FINAL DRAFT REPORT

Public Utility District No. 1 of Thurston County
Electric Initial Business Assessment

August 31, 2012

Prepared for

Public Utility District No. 1 of Thurston County
Olympia, Washington

by

DHITTLE & ASSOCIATES, INC.
Engineers and Consultants

Public Utility District No. 1 of Thurston County
Electric Initial Business Assessment
Contents

Public Utility District No. 1 of Thurston County
Electric Initial Business Assessment

Executive Summary

Introduction

Electric service is currently provided to the residents and businesses in Thurston County (County) by four electric utilities: Puget Sound Energy, Inc. (PSE), a privately-owned utility headquartered in Bellevue, Washington, Lewis County Public Utility District (PUD), Grays Harbor County PUD, and the City of Centralia. The Bonneville Power Administration (BPA) also has electric power facilities within Thurston County. BPA is a large regional wholesale power provider and transmission system operator.

PSE serves most of the electric customers in Thurston County. PSE has indicated that it does not wish to sell its electric facilities in Thurston County. Puget Sound Energy, Inc. is a Bellevue based electric and natural gas utility principally regulated by the Washington Utilities and Transportation Commission (WUTC). PSE, as a privately-owned utility, is different from investor-owned utilities, such as Avista Utilities and Pacific Power and Light Company. Unlike investor-owned utilities, a privately-owned utility like PSE is not required to hold a large annual meeting, to widely issue a proxy statement, or to publish shareholder submitted proposals for a vote.

In contrast the PUD is accountable to the public and all PUD meetings are subject to the State open meetings act, its actions are fully transparent and the Commissioners, who oversee the PUD, are required to stand for election.

All of the voting stock of Puget Sound Energy Inc. is held by Puget Energy, Inc. All of the voting stock of Puget Energy Inc. is held by Puget Equico LLC an indirect wholly-owned subsidiary of Puget Holdings LLC. Puget Holdings LLC is owned by a number of infrastructure investors, principally foreign pension and investment firms (Macquarie Infrastructure Partners I, Macquarie Infrastructure Partners II, Macquarie Capital Group Limited, Macquarie-FSS Infrastructure Trust, the British Columbia Investment Management Corporation, the Canadian Pension Plan Investment Board, and the Alberta Investment Management Corporation). Macquarie Capital Group, the ultimate parent corporation, is an Australian-based investment firm.

The Commissioners of Public Utility District No. 1 of Thurston County (Thurston County PUD, TPUD or the District), based on input from a public meeting held in January 2012, decided to perform a business assessment related to the District providing electric service to certain businesses and residents. D. Hittle & Associates, Inc. (DHA) was retained by the District in May 2012 to provide a study of the various technical and economic issues associated with the District providing electric service within Thurston County.

PUD Electric Service

Public Utility Districts (PUDs) are nonprofit, community-owned and community-governed utilities that provide electricity, water, wholesale telecommunications and sewer service. They are municipal corporations of the State of Washington. The voters in each Washington County have the right to form a PUD. In Washington, there are 28 operating PUDs, 23 of which provide electric service. In many Washington counties, municipally-owned utilities and consumer-owned cooperative utilities provide some electric service. Operating in 27 of the 39 counties in Washington, PUDs provide electric service to approximately 900,000 customers and water service to approximately 115,000 customers in their respective service areas. The District was organized in 1938 by vote of the public and it does not presently provide electric service. The District has approximately 3,200 water customers. TPUD provides water planning and utility services to the citizens of Thurston County. TPUD owns and operates water systems in Pierce, Lewis counties, and has customer in Grays Harbor (37), and Mason (25) counties.

Accountability to the citizen-voters of a PUD rests with the elected PUD commissioners, providing far more direct and local accountability between the customers and the operators of an electric utility than exists with most private and investor-owned utilities. A PUD combines the public interest benefit of a nonprofit operation with low cost financing methods similarly available to a municipality or city. In the Pacific Northwest, PUDs have the ability to purchase power from the federal Bonneville Power Administration. PUDs establish rates for electric service based on the actual costs of operating and maintaining the utility.

Although PUDs do not pay income taxes like private and investor-owned utilities, in Washington they do pay the public utility tax and a privilege tax in lieu of property taxes. Local municipal taxes charged on utility bills are collected and paid by PUDs in amounts similar to private and investor-owned utilities. Taxes paid by PUDs to local government in the aggregate are roughly the same magnitude. There are special state laws to insure that when a PUD purchases the assets of a privately-owned utility (such as PSE); certain taxing districts can be compensated for any lost tax revenues.

A comparison of certain organizational and service issues with a PUD and a private-owned utility is provided in the following table.

PUD	Private-Owned Utility
Non-profit municipal corporation of the State of Washington, rates at cost	For-profit corporation, rates are cost plus a margin for profits
Operated for the benefit of the customers/voters	Operated for the benefit of stockholders
Governed locally	Regulated in Olympia by the Washington Utilities and Transportation Commission (WUTC)
Thurston County specific rates established by TPUD based on local costs of service	Rates are established by the WUTC
Governing & regulatory meetings are open to the public. Records are subject to public records act disclosure.	Board meetings are not public meetings and much WUTC rate case evidence is hidden behind Confidentiality Agreements
Governing Board elected by the voters	Governing Board selected by company owners (in the case of PSE the ultimate owners are mostly foreign corporations outside the USA).
Equity in electric facility assets accumulated on behalf of customer/voters which leads to lower rates	Equity accrues to stockholders who look to dividends and increases in the value of their stock

Establishing an Electric PUD in Thurston County

The first major step in establishing electric authority for the PUD in Thurston County will be an affirmative vote of the people of the County, as required by RCW 54.08.070. The Thurston County Auditor has validated sufficient signatures presented by a group of citizens not affiliated with TPUD to place a measure on the November 6, 2012 general election ballot. Assuming an affirmative vote of the people, the next major step will be a determination by the TPUD Commission as to whether or not TPUD shall provide electric service and when, if at all. Assuming they decide to provide such service they will need to determine an electric service territory, negotiate a wholesale power purchase contract and a transmission services contract with BPA, determine through negotiation or litigation which, if any facilities will be acquired from PSE, arrange for financing, and implement an organizational start-up plan.

TPUD has requested that DHA examine a number of service territory options that represent partial county service as a way of managing the transition from PSE to TPUD taking on a gradually increasing role in providing electric service. There is no implied priority to the order of the options as they are presented. The principal options studied are:

1. Building new distribution and substation facilities to service Yelm, but providing bulk transmission from the City of Centralia 69 kV transmission line. This preliminary business assessment indicates ten-year cumulative savings of $10,025,000.

2. Building a new TPUD substation near the BPA Trosper Road substation, subtransmission distribution lines, step-down 24.9 kV to 12.47 kV subtransmission stations, and distribution within the commercial/governmental central core of the County located from the State Capitol Campus north to the Port of Olympia. This preliminary business assessment indicates ten-year cumulative savings of $18,720,000, much of which would directly benefit State government as the largest user of electric power in the proposed service territory.

3. Acquiring transmission, substation, and distribution facilities from PSE for a limited area along the I-5 & Highway 101 corridor, which is principally the core of Tumwater and north to the Port of Olympia. This preliminary business assessment indicates ten-year cumulative savings of $215,710,000, much of which would directly benefit State government as the largest user of electric power in the proposed service territory, along with commercial and industrial customers.

As with most Pacific Northwest electric utilities, the most significant annual operating expense that the District's electric system will incur is the cost of wholesale power. Typically for an electric PUD, purchased power represents half the budget and rates. Upon fulfillment of certain criteria primarily related to establishing ownership of its distribution system, the District will be entitled to purchase power from the Bonneville Power Administration (BPA) as a preference customer. BPA principally markets the power generated by the Federal Columbia River Power System to publicly-owned and cooperatives, which are typically large wholesale uses of electricity. The District can reasonably expect to purchase a significant portion of its power supply from BPA at BPA's lowest cost of power, which is the priority firm power rate, also referred to as Tier 1 power. Initial service will also establish a "High Water Mark" or maximum allocation of power under the current BPA Tier 1 allocation process through the current BPA contract period. This maximum amount is typically a negotiated amount of electricity set to near the initial year of service electricity requirements.

Estimated Cost to Acquire Facilities

The cost that the District would pay to provide electric service is subject to a number of factors. Based on experience with other utility acquisitions and a review of various issues related to the estimated original cost of the facilities in Thurston County, DHA has estimated two construction business alternative assessments and one purchase business assessment. The construction alternatives would have financing costs from approximately $38.9 million to $46.9 million.

These are replacement cost estimates with no depreciation. The single purchase assessment alternative would be at a negotiated price that typically is between an original cost less depreciation basis and a replacement cost new less depreciation basis. Assuming that the PSE assets are at the high end of traditional purchase price, the entire financing for this alternative would require approximately $141.3 million for the acquisition of PSE assets in the Tumwater core to Port of Olympia alternative.

Total Initial Financing Requirements

The estimated initial financing requirements for the District's electric system include the costs of acquiring the existing electric facilities from PSE or alternately constructing certain new facilities. It includes any cost related to separation of the District's system from that of PSE, legal and consulting fees, startup costs and working capital. It is assumed for purposes of analysis that the District would finance all but the PSE acquisition fees with the issuance of tax exempt revenue bonds. That portion that would be associated with any PSE purchased assets would be financed with taxable bonds. The PUD could refinance or seek alternate methods of reducing interest costs on the taxable bonds at the first opportunity. Costs of constructing new facilities for separation, purchases of equipment, inventories, supplies and other related costs are assumed to be financed with loans carrying tax-exempt interest rates. Certain costs associated with the issuance of revenue bonds, such as the funding of a bond reserve fund, would also be incurred.

The total initial financing requirement includes the estimated cost to acquire or construct the transmission, substation, and distribution facilities, pay legal and consulting fees, pay the costs of system separation and pay various startup costs based on the service territory options discussed with the TPUD Commission. Preliminary discussions with investment bankers indicate that the District could reasonably expect to finance a bond issuance of this magnitude in the time frame contemplated. Thirty year category "A" rated revenue bonds with level debt service have been assumed for this analysis. The interest rates assumed are 4.5% for tax-exempt bonds and 6.0% for taxable bonds. These assumed interest rates are higher than current interest rates.

Estimated Benefits with the PUD

The economic feasibility evaluation is based on a ten-year cost comparison of the cost of continued electric service with PSE compared to the cost of electric service from the District assuming the District were to begin operation in 2016 and establish rates sufficient to pay all its operating costs, taxes, debt service and fund on-going renewals and replacement expenditures. This study is not a "best estimate" rate projection of each utility. If it were, then lower estimates of acquisition, construction, and start-up cost would potentially be used.

Acknowledging current PSE rates and providing for modest future inflation-based increases in PSE rates and certain other conservative assumptions, it is estimated that the District could provide electric service at rates that are initially at or slightly lower than PSE's rates. The TPUD electric rates would increase more slowly than those of PSE as TPUD's renewals are financed

with low cost capital from tax exempt bonds and as BPA rates would potentially grow more slowly than PSE's cost of wholesale power. In reality, alternate debt service schedules, better coordination with BPA of the electric service starting date and a more realistic PSE asset acquisition cost could likely result in lower rates for TPUD electric service.

Although a number of factors would affect electric rates, over time the District's charges for electric service are estimated to be lower than PSE's charges. Based on the assumptions used in our analysis, it is estimated that the total net present value savings in charges for District-provided electric service over the first ten years of District operation are $166,761,000 for the third alternative, which is the large PSE asset purchase. This indicates that even with relatively conservative assumptions used in the analysis, a PUD electric system is economically viable.

For a new electric utility like the District, a significant cost will be interest and principal payments on the debt undertaken to buy the electric facilities and startup the electric utility operation. Electric PUDs that have been in operation for many years generally have lower outstanding debt burdens although they may have higher maintenance costs for aging systems and, as such, have historically resulted in lower costs and lower electric rates, as compared to private and investor-owned electric utilities. This is similar to the purchase of a first home, where the initial savings over renting are very modest, but over time the benefits of ownership build.

TABLE 1
Summary of District Electric System Options

Alternative	Approximate Customers in 2016	Approximate Load MWa in 2016	Type	Description	Estimated Initial Financing	Estimated 10-year cumulative savings
1	3,538	9	Build	Yelm system	$41,939,000	$10,025,000
2	1,457	15	Build	Capitol Campus north to Port of Olympia system	$50,528,000	$18,720,000
3	20,140	78	Acquire	I-5 to Highway 101 Tumwater core to Port of Olympia system	$153,691,000	$215,710,000

Other Considerations

With electric service provided by a PUD, all aspects of utility operation are controlled locally. Regular meetings of the PUD Commissioners are open to the public. Local control has in the

past been a significant factor in the decision by other communities to establish consumer-owned electric utilities. Locally controlled public utilities can offer lower rates by reducing the amount of money that leaves their service territory and indirectly frees additional funds for local economic development.

There have been a number of new consumer-owned electric utilities established nationwide in the past 25 years (See Appendix B). Successful formation of publicly-owned utilities is not unique. Three relatively new Pacific Northwest municipal electric utilities established between 1983 and 2001 that have lower electric rates when compared to the utilities they formed from.

Two important points need to be made in regards to this business assessment and the approach being taken by the District. The first is that even if the District decides to undertake providing electric service, without a willing seller, it would likely take at least three to four years from the time such a decision is made until power is provided to Thurston County customers. TPUD would gain input from customers, elected officials or their representatives, and stakeholders throughout the entire process. This should include environmental groups, business associations and the media. The second point is that there will be many decision points between now and such a potential day of service. In that time there could be changes in economic or technical factors that could cause the District to decide not to pursue providing electric service.

The PUD requested comments from interested parties, including Puget Sound Energy, regarding the initial draft report of this document and no comments were received.

It is important to note that a number of assumptions and estimates were made during the preparation of this study. As conditions change or more information becomes known, the PUD should update this assessment. All three service territory options examined appear to provide significant economic benefits. The principal reasons for this are driven by two factors: cost of capital and wholesale power rates.

TPUD's cost of capital is significantly less that PSE. In the two "construction of new facilities" or "build" alternatives, the tax exempt cost of money is 4.5%, while PSE's allowed rate of return is 7.80%. Electric utilities by their nature are capital intense operations. For the acquisition alternative the TPUD cost of money, based on mostly taxable revenue bonds is 6.0%, but some of the costs can be financed with tax-exempt bonds. This weighted cost of debt is still quite a bit below PSE's 7.80% allowed rate of return.

Similarly, in the first two alternatives that involve construction, the entire TPUD initial load should be served by BPA's low cost Tier 1 power. PSE on the other hand has a higher average system cost of wholesale power. In the third alternative (Tumwater to Port of Olympia), TPUD would have most of its initial wholesale power at the low BPA Tier 1 rate in the first two years of operation and more of its wholesale power up to its "High Water Mark" or total 2016 annual electricity requirements at the low BPA Tier 1 rate in subsequent years. We have assumed that BPA Tier 2 power is 15% more expensive than their Tier 1 power, although currently it is much closer. In the first two alternatives load growth will be purchased at Tier 2 wholesale power costs. In the third alternative once the 2018 BPA rate increase occurs, TPUD will be able to

purchase its full "High Water Mark" or 2016 requirements at BPA low cost Tier 1 rates with load growth above 2016 wholesale power requirements being purchased at the BPA Tier 2 rate.

The combination of low financing costs and wholesale power allow all three alternatives to provide economic benefits for TPUD electric operation. When the lower rate economic benefits are combined with the benefits of local control, greater accountability and transparency, an electric service PUD is beneficial to the community, which is a primary reason why so many counties in Washington State have electric PUDs.

Section 1
Introduction and Conclusions

Introduction

Background

Electric service is currently provided to the residents and businesses in Thurston County (County) by four electric utilities: (1) Puget Sound Energy (PSE), a privately-owned electric utility headquartered in Bellevue, Washington, and to a significantly lesser extent by the (2) City of Centralia, a municipally owned electric utility, (3) Lewis County PUD, and (4) Grays Harbor County PUD. The Bonneville Power Administration (BPA) also has wholesale electric power facilities within Thurston County. Most of the population within Thurston County is served by PSE.

The Commissioners of Public Utility District No. 1 of Thurston County (Thurston County PUD, TPUD or the District), based on input from a public meeting held in January 2012, decided to perform a business assessment related to the District providing electric service to certain businesses and residents. D. Hittle & Associates, Inc. (DHA) was retained by the District in May 2012 to provide a study of the various technical and economic issues associated with the District providing electric service within Thurston County. DHA has gathered information and explored options for the District to evaluate before it considers either acquiring any electric facilities or constructing any electric facilities in the County.

PSE serves most of the electric customers in Thurston County. They have indicated that they do not wish to sell their facilities. PSE has over 119,000 electric customers in Thurston County, 1,538 miles of overhead distribution lines, and 1,231 miles of underground power cable, 182 miles of transmission lines, 30 distribution substations and 6 transmission substations in the County. Puget Sound Energy, Inc. is a Bellevue based electric and natural gas utility principally regulated by the WUTC. All of the voting stock of Puget Sound Energy Inc. is held by Puget Energy, Inc. All of the voting stock of Puget Energy Inc. is held by Puget Equico LLC an indirect wholly-owned subsidiary of Puget Holdings LLC. Puget Holdings LLC is owned by a number of infrastructure investors, principally foreign pension and investment firms (Macquarie Infrastructure Partners I, Macquarie Infrastructure Partners II, Macquarie Capital Group Limited, Macquarie-FSS Infrastructure Trust, the British Columbia Investment Management Corporation, the Canadian Pension Plan Investment Board, and the Alberta Investment Management Corporation). Macquarie is an Australian-based investment firm (see organization chart in Appendix C).

Public Utility District No. 1 of Thurston County (the "District," Thurston County PUD or "TPUD") was established by a vote of the people in 1938 and does not presently provide electric service. The District has approximately 3,200 customers, and manages other water systems serving 950 customers. TPUD provides water planning and utility services to the citizens of Thurston County. TPUD owns and operates water systems in Pierce, Lewis counties, and service customers in Grays Harbor (37), and Mason (25) counties.

The Thurston County Auditor has verified that there are sufficient valid signatures collected by a citizens group to qualify an initiative on the November 6, 2012 General Election. If passed by the voters of Thurston County the initiative would give TPUD authority to provide electric service in Thurston County. The language of the ballot measure is, "Shall Public Utility District No. 1 of Thurston County construct or acquire electric facilities for the generation, transmission or distribution of electric power? Yes No."

TPUD has retained DHA to provide a business assessment to study the cost benefits of providing electric service to an area roughly 50 MWa (438,000 MWH per year) or less. The perspective of this study is to provide information how TPUD could transition into electric service though an initial service territory of a small portion of the County. Small electric utilities receive economic benefits from BPA that larger utilities do not. To study whether TPUD can offer rates comparable to or less than PSE with a similar or better level of reliability, we have looked at the cost and benefits of three alternatives or options. Other options or combinations of options are also possible.

In past PUD electric authority elections, there has been significant disagreement over costs associated with creation of a new electric service PUD. In some cases the PUD's were formed via negotiations with an existing utility and in other cases PUD's have been formed as a result of a court supervised acquisition process.

Three alternatives were examined in this study. Two were based on construction of new electric distribution facilities and one was based principally on acquiring existing electric distribution facilities. The first approach is to assume that if given electric authority and it had appropriate economic benefits, TPUD would construct its own electric system in a portion of the County where there is favorable geographic access to BPA wholesale power. Because PSE has stated that they will not sell their assets, this is a logical alternative to test the underlying economics of TPUD electric service. Construction may be favored if PSE does not wish to sell, and the Commission wishes to avoid an expensive and lengthy legal process. TPUD requested a study of service areas of approximately 50 MWa or less, rather than larger service territories so that the PUD can initiate the electric utility business on a small scale.

Similarly, PSE has publicly stated their assets have a very high potential purchase price. This stated price is so high that PUD officials would likely make appropriate business decisions to build rather than purchase. Two such potential service territories were selected for this construction or build alternative: (1) service to the City of Yelm area and (2) service to an area that represents the commercial/governmental central core of the County located from the Capitol Campus to the Port of Olympia.

A second basic approach was examined and was based on acquiring electric assets of other utilities. The second approach, which is the third alternative studied, was to acquire through either negotiations or litigation some of the assets of PSE.

Specifically, the electric service territory for this acquisition alternative, which should provide the most economic benefit to the citizens of Thurston County, would be service along the I-5 &

Highway 101 corridor. It is principally the core of Tumwater and north to the Port of Olympia. This area was chosen for three reasons. First, it would be approximately the 50 MWa size that the Commission directed be studied, based on expected availability of low-cost power from BPA. Second, it would be relatively easy to physically serve from the BPA Olympia or Trosper Road Substation, so as to keep facility and PSE separation costs at a minimum. Finally, due to PSE's rate structure and the size of the load in this service area, TPUD service to this area would provide the greatest economic benefit to the County businesses, government agencies and residents. This would be from directing lower electric costs on power obtained from BPA to key government agencies along with business and non-profit organizations and some citizens. The broad economic benefit would also occur from lower costs to those government agencies (non profits and commercial businesses) that would allow for either greater employment and more services or reduced tax requirements of government.

An important concept to understand is how PSE and electric utilities set their electric rates. PSE's rates are set and approved by the WUTC. Generally, PSE's electric rates are significantly higher than most publicly-owned electric utilities. PSE allocates costs to different classes of service and/or rate schedules. These customer groups are generally residential, commercial and industrial classes of customers. A specific feature of PSE rates is the residential exchange credit which is an outcome of certain BPA contracts that were initially designed to flow some of the financial advantages of lower BPA wholesale power rates to the residential and small farm customers of private utilities in the Pacific Northwest. To some extent, PSE's residential and small farm customers have had their rates mitigated through this credit. This has helped PSE's residential rates remain only slightly higher to comparable rates of PUD's and city-owned utilities. However, that also means that PSE's commercial and industrial rates have tended to be less competitive because, PSE's average wholesale cost of power is higher than the BPA preference (Tier 1) cost of wholesale power that PUD's can purchase. Commercial, governmental and industrial customers of private utilities do not receive exchange benefits. PUD's with access to BPA preference power have an economic advantage over privately held utilities like PSE or investor-owned utilities like Avista Utilities. This is especially true in their commercial, governmental and industrial retail electric rates.

The various alternatives being explored in this report are designed to explore service to a fairly typical mix of residential and commercial customers in a small utility setting, such as Yelm as well as a heavy commercial and government services mix such as the governmental core area from the State Capitol Campus north to the Port properties in Olympia. Both of these alternatives would not necessarily involve the purchase of any PSE facilities, but would be new facilities constructed and installed by TPUD to provide more reliable electric service. They would be principally underground construction, which would be environmentally sound and reduce the potential for outages during storm conditions. The other major alternative being evaluated and the largest of the alternatives would be an acquisition of assets from PSE to serve the Tumwater core area and northward to the Port of Olympia. This would involve some new transmission lines and some reconfiguring of PSE distribution feeders.

It is important to note that even if the District is given electric authority by the voters, the Commissioners will need to examine the detailed economics and receive input during public

meetings before making any decisions about providing electric service. A key schedule constraint to providing electric service will be negotiations with BPA on a power Sales Contract and satisfying the appropriate notice periods BPA has established. That means that full BPA electric wholesale power at BPA's lowest rates would not be available for three years, if loads exceed 10 average megawatts of energy (87,600 MWH per year), but are less than 50 average megawatts of energy. The size of the utility service territories studied was chosen so that they would be able to gain full or nearly full amounts of BPA preference (Tier 1) wholesale electric power within three to five years of a contract application to BPA.

The voters of Jefferson County authorized the Jefferson County PUD to provide electric service in November 2008. Jefferson County PUD has negotiated with PSE on the purchase of assets and will begin providing electric service in March 31, 2013, representing a planning and implementation period of approximately 53 months. Of this time approximately 19 months elapsed prior to the signing of an asset purchase agreement with PSE.

For purposes of our analysis we have assumed a favorable vote in November 2012 and initial operation for TPUD electric service sometime in 2016, which is slightly faster than the time taken by Jefferson County PUD. As such we are assuming for our analysis about 40 months or nearly three and a half years for initiation of electric service by TPUD. Some of the alternatives studied could be implemented in a faster timeframe. While a faster timeframe could occur, TPUD has requested a schedule that allows for TPUD to hold public meetings and sufficient time to provide BPA with planning information on meeting its conditions of service along with time to either negotiate with utilities or construct new facilities. The nearly three and a half year time frame should allow for this.

Currently the District is an operating entity, it has staff, and it has procedures in place for issuing contracts, billing customers for service, issuing bonds, and other important functions. The District staff and Commission are also educating themselves on a variety of electric service issues through this study and other activities. As such, the District will be ready to deliberate, refine studies and publicly take steps to potential implement electric authority, should it receive voter approval.

There will be many decision points if the District moves toward potentially establishing an electric utility. There may be changes in economic or technical factors that could cause the District to decide not to pursue providing electric service. As such, the approach being taken is to perform some analysis now prior to the election, and then as more information is known refine the various economics and risks.

The prudent approach will be to use a thoughtful and deliberative process that incrementally investigates future options as future conditions reveal themselves. The analysis within this report is therefore preliminary in nature and designed to capture sufficient information to move forward to the next decision point.

What is a PUD?

Public Utility Districts (PUDs) are nonprofit, community-owned and community-governed utilities that provide electricity, water, wholesale telecommunications and sewer service. They are municipal corporations of the State of Washington. The voters in each Washington County have the right to form a PUD. There are 28 operating PUDs in 27 counties in Washington State which provide electric service to approximately 900,000 customers and water service to approximately 115,000 customers in their respective service areas. Thurston County Public Utility District was established by voters in 1938, and although it has considered providing electric service in the past, it does not presently provide such electric service. Thurston PUD does however, perform many functions similar to those found within an electric utility such as setting rates, issuing utility bills, paying various utility taxes, managing maintenance programs, issuing bonds, preparing budgets, hiring attorneys and consultants, and performing engineering studies.

The District is governed by three Commissioners that are elected by the voters of Thurston County. The Commissioners of the PUD establish policy, hold hearings to gather public input, set rates, approve budgets and expenditures, establish rates for services, hire and supervise the general manager, and provide oversight of the utility. PUDs are self-regulated and as such, are not regulated by the Washington Utilities and Transportation Commission (WUTC). Accountability to the citizen-owners and voters of the PUD rests with the elected PUD Commissioners, providing far more direct and local accountability between the customers and the operators of an electric utility than exists with most private and investor-owned utilities. A PUD combines the public interest benefit of nonprofit operation with low cost financing methods similarly available to a municipality or city.

PUDs are governed by the Revised Code of Washington (RCW) Title 54 and other laws of the State of Washington. Pursuant to RCW 54.08.070, "at any general election held in an even-numbered year, the proposal to construct or acquire electric facilities may be submitted to the voters of the district by resolution of the public utility district commission or shall be submitted to the voters of the district by the county legislative authority on petition of ten percent of the qualified electors of such district …" Earlier this year, a group of citizens not affiliated with TPUD circulated petitions requesting a referendum related to PUD electric service be submitted to the voters in the general election this coming November 6, 2012. Sufficient valid signatures were collected and verified by the Thurston County Auditor to place the ballot measure in the November general election.

Assuming an affirmative vote of the people, the next major steps will be to determine: (a) if the Commission determines to proceed with electric authority, (b) an electric service territory, (c) negotiate a power purchase contract and a transmission services contracts with BPA, (d) determine through negotiation or litigation which, if any facilities will be acquired from other utilities, such as PSE, (e) determine what facilities should be constructed, (f) arrange for financing, and (g) implement an organizational start-up plan. These decisions and specific

TPUD actions would be discussed in public meetings and hence be accessible to the public to provide input. It is important to note that TPUD has through Commission Resolution 12-15 stated that property taxes will not be used for acquisitions.

Potential PUD Electric Service Options in Thurston County

Depending on the service territory option(s) chosen by the District, a major element in establishing electric service by the District could be the acquisition of selected electric facilities in Thurston County presently owned by PSE. These facilities could include transmission lines, substations, overhead and underground distribution lines, transformers, service drops, meters and streetlights. In order to effectively deliver power to the PSE distribution substations within Thurston County, the District would need to acquire a subset of PSE's transmission lines within the County or build its own electric infrastructure. In Thurston County, there are various transmission lines owned by PSE, the City of Centralia, and the Bonneville Power Administration (BPA). The District could either acquire some of the PSE lines or it could request transmission access over the lines of PSE or BPA and negotiate "wheeling" contracts under rates approved by appropriate regulatory agencies. PSE transmits a limited amount of power through its transmission lines in Thurston County to other counties and areas it serves. TPUD can also request BPA to provide it with wheeling to the TPUD service territory over PSE facilities, similar to the delivery services that BPA provides to other small publicly/cooperatively owned utilities, such as Tanner Electric, Blaine, Sumas and others.

PSE has a number of franchise agreements that allow it to use public rights of way. Some electric utility transitions in the past from privately-owned utility to publicly-owned utility have occurred near or after the expiration of the local franchise agreements. There are two main reasons for this. First, there is a legal argument that expiration of a franchise, especially when a privately-owned utility has been previously told that a municipal utility is considering serving in the same area provides a notice that limits or negates certain stranded cost arguments by the privately-owned electric utility. Second, at the expiration of a franchise, the hosting government agency (city, town or county) can choose to modify the conditions of a franchise and require utilities to meet the new conditions of the franchise or remove their facilities from public rights of way. While it is true that franchise agreements are generally not exclusive, not discriminatory, and do not grant the holder an exclusive monopoly, they can create obstacles for other electric utilities to use public rights of way, which is one reason why court supervised acquisition is a statutorily option provided to PUD's.

Likewise, some electrical facilities, such as those on the State Capitol Campus do not require a franchise as they are owned by the State, will remain owned by the State and are on State property. Franchise use typically allows facilities to be placed in City or County owned rights of way. In a similar manner distribution facilities across private property or publicly-owned property like that of the Port of Olympia also do not require a City or County franchise agreement.

DHA contacted selected organizations to ascertain the extent of PSE's franchise agreements and when they were expiring. The Thurston County and Bucoda franchise agreements have expired

and the Tumwater, Rainier, Tenino, and Yelm agreements will expire prior to or around our hypothesized service date in 2016. The following is a summary of the franchise information:

Status of Selected Franchise Agreements to Use Public Rights of Way

County/City	PSE Agreement Status	Date Signed	Expiration Date
Thurston County	Expired, negotiations occurring may be renewed after August 2012		Expired
Olympia	Active	April 2009	April 2019
Lacey	Active	Nov. 2006	Nov. 2031
Tumwater	Active	June 1985	June 2015
Yelm	Active	Dec. 1986	Dec. 2016
Rainier	Active	Feb. 1985	Feb. 2015
Tenino	Active	1989	2014
Bucoda	Expired 2005		Expired

TPUD has requested that DHA examine a number of service territory options that represent partial county service as a way of managing the transition from PSE service of most of the County to TPUD taking on a gradually increasing role in providing electric service. There is no priority associated with the order of the options. The principal options studied are:

1. Building new distribution and substation facilities to service Yelm, but acquiring bulk transmission wheeling from the City of Centralia on their 69 kV transmission line, This preliminary business assessment indicates a ten-year cumulative savings of $10,,000.

2. Building a new TPUD substation near the BPA Trosper Road substation, subtransmission distribution lines, step-down 24.9 kV to 12.47 kV subtransmission stations, distribution within the commercial/governmental central core of the County located from the State Capitol Campus north to the Port of Olympia. This preliminary business assessment indicates ten-year cumulative savings of $18,720,000 much of which would directly benefit State government as the largest user of electric power in the proposed service territory.

3. Acquiring transmission**,** substation, and distribution facilities from PSE for a limited area along the I-5 & Highway 101 corridor, which is principally the core of Tumwater and north to the Port of Olympia. This preliminary business assessment indicates ten-year cumulative savings of $215,710,000, much of which would directly benefit State government as the largest user of electric power in the proposed service territory, as well as commercial and industrial firms.

Depending upon which, if any, service territories are chosen there may be the need to construct new electric facilities to either connect to BPA facilities or to modify and separate some of the PSE assets that may be acquired. Historically PSE has stated that its facilities are not for sale, but as recently as June 4, 2010, PSE has sold assets or been ordered by courts to transfer assets to newly forming electric utilities.

One of the principal benefits of the PUD gaining a power supply from BPA will be a likely reduced cost of power to commercial, government, and industrial electric customers. Residential customers will also benefit, but because of the BPA Residential Exchange Program where PSE was initially allowed to sell a quantity of power roughly the size of the rural small farm and residential customer electricity usage at PSE's average system wholesale power cost and repurchase a like amount of power at a lower BPA rate close to the priority firm rate or the Tier 1 rate, some of the benefits of low cost federal power have already flowed to residential customers.

However, the BPA Residential exchange program has undergone extensive changes in the past few years. In particular the Regional Power Act's 7b3 rate test has triggered an alternate calculation and the private utilities' have a surcharge added to the cost of the power they purchase (or exchange with BPA). In the case of PSE as of November 2011, the PSE Average System Cost was $66.07/MWH, the BPA PF Exchange rate was $43.06/MHW, and the 7b3 surcharge was $16.78/MWH, which resulted in a cost to PSE for BPA exchanged power of 59.84 $/MWH. This reduced cost BPA power is less than PSE's Average System Cost for bulk power and so represents a cost saving ($66.07 - $59.84 = $6.23/MWH) that can only be passed on to residential and small farm customers. However, the cost of $59.84/MWH is substantially higher than what preference customers (such as the PUD) would purchase wholesale power from BPA (about $43/MWH).

However, the price difference for commercial, governmental, nonprofit and industrial customers is more significant. As explained above, depending on PUD capital costs and operating costs, a PUD would have a moderate advantage in the cost of serving residential customers based on lower wholesale BPA power costs (on the order of $17/MWH or $0.017/kWh, which is based on 59.84 – 43 $/MWh cost difference). For commercial, governmental, nonprofit and industrial customers, the advantage in wholesale power costs would be more on the order of 23 $MWh or $0.23/kWh (66.07- 43 $/MWh). That is nearly a 35% advantage in wholesale power cost for a PUD over a private utility, like PSE. For a PUD wholesale power costs are typically about half the total electric utility budget.

As such, depending on non-power costs, a PUD has a significant cost advantage over PSE, particularly for commercial, governmental and industrial customers. Typically for most PUD's wholesale power accounts for nearly half of the total electric utility costs and hence retail rates

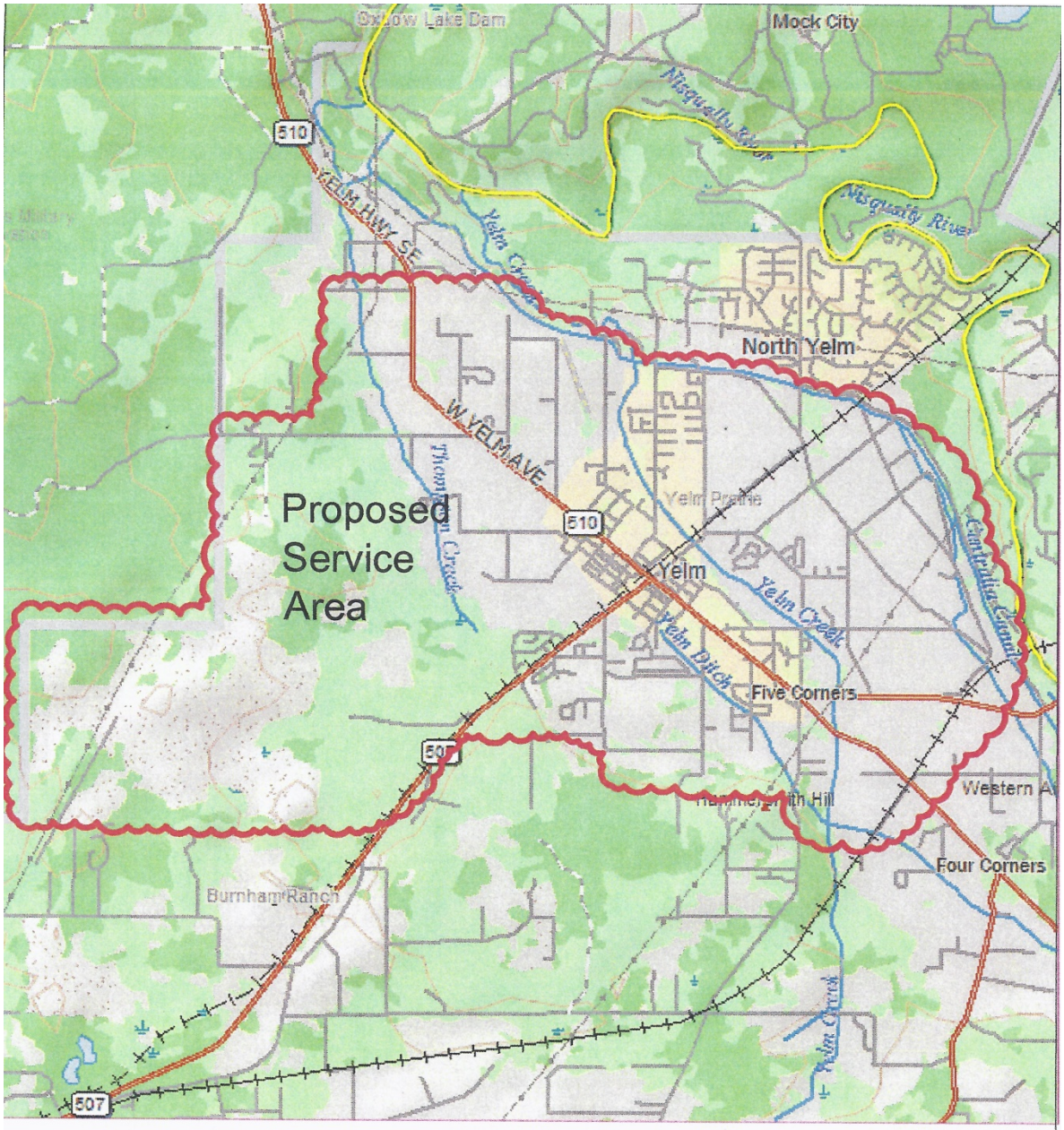
are strongly influenced by slight differences in wholesale power costs. This is why extremely small electric utilities like the City of Sumas with a few hundred customers can have lower retail rates than PSE and why large PUDs, such as Snohomish County PUD, Lewis County PUD, and Grays Harbor County PUD also have retail rates lower than those of PSE. Historic trends and forecasts continue to predict that BPA wholesale power rates will be lower than the Average System Cost of PSE bulk power, due to the high cost of new power supplies. New BPA customers will be under a tiered rate scheme, but the amount of Tier 2 power will small and the incremental cost over Tier 1 power is also expected to be small. Similarly, a reduction in selected PSE Thurston County customers being served by TPUD would reduce PSE's need for new incrementally higher cost bulk power supply, thus mitigating future rate increases for those Thurston County homes, businesses and government agencies that continue to receive service from PSE.

Option 1: Yelm Area

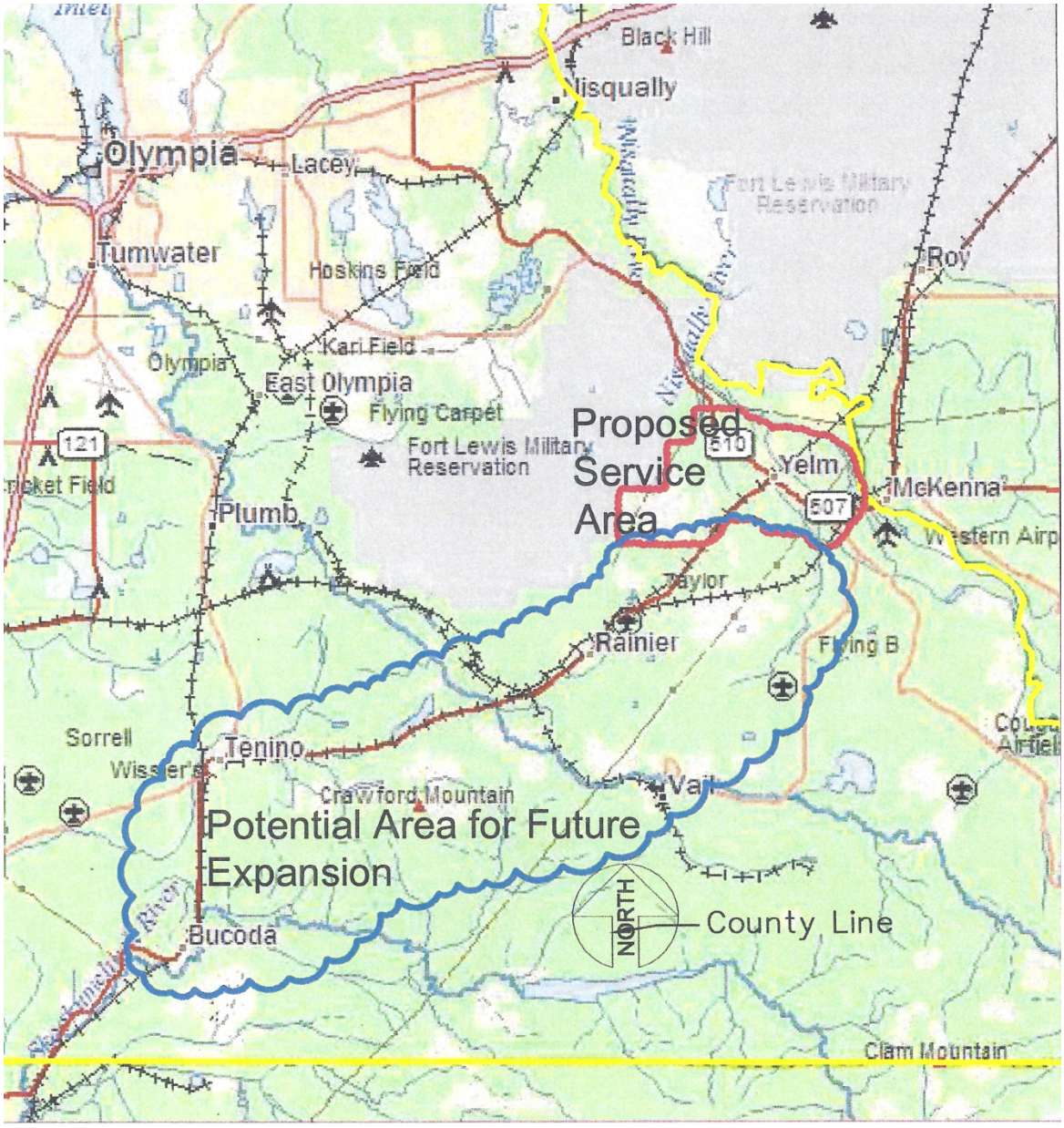
The first option considered was serving Yelm. This option was selected because the City of Centralia owns and operates a 69-kV transmission line between its B Street substation in Centralia and its Yelm hydro project just outside of Yelm on the Nisqually River. This 69 kV transmission line is interconnected to BPA's Prospect Street substation in Centralia via the Centralia B Street substation. This could provide TPUD with a way of gaining transmission access without requiring the use of PSE transmission to the area. PSE currently has a single substation within Yelm and a second substation nearby (the Longmire Substation) to the southwest of town. The Yelm area is estimated to have about 3,538 customers and an electric load of a little more than 9.24 MWa or 81,000 MWh per year. Two substations would be able to serve the City of Yelm, whose franchise with PSE expires in 2016.

We have anticipated two substation banks to provide for substation reliability and multiple distribution feeders to also provide reliability. Bulk power reliability can be provided by power coming either across the 69 kV transmission line from BPA in Centralia or during transmission outages the source of power would be from the Yelm Hydro project on a temporary basis. Reliability is important to the City of Yelm because of its STEP wastewater system, and so in addition to reliability supplied by looped or multiple sources, storm repair staging and contracting would need to be considered. The distribution design is primarily underground. Use of either Centralia, Lewis County PUD and/or Contract crews in addition to TPUD staff should provide comparable or better reliability to that now be provided by PSE.

Once service is established in the Yelm area, it could be expanded toward Rainier, Tenino, and Bucoda with an additional substation along the City of Centralia 69 kV transmission line. This would be a modest incremental capital cost at likely favorable economics once the basic concept is proven.



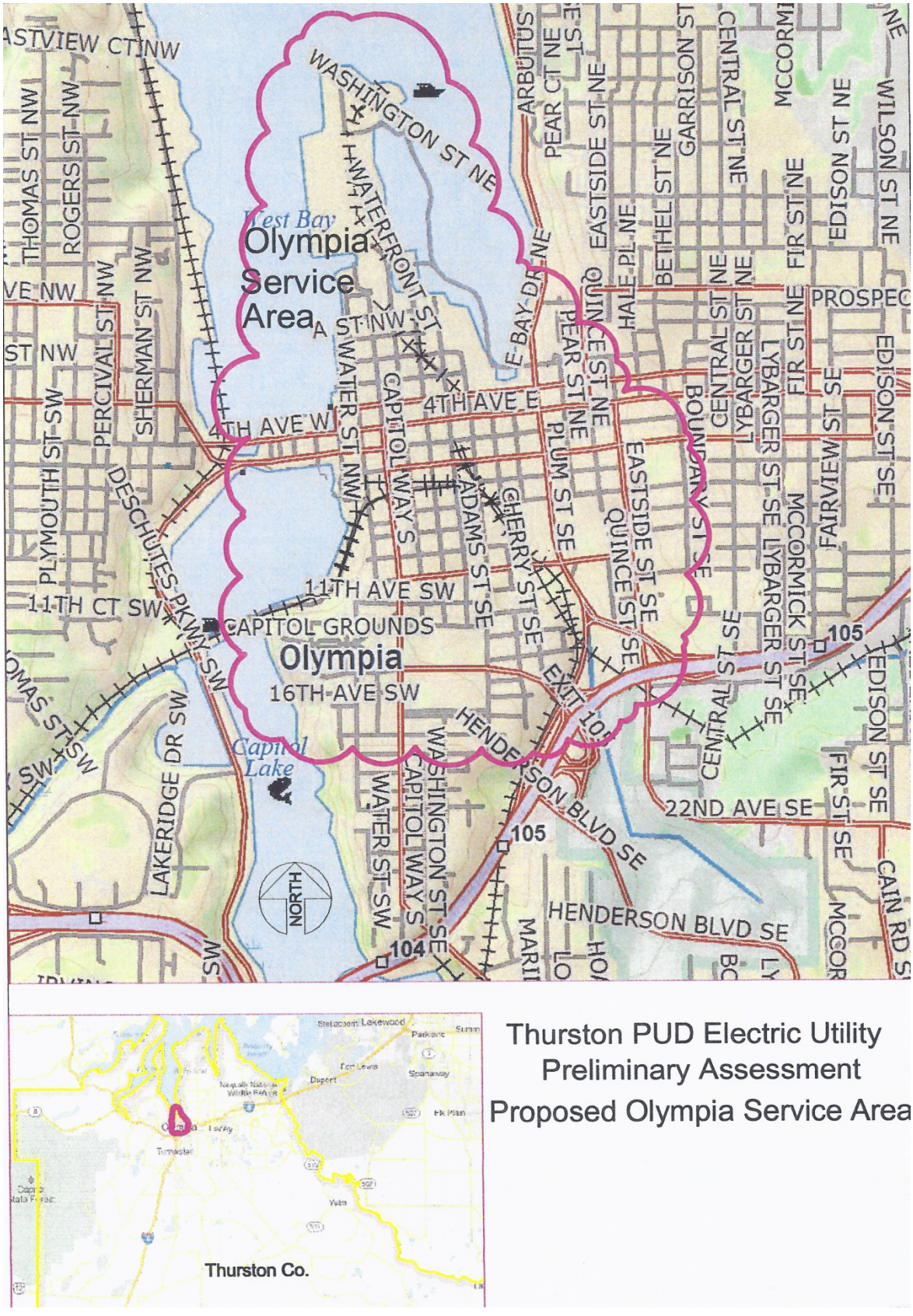
Thurston PUD Electric Utility
Preliminary Assessment
Proposed Yelm Service Area



Thurston PUD Electric Utility
Preliminary Assessment
Proposed Greater Yelm
Service Area and
Future Study Area

Option 2: Capitol Campus to Port of Olympia

The next option is building a new TPUD substation near the BPA Trosper Road substation, subtransmission distribution lines, six step-down 24.9 kV to 12.47 kV subtransmission stations, distribution within the commercial/governmental central core of the County located from the State Capitol Campus north to the Port of Olympia. The BPA Olympia Trosper Road substation is a 500 kV to 230 kV and 115 kV substation. We envision a 115 kV to 24.9 kV TPUD substation, with at least six 24.9 kV underground feeders. There would be four substation sites. One substation site served by two 24.9 kV feeders each taking a different route would be located next to the State of Washington Capitol Campus and provide redundant 24.9 to 12.47 kV voltage step down transformers onto six distribution feeders so that the existing State distribution loads can be served. The second similar substation would be located near the LOTT wastewater treatment facility and be sized and configured for that service. There would be two additional 24.9 kV to 12.47 kV transformer subtransmission stations located either together or on separate properties at locations between the facilities serving the Capitol Campus and the LOTT wastewater plant. No PSE facilities would be required and we envision that TPUD would construct all new facilities. This service territory would have about 1,457 potential customers and an electric load of about 15 MWa of energy. If for some reason either the State or LOTT desired not to be a customer this option could be reconfigured to potentially include the nonprofit hospital and medical facility loads near Saint Peters Hospital, but the initial configuration was selected to quickly reduce the costs of power to government agencies though the use of BPA wholesale power.



Thurston PUD Electric Utility
Preliminary Assessment
Proposed Olympia Service Area

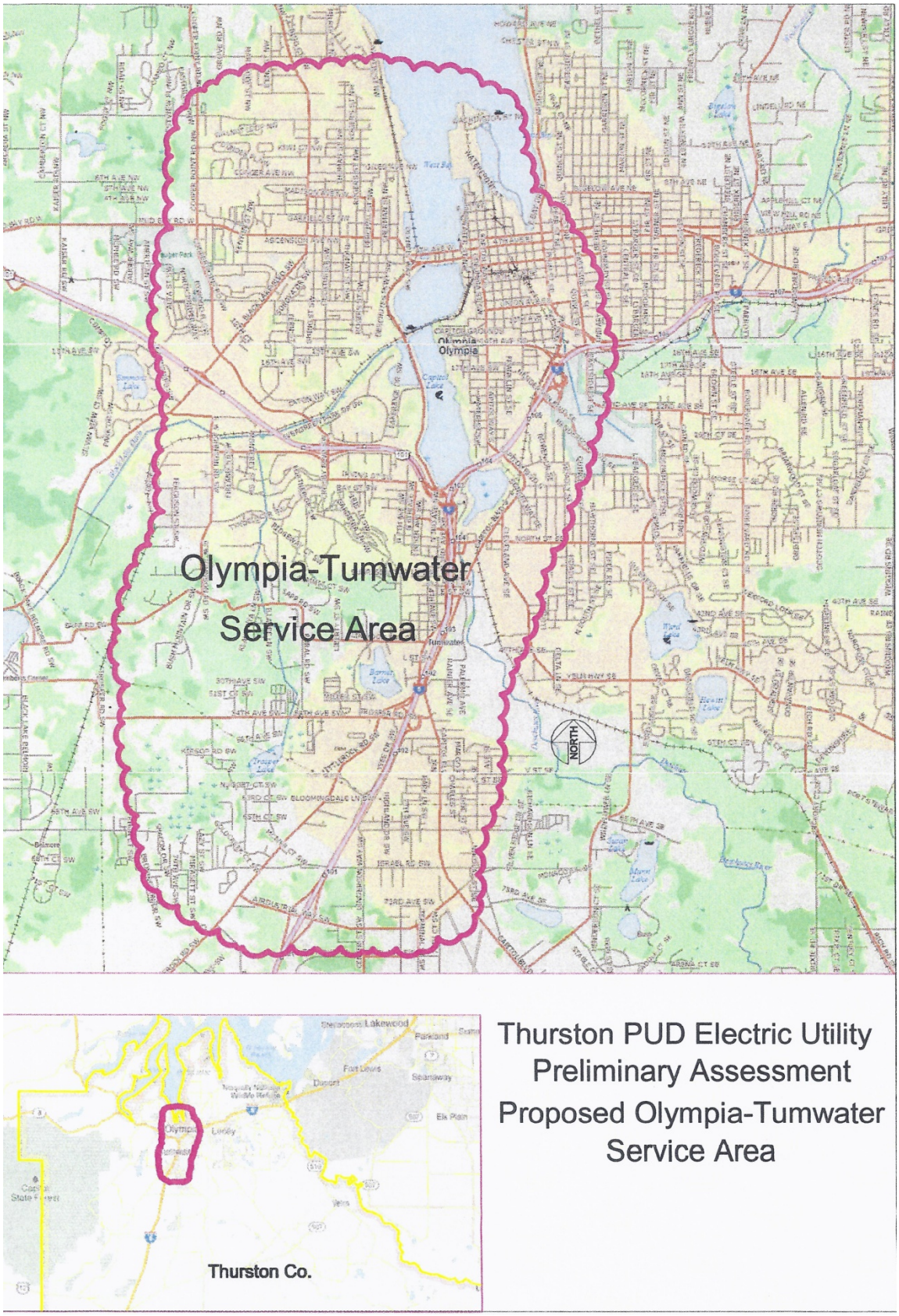
Option 3: Tumwater to Port of Olympia

The third option that a PUD with electric authority could pursue would be to either purchase or acquire PSE assets in the greater Tumwater to Port of Olympia core area along I-5 and Highway 101. The Tumwater to Port of Olympia core has a significant number of commercial, industrial and governmental customers that could benefit from the lower power supply cost, including the State's Capitol Campus (which has its own primary voltage distribution system) and various state, city and county government buildings. This service territory would have about 20,140 customers and an electric load of about 78 MWa of energy. While TPUD would likely be unable to obtain service from BPA for this entire load at the Tier 1 BPA rate, TPUD could acquire power from BPA or other sources for the portion BPA does not initially allocate under Tier 1. The blended wholesale power rate would still be significantly below PSE's average cost of wholesale power. During the subsequent BPA rate period virtually all of the TPUD wholesale power up to the 2016 total electric energy requirements levels (that establish the maximum BPA Tier 1 purchase will be available at Tier 1 rates. Therefore, our modeling shows that TPUD will gain additional low cost BPA Tier 1 power in 2018.

The Tumwater franchise expires in 2015 and the Thurston County franchise for areas outside of Tumwater and Olympia has also already expired. The Olympia franchise expires in 2019. While franchise agreements typically are not exclusive and allow for competing utilities, there are potential advantages to TPUD to purchase or build facilities at a time near or when a PSE franchise has expired.

For this option, a competing franchise within Olympia would need to be obtained, and if PSE was not willing to negotiate a reasonable price, TPUD would have the option of building its own new facilities as in the second option that was evaluated. However, we have assumed that is not the case in this alternative. This option involves acquiring nine PSE substations to serve the loads. It also envisions expending about $6 million to reconfigure some of the distribution feeders for better PSE and TPUD service. The source of power would again be from the BPA Olympia Substation on Trosper Road SW. PSE currently has five substations within Tumwater and so one would expect a similar number would be required by the PUD for service to Tumwater and additional substations would be needed to serve the southern and central core of Olympia. This would include the South Westside, the South Capitol and the Capitol Campus neighborhoods, along with the businesses and industries near Highway 101 and Black Lake Boulevard, and finally the area bounded by Capitol Lake, East Bay and West Bay. Currently PSE has four or five distribution substations principally devoted to this area. We envision some new 115 kV transmission to connect to the BPA substation so that a looped 115 kV transmission feed can be provided.

To be conservative in our economic assumptions, we have further assumed that the PSE assets would be acquired at their RCNLD value, although traditionally, a fair market price is usually between OCLD and RCNLD. Our engineering replacement cost construction estimate has been decreased by an average depreciation rate. Again, the fair market value should be at a negotiated price between OCLD and RCNLD. Therefore, our assumed value should be higher and conservatively reduce the economic benefits of the alternative.



Thurston PUD Electric Utility
Preliminary Assessment
Proposed Olympia-Tumwater
Service Area

PUD Power Supply Overview

As with most Pacific Northwest electric utilities, the most significant annual operating expense that the District's electric system will incur is the cost of wholesale power. For typical distribution electric PUDs, purchased power and transmission wheeling expense represent about half the annual budget. Upon fulfillment of certain criteria primarily related to establishing ownership of its distribution system, the District will be entitled to purchase power from the Bonneville Power Administration (BPA) as a preference customer. BPA principally markets the power generated by the Federal Columbia River Power System, which is mostly the hydropower generated at federal dams. The District can reasonably expect to purchase a significant portion of its power supply from BPA at BPA's lowest cost of power, which is the priority firm power rate, also referred to as the Tier 1 power rate.

BPA had previously indicated that beginning October 2011 its preference customers may need to acquire a portion of their power supply from sources other than Tier 1. This means that a portion of the power that BPA will supply will either need to be at a different (market based) rate or supplied by the utility from non-BPA sources. Initial service will also establish a "High Water Mark" or maximum allocation of power under the current BPA Tier 1 allocation process for the current BPA Power Sales Contract period. In discussions with BPA the "High Water Mark" appears to be in the 95% or higher range of initial loads. It also appears that the cost of BPA supplied Tier 2 power is currently quite similar to Tier 1 power, so the initial impact of tiered rates and the "High Water Mark" are not significant. For a much larger utility or one that will expand significantly under current policies, the "High Water Mark" could be detrimental to the chosen approach of starting with a small system to prove the economic concepts in that it would not negate the analysis, but make future expansion less favorable, unless it was included within the plan submitted to BPA.

In addition to BPA, a number of other opportunities for near-term power supply could be available to the District including power purchases from other utilities, independent generating facilities or power marketers. In the future, the District will most likely continue to purchase power from BPA but will also be able to participate jointly with other utilities in new generation facilities, contract to purchase power from other suppliers and construct new generating facilities of its own including solar, wind and other renewable resources in Thurston County. However, for our initial analysis, we assumed BPA wholesale power.

Utility Industry Restructuring

It is important to note that restructuring of the electric utility industry in the United States over the past three decades prompted many utilities to evaluate their respective competitive positions. Many investor-owned utilities were sold, acquired or merged with other utilities. In the Pacific Northwest, Enron purchased Portland General Electric Company (PGE) in 1997 and after subsequent failed attempts by Enron to sell PGE, PGE became independent in 2006. In 1999, Pacific Power and Light Company was acquired by Scottish Power and then sold to MidAmerican Energy Holdings in 2006. Following a 1997 deregulation bill passed by the Montana legislature, Montana Power Co. sold its hydroelectric generating facilities to

Pennsylvania Power & Light Co. and eventually sold its transmission and distribution facilities to Northwestern Corporation of Sioux Falls, South Dakota.

On February 6, 2009, a consortium of Australian and Canadian investors purchased Puget Sound Energy for $7.4 billion or $30 per share, which sold at a significant premium to the market price at the time the consortium initiated its bid for PSE. The consortium is headed by the Macquarie Infrastructure Partners and included three Canadian pension funds. The sale was approved (with 78 conditions and commitments) by the Washington Utility and Transportation Commission which regulates PSE on December 30, 2008.

The restructuring movement has prompted cities and other municipal entities nationwide to evaluate electric service in their communities. In order to assure reliable, cost effective electric service, as well as allow for local community-focused input as to how electric service is provided in their communities, many of these entities have studied the potential acquisition of the electric system facilities from the existing utility. Appendix B attached to this report is a list provided by the American Public Power Association of new consumer-owned electric utilities that have been formed since 1973. The list includes 85 publicly-owned electric utilities.

Study Methodology

Data Sources

Most of the data used in the study is from publicly available reports and other sources. Much of the data comes from Comprehensive Plans of various cities and Thurston County. Other information comes from public records associated with PSE, Jefferson County PUD, the State of Washington Department of Revenue, the Washington Utilities and Transportation Commission, and selected statistics on PUD's compiled by the Washington PUD Association.

Should the District's Commissioners be given authority by the voters of Thurston County to move forward and should Commissioners decide at public meetings to either a negotiated or contested acquisition of PSE's facilities, a much more detailed assessment of facility quantities and costs would be derived in subsequent studies and analyses. If the development of the District's electric utility proceeds and access to PSE's customer sales and facility inventory records can be obtained, a detailed inventory and age identification of various PSE assets within Thurston County would potentially be developed that could be quite specific.

For the purpose of this study, the determination of electric facilities to be acquired was based on a cursory review of PSE's transmission and distribution system in and around Thurston County, based on the instructions provided by the TPUD Commission to examine certain selected alternatives. The length of transmission lines was estimated and the number and capacity of substations was quantified. For the purpose of evaluating the investment in distribution feeders, service drops, meters and other distribution facilities, average investment in its distribution system on a per customer or per mile basis was estimated based on a comparison of construction cost data and typical unit cost information for the type of construction and its predominate characteristics. Data was applied to the number of customers estimated to be located in the

District's service territory alternatives. It is expected that the District would finance the initial acquisition and startup costs with the issuance of a combination of taxable[1] and tax-exempt revenue bonds, although certain options where there is not purchase of PSE assets would involve only tax-exempt bonds.

A total count of the number of electric customers located in the various Thurston County service territory options was estimated based on either evaluations of Google Earth or household information from comprehensive plans and zoning maps. The total power requirements of the electric customers in the Thurston County service territory options at current levels have been estimated based typical energy PSE consumption values or public records.

The estimated costs the District would experience for power purchases, system operation and maintenance, customer accounting and administration included in the analysis have been based on costs experienced by other publicly-owned electric utilities in the Pacific Northwest. It is assumed that the District would conduct its own billing and accounting activities and would provide in-person customer service for bill paying, hookup requests and other services. These billing and accounting functions should integrate well with the District's current water customer accounting and customer service system. In addition to operating expenses, annual debt service payments and funds for annual capital improvement expenditures were included in the projected revenue requirements.

BPA Power Supply Issues

It is within the Bonneville Power Administration (BPA) Administrator's discretion to decide and establish the applicable standards for service to a new utility. BPA has traditionally made its determination regarding compliance with BPA standards for service on a case-by-case basis. One of BPA's long standing standards for purchasing Federal power requires a customer to own the distribution facilities necessary and used to serve such customer's retail consumers. This standard applies to public body, cooperative, and privately-owned utilities selling to the general public and to federal agencies.

In 2000, BPA defined its criteria for qualification to purchase power from BPA as a "preference customer"[2]. These criteria as presently in effect and as modified by the "Long-Term Regional Dialogue Policy," indicate that BPA will supply up to 250 average megawatts at its lowest cost priority firm power rate (Tier 1) to new public utilities for the term of its next power sales contracts (2012 to 2028). The policies for implementation of the provisions of the Regional Dialogue have been finalized. Within the 250 average megawatt block of reserved power, is a 50 average megawatt block of power for Indian Tribal utilities. BPA has also stated that the 250

[1] Although the District would normally be able to issue tax-exempt bonds, federal tax laws would preclude the use of tax-exempt financing to fund the acquisition of existing electric facilities previously owned by a privately-owned utility. Tax-exempt bonds would be desirable because they would have a lower interest rate. Tax-exempt bonds could be used for any facilities that the District builds or new trucks or buildings it acquires. There are also ways to transfer the tax exemption benefits onto leases of new facilities from private firms. It may be possible for the District to refinance the taxable bonds at some point after starting operation.

[2] United States Department of Energy, Bonneville Power Administration, Policy Decision Regarding Bonneville Power Administration's Standards for Service dated January 13, 2000.

average megawatt block of power will be made available in 50 average megawatt blocks per rate period and that the power will be allocated on generally a first come first served basis, with an exception for electric utilities under 10 average megawatts, which will be served more quickly and will be provided with a greater percentage of their amount, should the 250 average megawatt block of power be oversubscribed by new preference utilities. Jefferson County PUD will use most of the first 50 MWa of the reserved block of 250 MWa power, which will leave a substantial amount of power available for other new public utilities in later rate periods.

For the purpose of estimating the cost of power to the District in this analysis, it has been assumed that the District would purchase its entire power supply requirement from BPA. Under current BPA policy and past BPA precedents, a power purchase from BPA would entail both Tier 1 power and historically more expensive Tier 2 or market priced power. Currently market priced power is at about the same price or in some cases lower than Tier 1 power from BPA. To be conservative we have assumed that BPA Tier 2 power is 15% more expensive than BPA Tier 1 power.

As a result, and consistent with load "phase-in" examples in the BPA Regional Dialogue and Tiered Rate Methodology (TRM), toward the end of the forecast period within the study, the District is assumed to be able to purchase most of its power at the BPA preference rate similar to all other preference customers depending on the specific service territory assumed. The District should be able to plan its initial operation accordingly to minimize higher Tier 2, targeted adjustment charge (TAC), or minimize risk exposure to market priced power rates[3]. The BPA rate assumptions include the most recently announced rate change which is now forecast by BPA to be below a 10 percent increase.

Projections of operating costs, debt service and other costs for the District's electric system have been made on an annual basis for the first ten years of electric utility operation. For the purpose of this analysis, it has been assumed that the first year of operation would be late 2016, after the PSE Tumwater franchise has expired and almost four years after a November 2012 vote, should the voters give the PUD electric authority. Although specific projected values would change, it is not expected that the overall outcome of the analysis would vary significantly if the assumed first year of operation were different.

It should be noted that this study has not addressed legal issues that may affect the District's ability to pursue electric utility ownership and operation. Legal costs are a significant contingency, although we have included money for legal expenses in each alternative.

[3] Depending on the timing of the BPA rate cycle and initial operation, power purchased from BPA by a new preference customer may be priced at the priority firm rate plus the targeted adjustment charge (TAC), the combination of which is estimated to be approximately the rate for firm power on the open market.

Section 2
Estimated Cost of Electric Facilities

Electric Facilities to be Acquired and Separation of Systems

The District's electric utility would serve the portion of Thurston County currently served by PSE that coincides with the service territory option chosen by TPUD. The electric facilities located within the proposed service territory include transmission lines, substations, overhead and underground distribution lines, poles, transformers, vaults, service drops, meters, streetlights and any ancillary distribution system facilities. PSE's transmission system in Thurston County includes principally 115-kilovolt (kV) lines with some 230 kV lines. PSE has identified that it has over 119,000 electric customers in Thurston County and 1,538 miles of overhead distribution lines, 1,231 miles of underground power cable, 182 miles of transmission lines, 30 distribution substations and 6 transmission substations.

We have examined one-line system diagrams and other descriptions of the electric systems in Thurston County, certain Thurston County comprehensive plan information, public information about Puget Sound Energy, and recent publically available cost numbers from the negotiated purchase of PSE assets by Jefferson County PUD. Based on this information we have determined the quantities and approximate sizes of transmission and substation facilities that PSE now has in place within Thurston County within the service territory options outlined.

Based on this information, we estimate a range of costs for each of the service territories identified within Thurston County. For the alternative that involved the purchase of PSE assets, we used an estimated replacement cost new less depreciation (RCNLD) value as opposed to a more reasonable estimate of between original cost less depreciation (OCLD) and RCNLD. Most acquisitions fall in the range between OCLD and RCNLD. Until a definitive decision is made on the precise service territory, and PSE asset data or an inventory is taken, the cost analysis should be within the RCNLD value and below an allocated percentage of total Thurston County PSE assets market value, as determined by the Department of Revenue.

Estimated Cost of Electric Facilities

An appraisal of the value of electric facilities to be acquired by the District for its electric system has not been conducted by the District. Such an appraisal would rely upon a detailed description of the facilities to be acquired and will potentially be needed if the District proceeds towards acquisition of the PSE system in its service territory. For the purpose of this analysis, the cost the District would pay for the acquired facilities should be estimated to be between the original cost less depreciation (OCLD) value and the replacement cost new less depreciation (RCNLD) value of the electric facilities. OCLD is defined as the original cost of the property when it was first put into service as a public utility, less accrued depreciation.

While we feel that the appropriate value should be between OCLD and RCNLD, to be conservative for the one alternative in which PSE assets are being purchased we have assume

RCNLD as the negotiated price. Use of the PUD's power of eminent domain could result in a much lower court imposed price although there would be costs associated with legal fees and delays, which is why we have concentrated on construction alternatives.

The OCLD value is an estimate of the net book value of property, which in general, is approximately the rate base value of the property for ratemaking purposes. For regulated properties such as the facilities to be acquired by the District, the rate base value generally is the portion of the original investment cost which the utility has not yet recovered through rate charges paid by its customers.

RCW 54.16.020 states that "in a condemnation proceeding, the court shall submit to the jury the values placed upon the property by the taxing authority for taxation purposes, and in respect to property, plants, and facilities of persons using public highways for furnishing public services without franchises, shall consider in determining the value thereof the fact that the property, plants, and facilities are subject to be removed from the highways by reason of being so operated without a franchise." The Washington State Department of Revenue (DOR) has estimated that the "true and fair" market value or the equalized taxing value of PSE real and personal electric property within Thurston County, adjusted for market conditions in 2011 was $124,175,700. This DOR calculated fair market value should be higher than the OCLD value.

It is important to note that DOR performs a complex review of various assets and information provided to it and then makes adjustments to price the real and personal property at approximately a market value. It is also important to understand that this DOR value includes buildings, transmission lines, substations, distribution facilities, land rights, computer software, etc. While TPUD is not contemplating the entire purchase of all PSE County assets, this value does serve as an independent benchmark on the upper limit of the "market value" of PSE assets. It also establishes an upper limit on the market value of all PSE generation, distribution, land, transmission and intangible assets within the County. Because the amount of assets that TPUD would purchase is significantly less than the full Thurston County assets, it also allows for a reasonableness test on PSE valuation claims.

For the purpose of this analysis in the case of the last option, which is the only option where PSE assets are acquired, we have calculated a replacement cost new estimate of the desired electric system. We have also examined PSE's level of depreciation in Federal Energy Regulatory Commission (FERC) documents and in the December 2010 WUTC rate case PSE submitted rate base data. Based on this information we applied system average depreciation rates to our replacement cost new system estimate.

Going Concern Costs

The final acquisition price established either through negotiations or through litigation for the single acquisition alternative will be based upon the above methodologies and may include additional components such as a going concern value, stranded costs, and/or separation costs. The value, if based on litigation, will include those items that Washington State law and past precedent says are appropriate and that will be influenced by the method of valuation chosen.

We have not included an explicit going concern value as the going concern value would only be appropriate under certain circumstances. The range we have examined along with the premium over OCLD (i.e. the full RCNLD) should include a reasonable going concern and premium amount.

Stranded Costs

Similarly, stranded costs have not been explicitly included, as they are likely to be zero. Specifically, FERC has defined stranded costs to compensate utilities for the loss of customers that would jeopardize utility investment in generation or transmission facilities due to FERC's implementation of transmission open access policy. PSE has stated in many forums that it will need to add or upgrade significant amounts of generation and transmission to its system to meet future loads. Therefore, a loss of customer load and revenues from the creation of a PUD electric utility in Thurston County will reduce the need for new generation to be added by PSE. This means that no PSE generation will be shut down or underutilized based on reduced loads in Thurston County and consequently, no generation will be "stranded" because of FERC's open access transmission policy.

Furthermore, the FERC definition of 'Stranded Cost" is based on a complex formula. One of the components in the formula is the length of time that PSE could have reasonably expected to have served its customers within Thurston County. Since it will most likely take a few years to establish a new PUD, PSE will have been put on notice for that time period and the resulting adjudicated time value is likely to be zero or a very small number. It has also been argued in some forums that the expiration date of certain franchise agreements can also be used in establishing an upper limit on the likely stranded cost time frame a utility would have expected to have reasonably expected to serve customers.

In this kind of situation it is likely that there could be benefits to PSE's other customers from reduced load, if the District forms an electric utility and frees PSE from the need to acquire additional generation in the future. Our studies have assumed that TPUD would not acquire any PSE generation.

Separation Costs

As previously indicated, the physical separation of the electric systems of the District and PSE is expected to be relatively simple. There should be no significant separation costs except of the alternative that involves purchasing PSE assets. Even though there should not be any separation costs in the two "build" or construction alternatives, to be conservative in our analysis, we have included some contingency funds that could be used for any TPUD required relocations of PSE electric facilities. In the acquisition alternative or the Tumwater to Port of Olympia alternative, it is expected that the District would pay the costs of primary metering installations on some feeders or that it would need to work with PSE on rerouting certain feeders connections from substations it purchases so that PSE and TPUD both have reliable electric distribution systems. Once a final service territory is defined, a detailed separation plan will be needed to establish full physical separation of the PSE and District systems. For this analysis, an allowance of $4

million is assumed to accomplish this preliminary separation approach for the only alternative that involves the purchase of any PSE assets, the last of the alternatives. Other costs assumed in this acquire alternative includes $2 million in legal fees and another $1 million in consultant fees. A place holder value of $2.5 million was used in the Yelm system build alternative for legal, consultant, and potential separation costs. The Capitol Campus to Port of Olympia alternative, which was also a construction alternative, had a place holder value of $3 million for legal, consultant, and potential separation costs.

Another form of separation has to do with the way PSE has comingled its natural gas and electric accounts and the way it performs meter reading. Specifically, PSE has a customer data base that includes both electric and natural gas customer information and that information is fed into other customer service, accounting and asset management systems. There would be a need to remove purchased assets and associated customers from these systems. Whether or not that is a cost that the District should pay or a cost that PSE should absorb as a business risk (especially in areas where franchises have expired or are about to expire) will be subject to negotiations between the parties or part of the $4 million included in our analysis. TPUD could also hire PSE to perform meter reading or billing as a way of reducing the impact of these costs.

Similarly, PSE, in the case of Jefferson County PUD, has argued that conservation grants and contracts with some customers are not part of the negotiated purchase price. TPUD should verify with the WUTC that conservation grants programs have been placed in current PSE rates and are not book assets of the utility. PSE also has outsourced some of its meter reading functions to other organizations and has long term commitments on the use of physical metering-communication assets owned by the other company.

Section 3
Estimated Initial Financing Requirements

The estimated initial financing requirements for the District's electric system include the costs of potentially acquiring the existing electric facilities from PSE in the acquisition alternative, construction of new facilities to duplicate PSE service to selected customers, construction of any new facilities needed for separation of the District's system from that of PSE, legal and consulting fees, startup costs, and working capital. It is assumed that the District would finance the initial acquisition costs of the third alternative with the issuance of revenue bonds that would not be tax-exempt. Costs of constructing new facilities or facilities for separation, purchases of equipment, inventories, supplies and other related costs are assumed to be financed with loans carrying tax-exempt interest rates. Certain costs associated with the issuance of revenue bonds, such as the funding of a bond reserve fund, would also be incurred.

In May of 2011, TPUD issued tax-exempt, water system, 20-year revenue bonds with an AA- bond rating, at an interest rate of 3.37%. In discussions with the financial advisor to TPUD we learned that 30-year electric revenue bonds of an "A" category could be issued by TPUD. For our analysis we have assumed a 4.5% tax-exempt electric revenue bond interest rate and a 6.0% taxable electric revenue bond rate at the time of financing, which is significantly higher than current interest rates. This compares with PSE's current allowed rate of return of 7.80% (UE 111048, WUTC Final Order p.33).

Although bond issuance is assumed for the purpose of this analysis, there are other alternatives that may be more appropriate when factored in to the overall financial structure of the District. PUDs and municipally-owned electric utilities generally use tax-exempt revenue bonds and loans to fund the capital costs associated with their systems. Federal tax laws generally prohibit the use of tax-exempt loans for the funding of municipal acquisition of electric systems owned by investor-owned utilities. Taxable revenue bonds have a higher interest rate than tax-exempt interest rates. Again, for our analysis we have assumed a 4.5% tax-exempt electric revenue bond interest rate and a 6.0% taxable electric revenue bond rate. Further, the 30-year flat repayment schedule for the initial bond issuance, as assumed for this analysis, could be shortened if desired or a non-levelized debt service schedule could be assumed. A shorter repayment period would require higher annual debt service payments during the repayment period but would allow for earlier retirement of the bonds. It is important that legal and financial advisors be consulted with regard to the structuring of bond issues to fully evaluate financing alternatives. Likewise in the Yelm build alternative, full principal repayment could be partially deferred in the first year of electric system interest payment could change the first year costs to improve overall economics of that alternative. Various exceptions and special conditions could exist that would allow more access to tax-exempt securities to fund the initial financing requirement.

For our three service territory alternatives, the only alternative which involves taxable bonds is the last alternative where significant PSE assets are purchased. The other alternatives involve traditional tax exempt financing. Some assets that are not purchased from a private utility, such as line trucks or other equipment that is tax exempt can be part of certificates of participation,

which allows a PUD to effectively pass along the tax-exempt benefits to a private party while structuring a lease agreement for equipment that has a narrow range of use.

One piece of misinformation that has been circulated is that TPUD might finance electric system assets with property taxes. This is not likely for multiple reasons. First the Commission has stated in Resolution 12-15 that it will not support raising the property tax by more than the 1% per year allowable by law and will not use tax revenues for acquisitions. Additionally any increase in tax levy rates above 1% would need to be approved by a vote of the people of Thurston County. Also any increase the amount of property taxes would require a favorable majority vote of the people of Thurston County. Therefore, the claim that the TPUD Commission may unilaterally finance electric utility assets by imposing new property taxes is false.

The following table shows the estimated initial costs and total financing requirements for each of the service area options:

TABLE 2
District Electric System Options
Estimated Initial Costs and Total Financing Requirements

	Option 1	Option 2	Option 3
	Yelm	Capitol Campus to Port of Olympia	Tumwater to Port of Olympia
Estimated Initial Costs			
Transmission facilities	$ -	$ -	$ 4,150,000
Distribution facilities, services, meters	28,995,000	25,921,000	163,368,000
Substations	3,700,000	13,000,000	22,300,000
Total	$ 32,695,000	$ 38,921,000	$ 189,818,000
Less: Accumulated Depreciation	-	-	$ (73,527,000)
Total Acquisition or Construction Cost	$ 32,695,000	$ 38,921,000	$ 116,291,000
Separation, Legal, Consulting Costs	2,500,000	3,000,000	7,000,000
Startup Costs and Working Capital	3,750,000	5,000,000	18,000,000
Total Estimated Initial Costs	$ 38,945,000	$ 46,921,000	$ 141,291,000
Financing Expense	419,000	505,000	1,537,000
Debt Service Reserve	2,575,000	3,102,000	10,863,000
Total Estimated Financing Requirement	$ 41,939,000	$ 50,528,000	$ 153,691,000
Amount Financed with Taxable Debt	$ -	$ -	$ 126,769,000
Amount Financed with Tax-Exempt Debt	$ 41,939,000	$ 50,528,000	$ 26,922,000

Section 4

Estimated Number of Customers, Energy Sales and Power Requirements

Electric utilities generally classify their customers based on general characteristics of service. Typical customer classifications are residential, commercial, industrial, irrigation and streetlights. The number of customers in the District's service territory has been estimated to serve as the basis for estimating energy sales and overall power requirements of the District system.

The following table shows the estimated number of electric customers, annual energy sales, annual energy requirements and peak demand for each service area in the assumed initial year of TPUD electric service, 2016.

TABLE 3
District Electric System Options
Estimated Number of Customers, Energy Sales and Total Energy Requirements in 2016

	Option 1	Option 2	Option 3
	Yelm	Capitol Campus to Port of Olympia	Tumwater to Port of Olympia
Number of Customers			
Residential	2,987	554	14,716
Commercial	540	886	5,318
Industrial	-	3	4
Other	11	14	102
Total Customers	3,538	1,457	20,140
Energy Sales (MWh)			
Residential	34,500	6,400	169,800
Commercial	40,900	67,600	403,900
Industrial	-	46,800	62,400
Other	300	400	2,800
Total Energy Sales	75,700	121,200	638,900
Losses and Own Use	5,300	8,400	44,400
Total Energy Reqs. (MWh)	81,000	129,600	683,300
Loss % of Total Reqs.	6.5%	6.5%	6.5%
Total Energy Req. (AveMW)	9.0	15.0	78.0
Annual Loadfactor	60%	60%	60%
Peak Demand (MW)	15.0	25.0	130.0

Section 5
Projected Revenue Requirements

Overview of Power Supply Options

Most of the publicly-owned electric utilities in the Pacific Northwest rely upon BPA for their power supply needs. BPA markets power to the region's utilities from federal hydroelectric projects and certain other facilities. The ability of BPA to continue to supply all the power demands placed on it by its customers in the future from its low cost FCSR base is uncertain. However, BPA within the Pacific Northwest Power Planning and Conservation Act was given the ability to acquire new resources. Many utilities have the expectation of relying upon BPA to make such purchases and negotiate better deals to keep Tier 1 and Tier 2 costs down for preference customers. As a result, discussions have been conducted in recent years with regard to how the low cost power from the federal hydroelectric projects should best be allocated among BPA's customers, existing and new. These discussions are generally referred to as the Regional Dialogue. In July of 2008, BPA published a Long Term Regional Dialogue Final Policy.

Over time BPA has established certain criteria that must be met before an entity may qualify for service from BPA[4]. For a new preference customer, such as the District to comply with the existing standards for service, it must:

1. Be legally formed in accordance with state and federal laws;
2. Own a distribution system and be ready, willing and able to take power from BPA within a reasonable period of time;
3. Have a general utility responsibility within the service area;
4. Have the financial ability to pay BPA for the federal power it purchases;
5. Have adequate utility operations and structure; and
6. Be able to purchase power in wholesale, commercial amounts.

Upon compliance with these standards for service and upon application to BPA under the provisions of Section 5(b)(1) of the Northwest Power Act, the District will be entitled to purchase power from BPA as a preference customer. The cost of BPA power to the District will be governed by the BPA Power Sales Contract and various other BPA policies. New large loads over 10 MWa that are placed on BPA's system may be subject to a surcharge related to the cost of power supply, potentially at market rates that BPA may need to acquire on behalf of the new load. In the case of the District, there are no anticipated new large loads.

The current Regional Dialogue contracts have been offered and provide for the purchase of BPA power between fiscal year (FY) 2012 (October 2011) and FY 2028. These contracts are quite complex, but allow for new preference customers, such as the District to be formed and receive

[4] Bonneville Power Administration, Final Policy on Standards for Service – Administrator's Record of Decision, December 22, 1999.

power under certain terms and conditions. The Regional Dialogue specifically references new public utilities that serve what were previously investor-owned utility customers. BPA refers to this as "annexed loads" of new preference customers.

A new feature to these contracts is tiered rates where some preference customers can purchase a portion of their load at the lowest cost PF BPA Tier 1 power rate. Power requirements above the Tier 1 amount are determined by a "High Water Mark" calculation using actual loads in a specific year adjusted for certain conditions. This additional power, if needed, can be served with market priced power, non-federal resources, utility-owned generation or contracts and a variety of BPA Tier 2 power products.

We have reviewed the Regional Dialogue, Tiered Rate Methodology, and Contract Templates. Under Tiered Rates and the High Water Mark allocation of Tier 1 Power, a new public utility will probably not receive its entire net requirement, which is defined as its electrical load (including electrical losses) less owned generation, with Tier 1 power. However, it will be very close (potentially 95% to 98%) to its initial year's operating loads. Under the Regional Dialogue and Tiered Rate Methodology BPA is reserving 250 MWa for new preference customers and will make this available generally in 50 MWa blocks for each of the first five 2-year rate periods starting in BPA fiscal year (FY) 2012. While BPA is reserving 40 MWa of this 250 MWa block of power for new tribal electric utilities, if few such tribal utilities are formed any excess within that 40 MWa block of power would be available for other new public utilities.

Tiered rates have been contentious as has their implementation. There could be the potential for a different approach to defining the High Water Mark in either subsequent contract periods (post 2028) or as regional conditions change. Therefore the High Water Mark concept may evolve over time.

A new public utility will receive an initial block of 10 MWa (87,600 MWh per year) plus a pro-rata share of up to an additional 40 MWa in each of the first five 2-year rate periods until 250 MWa of new preference customer load is used or unless that amount is reduced by a percentage associated with the cap on other preference customers loads being served with Tier 1 power. While a complex allocation method will be used, new preference customers that are in excess of 10 MWa, are required to have their load phased-in over a number of rate case periods. Generally, the more additional new preference customers that are formed, the less of the 250 MWa available for each customer.

Currently, there is little competition from other new public agencies, with the exceptions of Jefferson County PUD (under 50 MWa) and some tribal utility loads. While the formulae are quite complex, we have made some assumptions to estimate the general impact of the Tiered Rate Methodology on a new preference customer such as the District. We assumed that starting in 2016 there will be no other new preference customer of BPA. As such, there will be a block of 50 MWa available to serve the initial 2016 TPUD loads at Tier 1 rates. If other new public utilities are discussed those assumptions can be revised or sensitivity analysis performed.

For the third alternative, which is about 78 MWa, the first two years of initial TPUD electric operation will have 50 MWa of low cost BPA Tier 1 power. In the third year (2018), when the second 50MWa block is released by BPA, the amount of Tier 1 power available to TPUD will increase to the 2016 electricity requirements (78 MWa), which is assumed to be the "High Water Mark" amount. Load growth above the "High Water Mark" will be at BPA Tier 2 rates that are assumed to be 15% above the Tier 1 rates. Currently Tier 2 rates are closer to Tier 1 rates than we have assumed in the analysis.

Estimated Cost of Power Supply and Transmission

BPA Tier 1 rates are assumed to increase at 7% every two years. BPA Tier 2 rates are assumed to be 15% above the Tier 1 rates. BPA Network Transmission rates are assumed to increase at 7% every three years.

Projected Revenue Requirements

Publicly-owned electric utilities generally establish rates to recover revenues through the sale of power sufficient to pay all operating expenses, taxes, and debt service as well as provide a margin from which to fund renewals, replacements and additions to the system. The total of all these cost obligations on an annual basis are referred to as the annual revenue requirement. Operating expenses of the electric system will include purchased power, purchased transmission services, transmission and distribution system operations and maintenance (O&M), customer accounting, and administrative and general expenses.

Many publicly-owned electric systems also collect additional revenues through their electric rates to make tax payments, franchise fee payments and payments in lieu of taxes to local governmental agencies. Operating expenses for the District's electric system, other than power supply costs, have been estimated based on recent experience of other Washington PUDs. It is expected that the District will either contract for O&M services or hire its own staff to perform these functions. At the time of initial operation it would most likely be necessary to contract at least some of the O&M services to other utilities or regional electrical contractors used by other PUDs and by investor owned utilities. In the past, when new publicly-owned utilities have acquired electric facilities from an existing utility, some of the employees of the acquired utility have been hired by the new utility. This provides both continued local employment for the workers and provides the new utility with necessary skilled workers familiar with the local electric system.

Annual debt service requirements are based on level debt repayment of bonds issued to finance initial acquisition and startup costs at assumed annual interest rates of 6.0% for taxable debt and 4.5% for tax-exempt debt over a 30 year repayment period. Depending upon future financial conditions this range is in the potential range for both taxable and tax exempt TPUD revenue bonds. The District will incur annual expenses for renewals, replacements and additions to the system, assumed to be approximately 2.5% of the system value per year. Annual expenditures for capital replacements and additions are projected to be funded out of annual revenues.

In developing the District's estimated annual revenue requirement, it has been assumed that the District will pay 6.5% of its total revenues in public utility and privilege taxes. Annual operating expenses, other than power supply and transmission costs, are assumed to increase at 2% per year. The projected annual revenue requirements for the three service area options for the first five years of operation, assuming startup in 2016 are shown in the following tables:

TABLE 4
District Electric System Options
Projected Annual Revenue Requirements
Option 1 – Yelm Service Area
($000)

	2016	2017	2018	2019	2020
Operating Expenses					
Power Cost [1]	$ 3,583	$ 3,657	$ 3,959	$ 4,043	$ 4,357
Other [2]	1,180	1,220	1,270	1,320	1,380
Taxes [3]	500	580	600	610	640
Total Operating Exp.	$ 5,263	$ 5,457	$ 5,829	$ 5,973	$ 6,377
Debt Service [4]	$ 2,400	$ 2,600	$ 2,600	$ 2,600	$ 2,600
Renewals, Repl. & Adds.[5]	800	820	840	860	880
Less: Interest Earnings [6]	(40)	(40)	(40)	(40)	(40)
Total Sales Rev. Required [7]	$ 8,423	$ 8,837	$ 9,229	$ 9,393	$ 9,817
Total Energy Sales (MWh) [8]	75,700	77,000	78,300	79,600	80,900
Unit Revenue Req. (¢/kWh) [9]	11.1	11.5	11.8	11.8	12.1

[1] Estimated cost of power purchases, BPA network transmission services and wheeling charges over transmission lines owned by Centralia City Light.

[2] Estimated operations and maintenance, customer accounting and administrative and general expenses. Assumed to increase annually at 80% of the assumed annual inflation rate of 2.5%.

[3] Estimated at approximately 6.5% of total revenue requirement.

[4] Interest and principal on initial acquisition bond issues shown in Table 3. Assumes level debt service after first year of operation, 6.0% taxable and 4.5% tax-exempt interest rates and a 30 year repayment period. First year of operation assumes interest and partial principal payment.

[5] Assumed to be full amount of annual Renewal, Replacement and Additions expenditures.

[6] Estimated interest earnings on invested reserve fund balances at a 1.5% interest earnings rate.

[7] Sum of Total Operating Expenses, Total Debt Service, Total Renewals, Replacements and Additions funded from Revenues, less interest earnings.

[8] Estimated energy sales assuming 1.7% annual load growth.

[9] Total Revenue Required divided by Total Energy Sales.

TABLE 5
District Electric System Options
Projected Annual Revenue Requirements
Option 2 – Capitol Campus to Port of Olympia Service Area
($000)

	2016	2017	2018	2019	2020
Operating Expenses					
Power Cost [1]	$ 5,350	$ 5,400	$ 5,850	$ 5,920	$ 6,360
Other [2]	1,270	1,300	1,340	1,380	1,440
Taxes [3]	700	750	780	790	830
Total Operating Exp.	$ 7,320	$ 7,450	$ 7,970	$ 8,090	$ 8,630
Debt Service [4]	$ 3,100	$ 3,100	$ 3,100	$ 3,100	$ 3,100
Renewals, Repl. & Adds.[5]	900	920	940	960	980
Less: Interest Earnings [6]	(50)	(50)	(50)	(50)	(50)
Total Sales Rev. Required [7]	$ 11,270	$ 11,420	$ 11,960	$ 12,100	$ 12,660
Total Energy Sales (MWh) [8]	121,200	122,400	123,600	125,000	126,300
Unit Revenue Req. (¢/kWh) [9]	9.3	9.3	9.7	9.7	10.0

[1] Estimated cost of power purchases and BPA network transmission services.

[2] Estimated operations and maintenance, customer accounting and administrative and general expenses. Assumed to increase annually at 80% of the assumed annual inflation rate of 2.5%.

[3] Estimated at approximately 6.5% of total revenue requirement.

[4] Interest and principal on initial acquisition bond issues shown in Table 3. Assumes level debt service, 6.0% taxable and 4.5% tax-exempt interest rates and a 30 year repayment period.

[5] Assumed to be full amount of annual Renewal, Replacement and Additions expenditures.

[6] Estimated interest earnings on invested reserve fund balances at a 1.5% interest earnings rate.

[7] Sum of Total Operating Expenses, Total Debt Service, Total Renewals, Replacements and Additions funded from Revenues, less interest earnings.

[8] Estimated energy sales assuming 1.7% annual load growth.

[9] Total Revenue Required divided by Total Energy Sales.

TABLE 6
District Electric System Options
Projected Annual Revenue Requirements
Option 3 – Tumwater to Port of Olympia Service Area
($000)

	2016	2017	2018	2019	2020
Operating Expenses					
Power Cost [1]	$ 29,510	$ 30,000	$ 31,210	$ 31,740	$ 34,300
Other [2]	8,790	9,100	9,450	9,780	10,130
Taxes [3]	3,500	3,840	3,950	4,020	4,230
Total Operating Exp.	$ 41,800	$ 42,940	$ 44,610	$ 45,540	$ 48,660
Debt Service [4]	$ 10,900	$ 10,900	$ 10,900	$ 10,900	$ 10,900
Renewals, Repl. & Adds.[5]	5,100	5,200	5,300	5,410	5,520
Less: Interest Earnings [6]	(160)	(160)	(160)	(160)	(160)
Total Sales Rev. Required [7]	$ 57,640	$ 58,880	$ 60,650	$ 61,690	$ 64,920
Total Energy Sales (MWh) [8]	638,900	648,600	658,700	668,700	679,200
Unit Revenue Req. (¢/kWh) [9]	9.0	9.1	9.2	9.2	9.6

[1] Estimated cost of power purchases and BPA network transmission services.

[2] Estimated operations and maintenance, customer accounting and administrative and general expenses. Assumed to increase annually at 80% of the assumed annual inflation rate of 2.5%.

[3] Estimated at approximately 6.5% of total revenue requirement.

[4] Interest and principal on initial acquisition bond issues shown in Table 3. Assumes level debt service, 6.0% taxable and 4.5% tax-exempt interest rates and a 30 year repayment period.

[5] Assumed to be full amount of annual Renewal, Replacement and Additions expenditures.

[6] Estimated interest earnings on invested reserve fund balances at a 1.5% interest earnings rate.

[7] Sum of Total Operating Expenses, Total Debt Service, Total Renewals, Replacements and Additions funded from Revenues, less interest earnings.

[8] Estimated energy sales assuming 1.7% annual load growth.

[9] Total Revenue Required divided by Total Energy Sales.

Section 6
Comparison of Costs

At the present time, electric consumers in the District are receiving electric service from PSE. PSE's FERC Form No.1 for 2011 indicates that the average unit revenue from its customer classes in 2011 were as follows:

TABLE 7
PSE Average Unit Revenue in 2011 for Representative Customer Classes
(Compiled from PSE 2011 FERC Form No. 1)

	Revenue (¢/kWh)
Residential [1]	10.36
Commercial [2]	9.30
Industrial [3]	8.91
Street and Highway Lights	19.99
Total for all Sales	9.87

[1] Includes combined Residential Service customer classes.
[2] Includes Farm General Service and Commercial Schedules 24, 25, 26, 49 and other commercial tariffs.
[3] Combined industrial revenues

Based on the unit revenues shown in Table 7 with adjustments for current charges and the announced PSE rate increases and the estimated energy sales in the District service area as shown in Table 3, the total cost of electric service to residents and businesses in the alternative service area options with continued service from PSE has been estimated for a ten year projection period.

We are unaware of any published projections of PSE retail rates so, for the purpose of this comparison, PSE average rates have been assumed to increase at 3.6% per year beginning in 2013. This rate of increase has been estimated based on the approximate average increase in unit revenues for PSE in recent years.

The cost of continued electric service with PSE is compared to the cost of electric service from TPUD assuming TPUD were to establish rates to recover the estimated revenue requirements for the service area options as shown in Tables 4 through 6. The comparison of charges is shown in Table 8 for the five year period, 2016 through 2020. It is important to note that the average unit revenues shown in Table 8 for PSE are reflective of the estimated sales by customer class.

TABLE 8
Comparative Charges for Electric Service and Estimated Savings
With District Electric Service

	2016	2017	2018	2019	2020
Option 1 - Yelm					
Total Energy Sales (MWh)	75,700	77,000	78,300	79,600	80,900
Estimated PSE Revenues from Energy Sales in the District Territory					
Assumed Increase in Rates	3.60%	3.60%	3.60%	3.60%	3.60%
Revenues ($000) [1]	$ 8,600	$ 9,000	$ 9,500	$ 10,000	$ 10,500
Unit Revenues (¢/kWh) [2]	11.36	11.69	12.13	12.56	12.98
Estimated District Revenues from Energy Sales					
Revenues ($000) [3]	$ 8,423	$ 8,837	$ 9,229	$ 9,393	$ 9,817
Unit Revenues (c/kWh) [2]	11.13	11.48	11.79	11.80	12.14
Savings with PUD ($000)	$ 177	$ 163	$ 271	$ 607	$ 683
Savings with PUD (¢/kWh)	0.23	0.21	0.35	0.76	0.84
Savings with PUD (%) [4]	2.1%	1.8%	2.9%	6.1%	6.5%
Cumulative Savings with District Electric Service - First 10 Years ($000)					$ 10,025
Net Present Value of Savings - First 10 Years ($000) [5]					$ 6,073
Option 2 - Capitol Campus to Olympia Port					
Total Energy Sales (MWh)	121,200	122,400	123,600	125,000	126,300
Estimated PSE Revenues from Energy Sales in the District Territory					
Assumed Increase in Rates	3.60%	3.60%	3.60%	3.60%	3.60%
Revenues ($000) [1]	$ 11,800	$ 12,300	$ 12,900	$ 13,600	$ 14,200
Unit Revenues (¢/kWh) [2]	9.74	10.05	10.44	10.88	11.24
Estimated District Revenues from Energy Sales					
Revenues ($000) [3]	$ 11,270	$ 11,420	$ 11,960	$ 12,100	$ 12,660
Unit Revenues (c/kWh) [2]	9.30	9.33	9.68	9.68	10.02
Savings with PUD ($000)	$ 530	$ 880	$ 940	$ 1,500	$ 1,540
Savings with PUD (¢/kWh)	0.44	0.72	0.76	1.20	1.22
Savings with PUD (%) [4]	4.5%	7.2%	7.3%	11.0%	10.8%
Cumulative Savings with District Electric Service - First 10 Years ($000)					$ 18,720
Net Present Value of Savings - First 10 Years ($000) [5]					$ 11,665

TABLE 8 (cont.)
Comparative Charges for Electric Service and Estimated Savings
With District Electric Service

	2016	2017	2018	2019	2020
Option 3 - Tumwater to Olympia Port					
Total Energy Sales (MWh)	638,900	648,600	658,700	668,700	679,200
Estimated PSE Revenues from Energy Sales in the District Territory					
Assumed Increase in Rates	3.60%	3.60%	3.60%	3.60%	3.60%
Revenues ($000) [1]	$ 69,100	$ 72,700	$ 76,500	$ 80,500	$ 84,800
Unit Revenues (¢/kWh) [2]	10.82	11.21	11.61	12.04	12.49
Estimated District Revenues from Energy Sales					
Revenues ($000) [3]	$ 57,640	$ 58,880	$ 60,650	$ 61,690	$ 64,920
Unit Revenues (c/kWh) [2]	9.02	9.08	9.21	9.23	9.56
Savings with PUD ($000)	$ 11,460	$ 13,820	$ 15,850	$ 18,810	$ 19,880
Savings with PUD (¢/kWh)	1.79	2.13	2.41	2.81	2.93
Savings with PUD (%) [4]	16.6%	19.0%	20.7%	23.4%	23.4%
Cumulative Savings with District Electric Service - First 10 Years ($000)					$ 215,710
Net Present Value of Savings - First 10 Years ($000) [5]					$ 137,715

[1] Calculated using average customer class revenue and estimated customer class loads with assumed increase in rates applied uniformly to each customer class.

[2] Revenues divided by Total Energy Sales.

[3] Estimated Total Revenue Required for the District Electric system as shown in Tables 4 through 6.

[4] Relative to estimated PSE revenues.

[5] Cumulative present value to 2012 of estimated savings with District electric service over the first ten years of operation, 2016 through 2025. Assumes a 4.5% discount rate.

The PUD concept of small constructed service territories financed with tax-exempt bonds either in a remote location, such as Yelm appears economically feasible, as does a more governmentally/commercially intense service territory in an urban area. It also seems to be economically feasible that purchase of core government and commercial firms electric system at a premium negotiated rate near RNCLD and financed with taxable bonds is also economically feasible. As such there is likely quite a wide bracket of options available to TPUD Commissioners that will be economically attractive in providing electric service to the voters of Thurston County and distributing economic benefits within the County

.

Section 7

Non-Economic Impacts Associated With Formation of a Local Public Power Electric Utility

Non-Economic Benefits

There are many benefits to a community to own their local electric power system. The benefits of local control exceed just the economic benefits quantified previously in this report. We have seen such local determination in action in other public power communities. For example, small electric utilities can work with commercial and industrial customers to set rates or provide services in a "win-win" way that does not subsidize the customer and yet provides the customer with the flexibility that it needs to start or expand operations. In Whatcom County for example, PSE was initially reluctant to help industries such as Georgia Pacific and Bellingham Cold Storage gain rate flexibility due to expressed concerns over not setting precedents and over the difficulty of getting rates approved by the WUTC. A PUD or municipality would not have had the same restrictions. In Kittitas County, Anderson Hay Ranch, an important local employer came to the Kittitas County PUD as a last resort after failing to gain any accommodation from PSE in negotiating electric service issues.

A similar aspect to local determination and "community benefits" can be seen in both the Town of Steilacoom and the City of Blaine. In both of these communities the public power municipal utility governing board has established resolutions favoring the expansion of underground distribution lines. Both Steilacoom and Blaine have mostly underground distribution systems and the rates have been held low by a careful policy of incrementally replacing overhead with underground facilities. In our construction assumptions for both the Yelm alternative and the Central government core area from the Capitol Campus to the Port of Olympia alternative we has assumed underground construction.

Furthermore, some communities have taken the BPA conservation rebate funds and used them to either focus on specific customer sectors or areas within the service territory so that community benefits are maximized. A locally owned PUD would be able to focus its conservation funds, if it so desired, on publicly-owned buildings to reduce the cost of local government. Some PUDs and public power utilities have also focused assistance with special problems. For example, Grays Harbor County PUD has had a power quality program where special high quality surge protection devices have been made available to consumers because that was a recognized community need. Likewise, Peninsular Power & Light Company (a consumer-owned electric utility headquartered in Gig Harbor) had a program of supplying auxiliary gas/diesel generators for customers who desired backup power. At Ferry County PUD, they have installed off-grid photovoltaic solar installations in financial cooperation with some remote homeowners. Some PUDs in their conservation programs focus on different community needs as well. These are all possibilities that a locally controlled PUD can investigate in cooperation with its owners. Specific renewable resources that can be investigated would include the Skookumchuck hydro project owned by Trans Alta, the small Tumwater Brewery Dam that was decommissioned in

1949, and Community Solar project which are subsidized by the Washington State Department of Revenue.

In talking to some large power users of PSE, we have learned that a portion of their rate is earmarked for potential conservation grants and programs and they can regularly propose conservation programs that use those earmarked funds and any unused funds from other large power users. If this kind of rate program is desired by customers it is something that TPUD could implement within its rates. Or the reduced cost of power could result in reduced expenses that would also free up money that could be used for conservation and other efficiency or green programs. While PSE is more limited in its energy efficiency programs by WUTC regulation, which looks only at impacts on the utility system, not including community impacts and non-energy benefits; TPUD could have more flexibility. Several public power utilities have more extensive energy efficiency programs that PSE's energy efficiency programs.

Another aspect to local control is security and responsiveness in outage restoration. When the people that plan and operate the utility in a certain geographic area also have their families served by the same utility, there are implicit benefits. These implicit benefits can include reporting danger trees, identifying distribution poles that appear to have excessive lean and are in danger of falling over in a storm, or even spotting transformers that are discolored and may be overloaded. Utility staff members often do significant amounts of informal "patrolling for problems" as they drive to and from work at a PUD. Utility staff whose families are affected by outages are also good at defending the benefits associated with local generation sources and redundant methods of supplying power to an area. When most utility employees live outside of a service area, like with PSE, these benefits can often be reduced.

Local accountability is an important characteristic of public power and PUDs. We have heard many PUD managers and Commissioners express concern about what their neighbors and friends will say to them should there be an extended electrical problem or high electrical rates. Local accountability is much like "peer pressure" and helps to keep PUDs focused on meeting community needs. Such local accountability may not be present with a utility where the engineers, line workers, and other staff may be located in other communities. The chance of standing next to the PUD employee who designs, constructs or operates the electrical facilities within Thurston County at the local grocery store check-out line and asking them questions is far greater than if the employee lives outside the community.

In a like manner, most PUDs have sufficient line workers to handle typical outage events and normal levels of construction. As such there is typically a ready supply of trained people available in an emergency storm to make repairs who are dedicated to the local community. This group of workers is also immediately familiar with the area and the service issues as they work in the area all year long. Most public power utilities in Washington State have mutual aid agreements with each other, where if a natural disaster hits one utility, others will come to their assistance on an "at cost" basis. This allows even small utilities such as the Town of Steilacoom to seek help from larger consumer-owned neighbors like Tacoma City Light and Peninsula Power. We would anticipate that TPUD could enter into such agreements with other

neighboring PUDs, such as Lewis County PUD, Mason County PUD #3, and Grays Harbor County PUD.

Another area of non-economic benefit has to do with the ability of a local PUD to provide for community support. Such support can take many forms. It can range from the fact that most employees of PUDs are required to have a fairly high level of first aid skills, which can aid in accidents within the community. It can also include other forms of community support. Most PUDs participate with United Way, blood bank drives and other civic events. Similarly, each year the Washington PUD Association honors PUD employees who contribute to the development of the local community. Many of these recipients manage to combine full time PUD jobs with volunteer activities within their community that promote both economic development and the quality of life locally. As such, a local major employer with family wage jobs (such as a PUD) when contrasted with a distant employer with few employees in the community it serves, provides benefits to the local community far and above just the salary and purchases it makes. PSE also contributes, but the WUTC has ruled that PSE's charitable contributions must be made with shareholder money.

Another method of community support has to do with what public agencies can do for a community. For example, Chelan County PUD has parks and trails within Chelan County, as do Lewis County PUD, Snohomish County PUD and other PUD's within their own Counties. Even the Port of Olympia has provided a park. We are not aware of any PSE park in Thurston County.

PUDs can also quickly adapt to change, while meeting local needs. PUD commission meetings are public meetings and customer-owners can attend these meetings and request changes in utility policy and programs. The ability to meet with the "decision makers" and the "regulators" of an privately-owned utility, especially one that is not be publicly traded and foreign owned, such as PSE is even more difficult and would entail long trips to distant locations where such decision makers normally work. Because a customer-owner also has a voter-constituency relationship with the decision makers and regulators at a PUD, the ability to be heard and have policy and program changes considered is greater than in a privately-owned electric utility.

The American Public Power Association (APPA) also has a list of benefits that are associated with public power electric utilities and many benefits on that list are non-economic benefits similar to those discussed above. The APPA list includes:

- Lower electricity rates
- Equal or greater reliability
- Efficient service – lowest cost consistent with reliability, community goals and sound business practices
- Responsiveness to customer concerns – every citizen is an owner with a direct say in policies
- Emphasis on long-term community goals
- Quick response from crews located in the community
- Not-for-profit status – lower costs and no split allegiance between customers and stockholders

- Greater portion of revenues stay in community
- Utility purchases from local establishments, including use of local financial institutions
- Local employment
- Economic development – not-for-profit electricity attracts and keeps businesses
- Tax payments, payments-in-lieu-of-taxes , and / or transfers to the community's general fund
- Access to tax-exempt financing for capital projects
- Cash flow of the utility, which may be channeled through local government treasury
- Opportunity for efficiency through integrated utility operations (e.g., operation with electric, water, sewer, garbage, gas, cable, telecommunications)
- Improved local government efficiency through sharing of personnel, equipment and supplies
- Local management and operations bring added community leadership for innovation and development
- Recognized commitment to conservation, safety and the environment
- Local control over special programs (energy conservation, rate relief for certain customer classes, etc.)
- Local control over the electric distribution system aesthetics and design
- Local control that allows matching local resources to local needs
- No economic bias toward high cost, capital intensive techniques or technologies
- Innovative techniques and technology to meet energy needs
- Primary mission of providing least-cost, reliable service over maximizing profit
- A competitive standard against which the service of all utilities may be measured.

Section 8
Conclusions

All three service territory options examined provide economic benefits. The principal reasons for this are driven by two factors: cost of capital and wholesale power rates.

TPUD's cost of capital is significantly less that PSE. In the two "construction of new facilities" or "build" alternatives, the tax-exempt cost of money is 4.5%, while PSE's allowed rate of return is 7.80%. Electric utilities by their nature are capital intense operations. For the acquisition alternative the TPUD cost of money, based on mostly taxable revenue bonds is 6.0%, but some of the costs can be financed with tax-exempt bonds. This weighted cost of capital is still well below PSE's 7.80% allowed rate of return.

Similarly, in the first two alternatives that involve construction, the entire TPUD initial load will be served by BPA's low cost Tier 1 power. PSE on the other hand has a higher average system cost of wholesale power for its governmental, commercial, and industrial customers and a slightly higher cost of power for its residential and small farm customers. In the third or larger alternative, TPUD would have most of its initial wholesale power at the low BPA Tier 1 rate in the first two years of operation and more of its wholesale power up to its "High Water Mark" or total 2016 annual electricity requirements at the low BPA Tier 1 rate in subsequent years. To be conservative, we have assumed that that BPA Tier 2 power is 15% more expensive than their Tier 1 power, although currently it is much closer. In the first two alternatives load growth will be purchased at Tier 2 wholesale power costs. In the third alternative once the 2018 BPA rate increase occurs TPUD will be able to purchase its full "High Water Mark" or 2016 requirements at BPA low cost Tier 1 rates with load growth above 2016 wholesale power requirements being purchased at the BPA Tier 2 rate.

The combination of the money and wholesale power allow all three alternatives to provide economic benefits. When the lower rate economic benefits are combined with the benefits of local control, greater accountability and transparency, an electric service PUD is beneficial to the community, which is why so many Counties in Washington State have electric PUDs.

WASHINGTON PUBLIC UTILITY DISTRICTS ASSOCIATION

WPUDA

YOUR connection

2011 SOURCEBOOK

Data and statistics for the year 2010

Introduction

The Washington Public Utility Districts Association publishes the *Sourcebook* as a service to our members and to others who need statistical information about Washington's public utility districts. We welcome comments and suggestions about ways we might make the publication more useful.

Information in the Sourcebook is based on data provided by the utilities. Accounting classifications of some costs and revenues may differ among utilities (we have not applied procedures to ensure that this data would comply with any accounting standards). Please keep this in mind when comparing statistics for various systems.

Direct comments to Carol West, Government Relations Assistant, at cawest@wpuda.org.
Data compiled by Jennifer Snyder.

Contents

PUD Electric Distribution Systems

	CONNECTIONS					
	Residential	Industrial	Commercial	Irrigation	Other	Total
Benton County PUD	39,687	3	5,356	736	1,834	47,616
Chelan County PUD	35,687	31	6,074	1,098	5,161	48,051
Clallam County PUD	27,048	5	3,132	108	-	30,293
Clark Public Utilities	167,634	26	14,441	-	1,413	183,514
Cowlitz County PUD	43,340	88	5,096	-	28	48,552
Douglas County PUD	16,133	-	1,379	546	322	18,380
Ferry County PUD	2,908	25	386	92	1	3,412
Franklin County PUD	21,222	4	1,833	420	4	23,483
Grant County PUD	35,216	21	6,090	4,553	118	45,998
Grays Harbor County PUD	34,818	34	4,345	208	2,314	41,719
Kittitas County PUD	3,625	10	290	154	253	4,332
Klickitat County PUD	9,970	3	1,849	242	8	12,072
Lewis County PUD	25,718	77	4,513	81	671	31,060
Mason County PUD #1	4,650	-	455	-	-	5,105
Mason County PUD #3	30,240	1	2,196	-	83	32,520
Okanogan County PUD	16,828	4	2,370	1,337	21	20,560
Pacific County PUD	15,010	2	1,569	64	488	17,133
Pend Oreille County PUD	7,922	8	825	-	36	8,791
Skamania County PUD	5,202	4	591	-	19	5,816
Wahkiakum County PUD	1,951	-	456	-	2	2,409
Whatcom County PUD	-	1	-	-	-	1
Totals	544,809	347	63,246	9,639	12,776	630,817

KWH SALES (000)							
Excluding Sales for Resale							
Residential	Industrial	Commercial	Irrigation	Other	Total	Sales For Resale	Total Sales Incl. Resale
654,775	55,365	503,037	371,321	8,304	1,592,802	693,299	2,286,101
737,441	296,423	447,182	35,784	22,947	1,539,777	2,687,000	4,226,777
436,871	28,681	165,146	737	-	631,436	-	631,436
2,256,838	788,772	1,272,778	-	32,143	4,350,531	424,412	4,774,942
743,566	3,587,184	375,471	-	10,215	4,716,436	299,032	5,015,468
373,938	-	197,352	34,197	29,550	635,037	800,350	1,435,387
32,689	51,331	8,588	620	138	93,546	-	93,546
321,334	166,111	338,482	119,211	4,881	950,019	179,688	1,129,707
729,695	1,935,496	703,213	503,706	6,044	3,878,154	1,193,761	5,071,915
500,392	134,739	293,447	1,397	2,465	932,440	538,951	1,471,391
52,928	13,718	8,842	6,017	745	82,250	-	82,250
141,095	63,907	91,573	25,657	1,003	323,235	131,202	454,437
451,393	270,775	147,472	954	67,622	938,216	-	938,216
53,492	-	15,229	-	-	68,721	-	68,721
418,585	50,458	183,439	-	2,085	654,567	-	654,567
289,163	21,602	197,733	60,258	1,340	570,097	213,866	809,222
180,607	19,218	57,963	575	27,426	285,788	-	285,788
133,607	805,935	43,952	-	2,241	985,736	156,351	1,142,087
75,264	17,892	30,157	-	712	124,024	-	124,024
29,062	-	10,074	-	255	39,391	-	39,391
-	213,677	-	-	-	213,677	-	213,677
8,612,915	8,521,284	5,091,130	1,160,434	220,116	23,605,880	7,317,912	30,923,792

PUD Electric Distribution Systems

	ENERGY CONSUMPTION PER CONNECTION (KWH)					
	Excluding Sales for Resale					
	Residential	Industrial	Commercial	Irrigation	Other[1]	Total
Benton County PUD	16,498	18,454,887	93,920	504,513	4,528	33,451
Chelan County PUD	20,664	9,562,032	73,622	32,590	4,446	32,045
Clallam County PUD	16,152	5,736,200	52,729	6,824	-	20,844
Clark Public Utilities	13,463	30,337,385	88,136	-	22,748	23,707
Cowlitz County PUD	17,157	40,763,455	73,680	-	364,821	97,142
Douglas County PUD	23,178	-	143,112	62,632	91,770	34,550
Ferry County PUD	11,241	2,053,240	22,249	6,739	138,000	27,417
Franklin County PUD	15,142	41,527,750	184,660	283,836	1,220,250	40,456
Grant County PUD	20,721	92,166,476	115,470	110,632	51,223	84,311
Grays Harbor County PUD	14,372	3,962,912	67,537	6,716	1,065	22,350
Kittitas County PUD	14,601	1,371,760	30,488	39,074	2,945	18,987
Klickitat County PUD	14,152	21,302,333	49,526	106,021	125,375	26,776
Lewis County PUD	17,552	3,516,558	32,677	11,778	100,778	30,207
Mason County PUD #1	11,504	-	33,470	-	-	13,462
Mason County PUD #3	13,842	50,458,000	83,533	-	25,120	20,128
Okanogan County PUD	17,183	5,400,500	83,432	45,070	63,810	27,728
Pacific County PUD	12,032	9,609,000	36,943	8,989	56,200	16,681
Pend Oreille County PUD	16,865	100,741,875	53,275	-	62,250	112,130
Skamania County PUD	14,468	4,473,000	51,027	-	37,474	21,325
Wahkiakum County PUD	14,896	-	22,092	-	127,500	16,352
Whatcom County PUD	-	213,677,000	-	-	-	213,677,000
Totals & Averages	15,809	24,557,013	80,497	120,390	17,229	37,421

[1]May include non firm sales.

OPERATING REVENUES including City occupation tax where appropriate										
Excluding Sales for Resale										
Residential	Industrial	Commercial	Irrigation	Other	Total Retail Sales	Sales For Resale	Total Sales Incl. Resale	Telecom Revenue	Other Elect. System Revenue[3]	**TOTAL REVENUE**
43,707,324	2,167,117	27,574,925	15,641,894	761,741	89,853,001	30,122,468	119,975,469	1,181,892	5,918,989	127,076,350
25,131,849	6,245,828	16,686,761	1,175,332	1,127,024	50,366,794	70,942,801	121,309,596	6,579,276	1,511,382	129,400,256
32,271,634	1,613,979	10,112,193	55,602	-	44,053,408	-	44,053,408	477,916	1,970,891	46,502,215
191,920,234	42,396,303	90,668,670	-	3,598,223	328,583,430	19,833,161	348,416,590	-	5,725,084	354,141,674
42,711,581	121,819,870	24,986,825	-	676,666	190,194,942	16,880,915	207,075,857	-	5,791,543	212,867,400
9,257,794	-	4,722,470	688,416	804,975	15,473,655	19,272,448	34,746,103	1,836,616	326,688	36,909,407
2,860,243	2,605,692	765,511	50,784	10,096	6,292,326	-	6,292,326	-	81,693	6,374,019
21,403,101	8,633,678	21,090,106	6,388,926	415,038	57,930,849	6,594,243	64,525,092	674,984	5,262,140	70,462,216[2]
31,252,363	52,472,069	21,899,543	16,295,410	981,225	122,900,610	86,384,636	209,285,246	3,026,704	10,209,489	222,521,439
39,590,427	7,256,149	21,607,642	136,424	422,768	69,013,410	37,956,294	106,969,704	195,220	10,346,638	117,511,562[2]
4,707,203	845,612	693,042	479,982	58,265	6,784,104	-	6,784,104	-	90,766	6,874,870
10,913,179	2,520,398	5,873,029	1,441,451	239,657	20,987,714	13,015,759	34,003,473	-	5,144,699	39,148,172
25,574,541	11,534,911	7,795,579	52,794	3,284,650	48,242,475	3,223,755	51,466,230	-	1,906,129	53,372,359
4,667,358	-	1,275,092	-	-	5,942,450	-	5,942,450	-	-	5,942,450[2]
30,820,643	2,332,208	12,214,056	-	594,412	45,961,319	-	45,961,319	451,109	1,520,991	47,933,419
14,961,740	982,598	10,872,507	2,158,725	126,761	29,102,331	5,801,904	34,904,235	1,912,283	1,024,196	378,407,14[2]
13,039,145	1,016,283	4,317,479	70,470	2,112,732	20,556,109	-	20,556,109	201,139	304,721	21,061,969
7,141,590	29,435,423	1,916,773	-	744,384	39,238,170	4,027,587	43,265,757	646,723	664,635	44,577,115[2]
5,051,058	1,012,839	1,788,556	-	60,003	7,912,456	-	7,912,456	-	596,657	8,509,113[2]
2,207,830	-	764,628	-	58,754	3,031,212	-	3,031,212	-	680	3,031,892[2]
-	8,631,818	-	-	-	-	-	8,631,818	-	-	8,631,818[2]
$ 559,190,837	$ 303,522,775	$ 287,625,387	$ 44,636,210	$ 16,077,374	$ 1,211,052,583	$ 314,055,971	$ 1,525,108,554	$ 17,183,862	$ 58,398,011	$ 1,600,690,429

[2] Operating Revenues do not include City Occupation Tax

[3] May include pole contact charges, wheeling fees, customer load charges, contributions in aid of construction, etc.

PUD Electric Distribution Systems

	ANNUAL REVENUE PER CONNECTION Excluding Sales for Resale					
	Residential	Industrial	Commercial	Irrigation	Other	Total
Benton County PUD	1,101	722,372	5,148	21,253	415	1,887
Chelan County PUD	704	201,478	2,747	1,070	218	1,048
Clallam County PUD	1,193	322,796	3,229	515	-	1,454
Clark Public Utilities	1,145	1,630,627	6,279	-	24,167	3,917
Cowlitz County PUD	986	1,384,317	4,903	-	24,167	3,917
Douglas County PUD	574	-	3,425	1,261	2,500	842
Ferry County PUD	984	104,228	1,983	552	10,096	1,844
Franklin County PUD	1,009	2,158,420	11,506	15,212	103,760	2,467
Grant County PUD	887	2,498,670	3,596	3,579	8,315	2,672
Grays Harbor County PUD	1,137	213,416	4,973	656	183	1,654
Kittitas County PUD	1,299	84,561	2,390	3,117	230	1,566
Klickitat County PUD	1,095	840,133	3,176	5,956	29,957	1,739
Lewis County PUD	994	149,804	1,727	652	4,895	1,553
Mason County PUD #1	1,004	-	2,802	-	-	1,164
Mason County PUD #3	1,019	2,332,208	5,562	-	7,162	1,413
Okanogan County PUD	889	245,650	4,588	1,615	6,036	1,415
Pacific County PUD	869	508,142	2,752	1,101	4,329	1,200
Pend Oreille County PUD	901	3,679,428	2,323	-	20,677	4,463
Skamania County PUD	971	253,210	3,026	-	3,158	1,360
Wahkiakum County PUD	1,132	-	1,677	-	29,377	1,258
Whatcom County PUD	-	8,631,818	-	-	-	8,601,479
Totals & Averages	$ 1,026	$ 874,705	$ 4,548	$ 4,631	$ 1,258	$ 1,920

REVENUE PER KWH SOLD (IN CENTS PER KWH)							POWER PURCHASES			
Excluding Sales for Resale										
Resid.	Indust.	Comm.	Irrig.	Other	Avg. Retail Rev per kWh	Including Resale Total	From BPA (000 KWH)	Total (000 KWH)	% of Total from BPA	Purchased Power[4]
6.68	3.91	5.48	4.21	9.17	5.64	5.25	2,084,319	2,389,455	87.2%	89,880,306
3.41	2.11	3.73	3.28	4.91	3.27	2.87	4	4,159,664	0.0%	105,828,293
7.39	5.63	6.12	7.54	-	6.98	6.98	659,196	659,437	100.0%	20,018
8.50	5.37	7.12	-	11.19	7.55	7.30	2,854,915	4,937,226	57.8%	240,477,469
5.74	3.40	6.65	-	6.62	4.03	4.13	4,168,380	5,066,821	82.3%	163,929,993
2.48	-	2.39	2.01	2.72	2.44	2.42	-	1,617	0.0%	23,270,073
8.75	5.08	8.91	8.19	7.32	6.73	6.73	99,744	99,744	100.0%	2,868,185
6.66	5.20	6.23	5.36	8.50	6.10	5.71	987,356	1,189,803	83.0%	45,660,301
4.28	2.71	3.11	3.24	16.23	3.17	4.13	1,704,796	10,847,360	15.7%	139,149,372
7.91	5.39	7.36	9.77	17.15	7.40	7.27	973,767	1,471,391	66.1%	66,242,666
8.89	6.16	7.84	7.98	7.82	8.25	8.25	89,286	89,286	100.0%	2,754,175
7.73	3.94	6.41	5.62	23.89	6.49	7.48	343,745	346,324	99.3%	12,427,961
5.67	4.26	5.29	5.53	4.86	5.14	5.49	952,101	967,221	98.4%	33,380,697
8.73	-	8.37	-	-	8.65	8.65	75,878	75,878	100.0%	2,268,058
7.36	4.62	6.66	0.00	28.51	7.02	7.02	673,434	680,028	99.0%	21,801,130
5.17	4.55	5.50	3.58	9.46	5.10	4.45	530,461	807,626	65.7%	24,501,801
7.22	5.29	7.45	12.26	7.70	7.19	7.19	297,251	297,251	100.0%	9,281,906
5.35	3.65	4.36	-	33.22	3.98	3.79	273,129	1,140,670	23.9%	28,736,467
6.71	5.66	5.93	-	8.43	6.38	6.38	132,989		100.0%	3,930,648
7.60	-	7.59	-	23.04	7.70	7.70	42,304	42,304	100.0%	1,287,548
-	4.04	-	-	-	4.04	4.04	213,677	213,677	100.0%	6,251,833 [5]
6.49	3.56	5.65	3.85	7.30	5.13	4.93	17,156,732	35,482,783	48.4%	$ 1,023,948,900

[4]Includes power produced by utility-owned generation facilities.

[5]Only reflects purchases that pertain to the Electric Utility. We also purchase power to use in our Water Utility

PUD Electric Distribution Systems

	OPERATING EXPENSES				
	TAXES				
	State Utility	Privilege	City Occupation	Use/Other	Total
Benton County PUD	3,674,234	1,370,633	4,439,270	29,076	9,513,213
Chelan County PUD	1,964,643	755,986	1,350,396	38,906	4,109,931
Clallam County PUD	1,590,683	651,049	647,663	69,036	2,958,431
Clark Public Utilities	12,729,162	6,018,233	-	119,778	18,867,173
Cowlitz County PUD	4,228,017	2,506,616	2,560,861	13,149	9,308,643
Douglas County PUD	600,314	323,225	356,112	332,229	1,611,880
Ferry County PUD	162,697	92,364	-	-	255,061
Franklin County PUD	2,547,201	861,670	-	564,514	3,973,385
Grant County PUD	4,691,433	2,603,557	1,543,277	144,572	8,982,839
Grays Harbor County PUD	2,927,089	972,050	2,646,920	981,371	7,527,430
Kittitas County PUD	265,172	99,793	-	-	364,965
Klickitat County PUD	992,580	367,299	48,435	58,808	1,467,122
Lewis County PUD	1,943,562	908,202	13,192	485,375	3,350,331
Mason County PUD #1	180,900	118,005	-	89,856	388,761
Mason County PUD #3	1,726,359	833,315	571,636	845,395	3,976,705
Okanogan County PUD	1,190,048	610,524	-	38,766	1,839,338
Pacific County PUD	679,971	433,476	419,333	42,385	1,575,165
Pend Oreille County PUD	1,495,205	389,983	-	23,644	1,908,832
Skamania County PUD	309,119	159,407	-	5,714	474,240
Wahkiakum County PUD	98,556	62,364	-	668	161,588
Whatcom County PUD[6]	334,241	78,418	-	-	412,659
Totals	$ 44,331,186	$ 20,216,169	$ 14,597,095	$ 3,883,242	$ 83,027,692

[6]Privilege Tax matches YE statements, not actual paid

OPERATING EXPENSES								
Power Purchases & Production	Transmission	Distribution	Telecom	Customer Accts/Svcs.	Administrative & General	Depreciation	Taxes	Total Expense
89,880,306	26,909	7,163,780	712,433	3,773,740	5,396,629	9,751,161	9,513,213	126,218,171
105,828,293	811,308	10,883,679	3,965,716	4,251,587	8,080,516[7]	12,513,795	4,109,931	150,444,826
20,017,731	247,263	5,255,110	296,645	4,446,902	5,469,872	5,597,733	2,958,431	44,289,687
240,477,469	127,883	10,061,045	-	11,946,980	18,855,890	33,986,833	18,867,173	334,323,273
163,929,993	806,614	7,148,214	-	4,240,788	8,415,975	8,586,799	9,308,643	202,437,026
23,270,073	-	4,987,919	1,578,368	1,318,499	3,737,566	6,177,620	1,611,880	42,681,925
2,868,185	17,186	345,705	-	454,605	825,200	624,955	255,061	5,390,897
45,660,301	17,695	3,420,619	342,010	1,769,172	5,882,274	5,702,314	3,973,385	66,767,770
139,149,372	9,199,484	10,997,943	1,450,731	6,366,900	12,305,722	26,926,805	8,982,839	215,379,796
66,242,666	7,014,864	11,200,785	157,952	5,100,200	5,889,175	10,275,930	7,527,430	113,409,002
2,754,175	-	757,845	-	248,836	742,782	820,150	364,965	5,688,753
12,427,961	1,719,758	3,125,043	-	1,186,337	3,577,641	4,111,989	1,467,122	27,615,851
33,380,697	381,505	5,125,060	-	2,126,878	2,233,179	3,434,015	3,350,331	50,031,665
2,268,058	19,066	716,210	-	283,066	1,153,436	615,322	388,761	5,443,919
21,801,130	-	7,106,796	1,037,470	2,167,757	4,682,704	5,074,237	3,976,705	45,846,799
24,501,801	82,188	5,380,943	638,124	1,962,667	3,863,210	3,428,771	1,839,338	41,697,042
9,281,906	-	2,173,257	250,224	620,285	4,230,531	2,883,430	1,575,165	21,014,798
28,736,467	405,875	3,919,239	517,249	777,320	2,445,406	3,377,783	1,908,832	42,088,171
3,930,648	-	1,276,858	-	334,923	1,439,089	1,114,992	474,240	8,570,750
1,287,548	-	559,610	-	171,648	371,851	381,163	161,588	2,933,408
6,251,833	-	525,119	-	-	399,167	245,531	412,659	7,834,309
$ 1,043,946,613	$ 20,877,598	$ 102,130,779	$ 10,946,922	$ 53,549,090	$ 99,997,815	$ 145,631,328	$ 83,027,692	$ 1,560,107,838

[7]Includes Distribution Electric System's share of depreciation on shared capital assets

PUD Electric Distribution Systems

	Operating Revenues (including Sales for Resale)	Operating Ratio (Exp. To Rev.)	Total Expense Per KWH[8] (cents/KWH)	Number of Employees (FTEs)	PER EMPLOYEE DATA	
					Connections	Operational Expense[9]
Benton County PUD	127,076,350	0.92	5.09	155	307	$ 110,152
Chelan County PUD	129,400,256	1.07	3.26	197	244	142,095
Clallam County PUD	46,502,215	0.83	6.13	122	248	128,818
Clark Public Utilities	354,141,674	0.85	6.30	324	566	126,518
Cowlitz County PUD	212,867,400	0.91	3.87	157	309	131,284
Douglas County PUD	36,909,407	0.99	2.54	87	211	133,590
Ferry County PUD	6,374,019	0.75	5.09	17	207	99,557
Franklin County PUD	70,462,216	0.87	5.41	102	230	112,076
Grant County PUD	222,521,439	0.85	3.72	258	178	156,282
Grays Harbor County PUD	117,511,562	0.88	7.01	165	253	177,957
Kittitas County PUD	6,874,870	0.71	5.92	13	345	139,178
Klickitat County PUD	39,148,172	0.60	5.17	85	142	113,044
Lewis County PUD	53,372,359	0.87	4.97	94	330	104,964
Mason County PUD #1	5,942,450	0.81	7.03	16	319	135,736
Mason County PUD #3	47,933,419	0.85	6.23	116	280	129,265
Okanogan County PUD	37,840,714	1.01	4.88	91	226	131,067
Pacific County PUD	21,061,969	0.86	6.34	57	301	127,619
Pend Oreille County PUD	44,577,115	0.87	3.39	54	163	149,354
Skamania County PUD	8,509,113	0.88	6.01	26	224	117,341
Wahkiakum County PUD	3,031,892	0.84	6.48	9	268	122,568
Whatcom County PUD	8,631,818	0.90	3.90	3	0	308,095
Totals & Averages	1,600,690,429	0.86	5.18	102	255	$ 137,932

[8]Does not include depreciation.

[9]Does not include expense, purchased power, depreciation or taxes.

OPERATING COSTS PER CONNECTION				Gross Utility Plant[10]	MILES OF LINE OWNED				System Maximum Demand (non-coincidental, in kW)
					34.5 kV and Less				
Distribution Expense	Customer Accts./Srv. Expenses	Administrative & General Expenses	Total Expenses Excl. Deprec. & Power Exp.		Overhead	Underground	Over 34.5 kV	Total	
150	79	113	558	248,669,552	797	793	91	1,681	391 [11]
227	88	168[12]	668[12]	372,543,717	879	843	331	2,053	432,000
173	147	181	616	183,264,591	701	1,088	145	1,934	177,360
55	65	103	326	666,625,524	1,550	2,615	131	4,296	975,000 [11]
147	87	173	616	260,762,539	602	1,175	125	1,902	722,000
271	72	203	720	203,048,219	797	400	27	1,224	170,713
101	133	242	556	22,710,227	789	72	0	861	17,349
146	75	250	656	187,917,581	647	422	56	1,125	207,000 [11]
239	138	268	1,072	812,523,553	2,829	958	424	4,211	662,000 [11]
268	122	141	884	333,426,965	1,138	456	224	1,818	248,000
175	57	171	488	28,250,103	496	196	13	705	20,787
259	98	296	917	206,215,050	1,310	333	205	1,848	57,150
165	68	72	426	157,102,996	1,315	985	139	2,439	184,611
140	55	226	502	25,140,476	202	273	0	475	18 [11]
219	67	144	583	181,811,883	683	1,072	30	1,785	144,271
262	95	188	670	142,050,789	1,365	382	104	1,851	155,000
127	36	247	517	84,384,321	285	420	30	735	66,880
446	88	278	1,135	103,351,846	811	280	62	1,153	152,112 [11]
220	58	247	606	28,035,218	525	239	0	764	27,669
232	71	154	525	13,799,582	181	72	0	253	
525,119	-	399,167	1,336,945	7,511,076	-	-	13	13	26,420
$ 162	$ 85	$ 159	$ 587	$ 4,269,145,808	17,902	13,074	2,150	33,126	4,446,731

[10]Gross utility plant includes construction work in progress.

[11]Coincidental

[12]Includes Distribution Electric System's share of depreciation on shared capital assets

PUD Electrical Distribution Systems

	Coverage Annual debt Service X Earned[13]	Ratio of Long-Term Debt to Net Plant Plus Net Current Assets[14]	Total Long-Term Debt Outstanding[14]	Increase/ Decrease in Debt outstanding From Prev. Year	Year of Initial Financing	Days Cash On Hand	Operating Margin[15]	Equity Capitaliz.[16]
Benton County PUD	2.24	36.0%	$ 59,617,684	$ 8,154,855	2001	99	0.01	0.61
Chelan County PUD	5.10	26.5%	107,781,915	(2,659,121)	1948	346	-0.16	0.76
Clallam County PUD	5.29	19.0%	26,645,505	9,352,511	2008	189	0.06	0.75
Clark Public Utilities	1.48	54.0%	220,560,000	-24500000.00	1999	52.00	0.06	0.45
Cowlitz County PUD	1.30	1.0%	204,634,452	58,539,434	2001	23	0.05	0.42
Douglas County PUD	3.70	6.1%	10,265,000	(735,000)	2004	226	-0.15	0.94
Ferry County PUD	4.44	5.0%	713,894	(156,357)	1974	61	0.06	0.93
Franklin County PUD	2.07	36.0%	59,112,573	(3,221,150)	2001	148	0.05	0.62
Grant County PUD	1.97	22.0%	127,225,000	(10,885,000)	1945	229	-0.01	0.76
Grays Harbor County PUD	1.50	40.0%	121,245,000	23,458,000	2001	107	0.03	0.54
Kitsap PUD[17]								
Kittitas County PUD	1.52	57.0%	14,730,000	(655,000)	1938	198	0.07	0.41
Klickitat County PUD	1.79	60.0%	84,859,066	-	1941	127	0.13	0.47
Lewis County PUD	1.98	26.0%	33,540,000	(1,255,000)	2008	152	0.06	0.80
Mason County PUD #1	2.19	32.0%	6,411,955	1,657,305	1976	259	0.05	0.77
Mason County PUD #3	1.73	41.0%	82,180,949	47,683,741	1941	174	0.10	0.54
Okanogan County PUD	1.45	37.0%	40,785,000	26,305,000	1945	77	-0.10	0.67
Pacific County PUD	1.35	14.0%	7,132,280	(866,480)	2001	16	0.01	0.90
Pend Oreille County PUD	1.85	32.0%	32,181,669	9,451,848	1949	182	0.06	0.77
Skagit County PUD [17]								
Skamania County PUD	5.84	12.0%	2,670,000	(135,000)	2005	276	-5.20	0.80
Wahkiakum County PUD	0.00	-	-	-	715	0	1.00	1.00
Whatcom County PUD	2.20	43.0%	5,327,703	2,009,787	2004	276	0.09	0.52
Totals & Averages	2.55	30.0%	$ 1,247,619,645	141,544,373		187	-0.22	0.69

[13]Each utility's bond resolution defines the calculation for debt service coverage; accordingly, DSC ratios may vary depending on definitions specific to an individual PUD.

[14]Excludes long-term bonded debt that has been advance-refunded and for which funds are held in trust. [Long-Term Debt/(Net Plant + Net Current Assets)]

[15][Net Operation Income/ Total Operating Revenue]

[16][Net Assets / (Debt + Net Assets)]

[17] No electric distribution service, telecommunications only (see next page)

212 Union Ave SE, Olympia, WA 98501
(360) 741-2675
www.wpuda.org

Appendix B
Publicly Owned Electric Utilities
Established 1973-2011

85 new public power utilities began operating, 41 of the new systems were formed in service areas of investor-owned utilities; the others were formerly served by non-utility businesses, federal agencies or local publicly owned utilities. This list does not include communities that were previously served by investor-owned utilities or rural electric cooperatives and instead joined existing public power systems.

New Utility Formed	State	Year Est.	Previous Supplier
City of Atka (42 customers)	ALASKA	2008	Andreanof Electric Corporation*
Island Power, Pittsburg, Calif. (400 customers)	CALIFORNIA	2006	Former military base
Winter Park (13,750 customers)	FLORIDA	2005	Progress Energy*
Berea (4,700 customers)	KENTUCKY	2005	Berea College Electric Utility
Moreno Valley Utilities (4,300 customers)	CALIFORNIA	2004	SCE*
Huron (2 customers)	OHIO	2004	Ohio Edison*
Elk City (8 customers)	OKLAHOMA	2004	AEP*
Electric City Power, Great Falls, Montana (large governmental and industrial customers)	MONTANA	2004	NorthWestern Energy
City of Williams (1,721 customers)	ARIZONA	2003	Arizona Public Service*
McAllister Ranch Irrigation District[1]	CALIFORNIA	2003	PG&E*
Rancho Cucamonga Municipal Utility[1] (400 customers/commercial and industrial)	CALIFORNIA	2004	SCE*
Industry, California[1] (23 customers)	CALIFORNIA	2003	SCE*
Port of Stockton Electric[1] (3,208 customers)	CALIFORNIA	2003	PG&E*
City of Victorville[1]	CALIFORNIA	2003	SCE*
Hercules Municipal Utility[1] (825 customers)	CALIFORNIA	2002	PG&E*
Corona Municipal Electric Utility[1] (1,700 customers)	CALIFORNIA	2001	SCE*

[1] A "greenfield growth area" project, serving new industrial and/or residential development.

New Utility Formed	State	Year Est.	Previous Supplier
Hermiston (5,123 customers)	OREGON	2001	PacifiCorp*
Long Island Power Authority (1,090,538 customers)	NEW YORK	1998	Long Island Lighting Company*
Town of Eagle Mountain (382 customers)	UTAH	1998	New Community
Ak-Chin Electric Utility Authority (378 customers)	ARIZONA	1997	Arizona Public Service*
Hohokam Irrigation & Drainage District (498 customers)	ARIZONA	1997	Arizona Public Service*
Village of Obetz (14 customers)	OHIO	1997	American Electric Power Co.*
Merced Irrigation District[2] (3,157 customers)	CALIFORNIA	1996	Pacific Gas & Electric*
Mohegan Tribal Utility Authority (54 customers)	CONNECTICUT	1996	New Entity
MassDevelopment Devens Utility (100 commercial customers)	MASSACHUSETTS	1996	Former Military Base
Tarentum Borough (2,651 customers)	PENNSYLVANIA	1996	West Penn Power*
Bozrah Light & Power (2,587 customers)	CONNECTICUT	1995	Bozrah Light & Power (private company)*
City of Broken Bow (5 customers)	OKLAHOMA	1995	Public Service Company of Oklahoma*
Asotin County Public Utility District No. 1 (3 customers)	WASHINGTON	1994	Clearwater Power Company*
Byng (53 customers)	OKLAHOMA	1990	Oklahoma Gas & Electric*
Clyde Light & Power (2,872 customers)	OHIO	1989	Toledo Edison*
City of Santa Clara (1,707 customers)	UTAH	1989	Utah Power & Light*
Hayfork Valley Public Utility District (724 customers) (Merged with Trinity County PUD in 1993)	CALIFORNIA	1988	Pacific Gas & Electric*
Lassen Municipal Utility District (12,059 customers)	CALIFORNIA	1988	CP National*
City of Scribner (589) customers	NEBRASKA	1988	Nebraska Public Power District

[2] Merced Irrigation District, Calif., began distribution utility in 1996.

New Utility Formed	State	Year Est.	Previous Supplier
City of Riverdale (206 customers)	NORTH DAKOTA	1988	Corps of Engineers
City of San Saba Electric Utility (2,196 customers)	TEXAS	1988	Lower Colorado River Authority
City of Washington (5,750 customers)	UTAH	1988	Utah Power & Light*
Electrical District #8 of Maricopa County (456 customers)	ARIZONA	1987	Arizona Public Service*
Town of Fredonia (731customers)	ARIZONA	1987	CP National*
Reedy Creek Improvement District (1,213 customers)	FLORIDA	1987	New Entity
Troy Power & Light (923 customers)	MONTANA	1987	Montana Light & Power*
Kerrville Public Utility Board (20,157 customers)	TEXAS	1987	Lower Colorado River Authority
Kanab City Corporation (1,378 customers) (Sold to Garkane Energy Cooperative in 2004)	UTAH	1987	Utah Power & Light*
Town of Pickstown (63 customers)	SOUTH DAKOTA	1986	Corps of Engineers
City of San Marcos Electric Utility District (20,320 customers)	TEXAS	1986	Lower Colorado River Authority
Strawberry Electric Service District (2,972 customers)	UTAH	1986	Strawberry Waters Users
City of Galena (335 customers)	ALASKA	1985	M & D Enterprises
Page Electric Utility (3,780 customers)	ARIZONA	1985	Arizona Public Service*
Ipnatchiaq Electric Co. (67 customers)	ALASKA	1984	Supplier Unknown
Larsen Bay Utility Co. (86 customers)	ALASKA	1984	Individual Generators
Aguila Irrigation District (39 customers)	ARIZONA	1984	Supplier Unknown
Columbia River People's Utility District (St. Helens, Oregon) (17,347 customers)	OREGON	1984	Pacific Power & Light*
Kwig Power Co. (111 customers)	ALASKA	1983	Supplier Unknown

New Utility Formed	State	Year Est.	Previous Supplier
St. Paul Municipal Electric Utility (231 customers)	ALASKA	1983	Federal Government
City of Thorne Bay Utilities (261 customers) (Sold to Alaska Power & Telephone* in 2001)	ALASKA	1983	Federal Government
Needles Department of Public Utilities (2,092 customers)	CALIFORNIA	1983	CP National*
Tuolumne County Public Power Agency (30 customers)	CALIFORNIA	1983	Pacific Gas & Electric*
Emerald People's Utility District (Eugene, Oregon) (18,104 customers)	OREGON	1983	Pacific Power & Light*
Akutan Electric Utility (65 customers)	ALASKA	1982	Supplier Unknown
City of Kotlik Utility (176 customers)	ALASKA	1982	Supplier Unknown
City of White Mountain (101 customers)	ALASKA	1982	Supplier Unknown
Trinity County Public Utility District (6,797 customers)	CALIFORNIA	1982	CP National*
City of Chignik (87 customers)	ALASKA	1981	Sea Alaska
Massena Electric Department (9,406 customers)	NEW YORK	1981	Niagara Mohawk*
Markham Hydro Distribution, Inc. (62,126 customers)	ONTARIO	1979	Supplier Unknown
Tatitlek Electric Authority (55 customers)	ALASKA	1978	Supplier Unknown
White, City of (254 customers)	SOUTH DAKOTA	1978	Supplier Unknown
Tlingit Haida Regional Electric Authority (1,268 customers)	ALASKA	1977	Supplier Unknown
Tonopah Irrigation District (31 customers)	ARIZONA	1977	Supplier Unknown
Sherrill, City of (1,884 customers)	NEW YORK	1977	Supplier Unknown
Manokotak, City of (136 customers)	ALASKA	1976	Supplier Unknown
Ellaville, City of (958 customers)	GEORGIA	1976	Supplier Unknown
Anthon, City of (374 customers)	IOWA	1976	Supplier Unknown
Kiowa, City of (753 customers)	KANSAS	1976	Supplier Unknown

Matinicus Plantation Electric Co. (120 customers)	MAINE	1976	Supplier Unknown
North Slope Borough Dept. of Municipal Services (1,180 customers)	ALASKA	1975	Supplier Unknown
De Witt, Village of (313 customers)	NEBRASKA	1975	Supplier Unknown
Hurricane Power Committee (5,229 customers)	UTAH	1975	Supplier Unknown
Tohono O'odam Utility Authority (3,746 customers)	ARIZONA	1974	Supplier Unknown
Lyons, Town of (1,095 customers)	COLORADO	1974	Supplier Unknown
Aurelia, City of (555 customers)	IOWA	1974	Supplier Unknown
Stanton, City of (228 customers)	NORTH DAKOTA	1974	Supplier Unknown
Kirbyville Light & Power Co. (1,318 customers)	TEXAS	1974	Supplier Unknown
Hobgood, Town of (324 customers)	NORTH CAROLINA	1973	Supplier Unknown

* Represents an investor-owned utility

Source: ***American Public Power Association (2012)***

"Customers" refers to the number of customer-meters served. The population served would be some multiple of this number.

Appendix C
Puget Sound Energy Inc. Organizational Structure