

## B.C. Ministry of Employment and Investment

# Western Electricity Report - 1994

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### British Columbia

(Updated January 12, 1995)

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### Columbia River Treaty

Under the Columbia River Treaty (the Treaty), ratified in 1964, British Columbia built three storage dams which are operated to provide flood control and increase dependable power generation on both sides of the Canada/U.S. border. In return for building the Mica, Duncan and Keenleyside Dams, British Columbia receives one- half of the additional power generated at facilities in the U.S. as a result of the storage and flow regulation provided by the dams in B. C. The U.S. has the obligation to deliver this power, defined in the Treaty as the Canadian Entitlement (the entitlement), at a point on the border near Oliver, unless the parties agree otherwise. Oliver delivery would require new high- voltage transmission to return the entitlement, which is currently calculated under the Treaty to be between 1200 and 1400 MW of capacity and 550 aMW of energy.

In the 1960s, the Canadian entitlement was sold for 30 years to a group of Pacific Northwest utilities to finance the construction of the dams. On September 8, 1994, a Memorandum of Agreement (MOA) was signed to set out the U.S. obligations for the entitlement as the original sales expire in stages between 1998 and 2003. The MOA has four main components: 1) purchase by the U.S. of the capacity above 950 MW for US \$180 million; 2) assured access for B.C. to return the power over existing transmission lines or to market the remaining entitlement in the U.S. using the Bonneville Power Administration's transmission system; 3) an agreement where B.C. agrees to purchase energy at "distress prices" to the extent that firm entitlement deliveries to California may impede access for Pacific Northwest utilities; and 4) resolution of Treaty operational disputes.

Technical teams are working on detailed agreements based on the MOA. During the course of these deliberations, certain differences of interpretation of the MOA have come to light, but both sides are hopeful that these can be resolved during the early part of 1995. Final implementation of the agreements will be through a diplomatic exchange of notes between the U.S. and Canadian federal governments.

### Electric System Operations Review

Recent drought water conditions within the province's two major developed river basins, the

Columbia and Peace, have raised concerns in affected communities that operation of the province's major hydroelectric projects for power generation and flood control does not adequately consider non-power values, such as forestry operations, tourism, fish and wildlife, and recreation. On June 4, 1993, the province directed B.C. Hydro to undertake a one-year Electric System Operations Review (ESOR). The ESOR Terms of Reference directed B.C. Hydro to use existing information to:

- document, in non-technical language, how operational decisions are made;
- develop a database covering power and non-power uses and concerns;
- identify major non-power impacts of existing operations;
- develop a framework, consistent with social costing principles, for assessing trade-offs associated with potential operational changes; and
- involve the public and First Nations in the development of alternative operational scenarios which could result in both minor or major losses of power capability.

On June 29, 1994, B.C. Hydro submitted its ESOR report to the province. The report concludes that existing operations efficiently and cost-effectively address reliability, power maximization, and flood control. Many of the operational changes considered would have significant financial implications from reduced system capability. The report indicates that monetized non-power benefits which result from these altered operations are, in many cases, orders of magnitude smaller than the power loss costs. A provincial response to the ESOR report is being prepared for release in February 1995.

## **Regional Transmission Groups (RTGs)**

B.C. Hydro's marketing subsidiary POWEREX has been active in the development of the Western Regional Transmission Association (WRTA) and the Northwest Regional Transmission Association. As noted in the May 20, 1994 filing of the WRTA governing agreement to the Federal Energy Regulatory Commission (FERC), there remain some barriers to the participation of Canadian utilities in RTGs. In a June 10, 1994 motion to intervene in the WRTA filing, POWEREX noted that Canadian utilities operate under a different regulatory and legal system, and cannot sign an agreement which would commit Canadian regulatory authorities to adhere to FERC rulings.

A sub-group of WRTA subsequently drafted language that would recognize Canadian regulatory sovereignty and process within the RTG. The draft amended language, which has been approved by the WRTA membership, allows terms and conditions for access and new facilities on a "basis comparable" to utilities subject to sections 210 or 211 of the Federal Power Act, and establishes Canadian regulatory authorities as the avenue of appeal of an arbitrator's decision regarding transmission in Canada. Both B.C. Hydro's Board of Directors and the Ministry of Energy, Mines and Petroleum Resources have indicated their support for participation in RTGs on this basis.

B.C. Hydro and POWEREX are continuing to participate in discussions that will culminate in the compliance filing of the WRTA Governing Agreement (which will include the modifications that recognize Canadian sovereignty) by March, 1995.

## **Wheeling**

B.C. Hydro does not currently have a tariff for wheeling. At the BCUC's direction, B.C. Hydro filed an application in January 1995 for expanded industrial service options, including wholesale wheeling. The legislation enabling wheeling (including retail wheeling) has been in place since 1988, however, there have been no requests for the BCUC to order wheeling service under the Utilities Commission Act, owing primarily to the reliable and competitively priced electricity service provided by B.C. Hydro.

Up to now, the few entities that have required wheeling have been able to arrange for service either directly with B.C. Hydro at negotiated rates or at market rates through the Power Exchange Operation, a market operated by POWEREX for transactions of less than one year.

On December 15, 1994, the province embarked on a policy review of retail wheeling. The review will consider the input from various industry participants including utilities, independent power producers, self-generators, the BCUC, and electricity customers. The purpose of the review is to clarify and define the implications of, and the appropriate pricing structure for, wheeling service to best serve the electricity needs of British Columbia.

As a first step in this policy review, the province has asked the BCUC to canvass the interest groups for their views on the desirability of retail wheeling, and to make recommendations to the government by April 30, 1995.

## **British Columbia Utilities Commission (BCUC) Initiatives Integrated Resource Planning Guidelines**

In February 1993, the B.C. Utilities Commission (BCUC) issued Integrated Resource Planning (IRP) guidelines for the electric and gas utilities it regulates. Draft IRPs were submitted by both B.C. Hydro and West Kootenay Power Ltd. (WKP) in their 1994 revenue requirement applications. The individual IRPs are discussed in the sections below dealing with the two utilities.

The BCUC guidelines call for biennial filing of IRPs which must include the following components:

- identification of the plan's objectives;
- development of a range of gross (pre-demand side management [DSM]) demand forecasts;

- identification and characterization of available supply and demand resources;
- development, evaluation and selection of integrated resource portfolios; and
- an action plan.

The IRP guidelines call for public input at all stages of the planning process, opportunities for the BCUC to review and comment at the various stages in the development of the IRP, and adherence to government policy. Emerging policy issues (e.g., changes in environmental regulation) are covered as risk factors.

## **Generic Return of Equity Hearing**

In an attempt to streamline the regulatory process and avoid duplication, the BCUC held a joint public hearing in April 1994 with BC Gas Utility Ltd., Pacific Northern Gas Ltd. and WKP to set appropriate rates of return on equity (RoE) and capital structure. On June 10, 1994, the BCUC rendered a decision in which a base rate of return was set at 7.75 percent for all utilities, supplemented by a risk premium developed by the BCUC based on the testimony provided by expert witnesses at the hearing. RoE adjustments for 1995 and future years will be made on the basis of changes in the yield on long-term Government of Canada bonds.

## **Electric Utility Performance and Resource Planning**

### **B.C. Hydro**

In its annual report for the year ended March 31, 1994, B.C. Hydro reported net income of \$190 million on revenues of \$2.2 billion, 37 percent below the \$301 million income in fiscal 1993. The drop in income is attributable to low water conditions on both the Peace and Columbia Rivers which reduced electricity trade revenues, and to increased energy costs from power imports and fuel purchases.

During this period, B.C. Hydro experienced a record customer growth, adding over 42,000 customers (3.1 percent) primarily in the residential and general service classes. Even with these additions, domestic load was flat at just over 42,000 GW.h. Electricity trade volume was reduced from 5,600 GW.h to 2,600 GW.h.

On February 15, 1994, B.C. Hydro applied to the BCUC for a 2.8 percent average rate increase, which was approved on an interim basis effective April 1, 1994. A public hearing into the application was held in September 1994 followed by the BCUC's Decision on the Application on November 24, 1994. The BCUC denied the rate increase and ordered B.C. Hydro to refund the interim (totaling \$41 million collected since April 1994.) B.C. Hydro has also been ordered to revise its residential tariff so that flat rates can be achieved in the absence of the rate increase. (The timeframe for achieving flat rates in the commercial rate class has been extended by one year to April 1, 1996 to avoid unacceptable bill impacts.) In its Decision, the BCUC also criticized B.C. Hydro for not adhering to its IRP guidelines which were

issued in early 1993. In the Decision the BCUC directed B.C. Hydro to establish a consultative committee to review its IRP. The BCUC also outlined a process for B.C. Hydro to follow to ensure it complies with the IRP guidelines in the future.

B.C. Hydro has applied to the B.C. Court of Appeal for leave to appeal the BCUC's Decision on grounds that the BCUC exceeded its jurisdiction or erred in law in a number of areas.

### **B.C. Hydro's Request for Proposals**

At the time of release, of B.C. Hydro's 1994 Electricity Plan did not identify an immediate need to acquire new resources. However, since its release, B.C. Hydro had numerous discussions with private sector generation project proponents, and received a number of unsolicited proposals from these proponents. During the course of these discussions, it became apparent that private sector supplies of electricity may be available at prices that are below B.C. Hydro's estimated cost of new supply. B.C. Hydro re-examined its 1994 Electricity Plan and felt that the acquisition of electricity at these low prices would reduce the cost of electricity to B.C. Hydro's customers.

In December 1994, B.C. Hydro issued a Request for Proposals (RFP) for a minimum aggregate supply of 200 MW of capacity or 1,760 GW.h per year of energy for the integrated system with supply commencing on or after October 1, 1998. With the exception of B.C. Hydro's subsidiaries (POWEREX and B.C. Hydro International Ltd., which are not eligible to participate in the RFP), bids are being sought from all sources, including system sales, independent power producers, electricity marketers, and bidders capable of successfully executing a demand side program. Supply side responses will be accepted from other utilities and out-of- province bidders.

Proposals will be screened according to B.C. Hydro's resource acquisition policy which outlines the multiple account framework that will be used for evaluating resource alternatives. B.C. Hydro will also seek public input on the responses to the RFP.

The deadline for proposal submission is March 15, 1995.

### **West Kootenay Power Ltd. (WKP)**

WKP is an investor-owned utility serving over 120,000 customers in the south-central portion of the province. In 1993, WKP reported net earnings of \$9.7 million, a 10.6 percent return on record sales of \$112.7 million. WKP owns four hydroelectric projects on the Kootenay River which in 1993 supplied only 40 percent of its peak capacity requirement of 600 MW, and 51 percent of its gross load of just over 3,000 GW.h. The remainder of WKP's customers demand was served by firm power supply agreements with Cominco Ltd. (Cominco) (46 percent of capacity and 32 percent of energy), under a BCUC-approved B.C. Hydro tariff (24 percent of

capacity and 17 percent of energy), and minor market purchases.

Since late 1991, WKP's relationships with its primary suppliers, Cominco and B.C. Hydro, have undergone dramatic change. In December 1991, the BCUC approved two firm power supply agreements with Cominco, which replaced a previous agreement under which firm supply was no longer assured. In April 1993, the BCUC ruled that B.C. Hydro had an obligation to serve WKP as a customer based on historical relationships and previous agreements. However, because WKP as a utility has the responsibility to meet demand growth in its service territory, the BCUC ruled that B.C. Hydro's obligation should be capped at 200 MW.

As a result of these changes, WKP has begun more intensive planning to achieve efficiencies and seek least-cost new resources. In December 1993, WKP became the first electric utility in the province to file a draft IRP. Using input from its customer advisory panels, WKP presented six possible resource portfolios which were distilled from a full slate of DSM options, and 55 supply-side resources. Both the portfolios preferred by WKP and its stakeholders included short-term energy and capacity purchases, increased DSM at both WKP and Cominco, and generation and transmission efficiency investments. The BCUC directed WKP to submit its final IRP by February 28, 1995.

In its June 1994 revenue requirement and rate design decision, the BCUC rolled back WKP's applied-for increases for 1994 and 1995 from 5.9 and 5.8 percent to 2.4 and 3.1 percent, respectively. The lower increases are the result of: 1) a lower rate of return established in the BCUC's generic RoE hearing; 2) a reduced deemed equity component based on previous BCUC directions; and 3) some OMA and capital expenditure costs which were not allowed into rate base. On rate design, the BCUC approved residential rate increases 2 percent above the average to address inter-class subsidization from commercial customers, and the implementation of inverted rates for the residential customer class.

In August 1994 WKP applied to the Minister of Energy, Mines and Petroleum Resources for an Energy Removal Certificate (ERC) to permit the removal of up to 100 GW.h of electric energy annually from the province during the period October 1, 1994 to September 30, 1999. The application was approved, and an ERC was issued in November 1994.

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