

# STATE AUDITOR'S OFFICE PERFORMANCE AUDIT



## Mid-Columbia Public Utility Districts

May 19, 2010

**Report No. 1003384**



WASHINGTON  
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January 31, 2010

Mr. Brian Sonntag  
Washington State Auditor  
Washington State Auditor's Office  
3200 Capitol Blvd. S.W.  
Olympia, WA 98504-0031

Dear Mr. Sonntag:

This report presents the results of Thompson, Cobb, Bazilio & Associates (TCBA) work conducted to address the performance audit objectives relative to the three mid-Columbia Public Utility Districts. For this engagement, TCBA teamed with Huron Consulting Group (Huron). TCBA/Huron's work was performed during the period of September 10, 2008 through May 31, 2009. Our results are as of May 31, 2009.

TCBA/Huron conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that TCBA/Huron plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our issues and recommendations based on the audit objectives. TCBA/Huron believes that the evidence obtained provides a reasonable basis for our issues and recommendations based on the audit objectives.

This performance audit did not constitute an audit of financial statements in accordance with *Government Auditing Standards*. TCBA/Huron was not engaged to and did not render an opinion on the three Mid-Columbia PUD's internal controls over financial reporting or over financial management systems (for purposes of OMB's Circular No. A-127, *Financial Management Systems*, July 23, 1993, as revised). TCBA/Huron cautions that projecting the results of our evaluation to future periods is subject to the risk that controls may become inadequate or may deteriorate.

Sincerely,

*Thompson, Cobb, Bazilio & Associates, PC*

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# Chapter I

## Introduction

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### BACKGROUND

We audited three public utility districts:

- Chelan County Public Utility District (PUD)
- Douglas County PUD
- Grant County PUD

We refer to the three PUDs collectively as the mid-Columbia PUDs. The PUDs own and operate hydroelectric facilities on the Columbia River, and provide electric transmission and distribution services to residents of the three counties. Some of the three PUDs also provide water, wastewater and telecommunications services to residents of the three counties. This map shows all PUDs in Washington.



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## Introduction

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### OBJECTIVE, SCOPE, AND METHODOLOGY

The Washington State Auditor's Office retained TCBA/Huron to conduct a performance audit of the mid-Columbia PUDs. The objectives, scope and methodology of this audit follow.

#### Objectives

##### Initiative 900

In November 2005, Washington voters approved Initiative 900 (I-900), giving the State Auditor's Office the authority to conduct independent performance audits of government agencies on behalf of citizens. The objective of this performance audit encompasses the nine elements in I-900, as follows:

- Identification of cost savings
- Identification of services that can be reduced or eliminated
- Identification of programs or services that can be transferred to the private sector
- Analysis of gaps or overlaps in programs or services and recommendations to correct them
- Feasibility of pooling the entity's information technology systems
- Analysis of the roles and functions of the entity and recommendations to change or eliminate roles or functions
- Recommendations for statutory or regulatory changes that may be necessary for the entity to properly carry out its functions
- Analysis of the entity's performance data, performance measures, and self-assessment systems
- Identification of leading practices

Additionally, the State Auditor's Office identified specific objectives:

1. Assess the effectiveness of the Public Utility Districts at providing citizens:
  - Financial, performance and policy information that is useful, understandable and enables citizens to assess the Public Utility District's accountability across all services and operations
  - True and accurate project costs, project cost estimates, financing cost estimates and changes to the original scope for its construction projects
  - Sufficient notice of special and routine public meetings
  - Board meetings at a time and place that is convenient to citizens and accommodates folks with special needs
  - Requested public records in a prompt and cooperative manner

If not effective, what are the impacts on accountability and transparency and what can be done to correct them?

2. For the most recent three-year period, assess the extent to which the Public Utility Districts achieved effective, efficient, and economical planning, designing, and construction management (based on best practices) in order to:
  - Minimize all costs associated with their construction projects, including but not limited to engineering, land acquisition, environmental review, permitting, and construction

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- Minimize unnecessary change orders and delays that result in extra costs
- Keep projects on schedule
- Minimize risk by identifying it, eliminating it, minimizing it or sharing it with the contractor through good contract terms and contractor management
- Obtain the best quality, timeliness and value

If not effective, efficient and economical, what are the impacts over past and future periods and what can be done to address those impacts?

3. Determine how effective the PUDs have been at soliciting, procuring, and managing their engineering, consulting, and construction management contracts in order to maximize the value and quality of services provided.

If not effective, what are the impacts over past and future periods and what can be done to address those impacts?

4. Determine how economically and efficiently PUDs have managed administrative operations, administrative costs, administrative salaries, travel and administrative staffing levels. Determine how effectively Public Utility Districts have managed administrative services performed by contract.

If not economical and efficient or effective, what are the impacts over past and future periods and what can be done to address those impacts?

5. Determine how efficiently and economically PUDs have managed operational expenses (includes operational costs associated with power generation, power transmission, facilities and power-lines, as applicable).

If not efficient and economical and effective, what are the impacts over past and future periods and what can be done to address those impacts?

### **Scope**

The scope of the audit included the Chelan County PUD, Douglas County PUD and Grant County PUD from January 1, 2006 through December 31, 2008. However, TCBA/Huron focused on policies, procedures and practices in place at the time of the audit where appropriate for the specific objectives of this audit as listed above.

The first phase of this performance audit was the survey phase. During this phase, TCBA/Huron comprehensively reviewed the operations of the PUDs to identify risks and opportunities to be pursued during the audit phase of this engagement. The survey phase results of the audit were reviewed with the State Auditor's Office project management team. As a result, the fieldwork phase of the performance audit focused on the following areas:

#### Governance and Organization Management

- Governance
- Strategic Planning
- Performance Measurement
- Organization Structure

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- Human Resource Management

### Operations

- Labor optimization
- Asset Management

### Contract Management

- Architectural & Engineering Firm Contracts
- Construction Change Orders

### Procurement

- Inventory Levels
- Purchase Card Use
- Strategic Procurement

### Cooperative Shared Services

- Selected functions

### Fiber Network (Grant County PUD only)

- Business planning

## **Methodology**

This performance audit was conducted in accordance with generally accepted government auditing standards (GAGAS) as promulgated by the U.S. Government Accountability Office (GAO). Those standards require us to plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our issues and recommendations based on the audit objectives. TCBA/Huron Consulting believes that the evidence obtained provides a reasonable basis for our findings and recommendations based on the audit objectives.

TCBA/Huron planned and conducted this performance audit in three phases. The following is a brief description of each phase and the tasks and activities performed therein.

### *Phase I*

During the Planning and Survey Phase, TCBA/Huron obtained information about the nature, purpose, and scope of the three PUDs. This was accomplished through interviews, site inspections, and the collection, review, and synthesis of relevant background material. TCBA/Huron also reviewed the results of recent audits completed by the three PUDs external auditors as well as audits completed by the SAO to ascertain the status of implementation of the recommendations contained within such audits. The scope of this work included all areas identified as objectives of the audit.

TCBA/Huron then evaluated the results of the work completed, identified risks of fraud and abuse, developed a matrix in which the risks and opportunities by task area were prioritized giving consideration to systems of internal controls relevant to audit objectives, and proposed a work plan which prioritized our Phase II fieldwork activities according to the magnitude of the perceived risks, thereby promoting audit effectiveness for the remainder of the audit as well as addressing those issues

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considered to present the greatest opportunity for cost savings consistent with the objectives of Initiative 900.

The results of this risk assessment served as the basis for the following fieldwork and analysis activities.

### *Phase II*

During the Audit Fieldwork and Analysis Phase, TCBA/Huron performed inquiries, substantive testing, analytic procedures, and other techniques to develop the high priority issues as identified during the Phase I planning and survey phase. These activities included:

- Analyzing business processes and practices
- Comparing processes and practices to best practices, as required
- Reviewing comparative analysis data
- Performing cost analyses
- Performing organizational analysis

### *Phase III*

During the Data Verification and Report Writing Phase, TCBA/Huron prepared draft findings and recommendations, and reviewed these findings and recommendations with the SAO and three PUD's management.

### **Evaluation Criteria**

- According to Chapter 7.28 of Government Auditing Standards:  
*“Criteria are the standards, measures, expectations of what should exist, best practices, and benchmarks against which performance is compared or evaluated. Criteria provide a context for understanding the results of the audit”*
- For the purposes of this audit, the following criteria were utilized:
  - TCBA/Huron's knowledge of leading industry practices for electric utilities and public agencies, based upon the firm's experience in conducting performance audits and other engagements for entities similar in size, scope, and nature of operations
  - Governing laws and regulations, including the Revised Code of Washington (RCW)

### **Overview of Washington State Public Utility Districts**

Washington's first initiative to the Legislature, approved in 1930, gave citizens of each county the right to form a public utility district to bring electricity to parts of the state not served by private power companies (RCW 54).

In Washington, 28 PUDs operate in 27 counties; 23 provide electricity, 19 provide water or water and wastewater services and 13 offer wholesale broadband telecommunications. PUDs provide more than 80 percent of their power from hydroelectricity; eight PUDs own and operate hydroelectric facilities.

In 2007, the PUDs provided utility service to more than 900,000 electric customers, 120,000 water customers and 14,000 telecommunications customers. Electric customers generated \$1.6 billion in retail

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revenue in 2007, almost one-half from sales to residential customers. In addition, the PUDs had electricity sales for resale (i.e., wholesale sales) of \$471 million in 2007. On average, residential customers consumed 14,904 kilowatt hours (kWh) supplied by the PUDs at an average cost of \$0.0662 per kWh. Revenue from water customers totaled \$53.7 million.

The PUDs are nonprofit public utilities that unlike investor-owned utilities do not pay dividends to their owners or federal income taxes. Each PUD is governed by an elected Board, which sets policy and establishes rates. Commissioners serve four or six-year terms; PUD boards may be made up of three to five Commissioners. In addition, each PUD has:

- A manager and staff who operate the PUD
- Open meetings, in which members of the public can observe and participate in decisions made by the PUD Board of Commissioners
- Utility rates based on the cost of service
- Conservation programs
- Community involvement. PUDs offer their facilities for public meetings; help low-income citizens pay utility bills or weatherize their homes; and pay taxes

The mid-Columbia PUDs charge among the lowest energy rates in the nation because of their low-cost power source and excess power generated. The three PUDs' dams, which reside on the Columbia River, produce power that greatly exceeds local needs.

Each mid-Columbia PUD has entered into long-term power sales contracts for this surplus power. The mid-Columbia PUDs sell surplus power (some of which may be sold at market prices) and use the net proceeds to reduce charges to their customers, as applicable. Selling surplus power is one reason the PUDs have been able to build up large cash reserves (**see Exhibit I- 4**).

### **Why we did the audit**

This performance audit was conducted on behalf of the citizens of Chelan, Douglas and Grant counties to identify opportunities to minimize future utility rate increases through potential cost reductions and improvements in the management and operations of the mid-Columbia PUDs.

### **What we found**

We identified several opportunities to improve the management and operations of the mid-Columbia PUDs and to reduce their costs. These opportunities were found in the following areas:

- Governance and strategic planning (Douglas and Grant)
- Performance measurement (Douglas)
- Contracts for construction, goods and services (Chelan, Douglas and Grant)
- Span of control (Chelan, Douglas and Grant)
- Line crew operations (Chelan, Douglas and Grant)
- Asset management (Douglas and Grant)
- General and administrative functions (Chelan, Douglas and Grant)
- Analysis and forecasting related to the expansion of fiber optic services (Grant)

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### **Our overarching recommendations**

In order to fully realize these opportunities:

- The three PUDs will need to work in partnership to leverage their purchasing power and operational efficiencies
- Each PUD will need to adopt policies, procedures and practices or revise those they already have
- Good strategic planning and governance should help the three PUDs address the findings in this report and improve performance in other areas too
- The state Legislature will need to revise state laws that require all line work over \$150,000 to be performed by contract

### **Overview of the Mid-Columbia PUDs (Chelan, Douglas and Grant County PUDs)**

Chelan County, Douglas County and Grant County PUDs own and operate hydroelectric facilities on 118 miles of the Columbia River in Central Washington, referred to as the “Mid-Columbia.”

As of December 31, 2007, the three PUDs’ retail electric customers numbered:

- Chelan: 45,311
- Douglas: 17,719
- Grant: 43,754

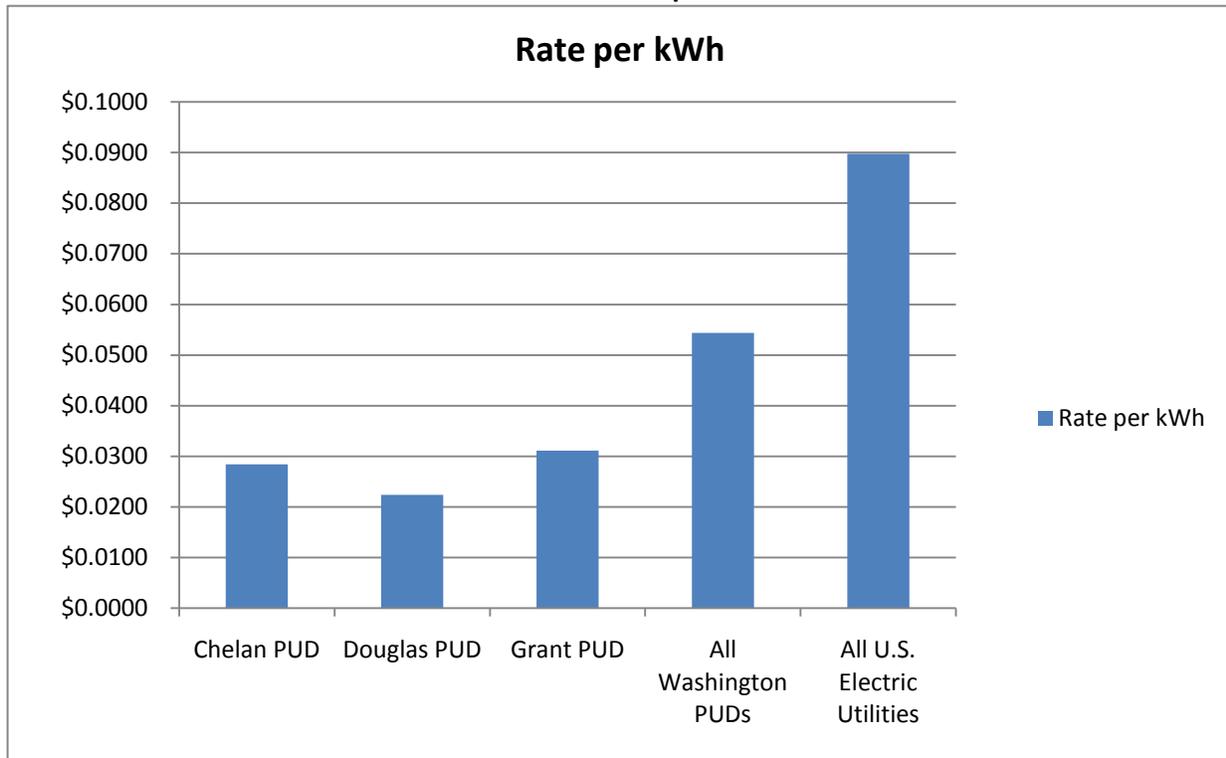
For comparative purposes, only two of the three PUDs that provide electricity in Washington have substantially more customers than Chelan County PUD:

- Clark County: 178,591
- Snohomish: 312,767

The PUDs’ rates are significantly below the average of all other Washington PUDs and all electric utilities in the United States (**Exhibit I-1**).

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**Exhibit I-1  
2007 Rate Comparison**



In particular, Douglas County PUD has the lowest retail electric rates in the United States, excluding federally owned facilities. The PUDs' low rates are largely driven by the low cost of hydroelectric power and the PUDs' sale of surplus power to wholesale customers (i.e., Puget Sound Energy, Avista, etc).

**Exhibit 1-2** presents information on the hydroelectric facilities owned and operated by the three PUDs. In 2007, the power and energy generated by the Mid-Columbia PUDs' hydroelectric facilities represented approximately 94 percent of hydroelectric power of all PUDs in Washington.

**Exhibit I-2  
Mid-Columbia PUDs Hydro Facilities**

Hydro Facility	PUD	Year in Service	Capacity	Net Generation (MWH) (2008)
Rocky Reach	Chelan	1961	1,300 MW	5,564,000
Rock Island	Chelan	1933	624 MW	2,721,000
Wells Project	Douglas	1967	840 MW	3,966,978
Wanapum	Grant	1963	1,038 MW	4,744,701
Priest Rapids	Grant	1959	956 MW	4,650,260

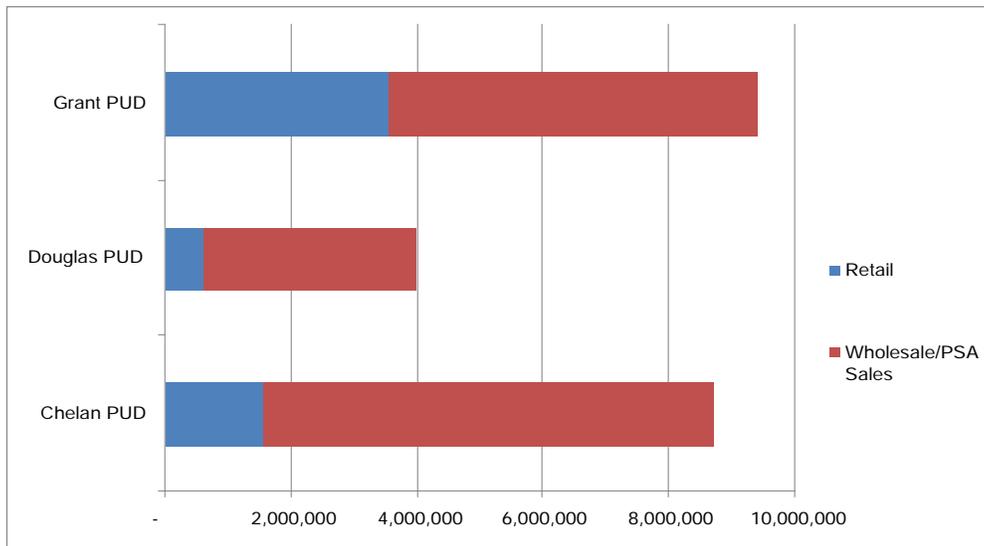
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On average, the three PUDs sell approximately 70 percent of their power to other utilities. **Exhibit I-3** shows retail sales compared to wholesale/power sales agreement (PSA) sales. Due to the timing of retail demand, power sales contract limitations and available production from the PUDs hydroelectric facilities, some retail demand was met through power purchases from other sources. Net generation not used for retail sales is sold to other utilities at cost or market depending on contractual agreements.

**Exhibit I-3**  
**Retail Sales Compared to Wholesale/PSA Sales (approx.) (MWH) (2008)**

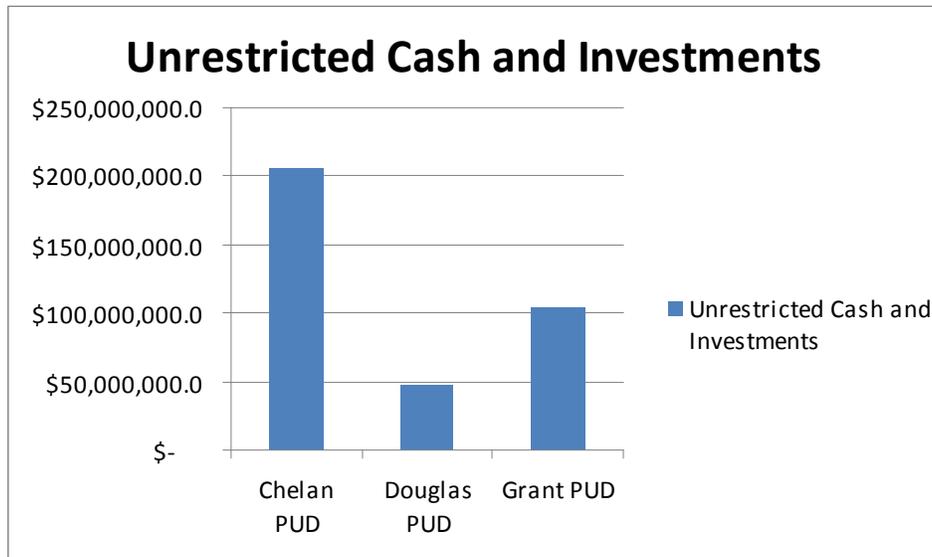


The Mid-Columbia PUDs generally are in good financial health with significant cash reserves.

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**Exhibit I-4**  
**Unrestricted Cash and Investments**  
**At December 31, 2008**



## Chapter II Shared Services

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**Issue No. 1: The Mid-Columbia PUDs have an opportunity to share additional service to reduce costs and improve operations.**

### **Background**

#### **Experience and legislation around shared services in Washington**

The Municipal Research and Services Center and Association of Washington Cities have published instructions for how to share services at the local government level.

The Association published a manual in 2006 called “Forming Successful Partnerships – A Practical Guide for Local Government.” It includes “**10 Good Reasons for Service Partnerships**”:

1. Improve Services
2. Increase affordability
3. Reduce costs
4. Gain economies of scale
5. Share specialized equipment and personnel
6. Solve common problems without changing the basic structure of local government
7. Achieve a closer match between revenues, service delivery and the geographic service area
8. Reduce liability
9. Heighten cooperation
10. Retain local control over service delivery

On February 10, 2009, Governor Gregoire issued a directive on shared services as a component of her government reform package.

*“Other states and private sector organizations have achieved significant benefits through the use of shared services – the practice of having a single group provide back-office administrative services or customer-facing activities for multiple agencies or departments. Sharing administrative functions between agencies will allow [state agencies] to focus on core missions of providing essential services to Washingtonians.”*

The Governor’s directive specifically calls for consolidating lines of business in the areas of information technology, fleet management, property management and human resources.

Washington state law also encourages the use of cooperative arrangements to increase efficiencies. According to the Municipal Research and Services Center: “The Interlocal Cooperation Act (Ch. 39.34 RCW) contains a broad authorization for [municipalities] to contract with any one or more other public agencies to perform any governmental activity or service which each agency is authorized by law to perform individually.” This means the Mid-Columbia PUDs may contract with one another.

#### **How characteristics of the Mid-Columbia PUDs make shared services promising**

The Mid-Columbia PUDs have many of the characteristics commonly in place in public sector and private sector organizations that share administrative services, such as:

- Being part of the same industry

## Chapter II Shared Services

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- Provide many of the same products and services to end-user customers
- Have internal support groups handling many similar administrative work functions
- Use many of the same or similar vendors
- Have similar bargaining unit arrangements (some sections of the contracts are negotiated jointly among several Washington State PUDs)
- Share benefit plans and administration (Grant and Douglas County PUDs currently share plans with other Washington PUDs)
- Have oversight bodies with similar responsibilities and statutory requirements; and
- Have an affiliation with a common entity (in this case, the State of Washington)

### **Duplicated services at the PUDs**

Each of the three mid-Columbia Public Utility Districts has administrative or support services, such as customer service, human resources, fleet management, facilities management, information technology, safety, security, external affairs, office services, internal audit, legal and financial management.

### **Condition**

Although the Mid-Columbia PUDs already participate in a number of shared activities, some of which are shown below, the PUDs have additional opportunities for cost savings and improved operations through the expanded use of shared services.

### **Examples of Shared Services In Use at Grant, Chelan and Douglas County PUDs**

- Training (use of common facilities and instruction)
- Union contract negotiation (common negotiations, language and attorney provisions for contracts)
- IT system knowledge sharing for existing and new technologies
- Surplus vehicle auctions
- Transfer or sale of inventory items as needed
- Control area and power scheduling
- Energy conservation (advertising and other programs)
- Use of state of Washington contracts (bid process) for procurement of selected items

### **Typical shared services NOT in use at Grant, Chelan and Douglas County PUDs**

- Insurance/risk management
- Information services/technology (software, support staff, data centers and equipment purchases)
- Real estate and facilities
- Purchasing and procurement

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### Cause

While the Mid-Columbia PUDs have realized benefits through their current collaborative efforts, they have not comprehensively evaluated all opportunities for shared services for the following reasons:

- Different governing boards and governance practices
- Incompatible IT systems
- Different work rules
  - Union contracts, and
  - Other policies and procedures
- Different wage and benefit programs
- Different goals, objectives, and performance standards
- Different work processes and
- Different cultures

### Criteria

Many investor-owned utilities have experienced success with shared services. Many affiliated investor owned utilities have streamlined operations and increased efficiencies through the use of common administrative services. These services are provided to all divisions or operating companies by a single shared services organization. The types of shared services provided by these organizations commonly include, but are not limited to the following:

- Building (facilities) management
- Information services/Technology
- Purchasing and procurement
- Real estate
- Insurance / Risk management
- Fleet maintenance

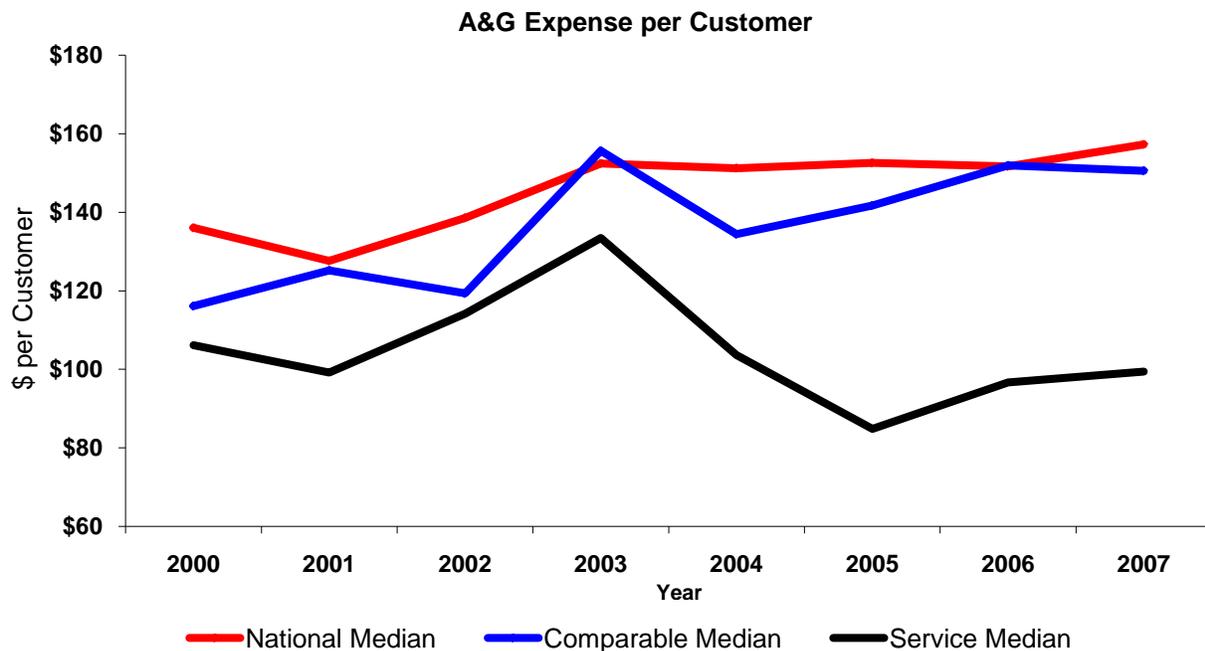
In some cases the individual utilities are located in the same state or geographic region; in other cases the utilities are located across large portions of the United States.

Most of the expenses associated with the areas identified above fall into the administrative and general (A&G) expense category. As shown in **Exhibit II-1** below, investor owned utilities of a size comparable to the three PUDs that have support services provided cooperatively have achieved significant cost efficiencies when compared to their peers. A&G costs were \$151 per customer in 2007, on average, for all utilities included in the analysis and only \$99 per customer for those utilities that received at least some administrative services from a services company or similar organization, a difference of 34 percent.

In this exhibit, “**National**” refers to all electric utilities in the United States, “**Comparable**” refers to those electric utilities of a comparable size based on numbers of customers, and “**Service**” refers to those utilities included in the “comparable” group that have support services provided by a shared services organization.

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Exhibit II-1



Source: SNL Financial database, and TCBA/Huron Analysis and Research

While an investor owned utility's organizational structure and governance are not completely comparable to a PUD's organizational structure and governance, the disparity of A&G costs for the utilities with and without a services company suggests any utility, including a PUD, might benefit from pursuing a shared services approach.

Additional criteria for governance related to shared services is discussed in **Appendix C**.

### Overall Recommendations

The Mid-Columbia PUDs should form a task force to fully evaluate the shared service opportunities identified in this report and in other functional areas.

The tasks required to implement these recommendations should be handled through collaborative discussions among the three PUDs. We recommend a two-level approach for these discussions:

- Form a senior management steering committee with a representative from each PUD. The steering committee would establish the objectives and ground rules for the work groups and make ultimate decisions regarding the implementation and design of shared services opportunities as well as serve as the escalation point for issues that the working groups are unable to resolve. Depending on the governance options chosen, the three PUD Commissions may ultimately have to act on shared services proposals.
- Establish work groups for each function (IT, fleet) made up of a small number of subject matter experts from each PUD. The work groups would do the detailed analysis required to fully assess each shared services opportunity identified in this report from a quantitative and qualitative

## Chapter II Shared Services

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standpoint. They would then provide alternatives and recommendations, with supporting documentation, to the senior management steering committee.

Since our analysis was limited to a small number of functions and uncovered significant savings opportunities, the potential benefits to all three PUDs should justify the required time and effort for PUD personnel to further assess these potential shared services. In addition, there is no reason for the PUDs to limit their assessment to the shared services opportunities identified in this report. Other opportunities could be examined among the PUDs and other PUDs and government agencies or related organizations could be included to expand the potential savings in some cases.

The existence of separate governing Boards and bylaws for each of the three PUDs should not eliminate their ability to share services. Several governance options exist for the PUDs to design an appropriate shared services model. A set of governance principles and alternatives is shown in **Appendix C**.

### **Effect of the Recommendations**

Taking advantage of the additional shared services opportunities identified could produce significant cost savings and operational improvements for the three Mid-Columbia PUDs.

The level of estimated cost savings and the opportunities to increase performance identified for the functions assessed suggest the benefits will outweigh implementation costs and challenges for Chelan and Grant County PUDs. However, Douglas County PUD's small size and low cost structure may reduce its ability to realize significant cost savings from further shared services. But Douglas County PUD may realize qualitative benefits such as a more robust IT platform, the ability to implement cost center accounting and the avoidance of purchases of specialized equipment.

### **Chelan County PUD's Response**

*We appreciate the additional opportunity for review provided by the state performance auditors' comments and perspective.*

*Chelan County PUD intends to continue to evaluate opportunities (internally and in collaboration with others) to reduce costs and increase efficiency in the myriad of tasks required to generate and deliver affordable and reliable power, water, sewer and wholesale telecommunications services. The three utilities have participated in many opportunities to jointly staff and manage programs for years. Further, Chelan County PUD also works with other public and private entities to effectively and efficiently collaborate on projects and services. This collaboration was reflected in a listing of 166 shared services/joint projects that Chelan County PUD had with others. This list was provided to the auditors in January 2009. Additional agreements have been reached since then. The Commissioners, managers and staff of the three PUDs already meet regularly to discuss issues of joint concern and how the three entities can better work together to serve our customers.*

*While the three Mid-Columbia PUDs perform many similar functions within neighboring geographical areas, consolidating services needs to be considered carefully in light of geographical distances, management philosophies, different customer needs and expectations, cost of implementation and varying priorities and practices that come with locally elected Commissioners in each of the three counties. Chelan County PUD has carefully evaluated and will continue to evaluate the recommendations contained in the report including consideration of forming a task force to analyze shared service opportunities.*

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*Chelan County PUD does note two general concerns about the auditor's bases for these recommendations as discussed in the detailed response in appendix F.2.*

### **Douglas County PUD's Response**

*Douglas County PUD will consider these recommendations according to RCW 43.09.470.*

*Douglas County PUD was formed by the people of Douglas County in 1936 because customers wanted control of their own local utility. The Shared Services recommendations involve combining operational functions across multiple separate legal entities. The report references the Washington State government reform initiative but fails to recognize this effort is focused on Washington agencies, not separate entities with different elected governance, revenue sources, geographical considerations and types of services. Combining functions and services across separate legal entities can create additional complexities and administrative burdens, which ultimately would translate to higher rates for Douglas County PUD customers. Douglas County PUD appreciates the report stating, "Douglas County PUD's small size and low cost structure may reduce its ability to realize significant cost savings from further shared services." Douglas County PUD takes great pride in its low cost structure because it has historically proven to be extremely beneficial to customers.*

### **Grant County PUD's Response (By recommendation in italics)**

*First Recommendation: Grant, Chelan and Douglas County PUD have a long history of cooperative alliances. The general managers of the three utilities meet on a monthly basis to review issues facing all three districts. The boards of each utility meet on a quarterly basis. Individuals and departments within the three utilities regularly collaborate.*

*At present, Grant County PUD is working with Chelan and Douglas County PUDs to collaborate on projects required by our operations, as well as with various federal, state and local agencies and private organizations. The results of these collaborative efforts, has and will save the utility millions of dollars. A sampling of these efforts includes:*

*Grant County PUD has a contract with Douglas County PUD to use their unused hatchery capacity. This allows Douglas County PUD to utilize their entire facility until their own needs increase. It allows Grant County PUD the ability to avoid building a facility at this time, a savings of millions of dollars.*

*Grant County PUD and Chelan County PUD are currently negotiating a contract to fund the construction of a hatchery that will satisfy both PUDs requirements for a specific fisheries program. This joint project will result in savings of millions of dollars for the initial construction and operating costs for the life of the facility.*

*Grant County PUD has significant obligations to fund recreation facilities under the terms of the utility's new federal license. Utility staff is presently considering options for partnerships with other agencies and private companies to meet these requirements while maximizing dollars expended. The pursuit of these ventures could result in millions of dollars of cost savings.*

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*Grant County PUD appreciates the recommendations of the state and will pursue additional efficiencies to be gained from further cooperative shared services between the Mid-Columbia PUDs.*

Second Recommendation: *Grant County PUD will continue to work with any interested partner in looking for opportunities to reduce costs in these and other areas.*

### **Auditor's Concluding Remarks**

In making its recommendation to continue to pursue effectiveness and efficiency gains through the increased use of cooperative shared services, the auditor did not intend to diminish the successes already achieved by the PUDs through their long-standing and ongoing cooperative efforts. Our intention was to suggest that additional opportunities are available through the increased sharing of support services – an approach commonly used by investor-owned utilities to achieve similar gains. We appreciate the PUDs' willingness to work together to explore additional opportunities in areas such as those described in this chapter. We also applaud Chelan, Douglas and Grant County PUDs' willingness to consider opportunities with other interested parties.

### **Shared Services Opportunities and Specific Recommendations Identified**

The following sections present the functional areas assessed and recommendations for the PUDs to increase effectiveness and cost efficiencies through shared services.

#### **INSURANCE: Insurance costs such as broker, premium and administrative expenses could be reduced through shared services.**

Each PUD purchases and administers policies for a wide range of similar insurance coverage. We identified two areas related to insurance where the three Mid-Columbia PUDs could collaboratively reduce costs.

- Administrative savings.
- Broker expenses and premium reductions through consolidating purchasing through the same broker and insurance company(s).

#### **Administrative Savings**

Each PUD currently administers its own insurance programs. The Chelan and Grant County PUDs have staff dedicated to administering their insurance programs.

- Chelan County PUD employs an Insurance and Claims Department Manager and an Insurance and Claims Administrator.
- Grant County PUD employs a Risk Analyst who administers the insurance programs, manages claims and coordinates insurance requirements.
- Douglas County PUD's insurance policies are administered by staff with other responsibilities.

Savings could be realized from sharing the administrative responsibilities at the three Mid-Columbia PUDs. The geographical distance between the two PUDs should not, in our opinion, affect their ability to share the administration of insurance activities.

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### Broker Expense and Premium Reductions

Insurance broker fees and premiums are a significant expense for the three PUDs.

**Exhibit II-2  
Insurance Costs (2008)**

Description	Chelan	Douglas	Grant
Insurance Premiums (all policies combined)	\$1,650,523	\$1,025,580	\$1,707,154

The Douglas and Grant County PUDs currently use the same insurance broker; Chelan County PUD uses a different broker for most of its insurance purchases. Consolidating brokers could reduce broker fees and lower insurance premiums through placement of policies by a single broker with a smaller number of insurance companies. In addition, combining insurance purchases with the same insurance companies, where possible, should provide the PUDs with more buying power and decrease premium costs. The benefits of combining insurance purchases are not dependent on combining the actual policies.

### Recommendations to the PUDs - Insurance

1. Compare costs of insurance coverage regularly with other PUDs.
2. Consider sharing insurance administration functions to provide administrative cost savings.
3. Consider a shared approach to negotiating and contracting including combining brokers and insurance providers to reduce premium expenses where appropriate.

### Effect of the Recommendations

Opportunities exist for the PUDs to work collaboratively to reduce insurance costs in at least two ways.

- Administrative efficiencies.
- Premium cost reductions.

### Administrative Efficiencies

Insurance procurement should be combined and assigned to a specialist serving all three PUDs. An experienced insurance procurement specialist could provide benefits through improved negotiation and contracting skills.

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### Exhibit II-3 Opportunities from Combining Insurance Functions Using a Shared Services Approach (a)

Description	Combined
Potential Supervisory Savings (wages/benefits) – Annual	\$110,000

a. Savings are based on eliminating one position among the PUDs and calculated using the average of the labor costs for the existing Chelan Insurance and Claims Manager and Grant County PUD Risk Analyst. Market conditions need to be evaluated to determine the correct wage rate for a combined Insurance Specialist.

### Reducing Premium Costs

Using a single broker to benchmark, price and purchase insurance and placing the insurance policies for the three Mid-Columbia PUDs with one insurance provider or one group of insurance providers for like policies could save the three PUDs 10 percent of their premium costs or an estimated \$438,000 annually, including broker fee savings.

### Exhibit II-4 Opportunities from Combining Insurance Brokers and Insurance Providers Using a Shared Services Approach

Description	Combined (a)
Potential Premium Savings – Annual	\$438,000

a. 2006 Flaherty Testimony [in front of the Illinois Insurance Commissioner] on Behalf of WPS Resources Corporation and Peoples Energy Corporation (Page 47). Flaherty estimates savings of 20%-40% as a result of the merger of these two utilities. Since we are not recommending the merger of the threethree PUDs, we have taken a more conservative estimate of the savings opportunity.

### Chelan County PUD's Response (By recommendation in italics)

*Recommendation 1: Chelan County PUD has shared information in the past and our staffs regularly discuss issues. Property values, age and maintenance of the facilities and revenues for each utility vary significantly. Liability insurance premiums are based on revenues, number of customers, the value and age of facilities, the numbers and types of public facilities (such as parks) and number of employees. All of these factors affect the claims figures and premiums. While benchmarking can provide some useful information, drawing conclusions from that information requires careful analysis.*

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**Recommendation 2:** *The supervisory cost saving suggested by the auditor comes from eliminating one supervisory position between Grant and Chelan County PUDs. However, the auditor does not explain what particular duties could be shared that would result in the elimination of a full position.*

*Having the two utilities share an insurance manager would result in additional costs not analyzed by the auditor, including travel between multiple facilities owned and operated by each utility. Having one insurance manager for a service area of more than 5,700 square miles between five hydroelectric facilities and a variety of other valuable facilities does not appear realistic. Combining the administrative or supervisory function does not eliminate other duties currently being performed by those positions.*

**Recommendation 3:** *The only research cited by auditors concluding savings of 10 percent by utilizing a single broker and insurance provider is testimony of T. Flaherty in a 2006 proceeding before the Illinois Commerce Commission in support of a merger of two private utilities. The three Mid-Columbia public utility districts are distinct and separate legal entities with different risk profiles.*

*Chelan County PUD appreciates the auditor's perspective, however, we offer additional information that should be considered. Each utility's risk factors and loss history are considered independently by the insurance carriers in establishing premiums. While the utilities are diversified in their property and boiler/machinery (mechanical breakdown), combining coverage could negatively impact premiums if one utility suffered losses. Having all six hydroelectric facilities covered by the same insurer or group of insurers as a "unit" rather than as separate facilities owned and operated by three different entities would result in a different risk profile than is currently reflected in how the three utilities manage their insurance programs. Therefore, separate insurance programs at each utility provides an important opportunity to diversify risks and diversify providers.*

*Chelan County PUD employs a self-insurance program that would not accommodate other utilities because of Chelan's agreements with power purchasers. It would be difficult to have a one-size-fits-all approach while still retaining the individual risk management goals of each PUD and their associated exposures, risk tolerances and financial abilities.*

### **Douglas County PUD's Response**

*Douglas County PUD will consider these recommendations according to RCW 43.09.470.*

*Douglas County PUD supports working collaboratively with the other PUDs where it makes sense to do so. However, it is difficult to understand how Douglas County PUD could achieve any administrative efficiencies, considering that it employs only one person to administer its Human Resource and Insurance functions. Also, recent benchmarking of insurance coverage by Douglas County PUD indicates that the annual premium expenses paid are competitive.*

### **Grant County PUD's Response (By recommendation in italics)**

**Recommendation 1:** *Traditionally, Grant County PUDs' debt covenants required an independent engineer to evaluate our insurance coverage every year. This requirement ended a few years ago when the original debt was retired. We will continue to obtain and compare costs of insurance and levels of coverage with the other PUDs.*

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Recommendation 2: *Grant County PUD will review opportunities to save on insurance administrative costs with the other PUDs.*

Recommendation 3: *Grant County PUD will consider shared opportunities to reduce premium expenses where appropriate.*

### **Auditor's Concluding Remarks**

We continue to believe that administrative efficiencies and broker/premium savings are possible and encourage the PUDs to actively seek out opportunities to achieve these savings through cooperative efforts.

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**INFORMATION TECHNOLOGY: Information technology costs such as software, support staff and equipment purchases could be reduced through a shared services approach.**

Currently, each PUD purchases and administers similar information technology (IT). IT support for the daily operations of the Mid-Columbia PUDs is similar in overall mission and scope. The collective annual IT operations and maintenance expenses for Chelan and Grant County PUDs alone are more than \$10 million. Opportunities exist by reducing duplicate IT applications for similar functions, centralizing IT support staffs, reducing IT equipment and hardware, and reducing IT related facility costs across the three PUDs. A shared services solution may also provide opportunities to improve IT governance, streamline system administration and support, foster better security and risk mitigation, and achieve economies of scale. The two areas that present the greatest opportunity for IT costs savings through shared services are:

- Enterprise Application Software Management and Support
- Data Center Facilities

### **Enterprise Application Software Management and Support**

Each PUD independently operates all aspects of its IT divisions. Similar software applications are operated by some or all of the PUDs including Enterprise Resource Planning (ERP) systems. Software applications suitable for a shared services solution include Enterprise Resource Planning systems (which typically include Supply Chain Management, Financial Management, Human Resources Management, and Customer Relationship Management), Work Management, Asset Management, and Enterprise Project Management. These ERP implementations and their licensing and support expenses account for a significant portion of the PUDs' annual IT budgets. Standardizing and consolidating enterprise application solutions, thus eliminating duplicate implementations, could yield substantial financial benefits as well as increase operational efficiencies. Standardizing to common IT platforms enables economies of scale, ensures access to current technologies, and helps eliminate the proliferation of internally built, unsupported programs and applications.

Collectively, the three PUDs employ approximately 90 full-time IT professionals to support operations. Many of these employees likely share comparable responsibilities and skill sets with their counterparts in the other PUDs. Centralizing IT support can eliminate overlapping responsibilities. Sharing expertise and support staffs can yield improved process efficiencies and reduce IT support costs for the PUDs.

In addition to cost savings, implementing a shared services model can improve governance through uniform standards, formal procedures, detailed documentation, and relevant service-level agreements.

While moving to a shared services environment will likely require significant implementation costs, these costs should be outweighed by long-term operational benefits and cost savings.

### **Shared Data Center Facilities**

Each PUD operates a primary data center to house computer systems and associated components, such as telecommunications and data storage systems. The data centers generally include backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and physical and data security devices. In addition, each PUD is currently seeking to develop a secondary backup data center.

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Chelan County PUD estimates its facility costs for the primary data center, excluding staffing expenses, are \$230,000 annually. Each data center typically is staffed with computer operators, production control staff, system administrators, facilities engineers, and other operational specialists. Computer hardware in these data centers are often underused, as excess capacity must be maintained to manage spikes in demand for each system. Many other costs to maintain the PUDs' data centers are duplicated, including server software licenses, network and server hardware, and common facility costs. Sharing data centers would be an effective way to reduce the collective operating costs for the PUDs.

Sharing data centers could potentially reduce the number of facilities from six to two. Reducing from one primary and back-up data center for each of the three PUDs (six total) to a single primary and back-up data center for the three PUDs collectively (two total). Sharing data centers could also help centralize much of the support staff, provide more streamlined security compliance, improve data integrity and availability, and increase systems scalability. Cooperating in a data center shared services environment can also improve business continuity and security, and reduce operating costs (e.g., data backup, network security).

### **Recommendations – Information Technology**

4. The three Mid-Columbia PUDs should collaboratively investigate a plan to achieve enterprise IT systems standardization and the centralization of system hardware and support staff.
5. The three Mid-Columbia PUDs should consider sharing both primary and back-up data centers.

### **Effect of the Recommendations**

Standardizing shared enterprise applications solutions, centralizing support staff and consolidating multiple data centers to one shared primary data center and one shared secondary data center could result in significant cost savings.

### **Chelan County PUD's Response** *(By recommendation in italics)*

*Recommendation 4: Chelan County PUD agrees that system standardization and centralization is most efficient, but limiting it to only a few utilities does not take full advantage of the opportunities. Chelan County PUD is investigating ways to leverage cloud-based and other shared hardware/software solutions. Chelan County PUD is open to the concept of standardized equipment and software solutions.*

*Recommendation 5: Chelan County PUD agrees that a centralized data center would have benefits, but these circumstances may make that impractical to implement at this time:*

- *Chelan County PUD has completed its backup data center.*
- *Douglas County PUD is in the planning and discovery phase for its small backup data center.*

*Chelan County PUD is in discussions with Douglas County PUD to determine if capacity exists in one of our current data centers to accommodate Douglas County PUD's backup needs. If the capacity exists and the costs are shared, it could create a savings opportunity for Douglas and Chelan County PUDs. The primary challenges are in network security, physical access and liability. Sunk costs must also be considered when looking to abandon any of the existing data centers and combine several into one.*

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### Douglas County PUD's Response

*These recommendations could be problematic for a variety of reasons, but Douglas County PUD will consider them in accordance with RCW 43.09.470.*

*These recommendations do not take into account NERC reliability standards, cyber security, and other mandates associated with operating a portion of the Bulk Electric System. Douglas County PUD already has an existing cost-effective and efficient on-site primary data center. If a shared primary data center were located offsite or in another county, it would not be as readily accessible to Douglas County PUD's staff as its own on-site data center and could create vulnerabilities under NERC reliability standards.*

### Grant County PUD's Response

*Recommendation 4: Grant County PUD has explored various options with other Central Washington utilities for sharing Information Technology services. These services ranged from shared support to providing back up facilities for each other. The last effort occurred in the early 2000s and was abandoned for various reasons. We will renew these discussions.*

*Recommendation 5: Grant County PUD will consider shared IT facilities in the discussions above.*

### Auditor's Concluding Remarks

We applaud the PUDs' willingness to thoughtfully consider and explore opportunities for increased effectiveness and efficiency in the IT area as suggested in this chapter.

### **FACILITIES: Facilities costs could be reduced through a shared services approach.**

Facilities and real estate functions are similar at each PUD. Furthermore, managing parks is similar to facilities and real estate activities. These similarities offer opportunities to share services either within a PUD or across all three PUDs.

Each PUD maintains significant real estate and facilities.

- Chelan County PUD participates in the operation of a large system of parks and recreational facilities. CPUD operates seven such facilities with a combination of PUD personnel and outside contractors and is responsible for major maintenance and capital improvements at seven other parks which are operated on a day-to-day basis by another state or local agency or organization
- Douglas County PUD also owns several smaller parks or recreational facilities but only the Wells Project park is maintained by the PUD under an outsource arrangement
- Grant County PUD currently has few parks and recreational facilities, but will be increasing these types of facilities under the requirements of its new FERC license

Facilities-related work activities at the PUDs include, but are not limited to;

- Janitorial
- Basic repairs and maintenance (building and parking areas)
- HVAC
- Snow removal

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For all three PUDs, some facilities work is combined with other engineering or operations activities and managed by employees at the hydroelectric plants. Hydro plant employees, as opposed to the Facilities Department, are typically responsible for facilities work at the hydro electric plant.

We identified two opportunities for the PUDs to consider improving the efficiency of facility, real estate and parks operations.

- Combine the administration of facilities, real estate and parks (where applicable) within each PUD
- Share services for the supervision of facilities, real estate and parks across the three PUDs

Chelan County PUD has a Facilities Department, a Real Estate Department and a Parks Department in the District Services Group. The Chelan County PUD Parks Department includes both a manager and a supervisor with the manager having a span of control of only two including the Department Secretary. This department has a large number of seasonal employees, which may increase the supervisory activities for part of the year, but the department operates with several foremen who could take a larger role in supervisory matters.

Many of the basic real estate functions at Grant County PUD are handled by the Lands Resource Department in the Natural Resources Division which also is responsible for some of the PUD's archeological and cultural resource activities. About one-half of the work activities of Recreation and Tourist Facility program, which collects most of the costs of the Lands Resource function, are related to real estate and facilities.

Douglas County PUD does not have standalone facilities, real estate or parks functional groups. Staff responsible for managing facilities and real estate at the Douglas County PUD also has other responsibilities. Douglas County PUD indicated that it has about 2.66 full-time equivalent (FTE) employees associated with facilities and real estate activities. The costs associated with these activities for the three PUDs are presented below:

**Exhibit II-10  
Facilities/Real Estate/Parks Costs (2008)**

Description	Chelan	Douglas	Grant (a)
Labor	\$ 3,229,000	\$ 205,000	\$ 2,470,000
Contracts & Materials	\$ 1,863,000	\$ 550,000	\$ 1,889,000
Other	\$ 412,000		\$ 213,000
<b>Total O&amp;M</b>	<b>\$ 5,504,000</b>	<b>\$ 755,000</b>	<b>\$ 4,572,000</b>

a. Includes the portion of the expenses of the Recreation and Tourist Facilities function associated with recreational facilities and site monitoring.

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Efficiencies could be realized if the three PUDs shared services and combined the supervision of the PUDs' Facilities Departments, Real Estate Departments and Parks Departments under fewer managers. Consolidating supervisory responsibilities under two managers could yield significant savings over time, especially for the Chelan and Grant County PUDs.

Since the PUDs operate in neighboring markets, additional cost savings opportunities may exist to share resources among the PUDs and/or combine outsourced services with one or more preferred vendors to increase the volume and purchasing power of the PUDs. To maximize cost savings, the PUDs could consider sharing services in all aspects of the facilities, real estate and parks functions. For example, the same internal work crews may be able to handle functions such as facility repairs, landscaping or snow removal at all three PUDs.

### Recommendations - Facilities, Real Estate and Parks

6. The PUDs should consider a two step approach to cooperatively provide Facilities, Real Estate and Parks services:
  - Consolidate the management of Facilities, Real Estate and Parks from five managers to two managers for all three PUDs.
  - Combine the complete Facilities, Real Estate and Parks functions into one aggregate group for all three PUDs. This assessment should establish the correct mix of out-source and internal resources for these three functions.
  
7. Regardless of the outcome of recommendation 6, before the Grant County PUD determines the required resources to manage its new "Parks" responsibilities, its management should work with Chelan County PUD to determine how Grant might benefit from Chelan's current processes, resources and experiences for the operation of parks facilities.

### Effect of the Recommendations

Potential cost savings associated with combining the Facilities, Real Estate and Parks Departments under two managers for the Chelan, Douglas, and Grant County PUDs is shown in **Exhibit II-11**. A small portion of this savings might be offset by the need to reclassify some positions as "foremen" or working supervisors to allow for added supervisory responsibilities.

**Exhibit II-11**  
**Opportunities from Combining Facilities, Real Estate and Parks Functions**  
**Using a Shared Services Approach (a, b)**

Description	Combined
Potential Supervisory Savings – Annual	\$ 276,800

- a. Since Douglas County PUD does not have dedicated Facilities, Real Estate or Parks personnel, only Chelan and Grant County PUDs have been compared.
- b. Savings are based on moving from five to two managers for these functions.

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Additional savings might be possible by combining the use of actual work crews or the use of out-sourced vendors. The Douglas County PUD might also benefit from the ability to participate in consolidated purchase arrangements for out-sourced services or related equipment and materials. We did not conduct a complete assessment of work to accurately estimate the total impact of fully combining the three PUDs' facilities, real estate and parks functions.

### **Chelan County PUD's Response**

*As recommended, Chelan County PUD will study the Facilities/Real Estate/Parks departmental structure and will include additional factors not considered by the auditor that would impact the potential supervisory savings identified. Examples include:*

- *area managers performing day-to-day staff level tasks that would still need staff resources if span of control was increased;*
- *geographic boundaries impacting the ability to share assets;*
- *the ability to effectively communicate with three management groups and governing boards;*
- *the overall skills required to effectively manage each function;*
- *contractual limitations with supervisory use of bargaining unit staff; and*
- *recent staff reductions after the audit was completed.*

*The audit failed to fully explore the significant requirements of the extensive parks system managed by Chelan County PUD. The other PUDs do not have parks systems of the same magnitude. The parks owned by Chelan County PUD span a wide geographic range within Chelan and Douglas counties and already create equipment-sharing challenges to meet operational needs. Increasing the geographic range would only exacerbate this issue.*

*A recent survey in Chelan County by an independent third party indicated strong public support for the park system and concluded that the majority of customers favor high maintenance standards, even if it requires a rate increase. A strong supervisory presence and focus is required to address partnerships with local entities, concerns of customer-owners, safety issues and operational challenges.*

*Recent staff reductions not considered by the auditors include one staff member in Real Estate Services, approximately four FTE's in Parks seasonal labor in the 2009 budget, and elimination of a position when the facilities manager position was filled in 2008. These staff reductions resulted in an annual savings of approximately \$400,000. The feasibility of further staff reductions in light of these recent changes must be weighed in any further analysis.*

### **Douglas County PUD's Response**

*As explained below, these recommendations would not likely benefit Douglas County PUD because they are not relevant to Douglas County PUD.*

*Douglas County PUD does not have a Facilities Department, Real Estate Department, or Parks Department. Douglas County PUD does employ custodial employees and contractors who, along with other contractors, maintain facilities. Douglas County PUD is committed to providing access to lands and waters associated with the Wells Hydroelectric Project and has a recreation action plan process as part of its existing federal hydroelectric license obligations. This has led to agreements between Douglas County PUD and cities related to capital improvements at parks located in Pateros, Brewster, and*

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*Bridgeport. The exhibit showing combined cost savings for this recommendation includes the footnote (a) "Since Douglas County PUD does not have dedicated Facilities, Real Estate or Parks personnel, only Chelan and Grant County PUDs have been compared." This recommendation is not relevant to Douglas County PUD.*

### **Grant County PUD's Response** *(By recommendation in italics)*

*Recommendation 6: Grant County PUD will consider shared and/or consolidation of services for facilities, real estate and parks.*

*Recommendation 7: Grant County PUD will review the process in place at Chelan County PUD and discuss with Chelan County PUD other options considered and based on their history, other options which they would consider now.*

### **Auditor's Concluding Remarks**

The auditors did recognize the efforts currently in place at Chelan County PUD to manage its extensive parks system and believe that lessons learned by Chelan County PUD can be shared among the PUDs to further the efficient management of the PUDs parks systems. We are pleased to learn of the savings already achieved by Chelan County PUD in this area and the willingness of Grant County PUD to discuss these savings opportunities with Chelan County PUD.

**PROCUREMENT: Procurement costs, including the cost of goods and services and administrative expenses, could be reduced by sharing services.**

The three Mid-Columbia PUDs purchase many similar services, equipment and materials, often from the same vendors. The PUDs could increase their buying power and decrease administrative costs by combining procurement functions.

The three PUDs each have employees dedicated to purchasing. While volumes are different, the major procurement activities are similar at the three PUDs.

- Issuing, reviewing and awarding contracts
- Issuing purchase orders and administering contracts
- Vendor management

Efficiency improvement opportunities may exist in two areas.

- Standardizing the terms, conditions and pricing with common vendors to obtain better volume purchase arrangements
- Administrative savings from common supervision of the three PUDs' procurement functions

In addition, opportunities to combine the three PUDs' procurement organizations into one group could increase the savings opportunities for all three PUDs.

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### **Volume Purchasing**

Many utility holding companies and some public power districts have consolidated purchasing operations to increase buying power and for administrative efficiency. Similar benefits could be available to the three Mid-Columbia PUDs and other PUDs in Washington. As noted earlier, the PUDs already take advantage of Washington state contracts for some purchasing opportunities. However, state contracts do not cover utility-specific equipment that PUDs and other utilities need for daily operations. Therefore, joint PUD contract opportunities beyond the state contracts should be considered to increase the purchasing power for the PUDs. State contracts can serve as a model for the PUDs. The benefits of sharing procurement services could extend to other PUDs in Washington.

Examples of vendor types used by all three PUDs and the combined purchases in 2008 were;

- Vendor A (vehicles and parts): \$1.1 million
- Vendor B (fuel): \$1.6 million
- Vendor C (engineering services): \$1.6 million
- Vendor D (electrical supplies): \$1 million
- Vendor E (electric supplies): \$2.7 million

Some of the vendors are located within the three-county region and others are located outside the area or even outside of Washington.

While the three PUDs often purchase the same or similar materials and services from the same vendors, the prices they pay can differ for items and services such as poles, electrical cable, fiber optic cable and tree trimming. It is possible that the product specifications, length of contract, performance standards or other qualitative terms of purchase agreements differ, which may explain some of the pricing variances. However, if one PUD is able to purchase the same materials or services for a better price due to the specific terms of a purchase agreement, a shared procurement function should allow all three PUDs to obtain the same or better prices.

### **Administrative Savings**

Each PUD has procurement employees.

- Chelan County PUD has a Procurement/Contract Services department manager with seven purchasing and contract administration employees.
- Grant County PUD has a Procurement Supervisor with 11 purchasing and other administrative employees.
- Douglas County PUD has three employees who spend 100 percent of their time on purchasing and contracting activities and several other part-time procurement employees.

Procurement costs at all three of the PUDs are predominantly for labor.

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**Exhibit II-12  
2008 Procurement Costs**

Description	Chelan	Douglas	Grant
Labor (wages and benefits)	\$ 648,000	\$ 335,000	\$1,015,000
Contracts & Materials	\$ 12,000		\$ 25,000
Other	\$ 20,000		
Total (O&M)	\$ 680,000	\$ 335,000	\$1,040,000

At a minimum, the three PUDs can increase efficiency by sharing a procurement manager. Most procurement functions can be handled without being on-site at a specific PUD.

Additional cost savings could be achieved by standardizing contract terms and prices, procurement policies and purchase order requirements among the three PUDs to facilitate volume purchasing from a list of approved vendors. Standardizing other policies could increase the benefits of shared services. Procurement staff could still be located at different sites, but still conduct bid, contract development, purchase order, vendor management and other work activities as one group for all three PUDs.

Individual RFPs may still need to be issued to comply with PUD purchasing policies that could not be consolidated.

The PUDs could set up a shared services entity to purchase materials, equipment and services for all three PUDs. Tangible goods could be stored in a common warehouse (or group of warehouses) and distributed to the individual PUDs as needed. Ownership and governance for the separate entity would need to be established; however, all PUDs in the state could participate to maximize efficiency.

### **Recommendations – Procurement**

8. The three PUDs should collaborate to obtain better volume purchase arrangements by standardizing the terms, conditions and pricing with common vendors. As part of this collaboration the PUDs should establish common makes and models for the same type of materials (e.g., poles, fiber cable, and large vehicles) which do not impact the technology of the distribution systems and hydro facilities.
9. The PUDs should consider consolidating procurement functions under one manager to eliminate redundant administrative costs and consider establishing common practices for gathering bids, negotiating contracts, issuing purchase orders and managing vendors for the same types of materials with the same vendors.

### **Effect of the Recommendations**

At least two efficiency opportunities exist for the PUDs' procurement functions.

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- Volume purchasing from a consolidated list of vendors.
- Administrative savings from common supervision of the three PUDs' procurement groups.

### Volume Purchasing

Our examination of the three PUDs' purchases of similar services and materials from the same vendor found price variance ranging from around 1 percent to over 20 percent. While differences in terms may explain some of the variance, a consolidated approach to purchasing would allow all the PUDs to take advantage of both discounts associated with volume purchases and a best of breed approach to the terms. Consolidated purchasing from vendors that provide the best terms and pricing should result in a conservative estimate of a volume discount of 5 percent.

These savings represent 0.8 percent of total PUD combined purchases. Large contractor projects, purchase card purchases, flow through payments and payments to other PUDs and electric utilities have been excluded from this analysis. These amounts include both O&M and capital cost savings.

**Exhibit II-13  
Opportunities from PUD Volume Purchasing**

Description	Combined
Potential Volume Purchase Savings – Annual	\$4,600,000

### Administrative Savings

An analysis of the PUDs' supervisory costs for the procurement function suggests that combining the supervision of the Procurement departments at all three PUDs should result in cost savings.

**Exhibit II-14  
Opportunities from Consolidated Functions**

Description	Combined
Potential Supervisory Savings – Annual (a)	\$126,000

- a. Savings are based on the average of the labor costs for the existing function at Chelan County PUD and Grant County PUD (Douglas County PUD does not have a full-time procurement supervisor); market conditions need to be evaluated to determine the correct wage rate for a combined procurement manager.

Additional cost savings could be realized by fully combining the work activities and actual purchasing personnel for all three PUDs into a single procurement function.

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Furthermore, the PUDs could establish a separate entity to purchase materials, equipment and services for all three PUDs, which could collectively use a common warehouse (or group of warehouses) and distribute materials to the individual PUDs as needed. This type of arrangement would eliminate the need for separate purchase orders, vouchers and payment arrangements for each PUD. But the ownership, governance, participation and system implications, if any, for the separate entity would need to be addressed.

### **Chelan County PUD's Response**

*The Procurement and Contract Services Department at Chelan County PUD will continue to work with other public utilities and agencies to obtain lower prices, as it has always done. We fully support finding additional cost savings through collaborative efforts. As noted by the auditors, Chelan County PUD utilizes state contracts to lower administrative and procurement costs when feasible. We also currently work with other governmental agencies to incorporate interlocal agreements for operational efficiencies and cost savings.*

*Chelan County PUD has attempted several alliances for volume purchasing with other utilities. Discounts did not materialize, purchasing power was restricted and the overall result was more administration and costs to manage contracts*

*As recommended, Chelan County PUD will continue to work closely with other PUDs and public entities to achieve cost savings. Although, Chelan County PUD does not agree that additional efficiencies could be gained by creating a common purchasing entity for the three PUDs, Chelan County PUD will consider additional opportunities. Eliminating a manager would require an additional staff person as the current manager at Chelan County PUD performs day-to-day staff level tasks such as contract review and quality control in addition to management duties. Recent State audits of Chelan County PUD purchasing processes have applauded procurement staff for effective quality control.*

### **Douglas County PUD's Response**

*Douglas County PUD will consider these recommendations according to RCW 43.09.470.*

*Douglas County PUD believes it has cost-effective purchasing systems in place that result in superior results. It also believes that having a small, dedicated group of its own employees to obtain materials and equipment has proven to be highly productive. The volume purchasing described could be problematic for a number of reasons, including the varied timing of materials and equipment needs as well as the specifications unique to each PUD. Douglas County PUD would lose flexibility related to maintaining its inventory levels, which would adversely impact its response to customer service requests. Coordinating purchases with other entities would also increase Douglas County PUD's workload and administrative burden, thus increasing complexities and costs rather than achieving savings.*

### **Grant County PUD's Response** *(By recommendation in italics)*

Recommendation 8: *Grant County PUD has discussed common purchases for some items. We are willing to enter into discussions with the other PUDs and expand this area of cooperation.*

Recommendation 9: *As part of process mentioned above, Grant County PUD will discuss consolidation of the procurement function between the three PUDs.*

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### **Auditor's Concluding Remarks**

We applaud the PUDs' willingness to work together to achieve effectiveness and efficiency gains in this area.

## Chapter III Chelan County PUD

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### I. Background Information

The Chelan County Public Utility District was established in 1936 and began electric utility operations in 1947. The District owns, operates and maintains three major hydroelectric power projects: the Rock Island Project, the Rocky Reach Project and the Lake Chelan Project (collectively, the "hydroelectric projects"). The District operates these hydroelectric projects under long-term licenses issued by the Federal Energy Regulatory Commission (FERC).

The District also owns and operates a water system, a wastewater system and a fiber optic system, which serve portions of Chelan County.

In 2008, the District served an average of 47,693 customers and had energy sales of 4,416,000 MWH and distribution operating revenue of \$142,936,000. Historically, the District has obtained most of its power supply from its hydroelectric projects and relatively small amounts from other sources. The hydroelectric projects provide power at a comparatively low cost, enabling the District to provide electricity to its customers at rates substantially below those charged by most other utilities in the Pacific Northwest.

The power from the Rock Island and the Rocky Reach Systems the District does not sell to its own retail customers is sold:

- On a cost-of-service basis through long-term contracts to a number of investor-owned utilities and a large industrial purchaser.
- Under new long-term contracts starting in 2011 and 2012, on a cost-of-service "plus" basis to an investor-owned utility and a large industrial purchaser.
- As surplus power at market prices in the wholesale market.

Non-firm wholesale sales provided 46 percent of the Distribution System's annual revenue in fiscal year 2008. However, the amount of power available for sale in any given year and the prices at which such power can be sold are highly variable and depend to a large extent on factors outside of the District's control. In particular, the amount of power available for sale is dependent upon relative flows down the Columbia River past the Rocky Reach and Rock Island Projects and the timing of the flows, both of which are largely dependent upon weather conditions in and upstream of the Mid-Columbia River and weather conditions in the District's service area. The price of power also is dependent, among other things, on weather conditions inside and outside the Pacific Northwest, the relative demand for power at any given time across the Western United States, the cost and the availability of alternative sources of power, particularly energy generated by natural-gas fueled facilities and other factors.

Because the original investments in the hydroelectric projects were made decades ago, the cost of energy from the hydroelectric projects in 2008 was substantially below market value. In 2008:

- The Rock Island Project delivered 2,721,177 megawatt hours ("MWH") of power at an average cost of \$27 per MWH.
- The Rocky Reach Project delivered 5,564,233 MWH of power at an average cost of \$14 per MWH.
- The Lake Chelan Project delivered 404,810 MWH of power at an average cost of \$15 per MWH.

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- Collectively, the three projects produced 8,690,000 MWH of power at an average cost of \$18 per MWH. By comparison, for the same period, the average adjusted wholesale preference rate for Bonneville Power Administration ("Bonneville") customers was \$31 per MWH and the Mid-Columbia Electricity Price Index average was \$59 per MWH.

### II. Audit Approach

The Survey Phase identified the following issues to be addressed during the Audit Phase:

<b>Task Area</b>	<b>Survey Phase Issues</b>
<b>Governance</b>	<ul style="list-style-type: none"><li>• Governance policies and practices</li><li>• Organization structure</li></ul>
<b>Operations</b>	<ul style="list-style-type: none"><li>• Labor optimization</li><li>• Asset management</li></ul>
<b>Construction Management</b>	<ul style="list-style-type: none"><li>• Architect and engineering fees</li><li>• Change order practices</li></ul>
<b>Procurement</b>	<ul style="list-style-type: none"><li>• Cost savings opportunities</li><li>• PCARD (i.e., credit card) usage</li></ul>
<b>Administrative Management</b>	<ul style="list-style-type: none"><li>• Cooperative shared services opportunities</li></ul>

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### A. GOVERNANCE AND ORGANIZATION MANAGEMENT

#### Introduction

The quality of the leadership of an organization, more than any other factor, determines its performance and effectiveness. An organization with poor leadership often finds itself mired in persistent issues, with little forward progress or resolution. Real issues and challenges go unaddressed and members of the organization become confused about the purpose of the organization and their own roles in it. In contrast, an organization with effective leadership prepares for and quickly resolves issues and challenges, provides clarity of direction and roles and establishes real accountability for the organization.

“Governance” describes the role of a board or other decision-making body in providing leadership for an organization. Governance generally includes responsibility for providing the overall direction for the organization, making key decisions for the organization through policy, and overseeing organization’s performance. Key tools of effective governance include strategic planning and management including performance measurement and monitoring. The Chelan County PUD’s Board of Commissioners is responsible for governing the organization.

#### 1. Governance

**Commendation No. III-1: The Chelan County PUD Commission has adequately instituted the governance policies and practices necessary to provide appropriate leadership and oversight.**

##### Background

The role of any Board is to provide strategic focus and direction for the organization and to ensure decisions support the focus and direction. Oversight is also an important function for any Board, ensuring that organizational activities are consistent with legal requirements and its own policies and procedures. Since the Board of Commissioners controls the focus and direction of the organization, the risks posed by ineffective leadership, decision-making and oversight are substantial.

Effective governance requires that formal structures and practices define how the Board carries out its duties. Many boards develop and document bylaws, policies and procedures that clearly define the specific role of the board and board members and what actions are appropriate in specific situations. Specific areas in which policies are most often needed include conflicts of interest, the role of Board members and the relationship between the board and management.

##### Outstanding performance noted

During the review of governance practices at Chelan County PUD, we identified:

***1A. Chelan County PUD Board has developed, adopted, and updates as needed a comprehensive governance policy that establishes the strategic direction for the District, defines the governance process and defines the relationship between the Board and staff.***

The Chelan County PUD Commission initially developed and adopted its current Governance Policy in May 2005. The Policy has been revisited and updated several times since its adoption. The Governance Policy provides important guidance in three areas – strategic direction, the governance process and the relationships between the Commission and staff.

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### **Strategic Direction**

The governance policy establishes the strategic direction for the District by outlining its vision and mission:

**VISION** - To be a premier public utility, highly valued and trusted to:

- Focus on the customer
- Protect and enhance our resources
- Maintain local control
- Bring innovation to reality
- Be a great place to work!

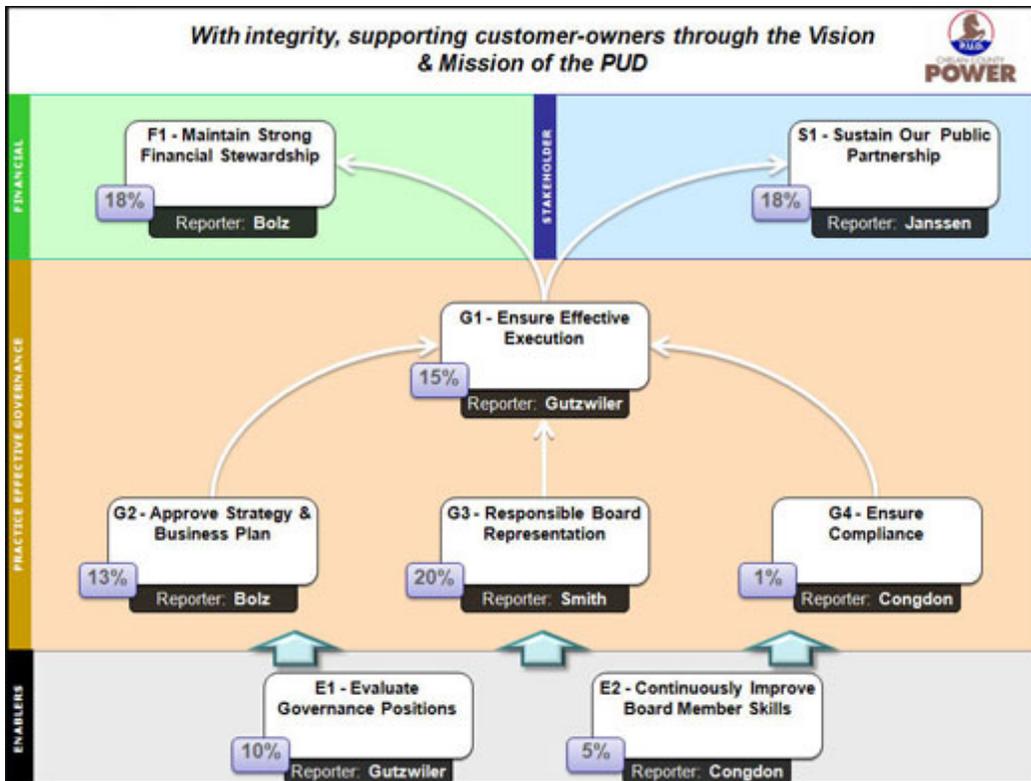
**MISSION** - To safely provide utility services that enhance the economy and quality of life in Chelan County.

The Policy establishes the vision and mission as “core values” and states that all decisions by the Board shall be governed by these core values.

The Commission has established a “Balanced Scorecard” (**Exhibit III-1**) to assist in monitoring and measuring the governance effectiveness of the Commission.

**Exhibit III-1**

**Chelan County PUD Commission Balanced Scorecard**



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Each Commissioner leads and tracks reporting for an assigned element of the scorecard. The Policy states the Commission will regularly discuss and evaluate its own performance in governing the District.

### ***Governance Process***

The governance policy establishes the purpose of the Commission consistent with applicable laws. It establishes the governance focus of the Commission on:

- Outward vision and the future
- Encouragement of diversity in viewpoints
- Strategic leadership more than administrative detail
- Clear distinction of Board and general manager roles
- Collaborative rather than individual decisions
- Being proactive rather than reactive

The policy provides job descriptions for the Commissioners; and establishes specific policies regarding Commission meetings, Commissioners' election and roles and the role of Commission committees; and establishes a policy for the Commission's review of internal records. It establishes a code of conduct for the Commission and Commissioners with several elements:

- Compliance with laws
- Code of ethics
- Requires Commissioners to treat one another, staff and with members of the public with respect and civility
- Requires disclosure of any conflicting interest, including advocacy or interest groups and personal interests. Commissioners must abstain from voting on participating in related discussions
- Establishes the relationship between Commissioners and District staff; it prohibits attempts to exercise individual authority over staff and recognizes the authority of the General Manager and the District's chain of command

### **Relationship between the Commission and Staff**

The governance policy provides specific direction regarding the relationship between the Board and staff in addition to the direction provided in the code of conduct. The governance policy is clear that the Commission's role is to provide policy direction and oversight and management's role is to execute that direction. The Policy specifically prohibits Commission members from giving directives to employees or contractors, while allowing them to communicate directly with employees and contractors.

The policy specifically addresses the relationship between the Commission and General Manager and defines the specific responsibilities of the General Manager. The policy further states that only decisions of the Commission, acting as a body, are binding as directives. Decisions or instructions by individual Board members are not binding on the General Manager or any employees.

***1B. The Commission has established specific goals for the General Manager and formally evaluates performance on these goals every six months. The Commission also participates in establishing specific goals and evaluating performance of other staff who have a reporting responsibility to the Board including the General Counsel, Treasurer, Internal Auditor and Clerk of the Board.***

A key role of the Board of Commissioners is providing clear direction to the individuals who report to it or are responsible for providing independent counsel or advice. This clear direction should ideally

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establish specific expectations for each of these positions and should consist of specific goals and objectives to be accomplished within specific timeframes. Equally important is evaluating the performance of the people in these key positions routinely and within specific timeframes.

The General Manager reports directly to the Commission. The General Counsel is responsible for providing legal advice to the Commission and General Manager and reports to both. The Treasurer is responsible for providing independent financial advice to the Commission and reports to the Chief Financial Officer for administrative matters. The Internal Auditor is appointed by the Commission and is responsible for providing independent and objective advice to the Commission and management. The Internal Auditor reports to the General Counsel for administrative matters and the Audit Committee (including Commission members) on audit activities.

The governance policy states monitoring and evaluating the General Manager is the Commission's responsibility. Evaluation criteria focus on the District's strategic objectives and goals and objectives for the General Manager. Evaluations are to be conducted semiannually, with new goals and objectives reviewed at the following evaluation.

Expectations and performance evaluations for the General Counsel are the responsibility of both the Board and the General Manager. The Board and General Counsel have discussions regarding expectations and performance as needed. Expectations and performance evaluations for the Treasurer is the responsibility of the Chief Financial Officer. The Board may participate in the evaluation of the Treasurer. Expectations and performance evaluations for the Internal Auditor is the responsibility of the General Counsel. The Commission may participate in the evaluation of the Internal Auditor. Expectations and evaluations of the Clerk of the Board is a joint responsibility of the Commission and the General Manager.

The development of employee performance expectation plans, as well as completion of performance evaluations for all employees, are well managed using the Human Capital Management System, which is part of the PeopleSoft enterprise applications. This is covered in more detail in the Employee Performance Management section of this report.

#### ***1C. Commission members receive information needed for effective decision making prior to Commission meetings.***

Effective decision-making requires that board members receive materials with adequate time to review them before making decisions. It is common practice for public sector boards to receive materials at least several days before meetings.

Commissioner members receive information packets on Thursdays before the Commission meets the following Monday. This generally provides adequate time for review of materials prior to making decisions at the Commission meeting. The Commission also holds study sessions where information is provided and discussion occurs to prepare Commissioners for upcoming decisions. Board members stated generally there are no surprises in the packets, and that most major decisions have been reviewed and discussed during the study sessions.

#### **Reasons for Outstanding Performance**

The Commission and General Manager have a clear understanding of good governance practices and have worked to put those practices in place at the District.

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#### Criteria

**Appendix D.1** presents the assessment framework used to evaluate Chelan County PUD's governance effectiveness.

#### Chelan County PUD's Response

*Chelan County PUD appreciates these commendations and recognition.*

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### 2. Strategic Planning and Performance Measurement

**Commendation No. III-2: Chelan County PUD has effectively implemented a “balanced scorecard” approach to strategic planning and performance measurement.**

#### **Background**

Strategic planning is a disciplined effort to produce fundamental decisions and shape and guide what an organization is, what it does and why it does it. When the strategic plan is linked to operations, all groups in the organization have a clear understanding of its purpose, the strategies used to achieve that purpose and the progress being achieved.

#### **Outstanding Performance Noted**

During our review of strategic planning and performance measurement, we noted:

***2A. Chelan County PUD places significant emphasis and effort on identifying and analyzing strategic issues to support effective, strategic decision-making.***

Chelan County PUD identifies strategic issues through tracking key trends, obtaining information and input from customers and identifying internal issues and concerns through employee surveys.

#### ***Identification and Tracking of Key Trends***

During the development of its strategic plan, Chelan County PUD engaged in a series of open and public strategic planning sessions with their customers to identify and forecast key trends that could impact the District and its customers.

Key trends were presented for each of the PUD’s service areas: wholesale electric, retail electric, networks (fiber), water and wastewater. Factors that impact each of those services were also identified and discussed. Alternative approaches and strategies were also developed and discussed.

The PUD has since taken this effort to the next level – developing the trends and forecasts into models with numerous variables that can be modified and adjusted as trends change or new information is received. This gives the District a strong ability to monitor, track and respond to changes that affect their business in real time.

#### ***Internal Issues and Concerns***

Chelan County PUD conducted comprehensive employee surveys in 2005, 2006 and 2007 based on the “Organizational Survey System,” designed to provide information on morale and organizational effectiveness. This system allowed comparison of the District’s results with similar organizations. The survey covered 20 topics ranging from job satisfaction to management effectiveness and motivation to perform.

#### ***Customer Information and Input***

Chelan County PUD collects customer information and input through customer surveys, customer focus group/partnership meetings and by monitoring customer complaints. This information contains views and satisfaction of customers and provides an indication over time of the extent to which customer concerns are effectively addressed.

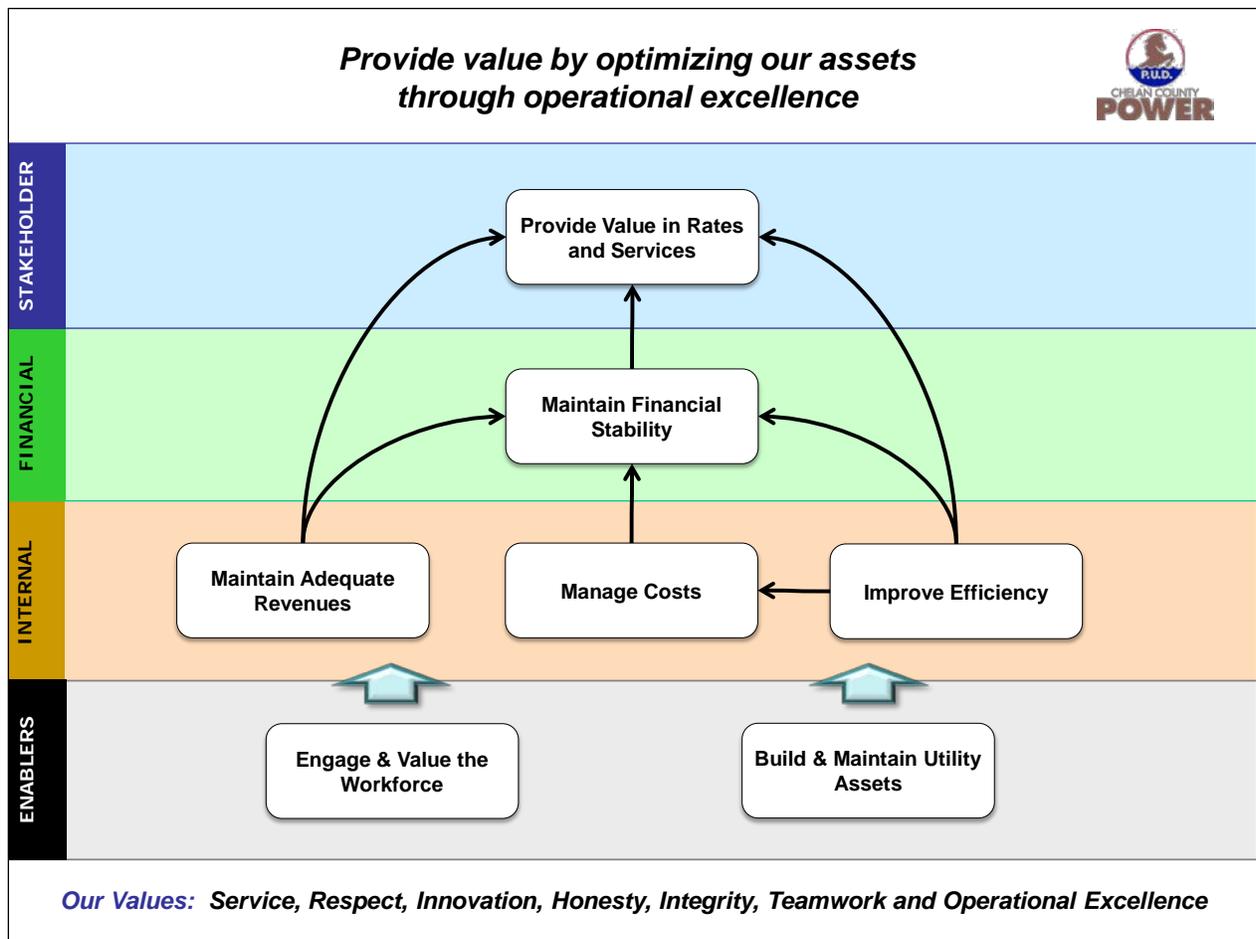
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**2B. Chelan County PUD has developed a clear vision, mission, core value, and strategic objectives based on the balanced scorecard approach. Each organizational unit develops an annual plan consistent with the balanced scorecard elements and priorities.**

Chelan County PUD has developed and defined its organizational values: service, respect, innovation, honesty, integrity, teamwork and operational excellence.

Specific strategic objectives have also been developed and focus on the four “balanced scorecard” elements – stakeholders, financial, internal and enablers. These elements, and the strategic objectives for each, are presented in the District’s balanced scorecard strategy map, in

**Exhibit III-2  
Chelan County PUD 2008 Strategy Map**



The strategic objectives are further defined and explained, including why each objective is important. Specific indicators are also defined to measure how well these strategic objectives are being achieved.

Chelan County PUD has implemented an approach to align organizational efforts with the strategic direction. Each organizational group of the PUD establishes strategy maps, including indicators, consistent with the District strategy map. Divisions within each group develop action plans and metrics. These business and action plans are used to develop the annual budget, and provide the foundation for

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annual employee performance plans. **Exhibit III-3** shows how these strategic planning elements are linked and the timing of the annual planning calendar.

**Exhibit III-3  
Chelan County PUD Strategic Alignment**



**2C. Chelan County PUD has developed and deployed the key elements of effective performance measurement, management and reporting.**

Performance measurement and reporting demonstrates the success or effectiveness of organizational or program activities in addressing a specific need or attaining a specific goal. A meaningful performance measurement framework includes a balanced set of indicators, ensures the collection of sound and reliable indicator data, provides for the analysis and reporting of indicator information and drives service improvement efforts and the testing of new initiatives.

Chelan County PUD, consistent with its strategic planning and management approach, has developed and uses a balanced scorecard report card to track, manage and report organizational performance. **Exhibit III-4** shows an example Balanced Scorecard Report Card.

The performance indicators tracked in the report card are consistent with the balanced scorecard elements. Specific targets are established for each indicator. Symbols allow quick reads of performance – a green circle indicates performance at or beyond target, a yellow diamond indicates performance somewhat below target and a red square indicates performance substantially below target.

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### Exhibit III-4 2007 Balanced Scorecard Report Card

#### Balanced Scorecard Report Card

(Highlighted indicators are in addition to "hard targets" included in ePerformance)

Period covered: January, 2007 – December, 2007

	Scorecard Metric	Target Based on:	2007 Actual	2007 Target	
Stakeholders	Customer Complaints	Fewer than 40 complaints per month	151	480	
	New Customer Survey	91% satisfaction on monthly line extension survey	89.9%	91.0%	
	Number of Customer Focus Group Sessions	48 Customer partnership meetings per year <b>(Original target was 50)</b>	54	37	
	Dependability & Reliability	6.2 average based on annual customer survey – weighted based on customer base for each system	6.36	6.2	
	Compliance Reports Outstanding	100% compliant (actual due / actual comp)	115	112	
Financial	Distribution Cash Reserves	Maintain \$75 M or above	\$123 M	\$75 M	
	Hydro Mill Rate (combined)	Based on 2007 budget costs & KWh model projections – target: \$18.61	\$15.30 MWh	\$18.61 MWh	
	Net Revenue (Loss) - Distribution [YTD] <b>(Original indicator called Coverage Net Revenue)</b>	Based on 2007 budget projections – target: <\$8.5 M> <b>(Original target was \$18.6M)</b>	\$39 M	(\$8.7M)	
	Margin Analysis	Cost per KWh of Retail Distribution system cost not cover by revenue – target: 0.000	(0.003)	0.000	
	O&M Expenses	At or below 2007 budget (O&M growth < 5%)	\$110.9 M	\$118.4 M	
	Debt Coverage Ratio	1.75 Coverage ratio <b>(Original target was 2.0)</b>	8.8	1.75	
	Projected Utility Service Cash Reserve Level (\$000)	Maintain cash reserves @ \$168M or above	\$210 M	\$168 M	
Internal (processes)	Openness Survey	Achieve 6.0 on monthly ERC survey	4.7	6.0	
	Good Communications rating	80% rating for "having good communications with the public" on the annual survey	80%	80%	
	Believable rating	80% rating for "believable in what we say" on the annual survey	78%	80%	
	Public Meetings	4 Energy Resources and Finance quarterly updates	4	4	
	Reliability – Hydro	Generation group 2007 business plan – target: 95% availability	95.7	95.0	
	Reliability - Distribution (ASAI)	Utility Service group 2007 business plan – target: 99.97% reliability (based on ASAI)	99.98	99.97	
	Forced Outages	Generation group 2007 business plan – target: 1% or lower plant forced outage factor	0.001%	1.0%	
Enablers (learning & growth)	Observation & Coaching	SOC projections – target: 6,258 observations per year <b>(Original target was 5,000)</b>	4,847	6,374	
	OSHA Recordable Cases	15% reduction in OSHA-recordable, based on 2 year rolling average – target: 48 or below <b>(Original target was based on 3 year rolling average – only have 2 years of history)</b>	45	48	
	ERC Favorable Survey	Monthly ERC favorable survey results – target: 58.5% or above	59.2%	58.5%	
	ERC Unfavorable Survey	Monthly ERC un-favorable survey results – target: 19.5% or below	9.4%	19.5%	
	Number of Apprenticeship/Trainee Hours	3,500 hours per month, 42,000 per year	45,860	42,000	
	Number of Documented Critical Processes	Generation group 2007 business plan – target: 75 critical processes documented for 2007	124	75	
	Community Service Mentions	12 Community service mentions per month	162	144	

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### **Reasons for Outstanding Performance**

The Chelan County PUD Commission and General Manager have a clear understanding of strategic planning practices and have instituted those practices.

### **Effect**

We believe the strength of Chelan County PUD's strategic planning may have (1) contributed to its strong asset management, as discussed later in this report, and (2) helped it adopt a more measured policy of pursuing fiber optic investments, which have not been financially viable at a neighboring public utility district (See Chapter IV, Issue IV-11).

### **Criteria**

The key elements of an effective strategic planning process were used as the assessment framework and are described in **Appendix D-2**.

### **Chelan County PUD's Response**

*Chelan County PUD appreciates these commendations and recognition.*

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### 3. Organizational Structure

**Commendation No. III-3: The organizational structure of Chelan County PUD provides consistent authority and responsibility and provides an appropriate span of management control for the General Manager and his direct reports.**

#### Background

An organization's structure should provide a framework of functional areas within which individuals can achieve the organization's goals. An effective organization structure clearly reflects the priorities of the organization, facilitates efficient and effective service delivery and problem solving, ensures consistency of direction and management control, minimizes obstacles and barriers to performance, assigns responsibility with accountability and stimulates a culture of shared accomplishment and teamwork.

#### Outstanding Performance Noted

The District's organizational structure was instituted in February 2009 and is shown in **Exhibit III-6**. Although the current structure has not been in place long enough to conduct a meaningful review, it appears to be an effective alignment of PUD resources. Responsibility for key District functions and outcomes are not split or divided among various organizational units, minimizing obstacles and barriers to performance and allowing units and managers to be held accountable. There do not appear to be duplicated functions and the spans of control for the General Manager and executive managers appear reasonable.

#### Reasons for Outstanding Performance

The Commission and General Manager have a clear understanding of good governance practices and have instituted those practices.

#### Criteria

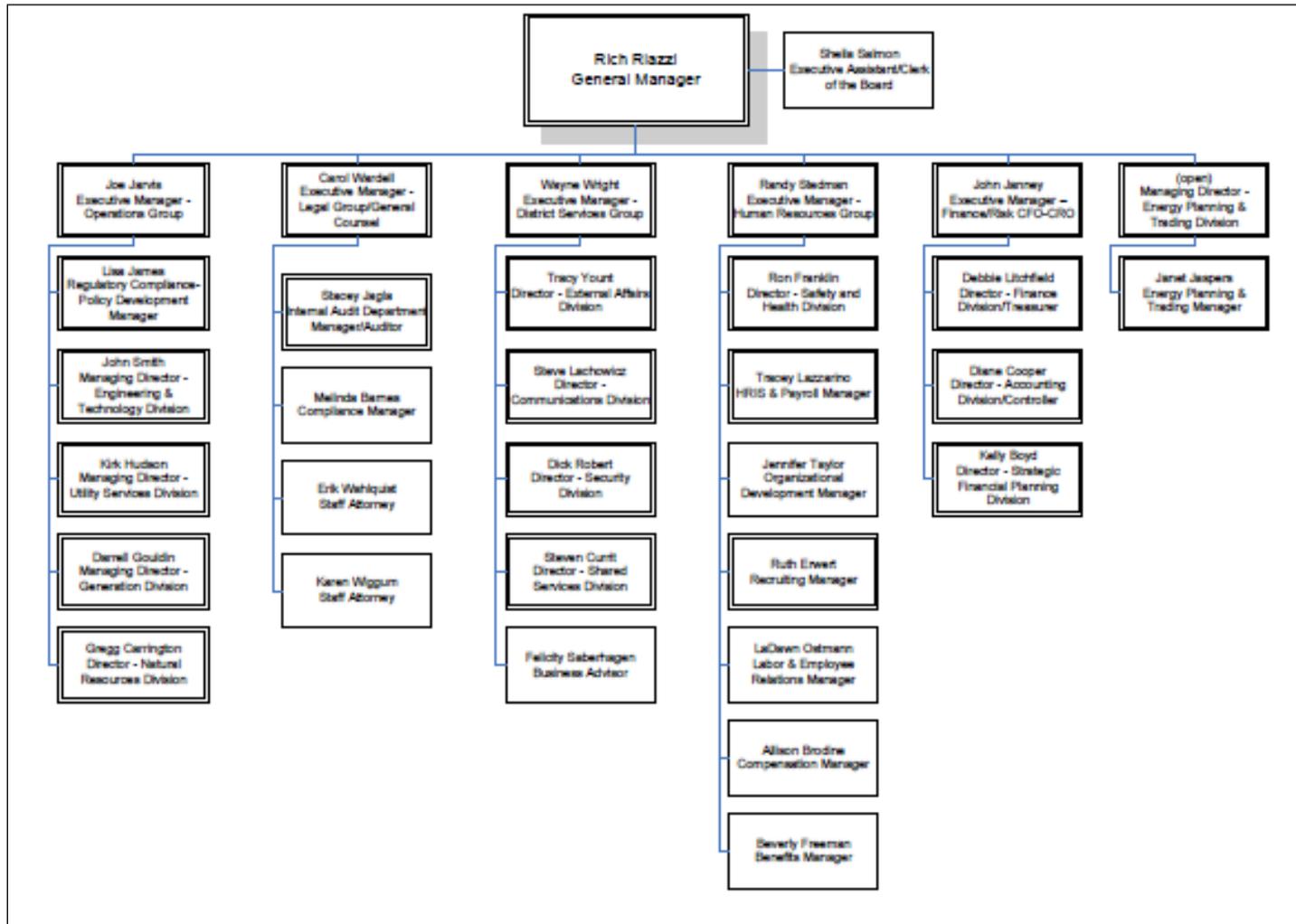
**Exhibit III-5** shows the assessment framework used to evaluate the organization structure of the Chelan County PUD.

#### **Exhibit III-5 Organization Structure Assessment Framework**

- Consistency of organizational structure with strategic priorities.
- Overlaps / duplication of functions and responsibilities.
- Consistency of authority and responsibility and accountability (P&L Responsibility).
- Span of management control / management layers.
- Management capacity and capability.
- Management communication (staff meetings, etc.)

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**Exhibit III-6: Current Top Line Organization of the Chelan County Public Utilities District**



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### 4. Employee Performance Management

**Commendation No. III-4: Chelan County PUD has an effective employee performance management system.**

#### Background

Defining the roles and responsibilities of key positions, reporting relationships, and accountability are basic elements of organizational and human resource management. Periodically and formally evaluating the performance of employees is also a basic element of organizational and human resource management. Regular evaluations of an employee's performance are an important way of keeping employees informed as to where they stand in relation to expectations and documents how their performance compares to specific job standards.

Washington provides guidance for state agencies:

*"An employee performance management process is part of a positive, performance-based culture. It fosters employee competence and productivity, supports achievement of organizational goals and objectives, and provides documentation of employee's strengths and areas in need of improvement."*

While this guidance is not required for PUDs, it is a best practice.

#### Outstanding Performance Noted

During the review of employee performance management at Chelan County PUD, we noted:

***4A. Core competencies are identified for key positions and annual performance plans with specific goals to be accomplished by individuals in key positions are developed.***

Chelan County PUD has implemented a Human Capital Management system to manage employee performance. The first element of this system is defining core competencies for positions. Annual performance plans are also developed with specific goals for each position.

***4B. Performance reviews are conducted at least annually based on established performance plans and specific goals.***

Chelan County PUD has developed comprehensive employee performance reviews, which include evaluating performance on the specific goals established in the annual performance plan. It also includes review of performance in each of the specific competencies defined for the position. This approach appears to foster and facilitate meaningful dialogue and feedback between managers and employees.

***4C. Performance review completion is tracked and appropriate oversight is provided to ensure timely completion of performance reviews.***

Chelan County PUD tracks and monitors completion of employee performance reviews to ensure they are completed within defined time periods. **Exhibit III-7** is an example page from the tracking tool and shows the 2008 performance reviews completed as of March 18, 2009.

As the exhibit shows, 100 percent of the reviews for non-bargaining unit employees had been completed. For the bargaining unit employees, 90 percent of the reviews had been completed. However, the reviews not completed were due to a new form and process, a new manager or because the employee was out on or had recently returned from a disability leave.

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### Exhibit III-7

#### Chelan County PUD Employee Performance Reviews Completed (As of March 18, 2009)

Business Unit	Total # Employees	2008 Reviews Complete			2008 Reviews Incomplete			% Reviews Completed
		TOTAL Complete	Non-BU Complete	BU Complete	Total Incomplete	Non-BU Incomplete	BU Incomplete	
Operations	493	463	184	279	30	0	30	94%
District Services	79	74	36	38	5	0	5	94%
GM's Office	17	17	17	0	0	0	0	100%
Finance/Risk	36	36	30	6	0	0	0	100%
Human Resources	19	19	19	0	0	0	0	100%
Legal	7	7	7	0	0	0	0	100%
<b>Totals</b>	<b>651</b>	<b>616</b>	<b>293</b>	<b>323</b>	<b>35</b>	<b>0</b>	<b>35</b>	<b>95%</b>

100%	90%	95%
Non-BU Complete	BU Complete	All Employees Complete

# BU Empl.	#Non-BU
358	293

Reasons for incompletes:	Number	Percent	
In Process	10	29%	(new form and process for System Ops)
New Manager	22	63%	(manager had new employees - felt too new to evaluate)
Disability	3	9%	(employee is either not here or just returned)

### Reasons for Outstanding Performance

The Chelan County PUD Commission and General Manager have a clear understanding of good governance practices and have instituted them.

### Criteria

**Exhibit III-8** shows the assessment framework used to evaluate the employee performance management effectiveness of the Chelan County PUD.

### Exhibit III-8 Employee Performance Management Assessment Framework

- Clear and up-to-date job or position descriptions.
- Development of annual performance plans for management and staff members.
- Performance reviews / evaluations conducted at least annually.

### Chelan County PUD's Response

*Chelan County PUD appreciates these commendations and recognition.*

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### B. OPERATIONS

#### Introduction

The Chelan County PUD Operations division is responsible for deploying the labor, facilities, processes and technology required to produce and deliver services. The effective and efficient use of these resources is critical to achieving the District's mission. Generally, public utilities perform better the more effectively and efficiently their resources are used. Performance includes electric system safety and reliability, customer satisfaction and financial performance.

Due to the mission-critical nature of Operations and the large facilities it manages and operates, large numbers of employees, complex processes and sophisticated technology are typically required. As a result, substantial opportunities for improvement often exist in Operations. Improvement approaches such as labor optimization, staffing analysis and asset management are often effective in improving operational performance.

#### Issues and Commendations

##### 1. Labor Optimization

**Issue No. III-1: Chelan County PUD could reduce the cost of operating distribution line crews.**

#### Background

Labor is a significant operating cost. The effective use of the District employees helps to ensure labor resources are optimized and unnecessary labor and contractor costs are avoided.

#### Condition

***The average internal line crew could be reduced from four linemen to three linemen to reduce costs.***

Line Operations field work is carried out by seven Chelan County PUD transmission and distribution (T&D) crews: six crews are based in Wenatchee and one crew is based in Chelan. Each crew typically consists of four employees: a Foreman, one or two Journeymen Linemen, a Groundman (may or may not be used depending on the work) and an Apprentice. For four-person line crews, the Foreman is the Safety Watch. Chelan Distribution Operations management indicated that in 2007, 60 percent of crews used four linemen, 20 percent used three linemen and 18 percent used five linemen per crew.

For 2007, the seven internal line crews worked approximately 65,000 hours at a total cost (wages and benefits) of approximately \$3.4 million.

The size of the District's Line Operations crews is typical among the PUDs in Washington. However, other electric utilities within Washington and in other states -- particularly in the East and Midwest -- customarily use crews with three, or in some instances, two linemen. The 2008 collective bargaining agreement between Chelan County PUD and its local union allows line crews to have three linemen (Section 8.1.1.1.B).

***State law increases line crew costs.***

Chelan County PUD has a contract with a private firm to provide line crews to supplement the District's internal line crews during peak workloads that typically occur in the summer and early fall. The District also has employed a contractor to perform certain line crew work, as required by state law (RCW 54.04.070). This law generally restricts the use of PUD line crews to perform work when the cost of

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materials exceeds \$150,000. Chelan County PUD management estimates it spent \$1.1 million of the \$1.6 million it paid contractor crews in 2007 to comply with RCW 54.04.070 and for work related to the January 2007 wind storm.

Requiring the use of contractor crews, per state law, is costly to the PUD. A four-lineman contractor crew costs approximately \$726,485 per year (assuming 10 percent overtime) versus approximately \$576,575 per year for a Chelan County PUD crew. That is an increase of approximately \$149,910 (or 26 percent) more per contracted crew. Given the significant cost, we believe the dollar threshold in Chapter 54.04.070 RCW requiring the use of outside contractors is too low for organizations in a capital-intensive industry such as the PUD with its ongoing need for high-cost capital projects.

### ***Linemen overtime exceeds industry standards.***

In 2007, the District's line crew overtime was 15.9 percent of regular hours – about two times the generally accepted industry practice for overtime hours worked. Management indicated that 74 percent of the overtime in 2007 was related to responding to after-hours system outages and emergencies. An additional 32 percent of the overtime was related to a severe windstorm in January 2007. For the three-year period ending December 31, 2007, neighboring Douglas County PUD limited its overtime to between 8 to 11 percent. Excessive overtime can result in adverse worker safety, performance, fatigue, stress, can compromise the employee's work-life balance and result in excessive costs. The District's line labor overtime pay in 2007 was enough to pay for at least one additional line crew.

### ***The contractor line crew "time and materials" contract could result in higher costs than a "units of work" contract.***

Management indicated that, in the future, Chelan County PUD intends to structure the line crew labor agreement using "units of work" concepts, in which the labor contractor would be compensated by satisfactorily completing specific agreed-upon units of work (i.e., feet of conductor installed, number of poles set, number of transformers installed, etc.). Contracting on this basis, with appropriate quality checks by the PUD, should provide an incentive for greater contractor efficiency and presumably lower costs than the current contract arrangement.

### **Cause**

Chelan County PUD generally operates with four linemen per crew because this configuration is considered to be the best suited for the work and is the District's work practice. The use of contractor crews is generally driven by compliance with state law.

Management believes that excessive overtime is driven by events outside its control and that excessive overtime is only worked when needed to respond to emergencies.

The District has not employed the "units of work" basis for contracting line crew labor. This approach requires the development of specific work standards, quality standards and inspection criteria, and the inclusion of these in line crew labor contract provisions.

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### Criteria

Line crew size and structure should be appropriate for the tasks performed. As an example, the **Appendix E** presents how a large eastern electric utility staffs its overhead line crews based on the work to be performed. In most instances this results in 3-man line crews.

Typically, it is advisable for a utility to contract for labor when some or all of the following criteria are met:

- To supplement existing labor
- For physical and low skill work
- When contractors are cost competitive with employees
- When contracted work has low correlation with the mission
- When contracted work is intermittent or peak work
- When the work is specialized
- When work is commonly contracted with readily available resources

The accepted industry target for overtime utilization is in the range of 5 to 10 percent of straight time. For the three-year period ending December 31, 2007, neighboring Douglas County PUD limited its overtime to between 8 percent and 11 percent.

### Recommendation

Chelan County PUD should:

- Restructure the composition of its line crews from four linemen to three linemen per crew whenever the nature of the work allows. This can be accomplished by assigning Safety Watch responsibilities to the lineworker serving as leadworker
- Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in Appendix B)
- Increase the number of District crews, and then replace contractor crews with the additional PUD crews
- For line crew labor contracts (largely for RCW 54.04.070 compliant work), continue to pursue structuring future line crew labor contracts on a “units of work” basis to provide a greater incentive for contractor efficiency and achieve lower costs
- Evaluate the use of overtime and take steps to reduce linemen crew overtime hours.

### Effect of Recommendations

Reducing the number of linemen on individual crews from four to three offers several opportunities including:

- Partially offsetting the need for contract crews
- Reducing line crew labor costs, including overtime
- Providing promotional opportunities for line crew journeymen to advance to the foreman level

Restructuring to three lineman crews would result in the addition of two more crews, increasing the number of Chelan County PUD line crews from seven to nine. The addition of two more crews could permit the PUD to reduce the number of contractor crews by two crews. This could result in savings of \$726,000 up to \$1,452,000 per year (the annual cost of two contractor crews). It should be anticipated that the replacement of the contractor crews by three-person Chelan County PUD crews would be a

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gradually phased-in activity, with the PUD performing progressively more of the contractor's work until the contract labor would no longer be required. Therefore, we have estimated a range of annual savings for the elimination of one and two contractor crews.

### Exhibit III-9 Projected Savings

Description	Annual Savings	Note
Restructure Chelan County PUD crews and increase the number of Chelan County PUD crews to eliminate contract crews	\$726,000 - \$1,452,000	Assumes Chapter 54.04.070 RCW is modified to permit expanded use of District crews and the same level of work and costs as 2008.  These savings do not include costs of vehicles and equipment which may be required for the new internal crews.

### Chelan County PUD's Response

*The auditor's analysis is based on work during calendar year 2007, a year that saw extremely unusual labor needs due to the severe January windstorm and related damage, as well as a local construction boom that resulted in the highest number of new electrical connections that decade. So, while this recommendation may look good on the surface, it would not produce the cost savings presented. Chelan County PUD considered the auditor's recommendations in light of the following:*

- *Chelan County PUD's strategy is to assemble the most efficient crew size based on the nature of the work. Chelan County PUD has and will use three-person crews when it can do so safely and more efficiently.*
- *Unless state law changes again, Chelan County PUD could not do all the anticipated work with its own crews and would need to continue hiring contract crews for some work. While Chelan County PUD would support increasing the threshold in RCW 54.04.070, changing state law is not within the PUD's control.*
- *Chelan County PUD's use of electrical contract crews has declined since the auditor's review. Chelan County PUD expended \$1,600,000 in 2007 (the year audited), however in 2008 expenditures decreased to \$720,000 and to \$1,000 in 2009. The amount in 2009 was extremely low due to the recession's impact on local development, the lack of major storms/outages, and other factors. Supplementing Chelan County PUD workforce with a contract workforce allows for flexibility to adjust to swiftly changing conditions and the ability to scale back when necessary.*
- *Chelan County PUD's contract for fiber and electrical line crews, awarded July 27, 2009, includes "units of work" as referenced in the audit recommendation. Chelan County PUD is looking forward to using the unit prices to help contain contract costs as appropriate. Chelan County PUD considers this recommendation resolved.*
- *By removing the overtime associated with the January 2007 storm, 32% of overtime that year, Chelan County PUD's overtime rate drops to approximately 10.5 percent, close to the industry standard. Additionally, Chelan County PUD's overtime rate in 2008 was*

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*10.93% and in 2009 was 6.73%. Chelan County PUD is taking a close look at after-hours system outages to determine if they can be handled any more efficiently given all the circumstances.*

#### **Auditor's Concluding Remarks**

Chelan County PUD appears to indicate that it is already sizing crews as efficiently as possible. We believe there are additional opportunities to achieve savings through the increased deployment of three-person crews.

#### **Issue No. III-2: Labor resource efficiency could be improved through increasing organizational spans of control.**

##### **Background**

We reviewed Chelan County PUD's organization chart and found that in some instances, managers and supervisors are responsible for managing and supervising just a few employees.

Labor is a significant driver of operating costs. Spans of management control (that is, the average number of employees who report to each supervisor) help assure that labor is used efficiently. Span of control studies indicate that as few as six direct reports up to 20 direct reports for a full-time manager or supervisor is optimal, depending on the organization.

##### **Condition**

The results of the spans-of-control analysis for Chelan County PUD are in **Exhibit III-12**. "Echelons" represent supervisory roles. Echelon 1 refers to positions (General Manager) that report directly to the Commission; Echelon 2 refers to the direct reports of the General Manager (generally Executive Managers); Echelon 3 generally refers to Managing Directors and Directors; Echelon 4 generally refers to Managers and Superintendents; Echelon 5 generally refers to Supervisors; and Echelon 6 refers to a single supervisory position.

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**Exhibit III-10  
Chelan County PUD Organizational Span of Control Analysis**

Echelon	Number of Managers or Supervisors	Number of Employees Supervised	Average Span of Control <small>(Should be &gt;6)</small>	High Span	Low Span	Managers or Supervisors with Fewer than Six Reports	
						Number	Percent
1	1	7	7.0	7	7	0	0.0%
2	5	27	5.4	7	1	4	80.0%
3	17	89	5.2	11	1	9	52.9%
4	37	236	6.4	18	1	22	59.4%
5	28	342	12.2	36	2	8	28.6%
6	1	14	14.0	14	14	0	0.0%
<b>Total</b>	<b>89</b>	<b>715</b>	<b>8.0</b>	<b>36</b>	<b>1</b>	<b>43</b>	<b>48.3%</b>

The average span of control at Chelan County PUD is 8.0 employees per supervisor. This is in line with span of control best practices. However, the average spans of control in Echelons 2 and 3 fall below the desired minimum number of six direct reports per supervisor, averaging 5.4 and 5.2 employees per supervisor respectively. Also notable is the fact that 43 supervisory positions of the 89 total supervisory positions - or 48 percent - have fewer than six employees per supervisor.

In addition, there are numerous instances of one-on-one or one-on-two reporting arrangements. Some instances are highly specialized functions such as Legal, Natural Resources, Safety & Health or areas in which the supervisor has an active, contributing role in the work of the group. However, in other areas, spans of control could be consolidated to eliminate supervisory positions and reduce costs.

### Cause

The narrow spans of control at the senior levels of the organization and organizational staff size are primarily a matter of preference for General Manager.

### Criteria

Organizational spans of control are typically based on a combination of the following factors:

- Diversity of functions supervised.
- Number of physical locations or mobile employees.
- Degree of supervisor involvement in subordinates' work.
- Experience level of the work force.
- Complexity of work planning required.

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Spans of control studies suggest a span of control ranging from as few as six direct reports up to 20 direct reports for a full-time manager or supervisor. Neighboring Grant County PUD, has achieved an overall span of control of 10.6 (See Chapter IV, Issue IV-5).

### **Recommendations**

Chelan County PUD management should pursue increasing spans of control through organizational consolidation as management attrition occurs. The District should also consider interdivisional and/or interdepartmental realignments as opportunities present themselves.

### **Effect of Recommendation**

Increasing existing spans of control would reduce labor costs. Based on an average 2007 Chelan employee cost of \$94,292 per year, significant savings could be achieved with organizational consolidations that increase spans of supervisory control.

Potential annual savings, based on reducing three to six manager and supervisory positions, are projected to be \$282,878 to \$565,756. A reduction of this magnitude is reasonable in our opinion based on the fact that almost one-half of the 89 managers and supervisors have fewer than six direct reports. However, we recognize these annual savings are not likely to be fully realized until those efforts are completed.

### **Chelan County PUD's Response**

*While Chelan County PUD has increased spans of control in recent years, it also has taken other factors into consideration when determining the optimum organizational structure. Span of control is one useful indicator, but the actual control of costs is more important. Since 2006, Chelan County PUD has focused significant effort on controlling costs and staffing levels. Reorganizations or realignments occurred in 2007, 2008 and 2009. The rate of increase for total labor and benefit costs has dropped from 11.01% in 2006, to 6.40% in 2007, to 3.29% in 2008, to 3.08% in 2009. Given the rate of inflation in labor and benefits costs over this period, the progressive reductions are significant. Chelan County PUD continues to evaluate and realign processes to reduce costs and improve efficiency.*

*We also note that the auditor recognized Chelan County PUD in Commendation III-3, stating, "The organization structure of Chelan County PUD provides consistent authority and responsibility and provides an appropriate span of management control for the General Manager and his direct reports."*

### **Auditor's Concluding Remarks**

We agree that the span of control of 7 for the General Manager is appropriate. Our recommendation is focused on levels below the General Manager. We continue to believe that Chelan County PUD should opportunistically pursue increasing spans of control as management attrition occurs.

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**Issue No. III-3: Labor costs could be reduced by increasing efficiency and reducing staff levels.**

### Background

Chelan County PUD experienced substantial organizational growth from 1997 to 2003. Since 2003, Chelan has achieved greater stability in staff levels. Several projects and initiatives that drove staffing increases have since been completed.

### Condition

The District's 1997 Annual Report stated it had 525 employees. The District's 2007 Annual Report stated it had 688 employees, an increase of 163 employees or 31 percent over 10 years. Most of the growth occurred from 1998 to 2003, a period when many utilities were able to maintain or even reduce staffing levels through the use of technology, improved business processes and contract services. The District has analyzed this growth in the past and has identified the major areas of increased staffing: Engineering, Information Technology, Finance/Business Offices, Fiber and Environmental.

### Cause

A number of initiatives and requirements, now resolved, faced the District from 1998 to 2003 that contributed to staff growth in the areas mentioned above. **Exhibit III-11** identifies the annual increase in FTEs and the major drivers of the growth.

**Exhibit III-11  
Staffing Growth Explanation**

Year	New Projects and Initiatives	Annual FTE Increase
1998	Habitat Conservation Plan Initiated	12
1999	Fiber Project Begins Rocky Reach Relicensing Begins	19
2000	Water View Operating System Installed Diesel Farm Construction Begins	10
2001	Enterprise Business Solution (EBS) Project Begins York Switchyard Construction Begins	30
2002	Security Department Formed CTC Construction Begins RR Fish Bypass Construction Begins	39
2003	Rock Island Rehabilitation Begins	43

### Criteria

Typically, it is advisable for a utility to review its staff size when:

- Expanding new or existing business lines
- Long-term projects or programs are initiated or completed

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- New facilities or labor-saving technology are placed into service
- Existing business lines and services are abandoned or reduced

#### **Recommendation**

Chelan County PUD should ascertain the extent to which staffing added from 1998 through 2003 is still required and should take measures to maintain or reduce current staffing levels. These might include but are not limited to:

- Implementing labor-saving technology
- Reducing internal support service levels where appropriate
- In-sourcing contracted work where economical
- Contracting work where economical
- Consolidating organizational units and increasing spans of control as practical at the division, department and section levels
- Improving work processes and including shared services recommendations presented elsewhere in this report

#### **Effect of Recommendation**

The extent of staffing reductions achievable, if any, is dependent upon the results of the review recommended above. Annual and five-year savings have not been quantified; however, based on an average 2007 employee cost of \$94,292 per year, savings of that amount could be achieved annually for each position eliminated.

#### **Chelan County PUD's Response**

*Chelan County PUD continues to evaluate and realign processes to reduce costs and improve efficiency. As mentioned in the previous response, since 2006, Chelan County PUD has focused significant effort on controlling costs and staffing levels. In 2009 and 2010, Chelan County PUD reduced the staffing level by 27 positions including 12 positions through the 2009 voluntary employee separation program. Chelan County PUD projects annual savings of \$2.7 million, after voluntary separation payment, far more in savings than projected by the auditors.*

*The performance auditor's report highlights several projects dating back to 1998, most of which are added services or involve ongoing requirements that have now become part of Chelan County PUD's day-to-day operations. Not included in the auditor's listing is the impact of the increased and changing laws and regulations. In addition, other projects and ongoing work have been added. While these initiatives have called for increased staffing levels, Chelan County PUD continually assesses its staffing requirements.*

#### **Auditor's Concluding Remarks**

We applaud Chelan County PUD's efforts to reduce headcount and view those actions as consistent with this recommendation. We are, however, confused by Chelan County PUD's statement that it is projecting "far more in savings" than we projected. We estimated savings at \$94,292 per employee. Chelan County PUD indicates they are saving \$100,000 per employee (\$2.7 million divided by 27 employees) – a negligible difference.

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### 2. Asset Management

**Issue and Commendation No. III-5: Sustained implementation of asset management has improved utility plant reliability, efficiency and cost-effectiveness.**

#### Background

A robust asset management program often results in significant capital and/or operations and maintenance (O&M) cost reductions and efficiency improvements as a result of better decision-making. Asset management is applied in asset-intensive industries, including electric utilities that seek to optimize the life cycle of assets through improved reliability, availability and use. Organizations manage assets using the principles of integrated planning, asset rehabilitation, asset replacement, asset service level requirements and asset disposal.

There are several benefits of effective asset management programs. They include:

- Assuring that all asset decisions are policy-driven.
- Constructing, maintaining and operating facilities most cost-effectively.
- Achieving desired performance levels.
- Optimizing life-cycle costs.
- Allocating available resources efficiently to support the organization's overall goals and policies.
- Measuring and focusing on performance and outcomes.
- Improving repeatability, credibility and accountability for decisions.

#### Condition

Chelan County PUD has a generally well developed asset management program. We evaluated the effectiveness of the elements of Chelan County PUD's asset management program using the evaluation matrix and criteria described in **Exhibit III-12**.

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### Exhibit III-12 The District Asset Management Evaluation

Asset Management Program Element	Evaluation	
	Rating	Description
<b>Asset Management Strategy</b> Does the District have a District-wide Asset Management Strategy?	<b>2</b>	<b>Implementation Initiated</b>
<b>Asset and Resource Inventory</b> Has an Inventory of All District Assets been compiled?	<b>4</b>	<b>Full Implementation</b>
<b>Asset Condition Assessment</b> Is the condition of the District's Assets being evaluated on an ongoing basis?	<b>4</b>	<b>Full Implementation</b>
<b>Life Cycle Evaluation</b> Has the life-cycle of the District's Assets been established?	<b>4</b>	<b>Full Implementation</b>
<b>Asset/Component Replacement Criteria</b> Are planned actions established in terms of the alternatives (Retire, Replace, Repair, Refurbish, Run-to-Failure) for the District's Assets?	<b>3</b>	<b>Partial Implementation</b>
<b>Financial Asset Management Strategy</b> Is there a strong linkage between AM and financial planning and decision-making?	<b>3</b>	<b>Partial Implementation</b>
<b>Asset-Optimized Decision Making</b> Are AM decisions made to optimize the life-cycle value of the District's Assets?	<b>4</b>	<b>Full Implementation</b>

**Evaluation Description Definitions:**

1. **Not Implemented** - The program element is not in place at the present time.
2. **Implementation Initiated** - The program element has been identified as being capable of delivering positive performance improvement results and implementation is being pursued by the organization.
3. **Partial Implementation** - The program element has been successfully implemented in some areas of the company (but not companywide) and is generally considered to have the ability to deliver performance improvement results.
4. **Full Implementation** - The program element has been successfully implemented throughout the organization, is in common use as a standard operating practice, has been accepted by cognizant departments and has delivered positive performance improvement results.

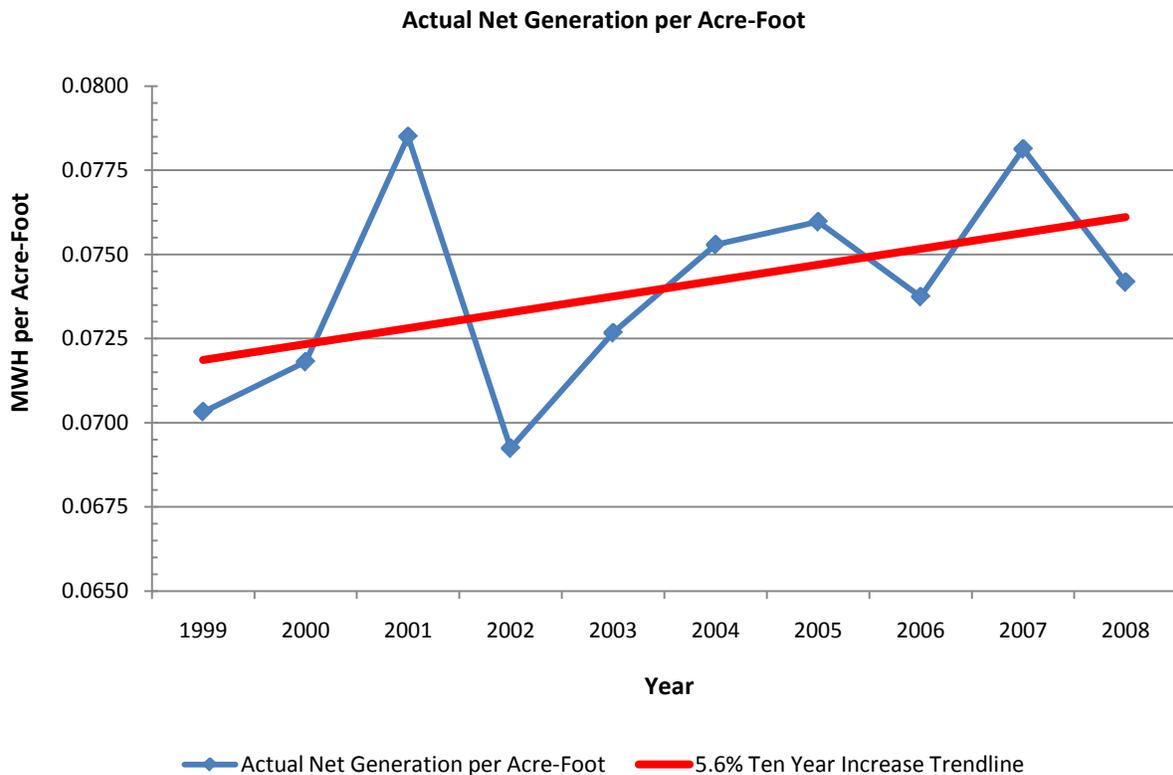
In addition to the evaluation above, we quantitatively assessed the effectiveness of Chelan County PUD's Rocky Reach and Rock Island hydroelectric projects by evaluating trends in the ratio of annual electric output compared to the annual volume of water discharged (i.e., MWH per Acre-Foot ) from 1999 to 2008. This ratio was selected as a broad indicator of how effectively the assets are being managed under uncertain conditions such as variations in annual river flows, seasonality, licensing and regulation, facility aging, fish spill, and the Canadian Entitlement. Ten years is a reasonable timeframe to expect improved performance in an effective asset management program. Effectively and proactively managing the hydro positively affects performance trends over time, despite these uncontrollable

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variables. Further, the District can gain useful information by comparing its performance to hydro facilities with similar river flows, market conditions and other variables.

As shown in **Exhibit III-13**, hydro efficiency performance at Rocky Reach has improved by approximately 5.6 percent from .072 to .076 MWH per Acre-Feet discharged in 10 years. This result indicates Chelan County PUD is achieving a good measure of the benefits that an effective asset management program offers at Rocky Reach.

**Exhibit III-13**  
**Rocky Reach Project Efficiency - Net Power Generation per Acre-Foot per Year**  
**Actual and Trended**



**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

From 2006 through 2008, Rocky Reach generated an additional 795,000 MWH of production as a result of improvements made since 1999. Assuming the additional electricity was sold at the average wholesale price each year, it generated additional wholesale revenue totaling more than \$41 million from 2006-2008 as shown in **Exhibit III-14**.

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#### Exhibit III-14 Rocky Reach Analysis

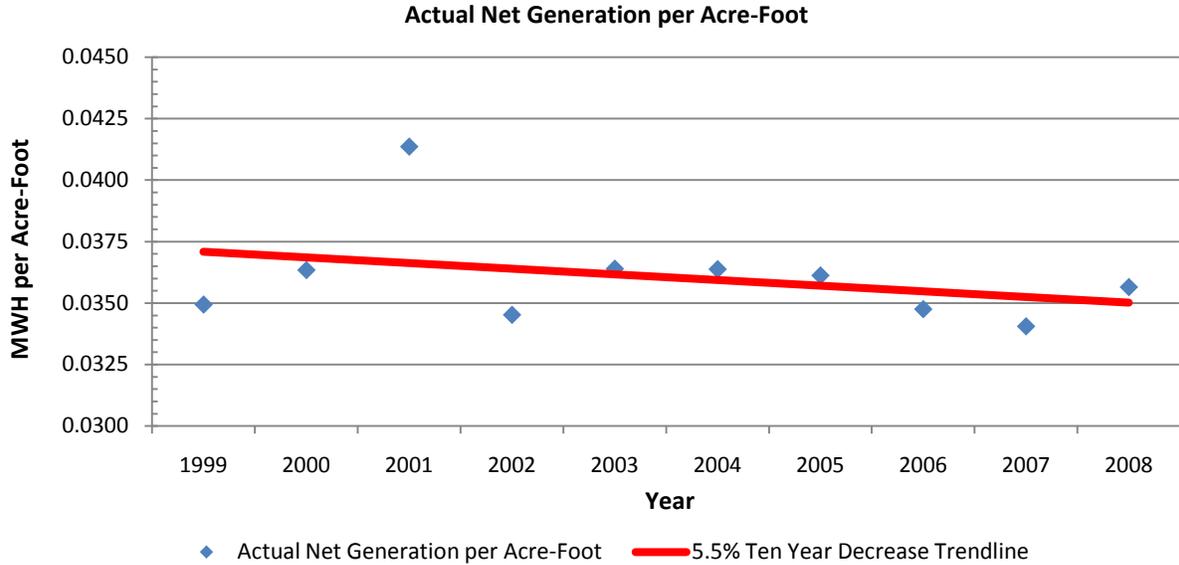
Year	Reported Generation (MWH)	Hypothetical Generation w/o Efficiency Gain (MWH)	Apparent Generation Efficiency Gain (MWH)	Mid-C Weighted Average Price (\$ per MWH)	Estimated Revenue Gain
2006	5,947,000	5,806,272	140,728	\$45.38	\$6,386,222
2007	6,247,000	5,756,451	490,549	\$51.43	\$25,228,924
2008	5,564,000	5,400,685	163,315	\$58.84	\$9,609,456
<b>Total</b>					<b>\$41,224,602</b>

**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

The benefits of the District's asset management program are certainly less apparent at Rock Island, where the performance has deteriorated from 1999 to 2008 as shown in **Exhibit III-15**. During that 10-year period, the ratio of electric output to annual volume of water discharged at Rock Island during the same 10 years declined from .037 to .035 MWH per Acre-Feet discharged. In view of the age of the Rock Island facility (the original powerhouse was constructed in 1933), the District's asset management program is believed to have been successful in forestalling more rapid deterioration of the plant's efficiency. The District recently implemented a rehabilitation project for units B5, B6, B7, B8, B9 and B10, which is expected to improve Rock Island reliability and efficiency. If hydro performance at Rock Island had been maintained at 1999 levels, the District would have generated an estimated additional 530,000 MWH of production from 2006 through 2008.

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Exhibit III-15  
Rock Island Project Efficiency - Net Power Generation per Acre-Foot per Year  
Actual and Trended



**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

### Cause

The Chelan County PUD hydro organization has made excellent efficiency gains (approximately 5 percent) at Rocky Reach as a result of asset management decisions made in the late 1990s to rehabilitate all units at that facility. Chelan County PUD appropriately made the decision to allocate its limited capital resources to improvement projects that would produce the greatest benefit. With completion of the Rocky Reach rehabilitation project in 2006, the District's focus for capital improvement efforts shifted to Rock Island. The District expects to reverse the trend of efficiency deterioration at Rock Island upon the completion of the rehabilitation of each of the six individual Rock Island Power House 1 units. Assuming the Rock Island rehabilitation is completed by 2014, as scheduled, the plant should perform more efficiently.

### Criteria

An effective asset management program provides a clear line of sight for transparent decision making combined with establishing roles, goals, and metrics that can focus and motivate the organization towards a more effective operation.

Broadly, an effective asset management program should include the following elements:

- Asset management strategy
- Asset and resource inventory
- Asset condition assessment
- Life cycle evaluation

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- Asset/Component replacement criteria
- Financial asset management strategy
- Asset optimized decision making

### **Recommendation**

Chelan County PUD should continue to aggressively pursue the refinement of its well developed asset management program. This should include developing and articulating an enterprise-wide strategy for asset management within the PUD.

### **Effect of Recommendation**

Based on average 2006-08 production and Mid-Columbia energy prices, every one percent gain in efficiency at Rocky Reach would result in an additional 59,000 MWH in annual generation output that translates to approximately \$3,070,000 in additional revenue. Similarly, a 1 percent gain in efficiency at Rock Island would result in 28,000 MWH in additional generation and \$1,450,000 in additional revenue.

**Note:** The power generation and pricing data used in the calculation above was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

### **Chelan County PUD's Response**

*Chelan County PUD appreciates the observations made by the performance auditors in recognizing Chelan County PUD's efforts in this area. As noted by the auditor, while Rock Island is showing a slight decline in efficiency due to increased fish spill and increased mandatory Canadian entitlement deliveries, gained efficiencies are expected after completion of work at both powerhouses. The auditors did not mention that Chelan County PUD is also undergoing a modernization at its Lake Chelan hydro facility. Expected efficiencies gained at Lake Chelan for the turbines and generators will be 6% and increased output of approximately 4 MW per unit.*

*Chelan County PUD intends to continue moving forward with our asset management program.*

### **Auditor's Concluding Remarks**

We applaud Chelan County PUD's intention to move forward with its asset management program; however we are unable to tell from Chelan County PUD's response whether "moving forward" with its asset management program includes "developing and articulating an enterprise-wide strategy for asset management within the PUD." If not, we continue to believe that the PUD will benefit from developing an enterprise-wide asset management strategy.

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### C. CONSTRUCTION MANAGEMENT

#### Introduction

Construction managers oversee the planning, design, construction and post-construction phases of capital projects to ensure delivery of quality projects that meet scope, quality cost and schedule requirements. Construction managers also review contract proposals and change orders and monitor construction progress and quality.

Chelan County PUD's Capital Project Plan for 2009 through 2011 includes more than \$166 million of capital projects with individual estimated total costs of more than \$1 million. The District contracts with architectural and engineering firms for project design and support services during construction. It had architectural and engineering contracts valued at more than \$13 million from 2006 through 2008.

#### Issues and Commendations

##### 1. A&E Firm Cost Proposals

**Issue No. III-4: Detailed independent reviews of Architectural and Engineering firms' cost proposals through the adoption of policies and procedures could result in significant cost savings.**

#### Background

Chelan County PUD pays for architectural and engineering services based on labor rates that include the employee's hourly wage, overhead costs (including benefits and payroll taxes), administrative costs and profit.

Many governmental agencies perform pre-award cost reviews of these rates to provide a basis for negotiating fair and reasonable fees. Chelan County PUD does not perform these reviews.

#### Condition

Chelan County PUD does not perform detailed cost reviews of architectural and engineering services firms' proposals, resulting in payments to architectural and engineering services firms that are beyond fair and reasonable.

We attempted to analyze three contracts totaling \$4.4 million and representing 32 percent of the major architectural and engineering contracts for 2006 to 2008 to verify how much the District paid architectural and engineering firms above what is fair and reasonable. We requested the firms provide actual labor and overhead cost data; however, only one of the three firms provided the information necessary to perform our analysis. This firm had contracts totaling \$675,000 or 5 percent of the total architectural and engineering contracts for 2006 to 2008.

We compared the contract-approved fully burdened labor rates the District paid the contractor to the contractor's actual labor costs and overhead costs. We found the rates paid exceeded the contractor's actual labor and overhead costs plus a 10 percent profit by about 12 percent. While our analysis was limited to only one of three firms selected, this result is similar to what we found at the other two PUDs that obtained architectural and engineering services for similar purposes and often used the same architectural and engineering firms.

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### Cause

Chelan County PUD was unaware of the cost-savings that could be realized through pre-award reviews and thus did not have a policy requiring them. Without policies requiring detailed costs from contractors, the District is not in a position to determine whether the contractors' rates are fair and reasonable.

### Criteria

State law (RCW 39.80.010 and 39.80.050) requires governments to negotiate fair and reasonable fees for architectural and engineering contracts. In addition, developing rates using actual employee-specific labor rates, actual historical overhead rates and a 10 percent profit is a best practice.

### Recommendation

To assist with such cost reviews, the Chelan County PUD should adopt policies to:

- Change its request-for-proposal process to require that architectural and engineering firms' proposals include financial data on the actual pay rates of proposed staff as well as accounting information supporting the overhead calculation. With this financial information, the District could then independently calculate and determine whether the fees proposed are reasonable (generally, a 10 percent profit is allowed).
- After selecting the most highly qualified firm in accordance with state law (RCW 39.80.040), the District should review the fees proposed by the firm before negotiating or signing the contract.

### Effect of Recommendation

Because our analysis was limited to an evaluation of only one of the three architectural and engineering firms selected, we are restrained from projecting a definitive range of future cost savings if the District institutes the recommendations. However, based on our extensive experience in government construction contracting, the results of our analysis coupled with the results of our similar work at the other two PUDs, we are convinced that if the PUD institutes the recommendations above, it would result in significant future cost savings in its architectural and engineering contracts.

### Chelan County PUD's Response

*In response to the audit recommendation, Chelan County PUD's Engineering and Project Management division has adopted a standard practice requiring a breakdown of the proposed price of work by engineering consultants, including the fee. The fee will be evaluated for reasonableness as a function of the risk of the work, the expertise of the individuals and competitiveness of the firms being considered. It is important to understand, engineering consultants are under no obligation to provide details of their cost proposal as sought by Chelan County PUD. In some cases, Chelan County PUD may be unable to obtain a breakdown as described above. If so, Chelan County PUD will continue, as it has in the past, to evaluate cost proposals based on the principles of total cost versus quality, value and benefits provided by engineering consultants.*

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### **Auditor's Concluding Remarks**

We believe that implementation of our recommendation should result in substantial savings and commend Chelan County PUD for taking positive and timely action in response to those recommendations. We also understand that the consultants are under no obligation to provide the labor cost and overhead data needed to assess the reasonableness of their proposed prices; however, our experience has shown that consultants are willing to provide such cost information if requested by the agency and required as a condition of contract award.

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### 2. Change Order Cost Proposals

**Issue No. III-5: More detailed review of change orders through improved procedures and contract terms could result in significant cost savings.**

#### Background

Chelan County PUD issues construction contracts through a competitive bidding process where the reasonableness of bid prices is established. However, construction contracts commonly require contract change orders due to unforeseen conditions during construction or changes in architectural and/or engineering design. These contract change orders are not competitively bid, but instead are awarded to the same firm awarded the original contract. Because construction contract change orders are not competitively bid, steps should be taken to ensure the proposed cost of these changes orders is fair and reasonable.

#### Condition

Because of inadequate procedures and contract terms, Chelan County PUD is not performing a detailed review of construction contract change order costs proposed by the contractors. This results in payments to construction firms that are beyond fair and reasonable.

To verify how much Chelan County PUD was paying construction firms beyond what is considered fair and reasonable, we reviewed 5 change orders totaling \$4.8 million - 89 percent of the dollar value of the total change orders - related to four construction contracts. We compared Chelan County PUD's administration of these change orders with best practices and found:

**Exhibit III-16  
Evaluation of Chelan County PUD's Change Order Practices**

Change Order Best Practices	What we found:
Independent cost estimates prepared by PUD <b>(Yes/No)</b>	<b>Inconsistent.</b> We found that the PUD prepared an independent cost estimate on only 3 of the 5 change orders reviewed.
Contractors' Change Order Cost Proposals Sufficiently Detailed? <b>(Yes/No)</b>	<b>No.</b> Neither of the two lump-sum change orders contained enough detail.
Proposed Change Order Labor Costs Sufficiently Analyzed <b>(Yes/No)</b>	<b>No.</b> Sufficient detail on the contractor's proposed labor rate was not available to determine the extent to which incidental mark-ups or excessive unemployment taxes were included in the proposed costs.  <b>Other Observations:</b> We were able to verify that prevailing wages were proposed for one of the three Time & Material change orders, but unemployment taxes were computed incorrectly. Unemployment taxes are paid by the employer at 6.2% of the first \$7,000 of an employee's annual wage. The contractor proposed 6.2% of the total wage and Chelan County PUD accepted the proposed

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Change Order Best Practices	What we found:
	<p><i>rates. This resulted in an overstatement of actual contractor labor costs of about 4 to 5 percent. Another common practice is to disallow incidental mark-ups to labor wages as they should be covered in the allowable overhead and profit mark-up. Details provided on labor wages for one of the three Time &amp; Material change orders showed that the contractor included incidental charges and overhead additions in its proposed labor rates such as small tools and liability insurance. For example, the contractor included an incidental mark-up on its proposed labor of \$2.50 per hour for small tools. That amounts to \$20 per day or \$100 a week.</i></p>
<p>Change Order Labor Costs Limited to Individuals Performing the Work <b>(Yes/No)</b></p>	<p><b>No.</b> <i>The PUD's contract general conditions do not limit labor charges to only those individuals performing the work.</i></p>
<p>Contract General Conditions Limit Mark-ups for Overhead and Profit on "Lump-sum" and "Time and Materials" Change Orders (A 15~20 percent/5 percent limitation on mark-up is consistent with limits used by many government agencies.) <b>(Yes/No)</b></p>	<p><b>Time &amp; Material Change Orders:</b> <b>Yes.</b> <i>Chelan County PUD's contract General Conditions for change orders negotiated on a Time and Material (T&amp;M) basis properly limit overhead and profit mark-up to 18 percent of the costs for the contractor performing the work, 15 percent for subcontractors and up to 5 percent for the prime on subcontractor costs. Based on our review of three (3) T&amp;M change orders we observed mark-up was computed at 15 percent for the contractor performing the work and five (5) percent for the prime on subcontractor costs.</i></p> <p><b>Lump-Sum Change Orders:</b> <b>No.</b> <i>The PUD's General Conditions contain no similar limits for change orders negotiated on a lump sum basis. Accordingly, we were unable to determine the proposed mark-up for the two (2) change orders negotiated on a lump sum basis because the PUD does not require the contractors to submit the details of their charges. However, our review of change orders at the other two PUDs with General Condition language similar to Chelan County PUD's showed that contractors had marked up their costs by as much as 29 percent.</i></p>
<p>Contract Change Order Negotiations Documented <b>(Yes/No)</b></p>	<p><b>No.</b> <i>Chelan County PUD procedures do not require a formal record documenting its contract change order price negotiations</i></p>

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In summary, the PUD followed none of the six best practices consistently or lacked documentation to demonstrate this consistency.

#### **Cause**

Chelan County PUD change order procedures requiring the preparation of an independent cost estimate were not always followed. Further, the District's contract General Conditions do not require detailed contractor cost proposals or provide adequate criteria on what contractor costs and mark-ups are allowable when pricing change orders. The General Conditions provide some detailed criteria on allowable cost and mark-ups for change orders negotiated on a time and material basis, but do not provide criteria on allowable costs for change orders negotiated on a lump sum basis. Finally, Chelan County PUD's policies do not require formal documentation of contract change order price negotiations.

#### **Criteria**

*Best Practices* for the review of contract change order costs require a cost analysis to ensure that the proposed cost is fair, reasonable and adequately supported. Such best practices require the following:

- Developing independent cost estimates without regard to the contractor's cost proposal. These independent cost estimates provide a basis to evaluate the reasonableness of the contractor's proposed costs.
- Documenting price negotiations, including the basis for determining the reasonableness of negotiated prices.
- Including in contract General Conditions provisions requirements on how the contractor should propose its contract change order costs. A detailed cost breakdown should include at a minimum labor hours and rates by trade, detailed material units and prices, hours and rates for equipment, and mark-ups added.
- Limiting proposed labor costs to prevailing wages and to those employees who work directly on the change order, excluding management staff. Project management personnel and site superintendents are required to be at the construction site with or without the extra work required by the change order, and there is no justification for allowing additional charges for their time unless the change order causes an extension of the contract schedule.
- Excluding incidental mark-ups (e.g., for small tools).

#### **Recommendation**

Chelan County PUD should take the following actions to improve its contract change order procedures:

- Require detailed contractor proposals for both lump sum and time & material change orders.
- Revise contract General Conditions to only allow labor costs for those working directly on the change orders.
- Revise contract General Conditions to exclude incidental charges to proposed wage rates.
- Revise contract General Conditions to require detailed contractor proposals for change orders to be negotiated on a lump sum basis with details on proposed labor hours and labor categories, material and quantities, equipment and equipment hours.
- Establish procedures to ensure proposed labor rates are based on the contractor's actual cost for unemployment insurance.

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- Perform a cost analysis of the contractor's proposed costs for both lump sum and time & material change orders.
- Document and retain the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation.

### Effect of Recommendation

Based on our review of Chelan County PUD's contract change order process, we estimate potential annual savings between \$100,000 to \$400,000 a year by implementing best practices for its capital project contract change orders.

### Chelan County PUD's Response

*Chelan County PUD agrees that some of the recommendations made by the performance auditor make sense and may lead to some cost savings.*

*Chelan County PUD's Engineering and Project Management division has already established standard practices requiring all change orders above \$10,000 be broken down according to labor, equipment, materials, overheads and profit; requiring an in-house cost estimate for changed work be completed prior to receiving a cost proposal from contractors for the work; and requiring the change order review process include analysis and comparison of estimates prior to execution. A record of negotiation documenting the review process will be prepared prior to execution of the change order. Additionally, general conditions will be revised to implement the recommendation to allow labor only for those working directly on the change orders.*

*An excellent overall measure of construction management effectiveness is the total amount of changes to all contracts completed during a period of time. The table below indicates the overall effectiveness of Chelan County PUD at controlling contract changes for completed contracts during the period of 2007 through 2009 as reflected in the small percent of change orders.*

Year	Original Contracts	Revised Contracts	Percent of Change Orders
2007	\$18,863,700	\$18,994,756	0.69%
2008	\$20,798,549	\$21,505,114	3.4%
2009	\$ 1,675,511	\$ 1,680,217	2.8%
Total	\$41,337,760	\$42,180,088	2.0%

*Implementing the auditor's recommendations will allow Chelan County PUD to incrementally improve on the high-quality, effective construction management process currently in place.*

### Auditor's Concluding Remarks

Chelan County PUD indicated that it agreed with and has implemented some of the recommended procedures. We commend Chelan County PUD on its timely and positive response to those recommendations and concur with the \$10,000 cut off for implementation of our recommendation. We are unsure as to whether or not Chelan County PUD agreed with our other recommendations concerning incidental labor mark-ups and unemployment insurance costs, but believe the identification of unreasonable contractor proposed costs in these areas should be part of Chelan County PUD's newly established procedures for analyzing proposed costs and comparing estimates.

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We note the total value of change orders under the contracts we reviewed were far in excess of 2 percent of the original contract value. We reviewed two contracts awarded in 2006, one awarded in 2007 and another awarded in 2008. Change orders under those four contracts totaled \$5,442,612 or 13 percent of the total original contract value of \$41,760,121. We did not view this change order percentage as an indication of ineffective construction management, but rather used the percentage as a means of assessing the savings potential through implementation of our recommendations.

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#### D. PROCUREMENT

##### Introduction

Procurement is the purchase of materials, supplies and services for Chelan County PUD as a whole. This function is important because it helps to ensure the District provides reliable and cost-effective service. We analyzed:

- Transmission and distribution and telecommunications inventory balances that averaged \$8.2 million in 2008 and the related inventory turnover.
- District vouchers and purchase card disbursements totaling \$191 million in 2008 for various criteria including:
  - Whether the expenses were critical to the District’s mission.
  - Whether there was evidence of competitive bids or price quotes.
  - Whether the procurement techniques resulted in low-cost high-quality services (i.e., use of competitive bids, strategic alliances, volume discounts and purchasing cards, etc.).

Each issue includes additional background information.

##### Issues and Commendations

**Issue No. III-6: Materials and supplies inventory turnover is below the industry average, resulting in higher inventory levels and higher inventory carrying costs.**

##### Background

Materials and supplies are essential to ensuring reliable utility service. Supplies of critical items used in operations must be available so as not to disrupt service or delay construction, repair or maintenance activities. Determining the right inventory levels is challenging because holding materials and supplies consumes working capital and warehouse space whereas purchasing more frequently has purchase order and other transaction-related costs. “Inventory turnover” is a key performance measure that benchmarks how well inventory levels are managed. Inventory turnover is calculated by dividing annual use by the inventory balance at a specific point in time. Inventory turnover of less than one indicates that more than one year’s supply of inventory is kept

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### Condition

The inventory turnover rate for Chelan County PUD was 1.1 in 2008. This means that Chelan County PUD's average inventory balance represented slightly less than one year's usage compared to the benchmark of roughly six months' usage. This is well below the electric transmission and distribution (T&D) benchmark inventory turnover ratio of 2.3. **Exhibit III-17** shows the calculation of the turnover rate for 2008:

**Exhibit III-17  
Calculation of Inventory Turnover**

2008	
Annual Usage	\$9,025,136
Average Materials and Supplies	\$8,194,563
Turnover	1.1

### Cause

District employees gave several reasons for the extra inventory. First, the inventory balances include \$108,000 of obsolete materials that have not yet been written off. Second, other items that were purchased in bulk for the fiber optic communications network in 2008 were not used because Chelan County PUD reduced its fiber program capital spending due to deteriorating economic conditions. Finally, in certain instances, the engineers for the electric network determined the quantities to be purchased based on their judgment of quantities of supplies needed, including holding extra quantities for certain items with long purchase lead times.

### Criteria

Our latest benchmark data indicates that the median inventory turnover rate for electric transmission and distribution (T&D) and substation materials and supplies (M&S) is 2.3. That is, inventory balances should turnover on average every six months, or two times per year. However, a utility must also manage its inventory to ensure that materials are available when needed so that planned work is not slowed down and crews idled due to a lack of materials and supplies. A high performing utility is able to accomplish both objectives; that is, minimize inventory levels while optimizing inventory availability.

### Recommendation

Chelan County PUD should take measures to increase its inventory turnover by reducing inventory levels and re-evaluating economic order quantities.

### Effect of Recommendation

Increasing inventory turns from 1.1 to 2.0 would result in a reduction of average inventory balances from \$8.2 million to \$4.5 million. Reducing inventory could free up cash for other purposes, such as paying off debt.

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#### Chelan County PUD's Response

*Chelan County PUD has balanced the tradeoffs and believes that customer service and ability to respond when needed should be addressed first and foremost. To maintain customer service levels during emergencies, a larger variety of materials must be stored in the utility's warehouses. Maintaining a low level of inventory may result in running out of materials during storms and wildfires which would result in longer periods to restore electrical power, water, and sewage services to businesses and homeowners. In accordance with Chelan County PUD processes, warehouse personnel removed \$81,000 of obsolete materials in the past year and an additional \$27,000 will be removed in 2010.*

*Chelan County PUD has been striving for a "turns ratio" of 1 (warehouse items used and replaced at least once over the course of a year) since Navigant Consulting recommended that ratio as an industry standard about 10 years ago. Chelan County PUD is slightly ahead of that benchmark with a turns ratio of 1.1, but auditors now state that the industry average is 2.3. A much more achievable goal over a three-year period for Chelan County PUD would be a turns ratio of 1.3. Reaching a 1.3 ratio would cut \$1,258,000 out of our current inventories, while still allowing for some flexibility and the opportunity to keep service levels constant. No additional warehouse staff would be needed, but up to 120 hours of additional overtime from existing staff would be required each year to maintain that increased turns ratio. This additional cost must be carefully analyzed before implementing a 1.3 turns ratio.*

#### Auditor's Concluding Remarks

We applaud Chelan County PUD's intention to increase its inventory turnover rate. However, our experience indicates that utilities are able to achieve inventory turnover rates of 2.0 or higher while maintaining appropriate customer service and system reliability metrics.

#### **Commendation No. III-6: Chelan County PUD effectively uses purchase cards to purchase goods and services.**

##### **Background**

Chelan County PUD uses purchase cards extensively for travel expenditures and for the purchase of items below the competitive bid threshold. The District issues purchase cards to selected employees, who use them to pay for goods and services on behalf of the District. By using purchase cards, District employees bypass the formal purchase order process and the use of the procurement department. The use of purchase cards can result in the more timely and efficient procurement of goods and services.

##### **Outstanding Performance Noted**

Chelan County PUD participates in the Washington Consortium. By participating in this statewide program, Chelan County PUD realizes the benefit of a higher overall rebate based on the combined spending of the participants than it could likely realize on its own. Chelan County PUD received rebates on its 2008 and 2007 purchase card transactions of \$39,150 and \$33,748, respectively. This represents approximately 1 percent of all purchase card purchases.

The District has several key controls in place related to its purchase card program.

- Individual purchase card transactions cannot exceed \$10,000 with a \$15,000 monthly limit.

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- Each employee with a purchase card must submit a signed monthly reconciliation report with detailed receipts for each transaction during the month, the reason for the expenditure and the account to which each expenditure should be charged. Supervisory approval is also required on the employee's monthly purchase report. There is also a subsequent review of PCARD transactions and receipt verification conducted by Internal Audit on a sample basis.
- The District's Procurement Group analyzes purchase card expenditures by department to identify spending patterns in each department. The departments are then contacted and informed of areas where the Procurement Group recommends going through the price quote process for items the Procurement Department believes it can obtain better pricing.

We found Chelan County PUD's purchase card transactions were consistent with the District's purchase card policy.

#### **Reasons for Outstanding Performance**

Chelan County PUD has appropriate policies and procedures in place to optimize and safeguard the use of purchase cards. Employees are properly trained and transactions are properly monitored by supervisors, purchasing and internal auditing.

The use of purchase cards is a best practice for speeding up purchases, minimizing payment transaction costs and optimizing purchase rebates, provided that effective internal controls and policies are established over their use.

#### **Chelan County PUD's Response**

*Chelan County PUD appreciates the observations made by the performance auditors in recognizing Chelan County PUD's efforts in this area.*

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### I. Background

The Grant County Public Utility District was organized in 1938 and began operations in 1942. The District is administered by a Board of Commissioners made up of five elected Commissioners. The Commission establishes policy, approves plans, budgets and expenditures, sets rates for its services and reviews the District's operations.

The District distributes electricity to more than 43,000 retail customers in Grant County. In 2008, the District had \$286 million in operating revenue, of which \$111 million came from retail customers. The District also had \$116 million in sales to other utilities and \$54 million to power purchasers at cost. Net Utility Plant totaled more than \$1.1 billion. It paid nearly \$100 million to renew its Federal Energy Regulatory Commission (FERC) license, a requirement for nearly all hydroelectric projects in the country.

The District's distribution system consists of:

- 449 miles of transmission lines
- 3,706 miles of distribution lines
- 58 substations

In addition, the District operates two hydroelectric projects.

- Priest Rapids started commercial operation in September 1961 and has a net peaking capacity of 932 MW. The District established a contract to sell power generated by this project after October 31, 2005.
- Wanapum started commercial operation in September 1963 and has a net peaking capacity of 985 MW. The District established a contract to sell power generated by this project after October 31, 2009.

In 2008, these two hydroelectric projects generated 8.4 million MW of electricity. The District sold 3.5 million MW of power to retail customers in Grant County during 2008 and the remaining power at cost under wholesale power agreements to various municipal, cooperative and investor owned utilities throughout the Northwest.

In accordance with the FERC order in the Public Law 83-544 proceeding, the District sells 30 percent of the power generated by the two hydroelectric projects within the region based on market principles. These proceeds may be used by the purchasers, including the District's Electric System, to obtain replacement power from the market, while paying project costs for its generation.

The power generated at the Priest Rapids and Wanapum hydroelectric projects is a low-cost source of electricity for the District's power purchasers and retail customers. However, due to the variability of production as a result of the "run of the river" operation of the hydro plants and the variability of demand from the District's retail customers, it must on occasion purchase energy to serve its retail load and sell energy when output exceeds its retail load.

The District's power marketing activities are confined to balancing loads and resources with the intent of maximizing the benefit to its retail customers. However, the District has had surplus power to sell in almost every year. As a result, the District has historically generated substantial revenue from selling energy to other utilities. The District sells surplus firm and non-firm energy as it is available to various municipally owned and investor owned utilities both within and outside the Pacific Northwest.

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The District also has a fiber optic cable network that provides high-speed broadband services to 4,600 subscribers.

### II. Audit Approach

The survey phase identified the following issues to be addressed during the performance audit:

Task Area	Survey Phase Issues
<b>Governance</b>	<ul style="list-style-type: none"><li>• Governance policies and practices</li><li>• Organizational structure</li></ul>
<b>Operations</b>	<ul style="list-style-type: none"><li>• Labor resource use and efficiency</li><li>• Asset management</li></ul>
<b>Construction Management</b>	<ul style="list-style-type: none"><li>• Architect and engineering fees</li><li>• Change order practices</li></ul>
<b>Procurement</b>	<ul style="list-style-type: none"><li>• Cost savings opportunities</li><li>• PCARD (i.e., credit card) usage</li></ul>
<b>Administrative Management</b>	<ul style="list-style-type: none"><li>• Shared services opportunities</li></ul>
<b>Fiber Optic Network</b>	<ul style="list-style-type: none"><li>• Financial sustainability</li></ul>

### A. GOVERNANCE AND ORGANIZATION MANAGEMENT

#### Introduction

The quality of the leadership of an organization, more than any other factor, determines its performance and effectiveness. An organization with poor leadership often finds itself mired in persistent issues, with little forward progress or resolution. Real issues and challenges go unaddressed and members of the organization become confused about the purpose of the organization and their own roles in it. In contrast, an organization with effective leadership prepares for and quickly resolves issues and challenges, provides clarity of direction and roles and establishes real accountability for the organization.

“Governance” describes the role of a board or other decision-making body in providing leadership for an organization. Governance generally includes responsibility for providing the overall direction for the organization, making key decisions for the organization through policy, and overseeing the organization’s performance. Key tools of effective governance include strategic planning and

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management including performance measurement and monitoring. Grant County PUD's Board of Commissioners is responsible for governing the organization.

#### 1. Governance

**Issue No. IV-3: The Grant County PUD Commission has not developed and implemented the governance policies and practices necessary to provide appropriate leadership and oversight to the organization.**

#### Background

The role of any Board is to provide strategic focus and direction for the organization and to ensure decisions support the focus and direction. Oversight is also an important function for any Board, ensuring that organizational activities are consistent with legal requirements and its own policies and procedures. Since the Board of Commissioners controls the focus and direction of the organization, the risks posed by ineffective leadership, decision-making and oversight are substantial.

Effective governance requires that formal structures and practices define how the Board carries out its duties. Many boards develop and document bylaws, policies and procedures that clearly define the specific role of the board and board members and what actions are appropriate in specific situations. Specific areas in which policies are most often needed include conflicts of interest, the role of Board members and the relationship between the board and management.

#### Condition

During the review of governance practices at Grant County PUD, we noted:

***The Commission does not appropriately set the strategic direction for the District, nor does it address key strategic issues.***

Key strategic issues the Commission has not effectively addressed include:

- ***Energy Supply*** – Grant County PUD has long benefited from ample low-cost energy provided by its hydroelectric dams. The District's customers have grown accustomed to low rates and a reliable supply of energy. Recent projections have indicated this source may not be sufficient to meet future retail demand.
- ***Rate Structure and Rates*** – Most Commission members agree the current rate structure is no longer appropriate. It is also clear that current rates will not generate enough revenue to meet the District's ongoing requirements or new requirements created by new licensing agreements.
- ***Investment in Fiber Network*** – The District has made a substantial investment in developing and deploying a fiber network to provide broadband service. The revenue this service generates does not and will not cover the District's investment or cover ongoing operational costs. However, the District's customers expect that the service will continue to be expanded. This issue is addressed in more detail later in this report.

According to members of the management team, "the Commission seems to change its mind from week to week." Management spends substantial time responding to directives from individual Commissioners.

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***The roles and responsibilities of the Commission members have not been appropriately defined and some Commission members tend to cross the line from policy to management.***

Boards and organizations operate most effectively when there is a clear definition and understanding of the Board's role, management's role and the line between the two. The Board's role should be to provide policy direction and oversight and management's role is to execute that direction.

The most effective organizations have unified commands, meaning direction is provided from only one source. For the District, this source must be the General Manager, consistent with Commission policy.

It is also important for the Commission and its members to recognize that the Commission's authority only exists when acting as a body. Individual members of the Commission have no authority to make decisions or direct the General Manager or other members of the PUD staff. Only decisions and directives of the Commission, acting as a whole, are authoritative and binding.

Individual Commissioners often direct employees to complete specific assignments or take specific actions. Such assignments and actions should be made by the Commission as a whole. A Commissioner recently requested and the Commission held private meetings with bargaining unit employees. Managers were directed to leave the room during these meetings. These actions could undermine the authority of the General Manager. In addition, Commissioners frequently attack PUD employees. Employees stated they are frustrated and demoralized, to the point where the General Manager is considering not bringing employees to Commission meetings.

***The Commission does not establish performance goals or evaluate performance for employees who report directly to the Commission.***

A key role of the Board of Commissioners is providing clear direction to the individuals who report directly to it – the General Manager, Treasurer, Attorney and Auditor. This clear direction should establish specific expectations for each of these positions and should consist of specific goals and objectives to be accomplished within specific timeframes.

Equally important is for the Commission to evaluate the performance of the individuals in these key positions, providing meaningful feedback on how well expectations are being met. These evaluations should be accomplished routinely and within specific timeframes.

We requested the specific goals established over the past five years by the Commission for each of the positions reporting directly to it. We also requested the performance evaluations conducted for each of these positions over the past five years. We were informed that for these positions in the past five years, specific goals or performance plans had not been developed and formal performance review or evaluations had not been conducted for any of the positions.

***The Commission has not developed nor adopted a conflict of interest policy for the Commission beyond the prohibitions in state law (RCW 42.23).***

Transparency in public decision-making is essential. Customers or members of the public served by a public entity such as Grant County PUD must be able to rely on their representatives to be working in their best interest.

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Grant County PUD Commission members stated they perceive conflicts of interest by other Commission members. These perceived conflicts have not been resolved and create a source of conflict within the Commission. For example, one Commissioner is also the County's Economic Development Director. In this role, he is responsible for attracting new business and industry to the area. Low-cost energy provided by Grant County PUD is one of the traits the County promotes to attract new business and industry. The role of this Commissioner has been fully disclosed and is common knowledge and he has recused himself from decisions involving this role.

Other Commission members have agricultural interests and are substantial users of energy for irrigation. Some are or have been involved in organizations that represent the interests of irrigators. This is seen by some Commission members as a potential conflict of interest.

***The Commission has not developed rules of conduct for public and private interactions among Commissioners. Substantial conflict among Commissioners reduces the ability of the Commission to focus on strategic issues and provide appropriate direction.***

Effective policy decision-making requires a level of decorum and respect for individual Commissioners regardless of differences in perspective or policy. Without a basic level of decorum and respect, discussion and debates tend to become personal and progress becomes difficult.

In the past, the Commission adopted principles of "Teamwork Commitment" including defining a process for achieving consensus on issues. The teamwork commitment principles included having "mutual trust and respect" and defining "personal attacks and abusive behavior" as inappropriate. The consensus approach, while recognizing members will have "diverse opinions," established a commitment to "reaching a consensus rather than simply promoting individual positions."

The current Commission has not adopted such principles and some Commissioners have engaged in personal attacks on other Commissioners. Some Commission meetings have become so discordant, the Commissioners sent a letter to all Grant County PUD employees apologizing for their behavior. The letter states, in part:

*"There has been, and continues to be, distraction caused by happenings coming from the commission chamber.....We regret if it has led you to believe we are inattentive to our roles as Commissioners or if it has brought you or this organization ridicule. We may deserve ridicule; you and the District certainly do not."*

***The Commission has not developed rules of conduct for public input and interaction with Commissioners during meetings, limiting the Commission's ability to appropriately restrict aggressive and potentially threatening public behavior.***

Public input and comment at Commission meetings are essential and should be fully accommodated and encouraged. Public input and comment are fundamental to the democratic and representative form of government, and required to provide the Commission feedback and hold it accountable to the public.

Public input and comment must also be accommodated in a manner that maintains decorum and respect for the PUD Commission and its members. We attended and observed one Commission meeting. The Commission spent a large portion of the meeting receiving public comment about and

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discussing the Commission's decision not to renew the contract for the District's attorney. It was a controversial action.

Many of the public comments during this meeting were strong personal attacks on individual Commissioners and many comments were very long. At different points during the meeting, attendees made disruptive statements. The Commission Chair made several attempts to limit the length of individual comments and to regain a level of decorum for the meeting. However, the Commission did not have rules of conduct for public comments and meetings to provide a basis for these attempts.

It is common to establish and communicate the rules of conduct and procedures for public comment during board meetings. These rules and procedures establish guidelines for the content and length of comments and prohibit threatening conduct. These rules and procedures allow boards to maintain control over public meetings.

#### **Cause**

Grant County PUD's governance issues are caused by a lack of understanding or acceptance by some members of the Commission about the role of the Commission as a policy-making body and that the Commission's authority exists only when acting as a body. There also is a substantial distrust and conflict among Commission members.

#### **Criteria**

**Appendix D-1** shows the assessment framework we used to evaluate the governance effectiveness of the Grant County PUD.

#### **Recommendation**

The Grant County PUD Commission should develop governance policies and practices to provide appropriate leadership and oversight by:

- Establishing the strategic direction for the PUD.
- Clearly defining Commissioners' roles and responsibilities, including the Commission's role in providing policy direction and oversight and management's role in executing that direction.
- Establishing performance goals and evaluating performance for the employees who report directly to the Commission.
- Developing and adopting a specific conflict-of-interest policy for the Commission and specifically address perceived potential conflicts for Commissioners.
- Developing and adopting rules of conduct for public and private interactions among Commissioners.
- Developing rules of conduct for public input and interaction with the Commission during meetings.

#### **Effect of Recommendation**

Improving governance policies and practices will enhance the Commission's ability to provide leadership and oversight to the District. Providing clear strategic direction for the District and effectively addressing key strategic issues improves Grant County PUD's ability to provide reliable service at a reasonable cost. Specific effects of the governance issues include the potential impact on Grant County

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PUD's cost of capital, the impact on organizational effectiveness, and the impact on employee morale and productivity.

#### *Cost of Capital*

Ratings of governance effectiveness in the corporate sector are becoming common and are important additions to traditional ratings. An assessment of the relationships between governance ratings and corporate performance demonstrated that corporations with positive governance ratings performed better.

The current bond rating for Grant County PUD is very good, allowing it to borrow funds at a relatively low interest rate. There is a risk this bond rating could be lowered as a result of the poor governance provided by the Commission. If the District's bond rating is lowered, it will have to pay a higher interest rate to borrow funds, increasing its cost of capital.

#### *Organizational Effectiveness*

Management and the organization are most effective when strategic direction is provided by the Commission. Clear focus and direction on key issues keeps management from having to guess and improvise.

Establishing goals and completing meaningful performance evaluations for the General Manager, Treasurer, Attorney and Auditor, who report directly to the Commission, will result in increased accountability for the people in those positions. Without such goals, it is not possible to effectively evaluate performance. In addition, establishing goals will result in employees knowing what they are expected to accomplish and more clearly understanding how their work contributes to the District's goals. Performance feedback enhances the likelihood of staff performing at optimal levels. Written performance evaluations also provide documentation needed to support personnel decisions and help mitigate risks such as wrongful dismissal lawsuits.

#### *Employee Morale and Productivity*

The morale and productivity of District employees should improve with increased direction and reduced conflict among Commissioners.

Distractions and conflict tend to result in a loss of confidence in District leadership and direction and a loss in employee morale and productivity. Although there is no reliable means of determining the actual impact on employee morale and productivity, we believe it is substantial. However, based on a review of the literature on the impact of employee morale on productivity, we estimate employee productivity can improve through more clear direction from the Commission and reduced conflict among Commissioners.

#### **Grant County PUD's Response** *(By recommendation in italics)*

- Establishing the strategic direction for the PUD: *Grant County PUD Commissioners agree that governance policies are helpful tools in providing leadership and oversight to the utility. The board adopted a governance policy by Resolution No. 8402 on August 31, 2009. **Response:** The commission uses this document as a guide for their interactions with each other, with staff and with the public. Grant County PUD established a strategic plan in September 2007. Commissioners have committed to a practice of reviewing and evaluating the plan on an annual basis to establish the strategic direction for the utility.*

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- Clearly defining Commissioners' roles and responsibilities, including the Commission's role in providing policy direction and oversight and management's role in executing that direction. **Response:** *The Grant County PUD Commission adopted a governance policy by Resolution No. 8402 on August 31, 2009. Roles and responsibilities for the Commission are defined in this document.*
- Establishing performance goals and evaluating performance for the employees who report directly to the Commission. **Response:** *Governance policies related to establishing performance goals and evaluating performance for employees that report directly to the Commission are included in the Commission's Governance Policy. Appointee evaluations are currently being performed. Part of this process includes setting goals for 2010.*
- Developing and adopting a specific conflict-of-interest policy for the Commission and specifically address perceived potential conflicts for Commissioners. **Response:** *Section 20 B of the Governance Policy addresses conflict-of-interest. This section provides specific processes for Commissioners in addition to RCW 42.23. In addition, the utility's Code of Ethics policy pertains to all employees and Commissioners.*
- Developing and adopting rules of conduct for public and private interactions among Commissioners. **Response:** *Rules of conduct for public and private interactions among Commissioners are detailed in the Governance Policy.*
- Developing rules of conduct for public input and interaction with the Commission during meetings. **Response:** *Rules of conduct for public input and interaction with the Commission are included in the Governance Policy.*

#### Auditor's Concluding Remarks

We applaud Grant County PUD's actions taken in response to these recommendations.

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#### 2. STRATEGIC PLANNING

**Issue No. IV-4: Although Grant County PUD has developed a well structured strategic plan, this plan is not used to provide actual policy direction or management at the PUD.**

##### **Background**

Strategic planning is a disciplined effort to produce fundamental decisions and shape and guide what an organization is, what it does and why it does it. When the strategic plan is linked to operations, all groups in the organization have a clear understanding of its purpose, the strategies used to achieve that purpose and the progress being achieved.

District management has developed a strategic plan that outlines its vision, mission and guiding principles. The strategic plan is well organized and clear. District management also establishes “Goal Statements” that states each goal and the overall strategy and specific objectives for achieving them.

##### **Condition**

***The Grant County PUD Commission has been only minimally involved in the strategic planning process.***

The Commission reviews the strategic plan annually and makes changes to it every two years; the Commission does not establish the strategic direction for the PUD. Some Commissioners view the strategic plan as management’s plan rather than the Commission’s. Other Commissioners view it as more of a public relations document than a tool for providing direction. Commissioners generally see their role in strategic planning as minimal.

The strategic plan is the primary tool for the Commission to establish this strategic direction for the District. The Commission should routinely refer to the plan and use it to monitor progress on key strategic objectives and initiatives.

The Commission should also use the strategic planning process to identify and analyze alternative approaches to addressing key strategic issues or achieving goals and objectives. This should include estimating the benefits, costs and feasibility of alternatives. One Commissioner stated the Commission does not discuss priorities. Such discussions are essential in developing alternative approaches and strategies. In addition, assessing different scenarios in the strategic planning process is fundamental to enterprise risk management.

***Analyses of key trends, customer issues and concerns and internal issues and concerns have been completed but are not included in strategic decision making or the strategic plan.***

Effective strategic planning requires collecting and analyzing information and identifying issues. Strategic issues should be identified by tracking key trends, obtaining information and input from customers and identifying internal issues and concerns through employee surveys and other means.

Although the District has engaged in substantial effort to identify customer and stakeholder issues and concerns and internal issues and concerns, the absence of the inclusion of the results of these surveys in the strategic plan indicates the survey results are not used for strategic decision-making or the development of the strategic plan.

These customer, stakeholder, and employee surveys provide valuable insight into the District’s performance and its key strategic issues and should be a key resource for strategic planning.

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***The District has not developed and implemented an effective performance measurement, management and reporting system consistent with its vision, mission, and strategic objectives.***

Performance measurement and reporting demonstrates the success or effectiveness of organizational or program activities in addressing a specific need or attaining a specific goal. A meaningful performance measurement framework includes a balanced set of indicators, ensures the collection of sound and reliable indicator data, provides for the analysis and reporting of indicator information and drives service improvement efforts and the testing of new initiatives.

Grant County PUD attempted to define performance measures or indicators for each objective in its strategic plan. However most of what has been defined as performance measures are really statements of intent. Examples include:

- New hookup costs are benchmarked against average hookup costs of nearby utilities.
- All new District employees will complete a comprehensive orientation program.

For performance indicators to be useful they must generally be quantifiable and allow for tracking and viewing improvements or declines in performance over time. Examples of potential performance indicators for Grant County PUD include:

- Percentage of customers satisfied with the service received from Grant County PUD.
- Answering incoming customer phone calls in 30 seconds or less as measured by call statistics.
- Debt coverage ratio.
- Reliability percentage for Hydro / Distribution Systems.
- Number of recordable injuries / cases.

These performance indicators are measurable and can be tracked over time.

### **Cause**

As discussed previously, the Commission has not focused on its key roles of providing strategic direction and oversight for the District. Although District management has attempted to engage in strategic planning, its success has been limited due to the Commission's lack of involvement and leadership.

### **Criteria**

The key elements of an effective strategic planning process were used as the assessment framework and are described in **Appendix D-2**.

### **Recommendations**

The Grant County PUD Commission and District management should expand the role of the strategic plan in providing actual policy direction and management of the PUD. Specifically:

- The Commission should play a leading and active role in developing, overseeing deployment and reviewing progress of the strategic plan.
- Management should identify, develop and discuss alternative approaches and strategies to address key strategic issues in developing the strategic plan.
- Management should incorporate analysis of key trends, customer issues and concerns, internal issues and concerns into strategic decision-making or the strategic plan.

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- Management should develop and implement an effective performance measurement, management and reporting system to monitor progress over time consistent with the PUD vision, mission, and strategic objectives.

#### Effect of Recommendation

Implementing a comprehensive strategic planning process will result in the identification and assessment of key issues and trends, including energy policy changes at the federal level, which may significantly impact the District. What worked well in the past may not work well in the future. Further, it is possible that more effective strategic planning may have resulted in different decisions on the PUD's Fiber Optic investments, discussed in Issue No. IV-11.

A comprehensive strategic plan makes it easier to clearly communicate to employees the priorities and issues the District is addressing. Public accountability and transparency is improved with a comprehensive strategic plan that allows members of the public to clearly see what they can expect from the District.

#### Grant County PUD's Response *(By recommendation in italics)*

The Grant County PUD Commission and District management should expand the role of the strategic plan in providing actual policy direction and management of the PUD. Specifically:

- The Commission should play a leading and active role in developing, overseeing deployment and reviewing the progress of the strategic plan. **Response:** *Commissioners were involved in the creation of the utility's Strategic Plan. The commission will annually lead discussions on further development, review and revision of the document.*
- Management should identify, develop and discuss the alternative approaches and strategies to address key strategic issues in developing the strategic plan. **Response:** *Grant County PUD agrees with this recommendation and will look for opportunities to enhance strategic discussions.*
- Management should incorporate analysis of key trends, customer issues and concerns, internal issues and concerns into strategic decision-making or the strategic plan. **Response:** *Grant County PUD agrees with this recommendation. The utility currently tracks many of these trends and plans to incorporate them into the document.*
- Management should develop and implement an effective performance measurement, management and reporting system to monitor progress over time consistent with the PUD vision, mission, and strategic objectives. **Response:** *Grant County PUD agrees with this recommendation. The utility will work to include meaningful metrics in the document by which to measure the organization's progress over time.*

#### Auditor's Concluding Remarks

We applaud Grant County PUD's willingness to accept and take action on this recommendation.

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### 3. ORGANIZATIONAL STRUCTURE

**Issue No. IV-5: Grant County PUD could improve its organizational structure by aligning it with the key functions and combining its financial, administrative and support services.**

#### **Background**

An organization's structure should provide a framework of functional areas within which individuals can achieve the organization's goals. An effective organization structure clearly reflects the priorities of the organization, facilitates efficient and effective service delivery and problem solving, ensures consistency of direction and management control, minimizes obstacles and barriers to performance, assigns responsibility with accountability and stimulates a culture of shared accomplishment and teamwork.

#### **Condition**

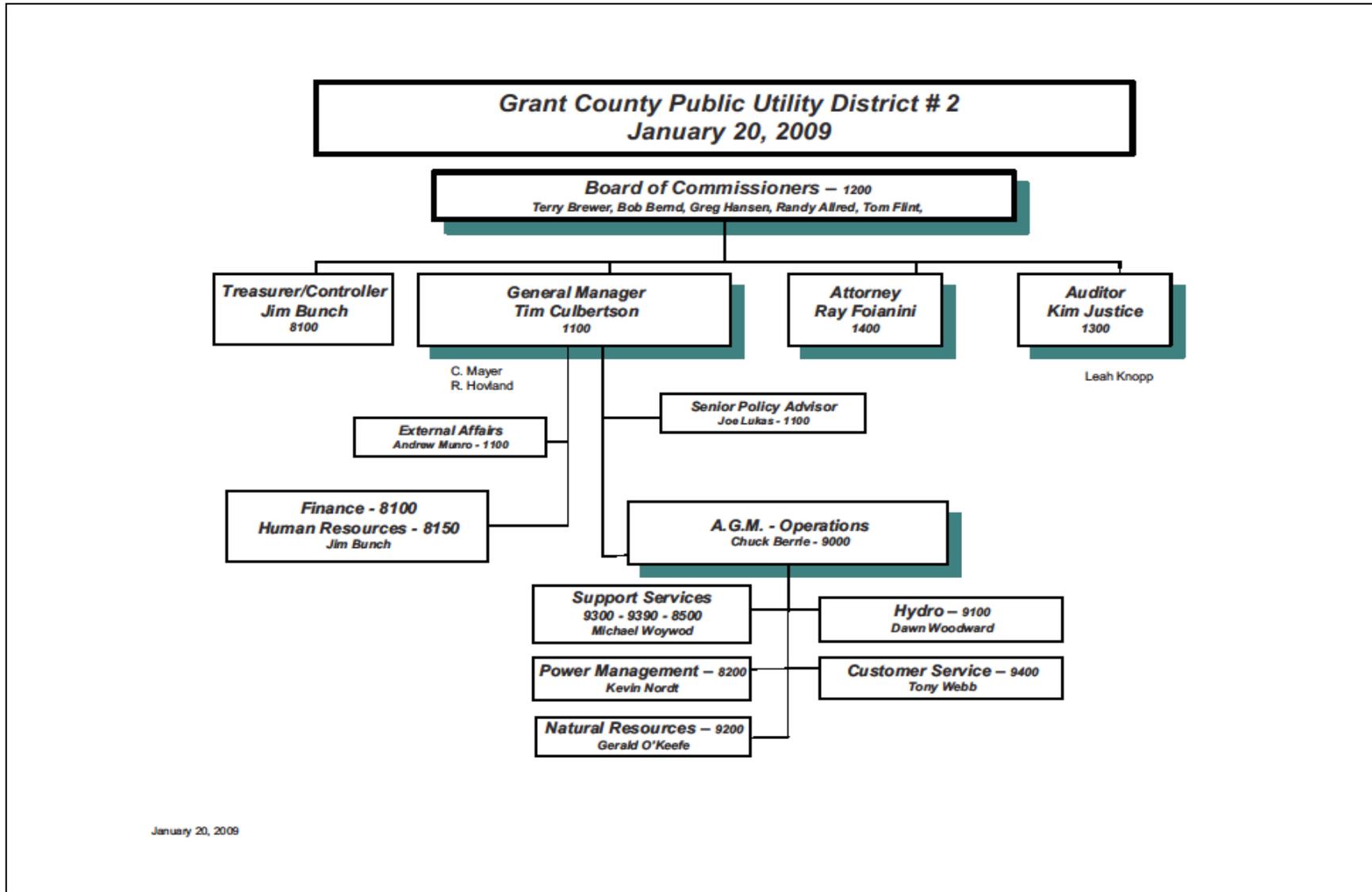
The District's current organizational structure was deployed in January 2009 and is shown in **Exhibit IV-1**. Although there has not been a substantial amount of time to provide a meaningful review, it appears there is potential to improve the alignment the District's organization.

The District has two primary functions – to generate and distribute electricity. Other functions, including support services, finance and human resources, support these two primary functions. The responsibility and accountability for the District's two primary functions are combined with support services and report to the Assistant General Manager for Operations. The Finance and Human Resources functions are combined under one manager, who reports directly to the General Manager.

The current organization structure includes a unit that is referred to as "strategic planning". The strategic planning unit reports to the Director of Finance and Human Resources and includes responsibility for budgeting, financial forecasting, load and resource forecasting, energy risk management, and customer rates. Power Management, which currently reports to the Assistant General Manager for Operations, is responsible for many of the key strategic decisions and positioning of the PUD. There is no separate organization that focuses on long-term strategic issues.

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Exhibit IV-1: Current Top Line Organization of the Grant County Public Utilities District



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### Cause

District management is developing an organizational structure that meets the needs of the District. The District has not yet had time to fully evaluate its recently revised organization structure.

### Criteria

**Exhibit IV-2** shows the assessment framework used to evaluate the organization structure of the Grant County PUD.

#### **Exhibit IV-2 Organization Structure Assessment Framework**

- Consistency of organizational structure with strategic priorities
- Overlaps / duplication of functions and responsibilities
- Consistency of authority and responsibility and accountability (P&L Responsibility)
- Span of management control / management layers
- Management capacity and capability
- Management communication (staff meetings, etc.)

### Recommendation

Grant County PUD should consider aligning its organizational structure with its key functions and combining financial, administrative and support services. It should:

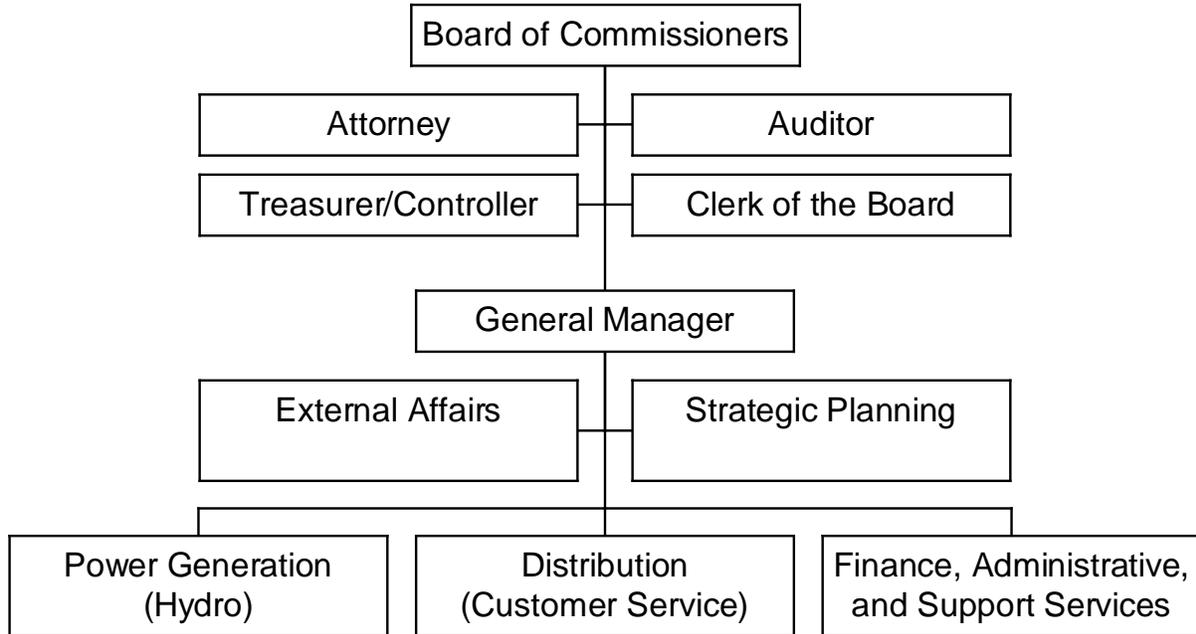
- Create separate organizational units; Power Generation and Distribution with each having complete organizational responsibility for its activities.
- Combine support services into an Administrative and Support Services organizational unit.
- Consider creating a separate strategic planning function reporting directly to the General Manager and focusing on the long-term strategic issues of the PUD, including long-term power management issues.

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Exhibit IV-3 shows a potential approach to the top-line organization of resources for District.

**Exhibit IV-3  
Potential Top-Line Organization of the Grant County Public Utilities District**



### Effect of the Recommendation

Creating separate organizational units with complete organizational responsibility for power generation and distribution, and combining support services into an Administrative and Support Services into one organizational unit, should create a more clear and accountable organizational structure.

Changing the organizational structure of strategic planning and power management so these functions report to the General Manager will help facilitate the implementation of the strategic planning improvement opportunities discussed in **Issue IV-2**.

### Grant County PUD's Response *(By recommendation in italics)*

Grant County PUD should consider aligning its organizational structure with its key functions and combining financial, administrative and support services. It should:

- Create separate organizational units; Power Generation and Distribution with each having complete organizational responsibility for its activities. **Response:** *Grant County PUD will consider these recommendations moving forward as part of our current reorganization efforts. The utility is already operating in this capacity to some extent. Power Generation and Distribution operate as their own, separate organizations lead by separate division directors.*
- Combine support services into an Administrative and Support Services organizational unit. **Response:** *Reorganization is a consideration when the utility experiences a change in management level personnel. Management continues to seek opportunities to find ways to manage more effectively.*

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- Consider creating a separate strategic planning function reporting directly to the General Manager and focusing on the long-term strategic issues of the PUD, including long-term power management issues. **Response:** *Grant County PUD will consider this recommendation as the utility discusses reorganization opportunities.*

#### **Auditor's Concluding Remarks**

We applaud Grant County PUD's willingness to accept and take action on this recommendation.

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### 3. EMPLOYEE PERFORMANCE MANAGEMENT

**Commendation No. IV-1: Grant County PUD has an effective employee performance management system.**

#### **Background**

Defining the roles and responsibilities of key positions, reporting relationships, and accountability are basic elements of organizational and human resource management. Periodically and formally evaluating the performance of employees is also a basic element of organizational and human resource management. Regular evaluations of an employee's performance are an important way of keeping employees informed as to where they stand in relation to expectations and documents how their performance compares to specific job standards.

Washington provides guidance for state agencies:

*"An employee performance management process is part of a positive, performance-based culture. It fosters employee competence and productivity, supports achievement of organizational goals and objectives, and provides documentation of employee's strengths and areas in need of improvement."*

While this guidance is not required for PUDs, it is a best practice for this District to consider.

#### **Outstanding performance noted**

During the review of employee performance management at the District, we noted:

***Position descriptions have been developed for most positions that report to the General Manager.***

The District has developed position descriptions for most of the key positions that report to the General Manager. These position descriptions provide a summary of the position and describe the essential functions of the position. The descriptions also define education and experience requirements for the position, as well as other knowledge, skills, and abilities and physical/mental requirements for the position.

***Positions reporting to the General Manager received performance evaluations annually.***

The District has developed a performance evaluation and development approach and process for reviewing the performance of employees who report to the General Manager. The approach includes establishing performance expectations consistent with the position description early in the year. During this time, future goals and objectives, job duties, special assignments and skills development to focus on are defined. Performance feedback is provided using a performance review form that defines specific performance elements and the performance rating scale. All positions reporting directly to the General Manager were evaluated within the past year.

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### Criteria

**Exhibit IV-4** below shows the assessment framework used to evaluate the employee performance management effectiveness of the Grant County PUD.

#### **Exhibit IV-4 Employee Performance Management Assessment Framework**

- Clear and up-to-date job or position descriptions.
- Development of annual performance plans for management and staff members.
- Performance reviews / evaluations conducted at least annually.

### Grant County PUD's Response

*Grant County PUD appreciates the state's commendation of "outstanding performance" related to position descriptions and performance evaluations as noted in this section.*

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#### B. Operations

##### Introduction

The Grant County PUD Operations division is responsible for deploying the labor, facilities, processes and technology required to produce and deliver services. The effective and efficient use of these resources is critical to achieving the District's mission. Generally, public utilities perform better the more effectively and efficiently its resources are used. Performance includes electric system safety and reliability, customer satisfaction and financial performance.

Due to the mission-critical nature of Operations and the large facilities it manages and operates, large numbers of employees, complex processes and sophisticated technology are typically required. As a result, substantial opportunities for improvement often exist in Operations. Improvement approaches such as labor optimization, staffing analysis and asset management are often effective in improving operational performance.

#### 1. Labor Optimization

**Issue No. IV-4: Grant County PUD could reduce the cost of its distribution line crews.**

##### Background

Labor is a significant operating cost. The effective use of the District employees helps to ensure labor resources are optimized and unnecessary labor and contractor costs are avoided.

##### Condition

***The average internal line crew could be reduced from four linemen to three linemen to reduce costs.***

Line Operations field work is carried out by seven District Transmission and Distribution crews; three crews are based in Moses Lake, three crews are based in Ephrata and one crew is based in Royal City. Each crew typically consists of four employees: one Foreman, one or two Journeymen linemen, an Equipment Operator (non-journeyman), a Groundman (may or may not be used depending on the work) and an apprentice. In 2008, the District's seven Line Operations crews worked roughly 104,000 hours at a total cost of \$6.1 million.

The size of the District's Line Operations crews is typical among the PUDs in Washington. However, other electric utilities within Washington and in other states -- particularly in the East and Midwest -- customarily use crews with three, or in some instances, two linemen. The 2008 collective bargaining agreement between Grant County PUD and its local union allows line crews to have three linemen (Section 8.1.1.1.B).

***State law increases line crew costs.***

Grant County PUD has a contract with a private firm to provide line crews to supplement the District's internal line crews during peak workloads that typically occur in the summer and early fall. The District also has employed a contractor to perform certain line crew work, as required by state law (RCW 54.04.070). This law generally restricts the use of PUD line crews to perform work when the cost of materials exceeds \$150,000. District management estimates it uses 95 percent of its contractor crew time to comply with RCW 54.04.070.

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In 2008, Grant County PUD incurred \$1.2 million in additional line crew costs to comply with the law. The average contractor line crew labor rate for 2008 was \$88.22 per hour versus Grant County PUD's labor rate of \$68.12 per hour, which includes benefits and fleet costs. A four-lineman contractor crew costs approximately \$807,390 per year (assuming 10 percent overtime) versus approximately \$623,400 per year for a same-size PUD crew. That is an increase of approximately \$184,000 (nearly 30 percent) more per contracted crew. Given the significant cost, we believe the dollar threshold in Chapter 54.04.070 RCW requiring the use of outside contractors is too low for organizations in a capital-intensive industry such as the PUD with its ongoing need for high-cost capital projects.

### ***Linemen overtime exceeds industry standards.***

For 2008, the Grant County PUD line crew labor overtime was 19.5 percent of regular hours worked - about two times the generally accepted industry practice for overtime hours worked. For the three-year period ending December 31, 2007, neighboring Douglas County PUD limited its overtime to between 8 to 11 percent. Excessive overtime can result in adverse worker safety, performance, fatigue, stress, can compromise the employee's work-life balance and result in excessive costs. In fact, the District's line labor overtime pay in 2008 was enough to pay for at least one additional full-time, permanent line crew.

### **Cause**

Grant County PUD generally operates with four linemen per crew because it believes this configuration is the best suited for the work. The use of contractor line crews is generally driven by compliance with state law.

High use of overtime is apparently a prevalent practice with Grant County PUD line operations. PUD management indicated it monitors its overtime levels monthly. However, as stated above, 2008 overtime approached 20 percent of straight time hours worked, and 2007 overtime was approximately 22 percent; far exceeding the 5 – 10 percent accepted industry practice.

### **Criteria**

Line crew size and structure should be appropriate for the tasks performed. As an example, **Appendix E** presents how a large eastern electric utility staffs its overhead line crews based on the work to be performed. In most instances this results in 3-man line crews.

Typically, it is advisable for a utility to contract for labor when some or all of the following criteria are met:

- To supplement existing labor
- For physical and low skill work
- When contractors are cost competitive with employees
- When contracted work has low correlation with the mission
- When contracted work is intermittent or peak work
- When the work is specialized
- When work is commonly contracted with readily available resources

The accepted industry practice for overtime hours worked is in the range of 5 to 10 percent of straight time. For the three-year period ending December 31, 2007, neighboring Douglas County PUD limited its overtime to between 8 to 11 percent.

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### Recommendation

To reduce costs and improve operational effectiveness, Grant County PUD should:

- Restructure the composition of its line crews from four linemen to three linemen when the nature of the work allows
- Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in **Appendix B.**)
- Increase the number of District crews and replace contractor crews with District crews
- Evaluate the use of overtime and take steps to reduce linemen overtime hours

### Effect of Recommendation

Reducing the number of linemen on individual crews from four to three offers several opportunities including:

- Partially offsetting the need for contract crews
- Reducing line crew labor costs, including overtime
- Providing promotional opportunities for line crew journeymen to advance to the foreman level

Restructuring crews to three line-man would result in the addition of two more Grant County PUD crews, increasing the number of District line crews from seven to nine. The addition of two more crews would permit the District to reduce the number of contractor crews from four crews to two. This would result in savings of up to \$1,615,000 per year (the annual cost of two contractor crews) not including any incremental costs associated with vehicles and equipment for the new District crews. It should be anticipated that the replacement of the contractor crews by three-person Grant County PUD crews would be a phased-in activity, with the PUD performing progressively more of the contractors' work until the contract labor would no longer be required. Therefore, we have estimated a range of annual savings for the elimination of one and two contractor crews as shown in **Exhibit IV-5** below.

**Exhibit IV-5  
Projected Savings**

Description	Annual Savings	Note
Restructure Grant County PUD crews and increase the number of Grant County PUD crews to eliminate contract crews	\$807,500 - \$1,615,000	Assumes Chapter 54.04.070 RCW is modified to permit expanded use of District crews and the same level of work and costs as 2008.  <i>These savings do not include costs of vehicles and equipment which may be required for the new internal crews.</i>

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#### Grant County PUD's Response *(By recommendation in italics)*

Restructure the composition of its line crews from four linemen to three linemen when the nature of the work allows. **Response:** *Grant County PUD has various crew sizes based on the nature of the work and will further evaluate the composition of line crews and seek additional efficiencies.*

- Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in **Appendix B**) **Response:** *Grant County PUD agrees that dollars could be saved if a legislative change to the threshold of Chapter 54.04.070 RCW was implemented. A change to state law would allow the utility to review best available options to complete work instead of relying on the hiring of contractor crews.*
- Increase the number of District crews and replace contractor crews with District crews. **Response:** *Grant County PUD will re-examine this area to be assured that the utility optimizes its use of District crews within the limitations of state law.*
- Evaluate the use of overtime and take steps to reduce linemen overtime hours. **Response:** *Grant County PUD will continue to evaluate and reduce overtime hours when possible.*

#### Auditor's Concluding Remarks

We applaud Grant County PUD's willingness improve the efficiency of its operations by considering the specific opportunities presented in this recommendation.

#### Issue No. IV-5: Labor resource efficiency could be improved and costs reduced through increasing organizational spans of control.

##### Background

Cost-per-connection comparisons with other Washington PUDs indicated that Grant County PUD's electric transmission, customer accounts and administrative and general costs are high. Additionally, the ratio of connections served per employee -- an accepted measure of workforce efficiency -- is relatively low. As a result, we reviewed Grant County PUD's organization chart and found that in some instances, managers and supervisors are responsible for managing and supervising just a few employees.

Labor is a significant driver of operating costs. Spans of management control (that is, the average number of employees who report to each supervisor) help assure that labor is used efficiently. Span of control studies indicate that as few as six direct reports up to 20 direct reports for a full-time manager or supervisor is optimal, depending\* on the organization.

##### Condition

The results of the spans-of-control analysis for Grant County PUD are in **Exhibit IV-6**. "Echelons" represent supervisory roles. Echelon 1 refers to positions (General Manager and Auditor) that report directly to the Commission; Echelon 2 refers to the direct reports of the General Manager and Auditor; Echelon 3 generally refers to Directors; Echelon 4 generally refers to Managers; Echelon 5 generally refers to Supervisors; and Echelon 6 refers to a single supervisory position.

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### Exhibit IV-6 Grant County PUD Organizational Span of Control Analysis

Echelon	Number of Managers or Supervisors	Number of Employees Supervised	Average Span of Control (Should be >6)	High Span	Low Span	Managers or Supervisors with Fewer than Six Reports	
						Number	Percent
1	2	7	3.5	6	1	1	50.0%
2	2	11	5.5	6	5	1	50.0%
3	9	59	6.6	8	5	2	22.2%
4	25	303	12.1	50	1	10	40.0%
5	23	260	11.3	32	2	6	26.1%
6	1	19	19.0	19	19	0	0.0%
<b>Total</b>	<b>62</b>	<b>659</b>	<b>10.6</b>	<b>50</b>	<b>1</b>	<b>20</b>	<b>32.3%</b>

The average span of control at Grant County PUD is 10.6 employees per supervisor. This is in line with span of control best practices. However, about one-third of all managers and supervisors in Echelon 4 and Echelon 5 have fewer than six direct reports.

Additional review indicates there are a few instances of one-on-one or one-on-two reporting that appear reasonable given the type of position. Those positions exist primarily in Echelon 1 through Echelon 3 and include positions such as policy, external affairs and audit.

#### Criteria

Organizational spans of control are typically based on a combination of the following factors:

- Diversity of functions
- Number of physical locations or mobile employees
- Degree of supervisor involvement in subordinates' work
- Experience level of the workforce
- Complexity of required work planning

Span of control studies suggest that a span of control ranging from as few as six direct reports up to 20 direct reports for a full-time manager or supervisor is optimum.

#### Cause

The narrow spans of control are primarily a preference of the Commission and General Manager.

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#### **Recommendation**

Grant County PUD management should pursue increasing spans of control through organizational consolidation as management attrition occurs. Consideration should also be given to interdivisional and/or interdepartmental realignments to increase spans of control. (See **Finding IV-3** for related discussion of Organization Structure.)

#### **Effect of Recommendation**

Increasing existing spans of control would result in a reduction of labor costs. Based on an average 2008 Grant County PUD employee cost of \$120,800 per year, significant savings could be achieved with organizational consolidations that increase spans of supervisory control.

#### **Grant County PUD's Response**

*Grant County PUD appreciates the state's note that the utility is operating in line with span of control best practices. Grant County PUD will continue to include span of control when evaluating opportunities for organizational changes. Whenever there is a change in staff, the Management Team considers other options to have the work performed and opportunities to find ways to accomplish the work more effectively.*

#### **Auditor's Concluding Remarks**

We applaud Grant County PUD's achievement of best practices regarding spans of control and its willingness to look for additional opportunities to improve effectiveness as opportunities permit.

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### 2. Asset Management

**Issue No. IV-6: Implementing a comprehensive, District-wide asset management program could improve utility plant reliability and reduce costs.**

#### Background

A robust asset management program often results in significant capital and/or operating and maintenance (O&M) cost savings and efficiency improvements as a result of better decision-making. Asset management is applied in asset-intensive industries, including electric utilities that seek to optimize the life cycle of assets through improved reliability, availability and use. Organizations manage assets using the principles of integrated planning, asset rehabilitation, asset replacement, asset service level requirements and asset disposal.

There are several benefits of effective asset management programs. They include:

- Assuring that all asset decisions are policy-driven
- Constructing, maintaining and operating facilities most cost-effectively
- Achieving desired performance levels
- Optimizing life-cycle costs
- Allocating available resources efficiently to support the organization's overall goals and policies
- Measuring and focusing on performance and outcomes
- Improving repeatability, credibility and accountability for decisions

#### Condition

Grant County PUD's hydro operation has made excellent efficiency gains at both of its hydro plants as shown in **Exhibits IV-8** and **IV-10**. The District's existing asset management program already includes many elements of an effective asset management program. However, it has not fully developed its asset management program and all elements of its program have not been implemented consistently or District-wide. As a result, the District is not fully realizing the financial and reliability benefits of a highly functional asset management program.

Some specific conditions include:

- An enterprise-wide asset management strategy has not been developed to identify and communicate the District's objectives, principles and approach to asset management
- Hydro operations and electric system operations are using completely different technologies for managing asset management activities

We evaluated the effectiveness of the elements of Grant County PUD's asset management program using the following matrix and the criteria described in **Exhibit IV-7**.

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### Exhibit IV-7 Grant County PUD Asset Management Evaluation

Asset Management Program Element	Evaluation	
	Rating	Description
<b>Asset Management Strategy</b> Does the District have a District-wide asset management strategy?	<b>2</b>	<b>Implementation Initiated</b>
<b>Asset and Resource Inventory</b> Has an inventory of all District assets been compiled?	<b>3</b>	<b>Partial Implementation</b>
<b>Asset Condition Assessment</b> Is the condition of the District's assets being evaluated on an ongoing basis?	<b>3</b>	<b>Partial Implementation</b>
<b>Life-Cycle Evaluation</b> Has the life-cycle of the District's assets been established?	<b>3</b>	<b>Partial Implementation</b>
<b>Asset/Component Replacement Criteria</b> Are planned actions established in terms of the alternatives (Retire, Replace, Repair, Refurbish, Run-to-Failure) for the District's assets?	<b>3</b>	<b>Partial Implementation</b>
<b>Financial Asset Management Strategy</b> Is there a strong linkage between asset management and financial planning and decision-making?	<b>2</b>	<b>Implementation Initiated</b>
<b>Asset-Optimized Decision Making</b> Are asset management decisions made to optimize the life-cycle value of the District's assets?	<b>3</b>	<b>Partial Implementation</b>

**Evaluation Description Definitions:**

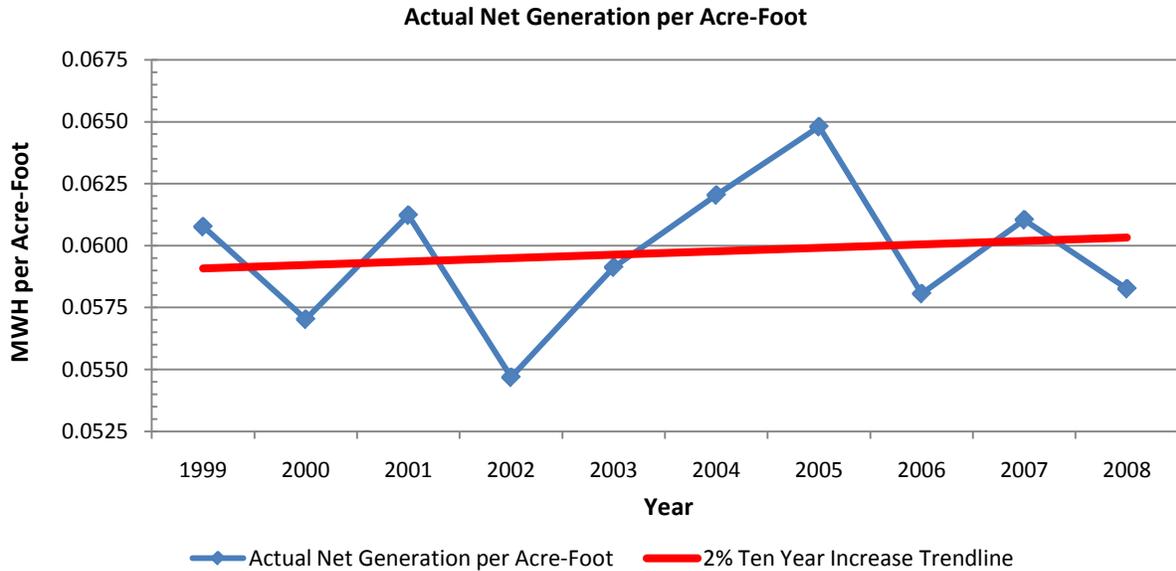
1. **Not Implemented** - The program element is not in place at the present time.
2. **Implementation Initiated** - The program element has been identified as being capable of delivering positive performance improvement results and implementation is being pursued by the organization.
3. **Partial Implementation** - The program element has been successfully implemented in some areas of the company (but not companywide) and is generally considered to have the ability to deliver performance improvement results.
4. **Full Implementation** - The program element has been successfully implemented throughout the organization, is in common use as a standard operating practice, has been accepted by cognizant departments and has delivered positive performance improvement results.

In addition to the evaluation above, we quantitatively assessed the effectiveness of Grant County PUD's Wanapum and Priest Rapids hydro projects by evaluating trends in the ratio of annual electric output compared to the annual volume of water discharged (i.e., MWH per Acre-Foot) from 1999 to 2008. This ratio was selected as a broad indicator of how effectively the assets are being managed under uncertain conditions such as variations in annual river flows, seasonality, licensing and regulation and facility aging. Ten years is a reasonable timeframe to expect improved performance in an effective asset management program. Effectively and proactively managing the hydro positively affect performance trends over time, despite these uncontrollable variables. Further, the District can gain useful information by comparing its performance to hydro facilities with similar river flows, market conditions and other variables.

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As shown in Exhibits IV-8 and IV-9, hydro efficiency performance at the Wanapum Project has improved by 2 percent in 10 years. These results indicate that Grant County PUD is achieving a good measure of the benefits that an effective asset management program offers.

**Exhibit IV-8**  
**Wanapum Project Efficiency – Net Power Generation per Acre Foot per Year**  
**Actual and Trended**



**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

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**Exhibit IV-9** below shows the estimated revenue gain that has resulted from the efficiency improvements shown above in **Exhibit IV-8** for the Wanapum Project.

**Exhibit IV-9  
Wanapum Project Analysis**

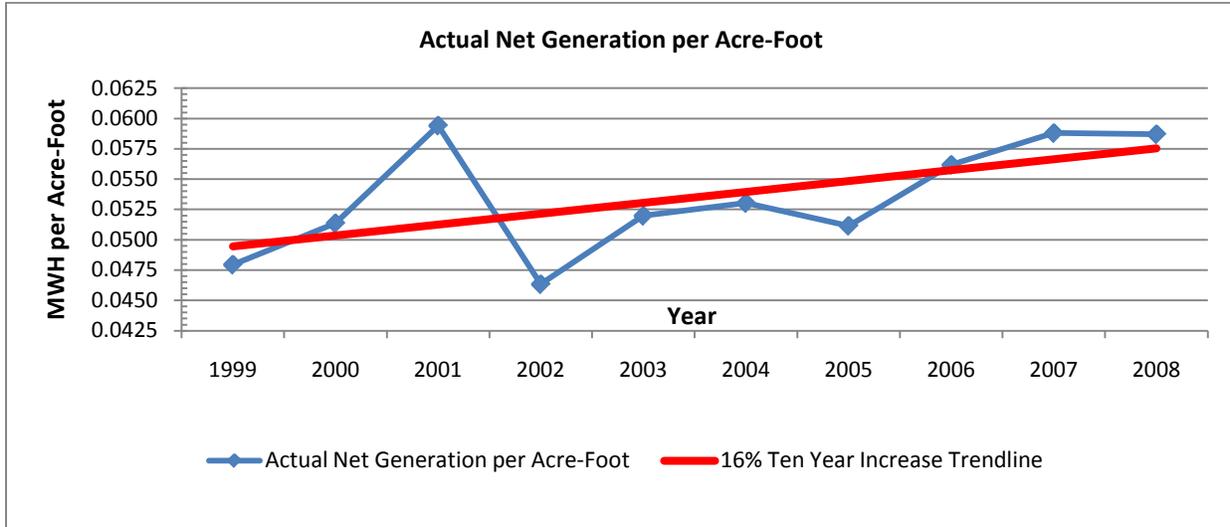
Year	Reported Generation (MWH)	Hypothetical Generation w/o Efficiency Gain (MWH)	Apparent Generation Efficiency Gain (MWH)	Mid-C Weighted Average Price (\$ per MWH)	Estimated Revenue Gain
2006	5,141,576	5,224,723	(83,147)	\$45.38	(\$3,773,221)
2007	5,300,140	5,122,895	177,245	\$51.43	\$9,115,698
2008	4,744,701	4,805,055	(60,354)	\$58.84	(\$3,551,225)
<b>Total</b>					<b>\$1,791,251</b>

**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

As shown in **Exhibits IV-10** and **IV-11**, hydro efficiency performance at Priest Rapids Project has improved by 16 percent in 10 years. These results indicate that Grant County PUD is achieving a good measure of the benefits that an effective asset management program offers.

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**Exhibit IV-10  
Priest Rapids Project Efficiency – Net Power Generation per Acre Foot per Year  
Actual and Trended**



**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

**Exhibit IV-11** below shows the estimated revenue gain that has resulted from the efficiency improvements shown above in **Exhibit IV-10** for the Priest Rapids Project.

**Exhibit IV-11  
Priest Rapids Project Analysis**

Year	Reported Generation (MWH)	Hypothetical Generation w/o Efficiency Gain (MWH)	Apparent Generation Efficiency Gain (MWH)	Mid-C Weighted Average Price (\$) per MWH)	Estimated Revenue Gain
2006	4,865,626	4,243,709	621,917	\$45.38	\$28,222,589
2007	5,042,153	4,201,936	840,217	\$51.43	\$43,212,353
2008	4,650,260	3,881,685	768,575	\$58.84	\$45,222,977
<b>Total</b>					<b>\$116,657,919</b>

**Note:** The power generation and pricing data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

Asset management at Priest Rapids, in particular, has been beneficial. From 2006 through 2008, Priest Rapids generated an additional 2,230,000 MWH compared to 1999. Assuming the additional electricity

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was sold at the average wholesale price each year, Priest Rapids generated revenue of more than \$116 million during 2006-2008. Wanapum improvements, although less impressive, have been evident as well. In 1999, Wanapum was already performing at a higher level than Priest Rapids, so its 2 percent efficiency improvement was still significant. From 2006 through 2008, Wanapum generated an additional 34,000 MWH as a result of improvements made since 1999. Assuming the additional electricity was sold at the average wholesale price each year, Wanapum generated additional revenues totaling more than \$1,790,000 during 2006-2008.

### Criteria

An effective asset management program provides a clear line of sight for transparent decision-making combined with organizational roles, goals, and performance measures that focus and motivate the organization towards a more effective and efficient operation.

Broadly, an effective asset management program should include the following elements:

- Asset management strategy
- Asset and resource inventory
- Asset condition assessment
- Life cycle evaluation
- Asset/Component replacement criteria
- Financial asset management strategy
- Asset optimized decision making

### Cause

The District's hydro operation is managing its assets under a hydro asset management program while the electric system operation is managing its assets under a completely different electric system program. Both operational areas use separate and distinctly different technology systems (MAXIMO for hydro, AutoDesk GWO for the electric system). The PUD is investigating replacement of these systems with a single system that also provides asset management. However, implementation is several months away and single-system technology by itself does not assure an integrated enterprise approach to asset management.

### Recommendation

Grant County PUD should continue to aggressively pursue the development of a comprehensive, enterprise-wide asset management program. This would include all the asset management program elements described above.

### Effect of Recommendation

Grant County PUD has successfully increased the efficiency of its Wanapum and Priest Rapids dams. Because Grant County PUD can make further improvements to its asset management program, we believe further improvements to its asset performance are possible. If these efficiencies materialize, the benefits are substantial. For example, based on average 2006-08 production and Mid-Columbia energy prices, every one percent gain in efficiency at Wanapum would result in an additional 50,600 MWH in annual generation output that translates to additional annual revenue of \$2,626,000.

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Similarly, a 1 percent gain in efficiency at Priest Rapids would result in 48,500 MWH of additional generation and \$2,517,000 in additional revenue under the same assumptions.

**Note:** The power generation and pricing data used in the calculation above was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

#### Grant County PUD's Response

*Electric system staff is currently in the process of implementing a new asset management system that will meet the needs of the utility's transmission and distribution systems. Extensive reviews of various asset management systems were completed prior to the selection. The utility's current asset management solution for the hydro system was not the recommended solution for transmission and distribution due to high costs and lack of fit for the needs of the electric system. The utility's Information Technology Steering Committee weighed the cost of having to support two systems and agreed that because of the differing needs of the electric system and hydro system, two asset management packages provided the best solution for the utility.*

#### Auditor's Concluding Remarks

While we appreciate the thoughtfulness of Grant County PUD's consideration of asset management software solutions, the achievement of asset management best practices requires more than a technology solution. In Exhibit IV-7 we compare Grant County PUD's current asset management program to best practices across a wide range of program elements. Grant County PUD should consider these additional opportunities to improve its asset management program.

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### C. Construction Management

#### Introduction

Construction managers oversee the planning, design, construction and post-construction phases of capital projects to ensure delivery of quality projects that meet scope, quality cost and schedule requirements. Construction managers also review contract proposals and change orders and monitor construction progress and quality.

Grant County PUD's Preliminary Capital Budget for 2009 through 2013 includes \$455 million in capital projects with estimated costs of \$1 million or more. The District contracts with architectural and engineering firms for project design and support services during construction. It had architectural and engineering contracts valued at more than \$30 million from 2003 through 2008.

**Issue No. IV-7: Detailed independent reviews of architectural and engineering firms' cost proposals through the adoption policies and procedures could result in significant cost savings.**

#### Background

Grant County PUD pays for architectural and engineering services based on labor rates that include the employee's hourly wage, overhead costs (including benefits and payroll taxes), administrative costs and profit.

Many government agencies perform pre-award cost reviews of these rates to provide a basis for negotiating fair and reasonable fees. Grant County PUD does not perform these reviews.

State law (RCW 39.80.010 and 39.80.050) requires agencies to negotiate fair and reasonable fees for its A&E contracts. Many government agencies perform detailed cost reviews of A&E firm-proposed labor rates to provide a basis for negotiating fair and reasonable fees.

#### Condition

Because of the absence of policies and procedures, Grant County PUD does not perform detailed cost reviews of A&E proposals, which results in payments to A&E firms that are not fair and reasonable.

To verify how much the District paid architectural and engineering firms above what would be considered fair and reasonable, we analyzed three contracts for two firms totaling \$19.6 million and representing 58 percent of the total architectural and engineering contracts open in 2008. We were able to obtain the labor and overhead cost data from the two A&E firms necessary to perform our analysis.

We compared the contract approved fully burdened labor rates the District paid to these two architectural and engineering firms, AE1 and AE2, to the firms' actual labor and overhead costs. We found the rates paid exceeded the firm's actual labor and overhead cost plus a 10 percent profit by about 24 percent more for AE1 and about six percent more for AE2. Our results are similar to what we found at the other two PUDs that obtained architectural and engineering services for similar purposes and often used the same architectural and engineering firms.

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### Cause

Grant County PUD was unaware of the cost-savings that could be realized through pre-award reviews and thus did not have a policy requiring them.

### Criteria

State law (RCW 39.80.010 and 39.80.050) requires governments to negotiate fair and reasonable fees for architectural and engineering contracts. In addition, developing rates using actual employee-specific labor rates, actual historical overhead rates and a 10 percent profit is a best practice.

### Recommendation

To assist with cost reviews, Grant County PUD should adopt policies to:

- Change its request-for-proposal process to require that architectural and engineering firms' proposals include financial data on the actual pay rates of proposed staff as well as accounting information supporting the overhead calculation. With this financial information, the District could then independently calculate and determine whether the fees proposed are reasonable (generally, a 10 percent profit is allowed).
- After selecting the most highly qualified firm in accordance with state law (RCW 39.80.040), the District should review the fees proposed by the firm before negotiating or signing the contract.

### Effect of Recommendation

Because our analysis was limited, we are restrained from projecting a definitive range of future cost savings if the PUD were to implement the recommendations above. However, based upon our extensive experience in government construction contracting, the results of our analysis coupled with the results of our similar work at the other two PUDs, we are convinced that if the PUD were to implement the recommendations above, it would result in significant future cost savings in its architectural and engineering contracts.

### Grant County PUD's Response *(By recommendation in italics)*

*First Recommendation: Grant County PUD recognizes this to be an area for improvement. The utility has been working to improve procurement, contracting and project management practices since 2008. The utility is currently reviewing and replacing all boilerplate contract forms and will consider this during that process.*

*Second Recommendation: Grant County PUD agrees with this recommendation. In 2010, all project managers will participate in negotiation training and project management training which has been tailored to the utility's needs.*

### Auditor's Concluding Remarks

We commend Grant County PUD on its positive and timely response to our recommendations.

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**Issue No. IV- 8: More detailed review of change orders through improved procedures and contract terms could result in significant cost savings.**

### Background

Grant County PUD issues construction contracts through a competitive bidding process where the reasonableness of bid prices is established. However, construction contracts commonly require contract change orders due to unforeseen conditions during construction or changes in architectural and/or engineering design. These contract change orders are not competitively bid, but instead are awarded to the same firm awarded the original contract. Because construction contract change orders are not competitively bid, steps should be taken to ensure the proposed cost of these changes orders is fair and reasonable.

### Condition

Because of inadequate procedures and contract terms, Grant County PUD is not performing a detailed review of construction contract change order costs proposed by the contractors. This results in payments to construction firms that are beyond fair and reasonable.

To verify how much Grant County PUD was paying construction firms beyond what is considered fair and reasonable, we selected three Grant County PUD construction contracts for our change order analysis. We reviewed change order file documentation for eight change orders under these contracts totaling nearly \$89 million, or 95 percent of the dollar value of the total change orders. The change orders tested represent nearly 137.5 percent of the original contract awards. We compared Grant County PUD's administration of these change orders with best practices and found the following:

### Exhibit IV-12 Evaluation of Grant County PUD's Change Order Practices

Change Order Best Practices	What we found:
Independent Cost Estimates Prepared by PUD? <b>(Yes/No)</b>	<b>No.</b> <i>Independent cost estimates were not performed for any of the eight contract change orders tested.</i>
Contractors' Change Order Cost Proposals Sufficiently Detailed? <b>(Yes/No)</b>	<b>Generally, No.</b> <i>Only one of the eight tested change orders provided sufficient information allowing a detailed analysis of the contractor's proposed cost.</i>
Proposed Change Order Labor Costs Did Not Exceed Prevailing Wages? <b>(Yes/No)</b>	<b>No.</b> <i>For the one change order with adequate detail to assess proposed labor rates, we found that the contractor proposed a labor rate that was 19 percent higher than the prevailing wage plus taxes and fringe benefits.</i>
Change Order Labor Costs Limited to Individuals Performing the Work? <b>(Yes/No)</b>	<b>Inconclusive.</b> <i>Because of insufficient proposal detail, we were unable to determine whether the contractors included management staff costs for the change orders we reviewed.</i>

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Change Order Best Practices	What we found:
<p>Contract General Conditions Limit Mark-ups for Overhead and Profit on “Lump-sum” and “Time and Materials” Change Orders (A 15~20 percent/5 percent limitation on mark-up is consistent with limits used by many government agencies.) <b>(Yes/No)</b></p>	<p><b>Time &amp; Material Change Orders: <i>Inconsistent.</i></b> <i>Mark-up for prime contractor on its costs is limited to 15%. No limit is placed on mark-up of prime on subcontractor costs.</i></p> <p><b>Lump-Sum Change Orders:</b>  <b>No.</b> Grant County PUD’s contract general conditions do not limit the amount of contractor and subcontractor overhead costs and profit mark-up for change orders.</p> <p><i>Observations: All change orders reviewed were lump sum. For three of the eight, enough detail was available to show that the contractor proposed a 29 percent mark-up on its costs. We also noted that the contractor proposed a 12 percent mark-up on subcontractor costs. In this case, the change order was overpriced by 24 percent when compared to the standard practice of a 15 percent and 5 percent mark-up.</i></p>
<p>Contract Change Order Negotiations Documented? <b>(Yes/No)</b></p>	<p><b>No.</b> We found no record of negotiation in the eight change order files reviewed.</p>

In summary, the PUD followed none of the six best practices consistently or lacked documentation to demonstrate this consistency.

### Cause

Grant County PUD contract General Conditions do not require detailed contractor cost proposals or provide adequate criteria on what contractor costs and mark-ups are allowable when pricing change orders. The General Conditions provide some detailed criteria on allowable cost and mark-ups for change orders negotiated on a Time and Material basis, but do not provide criteria on allowable costs for change orders negotiated on a Lump Sum basis. Finally, Grant County PUD’s policies do not require the preparation of independent estimates or formal documentation of contract change order price negotiations. Grant County PUD officials stated they were aware that the District’s change order procedures needed to be revised to ensure that change orders were negotiated at fair and reasonable prices. They indicated the performance audit recommendations will be used improve procedures.

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### Criteria

Best practices for the review of contract change order costs require a more detailed review of costs to ensure the proposed cost is fair, reasonable and adequately supported. They require:

- Developing independent cost estimates without regard to the contractor's cost proposal to evaluate the reasonableness of the contractor's proposed costs
- Documenting price negotiations, including the basis for determining the reasonableness of negotiated prices
- Including contract General Conditions establishing how the contractor should propose its contract change order costs. A detailed cost breakdown should include at a minimum labor hours and rates by trade, detailed material units and prices, hours and rates for equipment, and mark-ups added
- Limiting proposed labor costs to prevailing wages and to employees who work directly on the change order, excluding management. Project management personnel and site superintendents are required to be at the construction site with or without the extra work required by the change order, and there is no justification for allowing additional charges for their time unless the change order causes an extension of the contract schedule
- Excluding incidental mark-ups (e.g., for small tools)

### Recommendation

Grant County PUD should take the following actions to improve its contract change order practices:

- Revise contract change order procedures to require an independent estimate of change order costs be prepared for contract change orders
- Require detailed contractor proposals for both lump sum and time and material change orders
- Revise contract general conditions to allow labor costs for only employees who work directly on the change orders
- Revise contract general conditions to exclude incidental charges to proposed wage rates
- Revise contract general conditions to require detailed contractor proposals for change orders to be negotiated on a lump sum basis with details on proposed labor hours and labor categories, material and quantities, equipment and equipment hours
- Establish procedures to ensure proposed labor rates are based on the contractor's actual cost for unemployment insurance
- Perform a cost analysis of the contractor's proposed costs for both lump sum and time & material change orders
- Document the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation

### Effect of Recommendation

Based on our review of Grant County PUD's contract change order process, we estimate potential annual savings between \$225,000 to \$900,000 by implementing best practices for its capital project contract change orders.

**Grant County PUD's Response** *(By recommendation in italics)*

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- Revise contract change order procedures to require an independent estimate of change order costs be prepared for contract change orders. **Response:** *Grant County PUD agrees and this change has been made to our process.*
- Require detailed contractor proposals for both lump sum and time and material change orders. **Response:** *Grant County PUD agrees and is modifying the contract language to require this additional information.*
- Revise contract General Conditions to allow labor costs for only employees who work directly on the change orders. **Response:** *Grant County PUD agrees and is presently revising our contract forms.*
- Revise contract General Conditions to exclude incidental charges to proposed wage rates. **Response:** *Grant County PUD agrees and is close to implementing this recommendation into our contract language.*
- Revise contract General Conditions to require detailed contractor proposals for change orders to be negotiated on a lump sum basis with details on proposed labor hours and labor categories, material and quantities, equipment and equipment hours. **Response:** *Grant County PUD agrees and is implementing this recommendation.*
- Establish procedures to ensure proposed labor rates are based on the contractor's actual cost for unemployment insurance. **Response:** *Grant County PUD agrees and is including language to limit these costs as recommended in changes that are in process to our contract forms.*
- Perform a cost analysis of the contractor's proposed costs for both lump sum and time & material change orders. **Response:** *Grant County PUD agrees and will modify procedures to require this analysis once available when contract change orders are necessary.*
- Document the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation. **Response:** *Grant County PUD agrees and has already implemented this recommendation.*

### Auditor's Concluding Remarks

We commend Grant County PUD on its positive and timely response to our recommendations.

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### D. Procurement

#### Introduction

Procurement is the purchase of materials, supplies and services for Grant County PUD as a whole. This function is important because it helps to ensure the District provides reliable and cost-effective service. We analyzed:

- Transmission and distribution and telecommunications inventory balances, which averaged \$16.5 million for 2008, and the related inventory use.
- Grant County PUD purchases totaling \$238.2 million in 2008 for various criteria including whether:
  - The expenses were critical to the District's mission
  - There was evidence of competitive bids or price quotes
  - The procurement techniques resulted in low-cost high-quality services (i.e., use of competitive bids, strategic alliances, volume discounts and purchasing cards, etc.)

Each finding includes additional background information.

**Issue No. IV-9: Materials and supplies inventory turnover is below the industry average, resulting in higher inventory carrying costs.**

#### Background

Materials and supplies are essential to ensuring reliable utility service. Supplies of critical items used in operations must be available so as not to disrupt service or delay construction, repair or maintenance activities. Determining the right inventory levels is challenging because holding materials and supplies consumes working capital and warehouse space whereas purchasing more frequently has purchase order and other transaction-related costs. "Inventory turnover" is a key performance measure that benchmarks how well inventory levels are managed. Inventory turnover is calculated by dividing annual use by the inventory balance at a specific point in time. Inventory turnover of less than one indicates that more than one year's supply of inventory is kept.

#### Condition

The inventory turnover rate for Grant County PUD was 0.64 in 2008. This means the District has about one and a half years' worth of inventory, compared to the benchmark of roughly six months. This is well below the electric transmission and distribution (T&D) benchmark inventory turnover ratio of 2.3. **Exhibit III-13** shows the calculation of the District's inventory turnover rate for 2008:

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### Exhibit III-13 Inventory Turnover Analysis

2008	
Annual Usage	\$10,553,695
Average Materials and Supplies	\$16,469,464
Turnover Rate	0.64

#### **Cause**

Grant County PUD had a significant amount of fiber optic cable in its inventory when the District abruptly halted construction in 2003. The build-out is now resuming and the inventory is being used. This was the primary reason District employees cited for their low inventory turns. When fiber-related materials are excluded from the turnover calculation, Grant's inventory turnover ratio then is approximately 1.00. That means that Grant County PUD's average inventory of non-fiber related materials during 2008 equaled the amount of materials used during the year.

#### **Criteria**

The latest benchmark data indicates the median inventory turnover rate for electric transmission and distribution (T&D) and substation materials and supplies (M&S) is 2.3. That is, inventory balances will turnover on average a little more than two times per year or, on average, a utility should have slightly less than half the inventory on-hand at any one time that it will use in a year. However, a utility must also manage its inventory to ensure that materials are available when needed so planned work is not slowed down and crews are not idle due to lack of materials.

#### **Recommendation**

Grant County PUD should increase its inventory turnover by reducing of inventory levels and re-evaluating economic order quantities.

#### **Effect of Recommendation**

Increasing inventory turns from 0.64 to 2.00 would result in a reduction of average inventory balances from \$16.4 million to \$11.2 million. Reducing inventory would free up cash for other purposes, such as paying off debt.

#### **Grant County PUD's Response**

*Grant County PUD will continue to evaluate and revise inventory levels. Based on this recommendation, the utility plans to reassess the need for two warehouses and will look at centralization of materials. We anticipate that we will find areas where economization is possible and we will work to implement new practices.*

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### Auditor's Concluding Remarks

We applaud Grant County PUD's willingness to improve the effectiveness and efficiency of its inventory management practices.

**Issue No. IV-10: Grant County PUD could reduce the cost of goods and services by increasing its use of partnership agreements with key suppliers and obtaining more volume discounts.**

### Background

One way to minimize inventory levels while ensuring materials and supplies are available when needed is to negotiate partnership agreements with key suppliers. These agreements are typically arranged to assist in inventory management and to reduce costs. Grant County PUD has entered into six partnership agreements with local vendors. These agreements are for spending below the statutory bid requirements threshold and apply to both purchase card (i.e., credit card) and voucher transactions. These agreements generally provide for pricing at vendor cost plus a contractual percentage markup. The agreements also allow Grant County PUD to audit the books and records of the vendor to ensure the price it pays is consistent with the contract.

### Condition

Grant County PUD uses purchase cards for travel and for items below the competitive bid thresholds. However, it does not perform extensive analysis of its purchase card expenditures by vendors to determine whether there are additional opportunities to obtain partnership agreements or volume discounts. The District is making a significant volume of purchases using cards with a number of vendors with whom the District has not entered into an agreement or formally arranged for volume discounts; the four most significant are in **Exhibit IV-14**.

**Exhibit IV-14  
2007 and 2008 Combined PCARD Spending**

Vendor	Purchase Card Spending
Vendor A	\$1,117,000
Vendor B	\$348,000
Vendor C	\$216,000
Vendor D	\$197,000

The District has strategic alliances with six vendors and is benefitting in these ways:

- Certain high-use items are held in the vendor's inventory instead of the District's inventory. This process is facilitated by joint inventory planning outlined in the alliance agreement.

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- Pricing is at vendor cost plus a specific markup, resulting in what the District believes is a more competitive price. The alliances allow for audit of vendors to ensure the pricing is consistent with the alliance agreement.

However, Grant County PUD does not have partnership agreements or volume discount arrangements with all its large-dollar purchase card vendors (see **Exhibit IV-14**).

District procurement staff stated they are obtaining very competitive discounted prices from Vendor A even though they have not executed a formal signed volume discount or strategic alliance with that vendor. The District is, however, considering entering an arrangement with Vendor A that may provide even greater discounts.

#### **Cause**

Grant County PUD does not routinely analyze its purchase expenditure data to identify vendors with large, District-wide expenditures such as the vendors identified in **Exhibit IV-14**.

#### **Criteria**

Procurement best practices state that organizations are able to reduce inventory management costs and the cost of materials and supplies through strategic alliances and/or by pursuing volume discounts agreements with large-volume vendors.

#### **Recommendation**

Grant County PUD should institute a systematic approach to analyze all of its purchases not subject to competitive bids to identify opportunities for additional agreements or volume discounts, regardless of whether a purchase card was used.

#### **Effect of Recommendation**

The review will likely result in additional partnership agreements or volume discount arrangements with vendors for whom there is significant combined purchase card and voucher spending. Grant County PUD should consider a minimum threshold for entering into a volume discount or strategic alliance arrangement, such as a 5 to 10 percent discount off the normal purchase price.

To the extent additional agreements can be entered into over and above the examples listed above, additional savings could be generated.

#### **Grant County PUD's Response**

*Grant County PUD agrees with this recommendation but takes exception to the analysis of this issue. As noted in the report, the utility presently works with several vendors to obtain volume discounts, regardless of formal strategic alliances. The dollars included in this analysis reflect all items bid and quoted, as appropriate, within the utility's procedures and state law.*

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### **Auditor's Concluding Remarks**

We applaud Grant County PUD's willingness to look for opportunities for additional savings. However, Grant County PUD should routinely analyze its purchase expenditure data to identify vendors with large, District-wide expenditures. We recognize that Grant County PUD does this with some vendors but not as part of an organized review of its purchase data.

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### E. Wholesale Fiber Optic Network

#### Introduction

Grant County PUD has been in the wholesale fiber optic business (high-speed Internet) since 2001. As of December 31, 2008, Grant County PUD has spent \$97 million installing its fiber optic network, which has resulted in \$26 million in cumulative operating losses. The District covered these losses with revenue generated from electric sales to retail and wholesale customers.

The District discontinued expansions to its fiber optic program after experiencing problems with the program roll-out. However, in early 2008 the Grant County PUD Commission re-initiated program expansions and authorized an additional \$50 million in capital spending. Due to the rural nature of the District's service territory, wholesale fiber revenue is never expected to cover all of the District's investments and expenditures in the program. However, the Commission expects that future revenue will cover all out-of-pocket expenses and incremental investments based on the wholesale fiber business plan developed in 2008.

We examined the District's long-term business plan to assess the reasonableness of assumptions used to project revenue and expenses and to determine the likelihood the fiber optic program will be profitable and no longer require additional subsidies from District electric customers to remain solvent.

**Issue No. IV-11: Grant County PUD's wholesale fiber optic program, as currently structured, appears to be financially unsustainable.**

#### Background

During 2008, the District generated enough revenue to cover its cash operating expenses, but not enough to cover the depreciation of its investment in the fiber network. In total, the District reported a \$4.4 million loss from its fiber optic program in 2008.

Revenue	\$ 2.2 million
Cash Expenses	<u>1.5 million</u>
Operating Income	\$ 0.7 million
Depreciation	<u>5.1 million</u>
Net Income (Loss)	<u>\$(4.4) million</u>

In March 2008, the Commission established performance standards for the wholesale fiber optic program going forward. The Commission recognized the District would never recover the full cost of its fiber optic network investment from customers. However, going forward, the Commission set a goal that the program stand on its own, recognizing the social benefits of providing county-wide access to high-speed Internet service. To measure whether the program is "standing on its own," the Commission is ignoring the cost of the investments made to the fiber optic network prior to its decision to expand the network in March 2008. The Commission's focus was on ensuring that operating income was positive and it was willing to accept a net loss that included depreciation expense. However, the Commission is excluding annual interest expense of approximately \$4.8 million associated with funding the fiber network investment in determining whether the program is profitable or standing on its own.

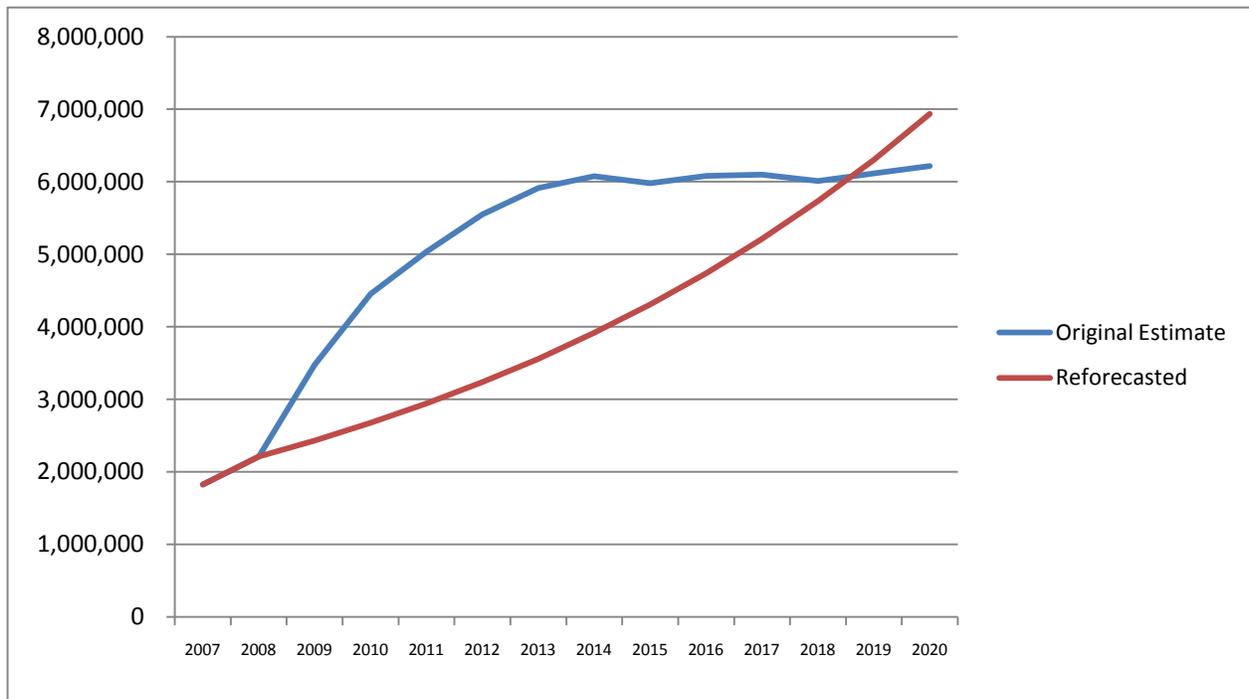
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### Condition

Grant County PUD has not made money by providing wholesale fiber optic network services and based on its long-term business plan (plan), it never will when considering all program costs. This plan, prepared in early 2008, forecasts the fiber optic network program's financial results through 2020. The plan projects program revenues that exceed incremental operations and maintenance expenses and depreciation each year consistent with the Commission's goal. However, the Commission's objectives do not require that revenue also cover the interest costs on these new investments in the fiber network. The plan estimates the interest costs on these new investments will be \$908,000 in 2009 and grow to \$1.1 million in 2020.

**Exhibit IV-15** presents the differences in projected revenue between the Grant County PUD's model (original estimate) and our scenarios (re-forecasted). Our scenarios assume revenue growth would be consistent with recent actual growth. This graph shows that the PUD's revenue forecast is consistently higher than the revenue forecast we developed based on recent growth rates.

**Exhibit IV-15**  
**Differences in Annual Revenue Projections**  
**Model vs. Scenarios**



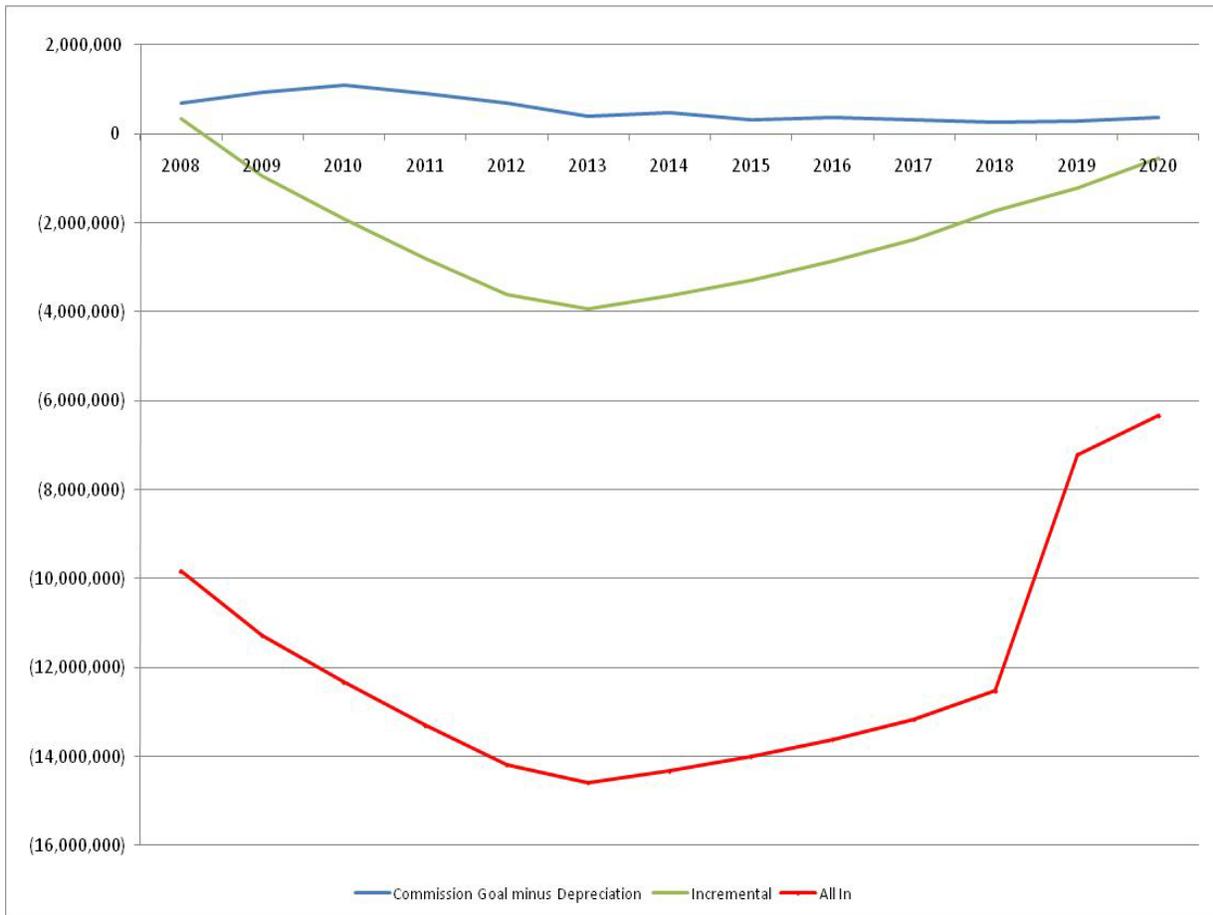
What this means as described below, the PUD's overly optimistic forecast will ultimately result in operating deficits for its fiber optic program.

We prepared two scenarios to further analyze the plan and assess its completeness and reasonableness. As seen at **Exhibit IV-16** the District's model shows net income in each year whereas our "Incremental" scenario shows losses in each year. The incremental scenario reflects higher borrowing costs associated with the revenue shortfall and higher operations and maintenance costs to reflect a portion of allocated

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administrative costs. The Grant County PUD model does not include any allocated administrative costs. The “All-In” scenario shows losses in each year, but at a significantly greater level than in the Grant County PUD model or our “Incremental” scenario. The “All-In” scenario includes a full portion of administrative costs (using a commonly accepted cost allocation formula) and depreciation and borrowing costs on all investments in the wholesale fiber network since inception. In our “Incremental” scenario, customer fiber optic bills would have to increase by \$22 per month to break even. In our “All-In” scenario, customer fiber optic bills would have to increase by \$121 per month to break even.

**Exhibit IV-16  
Differences in Net Income/Loss per Year  
Model vs. Scenarios**



- “Incremental” only includes investments made after March 2008
- “All In” includes all costs and investments since inception
- “Commission Goal minus Depreciation” is referred to above as the “Grant County PUD model.”

This table shows that the original investment was not financially viable and results in ongoing losses. This table further demonstrates that expanding the fiber optics program will increase the District’s financial losses.

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### Cause

The State of Washington has made it a public policy to make high-speed Internet available to citizens throughout the state. However, given the low population density in Grant County remaining to be served by high-speed Internet, the economics of extending the fiber optic program is financially unsustainable without a significant subsidy from the PUD's electric customers. Customer demand for high-speed Internet at cost-based rates likely would be limited as the price would be cost-prohibitive for most potential customers.

### Criteria

Using the criteria established by the Commission, the Grant County PUD wholesale fiber optic program will be successful if it satisfies the following objectives:

- Revenues meet or exceed the O&M expenses plus depreciation of the newly installed fiber and electronics, and
- In five years, the fiber optic network provides an opportunity for at least 80 percent of residences and 95 percent of businesses in Grant County (approximately 15,000) to connect to high-speed Internet through third party retail providers.

The Commission is committed to spend \$50 million to meet this five year goal.

In our opinion, the criteria should also include covering the interest expense related to these additional investments made in the fiber optic network.

### Recommendations

Grant County PUD should:

- Prepare an updated and complete financial forecast for its wholesale fiber optic program using the most current revenue and cost information available.
- Take steps to improve the economics of its wholesale fiber optic network program by:
  - Pursuing all opportunities to secure stimulus funding, including opportunities that require legislative changes that would affect all PUDs in Washington.
  - Continually monitoring areas where fiber has been extended but the saturation is below Grant County PUD's desired target of 40 percent.
  - Improve communications to increase customer awareness of the availability and benefits of high-speed Internet in those areas.
- Re-evaluate District policy for extending the fiber optic network given the modified financial projections presented in this report.

### Effect of Recommendation

Depending on the actions taken by the Commission, the effect of these recommendations could result in the avoidance of up to \$50 million in planned capital investments in the fiber network through 2020 or \$40 million over the next five years. The 2009 American Recovery and Reinvestment Act set aside funds for extending high-speed Internet to areas not previously served and not considered to be economically feasible to serve. Current plans to extend the wholesale fiber optic network could possibly meet the requirements of this Act. However, these funds may not be available to wholesale providers of high-speed Internet services.

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### Grant County PUD's Response (*By recommendation in italics*)

- Prepare an updated and complete financial forecast for its wholesale fiber optic program using the most current revenue and cost information available. **Response:** *Grant County PUD Commissioners will continue regular review and evaluation of the financial forecast for the fiber network.*
- Take steps to improve the economics of its wholesale fiber optic network program by:
  - Pursuing all opportunities to secure stimulus funding, including opportunities that require legislative changes that would affect all PUDs in Washington. **Response:** *The utility is currently working on an application to pursue stimulus funds and will review options for outside funding as appropriate/available.*
  - Continually monitoring areas where fiber has been extended but the saturation is below Grant County PUD's desired target of 40 percent. **Response:** *Grant County PUD agrees and staff has been providing regular updates to the board. Commissioners and staff will review fiber saturation rates by individual local area on a quarterly basis.*
  - Improve communications to increase customer awareness of the availability and benefits of high-speed Internet in those areas. **Response:** *Grant County PUD agrees. The Board of Commissioners has previously expressed this concern and is reviewing the current communication strategy for the fiber optic network.*
- Re-evaluate District policy for extending the fiber optic network given the modified financial projections presented in this report. **Response:** *In 2008, Grant County PUD Commissioners established guidelines for further development of the fiber system. The plan requires the system to satisfy the Commission's goal that revenues should meet or exceed the operation and maintenance expenses plus depreciation of newly installed fiber and electronics. Commissioners review network financials on a quarterly basis and approve further build-out on an annual basis, as they have in the past three years.*

### Auditor's Concluding Remarks

The modified financial projections presented are based on the inclusion of the cost of capital in the assessment of the sustainability of the fiber optic network. Given the Board's desire to continue its current policy, we respectfully suggest the policy be modified to include a requirement that future investments generate revenue that cover a return on the investment (i.e., interest expense or the opportunity cost) in addition to the operating and maintenance and depreciation expenses.

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### I. Douglas County PUD Background Information

The Douglas County Public Utility District is a municipal corporation of the State of Washington located in Central Washington. The District was established in 1936 and began electric utility operations in 1945. It owns, operates and maintains one major hydroelectric power generating project: the Wells Project, operated under a long-term license issued by Federal Energy Regulatory Commission (FERC).

In accordance with state law, Douglas County PUD is administered by a Commission of three members who serve staggered six-year terms and are elected from Commissioner districts. The Commission exercises the legal responsibilities and powers of the District, including the establishment of rates and charges for services rendered. The Commission also acts as a board of directors and establishes policy, approves plans, budgets and expenditures, reviews the District's operations and hires the general manager.

Douglas County PUD serves approximately 18,000 electric customers, 1,100 communications customers and 75 water customers. In 2007, it had retail electric sales of 595,869 MWH and \$13.3 million in retail operating electric revenue; its electric resale revenue was \$26.5 million.

Historically, the PUD has generated most of its power from the Wells Project and relatively small amounts from other sources. The Wells Project provides power at a comparatively low cost, enabling it to provide among the lowest electric rates in the country.

Power from the Wells Project is sold at cost to the District's Electric Distribution System, four Pacific Northwest investor-owned utilities and Okanogan PUD under long-term sales agreements; it is also sold to the Colville Confederated Tribes under the terms of a settlement agreement.

The Wells Project has a capacity of 840 megawatts (MW). For In 2007, the Wells Project delivered 3.7 million megawatt hours (MWH) of power.

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### II. Audit Approach

The Survey phase identified the following issues to be addressed during the performance audit:

Task Area	Survey Phase Issues
<b>Governance</b>	<ul style="list-style-type: none"><li>• Governance policies and practices</li><li>• Organization structure</li></ul>
<b>Operations</b>	<ul style="list-style-type: none"><li>• Labor resource utilization and efficiency</li><li>• Asset management</li></ul>
<b>Construction Management</b>	<ul style="list-style-type: none"><li>• Architect and engineering fees</li><li>• Change order practices</li></ul>
<b>Procurement</b>	<ul style="list-style-type: none"><li>• Cost savings opportunities</li><li>• PCARD (i.e., credit card) usage</li></ul>
<b>Administrative Management</b>	<ul style="list-style-type: none"><li>• Cooperative shared services opportunities</li></ul>

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### A. GOVERNANCE AND ORGANIZATION MANAGEMENT

#### Introduction

The quality of the leadership of an organization, more than any other factor, determines its performance and effectiveness. An organization with effective leadership prepares for and quickly resolves issues and challenges, provides clarity of direction and roles and establishes real accountability for the organization.

“Governance” describes the role of a board or other decision-making body in providing leadership for an organization. Governance generally includes responsibility for providing the overall direction for the organization, making key decisions for the organization through policy, and overseeing organization’s performance. Key tools of effective governance include strategic planning and management including performance measurement and monitoring. Douglas County PUD’s Board of Commissioners is responsible for governing the organization.

#### 1. GOVERNANCE

**Issue No. V-6: The Douglas County PUD Commission needs to develop and implement governance policies and practices necessary to provide more effective leadership and oversight to the District.**

#### Background

The role of any Board is to provide strategic focus and direction for the organization and to ensure decisions support the focus and direction. Oversight is also an important function for any Board, ensuring that organizational activities are consistent with legal requirements and its own policies and procedures. Since the Board of Commissioners controls the focus and direction of the organization, the risks posed by ineffective leadership, decision-making and oversight are substantial.

Effective governance requires that formal structures and practices define how the Board carries out its duties. Many boards develop and document bylaws, policies and procedures that clearly define the specific role of the board and board members and what actions are appropriate in specific situations. Specific areas in which policies are most often needed include conflicts of interest, the role of board members and the relationship between the board and management.

#### Condition

We identified areas for improvement in Douglas County PUD’s governance practices:

***The Commission should set goals and measure performance against those goals.***

The Commission does not establish short- or long-term goals for itself as a governance body or for the PUD. The Commission does not evaluate its own performance to determine how it is contributing to the overall effectiveness of the organization, and how it could improve that contribution. It does not evaluate how well the District is performing or identify changes that could improve performance.

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***The Commission should set performance goals for the general manager and others who report directly to the Commission.***

A key role of the Commission is providing clear direction to the individuals who report directly to it – the general manager, treasurer, and auditor. This clear direction should ideally establish specific expectations for each of these positions, and should consist of specific goals and objectives to be accomplished within specific timeframes.

It is equally important for the Commissioners to evaluate the performance of the individuals in these key positions and provide meaningful feedback on how well expectations are being met. These evaluations should also be accomplished routinely and within specific timeframes.

We requested and reviewed the specific goals established by the Commission for each of the positions that reports directly to it. We also requested and reviewed the performance evaluations conducted for each of these positions. We found the Commission had not developed goals or objectives for any of the positions that report directly to it. The Commission has conducted an evaluation of the general manager; however, the evaluation was too general to provide meaningful feedback on performance.

***The Commission should establish formal conflict of interest, investment, relationship with management, and other basic policies and practices.***

Effective governance requires that formal structures and practices define how the Commission carries out its duties. Many boards of commissioners have developed specific bylaws, policies and procedures that clearly define the role of the commission and commissioners and what is appropriate in specific situations. Policies are most often needed for conflicts of interest, investments and the relationship between the board and management. The Commission has not developed any such bylaws, policies or procedures. The Commission relies solely on the state law, which does not address the specific needs or requirements of the District.

***Commissioners should receive meeting materials for effective decision making prior to Commission meetings.***

Commissioners must receive meeting materials with adequate time to review them prior to making decisions. It is common practice in the public sector for Commissioners to receive materials at least several days before Commission meetings.

Commissioners do not receive Commission meeting materials, including resolutions, prior to meetings. The current decision-making process is for the general manager to have the only copy of each of the resolutions the Commission is considering at the meeting. The President of the Commission reads the resolution item from the agenda and asks the general manager to explain the resolution.

The general manager then provides a brief overview of the resolution and answers Commissioners' questions. After discussion, if any, the Commission votes on the resolution. Once the item passes, the only copy of the resolution is passed to the Commissioners for signature. This is the first time any of the Commissioners will have seen the actual resolution they just voted on.

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### ***The District should develop a more robust Internal Audit process.***

Internal audits should provide timely and objective information to a Commission to aid it in decision-making and overseeing management's effectiveness. Internal audits help identify and address operational and financial deficiencies.

Douglas County PUD has one auditor who reports directly to the Commission and performs disbursement-related statutory duties. The auditor also has primary responsibility for distribution accounting and manages the customer service function in Bridgeport. The auditor does not perform any operational audits. While the internal audit function may not justify a full-time position, the Commission could benefit from independent reviews and assessments of financial and operational functions identified using a risk based audit approach.

### **Cause**

The Commission has an informal approach to leading and overseeing the District, based on a high level of trust in each other and management. The Commissioners have placed a strong emphasis on consensus. It is not clear that members of the Commission understand that part of their role is to question management ("trust but verify") and to review and analyze what management is doing and what is best for the District. Healthy skepticism should lead to constructive dialogue among Commissioners.

Douglas County PUD is notable for having among the lowest electricity rates in the country. Ongoing success has led a perception that additional leadership and oversight is not necessary. Douglas County PUD's leadership has a one-dimensional perspective driven by electrical rates rather than a broader strategic or long-term governance perspective.

### **Criteria**

**Appendix D-1** presents the assessment framework used to evaluate the governance effectiveness of the District.

### **Recommendation**

The Douglas County PUD Commission should improve its governance policies and practices by:

- Establishing annual goals for the Commission and the District and annually evaluating the performance of both.
- Developing and instituting a policy requiring that specific annual goals and objectives be established for each of the positions that report directly to the Commission and annual performance evaluations be prepared to document how effectively these specific goals and objectives have been accomplished.
- Developing and implementing formal conflict of interest, investment, relationship with management, and other basic policies and practices for the Commission.
- Revising the approach to receiving and reviewing Commission meeting and decision-making materials and resolutions to ensure adequate time is available for reviewing materials prior to making decisions.

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- Establishing an internal audit function (internal or external) reporting directly to the Commission with the capability to perform both financial and operational audits.

#### Effect of Recommendation

Improving governance policies and practices will enhance the ability of the Commission to provide necessary leadership and oversight to the District. Providing clear strategic direction for the PUD and effectively addressing key strategic issues will improve its ability to provide reliable service at a reasonable cost. Specific effects of the governance issues include the potential impact on the PUD's cost of capital, the impact on organizational effectiveness, and the impact on employee morale and productivity.

Ratings of governance effectiveness in the corporate sector are becoming common and are important additions to traditional ratings. An assessment of the relationships between governance ratings and corporate performance demonstrated that corporations with positive governance ratings performed better.

Management and the organization are most effective when strategic direction is provided by the Commission. Clear focus and direction on key issues keeps management from having to guess and improvise.

Establishing goals and completing meaningful performance evaluations for the general manager, treasurer, attorney and auditor, who report directly to the Commission, will result in increased accountability for the people in those positions. Without such goals, it is not possible to effectively evaluate performance. In addition, establishing goals will result in employees knowing what they are expected to accomplish more clearly understanding how their work contributes to the District's goals. Performance feedback enhances the likelihood of staff performing at optimal levels. Written performance evaluations also provide documentation needed to support personnel decisions and help mitigate risks such as wrongful dismissal lawsuits.

By reviewing resolutions and supporting documents prior to making decisions, the Commissioners will more fully understand or realize the impact of decisions made. Internal or operational audits should result in additional objective and complete financial and operational information being provided and, as a result, enhance the Commission's oversight capabilities.

#### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*The Commission has long established direction for the General Manager through establishment of the Mission Statement, Customer Service Policies, and other general policies. Annual goals are also set by and for the General Manager. Evaluation is continuous and formalized annually. The General Manager's performance is reviewed annually. The review includes evaluation of goal achievement. Other positions reporting to the Commission were reviewed in 2009.*

*In 2009, the Commission established a formal Code of Ethics, a formal Governance Policy, and a formal Financial Policy. Although the formal written policies are new, the practices set forth in these policies have been in use for many years.*

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*Commissioners receive meeting information in advance of the Commission meetings. The Douglas County PUD Commission has been making effective decisions for many years.*

*Douglas County PUD has benefited from excellent Commission leadership for many years as evidenced by the District's low rates and reliable service. The strategic direction for Douglas County PUD has been clearly provided in the Commission-adopted mission statement. There has been no need for management to guess or improvise. Since no actual governance issues or failures were documented during the performance audit, adoption of formal, written policies simply documents practices and procedures in use for many years.*

#### **Auditor's Concluding Remarks**

We applaud the Commission for recognizing the need for improvement in its governance policies and practices and making substantial changes in response to our audit. The newly adopted policies and goals, and practice of conducting performance reviews, will strengthen the leadership and oversight of the Commission. The new practice of Commission members receiving and reviewing information and decision items prior to Commission actions, also made in response to our audit, should substantially improve Commission decision making.

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### 2. STRATEGIC PLANNING

**Issue No. V-7: Douglas County PUD's strategic planning process should be improved.**

#### **Background**

Strategic planning is a disciplined effort to produce fundamental decisions and shape and guide what an organization is, what it does and why it does it. When the strategic plan is linked to operations, all groups in the organization have a clear understanding of its purpose, the strategies used to achieve that purpose and the progress being achieved.

#### **Condition**

Prior to this performance audit, strategic planning at Douglas County PUD was limited to its mission statement:

***“To provide the best possible utility services at the lowest possible cost consistent with sound business principles.”***

In October 2008, while this performance audit was underway, the Commission adopted:

#### ***Value Statements:***

- Douglas County PUD makes policy decisions in an open forum.
- Douglas County PUD is fiscally responsible.
- Douglas County PUD is environmentally responsible.
- Douglas County PUD is service oriented and responsible to its public owners.
- Douglas County PUD values its employees.
- Douglas County PUD employees take ownership in the services they provide and the assets they are responsible for.
- Douglas County PUD provides a safe workplace and a safe community.

#### ***Planning Statements:***

- Douglas County PUD follows an Integrated Resource Plan for electric supply focused on meeting resource needs with owned assets or long-term contracts.
- Douglas County PUD is committed to bulk electric system reliability.
- Douglas County PUD promotes information age technology development.
- Douglas County PUD monitors growth potential to plan system changes proactively.

Adopting these values and planning statements is a positive step toward conducting meaningful strategic planning. However, key elements of effective strategic planning, such as measurable goals and objectives and long-term financial forecasts, are not in place.

Without effective strategic planning, it is unclear what the District will be able to accomplish or the progress it is achieving, other than maintaining low electric rates. It is difficult for the Commission and management to clearly communicate to employees and the public the District's priorities and the issues it is addressing.

Public accountability is limited without an effective strategic plan. Members of the public cannot clearly identify what they can expect from the District. Additionally, federal energy policy changes that affect

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the District may not be identified and incorporated without a more formal and comprehensive strategic planning process.

#### **Cause**

Douglas County PUD values an informal management approach. Douglas County PUD has generally been very successful as measured by one performance metric – customer rates. This ongoing success has provided the sense that efforts at strategic planning or other more formal management approaches would not add value and would increase cost. District leadership has a one-dimensional perspective driven by electrical rates rather than a broader strategic or long-term perspective that would include a more balanced set of performance objectives.

#### **Criteria**

The key elements of an effective strategic planning process were used as the assessment framework and are described in **Appendix D-2**.

#### **Recommendation**

Douglas County PUD should develop and implement a comprehensive strategic planning process to identify key issues and guide the organization.

#### **Effect of Recommendation**

Developing and implementing a comprehensive strategic planning process will enhance the likelihood that key issues and trends that may significantly impact the District and its ability to provide service will be identified and addressed. Without strategic planning it is unclear, other than maintaining low electrical rates, what the District is accomplishing or how to measure progress. Having a strategic plan will make it easier for senior management to clearly communicate to employees the complete set of priorities and critical issues the District is addressing.

A strategic plan will enhance public transparency and accountability and will provide the public with a better understanding of the District's activities and accomplishments and what they can expect from the District.

#### **Douglas County PUD's Response**

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*For many years Douglas County PUD's public statement of strategic direction has been its Mission Statement: "To provide the best possible utility services at the lowest possible cost consistent with sound business principles." By adopting this targeted mission statement, the Commission has reflected what it believes to be the primary interests of its constituents, the people of Douglas County. Through many past discussions and reconsiderations the Douglas County PUD Commission has meaningfully determined focused guidance to be superior to many-faceted strategic plans. Such plans can be elaborate and difficult to interpret. Douglas County PUD's locally-elected Commission has focused the General Manager, and through him the rest of the staff, on what it has determined to be in the best interests of its constituents. History proves the Commission's wisdom. It is difficult to argue against Douglas County PUD's low-cost, renewable power supply portfolio and reliable, low-cost electric service to its customers.*

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#### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's willingness to consider the recommendation. While we recognize that Douglas County PUD provides reliable low-cost power to its customers, we continue to believe Douglas County PUD would be well served by developing a more comprehensive and deeper strategic direction and plan. A more substantial strategic plan could identify potential challenges or threats to the success the PUD has enjoyed and help to minimize their potential impact. Such a plan could also provide clearer direction to the PUD staff and enhance public transparency and accountability.

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### 3. PERFORMANCE MEASUREMENT

**Issue No. V-8: Douglas County PUD's performance measurement, management and reporting system should be improved.**

#### **Background**

Performance measurement and reporting should link back to the strategic plan and to demonstrate the success or effectiveness of organizational or program activities in addressing a specific need or attaining a specific goal. Effective performance measurement includes establishing a framework that includes a balanced set of indicators, ensuring the collection of sound and reliable indicator data, providing the analysis and reporting of indicator information and driving service improvements and testing new initiatives.

#### **Condition**

Douglas County PUD has not developed a performance measurement framework or any specific performance indicators to track and demonstrate progress toward organizational goals or the effectiveness and efficiency of its activities and efforts.

The lack of a performance measurement system makes it difficult for the Commissioners or public to provide meaningful oversight, assess current operations or improve management or operations. Without a performance measurement system, it is not possible to determine if adequate progress is being made and if adjustments are needed to achieve the organization's goals.

#### **Cause**

Douglas County PUD has developed an informal approach to managing the PUD. Based on our observations and conversations with Commissioners and management, the management team believes it has a very good understanding (albeit informal) of the District's performance without having incurred the cost to develop and the overhead to maintain a more formal performance measurement, monitoring or reporting process. While management is convinced customers and employees are satisfied with District performance, there is no substantive information to support this conclusion.

The District is notable for having among the lowest rates for electricity in the nation. It defines success as extremely low electric rates, providing the sense that District efforts at strategic planning or other formal management approaches would not add value and would increase cost. District leadership has a one-dimensional perspective driven by electrical rates rather than a strategic or long-term perspective.

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### Criteria

**Exhibit V-1** shows the assessment framework the District uses to evaluate its performance.

#### Exhibit V-1 Performance Measurement Assessment Framework

- Tools to monitor and track implementation.
- Performance / Outcome indicators and system to measure progress toward goals and objectives.
- Feedback from customers / clients used to evaluate progress.
- Efforts to address internal / employee issues and concerns.
- Sharing and celebration of progress toward strategic goals and objectives.

### Recommendation

Douglas County PUD should develop and implement a performance measurement framework and develop specific performance indicators for tracking and demonstrating progress toward organizational goals and the effectiveness of activities and efforts.

### Effect of Recommendation

Developing and implementing a performance measurement system will make it easier for the Douglas County PUD Commissioners and management to provide meaningful oversight, assess current operations, and make needed improvements in management or operations. An effective performance measurement process makes it is possible to determine if adequate progress is being made and if adjustments are needed to achieve the PUD's goals.

### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD is more results-oriented than process-oriented. The idea of not completing necessary projects is foreign to the Douglas County PUD culture. Nearly every supervisor at Douglas County PUD is a working supervisor, deeply involved in Douglas County PUD projects. The approved budgets provide necessary guidance and completed projects are evidence of success. In prior consideration, processes parallel to the completion of projects have seemed to create extra process work that may detract from the completion of project work.*

### Auditor's Concluding Remarks

We appreciate Douglas County PUD's indication it will consider this recommendation. Performance measurement as recommended is not a process, it is how an organization demonstrates that it is results

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oriented and the results it has achieved. Completing planned projects provides no indication that actual results have been accomplished.

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### 4. ORGANIZATIONAL STRUCTURE

**Issue No. V-9: The organizational structure of Douglas County PUD can be better aligned to reflect the strategic priorities of the PUD.**

#### **Background**

An organization's structure should provide a framework of functional areas within which individuals can achieve the organization's goals. An effective organization structure clearly reflects the priorities of the organization, facilitates efficient and effective service delivery and problem solving, ensures consistency of direction and management control, minimizes obstacles and barriers to performance, assigns responsibility with accountability and stimulates a culture of shared accomplishment and teamwork.

#### **Condition**

Douglas County PUD's organizational structure does not reflect the strategic priorities of the organization. Douglas County PUD has two primary functions – generating and distributing electricity. Other functions within the organization, including purchasing, accounting and information services should assist with the administration of and support these two primary functions.

**Exhibit V-3** shows the current organization of Douglas County PUD. The responsibility and accountability for the two primary functions of the organization is split among two or three departments. The responsibility for electric generation is divided among two departments – the Wells Project (Hydroelectric Facility) and Environmental and Regulatory Services. The responsibility for electrical distribution is divided among three departments – Distribution Engineering, Distribution Operations and Customer Service.

Assistant managers stated they were not responsible or accountable for either of these two key functions; it belonged to the general manager alone. This is a result of organizational responsibility for these key functions coming together only at the general manager level.

The division of these key functions also requires extensive coordination among each of the departments involved in providing these key functions. This coordination can be effective in maintaining progress until a conflict occurs among the departments involved. Given that the departments are all at the same organizational level conflicts that cannot be resolved at the department head level must either be escalated to the general manager or result in a stalemate with no action taken.

The current organization structure also gives the general manager too broad of a span of control. The general manager has 12 employees reporting directly to him. Of these, 10 are department managers and two are support positions (executive assistant and policy analyst). The general manager also has primary responsibility for interacting with the Commission.

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#### Cause

Douglas County PUD's current organizational structure has evolved over the years with little or no review or assessment of how well the structure works or evaluation of alternative structures.

#### Criteria

**Exhibit V-2** below shows the assessment framework used to evaluate the organization structure of the District.

#### Exhibit V-2 Organization Structure Assessment Framework

- Consistency of organizational structure with strategic priorities.
- Overlaps / duplication of functions and responsibilities.
- Consistency of authority and responsibility and accountability (profit and loss responsibility).
- Span of management control / management layers.
- Management capacity and capability.

#### Recommendation

The Douglas County PUD Commission and general manager should evaluate the merits of revising its organizational structure to assign specific responsibility for key functions, provide a reasonable span of control and effectively align resources. **Exhibit V-4** provides an alternative organization structure for the District.

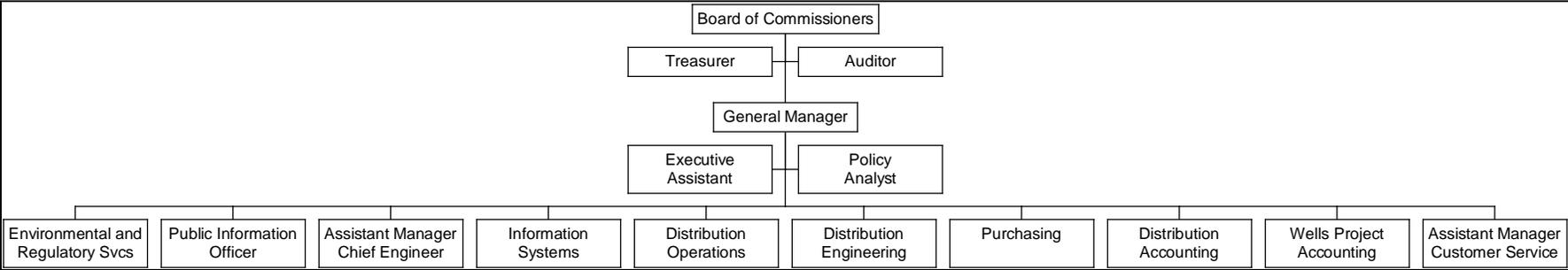
#### Effect of Recommendation

Eliminating the divided organizational responsibility for the District's key functions should result in improved ability to assign accountability for these key functions except at the general manager level. It should also reduce the need for the extensive coordination among departments currently involved in providing these key functions and reduce the potential conflict among them.

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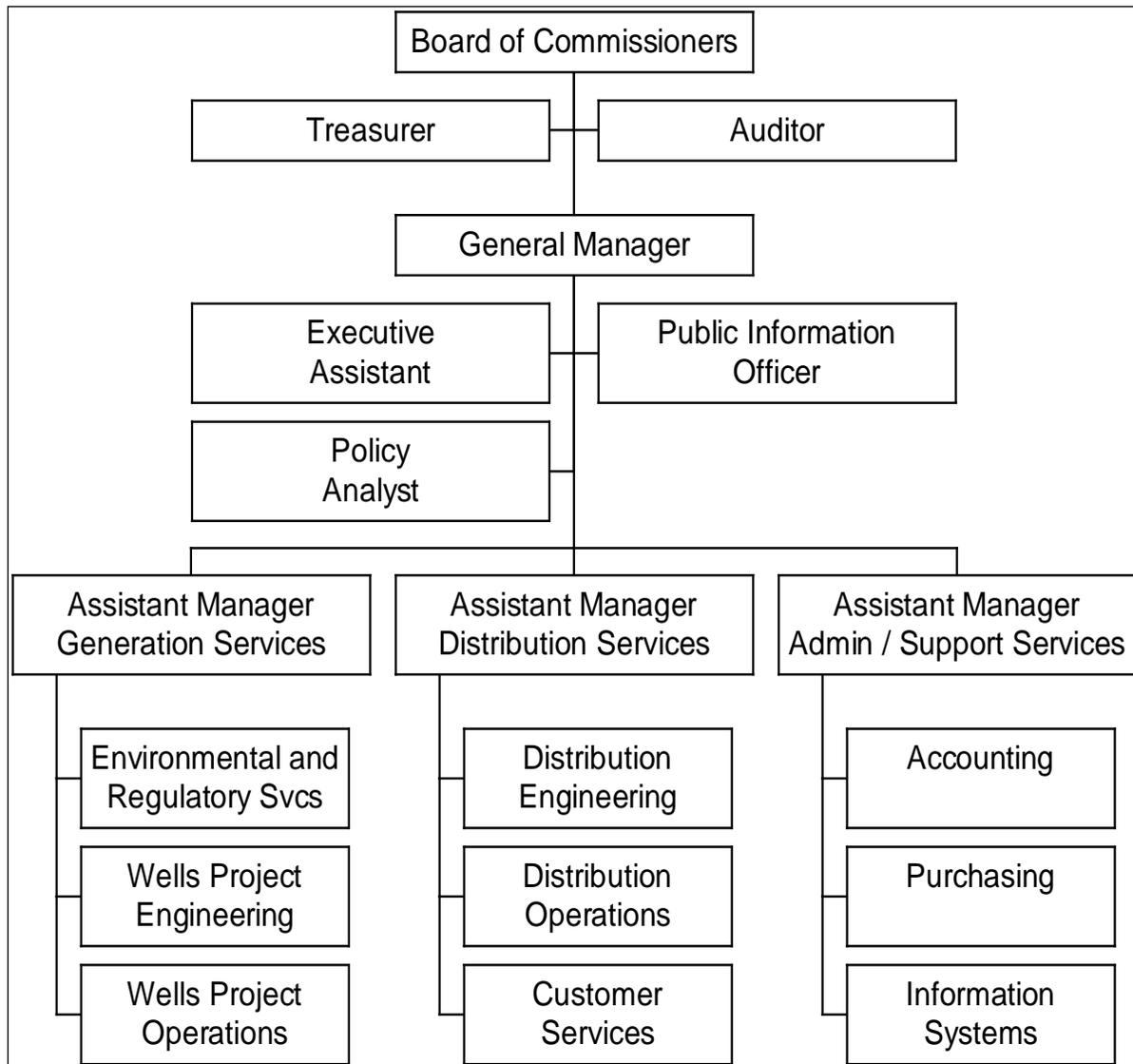
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**Exhibit V-3  
Top-Line Organization of the Douglas County Public Utilities District**



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**Exhibit V-4  
Potential Organization of the Douglas County Public Utilities District**



### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD operates with a very flat organizational structure with a thin layer of management personnel. Nearly every supervisor is a working supervisor, with work tasks exceeding supervisory responsibility. Top managers at Douglas County PUD are historically in these positions long-term. The structure has worked well and is a contributing element to Douglas County PUD's success. Organizational responsibility is currently divided according to key functions. The report suggests creating silos within the organization with layers of purely supervisory management. Douglas County PUD believes its customers do not want layers of supervisory only positions. Each time a personnel change is required in upper*

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*management, the structure is reviewed and adjusted to best meet the then-current operational needs of Douglas County PUD.*

### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's indication it will consider this recommendation. We continue to believe a revised organization structure could provide improved coordination and accountability within the PUD.

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### 5. HUMAN RESOURCE MANAGEMENT

**Issue No. V-10: Formal employee position descriptions and employee performance evaluations for key positions need improvement.**

#### **Background**

Position descriptions and formal performance evaluations are basic elements of organizational and human resource management and are critical to ensuring that employees' performance links to the strategic plan. Descriptions define the roles and responsibilities of positions, reporting relationships, key functions, accountability and link to the strategic plan. Periodic, formal performance evaluations show employees how their performance compares to standards and expectations.

#### **Condition**

Douglas County PUD has not developed and does not use position descriptions with the elements described above for any of its positions. The only existing position descriptions are developed when job openings are posted or advertised. The District has current position descriptions for only five of the 12 positions that report to the general manager.

Without position descriptions, employees and their supervisors may not have a clear understanding of their roles and responsibilities, reporting relationships, key functions and key accountabilities. The lack of position descriptions also exposes the District to litigation risk. Without clearly defined roles and expectations for each position, it is difficult to defend personnel hiring, promotions or corrective actions.

The District does not require annual formal performance evaluations for the positions that report to the general manager. The most recent formal performance evaluations for employees who report to the general manager were in 2004.

Without written performance evaluations, employees may not have any sense of how they are performing and where they need to improve performance. The lack of consistent performance evaluations tends to result in staff performing below the optimal levels.

#### **Cause**

Douglas County PUD has an informal approach to managing employees. The management team does not recognize a need for more formal human resource management or employee performance evaluations.

Douglas County PUD is notable for having among the lowest electricity rates in the country. This ongoing success has provided the sense that more formal management processes (e.g., formal employee performance evaluations) would increase costs. Douglas County PUD's leadership has a one-dimensional perspective driven by electrical rates rather than a broader strategic or long-term perspective.

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#### Criteria

**Exhibit V-5** shows the assessment framework used to evaluate the District's human resource management effectiveness.

#### Exhibit V-5

#### Organization Structure Assessment Framework

- Clear and up-to-date job or position descriptions.
- Development of annual performance plans for management and staff members.
- Performance reviews / evaluations conducted at least annually.
- Personnel skills development and training.
- Succession planning

In addition, Washington Administrative Code 357-37-010, while not authoritative for PUDs, indicates:

“An employee performance management process is part of a positive, performance-based culture. It fosters employee competence and productivity, supports achievement of organizational goals and objectives, and provides documentation of employee's strengths and areas in need of improvement.”

#### Recommendation

Douglas County PUD should develop formal position descriptions that define roles and responsibilities, reporting relationships and required skills for key positions. It should also develop policies and procedures requiring formal annual performance evaluations for key positions. This should be accomplished in conjunction with a realignment of the organization structure, outlined in the previous recommendation.

#### Effect of Recommendation

Position descriptions will give employees a clear understanding of their roles and responsibilities, reporting relationships and required skills. Formal position descriptions and annual evaluations will also reduce the District's litigation risk. Clearly defining roles and expectations for positions will make it easier to defend hiring, promotions or disciplinary actions.

Written performance evaluations give employees a better sense how they are performing and where they need improvement. Consistent performance evaluations generally result in fewer staff performing below optimal levels, improve morale and reduce turnover.

#### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

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*The performance auditors noted no instances in which Douglas County PUD staff was confused about roles, responsibilities, reporting relationships, required skills or key accountabilities. The Effect of Recommendation references litigation risk but Douglas County PUD has had a history of minimal employee litigation. There is minimal employee turnover, other than through retirements. Douglas County PUD's employees understand their roles and perform well as evidenced by Douglas County PUD's good customer service, reliable power supply, and low electric rates.*

#### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's indication it will consider these recommendations. We continue to believe that position descriptions and formal performance evaluations are basic elements of organizational and human resource management and are critical to ensuring clear communication to and accountability for employees. In addition, without these basic tools the PUD has little or no defense against potential employee litigation. Litigation or any risk is not solely determined by past experience. While the PUD has not experienced employee litigation in the past, the PUD is not immune to such an event occurring at the PUD.

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### B. OPERATIONS

#### Introduction

Douglas County PUD Operations division (hydro and distribution) is responsible for deploying the labor, facilities, processes and technology required to produce and deliver services. The effective and efficient use of these resources is critical to achieving the District's mission. Generally, public utilities perform better the more effectively and efficiently their resources are used. Performance includes electric system safety and reliability, customer satisfaction and financial performance.

Due to the mission-critical nature of Operations and the large facilities it manages and operates, large numbers of employees, complex processes and sophisticated technology are typically required. As a result, substantial opportunities for improvement often exist in Operations. Improvement approaches such as labor optimization, staffing analysis and asset management are often effective in improving operational performance.

#### 1. LABOR OPTIMIZATION

**Issue No. V-6: Douglas County PUD could reduce the cost of its distribution line crews.**

#### Background

Labor is a significant operating cost. The effective use of the District employees helps to ensure labor resources are optimized and unnecessary labor and contractor costs are avoided.

#### Condition

***The average internal line crew could be reduced from four linemen to three linemen to reduce costs.***

Distribution Operations field work is carried out by four Douglas County PUD distribution crews; three crews are based in East Wenatchee and one crew is based in Bridgeport. Each crew typically consists of four employees: a Line Foreman, one or two Journey Linemen and one or two Apprentice Linemen. In 2007, the four line crews worked 37,400 hours at a total cost of \$1.6 million.

The District's Distribution Operations line crews have four linemen, a common practice among the PUDs in Washington. In some instances, the work allows crews to be reduced to three crew members. However, other electric utilities in the state and in other states -- particularly in the East and Midwest -- customarily use crews consisting of three or, in some cases, two linemen. It is common practice in the industry for electric utilities to operate with two or three person crews. The current collective bargaining agreement between Douglas County PUD and its local union allows line crews to have three linemen (Section 8.2.1).

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#### ***State law increases line crew costs***

Douglas County PUD has a contract with a private firm to provide line crews to supplement the District's internal line crews during peak workloads that typically occur in the summer and early fall. Normally, two dock crews are used from spring to fall and then use is cut back to one crew for the winter period. And, depending on the severity of the winter, they could be eliminated entirely until the following spring. Also, the District hires a contractor to perform certain line crew work required by state law (RCW 54.04.070). This law generally restricts the use of PUD line crews to perform work when the cost of materials exceeds \$150,000. Douglas County PUD management estimated it paid for 1,449 hours of contractor crew time to comply with state law in 2007-08.

A four-person contractor crew costs \$105 per hour (37.8 percent) more on average than District crews. The average four-person contractor crew cost per hour using the fully loaded labor rates in the current contract is \$346 per hour compared to a District crew cost of \$251 per hour, which includes all benefits, paid time off and fleet costs. A four-person contractor crew costs approximately \$719,000 per year compared to a District crew, which costs approximately \$522,000; a difference of \$197,000 more per crew per year. Given the significant cost, we believe the dollar threshold in Chapter 54.04.070 RCW requiring the use of outside contractors is too low for organizations in a capital-intensive industry such as the PUD with its ongoing need for high-cost capital projects.

#### **Cause**

Grant County PUD generally operates with four linemen per crew because it believes this configuration is the best suited for the work. The use of contractor line crews is generally driven by compliance with state law.

#### **Criteria**

Line crew size and structure should be appropriate for the tasks performed. As an example, Appendix E presents how a large eastern electric utility staffs its overhead line crews based on the work to be performed. In most instances this results in 3-man line crews.

Typically, it is advisable for a utility to contract for labor when some or all of the following criteria are met:

- To supplement existing labor
- For physical and low skill work
- When contractors are cost competitive with employees
- When contracted work has low correlation with the mission
- When contracted work is intermittent or peak work
- When the work is specialized
- When work is commonly contracted with readily available resources

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### Recommendation

Douglas County PUD should:

- Restructure the composition of its line crews from four linemen to three linemen per crew when the nature of the work allows
- Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in Appendix B)
- Increase the number of District crews and replace contractor crews with District crews

### Effect of Recommendation

Reducing the number of linemen on individual crews from four to three offers several opportunities, including:

- Offsetting the need for contract crews without adding staff
- Providing further reductions in line crew labor costs
- Providing promotional opportunities for line crew journeymen to advance to the foreman level

Restructuring crews from four linemen to three linemen would result in the addition of one more District crew, increasing the number of crews from four to five. Adding another crew would allow the District to reduce the number of contractor crews by one. This would result in savings of up to \$719,000 per year, not including any incremental costs associated with vehicles and equipment for the new internal crews.

It should be anticipated replacing the contractor crew with a three-person PUD crews would be a gradually phased in, with the PUD performing progressively more of the contractor's work until the contract labor would no longer be required. Therefore, we have assumed a contractor crew would be replaced over a two-year period in projecting the two-year savings in **Exhibit V-6**.

**Exhibit V-6  
Projected Savings**

Description	Two-Year Savings	Note
Increase the Douglas County PUD Crews by one and Eliminate one Contract Crew	\$719,000	Assumes RCW 54.04.070 is modified to permit expanded use of District crews and the same level of work and costs as 2007.  <i>These savings do not include costs of vehicles and equipment which may be required for the new internal crews.</i>

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### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD assigns line work to crews sized appropriately for the nature of the work, taking into account safety and training requirements. Washington PUDs recently worked with the state Legislature and labor unions to increase the project cost for which PUDs must hire contractors from \$50,000 to \$150,000. This limit is rarely adjusted. Douglas County PUD is prepared to support an effort by the State Auditor to further increase the limit. Douglas County PUD maintains the number of crews necessary to complete consistent workload. Contractor crews are hired to accomplish variable workload and to meet certain state requirements. Douglas County PUD does not believe its crews are currently out of balance.*

### Auditor's Concluding Remarks

We appreciate Douglas County PUD's indication it will consider these recommendations. We continue to believe that Douglas County PUD, as well as the Chelan and Grant County PUDs, have opportunities to reduce costs by moving to a more frequent use of three person line crews.

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**Issue No. V-7: Labor resource efficiency could be improved and costs reduced through increasing organizational spans of control.**

### Background

We reviewed Douglas County PUD’s organization chart and found in some instances, managers and supervisors are responsible for managing and supervising just a few employees.

Labor is a significant driver of operating costs. Spans of management control (that is, the average number of employees who report to each supervisor) help assure that labor is used efficiently. Span of control studies indicate that as few as six direct reports up to 20 direct reports for a full-time manager or supervisor is optimal, depending on the organization.

### Condition

The results of the spans-of-control analysis for Douglas County PUD are in **Exhibit V-7**. “Echelons” represent supervisory roles. Echelon 1 refers to the General Manager, Echelon 2 refers to the direct reports of the general manager (generally Department heads), Echelon 3 refers to positions reporting to Department heads, and Echelon 4 typically refers to first line supervisory positions.

**Exhibit V-7  
Douglas County PUD Organizational Span of Control Analysis**

Echelon	Number of Supervisors	Number of Reports	Average Span of Control	High Span	Low Span	Supervisors with Fewer than Six Reports	
						Number	Percent
1	1	12	12.0	12	12	0	0.0%
2	10	43	4.3	10	1	6	60.0%
3	14	66	4.7	14	1	10	71.4%
4	8	67	8.4	24	2	3	37.5%
<b>Total</b>	<b>33</b>	<b>188</b>	<b>5.7</b>	<b>24</b>	<b>1</b>	<b>19</b>	<b>57.6%</b>

The average organizational span of control at Douglas County PUD is 5.7 employees per supervisor, which falls slightly below the desired number of at least six direct reports. Echelons 2 and 3 are most narrow, averaging 4.3 and 4.7 employees per supervisor respectively. In these two echelons, 60 percent or more of the supervisors have fewer than six direct reports. There are several instances of one on one or one on two reporting arrangements as shown in **Exhibit V-8** below.

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### Exhibit V-8 Douglas County PUD Narrow Spans of Control

One-on-One Supervisor to Subordinate Reporting	
Supervisory Position	Subordinate Position
Power Planning & Contracts Administrator	Power Resource Coordinator
Purchasing Agent	Assistant Purchasing Agent
One-on-Two Supervisor to Subordinate Reporting	
Power Resource Coordinator	Senior Resource Planner Resource Planner
Assistant Purchasing Agent	Purchasing Clerks (2)

#### Criteria

Organizational spans of control are typically based on a combination of the following factors:

- Diversity of functions supervised
- Number of physical locations or mobile employees
- Degree of supervisor involvement in subordinates' work
- Experience level of the work force
- Complexity of required work planning

Span of control studies suggest that a span of control ranging from as few as six direct reports up to 20 direct reports for a full-time manager or supervisor is optimum.

#### Cause

In many cases, the small spans of control are due to Douglas County PUD's relatively small organization in which many supervisors are extensively engaged in producing work product themselves (i.e., are "working supervisors"). In other instances, we believe the narrow spans of control are primarily a matter of preference for the Commission and general manager.

#### Recommendation

Douglas County PUD management should pursue increasing spans of control through organizational consolidation as management attrition occurs. Consideration should also be given to interdivisional and/or interdepartmental realignments as such opportunities present themselves. (See **Issue V-4** for related discussion of Organization of Organization Structure.) Additionally, some consolidation opportunities may exist with examples identified in **Exhibit V-9**.

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### Exhibit V-9 Douglas County PUD Possible Consolidation Opportunities

Consolidation Opportunities
<ul style="list-style-type: none"><li>• Power Planning &amp; Contracts Administrator</li><li>• Distribution Operations Supervisor and Distribution Superintendent</li></ul>

#### Effect of Recommendation

Increasing existing spans of control would result in a reduction of labor costs. Based on an average Douglas County PUD employee cost of nearly \$100,000 per year, significant cost savings could be achieved with organizational consolidations that increase spans of supervisory control. In our opinion, Douglas County PUD should target either an average span of control of six or an average span of control of seven. In either case, we believe reductions in supervisory positions should be made as opportunities present themselves. The savings projected below assume that in moving to an average span of control of six, that one position is eliminated in year one with a second supervisory position eliminated in year five.

Savings over five years, based on achieving span of controls of six by reducing the number of managers and supervisors are estimated to be \$597,600.

#### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD's Power Planning and Contracts Administrator is a single position with a heavy workload. This position has some supervisory responsibility coupled with a heavy power planning and power contracting workload. This position cannot be eliminated. Douglas County PUD no longer maintains the Distribution Operations Supervisor position. The Distribution Superintendent oversees the work of outside crews and contractors, including line crews, communication crews, substation crew, and metering crew. The work of the Distribution Superintendent is unrelated to the work of the Power Planning and Contracts Administrator.*

#### Auditor's Concluding Remarks

We appreciate Douglas County PUD's willingness to consider increasing its spans of control as opportunities arise.

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#### 2. ASSET MANAGEMENT

**Issue No. V-8: Implementing a comprehensive, District-wide asset management program could improve utility plant reliability and reduce costs.**

##### Background

A robust asset management program often results in significant capital and/or operating and maintenance (O&M) cost savings and efficiency improvements as a result of better decision-making. Asset management is applied in asset-intensive industries, including electric utilities, which seek to optimize the life cycle of assets through improved reliability, availability and use. Organizations manage assets using the principles of integrated planning, asset rehabilitation, asset replacement, asset service level requirements and asset disposal.

There are several benefits of effective asset management programs. They include:

- Assuring that all asset decisions are policy-driven
- Constructing, maintaining and operating facilities most cost-effectively
- Achieving desired performance levels
- Optimizing life-cycle costs
- Allocating available resources efficiently to support the organization's overall goals and policies
- Measuring and focusing on performance and outcomes
- Improving repeatability, credibility and accountability for decisions

##### Condition

Douglas County PUD has elements of an asset management program, but these elements are fragmented and asset management is not being pursued as an enterprise-wide program. Consequently, the financial and reliability benefits of a highly functional asset management program are not being realized by Douglas County PUD. Some specific conditions include:

- An enterprise-wide asset management strategy has not been developed to identify and communicate the District's objectives, principles and approach to asset management
- Hydro operations and electric system operations are utilizing completely different technologies for asset management activities
- Asset inventory, particularly in the Hydro area, is not well developed, with only high level systems and components included
- The preventive maintenance program, particularly in the Hydro area, is not well developed with substantially greater emphasis being placed on corrective maintenance

We evaluated the effectiveness of the elements of Douglas County PUD's asset management program using the following evaluation matrix and the criteria described in **Exhibit V-10**.

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### Exhibit V-10 Douglas County PUD Asset Management Program Evaluation

Asset Management Program Element	Evaluation	Description
<b>Asset Management Strategy</b> Does the District have a District-wide Asset Management Strategy?	<b>1</b>	<b>Not Implemented</b>
<b>Asset and Resource Inventory</b> Has an Inventory of All District Assets been compiled?	<b>3</b>	<b>Partial Implementation</b>
<b>Asset Condition Assessment</b> Is the condition of the District's Assets being evaluated on an ongoing basis?	<b>3</b>	<b>Partial Implementation</b>
<b>Life Cycle Evaluation</b> Has the life-cycle of the District's Assets been established?	<b>1</b>	<b>Not Implemented</b>
<b>Asset/Component Replacement Criteria</b> Are planned actions established in terms of the alternatives (Retire, Replace, Repair, Refurbish, Run-to-Failure) for the District's Assets?	<b>2</b>	<b>Implementation Initiated</b>
<b>Financial Asset Management Strategy</b> Is there a strong linkage between asset management and financial planning and decision-making?	<b>2</b>	<b>Implementation Initiated</b>
<b>Asset-Optimized Decision Making</b> Are AM decisions made to optimize the life-cycle value of the District's Assets?	<b>1</b>	<b>Not Implemented</b>

**Explanation of Rating Scale:**

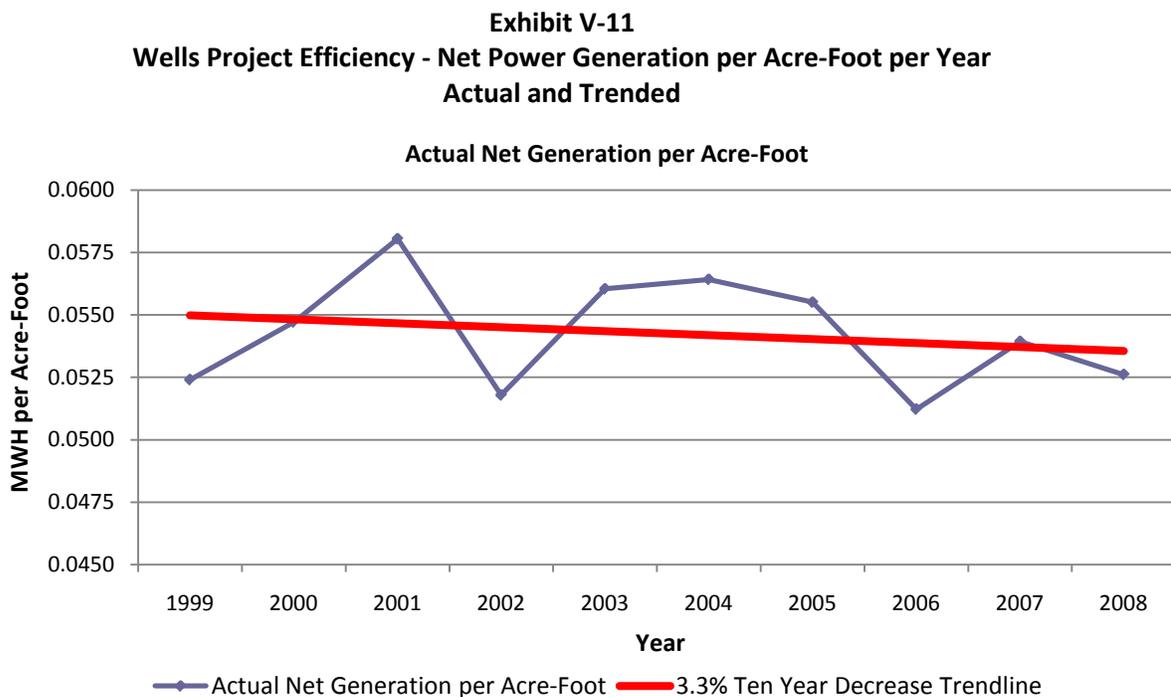
1. **Not Implemented** - The program element is not in place at the present time.
2. **Implementation Initiated** - The program element has been identified as being capable of delivering positive performance improvement results and implementation is being pursued by the organization.
3. **Partial Implementation** - The program element has been successfully implemented in some areas of the company (but not companywide) and is generally considered to have the ability to deliver performance improvement results.
4. **Full Implementation** - The program element has been successfully implemented throughout the organization, is in common use as a standard operating practice, has been accepted by cognizant departments and has delivered positive performance improvement results.

In addition to the qualitative evaluation above, we quantitatively assessed the effectiveness of the District's Wells Project by evaluating trends in the ratio of electrical output compared to the annual volume of water discharged (i.e., MWH per Acre-Foot) from 1999 to 2008 timeframe. This ratio was selected as a broad indicator of how effectively the assets are being managed under uncertain conditions, such as variations in annual river flows, seasonality, fish spill, licensing and regulation and

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facility aging. Ten years is a reasonable timeframe to expect improved performance in an effective asset management program. Effectively and proactively managing the hydro positively affects performance trends over time, despite these uncontrollable variables. Further, the District can gain useful information by comparing its performance to hydro facilities with similar river flows, market conditions and other variables.

As shown in **Exhibit V-11**, hydro efficiency performance at the Wells Project has declined by approximately 3.3 percent over 10 years.



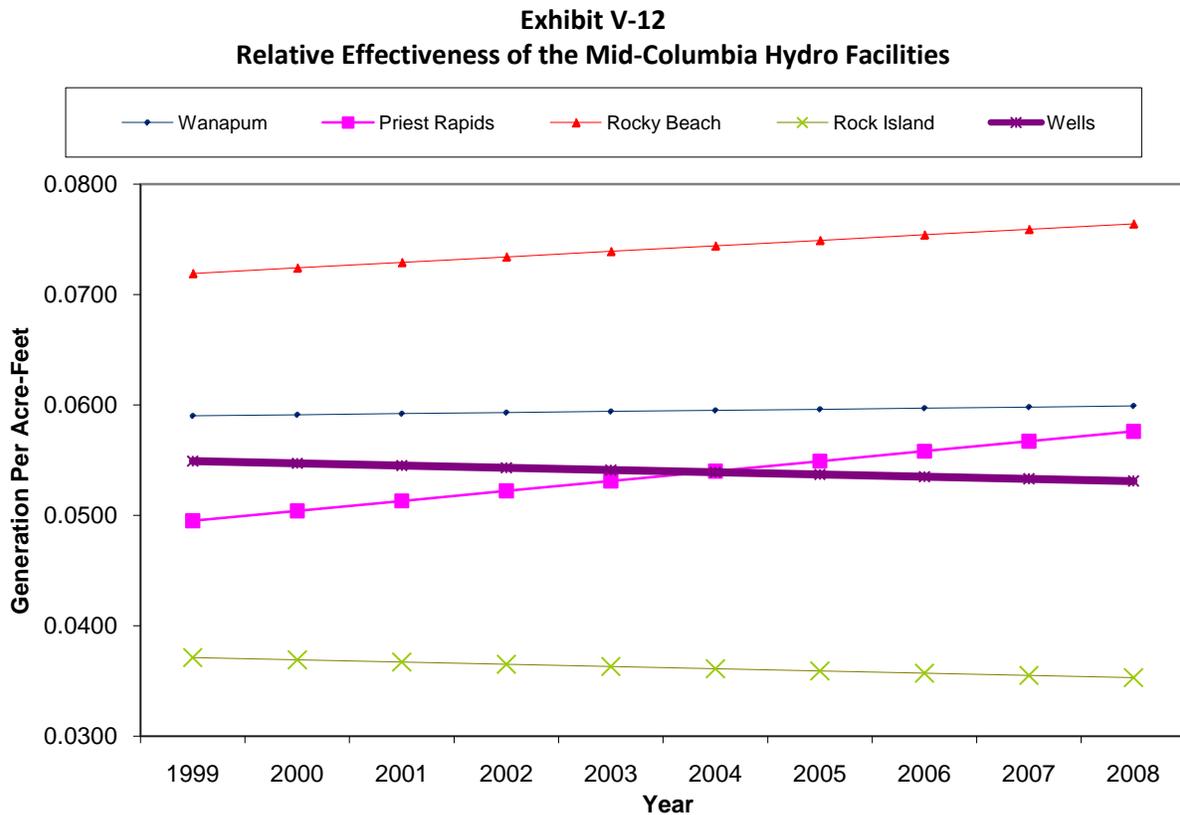
**Note:** The power generation data used in this analysis was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

The Wells Project's performance has declined over the same timeframe performance has improved at other mid-Columbia hydroelectric projects. PUDs with higher performing dams have implemented and operated more robust asset management programs than Douglas County PUD, with the exception of the Rock Island dam which is discussed in Chapter III, page 34.

Since the completion of the audit, Douglas County PUD has calculated MWH generation per Acre-foot for 2009 and represents that adding this additional data point has resulted in a flat trend line rather than a declining trend line over an eleven year period. We have not confirmed this representation or attempted to determine whether an additional data point would change the respective performance of the Wells Project when compared to the other mid-Columbia hydro facilities as shown in **Exhibit V-12** below.

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Exhibit V-12 below contrasts the performance between the Wells Project and the other mid-Columbia PUDs:



If the apparent declining trend in the hydro performance of the Wells Project had been recognized and avoided, Douglas County PUD could have generated additional electric output, which would have resulted in additional revenue. Assuming this additional output was valued at the cost of production (required by Douglas County PUD's existing contracts) in each of these years, Douglas County PUD would have realized estimated additional wholesale revenue totaling \$1,036,000 from 2006-2008 timeframe as shown below in **Exhibit V-13** presented previously.

Douglas County PUD management believes that the apparent improving performance trends of the other mid-Columbia hydro facilities are primarily due to fish spill improvements made during this ten year period at other mid-Columbia dams. Douglas County PUD management has indicated that they made improvements to reduce the impact of fish spill on Wells Project performance prior to the start of the ten year period used in this analysis and that these improvements are reflected in the Wells Project's performance before the start of the analysis period. While fish spill improvements may have affected performance at other mid-Columbia hydro facilities, we do not believe that fish spill improvements alone represent the extent of productivity gains made at these facilities based on our review of their asset management programs.

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### Exhibit V-13 Wells Project Analysis

Year	Reported Generation (MWH)	Hypothetical Generation w/o Efficiency Losses (MW)	Apparent Lost Generation (MWH)	Wells Project Production Cost per MWH	Estimated Revenue Loss
2006	4,123,371	4,427,500	304,129	\$1.35	<b>\$410,574</b>
2007	4,309,536	4,394,500	84,964	\$2.07	<b>\$175,875</b>
2008	3,966,978	4,147,000	180,022	\$2.50	<b>\$450,055</b>
<b>Total</b>					<b>\$1,036,504</b>

**Note:** The power generation and pricing data used in this analysis was provided by PUD management and SNL Financial, respectively. We did not perform procedures to assess the accuracy and completeness of this information.

#### Criteria

An effective asset management program should provide a clear line of sight for transparent decision making combined with establishing roles, goals, and metrics that can focus and motivate the organization towards a more effective operation.

Broadly, an effective asset management program should include the following elements:

- Asset Management Strategy
- Asset and Resource Inventory
- Asset Condition Assessment
- Life Cycle Evaluation
- Asset/Component Replacement Criteria
- Financial Asset Management Strategy
- Asset Optimized Decision-making

#### Cause

Douglas County PUD has been a consistent performance leader in terms of hydro plant availability, low electric production costs and low maintenance costs. However, the PUD has not fully recognized the potential benefits of an enterprise-wide asset management program and has not invested in information systems and management processes needed to implement an effective asset management program. Douglas County PUD believes its record of availability, low cost and reliability is evidence that its existing asset management practices are sufficient.

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#### Recommendation

Douglas County PUD should aggressively pursue the development of an enterprise-wide asset management program. This should include all the asset management program elements described above.

#### Effect of Recommendation

Using the average annual estimated revenue loss calculated from the above table, over a five-year period, estimated additional wholesale electric revenues could total \$1,727,500. If the District were able to sell the additional electric output at market prices, the value of the additional MWHs generated would be significantly greater. For example, average annual market prices for electricity sold regionally ranged from \$45.38 per MWH for 2006 to \$58.84 per MWH for 2008. Douglas County PUD's existing power sales contracts expire on August 31, 2018.

**Note:** The power generation and pricing data used in the calculation above was provided by PUD management. We did not perform procedures to assess the accuracy and completeness of this information.

#### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD personnel repeatedly informed the auditors that the primary metric selected to develop this recommendation and estimate is used incorrectly. The metric, annual MWH/acre-foot of river flow, is variable primarily due to weather (affecting river flow) rather than asset management procedures. The metric falsely indicates better performance in years with low river flow because proportionally more of the available water can be passed through turbines for electric generation. The year 2001, the second lowest water year on record, occurred early in the ten-year period selected by the contractor (1999-2008). Years with low flow have a negative financial impact on Douglas County PUD. The metric falsely indicates poor performance in years with high river flows because proportionally less of the available water can be passed through turbines and more water is passed through spillways where it is not available for electric generation. Years with high river flow are desirable in the hydroelectric industry and typically provide financial benefit to Douglas County PUD. The ten-year period is not a reasonable timeframe because it is not long enough to eliminate the weather effect. The contractor made no effort to normalize the data. One simple normalization method would have been to evaluate years with similar river flow volume. Another would have been to look at the entire life of the Wells Project. Both of these normalization ideas were suggested to the contractor.*

*Even if the selected metric was appropriate, the contractor has miscalculated the so-called decline in hydro efficiency performance. Based on the trend line shown in Exhibit V-11, the approximate so-called decline is .00145 MWH/acre-foot, or 2.6% (.00145/.055), not 3.3% as claimed at two locations in the report.*

*To overcome objections about the use of this metric, the contractor attempted to validate the metric by comparing Wells Dam to Rocky Reach Dam. This simply introduced at least two more variables over which Douglas County PUD has no control. Rocky Reach initiated a no-spill test in the last three years of*

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*the ten-year period, eliminating a large proportion of previously-present fish spill. By contrast, Wells Dam was experiencing a consistent fish spill condition throughout the test period as a result of establishing an efficient juvenile fish bypass system in the late 1980s. Rocky Reach was completing a major generating unit rehabilitation project in the first five years of the ten-year period. By contrast, Wells Dam was starting into a major rehabilitation of its generating units toward the end of the ten-year period. It should be noted that generating unit rehabilitation is an infrequent and substantial project involving rebuild of generators and refurbishment of moving parts in the water passages; thus requiring generators to be off-line for prolonged periods. These differences invalidate direct comparison between the two dams.*

*The contractor then improperly applied the outcome of its flawed analysis to produce incorrect estimates of potential revenue. The effect is an inflated estimate. After calculating an average MWH/acre-foot target of .055, the contractor abandoned the average concept and applied the target to the generation from three specific actual years. Using the three years, the contractor estimates total potential generation of 569,115 megawatt hours, or an average of 189,705 megawatt hours per year. The actual average for the ten-year period is 74,432 megawatt hours, or 223,296 megawatt hours for the three year period; less than half of the estimate in Exhibit V-13. The incorrect three-year estimate is then further inflated to a five-year estimate in the Effect of Recommendation. Additional confusion is added by referring to average annual market prices, which are not applicable to the time of year when the supposed additional generation would be achieved. Specifically, this would occur in springtime, when river flows are high and electric demand and power prices are low.*

*Also, Douglas County PUD did not provide the pricing data used in Exhibit V-13 as indicated in the Note to the Effect of Recommendation.*

#### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's willingness to improve its asset management program and fully expect the PUD to realize quantifiable benefits upon having made these improvements.

As stated in the report, the metric used to assess the relative effectiveness of the three PUDs' asset management programs is a holistic measure of how effectively the PUDs are managing their primary assets – the hydroelectric facilities. Using this macro measure allows for the consideration of whether the PUDs are making effective strategic decisions (e.g., reservoir sizing) as well as tactical decisions (for example, whether to perform routine maintenance of clogged inputs) in addition to asset management activities associated with the turbines and generators, for example.

A 10-year time period was selected to ensure a sufficient number of trend line points for the analysis and also to recognize the time period during which "asset management" became widely recognized and used as a business tool in maximizing the value of long-lived assets.

For purposes of calculating the potential dollar benefit of making the needed investment in Douglas County PUDs asset management program, we used the most current three year period. Given changes in the energy industry and market conditions, we believe a more current time period was most appropriate. We chose a three-year time period to average out the differences among years. We believe the "per MWH" price used to calculate the potential benefit of an additional investment in an asset management system is very conservative and represents a value well below the market value of

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electric energy during this time period as reflected in similar analyses in the Chelan County PUD and Grant County PUD chapters of this report.

We also note that Douglas County PUD did not take exception to our assessment of the state of its asset management program which is, in fact, the focus of this recommendation.

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### C. CONSTRUCTION MANAGEMENT

#### Introduction

Construction managers oversee the planning, design, construction and post-construction phases of capital projects to ensure delivery of quality projects that meet scope, quality cost and schedule requirements. Construction managers also review contract proposals and change orders and monitor construction progress and quality.

Douglas County PUD's capital budget for years 2008 through 2009 was over \$71 million. The District contracts with architectural and engineering firms for project design and support services during construction. Douglas County PUD's expenditures under architectural and engineering service contracts exceeded \$7 million during from 2006 through 2007.

**Issue No. V-9: Detailed independent reviews of architectural and engineering firms' cost proposals through the adoption of policies and procedures could result in significant cost savings.**

#### Background

Douglas County PUD pays for architectural and engineering services based on labor rates that include the employee's hourly wage, overhead costs (including benefits and payroll taxes), administrative costs and profit.

Many government agencies perform pre-award cost reviews of these rates to provide a basis for negotiating fair and reasonable fees. Douglas County PUD does not perform these reviews.

#### Condition

Because of the absence of policies and procedures, Douglas County PUD does not perform detailed cost reviews of A&E proposals, which results in payments to A&E firms that are not fair and reasonable.

To verify how much the District paid architectural and engineering firms above what would be considered fair and reasonable we analyzed two contracts totaling \$10.1 million and representing 55 percent of recent architectural and engineering contracts. We then requested the firms provide actual labor and overhead cost data.

We compared the contract approved fully burdened labor rates the District paid the two contractors, AE1 and AE2. We found the rates paid exceeded the contractor's actual labor and overhead cost plus a 10 percent profit by about 12 percent more for AE1 and more than 5 percent more for AE2.

#### Cause

Douglas County PUD was unaware of the cost-savings that could be realized through pre-award reviews and thus did not have a policy requiring them. Lacking policies requiring detailed costs to be provided by the contractors, the PUD is not in a position to determine whether the contractors' rates are fair and reasonable.

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### Criteria

State law (RCW 39.80.010 and 39.80.050), requires governments to negotiate fair and reasonable fees for architectural and engineering contracts. In addition, developing rates using actual employee-specific labor rates, actual historical overhead rates and a 10 percent profit is a best practice.

### Recommendation

To assist with cost reviews, Douglas County PUD should adopt policies that would accomplish the following:

- Change its request-for-proposal process to require that architectural and engineering firms' proposals include financial data on the actual pay rates of proposed staff as well as accounting information supporting the overhead calculation. With this financial information, the District could then independently calculate and determine whether the fees proposed are reasonable (generally, a 10 percent profit is allowed)
- After selecting the most highly qualified firm in accordance with state law (RCW 39.80.040), the District should review the fees proposed by the firm before negotiating or signing the contract.

### Effect of Recommendation

Because our analysis was limited to an evaluation of only two architectural and engineering firms, we are restrained from projecting a definitive range of future cost savings if the PUD were to implement the recommendations above. However, based upon our extensive experience in government construction contracting, the results of our analysis coupled with the results of our similar work at the other two PUDs, we are convinced that if the PUD were to implement the recommendations above, it would result in significant future cost savings in its architectural and engineering contracts.

### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*As required by RCW 39.80, Douglas County PUD has established procedures and guidelines that require it to negotiate contracts for architectural and engineering services on the basis of demonstrated competence and qualifications for the type of professional services required and at a fair and reasonable price. The Effect of Recommendation states, "...we are restrained from projecting a definitive range of future cost savings if the PUD were to implement the recommendations above."*

### Auditor's Concluding Remarks

We appreciate Douglas County PUD's willingness to consider these recommendations. We believe that implementation of our recommendations would result in significant future costs savings.

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**Issue No. V-10: More detailed review of change orders through improved procedures and contract terms could result in significant cost savings.**

### Background

Douglas County PUD issues construction contracts through a competitive bidding process where the reasonableness of bid prices is established. Construction contracts commonly require contract change orders due to unforeseen conditions during construction or architectural and/or engineering design changes. The costs proposed for construction contract change orders need to be reviewed in detail to ensure that the amount proposed by the contractor is fair and reasonable.

### Condition

Because of inadequate procedures and contract terms, Douglas County PUD is not performing a detailed review of construction contract change order costs proposed by the contractors. This results in payments to construction firms that are beyond fair and reasonable.

To verify how much Douglas County PUD was paying construction firms beyond what is considered fair and reasonable, we reviewed 14 change orders valued at \$921,452 – 100 percent of the dollar value of total change orders related to three construction contracts totaling \$11.3 million. These change orders tested represent 8 percent of the original contract awards. We compared the District’s administration of these change orders with best practices. In summary, the PUD followed none of the six best practices consistently or lacked documentation to demonstrate this consistency.

**Exhibit V-14  
Evaluation of Douglas County PUD's Change Order Practices**

Change Order Best Practices	What we found:
Independent cost estimates prepared by PUD? <b>(Yes/No)</b>	<b>No.</b> We found that Douglas County PUD did not prepare an independent cost estimate for any of the 14 change orders reviewed
Contractors' Change Order Cost Proposals Sufficiently Detailed? <b>(Yes/No)</b>	<b>Inconsistent.</b> We found contractor detailed cost proposals for only three (3) of fourteen (14) change orders reviewed. The three proposals did not contain all the information needed to complete an analysis of proposed costs.
Proposed Change Order Labor Costs Sufficiently Analyzed? <b>(Yes/No)</b>	<b>Inconsistent.</b> Details on proposed labor rates were available in only two (2) of the seven (7) change orders where the contractor submitted a formal proposal. For these change orders we noted that the proposed and negotiated labor rates exceeded the prevailing wage by 53 percent and 18 percent, respectively.

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Change Order Best Practices	What we found:
Change Order Labor Costs Limited to Individuals Performing the Work? <b>(Yes/No)</b>	<b>No.</b> Douglas County PUD contract general conditions do not prohibit these costs. We found PUD staff properly allowed management labor costs for three of the 14 change orders reviewed as these involved an extension of contract time. Not enough information was available for remaining 11 change orders to determine whether the contractor had charged management labor for changes that did not impact the schedule.
Contract General Conditions Limit Mark-ups for Overhead and Profit on “Lump-sum” and “Time and Materials” Change Orders (A 15~20 percent/5 percent limitation on mark-up is consistent with limits used by many government agencies.) <b>(Yes/No)</b>	<p><b>Time and Material Change Orders – Inconsistent.</b> The PUD’s General Conditions limit the prime contractor’s mark-ups to 12 percent. However, there is no limit on the prime contractor’s mark-up on its subcontractor costs.</p> <p><b>Lump-Sum Change Orders: No.</b> Douglas County PUD’s contract General Conditions do not limit the amount of contractor overhead costs and profit mark-up for change orders negotiated on a lump sum basis, and provide no criteria for the mark-up by the prime contractor of subcontractor costs.</p> <p><b>Observations.</b> Information on contractor mark-up was available for only two of the 14 change orders; for these two, the contractor had proposed and the PUD had accepted mark-ups of 25 percent. Information on prime contractor mark-up on subcontractor costs was available for only five of the 14 change orders reviewed and for these five the contractor had proposed and the PUD accepted mark-ups of 20 percent. The mark-ups in excess of those allowed on Time &amp; Material change orders increased change order prices by as much as 9 percent when compared to the mark-up allowed by the PUD’s General Conditions for change orders negotiated on a T &amp; M basis.</p>
Contract Change Order Negotiations Documented? <b>(Yes/No)</b>	<b>No.</b> We found no record of negotiation in the fourteen (14) change order files reviewed. The PUD’s procedures do not require the preparation of a formal record of contract change order price negotiations.

### Cause

The District’s change order procedures do not require an independent estimate. Its contract general conditions do not require detailed contractor cost proposals nor do they provide adequate criteria on

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what contractor costs and mark-ups are allowed when pricing change orders. The contract General Conditions provide some detailed criteria on allowable cost and mark-ups for change orders negotiated on a time and material basis, but do not provide criteria on allowable costs for change orders negotiated on a lump sum basis. Lastly, Douglas County PUD's change order procedures do not require the documentation of a formal record of contract change order price negotiations.

### Criteria

Best practices for the review of contract change order costs require a cost analysis to ensure that the proposed cost is fair, reasonable and adequately supported. They require:

- Developing independent cost estimates without regard to the contractor's cost proposal. These independent cost estimates provide a basis to begin an analysis of the reasonableness of the contractor's proposed costs.
- Documenting price negotiations, including the basis for determining the reasonableness of negotiated prices.
- Including in contract General Condition provisions requirements on how the contractor should propose its contract change order costs. A detailed cost breakdown should include, at a minimum: labor hours and rates by trade, detailed material units and prices, hours and rates for equipment, and mark-ups added.
- Limiting proposed labor costs to prevailing wages and to those employees who work directly on the change order, excluding management staff. Project management personnel and site superintendents are required to be at the construction site with or without the extra work required by the change order, and there is no justification for allowing additional charges for their time unless the change order causes an extension of the contract schedule.
- Excluding incidental mark-ups (e.g., for small tools).

### Recommendation

Douglas County PUD should take the following actions to improve contractor contract change order procedures:

- Revise contract change order procedures to require an independent estimate of change order costs be prepared for contract change orders.
- Require detailed contractor proposals for both lump sum and time and material change orders.
- Revise contract general conditions to allow labor costs for only employees who work directly on the change orders.
- Revise contract general conditions to exclude incidental charges to proposed wage rates.
- Revise contract general conditions to require that detailed contractor proposals for Lump Sum change orders be negotiated and details provided for proposed labor hours and labor categories, material and quantities, equipment and equipment hours.
- Establish procedures to ensure proposed labor rates are based on the contractor's actual cost for unemployment insurance.
- Perform a cost analysis of the contractor's proposed costs for both lump sum and time and material change orders.
- Document the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation.

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### Effect of Recommendation

Based on our review of Douglas County PUD's contract change order process, we estimate potential annual savings between \$75,000 to \$240,000 by implementing best practices for its capital project contract change orders.

### Implementation Costs

We believe the implementation costs for our recommendations are minimal. The recommendations primarily place a burden on contractors to provide the District with the detail necessary to analyze proposed costs and provide criteria on allowable and unallowable costs and mark-ups. We believe the District is currently reviewing change order costs and that our recommendations will provide better tools to determine the reasonableness of change order costs with minimal additional effort.

However, the District believes implementation costs would run from \$28,000 to \$58,000 per year using the services of an outside consultant or the equivalent of a half full-time employee (this equals \$140,000 to \$290,000 over five years). We believe the District already expends effort in the review of change orders and that the maximum additional effort would be in the mid-range of the District's estimate.

### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD believes the methods used to arrive at this recommendation and its associated cost savings are flawed. The performance audit contractor assumed the average cost of change orders could be as high as 8 percent of each contract amount. Douglas County PUD's analysis showed actual change order cost averaged less than 5 percent of the contract amount during the audit period (2006-2008). Additionally, the contractor only examined change orders related to three contracts. There are 26 other contracts active during the audit period that could have been analyzed. Most of the change orders outside the selected sample show adequate documentation of rigorous change order negotiation.*

### Auditor's Concluding Remarks

We appreciate Douglas County PUD's indication it will consider these recommendations. The change orders under the three contracts reviewed totaled \$921,452 or 8 percent of the original contract value of \$11,274,079. Our conclusions and recommendations are based not only on the review of those change orders but also on a review of change order procedures, contract general conditions and discussions with Douglas County PUD contract personnel. The review of change orders revealed the significant deficiencies discussed in this report and these deficiencies could be attributed to the lack of clear and adequate procedures for establishing reasonable change order prices. Our discussions with Douglas County PUD contract personnel confirmed the lack of consistent application of best practice change order pricing procedures.

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### D. Procurement

#### Introduction

Procurement is the purchase of materials, supplies and services for Douglas County PUD as a whole. This function is important because it helps to ensure the District provides reliable and cost-effective service. We analyzed:

- The distribution and communications inventory balance, which was \$5.1 million for 2008, and the related inventory annual use.
- Douglas County PUD's 2008 purchases totaling \$125.9 million for various criteria, including:
  - Whether the expenses were critical to the District's mission.
  - Whether there was evidence of competitive bids or price quotes.
  - Whether the procurement techniques resulted in low-cost high-quality services (i.e., use of competitive bids, strategic alliances, volume discounts and purchasing cards, etc.).

Each finding includes additional background information.

**Issue No. V-11: Materials and supplies inventory turnover is below the industry average resulting in higher inventory carrying costs.**

#### Background

Materials and supplies are essential to ensuring reliable utility service. Supplies of critical items used in operations must be available so as not to disrupt service or delay construction, repair or maintenance activities. Determining the right inventory levels is challenging because holding materials and supplies consumes working capital and warehouse space whereas purchasing more frequently has purchase order and other transaction-related costs. "Inventory turnover" is a key performance measure that benchmarks how well inventory levels are managed. Inventory turnover is calculated by dividing annual use by the inventory balance at a specific point in time. Inventory turnover of less than one indicates that more than one year's supply of inventory is kept.

#### Condition

The inventory turnover rate for Douglas County PUD was 0.61 in 2008. This means the District has about one and a half years' worth of inventory, compared to the benchmark of roughly six months. This is well below the electric transmission and distribution (T&D) benchmark inventory turnover ratio of 2.3 **Exhibit II-15** shows the calculations of the District's turnover rate for 2008:

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### Exhibit V-15 Inventory Turnover

2008	
Annual Usage	\$3,094,500
Materials and Supplies	\$5,072,950
Turnover	0.61

#### **Cause**

Douglas County PUD purchases inventory based on estimated future use. The District also considers the needs for inventory for special projects. In addition, the District purchases certain items in large quantities representing multiyear usage when it anticipates that prices for these items will increase significantly. We reviewed the District's activity for the larger dollar-value inventory and noted:

- One of these high-dollar items is obsolete.
- Several other items were not used in 2008.
- Some items represented spare parts for the electric T&D and fiber networks.

#### **Criteria**

The latest benchmark data indicates that the median inventory turnover rate for electric transmission and distribution (T&D) and substation materials and supplies (M&S) is 2.3. That is, inventory balances will turnover on average a little more than two times per year or, on average, a utility should have slightly less than half the inventory on-hand at any one time that will be used over the course of a year. However, a utility must also manage its inventory to ensure that materials are available when needed so that planned work is not slowed down and crews idled due to a lack of materials and supplies. High performing utilities are able to accomplish both objectives; that is, minimize inventory levels while optimizing inventory availability.

#### **Recommendation**

Douglas County PUD should increase its inventory turnover by reducing of inventory levels and re-evaluating economic order quantities.

#### **Effect of Recommendation**

Increasing inventory turnover from 0.61 to 2.0 would reduce the District's 2008 materials and supplies inventory balances from \$5.1 million to \$1.5 million. Reducing inventory would free up cash for other purposes, such as paying off debt.

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### Douglas County PUD

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#### Douglas County PUD's Response

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD places a high value on having an adequate inventory to maintain services for its customers. Regional market conditions and national disasters can create significant challenges for maintaining an adequate inventory. While maintaining an adequate inventory may forgo opportunities to invest, the ability to respond to customer needs and reliability benefits could outweigh the potential cost savings identified. Especially at the time of this audit and continuing today, appreciation in the value of stock exceeds the low interest rates available on investments. Douglas County PUD would sustain a negative financial and service impact by shifting from investment in inventory to investment in financial instruments.*

#### Auditor's Concluding Remarks

We appreciate Douglas County PUD's willingness to consider this recommendation. We recognize that utilities must give consideration to lead times and the impact of being "out-of-stock" on both its revenue flows and customers, as well as reasonably forecasted changes in commodity prices. Our experience tells us that utilities are able to achieve all of the above objectives while maintaining inventory turnover rates significantly greater than Douglas County PUD's turnover rate. In addition, we believe that betting on an increase in commodity prices in these uncertain economic times to justify a practice of maintaining excessive inventory is risky and will not lead to a lower net cost over time.

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**Issue No. V-12: Procurement–related administrative costs can be reduced and purchase rebates increased through the increased use of purchase cards.**

### **Background**

Company credit cards, or purchase cards, are commonly used to acquire smaller-value goods, and to pay for work-related education, seminars and travel expenses. Purchase cards can reduce administrative costs because the processing procedures are substantially less than the processing procedures related to purchase orders and voucher payments. Furthermore, well established purchase card programs also provide a percentage rebate. For example, there is a Washington Consortium purchase cards program that combines participants' spending and grants rebates to each entity based on its level of purchase card spending.

### **Condition**

Douglas County PUD makes limited use of purchase cards. Most goods and services are purchased with purchase orders; this process has additional processing steps compared to purchases made with purchase cards. As a result, the District may be doing more paperwork than it would if it used purchase cards. In addition, it does not participate in the Washington purchase card consortium and does not, therefore, receive the state-negotiated rebate on purchase card transactions.

### **Cause**

Douglas County PUD's approach to limiting purchase card transactions is due to the overall conservative management style of the District and its desire to maintain tight controls on spending.

### **Criteria**

Best practices in this area generally advocate the use of purchase cards to streamline procurement procedures for smaller purchases, especially those under the legal thresholds. This, of course, needs to be balanced with the establishment of appropriate internal controls over purchase card transactions including appropriate reporting and supervisory approvals.

Additionally, the primary goal for establishing a purchasing card program is to promote processing efficiencies. Authoritative industry analysts, such as the National Association of Purchasing Card Professionals (NAPCP), estimates of the transactional cost of the purchase order and payment process range from \$50 to \$250. The NAPCP reports that purchasing card efficiencies result in savings ranging from 55-90 percent of this cost. In addition, the NAPCP states that values go beyond transactional savings when the organization begins to realize the behavioral changes required to make purchasing cards work most effectively. Additional values include supply base consolidation; reinforcement of general purchasing best practices; a significant source of spend information; streamlining payees in the accounts payable system; and an opportunity for suppliers to streamline their processes.

### **Recommendation**

Douglas County PUD should implement a purchase card program which puts them in the hands of more

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employees and consider joining the Washington Consortium so that rebates can be obtained on its purchase card activity.

### **Effect of Recommendation**

Purchase card transactions on smaller purchases could reduce the time spent processing smaller-value purchase orders and related vouchers. Moving a number of the District's transactions from vouchers to purchase cards would likely free up some portion of time of the District's two procurement clerks. There would be additional activities related to the oversight of purchase cards transactions that would offset some, but not all, of this time savings.

In addition, the District could benefit through participation in a purchase card rebate program such as the one available through the Washington Consortium. Chelan and Grant County PUDs spent \$3.8 million and \$4.6 million, respectively. Douglas County PUD is approximately one-third the size of Chelan and Grant County PUDs. Assuming proportionate purchase card spending, Douglas County PUD could receive up to approximately \$9,300 in rebates through the increased use of purchase cards. However, these rebates are not significant and could be offset by costs required to implement this program.

Accordingly, we have not quantified any labor savings in the procurement department related to this recommendation or net savings associated with the receipt of rebates associated with greater purchase card volumes.

### **Douglas County PUD's Response**

*Douglas County PUD will consider this recommendation according to RCW 43.09.470.*

*Douglas County PUD uses VISA cards where their use has been determined to make sense for specific utility purchases. There is not widespread access to and use of these credit cards at Douglas County PUD by design. A pre-approval purchasing process exerts more fiscal control and is preferred over the method recommended in the audit report. Douglas County PUD's process helps ensure that its employees are making necessary, mission-critical purchases allowed by state law. The performance audit contractor working in this area told Douglas County PUD that he noted no instances of non-mission critical purchases.*

### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's willingness to consider this recommendation. While we appreciate Douglas County PUD's concern regarding a perceived reduction of fiscal control, we still believe the expanded use of purchasing cards, common in the public power and other industries, will lead to cost savings and can be appropriately controlled.

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**Issue No. V-13: Obtaining certain professional services without periodic competitive bidding may result in paying excessive costs for those services.**

### Background

Professional services firms generally have longstanding relationships with the PUDs, whereby contracts are annually updated with higher rates. Examples of these professional services include attorneys, external auditing and legislative affairs. There are no mandatory competitive bid provisions in Washington related to professional services firms.

### Condition

Douglas County PUD has a number of professional service contractors who have served it for many years and whose contracts have remained in place for years with updates primarily increasing the billing rates annually. Douglas County PUD has not competitively bid these services for a many of years. Professional services firms and the amounts paid to them in 2008 are shown in **Exhibit V-16**.

**Exhibit V-16  
Professional Services Expenditures**

Vendor	Amount	Original Contract Year
Firm A (Attorney)	\$137,634 (Wells Project) \$72,441 (Distribution)	1974
Firm B (Legislative Advocacy)	\$47,978 (Wells Project)	1981
Firm C (Attorney)	\$117,506 (Wells Project)	2004 Relicensing

### Cause

Douglas County PUD believes the professional service firms it uses have institutional knowledge that is valuable to the District and it would create inefficiencies if the professional services providers were replaced by a firm with less institutional knowledge. The District also believes its review of prospective rates and the comparison of rate increases to market conditions results in reasonable rates for those services.

### Criteria

Best Practices in this area suggest that firms should obtain competitive bids for professional services every three to five years.

### Recommendation

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Douglas County PUD should periodically conduct a competitive bid process to identify and obtain bids from qualified professional services firms in key areas like legal services, financial advisory and legislative support.

### **Effect of Recommendation**

Douglas County PUD may be paying too much for its professional services even though it believes that the current rates are reasonable. A competitive bid process could result in savings to Douglas County PUD for professional services by ensuring that professional services are priced competitively.

### **Douglas County PUD's Response**

*Douglas County PUD will consider this recommendation according to RCW 43.09.470. (See Appendix F.3.1)*

*Douglas County PUD has derived substantial benefit from certain long-term professional service agreements in the form of lower hourly rates, lower number of hours billed and lower administrative costs because of familiarity with issues. These arrangements have resulted in minimal conflicts with other entities and successful outcomes on the projects addressed by these service providers.*

### **Auditor's Concluding Remarks**

We appreciate Douglas County PUD's indication it will consider this recommendation. We continue to believe that in the absence of competitive bids, Douglas County PUD may not achieve the most favorable pricing for its professional services.

## Chapter VI Appendix

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### **Appendix A – I-900 Elements**

- **A.1:** Cooperative Shared Services
- **A.2:** Chelan County PUD
- **A.3:** Grant County PUD
- **A.4:** Douglas County PUD

### **Appendix B – Recommendation to the Legislature**

### **Appendix C – Criteria for Cooperative Shared Services**

### **Appendix D –Criteria for Governance Issues**

- **D.1:** Governance Effectiveness Assessment Framework
- **D.2:** Strategic Planning Effectiveness Assessment Framework

### **Appendix E - Criteria for Operations**

### **Appendix F – PUDs’ Responses to Report**

- **F.1:** Chelan County PUD
- **F.2:** Grant County PUD
- **F.3:** Douglas County PUD
- **F.3.1:** RCW 43.09.470

## Chapter VI Appendix

### Appendix A - I-900 Elements

Appendix A provides a chart showing each I-900 element and where each is addressed in the performance audit findings.

Issue Area	Cost Savings	Reduction or Elimination of Services	Privatization	Gaps and Overlaps of Services	Technology Pooling	Elimination of Roles and Functions	Regulatory Changes	Performance Measures Analysis	Leading Practices
<b>Chapter II - Cooperative Shared Services</b>									
<b>Insurance</b>	•			•		•			•
<b>Information Technology:</b>									•
Enterprise Application Software Management and Support	•			•	•	•		•	•
Shared Data Center Facilities	•			•	•	•			•
<b>Facilities</b>	•			•		•			•
<b>Procurement:</b>									
Volume Purchasing	•								•
Administrative Savings	•			•		•			•
<b>Chapter III - Chelan County PUD</b>									
<b>Governance and Organization Management:</b>									
Governance									•
Strategic Planning and Performance Measurement		•						•	•
Organization Structure		•							•
Employee Performance Measurement							•		•
<b>Operations:</b>									

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Labor Optimization	•	•					•		•
Increasing Organizational Spans of Control	•							•	•
Increasing Efficiency and Reducing Staff Levels	•	•					•		•
Asset Management	•							•	•
<b>Construction Management:</b>									
Architectural and Engineering Firm Cost Proposals	•								•
Contract Change Order Cost Proposals	•								•
<b>Procurement:</b>									
Materials and Supplies Inventory Turnover	•								•
Use of Purchase Cards (PCARDS)	•								•
<b>Chapter IV - Grant County PUD</b>									
<b>Governance and Organization Management:</b>									
Governance									•
Strategic Planning		•						•	•
Organization Structure		•							•
Employee Performance Measurement								•	•
<b>Operations:</b>									
Labor Optimization	•	•						•	•
Increasing Organizational Spans of Control	•							•	•
Asset Management	•				•			•	•
<b>Construction Management:</b>									
Architectural and Engineering Firm Cost Proposals	•								•
Contract Change Order Cost Proposals	•								•
<b>Procurement:</b>									

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Materials and Supplies Inventory Turnover	•								•
Increasing Partnership Agreements with Key Suppliers	•							•	•
<b>Wholesale Fiber Optic Program</b>	•	•	•			•	•		•
<b>Chapter V - Douglas County PUD</b>									
<b>Governance and Organization Management</b>									
Governance									•
Strategic Planning		•						•	•
Performance Measurement		•						•	•
Organization Structure		•							•
Human Resource Management								•	•
<b>Operations</b>									
Labor Optimization	•	•						•	•
Increasing Organizational Spans of Control	•					•			•
Asset Management	•							•	•
<b>Construction Management</b>									
Architectural and Engineering Firm Cost Proposals	•								•
Contract Change Order Cost Proposals	•								•
<b>Procurement</b>									
Materials and Supplies Inventory Turnover	•								•
Use of Purchase Cards (PCARDS)	•	•							•
Sole Sourcing Professional Services	•								•

## Chapter VI Appendix

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### **Appendix B - Recommendation to the Legislature**

We recommend the Washington Legislature consider increasing the threshold for Chapter 54.04.070 (2) RCW. Specifically:

*(2) Any work ordered by a district commission, the estimated cost of which is in excess of twenty-five thousand dollars, exclusive of sales tax, shall be by contract. However, a district commission may have its own regularly employed personnel perform work which is an accepted industry practice under prudent utility management without a contract. For purposes of this section, "prudent utility management" means performing work with regularly employed personnel utilizing material of a worth not exceeding **one hundred fifty thousand dollars** in value without a contract. This limit on the value of material being utilized in work being performed by regularly employed personnel shall not include the value of individual items of equipment purchased or acquired and used as one unit of a project. (Emphasis added)*

As noted in issues identified for all three Mid-Columbia PUDs, the requirements of Chapter 54.04.070 (2) significantly increase the PUDs' line crew costs. Our audit disclosed that the cost of the PUDs' internal line crews is significantly lower than the costs of contracted line crews. Specifically our audit found:

- In 2007, Chelan County PUD estimates that it incurred \$1.1 million for contract line crew costs to comply with the law. Our audit noted that the cost of contracted line crews totaled approximately 26 percent higher than the PUD's internal line crews, resulting in an additional \$227,000 in line crew costs.
- In 2008, Grant County PUD incurred \$1.2 million for contract line crew costs to comply with the law. Our audit noted that the cost of contracted line crews totaled approximately 29.5 percent higher than the PUD's internal line crews resulting in an additional \$273,000 in line crew costs.
- In 2007-08, Douglas County PUD estimated it incurred \$501,354 for contract line crews to comply with the law. Our audit noted that the cost of contracted line crews totaled approximately 43.5 percent higher than the PUD's internal line crews resulting in an additional \$152,145 in line crew costs.

## Chapter VI Appendix

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### Appendix C – Criteria for Cooperative Shared Services – Governance Principles and Alternatives

#### Governance Considerations

The PUDs should consider the following items in the analysis of shared services opportunities and the type of organizational and governance structures for implementing such opportunities.

- Equal involvement and participation from all agencies and jurisdictions involved is needed. Turf battles can significantly be reduced or eliminated if all relevant agencies and jurisdictions, regardless of size, are brought to the table and allowed equal involvement and participation.
- Setting realistic goals and objectives with a reasonable timeframe.
- In planning, immediate short-term successes that can be achieved early on should be identified. Such achievements will motivate participants to strive for long-term accomplishments.
  - Explore and secure funding for both the governance structure to be able to do its job and to fund implementation of the shared services opportunity.
  - Maintain ongoing, open lines of communication with all agencies and jurisdictions involved. A governance structure helps to facilitate ongoing dialogue and other communication between the stakeholders. With all parties at the table, all participants should be open and honest about their needs and concerns.
- Obtain the support of key elected and appointed leaders.

#### Governance Alternatives

Several alternatives exist within the PUDs' current governance structures for the PUDs to establish a formal or informal approach to provide functions using a shared services approach.

- A **voluntary consortium** can be as simple as a series of informal meetings of public officials from several agencies or jurisdictions to discuss how to share services. These early meetings generally expand to include other stakeholders. It offers flexibility and adaptability in sharing services across jurisdictional boundaries. Often, this type of organization is better able to focus on user needs and outcomes.
- A **joint power** is a written compact or agreement that specifies participants, structure, and funding, accompanied by a set of bylaws.
- **One jurisdiction as host** is formed when one of the participating jurisdictions agrees to lend its expertise to a shared services opportunity. Few policy decisions would be made by the host jurisdiction, instead those decisions would be made by all participants.
- A **Memorandum of Understanding (MOU)** is an agreement of cooperation between organizations that defines the roles and responsibilities of each in relation to others with respect to an issue over which the organizations have concurrent jurisdiction.

The PUDs currently use inter-local agreements which are similar to the Joint Powers alternative; however, most of the alternatives listed here could be used by the PUDs to implement a shared services approach to some or all of the functions discussed in this report. The choice will be driven by many factors including the extent to which the PUDs implement a particular shared services opportunity, the

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level of formality required by the PUDs and their governing bodies and the implementation costs. A list of advantages and disadvantages of each alternative is found in the following table:

Governance Alternative	Advantages	Disadvantages
<b>Voluntary Consortium</b>	<ul style="list-style-type: none"> <li>• Requires no legal structure to establish and begin operations.</li> <li>• Can typically be established and begin functioning quickly.</li> </ul>	<ul style="list-style-type: none"> <li>• Typically lacks formal authority or structure.</li> <li>• Relies on the ongoing commitment of the organizations voluntarily participating.</li> <li>• Would not be appropriate for efforts that require substantial capital investments requiring a longer-term commitment.</li> </ul>
<b>Joint Powers</b>	<ul style="list-style-type: none"> <li>• Provides formal legal structure for decision making and operations.</li> <li>• Allows agencies to jointly exercise their individual authority or powers to do things such as issue debt, enter into contracts, develop capital assets, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• May require substantial effort to establish.</li> <li>• May require formal decision making body and related time and expense.</li> </ul>
<b>One Jurisdiction as Host</b>	<ul style="list-style-type: none"> <li>• Requires minimal legal structure to establish, typically an Inter-local Agreement or similar arrangement.</li> <li>• Can typically be established and begin functioning quickly.</li> <li>• Takes advantage of existing infrastructure and capabilities on the host jurisdiction.</li> </ul>	<ul style="list-style-type: none"> <li>• Concern that participating jurisdictions are dependent on the host for service.</li> <li>• Perceived and real differences in the priority of service among the host jurisdiction and other participating jurisdictions.</li> <li>• Uncertainty on how the costs of providing services should be distributed among organizations.</li> <li>• Would not be appropriate for efforts that require substantial capital investments requiring a longer-term commitment.</li> </ul>
<b>Memorandum of Understanding</b>	<ul style="list-style-type: none"> <li>• Provides substantial flexibility with participating agencies defining the decision making structure, services, relationship, cost sharing structure, and other elements as desired by the participants.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires substantial upfront discussion and agreement on the form and operations of the cooperative endeavor.</li> </ul>

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### **Appendix D.1: Governance Effectiveness Assessment Framework**

#### **Board / Executive Partnership**

1. A policy, agreement, or other document clearly defines the roles of the Board and executive and their relationship.
2. The Board establishes specific goals for the Executive at least annually.
3. The Board conducts a meaningful evaluation of the Executive's performance at least annually.
4. There is open and honest discussion, including disagreement, between the Board and Executive.

#### **Mission Driven / Strategic Thinking**

1. The Board members stay current with internal and external forces that drive the organization and change.
2. Board members spend substantial time discussing issues of substantial consequence and evaluating mission, vision, and values and the future.
3. The Board has articulated mission, vision, and core values.
4. The Board frames and assesses strategic plans and priorities.
5. Board members serve as role models for the organization – advocating its mission, vision, and values.

#### **Effective Decision Making**

1. Board members receive and review materials in advance.
2. Board meetings are well organized
3. Board member time is used wisely.

#### **Integrity, Independence, and Transparency**

1. The Board has adopted and enforces "Conflict of Interest" policies.
2. The Board complies with reporting, public records, and similar requirements.
3. The Board provides oversight to ensure legal and financial compliance.

#### **Resources**

1. The Board reviews and approves meaningful budgets.
2. The Board adopts an investment policy and oversees investments.
3. The Board monitors financial performance.

#### **Results – Oriented**

1. Receive and review meaningful performance metrics and focus on outcomes.
2. Receive and review benchmarking / comparisons with peers.

#### **Board Development**

1. Provide formal orientation for new Board members.
2. Board members routinely participate in learning activities.
3. The Board routinely reviews and upgrades its governance practices.
4. The Board engages in Board member succession planning and revitalization.

**Source:** Compiled using The Source – Twelve Principles of Governance That Power Exceptional Boards, published by **BoardSource** in 2005.

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### **Appendix D.2 – Strategic Planning Effectiveness Assessment Framework**

An effective strategic planning process includes the following key elements:

- **Identification and assessment of key trends** – including demographic, social, legal, regulatory, and technological changes that could positively or negatively impact the District’s ability to accomplish its mission.
- **Assessment of internal resources, capabilities, strengths, and weaknesses** – including financial capacity, facilities, human resources, and technological advantages. Strengths can include distinctive competencies, areas where the organization is seen as a leader, and unique external relationships. Weaknesses may include deficiencies in resources, skills, or capabilities. Workload, in terms of current demands and projected future demand should be identified and analyzed. Additionally, understanding employee attitudes in terms of their work environment, communication, management support and fairness, and their motivation and morale levels is important.
- **Identification and assessment of key constituencies / clients** – including efforts to identify and understand the specific expectations and issues of constituents and clients. This analysis needs to focus on four key questions: What are the constituents’ and clients’ priorities? How satisfied are they with current services or products? What are their service or quality expectations? What concerns or issues do they have?
- **Review of best practices or industry leaders** - to identify alternative approaches or strategies that could potentially be implemented by the District.
- **Development and analysis of alternative approaches and strategies** – including the search for, and analysis of, alternatives to achieving goals and objectives. This includes estimating the likely benefits, cost, and feasibility of alternatives.
- **Adoption of a clear, concise, vision and mission, goals and objectives** – The vision should establish the organization’s view of the future. It should be clear, concise, and easily generate commitment and enthusiasm. Goals and objectives must be clearly related to the vision and mission. They must be explicit, precise, and measurable. They must also be strategic rather than operational in nature, focusing on what the organization is to be accomplishing, not on how the organization is doing it.
- **Adoption of a broad range of strategies** – including:
  - **Technical Change Strategies** - changing the way services are provided and an organization's output is produced. These changes occur through process reengineering or similar approaches.
  - **Structural Change Strategies** - altering the structure of specific jobs or modifying organizational roles or relationships. Combining similar or dependent functions, changing the number or reporting relationship of departments or divisions, or otherwise changing organization structure are examples of this type of change strategy.
  - **Managerial Change Strategies** - changing management policies or practices, such as changing reward systems or the relationship between management and labor. Examples include broad banding a job classification system, implementing results based reward systems, or involving employees in decision making.
  - **People Change Strategies** - actively engaging the people working in an organization, through changing their attitudes or beliefs, or upgrading their skills and capabilities.

*Source: Strategic Management: Developing and Realizing a Vision for Your Community or Organization, Public Management, International City/County Management Association,*

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### **Appendix E – Criteria of Operations in PUD Chapters**

#### **CRITERIA – Use of three-person line crews**

Line crew size and structure should be appropriate for the tasks performed. As an example, the following table presents how a large eastern electric utility staffs its overhead line crews based on the work to be performed.

<b>Overhead Work Function</b>	<b>Job Staffing Level</b>
Setting Poles	2
Towing Pole with Trailer	2
Install Primary Wire Gap Two Spans or Less	3
Install Secondary Wire Gap Two Spans or Less	3
Primary Phase Check	3
Install Transformer / Regulator	3
Install Transformer / Regulator with Material Handler	2
Transfer Primary (4kV, 13kV, 27kV)	3
Install Primary Taps	3
Transfer Primary Junction	3
Cut & Kick Primary Riser or Equipment Pole	4
Transfer Secondary	2
Frame Pole	2
Connect and Energize Transformer	2
Install Primary Riser Not Including Cable Truck	3
Install Terminator Pothead Cutout	2
Install & Connect Recloser and Capacitor	4
Install & Connect 600A Switches & Lighting Arrestors	3
Install & Connect Oil ESCO Switch	3
Install / Remove Primary Breakers	3
Install Secondary Riser Connection Pole	3
Install More Than Two Sections of Aerial or Open Wire	5

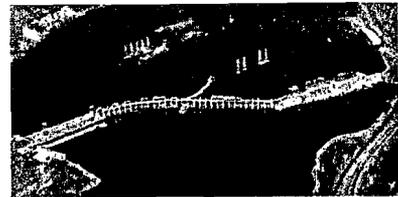
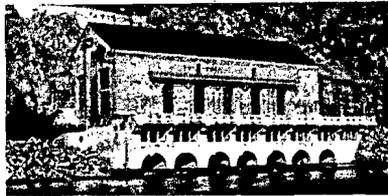
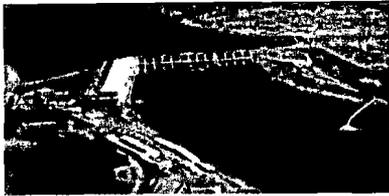
**Appendix F – PUDs’ Responses to the Audit Report**

- **F.1:** Chelan County PUD
- **F.2:** Grant County PUD
- **F.3:** Douglas County PUD
- **F.3.1:** RCW 43.09.470

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**Appendix F.1 – Chelan County PUD’s Response to the Audit Report**



**PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY**

P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801  
(509) 663-8121 • Toll free 1-888-663-8121 • [www.chelanpud.org](http://www.chelanpud.org)

March 4, 2010

Brian Sonntag-State Auditor  
Washington State Auditor's Office  
302 Sid Snyder Avenue SW  
Insurance Building, Room 200  
Olympia, WA 98054-0021

Re: Chelan County PUD Performance Audit Response

Dear Mr. Sonntag:

In 2008, Chelan PUD welcomed a review of our operations by the State Auditor's Office (SAO) and the contractors (TCBA/Huron) hired to perform this performance audit. As noted by the auditors, Chelan PUD's staff cooperated throughout this process and provided many documents and much information to assist the auditors in this review. We appreciated the opportunity to share information and we believe the information contained in this response should influence consideration of several audit recommendations.

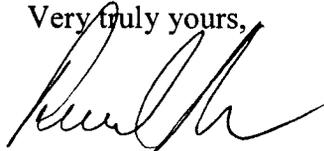
Chelan PUD has demonstrated its commitment to controlling costs while providing reliable utility services to our customers, having electric rates that are the second lowest in the nation. Chelan PUD is open to considering new and innovative ways to improve our operations, and we have considered these recommendations in that spirit. However, we also believe 60-plus years of operational experience has given us valuable insight and experience.

This letter and the attached responses are written in response to the state's draft performance audit report, prior to a final report being issued. We hope our responses are considered in finalizing the audit report. We understand that, in any case, our responses (including this letter) will be included in the final report and that the SAO will note any changes made as a result of our responses. The first two attachments are our formal responses to the shared services and operational audit recommendations and these responses should be added as appendices to the report. The next two attachments are summaries of our responses for the convenience of your staff in completing the report. We have discussed this format with Nestor Newman.

We believe it is important to note that Chelan PUD has made changes in its operations, staffing levels and processes in the 14 months that have passed since the end of the audit review period (Dec. 31, 2008) and the 18 months since the field work was started (Sept. 2008). Chelan PUD operates under a continuous improvement philosophy and as such our operational improvements are dynamic and not static. The report in many respects is outdated and we have noted those areas. We believe some acknowledgement of the delay between field work and final report should be included along with acknowledgment that many aspects of Chelan PUD's operations, policies and procedures have changed in the interim. Our responses highlight those areas and the cost savings Chelan PUD has attained as a result. Our responses also highlight aspects of the recommendations that need further consideration, including the costs to implement, practical implications and other factors not considered by the auditors.

Thank you for the opportunity to provide this perspective. We will make changes where recommendations appear well-founded. We will continue to evaluate areas where further study is warranted. And, we will continue to use the methods you have applauded that enable us to provide reliable utility services at the most efficient cost.

Very truly yours,



Richard Riazzi  
General Manager

enclosure

cc via e-mail: Nestor Newman  
Chris Cortines

# **Chelan County PUD's Responses to Performance Audit Report [Cooperative Shared Services]**

## **[Complete Response to Each Recommendation to be Included as an Appendix to Audit Report]**

In this additional report, the audit team looked specifically at ways the three PUDs in the Mid-Columbia region (Douglas, Chelan and Grant) could cooperate in providing a variety of services. Each PUD is responding independently, and Chelan PUD's comments follow each itemized recommendation in this section.

### **Performance Auditor Report: Cooperative Shared Services**

**Issue:** The Mid-Columbia PUDs have an opportunity to share additional service to reduce costs and improve operations.

#### **Performance Auditor's Overall Recommendations**

The Mid-Columbia PUDs should form a task force to fully evaluate the shared service opportunities identified in this report and in other functional areas.

The tasks required to implement these recommendations should be handled through collaborative discussions among the three PUDs. We recommend a two-level approach for these discussions:

- Form a senior management steering committee with a representative from each PUD. The steering committee would establish the objectives and ground rules for the work groups and make ultimate decisions regarding the implementation and design of shared services opportunities as well as serve as the escalation point for issues that the working groups are unable to resolve. Depending on the governance options chosen, the three PUD Commissions may ultimately have to act on shared services proposals.
- Establish work groups for each function (IT, fleet) made up of a small number of subject matter experts from each PUD. The work groups would do the detailed analysis required to fully assess each shared services opportunity identified in this report from a quantitative and qualitative standpoint. They would then provide alternatives and recommendations, with supporting documentation, to the senior management steering committee.

## **Chelan PUD's Response**

We appreciate the additional opportunity for review provided by the state performance auditors' comments and perspective.

Chelan PUD intends to continue to evaluate opportunities (internally and in collaboration with others) to reduce costs and increase efficiency in the myriad of tasks required to generate and deliver affordable and reliable power, water, sewer and wholesale telecommunications services. The three utilities have participated in many opportunities to jointly staff and manage programs for years. Further, Chelan PUD also works with other public and private entities to effectively and efficiently collaborate on projects and services. This collaboration was reflected in a listing of 166 shared services/joint projects that Chelan PUD had with others. This list was provided to the auditors in January 2009. Additional agreements have been reached since then.

The recommendation that the three PUDs form a task force to analyze the shared service opportunities will be considered. The commissioners, managers and staff of the three PUDs already meet regularly to discuss issues of joint concern and how the three entities can better work together to serve our customers.

While the three Mid-Columbia PUDs perform many similar functions within neighboring geographical areas, consolidating services needs to be considered carefully in light of geographical distances, costs of implementation, management philosophies, different customer needs and expectations, and varying priorities and practices that come with locally elected commissioners in each of the three counties. The Mid-C utilities have cooperated with each other in the past, and Chelan PUD will continue looking for opportunities to cut costs and gain efficiencies when practical. Chelan PUD has carefully evaluated and will continue to evaluate the recommendations contained in the report in light of the many factors which impact our operations.

Chelan PUD does note two general concerns about the auditor's bases for these recommendations:

- Due to the three PUDs being separate legal entities with separate boards and corresponding responsibilities to their own customer-owners, it is to be expected that administrative functions would match each utility's business needs. Activities that may appear "duplicative" on the surface may, in fact, be important considerations in each utility meeting respective customer needs.
- Auditors use investor-owned utilities as a comparison in the "Criteria" statement and in Exhibit II-1 for "A & G expense per customer." The auditors have failed to provide any information upon which this comparison is based even though Chelan PUD has previously requested the analysis and research. Due to the lack of information, Chelan PUD is not able to test the accuracy of the information. As noted in the report, the A & G expenses used are based upon

investor-owned utilities which have experienced success with shared services when those “services are provided to all divisions or operating companies by a single shared service organization.” Chelan PUD questions the use of these figures for comparing three separate public entities sharing services.

## **Performance Auditor Report: Insurance**

**Insurance:** Insurance costs such as broker, premium and administrative expenses could be reduced through shared services.

### **Performance Auditor’s Recommendations**

1. Compare costs of insurance coverage regularly with other PUDs.
2. Consider sharing insurance administration functions to provide administrative cost savings.
3. Consider a shared approach to negotiating and contracting including combining brokers and insurance providers to reduce premium expenses where appropriate.

### **Chelan PUD’s Response**

Recommendation 1: Benchmarking is a useful tool and we look forward to continuing to compare our results with those of Douglas and Grant PUDs and others. In fact, we have shared information in the past and our staffs regularly discuss issues. The utilities are unique in enough respects, however, to make an absolute comparison difficult. Chelan PUD reports property valued at \$4.3 billion, Grant PUD reports \$2.2 billion and Douglas PUD reports \$870 million. The age and maintenance of the facilities vary. The revenues of the three utilities also vary. Liability insurance premiums are based on revenues, number of customers, the value and age of facilities, the numbers and types of public facilities (such as parks) and number of employees. All of these factors affect the claims figures and premiums. While benchmarking can provide some useful information, drawing conclusions from that information requires careful analysis.

Recommendation 2: The report suggests savings can be achieved by combining the insurance positions at the three utilities to share administrative responsibilities. The supervisory cost saving suggested by the auditor comes from eliminating one supervisory position between Grant and Chelan PUDs. However, the auditor does not explain what particular duties could be shared that would result in the elimination of a full position.

The concept that Grant and Chelan PUDs should share insurance administrative functions (one combined insurance manager) might at first blush seem to provide

efficiencies, but upon closer examination, savings would not be realized. Having the two utilities share an insurance manager would result in additional costs not analyzed by the auditor, including travel between Wenatchee, Ephrata and the various facilities owned and operated by the utilities (i.e., 115 miles from Lake Chelan hydro in the north to Priest Rapids in the south). Having one insurance manager for a service area of more than 5,700 square miles with five hydroelectric facilities (two Grant and three Chelan projects) and a variety of other valuable facilities is not realistic.

The audit fails to note that the current insurance managers are not dedicated full time to purchasing insurance or supervision. The people responsible for those functions at Grant and Chelan perform other duties as well. The amount of time these employees spend on administrative and supervisory aspects of the insurance programs at Grant and Chelan varies. One administrative function at both utilities relates to purchasing insurance and working with the utilities' broker. That one facet of the job varies due to the different philosophies and insurance programs. Further, the purchasing of insurance usually is time intensive over a period of months, not over the entire year. Claims investigation, contact with customer-owners and claimants, contract reviews, and loss prevention work are other duties performed at the two utilities. This work would not go away by combining the administrative or supervisory duties. Chelan PUD will consider the recommendation and review opportunities.

Recommendation 3: The auditor asserts that using a single broker to purchase insurance and placing the insurance policies for the three PUDs with one insurance provider or one group of providers could save the three PUDs 10 percent of insurance premium costs. But there is no information allowing PUDs to test that assertion. The only research cited for this conclusion is testimony of T. Flaherty in a 2006 proceeding before the Illinois Commerce Commission in support of a merger of two private utilities. Mr. Flaherty claimed that the savings in the insurance programs "are predicated directly on the assumption that there is a single company procuring insurance on the combined risk profile of that entity" and that this entity may have a "reduced risk profile because of its broader and more diverse asset base." (Page 46 and 47 of testimony.) As pointed out, the three Mid-Columbia public utility districts are distinct and separate legal entities. This reasoning is inapplicable to the situation involving these three public utility districts.

Chelan PUD appreciates the auditor's perspective; however, we offer additional information that should be considered.

The auditors do not explain how three utilities using one broker will result in savings on broker fees. Additional workload would result in additional fees being charged by any one broker. Grant and Douglas PUDs already use the same insurance broker, Marsh, so minimal savings could be expected by adding Chelan PUD to the group. Further, the three utilities have different philosophies and approaches to the purchase of insurance.

The foremost additional consideration is that combining insurance providers could lead to conflicts among the PUDs over control of the maintenance and operations of each of the utilities' facilities, primarily the hydroelectric projects. Each utility's risk factors and

loss history are considered independently by the insurance carriers in establishing premiums. This is true even though the three utilities have the same excess liability coverage provider for a portion of the coverage. The utilities have different carriers for liability exposure above \$35 million. Further, the utilities are diversified in their property and boiler/machinery (mechanical breakdown), which is extremely important. If insurance coverage were combined, as suggested by the auditor, all utilities' premiums would be negatively impacted if one utility suffered losses due to an insufficient maintenance program. One utility cannot and should not make management decisions regarding the others' facilities so there would be no way to correct issues related to the unique maintenance or operational procedures developed by each utility based upon their needs, tolerance for risk, financial abilities and other factors. The same management control issues would arise over compliance with insurance recommendations and decisions to replace old or outdated equipment. Having all six hydroelectric facilities covered by the same insurer or group of insurers as a "unit" rather than as separate facilities owned and operated by three different entities would result in a different risk profile than is currently reflected in how the three utilities manage their insurance programs. If insured by a carrier that suffered financial difficulties, as the insurance industry has recently seen with AIG, coverage for all dams would be at risk; not just two or three owned by a particular utility. The current situation of all PUDs purchasing liability insurance through AEGIS is not ideal for the same reason, and we will be considering alternatives. Having separate insurance programs at each utility provides an important opportunity to diversify risks and diversify providers.

It would be difficult to resolve existing differences in how each utility approaches its insurance programs. Deductibles range from \$500 for Douglas PUD's liability policy to \$2,000,000 for Chelan PUD's liability coverage. Chelan PUD employs a self-insurance program that would not accommodate other utilities because of Chelan's agreements with power purchasers. Grant PUD has a "captive" insurance program developed to provide coverage only to Grant PUD. It would be difficult to have a one-size-fits-all approach while still retaining the individual risk management goals of each PUD and their associated exposures, risk tolerances and financial abilities.

## **Performance Auditor Report: Information Technology**

**Information Technology:** Information technology costs such as software, support staff and equipment purchases could be reduced through a shared services approach.

### **Performance Auditor's Recommendations**

4. The three Mid-Columbia PUDs should collaboratively investigate a plan to achieve enterprise IT systems standardization and the centralization of system hardware and support staff.

5. The three Mid-Columbia PUDs should consider sharing both primary and back-up data centers.

### **Chelan PUD's Response**

Recommendation 4: Chelan PUD agrees that system standardization and centralization is most efficient, but limiting it to only a few utilities does not take full advantage of the opportunities. Chelan PUD is investigating ways to leverage cloud-based and other shared hardware/software solutions. Chelan PUD is open to the concept of standardized equipment and software solutions.

Recommendation 5: Chelan PUD agrees that a centralized data center would have benefits, but these circumstances may make that impractical to implement at this time:

- Chelan PUD has completed its backup data center.
- Douglas County PUD is in the planning and discovery phase for its small backup data center.

Chelan PUD is in discussions with Douglas PUD to determine if capacity exists in one of our current data centers to accommodate Douglas PUD's backup needs. If the capacity exists and the costs are shared, it could create a savings opportunity for Douglas and Chelan PUDs. The primary challenges are in network security, physical access and liability.

Sunk costs must also be considered when looking to abandon any of the existing data centers and combine several into one.

### **Performance Auditor Report: Facilities**

Facilities: Facilities costs could be reduced through a shared services approach.

### **Performance Auditor's Recommendations**

6. The PUDs should consider a two step approach to cooperatively provide Facilities, Real Estate and Parks services:
  - Consolidate the management of Facilities, Real Estate, and Parks from five managers to two managers for all three PUDs.
  - Combine the complete Facilities, Real Estate and Parks functions into one aggregate group for all three PUD's. This assessment should establish the correct mix of out-source and internal resources for these three functions.

7. Regardless of the outcome of recommendation 6, before the Grant PUD determines the required resources to manage its new "Parks" responsibilities, its management should work with Chelan PUD to determine how Grant might benefit from Chelan's current processes, resources and experiences for the operation of parks facilities.

### **Chelan PUD's Response**

As recommended, Chelan PUD will study the Facilities/Real Estate/Parks departmental structure and will include additional factors not considered by the auditor that would impact the potential supervisory savings identified. Examples include:

- area managers performing day-to-day staff level tasks that would still need staff resources if span of control was increased;
- geographic boundaries impacting the ability to share assets;
- the ability to effectively communicate with three management groups and governing boards;
- the overall skills required to effectively manage each function;
- contractual limitations with supervisory use of bargaining unit staff; and
- recent staff reductions after the audit was completed.

The audit failed to fully explore the significant requirements of the extensive parks system managed by Chelan PUD. The other PUDs do not have parks systems of the same magnitude. The parks owned by Chelan PUD span a wide geographic range within Chelan and Douglas counties and already create equipment-sharing challenges to meet operational needs. Increasing the geographic range would only exacerbate this issue.

A recent survey in Chelan County by an independent third party indicated strong public support for the park system and concluded that the majority of customers favor high maintenance standards, even if it requires a rate increase. A strong supervisory presence and focus is required to address partnerships with local entities, concerns of customer-owners, safety issues and operational challenges.

Recent staff reductions not considered by the auditors include one staff member in Real Estate Services as a result of the 2009 Double Yes program, approximately four FTE's in Parks seasonal labor in the 2009 budget, and eliminating a position when the facilities manager position was filled in 2008. These recent efficiency staff reductions resulted in an annual savings of approximately \$400,000. As these actions demonstrate, span of control continues to be an important focus. The feasibility of further staff reductions in light of these recent changes must be weighed in any further analysis.

### **Performance Auditor Report: Procurement**

**Procurement:** Procurement costs, including the cost of goods and services and administrative expenses, could be reduced by sharing services.

March 4, 2010 (Chelan PUD's Complete Response and Appendix to Audit Report – Shared Services)

## **Performance Auditor's Recommendations**

8. The three PUDs should collaborate to obtain better volume purchase arrangements by standardizing the terms, conditions and pricing with common vendors. As part of this collaboration the PUDs should establish common makes and models for the same type of materials (e.g., poles, fiber cable, and large vehicles) which do not impact the technology of the distribution systems and hydro facilities.
9. The PUDs should consider consolidating procurement functions under one manager to eliminate redundant administrative costs and consider establishing common practices for gathering bids, negotiating contracts, issuing purchase orders and managing vendors for the same types of materials with the same vendors.

## **Chelan PUD's Response**

The Procurement and Contract Services Department at Chelan PUD will continue to work with other public utilities and agencies to obtain lower prices, as it has always done. We fully support finding additional cost savings through collaborative efforts. As noted by the auditors, Chelan PUD utilizes state contracts to lower administrative and procurement costs when feasible. We also currently work with other governmental agencies to incorporate interlocal agreements for operational efficiencies and cost savings.

As recommended, Chelan PUD will continue to work closely with other PUDs and public entities to achieve cost savings; however, Chelan PUD does not agree that additional efficiencies could be gained by creating a common purchasing entity for the three PUDs. Eliminating a manager would require an additional staff person as the current manager at Chelan PUD performs day-to-day staff level tasks such as contract review and quality control in addition to management duties. Chelan PUD procurement staff have also been applauded for effective quality control in recent state audits of purchasing processes. Because each PUD is its own governing entity, the suggested combined management position would support not just one but three annual audits, creating an administrative burden likely resulting in the need to increase other staff.

Chelan PUD offers some past examples of volume purchasing to illustrate challenges and obstacles:

- In February 1998, Chelan PUD entered a strategic alliance with another utility to gain savings through volume purchasing and other efficiencies. The staffs of Chelan PUD and Avista Corp selected Western States Electric, Inc. as the preferred supplier and executed a Professional Services/Independent Contractor Agreement for management services. Western States annually reviewed the inventory items at both utilities to estimate annual requirements used to request

quotes from manufacturers. Projected use was not always accurate as inventory requirements changed due to shifts in project focus affecting material requirements, updates to operational material standards, and mid-year classifications of obsolete items. If statutory limits were reached for purchase of like-kind items, Chelan PUD was required to follow a formal bid process and had to withdraw the item(s) from the contractor. This resulted in removing high-volume items from the quote process. Due to this and increased administration requirements for all parties, the agreement was abandoned in 2004.

Chelan PUD has since changed its purchasing strategy to pursue formal bids for high-use inventory items and enter convenience contracts with suppliers for low-dollar items repeatedly purchased. This change in strategy has permitted Chelan PUD to more effectively time purchases based on market conditions, resulting in significant cost savings.

- Also in the late 1990s, Chelan PUD and Snohomish PUD signed a Joint Purchase and Inventory Transfer Agreement with the intent of gaining volume purchase discounts. As a result, Snohomish PUD issued a joint formal bid for meters on behalf of both parties. Similar shared bids have not been pursued since for the following reasons:
  - 1) The bids received did not reflect the anticipated cost savings from volume purchasing.
  - 2) The supplier often incorrectly shipped meters to the wrong place, negatively impacting daily operations.
  - 3) Because each party was a separate legal entity, each PUD had to enter individual contracts, increasing administration for both PUDs.

Based on historical attempts to consolidate purchasing with other entities even larger than the three Mid-C PUDs, it appears that consolidation actually limits purchase alternatives and restricts purchasing power. Chelan PUD is permitted by statute to purchase up to \$60,000 of like-kind items within a calendar month without being required to utilize the formal bid process (using an alternative process of obtaining quotes). If purchasing for all three PUDs is combined under one entity, then that entity would likely be restricted to \$60,000 per month of like-kind items. One PUD purchasing for others would be required to engage more frequently in the more costly formal bid process. As demonstrated by the attempt to pursue the savings from volume purchasing with Snohomish PUD and Avista, discounts did not materialize, and the overall result was more administration and cost to manage contracts.

# **Chelan County PUD's Responses to Performance Audit Report [Operations]**

## **[Complete Response to Each Recommendation to be Included as an Appendix to Audit Report]**

Section A covers areas in which Chelan County PUD was commended by auditors for outstanding performance. Sections B, C and D then detail recommendations made by the audit team for PUD improvement, followed by Chelan PUD's responses to those specific recommendations.

Chelan PUD appreciates the observations made by the performance auditors in recognizing Chelan PUD's efforts in these areas.

### **Performance Auditor Report: A. Governance and Organization Management**

**Commendation Nos. III-1, III-2, III-3 and III-4:** Outstanding performance noted. Four commendations identified by the performance auditors are:

#### **Governance**

The Chelan PUD Commission has adequately instituted the governance policies and practices necessary to provide appropriate leadership and oversight.

1A. Chelan PUD Board has developed, adopted and updates as needed a comprehensive governance policy that establishes the strategic direction for the District, defines the governance process and defines the relationship between the Board and staff.

1B. The Commission has established specific goals for the General Manager and formally evaluates the performance on these goals every six months. The Commission also participates in establishing specific goals and evaluating performance of other staff who have a reporting responsibility to the board including the General Counsel, Treasurer, Internal Auditor and Clerk of the Board.

1C. Commission members receive information needed for effective decision making prior to Commission meetings.

#### **Strategic Planning and Performance Measurement**

Chelan PUD has effectively implemented a "balanced scorecard" approach to strategic planning and performance measurement.

2A. Chelan PUD places significant emphasis and effort on identifying and analyzing strategic issues to support effective, strategic decision-making.

2B. Chelan PUD has developed a clear vision, mission, core value, and strategic objectives based on the balanced scorecard approach. Each organizational unit develops an annual plan consistent with the balanced scorecard elements and priorities.

2C. Chelan PUD has developed and deployed the key elements of effective performance measurement, management and reporting.

#### Organizational Structure

The organizational structure of Chelan PUD provides consistent authority and responsibility and provides an appropriate span of management control for the General Manager and his direct reports.

#### Employee Performance Management

Chelan PUD has an effective employee performance management system.

4A. Core competencies are identified for key positions and annual performance plans with specific goals to be accomplished by individuals in key positions are developed.

4B. Performance reviews are conducted at least annually based on established performance plans and specific goals.

4C. Performance review completion is tracked and appropriate oversight is provided to ensure timely completion of performance reviews.

#### Performance Auditor's Recommendations

None

#### Chelan PUD's Response

Chelan PUD appreciates these commendations and recognition.

### Performance Auditor Report: B. Operations

#### 1. Labor Optimization

**Issue No. III-1:** Chelan PUD could reduce the cost of operating distribution line crews.

#### Performance Auditor's Recommendation

Restructure the composition of its line crews from four linemen to three linemen per crew whenever the nature of the work allows. This can be accomplished by assigning Safety Watch responsibilities to the lineworker serving as leadworker.

Increase the number of District crews, and then replace contractor crews with the additional PUD crews.

### **Chelan PUD's Response**

As presented to the audit team when they were researching and consulting with Chelan PUD staff, there are several reasons why this recommendation may look good on the surface but is not supported. Most notably, the analysis is based on Chelan PUD crew work during calendar year 2007, a year that saw extremely unusual labor needs due to the severe windstorm and related damage that occurred in January of that year, as well as a local construction boom that resulted in the highest number of new electrical connections that decade, neither of which are the norm.

Chelan PUD's strategy is to assemble the most efficient crew size based on the nature of the work. In ongoing attempts to find efficiencies wherever possible, Chelan PUD is actively evaluating the crew size compared to the work assigned. Chelan PUD has and will use three-person crews when it can do so safely and more efficiently. However, Chelan PUD disputes the auditor's conclusion that Chelan PUD could save \$726,000 to \$1,452,000 annually by restructuring its line crews from four-person to three-person crews and eliminating the contract crews. The actual savings would be much lower due to six factors:

- The auditor assumes that Chelan PUD will be able to legally perform the work. While limits prescribed in state law for the amount of work that can be done by Chelan PUD crews has been increased, it is unlikely that the limits will be entirely eliminated. The amount of work that would still have to be performed by contract crews was not given adequate consideration in making the recommendation and calculating costs savings.
- The auditor assumes that Chelan PUD operates with four-person crews on a daily basis across the board. In 2007, 60 percent of the work had four-person crews, 20 percent had three-person crews and 18 percent had five-person crews.
- The auditor assumes that Chelan PUD has the vehicles, equipment, facilities, and associated overheads already built in to operate with two more crews at no additional cost, when in fact there would be substantial implementation and annual maintenance costs associated with the additional crews, which would reduce actual cost savings.
- The auditor assumes that a three-person crew can perform the same amount of work at the same production level as a four-person crew.
- The auditor assumes that the contract crews are working for Chelan PUD year-round and does not recognize the variable profile of Chelan PUD work due to the weather-affected construction season. There are seasonal benefits

of using contract crews to cover peak construction periods for which Chelan PUD does not keep full-time staff. It is inefficient to staff year-round with full-time Chelan PUD employees at levels sufficient to cover the peaks. In addition, supplementing Chelan PUD workforce with a contract workforce allows for flexibility to adjust to swiftly changing conditions. Chelan PUD is able to add crews for additional work when it is justified and scale back for cost-savings when it is not.

- The auditor assumes that Chelan PUD would continue to use contractor crews at the same level as occurred in 2007.

It is also important to point out that much of the work done by three-person crews at other utilities is done, instead, by our customers (as allowed by Chelan PUD policies) who often do their own trenching or other preparation work. In addition, Chelan PUD has found that for certain types of work, having a four-person crew is more efficient because the fourth person (who is usually a ground man or apprentice) can take care of a vehicle and material activities at lesser cost while work on the poles in the air is being completed by a journey-level line person. This also provides valuable apprentice training opportunities. Chelan PUD will continue to evaluate work planned and consider use of a three-person crew when efficient and effective.

Chelan PUD's use of contract crews has declined since the auditor's review. The auditor relied upon Chelan PUD's expenditure of \$1,600,000 in 2007 for contract crews to reach its conclusions regarding Chelan PUD saving money as noted. The following dollars were spent by Chelan PUD on contract crews associated with distribution line work after the auditor's report.

2008 - \$720,000  
2009 - \$1,000\*

\*This number is not expected to be repeated in 2010. It was extremely low in 2009 due to a number of factors, including the recession's impact on local building/development; the fact that Chelan PUD crews were able to perform more work because of the 2008 change in RCW 54.04.070 described below; no major storms/outages; and other factors.

The figures for all three years do not include dollars spent for crews related to fiber work.

#### **Performance Auditor's Recommendation**

Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in Appendix B).

## **Chelan PUD's Response**

Unless state law changes again, Chelan PUD could not do all the anticipated work with its own crews and would need to continue hiring contract crews for some work. RCW 54.04.070 continues to restrict the amount of work Chelan PUD crews can perform based upon the dollar value of the materials used in a project. During the 2007/2008 legislative session (and for several years prior), Chelan PUD worked hard with other utilities and the Washington Public Utility Districts Association to change RCW 54.04.070. We presented a solid case that the \$50,000 limit on the cost of material was unrealistically low and requested that it be changed to at least \$200,000, based on the increased price of steel, wood poles, metals, etc. The Legislature ultimately agreed to raise the dollar threshold to \$150,000, without any automatic escalation factor. That change became effective in June 2008. Changing state law is not within the PUD's control. Even if the limit were removed, contract crews would likely still be used due to the seasonal nature of the work.

## **Performance Auditor's Recommendation**

For line crew labor contracts (largely for RCW 54.04.070 compliant work), continue to pursue structuring future line crew labor contracts on a "units of work" basis to provide a greater incentive for contractor efficiency and achieve lower costs.

## **Chelan PUD's Response**

Chelan PUD's contract for line crews (electrical and fiber) was awarded July 27, 2009. The bid documents included "units of work" as referenced in the audit recommendation. Chelan PUD is looking forward to using the unit prices to help contain contract costs as appropriate. Chelan PUD considers this recommendation resolved.

## **Performance Auditor's Recommendation**

Evaluate the use of overtime and take steps to reduce linemen crew overtime hours.

## **Chelan PUD's Response**

The performance auditors point to Chelan PUD's overtime rates in 2007 as being 15.9 percent, thus indicating that additional full-time staff should be added to reduce the premium associated with overtime and to bring Chelan PUD in line with generally accepted industry overtime targets of 5-10 percent. While the auditor mentions that 32 percent of 2007 overtime worked was related to a severe January windstorm, their analysis fails to account for or mention what the overtime rate would have been without that significant event. In addition, 2007 was a very labor intensive year with local construction at peak levels. Chelan PUD connected more new electrical services (977) in 2007 than any year this decade. By removing the overtime associated with the

January 2007 storm, Chelan PUD's overtime rate drops to approximately 10.5 percent, close to the industry standard.

As further evidenced in the chart below, Chelan PUD's overtime percentage is within industry targets. Chelan PUD is taking a close look at after-hours system outages to determine if they can be handled any more efficiently given all the circumstances.

Sum of Hours Type	Year 2007	2008	2009
Overtime	10,281.75	7,742.00	4,825.50
Straight-Time	64,742.25	70,863.50	71,678.77
Grand Total			
<b>OT Hrs % of Regular Hrs</b>	<b>15.88%</b>	<b>10.93%</b>	<b>6.73%</b>

Lastly, the auditor did not recognize the unique challenges of operating a transmission and distribution system in Chelan County. Transmission lines run through heavily forested areas, homes are in very remote and mountainous areas and mountain climates with significant snowfall make up a significant portion of the service area. Emergency outages can take substantially more time to correct in these areas.

**Issue No. III-2:** Labor resource efficiency could be improved through increasing organizational spans of control.

**Performance Auditor's Recommendation**

Chelan PUD management should pursue increasing spans of control through organizational consolidation as management attrition occurs. The District should also consider interdivisional and/or interdepartmental realignments as such opportunities present themselves.

**Chelan PUD's Response**

Since 2006, Chelan PUD has focused significant effort on controlling costs and staffing levels. Reorganizations or realignments occurred in 2007, 2008 and 2009. The rate of increase for total labor and benefit costs has dropped from 11.01% in 2006, to 6.40% in 2007, to 3.29% in 2008, to 3.08% in 2009. Given the rate of inflation in labor and benefits costs over this period, the progressive reductions are significant.

There are various "rules of thumb" regarding the appropriate organizational span of control (employees per supervisor) for an organization. While Chelan PUD has increased spans of control in recent years, it also has taken other factors into consideration when determining the optimum organizational structure. Span of control is one useful indicator, but the actual control of costs is more important.

An example may be helpful to demonstrate our focus on costs. When the February 2009 and January 2010 organizational structures are compared using the performance auditor's span of control methodology, Chelan PUD's total average span of control remained virtually unchanged at 8 average employees. However, during that same time, Chelan PUD reduced the total staffing level by 27 positions and achieved significant labor cost reductions. In March 2009, Chelan PUD announced its "Double Yes" voluntary employee separation program, which resulted in a reduction of 12 positions. The total reduction of 27 positions, after voluntary separation payments, is projected to result in annual savings of \$2.7 million. Thus, Chelan PUD has accomplished far more in savings than projected by the performance auditors.

We also note that the auditor in Commendation III-3 under "Organizational Structure" commended Chelan PUD stating, "The organization structure of Chelan PUD provides consistent authority and responsibility and provides an appropriate span of management control for the General Manager and his direct reports."

Chelan PUD continues to evaluate and realign processes to reduce costs and improve efficiency.

**Issue III-3:** Labor costs could be reduced by increasing efficiency and reducing staff levels.

### **Performance Auditor's Recommendation**

Chelan PUD should ascertain the extent to which staffing added from 1998 through 2003 is still required and should take measures to maintain or reduce current staffing levels. These might include but are not limited to:

- Implementing labor saving technology.

- Reducing internal support service levels where appropriate.

- In-sourcing contracted work where economical.

- Contracting work where economical.

- Consolidating organizational units and increasing spans of control as practical at the division, department and section levels.

- Improving work processes and including shared services recommendations presented elsewhere in this report.

### **Chelan PUD's Response**

The performance auditor's report highlights several projects dating back to 1998 concluding that: "Several projects and initiatives that drove staffing increases have since

been completed." Most of the projects and initiatives noted by the auditor are added services or involve ongoing requirements that have now become part of Chelan PUD's day-to-day operations. For example, Chelan PUD has added services such as wholesale fiber optics, Cashmere electric services and the Monitor water system. The Rocky Reach Dam and Lake Chelan licenses were obtained and implementation of new licensing requirements has now begun. Chelan PUD has modernized and rehabilitated its hydroelectric projects and continues to do so. Not included in the auditor's listing is the impact of the increased and changing laws and regulations impacting Chelan PUD's operations. In addition, other projects and ongoing work have also been added. While these initiatives have called for increased staffing levels, Chelan PUD continually assesses its staffing requirements.

As mentioned in the previous response, since 2006, Chelan PUD has focused significant effort on controlling costs and staffing levels. In 2009 and 2010, Chelan PUD reduced the staffing level by 27 positions and achieved significant labor cost reductions. In March 2009, Chelan PUD announced its "Double Yes" voluntary employee separation program, which resulted in a reduction of 12 positions. The total reduction of 27 positions, after voluntary separation payments, are projected to result in annual savings of \$2.7 million.

Chelan PUD continues to evaluate and realign processes to reduce costs and improve efficiency.

## **2. Asset Management**

**Issue and Commendation No. III-5:** Sustained implementation of asset management has improved utility plant reliability, efficiency and cost-effectiveness.

### **Performance Auditor's Recommendation**

Chelan PUD should continue to aggressively pursue the refinement of its well developed asset management program. This should include developing and articulating an enterprise-wide strategy for asset management within the PUD.

### **Chelan PUD's Response**

Chelan PUD appreciates the observations made by the performance auditors in recognizing Chelan PUD's efforts in this area.

We do also note that Chelan PUD's Rock Island project is undergoing an extensive modernization. Powerhouse 1 saw new generators, turbines and stators for many of the units beginning in 2004 and completion of work in 2011. As noted by the auditor, while Rock Island is showing a slight decline in efficiency due to increased fish spill and increased mandatory Canadian entitlement deliveries, gained efficiencies are expected after completion of work at both powerhouses.

The auditors did not mention that Chelan PUD is also undergoing a modernization at its Lake Chelan hydro facility. Upgrades to the switchyard, modernization and maintenance of the bridge crane, and new generator stators, turbines, and unit controls occurred by 2008. Modernization of one unit is complete, with completion of the final unit this year. Expected efficiencies gained at Lake Chelan for the turbines and generators will be 6% and increased output of approximately 4 MW per unit.

Chelan PUD intends to continue moving forward with our asset management program.

## **Performance Auditor Report: C. Construction Management**

**Issue no. III-4:** Detailed independent reviews of Architectural and Engineering firms' cost proposals through the adoption of policies and procedures could result in significant cost savings.

### **Performance Auditor's Recommendation**

To assist with such costs reviews, the Chelan PUD should adopt policies to:

Change its request-for-proposal process to require that architectural and engineering firms' proposals include financial data on the actual pay rates of proposed staff as well as accounting information supporting the overhead calculation. With this financial information, the District could then independently calculate and determine whether the fees proposed are reasonable (generally, a 10 percent profit is allowed).

After selecting the most highly qualified firm in accordance with state law (RCW 39.80.040), the District should review the fees proposed by the firm before negotiating or signing the contract.

### **Chelan PUD's Response**

As recognized by the auditor, Chelan PUD is required by RCW 39.80.040 to select the most highly qualified Architectural & Engineering (A&E) consultant prior to negotiating the price for the services.

The process followed by Chelan PUD's Engineering and Project Management division is described below:

Prior to evaluating and selecting a qualified A&E consultant, an estimate of the cost of work is prepared by Chelan PUD's project manager. After evaluating qualifications from selected A&E consultants and selecting the most qualified consultant, the scope of work is clarified and fully developed, including deliverables, in a collaborative process. The

consultant is asked to estimate the cost of the work, usually broken down by task and/or deliverable, labor, and expenses. The consultant's estimate is compared to Chelan PUD's estimate. After negotiation, the contract is finalized with an agreed-upon scope and price.

Key negotiating points include:

Hourly rate charged for individuals making up the consultant's team, including any subconsultants proposed.

Division of labor and cost between team members proposed by the consultant as Chelan PUD is after the best value for the completed project but also seeks to have as much work as possible accomplished by individuals at lower rates.

The multiplier used by the consultant on labor. This multiplier is negotiated to obtain the lowest multiplier possible. This multiplier includes the fee or profit.

Fees for direct and indirect expenses including mark-up for travel, administration, subconsultants, computers, etc. It is common for Chelan PUD to negotiate lower fees and percentages than proposed by the consultants.

Specific deliverables are clarified and negotiated with the consultant to ensure they are produced at the appropriate cost.

Chelan PUD obtains excellent value from A&E consultants selected to perform engineering services on projects. The focus is always on obtaining high quality work and the benefits of this high quality are received during the project construction phase and the long term performance of the completed project.

The auditor has identified an opportunity to evaluate the fee proposed by engineering consultants. It is important to note the fee is a small contribution to the total cost of projects. In addition, negotiating a lower fee may not be possible due to the demand for high quality consultants selected by Chelan PUD.

In response to the audit recommendation, Chelan PUD's Engineering and Project Management division has adopted a standard practice requiring a breakdown of the proposed price of work by engineering consultants, including the fee. The fee will be evaluated for reasonableness as a function of the risk of the work, the expertise of the individuals and competitiveness of the firms being considered.

It is important to understand, engineering consultants are under no obligation to provide details of their cost proposal as sought by Chelan PUD. In some cases, Chelan PUD may be unable to obtain a breakdown as described above. If so, Chelan PUD will continue, as it has in the past, to evaluate cost proposals based on the principles of total cost versus quality, value and benefits provided by engineering consultants.

**Issue No. III-5:** More detailed review of change orders through improved procedures and contract terms could result in significant cost savings.

### **Performance Auditor's Recommendation**

Chelan PUD should take the following action to improve contract change order procedures:

Require detailed contractor proposals for both lump sum and time and material change orders.

Revise contract general conditions to only allow labor costs for those working directly on the change orders.

Revise contract general conditions to exclude incidental charges to proposed wage rates.

Revise contract general conditions to require detailed contractor proposals for change orders to be negotiated on a lump sum basis with details on proposed labor hours and labor categories, material and quantities, equipment and equipment hours.

Establish procedures to ensure that proposed labor rates are based on the contractor's actual cost for unemployment insurance.

Perform a cost analysis of the contractor's proposed costs for both Lump Sum and Time and Material change orders.

Document the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation.

### **Chelan PUD's Response**

Chelan PUD agrees that some of the recommendations made by the performance auditor make sense and may lead to some cost savings.

Chelan PUD's Engineering and Project Management division has already established the following standard practices:

All change orders above \$10,000 shall be broken down according to labor, equipment, materials, overheads and profit. This breakdown may include a lump sum breakdown of components or tasks performed by the contractor.

An in-house cost estimate for changed work will be completed prior to receiving a cost proposal from contractors for the work.

The change order review process will include analysis and comparison of estimates prior to execution. A record of negotiation documenting the review process will be prepared prior to execution of the change order.

General conditions will be revised to implement the recommendation to allow labor only for those working directly on the change orders.

It is also worth noting that an effective effort to mitigate project risks, increase the value and control costs is consistently made by Chelan PUD engineers, project managers, contract administrators and legal staff throughout the design, contract administration and construction process. For example, in contract 08-26A (which was reviewed by the auditors), the initial invoice submitted by the contractor for above-grade bedrock removal (a changed condition discovered during construction) was \$200,167.50. After thorough analysis and competent negotiation by the project manager, this invoice was reduced to \$96,111.20 and then finally settled for a price of \$77,525.20 in an executed change order. This significant reduction from the original price proposed by the contractor was not noted in the audit report. This effort on contract 08-26A to control costs is typical for construction contracts managed by Chelan PUD.

An excellent overall measure of construction management effectiveness is the total amount of changes to all contracts completed during a period of time. The table below indicates the overall effectiveness of Chelan PUD at controlling contract changes for completed contracts during the period of 2007 through 2009 as reflected in the small percent of change orders.

Year	Original contracts	Revised contracts	Percent of change orders
2007	\$18,863,700	\$18,994,756	0.69%
2008	\$20,798,549	\$21,505,114	3.4%
2009	\$1,675,511	\$1,680,217	2.8%
Total	\$41,337,760	\$42,180,088	2.0%

Implementing the auditor's recommendations will allow Chelan PUD to incrementally improve on the high-quality, effective construction management process currently in place.

## **Performance Auditor Report: D. Procurement**

### **Issues and Commendations**

**Issue No. III-6:** Materials and supplies inventory turnover is below the industry average, resulting in higher inventory levels and higher inventory carrying costs.

### **Performance Auditor's Recommendation**

Chelan PUD should take measures to increase its inventory turnover by reducing inventory levels and re-evaluating economic order quantities.

### **Chelan PUD's Response**

Chelan PUD's goal is to provide excellent customer service and yet have materials stored on the shelf the shortest time possible before using them. For a utility such as Chelan PUD to maintain customer service levels during emergencies, a larger variety of materials must be stored in the utility's warehouses. Maintaining a low level of inventory may result in running out of materials during storms and wildfires. This would then require longer periods to restore electrical power to businesses and homeowners with higher costs to Chelan PUD for locating, purchasing, and delivering emergency materials. Chelan PUD has balanced the tradeoffs and believes that customer service and ability to respond when needed should be addressed first and foremost.

When electrical distribution and water/wastewater materials run out, customers can be without electrical power, water or sewage service for extended periods. All bulk volume materials orders, done through the warehouse, are being scrutinized to keep quantities of stored materials down to a minimum while maintaining service levels for our customers.

Chelan PUD has been striving for a "turns ratio" of 1 (warehouse items used and replaced at least once over the course of a year) since Navigant Consulting recommended that ratio as an industry standard about 10 years ago. Chelan PUD is slightly ahead of that benchmark with a turns ratio of 1.1, but auditors now state that the industry average is 2.3.

In recent years the materials market has made it more difficult to maintain and keep even a 1.1 ratio. The volatility and scarcity of soft metals have pushed up prices and made delivery times twice as long for materials such as electrical transformers.

Chelan PUD has tried to counter this trend by requiring suppliers to maintain stock levels dedicated for our use and by purchasing items by contract in advance, at favorable prices. Storing these items in our warehouses saves Chelan PUD money over time. This approach has been successful with regard to the purchase and use of transformers, utility poles and fiber-optic materials. In addition, Chelan PUD continues

to research stock materials to determine which items can be purchased on yearly contract and is seeking opportunities to reduce material prices through bids as opposed to monthly quotes.

To move toward faster turnover of materials, Chelan PUD's Utility Services warehouse has developed a process to remove obsolete or discontinued stock items to decrease inventories which will increase the turns ratio. The auditors and Chelan PUD personnel identified \$108,000 worth of obsolete materials stored in Chelan PUD warehouses. In accordance with Chelan PUD processes, warehouse personnel removed \$81,000 of those materials in the past year. The remaining balance will be removed in 2010.

Cutting inventories by the amount of the auditor's proposal, while keeping our service levels consistent, is unrealistic. Furthermore, reducing inventory does not result in a direct dollar for dollar savings in cash as represented in the report. Reducing inventory does result in the opportunity to redirect the investment of capital with a corresponding benefit depending upon the interest that can be earned.

A much more achievable goal over a three-year period for Chelan PUD would be a turns ratio of 1.3. Reaching a 1.3 ratio would cut \$1,258,000 out of our current inventories, while still allowing for some flexibility and the opportunity to keep service levels constant. No additional warehouse staff would be needed, but up to 120 hours of additional overtime from existing staff would be required each year to maintain that increased turns ratio. This additional cost must be carefully analyzed before implementing a 1.3 turns ratio.

**Commendation No III-6:** Chelan PUD effectively uses purchase cards to purchase goods and services.

#### **Performance Auditor's Recommendation**

None

#### **Chelan PUD's Response**

Chelan PUD appreciates the observations made by the performance auditors in recognizing Chelan PUD's efforts in this area.

**Appendix F.2 – Grant County PUD’s Response to the Audit Report**

March 1, 2010

## Response to the Washington State Auditor's Performance Audit

### Grant PUD Commission Response:

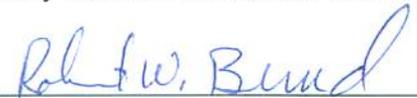
Grant County residents have always looked to the future. They formed their own public utility district in 1938 with a goal of supplying electricity to the county. Their vision was truly a thought forward as the dollars to fund construction of the generating project were more than the total assets of Grant County at the time.

Owned and governed by the county residents it serves, the elected Board of Commissioners sets policy and guidelines for the municipal organization. Grant PUD operates under a mission to generate and deliver power to its customers.

Grant County residents and millions of electric consumers throughout the Northwest light their homes, businesses and streets with power generated by Grant PUD. The Priest Rapids Project, comprised of Priest Rapids and Wanapum dams, generates nearly 2,000 megawatts of clean, renewable hydroelectricity – enough to power a city the size of Seattle.

Grant PUD distributes the power from these two dams and other power resources at production cost, with no profit, through long-term contracts with 22 regional utilities in Washington, Oregon and Idaho. While powering a broad service area, it is Grant PUD's customer owners' ability to maintain local control of significant power resources that allows the area to grow and prosper. This low-cost power is a key factor in the county's leading role in the agricultural sector of Washington state and as a driving force in the regional and state economy.

As elected Commissioners of Grant PUD, we are proud of the day-to-day operations of this utility. However, we are sure improvements can be made and appreciate the efforts of the State of Washington to review our procedures and will consider many of the recommendations. We value your input. We need to continue our efforts to be more efficient and will look to implement any recommendations that are consistent with the utility's goals and objectives.



Bob Bernd  
Commission President



Randy Allred  
Vice President



Tom Flint  
Secretary



Greg Hansen  
Commissioner



Terry Brewer  
Commissioner

## Grant PUD Response to Recommendations:

### Cooperative Shared Services

#### **Overall Recommendation:**

The Mid-Columbia PUDs should form a task force to fully evaluate the shared services opportunities identified in this report and in other functional areas.

The tasks required to implement these recommendations should be handled through collaborative discussions among the three PUDs. We recommend a two-level approach for these discussions:

- Form a senior management steering committee with a representative from each PUD. The steering committee would establish the objectives and ground rules for the work groups and make ultimate decisions regarding the implementation and design of shared services opportunities as well as serve as the escalation point for issues that the working groups are unable to resolve. Depending on the governance options chosen, the three PUD Commissions may ultimately have to act on shared services proposals.

**Response:** Grant, Chelan and Douglas PUD have a long history of cooperative alliances. The general managers of the three utilities meet on a monthly basis to review issues facing all three districts. The boards of each utility meet on a quarterly basis. Individuals and departments within the three utilities regularly collaborate.

At present, Grant PUD is working with Chelan and Douglas PUDs to collaborate on projects required by our operations, as well as with various federal, state and local agencies and private organizations. The results of these collaborative efforts, has and will save the utility millions of dollars. A sampling of these efforts includes:

Grant PUD has a contract with Douglas PUD to use their unused hatchery capacity. This allows Douglas PUD to utilize their entire facility until their own needs increase. It allows Grant PUD the ability to avoid building a facility at this time, a savings of millions of dollars.

Grant PUD and Chelan PUD are currently negotiating a contract to fund the construction of a hatchery that will satisfy both PUDs' requirements for a specific fisheries program. This joint project will result in savings of millions of dollars for the initial construction and operating costs for the life of the facility.

Grant PUD has significant obligations to fund recreation facilities under the terms of the utility's new federal license. Utility staff is presently considering options for partnerships with other agencies and private companies to meet these requirements while maximizing dollars expended. The pursuit of these ventures could result in millions of dollars of cost savings.

Grant PUD appreciates the recommendations of the state and will pursue additional efficiencies to be gained from further cooperative shared services between the Mid-Columbia PUDs.

- o Establish work groups for each function (IT, fleet) made up of a small number of subject matter experts from each PUD. The work groups would do the detailed analysis required to fully assess each shared services opportunity identified in this report from a quantitative and qualitative standpoint. They would then provide alternatives and recommendations, with supporting documentation, to the senior management steering committee.

**Response:** Grant PUD will continue to work with any interested partner in looking for opportunities to reduce costs in these and other areas.

**Insurance Recommendation:**

1. Compare costs of insurance coverage regularly with other PUDs.  
**Response:** Traditionally, Grant PUD's debt covenants required an independent engineer to evaluate our insurance coverage every year. This requirement ended a few years ago when the original debt was retired. We will continue to obtain and compare costs of insurance and levels of coverage with the other PUDs.
2. Consider sharing insurance administration functions to provide administrative cost savings.  
**Response:** Grant PUD will review opportunities to save on insurance administrative costs with the other PUDs.
3. Consider a shared approach to negotiating and contracting including combining brokers and insurance providers to reduce premium expenses where appropriate.  
**Response:** Grant PUD will consider shared opportunities to reduce premium expenses where appropriate.

**Information Technology Recommendation:**

4. The three Mid-Columbia PUDs should collaboratively investigate a plan to achieve enterprise IT systems standardization and the centralization of system hardware and support staff.  
**Response:** Grant PUD has explored various options with other Central Washington utilities for sharing Information Technology services. These services ranged from shared support to providing back up facilities for each other. The last effort occurred in the early 2000s and was abandoned for various reasons. We will renew these discussions.
5. The three Mid-Columbia PUDs should consider sharing both primary and back-up data centers.  
**Response:** Grant PUD will consider shared IT facilities in the discussions above.

**Facilities, Real Estate and Parks Recommendation:**

6. The PUDs should consider a two step approach to cooperatively provide Facilities, Real Estate and Parks services:
  - Consolidate the management of Facilities, Real Estate and Parks from five managers to two managers for all three PUDs.
  - Combine the complete Facilities, Real Estate and Parks functions into one aggregate group for all three PUDs. This assessment should establish the correct mix of out-source and internal resources for these three functions.

**Response:** Grant PUD will consider shared and/or consolidation of services for facilities, real estate and parks.

7. Regardless of the outcome of recommendation 6, before the Grant PUD determines the required resources to manage its new "Parks" responsibilities, its management should work with Chelan PUD to determine how Grant might benefit from Chelan's current process, resources and experience for the operation of park facilities.

**Response:** Grant PUD will review the process in place at Chelan PUD and discuss with Chelan PUD other options considered and based on their history, other options which they would consider now.

**Procurement Recommendations:**

8. The three PUDs should collaborate to obtain better volume purchase agreements by standardizing the terms, conditions and pricing with common vendors. As part of this collaboration the PUDs should establish common makes and models for the same type of materials (e.g., poles, fiber cable, and large vehicles) which do not impact the technology and distribution systems and hydro facilities.

**Response:** Grant PUD has discussed common purchases for some items. We are willing to enter into discussions with the other PUDs and expand this area of cooperation.

9. The PUDs should consider consolidating procurement functions under one manager to eliminate redundant administrative costs and consider establishing common practices for gathering bids, negotiating contracts, issuing purchase orders and managing vendors for the same types of materials with the same vendors.

**Response:** As part of process mentioned above, Grant PUD will discuss consolidation of the procurement function between the three PUDs.

## **Chapter IV A Governance and Organization Management**

### **1. Governance**

#### **Recommendation:**

The Grant PUD Commission should develop governance policies and practices to provide appropriate leadership and oversight by:

- Establishing the strategic direction for the PUD.  
**Response:** Grant PUD Commissioners agree that governance policies are helpful tools in providing leadership and oversight to the utility. The board adopted a governance policy by Resolution No. 8402 on August 31, 2009. The commission uses this document as a guide for their interactions with each other, with staff and with the public. Grant PUD established a strategic plan in September 2007. Commissioners have committed to a practice of reviewing and evaluating the plan on an annual basis to establish the strategic direction for the utility.
- Clearly defining commissioners' roles and responsibilities, including the Commission's role in providing policy direction and oversight and management's role in executing that direction.  
**Response:** The Grant PUD Commission adopted a governance policy by Resolution No. 8402 on August 31, 2009. Roles and responsibilities for the Commission are defined in this document.
- Establishing performance goals and evaluating performance for the employees who report directly to the Commission.  
**Response:** Governance policies related to establishing performance goals and evaluating performance for employees that report directly to the Commission are included in the Commission's Governance Policy. Appointee evaluations are currently being performed. Part of this process includes setting goals for 2010.
- Developing and adopting a specific conflict-of-interest policy for the Commission and specifically address perceived potential conflicts for commissioners.  
**Response:** Section 20 B of the Governance Policy addresses conflict-of-interest. This section provides specific processes for Commissioners in addition to RCW 42.23. In addition, the utility's Code of Ethics policy pertains to all employees and commissioners.
- Developing and adopting rules of conduct for public and private interactions among commissioners.  
**Response:** Rules of conduct for public and private interactions among commissioners are detailed in the Governance Policy.
- Developing rules of conduct for public input and interaction with the Commission during meetings.  
**Response:** Rules of conduct for public input and interaction with the Commission are included in the Governance Policy.

### **2. Strategic Planning**

#### **Recommendation:**

The Grant PUD Commission and District management should expand the role of the strategic plan in providing actual policy direction and management of the PUD. Specifically:

- The Commission should play a leading and active role in developing, overseeing deployment and reviewing the progress of the strategic plan.  
**Response:** Commissioners were involved in the creation of the utility's Strategic Plan. The commission will annually lead discussions on further development, review and revision of the document.
- Management should identify, develop and discuss the alternative approaches and strategies to address key strategic issues in developing the strategic plan.  
**Response:** Grant PUD agrees with this recommendation and will look for opportunities to enhance strategic discussions.
- Management should incorporate analysis of key trends, customer issues and concerns, internal issues and concerns into strategic decision-making or the strategic plan.  
**Response:** Grant PUD agrees with this recommendation. The utility currently tracks many of these trends and plans to incorporate them into the document.
- Management should develop and implement an effective performance measurement, management and reporting system to monitor progress over time consistent with the PUD vision, mission, and strategic objectives.  
**Response:** Grant PUD agrees with this recommendation. The utility will work to include meaningful metrics in the document by which to measure the organization's progress over time.

### 3. Organizational Structure

**Recommendation:**

Grant PUD should consider aligning its organizational structure with its key functions and combining financial, administrative and support services. It should:

- Create separate organizational units; Power Generation and Distribution with each having complete organizational responsibility for its activities.  
**Response:** Grant PUD will consider these recommendations moving forward as part of our current reorganization efforts. The utility is already operating in this capacity to some extent. Power Generation and Distribution operate as their own, separate organizations lead by separate division directors.
- Combine support services into an Administrative and Support Services organizational unit.  
**Response:** Reorganization is a consideration when the utility experiences a change in management level personnel. Management continues to seek opportunities to find ways to manage more effectively.
- Consider creating a separate strategic planning function reporting directly to the General Manager and focusing on the long-term strategic issues of the PUD, including long-term power management issues.  
**Response:** Grant PUD will consider this recommendation as the utility discusses reorganization opportunities.

### 4. Employee Performance Management

**Commendation:**

- Grant PUD has an effective employee performance management system.

**Response:** Grant PUD appreciates the state's commendation of "outstanding performance" related to position descriptions and performance evaluations as noted in this section.

## **Chapter IV B Operations**

### **1. Labor Optimization**

#### **Line Crew Cost**

##### **Recommendation:**

To reduce costs and improve operational effectiveness, Grant PUD should:

- Restructure the composition of its line crews from four linemen to three linemen when the nature of the work allows.  
**Response:** Grant PUD has various crew sizes based on the nature of the work and will further evaluate the composition of line crews and seek additional efficiencies.
- Work with the state Legislature to increase the threshold for Chapter 54.04.070 RCW. (See corresponding recommendation to the Legislature in **Appendix B**)  
**Response:** Grant PUD agrees that dollars could be saved if a legislative change to the threshold of Chapter 54.04.070 RCW was implemented. A change to state law would allow the utility to review best available options to complete work instead of relying on the hiring of contractor crews.
- Increase the number of District crews and replace contractor crews with District crews.  
**Response:** Grant PUD will re-examine this area to be assured that the utility optimizes its use of District crews within the limitations of state law.
- Evaluate the use of overtime and take steps to reduce linemen overtime hours.  
**Response:** Grant PUD will continue to evaluate and reduce overtime hours when possible.

#### **Span of Control**

##### **Recommendation:**

- Grant PUD management should pursue increasing spans of control through organizational consolidation as management attrition occurs. Consideration should also be given to interdivisional and/or interdepartmental realignments to increase spans of control. (See **Finding IV-3** for related discussion of Organization Structure.)  
**Response:** Grant PUD appreciates the state's note that the utility is operating in line with span of control best practices. Grant PUD will continue to include span of control when evaluating opportunities for organizational changes. Whenever there is a change in staff, the Management Team considers other options to have the work performed and opportunities to find ways to accomplish the work more effectively.

## 2. Asset Management

### Recommendation:

- Grant PUD should continue to aggressively pursue the development of a comprehensive, enterprise-wide asset management program. This would include all the asset management program elements described above.

**Response:** Electric system staff is currently in the process of implementing a new asset management system that will meet the needs of the utility's transmission and distribution systems. Extensive reviews of various asset management systems were completed prior to the selection. The utility's current asset management solution for the hydro system was not the recommended solution for transmission and distribution due to high cost and lack of fit for the needs of the electric system. The utility's Information Technology Steering Committee weighed the cost of having to support two systems and agreed that because of the differing needs of the electric system and hydro system, two asset management packages provided the best solution for the utility.

## Chapter IV C. Construction Management:

### Architectural and Engineering Firm Cost Proposal

#### Recommendation:

To assist with cost reviews, Grant PUD should adopt policies to:

- Change its request-for-proposal process to require that architectural and engineering firms' proposals include financial data on the actual pay rates of proposed staff as well as accounting information supporting the overhead calculation. With this financial information, the District could then independently calculate and determine whether the fees proposed are reasonable (generally, a 10 percent profit is allowed).

**Response:** Grant PUD recognizes this to be an area for improvement. The utility has been working to improve procurement, contracting and project management practices since 2008. The utility is currently reviewing and replacing all boilerplate contract forms and will consider this during that process.

- After selecting the most highly qualified firm in accordance with state law (RCW 39.80.040), the District should review the fees proposed by the firm before negotiating or signing the contract.

**Response:** Grant PUD agrees with this recommendation. In 2010, all project managers will participate in negotiation training and project management training which has been tailored to the utility's needs.

### Change Order Practices

#### Recommendation:

Grant PUD should take the following actions to improve its contract change order practices:

- Revise contract change order procedures to require an independent estimate of change order costs be prepared for contract change orders.

**Response:** Grant PUD agrees and this change has been made to our process.

- Require detailed contractor proposals for both lump sum and time and material change orders.  
**Response:** Grant PUD agrees and is modifying the contract language to require this additional information.
- Revise contract general conditions to allow labor costs for only employees who work directly on the change orders.  
**Response:** Grant PUD agrees and is presently revising our contract forms.
- Revise contract general conditions to exclude incidental charges to proposed wage rates.  
**Response:** Grant PUD agrees and is close to implementing this recommendation into our contract language.
- Revise contract general conditions to require detailed contractor proposals for change orders to be negotiated on a lump sum basis with details on proposed labor hours and labor categories, material and quantities, equipment and equipment hours.  
**Response:** Grant PUD agrees and is implementing this recommendation.
- Establish procedures to ensure proposed labor rates are based on the contractor's actual cost for unemployment insurance.  
**Response:** Grant PUD agrees and is including language to limit these costs as recommended in changes that are in process to our contract forms.
- Perform a cost analysis of the contractor's proposed costs for both lump sum and time & material change orders.  
**Response:** Grant PUD agrees and will modify procedures to require this analysis once available when contract change orders are necessary
- Document the results of negotiation and the basis for determining the reasonableness of negotiated prices in a record of negotiation.  
**Response:** Grant PUD agrees and has already implemented this recommendation.

## Chapter IV D. Procurement

### Inventory Turn Over

#### **Recommendation:**

- Grant PUD should increase its inventory turnover by reducing of inventory levels and re-evaluating economic order quantities.  
**Response:** Grant PUD will continue to evaluate and revise inventory levels. Based on this recommendation, the utility plans to reassess the need for two warehouses and will look at centralization of materials. We anticipate that we will find areas where economization is possible and we will work to implement new practices.

### Purchase Card Spending

#### **Recommendation:**

- Grant PUD should institute a systematic approach to analyze all of its purchases not subject to competitive bids to identify opportunities for additional agreements or volume discounts, regardless of whether a purchase card was used.  
**Response:** Grant PUD agrees with this recommendation but takes exception to the analysis of this issue. As noted in the report, the utility presently works with several vendors to obtain volume discounts, regardless of formal strategic alliances. The dollars included in this

analysis reflect all items bid and quoted, as appropriate, within the utility's procedures and state law.

## **Chapter IV E. Wholesale Fiber Optic Network**

### **Recommendation:**

Grant PUD should:

- Prepare an updated and complete financial forecast for its wholesale fiber optic program using the most current revenue and cost information available.

**Response:** Grant PUD commissioners will continue regular review and evaluation of the financial forecast for the fiber network.

- Take steps to improve the economics of its wholesale fiber optic network program by:

- Pursuing all opportunities to secure stimulus funding, including opportunities that require legislative changes that would affect all PUDs in Washington.

**Response:** The utility is currently working on an application to pursue stimulus funds and will review options for outside funding as appropriate/available.

- Continually monitoring areas where fiber has been extended but the saturation is below Grant PUD's desired target of 40 percent.

**Response:** Grant PUD agrees and staff has been providing regular updates to the board. Commissioners and staff will review fiber saturation rates by individual local area on a quarterly basis.

- Improve communications to increase customer awareness of the availability and benefits of high-speed Internet in those areas.

**Response:** Grant PUD agrees. The Board of Commissioners has previously expressed this concern and is reviewing the current communication strategy for the fiber optic network.

- Re-evaluate District policy for extending the fiber optic network given the modified financial projections presented in this report.

**Response:** In 2008, Grant PUD Commissioners established guidelines for further development of the fiber system. The plan requires the system to satisfy the Commission's goal that revenues should meet or exceed the operation and maintenance expenses plus depreciation of newly installed fiber and electronics. Commissioners review network financials on a quarterly basis and approve further build-out on an annual basis, as they have in the past three years.

**Chapter VI**  
**Appendix**

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**Appendix F.3 – Douglas County PUD’s Response to the Audit Report**



# Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553 • [www.douglaspud.org](http://www.douglaspud.org)

March 8, 2010

Brian Sonntag, State Auditor  
P.O. Box 40021  
Olympia, WA 98504-0021

Dear Mr. Sonntag:

Thank you for the opportunity to provide comments for inclusion in the final performance audit report. It is our understanding all Douglas PUD comments will be included in the final report, which we appreciate. All of our interactions with your staff during the audit process have been professional. State Auditor personnel have been regularly willing to discuss issues related to this audit, which we also appreciate.

Douglas PUD is always interested in improvement. Staff has seriously engaged in the audit process. We admit surprise about the selection of Douglas PUD for a performance audit given Initiative 900's stated purpose is to ensure "tax dollars are spent as cost-effectively as possible." Douglas PUD neither receives nor spends any tax dollars. Also, combining several separate legal entities in one audit seems inconsistent with the initiative. This approach created confusion during the process as well as in the results. Audit fieldwork at Douglas PUD concluded in January 2009. Some conditions described in the report either never existed or no longer exist.

The best measures of Douglas PUD's performance are customer satisfaction, power supply and electric rates. Our mission is "To provide the best possible utility services at the lowest possible cost, consistent with sound business principles." In this regard, our record of customer comments is very favorable, our cost-effective and reliable power supply is in a surplus position, and Douglas PUD electric rates are the lowest in the United States.

Since the beginning of this audit in September 2008, in addition to the costs incurred by the State of Washington, Douglas PUD has used over 2,270 high-level staff hours on performance audit activities. Douglas PUD has participated in 67 interviews, meetings, and calls related to this audit and responded with 968 separate documents related to data requests. Douglas PUD is a lean organization with regard to staffing, so lost productivity related to this audit has been substantial.

Douglas PUD will consider and analyze the costs and potential benefits of the recommendations in this report in accordance with RCW 43.09.470.

Sincerely,

William C. Dobbins  
General Manager

Attachment: Performance Audit Responses

## **Performance Audit Responses**

### CHAPTER II – COOPERATIVE SHARED SERVICES

#### OVERALL RECOMMENDATIONS

##### **Douglas PUD response to Overall Recommendations**

Douglas PUD will consider these recommendations according to RCW 43.09.470.

##### **Douglas PUD response to Effect of the Recommendations**

Douglas PUD was formed by the people of Douglas County in 1936 because customers wanted control of their own local utility. The Shared Services recommendations involve combining operational functions across multiple separate legal entities. The report references the Washington State government reform initiative but fails to recognize this effort is focused on Washington agencies, not separate entities with different elected governance, revenue sources, geographical considerations and types of services. Combining functions and services across separate legal entities can create additional complexities and administrative burdens, which ultimately would translate to higher rates for Douglas PUD customers. Douglas PUD appreciates the report stating, “Douglas PUD’s small size and low cost structure may reduce its ability to realize significant cost savings from further shared services.” Douglas PUD takes great pride in its low cost structure because it has historically proven to be extremely beneficial to customers.

### INSURANCE

##### **Douglas PUD response to Recommendations to the PUDs - Insurance**

Douglas PUD will consider these recommendations according to RCW 43.09.470.

##### **Douglas PUD response to Effect of the Recommendations**

Douglas PUD supports working collaboratively with the other PUDs where it makes sense to do so. However, it is difficult to understand how Douglas PUD could achieve any administrative efficiencies, considering that it employs only one person to administer its Human Resource and Insurance functions. Also, recent benchmarking of insurance coverage by Douglas PUD indicates that the annual premium expenses paid are competitive.

### INFORMATION TECHNOLOGY

##### **Douglas PUD response to Recommendations – Information Technology**

These recommendations could be problematic for a variety of reasons, but Douglas PUD will consider them in accordance with RCW 43.09.470.

## **Douglas PUD response to Effect of the Recommendations**

These recommendations do not take into account NERC reliability standards, cyber security, and other mandates associated with operating a portion of the Bulk Electric System. Douglas PUD already has an existing cost-effective and efficient on-site primary data center. If a shared primary data center were located offsite or in another county, it would not be as readily accessible to Douglas PUD's staff as its own on-site data center and could create vulnerabilities under NERC reliability standards.

### FACILITIES

#### **Douglas PUD response to Recommendations – Facilities, Real Estate and Parks**

As explained below, these recommendations would not likely benefit Douglas PUD because they are not relevant to Douglas PUD.

## **Douglas PUD response to Effect of the Recommendations**

Douglas PUD does not have a Facilities Department, Real Estate Department, or Parks Department. Douglas PUD does employ custodial employees and contractors who, along with other contractors, maintain facilities. Douglas PUD is committed to providing access to lands and waters associated with the Wells Hydroelectric Project and has a recreation action plan process as part of its existing federal hydroelectric license obligations. This has led to agreements between Douglas PUD and cities related to capital improvements at parks located in Pateros, Brewster, and Bridgeport. The exhibit showing combined cost savings for this recommendation includes the footnote (a) "Since Douglas PUD does not have dedicated Facilities, Real Estate or Parks personnel, only Chelan and Grant PUDs have been compared." This recommendation is not relevant to Douglas PUD.

### PROCUREMENT

#### **Douglas PUD response to Recommendations – Procurement**

Douglas PUD will consider these recommendations according to RCW 43.09.470.

## **Douglas PUD response to Effect of the Recommendations**

Douglas PUD believes it has cost-effective purchasing systems in place that result in superior results. It also believes that having a small, dedicated group of its own employees to obtain materials and equipment has proven to be highly productive. The volume purchasing described could be problematic for a number of reasons, including the varied timing of materials and equipment needs as well as the specifications unique to each PUD. Douglas PUD would lose flexibility related to maintaining its inventory levels, which would adversely impact its response to customer service requests. Coordinating purchases with other entities would also increase Douglas PUD's workload and administrative burden, thus increasing complexities and costs rather than achieving savings.

CHAPTER V - DOUGLAS COUNTY PUD

A. GOVERNANCE AND ORGANIZATION MANAGEMENT

1. GOVERNANCE

**Douglas PUD response to Issue No. V-1 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

The Commission has long established direction for the General Manager through establishment of the Mission Statement, Customer Service Policies, and other general policies. Annual goals are also set by and for the General Manager. Evaluation is continuous and formalized annually. The General Manager's performance is reviewed annually. The review includes evaluation of goal achievement. Other positions reporting to the Commission were reviewed in 2009.

In 2009, the Commission established a formal Code of Ethics, a formal Governance Policy, and a formal Financial Policy. Although the formal written policies are new, the practices set forth in these policies have been in use for many years.

Commissioners receive meeting information in advance of the Commission meetings. The Douglas PUD Commission has been making effective decisions for many years.

**Douglas PUD response to Issue No. V-1 Effect of Recommendation**

Douglas PUD has benefited from excellent Commission leadership for many years as evidenced by the District's low rates and reliable service. The strategic direction for Douglas PUD has been clearly provided in the Commission-adopted mission statement. There has been no need for management to guess or improvise. Since no actual governance issues or failures were documented during the performance audit, adoption of formal, written policies simply documents practices and procedures in use for many years.

2. STRATEGIC PLANNING

**Douglas PUD response to Issue No. V-2 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

**Douglas PUD response to Issue No. V-2 Effect of Recommendation**

For many years Douglas PUD's public statement of strategic direction has been its Mission Statement: "To provide the best possible utility services at the lowest possible cost consistent with sound business principles." By adopting this targeted mission statement, the Commission has reflected what it believes to be the primary interests of its constituents, the people of Douglas County. Through many past discussions and reconsiderations the Douglas PUD Commission has meaningfully determined focused guidance to be superior to many-faceted

strategic plans. Such plans can be elaborate and difficult to interpret. Douglas PUD's locally-elected Commission has focused the General Manager, and through him the rest of the staff, on what it has determined to be in the best interests of its constituents. History proves the Commission's wisdom. It is difficult to argue against Douglas PUD's low-cost, renewable power supply portfolio and reliable, low-cost electric service to its customers.

### 3. PERFORMANCE MEASUREMENT

#### **Douglas PUD response to Issue No. V-3 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-3 Effect of Recommendation**

Douglas PUD is more results-oriented than process-oriented. The idea of not completing necessary projects is foreign to the Douglas PUD culture. Nearly every supervisor at Douglas PUD is a working supervisor, deeply involved in Douglas PUD projects. The approved budgets provide necessary guidance and completed projects are evidence of success. In prior consideration, processes parallel to the completion of projects have seemed to create extra process work that may detract from the completion of project work.

### 4. ORGANIZATIONAL STRUCTURE

#### **Douglas PUD response to Issue No. V-4 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-4 Effect of Recommendation**

Douglas PUD operates with a very flat organizational structure with a thin layer of management personnel. Nearly every supervisor is a working supervisor, with work tasks exceeding supervisory responsibility. Top managers at Douglas PUD are historically in these positions long-term. The structure has worked well and is a contributing element to Douglas PUD's success. Organizational responsibility is currently divided according to key functions. The report suggests creating silos within the organization with layers of purely supervisory management. Douglas PUD believes its customers do not want layers of supervisory only positions. Each time a personnel change is required in upper management, the structure is reviewed and adjusted to best meet the then-current operational needs of Douglas PUD.

### 5. HUMAN RESOURCE MANAGEMENT

#### **Douglas PUD response to Issue No. V-5 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

## **Douglas PUD response to Issue No. V-5 Effect of Recommendation**

The performance auditors noted no instances in which Douglas PUD staff was confused about roles, responsibilities, reporting relationships, required skills or key accountabilities. The Effect of Recommendation references litigation risk but Douglas PUD has had a history of minimal employee litigation. There is minimal employee turnover, other than through retirements. Douglas PUD's employees understand their roles and perform well as evidenced by Douglas PUD's good customer service, reliable power supply, and low electric rates.

## **B. OPERATIONS**

### **1. LABOR OPTIMIZATION**

#### **Douglas PUD response to Issue No. V-6 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-6 Effect of Recommendation**

Douglas PUD assigns line work to crews sized appropriately for the nature of the work, taking into account safety and training requirements. Washington PUDs recently worked with the state legislature and labor unions to increase the project cost for which PUDs must hire contractors from \$50,000 to \$150,000. This limit is rarely adjusted. Douglas PUD is prepared to support an effort by the State Auditor to further increase the limit. Douglas PUD maintains the number of crews necessary to complete consistent workload. Contractor crews are hired to accomplish variable workload and to meet certain state requirements. Douglas PUD does not believe its crews are currently out of balance.

#### **Douglas PUD response to Issue No. V-7 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-7 Effect of Recommendation**

Douglas PUD's Power Planning and Contracts Administrator is a single position with a heavy workload. This position has some supervisory responsibility coupled with a heavy power planning and power contracting workload. This position cannot be eliminated. Douglas PUD no longer maintains the Distribution Operations Supervisor position. The Distribution Superintendent oversees the work of outside crews and contractors, including line crews, communication crews, substation crew, and metering crew. The work of the Distribution Superintendent is unrelated to the work of the Power Planning and Contracts Administrator.

### **2. ASSET MANAGEMENT**

#### **Douglas PUD response to Issue No. V-8 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

## **Douglas PUD response to Issue No. V-8 Effect of Recommendation**

Douglas PUD personnel repeatedly informed the auditors that the primary metric selected to develop this recommendation and estimate is used incorrectly. The metric, annual MWH/acre-foot of river flow, is variable primarily due to weather (affecting river flow) rather than asset management procedures. The metric falsely indicates better performance in years with low river flow because proportionally more of the available water can be passed through turbines for electric generation. The year 2001, the second lowest water year on record, occurred early in the ten-year period selected by the contractor (1999-2008). Years with low flow have a negative financial impact on Douglas PUD. The metric falsely indicates poor performance in years with high river flows because proportionally less of the available water can be passed through turbines and more water is passed through spillways where it is not available for electric generation. Years with high river flow are desirable in the hydroelectric industry and typically provide financial benefit to Douglas PUD. The ten-year period is not a reasonable timeframe because it is not long enough to eliminate the weather effect. The contractor made no effort to normalize the data. One simple normalization method would have been to evaluate years with similar river flow volume. Another would have been to look at the entire life of the Wells Project. Both of these normalization ideas were suggested to the contractor.

Even if the the selected metric was appropriate, the contractor has miscalculated the so-called decline in hydro efficiency performance. Based on the trend line shown in Exhibit V-11, the approximate so-called decline is .00145 MWH/acre-foot, or 2.6% (.00145/.055), not 3.3% as claimed at two locations in the report.

To overcome objections about the use of this metric, the contractor attempted to validate the metric by comparing Wells Dam to Rocky Reach Dam. This simply introduced at least two more variables over which Douglas PUD has no control. Rocky Reach initiated a no-spill test in the last three years of the ten-year period, eliminating a large proportion of previously-present fish spill. By contrast, Wells Dam was experiencing a consistent fish spill condition throughout the test period as a result of establishing an efficient juvenile fish bypass system in the late 1980s. Rocky Reach was completing a major generating unit rehabilitation project in the first five years of the ten-year period. By contrast, Wells Dam was starting into a major rehabilitation of its generating units toward the end of the ten-year period. It should be noted that generating unit rehabilitation is an infrequent and substantial project involving rebuild of generators and refurbishment of moving parts in the water passages; thus requiring generators to be off-line for prolonged periods. These differences invalidate direct comparison between the two dams.

The contractor then improperly applied the outcome of its flawed analysis to produce incorrect estimates of potential revenue. The effect is an inflated estimate. After calculating an average MWH/acre-foot target of .055, the contractor abandoned the average concept and applied the target to the generation from three specific actual years. Using the three years, the contractor estimates total potential generation of 569,115 megawatt hours, or an average of 189,705 megawatt hours per year. The actual average for the ten-year period is 74,432 megawatt hours, or 223,296 megawatt hours for the three year period; less than half of the estimate in Exhibit V-13. The incorrect three-year estimate is then further inflated to a five-year

estimate in the Effect of Recommendation. Additional confusion is added by referring to average annual market prices, which are not applicable to the time of year when the supposed additional generation would be achieved. Specifically, this would occur in springtime, when river flows are high and electric demand and power prices are low.

Also, Douglas PUD did not provide the pricing data used in Exhibit V-13 as indicated in the Note to the Effect of Recommendation.

### **C. CONSTRUCTION MANAGEMENT**

#### **Douglas PUD response to Issue No. V-9 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-9 Effect of Recommendation**

As required by RCW 39.80, Douglas PUD has established procedures and guidelines that require it to negotiate contracts for architectural and engineering services on the basis of demonstrated competence and qualifications for the type of professional services required and at a fair and reasonable price. The Effect of Recommendation states, "...we are restrained from projecting a definitive range of future cost savings if the PUD were to implement the recommendations above."

#### **Douglas PUD response to Issue No. V-10 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

#### **Douglas PUD response to Issue No. V-10 Effect of Recommendation**

Douglas PUD believes the methods used to arrive at this recommendation and its associated cost savings are flawed. The performance audit contractor assumed the average cost of change orders could be as high as 8 percent of each contract amount. Douglas PUD's analysis showed actual change order cost averaged less than 5 percent of the contract amount during the audit period (2006-2008). Additionally, the contractor only examined change orders related to three contracts. There are 26 other contracts active during the audit period that could have been analyzed. Most of the change orders outside the selected sample show adequate documentation of rigorous change order negotiation.

### **D. PROCUREMENT**

#### **Douglas PUD response to Issue No. V-11 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

### **Douglas PUD response to Issue No. V-11 Effect of Recommendation**

Douglas PUD places a high value on having an adequate inventory to maintain services for its customers. Regional market conditions and national disasters can create significant challenges for maintaining an adequate inventory. While maintaining an adequate inventory may forgo opportunities to invest, the ability to respond to customer needs and reliability benefits could outweigh the potential cost savings identified. Especially at the time of this audit and continuing today, appreciation in the value of stock exceeds the low interest rates available on investments. Douglas PUD would sustain a negative financial and service impact by shifting from investment in inventory to investment in financial instruments.

### **Douglas PUD response to Issue No. V-12 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

### **Douglas PUD response to Issue V-12 Effect of Recommendation**

Douglas PUD uses VISA cards where their use has been determined to make sense for specific utility purchases. There is not widespread access to and use of these credit cards at Douglas PUD by design. A pre-approval purchasing process exerts more fiscal control and is preferred over the method recommended in the audit report. Douglas PUD's process helps ensure that its employees are making necessary, mission-critical purchases allowed by state law. The performance audit contractor working in this area told Douglas PUD that he noted no instances of non-mission critical purchases.

### **Douglas PUD response to Issue V-13 Recommendation**

Douglas PUD will consider this recommendation according to RCW 43.09.470.

### **Douglas PUD response to Issue No. V-13 Effect of Recommendation**

Douglas PUD has derived substantial benefit from certain long-term professional service agreements in the form of lower hourly rates, lower number of hours billed and lower administrative costs because of familiarity with issues. These arrangements have resulted in minimal conflicts with other entities and successful outcomes on the projects addressed by these service providers.

## Chapter VI

### Appendix

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#### **Appendix F.3.1 - RCW 43.09.470 – Comprehensive performance audits – Reports.**

In addition to audits authorized under RCW 43.88.160, the state auditor shall conduct independent, comprehensive performance audits of state government and each of its agencies, accounts, and programs; local governments and each of their agencies, accounts, and programs; state and local education governmental entities and each of their agencies, accounts, and programs; state and local transportation governmental entities and each of their agencies, accounts, and programs; and other governmental entities, agencies, accounts, and programs. The term "government" means an agency, department, office, officer, board, commission, bureau, division, institution, or institution of higher education. This includes individual agencies and programs, as well as those programs and activities that cross agency lines. "Government" includes all elective and nonelective offices in the executive branch and includes the judicial and legislative branches. The state auditor shall review and analyze the economy, efficiency, and effectiveness of the policies, management, fiscal affairs, and operations of state and local governments, agencies, programs, and accounts. These performance audits shall be conducted in accordance with the United States general accounting office government auditing standards. The scope for each performance audit shall not be limited and shall include nine specific elements: (1) identification of cost savings; (2) identification of services that can be reduced or eliminated; (3) identification of programs or services that can be transferred to the private sector; (4) analysis of gaps or overlaps in programs or services and recommendations to correct gaps or overlaps; (5) feasibility of pooling information technology systems within the department; (6) analysis of the roles and functions of the department, and recommendations to change or eliminate departmental roles or functions; (7) recommendations for statutory or regulatory changes that may be necessary for the department to properly carry out its functions; (8) analysis of departmental performance data, performance measures, and self-assessment systems; and (9) identification of best practices. The state auditor may contract out any performance audits. For counties and cities, the audit may be conducted as part of audits otherwise required by state law. Each audit report shall be submitted to the corresponding legislative body or legislative bodies and made available to the public on or before thirty days after the completion of each audit or each follow-up audit. On or before thirty days after the performance audit is made public, the corresponding legislative body or legislative bodies shall hold at least one public hearing to consider the findings of the audit and shall receive comments from the public. The state auditor is authorized to issue subpoenas to governmental entities for required documents, memos, and budgets to conduct the performance audits. The state auditor may, at any time, conduct a performance audit to determine not only the efficiency, but also the effectiveness, of any government agency, account, or program. No legislative body, officeholder, or employee may impede or restrict the authority or the actions of the state auditor to conduct independent, comprehensive performance audits. To the greatest extent possible, the state auditor shall instruct and advise the appropriate governmental body on a step-by-step remedy to whatever ineffectiveness and inefficiency is discovered in the audited entity. For performance audits of state government and its agencies, programs, and accounts, the legislature must consider the state auditor reports in connection with the legislative appropriations process. An annual report will be submitted by the joint legislative audit and review committee by July 1st of each year detailing the status of the legislative implementation of the state auditor's recommendations. Justification must be provided for recommendations not implemented. Details of other corrective action must be provided as well. For performance audits of local governments and their agencies, programs, and accounts, the corresponding legislative body must consider the state auditor reports in connection with its spending practices. An annual report will be submitted by the legislative body by July 1st of each year detailing the status of the legislative implementation of the state auditor's recommendations. Justification must be provided for recommendations not implemented. Details of other corrective action must be provided as well. The people encourage the state auditor to aggressively pursue the largest, costliest governmental entities first but to pursue all governmental entities in due course. Follow-up performance audits on any state and local government, agency, account, and program may be conducted when determined necessary by the state auditor. Revenues from the performance audits of government account, created in RCW 43.09.475, shall be used for the cost of the audits. [2006 c 1 § 2 (Initiative Measure No. 900, approved November 8, 2005).]

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