

APPENDIX B | Benchmarking

Introduction

In 2006 and 2007, Columbia Power Corporation engaged the services of Navigant Consulting, Inc. (formerly Haddon Jackson Associates, Inc.) to provide benchmarking services to compare the performance of the Brilliant dam and powerplant (Brilliant) and the Arrow Lakes Generating Station (Arrow Lakes) against performance data from more than 300 hydroelectric plants across North America.

The study assessed the following functions:

- operations
- plant maintenance
- waterways and dam maintenance
- buildings and grounds maintenance
- investment
- support
- public affairs and regulatory
- engineering services

Plant cost data was segmented into sub-groupings to allow comparisons based on such factors as a powerplant's size, number of generating units and age. In the study, Brilliant and Arrow Lakes were classified as "Medium Hydro" operations, with parameters being set to reflect valid comparisons for each function.

All costs are stated in U.S. dollars and data from previous years is adjusted for inflation. Study participants included major utilities such as BC Hydro, Ontario Power Generation and the New York Power Authority.

The overall results are positive. In all major areas, Brilliant and Arrow Lakes performed well compared to their peers, and Brilliant was awarded "leading performer" status for plant maintenance. Results for Arrow Lakes were negatively affected by required channel repair work. It is anticipated that there will be significant improvements in future years as Arrow Lakes operations return to normal.

Study Methodology

Each participating powerplant provided Navigant Consulting, Inc. with a standardized set of data. Over 40 plants participated in Hydro 2006 and approximately 30 participated in Hydro 2007. The remaining data was from inflation adjusted information for plants benchmarked in prior years.

Navigant Consulting, Inc. compiled and analyzed the data, held field interviews to challenge and validate the data, and developed a report. An overview conference for participants was held in November 2006 and November 2007. Final reports, which provide Columbia Power Corporation with its customized study results, were received in January 2007 and January 2008. The data presented below are from the customized study results.

In addition to providing comparative data, the study identifies leading practitioners who have achieved the highest level of success for their group and for particular functions. This is intended to enable participants to learn from the success of others.

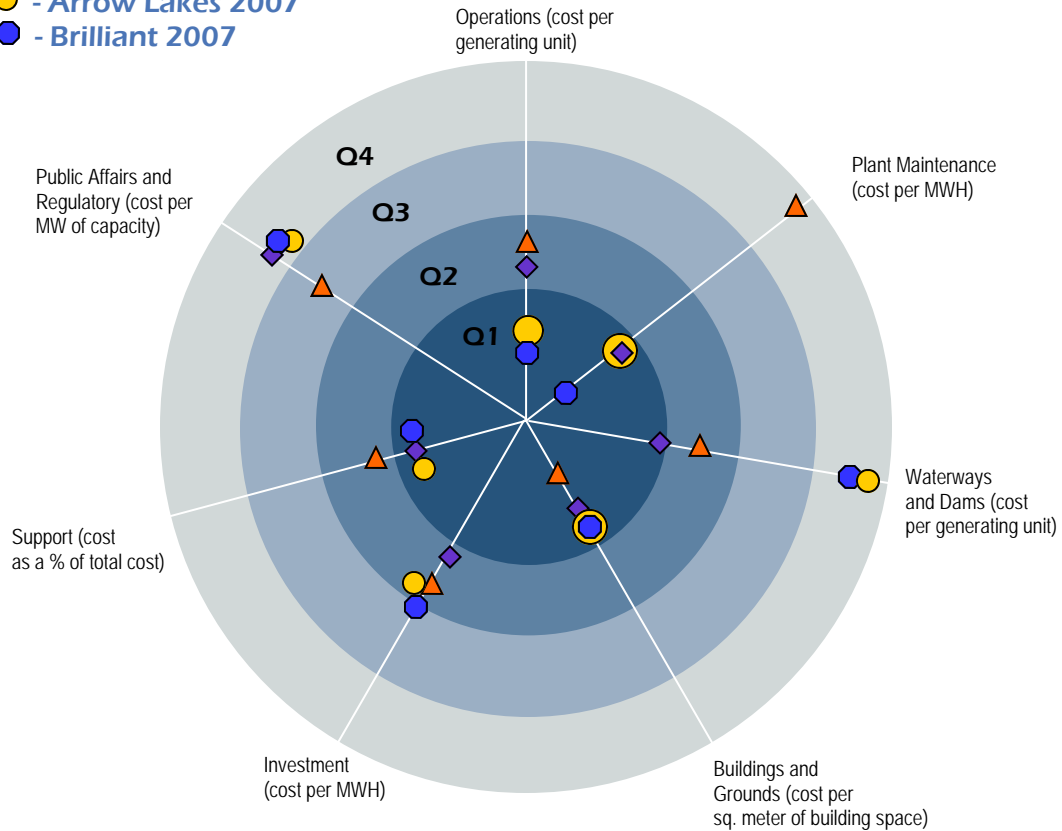
Overall

The following diagram provides a summary of how Brilliant and Arrow Lakes performed in Navigant Consulting, Inc.'s Hydro 2006 and Hydro 2007 studies. Each axis on the diagram reports quartiles with Q1 representing the lowest cost quartile.

More detailed cost information is provided in the charts that follow. Detailed charts are not provided where the cost function is relatively insignificant (Waterways and Dams, Building and Grounds, Support), or where the data are either not truly comparable or not controllable (Public Affairs and Regulatory - see the discussion in Section 2 below).

Quartile performance by power plant cost function

- ▲ - Arrow Lakes 2006
- ◆ - Brilliant 2006
- - Arrow Lakes 2007
- - Brilliant 2007

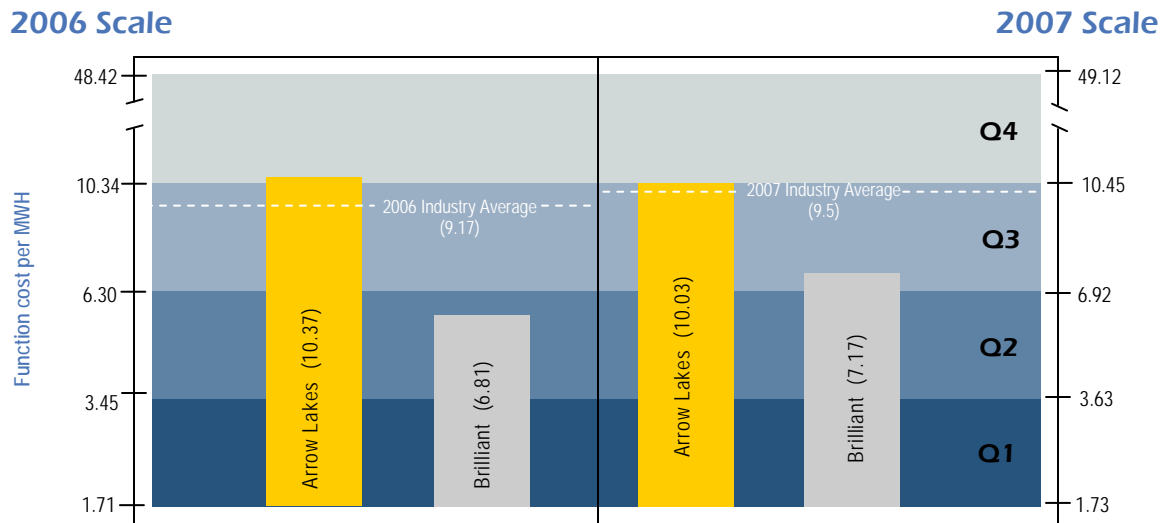


**Stated in U.S. Dollars. Salary Costs Adjusted for Regional Differences.*

Key Indicators

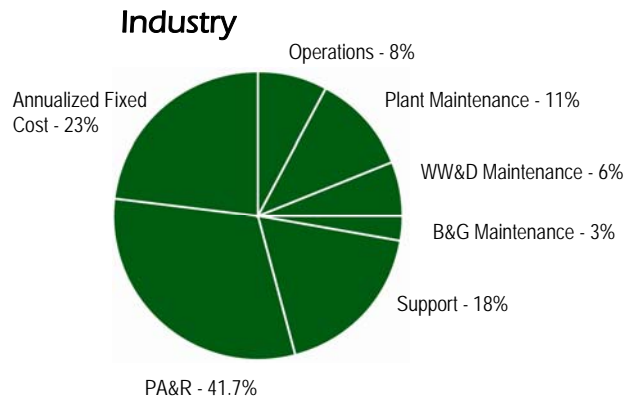
1. Function Cost / MWH - Medium Hydro

This is a broad-based measure of overall efficiency. It includes costs for operations, plant maintenance, waterway and dam maintenance, building and ground maintenance and support. It excludes capital expenditures.

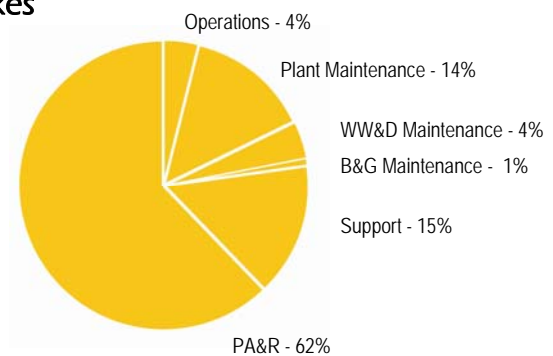


2. Total Cost Distribution - Medium Hydro

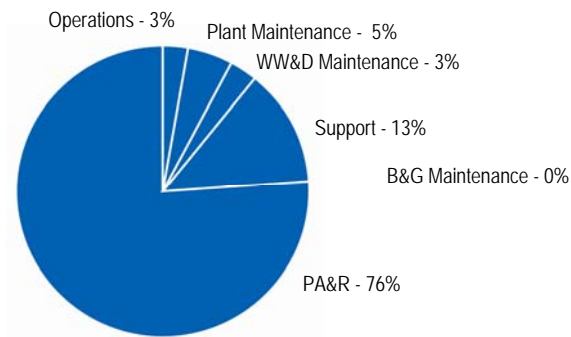
This compares the distribution of costs for Brilliant and Arrow Lakes to the industry averages. It can help identify areas of potential over or under spending. It is important in interpreting this data, however, to remember that plants in British Columbia generally face much higher Public Affairs and Regulatory costs than other jurisdictions. In large measure this is because the Public Affairs and Regulatory function includes the cost of any royalties and taxes. Brilliant and Arrow Lakes pay significant water rentals (a provincial royalty) and property taxes.



Arrow Lakes



Brilliant

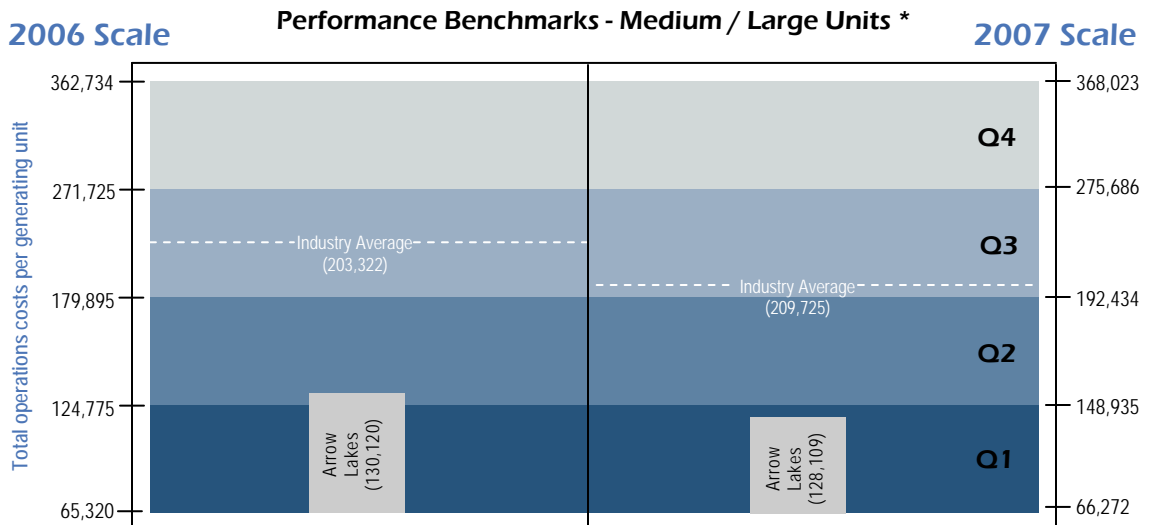
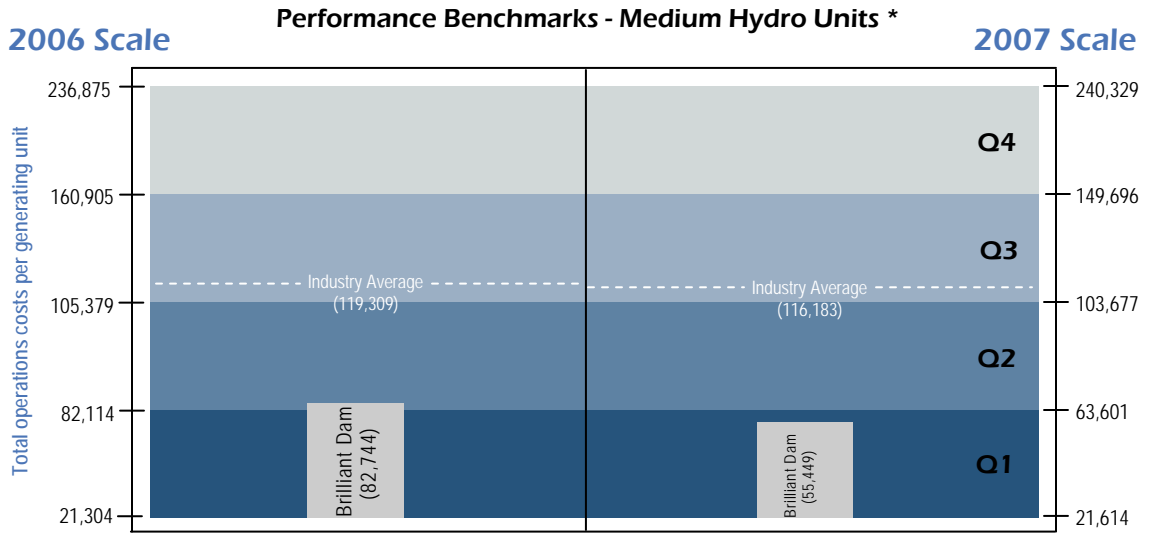


PA&R - Public Affairs and Regulatory
WW&D - Waterways and Dams
B&G - Buildings and Grounds

**Stated in U.S. Dollars. Salary Costs Adjusted for Regional Differences.*

3. Total Operations Cost per Generating Unit

This is a key indicator of operations efficiency. It focuses on direct operations expenses related to the running of plant generating units.



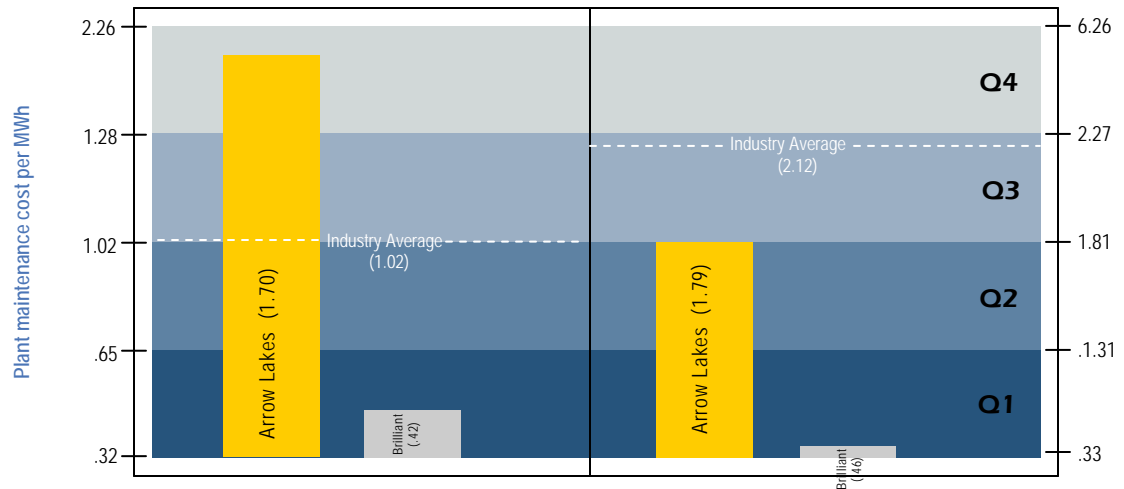
*Stated in U.S. Dollars. Salary Costs Adjusted for Regional Differences.

4. Plant Maintenance Cost per Unit of Output

This indicator provides an overview of the efficiency of plant maintenance, expressed as plant maintenance costs incurred to produce 1 MWh of electricity.

2006 Scale

2007 Scale



*Stated in U.S. Dollars. Salary Costs Adjusted for Regional Differences.

5. Investment Cost per MWh

This indicator reflects the level of capital spending (such as sustaining capital expenditures). Ongoing high levels of capital spending may indicate inefficiency, while low levels of capital spending may indicate under-investment and the potential for future problems. The chart compares Brilliant and Arrow Lakes capital spending to the industry average for powerplants less than 15 years old. Age is a critical factor affecting sustaining capital expenditure levels; sustaining capital expenditures tend to increase as a plant ages.

