ADMINISTRATIVE REPORT

Date:	August 21, 2003
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TO: Standing Committee on City Services and Budgets

FROM: General Manager of Corporate Services

SUBJECT: Council Motion on Pricing Practices and Service Privatization of BC Hydro

RECOMMENDATION

THAT Council receive the report for information.

COUNCIL POLICY

There is no Council Policy applicable to this report.

SUMMARY

Restructuring has created new uncertainties in BC's electricity supply and pricing. The extent of the impacts depend to a large degree on regulatory decisions pending over the next year. Higher electricity prices are probable beginning in 2004 with the end of the ten-year price freeze, but these increases may be attributable more to the costs of maintaining infrastructure and serving growing demand than to restructuring. Over the longer term, the BC Hydro restructuring may affect consumer prices particularly by requiring purchase of privately-generated power, and increasing investment in transmission facilities. While the privatization of BC Hydro services to *Accenture Ltd.* has as yet had little effect on jobs in the City, negative or positive long-term consequences may not be evident for some time.

PURPOSE

This report is submitted in response to Council's directive to report back on the impact of market-based electricity pricing on the City of Vancouver, as well as potential job loss from privatization of BC Hydro services to Accenture Ltd.

BACKGROUND

1. Council Directive

On February 25, 2003 Council passed a motion to:

"Endorse the Energy Policy Paper adopted at the UBCM's 2002 convention as well as the related motion supporting the maintenance of a postage stamp[1], cost-based regulated price structure and opposing the privatization or sale of BC Hydro electrical generation, transmission distribution, or administrative services and/or functions;

Call on Vancouver's members of the Legislature to vote against any legislation to break up BC Hydro before a full public consultation has taken place;

Direct staff to report back to Council at a future date on the impact of market-based pricing on energy costs for the City of Vancouver and small businesses in the city, as well as the potential loss of jobs that may result from privatization of BC Hydro services to Accenture Ltd".

2. Functions of Electrical Utilities

An electrical utility such as BC Hydro is essentially a set of separate lines of business:

a) **Generation** accounts for roughly 50% of the final cost of delivered electricity. Electricity is generated primarily by falling water or by thermal energy - heat from coal, natural gas, or uranium. New electrical generation technologies have enabled competition, and wholesale electricity markets have been developed in many jurisdictions. Generation is the sole line of business of an electrical utility that may be suitable for deregulation anywhere - others remain monopolies whether owned publicly or privately.

   BC Hydro is not the exclusive electricity generator in BC. Private producers, industrial self-generators, and independent power producers, using both thermal and hydro generation provide about 20% of total capacity. The largest of these are Alcan, Teck Cominco, Columbia Power Corp., Island Cogen and Aquilla Networks Canada.

b) **Transmission** accounts for about 20% to 25% of the final cost of electricity. Electrical energy is transmitted from generators to local distribution systems through a network of transformers, and overhead and underground transmission lines. The moment a customer throws a switch, something happens in a generating plant somewhere. Since customers do not have to call up and ask for power and their usage is not controlled, it is the generating plants and transmission system that have to be controlled to meet the load at all times. A Systems Control Center must follow the changes in loading of transmission lines and order plants to start and stop generating. Operators must hold plants in reserve, ready to run, and avoid overloading transmission lines at all costs.

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[1] A "postage stamp" rate is a uniform price for service delivery, regardless of the distance over which that service must be delivered.

As only one set of transmission wires can economically serve any area, transmission is a natural monopoly, unsuitable for competition.

c) **Distribution** accounts for about 25% to 30% of the final cost of electricity. Its basic job is to deliver electricity from the transmission system to customers. Distribution also includes retailing functions - sales to final customers - procuring, pricing and selling electricity, metering its use, and billing and collecting payments. While both transmission and distribution are the transport system, interconnected with wires and poles, transmission works with generation while distribution works with the customer. Like transmission, distribution involves economies of scale dictating that only one set of wires can serve the customer, so that competition is not feasible in this line of business either.

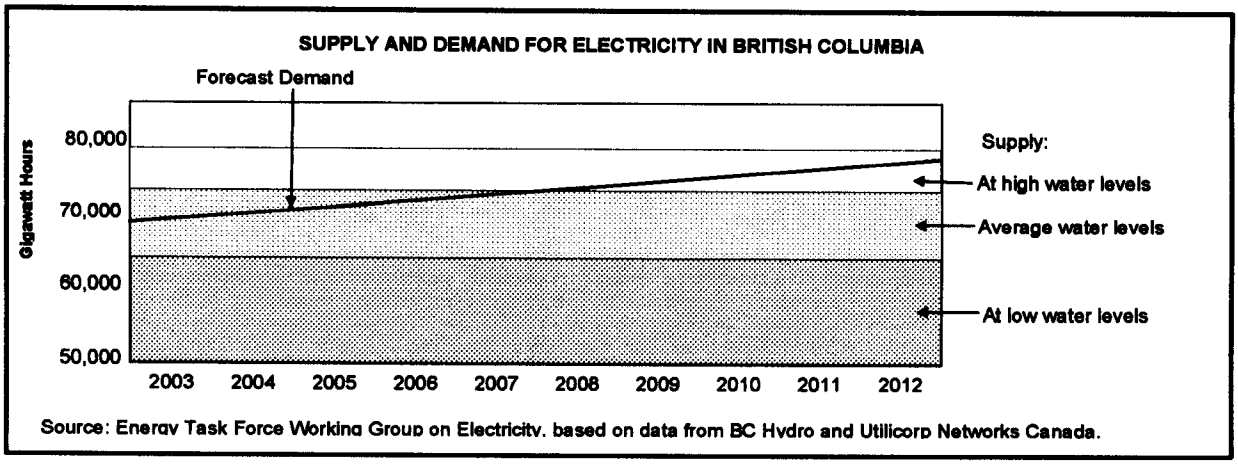
Of these three lines of business, only generation is considered suitable for competition. Transmission and distribution remain monopoly functions, whether publicly or privately owned, even in fully deregulated jurisdictions.

Along with Manitoba and Quebec, BC differs from other Canadian provinces and most U.S. states in obtaining most of its required electrical supply from hydro generation. Others must depend on thermally-produced electricity - from coal, natural gas or uranium - sources that are more expensive and less friendly to the environment. The high costs, environmental damage and dangers from these sources of generation have become drivers for deregulation in many jurisdictions. BC, Quebec and Manitoba, each blessed with abundant hydropower resources, have less economic incentive to reorganize to embrace deregulation, but are motivated instead by the need to standardize their organizational structures in order to maintain access to U.S. markets for their surplus power.

3. Electricity supply and demand in British Columbia

About 85% of British Columbia's electricity is hydro-generated. Not only is hydropower low-cost and non-polluting, but the hydro generating facilities and infrastructure are already owned by the people of British Columbia. BC's supply of hydropower depends on the amount of snowfall and the resulting level of water behind the dams each year. When water levels are high, BC has net surplus power for sale to other jurisdictions. Low water levels mean that BC must purchase the shortfall in electricity elsewhere. British Columbia's demand for electricity is projected to grow at about 1.7% per year for the next 10 years, driven primarily by growth in the Lower Mainland and on Vancouver Island, which together consume about 70% of the province's supply. As demand rises each year, the probabilities of having to purchase electricity grow while the chances of having surpluses for sale shrink. Under current demand forecasts, and assuming average water levels, existing supplies of electricity will only be adequate for about five more years after which estimated shortfalls must be met from new sources.

Increased demand does not have to be met completely by increased supply. Demand-side management, an alternative pioneered by BC Hydro's Power Smart program, provides incentives for consumers to reduce power consumption.



While BC demand is expected to grow by 1.7% annually over the next 10 years, no major new hydro projects are planned, and new generation capacity must be provided instead by independent power producers, which may have environmental costs. British Columbia has abundant reserves of coal and development of extensive coal-fired thermal generation within the province could eventually result in serious environmental degradation.

4. Pricing structure

In the past BC Hydro prices were set on a basis that allowed the organization to recover costs, maintain infrastructure, and earn a fixed rate of return on investment, with 85% of any annual surpluses paid to the Province as a dividend. The price freeze in effect since 1993 has left the organization short of the capital now needed to maintain existing infrastructure and reliability levels.

BC electricity prices are among the lowest in North America:

Average annual billings for residential and business consumers

	Vancouver	Edmonton	Toronto	Montreal	Halifax	Seattle
Residential (750 kWh)	$561	$1,045	$911	$567	$876	$942
Business (2,000 kWh)	$1,607	$2,746	$2,315	$1,918	$3,024	$2,262
Business (200,000 kWh)	$110,751	$211,151	$197,441	$161,100	$198,540	$228,731

Source: Hydro Quebec, "Comparison of Electricity Prices in Major North American Cities".
Prices at May 1, 2002. All prices in Canadian dollars.

5. Shared services

BC Hydro has faced steadily rising operating costs while the ten-year price freeze has limited growth in revenue. The organization has made up the shortfall with profits from Powerex (a subsidiary that exports and trades in energy), and by implementing shared services - consolidating similar functions formerly duplicated across the organization into central units.

Services shared on this basis include building and office management, disbursements, financial systems, IT infrastructure and application development, purchasing, business support, human resources, customer service, property management, vehicle fleet management and materials management. The theory behind the shared services approach is that it creates economies of scale and scope and results in improved service quality and cost savings.

6. **"Energy for Our Future: A Plan for BC"**

In November 2002, the provincial government announced "Energy for Our Future: A Plan for BC" - a set of 26 policies introducing major changes to the structure and operations of BC Hydro. Those policies most relevant to the Council directive are:

a) **Heritage Contract.** Modeled on arrangements in Quebec, a legislated Heritage Contract "will essentially lock in the value of existing low-cost generation assets for an extended period". "The contract's term will initially be 10 years, with provisions for subsequent renewal thereafter, and the quantity of energy will be the production from BC Hydro's system under average water conditions." "The BC Utilities Commission will review and recommend the terms for the heritage energy, based on a return consistent with private utilities[1]" by October 2003.

b) **Outsourcing of Service Delivery.** Another policy states that "BC Hydro will outsource the delivery of services where costs can be reduced for electricity consumers while maintaining quality of service[1]". In February 2003 BC Hydro announced under this policy it will be "outsourcing its Customer Services, IT services, Network Computing Services, HR Services, Financial Systems, Purchasing, and Building and Office Services" effective April 1, 2003 to "Accenture Business Services of BC", a "Limited Liability Partnership" between BC Hydro and Accenture. BC Hydro added that the arrangement will result in "$250 million in contractually obligated costs savings over the life of the 10-year contract"; that the contract was "subject to early termination by BC Hydro or 5 year extension"; that "BC Hydro may realize up to an additional $180 million over the life of the contract"; and that "performance penalties may be assessed if (defined) service levels were not achieved[2]".

c) **All new electricity generation to be provided by the private sector.** Under the new Energy Plan "the private sector will develop all new electricity generation, with BC Hydro restricted to improvements at existing plants[1]".

d) **Regulation of BC Hydro rates and end of rate freeze.** Another policy states that "the BC Utilities Commission will once again regulate BC Hydro rates" and that the current ten-year "rate freeze will end on March 31, 2003 and will not be extended". "The BC Utilities Commission will conduct an inquiry to develop and refine policy areas prior to the rate hearing.[1]" The rate hearing is scheduled for March, 2004.

e) **Public ownership of BC Hydro assets will continue.** "Public ownership is consistent with more competition in electricity markets. Even where markets have been substantially reformed, publicly owned generation coexists with private power.[1]"

f) **Breakup of BC Hydro into Two Companies.** The plan creates "a new publicly owned entity, BC Hydro Transmission Corporation", "responsible for planning, operating, and managing BC Hydro's transmission system. The transmission assets will continue to be owned by BC Hydro. The corporation will have a separate board of directors and will be regulated by the BC Utilities Commission." The stated purpose of this policy is to "enable independent power producer participation in US wholesale markets[1]".

g) **BC Hydro distribution will operate as a separate line of business from generation.** Distribution will have "the obligation to serve electricity customers" and "will acquire energy under the heritage contract from BC Hydro's generation line of business[1]".

h) **Least-cost basis for acquiring new supply.** Another of the policies requires BC Hydro's distribution business, "when deciding how to meet a projected power need", to "compare the costs of all potential resources, including independent power producer purchases, customer-owned generation, BC Hydro plant efficiency improvements, conservation and energy efficiency, and firm imports[1]".

i) **Large electricity consumers can choose their own supplier.** Also relevant is the new policy introducing "retail competition for large BC Hydro customers", who can now bypass BC Hydro and purchase directly from independent power producers, or generate their own electricity, subject to "exit and entry fees[1]".

DISCUSSION

1. Regulation versus deregulation

Regulation is defined as the formal process by which a board or commission controls consumer prices, utility service levels and rates of return and other operating terms and conditions. Under the new plan, BC Hydro will be fully regulated by the BC Utilities Commission, as will the newly-formed BC Transmission Company. Regulators will consider any new request for higher rates against operating costs, allowed rate of return, capital costs of maintaining and upgrading existing infrastructure, profits from Powerex (the BC Hydro trading and export subsidiary), and inflation. The independent power producers that will provide a growing share of BC's supply of electricity will not be subject to regulation, although BC Hydro will be required, under BC Utilities Commission oversight, to weigh the costs of purchasing privately generated power against alternatives including BC Hydro plant efficiency improvements, conservation, and imports.

Deregulation means removing these controls and restrictions to create competition and a free market. The provincial government's new set of policies, contained in the 2003 Energy Plan, make steps toward deregulation, but many regulatory consumer protections remain. The new policies have deregulated the electricity market only for large BC industries, which are now free to purchase from BC Hydro or directly from independent producers, or generate their own electricity. This has raised the concern that BC Hydro may lose its largest and most profitable customers and thereby require additional expenses to be redistributed across the remaining smaller consumers.

Appendix B provides a summary of deregulation in Canada and other jurisdictions.

2. Outsourcing versus privatization

BC Hydro defines its arrangement with Accenture as "outsourcing" rather than "privatization" on the reasoning that the customers remain those of BC Hydro and not Accenture, and that BC Hydro maintains the right to set and to change service standards and also retains ownership of many of the assets involved in providing the outsourced services. An alternative definition is that privatization means the performance of any of the functions of a publicly-owned organization by private business.

Whatever definition is applied, the BC Hydro restructuring does introduce privatization of future electrical generation. Under the Provincial Government's Energy Plan, all new electrical generation in BC will be developed by the private sector. BC Hydro will be restricted to improvements at existing plants.

3. Structural changes to BC Hydro

a) The transmission functions of BC Hydro have been split out into a separate provincial crown corporation, BC Transmission Company, which will operate the transmission system while BC Hydro retains ownership of the transmission assets. Both distribution and generation functions remain within BC Hydro, but as separate lines of business.

b) Effective April 1, 2003, BC Hydro outsourced services for customer billing, information technology, human resources and financial and procurement services to Accenture Business Services of BC, a limited partnership held by both Accenture and BC Hydro, with Accenture in a majority position. Governed by a 10-year contract, this outsourcing provides "contractually obligated" costs savings of about $250 million over 10 years, while providing improved levels of service, and creating a base in BC from which these same services can be offered to other Canadian and US utilities.

c) A legislated Heritage Contract will lock in the value of existing low-cost generation assets for BC consumers. The arrangement, modeled on the Quebec Heritage Pool, will be for an initial term of ten years, with renewal provisions. Contract provisions will be recommended to the BC Cabinet by the BC Utilities Commission once its regulatory process is completed in October 2003.

d) The current regulatory review marks the end of the longstanding freeze in BC Hydro rates. This freeze will not be extended, and the BC Utilities Commission will once again be assigned to regulate BC Hydro (and BC Transmission Company) rates.

4. Rationale for structural changes to BC Hydro

a) **Creation of BC Transmission Company.**
The restructuring is intended to "improve access to the transmission system and enable (BC) independent power producer participation in US markets"; "ensure that there is

adequate transmission capacity available to reliably serve domestic and export needs and that all electricity suppliers and buyers have non-discriminatory access to this capacity[1]".

"In March 2002, BC Hydro, together with eight U.S. electricity utilities, filed a submission with the U.S. Federal Energy Regulatory Commission (FERC), providing input to the creation of a Regional Transmission Organization for western North America (RTO West). This will assure that the same open, non-discriminatory transmission access that exists in B.C. is available for wholesale market participants throughout the region, thus ensuring a competitive and efficient electricity market. BC Hydro is working with electricity utilities in Washington, Oregon, Idaho, Montana, Utah, Wyoming and Nevada to establish the principles that would guide the formation of RTO West[3]." "If RTO West is formed, it is expected to be operational in about four years, but incremental steps toward the end state may commence sooner[4]".

"B.C.'s participation with the RTO West process will be a responsibility of the new British Columbia Transmission Corporation (BCTC). BCTC will operate the B.C. system, and the British Columbia Utilities Commission (BCUC) will regulate the transmission system in B.C. BCUC will set the tolls and tariffs and BCTC will be subject to BCUC regulation. BCTC will be the only entity with operating authority on the B.C. provincial grid, to ensure B.C. maintains control over B.C. operations. BCTC and RTO West would ensure the seamless coordination of exports and imports among utilities, as well as the delivery of electricity from generator to consumer across jurisdictions and systems. The arrangement would also enhance joint planning of upgrade and maintenance work to achieve a seamless flow of energy to the best value markets, ensuring B.C. can maximize trade benefits for British Columbians[4]".

"BC Hydro is participating actively in the RTO West process, including establishment of implementation plan milestones to ensure coordination of BC activities. The BC implementation will be specifically tailored to the BC Energy Plan and FERC requirements for international participation. Involvement in RTO West provides continued opportunities for BC participation in a broader North American energy market.

When operational, RTO West will coordinate regional transmission operations, providing more efficient access to all transmission facilities owned by the participating entities for bulk power transfers. In addition, the current regional planning process is fragmented and lacks investment due to divided responsibility among vertically integrated utilities. One of the key responsibilities of RTO West will be to plan necessary expansions to remove growing congestion on the transmission system and facilitate an effective investment and cost recovery process. This is expected to achieve the vision of an electricity common carrier in the region that will efficiently link generation resources to customers.[5]"

Transmission restructuring raises the concern that BC consumers may be forced to pay to build not only the new transmission capacity needed to serve BC, but also the capacity required by new privately owned BC producers to export electricity to the United States.

Although concerns have been expressed that creation of the new transmission organization may eventually result in charges for transmission based on the distance the electricity must travel over the system - implying higher charges for the more remote BC

municipalities, BC Hydro stated to the BC Utilities Commission in June that the Energy Plan will not affect the "postage stamp" rate policy, which will remain in force indefinitely.

b) **Outsourcing/privatization of the BC Hydro back office to Accenture.**
Stated purposes of the outsourcing of the BC Hydro back office to Accenture are financial - "contractually obligated" "cost savings of $250 million over ten years[2]", improvement of service levels, and permitting Hydro to focus on its core functions. An additional stated goal is to stimulate employment by creating a BC-based service centre for electrical utilities throughout western North America.

5. BC Hydro consumer pricing

a) The main component of pricing will be the Heritage Contract that guarantees prices based on the cost of heritage assets and average water levels.

b) Incremental future BC demand that cannot be met from existing BC Hydro infrastructure will be purchased from independent sources, which BC Hydro has to date been able to obtain on long-term contracts at "least cost" rates, defined as the lowest cost "of all potential resources, including independent power producer purchases, customer-owned generation, BC Hydro plant efficiency improvements, conservation and energy efficiency, and firm imports[1]". Although BC Hydro has so far been able to obtain electricity at the same cost by buying instead of building, there is no assurance that this situation can continue once independent power producers build greater capacity and develop market power.

c) Otherwise, prices will be regulated by the BC Utilities Commission on the basis of BC Hydro's and BC Transmission Company's allowed rate of return, operating costs, costs of maintaining, upgrading and developing infrastructure, energy trading profits, and inflation. The price freeze in effect since 1993 ended this year and "will not be extended[1]".

BC Hydro has stated that current rates are no longer adequate to maintain infrastructure, and that consumer rate increases of between 3% and 6.5% may be expected in each of the next three years, beginning in 2004.

A conceptual pricing diagram is provided in Appendix A.

6. Impact of new pricing on the City of Vancouver and its residents and business

Relatively low BC electricity prices give Vancouver businesses some competitive advantage over other locations such as Calgary, Edmonton, Toronto or Seattle. Price increases on the scale predicted by BC Hydro will likely erode, but not eliminate this advantage.

Potential effects of price increases on annual billings to Vancouver residences and businesses, and to the City of Vancouver

	Current bill (1)	5% increase	10% increase	15% increase	20% increase
Residential (750 kWh)	$561	$589	$617	$645	$673
Business (2,000 kWh)	$1,607	$1,688	$1,768	$1,848	$1,929
Business (200,000 kWh)	$110,751	$116,288	$121,826	$127,363	$132,901
City of Vancouver	$7,500,000	$7,875,000	$8,250,000	$8,625,000	$9,000,000

(1) Sources: Hydro Quebec, "Comparison of Electricity Prices in Major North American Cities". Prices at May 1, 2002. City of Vancouver actual billings, 2002.

The effect on the City of Vancouver of increases on this scale will be substantial. A series of three consecutive 5% increases would add more than $1 million to the City's annual electricity bill.

7. Potential loss of jobs from privatization

Although BC Hydro has released many documents related to the BC Hydro/Accenture arrangement, most key facts have "been severed from these materials" as "commercially competitive and personally confidential" and are therefore not public. Lack of available detail prevents in-depth analysis by City staff.

The outsourcing or privatization of BC Hydro services to Accenture Business Services of BC has drawn heavy criticism, particularly over the choice of Accenture. The 1,560 former BC Hydro employees now working for Accenture presently remain at the same jobs, in the same location, under their current Office and Professional Employees International Union collective agreement - although the outsourcing contract reportedly does not address the status of the union after the collective agreement expires in 2005. Of the employees involved, about 400 work in Vancouver, 600 in nearby Burnaby, and the remainder elsewhere in BC. While the outsourcing contract specifies the jobs must remain somewhere in BC, and one of the reported objectives of Accenture is to use the Vancouver area operation as a base for extending similar services to other North American utilities, this does not preclude a consolidation of the various offices somewhere outside the City of Vancouver. Accenture faces risks like any other business, and if the undertaking were to fail, BC Hydro may find its only alternatives are to permit the jobs to be relocated outside BC, or attempt to rebuild its back office at considerable financial cost and operational disruption.

If Accenture succeeds, and attracts business from other utilities in western North America, local employment may increase. But the City of Vancouver could lose jobs if Accenture

eventually downsizes or lays off staff, or if Accenture consolidates separate offices into a single location within BC but outside the City of Vancouver, or if Accenture gains additional new customers already within the City of Vancouver and consolidates employees from two or more operations as a result.

Although not a direct issue for the City of Vancouver, Accenture may also decide to consolidate jobs held in smaller BC communities into a central urban location, which could have major economic impacts in many of those locations.

8. Public controversy

The restructuring of BC Hydro has drawn extensive public criticism. Only a sampling of current issues and areas of contention is provided here:

a) **"BC Hydro is not broken and doesn't need fixing"**. "It contributes in the order of $850 million per year to the government. It offers electricity to all classes of customers at rates which are among the lowest in North America. It's cost of generation, and its cost of operations, maintenance and administration have been consistently lower than the average of the Canadian Electrical Association. Similarly, BC Hydro has consistently out-performed the CEA average for reliability.[6]"

b) **Prices will be higher**. "Most shifts to competitive markets from regulated public and private utilities are undertaken because of problems with high prices of electricity, with the hope that by introducing competition into the market, prices will be forced down. In BC the opposite appears to be the intent of restructuring: electricity rates have been low and the government is promising higher rates. The only significant reason to institute this two-tier electricity-pricing scheme is to provide a sufficient incentive, through high prices, for the private sector to generate electricity in BC.[7]"

c) **Restructuring means future privatization**. "At its root, it is a shift from a system where the public has influence over how our electricity is generated, delivered and developed to one where such decisions are left solely to the business decisions of multinational corporations.[8]"

d) **The outsourcing to Accenture by BC Hydro 'undermines the efficiency and integrity of the organization"**. "Shifting these service activities to the private sector shifts the responsibility for customers and employees away from BC Hydro to the private sector. It is a radical change that isolates the business of BC Hydro from both those who provide what the company produces (employees) and those who need these services (customers). At no point has the public seen a business case for this radical change in the nature of the company.[9]"

e) **"The RTO West system will fundamentally change the way that transmission will operate"**. "RTO West will determine not only who has access to the B.C. transmission system through its control of operations, but also the nature of all future investment in the system and the prices paid on the system." "These changes will benefit private energy companies but BC consumers and businesses will pay the price with higher rates, higher air pollution, and less control of our electricity system[10]".

f) **The energy plan will increase pollution.** "Instead of environmentally sound Hydro power, the government is promoting new privatized electricity to come from coal. Coal is cheaper and will be the preferred source of energy. This will increase greenhouse gas emissions at precisely the time Canada is searching for ways to reduce its contribution to global warming. Although the government has announced a 50% green portfolio goal, it is a voluntary standard. Currently, there are no environmental standards governing burning coal for electricity. The new energy policy has created the situation where private companies can burn coal in BC to sell in the US. This means that private companies will get the profits, the Americans will get the power, and British Columbians will get the pollution.[11]"

g) **Reduced demand management.** "Utilities that have an obligation to provide power to a service area have an incentive to assist their customers in reducing energy use (such as through BC Hydro's "Power Smart" program). In a deregulated power market, competing power producers are motivated to maximize the amount of power they sell - something fundamentally at odds with conservation[12]".

h) **Cross-subsidies by remote and rural customers.** "Some parts of the province will be particularly hard hit, as our current uniform pricing shifts more toward pricing based on the costs of delivery. This will particularly affect rural and remote areas, areas that are more difficult to serve.[13]"

CONCLUSION

Regulatory decisions to be made within the next year will significantly impact consumer prices. Under the Provincial Government plan, much of the pricing for electricity will initially not be market based, and will instead consist mainly of costs regulated under a legislated Heritage Contract, with terms yet to be finalized. Heritage costs will be blended with a small but gradually increasing proportion of electricity obtained from private producers. BC Hydro's prices have been frozen for ten years, and the organization reportedly will apply for price increases of between 3% and 6.5% annually for the next three years. Additional uncertainties remain to be resolved with the new transmission company, particularly over investment levels and rate structure. The BC Hydro restructuring may have long-term negative effects on consumer rates, particularly by potentially requiring the purchase of more expensive privately-generated electricity, and the expansion of transmission infrastructure to serve regional markets.

Many key facts of the Accenture arrangement are classified as confidential and therefore not available to the public. All BC Hydro employees outsourced or privatized to Accenture have so far retained their jobs and the current collective agreement is still in effect until 2005. If Accenture succeeds in meeting its stated goal of developing a centre in the City to provide outsourced services to electrical utilities throughout western North America, then additional jobs could result. But it is also possible that Accenture may downsize staff, consolidate its offices in Vancouver, Burnaby and the Interior into a new location outside the City, or reduce jobs by absorbing another existing back office operation from a new customer already located in the City. If Accenture's business was to fail BC Hydro could be forced to rebuild its back

office at the cost of considerable expense and disruption. Final effects of this outsourcing or privatization will not be known for many years.

Resources used for this analysis are listed in Appendix C.

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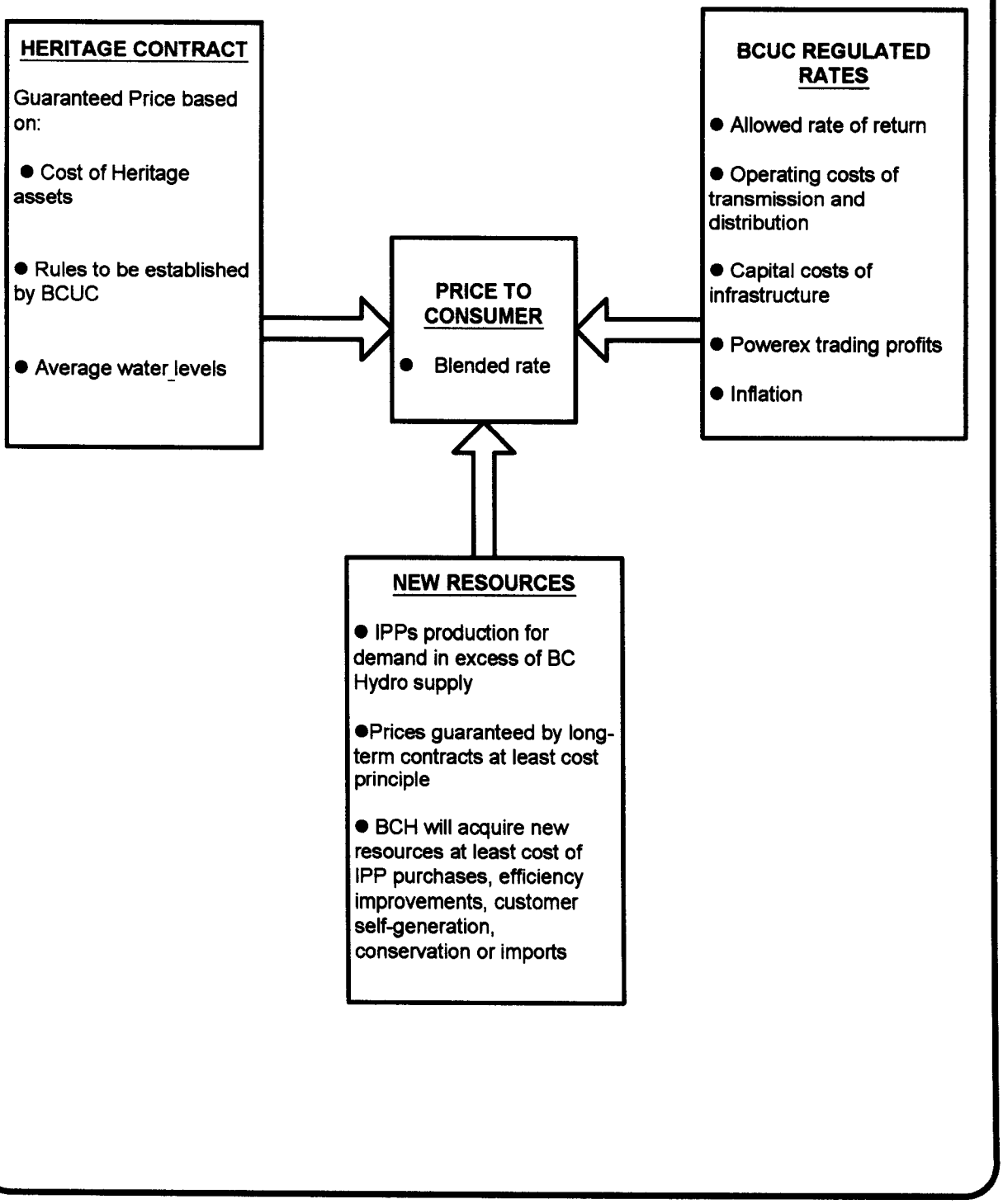
CONCEPTUAL DIAGRAM - BC HYDRO CONSUMER PRICING



APPENDIX B: Other Jurisdictions

1. Restructuring across the Provinces

Province	Current status
British Columbia	• is securing a quantity and price "Heritage" contract from BC Hydro, while opening the wholesale markets to Independent Power Producers (IPPs). • has initiated the separation of its internal corporate functions related to generation, transmission, and distribution, although BC Hydro does not intend to privatize • is also considering participating in Regional Transmission Organizations (RTOs)in the United States
Alberta	• has introduced wholesale and retail open access and separation of generation, transmission and distribution functions • regulated rates for residential customers will end in 2005. • aims to create a more competitive atmosphere with new legislation
Saskatchewan	• has introduced wholesale open access and functional separation of generation, transmission and distribution
Manitoba	• has opened wholesale markets to comply with US regulations and maintain US exports, but has no plans to allow open retail access • has also taken steps to join RTOs in the United States
Ontario	• has capped retail rates for residential consumers • continues with wholesale and large retail (more than 250,000 kilowatt hours)open access • maintains corporate separation of generation, transmission, and system control functions
Quebec	• has secured a quantity and price (Heritage) contract with Hydro Québec, but the remaining market is open for IPPs and bilateral contracts • has introduced separation of generation, transmission and distribution functions
New Brunswick	• is cautiously making recommendations through the Market Design Committee on the design, structure, and rules that will guide the development of a competitive electricity market in the province • began transmission wholesale and industrial retail open access in 2003 • has initiated corporate separation of nuclear, other generation, transmission, and power distribution and customer service
Nova Scotia	• has released a new energy policy, with open access to transmission planned in a staged way
Prince Edward Island	• has only a distribution network
Newfoundland	• is reviewing energy policies

Sources: The Conference Board of Canada; Canadian Electricity Association. Information as of April 2003

2. Deregulation

Large-scale deregulation originated in the U.K., with the 1990 breakup of the *Central Electricity Generating Board* into separate generation, transmission and distribution companies. After more than 10 years, results are considered generally satisfactory, with a large reduction in industry emissions of pollutants (due to replacement of coal-fired generators with new privately-owned natural gas facilities), declining retail prices and improved quality of service.

In the United States, electricity is regulated on a state-by-state basis. Dissatisfaction with system efficiencies, particularly on the part of large industrial consumers in states with high prices, led to passing of the Energy Policy Act of 1992, providing open access for all electricity suppliers to the U.S. power transmission grid. To date, 24 states have passed legislation or regulatory orders allowing some level of retail competition, so that individual customers may choose their electricity supplier. Results so far have been mixed, but the potential for lower prices has been realized in some jurisdictions. Pennsylvania's 1998 deregulation has resulted in significant savings for many residential customers. In contrast, the ineffective California deregulation initiative produced skyrocketing prices - doubling in some instances - and widespread shortages.

Experience in Alberta and Ontario indicates that development of efficient large-scale markets takes time. Neither the supply nor the demand for electricity seem to respond quickly to price changes - most consumers tend to maintain their usage levels, and development of new capacity has a long lead time. BC policies appear closer to those of Quebec and Manitoba, (which are structurally more similar in electricity supply and demand), where a more limited and more cautious approach to deregulation has been effective.

A common principle of deregulation efforts is to remove regulatory interference and permit competitive markets to set prices. But these newly created markets are rarely competitive. A perfectly competitive market has many sellers so that every seller is a price taker, and cannot affect the market price - if they try to charge more, customers will go elsewhere. Most deregulation efforts have replaced monopolies with imperfect competition - a few large firms with the ability to manipulate prices for their own profits, to the detriment of consumers. U.K. experience indicates that this may be a transitory stage. In 1990 three British generation companies controlled 90% of the market, but by 2000 this figure fell to 49%.

Endnotes

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[1] Energy for Our Future: A Plan for BC, Ministry of Energy and Mines, Province of British Columbia, November 2002.
[2] BC Hydro and Accenture Agreement Designed to Save $250 Million in Costs, Backgrounder: BC Hydro and Accenture Agreement, BC Hydro/Accenture, February 28, 2003.
[3] Policy: Open Transmission Access, BC Hydro, August 21, 2003.
[4] BC Hydro 2003 Annual Report, BC Hydro
[5] BC Hydro Third Quarter Report for the Nine Months ended December 31, 2003, BC Hydro
[6] Open Letter from Paul Nettleton, November 2002.
[7] Gutting a Power House: BC Hydro and the New Energy Plan, Marjorie Griffen Cohen, Canadian Centre for Policy Alternatives, April 2003
[8] Power Grab: The Impacts of Power Market Deregulation on B.C.'s Environment and Consumers, Greg Simmons, Tim Howard and Randy Christensen, Sierra Legal Defense Fund, July 2002.
[9] Gutting a Power House: BC Hydro and the New Energy Plan, Marjorie Griffen Cohen, Canadian Centre for Policy Alternatives, April 2003
[10] High Tension: BC Hydro's Deep Integration with the U.S. Through RTO West, Marjorie Griffen Cohen, BC Citizens for Public Power, March 2003
[11] BC Citizens for Public Power
[12] Power Grab: The Impacts of Power Market Deregulation on B.C.'s Environment and Consumers, Greg Simmons, Tim Howard and Randy Christensen, Sierra Legal Defense Fund, , July 2002.
[13] Public Power and the Political Economy of Electricity Competition, Marjorie Griffen Cohen, , Canadian Centre for Policy Alternatives, June 2002

Resources for this analysis:

1. Review of Provincial Energy Plan, Union of British Columbia Municipalities, February 2003.
2. Energy Policy Digest, Union of British Columbia Municipalities, September 2002.
3. Making Competition Work in Electricity, *Sally Hunt*, John Wiley & Sons, 2002.
4. Public Power and the Political Economy of Electricity Competition, The Case of B.C. Hydro, *Marjorie Griffen Cohen*, Canadian Centre for Policy Alternatives, June 2002.
5. Energy for our Future: A Plan for BC, Ministry of Energy & Mines, Province of British Columbia, November 2002.
6. Strategic Considerations for a New British Columbia Energy Policy, Interim Report of the Task Force on Energy Policy, November 2001
7. Reforming British Columbia's Electricity Market: A Way Forward, *Dr. Mark Jaccard*, British Columbia Task Force on Electricity Market Reform: Final Report, January 1998.
8. New Energy Policy Guarantees Higher Rates, Privatization, and More Pollution, BC Citizens for Public Power, undated.
9. High Tension: B.C. Hydro's Deep Integration with the U.S. Through RTO West, *Marjorie Griffen Cohen*, BC Citizens for Public Power, March 2003.
10. BC Hydro Service Plan for Fiscal Years 2003/4 to 2005/6, BC Hydro, 2003.
11. Elisha Odowichuk, Media Relations Manager, BC Hydro.
12. BC Hydro and Accenture Agreement Designed to Save $250 Million in Costs, BC Hydro News Release, February 2003.
13. Energy Plan Implementation, BC Hydro Article, April 2003.
14. Open Transmission Access, BC Hydro Policy, June 2002.
15. Memorandum of Understanding, BC Hydro and Accenture Inc., July 2002.
16. Terms of Reference, BC Hydro and Power Authority Heritage Contract Inquiry, BC Utilities Commission, May 1, 2003.

17. Comparison of Electricity Prices in Major North American Cities, Hydro Quebec, May 1, 2002.
18. OPEIU President's Report, *Jerri New*, March 2003.
19. BC Hydro and Accenture Plan to Offer Services Throughout North America, Creative Resistance, July 2002.
20. Backgrounder: BC Hydro and Accenture Agreement, BC Hydro/Accenture, February 2003.
21. Coal Fired Power Projects in BC - A Discussion for the Provincial Cabinet Energy Summit 2003, EPCOR, January 2003.
22. Energy Deregulation Overview, *Rebecca McNerney* and *Charlie Higley*, the Washington Post, March 2003.
23. Electricity Prices in a Competitive Environment: Marginal Cost Pricing of Generation Services and Financial Status of Electrical Utilities - A Preliminary Analysis Through 2015, Energy Information Administration, Office of Integrated Analysis and Forecasting, US Department of Energy, August 1997
24. Canada Country Analysis Brief, Energy Information Administration, US Department of Energy, 2003.
25. Terms of Reference in the Matter of a Heritage Contract and Other Electricity Policy, Lieutenant Governor in Council, Province of British Columbia, March 11, 2003
26. Heritage Contract Proposal, BC Hydro, April 30, 2003.
27. Notice of an Inquiry by the BC Utilities Commission Relating to a Heritage Contract for BC Existing Generating Resources and to Stepped Rates and Transmission Access, BC Utilities Commission, April 1, 2003.
28. The Open Access Track: 1996-2002 and Beyond, Yakout Mansour, Vice-President, Grid Operations & Inter-Utility Affairs, BC Hydro, presentation to the RTO West Workshop, December 4, 2002.
29. Curbed Enthusiasm for Electricity Reform, Erin Down, Greg Hoover, Al Howatson and Gilles Rheaume. Conference Board of Canada, May 2003.
30. Open Letter from Paul Nettleton, November 2002.
31. Submission to British Columbia Utilities Commission: Heritage Contract for BC Hydro's Existing Generation Resources, Stepped Rates and Transmission Access, Malcolm Metcalfe, for BC Citizens for Public Power and Office and Professional Employees International Union, June 2003.
32. Gutting a Power House: BC Hydro and the New Energy Plan, Marjorie Griffin Cohen, Canadian Centre for Policy Alternatives - BC Office, April 2003
33. Fact Sheet: Accenture, BC Citizens for Public Power, undated.
34. Performance Guarantee and Undertaking of Accenture SCA, Accenture SCA, Accenture International SARL and Accenture Inc., January 31, 2003.
35. Power Grab: The Impacts of Power Market Deregulation on B.C.'s Environment and Consumers, Greg Simmons, Tim Howard and Randy Christensen, Sierra Legal Defense Fund, July 2002
36. Policy: Open Transmission Access, BC Hydro, August 21, 2003.
37. BC Hydro 2003 Annual Report, BC Hydro.
38. BC Hydro Third Quarter Report for the Nine Months ended December 31, 2003.
39. Stephen Bruyneel, Manager Corporate Communications, BC Hydro
40. Maureen Murphy, Manager Government Affairs and Issues Management, BC Hydro
41. Amended and Restated Limited Partnership Agreement of Accenture Business Services of British Columbia Limited Partnership, BC Hydro/Accenture, January 31, 2003
42. BC Hydro and Accenture Agreement Designed to Save $250 Million in Costs, BC Hydro/Accenture press release, February 28, 2003
43. Accenture Business Services of British Columbia announces Board of Directors, BC Hydro/Accenture press release, March 25, 2003.
44. Backgrounder: BC Hydro and Accenture Agreement, BC Hydro/Accenture, February 28, 2003.
45. Regulatory Timetable, Proposal regarding a Heritage Contract for B.C. Hydro's Existing Generation Resources, BC Utilities Commission, updated July 11, 2003.
46. Introduction to Electricity, Government of Alberta Department of Energy, July 29, 2002

47. What does Restructuring of the Electric Industry Mean to Me?, Government of Alberta Department of Energy, June 10, 2003
48. Arms-Length Council to Review Consumer Electricity Issues, Report in Three Months, Government of Alberta news release, May 8, 2003.
49. Alberta Energy Squeeze: Customers Pay Price of Utilities Deregulation, Tom Fuller, Alberta Federation of Labour, undated.
50. Electric Power Crunch Ahead: Ontario Faces Peak Summer Demand with Vital Project Plagued by Delays, April Lindgren, Ottawa Citizen, May 29, 2003.
51. Deregulation For Dummies, Special Report, CBC Radio One, Toronto, undated.
52. Factsheet: Electricity Market Overview, Ontario Energy Board, undated.
53. Alberta's Self-Inflicted Crisis, Mike Byfield, Alberta Report, January 22, 2001.
54. Double Blow for Hydro Project: Tarasen Gas, Norske Canada Claim Their Plans Eliminate Need for Massive New Plant, Pipeline, Scott Simpson, CanWest News Services, May 28, 2003.
55. Scott Watson, Senior Union Representative, Office & Professional Employees International Union.
56. Electricity Restructuring: Securing Clean Power, Al Howatson, Gilles Rheaume and Greg Hoover, Conference Board of Canada, June 2003.
57. New Electricity Act, Department of Natural Resources Energy, Government of New Brunswick, undated.
58. Energy Plan Implementation, BC Hydro, July 3, 2003.
59. Vancouver Island Generation Project, BC Hydro, July 3, 2003
60. BC Hydro Confirms Power Smart Can Reduce Domestic Demand by 3,500 Gigawatt-Hours over Next 10 Years, BC Hydro press release, June 12, 2003.
61. ENMAX and Accenture Sign Business Process Outsourcing Agreement to Enhance Services, Accenture media release, June 16, 2003.
62. Southern Company GAS to Outsource Customer Care, Revenue Management and IT Services to Accenture, Accenture media release, August 5, 2003.
63. Policy: Openness & Accountability: BC Hydro/Accenture Agreement Materials, BC Hydro, February 28, 2003.
64. Miscellaneous Interrogatory Responses; BC Utilities Commission Hearing, Heritage Contract, May/June 2003.
65. Customer-Based Generation: 2002 Request for Qualifications, BC Hydro, May 31, 2002.
66. Customer Based Generation, BC Hydro, Presentation to the Customer Based Generation Workshop, June 21, 2002.