A detailed separation plan will be needed to establish full physical separation of the PGE and CPUD systems. For this analysis, it was assumed that new lines will be required along portions of the County boundaries. Along the southeasterly border, the County line follows Butte Creek and the Pudding River. Rivers offer a natural barrier for most power lines. More concentrated, higher population areas along the west, northwest and northern boundaries of the County will require significant investment in larger overhead and underground distribution lines. In total, it is estimated that approximately 55 miles of new lines along the County boundaries would be needed to establish separation of the two systems. In addition, it is also assumed that three new substations will need to be constructed. An allowance of $25 million is assumed to accomplish this preliminary separation approach. It is further assumed that the new separation facilities will be constructed over a multi-year period with reliance upon the net metering approach until the new lines are built.

Section 3
Estimated Initial Financing Requirements

The estimated initial financing requirements for CPUD's electric system include the costs of acquiring the existing electric facilities from PGE, constructing certain new facilities related to separation of CPUD's system from that of PGE, legal and consulting fees, startup costs and working capital. It is assumed that CPUD would finance the initial acquisition costs with the issuance of revenue bonds that would not be tax-exempt. 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.

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 CPUD. PUD's and municipally owned utilities generally use tax-exempt 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 rates. Further, the 30-year repayment period for the initial bond issuance, as assumed for this analysis, could be shortened if desired. 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. Various exceptions and special conditions could exist that would allow more access to tax-exempt securities to fund the initial financing requirement.

Table 4 shows the estimated initial financing requirements for CPUD's electric system assuming that the purchase price of the existing facilities is $254.7 million as shown in Table 3. Included in Table 4 is $26.5 million for startup costs to purchase vehicles, equipment, materials, stores, office and warehouse space, a customer information system, computer hardware and software, among other items including legal and engineering fees. Certain separation and startup costs shown in Table 4 will not necessarily be incurred at the outset of CPUD operations.

TABLE 4
Clackamas PUD
Estimated Total Initial Costs [1]

Initial System Acquisition	$ 254,665,000
Separation Costs	25,000,000
Startup Costs	26,500,000
Total Initial Costs	$ 306,165,000

[1] Certain separation and startup costs are expected to be incurred over a three year period following initial operation.

As CPUD proceeds towards acquisition of facilities and startup of electric utility operation, a detailed plan of finance will be developed in coordination with CPUD's legal and financial advisors. CPUD will most likely have multiple bond issues carrying different interest rates and different terms. Table 5 provides the estimated initial financing requirements for a taxable and tax-exempt revenue bond issuance. Both bond issues are assumed to have a 30 year term and include the funding of a debt service reserve fund equal to one-year's annual debt service. Financing costs at 1.5% of the bond size are also included. Recent interest rates reported for 30-year revenue bonds are approximately 6% for taxable debt and 5% for tax-exempt debt[9]. Although long-term, fixed rate debt has been assumed for this analysis, CPUD may want to use short-term borrowings with variable interest rates for a portion of its total financing requirement. Variable rate loans have proven very beneficial in some recent electric utility applications.

TABLE 5
Clackamas PUD
Estimated Total Initial Financing Requirements

	Bond Issue A (Taxable Rate)	Bond Issue B (Tax-exempt Rate)
Initial Acquistion Costs	$ 254,665,000	$ -
Separation, Startup, Legal Costs [1]	-	$ 23,900,000
Working Capital [2]	-	35,000,000
Contingency Reserve	-	15,000,000
Subtotal	$ 254,665,000	$ 73,900,000
Financing Expense [3]	4,187,000	1,215,000
Debt Service Reserve [4]	20,279,000	5,269,000
Total Financing Requirement	$ 279,131,000	$ 80,384,000

[1] Amount shown is for first year costs. Certain costs are expected to be incurred over a three year period following initial operation.
[2] Base on approximately two months estimated operating costs.
[3] Estimated at 1.5% of total bond issue.
[4] Based on one years level debt service assuming 6% taxable and 5% tax-exempt interest rates and 30 year repayment period.

[9] Representative interest rates as of April 2, 2004.

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 CPUD's service territory has been estimated to serve as the basis for estimating energy sales and overall power requirements of the CPUD system.

The total number of households in the County in 2003 was approximately 135,200. The number of households is expected to increase to 147,000 by 2008 representing average annual growth of 1.68%. Applying an adjustment factor for the number of residential electric accounts per household and subtracting the number of County residences in Canby, the total number of residential customers to be served by CPUD is presently estimated to be 138,200. Using the relationship between the number of residential accounts and the number of other customer classifications as seen in PGE's system as a whole in 2003, the number of other customer accounts can also be estimated. It is estimated that at present levels, CPUD would serve 15,800 small commercial customers, 2,560 large commercial customers, 40 industrial customers and 110 streetlight customers. In total, CPUD would serve an estimated 156,700 customer accounts at present levels. This total number of customers is approximately 20.8% of PGE's total customer count.

It should be noted that the method of estimating customer counts as described is, at best, an approximation of the number of electric accounts. A more detailed estimate of the number of accounts, potentially available through PGE, will be needed if CPUD proceeds with further evaluation of the electric system.

Assuming average energy consumption per customer similar to that experienced by PGE as a whole in 2003, with adjustment for the presumed lower percentage of large industrial customers in the County compared to other areas of PGE's service territory, total energy sales of CPUD's electric system have been estimated. Total annual energy sales at present levels are estimated to be 3,409,500 megawatt-hours (MWh). This amount represents about 18% of PGE's total annual energy sales.

Assuming 6.0% energy losses, based on representative experience for PGE's system, and assumed annual load growth of 1.68%, the total annual energy requirement of CPUD's electric system is estimated to be 3,745,100 MWh (427.5 average megawatts) in 2006. Based on an assumed load factor (the ratio of average to peak demand) of 60%, the peak demand of the District's electric system is estimated to be 710 megawatts (MW) in 2006.

Table 6 shows the estimated number of electric customers, annual energy consumption per customer, annual energy sales, annual energy requirements and peak demand for the five-

year period, 2006 through 2010. The number of customers shown in Table 4 is assumed to grow at a rate of 1.68% per year through 2008 and at a rate of 1.7% per year thereafter.

TABLE 6
Clackamas PUD
Estimated Number of Customers, Energy Sales and Power Requirements

	2006	2007	2008	2009	2010
Number of Customers					
Assumed Growth Factor	1.68%	1.68%	1.68%	1.70%	1.70%
Residential	142,852	145,251	147,690	150,201	152,754
Small Commercial	16,342	16,616	16,895	17,182	17,474
Large Commercial	2,644	2,688	2,733	2,779	2,826
Industrial	43	44	45	46	47
Streetlights	114	116	118	120	122
Total Customers	161,995	164,715	167,481	170,328	173,223
Annual Energy Use per Customer (kWh)					
Residential	10,860	10,860	10,860	10,860	10,860
Small Commercial	17,500	17,500	17,500	17,500	17,500
Large Commercial	461,000	461,000	461,000	461,000	461,000
Industrial	10,542,300	10,542,300	10,542,300	10,542,300	10,542,300
Streetlights	193,600	193,600	193,600	193,600	193,600
Energy Sales (MWh)					
Residential	1,551,400	1,577,400	1,603,900	1,631,200	1,658,900
Small Commercial	286,000	290,800	295,700	300,700	305,800
Large Commercial	1,218,900	1,239,200	1,259,900	1,281,100	1,302,800
Industrial	453,300	463,900	474,400	484,900	495,500
Streetlights	22,100	22,500	22,800	23,200	23,600
Total Energy Sales	3,531,700	3,593,800	3,656,700	3,721,100	3,786,600
Losses and Own Use	213,400	217,100	220,900	224,800	228,800
Total Energy Reqs. (MWh)	3,745,100	3,810,900	3,877,600	3,945,900	4,015,400
Loss % of Total Reqs.	5.7%	5.7%	5.7%	5.7%	5.7%
Annual Loadfactor	60%	60%	60%	60%	60%
Peak Demand (MW)	710	730	740	750	760

Section 5
Projected Revenue Requirements

Overview of Power Supply Options

A critical element of CPUD's ability to operate as an electric utility will be in obtaining a supply of power. Many 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 is uncertain. As a result, discussions are currently underway with regard to how the low cost power from the federal hydroelectric projects should best be allocated among BPA's customers, existing and new. In addition, BPA has contracted to purchase power at times to supplement the federal resources it has available.

BPA has established certain criteria that must be met before an entity may qualify for service from BPA[10]. To comply with the existing standards of service, an applicant 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, CPUD will be entitled to purchase power from BPA as a preference customer. The cost of BPA power to CPUD will most likely be higher than that paid by other preference customers through September 30, 2006. New large loads placed on BPA's system during the current rate period are subject to the Targeted Adjustment Charge (TAC), 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.

An important issue regarding the TAC is that CPUD should be able to avoid the TAC for a portion of its power purchases from BPA in proportion to the Regional Power Act residential exchange benefits that PGE currently obtains for residential and small farm loads in the County[11]. At the present time, the estimated cost of preference power to CPUD if it were a preference customer assuming a 46% CRAC, is approximately $33.00 per MWh or 3.3 cents

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

[11] At the present time, PGE receives power and payments equivalent to 490 average MW of energy annually through the Regional Power Act residential exchange program. It is estimated that approximately 105 average MW of this total amount would "transfer" to CPUD.

per kWh[12] on an annual basis. Over the next two years, BPA will be establishing new rates for service for the five-year period beginning October 1, 2006. Significant uncertainty exists with regard to what structure the new rates will use and what the actual rates will be. Preliminary discussions with BPA would indicate that a preference power rate in the range of $30-$32 per MWh is reasonable for planning purposes for the 2007-2011 time period.

In addition to BPA, CPUD could pursue purchases of power from other utilities, including PGE. The average cost of power for PGE's total supply of generation and power purchases in 2003 was $35.27 per MWh[13]. Power could also be purchased under short-term or long-term arrangements through power marketers or independent power producers. In the future, CPUD will most likely continue to purchase power from BPA but will also be able to construct new generating facilities of its own, participate jointly with other utilities in new generation facilities and contract to purchase power from other suppliers.

A significant advantage in establishing CPUD will be the opportunity for its elected Directors to establish conservation and power supply policies locally. The Directors can implement appropriate conservation programs and can choose to develop or pursue participation in development of any kind of power generation technology including wind, geothermal and other renewable energy generation systems, waste to energy systems, biomass-fueled generation systems, cogeneration and distributed generation.

PGE presently owns and operates several small to medium-sized hydroelectric generating facilities located in Clackamas County. The Clackamas River Hydroelectric Project (the "Clackamas Project") consists of four separate developments, Oak Grove, North Fork, Faraday and River Mill, licensed by the Federal Energy Regulatory Commission (FERC) as one project[14]. The Clackamas Project is located on the Oak Grove Fork Clackamas River and the Clackamas River and involves a number of dams, reservoirs, pipelines, powerhouses and related facilities extending from Timothy Lake to the River Mill Dam and Powerhouse near Estacada. The total rated capacity of the Clackamas Project is 167 MW, dependable capacity is 67 MW and average annual energy generation is 735,135 MWh[15]. The current FERC license for the Clackamas Project expires on August 31, 2006 and PGE is presently pursuing relicensing of the project. The net book value of the Clackamas Project is reported by PGE to be $63.0 million.

The Willamette Falls Hydroelectric Project, FERC No. 2233, is located on the Willamette River and is comprised of two separate hydroelectric developments located near Oregon City and West Linn. The T.W. Sullivan facility has a generating capacity of 16 MW and average annual energy generation of 122,028 MWh. The Willamette Falls Project also includes the 1.5 MW Blue Heron Paper Company development licensed to Blue Heron Paper Company. The net book value of the T.W. Sullivan Project is reported by PGE to be $8.6 million. PGE

[12] Cost shown is based on PF-02 rates for non-slice customers.
[13] Source: PGE 2003 FERC Form No. 1.
[14] The Clackamas River Hydroelectric Project is licensed as FERC Project No. 2195.
[15] Source: PGE, The Clackamas River Hydroelectric Project, draft license application dated September 30, 2003.

has proposed several measures to enhance downstream fish passage at the T.W. Sullivan development and Willamette Falls estimated by PGE to cost $4.1 million in 2001 dollars[16].

With acquisition of the existing PGE hydroelectric facilities located in the County, a significant portion of CPUD's total power supply would still be generated outside the County. It is expected that CPUD will take delivery of bulk power over the BPA transmission system, which extends throughout the Northwest and is relied upon extensively by essentially all of the region's electric utilities.

Estimated Cost of Power Supply and Transmission

For the purpose of this analysis, the cost of preference power from BPA is considered to be a reasonable estimate of power supply costs for CPUD. Through 2006, a TAC surcharge of $8.40 per MWh and a CRAC of 46% has been applied to the existing PF-02 power rates. Beginning October 1, 2006, it is assumed that PF-02 base rates will be adjusted to include the effect of the existing CRAC surcharge causing no net increase over the effective preference rate presently in place. After the 2006 adjustment, BPA power rates are assumed to increase 3% every two years. CPUD's energy requirement is assumed to occur 65% in heavy load hours and 35% in light load hours, a typical distribution for BPA preference customer loads. Estimated transmission costs are based on BPA's Network Integration 2004 (NT-04) rates with appropriate ancillary service charges. Transmission rates are assumed to increase 3% every three years. As additional information becomes available on the projected pricing and availability of BPA power in the future, CPUD should update its projections of total power cost.

The estimated cost of power and transmission to CPUD for the five year period, 2006 through 2010, is shown in the following table:

[16] Source: PGE, License Application for the Willamette Falls Hydroelectric Project, December 27, 2002.