COLUMBIA POWER CORPORATION

SERVICE PLAN 2004/05 - 2006/07

February 17, 2004



January 30, 2004

Honourable Richard Neufeld Minister of Energy and Mines

Dear Minister Neufeld:

I am pleased to submit Columbia Power Corporation's 2004/05 – 2006/07 Service Plan.

Columbia Power Corporation ("CPC") is wholly owned and controlled by the Province of British Columbia (the "Province"). CPC develops and operates power projects 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 is the joint venture manager. Returns from CPC's 50 per cent share of power projects are available to be distributed to the Province. Returns from CBT's 50 per cent share of power projects are available to be distributed to CBT to provide benefits to the people of the Region in accordance with the *Columbia Basin Trust Act*.

CPC was created in 1994 to purchase certain hydroelectric rights from Cominco Ltd. Since then, CPC has gone from being a "start-up" company to the fourth largest producer of electricity in B.C. CPC now manages over \$730 million in assets. CPC develops and operates CPC/CBT projects on a commercial basis, as an independent power producer, using limited-recourse project finance and without a provincial debt guarantee. CPC/CBT power projects utilize existing dams and harness water that would otherwise be spilled. Thus, CPC/CBT power projects have low environmental impacts. Despite this, being on international rivers, CPC/CBT power projects are built and operated in a very difficult environmental regulatory system (which includes federal and provincial regulators, an international treaty and local, regional, aboriginal and U.S. stakeholders). CPC/CBT power projects sell into a monopoly-controlled domestic power market characterized by limited transmission access to adjacent power markets in Alberta and the U.S., with domestic power prices based on the average cost of existing supply, not the marginal cost of new supply. For all of these reasons, CPC must be efficient and innovative to achieve its goals and objectives.

Over the period 1999/00 to 2002/03, with the construction and commissioning of the 185 megawatt, \$270 million, Arrow Lakes Generating Station ("ALGS"), CPC/CBT had the third largest hydro project under construction in North America and the largest industrial project in B.C. ALGS was completed on budget and ahead of schedule, and received the Lieutenant Governor's Award for Overall Excellence from the Consulting Engineers of British Columbia, as well as awards from the Canadian Consulting Engineers and the Design Build Institute of America. During the three-year construction period, ALGS created 750 person years of direct employment (85 per cent local hires), \$60 million in direct and indirect income and \$20 million in regional procurement.

Over the period 2003/04 to 2006/07, CPC/CBT is constructing the 120 megawatt, \$205 million, Brilliant Expansion Project ("BRX") using the design-evaluate-build strategy successfully applied in the development of ALGS. Under this strategy external engineering firms and construction contractors form strategic partnerships to submit competing proposals to meet technical specifications and electricity output levels set by CPC/CBT. The objective is to ensure the most cost-effective construction methods while transferring most of the construction risk to the design-build contractor. BRX construction commenced in April 2003 and, under the terms of the design-build contract, is scheduled for Substantial Completion by September 2006. With construction of BRX, CPC/CBT will create over 450 person years of direct employment, \$30 million in direct and indirect income and \$15 million in local procurement during the three-year construction period.

Over the period 2004/05 to 2006/07, CPC/CBT power projects will generate \$49 million of net income for the Province and the Region, and contribute an additional \$34 million in taxes and water rentals.

On January 16, 2004, the government announced changes to the CPC/CBT joint venture structure. This restructuring will be implemented in 2004/05 and will result in consolidation of power project joint ventures and subsidiaries under Columbia Power Corporation, which will be a subsidiary of the Columbia Basin Trust. For the Service Plan reporting period 2005/06 - 2007/08 and beyond, reporting on power project developments under the Columbia Basin Initiative will be through the new restructured entity. The current Service Plan assumes the status quo because the restructuring has been announced but not yet implemented.

Yours truly,

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Lorne Sivertson President and Director

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COLUMBIA POWER CORPORATION

SERVICE PLAN 2004/05 - 2006/07

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, Aquila Networks Canada Ltd. ("Aquila") and BC Hydro, who in turn sell to end-use consumers.

2.0 Accountability Statement

The 2004/05 – 2006/07 CPC Service Plan was prepared under my direction in accordance with the *Budget Transparency and Accountability Act*. I am accountable for the contents of the plan, including the selection of performance measures and targets. The plan is consistent with government's strategic priorities and overall service plan. All significant assumptions, policy decisions and identified risks, as of January 30, 2004, have been considered in preparing the plan. I am accountable for ensuring CPC achieves its specific objectives identified in the plan and for measuring and reporting actual performance.

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Lorne Sivertson President and Director

3.0 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: Duncan (1968), Keenleyside (1969) 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 exchange, the Province received \$64.4 million plus one-half the DSBs, which it sold to a consortium of U.S. utilities for a period of 30 years from the completion dates of the three Canadian dams.

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 in recognition of the costs borne by the Region as a result of the Treaty dams. Through this Columbia Basin Initiative 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 receive \$250 million each over ten years to provide equity for qualifying power project development in the Region. Three core projects were designated: Keenleyside, subsequently renamed as Arrow Lakes Generating Station ("ALGS"), Brilliant Expansion ("BRX") and Waneta Expansion ("WAX"). The latter two core projects involve development rights purchased by CPC in 1994 from Cominco Ltd., now Teck Cominco Metals Ltd. ("Teck Cominco"), pursuant to an agreement between the Province and Cominco Ltd. 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 limited-recourse to the projects and is raised in the institutional bond market.

The mandate of CPC, with its joint venture partner CBTE Energy Inc. ("CBTE") (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. CPC is also a "Government Organization" under the *Budget Transparency and Accountability Act*. As noted, CPC is an agent of the government. 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.

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

4.0 Strategic Context

4.1 Vision

In 1994, CPC was created to purchase certain hydroelectric rights from Cominco Ltd., as part of an agreement between the Province and Cominco Ltd. to support the Trail lead smelter and the economic base in that area. In 1995, CPC was designated as the Province's agent to carry out the Columbia Basin Initiative, through the 1995 Financial Agreement.

CPC has gone from a "start-up" company in 1994 to the fourth largest producer of electricity in B.C. in 2002 (with the commissioning of ALGS). CPC now manages over \$730 million in assets. CPC does so efficiently, operating as a commercial corporation while producing income for the Province and the Region in an environmentally sound and socially responsible way, displacing greenhouse gas-emitting thermal power, improving fisheries values and making beneficial use of existing storage on the Kootenay and Arrow Lakes and water that would otherwise be spilled.

With ALGS completed in 2002, BRX under construction in 2003 and most of the allocations under the 1995 Financial Agreement received, CPC's development role is well advanced. CPC is becoming an operating company. With this advance, it has always been anticipated that CPC would likely change its focus, and possibly ownership.

The *Columbia Basin Trust Act* was amended via Bill 79, the *Columbia Basin Trust Amendment Act, 2003*, which was brought into force on January 16, 2004. These amendments ensure that CBT is a Government Organization under the *Budget Transparency and Accountability Act* and a Government Corporation under the *Financial Administration Act*, and thus remains within the Government Reporting Entity. On January 16, 2004, the government also announced changes to the joint venture structure for developing power projects under the Columbia Basin Initiative. Under these changes, CPC's 50 per cent share of power projects and CBT's 50 per cent share of power projects will be a wholly-owned subsidiary of CBT and have a separate expert board of directors, a majority of whose members will be appointed by CBT's Board. The mandate of this new power subsidiary and the continued 50/50 sharing of power project net income will be set out in agreements between the Province and CBT. The power subsidiary will retain the name CPC and will have a mandate to maximize the value of and income from the power projects. Simplifying the joint venture structure and eliminating duplication of functions should create significant ongoing savings, which will be shared 50/50 between the Province and the Region to the extent that these savings lead to increases in power project net income.

This restructuring will be implemented in 2004/05 and will result in a new consolidated power corporation for the Service Plan reporting period 2005/06 - 2007/08 and beyond. While future reporting on power project developments under the Columbia Basin Initiative will be through the new restructured entity, the current Service Plan assumes the status quo because the restructuring has been announced but not yet implemented.

4.2 Mission

To efficiently develop and operate commercially viable, environmentally sound and safe power projects for the benefit of its shareholder, the Province, and the residents of the Region.

4.3 Values

CPC's values are:

- efficiency in the use of scarce resources;
- good value for money for the Province, CPC's shareholder, and the Region;
- proactive and economically-responsible environmental management;
- socially-responsible decision making, to the extent possible guided by the market;
- promotion of employee productivity through training and respectful employment practices.

4.4 Planning Context

CPC develops and operates CPC/CBT power projects as an independent power producer ("IPP"), using limited-recourse project finance and without a provincial debt guarantee. As an IPP, CPC is not a regulated utility. Thus, CPC does not have a service area with a built-in customer base to absorb capital and operating cost overruns, increasing environmental and regulatory compliance costs, or tax and tariff increases. ALGS and BRX have fixed-price power sales contracts.

CPC develops and operates power projects at existing dams using water that would otherwise be spilled. Thus, CPC/CBT power projects have low environmental impacts. However, CPC/CBT power projects are also on international rivers, and are built and operated in a very difficult environmental regulatory system (which includes federal and provincial regulators, an international treaty and local, regional, aboriginal and U.S. stakeholders). CPC/CBT power projects also operate in a monopoly-controlled transmission and retail power market characterized by limited access to adjacent power markets in Alberta and the U.S. Pacific Northwest, and domestic power prices based on the average cost of existing supply, not the marginal cost of new supply. For all of these reasons, CPC must be efficient and innovative to achieve its goals and objectives.

4.5 Key Strategic Issues

The key strategic issues facing CPC include:

- obtaining licenses and permits to develop and operate power projects within a difficult environmental regulatory regime, where there is frequently little regard for compliance costs or the impact of regulatory uncertainty on the investment climate;
- securing power sales contracts in a home market, where CPC/CBT power projects are in the lowest cost quartile for new power supply, but where there is predominately one buyer of new power, power prices are regulated based on average costs and policy has limited CPC's ability to bid into BC Hydro Requests for Proposals in order to encourage private sector IPPs;

- accessing a promising market in the U.S. for green power in the face of monopoly ownership of transmission and ongoing under-investment in transmission capacity on both the B.C. and U.S. sides of the border;
- adjusting to a higher Canadian dollar, which lowers the cost of machinery and equipment imports but also lowers the value of power exports to the U.S. market;
- uncertainty regarding future interest rates and thus the cost of debt finance for the remaining core CPC/CBT power projects;
- uncertainty regarding new property and other tax costs that may be implemented as part of the Province's economic and energy policy, which have the potential to negatively affect the efficient allocation of investment in new electricity supply; and,
- uncertainty regarding changes to the ownership and structure of CPC and CBT power projects, which could impact the cost and timing of power project development and financing activities.

5.0 Strategies

- 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, in order to transfer construction cost risk and project performance risk to the design-build contractors.
- Pursue a balanced portfolio of power sales contracts in order to enable limited-recourse project finance, manage risk and capture market opportunities.
- Minimize overall interest costs while enabling CPC/CBT to pursue 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 put in place.
- Pursue opportunities for increased efficiency in the ownership and structure of CPC and CBT power projects in a manner that maintains management stability and retains key personnel.
- Pursue other projects and opportunities that achieve synergies or economies with CPC/CBT core projects, and participate in strategic partnership with other power companies, where appropriate.
- Secure improved transmission and market access, both domestic and export, at a reasonable cost and maintain federal export permits in good standing, as required.
- Participate in the development of environmental legislation and water use plans that recognize existing CPC/CBT rights, minimize impacts on existing operations and prospective projects and meet the Province's and Region's environmental stewardship objectives.
- Implement an environmental management system that incorporates environmental protection and enhancement into CPC/CBT planning, project designs, operations and due diligence.

- Ensure CPC employees and employees of its agents have the knowledge and skills necessary to conduct their work in a manner that complies with environmental and safety laws and regulations and CPC policy.
- Pursue "green power" designations where possible and secure ownership of such rights in any sales contract.
- Develop regional support for CPC/CBT power projects by promoting consultation with local and regional community stakeholders, and by negotiating land issues with owners.
- Continue to work to develop solutions to First Nations issues regarding CPC/CBT projects.
- Sequence CPC/CBT projects to create long-term, stable construction employment and minimize strains on regional infrastructure.
- Encourage local hiring, skills training, employment equity hiring and local procurement by successful bidders for CPC/CBT design-build contracts, within the constraints of a commercial corporation and government policy.

6.0 Goals/Objectives, Performance Measures, Benchmarks and Targets

CPC's Service Plan is a work-in-progress. The 2003/04 – 2005/06 Service Plan reflected the requirement under the *Budget Transparency and Accountability Act* for specific performance measures, benchmarks and targets, as well as CPC's transformation from a development company to an operating company. Earlier service plans defined CPC's strategic goals and objectives, in broad terms, as: maximizing the value of the rights and assets purchased from Teck Cominco (the Brilliant and Waneta Expansion Rights and the Brilliant Dam); and, using the \$500 million in equity provided by the Province to develop the three core CPC/CBT power projects, subject to conditions that would be established by a reasonable commercial lender. These conditions include: earning a reasonable rate of return on equity and raising self-supporting (limited-recourse and non-taxpayer-supported) debt in the commercial bond market without a provincial guarantee. Within these broad goals and objectives, key performance measures focused on CPC's role as joint venture project manager and CPC's ability to: develop projects on time and on budget; secure markets for the power generated by CPC/CBT projects; earn a target rate of return on equity; and, maintain or improve the bond ratings for CPC/CBT project debt.

The 2003/04 – 2005/06 Service Plan recast the broad performance measures of earlier service plans as a series of more specific Goals/Objectives. These Goals/Objectives were then used to develop specific defined performance measures plus clear benchmarks and targets. For example, the broad performance measure of developing projects on time and on budget has been broken down into two specific Goals/Objectives: development of projects on time and development of projects on budget. The specific performance measure for development of projects on time is the variance between actual and contractual commercial start-up dates, by project, in months. Commercial start-up dates are specified in CPC's design-build contracts, with incentives for early completion and penalties for late completion. Similarly, the performance measure for development of projects on budget is the variance between actual development costs to start-up and approved development budgets.

The 2004/05 – 2006/07 Service Plan incorporates further research regarding suitable benchmarks and targets for both project development and operations. Given CPC's rather unique role as project developer and joint venture project manager in an industry largely still dominated by vertically-integrated regulated utilities, finding suitable benchmarks is a challenge. These challenges are described in notes to individual performance measures. In a number of instances, where suitable industry benchmarks are not available, CPC-specific benchmarks have been used. For example, ALGS was brought in 7 months early and on budget.

The following section sets out CPC's Goals/Objectives and related performance measures. Specific benchmarks and targets are set out in tabular form in the Attachment.

Goal/Objective #1

• Development of projects on time.

Measure

Variance in project development times to start-up, measured as the difference between actual and contractual commercial start-up dates, in months, by project (performance measure 1.1).

Goal/Objective #2

• Development of projects on budget.

Measure

Variance from project budgets, measured as the difference between actual development costs incurred to commercial start-up and the approved project development budget, in dollars and as a per cent, by project (performance measure 2.1).

Goal/Objective #3

• Effective construction management.

Measure

- Unresolved deficiency ratio, measured as the value of any unresolved material deficiencies under the design-build contract at a project's Final Acceptance Date divided by the value of contractual holdbacks for liquidated damages, by project (performance measure 3.1).
 - <u>Note</u>: Specific design-build contract information may be commercially confidential and, in any event, does not allow for cross-project benchmarking due to differences in project scale. An index created by the ratio of the value of any unresolved material deficiencies to the value of contractual holdbacks for "liquidated damages" at a project's Final Acceptance Date (January 1, 2006 for ALGS, or 3 years after the design-build contract Owner Operation Date) can provide a CPC construction management effectiveness measure, with a target value of ≤ 1.0 .

Goal/Objective #4

• Reliable plant operations.

Measure

- Energy entitlement ratio, measured as energy entitlements received divided by maximum contractual energy entitlements, by project (performance measure 4.1).
 - Note: BC Hydro, as system operator, optimizes power production from the overall integrated system (including the facilities owned by CPC/CBT, Aquila and Teck Cominco) and decides how much and where to produce, how much and where to store and how much to purchase to meet load. CPC/CBT (and Aquila and Teck Cominco), in turn, receive contractual energy entitlements based on long term average stream flow, plant capabilities (energy and capacity) and plant availability (based on planned and unplanned outages). Accordingly, actual energy production at a plant is not necessarily reflective of whether a plant is performing reliably. A better reliability measure is the ratio of energy entitlements received to maximum potential energy entitlements, as this reflects the impact of both planned and unplanned outages.

Goal/Objective #5

• Acceptable rate of return.

Measures

- Return on equity, as a per cent, measured as consolidated CPC net income divided by equity (performance measure 5.1).
- Return on assets in service, as a per cent, measured as consolidated CPC net income divided by the consolidated value of assets in service (performance measure 5.2).
 - <u>Note</u>: Return on equity and return on assets in service are standard industry measures. However, because CPC/CBT power projects do not earn a regulated rate of return in each year, but rather a target rate of return over the life of a project investment, suitable industry benchmarks are not available. Further, a project's target rate of return is sensitive commercially confidential information.

Goal/Objective #6

• Project cost competitiveness.

Measure

Equilibrating natural gas price, measured as the plant-gate price of natural gas, in Canadian dollars per gigajoule, at which the levelized cost of electricity for a CPC/CBT project and a new combined cycle gas turbine ("CCGT") project are equal (performance measure 6.1).

Note: While levelized cost information is commercially confidential, an index created by the ratio of the levelized cost of a CPC/CBT project to the levelized cost of a benchmark alternative source of new electricity supply can provide a cost competitiveness measure, with target values ≤ 1.0 . The least cost source of new electricity supply is generally assumed to be a CCGT project, where the levelized cost largely depends upon the plant-gate price of natural gas. Accordingly, this measure solves for the price of natural gas that results in a levelized cost ratio of 1.0 for a CPC/CBT project compared to a CCGT project.

Goal/Objective #7

• Investment Grade, non-tax supported, credit ratings.

Measures

- Bond rating, by project, as determined by Dominion Bond Rating Service ("DBRS") and/or Moody's Investors Service ("Moody's") (performance measure 7.1).
 - <u>Note</u>: Bond ratings provide an independent, objective and credible third party evaluation of the risks associated with a project's bond issue (commercial debt). Prior to raising limited-recourse project finance in the bond market, CPC obtains a project bond rating from bond-rating agencies. CPC's objective is to maintain Investment Grade project bond ratings, with a target of maintaining or improving current project bond ratings. Brilliant bonds and Arrow Lakes bonds both have a DBRS bond rating of A (high); Brilliant bonds also have a Moody's bond rating of A1. Comparable industry benchmarks are not readily available. The electricity industry is dominated by regulated utilities, such as BC Hydro, which typically do not obtain limited-recourse project finance. Further, the debt of BC Hydro and most Crown corporations is guaranteed by the provincial government and thus is backstopped by the government and thus is not tax supported.
- Debt service coverage ratio, for projects with a bond rating, measured as project net income plus interest and amortization of assets, divided by debt service payments – i.e. interest plus principal repayments (performance measure 7.2).
 - <u>Note</u>: In addition to bond ratings, debt service ratios are a standard industry measure in assessing investor risk for companies with limited-recourse project finance. The industry benchmark for Investment Grade bond ratings is a debt service ratio of 1.3 or greater. CPC has established a target debt service ratio of 1.5 for each project with a bond rating. Debt service ratios significantly higher than 1.5 reflect a relatively low debt to equity ratio and imply an ability to raise additional project debt in the commercial bond market.
- Capital structure, measured as CPC's consolidated debt and consolidated equity, each divided by consolidated debt plus equity, expressed as a ratio (performance measure 7.3).

<u>Note</u>: Debt to equity ratios are a standard industry measure, typically reported on a consolidated basis. Project debt to equity ratios are provided in confidential reports to bondholders. CPC's low debt to equity ratio is consistent with CPC's Capital Plan and investment strategy of using equity to construct projects. Once BRX and WAX have been constructed, CPC's debt to equity ratio will more closely track the industry benchmark. However the industry benchmark may not be a suitable benchmark because it is a composite that reflects the dominance of large regulated utilities.

Goal/Objective #8

• Cost efficient joint venture management.

Measures

- Operation, maintenance and administration ("OMA") unit cost for assets in service, in dollars per megawatt hour, measured as OMA costs divided by electricity entitlement, by project (performance measure 8.1).
- Manager's employee unit cost, in dollars per megawatt hour, measured as CPC's salary and benefit costs divided by electricity entitlements for all projects (performance measure 8.2).
 - <u>Note</u>: Because of the extent to which CPC relies on external contractors, through the project design-build contract strategy and the contracting out of project operation and maintenance, these measures may not be comparable to industry standards.

Goal/Objective #9

• Employee productivity.

Measures

- Revenue per employee, in dollars, measured as consolidated CPC revenue divided by the number of full time equivalent employees ("FTEs") at year-end (performance measure 9.1).
 - <u>Note</u>: Given CPC's reliance on external contractors, this measure may not be comparable to industry standards. To partially adjust for this, the performance measure only includes the one-half share of total power project revenue that accrues to CPC.
- Employee training, in hours, measured as total CPC training hours divided by the number of FTEs at year-end (performance measure 9.2).

Goal/Objective #10

• Environmental compliance.

Measure

Compliance with environmental requirements, measured as the number of notices from regulatory agencies of environmental non-compliance (performance measure 10.1). <u>Note</u>: The industry is dominated by large utilities, including hydro producers such as BC Hydro, Hydro Quebec and Manitoba Hydro, thermal producers in Alberta and nuclear producers in Ontario. Most of these utilities have large transmission and distribution facilities. Accordingly, a suitable industry benchmark is not readily available. CPC has established a target of zero material non-compliance notices.

Goal/Objective #11

• Economic contributions.

Measures

- ➢ Net income, measured as consolidated CPC revenues less expenses, in million dollars (performance measure 11.1).
- Employment creation, measured as cumulative direct employment creation, in person years (performance measure 11.2).

7.0 Recent and Expected Project Development Milestones

- i) Arrow Lakes Generating Station
 - Assumed operation of ALGS on the Owner Operator Date of January 1, 2003, with a plant that is "fit for purpose".
 - Ensure all identified deficiencies either corrected within a reasonable period or offsetting liquidated damages obtained.
 - Achieve all availability guarantees during the initial 3-year warranty period through 2006 or obtain offsetting liquidated damages.
- ii) Brilliant Expansion
 - Received all major federal and provincial regulatory permits and approvals for the 120 MW preferred option from the design-build competition (the owners' base concept was for a 100 MW powerplant design).
 - Board approval to proceed with the 120 MW BRX obtained in February 2003, fixedprice design build contract signed in February 2003, and construction commenced in April 2003.
 - Successfully bid 203 gigawatt hours per year (about 40 per cent of BRX's output) into BC Hydro's "green power generation" call for tenders, securing a 20-year power sales agreement.
 - Secure a long-term power sales agreement with a high credit purchaser for the remainder of BRX's output, as appropriate.

- Follow the same design-build construction strategy used successfully at ALGS, with BRX in-service by August 2006, on budget.
- iii) Brilliant Terminal Substation
 - Actively monitored design and budget during BTS construction.
 - BTS built on budget, tested "fit for purpose" and commissioned in July 2003.
 - Satisfy the remaining conditions in the BTS Facilities Interconnection and Investment Agreement ("FIIA") with Aquila and Teck Cominco prior to interconnection of CPC/CBT's 230 kV ALGS to Selkirk transmission line, which is scheduled for the spring 2004.
 - Operate as agreed with Aquila under the BTS-FIIA and accommodate interconnection of BRX.
- iv) Waneta Expansion
 - Order in Council ("OIC") No. 0772, which was approved in July 2003, amended the reserve on the unrecorded water in the vicinity of Waneta, established in May 1991 by OIC No. 608, in favour of CPC/CBT.
 - Issued draft Terms of Reference for the Environmental Approval Certificate ("EAC") Application in September 2003.
 - Filed a water licence application in November 2003 to divert and use up to 27,000 cubic feet per second of water in a maximum 435 MW WAX project.
 - Continue environmental, engineering and financial analyses to allow submission of an application for an EAC in 2005.
 - Protect WAX water rights and seek compensation if negatively impacted.
 - Enter into a Waneta Cooperation Agreement with Teck Cominco to resolve outstanding issues related to the use of water in the Waneta Upgrades after December 31, 2002 and secure Teck Cominco's ongoing cooperation in the WAX development and coordination of the use of water between the WAX and Teck Cominco's Waneta plant.
 - Obtain an EAC and water licence for WAX and seek Board approvals to proceed with WAX in 2006/07.
- v) Environmental Responsibility
 - Implement a CPC Environmental Management System by the end of 2004 to ensure all CPC/CBT contractual obligations, rights and permit conditions are properly included in decision making, information systems and training.

- vi) Availability and Cost of Project Development Funds
 - Secured an investment grade bond rating for the ALGS project and raised \$100 million in "take-out" debt on a limited recourse basis, proceeds of which to be applied to BRX construction and other needs.
 - Having secured a 20-year power sales agreement for 40 per cent of BRX output with a high credit purchaser, arrange take-out financing once BRX is commissioned in order to provide a source of funds for WAX design-build.
 - Issue additional Brilliant bonds in 2004/05 to re-finance capital costs of Brilliant upgrades and sustaining capital and BTS.
- vii) Manager of Joint Venture Projects
 - Remain focussed on carrying out business plan for Columbia Basin Initiative.
 - Ensure support for all material decisions from shareholder and CBT.
 - Minimize cost of carrying out Manager function by keeping overhead down and contracting out.
- viii) Regional Economic Development and Employment
 - Create 2,200 person years of direct employment within the Region over ten years.
 - Encourage project builders to secure to the extent possible local employees and local goods and services and support training programs for target groups for employment, within commercial constraints and government policy.

8.0 Alignment with Government's Strategic Plan

The Province's Strategic Plan 2003/04 – 2005/06, titled "Restoring Hope and Prosperity" lists three fundamental goals:

- Goal #1: A strong and vibrant provincial economy.
- Goal #2: A supportive social fabric.
- Goal #3: Safe, healthy communities and a sustainable environment.

CPC's Service Plan will make significant contributions directly to goals #1 and #3.

Goal #1 – The Economy

Over the period 1999/00 through 2002/03, with the construction and commissioning of the \$270 million ALGS, CPC/CBT had the third largest hydro project under construction in North America and the largest industrial project in B.C. ALGS was completed on budget and ahead of schedule. During the three-year construction period, ALGS created 750 person years of direct employment (85 per cent local hires), \$60 million in direct and indirect income and \$20 million in regional procurement.

With construction of the \$205 million BRX, which commenced in the first quarter of 2003/04, CPC/CBT will create over 450 person years of direct employment, \$30 million in direct and indirect income and \$15 million in local procurement during the three-year construction period.

Over the period 2004/05 - 2006/07 CPC/CBT power projects will generate \$49 million of net income for the Province and the Region. CPC/CBT power projects will also contribute \$34 million in taxes and water rentals.

Goal #3 – The Environment

Since 1999, CPC/CBT have provided \$175,000 per year (adjusted for inflation) for the Arrow Lakes Fish Fertilization Program, to rebuild phytoplankton (algae) and kokanee levels in Arrow Lakes. There were an estimated 650,000 spawning kokanee in 28 streams feeding the lakes in 2002, compared to 395,000 spawners in 1999. Kokanee spawner size has also jumped from 21 cm to 30 cm, the largest increase in 30 years. This apparent ecosystem response to fertilization has resulted in the limited re-opening of the Upper Arrow kokanee fishery. As well as conserving fish populations, fertilization appears to be providing a better food source for wildlife predators and scavengers, such as bears and eagles, by increasing the number of spawning kokanee.

ALGS in combination with the BRX project will reduce by 70 per cent the number of days when total gas pressure ("TGP") in the Columbia River at the U.S. border exceeds the U.S. standard. When TGP reaches a level of 115 per cent of normal, bubbles can form in the cardio-vascular systems of fish, which can lead to death and disruption of migration and spawning. CPC/CBT's projects are of major benefit to the U.S., which spends millions of dollars to reduce TGP. For this reason, eight U.S. federal and state agencies, including the Environmental Protection Agency and the Fish and Wildlife Service, plus the Colville Confederated Tribes have endorsed CPC/CBT projects.

ALGS and BRX together would displace over 700,000 tonnes per year of CO_2 , equivalent to displacing 140,000 cars from Vancouver streets. CPC/CBT have maintained ownership of any greenhouse gas credits for their projects, which could potentially be sold in the future.

9.0 Summary Financial Outlook

9.1 CPC Consolidated Statement of Income Forecast

\$ in	thousands	
		_

		2003/04	2004/05	2005/06	2006/07
REVENUES					
Sale of power	\$	30,085	31,688	32,037	39,910
Interest	•	175	175	175	175
Management fee		484	532	585	644
C		30,744	32,395	32,797	40,729
EXPENSES					
Water rentals		3,625	4,043	4,124	4,893
Amortization of capital assets in service		6,012	6,333	6,408	7,864
Amortization of power sales right		971	971	971	971
Property tax		1,040	1,219	1,243	1,418
Operations and maintenance		1,666	1,632	1,416	2,014
Administration and management		1,425	2,108	1,859	2,092
Insurance		464	457	466	675
Community sponsorship		75	75	75	75
		15,278	16,838	16,562	20,002
INCOME FROM OPERATIONS		15,466	15,557	16,235	20,727
FINANCE CHARGES					
Interest expense		7,798	9,095	8,878	9,389
Amortization of deferred debt issue costs		109	200	200	200
		7,907	9,295	9,078	9,589
NET INCOME	¢	7.550	()()	7 157	11 120
NET INCOME	\$	7,559	6,262	7,157	11,138

Notes:

1. Revenues and expenses represent CPC's 50 per cent share of joint venture amounts.

9.2 Key Assumptions

Key assumptions affecting the forecasts are as follows:

- BRX will be completed in August 2006; the approved construction budget is \$205 million.
- Grants in lieu of property tax are paid by ALGS and BRX.
- The market price for electricity is C\$55 per megawatt hour at March 31, 2004, escalating in nominal terms at 2 per cent per year.
- > Operating cost inflation, including water rental increases, is 2 per cent per year.
- Costs and benefits associated with changes to the ownership and structure of CPC and CBT power projects are not included.

9.3 Risk Factors and Sensitivities

Risk	How managed	Impact
Plant Reliability	For Brilliant ("BRD"), the risk of plant losses is transferred to the buyer/plant operator. For ALGS & BRX, the design-build contract provides for holdback security and liquidated damages to address unresolved deficiencies and non-performance.	If the plant outage factor at ALGS reaches 5% instead of the budgeted 2.5%, the impact on earnings will be \$800,000 in 2004/05, assuming none of the loss is covered by business interruption insurance.
Availability of Funds	Key agreements for each project are structured keeping in mind the requirements of lenders so as to achieve a financeable project with a high credit rating.	If either equity or debt funding is not available, construction of the WAX will not proceed.
BRX Power Marketing & Transmission	Discussions are being held with BC Hydro, Powerex, power marketers and utilities in BC, Alberta and U.S. Part of the BRX output will be sold under BC Hydro Green Power initiative under a long-term contract sufficient to recover project capital costs.	Sale terms for the remnant power will affect the profitability of the BRX and the ability to raise sufficient debt to fund the WAX.
Property Taxation	CPC has undertaken analysis of property tax impacts and provided this information to government agencies.	Taxing ALGS and BRX at current regional district rates would reduce project net income by an estimated \$5.9 million and \$2.9 million, respectively. WAX could be similarly impacted. This would affect the economic viability of the power projects and the ability to raise debt to fund WAX.
Regulatory Risk	Actively participate in Water Use Planning, Instream Flow Regulation & changes to U.S. regulation of Libby Dam to ensure CPC/CBT interests are understood.	Operating constraints imposed by regulatory bodies could impact project revenue and economic viability unless compensation is received.
Utilization of Waneta Expansion Rights	Achieved transfer of Waneta Water Reserve to CPC/CBT. CPC is negotiating a Waneta Cooperation Agreement with Teck Cominco.	Significant project delays could result in a write-off of almost \$31 million in development costs and expansion rights (CPC's share is about \$15.5 million).
Impact of changes to the ownership and structure of CPC and CBT power projects	Fully participate in the restructuring to ensure that the ministerial directive to increase efficiency by combining the power operations of CPC and CBT in a manner that maintains management stability is fulfilled.	If restructuring results in the loss of key personnel, this could negatively impact the cost and timing of power project development and financing activities.

Key risk factors are discussed below in terms of how they are managed and their potential impact.

10.0 Major Capital Plan

BRX is the only approved CPC/CBT Major Capital Project in the period 2004/05 to 2006/07. Treasury Board and CBT Board approvals to proceed with this 120 MW, \$205 million project were obtained in February 2003; a fixed-price design-build contract was signed in February 2003; and, construction commenced in April 2003. The contractual Substantial Completion date for BRX is September 2006. Forecast BRX capital spending over the period of the Service Plan totals \$194.5 million, with an additional \$10.1 million having been advanced in 2002/03. Pursuant to the *Budget Transparency and Accountability Act*, a Major Capital Project Plan was submitted for BRX on March 18, 2003 to the Clerk of the BC Legislative Assembly. This document is available on CPC's web site www.columbiapower.org/content/projects.html under Brilliant Expansion.

10.1 CPC Consolidated Capital Spending Forecast

\$ in thousands					
		2003/04	2004/05	2005/06	2006/07
COLUMBIA BASIN POWER COMPANY					
Brilliant Sustaining Capital / Upgrades Brilliant Terminal Station	\$	2,168 12,447	760	1,490	2,952
		14,615	760	1,490	2,952
ARROW LAKES POWER CORPORATIO	DN				
		2,348	485	319	276
BRILLIANT EXPANSION POWER COR	PORATI	ON			
		37,340	40,433	11,049	8,444
POWER PROJECT PLANNING					
Waneta Expansion		900	2,891	2,745	2,632
General Power Project Planning		515	265	265	265
		1,415	3,156	3,010	2,897
CPC CORPORATE					
		272	299	329	362
TOTAL	\$	55,990	45,133	16,197	14,931

Notes:

1. With the exception of CPC Corporate (primarily furniture, office equipment and vehicles), capital spending represents CPC's 50 per cent share of joint venture amounts.

Attachment: CPC Service Plan 2004/05 – 2006/07 Performance Measures

Performance Measure	Definition	Benchmark	Target	
Objective/Goal #1 – Development o	f Projects on Time			
1.1 Variance in project development times to start-up	Difference between actual and contractual commercial start-up dates, in months, by project	Suitable industry benchmark not publicly available; develop project baseline information. ALGS = -7 (7 months early)	≤ 0, indicating an approved project has achieved commercial start-up on time or early	
Objective/Goal #2 – Development o	f Projects on Budget			
2.1 Variance from project budgets	Difference between actual development costs incurred to commercial start-up and the approved development budget, in \$ and as a %, by project	Suitable industry benchmark not publicly available; develop project baseline information. ALGS = 0 (on budget)	≤ 0, indicating an approved project has achieved commercial start-up on or under budget	
Objective/Goal #3 – Effective Const	ruction Management			
3.1 Unresolved deficiency ratio	The value of any unresolved material deficiencies under the design-build contract at a project's Final Acceptance Date divided by the value of contractual holdbacks for liquidated damages, by project	Suitable industry benchmark not publicly available; develop project baseline information. ALGS Final Acceptance Date is Jan.1/06, or 3 years after Owner Operation Date of Jan.1/03.	≤ 1, indicating that the value of any unresolved material deficiencies is offset by the value of liquidated damages	
Objective/Goal #4 – Reliable Plant 0	Operations			
4.1 Energy entitlement ratio	Energy entitlements received divided by maximum contractual energy entitlements, by project	Canadian Electricity Assoc. ("CEA") overall composite performance measure is the Hydraulic Weighted Capability Factor: 1998-2002 = 0.91 (91%) 2002 = 0.91	≥0.95, indicating that planned and unplanned plant outages do not result in more than a 5% reduction in potential energy entitlements for the year	
Objective/Goal #5 – Acceptable Rat	e of Return			
5.1 Return on equity	Consolidated CPC net income divided by equity (contributed surplus plus retained earnings), as a %	Over the life of the projects, comparable to regulated utilities	2004/05: 2.1% 2005/06: 2.3% 2006/07: 3.6%	
5.2 Return on assets in service	Consolidated CPC net income divided by the consolidated value of assets in service, as a %	Over the life of the projects, comparable to regulated utilities	2004/05: 2.4% 2005/06: 2.8% 2006/07: 3.6%	
Objective/Goal #6 – Project Cost Co	ompetitiveness			
6.1 Equilibrating natural gas price	Plant-gate price of natural gas at which the levelized cost of electricity for a CPC/CBT project and a new CCGT project are equal, in C\$ per gigajoule ("GJ")	Current provincial forecasts are consistent with natural gas plant-gate prices of C\$4.50 to C\$6.00 per GJ	ALGS = \$3.50 BRX = \$4.00	

Performance Measure	Definition	Benchmark	Target
Objective/Goal #7 – Investment C	Grade, Non-Tax Supported, Cr	edit Ratings	
7.1 Bond rating	Project debt bond ratings as set by DBRS and Moody's	Investment Grade bond rating	Maintain or improve current Investment Grade bond ratings for CPC/CBT project debt: DBRS: A (high) for BRD and ALGS. Moody's: A1 for BRD
7.2 Debt service coverage ratio	Project net income plus interest	Industry benchmark for	Maintain minimum value of 1.5
	and amortization of assets, divided by debt service payments,	Investment Grade bond rating: Greater than or equal	2004/05: ALGS = 2.5
	for projects with a bond rating	to 1.3	BRD = 1.7
			2005/06: ALGS = 2.7
			BRD = 1.7
			2006/07: ALGS = 2.9
			BRD = 1.8
7.3 Capital structure	CPC's consolidated debt and	CEA overall composite	2004/05: 30:70
	consolidated equity, each divided by consolidated debt plus equity,	performance measure for 2002 = 74:26	2005/06: 29:71
	expressed as a ratio of debt to equity		2006/07: 27:73
Objective/Goal #8 – Cost Efficien	t Joint Venture Management		
8.1 OMA unit cost for assets in service	OMA costs divided by electricity Suitable industry ben	Suitable industry benchmark	2004/05: ALGS = \$3.80
	entitlement, by project, in \$ per MWb	not available; develop project baseline information	BRD = \$1.90
			2005/06: ALGS = \$2.40
			BRD = \$2.00
			2006/07: ALGS = \$2.50
			BRD = \$2.00
			BRX = \$3.40
8.2 Manager's employee unit cost	CPC's salary and benefit costs	Suitable industry benchmark not publicly available; develop CPC baseline information	2004/05: \$2.30
	divided by electricity entitlements for all projects, in \$ per MWh		2005/06: \$2.40
			2006/07: \$1.90
Objective/Goal #9 – Employee Pr	oductivity		
9.1 Revenue per employee	Consolidated CPC revenue divided by FTEs at year-end, in \$	CEA composite average for 2002 = \$494,000	2004/05: \$810,000
			2005/06: \$800,000
			2006/07: \$970,000
9.2 Employee training	Total CPC training hours divided by FTEs at year-end, in hours	Suitable industry benchmark	2004/05: 28 hours
		develop CPC baseline	2005/06 · 28 hours
		develop CPC baseline	

CPC Service Plan 2004/05 – 2006/07 Performance Measures (cont'd)

CPC Service Plan 2004/05 – 2006/07 Performance Measures (cont'd)

Performance Measure	Definition	Benchmark	Target			
Objective/Goal #10 – Environmental Compliance						
10.1 Compliance with environmental requirements	Number of notices from regulatory agencies of environmental non- compliance	Suitable industry benchmark not available	Zero material non-compliance notices			
Objective/Goal #11 – Economic C	Contributions					
11.1 Net income	Consolidated CPC revenues less expenses, in million \$	N/A	2004/05: \$6.3 million			
			2005/06: \$7.2 million			
			2006/07: \$11.1 million			
11.2 Employment creation	Cumulative direct employment	N/A	2004/05: 1,500			
	creation, in person years		2005/06: 1,700			
			2006/07: 1,800			