




Bonneville Power Administration Process Improvement and Benchmarking Prioritization

July 13, 2004

KEMA






Contents

Management Observations

Areas for Improvement

- Departments tend to operate in silos and appear to be self contained
  - Operate Independently
  - Proliferate activities within silo
- Managed by Broad Outcomes, not underlying processes
  - Management by broad outcomes reduces incentive to continuously seek cost improvements
  - Tendency to focus on specific details as opposed to testing strategies and systems (i.e. lack of ability to do strategic tradeoffs)
- Observations show a culture reluctant to change
- BPA's desire to protect its personnel resources sometimes resulting in resources placed in activities for which they are not optimally qualified
- Manage by fire drills vs. resolve underlying process gaps

Management Observations

Areas of Excellence

- Hydro Optimization
- Pockets of Implementation in the right direction
  - ✓ Supply Chain
  - ✓ Power Business Line (PBL) Drivetrain that plans for legacy system removal
  - ✓ others

Looking at the Agency through a comparative lens yields the following observations….

- The current business line structure was designed for a different business environment – including significant deregulation and restructuring of the energy market.
- The current organization does not support BPA's evolving strategy in today's market – "One BPA."
- The multiple, redundant organizational units result in inefficient business processes and a higher cost structure.
- Unclear roles and responsibilities have resulted in complex decision making and accountability and unnecessary inclusiveness. Higher costs and less efficiency are the by-products.

Looking at the Agency through a comparative lens yields the following observations….

- BPA appears to do too much across a number of dimensions for its stakeholders than is appropriate for today's business conditions (e.g., customers, fish & wildlife, conservation, renewables, etc.).
  - More focused, performance-oriented strategies appear to be needed.
- Other organizations have worked through the Standards of Conduct issues to create robust business strategies and cost-effective organizations.
- BPA appears to be more highly staffed than is reasonable for today's environment, although a few areas seem to be understaffed. Large administrative process costs plus significant use of contractors only highlights this apparent overstaffing.






Recommendations & Roadmap

Recommendations Ranking Criteria






Recommendation	Impact	Feasibility	Data Qual.
Category 1: Organizational Impacts			
1 Performance & Process Management	■	□	■
2 Organization Design & Governance	■	⊡	■
3 Strategic Planning	■	⊡	■
4 Capital Allocation & Asset Management	■	⊡	⊡
5 Agency Offerings Portfolio	■	□	■
Category 2: Tactical			
6 Information Technology	■	⊡	■
7 Communications & Regional Relations	⊡	⊡	⊡
8 TBL: Plan, Design, Construct	⊡	■	⊡
9 Transmission Field Operations	⊡	⊡	⊡
10 Business Planning & Budgeting	⊡	■	⊡
11 Shared Service Model	⊡	⊡	■
12 Rates Strategy	■	⊡	□
13 Risk Management	⊡	□	□
Category 3: More Difficult or of Lower Value			
14 Energy Efficiency Program Management	□	⊡	□
15 Fish & Wildlife Program Management	□	⊡	□
16 Marketing & Sales	⊡	□	□
17 Audit	□	■	■
18 Human Resources	□	■	■
19 Supply Chain	□	⊡	⊡
20 Other Support Services	□	■	⊡
21 Hydro & Nuclear Operations	⊡	□	⊡
22 Finance & Accounting	□	□	⊡
23 Scheduling, Contracts & Billing/Settlement	□	□	⊡

Primarily “big themes” with broad organizational impact

Moderate value and somewhat more tactical. Possibly done even in the absence of broad strategic design

Tend to be of lower value or more difficult to achieve.

■ High Impact/Feasibility/Quality
⊡ Moderate Impact/Feasibility/Quality
□ Lower Impact/Feasibility/Quality

Recommendations, Category 1: Organizational Impacts






1. Performance and Process Management	▪ Move to more process-centric view of the agency ▪ Use Business Enterprise System (BES) to implement and manage by specific process ▪ Define high level processes more effectively
2. Organization Design and Governance	▪ Align organization with process-centric view to enhance ability to affect outcomes ▪ Ensure consistency with FERC Standards of Conduct and reduce conflicts with the Northwest Power Act (i.e., preferences) ▪ Governance should clearly define roles, accountability, responsibilities and decision making authority
3. Strategic Planning	▪ Continue the evolution towards a corporate driven strategic planning process ▪ Set corporate-driven targets for business unit planning ▪ Improve rigor and robustness of strategic planning and testing
4. Capital Allocation & Asset Management	▪ Continue with agency wide process for analyzing, proposing and competing for Agency resources - both financial and non-financial ▪ Tie TBL, PBL and other Agency efforts together by driving process from Corporate level
5. Agency Offerings Portfolio	▪ Balance Transmission Business Line offerings against cost and reliability ▪ Balance Power Business Line offerings against cost and risk ▪ Balance other Agency offerings against cost and commitments to mission ▪ Enhance ability to deliver offerings through improvements in front, middle and back office processes

Recommendations, Category 2: Tactical






6. Information Technology	▪ Aggressively pursue plans to identify and realize cost savings ▪ Drive toward more aggressive targets ▪ Align technology and business strategies
7. Communications & Regional Relations	▪ Redefine, strengthen and consolidate internal and external Communication functions and processes across business lines ▪ Foster a more strategic communications view
8. TBL: Plan, Design and Construct	▪ Improve work planning and schedule coordination ▪ Base major project budget estimates on preliminary engineering and environmental design review ▪ Standardize engineering designs to reduce inventory and increase cost savings. ▪ Balance planning and design criteria against cost and reliability
9. Transmission Field Services	▪ Re-balance all field crews against cost and reliability
10. Business Planning and Budgeting	▪ Standardize and automate the budget planning and reporting function. ▪ Reduce or re-deploy duplication in the business lines ▪ Enforce common reporting and accounting standards while supporting strong business line analytic capability
11. Shared Services	▪ Consider returning the shared service organization to critical mass and consolidating functions currently in the business lines ▪ Evaluate additional outsourcing, especially in Information Technology, financial systems, payroll, human resources and processing of accounting transactions
12. Rates Strategy	▪ Consider combining rate support functions across business lines, especially analytics, modeling, risk and budget, consistent with FERC Standards of Conduct ▪ Increase analytics in this function ▪ Balance rate strategy complexity with core customer's appetite for different rate structures ▪ Align rate structures and balance rate cycle to Agency Offerings Portfolio (#5)
13. Risk Management	▪ Implement Corporate Risk Policy, Risk Control Structure and reporting on risk to Executive Team as soon as possible

Recommendations, Category 3: More Difficult or Lower Value






14. Energy Efficiency Program Management	▪ Rationalize programs against supply options ▪ Rigorously approve programs formally each year using 5-Year economic useful life for evaluation purposes and utility yardstick of used, useful, prudent ▪ Improve and standardize program and contract administration
15. Fish and Wildlife Program Management	▪ Enhance program management to drive cost initiatives ▪ Balance Fish & Wildlife mandates against performance measures and standards ▪ Improve and standardize program and contract administration
16. Marketing & Sales Function	▪ Combine efforts in conformance with Agency Offerings Portfolio (#5) and FERC Standards of Conduct and reduce duplicative support
17. Audit	▪ Increase responsibilities and profile to increase control and reduce external audit costs
18. Human Resources	▪ Combine functions and reduce duplicative efforts
19. Supply Chain	▪ Continue implementation ▪ Add up- and downstream processes
20. Support Services	▪ Create modest savings through outsourcing/reductions
21. Hydro and Nuclear Operations	▪ Gain more control of 3rd party budget to effect cost savings ▪ Explore potential hydro automation ▪ Optimize maintenance schedules for nuclear plant more rigorously
22. Finance and Accounting	▪ Integrate and consolidate into Corporate ▪ Increase financial reporting clarity
23. Scheduling/ Contracting/Billings and Settlements	▪ Scheduling: Reduce redundancy in TBL/PBL support through cross-matrixing ▪ Contract Administration: Enforce terms and conditions in TBL; split from Billings and Settlement functions ▪ Billing and Settlements: Consolidate consistent with FERC Standards of Conduct

Recommendations Timeline






Recommendation	Months From Initiation of Change: 6	12	18	24	30	36	42
Category 1: Organizational Impacts							
1 Perfomance & Process Management							
2 Organization Design & Governance							
3 Strategic Planning							
4 Capital Allocation & Asset Management							
5 Agency Offerings Portfolio							
Category 2: Tactical							
6 Information Technology							
7 Communications & Regional Relations							
8 TBL: Plan, Design, Construct							
9 Transmission Field Operations							
10 Business Planning & Budgeting							
11 Shared Service Model							
12 Rates Strategy							
13 Risk Management							
Category 3: More Difficult or of Lower Value							
14 Energy Efficiency Program Management							
15 Fish & Wildlife Program Management							
16 Marketing & Sales							
17 Audit							
18 Human Resources							
19 Supply Chain							
20 Other Support Services							
21 Hydro & Nuclear Operations							
22 Finance & Accounting							
23 Scheduling, Contracts & Billing/Settlement							

Recommendations require several steps to complete. Major steps in the recommendation are dark gray.

Secondary or initial steps in light gray.

The duration of the recommendation is the sum of light and dark gray.

Legend: Initial or Secondary Steps to Implement
Major Steps to Implement






Category 1






Recommendation 1: Performance & Process Management

Move towards a more *process-centric* view of the agency. Following initial success in the business/product lines, release the projected value of the Business Enterprise System (BES) to implement and manage by specific processes. High-level processes at the Agency should be better defined.

Overview/Current Status

With some exceptions, BPA manages by departmental budget. While attention is given to performance measurement, “activities” are measured more than processes. In many instances it is difficult to benchmark BPA, either against others or against itself over time, since processes are not well characterized and data not collected.

Similarly, an informed decision on the impact of a cost reduction is often difficult to obtain due to the lack of a visible and readily available nexus between process performance and cost.

Note that much of the out-of-pocket investment required to implement Process Management (i.e., BES) has already been made, and the system is adequate to support widespread implementation.

Benchmarks

IOU’s have created a process view, especially in non-regulated business lines.
The cost of creating a system that creates process activity accounts and aligns reporting to those accounts has already been made (BES).

Recommendation 1: Performance & Process Management, continued

Timeline

1. Agree upon and finalize the list of top processes to be documented for improvement.
   - ✓ Document current state and optimize future state for these processes.
   - ✓ Identify and empower process owners.
2. Develop specific performance metrics and improvement timetables
3. Identify departmental overlap in coordination and processes and agree on the “most efficient” process
4. Rationalize non-core processes
5. Develop specific metrics tied to Agency strategic objectives for use in Balanced Scorecards

Duration ~ Ongoing
Major Steps ~ 12 months

Recommendation 2: Organization Design & Governance

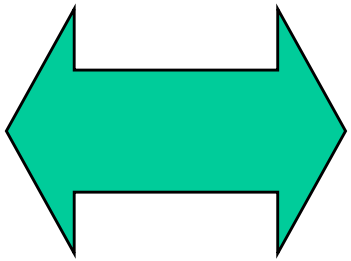
Align organization with *process-centric* view to enhance ability to affect outcomes. This redesign would institutionalize the results of Performance and Process Management at an appropriate level with appropriate guidelines, including consistency with Standards of Conduct and staff redeployment to a level needed to carry out the core business effort. BPA should reconcile conflict between open access requirements of FERC Standards of Conduct and Northwest Power Act requirements for public and regional preferences. Governance follows process and organizational design and demands explicit definition regarding roles, accountabilities, responsibilities and delegations of authority across the Agency.

Overview/Current Status

The current organization is complex and sub-optimal to the core mission, which presents significant opportunities for improvement. The current structure includes two separate business lines (PBL & TBL) together with multiple Corporate units. There are opportunities to increase value, reduce costs, improve efficiency, and build better organizations across a wide-range of key processes and organizations. Other energy organizations have simpler and more cost-effective designs that are consistent with Standards of Conduct. Since the the opportunities cut across the organization, there is a major advantage to looking holistically across BPA to redesign appropriately.

Organizational Change Driven through Process Design

- Transmission Field Operations
- TBL Plan, Build, Construct
- Nuclear maintenance optimization
- Hydro automation
- Project Management initiatives in F&W.
- Energy Efficiency



Organizational Change Driven through Consolidation

- Information Technology
- Rates Strategy
- Communications and Regional Relations
- Marketing & Sales Functions
- Audit
- Human Resources
- Supply Chain
- Finance & Accounting
- Risk Management
- Scheduling/ Contracts/ Billing & Settlement






Recommendation 2: Organization Design & Governance, continued

Benchmarks

Public companies are required to comply with Sarbanes/Oxley controls which includes third party approvals for governance structures. Of the top IOU's surveyed by KEMA, most have undergone cost reductions through organizational changes in the past ten years.

Timeline

1. Establish goals and objectives for BPA organization design effort.
2. Formulate process redesign, organization redesign, human resource and communications strategies and policies
   - ✓ Address Standards of Conduct issues
3. Redesign major BPA business processes at a sufficient level to drive organization design
4. Redesign the BPA organization to align processes
5. Implement redesigned processes and organization.
6. Set governance based upon process and organization.
7. As part of governance spell out roles and responsibilities and authorities commensurate with those roles and responsibilities.

Duration ~ 24 months
Major Steps ~ 6 months






Recommendation 3: Strategic Planning

Redefine and elevate the current strategic planning process. Set specific targets, expectations and objectives for business unit planning. Define the core mission. Improve rigor and robustness of strategic screening and testing.

Overview/Current Status

Planning is done with varying degrees of commitment, analysis, structure, and frequency across the agency. The Corporate Strategic Planning process is less formalized, routine, and well-funded than in comparable entities. Corporate Strategic Planning serves more as a facilitation team than a typical strategic planning function. However, several other parts of the organization dedicate significant resources to "strategic planning." The current collaborative process consolidates multiple points of view leading to a more general strategy with multiple dimensions. This creates difficulties in scenario analysis to assess policy impacts and tradeoffs in different strategies on the strategy map.

Process Basics

Approximate Annual Expense	$6,570,271
Approximate Annual Capital	$653,846
Approximate BPA Labor Cost	$545,364
Approximate Contractor Labor	0
Approximate Headcount	5 - 60
Number of Departments > $500k	3
Number of Departments > $50k	24

Unit	2003 $
POWER BUSINESS LINE	$3,081,006
TRANSMISSION VP & STAFF	$2,295,017
DEPUTY ADMINISTRATOR	$362,053
INDUSTRY RESTRUCTURING	$339,805
CHIEF OPERATING OFFICER	$270,693
EMPLOYEE & BUSINESS RESOURCES	$189,913
EXECUTIVE OFFICE	$23,290
GENERAL COUNSEL	$8,494






Recommendation 3: Strategic Planning, continued

Benchmarks

Benchmarked companies include both Investor Owned Utilities (IOU's) and energy concerns. Strategic Planning for those companies includes setting scenarios for analytical functions, determine major economic business drivers or assumptions to use, defining mission and aligning business line strategies to that mission.

Timeline

1. Define the questions and issues that Strategic Planning should address
   - ✓ Include specific targets and objectives for each planning entity.
2. Define objectives, scenario(s) for business planning models
3. Identify the primary processes and tools (note: Balanced Scorecard is not Strategic Planning)
4. Make Corporate Strategic Planning function the key provider of alternative and trade-off analysis for the Administrator

Duration ~ 24 months
Major Steps ~ 6 months






Recommendation 4: Capital Allocation & Asset Management

Continue improving the agency-wide process for analyzing, proposing, and competing for financial and non-financial resources. Encourage the Transmission Business Line (TBL) to initiate process design and documentation to gain immediate traction toward a broader Asset Management vision. Coordinate TBL Asset Management with Power Business Line's (PBL's) Hydro Optimization initiative.

Overview/Current Status

While the need to better manage the capital approval process has been recognized and the fiscal year 2005 Call process describes a suite of appropriate considerations, there remains considerable uncertainty in the application of these principles and skepticism about the allocation process. Concerns about the process include:

- Lack of a nexus between asset performance and funding
- Changes in assumptions about funding levels leads to uncertainties in the application of the system (if not potential breakdown).
- Lack of rigor around reliability and other trade-offs
- Lack of a balancing between O&M and Capital decisions
- Lack of a clear, actionable trade-off between projects and between non-financial objectives
- Uncertainty around the application of the Multi-Attribute Decision Process Framework, the Financial Screening Tool, and impact of potential iteration due to continued budget and rate case analysis.






Recommendation 4: Capital Allocation & Asset Management, continued

Benchmarks

In a group of comparably sized IOU's, all have begun or finished Asset Management programs to optimize generation, transmission, and/or distribution assets.

Timeline

1. Identify a common set of quantitative (where possible) allocation criteria
2. Set thresholds for participation, level of review, and timing
3. Prepare illustrative "Project Submission" book
4. Enforce exposition of project economics (proposed and achieved on previously approved projects) at a low dollar threshold
5. Require vigorous competition across all Business Lines and capital requests below a low level
6. Require major sponsor to submit project prioritization and funding curves for annual programs based on quantifiable trade-off analysis relative to allocation criteria.
7. Create dollar thresholds and periodic (6 month) schedule for executive review.

Duration ~ 24 months
Major Steps ~ 12 months






Recommendation 5: Agency Offerings Portfolio

BPA balances multiple, competing, priorities leading to a proliferation of different programs, products and offerings and terms and conditions.

- The Agency should balance Transmission Business Line offerings against cost and reliability.
- The Agency should balance Power Business Line offerings against cost and risk.
- The Agency should balance Corporate offerings against cost and commitments required.
- Enhance ability to deliver offerings through improvements in front, middle and back office processes

Overview/Current Status

- BPA's customers indicate low cost and reliability are key offerings
- BPA does not consistently manage the inter-dependence amongst programs
- BPA has established a regional dialogue with customers and identifies policy issues surrounding contract terms and conditions.
- Each customer identifies specific products of interest and BPA establishes terms and conditions such as:

Power Products
- Block Product
- Requirements (full & partial)
- Slice
- Over the Counter standard block
- Residential Exchange
- Reserves
- DSI Load following
- Real time balancing
- Unbundled Ancillary Services
- Special Canadian Reserves scheduling

Transmission Products
- OASIS
- Customized engineering
- Specialized billing terms
- Specialized contract terms
- Ancillary Services

Energy Efficiency
- 8 Categories
- Many programs






Recommendation 5: Agency Offerings Portfolio, continued

Benchmarks

- Public power offerings to customers are limited to one or a few contracts; requirements marketers offer a slate of products.
- IOU's tend to use OASIS to standardize transmission purchases/sales more frequently than does BPA.
- Trading centric companies tend to increase profitability by bundling and unbundling products to fit customers needs; including requirements contracts.
- Energy efficiency programs are balanced in supply portfolios.
- Programs not in strategic offering are outsourced.

Timeline

1. Determine which customers are primary focus
2. Determine which set of programs and products are desired most by those customers
3. Determine which product/program fits that class of customers
4. Detail marketing strategy to move to simplified product
5. Establish metrics and performance criteria relative to the plan

Duration ~ 24 months
Major Steps ~ 12 months






Category 2

Recommendation 6: Information Technology

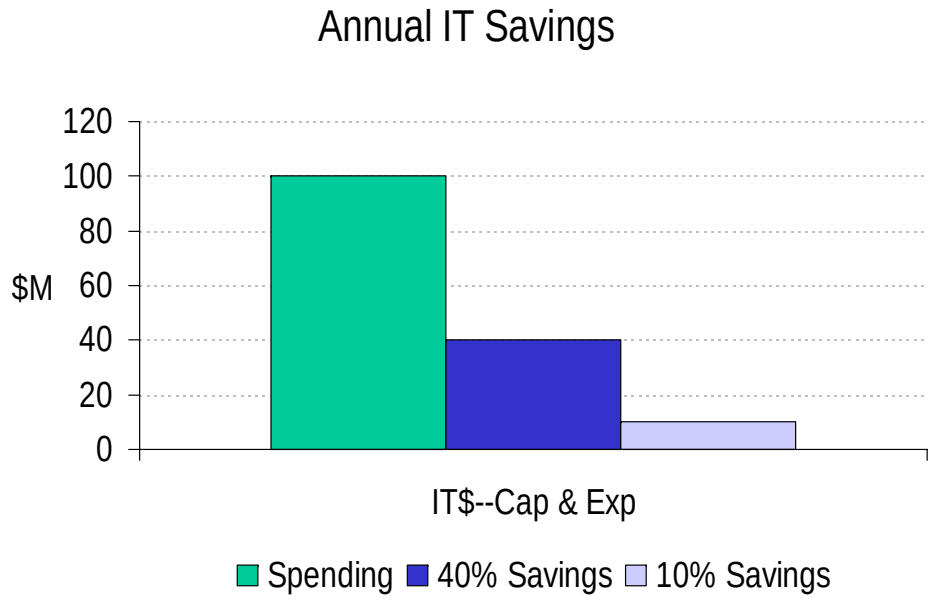
Accelerate plans to identify and realize cost savings from consolidation. Drive toward specific and more aggressive cost and performance targets. Align technology and business strategies in planning, pursuing and eliminating technology projects.

Overview/Current Status

BPA has identified a host of improvement opportunities for its IT organizations – governance; cost management; architecture and standards; project management; redundant functions, applications, and hardware; license management; and internal client partnerships. BPA has decided to consolidate its IT functions to improve performance and efficiency. Moreover, BPA wishes to make IT a "flagship" initiative in its process improvement efforts. However, BPA intends to gradually identify and achieve savings over a multi-year period. There are significant IT-related savings that BPA should capture sooner – ranging from 10 to 40% of annual IT spending.

Process Basics

Structure/Organization Units	■ 10+ units conduct IT-related activities
Spending	■ $100M+ annually ❖ $40M capital ❖ $60M expense
Headcounts	■ 475+ BFTEs and CFTEs








Recommendation 6: Information Technology, continued

Benchmarks

- BPA's spending & staffing 30-50% higher than benchmarked utilities
- Relative to others, BPA has more supported applications.

Timeline

1. Lay-out savings objectives upfront
2. Conduct and agency-wide needs assessment
3. Identify expected synergies
4. Redesign as a process-based organization
5. Consider outsourcing options
6. Develop plans to capture synergies

Duration ~ 12 months
Major Steps ~ 6 months






Recommendation 7: Communications and Regional Relations

Redefine, strengthen, and consolidate Communications functions (internal and external) and processes across all business lines (TBL, PBL, Fish & Wildlife, Energy Efficiency, Regional Relations, and Corporate) to enable more strategic messaging.

Overview/Current Status

Widely dispersed spend across all business lines, with perhaps less executive visibility (when compared to IOUs with significant communication departments). Illustrative functions and processes, included to varying degrees in Communications budgets, include:

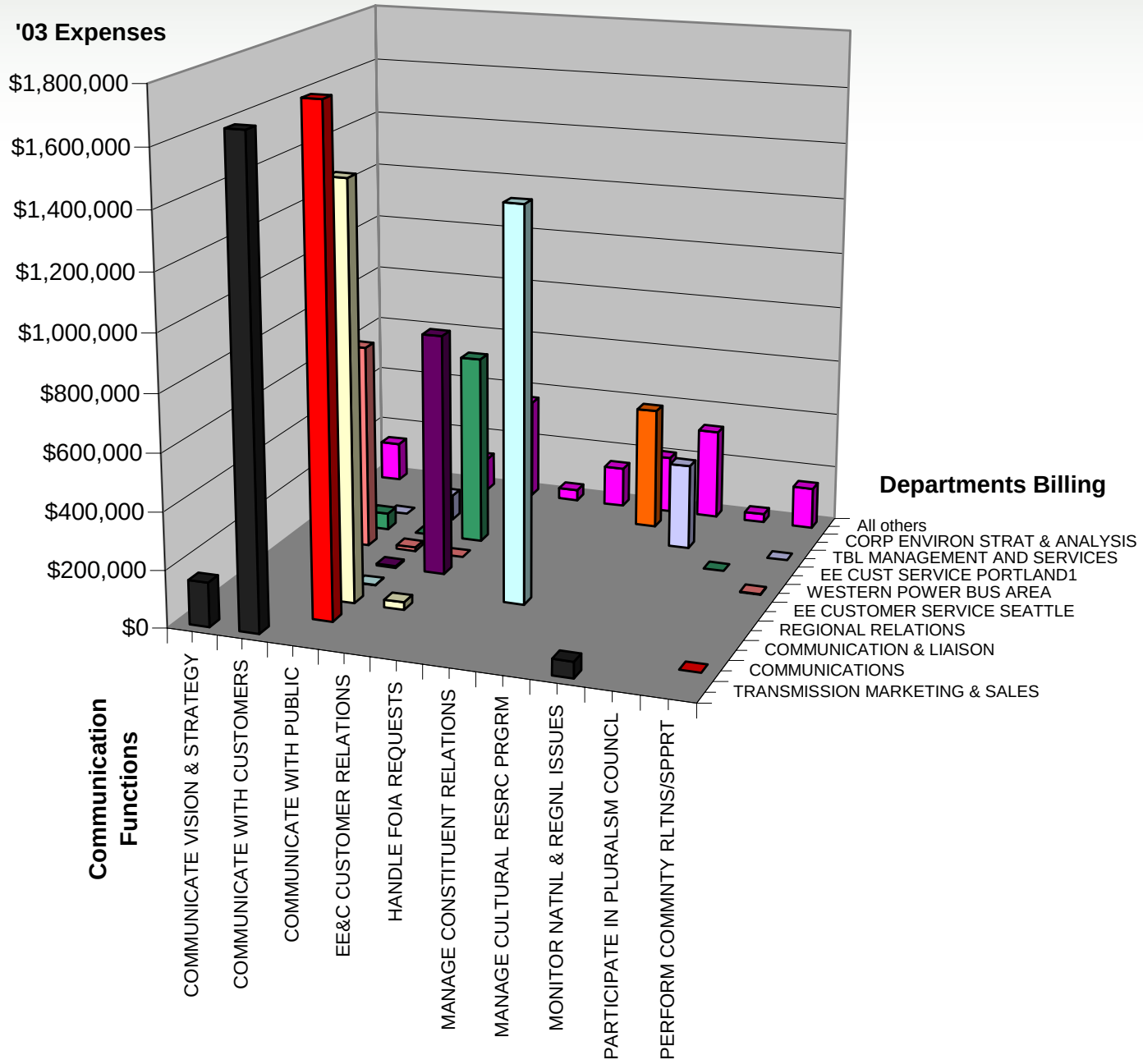
- Press Office
- Executive Talking Points
- Annual Report
- Constituent Outreach
- Public Affairs/Involvement
- Communication Strategy & Policy
- Graphics
- Web Site
- Branding
- FOIA Response
- Employee Communications
- Newsletters
- Tribal Relations
- Government/Congressional Relations
- PUC & NWPPC Relations
- AE Education & Management
- Community Relations

Process Basics

Approximate Annual Expense	$12,029,823
Approximate Annual Capital	0
Approximate BPA Labor Cost	$9,623,859
Approximate Contractor Labor	$300,000
Approximate Headcount	45
Number of Departments > $500k	9
Number of Departments > $50k	13

Recommendation 7: Communications and Regional Relations, continued

Dollars billed (Y-axis) by Department (X-axis) by Communication Activity (Z-axis)








Recommendation 7: Communications and Regional Relations, continued

Best Practices

BPA's constituency and customer base are much broader than comparable utilities. Using Oil and Gas entities and benchmarks, all major oil and gas companies have consolidated communications department which actively manages dialogues with international and community leaders. By driving communication messages from a strategic corporate view, few opportunities for improving image and messages are missed. Further, when disasters strike, communication is coordinated well.

Timeline

1. Define Communications as a strategic tool
2. Create short run and long run agenda
3. Detailed Communication process design
4. Detailed Communication skills inventory and organization design
5. Consolidate where possible
6. Add resources where appropriate
7. Establish Metrics & Goals

Duration ~ 6 months
Major Steps ~ 6 months






Recommendation 8: TBL Plan, Design, Construct

Improve work planning and improve schedule coordination. Major project budget estimates should be based upon preliminary engineering and environmental design review. Standardized engineering designs could reduce inventory and increase cost savings. Planning and design criteria should be balanced against cost and reliability.

Overview/Current Status

TBL budgeted cost estimates historically do not reconcile closely to actual costs incurred. In addition, there is only loose control over the actual costs of construction and maintenance for TBL projects. This has also lead to a proliferation of 'standard' designs (e.g. over 300 transmission tower types). Illustrative functions and processes include:

- Cost estimating/budgeting
- Project planning
- Project approval
- Engineering - project management
- Engineering - project support
- Field – construction
- Construction scheduling
- Supply chain
- Fleet - utilization & scheduling






Recommendation 8: TBL Plan, Design, Construct, continued

Benchmarks

- Engineering studies by J. Lewis, TVA, BC Hydro and Putnam Hays and Barlet.
- Capital projects are more closely tied to budgets, schedules, material costs and overtime.
- Most companies have adopted more sophisticated project tracking tools.

Timeline

1. Improve project selection and approval process
2. Greater use of standard designs & equipment
3. Improve year-1 and year-2 cost estimates
   - ✓ Add Engineering input
   - ✓ Add Environmental input
4. Provide Engineering with
   - ✓ Improved cost planning tools
   - ✓ Cost-control support staff
5. Enhance construction scheduling
6. Eliminate non-standard voltages and substation designs

Duration ~ 48 months
Major Steps ~ 24 months






Recommendation 9: Transmission Field Services

The number and staffing of field crews should be re-balanced against cost and reliability.

Overview/Current Status

The existing workforce is not optimally staffed and existing systems, processes and work rules tend to limit the flexibility of work crews. Major new and maintenance projects begin with Transmission Operations Planning (TOP) while smaller maintenance projects come directly from Field Services. Some projects may also come from Account Executives related to customer requests for special needs or direct billed projects at cost.

- Field construction
- Field maintenance
- Transmission circuits
- Transmission substations
- Communications

- Field coordinates
- Progress with Engineering
- Supply chain - materials acquisition
- Fleet - utilization & scheduling






Recommendation 9: Transmission Field Services, continued

Benchmarks

- Informal surveys of other West Coast Utilities and the internal ITOMS group show that BPA tends to support more crews than others with similar operations.
- External contractors are used more heavily at comparable utilities.

Timeline

1. Optimize work force (internal and external) size and flexibility
2. Identify BPA practices that need to change
3. Set full time equivalent targets for crews and regions
4. Develop succession plan consistent with targets
5. Where possible, implement crew reductions through attritions and personnel shifting

Duration ~ 48 months
Major Steps ~ 6 months






Recommendation 10: Business Planning and Budgeting

Standardize and automate the budget planning and reporting function. Reduce duplication in the business lines (while supporting strong business-line-based analytic capability) and enforce common reporting and accounting standards. Take advantage of the existing investment in the Business Enterprise System (BES) to facilitate planning.

Overview/Current Status

The current budget process is expensive and adds little value to the information. With some exceptions, the Corporate budgeting function is primarily to administer the addition of business line budgets. While efforts are being made, there is often inconsistency in the assumptions and techniques used to generate budgets. Additional attributes of the current process include:

- An excessive development period
- Frequent budget modifications during the process
- Acceptance of out of cycle budget modifications
- Disagreement between business line and corporate staff on appropriate budgeting approaches
- Lack of ready access to consistent current budget and YTD numbers
- Common use of “auxiliary” spreadsheets to develop budgets

The net effect is that budgets are in flux for an excessive period of time, are not universally perceived as “firm”, are often unclear as to the source and vintage of numbers and assumptions, and are not readily available for analysis and control.






Recommendation 10: Business Planning and Budgeting, continued

Benchmarks

- Most Investor Owned Utilities (IOU's)establish business plans using parameters supplied from a Corporate centered planning group. In this manner, all plan have consistent inputs.
- Most budgets from other IOU's have a set closing date well in advance of the start of the budget year. Once the budget is forecasted, it becomes locked with few changes except under unusual conditions.

Timeline

1. Limit cycle time
2. Establish targets early
3. Make amendments more difficult to obtain
4. Use common financial models/data where possible
5. Establish thresholds of significance for review by varying levels of management
6. Coordinate capital and expense across business lines
7. Integrate with rate case and asset allocation process, and TBL Plan, Design, Construct

Duration ~ 24 months
Major Steps ~ 6 months






Recommendation 11: Shared Service Model

Consider returning the shared service organization to critical mass and consolidating functions currently within the business lines. Addressed in part as individual recommendations elsewhere, the "repository" organization for these consolidated services should:

- Evaluate additional outsourcing, especially in the areas of IT, financial systems, payroll, HR, and processing accounting transactions
- Establish more effective pricing and cost-allocation structures
- Continue efforts to manage its accounts proactively

Overview/Current Status

The shared service organization, as a whole, performs relatively well under its own performance metrics and customer satisfaction surveys. However, this belies concern about the value of shared services in some quarters, and is not consistent with the migration of several traditional shared services to the business lines.

With duplication of certain functions (HR, facilities, and others addressed elsewhere herein) the Shared Services organization is hampered in reaching appropriate scale and standardization.

The appropriate pricing model for shared services is in debate, and the value of the service and of the customer's ability to manage cost is not always clear.

Benchmarks

Most utilities adopt shared services for cost savings; however, recently competition in quality has led shared services to compete with external providers.

Outsourcing is used less than in comparable organizations, in part due to BPA's unique requirements, the lack of good benchmarks, and BPA's employment agreements.

Recommendation 11: Shared Service Model, continued

Timeline

1. Reduction in autonomy of Business Lines (with commensurate commitments from Shared Services)
2. Quantify causal cost relationships and promote understanding and use of fixed/variable pricing structure
3. Invest in skill base, systems, and staff development programs within Shared Services
4. Reassess the allocations to the Business Lines
5. Develop sustainable metrics (self and external)
6. Continue/enhance account management
7. Outsource or prove “why not”
8. Coordinate capital and O&M spend across business areas
9. Integrate with rate case and asset allocation process, and Recommendation 8 (TBL Plan, Design, Construct)

Duration ~ 24 months
Major Steps ~ 6 months






Recommendation 12: Rates Strategy

BPA should consider consolidating rate functions across Transmission and Power, consistent with FERC Standards of Conduct. Power rates intervene with Transmission rate cases and sharing of transmission data with power is not allowed.

- Activities which can be combined include analytics, risk and budget.
- As more complex structures are offered, BPA should add staff and modeling capabilities.

The Agency should consider setting a rate strategy (composed of a rate structure and rate cycle) consistent with its power and transmission portfolio of offerings. This strategy should consistent of:

- A rate structure (tiered, fixed or flat, market indexed, CRAC adjustments) consistent and aligned with the Agency Offerings portfolio and consistent with a more simplified offering.

- A rate cycle consistent with simplified offering which allows customers to float with the market or obtain fixed rates that adjust regularly to market.

Overview & Current Status

Currently, the Power Business Line is on a five year rate cycle and has implemented an effective CRAC program to true-up rate to unanticipated costs. The CRAC is not favored by customers.
The Transmission Business Line has a separate two year cycle of rates in which the Power Business Line intervenes as user of transmission services.

Neither use standard assumptions in rate case and budget scenarios.

Recommendation 12: Rates Strategy, continued

Benchmarks

- Rate departments within most scale utilities tend to be corporate functions and are viewed by senior management as a strategic business tool.
- Most utilities have provided a simpler rate structure of fixed prices or prices that are indexed to market for their customers.
- The rate cycle of most utilities are set by economics at the company rather than a fixed time interval as used by BPA.
- Due to the importance of the rate strategy area, most companies devote their best analytics groups to this area to ensure success.

Timeline

1. Determine rate cycle consistent with Agency Offerings
2. Determine key processes associated with rate strategy
3. Determine capabilities current and required
4. Cross matrix capabilities across company
5. Determine rate structure aligned with Agency Offerings

Duration ~ 24 months
Major Steps ~ 18 months






Recommendation 13: Risk Management

Expedite the current program to:

- Implement Corporate Risk Policy Immediately
- Define and implement Corporate Risk Control environment
- Implement immediate reporting of risks to Executive Team

Overview/Current Status

BPA has two risk oversight groups:

- Transaction Risk Management Committee which checks forward prices and has Treasury Payment Probability measurement oversight.
- Enterprise Risk Management Committee is beginning with agenda items including member roles and defining Corporate Risk Policy.

BPA has taken 20 FTE from the business units to develop a corporate risk program.

Benchmarks

- IOU's have set up a Chief Risk Officer function which reports directly to the Board of Directors on impending risks and what are being done about them.
- Risk Managers usually set up Corporate Risk policies on the limits to risk taking at the corporation and provide for controls.
- Sarbanes/Oxley requires the CFO and Audit Committee to approve risk controls.






Recommendation 13: Risk Management, continued

Timeline

1. Determine roles for Risk Management including ownership of processes to identify and measure risk and ensure risks are managed.
2. Determine governance of risk management including reporting to COO and Administrator on impending major risks affecting BPA
3. Define Responsibilities:

   - Corporate Risk Policy
     - ✓ Risk Management structure at BPA
     - ✓ Risk Goal/tolerance
     - ✓ How Risk is managed
     - ✓ Tools used to manage risk
     - ✓ Authorizations for Risk Committees
   - Determination of High Priority Risks
   - Risk Metrics used in Capital Allocation, expense approvals
   - Risk dimension of Asset Optimization program
   - Reporting to COO and Administrator on how risk is to be managed in compliance with Committee of Sponsoring Organizations (COSO) (Australia/NZ model is a subset), Sarbanes/Oxley
   - Report to Third Parties on the management of risks at BPA including, but not limited to external auditors, ratings agencies and financial reporting section on risk.

Duration ~ 24 months
Major Steps ~ 6 months






Category 3






Recommendation 14: Energy Efficiency Program Management

Rationalize current programs against a supply portfolio. Formalize an annual approval program using five year economic useful life and utility yardsticks of used, useful and prudent. Streamline and standardize program and contract administration.

Overview/Current Status of Programs

- Low Income Weatherization is a supplement to Federal assistance program to help low income families to conserve energy.
- Conservation and Renewables Discount program is a 0.5 mill/KWh discount on the BPA firm power rate applied to qualified conservation measures, renewable expenditures and/or Research and Development (R&D) on renewables or conservation.
- Demand Exchange is a voluntarily load curtailment program.
- Conservation Augmentation program is the largest set of programs aimed at funding utility and third-party energy efficiency efforts.
- Market transformation program involves the encouragement of energy saving standards for building codes and practices including (Northwest Energy Act (NWEA).
- Federal Reimbursement includes rebates on federal programs.
- Energy Web is an R&D area promoting efforts to provide low energy using advice.
- Non-wires solution include TBL support efforts to test and defer scheduled transmission upgrades and construction (e.g., Olympic Peninsula efforts to gain 42 average MW dispatchable capacity).






Recommendation 14: Energy Efficiency Program Management, continued

Best Practices

- Used, Useful and Prudent utility programs as comparison
- Use a portfolio approach to balance energy efficiency programs against supply alternatives.
- Many utilities use a 5-year useful life for planning purposes

Timeline

1. Formal Annual Review of Program Economics is essential to cost effectively maintain programs
2. Balance in risk and economics of programs can be achieved through supply portfolio.
   - ✓ This may include regional differences in offerings
3. 5-year economic life will shorten time horizon and allow program adjustments for those exceeding or falling below expectations
4. By leading the Northwest Power Planning Council (NWPPC) initiatives, BPA can influence energy efficiency programs more effectively

Duration ~ 12 months

Major Steps ~ 6 months






Recommendation 15: Fish & Wildlife Program Management

The Agency should improve and standardize its program management and contract administration capabilities to drive cost initiatives. Further, BPA should balance its Fish & Wildlife mandates against performance measures and standards.

Overview/Current Status

Fish and Wildlife (FW) is a corporate function that is predominantly driven and shaped by forces outside of the Agency. This lack of explicit control over offerings and programs has created an environment where the Agency is limited in its ability to effectively control total program costs or performance.

F&W is currently driving a project management program that should help manage budgets better and highlight weaknesses associated with current program offerings. The scope of this initiative includes:

- Defining Fish & Wildlife requirements
  - ✓ NWPPC as part of the NWPA, ESA, Tribes
- Develop implementation plans
- Select projects
- Manage projects
- Evaluate cost and program effectiveness






Recommendation 15: Fish & Wildlife Program Management, continued

Best Practices

- Our experience, influenced by the private sector, suggests that companies and institutions aggressively pursue least-cost options for Fish & Wildlife mitigation.
- In general, firms strive to run public-related programs to provide benefit and value at an appropriate cost.

Timeline

1. BPA is pursuing a number of key Fish & Wildlife initiatives including:
   - ✓ BiOP Remand
   - ✓ Process redesign to improve contract and financial management of individual projects
2. Continue with project management redesign initiative; consider strategies to reduce costs through savings
3. Push cost-effectiveness appropriately in efforts to better define Fish & Wildlife obligations and strategies

Duration ~ 12 months
Major Steps ~ 6 months






Recommendation 16: Marketing & Sales Functions

BPA should consolidate and integrate silos and combine efforts consistent with FERC Standards of Conduct to reduce duplicative support. As part of this effort, Account Executives should be viewed as cross-functional and cross-organizational resources.

Overview/Current Status

PBL Requirements Marketing: (Public)

- Customer Contract Requests
- Regional Dialogue
- Standard Templates: Requirements, Block and Slice
- Record of Decision
- Evaluate Economics

TBL Marketing: (Transmission Services); Most transactors are cross-matrixed into other areas.

PBL Bulk Power Marketing Group (IOU's & Financial Traders):

- Determine Price Triggers for transaction
- Unbundle and rebundle transactions to buy and sell in market

PBL Energy Efficiency (All):

- React to Customer Request
- Determine Contracting, if necessary
- Approve Terms and Conditions

Process Basics

123 public customers, 8 IOU's, 16 DSI's, 6 Federal Agencies, 18 customers outside Pacific NW.

Each power, transmission and energy efficiency department operates in their own silo with minimal sharing of support.






Recommendation 16: Marketing & Sales Functions, continued

Benchmarks

- Most companies handle full range of energy efficiency, power and transmission marketing outcomes and support with fewer personnel and sharing of systems and resources.
- Usually marketing and sales is set up on trade-floor which is separated from the rest of the company in accordance with FERC standards of conduct issues. This allows sharing of contracting and analytics/risk personnel.

Timeline

1. Coordinate plan with recommendation #5, Agency Offerings Portfolio
2. Communicate plan with customer collaborative
3. PBL would need to train on energy efficiency and OASIS offerings
4. TBL would need to set up engineering and operations to handle requests from PBL as it would any other third party

Duration ~ 18 months

Major Steps ~ 6 months






Recommendation 17: Audit

BPA should increase responsibilities and profile of Internal Audit to increase controls and reduce external audit costs.

Overview/Current Status

- BPA is audited by Inspector General, General Accounting Office and External Auditors (currently Price Waterhouse/Coopers)
- Internal Audit is filing its first audit plan this year
- Internal Audit is determining level of participation with Enterprise Risk Management Group
- Internal Audit is determining whether COSO protocols is appropriate framework for audit.

Issues

- External Auditors do not materially interface with Internal Audit Group
- Audits are conducted at the request of VP's and not COO or Administrator
- Profile of Internal Audit across company is not high

Benchmarks

- Internal Audit is a cost effective way of reducing expenditures on controls
- Most companies reduce external audit spending by increasing the use of Internal Audit

Recommendation 17: Audit, continued

Timeline

1. To ensure cost cutting, Internal Audit should be the primary interface with external audit parties.
2. Ensure efficiency gains are made by increasing Audit responsibilities to audit process charts and budgets.
3. Audit should set Audit program based upon high priority risk mapping exercise conducted with Corporate Risk.
4. Audit should evaluate the effectiveness of control environment, business risk assessment and processes.
5. Audit should follow up to ensure that findings are addressed.
6. Conduct Activities independently of operations management and report to COO.

Duration ~ 18 months

Major Steps ~ 6 months






Recommendation 18: Human Resources

The Agency currently has a high-touch, largely manual organization. BPA should consolidate functions from business lines, pursue outsourcing of administration and support functions, where consistent with employee flexibility, and evaluate self-service and other web-based options. Develop benefits capture plan (re-staffing) for other recommendations herein.

Overview/Current Status

Business lines (Power, Transmission and Environment, Fish and Wildlife) all have separate human resource contacts that address individual issues within the Agency.

This “high touch” approach involves a high budget across various departments at the Agency.

Benchmarks

- Most companies have gone to automated human resource services such as benefits, payroll deductions
- Outsourcing is common for payroll questions and benefits
- Most major organizations tend to be more lean in HR overall, and generally are more centralized in the total HR function

Recommendation 18: Human Resources, continued

Timeline

1. Aggressively move towards a lower cost delivery model that appropriately balances personal service with effective service delivery
2. Proactively partner with all departments within the Agency to create a sustainable HR model that reinforces the emerging process-centric culture
3. Alter the department's focus from being administrator/formulator of human resources policy to being pragmatic and cost effective implementers (i.e, from following policy to leading the process re-structuring
   - ✓ This will require change in focus from running programs to setting up and driving process change.
4. Become change agent by adopting process management within employee structure.

Duration ~ 48 months

Major Steps ~ 6 months






Recommendation 19: Supply Chain

BPA has made excellent improvement in its limited utilization of supply chain to the Transmission Business Line and should consider broadening its use to add up- and downstream processes.

Current Process/Overview

BPA currently has used Activity Based Management (ABM) to identify procurement charges and cost allocations to its warehousing activities.

There are additional opportunities to expand the process to manage excess inventory, identify and map vendors and provide for e-procurement practices.

Benchmarks

Most utilities surveyed employ supply chains to better manage inventories.
Some utilities have created shared inventories to reduce holding charges.






Recommendation 19: Supply Chain, continued

Timeline

1. Investigate broadening current supply chain to other areas.
2. Increase communication with field services to improve delivery times
3. Reduce shipments to central facility rather than field site
4. Investigate outsourcing for common functions:
   - ✓ Contracting
   - ✓ Shared warehouse space
   - ✓ Emergency Services sharing

Duration ~ 24 months

Major Steps ~ 6 months






Recommendation 20: Other Support Services

There are a variety of cost savings measures available for outsourcing. KEMA examined those identified below as a potential for cost savings and noted whether costs, risks to the Agency or difficulty to implement would increase/be difficult (↑), decrease/be easy (↓) or be unaffected (- -).

Opportunity	Improvement Description	Criteria		
		Cost	Risk	Difficulty
Buildings; reduce space	Rationalize space with reorganization and SOC	↓	↓	--
Land (ROW)-sell or contract	Some contracting-out	↓	↓	↓
Fleet reductions	Continue fleet reduction	↓	↓	↑
High voltage lab reduction	No change	--	--	--
Printing & graphics	Outsource larger jobs	↓	↓	↓
Office supplies	Cut # of inventory items	↓	↓	↓






Recommendation 21: Hydro and Nuclear Operations

BPA should consider re-negotiating operating agreements to gain more control of third party budgets to effect cost savings. Unless the Corps of Engineers or Bureau of Reclamation can appreciate market conditions in the same manner of the Agency who has to sell power from the power units in the market place, cost effective changes will be difficult to administer.

Some of the Corps of Engineers units are candidates for potential hydro automation, which can reduce costs and provide efficiencies in the long run.

More rigorous maintenance schedule optimization for nuclear plants (in accordance with BPA's Hydro Optimization) could yield some minor benefits.

Overview/Current Status

- Hydro Assets are operated by Bureau of Reclamation and Army Corp of Engineers
  - ✓ Bureau and Corp have monthly formal meetings with BPA. Much groundwork is done outside meeting.
- Energy NW operation of Nuclear Plant
  - ✓ BPA can only "non-disapprove" the budget
  - ✓ 3 benchmarking studies with mixed O&M results
- Capital and O&M expenditures in BPA's budget do not get fully funded at Corp or Bureau.






Recommendation 21: Hydro & Nuclear Operations, continued)

Benchmarks

- Most utilities use cost controls to manage operating expenses as market conditions change.
- Utilize maintenance optimization to reduce base-load unit downtime

Timeline

1. BPA should gain control of O&M and capital budgets at Hydro & Nuclear units
   - ✓ High costs to re-negotiate operating agreement
   - ✓ Must renegotiate bond covenants
2. Hydro increased automation could be cost effective if timed with workforce attrition
3. Could achieve operation efficiency if more of Hydro capital budget is utilized by Bureau and Corps.
4. Consider aggressively pursuing alternative operating strategies to control overall budgets, including operations review by world-class nuclear operators (e.g., Exelon, Entergy, etc.)

Timeline ~ 48 months

Timeline ~ 24 months






Recommendation 22: Finance & Accounting

BPA should consider integrating and consolidating into finance and accounting functions currently in the business lines into corporate activities. This would lead to greater clarity in combining financial activities and provide for less internal debate time on Accounting principles.

Overview/Current Status

Each business line prepares financial data and has independent accounting and controls on data. The role of combining reports leads to confused and difficult to interpret financial reports. There is substantial debate regarding GAAP applications.

Major responsibilities include:

- Determine sources of capital and levels of debt for Corporate financings.
- Manage liquidity to meet projected operational and capital needs.
- Ensure that accounting practices follow appropriate standards.

Benchmarking

Almost all other utilities drive financial reporting and accounting practices from the corporate level.

- Most other companies drive accounting policy from the Corporate side with major decisions vested with a Controller or VP, Accounting.
- The Agency's primary source of credit is the Treasury with the notable exceptions of a sale and lease back of transmission assets and third-party financing; TVA and BC Hydro make more use of external financing.
- Customers have noted that individual business lines financial reporting does not easily coordinate well with financial reports.






Recommendation 22: Finance & Accounting, continued

Timeline

1. Consolidate accounting systems across business lines.
2. Consolidate financial reporting practices across business lines.
3. Create a more flexible, scalable and simple portfolio of financial systems including budgeting capabilities
4. Consider outsourcing the following functions:
   - ✓ Transaction processing
   - ✓ Adjustments to close
   - ✓ Reporting compliance
   - ✓ Adoption of special FAS statements
   - ✓ Oversight

Duration ~ 24 months

Major Steps ~ 6 months






Recommendation 23: Scheduling/Contracts & Billings-Settlement

- Scheduling: TBL/PBL redundancy in support can be reduced through cross-matrixing
- Contract Administration: Properly enforce tariff agreements and rules; split from Billings and Settlement functions
- Billing and Settlements: Consolidate consistent with FERC Standards of Conduct

Overview/Current Status

- PBL Scheduling & Support includes the following activities: Duty Scheduling next day and real time balancing, Technical Support for IT integration, GMS, hydro operations, Planning Water Issues, Columbia Vista, BiOps, Separate for Slice Contracts, Interfaces with Contracts & External, Support, Metering .
- PBL Billing and Settlement includes the following activities: Contract Administration & Analysis at the request of customer (which is most of the effort), Billing, Metering Analysis, Revenue Analysis.
- TBL Scheduling which manages Individual contracts on a large number of spreadsheets.
- TBL Metering separated by FERC Standards of Conduct and replicated at PBL.
- TBL Billing & Settlement also separate but similar tasks as PBL.

Improvement Areas

- Standards of Conduct not well understood by groups interviewed
- Duplicate responsibilities across TBL and PBL with different billing/settlement systems.
- PBL Billing and Settlement group primarily contracts administration
- TBL scheduling on highly manual operations.
- Scheduling functions are duplicated and not coordinated well.
- Metering analysis is duplicated

Recommendation 23: Scheduling/Contracts & Billings-Settlement, continued

Benchmarks

Most organizations have found a way to coordinate scheduling, contracts and billings/settlements group at the Corporate level.

Some scheduling and metering functions are not allowed to be combined to ensure that FERC Standards of Conduct are met.

Contracts and Billings & Settlements functions can usually be combined at the Corporate level.

Timeline

1. Begin process of combining systems prior to merger of groups
   - ✓ Will take some time to cross train and link systems in billing and settlement.
   - ✓ Legacy transmission contracts requiring specialized services will take a while to standardize.
2. Determine new Agency wide policy consistent with process led changes
3. Ensure training across each group
4. Have each group (scheduling, contracts, billing/settlement) meet to codify policy specific to their activities and cross-train.

Duration ~ 48 months

Major Steps ~ 12 months