changes are not mitigated by regulators. This is a drop of \$1.4 billion to \$2.1 billion.
- Third, beyond the very near term, the profitability and prosperity of EPCOR and other electricity companies in Alberta remains excellent; the government of Alberta cannot prolong an unattractive situation for investors in electricity, or the viability of the entire electrical system of Alberta will be threatened.
- Fourth, Edmonton City Council should take steps to insure it is paid the 65% dividend payout rate from EPCOR that has been identified by the company as acceptable. EPCOR is consistently paying dividends to the City that are less than 60% —and in 2000 perhaps less than 50%— of net income. EPCOR's own documents suggest the payout rate should rise to 65% of net income, which could mean an annual increase in dividends to the City of tens of millions of dollars.

The bulk of the analysis for this report was undertaken in October and November, 2000, when Alberta's transition to a de-regulated electrical industry appeared to be in its last major stage of implementation. Unexpected announcements by the Alberta government in late November and early December, especially price caps, had a potentially major impact on EPCOR and other participants in the electrical industry. The ramifications of these announcements will take time to sort through, and undoubtedly additional important regulatory changes will be made by the Alberta government. Before long, any negative impacts on EPCOR and other electricity companies stemming from these regulatory changes will need to be mitigated by the government if the viability of Alberta's electricity system is to be maintained.

The first report produced by the Parkland Institute relating to EPCOR and electricity de-regulation was released in February 1999, and was titled **Light Among the Shadows: The re-regulation of the electrical industry and the future of EPCOR** (Taft, 1999). Its conclusions included the following:

- de-regulation is not likely to strip the value from EPCOR;
- de-regulation can produce a "regulatory nightmare";
- shareholders of electric utilities tend to do well under de-regulation;
- de-regulation often leads to price spikes, risks of market manipulation, and reduced reliability.

The second report, **Aftershock: The open and shut case against privatizing EPCOR** (Taft and Gordon, 1999), was released in July 1999. It predicted that "the profitability and share value of EPCOR will likely rise under the regulatory changes being implemented by the Alberta government" (p.2) and concluded that "it would be a serious financial and business error for Edmonton City Council to sell EPCOR" (p.40).

The findings of these two reports have been supported by experience: the regulatory situation in Alberta is confused and unpredictable; prices have spiked; there is continuing worry about reliability; an investigation into possible market manipulation has already been launched by the federal government's competition bureau; and the Market Surveillance Administrator has released written comments raising concerns about abuse of market power. The only welcomed news for Edmontonians is that, as predicted, the profits and value of EPCOR have risen.

In the eighteen months since Council's decision, EPCOR has seen substantial changes. These include EPCOR's emergence as both the largest electricity retailer, and the largest marketer/wholesaler, in Alberta. It is also expanding its generating capacity at a time when Alberta's supply of electricity seems certain to remain tight for years to come, yielding record-setting prices.

Most jurisdictions in North America where electricity has been de-regulated are seeing prices escalate. In some American states where de-regulation is most advanced, including California and Montana, prices have soared and reliability has declined, and calls from consumers and lawmakers to 're-regulate' are growing. In Alberta, where the early support for de-regulation has almost vanished, regulators are under irresistible pressure to intervene.

The most consistent winners of electricity de-regulation worldwide are shareholders in electricity companies, who typically see both share values and dividends climb markedly. In effect, de-regulation of the electricity industry leads to an enormous transfer of wealth from consumers of electricity to producers of electricity. Edmontonians, as owners of EPCOR, are fortunate to be on both sides of this equation.

Dividends from EPCOR are surging and net income is growing fast, up 53% for the first nine months of 2000 compared to the same period in 1999. As a result, the portion of net income paid as a dividend to the City (i.e. the dividend payout rate) is actually dropping, and will likely be below 50% of net income in 2000. In 1999, EPCOR senior management stated that a 65% dividend payout rate is acceptable in the longer term, and would still be below the industry average of 70%. This is worth careful attention from City Council, because allowing EPCOR to retain high portions of earnings means that funds are being left in the company that might better serve Edmontonians in other ways. Establishing a firm 65% dividend payout rate from EPCOR could yield many more millions of dollars to City Council with little risk to the company.

As EPCOR's dividends have climbed and its position strengthened, so has its value. This report has used the 'net present value' method to estimate the value of EPCOR. The results show that through to late November, 2000, EPCOR was worth from \$4.2 billion to \$5.4 billion, vastly higher than estimated by RBC-Dominion Securities in 1999. Unexpected regulatory changes announced by the Alberta Government at the end of November and in early December, however, could lower EPCOR's value to a range of \$2.1 to \$2.8 billion.

It seems certain that the price caps recently imposed on EPCOR and other electricity companies will be soon mitigated by regulators. EPCOR's prospects are very bright. The market value of EPCOR in twenty years is predicted to exceed \$11 billion, a figure consistent with statements by EPCOR itself. Clearly, EPCOR is more valuable than ever to the citizens of Edmonton and their City government.

1. Introduction

The role and value of EPCOR as an asset of the City of Edmonton have been much debated in recent years. Should the company, in whole or in part, be sold and the proceeds placed in an investment fund? Should the company continue under City ownership, paying dividends and building capital value? In 1998 and 1999, Edmonton City Council —working with the executive team of EPCOR— considered these issues at length, spending over \$500,000 in fees and expenses on the process. At the centre of this process were reports prepared by RBC-Dominion Securities at City Council’s request. These reports examined the risks, the likely dividends, the resale value, and a host of related issues concerning the future of EPCOR, and recommended that all of EPCOR be sold as soon as reasonably possible. City Councillors quickly rejected the notion of privatizing EPCOR’s water service but considered at length the possibility of taking further steps toward the sale of EPCOR’s electrical services. Eventually, in July, 1999, councillors voted seven to six to stop pursuing the idea of selling EPCOR.

In 1998, the Parkland Institute at the University of Alberta proposed a study to City Council to examine the merits of selling EPCOR. City Council rejected this proposal. The Parkland Institute then proceeded on its own with two small studies examining the sale of EPCOR’s electrical assets, **Light Among the Shadows: The re-regulation of the electrical industry and the future of EPCOR** (Taft), and **Aftershock: The open and shut case against privatizing EPCOR** (Taft and Gordon). These studies concluded that regulatory change was likely to substantially benefit the owners of electrical utilities; that EPCOR was likely to flourish; and that the growth in dividends and capital value of EPCOR would substantially exceed the benefits of placing those assets in an investment fund. These reports influenced Council’s decision to stop pursuing EPCOR’s sale.

Since that decision the debate on the sale of EPCOR has quietened. The jump in the dividends from EPCOR and the rapid rise in the capital value of the company have confirmed Parkland’s reports and reassured most councillors that EPCOR is a good asset for the City of Edmonton. But there remains some debate on the issue. In particular, the Edmonton Chamber of Commerce in a letter to City Councillors dated July 17, 2000, argued that the City should “...solicit offers for the sale or privatization of the power-generating and retail assets of EPCOR... to offset decreased revenue from EPCOR in its present form”. This position was not substantiated with any significant business or financial analysis.

The purpose of the following report is to update Parkland's previous work on EPCOR as a City-owned utility, insuring that discussions on the ownership of EPCOR are based on sound information. This report first examines EPCOR's changing business environment (Section 2). The dominating issue here is the implementation of regulatory change in Alberta's electricity industry. The report then briefly examines some financial indicators concerning EPCOR (Section 3).

This report is by no means exhaustive, but it should assist City Councillors, citizens of Edmonton, the media and interest groups in wisely determining the future of one of the City's greatest assets.

2. Changes in EPCOR's Business Environment

EPCOR marks its one-hundredth year as a City-owned company in 2001. During those hundred years EPCOR has successfully adapted to major changes in technology, to dramatic growth in its markets, and to complete overhauls of its organization. Today the pace of change is accelerating, especially in terms of regulatory provisions, new technologies, and concerns over the impact of power plant emissions on climate change. It is more important than ever to understand the issues in EPCOR's business environment. In particular, it is essential to understand the value of EPCOR as an asset of the City of Edmonton, so Councilors and citizens of Edmonton can fully understand how this asset is affected by regulatory and other changes.

2.1 New Technologies and Environmental Concerns.

The development of new technologies for generating electricity, such as fuel cells and microturbines, is proceeding worldwide, stimulated by rises in the price of traditional sources of electricity and by environmental concerns with power plant emissions. These technologies could pose a threat to traditional power companies such as EPCOR if they were to become widely available for industrial and household use at reasonable prices. They could also provide opportunities: TransAlta has invested in a company developing fuel cell technology. But despite the progress being made, it is highly unlikely these technologies will be a threat to companies such as EPCOR for many years to come; at present there is no technology that seems likely to offer a viable alternative to existing power grids in the foreseeable future, and there seems no reason that EPCOR couldn't invest in new technologies as they emerge.

A much more immediate issue for EPCOR is concern that fossil fuel-burning power plants contribute substantially to climate change by emitting vast quantities of carbon dioxide, which acts as a greenhouse gas in the atmosphere. In particular, coal-fired power plants produce far more carbon dioxide per unit of electricity generated than any other major source of electricity, and therefore come under intense scrutiny from environmental organizations and regulators. About 70% of the electricity on Alberta's grid is generated from coal-fired plants, including EPCOR's Genesee plant. (Rossdale and Cloverbar burn natural gas.) Genesee was built to accommodate up to four coal-fired turbines. Two are currently operating and a third is being considered. These turbines produce large quantities of reliable and inexpensive power, and expanding Genesee is a tempting opportunity to mitigate Alberta's tight supply of power and greatly enhance EPCOR's financial position. However, opposition to the expansion on environmental grounds will be strong.

2.2 Regulatory Change.

The most important issue facing EPCOR is the change in Alberta's electricity industry from a system of regulated monopolies, to a system in which marketplace competitors generate and sell electricity on the basis of supply and demand. (Alberta's electricity transmission and distribution systems remain regulated.) This change is usually referred to as 'deregulation', although the term 'deregulation' is misleading because vast amounts of regulation are inevitable in an industry as complex and important as the electricity industry. In Alberta, for example, while the role of the Energy and Utilities Board has been curtailed there are a number of new regulatory bodies, including the Market Surveillance Administrator, the Transmission Administrator, and the Power Pool of Alberta. As well, the provincial Department of Resource Development has become a very active participant in the electricity industry: guiding auctions; closely monitoring industry activities; distributing rebates to offset price jumps; setting a host of regulations; and intervening directly on prices. These new regulatory functions are not unique to Alberta; other jurisdictions that de-regulate end up with various new regulatory agencies, which paradoxically can have the effect of increasing the amount and cost of regulation.

Prior to de-regulation, Alberta's electricity industry operated under a system similar to those in other provinces. Electricity was regarded as a 'natural monopoly': it was generally accepted that electricity could be most efficiently provided by granting one company the rights to a monopoly to sell electricity in a geographic area, and then closely regulating that company to protect the public interest. Under this system a public regulatory agency worked closely with utilities and consumers to determine how much electricity was needed; how it should be generated, transmitted, and distributed; what reasonable costs of production and returns for investors should be; and what was a fair price for consumers to pay. With this system, and Alberta's coal and natural gas resources for fuelling power plants, Albertans enjoyed electricity that was among the cheapest and most reliable in the industrial world.

Unlike most other provinces, Alberta's electric industry was not dominated by one large crown-owned electricity corporation, such as Ontario Hydro, Hydro Quebec, or Saskatchewan Power. Instead, almost all of Alberta's power industry was divided among three separate companies: EPCOR, TransAlta, and ATCO. Before de-regulation, EPCOR had about 20% of Alberta's electrical generation capacity in its gas-fired Cloverbar (660 MW) and Rosedale (225MW) plants and its coal-fired Genesee (800 MW) plant. EPCOR's market was primarily Edmonton, so its transmission and distribution systems were geographically concentrated in a small area of the province, but it had a substantial customer base, including about 270,000 households.

Easily the largest power company in Alberta was TransAlta, an investor-owned company that generated about 60% of the province's electricity (4475 MW) through an array of plants, including coal-fired plants at Sundance, Wabamun, Keephills, and half the Sheerness plant, and hydroelectric plants in the foothills west of Calgary. TransAlta also had the province's largest transmission and distribution systems and, with 350,000 households, the largest customer base, including Calgary and many smaller centres and rural areas. ATCO, also investor-owned, provided about 15% of Alberta's total electricity generation (1375 MW). ATCO's power plants included the coal-fired Battle River, H.R. Milner, and Sheerness (half-owned with TransAlta) plants, and smaller gas-fired plants. ATCO served customers in small centres and rural areas, but lacked a major urban core of customers. There were also several much smaller players in Alberta's electrical industry.

Alberta's electricity system before de-regulation was by most measures clearly successful. In addition to supplying inexpensive and highly reliable electricity for homes, farms, institutions and industries, it insured a reasonable return on investment to EPCOR and the other utilities. Although the highly cyclical nature of Alberta's boom and bust economy strained the system, it was able to adapt. For example, when demand for electricity grew by 10% a year in the 1970s —about twice the rate of growth in the 1990s— The Energy Resources Conservation Board (now disbanded) through the Electrical Planning Council, ensured that enough new generating capacity was built to meet the demand without sending prices skyrocketing. Electricity was an important component of the 'Alberta Advantage'; as recently as June, 1998, Alberta Economic Development's publication **Alberta's Manufacturing Industry Highlights** stated that Alberta's low electric costs were an important advantage for the province's economy.

There were also concerns. Alberta's heavy reliance on coal-fired power plants drew increasing criticism because such plants produce emissions that contribute disproportionately to climate change. Further, the major utilities were reluctant to open their transmission and distribution systems to other companies that wanted to generate power from wind or other sources. As well, huge industrial power consumers wanted more freedom in choosing their electrical suppliers than the system of regulated monopolies provided. These industrial consumers pushed for de-regulation.

2.3 EPCOR Adapts to De-regulation.

The Alberta government began its move to de-regulate the electricity industry in the early 1990s. By 1995, after various studies and consultations with stakeholders, the Electric Utilities Act was passed, followed by the Electric Utilities Amendment Act in 1998. These Acts set the framework for de-regulating electricity generation and retailing while maintaining the regulation of electricity transmission and distribution. This new approach has had a profound impact on EPCOR.

- **Organization restructuring.**

Regulatory changes led to a complete restructuring of EPCOR's organization. EPCOR changed from a department of the City of Edmonton (known as Edmonton Power) to a separate corporation with its own board of directors and an independent management team, known as EPCOR Utilities Inc. It reported to its sole shareholder, the City of Edmonton, but exercised extensive autonomy from City Council, including issuing major debt instruments and entering into a wide-range of new partnerships and ventures. **EPCOR Utilities Inc.** is the holding company for several subsidiary companies, including: **EPCOR Generation Inc.** (responsible for the Genesee, Cloverbar and Rossdale plants); **EPCOR Power Development Corporation** (responsible for generating stations built since 1996, including the large gas-fired plant at Joffre, the small hydroelectric project at Taylor's Coulee, and proposed projects such as the expansion of Genesee); **EPCOR Distribution Inc.** (responsible for EPCOR's distribution system); **EPCOR Transmission Inc.** (responsible for EPCOR's high-voltage transmission system); **EPCOR Energy Service Inc.** (responsible for retailing electricity); and **Encore Energy Solutions** (a joint venture with Westcoast Energy that markets wholesale electricity outside the Edmonton area).

- **Power Purchase Arrangements.**

Under the former system of regulation the output of EPCOR's power plants was fed into the Alberta power grid, and EPCOR's customers were able to draw power off that grid through EPCOR's distribution system. EPCOR was responsible for particular components of Alberta's electrical generation, transmission, and distribution, and was able to manage these as an integrated system (as in turn were TransAlta and ATCO). In order to introduce competition, the new de-regulated system broke up these integrated systems and created conditions that would allow new companies into Alberta's electric industry. Of particular concern was TransAlta, which controlled 60% of Alberta's generating capacity and was therefore large enough to influence supply and price in a competitive market. One way to respond to TransAlta's market dominance would have been a 'forced divestiture', in which TransAlta would be required to sell some of its assets to new competitors. Although this has been done in some jurisdictions, the Alberta government seemed reluctant to weaken TransAlta. Instead, it opted for 'Power Purchases Arrangements' (PPAs), an essentially unproven approach.

Under PPAs, electric utilities keep their power plants, but are required to sell all the rights to the output from those plants to ‘marketers’ who are independent from the power plant owners. The marketers in turn resell the electricity to customers, or to other marketers. The intention is that new marketers will establish in Alberta, and will pressure the power plant owners to reduce costs so the marketers can outcompete other marketers in attracting customers. The PPAs only affect power plants built before 1996 (i.e. under the regulated system) and extend a maximum of 20 years, or to the end of the estimated operating life of the particular power plant, whichever is less.

- **The PPA Auction.**

PPAs were sold to marketers through an auction held in August, 2000. The revenue from the auction did not go to the power plant owners. Rather, it was deposited with the Power Pool of Alberta. The power plants for which PPAs were sold (i.e. those built before 1996) had been built with support from the power rates customers paid under the regulated system. As such, customers had a claim on some of the value of these plants. The revenue from the PPA auction, when returned to customers through rebates from the Power Pool, was intended to compensate customers for this value.

EPCOR was heavily involved in the PPA auction, both as a producer and as a buyer. The rights to sell the output from EPCOR’s Rossdale, Cloverbar, and Genesee plants were offered in the auction, covering three, ten, and twenty years respectively. The rights to the output of the Rossdale plant were sold to Engage Energy, while the rights to the output from the Cloverbar and Genesee plants were not sold and therefore reverted to the Power Pool of Alberta.

As a buyer, EPCOR acquired rights to substantially more electricity than any other PPA participant, successfully bidding on 1373 MW of output from ATCO’s Battle River and TransAlta’s Sundance plants. EPCOR paid a total of \$353.4 million for contracts that ranged from thirteen to twenty years. It then immediately sold substantial portions of this power to several major industrial customers, and held on to other portions for its smaller customers.

In addition to EPCOR’s bids on Sundance and Battle River, and Engage Energy’s bid on Rossdale, the other successful buyers at the auction were:

- Enmax Energy Corp., for 766 MW from Keephills and 548 MW from Wabamun;
- Enron Canada Power Corp., for 706 MW from Sundance;
- TransCanada Pipelines, for 560 MW from Sundance;

The number of years of output covered by each bid varied substantially.

The auction raised about \$1.1 billion from PPAs covering 4,249 MW. The PPAs for some major plants, including those at Cloverbar, Genesee, and Sheerness, were not sold. The September 4, 2000 industry journal *Electric Utility Week* described the bids as “lacklustre”. Critics, including groups representing various consumer organizations, argued that the value of the rights should have been in the range of \$3-4 billion, which would have allowed a much larger rebate to consumers. Another concern was that not enough bidders had participated to create a truly competitive market.

The Alberta government, through its Department of Resource Development, arranged a second auction to cover the PPAs not sold in August. This ‘mini-auction’, formally called the Market Achievement Plan (MAP), allowed bids covering one year for each of 2001, 2002, and 2003, on much smaller amounts of electricity than the first auction, as small as two megawatts. These changes were intended to encourage more participants to join the auction, and to raise the number of competitors buying and selling electricity. Forty-five different companies successfully bid on a total of 2,800 megawatts of electricity, mostly for use in the year 2001. The total paid to the Alberta Power Pool for the bids was \$2.3 billion. At the time of writing it is not clear how these funds will be used. The prices bid for the rights to the power were high by historical standards, averaging \$117 per MWh for baseload power and \$154 for peakload for the year 2001. EPCOR did not release details on its participation in this auction, but was a significant buyer. (Power Pool of Alberta, December 6, 2000; *Edmonton Journal*, A-Section, December 7, 2000.)

- **Retail Competition.**

While the PPAs are a major step in implementing deregulation in generation, other developments are occurring with deregulation in electricity retailing. Again, EPCOR has been very active in solidifying its position. In September, 2000, EPCOR announced that it had paid \$110 million to acquire Utilicorp Networks Canada’s retail electricity business in Alberta, adding 350,000 retail electricity customers to the 270,000 EPCOR already served. Utilicorp had bought this retail business from TransAlta just a week before, in a package deal that included TransAlta’s 90,000 km distribution system in Alberta. Utilicorp kept the distribution system and spun off the retail base to EPCOR. In effect, then, EPCOR took over TransAlta’s customer base to become easily the largest electricity retailer in the province. EPCOR will serve its new customers through about 100 employees at the former TransAlta customer call centre in Calgary. EPCOR’s only competitor in the retail business is Enmax, owned by the City of Calgary. ATCO has abandoned plans to be an electricity retailer under de-regulated conditions.

• Changing Retail Rules Mid-Game

Early in the planning to de-regulate electricity, Alberta's regulators and industry realized that a transition period would be needed to allow residential and other small users to adjust to new ways of obtaining power, and to let the market in electricity get established. As a result, a five-year period for householders (2000-2005) and a three-year period for other small users (2000-2003) were established, during which customers had a choice of switching to de-regulated suppliers, or of remaining under a 'regulated rate option'. The regulated rate option was initially called the 'stable rate option', but as de-regulation came closer it was apparent that even under this option, rates were not going to remain stable. Under the regulated rate option, customers were to have their electricity rates set by regulators according to a formula that would periodically adjust for a number of changing costs, and would allow for a return on investment to electric companies. EPCOR and the rest of the industry planned on this basis. Early indications were that the vast majority of customers would choose the regulated rate option, mirroring experience elsewhere.

However, on November 27, 2000, as it became certain that even under a regulated formula virtually all Albertans would see a substantial jump in their electricity bills in January 2001, the Alberta Government made a surprise decision: a price cap of \$80 per MWh was imposed for residential and small commercial consumers.

While this will shelter consumers from the de-regulated market price of electricity, it causes a host of problems. Customers who signed up for de-regulated contracts on the understanding that prices would be de-regulated may be unhappy. New companies will be discouraged from entering the electricity retail market to compete against EPCOR and Enmax, because their revenues would be capped. And companies with commitments to supply customers face enormous potential losses, especially EPCOR, Enmax, and ATCO Electric. The losses arise because these companies must pay the hourly power pool prices for electricity, which averaged \$253 per MWh in October, but they can only sell it for a maximum of \$80 per MWh. The potential loss in revenues to EPCOR could be in the hundreds of millions of dollars, although EPCOR's management has assured City Council that dividends will not be affected. For Alberta as a whole, the greatest concern from the price cap is that new investors in generation will delay building new power plants because of the uncertainty in the industry, adding to the current supply shortages. EPCOR management has said that the financial costs resulting from this change in policy could force it to abandon expansion plans at Genesee and make it more costly to borrow money for other new projects. (*Edmonton Journal*, A-Section, December 7, 2000.)

2.4 Experience Elsewhere with De-regulation: The Consumer Perspective.

Electricity de-regulation is being tried in many countries, with mixed success. It has been typically implemented where there are high costs or other concerns with electricity systems; it is unlikely that any de-regulated jurisdiction provides the low-cost high-reliability power system that until recently existed under Alberta's regulated regime .

In Canada, Alberta is farthest along in attempting de-regulation. Ontario is moving toward de-regulation, but has delayed various steps in the process. Other provinces are proceeding slowly, or not at all. The most relevant experience for Alberta comes from the United States, because Alberta's electrical system is increasingly affected by American corporations, power grids, regulators, and markets, and because de-regulation in some states is years ahead of Alberta, giving a glimpse into what Alberta's future may hold. About half the American states are proceeding with electricity de-regulation. The trend was led by states in the northeast and by California, where power costs were often 50% above the American average and double or more the typical rates in Canada.

Whether or not de-regulation is judged a success depends on the perspective one takes. For consumers the results have ranged from modestly successful, to uncertain, to enraging. In Pennsylvania prices appear to have declined, with the promise of bigger savings in perhaps ten years (Wilcox). Consumers have a range of electricity retailers to choose from, though few have taken advantage of this option, for the ability to choose electrical companies was never an urgent concern for most people. In New York the results are less certain. Some larger consumers have been able to reduce costs, but the wholesale price of power has climbed considerably in the past two years, and as with Pennsylvania only a tiny percentage of small customers (less than 3%) have switched suppliers (Aaron).

Closer to Alberta the results of de-regulation are far more worrying. In Montana, which had among the cheapest electricity in the United States, de-regulation legislation was passed in 1997 with the active encouragement of power companies. Since then the wholesale price of electricity has soared, and although there are other upward pressures on price, de-regulation appears to be the major factor. Important industries are considering shutting down their operations because of electricity costs, a fate which has already claimed a cardboard factory and the Montana Resources copper mine at Butte, where 325 workers lost their jobs when electricity prices to the mine tripled. A fundamental concern with the de-regulated system: competition is not working as intended. A state investigation into the possibility that power companies are 'gaming' the system in order to boost prices and profits is underway, and there is a call for more regulation. (Fish.)

An even louder outcry over electricity de-regulation has arisen in California. In response to big jumps in electricity prices and to a major black-out in the San Francisco Bay area, the governor of California requested a special report from the California Public Utilities Commission. The report, jointly submitted in August 2000 by the Chairman of the Electricity Oversight Board and the President of the Public Utilities Commission, paints a bleak picture of California's electricity industry that is reminiscent of concerns expressed in Alberta. "California is experiencing major problems with electricity supply and pricing caused by policies and procedures adopted over the past ten years" begins the report. It notes that wholesale power prices jumped from the summer of 1999 to the summer of 2000, forcing Californians to pay far more than they otherwise would have. "San Diegans — the first to be exposed to unregulated electricity prices — saw their June [2000] electricity bills double" in one year. The report goes on to say:

...the new system is not working for California because of serious market defects and tight electricity supply [and as a result] purchasers of California power will likely pay billions more in electricity costs this year. **Moreover, these price increases do not necessarily fund new investments in electricity supply or delivery reliability — they may flow solely to power producer profit margins.** (Emphasis added.)

The California Public Utilities Commission report then calls the entire de-regulation experiment into question:

California embarked on an experiment to redesign the electric industry during the 1990s. Past administrations split up California's integrated electricity system, previously dominated by state-regulated utilities, into isolated components and opened the electricity generation component to market competition. The theory behind this policy shift was that competition would lower consumer prices and encourage cleaner non-nuclear sources... Although laudable, the promises of that restructuring experiment have not materialized. Californians still pay substantially more on average than counterparts in other states who have not shifted to competitive market structures... In designing the new system, California policymakers relied on projections of supply and demand, and pricing theories flowing from those projections, that have not come true.

There are some important differences between the situations in Alberta and California: unlike California, which turned over its authority to regulate electricity to the U.S. federal government, the Alberta government maintains full regulatory responsibility for the province's power system. And while there are serious questions that some regulatory bodies in California have corporate ties to power companies, in Alberta there appears to be a clear severing of conflicts of interest between regulators and electricity companies. Nonetheless there are notable parallels, including soaring wholesale power prices; jumps in residential rates; doubts about the functioning of the market; and tight supplies.

Further, when reserves are too low in Alberta, power companies here compete directly with the expensive California market to buy electricity from B.C., which can send its power south or east. This boosts the Alberta price toward California levels.

In summary, from the perspective of the consumer, de-regulation has brought customer choice in electricity, though usually only a tiny portion of customers switch. In some high-priced electricity markets (eg. Pennsylvania) it has contributed to a decline in prices, and in others (eg. New York) the impact on prices is unclear. In the expensive California market, prices have jumped under de-regulation and reliability has slipped. In states such as Montana, where electricity historically was inexpensive under a regulated regime, prices have soared. In no de-regulated market in North America are prices as low as they were under the regulated system that used to govern Alberta, and under which most of EPCOR's, TransAlta's and ATCO's generating capacity was built.

2.5 The Shareholder Perspective on De-regulation.

From the perspective of electricity company shareholders, the results of de-regulation typically are favourable. North American experience is duplicating that in Britain, where electric company shares and profitability climbed strongly after de-regulation was launched in the early 1990s. Utilicorp, the U.S. multinational which now owns TransAlta's distribution and transmission system in Alberta, and from which EPCOR bought TransAlta's former retail service, reported that its third-quarter profit will be 70-75% higher in 2000 than in 1999. **The Financial Times** (August 23, 2000) reports that "High energy prices in California may cause pain for consumers, but they're generating high revenues and potential profits for those companies that own and operate power plants in the state." Analysis by **The Financial Times** shows that the payback period for investors in power plants has shortened dramatically in de-regulated markets: of 17 California plants analyzed, the longest payback period for investors was 3.8 years, while the shortest was six-months —at a plant where the gross profit jumped from \$17 million in 1999 to an estimated \$90 million in 2000. Under a regulated system payback periods for investors were commonly 20 to 30 years. In effect, de-regulating the power industry transfers a vast amount of wealth from consumers of electricity to shareholders of electricity companies.

In Canada, where Alberta is the only jurisdiction to be well-along in de-regulation, it is too early to tell conclusively its impact on power company profits. But there are unmistakable signs that shareholders will do well, including EPCOR's big jump in profitability.

2.6 The Alberta Experience with De-regulation.

The de-regulation process in Alberta began with significant support from various groups. Major industrial consumers of power felt a de-regulated regime would introduce market forces and allow them to directly pressure electric companies for lower rates. Some environmental groups wanted a more flexible system that was open to alternate sources of power such as wind generation. And the power companies themselves, especially EPCOR and TransAlta, welcomed de-regulation.

Most of this support has vanished. In 1999, the Industrial Power Consumers Association of Alberta tabled a report suggesting that the former regulated system would be better than the new de-regulated one being enacted (see Drazen). Other consumer organizations, and groups representing rural, farm, and municipal interests also began expressing strong concerns that the process would not work as intended, driving costs up. The criticisms covered several issues: the system was too complex; there were too many uncertainties; the auction of PPAs was an unproven approach; power generation was too concentrated with one company, TransAlta; there were not enough companies to create a competitive market; the system was tilted in favour of the producers; the Alberta market was too small, isolated, and cyclical to attract major new competitors.

Meanwhile, the balance of supply and demand in Alberta tightened. As early as 1989 the Canadian Energy Research Institute predicted that Alberta would soon require substantial new generating capacity (MacRae). While the economic slowdown of the late 1980s dampened growth in demand for electricity, the rebounding economy of the 1990s saw demand grow at about 5% a year, a substantial rate, though well below the growth of the 1970s. The uncertainty created by the revamping of the regulatory system discouraged construction of new power plants, and reserve margins of electricity shrank to historically low levels, at times threatening reliability.

Prices began to climb dramatically. The average pool price for electricity rose from about \$14 per MWh in 1996, to \$21 in 1997, to \$33 in 1998, to \$43 in 1999, a 300% rise in four years. By October, 2000, the 1999 prices seemed moderate: at the end of October, 2000, the average pool price for the year-to-date was \$118.26, with nothing but further rises in sight: the average for the month of October itself was \$253/MWh, 18 times the price of four years prior (OEMI, p.2). These prices translate into strong revenues for EPCOR and other companies with generating capacity: power that was being profitably sold a few years ago at \$15-\$25/MWh is now being sold for many multiples of that price. They also translate into higher costs, because companies like EPCOR need to buy power at these prices to meet their customer commitments.

There are two frameworks from which to explain climbing prices. On the one hand, supporters of de-regulation argue that prices are climbing because of a combination of factors: demand has outstripped supply, which leads to scarcity pricing; natural gas, which fuels about one-fifth of the generating capacity on Alberta's power grid, has tripled in price since 1996; the price of imported power from B.C. has skyrocketed because of rich bids from California; and there have been major unplanned outages. (See OEMI's "Alberta Electricity Update" for a sample discussion of these factors.) From this perspective, these are normal dynamics in a marketplace and in the long run they will resolve. The soaring prices are simply the 'real' cost of power, which is best understood as the price the market will bear. Eventually a combination of new power plants, innovations in technology, and reductions in demand will bring prices down and reduce threats to reliability. Proponents of this view argue that waiting out the problems and fine-tuning the system will make the system better than ever.

On the other hand, skeptics of de-regulation argue that electricity is poorly suited to the dynamics of a marketplace. From this view, which underlay the regulated system, a competitive marketplace will never provide the low-cost high-reliability power that Albertans once enjoyed. It was predictable that power prices are escalating in almost all de-regulated markets in North America (Market Surveillance Administrator, p.3). There is no denying that high natural gas prices and unplanned outages push prices up, but they do not explain the levels of increase that are being seen. As to the shortage of supply, this would have been anticipated and resolved under a regulated system, as it was during previous booms, preventing scarcity pricing and cutting the need for expensive imports.

To skeptics of de-regulation, there are more important reasons for high prices which the new system fails to address. Electricity is a necessity of modern life for both householders and businesses, and has low price elasticity (i.e. higher prices have little effect on consumption) — consumers are 'price-takers'. (See Market Surveillance Administrator, p. 11.) As a recent Alberta analysis said, "Few users have any degree of control over their consumption..." (OEMI p.1). As a result the market is inherently tilted to the seller's advantage. Adding to the consumer's problems, the price of power changes hourly, can swing hundreds of percent in a day, and normally is confirmed only after the power is consumed. Further, there is growing concern that when a modern power grid is opened to de-regulation there are inevitable distortions of market forces —sometimes deliberate — that drive prices and profits up. In Alberta, California, Montana, and several other U.S. jurisdictions there are investigations into allegations of deliberate market manipulations, known as 'gaming the system'. (See Market Surveillance Administrator, Section C, for a discussion of potential market manipulation in Alberta.)

To proponents of regulation, the price of electricity should reflect the cost of production (which could include environmental costs) plus a reasonable rate of return for investors. These people include a range of lawmakers and regulators in the U.S. who are calling for de-regulation to be reversed (Jarman; Leopold; Fish).

2.7 Trends in Supply and Demand.

At the time of writing this report the Alberta government seems to be shifting away from its position that de-regulation will proceed regardless of concerns. Its announcement on November 27, 2000, that it would freeze electricity prices may offer short-term relief from soaring prices. But it also seems certain to cause confusion and unintended problems, including aggravating the long-term shortage of electrical supply by discouraging new investors in power plants.

Regardless of these changes, and perhaps because of them, EPCOR is certain to be selling into a market that is short of supply for years to come. Reserve margins, which were 10%-15% in 1996, are now 5%-8%. As a result, if one major generating unit in the province trips, prices can skyrocket and reliability teeter. New generating capacity has barely kept up with growing demand in recent years, and EPCOR predicts that demand will grow by a further 420 MW — equivalent to a large gas-fired plant — annually for the next five years (EPCOR, November 1, 2000), insuring a sellers' market for years to come.

Several new plants are being commissioned in 2000, including the 416 MW cogeneration plant at Joffre, in which EPCOR holds a 40% share. EPCOR also has plans (as yet unapproved) to expand the Rosedale plant (170 MW) and is in early stages of planning to expand Genesee by about 400 MW. The de-regulated system is stimulating several new companies to build generating plants in Alberta. But a market in which several robust competitors jostle for customers is as elusive as ever: the majority of new generating capacity built in 2000 is owned by EPCOR, TransAlta, or ATCO, sometimes in joint ventures with one another.

2.8 Uncertainty in Alberta's Electricity Industry.

The level of uncertainty in Alberta's electricity industry has increased with the regulatory changes introduced in recent years. There is far more fluidity in most aspects of the industry, including costs, prices, supply, competitors, customers, and technologies. Because of this, the results of EPCOR's activities (including its profits) in any given short-term timeframe will be less predictable than they used to be. The trade-off for this is that profits in any given long-term timeframe will typically be greater than they used to be.

Ironically, the greatest uncertainty in the de-regulation process has stemmed from the regulatory actions of the provincial government and its agencies. In theory these organizations should be 'on the sidelines', but in practice they probably never will be, as experience elsewhere shows. Once again this illustrates the fundamental paradox of electricity de-regulation: the nature of electricity means that extensive regulatory involvement is inevitable.

The uncertainties faced by EPCOR in the autumn of 2000, such as the unexpected intervention of the provincial government on prices, will cause short-term uncertainty, but they are likely of little threat to the long-term profitability of EPCOR and Alberta's other electricity companies.

3. Recent Changes in EPCOR's Financial Situation

EPCOR is well-positioned in Alberta's electricity industry, as the discussion above shows. Its senior management has embraced regulatory change and has made several major moves to adapt to the new business environment in the past eighteen months. EPCOR has a large and growing generation capacity in a province where generation is in tight supply; it is the largest owner of Power Purchase Arrangements, and therefore the province's largest electricity marketer/wholesaler; and it now has the largest retail customer base in Alberta. The level of competition in generation is not intense and will likely remain like this for many years, and there is currently only one major competitor for EPCOR's retail business.

3.1 EPCOR's Profitability and Revenues.²

Given EPCOR's strengths and its business environment, it is not surprising there have been marked increases in the company's profits, dividends, and value in terms of its electricity assets. EPCOR's third quarter report for 2000 shows net income of \$115.3 million for the nine months ended September 30, an increase of 53% compared with the same period in 1999. The report attributes the rise to higher prices and increased generation in EPCOR's electricity businesses (as opposed to changes in its water businesses). Consolidated revenues were \$976.4 million for the period, 30% higher than the same period in 1999.

Consistent with these improvements, EPCOR's return on equity seems likely to rise in 2000, reversing a downward trend in 1997 (15.6%), 1998 (15.1%), and 1999 (13.9%) that was partly attributable to EPCOR's expansion activities, such as the new plant at Joffre.

3.2 EPCOR's Dividend and Dividend Payout Ratios.

When City Council was considering whether to proceed with the sale of EPCOR in 1999, EPCOR senior management and RBC-Dominion Securities were warning of a 5-year dip in dividends that ranged from almost 20% in 2001 to less than 5% in 2005 (Northern Lights II, Part II, February 18, 1999, p.12-14). This dip was predicated on market volatility, retail competition, tax increases, capital spending, and lower prices for water services. The dip never materialized, and dividends are now expected to climb substantially; in fact, the dip has become a surge.

EPCOR's total dividends to the City of Edmonton in 2000 will be \$70.5 million, the same as 1999, and slightly higher than 1998 (\$67 million) and 1997 (\$66.9 million). In the future dividends are expected to rise substantially: EPCOR and the City have agreed that it will pay dividends of \$90.5 million in 2001, \$100.5 million in 2002, \$110.5 million in 2003, and 60% of net income thereafter.

From 1997 to 1999 EPCOR's dividends ranged from 55%-60% of net income. EPCOR's dividend payout will likely drop below 50% of net income in 2000, given that the dividend will remain at \$70.5 million while EPCOR's net income will almost certainly rise to record levels.

Dividend payout ratios in the electricity industry vary widely with circumstances and among companies, and are worth careful attention from shareholders. (The dividend payout ratio indicates the portion of a company's net income paid to the shareholder.) The ratio at TransAlta, which is investor-owned and tends to pay out higher than normal industry rates, has ranged from 76% to 91% in the past three years. The ratio at crown corporations SaskPower and B.C. Hydro are currently at 55% and 85% respectively (see respective annual reports). The average for the electricity industry in Canada is about 70%, according to both the June 1999 Prospectus produced by EPCOR and reports by RBC-Dominion Securities.

The June 1999 Prospectus produced by EPCOR indicates that the company anticipates a long-term payout ratio of 65%:

The Corporation [EPCOR] and the City of Edmonton have concluded an understanding that during this [three-year] period, ending in 2001, the Corporation would pay dividends to the City of Edmonton in the amount of \$70.5 million per annum. Beyond 2001, the Corporation expects dividends to approximate 65% of earnings over time, which the Corporation believes to be below the current industry average dividend payout ratio of approximately 70%. Dividends may exceed 65% of earnings in any one year when cumulative performance exceeds expectations. (p.37)

This was reiterated by EPCOR and RBC-Dominion Securities in a submission to Council: "The expected future dividend stream from EPCOR to the City is based on an assumed 65% payout ratio" (Northern Lights II, Part II, February 18, 1999, p.12). A 65% payout ratio seems a reasonable standard for EPCOR, and would make a substantial difference to City coffers. In 1999, a 65% payout would have increased the City's dividend by about \$5 million, raising it from \$70.5 million to \$75.6 million. The impact in 2000 would be much greater. Assuming the pace of growth in net income during the first nine months of 2000 continues for the last three, EPCOR's net income for the year will be about \$153 million. A 65% payout of this would give Council a dividend of over \$99 million, \$29 million more than currently planned.

There is no guarantee of these exact numbers but it seems clear that Council should be closely examining this issue. In recent years Council has allowed EPCOR to remain consistently below EPCOR's own long-range dividend payout target of 65%, and even farther below the industry average. This may have allowed the company to expand rapidly (though management has other options than retained earnings to finance expansion³). But it also means funds which could be available to City Council are being foregone. This raises a fundamental question for councillors: Should EPCOR retain earnings that are well above its own target rates so that it can finance expansion that may not directly relate to providing power to Edmonton and Alberta, when these earnings could be paid to Council to support City programs and offset taxes?

3.3 The Value of EPCOR in 1999.

The electricity assets of EPCOR are highly valuable, and this value is growing rapidly. In 1999, RBC-Dominion Securities placed their value at about \$1.3 billion, depending on who bought the company and exactly which components were sold (Northern Lights II, Part II). The methods used to establish this value were not clearly presented in the reports of the time, but the Parkland Institute accepted their results as the basis for its own financial analyses in 1999. To assess the future value of EPCOR, Parkland's analysis divided the \$1.3 billion estimated sale price by the dividend provided by EPCOR's electrical assets to arrive at a 'price-dividend' ratio of 21.96 (i.e. \$1.3 billion divided by the estimated \$59.2 million dividend relating to the electricity business, equals a price-dividend ratio of 21.96). This ratio was then applied to the dividends that EPCOR was expected to pay in the future, based on EPCOR's business plan to 2010 and on a reasonable business assumption of 5% annual growth in dividends for years after 2010. This analysis indicated that EPCOR's net sale value (in 1999 dollars) would grow from \$1.3 billion in 2000, to \$2.2 billion in 2010, to \$3.6 billion in 2020, which is when the final stage of de-regulation is expected (with the termination of the last PPAs). (See Taft and Gordon.)

3.4 The Net Present Value of EPCOR Today.

The 1999 estimates must be updated to reflect current circumstances. An estimate of EPCOR's value today can be made using a method of analysis called 'net present value'. A net present value calculation is a widely accepted and scientific means of placing a value on a corporation. It provides an indication of the value of the company today, based on the expected dividends it will pay in the future, discounted in terms of their value today. Two sets of net present value calculations are presented here.

- **EPCOR's Net Present Value Before Price Caps Were Announced.**

The net present value of EPCOR calculated before price caps were announced, places EPCOR's value in the range of \$4.2 billion to \$5.4 billion, far higher than the estimate proposed by RBC-Dominion Securities 18 months ago. This range means that, to equal the dividends EPCOR is expected to pay in the future from its electricity assets only, City Council would need a net payment today of between \$4.2 billion and \$5.4 billion if it were to sell EPCOR's electricity business.

This range is derived from two different sets of assumptions. The lower figure of \$4.2 billion is based on EPCOR paying dividends as planned and announced for 2000-2003, followed by a growth in dividends of 5% each year indefinitely, discounted by 7% a year to reflect the cost of capital⁴.

The higher estimate of EPCOR's value, \$5.4 billion, is based on the City owning the company through to the expiry of the last PPAs in 2020, and then selling EPCOR. In this scenario, EPCOR pays dividends as announced for 2000-2003, followed by a growth in dividends of 5% each year (discounted by 7% a year) to the year 2020. The net present value of these 20 years of dividends is \$2.52 billion. The company is then assumed to be sold for its net present value in 2020, which is \$11.18 billion, discounted to today, which is \$2.89 billion. The total estimated value of EPCOR using these assumptions is then \$2.52 billion plus \$2.89 billion, equal to \$5.4 billion.

- **EPCOR's Net Present Value After Price Caps Were Announced.**

EPCOR senior management has said that the announced price caps will not immediately affect its dividend to the City of Edmonton, but that they will make it more costly to borrow money, raising its cost of capital. To account for this, the assumptions used in the net present value calculations need to be changed. While a 5% growth rate in dividends remains reasonable, the discount rate reflecting the cost of capital is raised from 7% to 8% and, for a second calculation, to 9%.

Using the assumptions in the net present value method, provides a range in EPCOR's value of \$2.1 to \$2.8 billion, markedly lower than the values before price caps were announced.

3.5 How Realistic is it to Value EPCOR at \$4.2 to \$5.4 Billion?

These estimates may or may not reflect the likely purchase price the City could get for EPCOR, but they do reflect the financial value of EPCOR to City coffers. EPCOR's senior management has repeatedly said they expect the value of the company to double in ten years. The value of EPCOR is placed at \$2.8 billion in notes to a November 1, 2000, EPCOR media release. (The basis for this figure is not explained, but it appears to include both EPCOR's water and electricity businesses, so comparisons to the estimates in this study are only very loose.) If the company doubles in value in ten years it will be worth \$5.6 billion in 2010, and if it doubles again in the following ten years it will be worth \$11.2 billion. That is consistent with the sale value of EPCOR in 2020 calculated in this report using the net present value method at 7%. The value of \$11 billion in twenty years is \$2.89 billion today, using the net present value method. And every year that EPCOR's value grows, the company will also pay the City substantial and growing dividends. When these are also taken into consideration, a value of \$4.2 billion to \$5.4 billion for EPCOR today seems sensible.

4. Summary and Conclusion

In 1999, the Parkland Institute prepared two studies on the future of EPCOR and electricity de-regulation (Taft; Taft and Gordon). The conclusions of the first of these reports included the following:

- de-regulation is not likely to strip the value from EPCOR;
- de-regulation can produce a regulatory nightmare;
- shareholders of electric utilities tend to do well under de-regulation;
- de-regulation often leads to price spikes, risks of market manipulation, and reduced reliability.

The second study found that “the profitability and share value of EPCOR will likely rise under the regulatory changes being implemented by the Alberta government” (p.2) and concluded that “it would be a serious financial and business error for Edmonton City Council to sell EPCOR” (p.40).

The findings of these studies have been supported by experience: the regulatory situation in Alberta is confused and unpredictable, and is being widely criticized by industry, consumers, and observers. Prices have spiked; there is continuing worry about reliability; an investigation into possible market manipulation has already been launched by the federal government’s competition bureau; and the Market Surveillance Administrator has released written comments raising concerns about abuse of market power. The only welcomed news for Edmontonians is that, as predicted, the profits and value of EPCOR have risen.

Since those studies were completed EPCOR has strengthened its position in Alberta’s electricity industry. It has completed an organizational restructuring; successfully bid on Power Purchase Arrangements that make it the largest electricity marketer in Alberta; bought TransAlta’s retail customer base, which more than doubles EPCOR’s number of customers and makes it Alberta’s largest electricity retailer; and expanded its generating capacity, including commissioning a major new jointly-owned plant at Joffre and planning expansions at Rosedale and Genesee. At the same time Alberta’s supply of electricity remains tight and prices have jumped: EPCOR will be in a seller’s market for years to come.

De-regulation assumes electricity is well-suited to the dynamics of a competitive market. The success of de-regulation in other jurisdictions is mixed. While there have been some declines in prices, most jurisdictions in North America where electricity has been de-regulated are

seeing prices escalate. While not all the blame for these rises can be put on de-regulation there is evidence that much of it can be. In some American states where de-regulation is most advanced, including California and Montana, prices have soared and reliability has declined, and calls from consumers and lawmakers to 're-regulate' are growing. In Alberta the early support for de-regulation has largely vanished, and there are growing calls for regulators to intervene.

The most consistent winners of electricity de-regulation worldwide are shareholders in electricity companies, who typically see both share values and dividends climb markedly. In effect, de-regulation of the electricity industry leads to an enormous transfer of wealth from consumers of electricity to producers of electricity. Edmontonians, as owners of EPCOR, are fortunate to be on both sides of this equation.

The California Public Utilities Commission has noted that "price increases do not necessarily fund new investments in electricity supply or delivery reliability — they may flow solely to power producer profit margins". The vast majority of electricity being sold in Alberta today, including imports, comes from plants that were profitable when prices were a fraction of today's levels. So where is the money going that is paid in higher prices? With about 70% of the electricity on Alberta's grid coming from coal-fired plants, and a further 10%-15% coming from hydro (generated in Alberta and B.C.), the rise in natural gas prices does not adequately explain the price rises. (See Market Surveillance Administrator.) A substantial portion is undoubtedly going to the profits of electricity companies operating in Alberta, and to the profits of the array of other companies now connected to Alberta's electricity industry.

The City of Edmonton's experience with EPCOR substantiates this. Dividends are surging and net income climbed 53% for the first nine months of 2000 compared to the same period in 1999. As a result, the portion of net income paid as a dividend to the City (i.e. the dividend payout rate) is actually dropping, and will likely be below 50% of net income in 2000. In 1999, EPCOR senior management stated that a 65% dividend payout rate is acceptable in the longer term, and would still be below the industry average of 70%. This is worth careful attention from City Council, because allowing EPCOR to retain high portions of earnings means that funds are being left in the company that might better serve Edmontonians in other ways. Establishing a firm 65% dividend payout rate from EPCOR could yield many more millions of dollars to City Council with little risk to the growth prospects of the company.

As EPCOR's dividends climb and its position strengthens, so does its value. This report has used a net present value method to estimate the value of EPCOR. The results show that as of November, 2000, EPCOR is worth from \$4.2 billion to \$5.4 billion to City finances, vastly higher than estimated by RBC-Dominion Securities in 1999. These figures also show that EPCOR's value could be reduced significantly by the unexpected price caps announced by the Alberta government on November 27, 2000, if there are no mitigating provisions.

EPCOR is a strong company in a period of unprecedented change and opportunity, and clearly has more value than ever to the citizens of Edmonton and their City government.

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Footnotes

- 1 The one exception may be Scandinavia. However, the extremely high portion of hydroelectric generation there gives the electricity industry a fundamentally different cost structure than in Alberta. **(Page 15)**
- 2 The authors would like to acknowledge the contribution of Daniel Lim in developing the spreadsheets on which this analysis is based. **(Page 22)**
- 3 One option is to issue its own debt (unsecured by the City of Edmonton), which EPCOR has done very successfully in recent years. It is also worth noting that the average interest rates on EPCOR's debt have dropped substantially since 1997. **(Page 24)**
- 4 The 5% growth in dividends is a reasonable business assumption accepted by EPCOR senior management in oral testimony before Council in July, 1999; the discount rate of 7% (i.e. the long term average cost of capital) is slightly lower than the historical average returns on common stocks on the Toronto Stock Exchange. **(Page 25)**



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