It is important to note that restructuring of the electric utility industry in the United States prompted many utilities to evaluate their respective competitive positions. As a result, many utilities were sold, acquired or merged with other utilities. In the Pacific Northwest, Enron purchased PGE and is currently pursuing the sale of PGE to Texas Pacific Group. In 1999, PacifiCorp was acquired by Scottish Power. 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[4] of Sioux Falls, South Dakota. 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 community 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[5].

Methodology

The purpose of this study has been primarily to provide an initial assessment of the potential costs and benefits to the electric consumers in the County associated with the establishment of a publicly-owned electric utility to provide electric service. In general, the study estimated the costs of establishing and operating a PUD, determined what the PUD would need to charge for electric service to recover revenues sufficient to pay all of its costs and compared the PUD's estimated cost of electric service to continued service from PGE. Principal components of the effort included:

- Definition of the area to be served by CPUD and electric facilities to be acquired.
- Estimation of the value of the electric facilities to be acquired by CPUD from PGE.
- Estimation of the financing requirements associated with facility acquisition and CPUD startup.
- Estimation of the number of electric consumers in CPUD's service territory.
- Estimation of energy sales and power requirements of these consumers.
- Identification of potential power supply sources and costs.
- Projection of the annual costs of operation and annual revenue requirements of CPUD's electric system.
- Comparison of CPUD's necessary rates for electric service to estimated PGE rates.
- Preparation of a report summarizing the results of the study.

The study has relied almost entirely upon publicly available information and reports from PGE and other sources. For the most part, data found in PGE's filed reports pertain to its system as a whole and do not present detailed information with regard to municipal or county boundaries. As a result, it has been necessary to estimate what portion of PGE's total customer base, total power requirement and electric system facilities are located within the

[4] On Sept. 14, 2003, Northwestern Corporation filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code.

[5] Several Montana cities served by Northwestern Corporation are presently studying the feasibility of acquiring the electric distribution systems from Northwestern and establishing municipal electric systems.

County. A much more detailed assessment of these quantities would be derived in subsequent studies and analyses as the development of CPUD's electric utility proceeds and access to PGE's customer sales and facility inventory records can be obtained.

For the purpose of this study, the determination of electric facilities to be acquired was based on a cursory review of PGE's transmission and distribution system in and around the County primarily using large-scale system maps. The limited nature of this study did not allow for quantification and allocation of specific facilities; rather, PGE's average investment in its distribution and transmission systems on a per customer basis was applied to the number of customers estimated to be located in the County. This approach produced results reasonably close to system net book value estimates quoted by PGE representatives. It has been assumed that CPUD would finance the initial acquisition and startup costs with the issuance of a combination of taxable[6] and tax-exempt revenue bonds.

A detailed count of the number of electric customers located in CPUD's proposed service territory has not been made. Rather, the number of households in the County has been used as a representative estimate of the number of residential electric accounts. Typical relationships between the number of residential and general service accounts in PGE's system as a whole have been used to estimate the number of general service accounts in CPUD's service area. The total power requirements of the electric customers in the District have been estimated based on typical residential and commercial loads for the Company's total customer base. The actual number of electric customers in the District and energy sales for these customers should be obtainable from the Company at a later date.

The estimated costs 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 CPUD would conduct its own billing and accounting activities and would provide in-person customer service for bill paying, hookup requests and other services. In addition to operating expenses, annual debt service payments and funds for annual capital improvement expenditures were included in the projected revenue requirements.

In 1999, the Bonneville Power Administration (BPA) defined its criteria for qualification to purchase power from BPA as a "preference customer". This criteria is presently in effect, however, significant discussion is underway in the region with regard to both BPA power availability and power sales rates following the current rate period ending September 30, 2006. BPA has indicated that it could provide power to a newly formed or significantly expanded electric utility prior to as well as after 2006.

For the purpose of estimating the cost of power to CPUD in this analysis, it has been assumed that CPUD would purchase either its entire power supply requirement from BPA as a preference customer or its net requirement upon acquiring the PGE hydroelectric generation facilities in the County. Prior to September 30, 2006, CPUD would most likely

[6] Although CPUD 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 an investor owned utility.

need to pay a rate somewhat higher than the standard preference power rate paid by BPA's existing preference customers. Past history would indicate that all preference customers, new and old, are treated equally and as a result, for purposes of the projected costs after 2006, CPUD is assumed to purchase power at the preference rate. Prior to and during 2006, it is expected that CPUD would pay the preference power rate with applicable cost recovery adjustment charge (CRAC) surcharges[7] and the Targeted Adjustment Charge (TAC) applied to the base priority firm rates.

Other sources of power supply, possibly from PGE as well as others, should be available to CPUD if BPA power is not available. Market power rates were very high during 2001 but at the present time are comparable with BPA's preference rate with the CRAC and TAC adjustments applied.

Projections of operating costs, debt service and other costs for CPUD have been made on an annual basis for the first ten years of CPUD electric utility operation. For the purpose of this analysis, it has been assumed that the first year of operation would be 2006. 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 CPUD's ability to pursue electric utility ownership.

Conclusions

The costs of establishing and operating a PUD-owned electric utility in Clackamas County have been estimated in accordance with the methodology and assumptions described in this report. Based on these estimated costs, the cost of power to electric consumers in the County with a PUD-owned electric utility has been projected and compared to the projected cost of continued electric service from PGE. Results of the study and the accompanying cost analysis are summarized as follows:

1. At present population levels, it is estimated that CPUD would have 156,690 electric customers in its proposed service territory and would have a total annual energy requirement of 3,680,000 MWh. The number of customers served by CPUD is estimated to increase at an average annual growth rate of approximately 1.7% per year. Peak demand is estimated to be 700 MW.
2. The estimated net book value of the electric facilities presently owned by PGE and needed by CPUD to provide electric service in its proposed service territory is $254 million. Combined with various startup costs and separation costs, the initial financing requirement of CPUD is estimated to be $359 million.
3. Certain costs may need to be incurred to separate CPUD's electric system from PGE's remaining system in the area around the County. It is presently expected that

[7] The current CRAC surcharge is 47% applied to all BPA preference power rate components. The CRAC surcharge is adjusted every 6 months.

to keep these costs at a minimal level, metering systems will be installed at various points where PGE's distribution lines outside the County are served through CPUD's system. Agreements would be needed between CPUD and PGE to "wheel" power over distribution lines owned by the other. CPUD would be expected to fund the costs of these metering systems as well as any other costs related to separation.

4. Although other alternatives exist for power supply, the projected cost of power from BPA has been used in this analysis as the basis for projecting the costs of operating a CPUD electric system. Most of the publicly-owned electric utilities in the Pacific Northwest rely upon BPA for much, if not all, of their power supply requirements. CPUD would be expected to pay a higher rate than other preference customers for power purchased from BPA through the end of the existing BPA rate period, 2006, but should pay the same rate as other preference customers after 2006.

5. The cost of purchased power and transmission, at estimated BPA rates, will represent approximately 54% of the total annual revenue requirement of CPUD's electric system after the first year of operation. A lower cost source of power could significantly reduce the estimated cost of power from CPUD's electric system to its customers.

6. In its initial year of operation, 2006 for purposes of this analysis, the average cost of power to consumers from CPUD is estimated to be approximately 7.0 cents per kWh, as compared to an average cost of 7.4 cents per kWh from PGE. In the second year of operation when the BPA rate to CPUD is expected to decrease, average electric charges from CPUD are estimated to be approximately 15.2 percent lower than those from PGE. Cumulative savings in total charges for electric service in the portion of the County to be served by CPUD over the first ten years of CPUD operation are estimated to be $720 million. The present value to 2004 of the cumulative savings over the first ten years of CPUD operation is estimated to be $498 million using a 5 percent discount rate. If CPUD acquires certain PGE hydroelectric facilities in the County and uses the output of these facilities to offset a portion of its total power purchases, the estimated savings over the first ten years of operation would increase to $859 million.

7. Alternative purchase power costs, system acquisition costs and financing costs can significantly affect the results of the analysis. A more detailed Engineer's Report should follow in the future if voter approval of CPUD is obtained. Additional information and alternative assumptions should be factored into any subsequent feasibility studies and engineering reports of CPUD.

Section 2
Estimated Cost of Electric Facilities

Description of Service Area

The proposed service territory of CPUD would comprise all areas of the County presently served by PGE. This area includes the entire county with the exception of the City of Canby, areas adjacent to Canby that receive electric service from the Canby Utility Board and townships with less than 10 electors in which PGE generating facilities are not located. Nearly all the electric load is located in the western half of the County with the highest concentrations of load in the northwest corner. In addition to the unincorporated portions of the County, CPUD, as proposed, would provide electric service in Barlow, Estacada, Gladstone, Happy Valley, Johnson City, part of Lake Oswego, Milwaukie, Molalla, Oregon City, part of Portland, Sandy, part of Tualatin, and West Linn.

Electric Facilities to be Acquired

The Electric facilities located within the proposed service territory of CPUD include transmission lines, substations, overhead and underground distribution lines, poles, transformers, vaults, service drops, meters, streetlights and any ancillary distribution system facilities. PGE's transmission system in and around the County includes 57-kilovolt (kV), 115-kV and 230-kV lines. There are approximately 30 substations in the County used for transmission system operation and to transform power from transmission voltage to distribution voltage. A significant interconnection point with BPA's transmission network exists at BPA's Oregon City substation near Wilsonville. It is expected that CPUD would take delivery of power from BPA at the Oregon City substation.

Although it is expected that most of the PGE electric transmission and distribution facilities would be acquired, with the exception of the 230-kV transmission system, as noted below, specific facilities to be acquired would be identified at a later time when engineers representing PGE and CPUD would determine how best to separate the CPUD system from the PGE system. It will be necessary to assure that both systems can function efficiently and reliably in the future. Typically, upon mutual agreement to proceed with the establishment of a new publicly-owned utility, an acceptable plan of separation can be developed relatively quickly by electric system engineers.

Based on a preliminary evaluation of the PGE transmission system in the County, the following general concepts have been preliminarily assumed:

- Transmission lines at 230-kV would remain the property of PGE. Interconnecting points for other voltages in the 230-kV yards would become the property of CPUD.

Power transformers in substations that have capacity and are needed to feed outside the CPUD service territory would require some form of joint ownership. Operations of these facilities would be performed through a contractual arrangement with PGE's Distribution Services Division. The City of Canby and PGE presently share ownership of a substation near Canby.

- All 115-kV transmission lines in the CPUD service territory will become the property of CPUD. Some lines outside the CPUD service territory may have to be part of the purchase of facilities from PGE. Most notable are the two lines between Carver and Gresham. There are no substations served in Multnomah County off these lines so the line would be purchased from terminal point to terminal point. Metering will be required at ownership terminal points to account for power flow into, out of and through the CPUD system. Load flow studies will show if open points established by PGE need to be changed for a utility that only serves the County. The load flow studies may show some power flow through CPUD service territory is required for PGE to serve customers outside the County.

- All 57-kV transmission in the CPUD service territory will become the property of CPUD. Some lines outside the CPUD service territory may have to be part of the purchase of facilities from PGE. There are five segments of line that exist in the County and tie to other substations. The lines would be purchased from terminal point to terminal point. Metering will be required at ownership terminal points to account for power flow into, out of and through the CPUD lines. Load flow studies will show if open points established by PGE need to be changed for a utility that only serves the county. The load flow studies may show some power flow through CPUD service territory is required for PGE to serve customers outside Clackamas County.

With the acquired transmission facilities, CPUD will be able to take delivery of bulk power and transmit it to its distribution substations around the County. From the substations, power would be distributed to all the homes and businesses served by CPUD. In the event that after further study, it is determined that all or portions of the transmission system in the County should remain with PGE, it might be necessary that CPUD take ownership of its system at the distribution substations. With this alternative approach, PGE would serve as a transmission provider to CPUD and BPA would contract with PGE for delivery of power to CPUD's distribution system. This would be a similar situation to that which currently exists between Canby Utility Board, PGE and BPA.

Estimated Cost of Electric Facilities

An appraisal of the value of electric facilities in the County to be acquired by CPUD for its electric system has not been conducted. Such an appraisal would rely upon a detailed description of the facilities to be acquired and will potentially be needed if CPUD proceeds towards acquisition of the PGE system in the County. For the purpose of this analysis, the original cost less depreciation (OCLD) value of the electric facilities to be acquired is assumed to be reasonably representative of the cost CPUD would pay for this property. OCLD is defined as the original cost of the property when it was first put into service as a

public utility, less accrued depreciation. The OCLD value is an estimate of the net book value of property, which in general, is equivalent to the rate base value of the property for ratemaking purposes. For regulated properties such as the facilities to be acquired by CPUD, 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.

At the present time, Texas Pacific Group (TPG) has offered approximately $2.35 billion for PGE and review of the proposed sale is currently underway by the Oregon Public Utility Commission. At the proposed sales price, it appears that in effect, PGE's electric utility plant is to be sold at approximately net book value or OCLD. In this circumstance, the "market-defined" value of PGE's property is approximately the same as net book value which provides further reason to consider OCLD as the value of facilities to be acquired by CPUD.

For the purpose of this analysis, it has been assumed that PGE's total investment in transmission and distribution facilities in the County on a per customer basis is proportional with investment in these facilities throughout PGE's entire system. PGE's investment in electric plant as of December 31, 2003 is shown in the following table:

TABLE 1
PGE Total Electric Plant in Service as of December 31, 2003 [1]

Electric Plant in Service		
Intangible Plant	$	119,904,423
Production Plant		1,377,733,335
Transmission Plant		353,447,112
Distibution Plant		1,679,523,110
General Plant		256,561,340
Subtotal	$	3,787,169,320
Less: Adjustments	$	(42,690,684)
Total Electric Plant in Service	$	3,744,478,636

[1] Source: PGE FERC Form No. 1 for 2003. Calculated as Balance at beginning of year plus reported Additions during the year. Adjustments reflect the presumed value of facilities retired during the year.

In 2003, PGE reported 750,496 total electric customers. Based on this number of customers, the total investment in Transmission Plant and Distribution Plant at the end of 2003 is $471 and $2,238 per customer, respectively. Table 2 shows PGE's Net Utility Plant.

TABLE 2
PGE Net Utility Plant as of December 31, 2003 [1]

Utility Plant	$	3,744,478,636
Construction Work in Progress		89,583,408
Total Utility Plant	$	3,834,062,044
Less: Accumulated Depreciation		1,863,811,407
Net Utility Plant	$	1,970,250,637

[1] Source: PGE FERC Form No. 1 for 2003.

In total, the Accumulated Depreciation shown in Table 2 is 48.6% of the Total Utility Plant. It is not known what the actual accumulated depreciation is for transmission and distribution plant, however, it has been assumed that 40% should be a reasonable assumption based on data from previous PGE reports and experience with other utility systems. Based on the estimated plant investment per customer shown above and 40% accumulated depreciation, the OCLD value of the transmission and distribution facilities to be acquired by CPUD is shown in Table 3.

TABLE 3
Estimated Cost of Electric Facilities to be Acquired by CPUD [1]

Distribution Facilities		
Original Cost	$	350,650,000
Less: Accumulated Depreciation		(140,260,000)
Net Cost - Distribution	$	210,390,000
Transmission Facilities		
Original Cost	$	73,792,000
Less: Accumulated Depreciation		(29,517,000)
Net Cost - Transmission	$	44,275,000
Total Facilities - OCLD	$	254,665,000

[1] Based on estimated 156,700 total customers and assumed 40% accumulated depreciation on system facilities.

In total, the estimated cost of the facilities to be acquired based on the assumed OCLD, or net book value, method of valuation is $254.7 million. Statements made recently by PGE indicate that twice the book value of the assets CPUD would acquire is about $500 million[8]. This implies that PGE's estimate of the net book value of the facilities is about $250 million.

Separation Costs

Although CPUD would mostly acquire facilities located within its proposed service territory, some means of separation between the PGE's remaining system and the new CPUD system will need to be established. Rather than a complete immediate physical separation, which could require construction of certain new facilities, it is suggested that a metering system be installed at locations where the distribution feeders extend outside the County. The metering system may take two forms, a primary system on large loads or a distributed automatic metering system for residential and small commercial loads. The automatic metering data and primary metering data would be summed and totaled to establish the amounts of PGE power delivered over the CPUD system and vice versa. Agreements would need to be established to permit PGE to wheel power over portions of CPUD's distribution system to PGE customers located outside CPUD's service area. These agreements would compensate CPUD on an allocated basis for use of CPUD-owned distribution facilities. Agreements of this type have been and continue to be used at locations in Oregon where both utilities agree that it is not cost effective to construct new lines.

[8] PGE, "Why a PUD can't deliver on promises of lower rates: Purchase, start-up and severance costs."