

# Clackamas County People's Utility District

## P.U.D. Feasibility Study

by D Hittle & Associates, electrical engineers and consultants with 35 years experience.

Study commissioned by:

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Willamette Falls; Sullivan Hydroelectric Facility.

### 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	120,640	2.92	29.0%	136,000	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.

REPORT

Preliminary Feasibility Study  
Clackamas People's Utility District  
Electric Facilities Acquisition and  
Establishment of New Electric Utility

April 25, 2004

Prepared for

Clackamas P.U.D. Feasibility Study PAC  
West Linn, Oregon

by

**DHITTLE**  
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*Engineers and Consultants*

Report  
Clackamas People’s Utility District  
Preliminary Feasibility Study

Contents

Section 1 – Introduction and Conclusions ..... 1  
    Introduction ..... 1  
    Methodology ..... 4  
    Conclusions ..... 6  
Section 2 – Estimated Cost of Electric Facilities ..... 8  
    Description of Service Area ..... 8  
    Electric Facilities to be Acquired ..... 8  
    Estimated Cost of Electric Facilities ..... 9  
    Separation Costs ..... 11  
Section 3 – Estimated Initial Financing Requirements ..... 13  
Section 4 – Estimated Number of Customers, Energy Sales and Power Requirements ..... 15  
Section 5 – Projected Revenue Requirements ..... 17  
    Overview of Power Supply Options ..... 17  
    Estimated Cost of Power Supply and Transmission ..... 19  
    Projected Revenue Requirements ..... 21  
Section 6 – Comparison of Costs ..... 26

# Clackamas People's Utility District

## Preliminary Feasibility Study

### Acquisition of Electric System Facilities

## Section 1

### Introduction and Conclusions

#### Introduction

Most of the residents and businesses in Clackamas County, Oregon (County) presently receive electric service from Portland General Electric Company (PGE), an investor-owned electric utility owned by Enron Corporation. In addition to PGE, the City of Canby, through its municipally-owned utility system, provides service to electric consumers in Canby. Concern with ownership issues affecting PGE and the relatively high cost of electric service in the County, as well as an interest in more local control regarding electric service has prompted local citizens to investigate the technical and economic feasibility of establishing a People's Utility District (PUD) to provide electric service in the County, exclusive of the City of Canby.

A PUD is a body of local government that provides certain utility services, such as electricity, in a specified community area. As granted in the Oregon Constitution, PUDs are formed or exist in areas where a majority of the public has sought local ownership and control of the utility. A PUD can usually offer lower costs to its customers than investor-owned utilities because:

- A PUD's products and services are sold at cost-based rates;
- PUDs have access to loans bearing tax-exempt interest rates;
- PUDs are not subject to income taxes;
- PUDs have access to preference power from the federal Columbia River power system.

The PUD Board of Directors, elected by the consumer/owners of the PUD, is comprised of residents of the PUD community.

In March 2004, D. Hittle & Associates, Inc. was retained by the Clackamas PUD Feasibility Study Political Action Committee to provide a preliminary feasibility study of the proposed Clackamas PUD (CPUD). The purpose of this study is to provide a limited initial assessment of various technical and economic issues associated with the establishment of CPUD to acquire certain PGE-owned electric facilities and provide electric service in the County.

The proposed service territory of CPUD would initially 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 power generation 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. In total, CPUD would serve approximately 160,000 electric customers making it the largest PUD in Oregon and approximately the same size, but slightly smaller than Clark Public Utilities, the PUD<sup>1</sup> that serves Vancouver and Clark County, Washington.

A major element in establishing electric service by CPUD would be the acquisition of electric facilities in the County presently owned by PGE. These facilities would include certain transmission lines, substations, overhead and underground distribution lines, transformers, service drops, meters and streetlights. In addition, PGE owns and operates several hydroelectric generating facilities in the County that CPUD may be able to acquire and use to supply a portion of its total power supply requirement.

Although adjacent utilities will often have the capability to interconnect with each other at certain locations and under certain conditions, the wires of these utilities are generally physically separated from each other. PGE's electric system serves a multi-county territory in and around the greater Portland area and has not been configured to serve counties or cities as separate electric systems. Consequently, some reconfiguration of the existing transmission and distribution system, primarily in the vicinity of the County boundary, will eventually be needed to operate the PGE and CPUD systems separate of each other. Initially, however, separation of the systems could be accomplished administratively through a combination of wholesale and retail metering in conjunction with contractual arrangements for delivery of power over the other utility's lines<sup>2</sup>. This administrative approach to separation would be preferred as a lower cost alternative to accomplishing separation of the systems, particularly in the early years of CPUD operation.

As with most Pacific Northwest electric utilities, the most significant annual operating expense that CPUD will incur is the cost of wholesale power. Upon fulfillment of certain criteria primarily related to establishing ownership of its distribution system, CPUD will be entitled to purchase power from the Bonneville Power Administration (BPA). BPA markets the power generated by the federal Columbia River power system and as such, provides the

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<sup>1</sup> PUDs in Washington are Public Utility Districts.

<sup>2</sup> Arrangements of this type were used extensively for a number of years following the formation of Emerald PUD in 1983 and were also used when the City of Hermiston acquired its electric system from PacifiCorp in 2001. In both of these cases, new facilities were constructed over a period of time to eventually obtain physical separation of the electric systems, although Emerald PUD and PacifiCorp still have a few of their respective customers served off the other utility's lines.

majority of the power used by the Northwest's publicly owned electric utilities<sup>3</sup> and approximately 45 percent of all electric power used in the Pacific Northwest.

In addition to BPA, a number of other opportunities for near-term power supply could be available to CPUD including power purchases from PGE, acquisition of hydroelectric facilities in the County and subsequent self-generation, and power purchases from other utilities, independent generating facilities and power marketers. 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.

Even with acquisition of PGE's hydroelectric generation facilities in the County, a significant portion of CPUD's total power supply will 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.

Over the past decade, the electric utility industry has undergone significant changes as various deregulation and restructuring efforts have been undertaken around the country. Deregulation in California in the late 1990's dramatically impacted power prices throughout the western United States. Traditionally, electric utilities have had the obligation to provide generation, transmission and distribution services to the individual customers within their exclusive service territories. In some cases, these services were unbundled and potentially provided by one or more different companies. Many of the long-term investment risks previously undertaken by electric utilities, such as building power plants, are being made by other entities with the intention that the open market will establish the price of power output.

With the changes in the electric utility industry come both opportunities and potential risks. Many more wholesale power supply options now exist than were available to utilities just a few years ago. In the late 1990's, competition among power suppliers along with federally mandated wholesale transmission access lowered the cost of power to many utilities. However, in 2000 and 2001 power costs on the West Coast reached unprecedented heights due to a number of factors including market abuse and price fixing by wholesale marketers. This created significant concern about the future of deregulation of the electric utility industry and most deregulation efforts across the country were either curtailed or deferred. The State of Oregon implemented SB 1149 in March 2002 providing certain electric customers with access to power suppliers other than their connected distribution utility.

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<sup>3</sup> Publicly owned electric utilities in the Pacific Northwest, referred to as BPA preference customers, purchasing all or a portion of their respective power supply requirement from BPA include 28 PUDs, 41 municipal electric utilities and 56 electric cooperatives.