



Power Net Revenue Improvement Sounding Board

June 16, 2004



PBL FY 2004 - 2005 Aug 28th Workshop vs. June 2004 Update

(\$ in millions)

| | Discussion Date | Avg % of Categories | Expense Reduction/Revenue Enhancement Categories | August 28th Base | | June 2004 Update | | June vs. Base | | \$100 M Progress FY 2004-05 | |
|----|-----------------|---------------------|---|------------------|-----------|------------------|-----------|---------------|-----------|--------------------------------|-----------------|
| | | | | FY 2004 | FY 2005 | FY 2004 | FY 2005 | FY 2004 | FY 2005 | | |
| 1 | 6/15/2004 | 11% | Internal Operations Expenses Charged to Power Rates | \$ 106.5 | \$ 108.5 | \$ 100.0 | \$ 104.8 | \$ (6.5) | \$ (3.7) | \$ 10.2 | |
| 2 | 6/15/2004 | 2% | Generation Conservation Expense | \$ 28.9 | \$ 29.0 | \$ 30.3 | \$ 31.7 | \$ 1.4 | \$ 2.8 | \$ (4.1) | |
| 2a | 6/15/2004 | | Generation Conservation Revenue | \$ (9.3) | \$ (9.3) | \$ (10.8) | \$ (12.0) | \$ (1.6) | \$ (2.7) | \$ 4.3 | |
| 3 | 4/22/2004 | 25% | Columbia Generating Station O&M | \$ 216.9 | \$ 251.7 | \$ 222.7 | \$ 243.2 | \$ 5.8 | \$ (8.5) | \$ 2.7 | |
| 4 | 6/15/2004 | 22% | Bureau of Reclamation O&M | \$ 61.3 | \$ 63.3 | \$ 60.3 | \$ 63.3 | \$ (1.0) | \$ - | \$ 1.0 | |
| 5 | 6/15/2004 | | Corps of Engineers O&M | \$ 140.5 | \$ 144.5 | \$ 138.5 | \$ 144.5 | \$ (2.0) | \$ - | \$ 2.0 | |
| 6 | 6/15/2004 | 1% | Renewable Generation Expense** | \$ 23.8 | \$ 48.7 | \$ 20.9 | \$ 23.5 | \$ (2.9) | \$ (25.2) | \$ 28.1 | |
| 6a | 6/15/2004 | | Renewable Generation Revenue | \$ (20.1) | \$ (32.1) | \$ (17.8) | \$ (17.8) | \$ 2.3 | \$ 14.4 | \$ (16.6) | |
| 7 | 6/15/2004 | 1% | Trojan Decommissioning | \$ 12.2 | \$ 8.4 | \$ 1.4 | \$ 8.4 | \$ (10.8) | \$ - | \$ 10.8 | |
| 8 | 6/15/2004 | 15% | BPA Fish & Wildlife *** | \$ 139.0 | \$ 139.0 | \$ 153.9 | \$ 131.3 | \$ 14.9 | \$ (7.8) | \$ (7.1) | |
| 9 | 6/15/2004 | 24% | Net Interest Expense | \$ 217.8 | \$ 235.1 | \$ 172.9 | \$ 205.1 | \$ (44.8) | \$ (30.0) | \$ 74.8 | |
| 10 | 6/15/2004 | 0% | Revenue Enhancements | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 11 | Total | | | | | | | | | | \$ 106.0 |

| | | | | | | | | | | |
|----|--|--|---|----------|----------|----------|----------|----------|--------|----------|
| 12 | | | Other Expense Categories (excluding augmentation p.p, other power purchases, Transmission, and ENW debt service)* | \$ 478.7 | \$ 485.9 | \$ 477.9 | \$ 489.1 | \$ (0.8) | \$ 3.2 | \$ (2.5) |
|----|--|--|---|----------|----------|----------|----------|----------|--------|----------|

*August 28th Base Other Expense Categories Includes: Canadian entitlement (\$2 M), Hedging/Mitigation (\$3 M), Residential Exchange costs (\$144 M), Other generating projects (\$32 M), Civil Service Retirement (\$14 M), WNP 1&3 O&M (\$0 M), Conservation and Renewable Discount (\$37 M), Planning Council (\$9 M), USF&W Lower Snake Hatcheries (\$17 M), Colville Generation Settlement (\$17 M), Non-Federal Debt Service (not including ENW) (\$27 M), Depreciation (\$107 M), Amortization (\$74 M), and Non Project Expense Adjustments (\$0 M). [Numbers are average of FY04-05 August 28th Base]

** The change in renewable cost will impact the LB CRAC calculation, but the magnitude of this impact is uncertain.

***Includes High Priority/Action Plan projects of \$9 M for FY04 in the 2nd Qtr Review estimate. The actual F&W budget is \$153 M (not including High Priority/Action Plan projects) for FY04 and \$131 M for FY05-06, averaging \$139 M over the rate period.



Power Net Revenue Improvement Sounding Board

Net Interest Expense

June 16, 2004



PBL FY 2004 - 2005 Net Interest Expense

- No update to the net interest expense forecast since the last Sounding Board report. We will update the forecast when the Repayment Study is run for the 3rd Quarter Review.

- Items that may cause increases/decreases to net interest expense:
 - FY04** -- Foresee only small changes from previous Sounding Board estimates to the 3rd Quarter Review, due to:
 - Actual federal borrowings and rates compared to the last forecast.
 - Actual AFUDC through June '03.
 - Actual interest income through June '03.



PBL FY 2004 - 2005 Net Interest Expense

FY05 -- Several items may cause the FY05 forecast of net interest expense to change at 3rd Quarter compared to prior Sounding Board discussions:

- In FY04, federal bonds were issued at rates approximately 300 bps lower than forecasted. Also, the repayment study used at 2nd Quarter assumed \$80m more in federal issuances than the end of year forecast. These two factors will decrease FY05 net interest expense by approximately \$9 to \$12 million from previous Sounding Board estimates.
- Debt optimization actions will result in additional federal amortization of high interest rate federal debt at FY04 year end. This will decrease net interest expense by approximately \$4 to 6 million.*
- The forecast of FY04 Columbia River Fish Mitigation (CRFM) projected plant into service has increased from previous estimates, from \$20.7 million to approximately \$75 million. This will increase FY05 net interest expense by approximately \$1.5 to \$3 million.

* The annual interest expense on the federal debt to be paid down is approximately \$4 to \$6 million; Annual interest expense on the extended 3rd party debt will be approximately \$3 to \$5 million.



Power Net Revenue Improvement Sounding Board

Fish and Wildlife Direct Program (Expense)

June 16, 2004



BPA's Fish and Wildlife Program Expense

- BPA's Fish and Wildlife Program expenses are forecast to average \$139 million annually for FY 2004-2006.
- The 2002 Power Rate Proposal assumed spending of \$139 million each year for the rate period, and Budgeting Rules developed with the NWPPC (Council) call for managing the program to an annual average of \$139 million for FYs 2003-2006, no more than \$556 million for the four-year period, and within plus- or minus- 10% of \$139 million in each year (\$125 million to \$153 million)



BPA's Fish and Wildlife Program Expense

- The FY 2004 budget is now \$153 million. The budget increase for FY 2004 is offset by a planning budget of \$131.25 million for FYs 2005 and 2006, resulting in no impact to rates.
- The commitment is to average \$139 million for FYs 2003-2006. If actual expenditures for FY 2004 are lower than \$153 million, spending in FY 2005 and/or 2006 may be higher than \$131.25 million.
- The Biological Opinion Remand and Sub-basin plans could result in costs in FY 2005 and/or 2006 that have not been identified at this time. This could require some prioritization or adjustments to pace of implementation of current projects.
- Cost of summer spill testing of \$7.1 million that were included in the 2nd Quarter Review are unchanged (not included in the F&W budget).



BPA's Fish and Wildlife Program Expense

| Project: Fish & Wildlife (\$ in millions) | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY01-03 Average | FY03-FY06 Average | FY04-FY06 Average | FY03-FY06 | FY04-FY06 |
|--|----------|----------|----------|----------|----------|----------|--------------------|----------------------|----------------------|--|--|
| | | | | | | | | | | Average Above (or Below) FY01 | Average Above (or Below) FY01 |
| August 28, 2003 Rate Case Forecast | | | | | | | | | | | |
| Integrated Program | \$ 101.1 | \$ 137.1 | \$ 138.4 | \$ 139.0 | \$ 139.0 | \$ 139.0 | \$ 125.5 | \$ 138.9 | \$ 139.0 | \$ 37.8 | \$ 37.9 |
| <i>Growth Rate</i> | | 35.6% | 0.9% | 0.4% | 0.0% | 0.0% | | | | | |
| High Priority/Action Plan | \$ 2.9 | \$ 7.1 | \$ 7.3 | \$ - | \$ - | \$ - | \$ 5.8 | \$ 1.8 | \$ - | \$ (1.1) | \$ (2.9) |
| <i>Growth Rate</i> | | 144.8% | 2.8% | -100.0% | | | | | | | |
| Current 2004 Update | | | | | | | | | | | |
| Integrated Program | \$ 101.1 | \$ 137.1 | \$ 140.6 | \$ 153.0 | \$ 131.3 | \$ 131.3 | \$ 126.3 | \$ 139.0 | \$ 138.5 | \$ 37.9 | \$ 37.4 |
| <i>Growth Rate</i> | | 35.6% | 2.6% | 8.8% | -14.2% | 0.0% | | | | | |
| High Priority/Action Plan | \$ 2.9 | \$ 7.1 | \$ 6.5 | \$ 0.9 | \$ - | \$ - | \$ 5.5 | \$ 1.9 | \$ 0.3 | \$ (1.1) | \$ (2.6) |
| <i>Growth Rate</i> | | 144.8% | -8.5% | -86.2% | | | | | | | |
| Current 2004 Update Above (or Below) | | | | | | | | | | | |
| August 28, 2003 Rate Case Forecast | \$ - | \$ - | \$ 1.4 | \$ 14.9 | \$ (7.8) | \$ (7.8) | \$ 0.5 | \$ 0.2 | \$ (0.2) | \$ 0.2 | \$ (0.2) |

Drivers of Change
FY03: Actual v. Aug. 28, 2003 Forecast
 Biological Opinions in FY 2000 and continued implementation of NWPA program resulted in an increase in the program expense budget from \$100 million per year

Drivers of Change
FY01-03 v. FY04-06: Actual v. Current 2004 Update

Drivers of Change
FY04-06: Aug. 28, 2003 Forecast v. Current 2004 Update
 A few High Priority and Action Plan projects did not conclude in FY 2003, and are continuing into FY 2004.

Forecast Risk
 BiOp remand
 Sub-Basin Planning

Opportunities for Improvement
 Project Management Improvement effort, Implementation of Budgeting Rules, Sound Financial Management



Power Net Revenue Improvement Sounding Board

Revenue Enhancements

June 16, 2004



Revenue Enhancements

- **Alteration of Summer BiOp Spill Operation**
 - Decision process ongoing
- **Alteration of 1% Peak Efficiency Restrictions**
 - Small number of units allowed to operate outside of 1% limit in April-May, however, due to low flows in April, there was additional generation only in May
- **Additional FCRPS operational flexibility**
 - There has been very little operational flexibility so far this Spring
- **Non-treaty Storage Renegotiation**
 - Current non-treaty storage agreement with Canada expires this Spring, however, BPA continues to negotiate a new agreement. Not advanced enough to count.
- **General System Operations**
 - BPA continues to seek opportunities to use operational flexibility to enhance the value of the FCRPS.
- **Ancillary and Reserve Services**
 - Status still the same. Continuing campaign to try to offset a fraction of the Ancillary Service revenue shortfall. These revenues will be realized sometime after FY 2005.



Revenue Enhancements

- California and Renewable Energy
 - BPA is actively exploring opportunities to increase sales of green tags to other states in the WECC, including California.
 - 2003 Tag sales into the CA market only amounted to about \$140K. We have only booked \$67K so far in 2004.
 - Sales have been primarily to municipal utilities and were predominantly small hydro attributes, which qualify as renewable resources in CA. Cost was the primary purchase criterion.
 - California Energy Commission ruling on attributes: Attributes cannot count towards the RPS unless they are bundled with energy and a source to sink delivery path can be demonstrated.
 - BPA is actively exploring options to increase our share of the California market.

Bottom Line: Ongoing efforts, but no revenue enhancements appear certain enough to “count” for FY 04-05. Future opportunities are yet to be determined.



Power Net Revenue Improvement Sounding Board

Conservation Initiatives

June 16, 2004



Components of the “Conservation Initiatives” Budget (in millions of \$)

Components of the "Conservation Initiatives" Budget (in millions of \$)

| | <i>A</i> | <i>B</i> | <i>C</i> | <i>D</i> | <i>E</i> | <i>F</i> | <i>G</i> | <i>H</i> | <i>I</i> | |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------|---------------------|---------------------|---------------------|
| | | | | | | | | August 03 | | |
| | | | | | | | | --SNCRAC-- | | |
| | SOY | Actuals | Actuals | 1st Qtr | Update* | Update* | | | | |
| | <u>FY 02</u> | <u>FY 02</u> | <u>FY 03</u> | <u>FY 04</u> | <u>FY 04</u> | <u>FY 05</u> | | <u>FY 04</u> | <u>FY 05</u> | <u>FY 06</u> |
| 1 EE Development (Reimbursable Program) | 14.2 | 10.1 | 9.1 | 10.8 | 10.8 | 12.0 | | 9.2 | 9.3 | 9.3 |
| 2 Market Transformation (NEEA Support) | 12.2 | 7.8 | 9.3 | 10.0 | 10.0 | 9.9 | | 10.0 | 10.0 | 10.0 |
| 3 Low Income Weatherization (includes Tribal LIWx) | 3.6 | 3.2 | 3.9 | 4.2 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| 4 Legacy (Contract Closeouts) | 4.5 | 5.4 | 3.6 | 4.0 | 4.5 | 4.5 | | 3.9 | 4.0 | 4.0 |
| 5 Energy Web | - | - | 0.1 | 0.5 | 0.5 | 0.5 | | 1.0 | 1.0 | 1.0 |
| 6 Tech. Leadership (with I/E/O) (formerly SEI) | <u>3.7</u> | <u>1.7</u> | <u>4.3</u> | <u>0.8</u> | <u>0.5</u> | <u>0.8</u> | | <u>0.8</u> | <u>0.7</u> | <u>0.7</u> |
| 7 Totals | 38.2 | 28.2 | 30.3 | 30.3 | 30.3 | 31.7 | | 28.9 | 29.0 | 29.0 |
| 8 Reimbursable Revenue Offset Program | (14.2) | (10.1) | (9.1) | (10.8) | (10.8) | (12.0) | | (9.2) | (9.3) | (9.3) |

*Updated 6/8/04



Explanation of Changes in “Conservation Initiatives” Budget

FY 04 Changes (comparing column E to column D)

- Invoices from the states on their low income expenditures are expected to decline slightly this year (\$0.2 million). However, they will be spending higher amounts over the rest of the rate period to make sure they use their allocated budgets.
- Invoices from customers with Legacy contracts are coming in at a higher rate than anticipated. BPA is obligated to pay these expenditures up to the amount specified in the agreements for measures previously installed.
- Technology Leadership spending reductions (\$0.3 million) are a reflection of tighter cost management and additional leveraging of BPA funds with other program participants.



Explanation of Changes in “Conservation Initiatives” Budget

FY 05 Changes (comparing column H to column F)

- The Reimbursable Program budget has increased (by \$2.7 million), but the revenues will offset this addition.
- The new NEEA support agreement resulted in a slight reduction (\$0.1 million) in the Market Transformation budget. Note: this # reflects a five year average and that the actual expenditures will be more “lumpy”.
- It is anticipated that Legacy invoices will reflect the FY 04 spending levels. This results in a \$0.5 million increase.
- Cost management and leveraging our funds allow for a \$0.5 million decrease in planned expenditures for Energy Web.



Power Net Revenue Improvement Sounding Board

Renewable Program

June 16, 2004



Renewable Program Cost Reductions - Update

| Project: "Renewable Projects" Renewable Generation (\$ in millions) | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY01-03 Average | FY03-FY06 Average | FY04-FY06 Average | FY03-FY06 Average | FY04-FY06 Average |
|---|--------|---------|----------|----------|-----------|-----------|-----------------|-------------------|-------------------|-----------------------|-----------------------|
| | | | | | | | | | | Above (or Below) FY01 | Above (or Below) FY01 |
| August 2002 Forecast | \$ 7.9 | \$ 16.8 | \$ 42.6 | \$ 111.1 | \$ 137.6 | \$ 139.4 | \$ 22.4 | \$ 107.7 | \$ 129.4 | \$ 99.8 | \$ 121.5 |
| <i>Growth Rate</i> | | 113.3% | 153.6% | 160.8% | 23.9% | 1.3% | | | | | |
| August 28, 2003 Rate Case Forecast | \$ 7.9 | \$ 21.7 | \$ 20.3 | \$ 23.8 | \$ 48.7 | \$ 58.1 | \$ 16.6 | \$ 37.7 | \$ 43.5 | \$ 29.8 | \$ 35.6 |
| <i>Growth Rate</i> | | 175.5% | -6.5% | 17.4% | 104.2% | 19.4% | | | | | |
| June 2004 Update | \$ 7.9 | \$ 21.7 | \$ 17.8 | \$ 20.9 | \$ 23.5 | \$ 31.9 | \$ 15.8 | \$ 23.5 | \$ 25.4 | \$ 15.6 | \$ 17.5 |
| <i>Growth Rate</i> | | 175.5% | -17.7% | 16.9% | 12.5% | 35.9% | | | | | |
| June 2004 Update Above (or Below) August 28, 2003 Rate Case Forecast | \$ - | \$ - | \$ (2.4) | \$ (3.0) | \$ (25.2) | \$ (26.2) | \$ (0.8) | \$ (14.2) | \$ (18.1) | \$ (14.2) | \$ (18.1) |

| |
|---|
| Drivers of Change |
| <i>FY03: Actual v. Aug. 28, 2003 Forecast</i> |
| <ul style="list-style-type: none"> 1) August 2002 Forecast contains costs associated with 1000 MW RFP. These costs were not included in August 28 Rate Case Forecast. 2) Maiden Termination payment (\$250K) pushed out until FY 2004 because permits triggering payment have not been issued. 3) "Mission critical" guidance resulted in little travel or training. Unobligated support costs eliminated. 4) Timing of invoices and variation in project generation also resulted in FY03 under-runs. 5) \$80 K budgeted for BEF support not spent in FY03. |
| Drivers of Change |
| <i>FY01-03 v. FY04-06: Actual v. June 2004 Update</i> |
| <ul style="list-style-type: none"> 1) Wind projects didn't generate as much energy as assumed in budget forecasts. |
| Drivers of Change |
| <i>FY04-06: Aug. 28, 2003 Forecast v. June 2004 Update</i> |
| <ul style="list-style-type: none"> 1) Major Change due to 50 MW Fourmile Hill Geothermal project. Previously included in FY 05 budget, it has been moved to the next rate period. 2) Maiden Termination payment moved to FY05 because project has not received permits which trigger payment. |
| Forecast Risk |
| <ul style="list-style-type: none"> 1) 25 aMW "anchor tenant" wind in Fy 2006 acquisition budget may or may not be needed for loads or facilitation role. |
| Opportunities for Improvement |

Two Updates

- **Fourmile Hill costs have moved out into the next rate period.**

BPA believes it has a right to terminate the Calpine Fourmile Hill Geothermal contract because Calpine has failed to prove the resource. BPA is currently working through a dispute process with Calpine.

- **Maiden Wind Project Termination payment (\$250K) has been pushed out to FY 2005.**

This payment was originally budgeted for FY 2003, moved to FY 2004, and now postponed until FY 2005. Under the predevelopment contract, payment cannot be made until the project receives all of its permits. The contract may sunset before all permits have been acquired.

- **Since previous Sounding Board discussions on this topic, net cost of renewables has been reduced (mainly due to the Fourmile Hill deferral) by \$10.8 million.**



Power Net Revenue Improvement Sounding Board

Internal Operations (charged to Power rates)

June 16, 2004



Internal Operations (Expense) Charged to PBL

- Internal Operations costs charged to PBL consist of the direct costs of managing and operating the Power Business Line; the Power share of Corporate G&A, Shared Services; and TBL Supply Chain services.
- The SNCRAC rate case assumed spending \$215 million over the two-year period 2004-2005. By the 2nd Quarter Review we had reduced costs in 2004 by \$3.2 million.
- With continued cost cutting, our current spending plan over the two-year period is \$204.8 million, or \$10.2 million below the SNCRAC rate case.



Internal Operations (Expense)

Major areas of PBL cost cutting relative to August 2003 forecast:

- 40% reduction in materials and equipment
- 20% reduction in travel
- 22% reduction in service contracts
- 33% reduction in agreements and grants
- 11% reduction in training
- 3% reduction in staffing costs

One area of cost increase:

- 33% increase in between business line costs (TBL services other than transmission in support of Generation Supply - \$419K)

PBL Staffing – In FY 2002, actual PBL FTE was 460. Current FY 2004 forecast of 429 FTE is 7 percent lower.



Internal Operations (Expense)

| Project: "Internal Operations" Power Non-Generation Operations Plus Corporate Support Services (\$ in millions) | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY01-03 Average | FY03-FY06 Average | FY04-FY06 Average | FY03-FY06 Average Above (or Below) FY01 | FY04-FY06 Average Above (or Below) FY01 |
|--|----------|----------|----------|----------|----------|----------|--------------------|----------------------|----------------------|---|---|
| August 28, 2003 Rate Case Forecast | \$ 107.7 | \$ 124.0 | \$ 106.2 | \$ 106.5 | \$ 108.5 | \$ 109.5 | \$ 112.6 | \$ 107.7 | \$ 108.2 | \$ (0.0) | \$ 0.5 |
| <i>Growth Rate</i> | | 15.1% | -14.3% | 0.3% | 1.8% | 1.0% | | | | | |
| June 2004 Forecast | \$ 107.7 | \$ 124.0 | \$ 97.4 | \$ 100.0 | \$ 104.8 | \$ 109.5 | \$ 109.7 | \$ 102.9 | \$ 104.8 | \$ (4.7) | \$ (2.9) |
| <i>Growth Rate</i> | | 15.1% | -21.4% | 2.7% | 4.8% | 4.5% | | | | | |
| June 2004 Forecast Above (or Below) | | | | | | | | | | | |
| August 28, 2003 Rate Case Forecast | \$ - | \$ - | \$ (8.8) | \$ (6.5) | \$ (3.7) | \$ (0.0) | \$ (2.9) | \$ (4.7) | \$ (3.4) | \$ (4.7) | \$ (3.4) |
| Drivers of Change | | | | | | | | | | | |
| <i>FY03: Actuals v. Aug. 28, 2003 Forecast</i> | | | | | | | | | | | |
| 1) Employees managed well under budget & planned forecast due to "mission-critical" guidance. | | | | | | | | | | | |
| Drivers of Change | | | | | | | | | | | |
| <i>FY01-03 v. FY04-06: Actuals v. June 2004 Forecast</i> | | | | | | | | | | | |
| 1) "Mission critical" guidance resulted in very little travel & training in FY03, increased levels slightly over FY04-06. | | | | | | | | | | | |
| 2) Hiring or filling behind FTE was postponed after FY03. | | | | | | | | | | | |
| 3) 4% COLA applied while FTE levels decline. | | | | | | | | | | | |
| Drivers of Change | | | | | | | | | | | |
| <i>FY04-06: Aug. 28, 2003 Forecast v. June 2004 Forecast</i> | | | | | | | | | | | |
| 1) For the PBL, Tier 2s rigorously reduced budget projections throughout the spring of 2004 resulting in further expense reductions. | | | | | | | | | | | |
| 2) Corporate is managing to levels in August 28, 2003 rate case forecast (adjusted for CRO office moves) | | | | | | | | | | | |
| Forecast Risk | | | | | | | | | | | |
| 1) Need for new systems (financial, Trading Floor deal capture, scheduling, risk management) | | | | | | | | | | | |
| 2) Increased staff devoted to transparency (increased financial reporting and analysis) | | | | | | | | | | | |
| 3) Increased security | | | | | | | | | | | |
| 4) Building maintenance or retrofit upgrades due to age | | | | | | | | | | | |
| 5) Costs for Benchmarking effort (KEMA) and potential reorganization | | | | | | | | | | | |
| 6) Impact of Grid West and scheduling demands on PBL | | | | | | | | | | | |
| 7) Failure in any core system: Scheduling, Billing, Trading Floor etc. | | | | | | | | | | | |
| Opportunities for Improvement | | | | | | | | | | | |
| 1) Efficiencies related to benchmarking results coming from the KEMA study post 2004 | | | | | | | | | | | |
| 2) Efficiencies in financial & risk management systems | | | | | | | | | | | |

Power Net Revenue Improvement Sounding Board

Corps/Reclamation Operations and Maintenance Expense Budget

June 16, 2004



System Summary

- The Federal Columbia River Power System (FCRPS) consists of 31 hydroelectric plants with 209 turbine-generating units.
- System generating capacity of 22,059 MW with an average generation of 78 TWh [or 8,900 aMW].
- Average annual revenue of \$2.5 billion.
- The plants have as few as 1 unit and as many as 33 units (GCL).
- The individual generating units ranging in size from 1 MW to 805 MW.
- The oldest units were put into service in 1912; the youngest unit in 1999.
- The average cost of Corps/Reclamation O&M Program is \$204 million (2003-2006); equivalent cost of 2.62 mills.
- Approximately 1,500 employees working on:
 - Hydropower (power-specific and joint).
 - Fish & Wildlife O&M (joint).
 - Cultural Resources (joint).



Three Agencies Working Together

Our Vision:

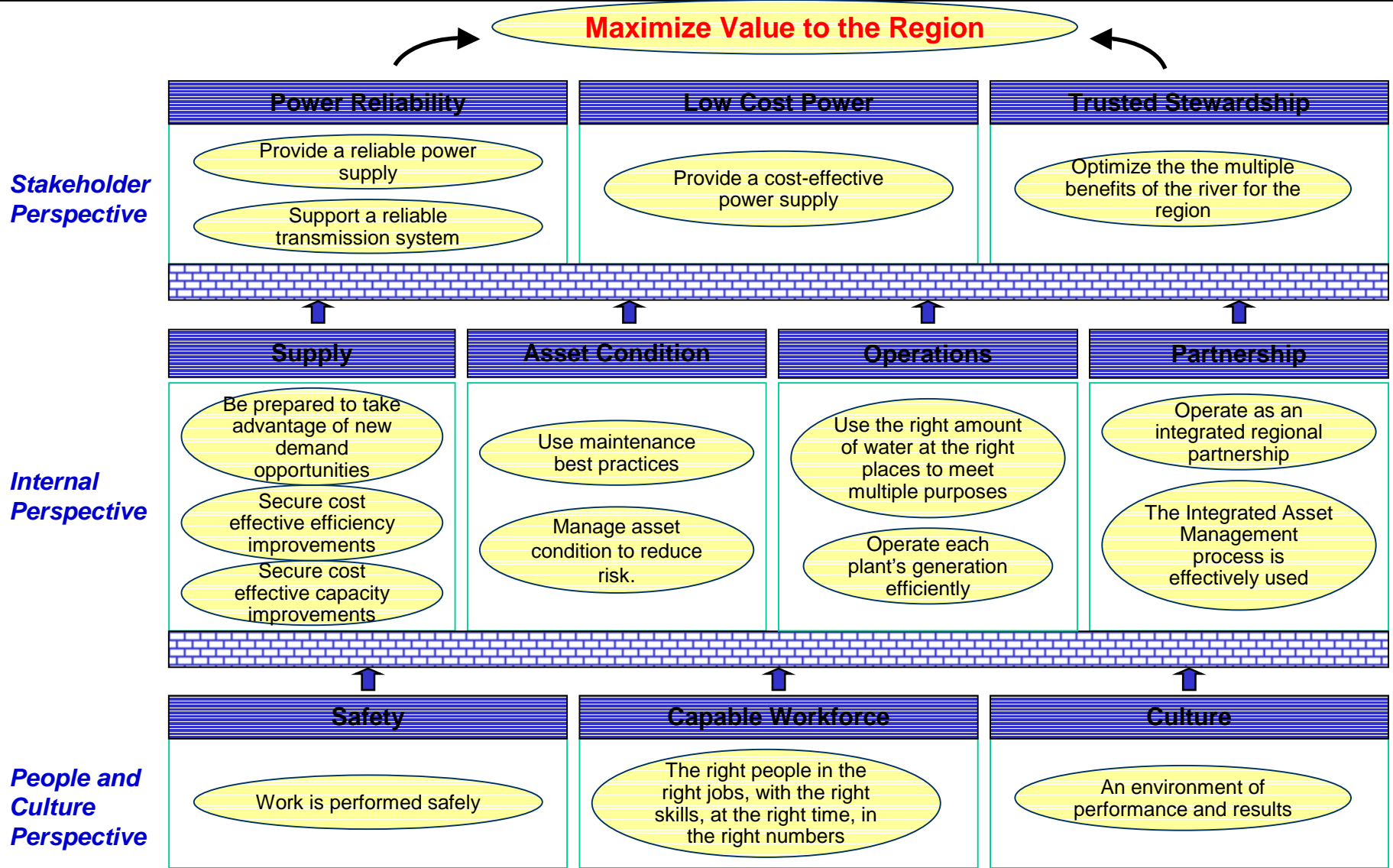
“Maximize the value of the river for the people of the Pacific Northwest.”

Our Premise:

“There is more potential for increasing value, if we operate with a common set of objectives, strategies and greater trust/collaboration.”



FCRPS Hydro Strategy Map





FY 2004 FCRPS Performance Indicators

Year-to-Date Thru April 2004

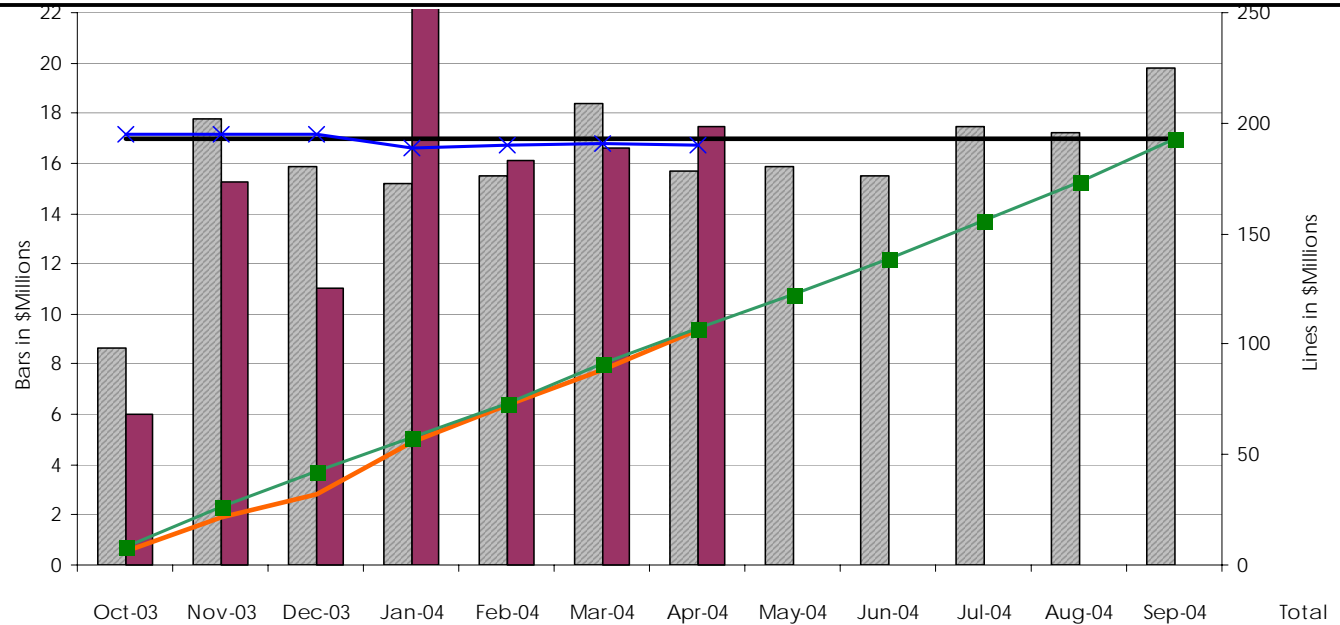
| | Status (YTD) | Indicator | Measure | Rating Thresholds | | |
|----------------------|--------------------|--------------------------------|--|--|---|--|
| | | | | Stretch | Expected | Minimum |
| Production | 97.8% | HLH Availability | Actual HLH MW available divided by HLH MW planned | 99% | 97% | 94% |
| | 96.6% | Thursday Call | Percentage of weekly calls attended | 100% | 95% | 90% |
| Financial | 99.3% | Base O&M Expenditure Rate | Actual O&M expenses divided by planned O&M expenses for the latest Annual Power Budget | 94% | 96% | 100% |
| | 103.1% | Base O&M Obligation Rate | Actual obligations divided by planned obligations for the latest Annual Power Budget | 95% | 97% | 100% |
| | 97.6% | Large Capital Expenditure Rate | Actual expenditures divided by planned expenditures | 90% | 85% | 80% |
| Asset Condition | 36% | Maintenance Program | Percent of required, Critical Preventative and/or Predictive Maintenance (PM) plans, that have been established, including estimated person-hours, | Developed and being tracked by October 2003 | Developed and being tracked by January 2004 | Developed and being tracked by April 2004 |
| | End of Year Report | Maintenance - Reclamation | Percent of mission essential preventative maintenance work orders completed | 95% | 90% | 85% |
| Safety | 1.43 | Lost Time Accident Rate | Number of lost time accidents per 200,000 person-hours | 1.5 | 1.7 | 2.0 |
| Transmission Support | 100% | PSS/AVR Compliance | Number of units in compliance with WECC operating standards | 100% | N/A | N/A |
| | Under Development | WECC Requirements | Procedures in place and information and records are available at each plant for the WECC planning standards applicable to generators | 100% | N/A | N/A |
| Stewardship | | Cultural Resources Stewardship | The four Project Definition tasks outlined, completed by September Baseline data collected for the 14 reservoirs by September | More than one indicator developed and being tracked from each subcommittee by April 2004 | At least one indicator developed and being tracked from each subcommittee by April 2004 | At least one indicator developed and being tracked from one subcommittee by April 2004 |
| | Under Development | Fish and Wildlife | Number of functioning performance indicators developed and being tracked before April 2004 | | | |



FCRPS Hydro Plants O&M Expenditures - FY04

Expenditure Rate Targets

| | |
|--|---|
| | Stretch 94% or Less of Forecast |
| | Expected 96% or Less of Forecast |
| | Minimum 100% or Less of Forecast |
| | Off Plan Greater than 100% of Forecast |



| | | | | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Forecast Expenditures | 8.7 | 17.8 | 15.8 | 15.2 | 15.5 | 18.4 | 15.7 | 15.8 | 15.5 | 17.5 | 17.2 | 19.8 | 192.9 |
| Actual Expenditures | 6.0 | 15.3 | 11.0 | 23.8 | 16.1 | 16.6 | 17.5 | | | | | | 106.2 |
| Annual Power Budget | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 |
| EOY Forecast of Expenditures | 194.8 | 194.8 | 194.8 | 189.0 | 190.4 | 191.0 | 190.4 | | | | | | |
| YTD Expenditures | 6.0 | 21.3 | 32.3 | 56.0 | 72.2 | 88.8 | 106.2 | | | | | | |
| Cumul. Forecast of Expenditures | 8.7 | 26.4 | 42.3 | 57.5 | 73.0 | 91.3 | 107.0 | 122.9 | 138.4 | 155.8 | 173.1 | 192.9 | |
| YTD Expenditure Rate | | | | 98% | 99% | 97% | 99% | | | | | | |

Contact **O&M Workgroup - Alder, Oldham, Kent**

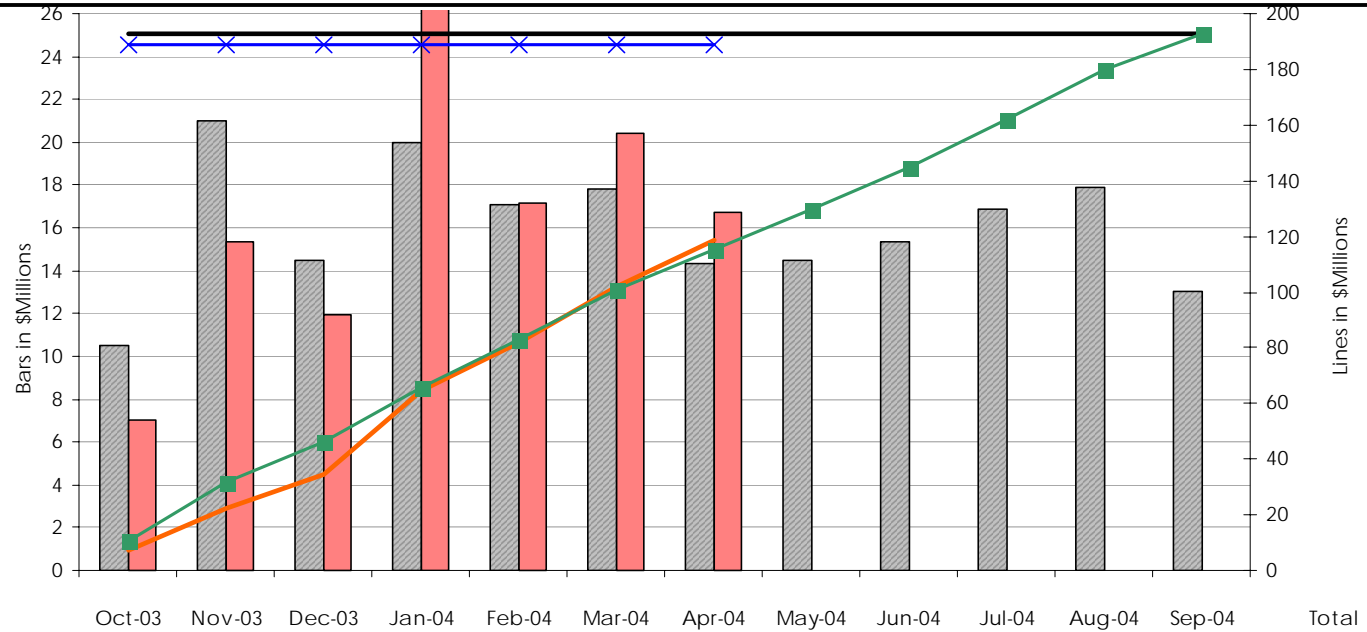
FCRPS Hydropower Program



FCRPS Hydro Plants O&M Obligations - FY04

Expenditure Rate Targets

| | |
|--|---|
| | Stretch 95% or Less of Forecast |
| | Expected 97% or Less of Forecast |
| | Minimum 100% or Less of Forecast |
| | Off Plan Greater than 100% of Forecast |



| | | | | | | | | | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Forecast Obligations | 10.5 | 21.0 | 14.5 | 20.0 | 17.1 | 17.8 | 14.3 | 14.5 | 15.3 | 16.9 | 17.9 | 13.0 | 192.9 |
| Actual Obligations | 7.0 | 15.4 | 12.0 | 30.2 | 17.2 | 20.5 | 16.7 | | | | | | 118.9 |
| Annual Power Budget | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 | 192.9 |
| EOY Forecast of Obligations | 189.0 | 189.0 | 189.0 | 189.0 | 189.0 | 189.0 | 189.0 | | | | | | |
| YTD Obligations | 7.0 | 22.4 | 34.3 | 64.5 | 81.7 | 102.1 | 118.9 | | | | | | |
| Cumul. Forecast of Obligations | 10.5 | 31.5 | 46.0 | 66.0 | 83.1 | 100.9 | 115.3 | 129.8 | 145.1 | 162.0 | 179.9 | 192.9 | |
| YTD Expenditure Rate | | | | 98% | 98% | 101% | 103% | | | | | | |

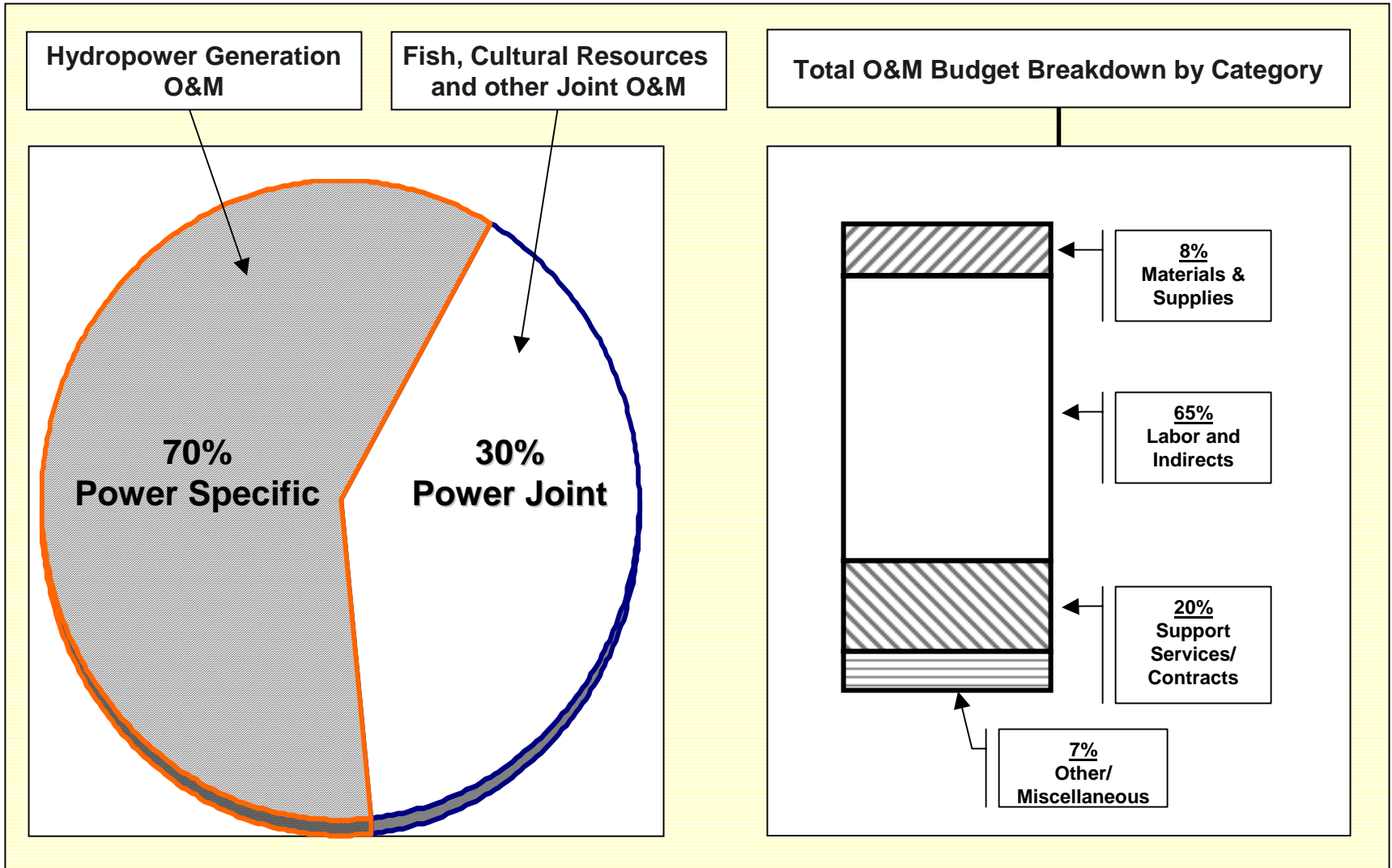
Contact **O&M Workgroup - Alder, Oldham, Kent**

FCRPS Hydropower Program



FY 2003 - 2006 Average Annual O&M Cost

(\$204 million/year)

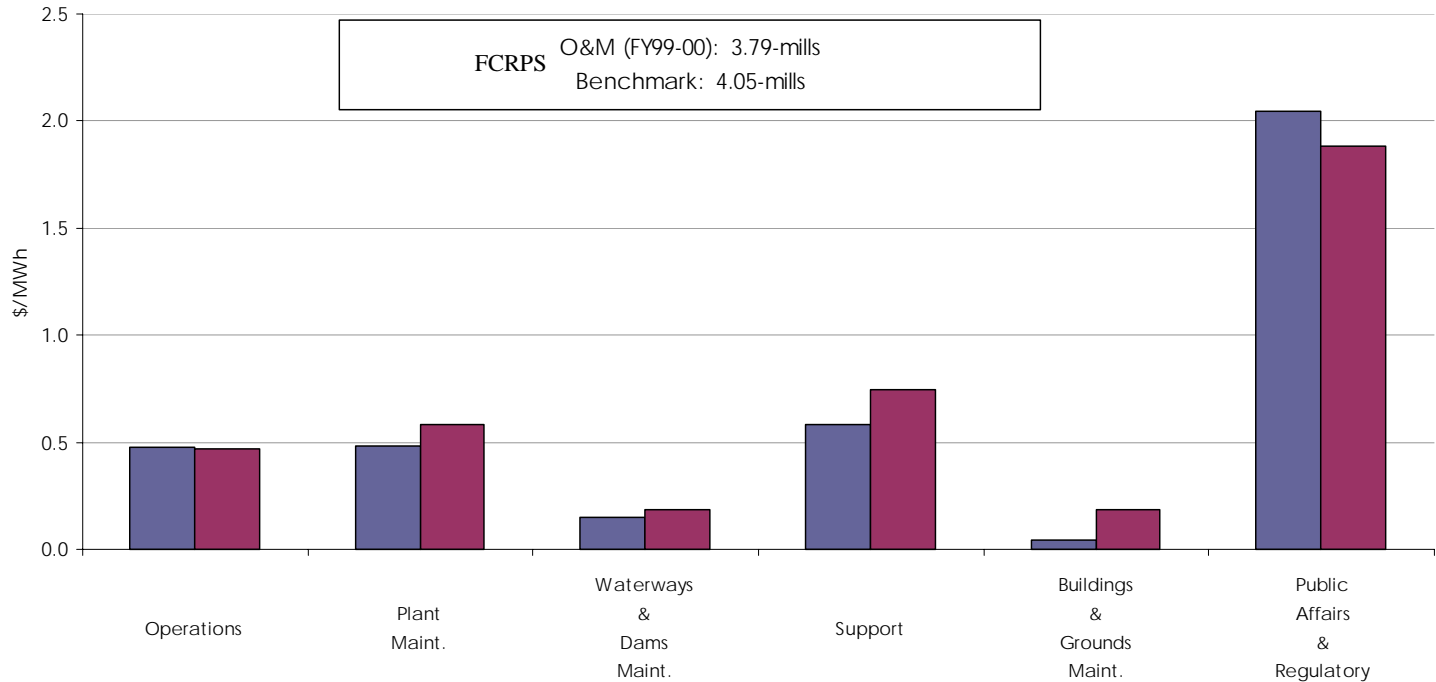




O&M Cost Benchmarks

FCRPS Hydropower Program

* Includes Corps and Reclamation costs for hydropower, recreation and joint-use purposes, and BPA costs for coordination, planning, scheduling, dispatch, and fish & wildlife.



| | | | | | | |
|----------------------|--------|--------|--------|--------|-------|---------|
| FCRPS Cost * | 0.48 | 0.48 | 0.15 | 0.58 | 0.04 | 2.05 |
| Benchmark | 0.47 | 0.58 | 0.19 | 0.75 | 0.18 | 1.88 |
| % of Benchmark | 102% | 83% | 82% | 78% | 24% | 109% |
| FCRPS Cost (\$000) * | 37,187 | 37,628 | 11,883 | 45,461 | 3,449 | 159,353 |
| % of Total O&M Cost | 13% | 13% | 4% | 15% | 1% | 54% |

| | | | | | | |
|----------------------------------|-----|-----|-----|------|-----|-----|
| FCRPS Costs Direct-Funded by BPA | 50% | 99% | 98% | 100% | 97% | 20% |
|----------------------------------|-----|-----|-----|------|-----|-----|



Summary of O&M Benchmarking Results

- Combined BPA/Reclamation/Corps cost benchmarks:
 - Operations costs are 102 percent of expected cost benchmark.
 - Public Affairs and Regulatory costs are 109 percent of expected benchmark (BPA Fish Program expenses (as well as Reclamation/Corps Fish and wildlife O&M) are included here).
- Reclamation/Corps generating plant cost benchmarks:
 - Maintenance costs are 83 percent of expected benchmark.
 - Waterways and Dams Maintenance costs are 82 percent of expected benchmark.
 - Support costs are 78 percent of expected benchmark.
 - Building and Grounds Maintenance costs are 24 percent of expected benchmark.
- Reclamation/Corps O&M cost = 2.12 mills and BPA cost = 1.67 mills, for total O&M benchmarked costs of 3.79 mills.
- Eighty-five percent (85%) of system is hydro-based at cost of \$204 million/year. Fifteen percent (15%) of the system is nuclear and has a cost of \$220 million plus per year for the 2003-2006 rate period.



Corps of Engineers O&M

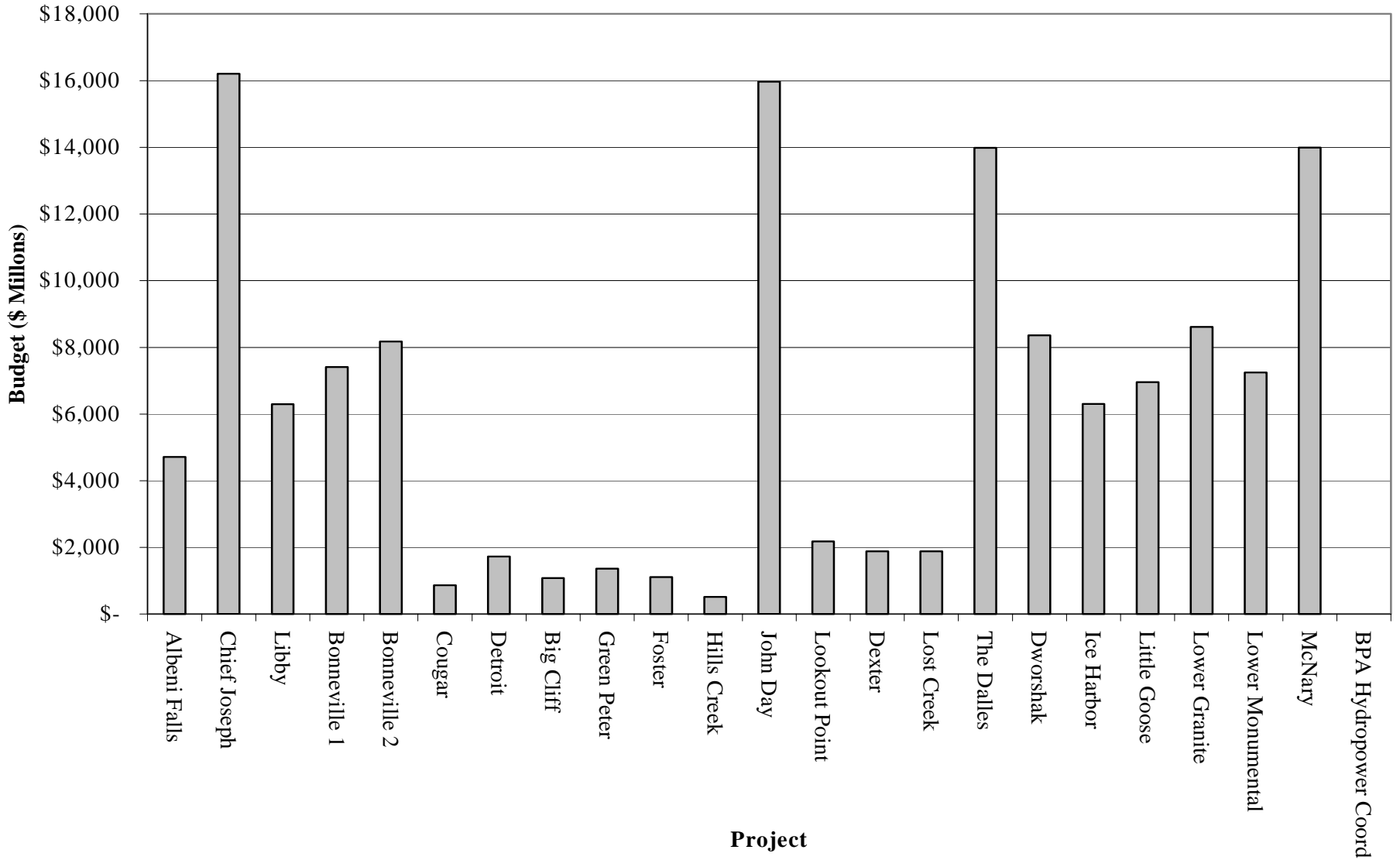
| Project: Operating Generation - Corps of Engineers (\$ in millions) | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY01-03 Average | FY03-FY06 Average | FY04-FY06 Average | FY03-FY06 | FY04-FY06 |
|--|----------|----------|----------|----------|----------|----------|--------------------|----------------------|----------------------|--------------------------|--------------------------|
| | | | | | | | | | | Average Above FY01 | Average Above FY01 |
| August 2003 Forecast | \$ 115.0 | \$ 131.8 | \$ 145.2 | \$ 146.2 | \$ 148.3 | \$ 150.9 | \$ 130.7 | \$ 147.6 | \$ 148.4 | \$ 32.6 | \$ 33.4 |
| <i>Growth Rate</i> | | 14.5% | 10.2% | 0.7% | 1.4% | 1.8% | | | | | |
| August 28, 2003 Rate Case Forecast | \$ 115.0 | \$ 131.8 | \$ 134.9 | \$ 140.5 | \$ 144.5 | \$ 148.7 | \$ 127.2 | \$ 142.2 | \$ 144.6 | \$ 27.1 | \$ 29.5 |
| <i>Growth Rate</i> | | 14.5% | 2.4% | 4.2% | 2.8% | 2.9% | | | | | |
| June 2004 Forecast | \$ 115.0 | \$ 131.8 | \$ 129.4 | \$ 138.5 | \$ 144.5 | \$ 148.7 | \$ 125.4 | \$ 140.3 | \$ 143.9 | \$ 25.2 | \$ 28.9 |
| <i>Growth Rate</i> | | 14.5% | -1.8% | 7.0% | 4.3% | 2.9% | | | | | |
| June 2004 Forecast Above (or Below) | | | | | | | | | | | |
| August 28, 2003 Rate Case Forecast | \$ - | \$ - | \$ (5.5) | \$ (2.0) | \$ - | \$ - | \$ (1.8) | \$ (1.9) | \$ (0.7) | \$ (1.9) | \$ (0.7) |

| |
|---|
| Drivers of Change |
| <i>FY03: Actuals v. Aug. 28, 2003 Forecast</i> Established O&M budget performance target |
| Drivers of Change |
| <i>FY01-03 v. FY04-06: Actuals v. June Forecast</i> |
| Drivers of Change |
| <i>FY04-06: Aug. 28, 2003 Forecast v. June Forecast</i> |
| Forecast Risk |
| 1) security costs 2) non-routine extraordinary maintenance items 3) efficiency improvements costs (PPEI) 4) appropriations 5) plant performance |
| Opportunities for Improvement |
| Efficiencies through strategic planning initiative, best practices and benchmarking |



COE FY2005 Base Expense Program

(\$137.2 Million)





Corps O&M Costs Explanation

- 2002 (14.5 percent over 2001 actuals):
 - \$6 million plus - extraordinary maintenance.
 - \$6.7 million - labor/overtime adjustment.
 - \$5.5 million - Fish O&M.
- 2003 (-1.8 percent under 2002 actuals):
 - \$2.5 million extraordinary maintenance (vs. \$4 million forecast or -\$1.5 million under).
 - \$4 million appropriations for security (vs. \$5 million forecast or \$1 million under).
 - Budgetary performance target saved an additional \$2.8 million.
- 2004 year-to-date:
 - Forecast \$4.2 million in extraordinary maintenance.
 - Expect security costs to be about \$2 million under forecast.
 - Resource Issues/Risks:
 - Power Reviews of maintenance practices.
 - Oil spill containment assessment.



Bureau of Reclamation O&M

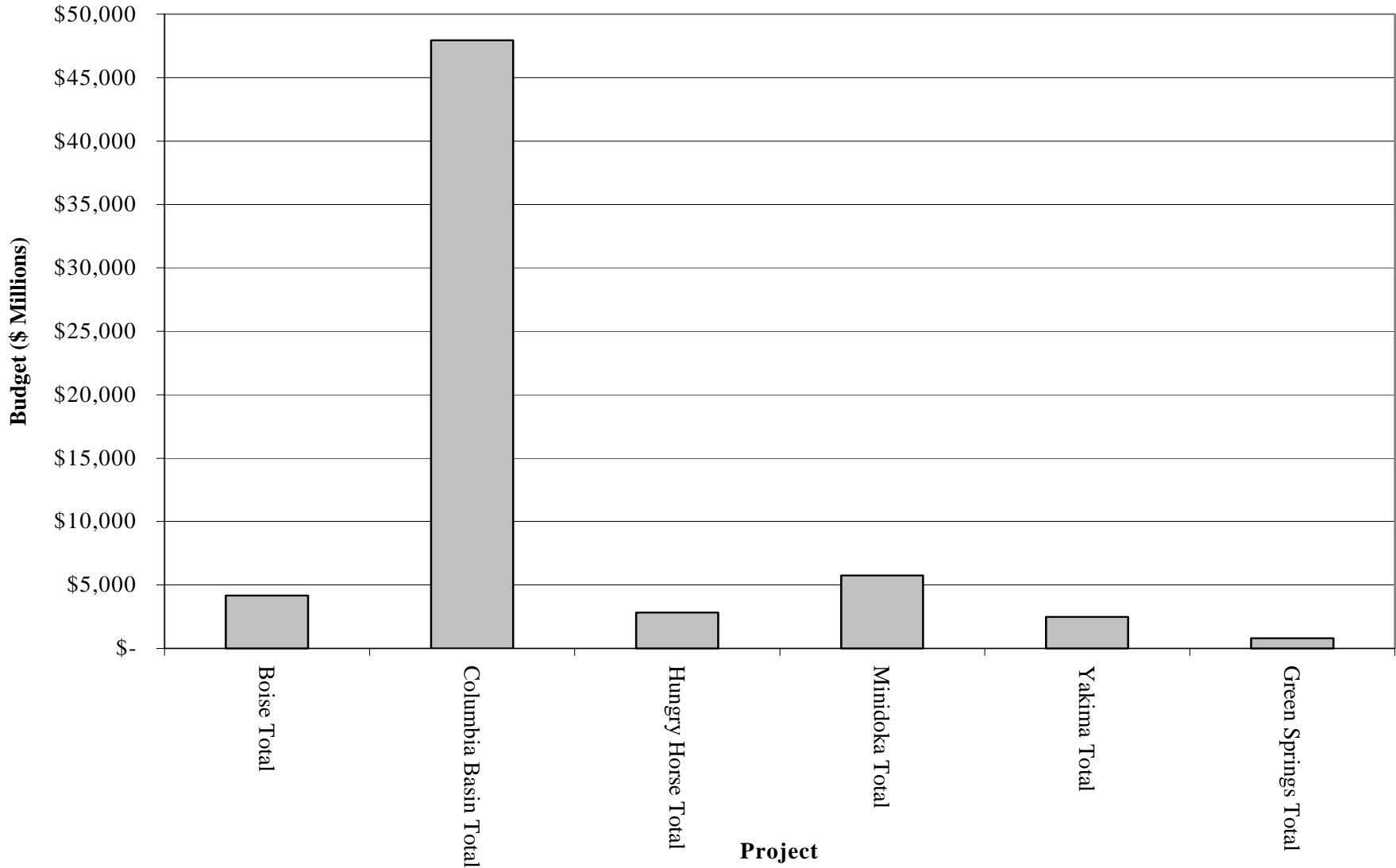
| Project: Operating Generation - Bureau of Reclamation (\$ in millions) | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY01-03 Average | FY03-FY06 Average | FY04-FY06 Average | FY03-FY06 | FY04-FY06 |
|---|---------|---------|----------|----------|---------|---------|--------------------|----------------------|----------------------|--|--|
| | | | | | | | | | | Average Above (or Below) FY01 | Average Above (or Below) FY01 |
| August 2003 Forecast | \$ 53.2 | \$ 51.4 | \$ 62.2 | \$ 64.0 | \$ 65.9 | \$ 67.6 | \$ 55.6 | \$ 64.9 | \$ 65.8 | \$ 11.7 | \$ 12.6 |
| <i>Growth Rate</i> | | -3.4% | 21.0% | 2.9% | 2.9% | 2.6% | | | | | |
| August 28, 2003 Rate Case Forecast | \$ 53.2 | \$ 51.4 | \$ 54.6 | \$ 61.3 | \$ 63.3 | \$ 65.0 | \$ 53.1 | \$ 61.1 | \$ 63.2 | \$ 7.8 | \$ 10.0 |
| <i>Growth Rate</i> | | -3.4% | 6.3% | 12.3% | 3.3% | 2.7% | | | | | |
| June 2004 Forecast | \$ 53.2 | \$ 51.4 | \$ 54.0 | \$ 60.3 | \$ 63.3 | \$ 65.0 | \$ 52.9 | \$ 60.7 | \$ 62.9 | \$ 7.5 | \$ 9.7 |
| <i>Growth Rate</i> | | -3.4% | 5.2% | 11.6% | 5.0% | 2.7% | | | | | |
| June 2004 Forecast Above (or Below) | | | | | | | | | | | |
| August 28, 2003 Rate Case Forecast | \$ - | \$ - | \$ (0.6) | \$ (1.0) | \$ - | \$ - | \$ (0.2) | \$ (0.4) | \$ (0.3) | \$ (0.4) | \$ (0.3) |

| |
|---|
| Drivers of Change |
| <i>FY03: Actuals v. Aug. 28, 2003 Forecast</i> Established O&M budget performance target |
| Drivers of Change |
| <i>FY01-03 v. FY04-06: Actuals v. June 2004 Forecast</i> |
| Drivers of Change |
| <i>FY04-06: Aug. 28, 2003 Forecast v. June 2004 Forecast</i> |
| Forecast Risk |
| <ul style="list-style-type: none"> 1) Security costs 2) non-routine extraordinary maintenance items 3) efficiency improvements costs (PPEI) 4) appropriations 5) plant performance |
| Opportunities for Improvement |
| Efficiencies through strategic planning initiative, best practices and benchmarking |



Reclamation FY2005 Base Expense Program

(\$ 63.3 Million)





Reclamation Costs Explanation

- 2002 (-3.4 percent under 2001 actuals):
 - Nonreimbursable security costs (people working on security, but costs not coming to BPA).
- 2003 (5.1 percent over 2002 actuals):
 - \$1.1 million imputed irrigation expenses (to offset wheeling expenses; need revenue offset; headwater benefits).
 - \$1.35 million manual reconciliation workman's compensation.
 - \$0.67 million in year end appropriations (typically \$0.25 million or less).
- 2004 year-to-date:
 - Change in small capital to expense \$2 million.
 - Increase in indirect overheads \$0.6 million.
 - Resource Issues/Risks:
 - Extraordinary maintenance in out years.



FY 2005 O&M Budgets

- Corps:
 - No change in forecast: \$144.5 million.
 - Trying to manage extraordinary maintenance costs within base O&M budgets without impacting reliability (forecast \$5 million plus in FY 2005).
 - May need resources pending oil spill assessment review and maintenance program review.

- Reclamation:
 - No change in forecast: \$63.3 million.
 - Trying to absorb security costs associated with guards at Grand Coulee \$4.5 million.
 - Change in small capital to expense \$2 million.



Maintenance Program

FY 2004 FCRPS Performance Indicators

YTD thru April

Established Critical Preventative and/or Predictive Maintenance (PM) plans, including estimated person-hours to complete.
 Yes = Established, No = Not Established, N/A = Not applicable to plant.

| | Direct | | | | | | | | | | Indirect | | | | | | | | | | Percent Complete | |
|-----------------------------------|-----------------------|--------------------|----------------------|-----------|----------|--------------------------|--------------------|-------------------|------------|----------|----------------|----------------------|----------|--------------------|---------------------------|------------------------|--------------------|-----------------|---------------------|-----------------|------------------|--------------|
| | Critical Safety Items | Excitation systems | Unit Circuit Breaker | Generator | Governor | Power System Stabilizers | Power Transformers | Protective relays | Switchyard | Turbines | GDACS or SCADA | Intake Gantry Cranes | Lube Oil | Station Air System | Station Service Equipment | Tailrace Gantry Cranes | Tailrace Stop logs | Transformer Oil | Turbine Auxiliaries | Unit Head gates | | Fish screens |
| Corps Plants | 9 | 7 | 8 | 9 | 9 | 6 | 9 | 6 | 0 | 9 | 6 | 9 | 8 | 8 | 9 | 9 | 7 | 8 | 9 | 8 | 5 | 36% |
| Chief Joseph | yes | yes | yes | yes | yes | yes | yes | yes | n/a | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | n/a | 100% |
| Libby | yes | yes | yes | yes | yes | yes | yes | yes | n/a | yes | no | yes | yes | yes | yes | yes | yes | yes | yes | yes | n/a | 95% |
| Albeni Falls | yes | yes | yes | yes | yes | yes | yes | yes | n/a | yes | n/a | yes | yes | yes | yes | yes | yes | yes | yes | yes | n/a | 100% |
| Seattle District Plants | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 98% |
| John Day | | | | | | | | | | | | | | | | | | | | | | 0% |
| The Dalles | | | | | | | | | | | | | | | | | | | | | | 0% |
| Bonneville | | | | | | | | | | | | | | | | | | | | | | 0% |
| Detroit | | | | | | | | | | | | | | | | | | | | | | 0% |
| Big Cliff | | | | | | | | | | | | | | | | | | | | | | 0% |
| Green Peter | | | | | | | | | | | | | | | | | | | | | | 0% |
| Foster | | | | | | | | | | | | | | | | | | | | | | 0% |
| Lookout Point | | | | | | | | | | | | | | | | | | | | | | 0% |
| Dexter | | | | | | | | | | | | | | | | | | | | | | 0% |
| Cougar | | | | | | | | | | | | | | | | | | | | | | 0% |
| Hills Creek | | | | | | | | | | | | | | | | | | | | | | 0% |
| Lost Creek | | | | | | | | | | | | | | | | | | | | | | 0% |
| Portland District Plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Dworshak | yes | yes | yes | yes | yes | yes | yes | yes | n/a | yes | yes | yes | yes | yes | yes | yes | no | yes | yes | n/a | n/a | 95% |
| Lower Granite | yes | yes | yes | yes | yes | no | yes | yes | n/a | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 95% |
| Little Goose | yes | yes | yes | yes | yes | yes | yes | yes | n/a | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 100% |
| Lower Monumental | yes | no | no | yes | yes | no | yes | no | n/a | yes | yes | yes | yes | yes | yes | yes | yes | no | yes | yes | yes | 76% |
| Ice Harbor | yes | no | yes | yes | yes | no | yes | no | n/a | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 86% |
| McNary | yes | yes | yes | yes | yes | yes | yes | no | n/a | yes | no | yes | no | no | yes | yes | no | yes | yes | yes | yes | 76% |
| Wallawalla District Plants | 6 | 4 | 5 | 6 | 6 | 3 | 6 | 3 | 0 | 6 | 5 | 6 | 5 | 5 | 6 | 6 | 4 | 5 | 6 | 5 | 5 | 88% |

Contact O & M Sub-Committee - Alder, Oldham

May 2004



O&M Program Management Initiatives

- Establish budgetary performance targets to effectively manage costs to produce minimum O&M budgets to achieve strategic goals.
- Refine understanding of base material condition of hydro system (deploy hydroamp).
- Refine understanding of O&M resource requirements (power reviews, oil spill assessment, etc.).
- Continue to benchmark O&M costs against hydro industry.
- Institute maintenance best practices through maintenance conferences, training initiatives, benchmarking peers, power reviews, etc.
- Ratcheting-up three agency strategic planning (second generation strategic guidance for FCRPS).
- Deploy Near Real-Time Optimizer (NRTO) and make efficiency improvements (PPEI) at generating plants. In FY04 this is an additional 20aMW in energy.
- Potential cost savings from further remoting plant operations.



2005/2006 and Next Rate Period

PRESSURES / RISKS / UNCERTAINTIES

- Need to incorporate extraordinary maintenance funding requirements into base O&M budget.
- Need to assimilate cost increases associated with post 9/11 security into base O&M budget.
- Refine understanding of maintenance resource requirement through Power reviews, oil spill assessment reviews and other means to maintain generation reliability.
- Willamette BiOp costs (Fish O&M).
- WECC/NERC requirements to sustain transmission system reliability as a result of East Coast blackout (generation requirements/criteria affected).
- FERC-related issues.