Columbia Power Corporation

Service Plan
2002-2005

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COLUMBIA POWER CORPORATION

SERVICE PLAN 2002 – 2005

1.0 Introduction

Columbia Power Corporation ("CPC") is a Crown corporation, wholly owned and controlled by the Province of British Columbia (the "Province"). CPC undertakes power project investments in the Columbia Basin Region (the "Region"), as an agent of the Province, on a joint venture basis with the Columbia Basin Trust ("CBT"). CPC/CBT joint ventures produce power that is sold into the wholesale market, primarily under long term contracts to two regulated utilities, UtiliCorp Networks Canada ("UNC") and BC Hydro, who in turn sell to end-use consumers.

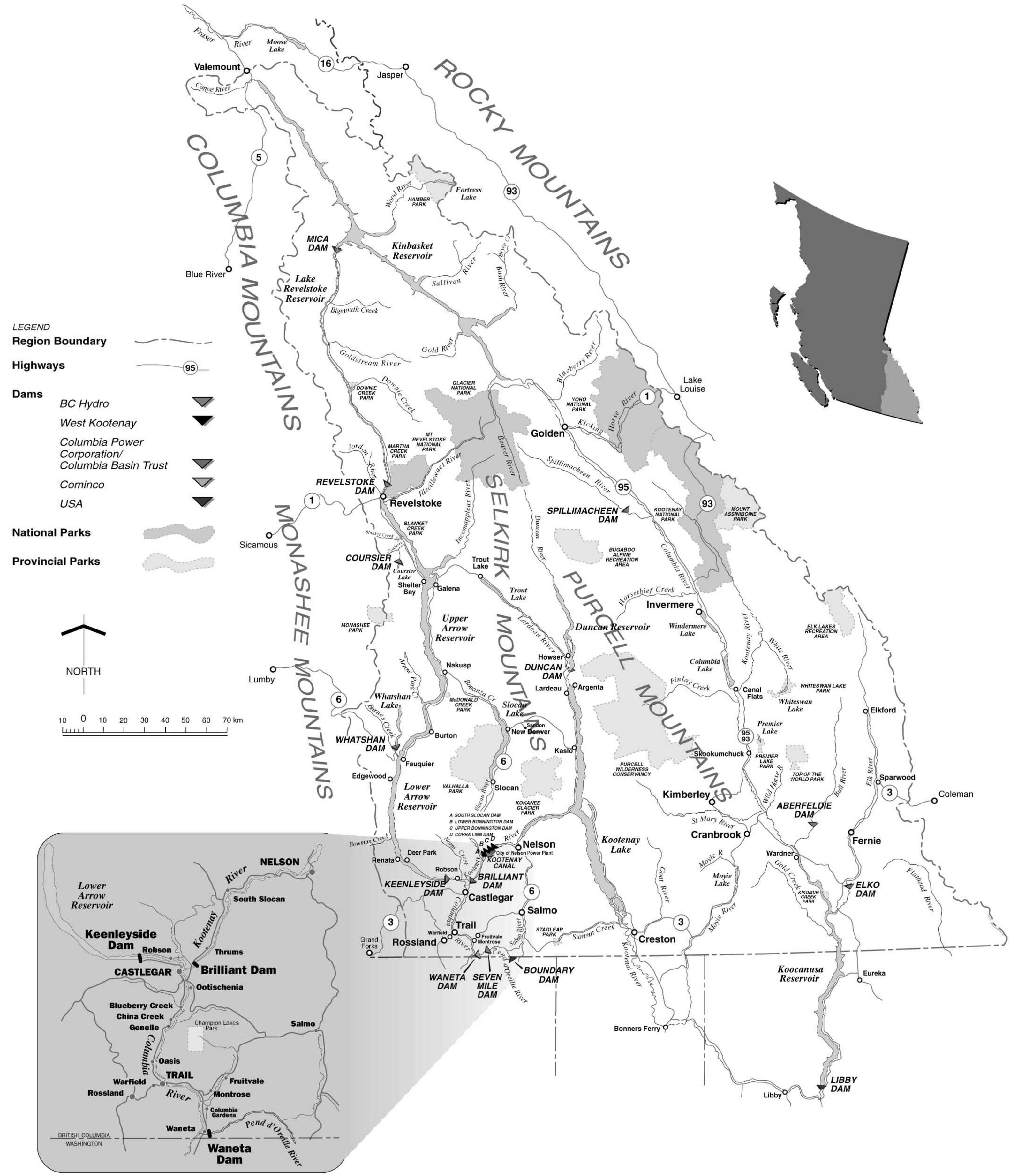
2.0 Historic Context and Overview of the Organization

In 1964, Canada and the United States ratified the Columbia River Treaty (the "Treaty"). Under the Treaty, Canada, through the Province, agreed to build three new storage dams in the Canadian section of the Columbia River: Keenleyside (1968), Duncan (1970) and Mica (1973). The purpose of the new dams was to create 15.5 million acre feet of water storage which would control flooding in Washington and Oregon and allow hydroelectric facilities in these states to produce more electricity, about 2,400 megawatts ("MW") of additional capacity (BC Hydro has about 10,000 MW of capacity). This additional power is referred to as the downstream benefits ("DSBs"). In consideration for building the new dams, the Province was awarded $64.4 million plus one-half the DSBs, which it sold to a consortium of U.S. utilities for a period of 30 years.

The construction of the three Treaty dams brought current and future financial benefits to the Province, but also significant economic, environmental and social costs to the residents of the Region, both at the time and on an ongoing basis. Twenty three hundred residents were displaced, communities were lost, lands were expropriated and properties were flooded. There continue to be ongoing negative environmental effects from reservoir and river-flow fluctuations.

In 1995, the Province, through legislation and contractual arrangements, created a unique model to compensate the Region for the costs borne because of the Treaty dams. It was agreed to allocate a share, about 8 per cent, of the value of future DSB sales to the Region. The mechanisms of the Columbia Basin Initiative were the *Columbia Basin Trust Act*, which created CBT, and the 1995 Financial Agreement between the Province and CBT, which set out the terms for the regional allocation.

Under the 1995 Financial Agreement, CBT and CPC, as agent of the Province, receive $250 million each over ten years to provide equity for qualifying power project development in the Region. Three core projects were designated - Keenleyside (or Arrow Lakes Generating Station), Brilliant Expansion and Waneta Expansion (the two latter involving development rights purchased from Cominco Ltd. – now Teck Cominco Metals Ltd. – by CPC in 1994). Other generation, distribution and transmission projects can be carried out by CPC and CBT, so long as both CPC and CBT agree and so long as the projects meet the same commercial and other tests as the core projects. Project debt is expressly non-tax supported and non-recourse to the Province and is raised in the institutional bond market.



ROCKY MOUNTAINS
COLUMBIA MOUNTAINS
SELKIRK MOUNTAINS
PURCELL MOUNTAINS
MONASHEE MOUNTAINS
LEGEND
Region Boundary
Highways
95
Dams
BC Hydro
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Cominco
USA
National Parks
Provincial Parks
NORTH
10 0 10 20 30 40 50 60 70 km
Fraser River
Moose Lake
Valemount
16
Jasper
Canoe River
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Wood River
HAMBER PARK
Fortress Lake
MICA DAM
Kinbasket Reservoir
Blue River
Lake Revelstoke Reservoir
Sullivan River
Bush River
Bigmouth Creek
Gold River
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GLACIER NATIONAL PARK
DOWNIE CREEK PARK
Downie Creek
YOHO NATIONAL PARK
Kicking Horse River
Golden
MARTHA CREEK PARK
MT REVELSTOKE NATIONAL PARK
Jordan River
Illecillewaet River
Beaver River
Spillimacheen River
REVELSTOKE DAM
Revelstoke
Incomappleux River
SPILLIMACHEEN DAM
KOOTENAY NATIONAL PARK
MOUNT ASSINIBOINE PARK
Sicamous
BLANKET CREEK PARK
Duncan River
BUGABOO ALPINE RECREATION AREA
Columbia River
COURSIER DAM
Coursier Lake
Trout Lake
Shelter Bay
Galena
Horsethief Creek
Invermere
MONASHEE PARK
Upper Arrow Reservoir
Lardeau River
Duncan Reservoir
Windermere Lake
ELK LAKES RECREATION AREA
Kootenay River
White River
Howser
DUNCAN DAM
Columbia Lake
Lumby
Nakusp
Lardeau
Argenta
Finlay Creek
Canal Flats
WHITESWAN LAKE PARK
Whitewswan Lake
Elkford
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Whatshan Lake
Arrow Park Cr
Bonanza Cr
McDONALD CREEK PARK
Slocan Lake
Barnes Creek
New Denver
Sandon
Premier Lake
Burton
WHATSHAN DAM
Kaslo
Skookumchuck
PREMIER LAKE PARK
Fauquier
PURCELL WILDERNESS CONSERVANCY
TOP OF THE WORLD PARK
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Lower Arrow Reservoir
VALHALLA PARK
Slocan River
Slocan
Wild Horse R
Bull River
Elk River
Sparwood
Kimberley
Coleman
KOKANEE GLACIER PARK
A SOUTH SLOCAN DAM
B LOWER BONNINGTON DAM
C UPPER BONNINGTON DAM
D CORRA LINN DAM
ABERFELDIE DAM
St Mary River
Kootenay Lake
Bowman Creek
Cranbrook
Fernie
Deer Park
Norns Creek
Nelson
City of Nelson Power Plant
KOOTENAY CANAL
Renata
Wardner
Moyie R
Robson
Goat River
Gold Creek
Moyie Lake
Flathead River
KEENLEYSIDE DAM
BRILLIANT DAM
KIKOMUN CREEK PARK
ELKO DAM
Castlegar
Salmo
Moyie River
Trail
Warfield
Rossland
Grand Forks
Fruitvale
Montrose
STAGLEAP PARK
Summit Creek
Creston
Salmo River
Pend d'Oreille River
BOUNDARY DAM
WANETA DAM
SEVEN MILE DAM
Kootenai River
Koocanusa Reservoir
Eureka
Bonners Ferry
LIBBY DAM
Libby
Lower Arrow Reservoir
NELSON
South Slocan
Keenleyside Dam
Robson
Thrums
CASTLEGAR
Brilliant Dam
Ootischenia
Blueberry Creek
China Creek
Genelle
Champion Lakes Park
Oasis
TRAIL
Warfield
Rossland
Fruitvale
Montrose
Columbia Gardens
Waneta
BRITISH COLUMBIA
WASHINGTON
Waneta Dam

The mandate of CPC, with its joint venture partner CBT Energy Inc. (a wholly-owned subsidiary of CBT), is to invest, subject to Treasury Board approval, the funds provided under the 1995 Financial Agreement in qualifying power projects in the Region. More specifically, the mandate is to:

- Develop core hydroelectric projects and other qualifying generation, transmission and distribution projects in the Region;

- Earn an acceptable rate of return given the risks;

- Finance power projects without tax-supported or government-guaranteed debt; and

- Promote employment, economic development and new industry through environmentally sound, cost competitive power project investment.

CPC is a "Government Corporation" under the *Financial Administration Act*, since its shares are owned and controlled by the Province. As noted, CPC is an agent of the government. CBT is not. Under the terms of its Agency Agreement with the Province, CPC is required to obtain Treasury Board approval for its annual budgets and its material decisions, including the issuance of debt. CPC also has a Funds Management Agreement with the BC Investment Management Corporation, a provincial Crown corporation, which establishes a segregated trust account to receive the annual appropriations from the Province. CPC participates in banking service programs available to Government Corporations from the Province.

Returns from CPC's 50 per cent power projects share are available to be distributed to the Province, CPC's shareholder, or retained. Returns from CBT's share of power projects will be used to provide benefits to the people of the Region in accordance with the *Columbia Basin Trust Act*.

3.0 Strategic Context

3.1 Vision

From its inception, CPC has always had a clear purpose. First, it was created by the Province in 1994 as a means to buy hydroelectric development rights from Cominco. Later, CPC's purpose was expanded to developing these rights and other power projects with CBT, in a manner consistent with and using funds allocated under the 1995 Financial Agreement.

CPC submits that the CPC/CBT model is efficient. In fiscal 2001/2002, CPC is managing a $143 million capital budget in carrying out power project planning, development and operation. CPC corporate expenses in doing so will total $4 million, about 3 per cent of that capital budget, which is very low. As power projects are completed over the next five to seven years, these amounts would fall significantly and would be replaced by operating budgets.

CPC sees its mandate over the next five to seven years to be:

- Complete its current mandate by investing the allocated funds in commercially viable, environmentally sound core and related power projects in the Region, and by securing all related licences and approvals;
- With completion of the investment program, expand the generation business from 130 MW in 2001 to 800 MW in 2008; and,
- With completion of the investment program, become an operating company rather than an asset development company, with most staff being located in CPC's Castlegar headquarters.

3.2 Mission

To undertake commercially viable and environmentally sound power project investments, as the agent of the Province on a joint venture basis with CBT, in support of the employment, economic development and resource management objectives of the Province and the Region, and to act as the joint venture project manager.

3.3 Planning Context

Events and trends that will influence or impact the successful delivery of CPC's stated goals include:

- Trends in the demand and supply of electricity, including the price of electricity, the cost of alternatives to hydroelectricity, and the realization of “green power” credits, which could affect the economics and timing of CPC/CBT projects.

- Trends in interest rates and exchange rates, which could affect financing costs, capital costs and electricity sales revenues for CPC/CBT projects.

- Existing and new legislation regarding environmental approval processes and permitting requirements, which could impact both the licensing and the operation of CPC/CBT projects.

- Levels of activity in the construction industry, which could affect the cost of construction for CPC/CBT projects.

- Energy market deregulation and restructuring, which could create new market opportunities for CPC/CBT projects.

- Transmission issues, such as tariff rulings, open access policies and physical limitations, which could affect CPC/CBT's ability to market power.

- Aboriginal issues, which could affect the timing and development of CPC/CBT projects.

- Public perceptions toward the benefits and costs of hydroelectric powerplant construction projects, which could affect the permitting of CPC/CBT projects.

3.4 Key Strategic Issues

(a) Energy Market Restructuring

Deregulation and restructuring of energy markets has the potential to improve market access and create new opportunities for the sale of power from CPC/CBT projects. In the United States, the Federal Energy Regulatory Commission ("FERC") has mandated the creation of regional transmission organizations ("RTOs"), in order to encourage open and non-discriminatory access to transmission services. FERC's reciprocity requirements will also encourage the creation of RTOs in Canada.

In British Columbia, the Province has established a Task Force on Energy Policy. In its Interim Report to the Minister of Energy and Mines, dated November 30, 2001, the Task Force identified the need to move to fully competitive markets in electricity and to provide more open and equitable access to the electricity transmission system in order to accommodate new energy producers. The Task Force also called for industrial and high-voltage transmission customers within the province to have access to the wholesale market. The Final Report of the Task Force is due to be submitted on March 15, 2002.

BC Hydro services about 90 per cent of provincial electricity demand and UNC services about 10 per cent. Existing provincial policy allows access to BC Hydro and UNC transmission systems for third parties (including power wholesalers such as CPC/CBT) to "wheel" power across their systems and to sell within their service areas to eligible transmission tariff customers. BC Hydro only has two eligible transmission tariff customers, the City of New Westminster and UNC. UNC has eleven eligible transmission tariff customers, including seven municipalities in the Kootenays and the Okanagan and four large industrial customers. Since BC Hydro and UNC sell power to these customers at prices that reflect the historic costs of existing electricity supply (which are lower than the cost of new supply), there are currently limited opportunities for CPC/CBT power sales within the province, except for bulk power sales to BC Hydro and UNC.

If the recommendations of the Task Force on Energy Policy are accepted regarding the need to move to fully competitive markets in electricity, more open and equitable transmission access, and wholesale market access for industrial and high-voltage customers within the province, then the key issues for CPC/CBT power sales will be the timeframe and rules for implementing these reforms, including policy decisions regarding whether and under what terms existing customers would have an ability to choose to continue to purchase from BC Hydro and UNC at prices that reflect their historic costs of existing electricity supply (i.e. "endowment" issues).

(b) Environmental Issues

Water Use Planning ("WUP"), the *Fish Protection Act*, the federal *Fisheries Act* and the new *Species at Risk Act* all have a significant potential to impact CPC/CBT power projects. This potential must be recognized and incorporated into the planning process.

The Province's WUP could result in additional operating restrictions for existing and prospective CPC/CBT facilities. CPC will respond to this potential by seeking to establish WUP principles that minimize impacts on CPC/CBT operations while still meeting the Province's environmental stewardship objectives, and by factoring the possible effects of WUP into project feasibility analyses. CPC will also seek compensation where the value of existing CPC/CBT assets and rights are negatively impacted (as BC Hydro has done).

The Province's *Fish Protection Act* contains provisions which could impact CPC/CBT power projects, such as the designation of "protected" rivers to effectively rule out the development of new facilities and the reduction of a project's licensed water flows upon transfer of a water licence. CPC will factor the possible impacts of such regulations into its project feasibility analyses. Once again, CPC will seek compensation where the value of existing CPC/CBT assets and rights are negatively impacted.

The federal *Species at Risk Act* is very new and has not yet been passed into law. Accordingly, its possible consequences are yet to be fully assessed.

(c) First Nations Issues

CPC has spent considerable effort in First Nations consultations, traditional land-use studies and First Nations employment programs. CBT has First Nations representation on its Board. The Delgamuukw decision has added a new dimension to First Nations issues, and has underscored the importance of continuing to work with First Nations in the Region.

(d) Core Services Review

This Service Plan presents a status quo. CPC is subject to the Core Services Review initiated by the Premier in the summer of 2001. As such, the assumptions underlying this Service Plan are subject to change once the Core Services Review is completed.

4.0 Strategic Goals and Objectives

CPC's strategic goals and objectives are to, jointly with CBT:

- Maximize the value of the rights to install a powerplant adjacent to BC Hydro's Keenleyside storage dam on the Columbia River, acquired from BC Hydro in 1998 together with property needed for the project.

- Maximize the value of the Brilliant and Waneta Expansion rights and related transmission rights, purchased from Cominco in 1994 for $52 million.

- Maximize the value of the 125 MW Brilliant Dam and Powerplant, purchased from Cominco in 1996 at a total cost of $136 million.

- Invest a total of $500 million in equity over 10 years to construct three core hydroelectric power projects – Arrow Lakes Generating Station, Brilliant Expansion and Waneta Expansion, and related facilities – subject to the conditions that would be established by a reasonable commercial lender.

- Undertake other generation, transmission and distribution projects in the Region as appropriate.

- Develop new markets for power in the Region and improve CPC/CBT market access.

- Complement the overall employment, economic development and resource management objectives of the Province and CBT for the Region, within the constraints of a commercial operation.

- Earn a commercial rate of return for power project equity investments.

- Ensure CPC/CBT project debt is financed on a commercial, self-supporting (non-recourse and non-taxpayer-supported) basis.

5.0 Key Strategies

CPC's key strategies designed to achieve its goals and objectives are to, jointly with CBT:

- Adopt innovative approaches to minimize the cost of CPC/CBT projects, including the use of design/build bidding processes whereby external engineering firms and construction contractors form strategic partnerships to submit competing proposals that meet technical specifications and electricity output levels set by CPC/CBT.

- Pursue other projects and opportunities that achieve synergies and scale economies with CPC/CBT core projects, and participate in strategic partnerships with other power companies, where appropriate.

- Secure long-term sales contracts in order to enable non-recourse project finance and to manage risk.

- Secure improved transmission and market access, both domestic and export, at a reasonable cost and maintain federal and provincial export permits in good standing, as required.

- Consult extensively with regional stakeholders to build support for CPC/CBT power projects.

- Maintain membership in regional power pools and systems co-ordinating councils, and continue to take an active role in the transmission and wholesale/retail access policy debate in the province and the Pacific Northwest.

- Participate in processes established to implement electricity market reforms where they are supportive of CPC/CBT's strategic goals and objectives.

- Participate in the development of environmental legislation and participate in water use plans that recognize existing CPC/CBT rights, minimize impacts on existing operations and prospective projects and meet the Province's environmental stewardship objectives.

- Develop an environmental management system that incorporates environmental protection and enhancement into CPC/CBT planning, power project designs, operations and ongoing due diligence.

- Pursue "green power" designations where possible and secure ownership of such rights in any sales contract.

- Continue to work to develop solutions that address First Nations issues relating to CPC/CBT projects.

- Minimize overall interest costs while enabling CPC/CBT to pursue their project development goals by: making use of equity resources to reduce interest obligations to acceptable levels during project development; and, securing lower cost debt finance once power projects have been completed and power sales contracts and backstop agreements have been put in place.

- Develop a sustaining capital fund to finance the equity portion of ongoing replacement capital and project life extension programs, while distributing an appropriate level of CPC equity returns to the Province as CPC's shareholder.

- Maintain CPC/CBT's exemptions from regulation in order to reduce transactions costs and minimize regulatory risk to bond holders.

- Sequence CPC/CBT projects to create long term, stable, construction employment and minimize strains on the economy of the Region.

- Encourage skills training, local hiring, employment equity hiring and local procurement by successful bidders for CPC/CBT design-build contracts, within the constraints of a commercial corporation.

6.0 Performance Measures

Key performance measures for CPC as joint venture project manager are its ability to:

- Develop projects on time and on budget.

- Secure markets for the power generated by CPC/CBT power projects.

- Earn a target rate of return for power project equity investments.

- Maintain or improve current bond ratings for CPC/CBT project debt.

- Create 2,200 person years of direct employment within the Region over ten years, with a target of 15 per cent or greater employment equity hires.

- Earn the support of regional stakeholders for CPC/CBT power projects.

- Perform the joint venture project manager function in a cost-effective manner.

7.0 Major Capital Project Plan

CPC's Major Capital Plan is to, jointly with CBT:

- Construct and commission the 185 MW Arrow Lakes Generating Station and the related 49 kilometre, 230 kilovolt ("kV") transmission line, and interconnect with BC Hydro's Selkirk Substation by April 1, 2002, within an overall construction budget of $270 million.

- Complete a three-year sustaining capital and life extension program for the Brilliant Dam and Powerplant by the fourth quarter of 2002 within an overall budget of $51 million.

- Upgrade the four turbines at the Brilliant Powerplant by the fourth quarter of 2002 within an overall budget of $18 million, for an additional 20 MW of capacity.

- Enter a strategic partnership with UNC whereby CPC/CBT will own, build and finance a new, $25 million Brilliant Substation and interconnect the Arrow Lakes Generating Station to Selkirk 230 kV transmission line at Brilliant, as part of UNC's Kootenay System Development Project ("SDP"). Under the SDP, UNC is rebuilding its electric transmission system in the Region. The new Brilliant Substation, which is to be commissioned by April 2004, and the interconnected Arrow Lakes to Selkirk transmission line will improve electric system reliability in the Region, service quality for UNC's consumers and market access for CPC/CBT power, in a cost-effective manner. (Before the Brilliant Substation can proceed final approval of the British Columbia Utilities Commission is required.)

- Develop a commercially viable and environmentally sound 80 to 120 MW Brilliant Expansion project by 2005, with the final project scale, design and capital cost to be determined through a competitive design, evaluate and build bidding process.

- Develop a commercially viable and environmentally sound Waneta Expansion project of up to 380 MW by 2008, with the final project scale, design and capital cost to be determined through a competitive design, evaluate and build bidding process.

8.0 Targets and Accomplishments for 2002/03:

- Complete the early commissioning of the Arrow Lakes Generating Station.

- Achieve additional revenues through the sale of power from the early commissioning of the Arrow Lakes Generating Station.

- Complete the Brilliant Upgrade and life extension program within the approved budgets.

- Obtain water licences and required environmental approvals for the Brilliant Expansion project.

- Secure markets for Brilliant Expansion power.

- Execute a Facilities Interconnection and Investment Agreement with UNC by May 31, 2002, under which CPC/CBT will build, own and finance a new Brilliant Substation and interconnect the Arrow Lakes Generating Station to Selkirk 230 kV transmission line with UNC's redeveloped 230 kV transmission system, and commence construction by June 2002.

- Continue to protect CPC/CBT's commercial and strategic interests in Waneta Expansion and CPC/CBT's contractual rights to Cominco's No. 71 transmission line.

- Complete Waneta Expansion initial project design, cost, environmental and socio-economic assessments necessary to allow a Project Approval Certificate application to be submitted.

- Maintain CPC/CBT's non-tax-supported debt status and maintain or improve the bond rating on Brilliant debt.

- Raise approximately $150 million in the commercial bond market for the Arrow Lakes Generating Station.

- Maintain CPC staffing and overhead costs at the minimum levels required to ensure the efficient delivery of the joint venture project manager function.

9.0 Public Policy Rationale

(a) Water Resources and Hydropower Assets in Public Hands

The Interim Report of the Task Force on Energy Policy recommends that core hydroelectric assets on the Peace and Columbia Rivers remain in public hands. This public policy position is followed in other jurisdictions. Market reform and competition are not seen as inconsistent with public ownership of generation assets, in particular hydropower assets. As a matter of public policy, hydropower facilities continue to remain in public hands, despite reform initiatives, in Ontario, Quebec, Norway, New Zealand, New South Wales and the United States. The development of the Arrow Lakes Generating Station, Brilliant Expansion and Waneta Expansion projects are intended to make maximum beneficial use of existing dams, reservoirs and water storage capacity on the Columbia River system by harnessing water that is currently being spilled or underutilized.

(b) Open and Accountable Decision-Making

More specifically to the Columbia Basin Initiative, CPC's pursuit of public policy objectives in partnership with CBT gives the residents of the Region a stake in the permitting and operation of the overall hydro system in the Region, as well as a clear regional voice in operating decisions and other processes, such as water use management. This is consistent with ensuring open and accountable decision-making. Gaining public acceptance of key decisions is essential for equitable and sustainable water and energy resource development, and has been identified as a strategic priority by the World Bank sponsored World Commission on Dams ("WCD") in its November 2000 Report, "Dams and Development: A New Framework for Decision-Making".

A former Team Leader of the WCD Secretariat recently wrote to the Chair of CBT. His letter reviewed the progress of the WCD, and said:

> "…the CBT provides an essential purpose in linking project proponents to the basin population, and a meaningful forum for discussing basic issues of power project desirability, setting requirements for impact minimization, and then mobilizing public support for the project or its variants to support community and regional development. In particular, it provides the resources for stakeholders and community groups to participate meaningfully in the necessary research, project study and other dialogue processes needed to resolve the inevitable tradeoffs and optimize mutual benefits that are to be derived from specific projects in an equitable manner.

> There are many other instances where CBT programmes reflect what the WCD considers to be "best or good practice", and which characterize programmes dealing with incremental and cumulative impacts of basin development activities, which many countries are now seeking to establish and fund directly, and sometimes with innovative provisions for cost-recovery where appropriate and feasible. In many cases, the specific approaches that the CBT has adopted are becoming prerequisites for other countries in order for them to gain access to international funding support. The position established by the Committee on Appropriations in the USA, which I cited earlier, is just one illustration of the growing consensus to commit public resources for sustainable management of water and energy resources. This specifically includes facilitation of community-based initiatives such as the CBT sponsors with its slate of current and proposed programmes."

(c) Efficient and Sustainable Use of Provincial Resources

While there are accepted public policy reasons for maintaining hydroelectric and water resource assets in public hands, there are also reasons on economic efficiency grounds, due to what is referred to as market failure. Addressing market failure is a core role for government in a market economy.

Market failure refers to a situation where markets, and individuals and firms responding to market forces, fail to achieve a socially efficient allocation of resources. As a result, there is over-investment in some resources and under-investment in others. This can occur when the market price of a good does not reflect the full costs and benefits to society from its production and use. A classic example of this relates to environmental costs and benefits, particularly involving the use of shared, or common, resources such as air and water. Unlike land, around which there is a well-developed system of property rights, air and water are not traded or priced in markets, even though their use involves costs and benefits to society. For example, CO_2 and other "greenhouse gases" are generally recognized as imposing an environmental cost on society. Even though the production of electricity from hydro resources avoids the production of harmful greenhouse gases associated with thermal plants, there is currently no market mechanism to allow an investor in hydroelectric power to capture the benefit to society from avoiding greenhouse gas production — there is a market failure. As a result, in the absence of public investment in hydroelectric power projects, there may be an under-investment and a loss to society.

Hydroelectric power projects are capital intensive, produce returns slowly, are difficult to have permitted, are more heavily taxed than thermal plants, have more risky tenures, but create significant social benefits that cannot currently be sold or captured by the investor. These factors can discourage potentially beneficial investment in projects where discounted social benefits exceed discounted social costs. For example, together, CPC/CBT's Arrow Lakes Generating Station and Brilliant Expansion would avoid 700,000 tonnes per year of CO_2 emissions, which would otherwise be produced by a comparable thermal power project. This is equivalent to displacing 140,000 cars per year in Vancouver. The present value benefit to society at large, including Vancouver (at $15 per tonne — the estimated mitigation cost of CO_2 emissions), is $60 million. This is a benefit not currently captured by the investor, although that may be possible in the future if markets develop for the trading of greenhouse gas "credits". Both the Arrow Lakes Generating Station and Brilliant Expansion would also produce significant improvements for downstream fisheries, by reducing the level of dissolved gases caused when water is "spilled" over a dam rather than put through a turbine. Brilliant Expansion, for example, has been endorsed by nine major U.S. environmental agencies, including the U.S. Environmental Protection Agency and the Bonneville Power Administration. Again, these are social benefits not captured by the investor.

While good projects on social economic grounds, these projects may not be candidates for investment by the private sector responding to market forces on private financial grounds. Without market reforms to allow the capture of these external benefits by the investor, socially beneficial projects may not be developed without public sector investment. From a social perspective, this would be a loss to society — a market failure.

(d) Market-Oriented Development

Competition and choice are foundations of a market economy, which lead to efficiency and the “greatest good for the greatest number.” As noted in the Interim Report of the Task Force on Energy Policy, competition and choice have not been the characteristics of British Columbia’s electricity sector.

Even in a hydroelectric dominated system with a near monopoly in generation, as is the case in British Columbia, the generation business can accommodate competitive alternatives and there can be many generators, with differing costs and technologies serving the same market. The number of sellers can be increased by establishing separate “generation divisions”, within the same large publicly owned generation company. Alternatively, there can be separate generation companies owned by the same public shareholder to obtain some of the benefits of competition.

Transmission and dispatch are monopolies and, in a competitive market, should be operated independently from generation and distribution, on a non-discriminatory basis. Open but regulated transmission system access is the linkage to complete the formulation of a competitive market.

CPC/CBT are publicly-owned independent power producers. While they have the same shareholder as BC Hydro, they provide a low cost, market-oriented alternative to BC Hydro in the hydroelectric generation development business. CPC/CBT would be an even more effective alternative if there were both increased capability on the existing transmission grid, and thus less congestion on existing transmission lines, and improved, more open, access to domestic and export markets.

(e) Sound and Cost Effective Management of Public Money

One of the principal rationales for the Columbia Basin Initiative was to provide equitable compensation to the residents of the Region for costs, both past and ongoing, resulting from the construction and operation of the Treaty dams. This compensation, however, was tied. Allocations of $250 million would only be provided to CBT and matched by the Province, through CPC, if invested in viable power projects that would produce immediate and long-term economic benefits. Moreover, the power projects must satisfy all regulatory requirements and “meet conditions precedent as would be set by a reasonable commercial lender.” Thus, the power projects must be economically viable and any project debt must be raised in the commercial bond market on a non-recourse project finance basis. The debt is neither taxpayer-supported nor government-guaranteed.

One of CPC's principal roles is to ensure that power project investments are carried out in a manner consistent with the 1995 Financial Agreement and the mandate of the Columbia Basin Initiative. CPC has done this successfully and at a low cost. In June 2001, the Office of the Auditor General of British Columbia, whose role is to assist the Legislature in overseeing the management of public money by providing independent reviews of, and advice about, government accountability and performance, reported on its assessment of CPC's development of the $270 million Arrow Lakes Generating Station. The report ("Arrow Lakes Generating Station: Capital Management Process") made several significant observations:

> "Overall, we concluded that the capital management process used for the Arrow Lakes Generating Station was appropriate, and will provide good value for the money.
>
> We concluded that the joint ventures had planned the procurement process thoroughly. We found that the competition created…by making bidders aware of the proposal process—and the presence of other bidders…was maintained up to and in the negotiation of the contract.
>
> We note that all land and rights-of-way required for the transmission line was acquired through negotiation and purchase. No land was expropriated for the project. This is significant in that the purpose of the project—and the Columbia Basin Accord—is to compensate the Columbia Basin Region for hardships caused by the Columbia River Treaty, which did result in expropriation of land."

Furthermore, in August 2001, the New York-based bond rating agency Moody's Investor Service ("Moody's") and the Toronto-based bond rating agency Dominion Bond Rating Service Limited ("DBRS") both upgraded their ratings of CPC/CBT's Brilliant Dam and Powerplant bonds (issued by the CPC/CBT joint venture company Brilliant Power Funding Corporation), from A2 to A1 and from A (mid) to A (high), respectively. In announcing the upgrade, Moody's stated that its decision was "based on the project's sound financial and operational record". In announcing its bond rating upgrade DBRS stated that: "The rating is being upgraded based on the improving fundamentals of the project since the inception of the rating in 1996."

(f) Employment and Economic Growth

The economy of the Region is highly dependent upon forestry, mining and construction. The first two sectors have been experiencing various difficulties for some years and there has been little new investment. The purchase of the Brilliant Dam and Powerplant in 1996 by CPC/CBT, followed by a ten-year $85 million rehabilitation and upgrade program, made a positive contribution to investment growth in the Region. This was followed-up in 1999 by commencement of construction of the Arrow Lakes Generating Station project. This project has provided 700 person years of direct employment (85 per cent hires from the Region), $60 million in direct and indirect income generation, $18 million in regional procurement and $2 million in First Nations contracts. Local expertise is developed for the planning, execution and operation of the Region's hydroelectric resources. With existing, underway and possible power projects all included, CPC/CBT could help to create over 2,200 person years of employment in the Region over a ten-year period on the basis of roughly $1 billion in power project investment.

Appendix A

CONSOLIDATED STATEMENT OF INCOME FORECAST [1]				
($ 000's)	**2001/02 (latest forecast)**	**2002/03 (budget)**	**2003/04 (forecast)**	**2004/05 (forecast)**
REVENUES				
Sale of power	$ 12,361	46,751	29,917	30,883
Interest	356	464	589	607
Management fee	341	440	484	532
	13,063	47,655	30,990	32,022
EXPENSES				
Water rentals	2,108	2,833	4,669	4,759
Amortization of capital assets in service	1,812	4,758	6,910	7,024
Property tax	830	867	949	968
Operations and maintenance	385	1,371	1,456	1,461
Provision for BC corporation capital tax	218	71	0	0
Administration and management	717	1,075	1,076	1,144
Insurance	203	395	441	450
Community sponsorship	75	75	75	75
Development costs expensed	1,640	0	0	0
Power sales revenue sharing expense [2]	0	23,408	0	0
	7,988	34,853	15,576	15,881
INCOME FROM OPERATIONS	5,075	12,802	15,414	16,141
FINANCE CHARGES				
Interest expense	4,898	8,605	12,512	12,486
Amortization of deferred debt issue costs	21	34	42	42
	4,919	8,639	12,554	12,528
NET INCOME FOR THE YEAR	$ 156	4,163	2,860	3,613
Energy (thousand megawatt-hours)	439	833	848	848
Cost of energy supply ($ per megawatt-hour)	25.7	24.1	32.4	32.5
Operation, maintenance and administration ($ per megawatt-hour)	2.5	2.9	2.6	2.6
Ratio of OMA to cost of energy supply	9.8%	12.2%	8.1%	8.0%

Appendix A (continued)

Notes:

1. Revenues and expenses in the consolidated statement of income represent Columbia Power Corporation’s 50 per cent share of joint venture revenues and expenses.

2. Power sales revenue sharing expense represents the portion of early power sales revenues paid to the design-build contractor under the terms of the construction contract for the Arrow Lakes Generating Station.

Key Assumptions	Forecast Risks and Sensitivities
The forecasts were prepared assuming the status quo before the completion of the government Core Services Review process. The results of the Core Services Review process may affect the forecasts. Key assumptions affecting the forecasts are as follows. The Arrow Lakes Generating Station is commissioned in the first quarter of 2002/03. The Brilliant Upgrades and life extension programs are completed in 2002/03. The Brilliant Substation is completed in 2003/04. Long-term financing is obtained for the Arrow Lakes Generating Station in 2002/03, based on an investment grade credit rating. Market prices for electricity are US$35 per megawatt-hour at March 31, 2003, escalating at 2 per cent per year. The Canada/U.S. exchange rate is 1.5:1. Grants in lieu of property tax are paid by the Arrow Lakes Generating Station. Operating cost inflation is 2 per cent per year.	The factors which would have the greatest impact on income during the forecast period are the timing of completion of the Arrow Lakes Generating Station, the Brilliant Upgrades and the Brilliant Substation. Delays of these projects would have a material effect on the income of Columbia Power Corporation. Changes in operating costs and market prices would not be expected to have a material effect during the forecast period due to the nature of Columbia Power Corporation’s power sales arrangements.

Appendix B

OPERATING SUBSIDIARY SUMMARY INFORMATION [1]				
($ 000's)	**2001/02**	**2002/03**	**2003/04**	**2004/05**
COLUMBIA BASIN POWER COMPANY [2]				
Revenue	25,094	28,228	33,292	34,425
Operating expenses	1,669	1,838	2,568	2,576
Taxes and water rentals	6,285	6,440	6,569	6,694
Interest expense	9,795	11,190	13,073	13,147
Depreciation	3,285	3,953	5,251	5,417
Net income	4,060	4,807	5,831	6,591
Capital expenditures	20,916	21,546	740	4,116
Installed capacity (megawatts)	135	145	145	145
Total sales (megawatt-hours)	877,550	903,950	923,900	923,900
Average price ($/megawatt-hour)	28	31	33	33
ARROW LAKES POWER COMPANY [3]				
Revenue	-	65,852	27,370	28,204
Operating expenses	-	2,809	2,237	2,281
Power sales revenue sharing Expense	-	46,816	-	-
Taxes and water rentals	-	1,094	4,666	4,760
Interest expense	-	6,020	11,951	11,824
Depreciation	-	5,080	8,049	8,049
Net income	-	4,033	467	1,290
Capital expenditures	97,910	7,736	-	-
Installed capacity (megawatts)	-	185	185	185
Total sales (megawatt-hours)	-	762,900	772,000	772,000
Average price ($/megawatt-hour)	-	86	35	36

Notes:

1. Information contained in this table represents 100 per cent of the revenues and expenses of each operating subsidiary. The revenues and expenses of the subsidiaries are shared on a 50/50 basis by Columbia Power Corporation and the Columbia Basin Trust.

2. Columbia Basin Power Company is the joint venture of Columbia Power Corporation and CBT Power Corp. which owns and operates the Brilliant Dam and Powerplant. Revenues and costs associated with the proposed Brilliant Substation are included in Columbia Basin Power Company.

3. Arrow Lakes Power Company is the joint venture of Columbia Power Corporation and CBT Arrow Lakes Power Development Corp. which owns and operates the Arrow Lakes Generating Station.

Appendix C

CPC/CBT MAJOR CAPITAL PROJECTS			
EXISTING/UNDERWAY	**Installed Capacity (MW)**	**Capital Costs ($ 000's)**	**Construction Employment (person years)**
Arrow Lakes Generating Station	185	270,000	700
Brilliant Dam and Powerplant	125	130,000	0
Brilliant Upgrades	20	18,000	50
Brilliant Life Extension/ Sustaining Capital	-	51,000	75
Sub-totals	330	469,000	825
PLANNED			
Brilliant Expansion	80-120	NA*	450
Waneta Expansion	250-380	NA	900
Brilliant Substation	-	25,000	45
Totals	660-830	$494,000+	2,220

*Not available