

# HIGH TENSION

**B.C. Hydro's Deep Integration  
with the U.S. through RTO West**

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March, 2003



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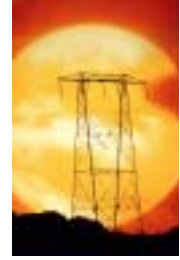


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# executive summary



Big changes are planned for B.C.'s electricity transmission system. The most startling is that the B.C. government is planning to give away the operation and control of the system to a U.S. body, RTO West. This action will result in higher rates, greater environmental damage, and the expansion of the system to meet U.S., rather than B.C. needs.

The B.C. government's recent Energy Plan proposes that B.C. Hydro turn over its transmission system to a U.S. entity called R.T.O. West. Plans to have this happen are well advanced. According to U.S. and B.C. government documents, all planning, investment and operation decisions for B.C.'s provincial transmission system will be the responsibility of RTO West.

This regional transmission organization, which will start operations by fall of 2004, is an amalgam of mostly private electricity market players from the western U.S. B.C. Hydro has participated in planning of the new organization, but once it is set up the entity will be controlled in the U.S. Domestic needs for the movement of publicly produced electricity will then take second place to the demands for export of power produced privately.

The first step in the transfer of transmission to RTO West is the separation of transmission from B.C. Hydro. B.C. Hydro will be broken up through the creation of a new B.C. Hydro Transmission Corporation. B.C. Hydro, through this, will lose all the numerous advantages that currently exist from having transmission as an integral part of the B.C. Hydro system. The government claims that it is

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required to break up B.C. Hydro in order to export power to the U.S., because of demands by the U.S. regulatory body, FERC.

This paper challenges the necessity of B.C.'s complicity with FERC (the U.S. Federal Energy Regulatory Commission) and shows that the B.C. government is entering into this arrangement voluntarily. These changes are not required under the North American Free Trade Agreement. In fact, NAFTA, through its provisions for 'national treatment' protects the export rights of each country in the agreement. B.C., however, is giving up a significant right that NAFTA guarantees each country.

Even within the U.S. there is considerable opposition to the FERC proposals for RTO West. This is mainly because FERC is a federal agency that has no jurisdiction even over state and municipal utilities in the U.S. and is overstepping its legitimate mandate. However, unlike the Western Governor's Association, federal Senators, public utilities and municipalities in the Pacific Northwest which are mounting strong opposition to the F.E.R.C. proposals, the B.C. government is actually assisting in the process of turning over B.C.'s public electricity to U.S. control.

The RTO West system will fundamentally change the way that transmission will operate. One of the most significant changes will be a complex new transmission-pricing regime to manage what is referred to as 'congestion' on the system. Ultimately a market system will be established and rights to transmit electricity will be tradable. It is the kind of system that will introduce speculation into the pricing mechanism and could seriously jeopardize security of supply, particularly in current low-cost regions. Prices will reflect whatever the market will bear at specific locations, so there will be a ratcheting up in response to desperation of customers or market manipulation.

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The new system will benefit large private energy producers, but B.C. consumers and businesses will pay the price with higher rates, higher air pollution and a refocus of the energy system to meet export, rather than B.C. needs. The changes promoted by F.E.R.C. will open the door to a California style electricity disaster in B.C.

Rather than blindly following the directives of a U.S. regulatory agency, the B.C. government should halt its plan to break up B.C. Hydro and join R.T.O. West. At the very least, the people of B.C. should be consulted before the public utility is dismantled.



## part one: FERC and BC Hydro

Despite the disastrous results of electricity restructuring in the U.S., the process (that received so much credence by the Bush administration because it was championed and pushed by Enron) is having a life of its own. The crusade to deregulate electricity markets is being carried forward on behalf of the private sector by the U.S. Federal Energy Regulatory Commission (FERC), through its directives on market restructuring. What is particularly unfortunate is that B.C. is cooperating fully and moving rapidly toward a deep integration of its electricity system with that of the United States. This process is not occurring as a result of the kinds of debate that normally centres on such important issues as energy integration, but, rather, is occurring through a regulatory change initiated in the U.S. by FERC. It is a regulatory change that appears to be receiving no public airing or scrutiny in Canada.

This paper will specifically examine the changes that will occur in the transmission system in B.C. by focusing on the participation of B.C. Hydro in the creation of a Regional Transmission Organization for the western U.S. states, RTO

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**Transmission is the transportation of electricity from generators to distribution systems and large industrial customers through very high voltage levels.**

**B.C. Hydro accounts for about 20% of the transmission network in the Pacific Northwest. The main provider of transmission in the U.S. Northwest is Bonneville Power Authority, which provides about 75% of the total.**

West and how this related to the break-up of BC Hydro into separate transmission and generation/distribution companies. This paper will show that the control that B.C. Hydro now exercises over planning, investment and operation decisions of B.C.'s transmission system

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will be turned over to the U.S. based RTO. This will seriously erode the ability of the current electricity system in B.C. to meet the needs of the people in this province: it will focus on building the system in order to increase exports, will lead to higher prices for consumers in B.C., and it will encourage further environmental degradation. While B.C. is relinquishing its control over transmission to RTO West in order to maintain access to the U.S. market, this handing over of the B.C.'s electricity system is not required, under NAFTA, in order to export into the U.S. Finally, this paper will show that any purported benefits from joining the RTO are greatly outweighed by the loss of control over B.C.'s electricity industry.

## The U.S. Needs Energy

The Bush government has ratcheted up the call for an integrated energy market in North America. The focus is on developing private electricity production and shifting from long-term planning to reliance on a market that is responsive to short-term prices. In particular the Bush administration wants to create circumstances that would ensure a competitive electricity market and would allow private producers complete access to the infrastructure that has been developed by large utilities. The Bush appointed chair of FERC, Pat Wood, soon after his appointment issued a detailed plan for a “seamless” marketplace, one that would require a single operator of the transmission systems in each major area. The areas of jurisdiction for this seamless marketplace are not confined to the U.S., but also include regions of Canada and Mexico in the newly constructed U.S. electricity regions.<sup>1</sup>

The U.S. desperately needs energy: its electricity needs in the future far outstrip the ability of the U.S. to provide this through the normal workings of the market mechanism, according to the U.S *National Energy Policy*.<sup>2</sup> The U.S. is relying on a continental energy strategy and importing electricity to rectify this

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mismatch between its future needs and supply. The problem from the U.S. perspective, however, is that this move toward a continental energy market in electricity is primarily constrained by the limited capability of the existing transmission system to carry very large amounts of electricity both between regions within the U.S. and from Canada and Mexico to the United States. Also problematic are the very different kinds of electricity systems that exist in different jurisdictions throughout North America. Most of Canada's electricity is supplied through public utilities, and while many utilities are still in the public sector in the U.S., the shift in recent years has been substantial and the intent is for this to change radically.<sup>3</sup>

## The Federal Energy Regulatory Commission (FERC)

The U.S. Federal Energy Regulatory Commission (FERC), through its directive on Standard Market Design (SMD), is addressing issues related to both market design and transmission constraints.<sup>4</sup> This general restructuring of the industry is intended to shift from a regulated utilities based model to a competitive market-based model of providing electricity. But the restructuring cannot be accomplished, according to FERC, without the development of a

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**FERC is an independent government agency in the U.S. that is officially part of the Department of Energy. It is responsible for regulating the interstate transmission of natural gas, oil and electricity. It regulates the wholesale electricity market, but has no jurisdiction over retail sales.**

completely integrated transmission system. This would entail both creating a much larger integrated transmission system in each region and taking control of transmission away from the utilities

that now own and operate them. The main point for FERC is to ensure access to markets for private producers of electricity and to shift the industry to respond to



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market signals: in this sense transmission is the core of the electricity industry restructuring exercise.<sup>5</sup>

Crucial issues for the future of electricity in B.C. are the changes that will take place with the development of a Regional Transmission Organization (RTO) for the western regions of the U.S. and Canada. **This RTO would operate and control the transmission grid of B.C. Hydro**<sup>6</sup> In Dec. 1999 FERC issued Order 2000 that required utilities under its jurisdiction to file, by October 2000 proposals for the formation of a RTO. It is important to note that FERC has jurisdiction over investor-owned utilities (i.e., private corporations), but it does not have jurisdiction over utilities in the public sector nor utilities that are owned by municipalities, counties or the federal government in the U.S. And, of course, it does not have jurisdiction over anything in Canada.

In the U.S. public utilities are objecting strenuously to the changes that would occur as a result of giving up control over their transmission systems and argue that FERC does not have the authority to implement such sweeping changes.<sup>7</sup> In fact, it is such a heated topic that the success of FERC's objectives with both Standard Market Design and RTOs is not assured. Senators in several U.S. Western states in particular have threatened to use legislative means to halt the implementation of the plan.<sup>8</sup> The Western Governors' Association particularly objects to FERC's imperialism with regard to energy design: "expansion of the Commission's authority into state decisions such as resource adequacy and demand response is not warranted." They are concerned over FERC's cavalier tendency to rush to change the electricity sector without understanding the consequences: "experience in the West over the past two years has shown the immense personal and economic hardship resulting from FERC not fully understanding the implications of changes in electricity policy."<sup>9</sup> The governors point out that the huge Western Interconnection spans three nations, an important

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difference from what occurs in the eastern part of the U.S. This means grafting onto the West a solution (SMD and a RTO) that was originally intended to meet problems in the eastern part of the country, could lead to unintended, but seriously negative consequences in the West.

B.C., however, has not objected to these initiatives of FERC. Under the new energy policy, the government plans to split BC Hydro in two companies to please FERC and has actively participated in the hand-over of the control of the B.C. system to a U.S. controlled entity. As the BC Hydro 2002 Annual Report notes, “While BC Hydro doesn’t fall under FERC jurisdiction, we proactively participated to ensure that the same open, non-discriminatory transmission access which exists in B.C. is available for wholesale market participants throughout the region.” It bravely proclaims “our proposed participation in RTO West would protect sovereignty over our natural resources and the interests of our employees and customers.”<sup>10</sup> As will be shown in what follows neither sovereignty nor B.C. customers will be protected: B.C. will become subject to decisions about what happens in this province that are made in the U.S. and are controlled by a U.S. government entity. There are decisions that will not have the interests of B.C. residents as a primary focus.

## Splitting up BC Hydro

The B.C. government new energy policy, *Energy for our Future: A Plan for B.C.*, indicates that transmission will be split from B.C. Hydro and be put into a new corporation called *BC Hydro Transmission Corporation*. While the energy plan indicates that this will be a separate Crown corporation, it is likely that this will actually be a private corporation that is owned by the government. Under this arrangement as a ‘private’ government company, there would be no requirement to publish annual reports (as is true for a public company) or to report to the public

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through legislative committees (as is a requirement for a Crown Corporation). This is a problem both because of the sacrifice of transparency that is crucial for public ownership, and also because it ultimately will be easier to sell a private corporation in the future if it is not a Crown corporation.

The stated reason for separating transmission into a separate company is to conform to FERC's recommendations.<sup>11</sup> This is quite misleading: so far FERC has urged the voluntary separation of transmission from generation entities, but it is something that is not required under existing FERC jurisdiction. In fact, the private sector in B.C. now has complete access for wholesale transmission and retail transmission in some cases. It appears that the main reason to pursue this distinct separation of transmission from BC Hydro is to signal to both the U.S. and the private sector that transmission will no longer be controlled in the public interest and for the benefit of a public corporation. But, rather, that transmission access will be developed and available should private corporations want to develop electricity for export.

The separation of the transmission system from B.C. Hydro control is the most crucial step in breaking up the efficiencies and value of an integrated system. B.C. Hydro is a vertically integrated system, which means its generation is supported by its ability to deliver energy over long distances and to distribute it to consumers. The transmission system is a natural monopoly that is an integral part of the existing system. The value of the generation system to B.C. Hydro cannot be separated from the transmission and distribution systems and any removal of the transmission system from B.C. Hydro would harm both the efficiency and the value of the public asset.<sup>12</sup>

Over the years various ways have been worked out to compensate B.C. Hydro for the transmission of electricity generated by other producers. This "wheeling" is predictable and is conducted in typical ways that respond to the

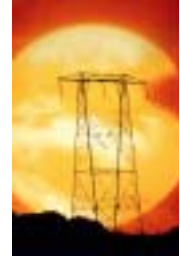
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demand for open access without giving up exclusive controls over their wires.<sup>13</sup> As one analyst noted, “ the key fact here is that someone else’s energy is passing along utility wires with the permission of – and under a mutually acceptable contract to – the wires of the owner.”<sup>14</sup> The proposals to sever the transmission system from BC Hydro are quite distinct because they demand that access be given to private generators or power brokers for the purpose of serving B.C. Hydro’s own customers or for export. Because private electricity will occupy utility wires in a permanent way, this affects the use of public property much more severely than does the access that is acquired through specific wheeling agreements. The B.C. Hydro system was designed as an integrated whole and when the public corporation can no longer have control over the timing, extent or nature of how the transmission system is used, the entire value of the system to the public is compromised.

The separation of the functions of generation, transmission, distribution and services is inherently artificial. Any private power corporation would go to great lengths to preserve the integrated nature of its operations, as is increasingly evident from the tendency of the entire electrical energy industry to become increasingly concentrated.

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## part two: RTO West



FERC is obsessed with achieving the disintegration of transmission and generation, a process that specifically destroys the efficiencies of vertically integrated utilities. The creation of RTO West requires that all participants give up the operation and control of their transmission systems to the new RTO. RTO West will be the aggregation of all of the transmission systems in the west. The initial filing to FERC for the creation of RTO West in 2000 included Avista, Bonneville Power Administration, Idaho Power Company, Montana Power Company, Nevada Power Company, PacifiCorp, Portland General Electric Company, Puget Sound Energy Inc., and Sierra Pacific Power Company. At the Stage 2 filing (2002) B.C. Hydro joined this group and there is a likelihood that Alberta will join as well. Ultimately, the vision is for a Seamless Western Market that would include three western RTO's, RTO West, CalSo and WestConnect RTO, and would stretch from B.C. to Texas and ultimately to Mexico.<sup>15</sup>

### RTO West Control

RTO West will have operational control over all of the areas previously operated by the entities participating in RTO West, known as the Participating Transmission Owners (PTO). This means it will have authority to set prices, enact all interchange schedules, maintain system reliability and security and plan for future expansion of the system, in addition to actually running the system. According to filing plan presented to FERC, each PTO would have specific rights, but these are fairly limited to the following:<sup>16</sup>

- Having its pre-existing transmission obligations served

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- Having its transmission revenue requirement recovered
  - Providing or 'self-tracking' ancillary services
  - Providing maintenance for its own facilities (subject to a maintenance plan approved by RTO West)

While many of the details about how the RTO would operate have been worked out, very significant items still defy a realistic solution. One particular problem is how 'local control' can be maintained in Canada. Considering the scope of the powers of RTO West, and the demands that will be placed on B.C.'s transmission system, it is highly likely that virtually all transmission operations in B.C. will be subject to RTO West directives. This has been reinforced by FERC's determinations with regard to Stage 2 filings. The applicants (i.e., utilities intending to form RTO West) presented the possibility that RTO West would not have operational control over all facilities, but rather that certain types of facilities that are owned by the utilities be maintained as separate entities. These were primarily facilities that the PTOs felt were not integral to wholesale transmission, but were used mostly for providing retail load service. FERC's response was to indicate that the applicants had not provided any adequate rationale for separating transmission services into separate classes in order to exempt some from RTO oversight. FERC indicated that it thinks all of the transmission facilities and even some distribution facilities within a region should be included in the RTO.<sup>17</sup> Its basic position is that "most or all of the transmission facilities in the region should be operated by the RTO, as well as those necessary for operational control and management of constrained path, regardless of the voltage."<sup>18</sup> If this view continues to hold throughout the various regulatory filings stages, B.C. Hydro Transmission will be little more than a shell corporation taking rents for the use of its lines and maintaining the facilities.

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Another problem arises for future changes in the RTO. It is very possible that RTO West ultimately will look very different from the proposals that are now agreed upon. But when this occurs there will not be much the participating organizations will be able to do. The applicants were hoping that when there was a conflict between the Transmission Operating Agreement (TOA) and the RTO West Tariff that the TOA would automatically govern.<sup>19</sup> FERC specifically rejects this by saying that “ although owners of transmission facilities have legitimate reasons to protect their capital investment and to define their relationship with RTO West any agreement reflecting such arrangement must not interfere with an RTO’s ability to propose, implement, and change terms and conditions of the services it will provide.”<sup>20</sup> The main point to take from this is that the RTO West will have a governing body that will develop its own rules and regulations over the way the transmission network will work and if this diverges significantly from the original TOA, there will be little recourse for a dissenting position. Basically, any PTO entering into RTO West must take it on faith that its interests will be met into the future. This is an enormous leap for B.C., because it will have very little influence over the future directions of RTO West.

## RTO West Governance

Canadian entities will likely have no voice in the governance structure of RTO West. A nine-member Board of Trustees that will be representative of five member classes will guide the management of RTO West. These representative classes are:

- Major transmitting utilities
- Transmission-dependent utilities
- Nonutility entities
- Large Retail customers

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- A class including state and provincial energy authorities, tribal utility regulatory authorities and unaligned entities that could include various types of public interest organizations.

Each trustee that is elected must be independent of power market participants – that is, they cannot sit on the boards or be part of management of any entity using the transmission service and cannot in any way have a direct or indirect financial interest in any company using the services of RTO West. These nominees for the Board would be selected from a slate of from not less than nine or more than fifteen qualified candidates that are assembled by an executive search firm. Technically, an election will occur, but if only nine candidates are selected the outcomes will be fairly predictable. Also, in subsequent elections, when vacancies become available the Trustee Selection Committee may hold competitive elections, but it will not be required to do so if it thinks that highly qualified candidates would be deterred from participating in a competitive election process.<sup>21</sup> Basically a head-hunting firm will be deciding who will be running RTO West, undoubtedly under the advice of the most powerful participants in RTO West.

Under these circumstances, it would be possible, in fact probable, that the Board of Trustees would be entirely made up of U.S. representatives. Even if there is some sort of election, any Canadian entity that is eligible to vote for the Trustees, such as B.C. Hydro, will be in a decided minority, considering the huge representative groups that make up each class on the Board. B.C. Hydro will, however, be able to participate in an advisory board because any member of RTO West may participate in this. Some groups that have intervened in the filing process have complained about the very limited powers of this advisory board, however FERC claims the board “affords stakeholders an ample opportunity to



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participate within an independent governance structure.”<sup>22</sup> Ultimately, B.C. will be giving up the control and operation of its entire transmission system and its only voice in what happens will occur through a very limited advisory capacity.

In the design of RTO West a Regional Representative Group (RRG) was formed to serve as a discussion forum for issues related to the RTO. This group included representatives from about seventeen stakeholder groups, “Canada” being one of them.<sup>23</sup> The main point to note here is that an elaborate process and discussion has been underway for the past three years virtually without Canadian stakeholder participation – with the exception of B.C. Hydro’s representative, a representative who champions the RTO process and tends to downplay any problems with issues of sovereignty.<sup>24</sup> While this appears to be a relatively open process in the U.S., the invitation to the Canadian public simply did not occur, or if it did, did not occur in any way that would actually elicit participation. This means that crucial issues about transmission development will be made without the concerns of First Nations, environmental groups, or consumers in Canada being part of the discussion.

## Transmission Prices

Under the initial period of the RTO, part of the pricing formulas are supposed to cushion existing transmission costs in low-cost areas from rising too rapidly. They are also designed to eliminate ‘pancaked’ rates and to allow existing transmission obligations to be met. The first stage of pricing is referred to as a period where “Company Rates” prevail. This is an eight-year period before there is a full transfer to either a uniform tariff or full market-based pricing across the region. This means retaining what is referred to as a “license plate” rate design, a system that allows those using the RTO to pay a rate based on the historical costs in the place where the load originates.<sup>25</sup> During this period, in addition to the

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Company rate charges, other charges could be added, including a Grid Management Charge to recover costs of RTO West operations.<sup>26</sup>

The most dramatic change to occur in the pricing system is the introduction, from the very beginning, of a market system for 'congestion management.' While the 'company rates' transition period creates a sense of stability, at least for a time, the proportion of access to the transmission system above the guaranteed access will be based on market rates. This is designed to

manage 'congestion' by ratcheting up the price of transmission at the margins. This pricing scheme is referred to as locational marginal pricing (LMP) and, as the name implies, will elicit very different access prices depending on the region.

Congestion pricing, according to FERC, is intended to set prices of transmission to reflect the 'value' of transmission to those who want it most through the creation of a market for space on the transmission system. The way it is supposed to work is by allowing the guaranteed space for each PTO that is not actually used by that PTO to be sold to another user. The selling PTO would

receive the revenue from the sale, with the selling price being whatever the market will bear at a particular location. Some PTO's will undoubtedly speculate in the market, forgoing their ability to use their allotted space on the RTO if more money can be made by selling the space on the market than by actually delivering

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### Pricing Terms

**Pancaking:** The system of fees that are currently charged by each individual transmission owner as electricity is moved from the generator to the point of delivery – i.e., rates are stacked.

**License plate rate:** Under the RTO each load will pay a basic single access fee related to the historical costs at the location of origin. It is similar to an automobile license plate where the owner pays a fee in one province, yet can travel without additional costs in others.

**Locational marginal pricing (LMP):** The additional specific market price at each location for access to the transmission system.

**Company Rates:** The interim system of fees based on the cost of the facilities where the load originates (the license plate rate). The proposal is that this rate for a limited amount of space be in effect for eight years.

**Congestion Pricing:** This will create a market for access to transmission rights that will allow PTOs to buy and sell available space on the network through a bidding system. This system uses the locational marginal pricing approach.

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electricity. It is the kind of system that can be ‘gamed,’ if any participant knows the needs of another participant at a specific time. It is a system that requires an enormous amount of regulation, and a sophisticated regulation system at that, in order to work without disastrous results.

This market-based access system with tradable rights for transmission can have a profoundly destabilizing effect on the entire system. Through this FERC is forcing the abandonment of transmission prices that are related to costs. Rather it adopts a marginal pricing system that will reflect whatever the market will bear at specific locations. This market will be subject to manipulation and a rapid ratcheting up of prices, mainly because it will allow transmission access to be traded at prices based on the desperation of each provider at a given moment. Any participant could buy rights and ratchet up prices during peak load periods. Normally the proportion of transmission to total electricity costs are quite small (5-10%). But with the type of pricing proposals for RTO West, these transmission costs could spiral.

## Planning and Expansion

All planning and expansion decisions for the entire transmission system will be under the control of RTO West. The PTOs attempted to modify this requirement in the Stage 2 filing by proposing that RTO West would ‘have the right to review all proposals for additions, modification or expansions to RTO West Controlled Transmission Facilities.’ However, FERC has ruled this attempted modification as “unacceptable” because it would diminish the authority of RTO West. Ultimately FERC decided that RTO West will ‘have primary responsibility and final decision-making authority for transmission planning and expansion of transmission facilities under the operational control of RTO West.” (emphasis in original)<sup>27</sup>

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Exactly how new investment in transmission facilities will be undertaken within the area of each PTO is not certain. But FERC does have objectives in place that make it clear what the priorities for expansion will be. Expansion will occur for projects that 1) expand trading opportunities, 2) better integrate the grid, and 3) alleviate congestion that may enhance generator market power. In addition RTO West is directed to encourage this market-driven expansion to be undertaken by ‘market sponsors.’ This means that private investors will be encouraged to construct new facilities: they are actually encouraged to offer detailed project proposals to RTO West to expand the system. However, should private corporations not be interested in new projects, RTO West will have the power to direct a PTO to expand its own system.

New investments in cross-border transmission lines could well turn out to be very expensive for B.C. – particularly considering the constraints that exist between the possibility of considerably expanded private generation in B.C. and the relatively small proportion of electricity that can now be exported through existing transmission lines. Since the wires will still be in the public sector, it very likely will be the public that will be paying for the expansion of the system.

The implications of RTO West control over investment for the future of electricity in B.C. are enormous. The entire direction of the transmission system in B.C. has been, up to this point, to serve B.C. customers and only a relatively small proportion of electricity generated in B.C. is exported. According to the B.C. government, *“the transmission grid was designed with the mandate to serve domestic customers and not with trade as the primary consideration.”* (My emphasis)<sup>28</sup> Trade now appears to have become the ‘primary consideration’ for the expansion of the grid. When RTO West runs the transmission system the needs of the export market will be the focus for new

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investment decisions. Since BC Hydro's generation is not to grow, the prime beneficiary of increased trade with the U.S. will be the private sector.

The public in B.C. needs to pay particular attention to the mechanisms of future investment not only because of the possibility of future costs, but also because of the implications for servicing areas of B.C. that do not meet 'market-based' criteria. The priorities for expansion through the RTO system of planning may well not include various areas of B.C. that need transmission expansion. At the very least it will leave the final authority regarding what areas get served in the hands of an entity outside Canada.



## part three: other considerations for BC

### Prices

One of the major implications for B.C. of the new design for the transmission market is that it will encourage B.C., a low cost power area, to export power and cause an escalation of prices within B.C. If increased access to U.S. markets occur, as is the intention of the RTO, all new energy generation in B.C., which will come from the private sector as mandated by the B.C. government's Energy Plan, will have the option of selling within the province or selling in the U.S. This will result in BC consumers competing with American consumers for power produced in our own province. The major constraint existing at the moment is the limits to the transmission system into the U.S.

As FERC notes, cost-shifting can occur – that is cheap power can leave one region for sale in another higher-priced region – when generation is not already under contract for purchase. The only remedy for this cost shifting, according to FERC, would be for BC Hydro to contract for all private-sector power to ensure that future generation 'stays at home.'<sup>29</sup> Under these circumstances, B.C. Hydro will need to pay a premium in order to buy the private power produced in B.C. – particularly because it does not have the option to produce this power itself. In either case, the anticipated expansion of trade with the U.S. as a result of the RTO would result in a progressive ratcheting up of prices in B.C.

### International Rules and NAFTA Protections

The B.C. government maintains that the U.S. redesign of its system requires that B.C.'s system change as well in order to meet U.S. requirements.

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B.C. Hydro's decision to actively participate in the creation of RTO West is a strictly voluntary exercise: "While BC Hydro doesn't fall under FERC jurisdiction, we proactively participated to ensure that the same open, non-discriminatory transmission access which exists in B.C. is available for wholesale market participants throughout the region."<sup>30</sup>

It is important to stress that B.C. is involved in *creating* RTO West – that is, there is no compulsion for B.C. to give up the operation and control of its transmission system to a U.S. controlled entity. There is no requirement in international law that any entity in Canada has to change its system in order to export into the U.S. This is a fundamental protection that is given each country under NAFTA. According to the NAFTA Commission for Environmental Cooperation in its assessment of the cross-border electricity trade,

*"The demand for reciprocity from US producers has already become a prominent issue relating to cross-border trade. Under NAFTA, a Party is not required to provide reciprocity, but only national treatment for the goods of another Party. Market participants in Canada, such as BC Hydro, have for the time being chosen to agree to reciprocity voluntarily rather than insist on their rights."*<sup>31</sup>  
(my emphasis)

The B.C. government is behaving as though 'reciprocity' – or mirroring U.S. policy — is required in Canada in order to export into the U.S. As the Commission on Environmental Cooperation shows, under NAFTA no country is required to have exactly the same type of organization of its market or industry as exists in the country into which it exports. Rather, each country must grant 'national treatment' to foreign firms. What this means is that as long as a province treats domestic and foreign firms in the same way, it is not contravening NAFTA. This is a condition that B.C. Hydro already satisfies. In treating FERC proposals for standard market design and the creation of an RTO as something that compels

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significant change in B.C., the B.C. government is giving up a significant right that NAFTA guarantees each country.

## Environmental Issues

FERC maintains that its new rules for SMD and the creation of RTOs will result in environmental benefits “by creating a level playing field for market entry by new generation that emits fewer pollutants. New natural gas-fired generating units and intermittent generators, such as solar, wind and fuel cell power, will face fewer barriers to market entry.”<sup>32</sup> The possibility for ‘green’ energy is attractive to those who are concerned about the greenhouse effects of thermal sources of electricity generation. Frequently the large utilities have impeded the access of this green energy to transmission system. FERC’s optimism with regard to green energy is more a promotional ‘sell’ than an indication of large amounts of green energy coming on the market. The congestion-pricing scheme, with its intention of ratcheting up the prices at the margins, will be a serious obstacle for green energy.

But, what is even more significant is the shape of the entire focus of the system: the more extensive the transmission network, the greater will be the efforts to produce and sell more power in all jurisdictions. The larger the transmission network, the more likely will be the development of mega electricity projects for export (such as Site C dam on the Peace River). The whole point of a vastly expanded transmission network is to bring on-line more private generation of electricity and to take it further and further in search of markets. In Canada this will mean more production for export. FERC’s argument is that a larger supply of electricity that can access distant markets will reduce prices. However, this is unlikely to occur in B.C. because it is already a low-cost province. It is more likely to experience higher prices and environmental degradation simultaneously.



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Congestion on network lines that limits the amounts that can be transmitted over long distances is not always a bad thing. It could encourage the development of *distributed generation*. This is production of electricity for distribution on local markets, an approach that would forestall the need for a vastly expanded transmission network. Transmission systems themselves have negative environmental impacts, particularly as they develop across vast expanses of wilderness land, as would be necessary in the Pacific Northwest. They have both negative social and environmental consequences when they are developed in urban areas as well, and highly populated areas are particularly concerned about the safety of high voltage transmission lines near residential areas.

The argument against distributed generation is that it costs more for each unit of electricity sold, although this is balanced by its greater reliability than transmission networks and its environmental benefits.<sup>33</sup> However, whether the distributed generation is actually more environmental friendly over-all depends largely on the fuel source used. If the distributed generation comes from alternate sources such as wind energy, the environmental benefits could be large, but if it comes from coal or gas, there would be substantial greenhouse gas effects. The main point, however, is that the ability for alternate, 'green' fuel sources to displace dirty fuels would be undermined by the vast expansion of the continental transmission network that would develop under the FERC plans.



## part four: conclusion

The 'problem' to be solved through the redesign of the entire electricity system in the U.S. is a U.S. problem: it is not a problem in Canada. Because many states have deregulated their electricity market, dramatic constraints in the transmission system arise. According to the *Wall Street Journal* :

" Power line capacity problems were less pronounced in the Southeast, where regulated utilities still dominate markets, mostly supplying consumers with energy from locally owned power plants. The situation was worse in California and New York, two states that are on the cutting edge of the deregulation movement." <sup>34</sup>

The problems with transmission capacity clearly arise when utilities deregulate and begin buying power from distant places. This places tremendous stress on transmission systems, systems that were not designed for the dramatic increase in traffic, but for providing electricity from local production. The resulting blackouts and huge price increases seem to demand that massive new amounts of transmission infrastructure be added to the system – all to accommodate a new direction for the electricity that is very flawed.

In B.C. electricity costs are not high, we do not experience excessive problems with greenhouse gases that arise from electricity production, and there is not a problem with security of supply. The electricity used in B.C. is produced in B.C. and only a relatively small proportion is exported. The only reason to pursue the FERC model for the transmission of electricity is to massively increase production for export.

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Unfortunately, the B.C. government has taken part in the development of RTO West and will officially have it control and operate transmission in B.C. once it is in place.<sup>35</sup> 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. BC Hydro Transmission Corporation will receive the income from the use of the transmission lines, but, with the exception of maintaining the system, will have no other significant role. It will not be responsible for planning, operations or managing the BC Hydro transmission system because this will be the responsibility of RTO West. This could be very costly: B.C. residents could be on the hook for new investments, but not have security of supply within province assured. That is, expansion of the transmission system will serve export needs and will be directed toward ties with the U.S.: it is a U.S. entity that will be making the decisions.

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. In the Pacific Northwest, American state leaders, businesses, public utilities, consumer groups and others are resisting FERC's aggressive demands for changes in systems that have worked well within these states. They recognize that the changes promoted by FERC will open the door to a California style electricity disaster.

Rather than blindly following a directive from a U.S. regulatory body, the BC government should halt its plans to break-up BC Hydro and join RTO West. At the very least the people of B.C. should be consulted before the public utility is dismantled.

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## Acronyms

FERC	U.S. Federal Energy Regulatory Commission
FTR	Firm Transmission Rights
IPP	Independent Power Producer
NFTR	Non-firm Transmission Rights
OASIS	Open Access Same Time Information System
PTO	Participating Transmission Owner
RTO	Regional Transmission Organization
PUC	Public Utility Commission
SMD	Standard Market Design
TOA	Transmission Operating Agreement

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## Endnotes

<sup>1</sup> "New FERC Chair Threatens Shake-up of Power Industry," *NW Energy Coalition Report*, vol 20, no 10, October 2001, p. 1.

<sup>2</sup> U.S. electricity use is expected to increase 45% within the next 20 years. This would require bringing into production one new plant a week over this period, something that is highly unlikely. [Dick Cheney, Colin L. Powell, et al., *National Energy Policy: Report of the National Energy Policy Development Group* (Washington: U.S. Government Printing Office, 2000), p. 5-10.]

<sup>3</sup> For a discussion of the electricity systems in each province in Canada see Marjorie Griffin Cohen, *Electricity Deregulation, Privatization and Continental Integration: GATS and the Restructuring of Canadian Electrical Utilities*, (Ottawa: CCPA, 2002).

<sup>4</sup> United States of America Federal Energy Regulatory Commission, *Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*, Docket No. RM01-12-000.

<sup>5</sup> According to FERC Chairman James Hoecker at a US Senate hearing on proposed electricity deregulation, "it is the strategic asset, the integrated network platform, upon which any competitive and transparent wholesale power market must be built." [B.C. Hydro, *A Briefing on BC Hydro's Transmission Capacity Requirements*, Sept. 2002.]

<sup>6</sup> According to the B.C. government's new energy policy, transmission will be run no longer by B.C. Hydro, but by a new company called B.C. Hydro Transmission Corporation. [B. C. Ministry of Energy and Mines, *Energy for Our Future: A Plan for B.C.* (Victoria: Ministry of Energy and Mines, November 2002).]

<sup>7</sup> United States of America Federal Energy Regulatory Commission, *Initial Comments of The Consumer Federation of America and Consumers Union*, Docket No. RM01-12-000, November 14, 2002, p. 4.

<sup>8</sup> "Senators Criticize SMD During Energy and Natural Resources Committee Hearing, *Electricity Restructuring Weekly Update*, Sept. 20, 2002.

<sup>9</sup> "Governors Cite Concerns over FERS Proposal for Electricity Grids," Press Release, August 22, 2002. The Western Governors' Association represents the governors of 18 states.

<sup>10</sup> B.C. Hydro Annual Report 2002, p. 70.

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<sup>11</sup> *Energy for our Future*, p. 19

<sup>12</sup> For a further discussion of this see Marjorie Griffin Cohen, *The Political Economy of Electricity Competition: The Case of BC Hydro* (Vancouver: CCPA, 2002).

<sup>13</sup> Wheeling is the term used by the industry to refer to the transmission of electric power from one system to another through the owners of a transmission line. Wholesale wheeling refers to transmission from a generator to a utility. This is in contrast to “retail wheeling” which refers to the ability to deliver electricity to the final customer.

<sup>14</sup> John Rowe and Paige Graening, “Property Law: It’s Physical – and Logical,” *The Electricity Journal*, September 1996, p. 46.

<sup>15</sup> The Seams Steering Group – Western Interconnection (SSG-WI) currently serves as a discussion forum for facilitating the creating of a seamless Western market.

<sup>16</sup> FERC, RTO West, Stage 2 filing, Docket No. RT01-35, March 29, 2002, Attachment B.

<sup>17</sup> FERC’s response to the Stage 2 RTO West filing, “Declaratory Order on Regional Transmission Organization Proposal, Docket Nos. RT01-35-005 and RT01-35-007, September 18, 2002, pp. 22-25.

<sup>18</sup> 95 FERC at 61,344-45, April 26, 2001. Quoted in *Ibid*, p. 21.

<sup>19</sup> A TOA is the controlling document of the RTO that contains specifications regarding congestion management proposal, the pricing methodology; operational responsibilities; transmission use rights; ancillary services, planning and expansion provisions; dispute resolution procedures; and a market monitoring proposal. This was the original operational authority signed by all PTOs.

<sup>20</sup> FERC Docket Nos. RTO01-35-005 and RTO-35-007, *op. cit.* p. 17-18.

<sup>21</sup> *Ibid.*, p. 11.

<sup>22</sup> FERC Docket No. RT01-13-001 and RT01-30-001, July 12, 2001.

<sup>23</sup> These groups included public generators, rural co=ops, transmissin dependent utilities, residential customers, non-investor-owned utilities, industrial customers, environmental interests, renewable resource interests, sovereign tribes, Canada, RTO West Filing Utilities.

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<sup>24</sup> This is Yakout Mansosur, B.C. Hydro Vice-President, Grid Operations and Interutility Affairs. Yakout Mansour dismisses issues of sovereignty by saying " Good vision is often politically painful." [Yakout Mansosur, " Open Access Track: 1996 to 2002 and Beyond," presentation at RTO Workshop, Vancouver, December 4, 2002].

<sup>25</sup> This is differentiated from a 'postage stamp rate' system where everyone pays the same tariff.

<sup>26</sup> Other charges would include Transfer Charges; External Interface Access Fee; Charges for congestion management, losses and Ancillary Services; Stranded Cost Allocation; and fees to pay for recovery of revenues lost from the elimination of short-term charges within RTO West. [FERC, RTO West, Stage 2 filing, March 29, 2002, RT01-35.

<sup>27</sup> Ibid., p. 71.

<sup>28</sup> BC Hydro, " A Briefing on BC Hydro's Transmission Capacity Requirements," Sept. 2002.

<sup>29</sup>FERC, SMD Questions and Answers, <http://www.ferc.gov/informational/faqs/faqs.htm>.

<sup>30</sup> B.C. Hydro Annual Report 2002, p. 70.

<sup>31</sup> Commission for Environmental Cooperation (CEC), *Electricity in North America: Some Environmental Implications of the North American Free Trade Agreement (NAFTA)*, March 1999, p. 290.

<sup>32</sup> FERC, Information on Standard Market Design, <http://www.ferc.gov/informational/faqs/faqs.htm>.

<sup>33</sup> Carlos Ocana and AurÉlie Hariton, *Security of Supply in Electricity Markets: Evidence and Policy Issues* (Paris: OECD, International Energy Agency, 2002), p. 45.

<sup>34</sup>Rebecca Smith, " U.S. electricity study fuels debate over deregulation," *The Wall Street Journal*, Dec. 20, 2001. p. B11.

<sup>35</sup> RTO West will begin operations in the fall of 2004 and will completely run the system by 2006.