

SERVICE PLAN • 2009/10–2011/12

APPENDIX A – Performance Measures Framework

Background

Columbia Power Corporation’s performance measures framework follows the *Budget Transparency and Accountability Act* requirements for performance measures, benchmarks and targets linked to specific goals, objectives and strategies. The framework also reflects Columbia Power Corporation’s dual functions as a development company and an operating company. The framework: provides broad goals and underlying objectives; aligns specific corporate strategies to each objective; links each objective to one or more performance measures; incorporates ongoing research regarding suitable benchmarks and targets; and provides comments on the significance of results.

Columbia Power Corporation has four broad goals, which flow from its mandate as a power project developer and operator and its role as joint venture manager:

- Goal I: Effective Project Development
- Goal II: Reliable Plant Operations
- Goal III: Effective Financial Planning
- Goal IV: Efficient Joint Venture Management

Given Columbia Power Corporation’s role as joint venture manager and the extent to which it contracts out, finding suitable industry benchmarks remains a challenge because the industry is still largely dominated by large, vertically integrated utilities such as Hydro Québec and BC Hydro. The nature of this challenge is described more fully in the individual performance measures. Where suitable industry benchmarks are not available, internal benchmarks developed by Columbia Power Corporation have been used.

Outlook

Columbia Power Corporation believes the performance measures it uses highlight the most crucial aspects of its performance, but are also subject to refinement and evolution as the organization matures. Columbia Power Corporation has further disaggregated the operations, maintenance and administration (OMA) performance measure (which is a joint venture cost-efficiency measure) into its key functional components of plant operations, plant maintenance, renovations/major improvements, and on-site and off-site support functions (see Appendix B). Two measures previously utilized have been dropped in 2009; unresolved deficiency ratio and revenue per employee. Neither measure was felt to provide significant insight into the performance of the organization.

## Source of Data and Reliability

Columbia Power Corporation believes its performance measures are reliable and valid.

- Current and historical performance measures are not audited; however, they are based largely on audited information, information subject to third-party verification and information that is obtained from independent sources.
- Project development and construction effectiveness measures are based on information from project tracking systems and monthly status reports prepared by design-build contractors and consultants employed by Columbia Power Corporation.
- The reliable plant operations measure is based on plant outage and power entitlement data that are reconciled with BC Hydro, FortisBC Inc. and third parties during the power entitlement confirmation and power sales settlement process.
- The financial measures are derived from Columbia Power Corporation's audited consolidated financial statements and other reliable sources such as the Canadian Electricity Association.
- Bond ratings and environmental compliance measures are independently verifiable.

A number of Columbia Power Corporation's performance measure targets are based on forecasts that reflect the Corporation's current plans and judgments as to the most probable set of economic conditions. Because of the uncertainties associated with forecasting future events, users of this information are cautioned that actual results will vary from the forecasts presented.

Key assumptions affecting forecast performance targets are as follows:

- Operating cost inflation, including water rental increases, is 2 percent per year.
- Construction of the Waneta Expansion Project commences in 2009/10 based on securing an economic design-build bid, acceptable financing arrangements, and energy entitlement and power purchase agreements.
- Waneta Expansion will be exempt from property tax and pay grants-in-lieu consistent with government policy for the Arrow Lakes Generating Station and Brilliant Expansion.
- Borrowing capacity from Waneta Expansion and existing projects is sufficient to fund the construction of the Waneta Expansion.
- The long-term investment grade interest rate is 6 percent or interest rate hedging is used.
- The exchange rate is \$1.00 Canadian equals \$0.925 U.S.
- Columbia Power Corporation's dividends to the Province remain at current levels until after the completion of Waneta Expansion.

- Employee retention and succession plans are developed to maintain Columbia Power Corporation compensation in relation to private sector and other stakeholders.
- The recruitment process begun in 2008 results in critical project positions being filled.

## **Goal I – Effective Project Development**

Columbia Power Corporation’s mandate as manager of the joint ventures with the Columbia Basin Trust is to plan, develop and operate power projects. To develop power projects, the Corporation relies on design-build contracts with private-sector construction engineering firms. By using design-build contracts, Columbia Power Corporation gives up a measure of design and procurement control, and accepts greater complexity in environmental permitting, contract specification and contract management. In return, the Corporation expects to realize design innovation, cost savings through the competitive design-build bidding process, and increased opportunities to manage and allocate risk. Columbia Power Corporation also manages and allocates risk through the use of insurance and hedging where appropriate.

Columbia Power Corporation’s first broad goal of “Effective Project Development” focuses on project development from the date a design-build contract is signed with the successful design-build bidder. The goal is linked to two objectives: development of projects on time and development of projects on budget.

### **Objective #1 – Development of projects on time**

#### *Strategy*

Columbia Power Corporation’s project development strategy employs design-build contracts that specify commercial start-up dates, with incentives for early completion and penalties for late completion. In addition, throughout the term of a contract, there are provisions to withhold payments if key milestone dates are not met.

*Performance measure, benchmark and target*

1.1 This measure reports any variance between expected and actual project start-up dates. The benchmarks for this measure are Arrow Lakes Generating Station (ALGS), which was developed seven months early, and Brilliant Terminal Station (BTS), which was developed on time. The target is to achieve a variance of less than or equal to zero, indicating that an approved project has achieved commercial operation either on time or early.

GOAL/OBJECTIVE 1. Development of projects on time	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 1.1 Variance in project development time		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
<b>2009/10 – 2011/12 Service Plan</b>	ALGS: 7 Months Early BTS: On Time	BRX: September 2007	Monitor WAX Schedule	Monitor WAX Schedule	Monitor WAX Schedule	Monitor WAX Schedule

*Significance of results*

Power sales revenues start with commercial operation of a project, when power is delivered to a purchaser. Although Columbia Power Corporation uses fixed-price design-build contracts to provide as much construction price certainty as possible, project delays push back the receipt of revenues and increase costs associated with project finance and construction monitoring. While design-build contracts include penalties for late completion, these penalties may not be sufficient to fully offset forgone market opportunities.

The objective of developing projects on time was not met for Brilliant Expansion. Commercial operation was achieved on September 7, 2007, one year late.

Waneta Expansion construction is expected to commence in 2009/10 and take four years to complete.

**Objective #2 – Development of projects on budget**

*Strategy*

Columbia Power Corporation’s strategy is to transfer construction cost risk to the design-build contractor. Design-build contracts are fixed-price and contain detailed project specifications (including performance specifications) to minimize change orders and to ensure that a project is “fit for purpose”. Design-build contracts also provide performance-based penalties and incentives. However, despite contracts being fixed-price, unanticipated costs can result in claims by the design-build contractor, which must be managed.

*Performance measure, benchmark and target*

2.1 This measure reports on variance between project development costs incurred and the approved budget. The benchmarks for this measure are the Arrow Lakes Generating Station and the Brilliant Terminal Station, which were both developed on budget. The target is to achieve a variance of less than or equal to zero, indicating an approved project has achieved commercial operation either on or under budget.

GOAL/OBJECTIVE 2. Development of Projects on Budget	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 2.1 Variance from project budgets		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
<b>2009/10 – 2011/12 Service Plan</b>	ALGS: On Budget BTS: On Budget	Claims settled with BRX contractor	WAX: On Budget	WAX: On Budget	WAX: On Budget	WAX: On Budget

*Significance of results*

The target was not achieved for the Brilliant Expansion. Brilliant Expansion settled construction claims with the design-build contractor. The settlement terms, together with the cost of work performed by the Corporation, required an increase to the construction budget of \$30 million.

**Goal II – Reliable Plant Operations**

This goal is linked to the objective of reliable plant operations, which, in turn, is linked to a performance measure that tracks the impact of plant outages on a project’s annual energy entitlements.

The joint venture power projects receive monthly contractual power entitlements from BC Hydro, the operator of the Columbia-Kootenay hydroelectric system. These power entitlements are based on long-term average stream flows, plant capabilities (both energy and capacity) and plant availability. Plant availability can be reduced by planned and unplanned outages. Planned outages result from scheduled maintenance, repairs, replacements or upgrades. Unplanned outages can result from design or construction errors, equipment failures or acts of nature (such as lightning strikes). Unplanned outages can also involve or be caused by projects or facilities to which joint venture power projects are interconnected. Unplanned outages due to design or construction errors and equipment failures tend to be higher during a plant’s period of initial operation, then decrease to a “normal” operating level, and eventually increase as a plant ages. The joint venture power projects are either newly constructed (Arrow Lakes Generating Station and Brilliant Expansion) or have been completely refurbished (Brilliant Dam).

### Objective #3 – Reliable plant operations

#### Strategy

Columbia Power Corporation attempts to minimize the impact of planned outages by scheduling plant maintenance, repairs and replacements or upgrades during low water flow (and thus low entitlement) months (primarily February through April).

Design-build contracts specify plant performance and reliability measures. In addition, machinery and equipment have manufacturer warranties. Columbia Power Corporation retains independent engineers to conduct studies and investigations to help ensure that a plant’s design performance and reliability criteria are being met and a project is “fit for purpose”. Each power project joint venture company also carries business interruption insurance.

The power projects are operated and maintained by FortisBC Inc. or its affiliate, Fortis Pacific Holdings Inc. FortisBC Inc. staff are experienced in plant operations and maintenance and have been specifically trained for each power project.

#### Performance measure, benchmark and target

3.1 This measure reports the ratio of a powerplant’s actual availability for operations to its planned availability for operations. The measure thus calculates the impact of unplanned outages on plant reliability. The benchmark is the Canadian Electricity Association key performance indicator, Hydraulic Weighted Capability Factor, which had a value of 91 percent for the five-year period 1999–2003. The target is to achieve a value greater than or equal to 95 percent, indicating unplanned outages do not result in more than a 5 percent reduction in energy entitlements for the year.

GOAL/OBJECTIVE 3. Reliable Plant Operations	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 3.1 Plant availability		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2009/10 – 2011/12 Service Plan	1st Quartile: See Benchmarking Appendix	ALGS: 99% BRD: 99% BRX: 78%	ALGS: >95% BRD: >95% BRX: >90%	ALGS: >95% BRD: >95% BRX: >92%	ALGS: >95% BRD: >95% BRX: >95%	ALGS: >95% BRD: >95% BRX: >95%

#### Significance of results

To the extent possible, planned outages are scheduled to occur during low entitlement periods to minimize loss of revenue. Unplanned outages can occur during low or high entitlement periods. Depending on the duration of an outage and prevailing market conditions, unplanned outages can cause significant revenue loss.

The objective of reliable plant operations has generally been achieved. The Arrow Lakes Generating Station has maintained reliable performance after permanent channel repairs were completed in May 2006. The lower targets for 2008/09 and 2009/10 for Brilliant Expansion reflect an expectation that initial challenges will be encountered during the first two years of commercial operations however a diminishing level of unplanned outages will occur through to the project's final acceptance date in September 2010.

### **Goal III – Effective Financial Planning**

This broad goal is linked to two objectives: Investment Grade non-taxpayer-supported debt, and an acceptable return on equity.

The power project joint ventures received a fixed \$500 million government equity endowment from the Province under the 1995 Financial Agreement. To have sufficient capital to develop all three mandated core projects, the joint venture companies raise long-term debt in the commercial bond market on a limited-recourse project basis, without a government debt guarantee. The electricity industry is dominated by large utilities, such as BC Hydro, which typically do not finance debt on a limited-recourse basis against individual projects. Rather, they finance debt at an overall corporate (or “enterprise”) level based on their status as regulated utilities and on the strength of their consolidated income statement and balance sheet. Furthermore, the debt of BC Hydro and most other Crown corporations is guaranteed by the Province.

While the average economic life of a hydroelectric power project can be 60 years or more, limited-recourse project debt is typically for terms of 30 years or less. Thus, the power project joint ventures must defer receiving a significant portion of their equity returns until after project debt is retired. With joint venture equity returns “back-end loaded”, Columbia Power Corporation has an objective to earn an acceptable return on equity over the life of a project. Regulated utilities, on the other hand, have their tariff rates set by utilities commissions so as to enable them to earn an allowed rate of return on equity in each year.

#### **Objective #4 – Investment Grade, non-tax-supported debt**

As noted, to have sufficient capital to develop all three mandated core projects, long-term debt is raised in the commercial bond market on a limited-recourse project basis, without a government debt guarantee. It is, therefore, essential to maintain Investment Grade credit ratings.

##### *Strategy*

Columbia Power Corporation uses equity resources and short-term credit facilities during project development. Once a project has been constructed and a long-term power sales agreement has been put in place, long-term project debt is raised from the bond market as required. This long-term project debt frees up equity to be used to develop the next mandated core power project.

Before going to the bond market, the Corporation obtains a project bond rating from one or more bond rating agencies, such as Dominion Bond Rating Service (DBRS) and Moody's Investor Service (Moody's). Bond ratings provide an independent, objective and credible third-party evaluation of the risks associated with a project bond issue. The objective of maintaining Investment Grade project bond ratings requires Columbia Power Corporation to be able to assure rating agencies that a power project can sustain a debt service coverage ratio of 1.3 or greater. In order to fulfill its project development mandate, Columbia Power Corporation must also maintain a capital structure with sufficient borrowing capacity to finance all three mandated core power projects.

Accordingly, the financial objective of Investment Grade, non-tax-supported debt is linked to three performance measures: bond rating, debt service coverage ratio and capital structure.

*Performance measures, benchmarks and targets*

4.1 This measure reports a project's bond ratings by DBRS and/or Moody's. The benchmark is an Investment Grade bond rating. Columbia Power Corporation's target is to establish an initial Investment Grade project bond rating, and to maintain or improve that rating over time.

GOAL/OBJECTIVE 4. Investment Grade, Non-Tax Supported, Credit Rating	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 4.1 Bond rating		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	Investment Grade Bond Ratings	Maintained All Bond Ratings	Maintain or Improve Ratings for All Bonds	Maintain Investment Grade Ratings for All Bonds	Maintain Investment Grade Ratings for All Bonds	Maintain Investment Grade Ratings for All Bonds

*Significance of results*

The bonds of the power project joint ventures are held primarily by institutional investors, such as insurance companies. To meet the creditworthiness tests of institutional investors, a bond series must have an Investment Grade bond rating from one or more bond rating agency. Bonds with a rating below the Investment Grade level are generally not held by institutional investors.

The lower the bond rating, the greater the risk premium over long-term Government of Canada bonds that must be paid to make a bond attractive to a potential institutional investor. Thus, a lower initial bond rating will increase a project's long-term cost of debt and ongoing interest expense (reducing a project's net income and the return on equity). Maintaining or improving bond ratings over time provides a positive track record that increases the ability to successfully issue additional bond issues, as needed, to fund future power project capital requirements.

To date, the target of maintaining or improving current Investment Grade bond ratings has been met.

4.2 The second measure of creditworthiness reports on a project's debt service coverage ratio, measured as net income before interest and amortization of assets, divided by interest plus debt principal repayment, for projects with a bond rating. The benchmark used by rating agencies to establish an Investment Grade bond rating is a debt service coverage ratio of 1.3 or greater. Columbia Power Corporation has established a target debt service coverage ratio of 1.5 for each project with a bond rating, subject to its capital spending needs and the availability of equity. High debt service coverage ratios reflect an ability to raise additional limited-recourse project debt in the commercial bond market on favourable terms. Accordingly, high debt service coverage ratios affect the Corporation's ability to fulfill its project development mandate in the absence of a government debt guarantee.

GOAL/OBJECTIVE 4. Investment Grade, Non-Tax Supported, Credit Rating	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 4.2 Debt service coverage ratio		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	Greater Than or Equal to 1.3	ALGS: 2.9 BRD: 1.8	ALGS: 2.1 BRD: 1.7	ALGS: 2.3 BRD: 1.7	ALGS: 2.4 BRD: 1.8	ALGS: 2.5 BRD: 1.8

#### *Significance of results*

The higher debt service coverage ratio for Arrow Lakes Generating Station in 2007/08 reflects insurance recoveries. The decline in 2009/10 and the addition of a debt service coverage ratio for Brilliant Expansion reflect additional long term borrowing to fund the construction of Waneta Expansion.

4.3 The third measure of creditworthiness reports on Columbia Power Corporation's capital structure, measured as consolidated debt and consolidated equity, each divided by consolidated debt plus equity, expressed as a ratio. Along with power project debt service coverage ratios, Columbia Power Corporation's debt-to-equity ratio is a key measure of the ability to raise additional long-term debt to fund the development of all three mandated core projects.

Finding a suitable industry benchmark is difficult. Although the ratio of debt to equity is a standard industry measure, the electricity industry average is a composite that reflects the dominance of large government-backed regulated utilities such as Hydro Québec and BC Hydro, which do not engage in limited-recourse project finance. Columbia Power Corporation's low debt-to-equity targets are consistent with its capital plan and its investment strategy of using equity to construct projects. Once Waneta Expansion has been constructed, Columbia Power Corporation's debt-to-

equity ratio will more closely track the Canadian Electricity Association industry average.

GOAL/OBJECTIVE 4. Investment Grade, Non-Tax Supported, Credit Rating	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 4.3 Capital structure		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	CEA Composite Performance Measure for 2006 = 77.23	27.73	24.76	22.78	19.81	16.84

### *Significance of results*

Columbia Power Corporation's low debt-to-equity measure, when compared with the electricity industry average, indicates that the joint ventures have significant further capacity to raise debt. The Corporation will not reach a comparable capital structure to the industry until all three mandated core power projects have been completed. CIBC World Markets has been retained as Financial Advisor to develop a financing plan for Waneta Expansion and provide a recommendation on the optimum capital structure for the power projects. The decline in the ratio from 2006/07 to 2008/09 reflects the pay down of the Arrow Lakes Generating Station debt over the remaining term of its power sales agreement (which extends to 2015). The rise in 2009/10 reflects long-term borrowing against Brilliant Expansion to help fund the construction of Waneta Expansion.

### **Objective #5 – Acceptable return on equity**

#### *Strategy*

As noted, Columbia Power Corporation pursues the objective of an acceptable long-term return on equity over the life of a project. In order to balance market opportunities with the ability to raise limited-recourse project debt, the Corporation has put in place a portfolio of power sales contracts with varying terms (60 years for the output of the Brilliant powerplant with market price adjustments after year 30; 12 years for Arrow Lakes Generating Station; and 20 years for the 90 percent of the Brilliant Expansion output currently under contract). Columbia Power Corporation also pursues a strategy of managing project risks by: employing competitively bid fixed-price design-build contracts; passing hydrology risk to BC Hydro in exchange for predetermined monthly energy and capacity entitlements; entering into long-term power sales agreements supported by third-party backstop agreements; and carrying business interruption, property and liability insurance.

*Performance measure, benchmark and target*

5.1 This measure reports return on equity, calculated as consolidated net income divided by consolidated equity (contributed surplus plus retained earnings). Suitable industry benchmarks are not readily available. As noted, while annual return on equity is a standard industry measure, the power project joint ventures must “back-end load” their return on equity. Regulated utilities such as BC Hydro and FortisBC Inc. have their tariff rates set by the British Columbia Utilities Commission so as to enable them to earn an allowed rate of return on equity in each year. Earning an acceptable return on equity is therefore a long-term objective, and will depend on long-term power markets and Columbia Power Corporation’s ability to secure power sales contracts that provide an appropriate balance between risk and return. The benchmark is to achieve, over a project’s life, a return on equity comparable with that earned by regulated utilities.

The target annual return on equity will be low in a project’s early years and will rise over time, particularly once debt is retired.

GOAL/OBJECTIVE 5. Acceptable Return on Equity	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 5.1 Return on equity		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	Over the Life of a Project, Comparable to Regulated Utilities	4.7%	4.1%	5.2%	6.1%	6.0%

*Significance of results*

The higher actual rate of return for 2006/07 reflects both the return to normal operations at Arrow Lakes Generating Station and recoveries from the insurer. The lower levels in 2007/08 are due to the delay in commercial operation of Brilliant Expansion and the cost of corporate restructuring. The rise in annual Return of Equity of 2008/09 and beyond reflects the commercial operations, albeit one year late, of Brilliant Expansion and rising overall sales revenues.

**Goal IV – Efficient Joint Venture Management**

This goal is linked to two objectives: cost-efficient joint venture management and environmental compliance.

## Objective #6 – Cost-efficient joint venture management

### *Strategy*

The power project joint ventures are not regulated utilities, able to pass cost increases through to rate payers and earn a target annual allowed rate of return on equity. As independent power producers, the joint ventures must sell into the competitive wholesale power market, usually under long term fixed-price contracts that have a limited ability to adjust the contract price for cost inflation. Accordingly, Columbia Power Corporation must provide cost-efficient joint venture management.

To be cost-efficient, the Corporation relies on the use of external contractors, both through its competitive design-build development strategy and through the contracting out of plant operations and maintenance, and corporate functions such as legal, payroll, pension administration, benefits administration and information technology. Columbia Power Corporation maintains a small staff of professionals who perform: project and corporate planning, project permitting, risk management, commercial negotiations, power marketing, project and corporate accounting, contract administration, treasury, land management, community relations, environmental management, and related due diligence functions.

The cost-efficient joint venture management objective is linked to two performance measures: operations, maintenance and administration unit cost for assets in-service, and revenue per employee.

### *Performance measures, benchmarks and targets*

- 6.1 A key industry measure of efficiency is the operations, maintenance and administration (OMA) unit cost for assets in-service, measured as OMA costs divided by net energy entitlement, in dollars per megawatt-hour. Given the scale and type of joint venture power projects (small- to medium-scale hydro) and Columbia Power Corporation's reliance on external contractors, this measure may not be comparable to industry standards.

To provide meaningful benchmarks against which to manage the joint ventures, the OMA performance measure must be disaggregated by function and by project. As noted, detailed OMA performance measures, disaggregated into the key functional components of plant operations, plant maintenance, renovations/major improvements, and on-site and off-site support, have been developed in conjunction with a hydro-performance study prepared by Navigant Consulting, Inc. (formerly Haddon Jackson Associates, Inc.). These measures are presented and described in more detail in Appendix B.

GOAL/OBJECTIVE 6. Cost Efficient Joint Venture Management	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 6.1 OMA unit cost for assets in service		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	1st Quartile: See Benchmarking Appendix B	ALGS: \$4.02 BRD: \$2.23 BRX: \$9.71	ALGS: \$4.03 BRD: \$2.34 BRX: \$7.41	ALGS: \$5.26 BRD: \$2.26 BRX: \$9.86	ALGS: \$4.39 BRD: \$3.02 BRX: \$6.36	ALGS: \$5.03 BRD: \$3.09 BRX: \$6.05

*Significance of results*

Arrow Lakes Generating Station OMA costs are expected to increase in 2008/09 due to increased environmental management costs and a number of small projects to improve operating efficiency. The Brilliant Dam continues to rank in the first quartile for this measure according to the hydro-performance study prepared by Navigant Consulting, Inc. The relatively higher OMA costs for Brilliant Expansion reflect the plant’s relatively lower energy entitlement. In addition, the OMA costs for Brilliant Expansion reflect: the delayed commercial operation date in 2007/08; the anticipated three month tailrace cleanup outage in 2008/09; and the expected increase in energy entitlement ratios in 2009/10, 2010/11 and 2011/12 (see performance measure 3.1).

**Objective #7 – Environmental compliance**

The second objective linked to the goal of “Efficient Joint Venture Management” is environmental compliance. The performance measure for environmental compliance is the number of material non-compliance notices.

*Strategy*

Columbia Power Corporation is primarily an asset development and management company, with contractors performing almost all activities associated with significant environmental impact. Columbia Power Corporation builds stringent environmental compliance requirements into its design-build contracts. It puts the onus on the contractor to develop the specific means to undertake its activities in a skilled, knowledgeable and diligent manner in compliance with environmental laws, regulations and permit conditions, as well as with the practices and standard of care within the industry. In addition, Columbia Power Corporation conducts its own due diligence, primarily through independent owner’s consultant oversight and review.

In 2004/05, Columbia Power Corporation implemented an environmental management system (EMS) to guide its management of the legal, regulatory and other environmental requirements associated with its projects. The EMS was developed using the International Organization for Standards’ ISO 14001 standard (adopted by the Canadian Electricity Association) as a guide. Although Columbia Power Corporation plans to operate at this standard, it is not currently planning to apply for certification because of cost and staffing considerations. The scope of the EMS includes project planning, project construction, facility operation and maintenance, and land management. The basic objective or goal is to have Columbia Power Corporation

conform to an appropriate level of environmental due diligence, consistent with the legal standard of care established by the courts. That standard requires Columbia Power Corporation to take all reasonable steps to avoid causing prohibited environmental harm. The measure of reasonableness will change over time as industry expertise progresses. Columbia Power Corporation considers its particular circumstances, as well as the practices and standard of care within the electricity industry. Typically, the greater the potential for environmental harm, the higher the standard of care.

The EMS by itself is not sufficient to establish that Columbia Power Corporation is duly diligent. The system must be implemented, determined to be effective and monitored. It must also improve over time to meet changes in the measure of reasonableness.

*Performance measure, benchmark and target*

7.1 Compliance with environmental requirements is measured as the number of notices from regulatory agencies of environmental non-compliance. The industry is dominated by large utilities, including hydro producers (such as Hydro Québec, BC Hydro and Manitoba Hydro), thermal producers in Alberta and nuclear producers in Ontario. In addition to generation facilities, many of these utilities have large transmission and distribution facilities. Accordingly, a suitable industry benchmark is not readily available. Columbia Power Corporation has established a target of zero material non-compliance notices.

GOAL/OBJECTIVE 7. Environmental Compliance	BENCHMARK	TARGETS				
PERFORMANCE MEASURE 7.1 Compliance with environmental requirements		2007/08 Actual	2008/09	2009/10	2010/11	2011/12
2008/09 – 2010/11 Service Plan	Baseline Information to be Developed	Dead sturgeon at Brilliant Expansion	Zero Material Non-Compliance Notices	Zero Material Non-compliance Notices		

*Significance of results*

In February 2007, a dead white sturgeon, protected under the *Species at Risk Act*, was discovered by divers clearing the tailrace at the Brilliant Expansion Project. Columbia Power Corporation, its owner’s engineer and the Brilliant Expansion design-build contractor participated in a Community Justice Forum, sponsored by the Department of Fisheries and Oceans, as a means to resolve this incident. In August 2007, a second dead white sturgeon was found in the Brilliant Expansion draft tube. A third injured white sturgeon was observed after a Brilliant Expansion start-up in September 2007. The Department of Fisheries and Oceans has initiated investigations into the second and third incidents. The investigations have been completed resulting in changes to procedures for unit startup and investigation of potential capital investment for sturgeon exclusion.