

**TABLE 7**  
**Clackamas PUD**  
**Estimated Annual Cost of Power and Transmission Services**  
**(Based on Full Requirement Supply from BPA)**

	2006	2007	2008	2009	2010
Energy Required (MWh) <sup>1</sup>	3,745,100	3,810,900	3,877,600	3,945,900	4,015,400
Demand (MW)	710	730	740	750	760
<b>Purchased Power</b>					
<b>BPA Base Rates</b>					
Demand (\$/kW-yr) <sup>2</sup>	22.20	32.19	32.19	33.16	33.16
Energy (\$/MWh) <sup>3</sup>	18.39	26.67	26.67	27.47	27.47
Assumed Escalation	0.0%	45.0%	0.0%	3.0%	0.0%
CRAC <sup>4</sup>	46.0%	0.0%	0.0%	0.0%	0.0%
TAC (\$/MWh) <sup>5</sup>	8.40	-	-	-	-
<b>Annual Charges (\$000)</b>					
Base Cost <sup>6</sup>	\$ 84,637	\$ 125,123	\$ 127,223	\$ 133,247	\$ 135,488
CRAC Charge <sup>4</sup>	38,933	-	-	-	-
TAC Charge	31,459	-	-	-	-
Total	\$ 155,029	\$ 125,123	\$ 127,223	\$ 133,247	\$ 135,488
Total Cost (\$/MWh)	41.40	32.83	32.81	33.77	33.74
<b>Network Transmission (BPA)</b>					
Base, Anc Srv (\$/kW-yr) <sup>7</sup>	18.59	19.15	19.15	19.15	19.72
Anc Srv (\$/MWh) <sup>8</sup>	0.73	0.75	0.75	0.75	0.77
Assumed Escalation	0.0%	3.0%	0.0%	0.0%	3.0%
Annual Charges (\$000)	\$ 15,933	\$ 16,844	\$ 17,085	\$ 17,328	\$ 18,099
Total Cost (\$/MWh)	4.25	4.42	4.41	4.39	4.51

<sup>1</sup> See Table 6.

<sup>2</sup> Demand charge shown is reflective of estimated monthly load for CPUD and monthly variance in BPA demand charges. Base rate is adjusted by Assumed Escalation.

<sup>3</sup> Energy charge shown is weighted average annual charge based on BPA monthly charges and the estimated monthly load for CPUD. Assumes overall CPUD energy use is 65% during BPA-defined heavy load hours and 35% during light load hours. Includes Load Variance charge. Base rate is adjusted by Assumed Escalation.

<sup>4</sup> CRAC charge presumed to be absorbed into Base Rates October 1, 2006.

<sup>5</sup> Assumed Targeted Adjustment Charge based on estimates provided previously by BPA. Estimated to apply only through 2006.

<sup>6</sup> Includes energy, load variance and demand charges.

<sup>7</sup> Includes base charge and ancillary service charges for load shaping, scheduling, system control and dispatch services and reactive and voltage control services.

<sup>8</sup> Includes ancillary service charges for operating reserves and regulation and frequency response.

If CPUD were to acquire the Clackamas River hydroelectric project and the T.W. Sullivan hydroelectric project from PGE, it is expected that CPUD would use the power from these projects to offset purchases of power from BPA. The cost of ownership and operation of the hydroelectric facilities would primarily include debt service, operations and maintenance expenses and various administrative and general expenses. It is expected that CPUD would either contract for maintenance and operation of the facilities or perform this function with its own staff. Assuming a purchase price of \$75.8 million (net book value plus \$4.1 million for

fish enhancements at the T.W. Sullivan Project and Willamette Falls) for the facilities, the annual costs of power from the hydroelectric projects is shown in Table 8.

**TABLE 8**  
**Clackamas PUD**  
**Estimated Annual Cost of Power from Hydroelectric Resources Potentially to be Acquired**  
**(\$000)**

	Clackamas Project	T.W. Sullivan Project
Operation & Maintenance <sup>1</sup>	\$ 4,317	583
FERC Fees <sup>1</sup>	292	73
Property Taxes <sup>1</sup>	899	149
A&G <sup>2</sup>	1,500	400
Subtotal	\$ 7,008	\$ 1,205
Debt Service <sup>3</sup>	5,020	1,010
Renewals & Replacements <sup>4</sup>	1,261	173
Total Annual Cost	\$ 13,289	\$ 2,388
Energy Generation (MWh) <sup>5</sup>	735,173	122,028
Cost of Power (\$/MWh)	18.1	19.6

<sup>1</sup> Based on PGE experienced costs as shown in the Draft License Application for the Clackamas Project and the Final License Application for the T.W. Sullivan project.

<sup>2</sup> Assumed costs of CPUD to administer the projects.

<sup>3</sup> Based on 6% interest rate, 30 year repayment period, 1.5% financing expense and reserve fund with one year's debt service.

<sup>4</sup> Estimated at 2% annually of assumed acquisition cost of the hydroelectric facilities.

<sup>5</sup> Based on average energy generation over the past few years as provided in the PGE License Applications for each facility.

## 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. In acquiring a system that has been paying franchise fees and other taxes, CPUD will continue to pay property taxes, franchise fees or equivalent to local government agencies. PGE reported that it paid \$4.8 million in property taxes and \$5.0

million in franchise fees in the County in 2002. CPUD would also likely collect amounts through its rates for various public purposes and low income energy assistance programs.

Operating expenses for CPUD's electric system, other than power supply costs, have been estimated based on recent experience of other regional PUD's. It is expected that CPUD 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.

At present cost levels, the assumed operating costs for CPUD are as shown in the following table:

**TABLE 9**  
**Clackamas PUD**  
**Assumed Unit Operating Costs (2006 Cost Levels)**

Transmission O&M (\$/MWh)	\$	0.75
Distribution O&M (\$/MWh)	\$	3.25
Customer Accounts (\$/customer per year)	\$	70.00
Energy and Customer Services (\$/customer per year)	\$	12.00
Admin. & General (\$/MWh)	\$	4.00

Annual debt service requirements are based on level debt repayment of bonds issued to finance initial acquisition and startup costs at an assumed annual interest rate of 6.0% and 5.0% for taxable and tax-exempt debt over a 30 year repayment period. CPUD will incur annual expenses for renewals, replacements and additions to the system, assumed to be \$20 million per year. Annual expenditures for capital replacements and additions are projected to be financed 50% out of annual revenues and 50% from new debt. In developing CPUD's estimated annual revenue requirement, it has been assumed that CPUD will pay 4.0% of its total revenues in franchise fees and taxes. The projected annual revenue requirements for CPUD for the first five years of operation, assuming a startup date of January 2006 are shown in the following table:

**TABLE 10**  
**Clackamas PUD**  
**Projected Annual Revenue Requirements**  
**(Assuming 100% Purchased Power)**  
**(\$000)**

	2006	2007	2008	2009	2010
Cost Escalation Factor <sup>1</sup>	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Operating Expenses</b>					
Power Production <sup>2</sup>	\$ -	\$ -	\$ -	\$ -	\$ -
Purchased Power <sup>3</sup>	155,030	125,120	127,220	133,250	135,490
Network Transmission <sup>4</sup>	15,930	16,840	17,090	17,330	18,100
Trans. Oper. & Maint. <sup>5</sup>	2,650	2,740	2,830	2,920	3,010
Dist. Oper. & Maint. <sup>5</sup>	11,480	11,860	12,240	12,650	13,060
Customer Accounts <sup>5</sup>	11,340	11,700	12,080	12,470	12,870
Energy & Cust. Services <sup>5</sup>	1,940	2,010	2,070	2,140	2,210
Admin. & General <sup>5</sup>	14,130	14,590	15,070	15,560	16,080
Low Inc. & Public Purpose <sup>6</sup>	2,400	2,200	2,300	2,400	2,400
Taxes, Franchise Fees <sup>7</sup>	9,500	8,900	9,100	9,500	9,700
Total Operating Exp.	\$ 224,400	\$ 195,960	\$ 200,000	\$ 208,220	\$ 212,920
<b>Debt Service</b>					
Initial Loans <sup>8</sup>	\$ 20,800	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500
Subsequent Loans <sup>9</sup>	1,600	3,100	4,100	4,800	5,500
Total Debt Service	\$ 22,400	\$ 28,600	\$ 29,600	\$ 30,300	\$ 31,000
<b>Renewals, Repl. &amp; Adds.</b>					
Funded from Revenues <sup>10</sup>	\$ 10,000	\$ 10,100	\$ 10,300	\$ 10,400	\$ 10,600
Funded from Debt	10,000	10,200	10,300	10,500	10,600
Total Ren., Repl, Adds.	\$ 20,000	\$ 20,300	\$ 20,600	\$ 20,900	\$ 21,200
<b>Less: BPA Credits <sup>11</sup></b>	\$ (7,700)	\$ -	\$ -	\$ -	\$ -
<b>Less: Interest Earnings <sup>12</sup></b>	\$ (1,000)	\$ (1,100)	\$ (1,100)	\$ (1,200)	\$ (1,200)
<b>Total Revenue Required <sup>13</sup></b>	\$ 248,100	\$ 233,560	\$ 238,800	\$ 247,720	\$ 253,320
<b>Total Energy Sales (MWh) <sup>14</sup></b>	3,531,700	3,593,800	3,656,700	3,721,100	3,786,600
Unit Revenue Req. (¢/kWh) <sup>15</sup>	7.0	6.5	6.5	6.7	6.7
Debt Service Coverage	1.45	1.35	1.35	1.34	1.34

<sup>1</sup> Estimated at 60% of assumed annual inflation of 2.5%.

<sup>2</sup> No power production expenses are included in this case.

<sup>3</sup> Estimated cost of power purchases. See Table 7.

<sup>4</sup> Estimated cost of BPA network transmission services. See Table 7.

<sup>5</sup> Based on unit costs shown in Table 9 with assumed cost escalation included.

<sup>6</sup> Estimated at approximately 1.0% of total revenue requirement.

<sup>7</sup> Estimated at approximately 4.0% of total revenue requirement.

<sup>8</sup> Interest and principal on initial acquisition bond issues shown in Table 5. Assumes level debt service, 6% taxable and 5% tax-exempt interest rates and a 30 year repayment period with interest only in the first year of operation.

<sup>9</sup> Interest and principal on bond issues used to fund a portion of annual Renewals, Replacements and Additions. Assumes level debt service, a 5% tax-exempt interest rate and a 30 year repayment period.

<sup>10</sup> Assumed to be 50% of total annual Renewal, Replacement and Additions expenditures.

<sup>11</sup> Estimated savings in BPA purchased power TAC charges resulting from transfer of PGE Regional Power Act residential exchange credits to CPUD.

<sup>12</sup> Estimated interest earnings on invested reserve fund balances at a 4% interest earnings rate.

<sup>13</sup> Sum of Total Operating Expenses, Total Debt Service, Total Renewals, Replacements and Additions funded from Revenues less BPA Credits.

<sup>14</sup> See Table 6.

<sup>15</sup> Total Revenue Required divided by Total Energy Sales.

Debt service coverage is required by bond underwriters and is typically set at a minimum of between 1.25 and 1.35 of annual debt service for publicly-owned electric utilities. Publicly-owned utilities usually establish policy concerning the percentage of capital improvements to be funded from borrowings and the amount to be funded from current revenues. The policy may be driven to some extent by limits on the amount of debt that banks and financial institutions will reasonably allow particular utilities to incur.

Aside from minor amounts received as other operating revenues and interest income, CPUD's main source of revenue for the electric utility will be through the sale of power to its customers. Table 10 shows the estimated revenue requirements for the period, 2006 through 2010. As can be seen in Table 10, the total unit revenue requirement in the first year (2006) of the projections is estimated to be 7.0 cents per kWh. This unit revenue requirement drops to 6.5 cents per kWh in the next year when the TAC charge would be expected to be dropped from CPUD's BPA power charge. This is the average unit revenue that CPUD would need to collect through energy sales to its customers.

Rates could be established that would reflect the actual cost to serve certain customer classifications (i.e. residential, commercial and industrial). The rates could also include multiple components such as monthly customer charges (e.g. \$7.00 per month), demand charges and energy charges. The total amount received through these various rate components, however, would need to total the Total Revenue Required shown in Table 10 on an annual basis.

Assuming that CPUD were to acquire PGE's hydroelectric generating facilities in the County at costs shown in Table 9, the projected revenue requirements for CPUD would be as shown in Table 11.

**TABLE 11**  
**Clackamas PUD**  
**Projected Annual Revenue Requirements**  
**(Assuming Acquisition of PGE Hydroelectric Generating Facilities)**  
**(\$000)**

	2006	2007	2008	2009	2010
<b>Operating Expenses</b>					
Power Production <sup>1</sup>	\$ 15,920	\$ 16,050	\$ 16,180	\$ 16,310	\$ 16,440
Purchased Power <sup>2</sup>	129,390	99,660	101,760	107,020	109,260
Other Operating Expenses <sup>3</sup>	<u>65,840</u>	<u>67,350</u>	<u>69,180</u>	<u>71,270</u>	<u>73,770</u>
Total Operating Expenses	\$ 211,150	\$ 183,060	\$ 187,120	\$ 194,600	\$ 199,470
Net Other Costs <sup>4</sup>	<u>\$ 23,700</u>	<u>\$ 37,600</u>	<u>\$ 38,800</u>	<u>\$ 39,500</u>	<u>\$ 40,400</u>
<b>Total Revenue Required <sup>5</sup></b>	\$ 234,850	\$ 220,660	\$ 225,920	\$ 234,100	\$ 239,870
<b>Total Energy Sales (MWh) <sup>6</sup></b>	3,531,700	3,593,800	3,656,700	3,721,100	3,786,600
Unit Revenue Req. (¢/kWh) <sup>7</sup>	6.6	6.1	6.2	6.3	6.3

<sup>1</sup> Estimated cost of operation, maintenance, administration, debt service, renewals, replacements and additions related to the Clackamas Project and the T.W. Sullivan Project with CPUD ownership. Assumes level debt service on \$83.1 million of hydroelectric facility acquisition revenue bonds, a 6% annual interest rate and 30 year repayment. Total estimated financing requirement assumes deposit to debt service reserve fund and 1.5% financing expense.

<sup>2</sup> Estimated cost of purchased power from BPA to supply CPUD's net power supply requirement.

<sup>3</sup> Includes all other estimated CPUD operating costs as shown in Table 10.

<sup>4</sup> Includes Debt Service, Renewals, Replacements and Additions, BPA Credits and Interest Earnings as shown in Table 10.

<sup>5</sup> Estimated Total Revenue Required from Sales of Power to CPUD customers.

<sup>6</sup> See Table 6.

<sup>7</sup> Total Revenue Required divided by Total Energy Sales.

## Section 6

### Comparison of Costs

At the present time, electric consumers in the County are receiving electric service from PGE. PGE's FERC Form No.1 for 2003 indicates that the average unit revenue from its customer classes in 2003 were as follows:

**TABLE 12**  
**PGE Average Unit Revenue in 2003 for Representative Customer Classes**  
**(Source: PGE 2003 FERC Form No. 1)**

	Revenue (¢/kWh)
Residential <sup>1</sup>	7.82
Small Commercial <sup>2</sup>	7.95
Large Commercial <sup>3</sup>	6.61
Industrial - 83T	5.27
Industrial - 83P	5.64
Street and Highway Lights <sup>4</sup>	13.71
Total for all Sales <sup>5</sup>	6.96

<sup>1</sup> Includes Residential Service, Outdoor Area Lighting and Residential unbilled revenues. Average revenues for Residential Service alone were 7.90 cents per kWh.

<sup>2</sup> Schedule 32, Small Non-Residential customers.

<sup>3</sup> Schedule 83-S, Large Non-Residential customers.

<sup>4</sup> Includes Street Lighting and Street Lighting unbilled revenues.

<sup>5</sup> Total for all retail customers. Includes effect of unbilled revenues. Note that with the \$45 million of Accrued Revenues indicated in PGE Form 10K filed with the US Securities and Exchange Commission for 2003, the total average unit revenue from retail sales for 2003 would be 7.20 cents per kWh.

Based on the unit revenues shown in Table 12 and the estimated energy sales in the CPUD service area as shown in Table 6, the total cost of electric service to residents and businesses in the County with continued service from PGE has been estimated for a ten year projection period. We are unaware of any published projections of PGE retail rates so, for the purpose of this comparison, PGE average rates have been assumed to increase at 3.5% per year beginning in 2006. This rate of increase is essentially the same average annual increase in PGE total average unit revenues between 1992 and 2003. The cost of continued electric service with PGE is compared to the cost of electric service from CPUD assuming CPUD were to establish rates to recover the estimated revenue requirement shown in Table 10. The comparison of charges is shown in Table 13 for the five year period, 2006 through 2010. It is important to note that the average unit revenues shown in Table 13 for PGE are reflective of the estimated sales by customer class. Further, no attempt has been made to adjust estimated PGE revenues for potential reductions in BPA Residential Exchange credits that could occur in the future. If the Exchange credits decrease, the unit revenues estimated for PGE in Table 13 would show a corresponding increase.

**TABLE 13**  
**Comparative Charges for Electric Service and Estimated Savings with CPUD**  
**(Assuming 100% Purchased Power by CPUD)**

	2006	2007	2008	2009	2010
<b>Estimated PGE Revenues from Energy Sales in Clackamas County</b>					
Assumed Increase in Rates	3.50%	3.50%	3.50%	3.50%	3.50%
Revenues (\$000) <sup>1</sup>	\$ 261,500	\$ 275,300	\$ 289,900	\$ 305,300	\$ 321,500
Unit Revenues (¢/kWh) <sup>2</sup>	7.40	7.66	7.93	8.20	8.49
<b>Estimated CPUD Revenues from Energy Sales</b>					
Revenues (\$000) <sup>3</sup>	\$ 248,100	\$ 233,560	\$ 238,800	\$ 247,720	\$ 253,320
Unit Revenues (¢/kWh) <sup>2</sup>	7.02	6.50	6.53	6.66	6.69
<b>Savings with PUD (\$000)</b>	\$ 13,400	\$ 41,740	\$ 51,100	\$ 57,580	\$ 68,180
<b>Savings with PUD (¢/kWh)</b>	0.38	1.16	1.40	1.55	1.80
<b>Savings with PUD (%) <sup>4</sup></b>	5.1%	15.2%	17.6%	18.9%	21.2%
<b>Cumulative Savings with CPUD - First 10 Years (\$000)</b>	\$ 720,660				
<b>Net Present Value of Savings - First 10 Years (\$000) <sup>5</sup></b>	\$ 498,432				

<sup>1</sup> Calculated using average customer class revenue and estimated customer class loads with assumed increase in rates applied uniformly to each customer class.

<sup>2</sup> Revenues divided by Total Energy Sales.

<sup>3</sup> Estimated Total Revenue Required for CPUD as shown in Table 10.

<sup>4</sup> Relative to estimated PGE revenues.

<sup>5</sup> Cumulative present value to 2004 of estimated savings with CPUD over the first ten years of operation, 2006 through 2015. Assumes a 5% discount rate.

Table 13 shows that the residents and businesses served by PGE in the County would collectively save \$13.4 million or 0.38 cents per kWh in total costs of electric service in 2006. The total savings increase to \$41.7 million or 15.2% in 2007. The total present value savings in total charges for electric service with CPUD over the first ten years of CPUD operation is \$498.4 million assuming a 5% annual discount rate.

With acquisition of the Clackamas and T.W. Sullivan hydroelectric facilities, the total estimated savings with CPUD would be as shown in Table 14.



**TABLE 14**  
**Estimated Comparative Savings with CPUD Under Alternative Power Supply Cases**

Operation Year	Year	Estimated Savings with CPUD (100% Purchased Power) <sup>1</sup>			Estimated Savings with CPUD (With Hydro Acquisition) <sup>2</sup>		
		(\$000)	(¢/kWh)	(%)	(\$000)	(¢/kWh)	(%)
1	2006	\$ 13,400	0.38	5.1%	\$ 26,650	0.75	10.2%
2	2007	41,740	1.16	15.2%	54,640	1.52	19.8%
3	2008	51,100	1.40	17.6%	63,980	1.75	22.1%
4	2009	57,580	1.55	18.9%	71,200	1.91	23.3%
5	2010	68,180	1.80	21.2%	81,630	2.16	25.4%
6	2011	75,060	1.95	22.2%	89,260	2.32	26.4%
7	2012	87,650	2.24	24.6%	101,710	2.59	28.5%
8	2013	95,850	2.40	25.5%	110,660	2.77	29.5%
9	2014	109,460	2.70	27.7%	124,130	3.06	31.4%
10	2015	<u>120,640</u>	2.92	29.0%	<u>136,000</u>	3.29	32.7%
Total - First Ten Years		\$ 720,660			\$ 859,860		
Net Present Value <sup>3</sup>		\$ 498,432			\$ 600,040		

<sup>1</sup> See Table 13. Percent savings is relative to estimated PGE revenues.

<sup>2</sup> Based on CPUD Total Revenue Required assuming acquisition of hydroelectric facilities as shown in Table 11 compared to Estimated PGE Revenues shown in Table 13. Percent savings is relative to estimated PGE revenues.

<sup>3</sup> Cumulative present value to 2004 of estimated savings with CPUD over the first ten years of operation, 2006 through 2015. Assumes a 5% discount rate.