

# INTRODUCTION

## The Provincial Government's Energy Privatization Agenda

BRITISH COLUMBIA HAS ONE of the most reliable, secure, and low-cost electricity systems in the world. Based on public ownership of the province's electricity through BC Hydro, a provincially owned Crown corporation, the system has served the public well, providing affordable energy to the province's major industries, while giving commercial and residential customers the benefit of low, stable prices over the past three decades. BC Hydro has been a major contributor to provincial finances, paying almost three quarters of a billion dollars, annually, through dividends, water rentals, and taxes in lieu for local government. It has also supported B.C.'s economic development, particularly in the regions, by providing high-paying, secure employment to thousands of B.C. residents while acting as a major market for provincial suppliers. Cheap, reliable energy has been one of B.C.'s most important competitive advantages and a key contributor to the province's prosperity.

Yet, despite the advantages of an electricity system founded on public ownership and control of production, transmission, and distribution of B.C.'s energy, the current provincial government is jettisoning the public-ownership approach. It has embarked on a comprehensive restructuring of B.C.'s electricity system in order to eliminate the dominant role of the public sector as a supplier of energy to British Columbians. This is being done by dramatically expanding the role of private energy interests in supplying new energy, while simultaneously shifting control of the electricity system from BC Hydro to the international energy market through integration with the adjacent American electricity grid.

The government's policies are founded on the view that B.C.'s future energy supplies — and the prices paid by British Columbians — should no longer be based on the actual cost of producing publicly owned energy. Rather, they should be determined through the operation of an energy market in which new supplies of electricity will come almost entirely from private energy developers. B.C.'s future energy will not be generated by BC Hydro. Rather the Crown utility will purchase it from private power producers. In the short term, the price it pays to acquire this energy will reflect a politically constrained tendering process within B.C. designed to give investors the revenue and profits they need to build new power plants. In the longer

term, energy prices will reflect supply and demand in the West Coast regional energy market — a market that will, eventually, result in B.C. customers paying rates for new energy similar to those prevailing in Washington, Oregon, and California — rates far higher than British Columbians currently pay.<sup>1</sup>

To implement this shift to private control of B.C.'s electrical energy system, the government has restructured BC Hydro. It has contracted out key administrative, computer, accounting, and customer services — almost one-third of the entire workforce — to the recently established Accenture Business Services for Utilities.<sup>2</sup> It has carved out the transmission system into a separate company, the B.C. Transmission Corporation (BCTC) to give private energy developers better access to the province's electricity grid. It has also given assurances to private energy interests that B.C.'s publicly owned transmission system will no longer "discriminate" in favour of BC Hydro when allocating transmission access. Instead, this new entity will manage B.C.'s transmission grid according to market-based principles based on a template advocated by the United States Federal Energy Regulatory Commission (normally referred to as FERC), regardless of the impact on the ability of BC Hydro to make the most efficient use of its own energy resources (U.S. Federal Energy Regulatory Commission 1997a, 1997b, 1999, 2005, 2006).

In its 2002 "Energy for Our Future: A Plan for B.C." (hereafter referred to as the province's "Energy Plan") the government established a new policy framework designed to eliminate the historical function of BC Hydro as an investor — and owner — of energy on behalf of the province. It arbitrarily banned the public utility from building new electricity generating facilities (except for upgrading turbines in existing dams and, possibly, building a new dam at "Site C" on the Peace River — but only with explicit Cabinet approval). Over time, this policy will transform BC Hydro's role from an owner and producer of public electricity to a purchaser and distributor of private energy (Cohen 2002b, 2003).

Through the use of Energy Purchase Agreements (EPAs), BC Hydro is now required to meet almost all the province's future energy needs from investor-owned generating plants. This policy directive has resulted in a highly restrictive tendering process that gives preference to private power projects. It does not distinguish between foreign or domestically owned suppliers, as long as the projects are located in the province. Nor does it impose any restrictions on the ability of their owners to export energy once their contracts with BC Hydro end.

Because BC Hydro is required to purchase energy from private power developers located within the province, it is now paying as much as double current energy-market rates under the terms of inflation-indexed, long-term contracts. The system effectively makes B.C. ratepayers, through EPAs, pay

the capital costs of new power projects being built by private energy developers. Yet, at the end of the day, despite the very high prices it pays for private energy, the public gets no assets, no guarantee that the energy will not be exported in future, and no price protection once contracts have expired.

The government's restructuring of the electricity system is also placing major strains on BC Hydro's ability to oversee and manage that system. Rather than focussing primarily on ensuring that it can deliver the energy it owns to B.C. customers in a reliable, secure, and efficient manner, BC Hydro must now take into account the demands of numerous private energy developers, all of whom are interested in shifting as much of the cost of their projects as possible to the Crown utility by minimizing their payments for the use of public infrastructure and transferring their risks to BC Hydro. In the process, the government has also created a new — and highly influential — group of private-sector energy lobbyists who now expect that provincial energy policy will accommodate the need for B.C. and foreign investors to continue to reap a high rate of return from their energy developments, regardless of the impact on ratepayers.

In carrying out this restructuring, the B.C. government is embarking on a huge gamble — one with enormous risks for the public, both as citizens and as customers. It is deliberately abandoning policies that have given B.C. customers the second-lowest energy prices in North America — policies that have also provided British Columbians with enormous financial benefits, through BC Hydro's dividends, water rentals, and payments in lieu of local taxes. It is restructuring a system that has provided both security of supply and a gold standard of reliability to its customers — one that has sheltered them from the blackouts that have become so prevalent in recent years in American states that have embraced deregulation, as well as in Alberta and Ontario, where deregulation has also been implemented.

In sum, B.C.'s successful public energy legacy is now being supplanted by a policy designed to deregulate and privatize the province's electricity system — a policy that will effectively transfer control of the system from the public to local and foreign private interests. It will expose B.C. ratepayers to the risks and uncertainties associated with the volatile American energy market, as the provincial system is gradually incorporated into the much larger Pacific Northwest transmission grid — a grid largely controlled by American energy corporations. The policy will also result in integrating the electricity into a NAFTA-based continental energy market, where it will now join the oil and gas sectors, which have already been integrated on a continental basis.

In placing its faith in the ability of private energy developers to supply B.C.'s future energy needs, the government is gambling with future electricity prices and BC Hydro dividends, as well as with the security and reliability of the province's future electricity supply. Yet it is a gamble about which the

public is largely unaware, despite the long-term — and arguably irreversible — policy decisions the province is now quietly making.

Given the profound changes to the province's electricity system, the question logically arises: why has there not been more public debate about the government's new approach? The answer is that British Columbians are largely unaware of the extent of these policy changes because the government has carefully crafted its description of them to downplay their scope and future implications. It has repeatedly reassured the public that its Energy Plan will provide the province with the best of all possible worlds. The new energy required to meet projected increases in demand will come from innovative private-sector investors. They will, according to the government, provide B.C. with much-needed capital investment and expertise. But at the same time, the growing role of private interests in the system will have no adverse effects on the existing benefits of the public system. British Columbians will continue to enjoy the benefits of cheap, secure and reliable public electricity for generations to come.

To illustrate how the Liberal government has packaged its reforms, we need only look at some of the major policy statements it has made since its election in 2001. The first page of the Energy Plan sets out in bold type: "Low Electricity Rates and Public Ownership of BC Hydro," and "Secure, Reliable Supply."

The government has made these claims in numerous other statements to reassure the public that nothing much is really changing, and that its policies will continue to deliver the benefits that the people of B.C. have come to expect from their publicly owned electricity company. Similarly, BC Hydro has paid for major advertising campaigns in newspapers, as well as on radio and television stations, all supporting the government's energy policies. According to a Freedom of Information request reported by columnist Bill Tieleman in the tabloid newspaper *24*, the Crown utility spent almost \$1.5 million in its autumn 2006 public-relations campaign alone. Its purpose was to "inform" the public of the energy crisis B.C. was facing and explain how the government planned to address this crisis through the purchase of new energy from private power developers (Tieleman 2006).

Another element of the government's rationale for its policies has been its focus acquiring renewable or "green" energy. The government is aware that there is strong public support for the development of environmentally benign energy projects. By banning BC Hydro from building such projects and forcing it to buy new energy from private sources, the government has provided the opportunity for private power investors to claim that they are the real leaders in "green" energy development. In the absence of public sector leadership — which the government has ensured will not take place — the only option that the public sees is that offered by private power developers.

If British Columbians want green energy, under the government's approach, they have no choice but to support private projects.

The government also passed legislation whose purpose and implications are quite different from its official explanation. The 2003 *BC Hydro Power Legacy and Heritage Contract Act* (the "Heritage Contract") ostensibly guarantees to British Columbians that they will continue to receive the benefits of BC Hydro's low-cost energy. However, the energy is already owned by the public, a fact not changed by the *Act*. Arguably, the prime beneficiaries of the Heritage Contract have been major industrial customers who were worried that purchasing new energy from private power developers would add millions, or in some cases, tens of millions to their energy bills. The Heritage Contract effectively shelters pulp-mill and mine owners — who currently pay the bulk industrial rate (formerly known as the 1821 rate), which is much lower than that paid by other customers — from the full impact of the price increases triggered by BC Hydro's purchases of expensive new energy from private power developers. While the initial legislation placed a sunset on the commitment after ten years, in the 2007 Energy Plan it has been extended indefinitely — an enormous gift to pulp mill and mine owners.

Moreover, the Heritage Contract removed the option of using higher prices as a way of encouraging industrial companies — who use over one third of BC Hydro's public energy — to conserve. Absent such a price signal, they have little incentive to reduce their use of BC Hydro's low cost public energy. In turn, this forces the Crown utility to purchase even more energy from private power developers. Thus, far from protecting average residential customers, as the government claims, the Heritage Contract will result in them paying more for their future energy. Yet the government still disingenuously promotes the Heritage Contract as evidence of its commitment to maintain the benefits of public power for the province's future.

A similarly disingenuous approach has been followed with respect to the broader question of privatization of B.C.'s electricity system. The government has stated repeatedly that it is not privatizing BC Hydro. In making these assertions, the government has taken advantage of the fact that most British Columbians equate public ownership of BC Hydro with public ownership and control of the electricity system. However, it isn't necessary to privatize the entity formally registered as BC Hydro in order to privatize the province's electricity system. Nor is it necessary to sell all the Crown utility's assets to transfer control — and the benefits attendant to that control — to the private sector. Rather, this can be done by transforming, over time, the public utility's basic function from that of a producer of B.C.'s electricity to that of a distributor of energy purchased from private sources. The deliberate creation of a split between purchaser and provider recasts — and diminishes — BC Hydro's role as a generator of electricity to that of a purchaser of

energy. This constitutes a fundamental — and perhaps irreversible — change to B.C.'s electricity system.

To further consolidate the privatization of the electricity system, the province has implemented major changes to the organization and functions of the transmission grid. Historically, its basic function was to transmit energy generated by BC Hydro to its provincial customers. Since its creation by W.A.C. Bennett, BC Hydro has also traded energy with the United States and Alberta. But such trading was based on mutually beneficial synergies. Temporary shortages in one jurisdiction were addressed by importing energy from another. Similarly, the tie-ins with the American and Alberta systems gave BC Hydro's system additional security in the event of unplanned outages. BC Hydro also used its storage capacity to engage in opportunistic energy trading, buying energy from outside the province when prices were low and selling it back when they rose, a practice enormously beneficial to B.C. ratepayers.

However, under the government's new policy, BC Hydro's use of the transmission system to maximize the benefits of its own energy resources and for opportunistic trading with the United States is being fundamentally curtailed. Energy trading will now be based on American rules (Cohen 2003).

The off-loading of costs to BC Hydro is largely concealed by an approach to pricing transmission services that requires users of the transmission system to pay for their respective shares of the costs of managing the new system. As BC Hydro remains — by far — the system's most significant user, it pays the lion's share of the costs. That BC Hydro did not need these expensive changes, and that it, arguably, could have continued to dispatch its electricity more efficiently without having to accommodate the numerous private interests now joining the system, is a fact that is conveniently ignored. BC Hydro must now use — and pay for — the reconfigured system to transmit its energy.

In sum, the costs of this reorganization are being borne almost exclusively by the public, through fees paid by BC Hydro, while the benefits are almost exclusively reaped by private energy interests. The enormous increase in administrative complexity associated with layering a competitive market structure on top of a physical dispatch system in a manner that avoids outages, maintains high standards of reliability, and recovers all financial obligations from market participants significantly increases the overall cost of operating the system. It also adds considerably to the risks facing BC Hydro, because it cannot allow the system to experience outages that result from the failure of market participants to fulfill commitments to supply energy to the system.

To all this must be added the loss of BC Hydro's flexibility to dispatch electricity on the basis of maximizing the benefits of its own generating capacity. Rather, it now faces the prospect that the transmission access it

needs to minimize costs or achieve revenue gains from “opportunistic” energy trading with other jurisdictions, based on the enormous advantages it has from water storage in its reservoirs, may be allocated to other market participants. This is because it now has to bid for access to the transmission system, just like any other private energy supplier or marketer.

In its enthusiasm to promote a private energy market, the government has shown little interest in measuring the lost economic opportunities BC Hydro will experience from system congestion or from the changes to the basic functions of the transmission system. These are now largely hidden in BC Hydro’s overall operating expenses and those of the new BCTC. And it simply assumes that the public should handle — and pay for — the risks associated with creating and managing a new private energy market.

The new BCTC — which is independent of BC Hydro — also has a mandate to establish and oversee the development of a competitive energy market within B.C. and to integrate this market with the United States and Alberta. This allows energy generators and energy marketing corporations to access the grids of other utilities on a “non-discriminatory” basis, in order to encourage competition. In this restructured system, BC Hydro is considered just another purchaser of transmission rights in competition with various private interests who wish to use the grid for commercial purposes.

In addition to reconfiguring the transmission system to facilitate its use by private energy interests, the government is also moving, step by step, to integrate B.C.’s electricity grid into the American grid. This is being fostered through participation in the recently formed Regional Transmission Organization (RTO) called Grid West. Grid West is dominated by private American energy interests and is a creature of FERC. Its framework is modeled on the concept of a standard market design developed in the United States by FERC and incorporated into its RTO guidelines (U.S. Federal Energy Regulatory Commission 1999, 2005, 2006). The American energy regulator has advocated the establishment of RTOs in order to implement its electricity deregulation policies. If FERC’s RTO policies are fully implemented in Grid West, this new organization will end up overseeing the planning and future development of B.C.’s transmission infrastructure, but B.C. will have only a small minority of seats on its governing body. Provincial policies will thus facilitate the full integration of our electricity system into the American energy grid in a manner that has many parallels with the way our oil and gas sectors have been so integrated. And the outcome — in terms of higher prices for Canadians combined with loss of energy sovereignty — is equally likely over the long term (Cohen 2003).

By opening the transmission system to many new private participants — all of whom have a financial interest in shifting costs to BC Hydro — and giving them a voice in the future development of the system, the govern-

ment has changed the political dynamic of electricity in B.C. This change is reflected in a dramatic increase in the number of companies now lobbying government, an upsurge in political donations from energy companies to the governing party, and growing pressure from business interests to provide even more favourable terms for their use of the transmission system, including the elimination of what they see as the remaining “unfair advantages” enjoyed by BC Hydro and the citizens who own it.

Yet, the question of how all this will benefit ratepayers remains unanswered. While the government argues that competition will keep rates down, B.C.’s public system has already achieved virtually the lowest rates in North America. And, there is little evidence that the introduction of competition has lowered energy prices in jurisdictions that have experimented with this approach, as ratepayers in California, Alberta, Ontario, and many other jurisdictions can attest. The one thing it will clearly do is provide huge opportunities for profit to private energy developers.

One of the most misleading elements of the government’s explanation for requiring BC Hydro to purchase energy from private energy developers within the province is that it will result in long-term energy security. However, government policies do exactly the opposite. Its policy of integrating the province’s transmission grid with the United States, while lifting restrictions on private energy exports, undermines B.C.’s ability to remain self-sufficient in electrical energy. Until recently, private sector access to the grid for export purposes was limited by requiring companies to have an energy removal certificate that authorized them to sell their energy to American customers. The certificates were intended to exercise some regulatory control over private exports. But in 2004, through Bill 40, the government abolished this requirement. Energy developers are now free to export at will and to use their enhanced grid access rights to do so. Though the government’s stated policy objective is to provide self-security for B.C., this policy change flies directly in the face of that objective.

On top of all this, by giving private interests the option of exporting energy rather than selling it to BC Hydro, the government has undermined BC Hydro’s ability to negotiate the best possible terms — from the perspective of the public — for the acquisition of new energy, even within the extremely narrow constraints of its Energy Plan. The EPA approach currently provides a very generous, inflation-protected price floor for private electricity developers. But it doesn’t provide any price ceiling once the contracts expire. Given that BC Hydro is paying developers prices far higher than the current market rate at the B.C. border, in the short term this may not be all that significant. But several decades down the road it will mean that B.C. ratepayers will have to compete with — and out-bid — customers from neighbouring American states as far south as California to keep B.C.-generated energy within the province.



While all of this is good news for energy investors, it guarantees that B.C.'s competitive advantage in electricity will largely disappear over time.

As a publicly owned utility, BC Hydro will always be subject to accusations from private interests that its relationship to government gives it an unfair advantage and, therefore, that it must be required to curtail — or completely abandon — aspects of its operations that compete with the private sector. And, from the American perspective, “government monopolies” like BC Hydro are inherently undesirable for two reasons: because they limit the ability of American investors to expand into the Canadian energy market and because they prevent full continental integration of energy. And so the Americans encourage policies that transfer ownership to private investors.

This should not be a controversial point. The United States succeeded in obtaining major concessions in NAFTA to limit the public-policy objectives of Canadian Crown corporations. NAFTA's Chapter Fifteen (titled “Competition, Monopolies and State Enterprises” and including Articles 1501–1505), places major constraints on the operation of public enterprises in Canada, while Chapter Ten (titled “Government Procurement” and including Articles 1001–1025), imposes restrictions on the use of public purchasing for purposes such as regional economic development or small business development through its open tendering requirements. The United States has never been reluctant to push for policy changes in other countries when it has viewed such changes as beneficial to its business sector. And, in recent years, it has been remarkably successful in achieving this objective through NAFTA and other trade agreements.

This highlights another fundamental problem with the government's energy policy: its apparent lack of concern about foreign ownership and control of B.C.'s energy resources. Allowing American energy companies, banks, and investors to acquire power plants in B.C. has profound implications for the province's future energy security and its ability to meet its growing energy needs. While BC Hydro's public energy can readily be kept within the province for use by British Columbians, privately owned energy supplies are quite a different matter.

Lurking in the background of this profound restructuring of B.C.'s electricity system is the fact of NAFTA's Chapter Eleven (titled “Investment” and including Articles 1101–1138). Chapter Eleven's provisions protect American (and Mexican) investors from any government policy or regulation that can be construed as “tantamount to expropriation.” This means that once American investors have become entrenched in B.C.'s electricity system — and this is already happening in a major way — future governments will find it difficult, if not impossible, to adopt policies that interfere with their profit-making activities, regardless of whether these activities are in the public interest.

Foreign ownership of B.C.'s new generating facilities will, arguably, result in the profitability of American-owned firms taking precedence over the needs of British Columbians for affordable, reliable, and secure future sources of energy. Unlike the 1960s, when W.A.C. Bennett was able to expand public ownership and control of B.C.'s electricity system to achieve provincial policy objectives, NAFTA's constraints mean future governments will find it extremely difficult to adopt a similar strategy.

Efforts to secure B.C.'s energy supplies by preventing American-owned generating facilities from exporting their energy across the border would likely provoke an international trade dispute. In NAFTA's terms, foreign ownership coupled with opening the provincial grid to energy exports is a one-way street. It may be impossible for future governments to stop private energy exports. This underlines how misleading the government's claims are that its Energy Plan will promote self-sufficiency. And, it highlights how reckless it is for government to abandon the proven, successful public-policy tool of provincial public ownership.

The full extent of the government's changes to B.C.'s electricity system has also been obscured by the long lead-time required for most energy investments, the systems' complexity, and the highly technical nature of many of the issues involved. For example, the private power plants now being built as a result of BC Hydro's 2006 EPA will not start delivering significant amounts of energy until 2012.

Similarly, the enormous financial commitments now being made by BC Hydro are not yet apparent to customers because the large rate increases that will be triggered by the contracts do not take effect until several years into the future. But when the 2006 contracts are fully operational, this one year's energy purchases will increase rates by 8.1 percent after 2012. In fact, if all B.C.'s energy were being purchased at the rates BC Hydro paid for this one block of private energy, ratepayers would now be paying more than double current electricity prices.

Another reason the price impact of the government's policies is not more dramatic is that the increments of new private power are diluted by incorporating them with the huge block of very low-cost public energy already owned by BC Hydro. Consequently, in the short term, the government has been able to obscure the full impact of its policy changes from all but those directly involved in the electricity system. Indeed, the consequences of some of the changes made today will only be clear ten or twenty years from now, by which time future governments will be faced with a *fait accompli* in which their policy choices have been almost totally constrained by decisions made by today's government.

As well, the electricity sector is characterized by difficult technical, engineering, forecasting, and economic issues that are often discussed in arcane

terminology largely incomprehensible to the average citizen. While most residential customers deal with energy in the form of watts and kilowatts (or kilowatt-hours), much larger numbers — and acronyms summarizing these numbers — are stock in trade in the industry. The potential output (capacity) of electrical generating plants is normally referred to in terms of megawatts (MW), representing a million watts of power. The actual amount of energy produced is, correspondingly, referred to in terms of megawatt hours (MWh), gigawatt hours (GWh), equivalent to a billion watts, and terawatt hours (TWh), equivalent to a trillion watts. (A rough rule of thumb is that a one-MW power plant will produce enough energy to supply a thousand homes.)

A common analogy to explain the difference between energy and capacity is that energy — MWh or GWh — is like gasoline in a car's gas tank while capacity — MW or GW — is like the horsepower of a car's motor. These terms are different from the kilowatt-hours and kilowatts that the public normally uses in its discussion of energy prices and energy consumption. But these illustrations only begin to reveal the way technical issues — and their corresponding terminologies — can have the effect of obscuring basic policy issues associated with developments in the electricity sector. This is not to suggest that these issues are beyond the ability of most citizens to grasp. Rather, it underlines how relatively easy it can be for the government to utilize arcane terminology to obscure the implications of its policy changes.

One of the other major consequences of the government's new energy policy is its negative impact on the provincial environment. There are several important dimensions to this issue. As we shall discuss in more detail later in this study, the introduction of a competitive market structure in the energy sector undermines previous conservation efforts by BC Hydro through its Power Smart program. Under the old single-supplier, public-monopoly framework, subsidies to encourage conservation were rational because they could help BC Hydro avoid the large capital costs of building new power plants. As long as the reduction in demand — or in demand growth — was sufficiently great, funding energy-saving investments made sense. But this assumes that the policy goal is to limit the growth of energy consumption.

However, in a market-based system, every firm is interested in expanding energy consumption. A stagnant energy market — especially given the amount of public energy BC Hydro already has — would result in minimal opportunities for profitable investment for private energy developers. And in a market system, no individual firm has an incentive to limit growth, because if it does so, it will see its competitors leap ahead as they grab a larger share of the market at its expense. In other words, the dynamic in a competitive energy market is to expand energy production and sales. Conservation simply takes a back seat.

But the environmental impact of B.C.'s energy policy is not restricted to abandoning the benefits of BC Hydro's earlier approach to limiting energy growth. The government's new policy also has a number of quite specific — and negative — impacts. For example, BC Hydro's 2006 EPAs included two major contracts for electricity from new coal-fired plants in the province. This decision was welcomed by the coal industry, and by the owners of some pulp mills who would like to expand their existing production of electricity from wood-waste to additional production from coal. The government sanctioned the use of this controversial fuel source in B.C. for the first time in generations. In the process, it has raised important questions about the extent to which the government is seriously committed both to reducing greenhouse gas emissions and to protecting the public from the negative health consequences of pollution from burning coal. The introduction of coal, however "clean" its proponents now claim it is, can only be seen, from an environmental perspective, as a major step backward. And, while the 2007 Energy Plan imposed new carbon sequestration requirements on future coal plants, the government left open the door to fossil fuel burning through its acceptance of the use of "biomass" (a term coined by the industry to make burning wood seem relatively benign) to generate electricity.

Of equal importance is the environmental impact of the rapidly growing number of run-of-the-river "green energy" projects. Ideally, a run-of-the-river project involves diverting a portion of a river's water through a pipe running parallel to the riverbed down to a powerhouse where it is used to generate energy. The water is then returned to the stream below the powerhouse. The amount of energy produced depends on the volume of water diverted and the difference in height between the pipe's intake and the powerhouse located below it. To minimize environmental damage, there must be sufficient water left in the streambed to allow the normal activities of fish and aquatic life to continue largely unaffected.

Run-of-the-river projects have been energetically promoted by private developers as a clean and environmentally responsible way to generate electricity for our future energy needs. They have also been promoted as much less environmentally damaging than the major dams BC Hydro built in the 1962 to 1984 period, which flooded entire valleys. Such projects thus avoid all the downsides of large hydro.

However, there is an enormous variation in the environmental impact of run-of-the-river projects. Few conform to the ideal noted above. Most involve either a concrete dam or an inflatable weir, creating a large tailpond or even a small reservoir. This allows sediment to settle and thus not be drawn into the power plant's turbines. Whether they use inflatable barriers or permanent concrete structures, they change the pattern of normal stream flows. In fact, one "green hydro" project involves constructing a seventy-six-metre dam to

hold back the water. Thus they are more accurately described as small hydro projects (Caldicott 2007).

Many of B.C.'s streams have very little water flow in the late summer, so diversion of even some of the water can significantly affect the amount of water left in a streambed. Diversion can also significantly raise the temperature of the remaining water. Developers can damage the environment both during construction and in the course of ongoing operations. Projects also require transmission lines, which have to be kept clear of brush, as well as access roads to service the power plant and transmission lines. Some projects require new transmission lines more than a hundred kilometres in length, cutting a gash in otherwise pristine forests, with their sixty-metre-wide right-of-ways that have to be trimmed regularly to keep trees from falling on the lines. When taken together, these various impacts can have a very significant — and negative — effect on the environment (Caldicott 2007). It is not self-evident that the total cumulative environmental impact of building a hundred run-of-the-river projects in a region of the province is significantly less damaging than building one major hydro dam, especially if the latter does not have a large reservoir. The point is that constructing dams on these rivers *does* have major environmental impacts that need to be fully assessed.

Indeed, when we look more closely at the environmental practices of private power developers, we see a much less benign picture than the one their promoters portray. While “green energy” projects were supposed to undergo stringent environmental reviews, the government has weakened the environmental assessment process in response to lobbying from private energy developers. The government now only requires a full environmental assessment for projects of more than 50 MW-capacity: smaller projects enjoy a much less stringent review that is largely confined to provincial ministries and agencies. In practical terms, this has meant that the vast majority of run-of-the-river projects no longer need to undergo a full environmental assessment. And, thus far, the government’s environmental assessment process has always resulted in approval, regardless of the location and impact of the project. The extent to which environmental concerns have been weakened by changes to the regulatory framework are highlighted by Arthur Caldicott:

In British Columbia, energy projects are reviewable under the Environmental Assessment Act (EA). It is a time-consuming and costly undertaking for a company. An EA requires more disclosure of details of a project than some companies might want. While a company doesn’t face much risk of having its project not being approved — there have been no rejections in the entire ten-year history of the Environmental Assessment Office (EAO) — companies will avoid an

EA if they can. The easiest way to avoid an EA for an energy project is to make it small enough that it comes in under the threshold for reviewable projects. For energy projects, that threshold is 50 MW. That's why we get small hydro projects like Ashlu Creek (Ledcor, 49 MW), Rutherford Creek (Cloudworks, 49.9 MW), Mkw'alts Creek (Cloudworks, 45 MW), and the original Compliance Energy coal-fired generation plant (49 MW). Deliberately designed to duck the threshold. (Caldicott 2007: 22)

As well, the government's environmental assessment and planning approach is far too narrowly focussed. It fails to capture the overall impact of these projects within a region or river system because it is based on reviewing individual projects, rather than on evaluating the cumulative impact of a number of projects on a wider ecological or geographical area. Environmental impacts are not restricted to the construction of a single power plant itself: they are also caused by interconnected servicing roads and transmission lines needed to move the energy to BC Hydro's main grid.

Once a significant number of projects are located on one river system or in one geographic area, the combination of access roads and transmission lines can create a "spaghetti junction" of development that can dramatically — and permanently — change the formerly untouched character of a pristine valley (Caldicott 2007). Yet the environmental assessment process does not look at the larger picture of what the construction of a series of power plants will do to the habitat and the use patterns of an entire area.

In sum, Victoria's developer-driven approach ignores the need for rational planning of land and water use on a regional basis. Building certain projects may make sense, *if* they are properly evaluated in the context of neighbouring projects and their cumulative impacts on a river system or valley. But approving individual projects in isolation from one another fails to consider the "big-picture" changes that result from unplanned and uncoordinated development.

Yet whether new energy projects go ahead is now largely driven by whether the developer gets an EPA with BC Hydro. Once such an agreement has, in principle, been awarded, the private investor has an enormous financial incentive to get the project up and running as quickly as possible. A month's delay can mean several million dollars — or more — in lost revenue. But encouraging the development of projects purely on the basis of their financial viability to investors only encourages the environmental degradations that such projects can bring about.

There is one further aspect we must analyze in order to complete the picture of the government's privatization agenda: the creation of a financial and ownership framework designed to promote private investment in B.C.'s

electricity system. Investments in energy generation are capital intensive and involve long-term financial commitments. However, energy demand and prices tend to fluctuate significantly over time, creating uncertainty — and significant risk — for investors. This makes it difficult for all but the largest developers to borrow the capital they require at reasonable interest rates — if they can borrow it at all. This is why W.A.C. Bennett decided to nationalize the B.C. Electric Company in 1962 and use the vehicle of public ownership, through BC Hydro, to make the investments needed to build the province's electricity system. At that time, the private sector simply did not have the capital required for — and did not want to incur the risks associated with — the huge capital projects Bennett envisaged. Only the provincial government had the fiscal capacity and vision to take on this responsibility.

To facilitate the expansion of the private sector in B.C. in the twenty-first century, the government had to find a way to enable private energy interests to borrow the capital needed to build new projects. It concluded that EPAs could be used to help private investors raise capital. By forcing BC Hydro to acquire all its new energy through EPAs, the government has been able to provide the collateral — in the form of BC Hydro-guaranteed long-term contracts — that private investors need to secure financing.

EPAs provide taxpayer-guaranteed cash flow for private investors, opening the door to investments that would otherwise not get made, while reducing the risk — and therefore the interest-rate premium — faced by private energy interests. The ability of private investors to secure long-term public financing for their new generating facilities — whether they be from “clean coal,” biomass, natural gas, run-of-the-river hydro, wind, or other sources — has opened the door to a dramatic expansion of the role of both domestic and foreign energy investors in B.C.

The government has further supported developers of “green energy” by giving them access to B.C.'s untapped water and wind resources. Instead of carrying out a full analysis of the asset value of B.C.'s renewable energy resources, it has been selling them off at fire-sale prices. In the case of run-of-the-river projects, it has provided developers with the information needed to identify the most promising — and potentially profitable — streams and rivers. Similarly, it has given private interests full access to public research on potential sites for new wind farms. And, most critically, it has given its friends in the private sector the opportunity to acquire water licences and wind-farm land tenures for minimal fees on a first-come, first-served basis. As a result, private interests with privileged knowledge about the policy change requiring BC Hydro to purchase all its new energy from private power plants located within the province have been able to stake out claims on the most promising run-of-the-river and wind-farm locations across the province (Calvert 2006a).

The government has also cleared the path for investors to acquire full ownership of the land where “green energy” projects are located by allowing them to acquire land-occupancy tenures and fee-simple ownership of these valuable resources. In doing so, the government has guaranteed to private energy developers the legal right to continue to produce energy — and money — from these sites for generations to come. The government has already sold the most valuable and suitable sites for small hydro and wind projects across the province for a tiny fraction of their asset value. As we shall show later, the amounts paid by private interests for permanent entitlements to water resources and land occupancy are a pittance compared to the future revenues these sites will generate over the coming century. Through its policy framework, the government intends to permanently entrench the private sector into B.C.’s energy system. As if this were not enough, the government has also made changes to property tax, environmental, and other regulatory policies that further reduce the costs of private energy development. Worse still, the public, through the EPA system, is actually financing this acquisition of B.C.’s Crown lands and water resources by private interests. As noted above, BC Hydro is using EPAs to provide revenue streams that enable “insiders” — including former BC Hydro executives, engineering and consulting firms that have worked extensively with BC Hydro, Howe street financiers, and friends of the government — to acquire and fund their new power plants.<sup>3</sup> Many of the most lucrative of these sites have already been awarded to individuals and companies that have links to the government through campaign donations, party membership, and the provision of logistical and other assistance during recent election campaigns.

While these policies are creating numerous “instant millionaires” on Howe Street, the long-term repercussions for those not so fortunate to be first in line to acquire a water licence on a prime run-of-the-river site are the opposite: dramatic increases in electricity prices, loss of public control over the electricity system, and full integration into the energy-hungry American market — a market supported by both the clout of the American government and NAFTA’s international trade obligations.

Also, those directly affected by private power projects — First Nations and local communities — have been almost entirely excluded from this corporate bonanza. Only a handful of the 495 water licences awarded by November of 2006 went to First Nations, despite the fact that almost all the projects are on territory subject to their land claims. Similarly, despite both the enormous revenues they generate and the fact that they can have major — and negative — consequences for local tourism, as well as for recreational and community use of rivers and forests, capital-intensive power projects provide very few long-term jobs to local communities.

The changes the government is making to BC Hydro and to B.C.’s



electricity system are interconnected. Restricting BC Hydro's ability to build and own new generating capacity is essential to assuring a growing market for private energy investors. Transferring control over the transmission system from BC Hydro to BCTC is necessary to provide guarantees to private energy interests that BC Hydro will no longer have priority of access to the grid. Giving private interests full access to the grid on terms favourable for energy trading, and with no restriction on private exports, further enhances the value of generating facilities now being built by private investors.

As the preceding suggests, there is a pressing need for a comprehensive analysis of the overall costs and risks of the government's electricity policies. Parts of this have already been carried out by a number of energy policy researchers and advocacy organizations (Cohen 2001, 2002a, 2002b, 2003, 2006; Caldicott 2007; Redlin 2002; Shaffer 2004; Richardson 2004; Metcalf 2003; B.C. Citizens for Public Power 2002). Many local communities across the province have also analyzed the impacts of private power developments. However, much more research needs to be done to clarify the long-term implications of the policies now being implemented in B.C. This is especially urgent, because the government is rapidly pushing ahead with further significant changes to the system — including a revised 2007 Energy Plan — that may well be irreversible, regardless of their long-term impacts on the ratepayers and residents of the province.

While we have identified here some of the major policy areas where further research is needed — and, hopefully, have provided an overall framework within which to examine some of the specific elements of these policies — the purpose of this study is more modest: to examine one major dimension of the government's energy policy agenda — turning over B.C.'s future electrical generation investments to private interests, particularly through promoting private run-of-the-river and wind-farm projects.<sup>4</sup> As we shall see, the government has gone to extraordinary lengths to provide a supportive financial, environmental, legal, and ownership framework to assist the growth of private energy investments.

In the following chapters, we will examine, in detail, specific policy measures the government has put in place to implement its privatization agenda. We will begin with a brief history of the path to privatization, examining some of the key events and players that provided the impetus to recent policy changes. Next, we will look at the implications of this agenda in terms of its impact on BC Hydro, future energy prices, future security of supply, and future public control — or, rather, the lack of it — over the development of B.C.'s electricity system. We will then examine how this agenda has impacted on local communities in various areas of the province, including Kitimat, the Squamish-Lillooet Regional District, and the Christina Lake-Kettle Falls area. We will also look at the environmental impacts of the government's

policies. And we will discuss how the government has tried to neutralize potential opposition from First Nations, whose treaty rights constitute a risk for private investors and hence a problem for the government to overcome in implementing its private power agenda. Finally, we will discuss the overall consequences for our public system and examine some of the options the government could — and should — have adopted to maintain what, arguably, has been the most cost effective and efficient electricity utility in North America.

## NOTES

1. There have been a number of very good studies on the impact of various aspects of the current government's policies in the electricity sector. While it is not possible to list all the contributors to this analysis, some of the key individuals are: Professor Marjorie Griffin Cohen, Professor Marvin Shaffer, Jim Quail, Arthur Caldicott, Murray Dobbin, Malcolm Metcalf, Mark Veerkamp, Charlie Smith, and Trafford Hall. As well, a number of organizations, including B.C. Citizens for Public Power, the Sierra Legal Defence Fund, the Parkland Institute, the B.C. Public Interest Advocacy Centre, and the Canadian Centre for Policy Alternatives, have produced important studies. Finally, there is a wealth of information and data available through the B.C. Utilities Commission's archives, BC Hydro, the recently established B.C. Transmission Corporation, and various provincial ministries.
2. Accenture Business Services for Utilities was founded in 2003. However, the company has been viewed by many as a successor to Arthur Anderson, a firm whose reputation was severely compromised as a result of a number of major accounting scandals in the United States, most notably the collapse of Enron. Accenture maintains, however, that it is a B.C.-registered company and is not connected with these other entities.
3. A quick review of the boards of directors of many of the companies that have acquired water licences over the past six years reveals the extent to which "insiders" have benefited from government policies.
4. While these interests normally describe themselves, innocuously, as "independent power producers," a more accurate description is "private energy interests," the term used consistently — and consciously — throughout this book. While they may be "independent" from government, their objective is to profit from the ownership and marketing of energy generated in B.C. for the benefit of the private investors who own the companies involved. In fact, many of them are definitely not "independent" of foreign control, even though the term suggests they are not constrained by interests outside the province. Indeed, to the extent that language conceals rather than elucidates, an even more accurate description of some of the players, such as Duke Energy or Kinder Morgan, would be "foreign energy interests," because multinational companies are rapidly becoming the dominant players in B.C.'s energy sector, whether it be oil, gas, or, more recently, electricity.