



Bonneville Power Administration

Power Function Review

Transmission Acquisition Program

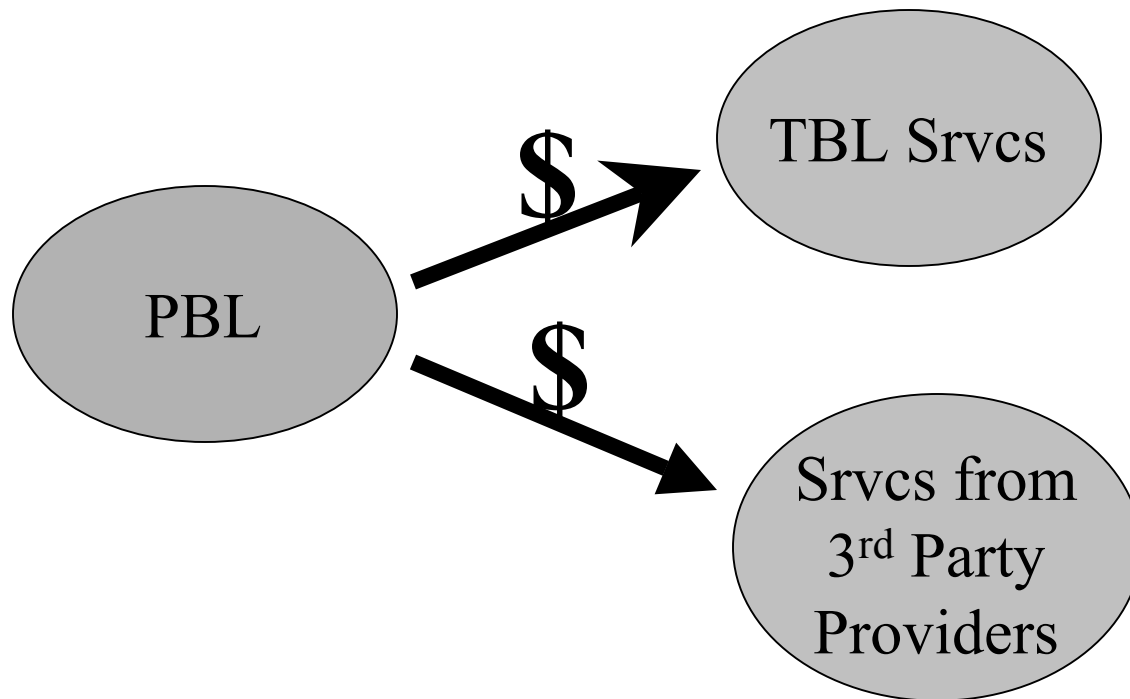
Management Level Discussion

February 23, 2005



Power Function Review

Transmission Acquisition Program





Transmission Acquisition Program

Acronym	Definition
❖ PBL	❖ Power Business Line
❖ TBL	❖ Transmission Business Line
❖ SOP MOA	❖ Statement of Principles Memorandum of Agreement
❖ OATT	❖ Open Access Transmission Tariff
❖ PTP	❖ Point to Point Transmission Service
❖ IS	❖ Intertie South Transmission Service
❖ GF	❖ Grandfathered Transmission (pre July 12,1996)
❖ BOR	❖ Bureau of Reclamation
❖ SCD	❖ Scheduling, System Control & Dispatch Service
❖ GSR	❖ Generation Supplied Reactive Service
❖ MGCD	❖ Monthly Grandfathered Contract Demand
❖ GTA	❖ General Transfer Agreement
❖ 3 rd Party Provider	❖ Transmission Provider other than TBL



Power Function Review Transmission Acquisition Support of PBL Balanced Scorecard

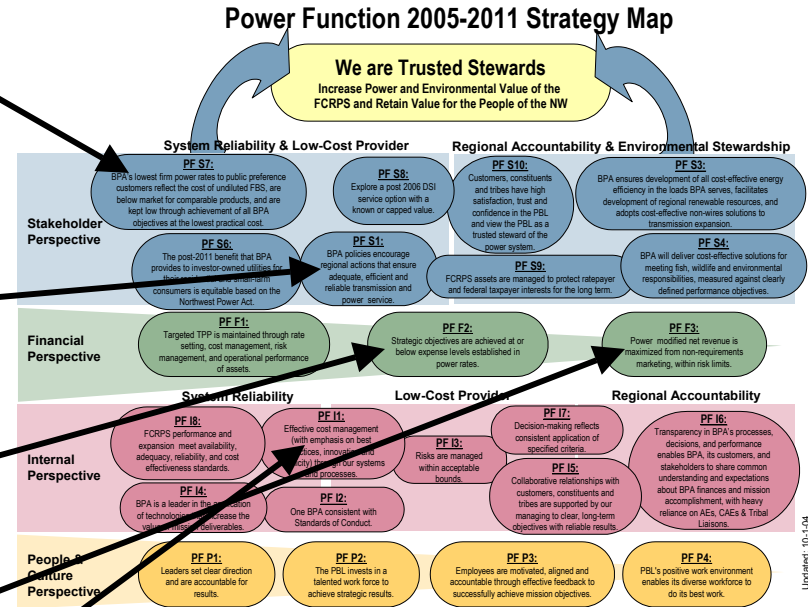
PF S7: BPA's lowest firm power rates to public preference customers reflect the cost of undiluted FBS, are below market for comparable products, and are kept low through achievement of all BPA objectives at the lowest practical cost.

PF S1: BPA policies encourage regional actions that ensure adequate, efficient and reliable transmission and power service.

PF F2: Strategic objectives are achieved at or below expense levels established in power rates.

PF F3: Power modified net revenue is maximized for non-requirements marketing, within risk limits.

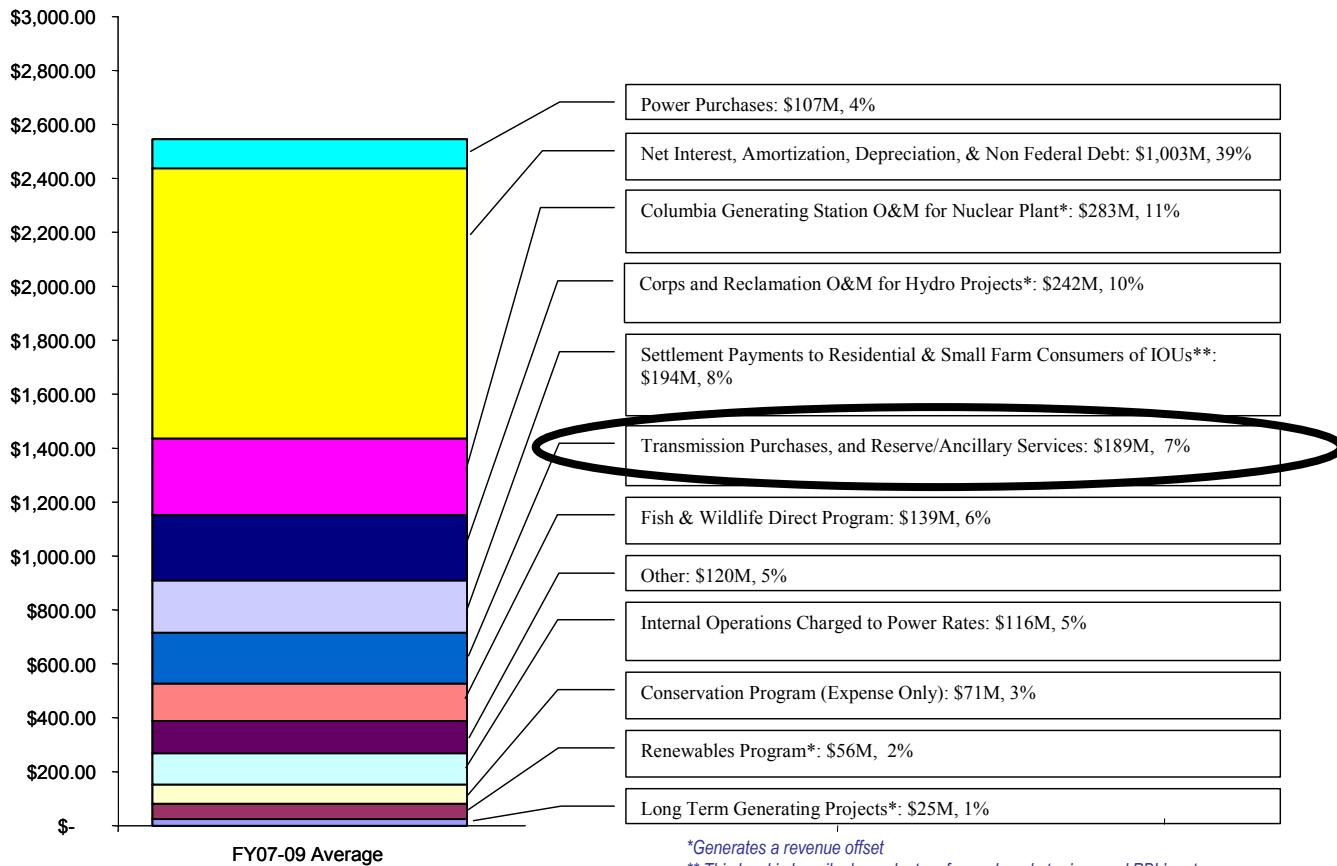
PF I1: Effective cost management (with emphasis on best practices, innovation and simplicity) through our systems and processes.





Power Rate Structure

- The Transmission Acquisition program costs are included in the revenue requirement of the PBL rate structure. However, the budget for purchasing transmission for selling secondary energy will vary according to the secondary sales volume each year.



FY07-09 Average

*Generates a revenue offset

** This level is heavily dependant on forward market prices and PBL's rate

Percentages may not add to 100% due to rounding



Transmission Acquisition Program

- ❖ The Transmission Acquisition Program represents costs associated with:
 - ❖ Services necessary to deliver energy from resources to markets and loads: transmission, ancillary services, real power losses.
 - ❖ Generation integration costs associated with the U.S. Army Corps of Engineers and Bureau of Reclamation transmission facilities.
 - ❖ Metering and communication requirements.



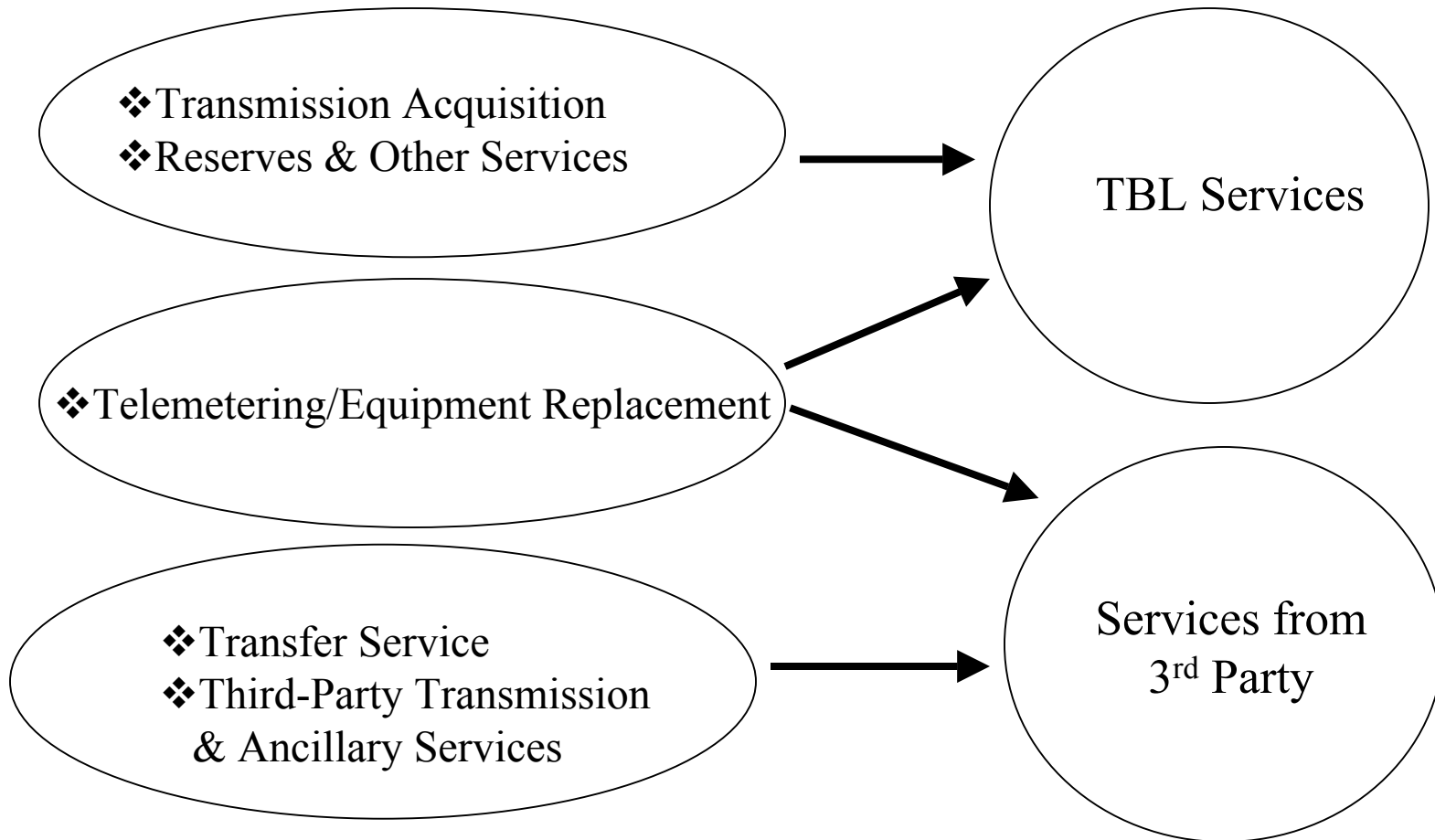
Transmission Acquisition Program

- ❖ The program's primary goals are to:
 - ❖ Be good stewards of our transmission expenses by determining the least-cost mixture of long-term and short-term transmission products that can meet the needs of PBL's secondary energy marketing strategy.
 - ❖ Meet the Agency's transfer service obligation, while attempting to meet specific customer desires by having open communications between our customers regarding plans of services, metering needs, and long-term forecasts.



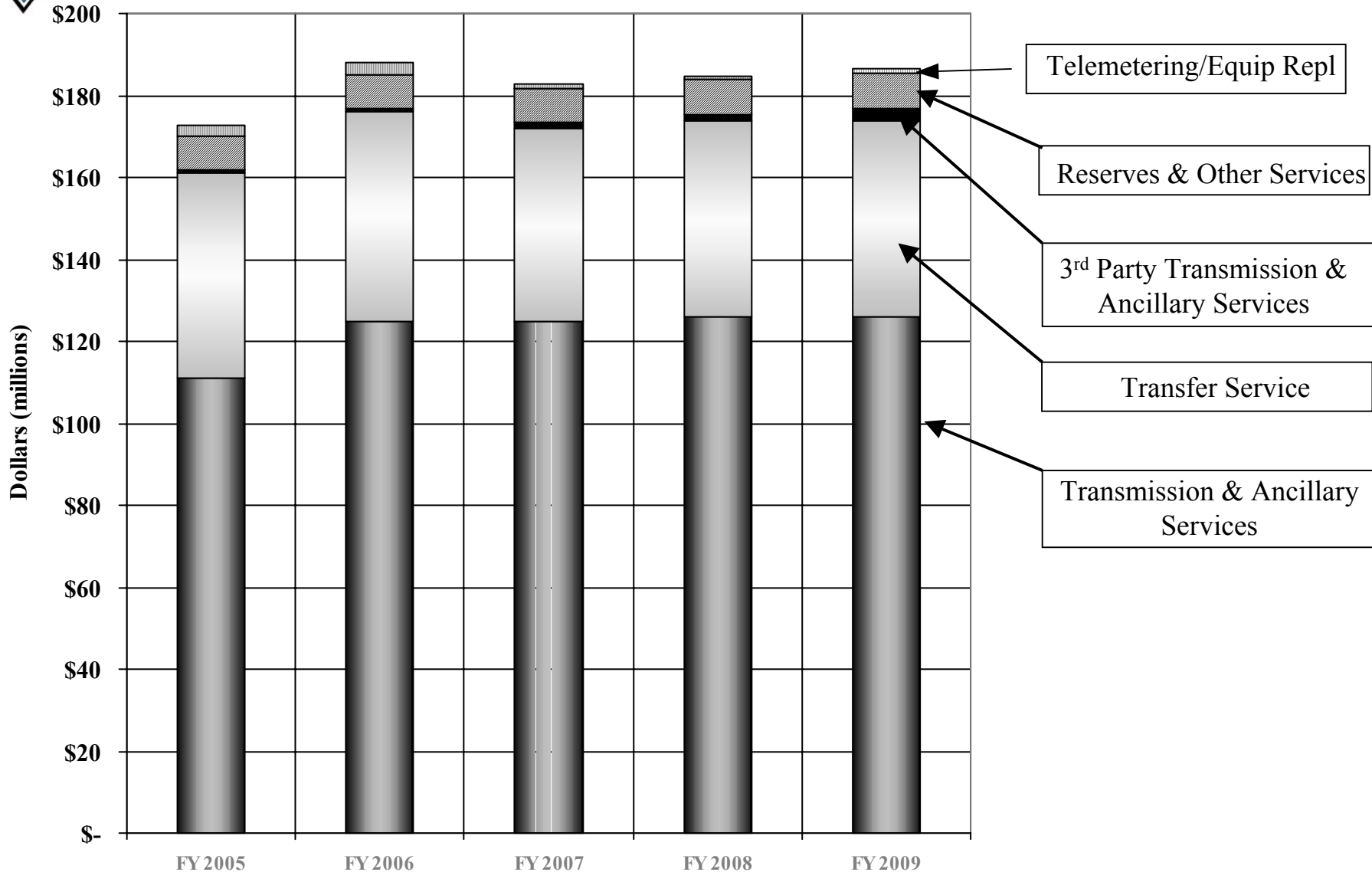
Transmission Acquisition Program

❖ The program is comprised of 5 distinct components





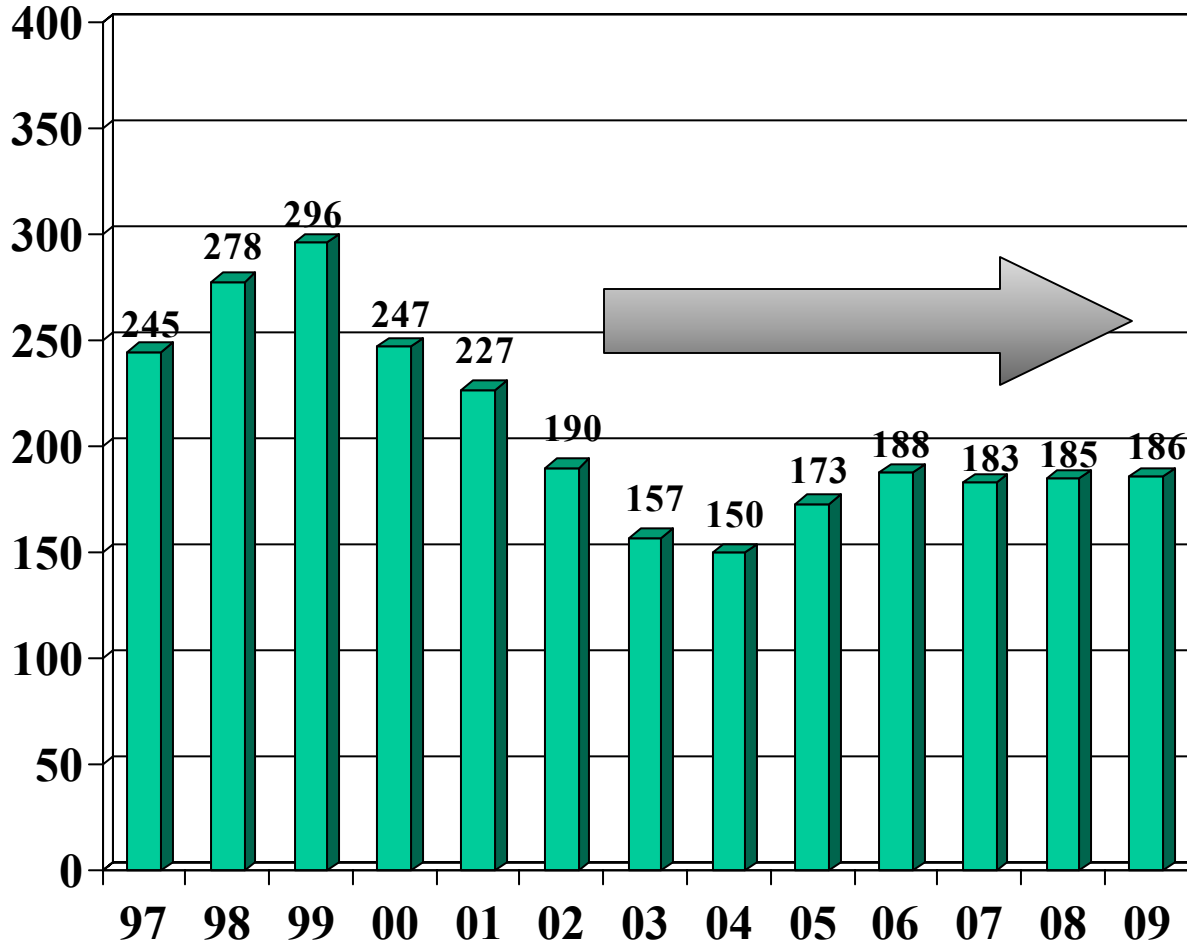
Transmission Acquisition Program





Transmission Acquisition Program

Million \$



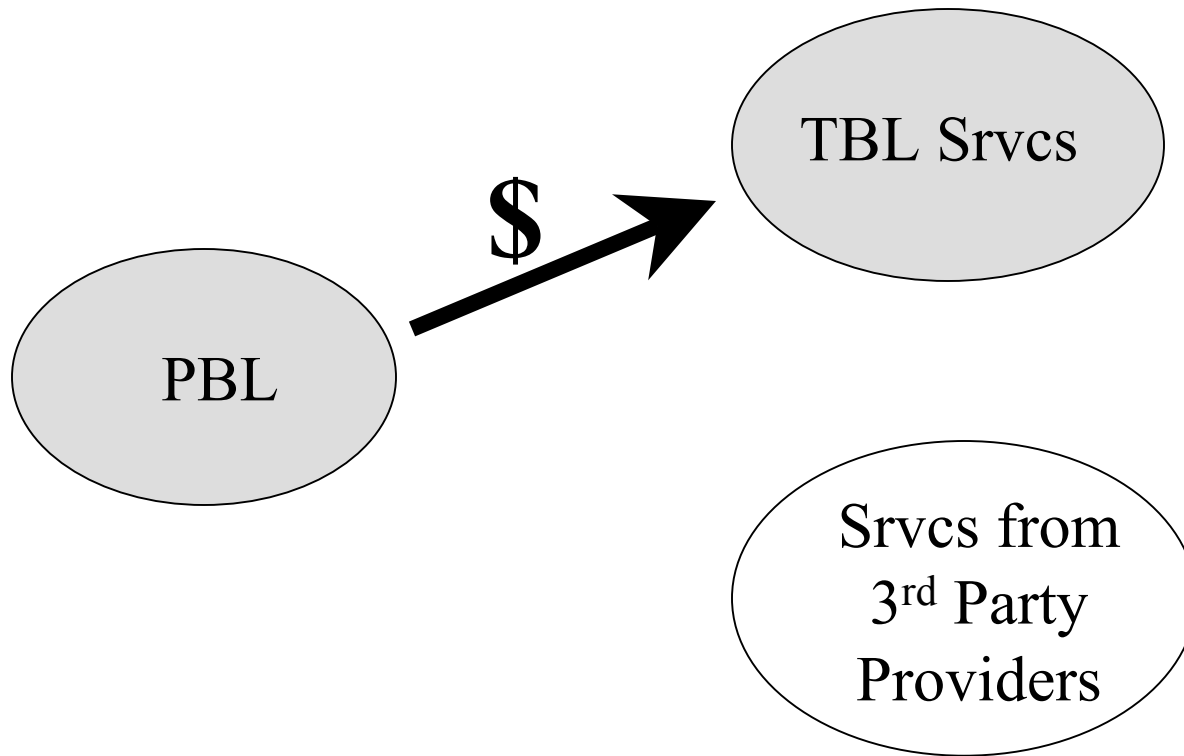
Major Policy Shift

On 10/1/02 BPA split into power and transmission services and preference customers acquired and paid for their own transmission service directly with TBL.



Transmission Acquisition Program

Transmission and Ancillary Services Component

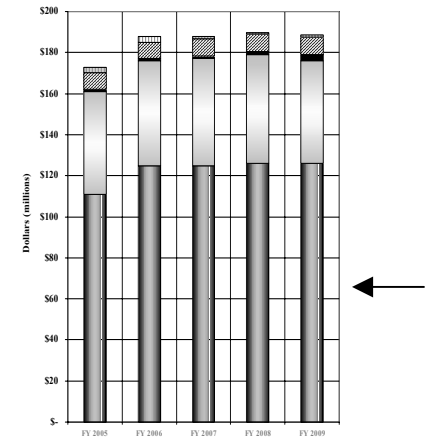




Transmission Acquisition Program

Transmission and Ancillary Services Component

- ❖ The Transmission and Ancillary Service Component represents costs associated with payments to BPA's Transmission Business Line for transmission and ancillary services associated with secondary energy sales.
- ❖ The goal of the BPA PBL transmission strategy is to determine the least-cost mixture of long-term and short-term transmission products that can meet the needs of PBL's secondary energy marketing strategy.

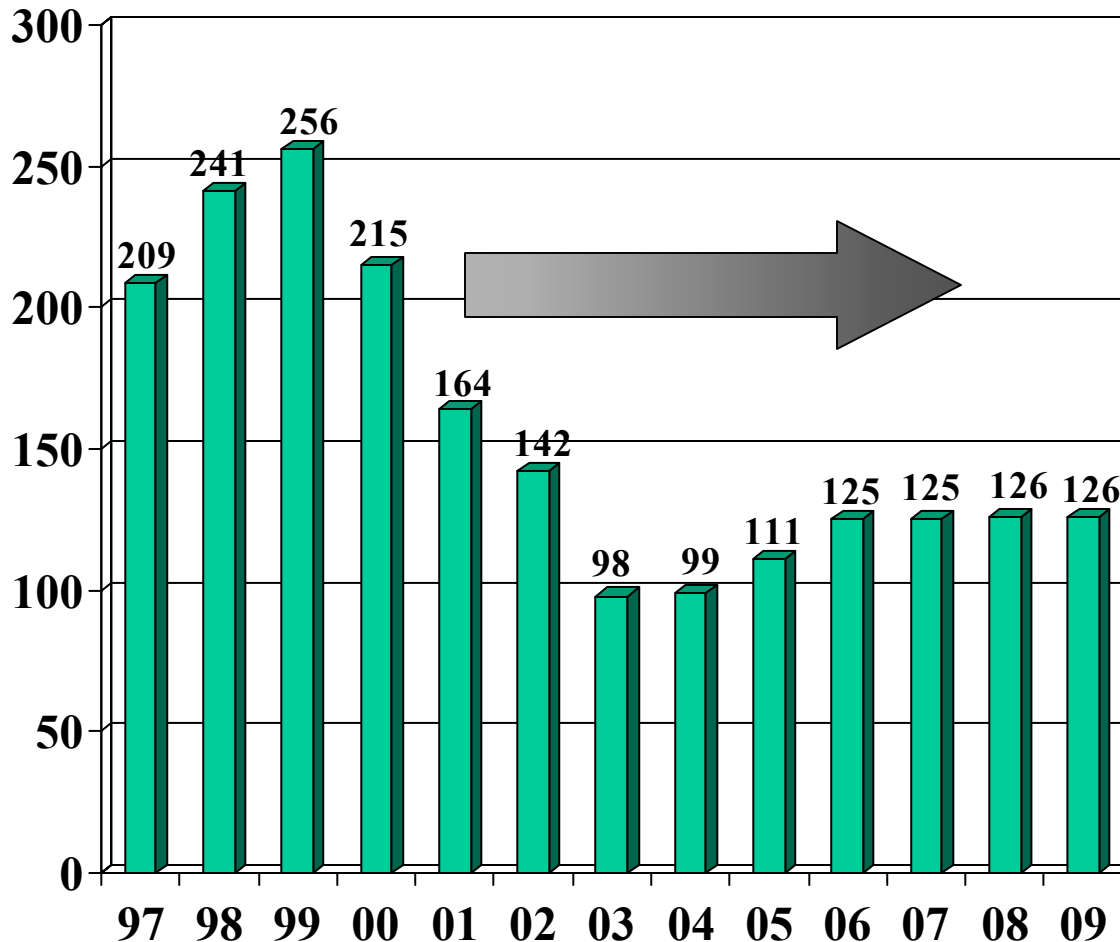




Transmission Acquisition Program

Transmission and Ancillary Services Component

Million \$



Major Drivers of Change

Prior to 10/1/01 PBL held transmission contracts with TBL on behalf of the majority of preference customers.

On 10/1/01 BPA split into power and transmission services and preference customers acquired and paid for their own transmission service directly with TBL.



Transmission Acquisition Program

Transmission and Ancillary Services Component

- ❖ Reasons for changes in expense levels over time
 - ❖ Unbundling of power and transmission.
 - ❖ Shape and level of surplus energy.
 - ❖ Transmission rate increases and changes in rate design.
 - ❖ Capacity changes in long-term power sale agreements.



Transmission Acquisition Program

Transmission and Ancillary Services Component

❖ Risks for FY07-09

❖ Surplus levels and shape

Based on 3000 surplus variations the average cost for the FY07-FY09 period ranged from \$90 million to \$165 million.

❖ Changes in transmission rates (FY08 TBL Rate Case).

❖ Congestion costs associated with transmission constraints due to line outages, generation patterns, and level of transmission usage.

❖ Limited access to transmission – being forced to more expensive transmission products.

❖ Implementation of Grid West.

❖ Changes in Scheduling Structure.



Transmission Acquisition Program

Transmission and Ancillary Services Component

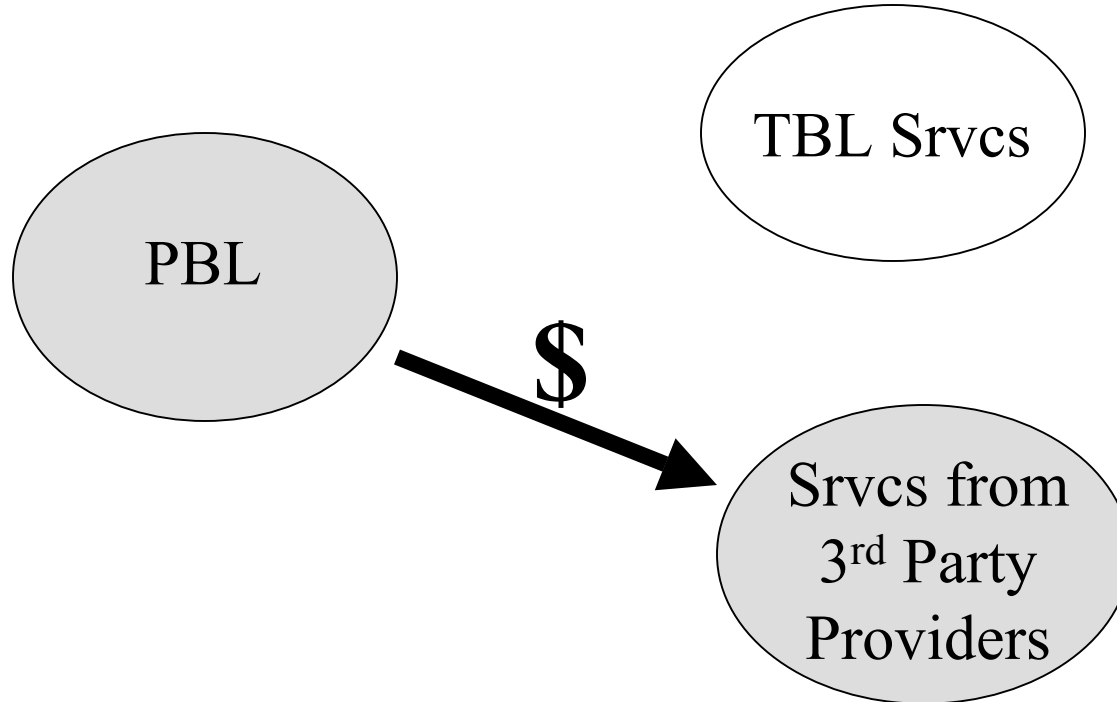
❖ Managing Costs

- ❖ Maintain staff expertise to manage transmission portfolio—efficient utilization of existing transmission contracts and incremental transmission purchases.
- ❖ Coordinate with trading floor and operations on expected secondary energy (including location of generation and sale).
- ❖ Participate in TBL Rate Case Proceedings.
- ❖ Actively participate in TBL business practice forums to sustain or enhance transmission portfolio.
- ❖ Remarketing of unused transmission and purchasing of remarketed transmission in the secondary transmission market.



Transmission Acquisition Program

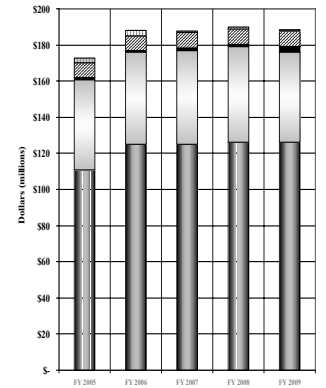
Transfer Service Component





Transmission Acquisition Program

Transfer Service Component



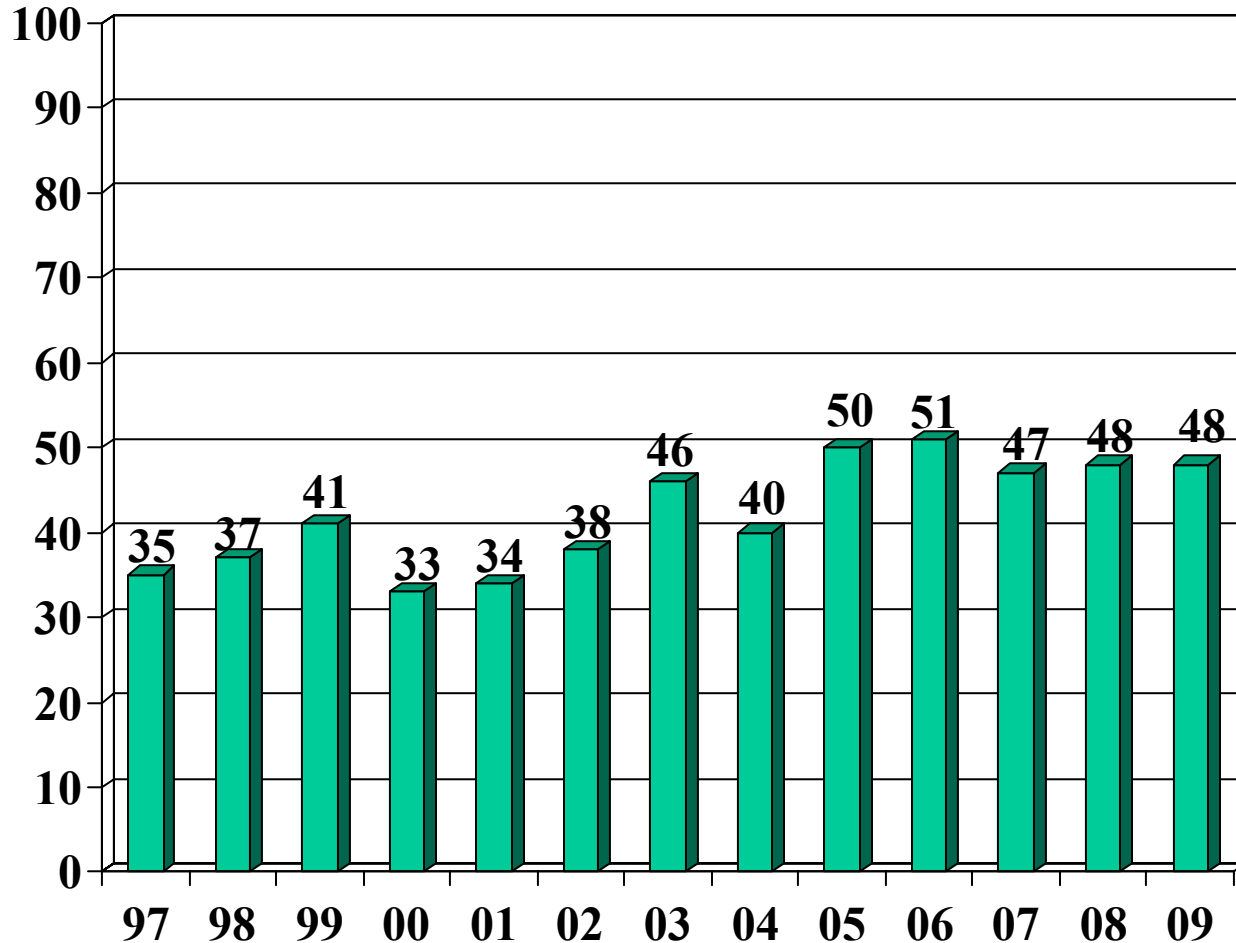
- ❖ Transfer Service Component represents the costs associated with BPA providing third party transmission to aid in the delivery of federal power to preference customers in the Pacific Northwest.
- ❖ Currently BPA has 79 preference customers that receive all or part of their federal power deliveries using this mechanism.
- ❖ BPA contracts for Transfer Service with all six investor owned utilities in the region and several public utilities and cooperatives.
- ❖ Types of arrangements vary from simple use of facilities agreements and others are complex combinations of agreements (i.e., General Transfer Agreements, Exchange Agreements and Open Access Tariff Transmission).



Transmission Acquisition Program

Transfer Service Component

Million \$



Reasons for Changes in expense levels

- ❖ OATT Conversions
- ❖ Change in Posted Rates
- ❖ Change in Rate Structure
splitting of rates into
Network and Wholesale
Distribution
- ❖ Load Growth



Transmission Acquisition Program

Transfer Service Component

❖ Major Drivers of Change

- ❖ Movement to financial true up of scheduling deviations (energy imbalance under OATT).
- ❖ As contractual agreements expire, they will be replaced with Open Access Transmission Tariff (OATT).

PBL has OATT service with:

- ❖ Puget
- ❖ Idaho
- ❖ PGE (Columbia River PUD)
- ❖ PacifiCorp (Umpqua Indian Utility Cooperative)

PBL will move to OATT service prior to FY07 with:

- ❖ NorthWestern Energy (11/2005)
- ❖ Avista (1/06)

- ❖ Some GTA contracts have long term provisions and terminate only with a 3 to 5 year notice or when all relevant deliveries cease.



Transmission Acquisition Program

Transfer Service Component

❖ Risks

- ❖ Under or over estimated inflation/growth rate assumed in forecast.
- ❖ Energy Imbalance – under or over scheduling of loads.
- ❖ Costs for system upgrades (over-runs/under-runs).
- ❖ Level of communications between BPA and customers regarding load growth and plans of service.



Transmission Acquisition Program

Transfer Service Component

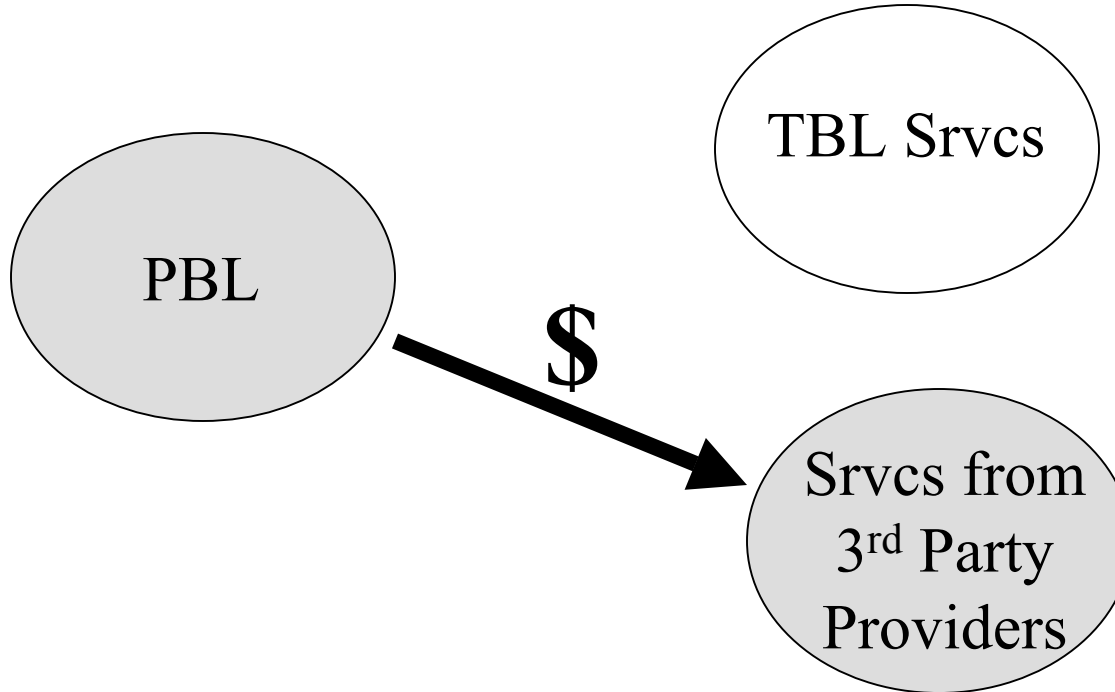
❖ Managing Costs

- ❖ Coordination with BPA Account Executives and transfer customers regarding load growth and plans of service.
- ❖ Enhance contract language to clarify rights and responsibilities after encountering unforeseen circumstances, such as for upgrades and redispatch.
- ❖ Manage energy imbalance with improved tools for forecasting schedules, (i.e., more frequent meter readings, enhanced load forecasting tools.)



Transmission Acquisition Program

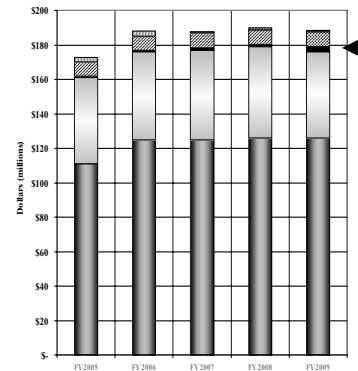
3rd Party Transmission & Ancillary Services Component





Transmission Acquisition Program

3rd Party Transmission & Ancillary Services Component



❖ The 3rd party transmission and ancillary service component represents costs associated

❖ With payments to external BPA entities for transmission, ancillary services, and use of facilities associated with generation located outside the BPA control area (Lost Creek, Greensprings, and Wauna).

❖ Secondary energy sales needing delivery over 3rd party systems.

❖ Expenses associated with rerouting of transfer service due to transmission constraints (3rd party GTA wheeling).

❖ Expenses associated PBL remarketing of transmission under the transmission and ancillary service component for accounting purposes.

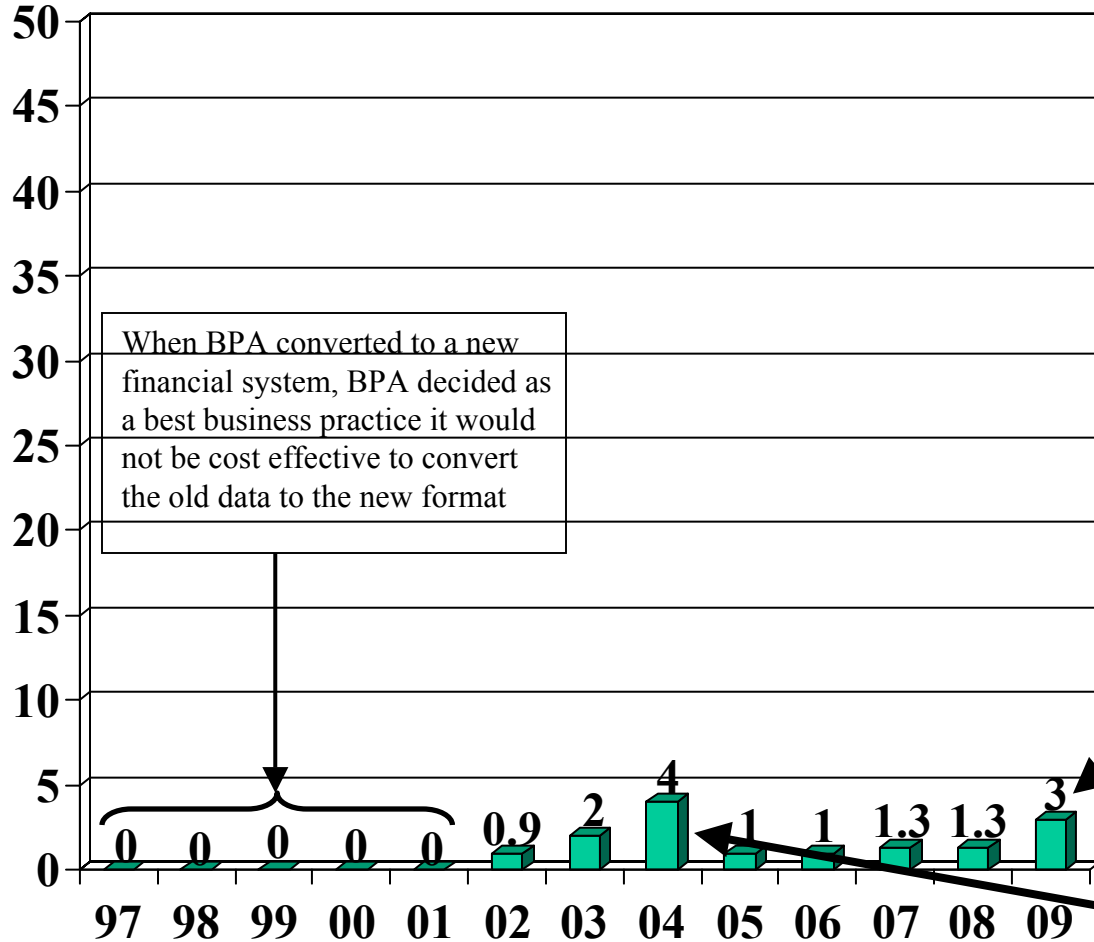
If PBL reassigns transmission purchased from TBL then we must credit the difference between the cost of the transmission and the reassigned price (since the purchaser of the transmission will pay TBL the posted transmission rate).



Transmission Acquisition Program

3rd Party Transmission & Ancillary Services Component

Million \$



Major Drivers of Change

Movement to reassignment of transmission rather than remarketing of transmission. The difference being who holds the contract and pays the invoice with the transmission provider.

Lost Creek converting to OATT

Wauna Substation monthly payment, retro back to 1997 & reassignment of 400 MWs of transmission July through September.



Transmission Acquisition Program

3rd Party Transmission & Ancillary Services Component

- ❖ Reasons for changes in expense levels over time
 - ❖ Resource integration (Green Springs Hydro Project added in October 2000, monthly Wauna Substation payments began in June 2004 – was a retro payment back to '97 made in FY04).
 - ❖ Level of transmission reassignments (reassignment results in net reduction in program expenses because there should be a greater reduction in the Transmission and Ancillary component).
 - ❖ Constraints on BPA's transmission system or transfer provider system requiring 3rd party transmission outside of a transfer service contract.
 - ❖ Conversion of Lost Creek Transmission Agreement with PacifiCorp to Open Access Transmission Tariff in FY09.



Transmission Acquisition Program

3rd Party Transmission & Ancillary Services Component

❖ Risks

- ❖ Level of transmission constraints and limitations over transfer service provider systems.
- ❖ Level of generation output, market price for real power losses.
- ❖ Level of transmission available from TBL to the California Oregon Border for sales delivered to California.

❖ Managing Costs

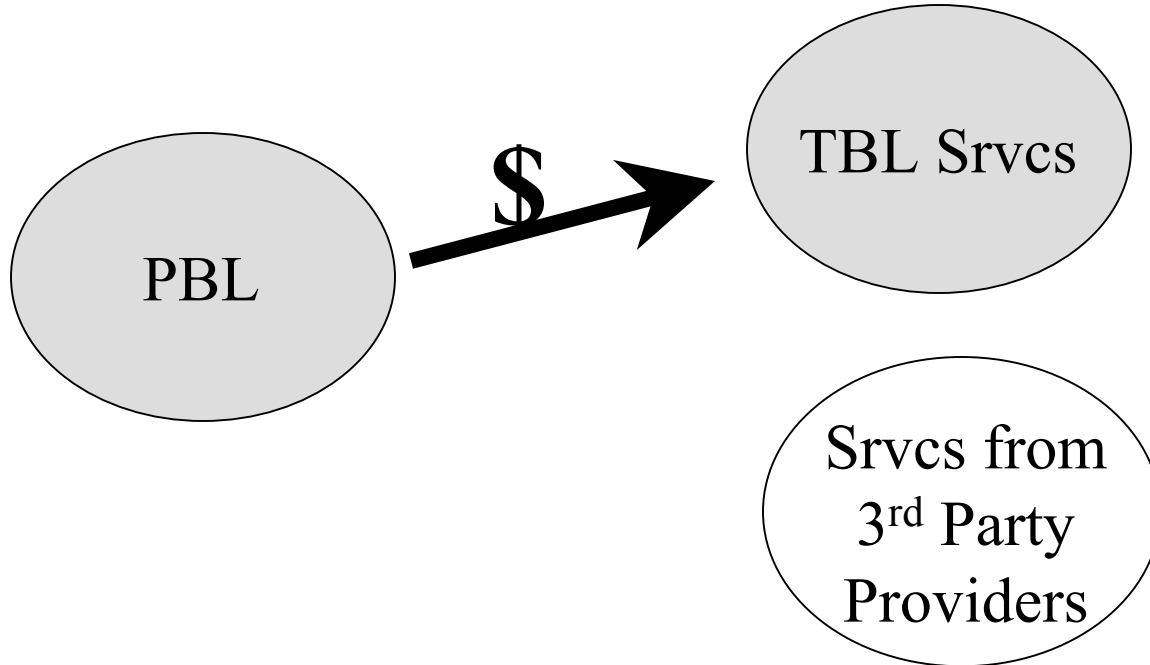
- ❖ Maintain staff expertise regarding re-routing alternatives during periods of transmission constraints.



Transmission Acquisition Program

Reserves and Other Services Component

Federal Generation Integration

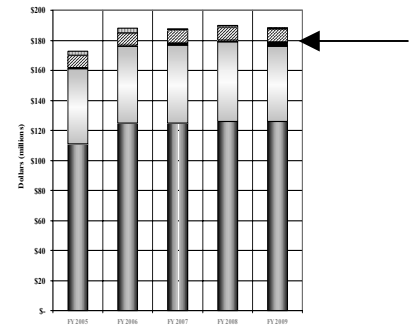




Transmission Acquisition Program

Reserves & Other Services Component

Federal Generation Integration



- ❖ The Generation Integration Component represent costs associated with BPA’s Transmission Business Line’s Generation Integration (GI) transmission segment.
- ❖ The Generation Integration (GI) segment is a transmission rate segment made up from transmission facilities between the generator and the Network station, including step-up transformers, power house lines or cables, and switching equipment at the Network station for the power house line.
- ❖ As of FY 02 –FY06 rate period, the GI segment has been functionalized to generation in conformance with FERC rulings. These costs were previously assigned to power rates when rates were bundled. The FY07-FY09 forecast assumes a continuation of GI being functionalized to generation.
- ❖ The costs billed to PBL by TBL are for the BPA-owned GI facilities. The GI segment costs associated with the US Army Corps of Engineers and Bureau of Reclamation transmission facilities and generator step-up (GSU) transformers are directly included in their generation costs.

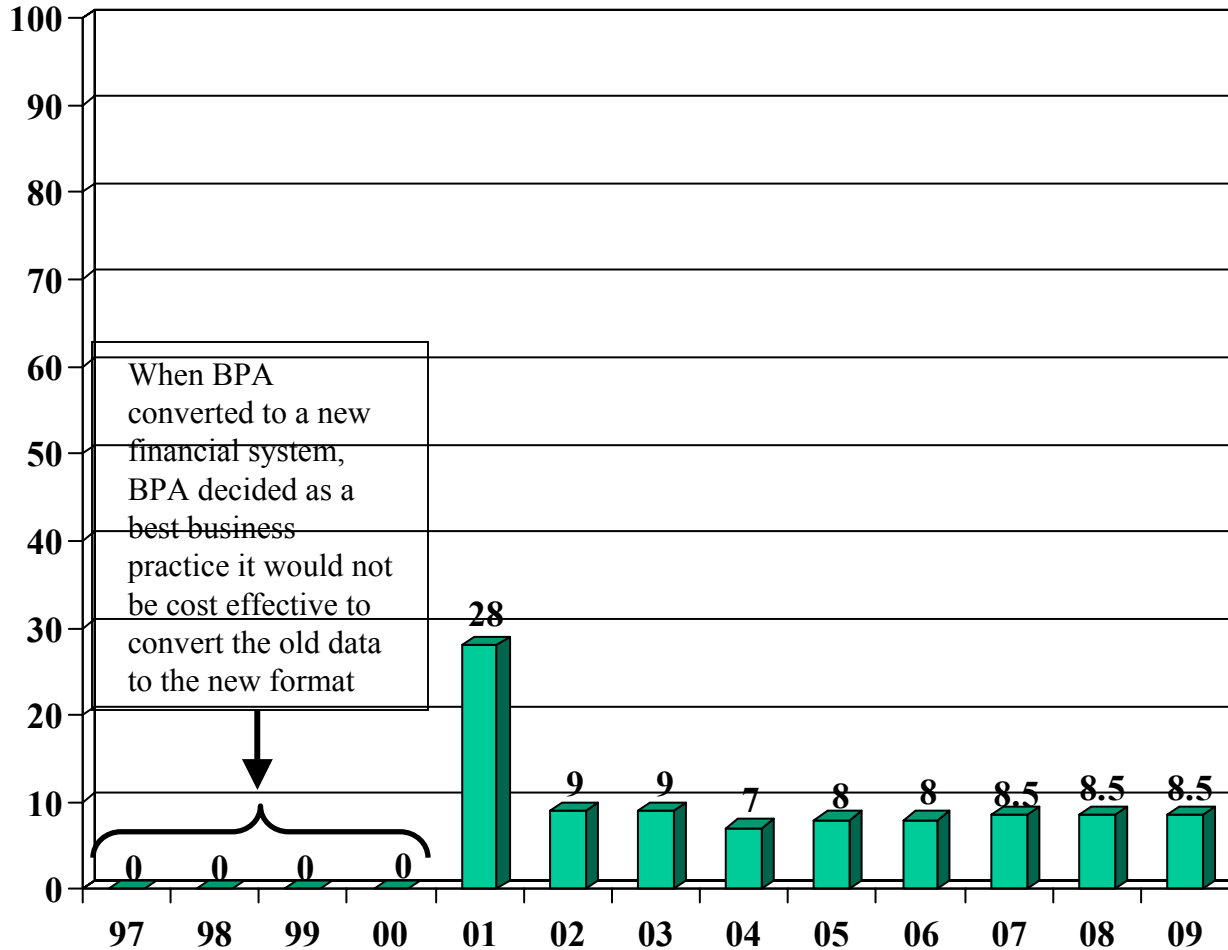


Transmission Acquisition Program

Reserves & Other Services Component

Federal Generation Integration

Million \$



When BPA converted to a new financial system, BPA decided as a best business practice it would not be cost effective to convert the old data to the new format

Reasons for Changes in expense levels over time

- ❖ Changes in investment and associated annual costs.



Transmission Acquisition Program

Reserves & Other Services Component

Federal Generation Integration

❖ Major Drivers of Change

- ❖ In setting rates for the period beginning October 1, 2001, BPA bifurcated its general rate proceeding into separate power and transmission rate proceedings. Costs associated with generation are assigned to the PBL.



Transmission Acquisition Program

Reserves & Other Services Component

Federal Generation Integration

❖ Risks

- ❖ Adding or replacing facilities to the segment.
- ❖ Higher inflation for O&M costs.

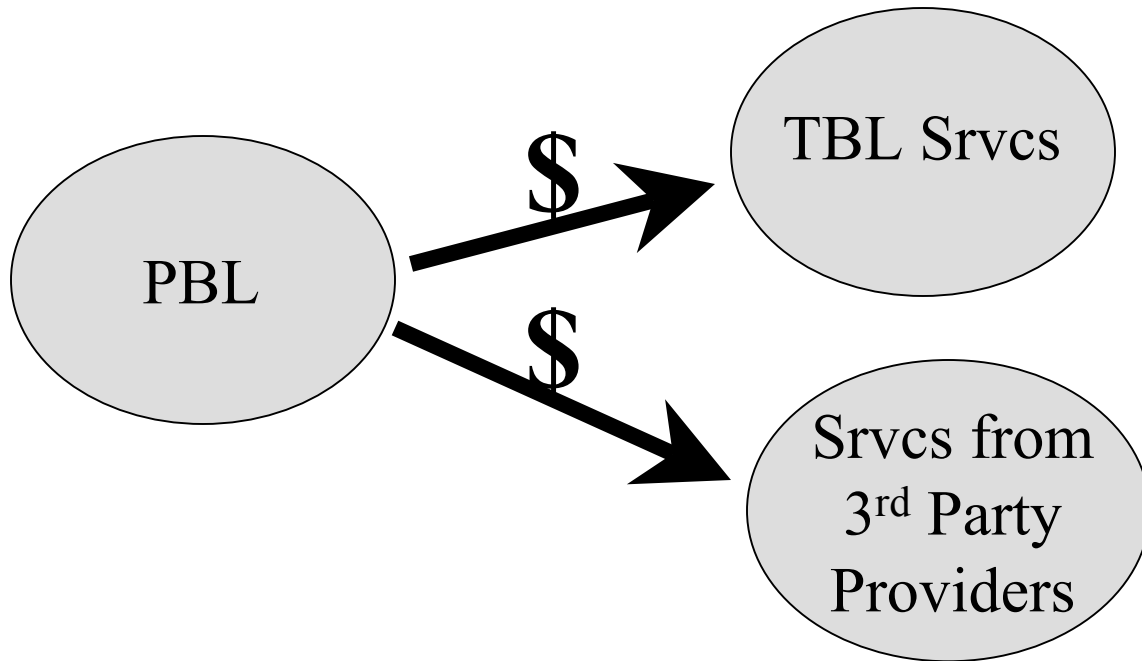
❖ Managing Costs

- ❖ Generation Integration costs are set in the TBL rate case, PBL does not have direct control over managing costs.



Transmission Acquisition Program

Telemetry/Equipment Replacement



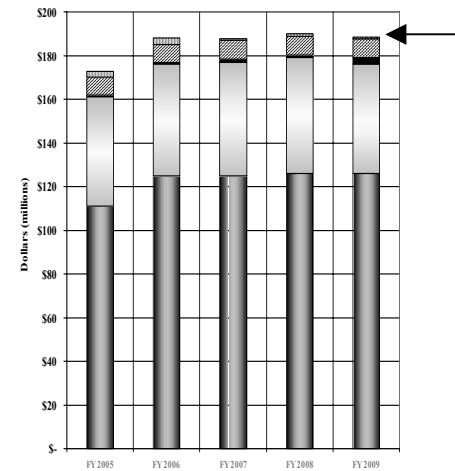


Transmission Acquisition Program

Telemetry/Equipment Replacement Component

- ❖ The metering, communications and TBL Engineering support component represent costs associated with
 - ❖ Installation of metering, telemetry, communications equipment & replacements and ongoing charges to meet increasing PBL business requirements for frequency and granularity of meter data.

- ❖ Major Drivers of Change
 - ❖ Industry moving towards a more granular reporting of transmission schedules than we have historically seen which will change our metering requirements.

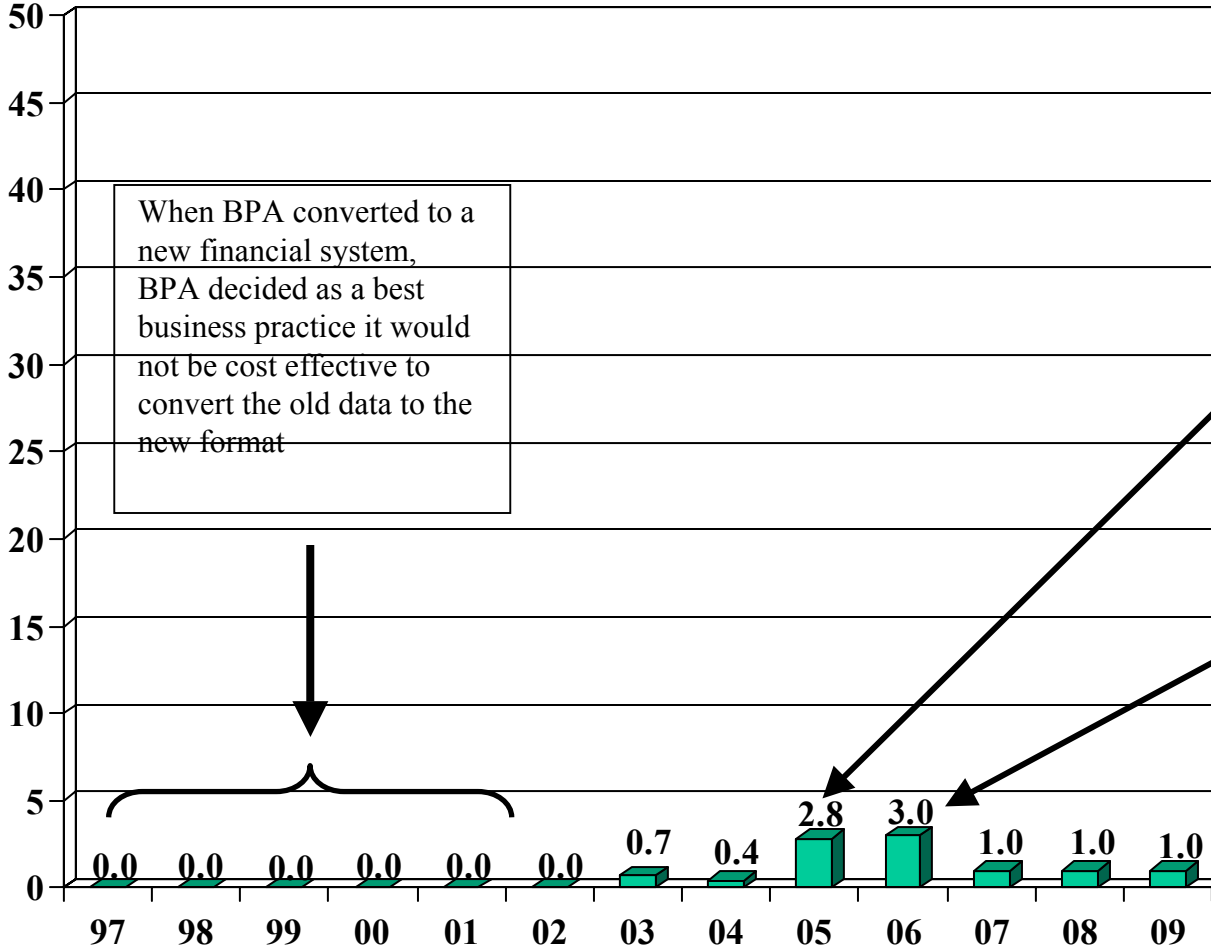




Transmission Acquisition Program

Telemetry/Equipment Replacement Component

Million \$



When BPA converted to a new financial system, BPA decided as a best business practice it would not be cost effective to convert the old data to the new format

This increase is due to the Tacoma Telemetry Project

FY 06 was based on additional metering/communications need to implement an RTO by FY07. Because of the delay of implementing an RTO this level of spending will most likely decrease and be moved out past FY09 if necessary



Transmission Acquisition Program

Telemetry/Equipment Replacement Component

❖ Risks

- ❖ Existing metering/communications equipment inadequate to meet increasing scheduling criteria set by transmission providers could cause financial exposure (i.e., energy imbalance charges).
- ❖ RTOs
- ❖ Control Area Consolidation
- ❖ Zonal Scheduling

❖ Managing Costs

- ❖ Collaboratively working with customers to develop plans of service, determine meter data needs, and identify mutually beneficial options.



Transmission Acquisition Program Wrap-up

- ❖ We hope after seeing our presentation you feel that we are achieving our primary goals of: (1) being good stewards of our transmission expenses by determining the least-cost mixture of long-term and short-term transmission products that can meet the needs of PBL's secondary energy marketing strategy and (2) meeting the Agency's transfer service obligation, while attempting to meet specific customer desires by having open communications between our customers regarding plans of services, metering needs, and long-term forecasts.
- ❖ We will always welcome your feedback regarding our program levels.

Thank you for taking the time to participate in this session.