



Bonneville Power Administration's Power Function Review Opening Workshop

January 25, 2005



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Purpose and Objectives of Opening Workshop and PFR



Power Function Review Process

Opening Workshop Purpose

- Define scope of the Power Function Review
- Overview of power program expense levels that will be addressed in the PFR process
- Review the PFR schedule and get feedback on it from participants prior to the first individual program workshop

Power Function Review Purpose

After a large BPA power rate increase in 2002 and ongoing scrutiny and reduction of many budget items, the level of interest from customers, constituents and Tribes in the costs that go into BPA's rates is higher than ever before. In response, and consistent with BPA's desire to increase the transparency of decisions that impact rates, BPA will provide clear information on those costs, along with robust opportunities to provide input into BPA's cost decisions prior to the publication of the 2007 power rate case initial proposal.

Power Function Review Parameters

The rate case is a formal hearing process with a Hearing Officer which sets rates based on costs. The Power Function Review is a collaborative informal process designed to lay out the major program costs and seek customer feedback and suggestions for each program area prior to these numbers being included in rates.



Power Function Review Objectives

PFR: Desired Outcomes

1. Power rates reflect lowest practical costs to meet BPA's objectives
2. Comments we would like to hear from customers, constituents and tribes at the end of the process:
 - BPA staff were very responsive to my information requests.
 - BPA staff were clearly interested in my input and tried to respond to it.
 - BPA staff were clear about how they use my input in making decisions.
 - The costs going into the BPA power rates, and reasons for them, are clear to me.
 - BPA and its partners are very committed to making costs as low as they can reasonably be while still accomplishing objectives.



Power Function Review Topics

The PFR is BPA's public involvement process for:

The costs that go into power rates, with a primary focus on the nine major program areas that make up the bulk of power costs. These are listed below in order of magnitude:

1. Federal and Non-Federal Debt Service and Debt Management (discussion)
2. Columbia Generating Station operation and maintenance costs and capital investments (decision)
3. Corps of Engineers and Bureau of Reclamation operation and maintenance costs and capital investments (decision)
4. Transmission acquisition costs (decision where applicable)
5. Fish & Wildlife program expenses and capital investments (decision where applicable)
6. Internal operations costs charged to power rates (decision)
7. Conservation program costs (decision where applicable)
8. Renewables program costs (decision where applicable)
9. Risk Mitigation Packages and Tools (discussion)



Power Function Review Process

The decision process for these topics is the Rate Case:

1. Loads and Resources
2. Revenue Credits, including Secondary Sales Revenues
3. Reserve Levels
4. Rate Design
5. Rate Level

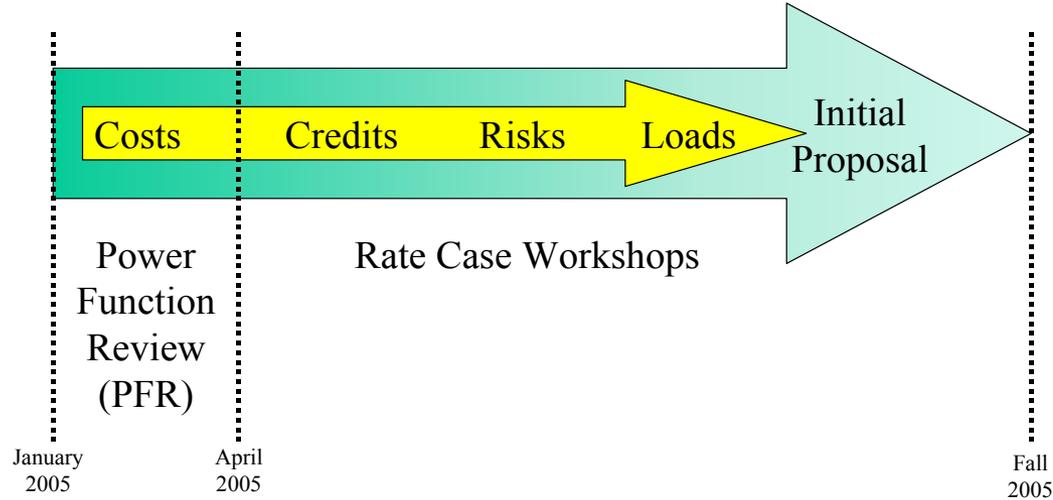


Background:

Power Rates Summary FY 1997-2009



Rates Overview



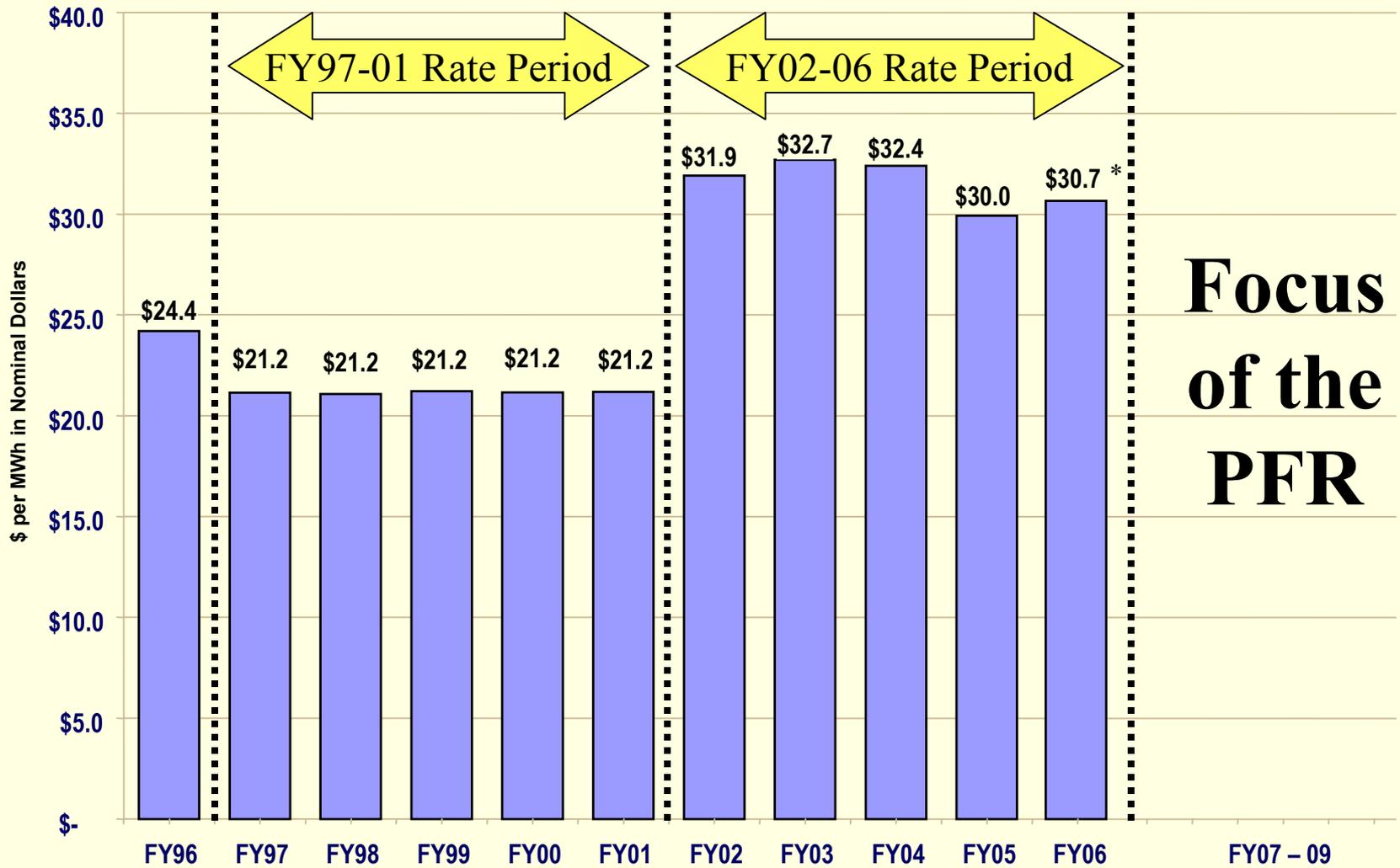
- BPA’s rate case addresses what BPA should charge for its power and transmission services; it does not decide what the nature or expense levels of BPA’s services should be.

$$\frac{\text{Costs} - \text{Credits} + \text{Risk}}{\text{Loads}} = \text{Rate}$$

- Costs (PBL’s total revenue requirement) are allocated to customer groups according to directives in federal law. The allocated revenue requirement divided by the customer group’s estimated power use (“load”) equals the rate (price per unit of power) for that customer group.



Actual and Forecasted Nominal Power Rates: FY 1996-2006



**Focus
of the
PFR**

*Forecasted FY06 rate from August 18, 2004 SN CRAC workshop

Note: Nominal Power Rates do not include Transmission Rate Component



Changes in FY07-09 Credits and Loads

1. Secondary Revenues

- Secondary revenues in FY2007-2009 will be a major driver of rates. Current FY2007-2009 market price forecasts are higher than previous rate case forecasts, but roughly the same as actual 1997-2006 secondary revenues.
- Declining NG prices relative to today's market are expected, as are less surplus and need to refill non-treaty storage.

2. Revenue Credits

- Due largely to the drought in 2001, all the Fish Cost Contingency Fund (FCCF) is exhausted.
- Since FY1997-2001, annual revenues from out of region contracts in 2007-9 are down by roughly \$200 M.

3. Loads

- FY 2007-09 forecasted total firm regional loads served by BPA are greater than in the FY1997-2001 rate period, less than forecasted for 2002-6 in the June 2001 Supplemental rate case, and about the same as actual FY2002-2006 loads.

| | PF* | DSI | IOU | Total |
|--------------------------------------|-------|---------|--------|-------|
| FY97-01 Rate Case aMW | 4,490 | 1,850 | 0 | 6,340 |
| June 2001 Supplemental Rate Case aMW | 6,760 | 1,500** | 1000** | 9,260 |
| PFR FY07-09 Forecast aMW | 7,255 | 0 | 0 | 7,255 |

*PF includes presubscription and Slice contracts

** Does not include buydown/buybacks



Changes in FY07-09 Credits and Loads, continued

4. Hydro Generation

- Fish Measures
- Efficiency projects

5. Thermal Generation

- Columbia Generating Stations (CGS) output increased in FY2002-2006, and is expected to stay higher in FY2007-2009

| CGS | Rate Case Forecasted Generation (average annual) | Actual Generation (average annual) |
|-------------|---|---------------------------------------|
| FY1997-2001 | 820 aMW | 822 aMW |
| FY2002-2006 | 950 aMW | 960 aMW* |
| FY2007-2009 | 917 aMW | N/A |

*Includes actual generation from FY 2002-2004



Changes in FY07-09 Risk Profile

1. **Low Starting Rate Period Reserves**

- The current expected value of starting rate period PBL reserves is estimated at \$220M vs. \$429M at the beginning of the FY2002-06 rate period.
- Expected value of starting rate period agency reserves is \$350 M vs. \$625 M at the beginning of FY 2002-06.

2. **FCCF Credit**

- \$325M not available in FY2007-09.

3. **Minimum Liquidity Reserve Level (previously called Minimum Working Capital Reserves)**

- The level of working capital (minimum liquidity reserve level) needed in the next rate period is probably larger.

4. **Market Volatility**

- Greater variability in secondary revenues in the FY07-09 period than in previous periods.

5. **New/Modified Risks**

- IOU Benefit Expense in FY08 and FY09 (\$123M-\$323M/yr).

6. **TPP Standard**

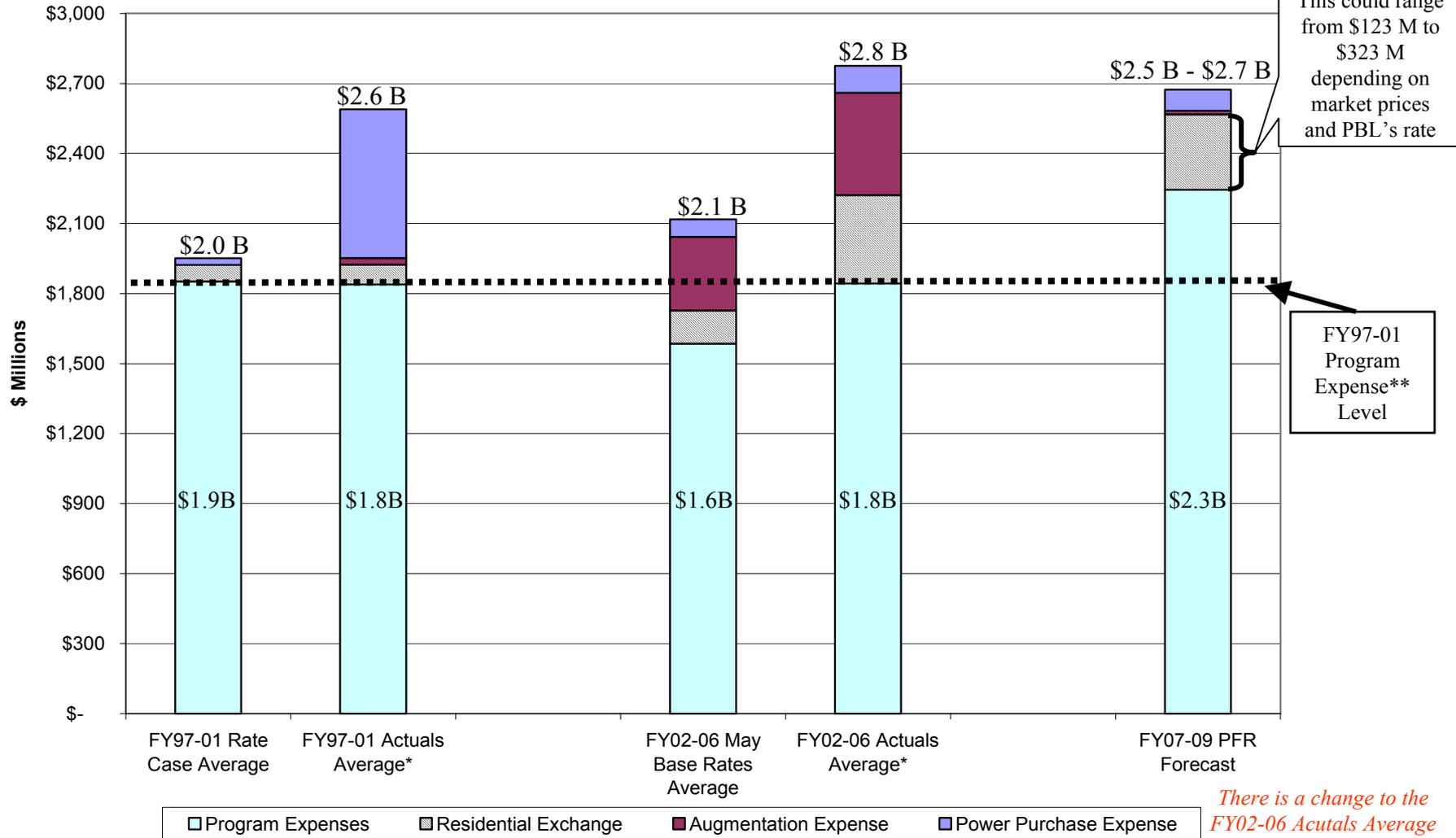
- 3-year TPP target of 86% used in 2003-06 to set SN CRAC.
- Return to previously established 3-year TPP target of 92.6% for 2007-09 period.



FY 07-09 Forecasted Expense Levels



What Are Expenses Doing in **Nominal** Dollars From FY 1997 – 2009



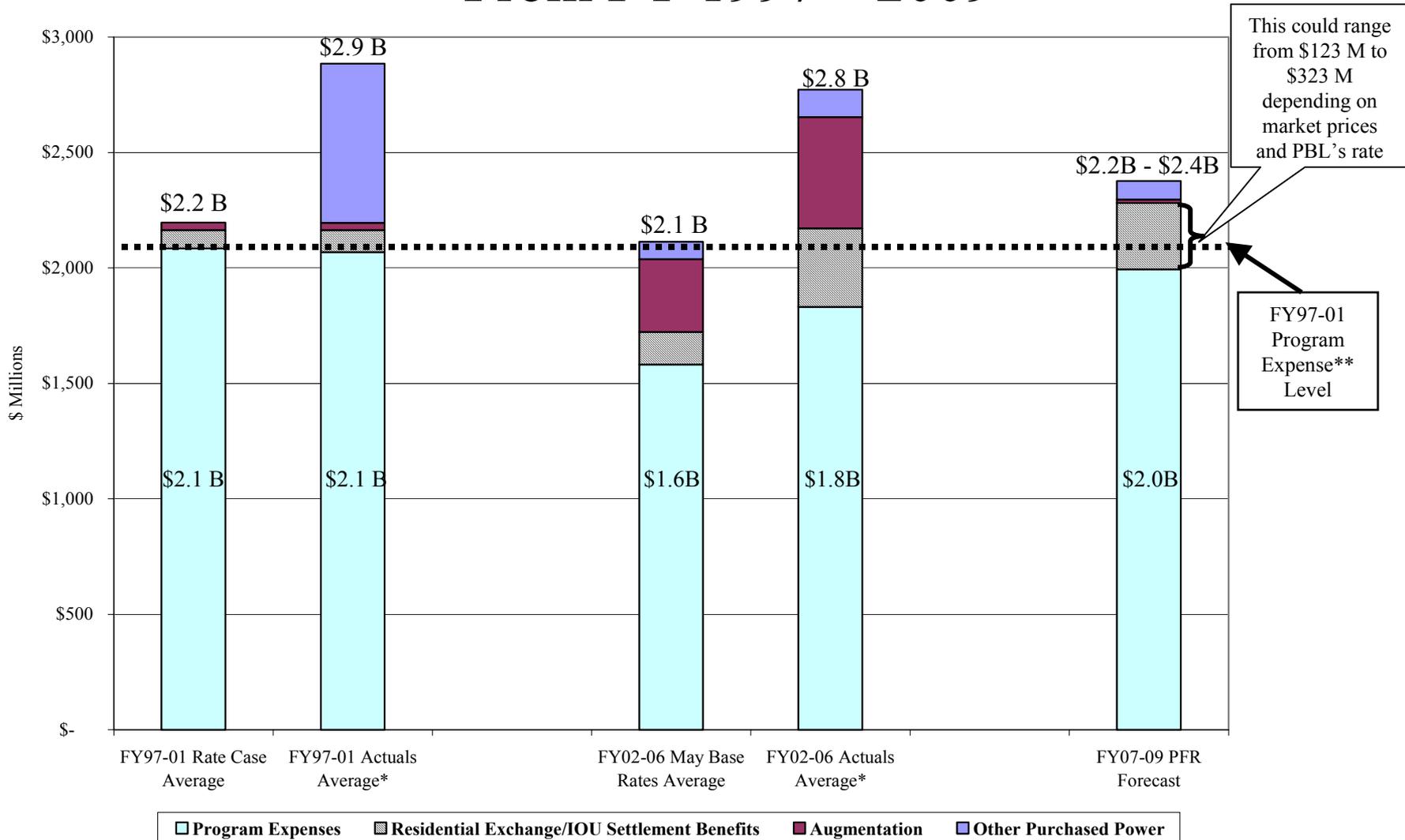
*FY01-04 Actuals include debt optimization results, FY05-06 include a forecast from the August 18th SN CRAC workshop

**Program Expenses includes all PBL expenses except Residential Exchange, Augmentation and Power Purchases

There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. The FY02-03 Non-Federal Debt numbers were changed to reflect actual debt optimization actions.



What Are Expenses Doing in **Real 2004 Dollars** From FY 1997 – 2009



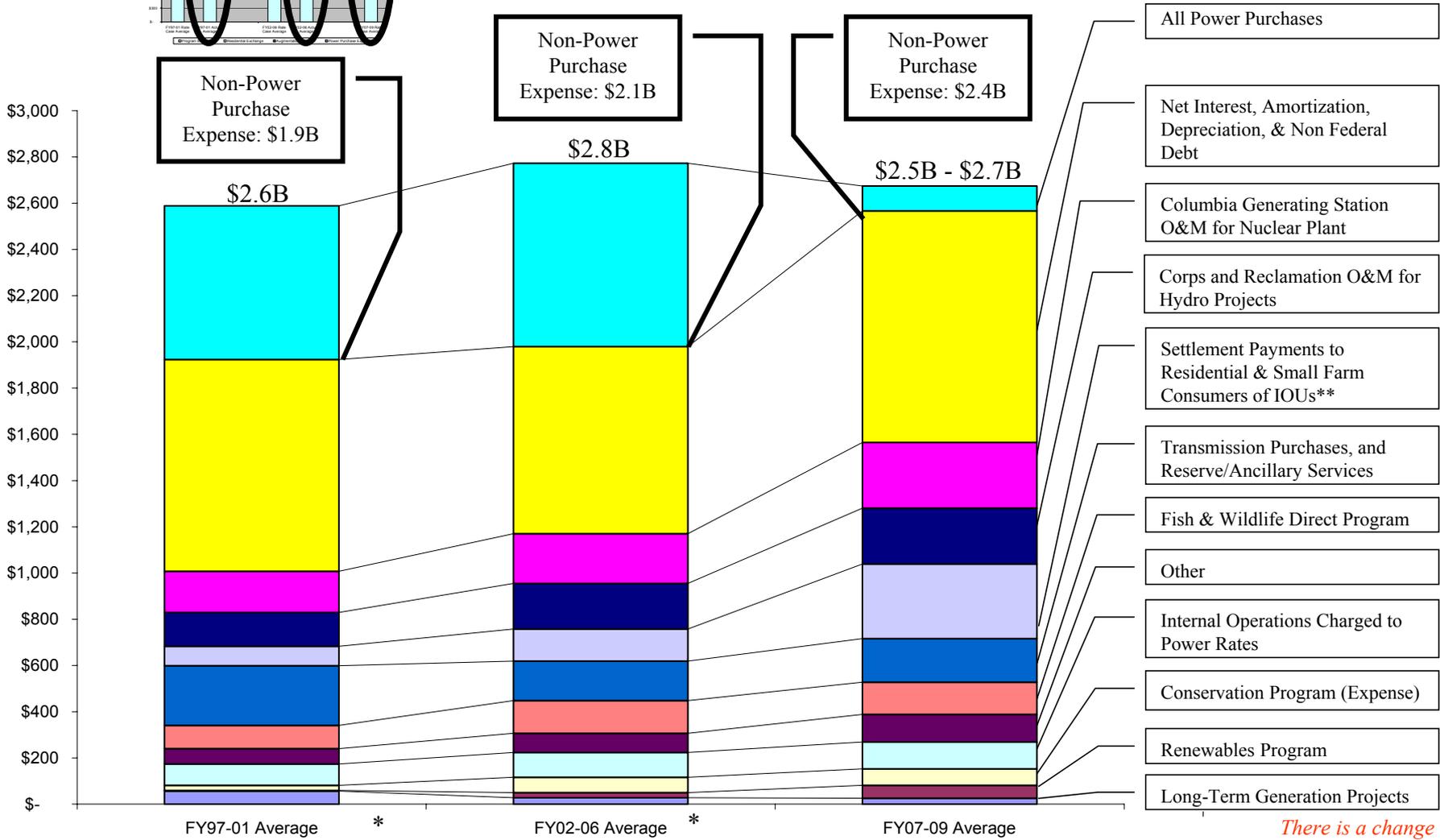
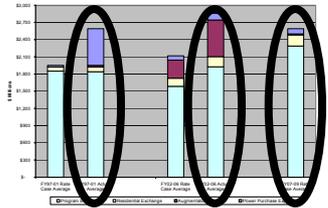
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**Program Expenses includes all PBL expenses except Residential Exchange, Augmentation and Power Purchases

There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. Explanation on page 15.



What Is The Expense Breakout in Nominal Dollars From FY 1997 – 2009



- All Power Purchases
- Net Interest, Amortization, Depreciation, & Non Federal Debt
- Columbia Generating Station O&M for Nuclear Plant
- Corps and Reclamation O&M for Hydro Projects
- Settlement Payments to Residential & Small Farm Consumers of IOUs**
- Transmission Purchases, and Reserve/Ancillary Services
- Fish & Wildlife Direct Program
- Other
- Internal Operations Charged to Power Rates
- Conservation Program (Expense)
- Renewables Program
- Long-Term Generation Projects

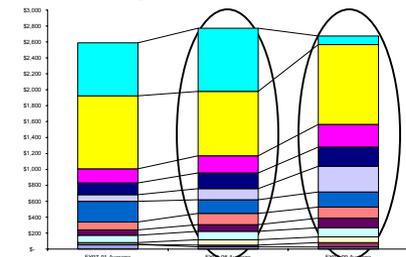
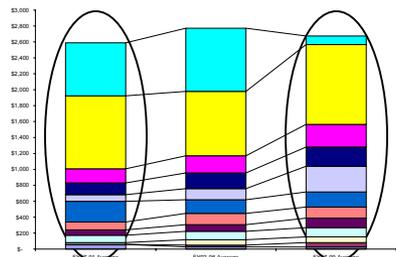
*FY01-04 Actuals include debt optimization results, FY05-06 include a forecast from the August 18th SN CRAC workshop
 **This expense can vary between \$123M and \$323M depending on the market price and PBL rate.

There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. Explanation on



What Are The Expense Changes in **Nominal Dollars** From FY 1997 – 2009

There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. Explanation on page 15.



FY97-01 vs FY07-09 Annual Average (Nominal \$)

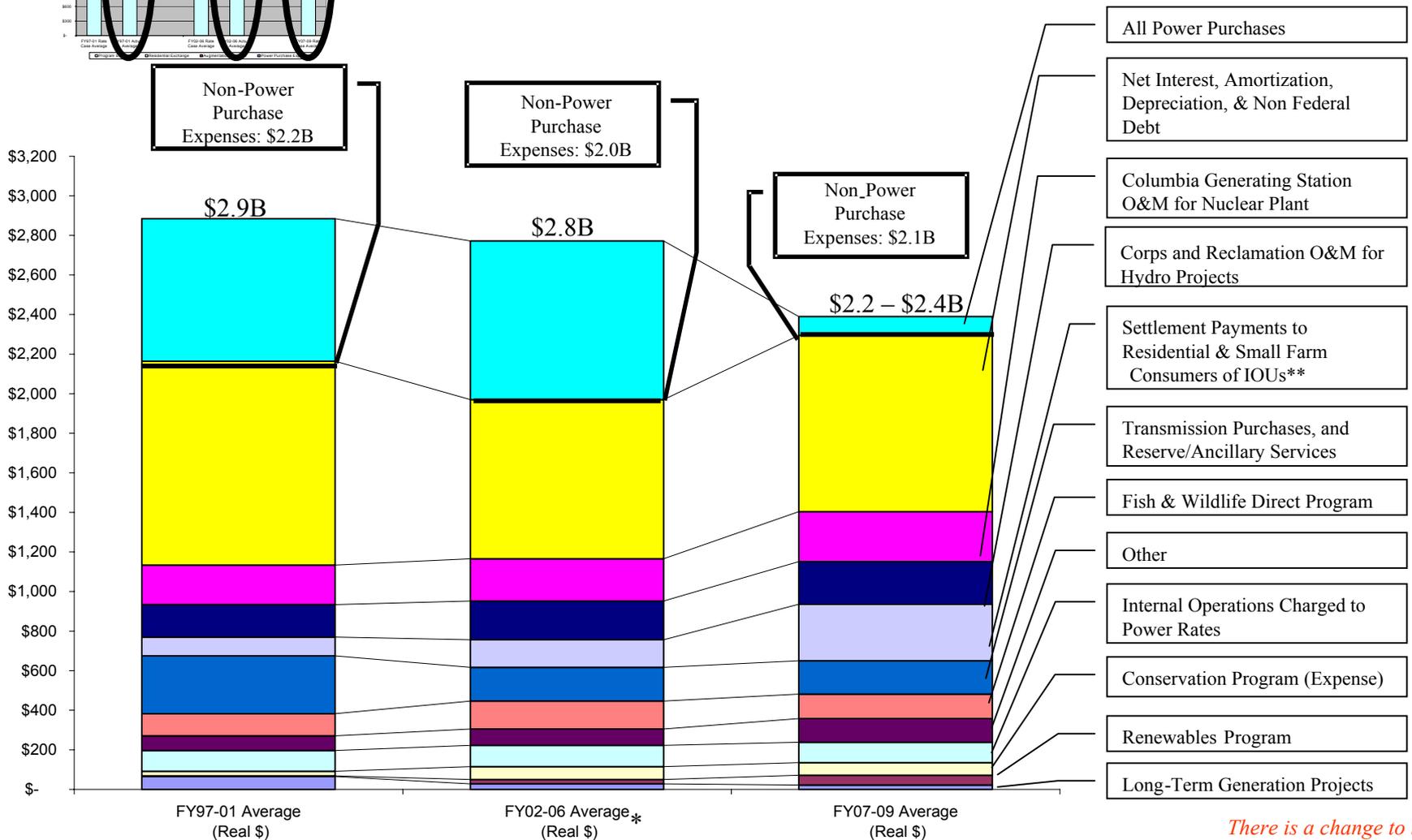
| | |
|--|----------------|
| •Net Interest, Depreciation & Amortization, and Non-Federal Debt Service | \$88M |
| •Columbia Generation Station O&M for Nuclear Plant | \$106M |
| •Corps and Reclamation O&M for Hydro Plants | \$96M |
| •Settlement Payments to Residential & Small Farm Consumers of IOUs | \$39M - \$239M |
| <i>•Total IOU benefits range is \$39M - \$239M</i> | |
| •Transmission Purchases & Reserve/Ancillary Services | (\$70M) |
| •Fish & Wildlife Direct Program | \$39M |
| <i>•Total F&W Program less hydro ops \$119M</i> | |
| •Internal Operations Charged to Power Rates | \$23M |
| •Conservation Program (Expense) | \$49M |
| •Renewables | \$53M |
| •Long-Term Generating Projects | (\$32M) |
| •All Power Purchases (includes Augmentation) | (\$559M) |

FY02-06 vs FY07-09 Annual Average (Nominal \$)

| | |
|--|------------------|
| •Net Interest, Depreciation & Amortization, and Non-Federal Debt Service | \$193M |
| •Columbia Generation Station O&M for Nuclear Plant | \$69M |
| •Corps and Reclamation O&M for Hydro Plants | \$46M |
| •Settlement Payments to Residential & Small Farm Consumers of IOUs | (\$16M) - \$184M |
| <i>•Total IOU benefits range is (\$252M - \$52M)</i> | |
| •Transmission Purchases & Reserve/Ancillary Services | \$18M |
| •Fish & Wildlife Direct Program | \$0M |
| <i>•Total F&W Program less hydro ops \$55M</i> | |
| •Internal Operations Charged to Power Rates | \$9M |
| •Conservation Program (Expense) | \$5M |
| •Renewables | \$34M |
| •Long-Term Generating Projects | (\$3M) |
| •DSI benefit (placeholder) | \$40M |
| •All Power Purchases (includes Augmentation) | (\$687M) |



What Is The Expense Breakout in **Real** 2004 Dollars From FY 1997 – 2009



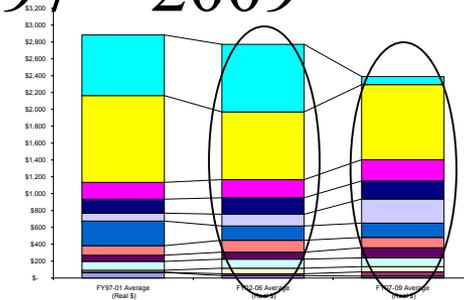
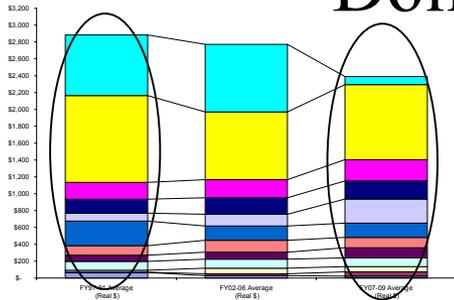
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 **This expense can vary between \$123M and \$323M depending on the market price and PBL rate.

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What Are The Expense Changes in REAL 2004

Dollars From FY 1997 – 2009



There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. Explanation on page 15.

FY97-01 vs FY07-09 Annual Average (Real \$)

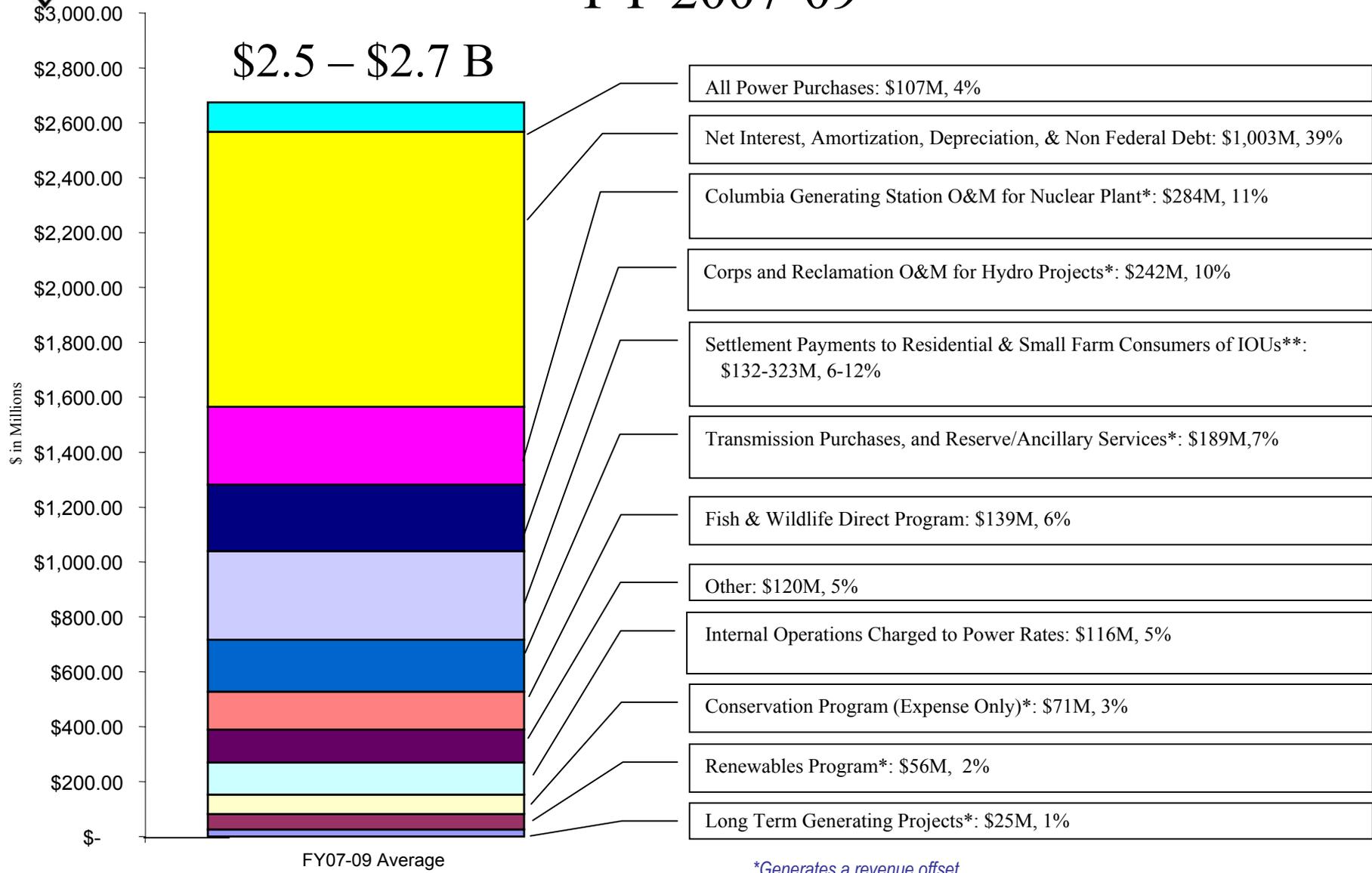
| | |
|--|---------------|
| •Net Interest, Depreciation & Amortization, and Non-Federal Debt Service | (\$139M) |
| •Columbia Generation Station O&M for Nuclear Plant | \$53M |
| •Corps and Reclamation O&M for Hydro Plants | \$51M |
| •Settlement Payments to Residential & Small Farm Consumers of IOUs | \$0M - \$178M |
| <i>•Total IOU benefits range is \$0M-\$178M</i> | |
| •Transmission Purchases & Reserve/Ancillary Services | (\$124M) |
| •Fish & Wildlife Direct Program | \$11M |
| <i>•Total F&W Program less hydro ops \$55M</i> | |
| •Internal Operations Charged to Power Rates | (\$2M) |
| •Conservation Program (Expense) | \$39M |
| •Renewables | \$47M |
| •Long-Term Generating Projects | (\$43M) |
| •All Power Purchase (includes Augmentation) | (\$600M) |

FY02-06 vs FY07-09 Annual Average (Real \$)

| | |
|--|------------------|
| •Net Interest, Depreciation & Amortization, and Non-Federal Debt Service | \$87M |
| •Columbia Generation Station O&M for Nuclear Plant | \$39M |
| •Corps and Reclamation O&M for Hydro Plants | \$19M |
| •Settlement Payments to Residential & Small Farm Consumers of IOUs | (\$30M) - \$148M |
| <i>•Total IOU benefits range is (\$266M-\$88M)</i> | |
| •Transmission Purchases & Reserve/Ancillary Services | (\$3M) |
| •Fish & Wildlife Direct Program | (\$15M) |
| <i>•Total F&W Program less hydro ops \$20M</i> | |
| •Internal Operations Charged to Power Rates | (\$4M) |
| •Conservation Program (Expense) | (\$3M) |
| •Renewables | \$28M |
| •Long-Term Generating Projects | (\$5M) |
| •DSI benefits (placeholder) | \$36M |
| •All Power Purchase (includes Augmentation) | (\$707M) |



Components Of The Forecasted Expenses In FY 2007-09



*Generates a revenue offset

** This level is heavily dependant on forward market prices

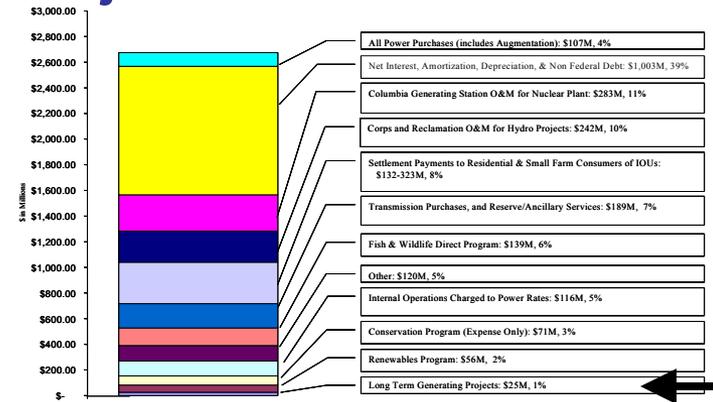
Percentages may not add to 100% due to rounding



FY07-09 Power Expenses

Long Term Generating Projects

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$57M | \$28M | \$25M |
| Increase/Decrease | | (\$29M) | (\$3M) |
| % increase | | -51% | -11% |



Program:

- This \$25M/year program consists of output contracts for generating resources, such as Cowlitz Falls, Billing Credits Generation, Wauna, and Clearwater Hatchery Generation.
- Most of the expenses associated with the long term generating projects are based on energy production at the generating units, and therefore are offset by revenues.

Risks:

- Unplanned/forced outages resulting in reduced secondary sales.
- Non-Routine Extraordinary Maintenance – infrequent, high dollar projects due to plant failure or overdue maintenance that cannot be capitalized.

Opportunities for Reductions:

- Not much because expense is made up of contracted prices.

Drivers of Change:

- These expenses are down primarily because Tenaska settlement payments are included in the 1997-2001 period and not in the subsequent periods.

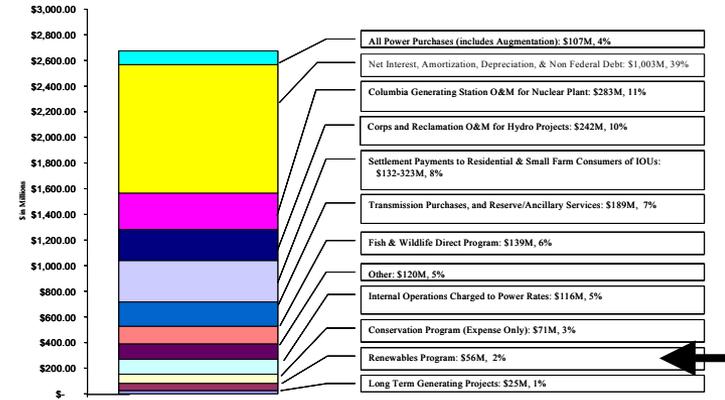
Workshop Dates –
Background Paper



FY07-09 Power Expenses

Renewables

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$3M | \$22M | \$56M |
| Increase/Decrease | | \$19M | \$34M |
| % increase | | 633% | 155% |



Program:

- This program actively supports BPA’s strategic direction to “... facilitate[s] development of regional renewable resources ...”
- The expense associated with the renewables program is largely offset by revenues from energy generation, green tag sales, and “environmentally preferred product” sales.
- *Program components of \$56M/year annual expense for FY07-09:*
 - 56% Geothermal Project – Fourmile Hill project. This project is uncertain.
 - 41% Wind & Solar Projects – Footcreek, Condon, Stateline, Klondike, and Whitebluffs Solar
 - 3% Support Costs – Data collection, Project development costs, Corporate charges

Risks:

- Minor operational risk – Bonneville only pays for the power it receives.
- Purchase prices are fixed so any prolonged period of low market prices could make the net cost of this power higher than expected.

Opportunities for Reductions:

- Uncertainty surrounding Calpine's Fourmile Hill project.

Drivers of Change:

- These expenses are up in 2002-2006 primarily because of wind project acquisitions. Costs are up in 2007-9 primarily because we are continuing to assume purchase of power from the Calpine geothermal project, even though we are in binding arbitration over that contract.

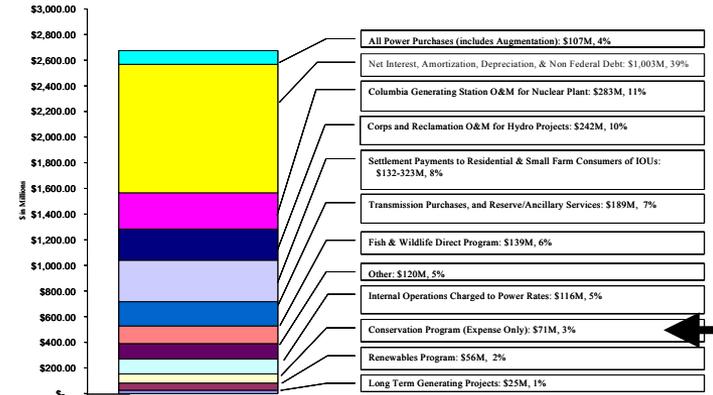
Workshop Dates –
Feb 8th and 15th



FY07-09 Power Expenses

Conservation

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|----------------------|-----------------|-----------------|-----------------|
| Program Level | \$22M | \$30M | \$71M |
| -Expense | | | |
| -C&RD | NA | \$36M | NA |
| Total | \$22M | \$66M | \$71M |
| Increase/Decrease | | \$44M | \$5M |
| % increase | | 200% | 7% |



Program:

- This program actively supports BPA’s strategic direction to “... ensure[s] development of all cost-effective energy efficiency in the loads BPA serves ...”
- BPA’s conservation program (expense & capital) has a goal of delivering 56 aMW of conservation savings per year during the FY07-09 period. This compares to an average of 44 aMW per year over the rate period.
- Not reflected in the expense portion of the conservation funding level is \$32M/year in conservation capital.
- *Program components of \$71M/year annual expense for FY07-09:*
 - 53% Proposed Conservation Rate Credit (currently being designed in a public process) - Based on a discount off firm power rates for all customers that implement approved conservation and renewable resources related initiatives.
 - 18% Reimbursable Program - Supports other Federal agencies as they strive to meet their energy efficiency mandates; this program is rate-neutral because revenues equal expenses. This category of expense is fully reimbursed by the Federal agencies.
 - 14% Market Transformation - Supports the Northwest Energy Efficiency Alliance (NEEA) in their efforts to improve the energy efficiency of buildings, appliances and equipment, and to help new energy efficiency technologies become commercially viable.

**Workshop Dates –
 Feb 8th and 15th**



FY07-09 Power Expenses

Conservation, *continued*

- *Program components of \$71M/year annual expense for FY07-09 (continued):*
 - 7% Low Income Weatherization - Supports the weatherization of the homes of the economically disadvantaged residents in the four PNW states.
 - 4% Legacy Contracts - Covers invoices for previously installed measures under existing pay for performance legacy contracts.
 - 2% Technology Leadership - Provides technical assistance to customers and continues BPA's conservation information/education/outreach activities.
 - 1% Energy Web - Supports non-wires solutions to transmission construction and to leverage/partner with others implementing new technologies.

Risks:

- Achieving the higher aMW targets while assuming a small increase in funding for this program.

Opportunities for Reductions:

- Regional coordination and cooperation.
- New and innovative approaches and technologies for acquiring conservation.
- Different funding mechanisms (e.g., different blends of expense, capital, rate discounts, rate credits, pay for performance contracts, 3rd party contracts, etc.).

Drivers of Change:

- These expenses are up because BPA took a more active role in conservation development in 2001 and ramped up its programs in the FY2002-06 period in response to power shortages and plans to continue that effort.
- New Council conservation targets are suggesting, on average, a 27% increase in delivered aMW savings for BPA.
- BPA has a strategic objective to meet its share of the Council's target.

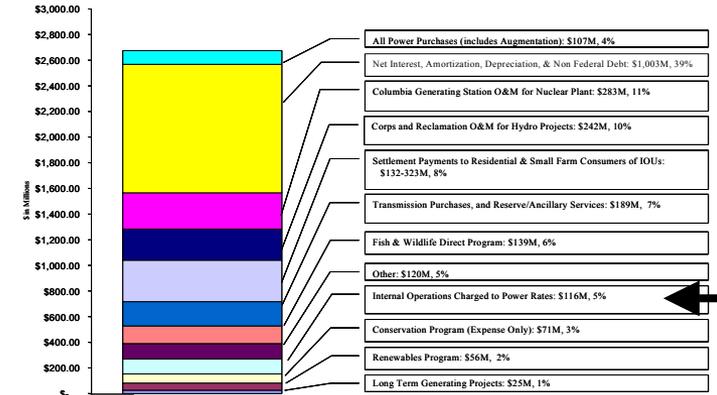
Workshop Dates –
Feb 8th and 15th



FY07-09 Power Expenses

Internal Operations Charged to Power Rates

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$93M | \$107M | \$116M |
| Increase/Decrease | | \$14M | \$9M |
| % increase | | 15% | 8% |



Program:

- This program is driven by BPA's strategic direction: "Effective cost management (with emphasis on best practices, innovation and simplicity) through our systems and processes."
- Program components of \$116M/year annual expense for FY07-09:
 - 77% Employee Compensation – Personnel compensation and overtime for BPA staff and compensation for contract labor.
 - 14% Service Contracts – Such as projects to optimize the use of water at hydro projects thereby increasing generating output and secondary sales.
 - 9% Other – Travel, training, materials & supplies, rents & utilities, and miscellaneous.

Risks:

- Unanticipated requirements from new industry requirements, customers, constituents, and other stakeholders.

Opportunities for Reductions:

- Enterprise Process Improvement effort.
- Implementation of Voluntary Separation Incentive & Voluntary Early Retirement Authority.
- Position Management Initiative to reduce overall grade structure.

Drivers of Change:

- Total PBL staffing is declining. Decreased staffing in many areas has been offset by increases in operational functions, partly reflecting efforts to extract more generation from the hydro system through various efficiency projects.

Workshop Dates –
March 1st and 17th



FY07-09 Power Expenses

Fish and Wildlife Direct Program Only

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$100M | \$139M* | \$139M |
| Increase/Decrease | | \$39M | \$0M |
| % increase | | 39% | 0% |

Program:

*Does not include High Priority Action Items

- This program is driven by BPA's strategic direction that we "... will deliver cost-effective solutions for meeting fish, wildlife and environmental responsibilities, measured against clearly defined performance objectives."
- Program components of \$139M/year annual expense for FY07-09:
 - 26% Production & Harvest– Operation and maintenance of resident & anadromous hatchery projects.
 - 25% Research & Evaluation – Includes studies that collect and analyze new information.
 - 22% Habitat – Includes habitat restoration, land acquisition, irrigation screening, and tributary passage improvement.
 - 12% Monitoring - Monitors and evaluates mainstem passage, hatcheries and habitat inventories.
 - 11% Coordination – Includes coordination and data management of administrative projects.
 - 3% Mainstem Survival – Includes predator control and mainstem passage improvements.

Risks:

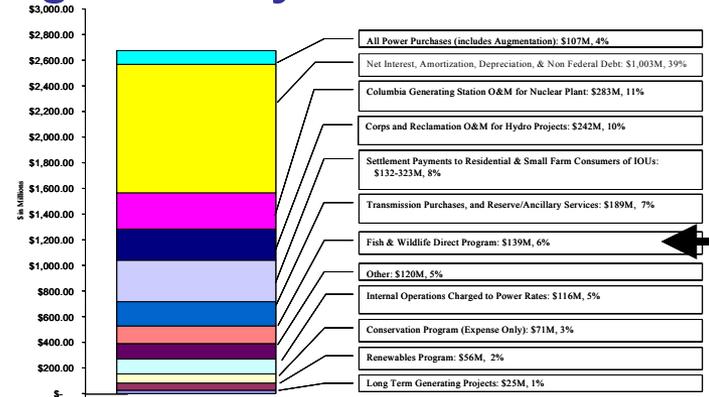
- Assumes no funding increase – even for inflation.
- Change in hatchery operations, habitat restoration, and predation programs due to the Biological Opinion Remand.
- Expectations of external parties - the Council's creation of new Sub-basin Plans have identified many new areas that will require funding. External parties will expect BPA to increase program funding to implement plans.
- Development of Memorandum of Understanding (MOU) will define roles and responsibilities and may establish higher program funding levels.

Opportunities for Reductions:

- Development of Memorandum of Understanding (MOU) will possibly identify areas to increase efficiencies.

Drivers of Change:

- The program level is being held constant for the 2007-09 period pending completion of an existing public process (See slide titled BPA's Total Fish & Wildlife Program).



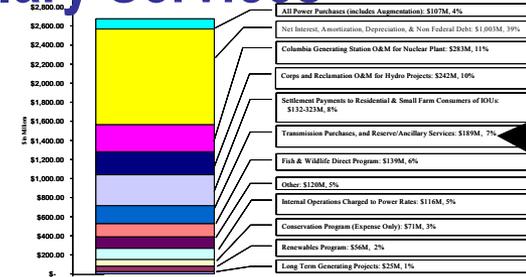
Workshop Dates –
April 5th and 12th



FY07-09 Power Expenses

Transmission Purchases & Reserve/Ancillary Services

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$259M | \$171M | \$189M |
| Increase/Decrease | | (\$88M) | \$18M |
| % increase | | -34% | 11% |



Program:

- This program is driven by BPA’s strategic direction that “Risks are managed within acceptable bounds.”
- Generally, this category represents costs associated with services necessary to deliver energy from resources to markets and loads: transmission, ancillary services, real power losses.
- Program components of \$189M/year annual expense for FY07-09:*
 - 65% Transmission & Ancillary Services – Payments to BPA’s Transmission Business Line for transmission and ancillary services associated with bulk sales.
 - 30% 3rd Party Expenses – Payments to 3rd parties for transmission and ancillary services associated with Transfer Service Agreements and bulk sales.
 - 4% Reserve Services – Payments to BPA’s Transmission Business Line for generation integration costs.
 - 1% Equipment & Replacements - Metering, telemetry, communications equipment, & replacements are to meet increasing PBL business requirements for frequency and granularity of meter data.

Risks:

- Increased transmission rates.
- Increased costs associated with congestion on the transmission grid.
- Limited access to transmission.

Opportunities for Reductions:

- Maintain expertise to manage transmission portfolio - efficient utilization of existing transmission contracts and incremental transmission purchases.
- Coordination with BPA Account Executives and transfer customers regarding load growth and plans of service.

Drivers of Change:

- Shape and level of surplus energy.
- Unbundling of power and transmission.
- Deregulation: Movement to Open Access Transmission Tariff Service.
- Changes in investment and associated annual costs.

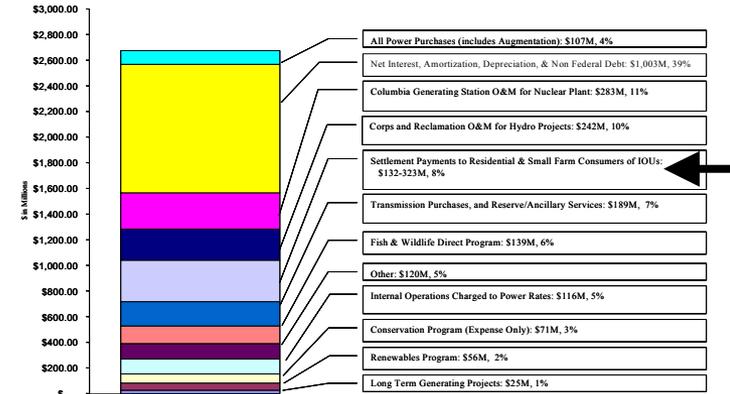
Workshop Dates –
Feb 1st and 15th



FY07-09 Power Expenses

Payments to Residential & Small Farm Consumers of IOUs

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|----------------------|-----------------|-----------------|-----------------|
| Program Level | \$84M | \$139M 1/ | \$123-323M |
| Buy Down Payments 2/ | \$0M | \$235M | \$0M |
| Total | \$84M | Approx \$375M | \$123-323M |



1/ 900 aMW of Monetary Benefit

2/ Approximately 718 aMW of load augmentation (BPA power buyback) from PacifiCorp and Puget at \$38/MWh.

Avista, Idaho, and NorthWestern converted 124 aMW of power to financial payments at (\$38 - CRACed PF).

Includes assumed average benefits of \$19M from 258 aMW power purchase by PGE.

Includes FY 2003 deferral of \$55M and subsequent payback of \$41M over FY 2004 - 2007.

Program:

- This program is driven by BPA's strategic direction that the benefits we provide ". . . To IOUs for their residential and small-farm consumers is equitable based on the Northwest Power Act."
- For FY 07-09, the program expense is a result of the Residential Exchange Program Settlement agreements with the IOUs.
- As part of the Settlement agreements, we reduced \$100M in expenses over the FY 02-06 period, deferred another \$100M out of the FY 02-06 period and into the FY 07-11 period, and agreed to a \$100M floor and a \$300M cap on the remaining benefits for the FY 07-11 period (excluding repayment of the FY 02-06 deferred amount).
- *Program components of the annual expense for FY07-09:*
 - Most of the annual expense is the calculated benefits within a range of \$100M-\$300M =
 - $(\text{Market Price} - \text{Priority Firm power rate}) * 2200 \text{ aMW} * 8760 \text{ hours/year}$
 - The rest of the annual expense is the deferred benefits (roughly \$23M/year deferred from the FY02-06 period).

Workshop Dates –
Background Paper



FY07-09 Power Expenses

Payments to Residential & Small Farm Consumers of IOUs, continued

Opportunities for Reductions:

- Market Price Level: For the calculated component, as market prices decrease, benefits could be reduced down to \$100M (although this decrease will likely be partially offset by reduced prices we will receive from secondary sales).

Drivers of Change:

- Annual costs prior to 1997 averaged approximately \$200 million.
- Payments dropped to \$84 million per year in 1997-2001, via legislation and termination agreements.
- FY2002-2006 planned costs were \$142 million per year, but jumped to about \$400 million per year, mainly due to load buydowns during the power crisis.
- FY2007-2009 costs reflect settlement agreement. By formula, could be as low as \$123 million per year, or as high as \$323 million per year.

Workshop Dates –
Background Paper



FY07-09 Power Expenses

Corps and Reclamation O&M for Hydro Projects

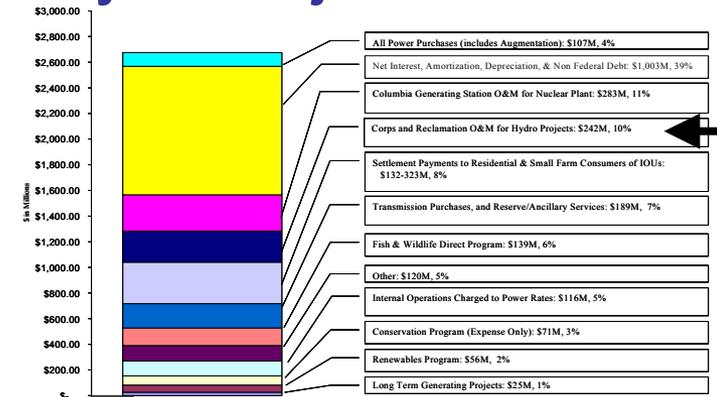
| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$146M | \$196M | \$242M |
| Increase/Decrease | | \$50M | \$46M |
| % increase | | 34% | 23% |

Program:

- This program is driven by BPA's strategic direction to ensure that hydro projects' "... performance and expansion meet availability, adequacy, reliability and cost-effectiveness standards. "
- BPA works with U.S. Army Corps of Engineers and the Bureau of Reclamation to ensure implementation of all regionally cost-effective system refurbishments and enhancements to federal hydro projects.
- Program components of \$242M/year annual expense for FY07-09: (percentages based on expected FY04 costs)*
 - 74% Labor – Salaries and benefits, including some Fish & Wildlife and Security related employee costs.
 - 11% Support Services & Contracts – Fish & Wildlife costs, security costs, buildings maintenance, etc.
 - 9% Miscellaneous – IT, communication costs, multipurpose costs, travel, training, rental space, etc.
 - 5% Materials and Supplies – Hydropower O&M materials & supplies, non-capitalizable supplies, etc.

Risks:

- WECC/NERC compliance requirements.
- Security Costs: Cost Forecasts are based on current threat level. Higher level will increase costs.
- Environmental compliance requirements.
- BiOps: Requirements still unknown (Willamette BiOp pending). Likely will increase costs.



Workshop Dates –
March 15th and 16th



FY07-09 Power Expenses

Corps and Reclamation O&M for Hydro Projects, cont.

Opportunities for Efficiencies/Reductions:

- BPA, U.S. Army Corps of Engineers and the Bureau of Reclamation Hydro Program process review and long term strategic planning.
- Improved maintenance management practices.
- Remote operations of feasible plants.
- E-procurement – the reverse auction for the lowest cost materials and supplies.
- Power Plant Efficiencies Improvement (PPEI): expense of \$500-800K/year thru 2011. Through 2004 PPEI has added 80+MW to the system, worth ~ \$24M/year in revenue (based on average water @ \$35).

Drivers of Change:

- Extraordinary maintenance
- COLAs for labor
- Security Costs
- NERC/WECC compliance requirements
- Environmental compliance requirements
- BiOps
- Grand Coulee cost reallocation

Workshop Dates –
March 15th and 16th



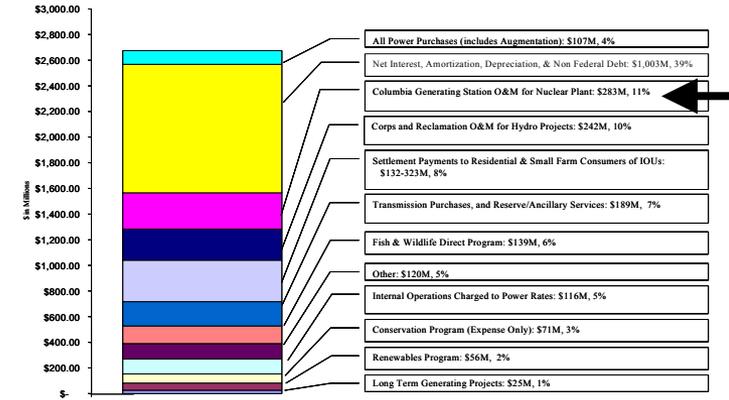
FY07-09 Power Expenses

Columbia Generating Station O&M for Nuclear Plant

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$178M | \$215M | \$284M |
| Increase/Decrease | | \$37M | \$69M |
| % increase | | 21% | 32% |

Program:

- This program is driven by BPA’s strategic direction to ensure that the Columbia Generating Station (CGS) nuclear plant’s “... performance and expansion meet availability, adequacy, reliability and cost-effectiveness standards” and that it is operated in a safe manner.
- Program components of \$284M/year annual expense for FY07-09:
 - 71% O&M – Costs, other than capital costs, associated with operating and maintaining CGS. Included are security expense costs, which have increased to \$9.1M from \$4.6M due to 9/11.
 - 18% Fuel – Includes purchases of uranium, enrichment, conversion and fabrication.
 - 8% Capital – Costs related to improvements and modifications to the plant or the purchase of equipment that exceeds \$10,000 and has a service life of greater than one year.
 - 2% Decommissioning Trust Fund Contribution – Contributions into a trust fund that will be used for the Decommissioning of CGS.
 - 1% NEIL Insurance - Insurance that is purchased from Nuclear Electric Insurance Limited to insure CGS for costs associated with interruptions, damages, and other related nuclear risks.



Risks:

- Level and volatility in nuclear fuel price (uranium & uranium conversion).
- Possibility of additional security measures required by the Nuclear Regulatory Commission (NRC).
- Needs for major equipment replacement.
- Escalation of O&M costs.

Opportunities for Reductions:

- An ongoing Energy Northwest efficiency initiative.
- Meeting lower cost of power targets consistent with industry measurement standards.

Drivers of Change:

- 2007-9 average is biased upward somewhat because two refueling outage years are included in this three-year period.
- O&M costs were pushed below sustainable levels in the 1997-01 period. Deferred costs are now being incurred.
- Increased costs due to security requirements, equipment obsolescence, and restoration of nuclear fuel inventory.

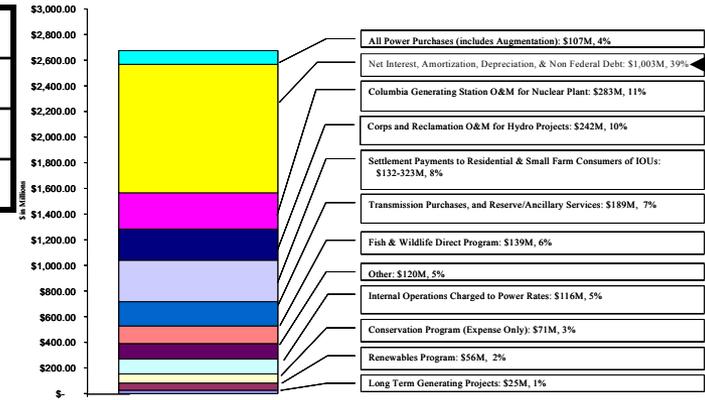
Workshop Dates –
March 15th and 16th



FY07-09 Power Expenses

Net Interest, Depreciation & Amortization

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$344M | \$363M | \$437M |
| Increase/Decrease | | \$19M | \$74M |
| % increase | | 6% | 20% |



Program:

- This program is driven by BPA's strategic direction related to our financial objectives: ensure sustainable access to capital, ensure cost recovery over time, and maintain adequate cash flow for liquidity and Treasury payment.
- Program components of \$437M/year annual expense for FY07-09:
 - 55% Net Interest – Comprised of interest on bonds & appropriations netted against interest credit from the Bonneville Fund.
 - 26% Depreciation – The depreciation of revenue producing assets and ongoing infrastructure investments through BPA direct funding for hydro projects, and appropriated investment for fish mitigation program at hydro projects managed by the Corps of Engineers.
 - 19% Amortization – The depreciation of non-revenue producing assets such as conservation and direct fish and wildlife capital investments (non-appropriated).

Risks:

- Rising interest rates, affecting the cost of future Treasury borrowing.
- Changes in the plant in service schedule of the Columbia River Fish Mitigation project by the Corps of Engineers.
- Reduced cash balance, decreasing interest credit.

Opportunities for Reductions:

- Continued aggressive debt management to reduce interest costs.
- Continuation of the Debt Optimization Program.
- Lower interest rates.
- Increased cash balance, increasing interest credit.

Drivers of Change:

- Debt Optimization increased repayment of Federal debt (“Advance amortization”) in the same amounts as non-Federal principal payments decreased (2002-2005).
- Decreased Federal interest expense due to advance amortization (2002-2009).
- Increased capital investment.
- Change in projected interest income due to change in cash balance.

Note: Depreciation and amortization are direct results of the level of capital investment, so will increase or decrease based on investment levels. Net interest has several components, and is influenced by other factors in addition to capital investment levels.

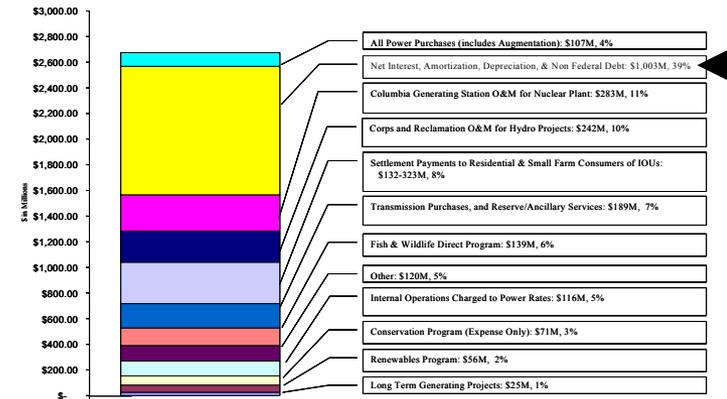
Workshop Dates –
March 1st and 17th



FY07-09 Power Expenses

Non-Federal Debt Service

| | FY97-01 Average | FY02-06 Average | FY07-09 Average |
|-------------------|-----------------|-----------------|-----------------|
| Program Level | \$571M | \$446M | \$566M |
| Increase/Decrease | | (\$125M) | \$120M |
| % increase | | -22% | 27% |



Program:

- This program is driven by BPA's strategic direction related to our financial objectives: ensure sustainable access to capital, ensure cost recovery over time, and maintain adequate cash flow for liquidity and Treasury payment.
- Program components of \$566M/year annual expense for FY07-09:
 - 56% Non-Operating Generation Projects – WNP 1 & 3, Trojan, Conservation Augmentation Program, Northern Wasco, CARES, Tacoma.
 - 44% Operating Generation Projects – Columbia Generation Station, Cowlitz Falls.

Risks:

- Variable Rate Debt: Bonneville has a limited amount of basis risk exposure associated with \$500 million of variable rate debt (VRD) outstanding. This debt has two swaps associated with it to turn it into a synthetic fixed rate debt, however, in low interest rate environments the variable rate received does not fully offset the variable rate paid out creating this basis risk.
- Rising interest rates affecting the cost of future non-Federal borrowing financings and refinancings.
- EN may not agree to continue the Debt Optimization program.

Opportunities for Reductions:

- Continued aggressive debt management to reduce interest costs.

Drivers of Change

- Extension (roll-out) of EN debt, resulting in decreased non-Federal principal in the same amounts as increased Federal payments (FY 2002-2005), and increased non-Federal interest costs (FY 2002-2009).
- Early reserve fund free-ups resulted in decreased interest expense in FY 2002-2004, and increased interest expense in FY 2005-2009.
- Increased capital investment.

Workshop Dates –
March 1st and 17th

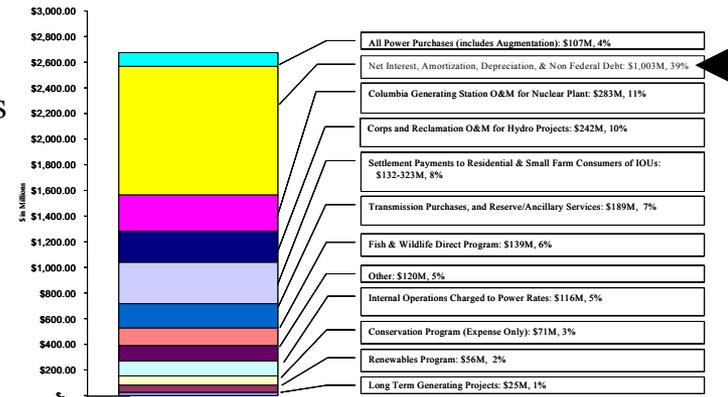
There is a change to the FY02-06 Actuals Average graph which is incorporated in this slide. Explanation on



FY07-09 Power Expenses

Impacts of Debt Management Actions

BPA manages its Federal and non-Federal debt at an agency level, as a single portfolio. The debt management actions BPA takes affect various components of BPA's capital costs, and those affects are not always apparent without looking at each of the components. In the FY02-05 period there have been numerous actions, in some cases with off-setting impacts. The table below indicates how some of the major changes in the FY 2002-2005 period impacted costs. Further information will be provided at the technical workshop.



| | FY02 Compared to Rate Case | FY03 Compared to Rate Case | FY04 Compared to Rate Case | FY05 Compared to Rate Case |
|---|----------------------------|----------------------------|----------------------------|----------------------------|
| Reserve free-ups | (27) ↓ | (137) ↓ | (46) ↓ | 32 ↑ |
| Energy Northwest Principal | ↓ | ↓ | ↓ | ↓ |
| Federal Principal | ↑ | ↑ | ↑ | ↑ |
| Energy Northwest Interest | ↑ | ↑ | ↑ | ↑ |
| Federal Interest due to advance amortization | ↓ | ↓ | ↓ | ↓ |



BPA's Total Fish & Wildlife Program

Program:

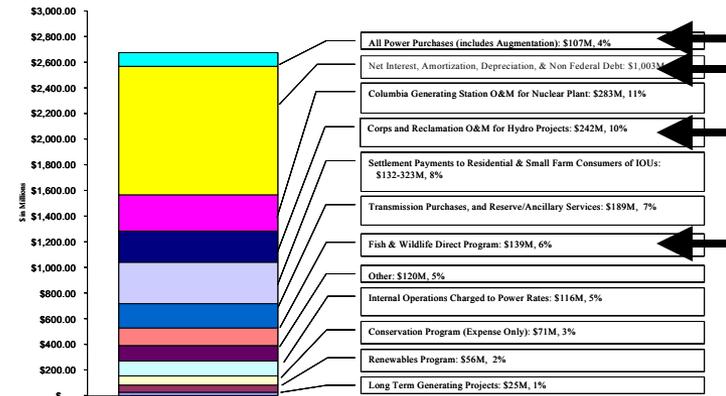
- BPA intends to explore all options to efficiently meet its fish and wildlife obligations while not unduly burdening the Northwest ratepayer consistent with BPA's strategic direction that we " ... will deliver cost-effective solutions for meeting fish, wildlife and environmental responsibilities, measured against clearly defined performance objectives. "
- However, BPA's fish and wildlife program continues to be one of our most significant costs. While BPA's integrated fish and wildlife program is directly linked to our financial statements, other aspects of the program indirectly impact power rates as well, such as reduced hydro system generation due to fish mitigation operations.
- BPA is currently working with Northwest Planning and Conservation Council (NPCC) and other parties to negotiate a Memorandum of Understanding (MOU) which will establish fish and wildlife funding levels. The Biological Opinion (BiOp) which guides future operations of the Federal Columbia River Power System (FCRPS) has been re-written, but is still undergoing legal challenge.

Risks:

- Litigation over Biological Opinion Remand
- Funding pressure from the NPCC
- Surface Bypass Technology (e.g., Removable Spillway Weirs) with spill: Pressure to direct fund, schedule slippage, and performance less than expected
- Changes in 4(h)(10)(C) methodology

Opportunities for Reductions :

- Implementation of Surface Bypass Technology.



The line items marked with this arrow are those areas where Fish and Wildlife program expenses are embedded.

See next page for Total Program components of \$692M/year annual expense for FY07-09



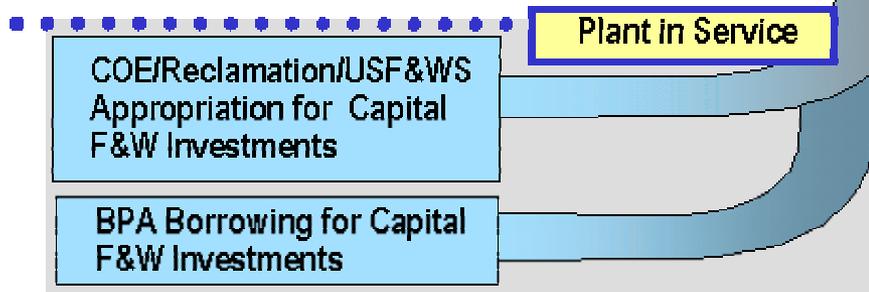
BPA's Total Fish & Wildlife Program: Total Annual Average Cost to BPA Rate Payers

There is a change to the title on this page changing it from reading "All Northwest Rate Payers" to "BPA Rate Payers"

Percentage of Budget Categories Allocated to F&W

FY 2007-2009 (\$ in Millions)

| | | |
|---|------|--------|
| UNSLICED 50-year Annual Average Hydro Operations Effects (Power Purchases & Foregone Revenues) | | 356.9* |
| Integrated Program – Annual Average | 100% | 139.0* |
| NWPCC – Annual Average | 50% | 4.6 |
| US Fish & Wildlife Service – Annual Average Lower Snake Compensation Plan | 100% | 19.8 |
| Corps of Engineers O&M – Annual Average | ~25% | 37.5 |
| Reclamation O&M – Annual Average | ~7% | 4.2 |
| Total repayment obligations for current & past F&W investments | | 129.6 |



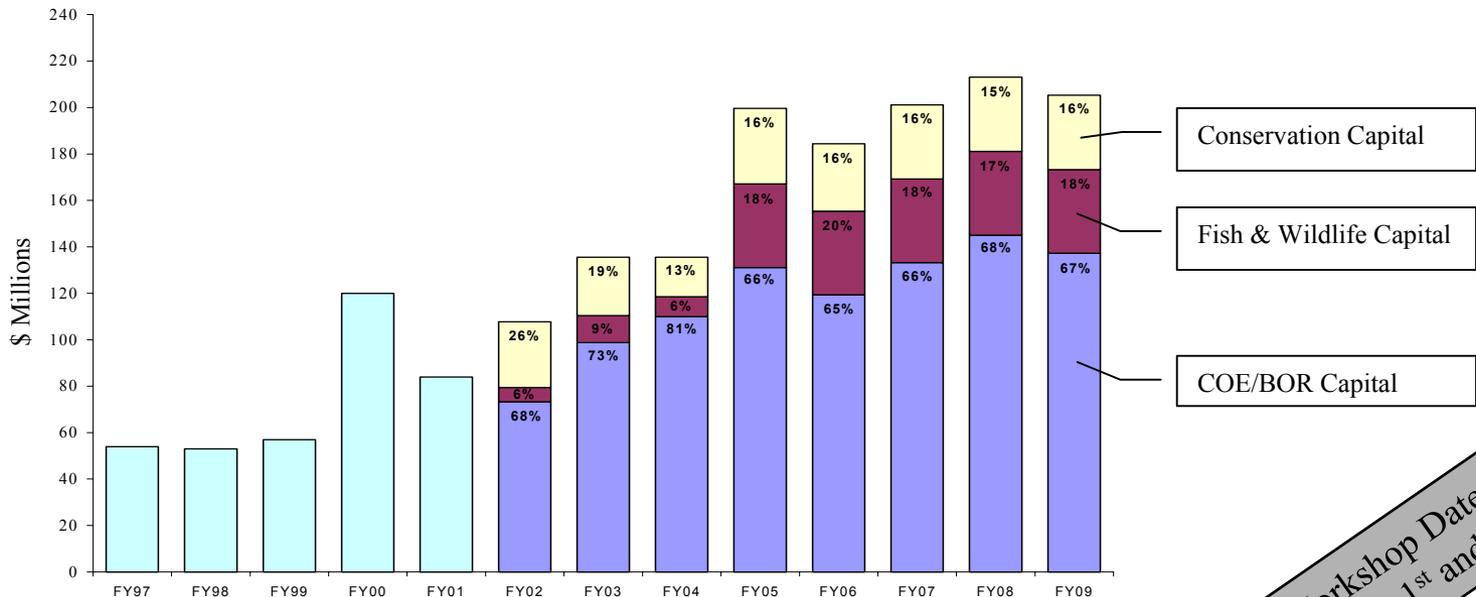
Total 691.6

***Note!** Operational costs reflect expected 2007 river conditions with RSWs operational at IHR and in test mode at LMN and a BGS in test mode at TDA – actual operations may be more costly. Potential savings of additional RSWs and cost effects of a Snake River Transport vs. In-River migration study make operational costs highly variable during this period. One possible range of average annual OPS costs for FY07-09 is \$352M to \$369M; even this range is optimistic in that it assumes no schedule slippage and implementation of assumed spill levels. Integrated Program assumes additional projects funded within existing budget.



Planned Power Function Capital Expenditures for FY07-09

| | Actuals | | | | | | | | Forecasted | | | | |
|-------------------|--------------|--------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 |
| COE/BOR | | | | | | \$95M | \$92M | \$111M | \$131M | \$119M | \$133M | \$145M | \$137M |
| Fish & Wildlife | | | | | | \$6M | \$12M | \$9M | \$36M | \$36M | \$36M | \$36M | \$36M |
| Conservation | | | | | | \$29M | \$25M | \$17M | \$33M | \$29M | \$32M | \$32M | \$32M |
| Total* | \$54M | \$53M | \$57M | \$120M | \$84M | \$130M | \$129M | \$137M | \$200M | \$184M | \$201M | \$213M | \$205M |
| Increase/Decrease | | (\$1M) | \$4M | \$63M | (\$36M) | \$46M | (\$1M) | \$8M | \$63M | (\$16M) | \$17M | \$12M | (\$8M) |
| % increase | | 1% | 8% | 111% | -30% | 154% | 1% | 6% | 46% | -8% | 9% | 6% | -3% |

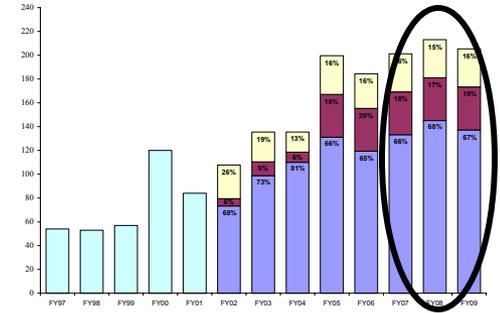


*Data not available by individual program during this time period.

Workshop Dates –
March 1st and 17th



FY07-09 Power Capital



Program:

- *Program components of \$206M/year annual capital expenditures for FY07-09:*
 - 67% Hydro Capital – Corps of Engineers/Bureau of Reclamation projects and includes turbine efficiency improvements, hydro optimization projects, powerhouse auxiliary equipment upgrades, replacements and refurbishments, and generation equipment upgrades.
 - 17% Fish & Wildlife Capital – Such as hatchery and acclimation projects, mitigation, fish screens, habitat improvement, and land acquisition.
 - 16% Conservation Capital – Includes lighting in residential, commercial, and industrial facilities, industrial motor improvements, and envelope work on commercial buildings.

Risks:

- Increases in construction costs

Drivers of Change:

- New Council conservation targets are suggesting, on average, a 27% increase in delivered aMW savings for BPA.
- BPA has a strategic objective to meet its share of the Council's target.
- Investments in the hydro system in order to maintain and upgrade performance.
- Fish and Wildlife investments.

Workshop Dates –
March 1st and 17th



PFR Next Steps



Power Function Review Schedule

| Topics | Technical Workshop | Management Discussion Group |
|--|--------------------|-----------------------------|
| Opening Workshop along with presentation on how this fits into the rate setting process – Open to all levels | January 25, 2005 | January 25, 2005 |
| Transmission acquisition costs | February 1, 2005 | February 15, 2005 |
| Conservation program costs and capital | February 8, 2005 | February 15, 2005 |
| Renewables program costs and capital | February 8, 2005 | February 15, 2005 |
| Internal operation costs charged to power rates | March 1, 2005 | March 17, 2005 |
| Columbia Generating Station maintenance costs and capital investments | March 15, 2005 | March 16, 2005 |
| Corps of Engineers and Bureau of Reclamation operation and maintenance costs and capital investments | March 15, 2005 | March 16, 2005 |
| Federal and Non-Federal Debt Service and Debt Management | March 1, 2005 | March 17, 2005 |
| Fish & Wildlife program costs, both expense and capital | April 5, 2005 | April 12, 2005 |
| Risk Mitigation Packages and Tools | April 6, 2005 | April 12, 2005 |
| Summary of what we have heard so far, outstanding issues, and discussion with Administrator | N/A | April 27, 2005 |



Power Function Review Schedule

Regional Meetings:

Portland/April 13, Registration: 4:30 p.m., Meeting: 5:00 – 9:00 p.m., BPA Rates Hearing Room, 911 NE 11th Avenue

Seattle/April 14, Registration: 4:30 p.m., Meeting: 5:00 – 9:00 p.m., Mountaineers Headquarters, 300 Third Avenue W.

Idaho Falls/April 19, Registration: 4:30 p.m., Meeting: 5:00 – 9:00 p.m., Red Lion, 475 River Parkway

Missoula/April 21, Registration: 4:30 p.m., Meeting: 5:00 – 9:00 p.m., WinGate Inn, 5252 Airway Blvd

Spokane/April 26, Registration: 4:30 p.m., Meeting: 5:00 – 9:00 p.m., Airport Ramada Inn, 8909 Airport Road



Power Function Review Process

Ways to Participate

- All forums are open to the public and will be noticed on the PBL external Web site at: www.bpa.gov/power/review. Staff from the Corps of Engineers, Bureau of Reclamation, and Energy Northwest will participate in presentations on costs they manage.
- All Technical and Managerial workshops will be held at BPA Headquarters.
- The comment period for the PFR opens Tuesday, January 25, 2005 and closes Friday, April 29, 2005. You have several options to provide comments to BPA:
 1. Attend one or more of the meetings listed above and give BPA your comments.
 2. Discuss your input with your Customer Account Executive, Constituent Account Executive, or Tribal Liaison.
 3. Submit written comments to Bonneville Power Administration, P.O. Box 14428, Portland OR 97293-4428.
 4. Submit comments via e-mail to: comment@bpa.gov or submitted on-line at: <http://www.bpa.gov/comment>
 5. Comments can also be sent via fax to (503) 230-3285.



BPA's Financial Disclosure Information

- “All FY05-09 information was provided on January 25, 2005 and cannot be found in BPA-approved Agency Financial Information but is provided for discussion or exploratory purposes only as projections of program activity levels, etc.”
- “All FY97-04 information was provided on January 25, 2005 and is consistent with audited actuals that contain BPA-approved Agency Financial Information”.
- The information on page 38 has been made publicly available by BPA on January 25, 2005. The figures shown are consistent with audited actuals that contain Agency approved financial information, except for forgone revenues and power.
- The information on page 34 is derived estimate for presentation purposes and cannot be found in BPA-approved Agency Financial Information but is provided for discussion or exploratory purposes only as *projections of program activity levels, etc.*“