

October 14, 2008

VIA ELECTRONIC MAIL <PUC.FilingCenter@state.or.us>
AND REGULAR MAIL

Public Utility Commission of Oregon
Attention: Filing Center
550 Capitol Street NE, Suite 215
PO Box 2148
Salem, OR 97308-2148

Re: Wah Chang v. PacifiCorp
Docket UM 1002

Dear Sir or Madam:

Enclosed for filing is Wah Chang's Unopposed Motion to Admit into Evidence Responses to Information Requests by Administrative Law Judge, with accompanying marked Exhibits WC/1301 through WC/1307. An original and one copy are concurrently being sent via regular mail.

Very truly yours,



Richard H. Williams

Enclosures

cc (w/enc, by electronic and regular mail):

The Honorable Patrick J. Power
Mr. Robert L. Aldisert
Mr. Paul Graham
Ms. Natalie L. Hocken

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1002

WAH CHANG,)	
)	
vs.)	WAH CHANG'S UNOPPOSED
)	MOTION TO ADMIT INTO EVIDENCE
PACIFICORP,)	RESPONSES TO INFORMATION
)	REQUESTS BY ADMINISTRATIVE
)	LAW JUDGE
Respondent.)	

Pursuant to OAR 860-014-0070(4), Wah Chang moves for an order admitting into evidence:

(a) PacifiCorp's Response to ALJ Data Request 1 (including the workpapers attached thereto), attached hereto as Exhibit WC/1301;

(b) PacifiCorp's Response to ALJ Data Request 2, attached hereto as Exhibit WC/1302;

(c) PacifiCorp's Response to ALJ Data Request 3, attached hereto as Exhibit WC/1303;

(d) PacifiCorp's Response to ALJ Data Request 4, attached hereto as Exhibit WC/1304;

(e) Attachment 1 to Wah Chang's Response to Ruling dated June 26, 2008, attached hereto as Exhibit WC/1305;

(f) Attachment 2 to Wah Chang's Response to Ruling dated June 26, 2008, attached here to as Exhibit WC/1306; and

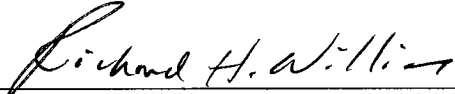
(g) Attachment 3 to Wah Chang's Response to Ruling dated June 26, 2008, attached hereto as Exhibit WC/1307.

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PacifiCorp does not oppose this motion.

DATED: October 14, 2008

LANE POWELL PC

By 
Richard H. Williams, OSB No. 72284
Milo Petranovich, OSB No. 81337

Attorneys for Petitioner Wah Chang

Docket UM 1002
WC/1301

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

PacifiCorp's Response to ALJ Data Request 1
(including the workpapers attached thereto)
dated March 31, 2008

UM-1002/PacifiCorp
March 31, 2008
ALJ Data Request 1

ALJ Data Request 1

I believe it would be helpful for the Commission to have information on the extent to which PacifiCorp, dba Pacific Power (Pacific Power) and its customers benefited from the provision of service to Wah Chang under the terms of the MESA. Therefore, I direct Pacific Power to [a] submit an exhibit that provides, for each month during the five-year term of the tariff, the difference between the company's net revenue with service to Wah Chang, and its likely net revenue in the absence of any service by Pacific Power to Wah Chang. [b] Pacific Power shall submit all work papers supporting these calculations. [c] The exhibit should explain the assumptions used in the analysis and identify sources of uncertainty. For example, how would Pacific Power's wholesale purchases and sales have been different if it had not served Wah Chang? [d] Are the wholesale prices used in the analysis subject to change depending on the outcome of ongoing Federal Energy Regulatory Commission (FERC) proceedings, and, if so, how significant is this uncertainty?

[e] The exhibit also should address the applicability of ORS 757.230, which requires that the commission, in approving a tariff filing primarily related to price competition or a service alternative, at a minimum, shall consider:

- (a) Whether the rate generates revenues at least sufficient to cover relevant short and long run costs of the utility during the term of the rates; and
- (b) Whether the rate generates revenues sufficient to insure that just and reasonable rates are established for remaining customers of the utility.

The parties should address the application of the statute as of December, 2000, when Wah Chang filed this petition.

[f] Pacific Power shall file its workpapers as part of the exhibit.

Response to ALJ Data Request 1

a. Wah Chang Attachment 1 shows the difference between the company's net revenue with service to Wah Chang and its likely net revenue in the absence of any service by Pacific Power to Wah Chang. The sheet titled Monthly Comparison of Revenues to Market Costs compares the revenue actually received from Wah Chang over the term of the contract, to the cost of the energy at market prices on a monthly basis. The sheet titled Annual Comparison of Revenues to Market Costs summarizes the data on an annual basis. The analysis shows approximately \$1.7 million in net revenue over the term of the contract.

UM-1002/PacifiCorp
March 31, 2008
ALJ Data Request 1

During the final two years of the contract, the Wah Chang contract charged market prices, plus 8.04% for line losses, and added 1.1 cents/kWh for the cost of transmission and ancillary services. This 1.1 cent adder was adjusted for inflation each month. This total margin over market prices averaged approximately 2.12 cents/kWh over the final two years of the contract.

b. The workpapers used in this analysis are provided in Wah Chang Attachment 1.

c. The analysis makes no changes to wholesale purchases and sales. The analysis uses the average monthly cost of energy at COB, which is the same price used during the last two years of the contract. The market prices do not include an adjustment for line losses or other services, as was provided in the Wah Chang contract, as explained in part a above.

d. The wholesale prices used in the analysis are not expected to be subject to change unless the Federal Energy Regulatory Commission resets the average monthly cost of energy at COB, which PacifiCorp believes to be highly unlikely at this time.

e. Approval of the contract was clearly subject to ORS 757.230,¹ as well as the Commission's special contract principles as set forth in Order No. 87-402. The Commission's procedure for approving special contracts was consistent with the requirements set forth in ORS 757.230. At the time of approval the contract revenue was compared to avoided costs. The analysis submitted demonstrated that the contract generated a positive contribution to fixed costs over the five-year term and generated sufficient revenues to insure that just and reasonable rates were established for remaining customers of the utility.

f. All calculations used in this analysis are included in Wah Chang Attachment 1.

¹ ORS 757.230 has not been modified since 1987.

PacifiCorp - Oregon
Annual Comparison of Revenues to Market Costs
Teledyne Wah Chang

Year	kWh ¹	Actual ¢/kWh	Actual Revenues ¹	Market Price	Market Cost ²	Difference
1997	43,176,000	2.79	\$1,202,706		\$1,202,706	--
1998	164,544,000	2.79	\$4,594,684	2.29	\$3,771,220	\$823,464
1999	161,736,000	2.80	\$4,520,790	2.57	\$4,149,723	\$371,068
2000A	120,096,000	2.80	\$3,361,262	7.53	\$9,044,249	-\$5,682,986
2000B	39,624,000	14.66	\$5,809,927	12.52	\$4,960,404	\$849,523
2001	125,472,000	21.29	\$26,716,408	18.47	\$23,174,306	\$3,542,102
2002	125,256,000	3.76	\$4,713,553	2.34	\$2,936,418	\$1,777,136
Total	779,904,000		\$50,919,333		\$49,239,025	\$1,680,308

¹Actual loads and revenues for term of contract - September 10, 1997 through September 10, 2002.

²Market cost calculated using actual loads and average monthly DJ COB price, as per terms of contract.

PacifiCorp does not have access to DJ COB prices prior to January 1, 1998.

Year 2000A is January-September 2000 when Wah Chang was on fixed contract price.

Year 2000B is October-December 2000 when Wah Chang was on market price.

PacifiCorp - Oregon
Monthly Comparison of Revenues to Market Costs
Teledyne Wah Chang

Month	1998			2000			2001			2002		
	Actual	Market	Difference	Actual	Market	Difference	Actual	Market	Difference	Actual	Market	Difference
1 January	\$431,928	\$294,459	\$137,469	\$375,380	\$255,015	\$120,365	\$5,796,712	\$5,198,646	\$598,066	\$425,346	\$271,364	\$153,982
2 February	\$389,968	\$208,739	\$181,224	\$395,138	\$250,068	\$145,070	\$3,418,811	\$3,020,713	\$398,099	\$422,425	\$250,888	\$171,537
3 March	\$393,328	\$247,573	\$145,756	\$388,139	\$227,171	\$160,967	\$3,895,207	\$3,440,364	\$454,843	\$516,794	\$318,443	\$198,351
4 April	\$390,153	\$300,201	\$89,952	\$425,897	\$341,117	\$84,780	\$3,475,717	\$3,057,081	\$418,635	\$652,024	\$442,080	\$209,944
5 May	\$422,881	\$183,398	\$239,484	\$362,621	\$306,423	\$56,198	\$4,103,008	\$3,627,326	\$475,681	\$470,377	\$283,874	\$186,503
6 June	\$391,496	\$157,902	\$233,594	\$372,694	\$284,121	\$88,572	\$3,296,341	\$2,886,602	\$409,739	\$458,149	\$269,781	\$188,368
7 July	\$330,388	\$308,542	\$21,846	\$341,804	\$348,083	-\$6,280	\$877,430	\$686,931	\$190,499	\$396,044	\$214,109	\$181,936
8 August	\$378,065	\$337,327	\$140,738	\$368,139	\$398,422	-\$30,283	\$411,232	\$312,841	\$98,391	\$410,781	\$230,188	\$180,582
9 September	\$329,045	\$397,756	-\$68,711	\$333,074	\$389,606	-\$56,532	\$382,605	\$271,533	\$111,071	\$410,781	\$302,750	\$199,966
10 October	\$381,423	\$391,438	-\$10,015	\$388,592	\$74,647	-\$216,055	\$274,294	\$171,446	\$102,848	\$502,716	\$352,930	\$149,786
11 November	\$353,891	\$353,689	\$202	\$384,781	\$439,177	-\$54,396	\$371,742	\$243,725	\$128,017	\$458,895	\$352,930	\$105,965
12 December	\$362,122	\$390,195	-\$1,926	\$394,535	\$335,872	\$58,662	\$413,310	\$257,006	\$156,304			
Total	\$4,584,684	\$3,771,220	\$823,464	\$4,520,780	\$4,149,723	\$371,058	\$26,716,408	\$23,174,306	\$3,542,102	\$4,713,653	\$2,996,418	\$1,777,135

Actual revenue represents actual amounts billed to Wah Chang during each month of the contract term.
Market cost calculated using actual loads and average monthly DJ COB price.

WAH CHANG

	Jan-97	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	12 Months
Basic KW (or Load Factor %)	24,531	25,346	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	307,827
KWH	13,656,000	14,112,000	13,536,000	13,680,000	13,488,000	14,176,000	13,992,000	14,088,000	12,912,000	13,296,000	14,016,000	15,864,000	166,176,000
Off Peak KW	21,688	23,751	23,695	24,029	23,432	23,666	23,581	23,475	22,944	23,290	23,856	25,450	278,075
On Peak KW	23,165	25,934	23,786	24,787	23,479	23,434	23,434	23,752	23,712	23,318	23,971	25,356	289,613
KVAR	10,008	9,576	10,300	9,864	10,512	10,234	10,234	10,152	10,248	10,104	10,776	10,512	122,736
S/Basic KW	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.45	50.00
Fixed Charge	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$440	\$5,960.00
Charges	\$11,478.95	\$11,800.70	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$107,645.40
S/Oa Peak KW	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$600,502.76
Charges	\$64,167.05	\$71,532.48	\$71,427.22	\$68,659.99	\$65,867.83	\$65,230.73	\$64,912.18	\$63,023.04	\$65,682.24	\$63,840.00	\$63,840.00	\$63,840.00	\$600,502.76
Minimum Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$223,840.00
First 14,000,000 KWH	13,656,000	14,000,000	13,536,000	13,680,000	13,488,000	14,000,000	13,992,000	14,088,000	12,912,000	13,296,000	14,000,000	14,000,000	163,960,000
S/KWH	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.02798
Charge	\$447,234.00	\$458,500.00	\$443,304.00	\$448,020.00	\$441,732.00	\$438,588.00	\$438,588.00	\$438,588.00	\$422,868.00	\$422,868.00	\$422,868.00	\$422,868.00	\$391,720.00
All Additional KWH	0	0	0	0	0	0	0	0	0	0	0	0	1,364,000
KWH	0	0	0	0	0	0	0	0	0	0	0	0	2,216,000
S/KWH	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.02513
Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,454.00	\$0.00	\$2,882.00	\$0.00	\$0.00	\$402.08	\$402.08	\$38,248.40
Total Charges	\$447,234.00	\$462,168.00	\$443,304.00	\$448,020.00	\$441,732.00	\$462,954.00	\$438,588.00	\$461,382.00	\$422,868.00	\$422,868.00	\$422,868.00	\$422,868.00	\$5,172,706.08
Excess KVAR	742	0	0	0	0	804	1,186	1,051	763	777	1,188	298	7,809
S/KVAR	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.00
Charges	\$445.20	\$0.00	\$0.00	\$0.00	\$0.00	\$487.40	\$711.60	\$630.60	\$457.80	\$467.80	\$711.60	\$180.00	\$3,327.60
Total Energy Charges:	\$523,325.20	\$544,501.18	\$536,733.47	\$528,732.24	\$520,252.08	\$546,719.38	\$516,264.03	\$537,087.89	\$501,060.29	\$499,708.64	\$499,708.64	\$499,708.64	\$5,942,432.24
Energy Adjustments:													
Primary Metering	(\$7,849.88)	(\$8,182.52)	(\$7,901.75)	(\$7,930.98)	(\$7,803.78)	(\$8,110.79)	(\$7,743.96)	(\$8,056.32)	(\$7,515.90)	\$0.00	\$0.00	\$0.00	(\$71,095.89)
% of Total Energy Charges	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%	0.00%	0.00%	0.00%	0.00%
Primary Delivery	(\$3,679.65)	(\$3,786.90)	(\$3,870.75)	(\$3,870.75)	(\$3,870.75)	(\$3,870.75)	(\$3,870.75)	(\$3,870.75)	(\$3,870.75)	\$0.00	\$0.00	\$0.00	(\$34,561.80)
S/Basic KW	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	(\$0.15)	\$0.00	\$0.00	\$0.00	\$0.00
High Voltage Charge	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$315.00
Total Adjustments	(\$11,494.53)	(\$11,934.42)	(\$11,737.50)	(\$11,766.73)	(\$11,639.53)	(\$11,946.54)	(\$11,579.71)	(\$11,892.07)	(\$11,351.65)	\$0.00	\$0.00	\$0.00	(\$105,342.69)
Monthly Bill to Customer	\$511,830.67	\$533,566.76	\$515,045.97	\$516,965.51	\$508,612.55	\$528,772.84	\$504,684.32	\$525,195.82	\$489,708.64	\$499,708.64	\$499,708.64	\$499,708.64	\$5,837,089.55
Summary													
Basic KW (or Load Factor %)	24,531	25,346	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	25,805	307,827
Basic KW Dollars	\$11,478.95	\$11,800.70	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$12,052.25	\$107,645.40
Off Peak KW	21,688	23,751	23,695	24,029	23,432	23,666	23,581	23,475	22,944	23,290	23,856	25,450	278,075
On Peak KW	23,165	25,934	23,786	24,787	23,479	23,434	23,434	23,752	23,712	23,318	23,971	25,356	289,613
Demand KW Dollars	\$64,167.05	\$71,532.48	\$71,427.22	\$68,659.99	\$65,867.83	\$65,230.73	\$64,912.18	\$63,023.04	\$65,682.24	\$63,840.00	\$63,840.00	\$63,840.00	\$600,502.76
KWH	13,656,000	14,112,000	13,536,000	13,680,000	13,488,000	14,176,000	13,992,000	14,088,000	12,912,000	13,296,000	14,016,000	15,864,000	166,176,000
KWH Dollars	\$447,234.00	\$462,168.00	\$443,304.00	\$448,020.00	\$441,732.00	\$462,954.00	\$438,588.00	\$461,382.00	\$422,868.00	\$422,868.00	\$422,868.00	\$422,868.00	\$5,230,956.48
Kvar KW	10,008	9,576	10,300	9,864	10,512	10,234	10,234	10,152	10,248	10,104	10,776	10,512	122,736
Kvar Dollars	\$445.20	\$0.00	\$0.00	\$0.00	\$0.00	\$487.40	\$711.60	\$630.60	\$457.80	\$467.80	\$711.60	\$180.00	\$3,327.60
Energy Adj. Dollars	(\$11,494.53)	(\$11,934.42)	(\$11,737.50)	(\$11,766.73)	(\$11,639.53)	(\$11,946.54)	(\$11,579.71)	(\$11,892.07)	(\$11,351.65)	\$0.00	\$0.00	\$0.00	(\$105,342.69)
Total Dollars	\$511,830.67	\$533,566.76	\$515,045.97	\$516,965.51	\$508,612.55	\$528,772.84	\$504,684.32	\$525,195.82	\$489,708.64	\$499,708.64	\$499,708.64	\$499,708.64	\$5,837,089.55

Wah Chang Attachment 1

WAH CHANG

	Jan-98	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98	12 Months
Energy Charges:													
KWH	15,600,000	14,339,000	14,065,000	13,944,000	15,240,000	13,992,000	11,808,000	11,512,000	11,760,000	13,632,000	12,648,000	14,016,000	164,544,000
Off Peak KW	24,394	23,701	23,818	24,902	23,272	24,144	22,806	22,032	21,542	23,040	21,725	25,635	282,101
On Peak KW	25,632	25,728	25,748	25,766	24,240	25,344	23,544	23,416	21,773	23,261	23,957	23,741	293,650
KVAR	11,064	10,392	10,584	10,698	11,328	10,944	10,392	10,464	10,272	10,248	10,128	9,888	126,312
	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$2,238,400.00
Minimum Charge													
First 14,000,000 KWH	14,000,000	14,000,000	14,000,000	13,944,000	14,000,000	13,992,000	11,808,000	11,512,000	11,760,000	13,632,000	12,648,000	14,000,000	161,296,000
KWH	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798
SKWH	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$391,720.00	\$4,513,062.08
Charge													
All Additional KWH	1,600,000	328,000	64,000	0	1,240,000	0	0	0	0	0	0	0	3,248,000
KWH	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513
SKWH	\$40,208.00	\$8,242.64	\$1,608.32	\$0.00	\$31,161.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$81,622.24
Charge	\$431,928.00	\$399,962.64	\$393,328.32	\$390,153.12	\$422,881.20	\$391,496.16	\$330,387.84	\$378,065.76	\$329,044.80	\$381,423.36	\$353,891.04	\$392,122.08	\$4,594,684.32
Total Charges													
Load Factor %	77%	80%	80%	78%	79%	77%	80%	74%	78%	76%	76%	79%	7%
Adjustment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Monthly Bill to Customer	\$431,928.00	\$399,962.64	\$393,328.32	\$390,153.12	\$422,881.20	\$391,496.16	\$330,387.84	\$378,065.76	\$329,044.80	\$381,423.36	\$353,891.04	\$392,122.08	\$4,594,684.32
Summary													
Load Factor %	76.8%	80.0%	80.0%	77.9%	78.5%	76.7%	80.4%	73.8%	77.6%	76.3%	75.9%	79.4%	93.3%
Off Peak KW	24,394	24,701	23,818	24,902	23,272	24,144	22,806	22,032	21,542	23,040	21,725	25,635	282,101
On Peak KW	25,632	25,728	25,748	25,766	24,240	25,344	23,544	23,416	21,773	23,261	23,957	23,741	293,650
Demand KW Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KWH	15,600,000	14,339,000	14,065,000	13,944,000	15,240,000	13,992,000	11,808,000	11,512,000	11,760,000	13,632,000	12,648,000	14,016,000	164,544,000
KWH Dollars	\$431,928.00	\$399,962.64	\$393,328.32	\$390,153.12	\$422,881.20	\$391,496.16	\$330,387.84	\$378,065.76	\$329,044.80	\$381,423.36	\$353,891.04	\$392,122.08	\$4,594,684.32
Kvar KW	11,064	10,392	10,584	10,698	11,328	10,944	10,392	10,464	10,272	10,248	10,128	9,888	126,312
Kvar Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Dollars	\$431,928.00	\$399,962.64	\$393,328.32	\$390,153.12	\$422,881.20	\$391,496.16	\$330,387.84	\$378,065.76	\$329,044.80	\$381,423.36	\$353,891.04	\$392,122.08	\$4,594,684.32
Present Meter Read Date	01/13/98	02/10/98	03/11/98	04/09/98	05/11/98	06/10/98	07/08/98	08/05/98	09/03/98	10/03/98	11/01/98	12/01/98	
Previous Meter Read Date	12/05/97	01/12/98	02/10/98	03/11/98	04/09/98	05/11/98	06/10/98	07/08/98	08/05/98	09/03/98	10/03/98	11/03/98	
Days in Billing Cycle	33	29	29	29	30	26	26	30	29	31	29	31	359
Hours in Billing Cycle	792	696	696	708	720	624	624	720	696	768	696	744	8,615

Wah Chang Attachment 1

WAH CHANG

	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	12 Months
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Present Meter Read Date
Previous Meter Read Date
Days in Billing Cycle
Hours in Billing Cycle

	01/15/99	02/14/99	03/15/99	04/16/99	05/14/99	06/15/99	07/15/99	08/03/99	09/01/99	10/01/99	11/01/99	12/03/99	
	12/14/98	01/05/99	02/04/99	03/05/99	04/06/99	05/06/99	06/03/99	07/02/99	08/03/99	09/01/99	10/01/99	11/01/99	
	32	720	696	720	672	720	720	720	696	720	744	744	364
	768												8,735

KWH	13,416,000	14,136,000	13,872,000	15,320,000	12,960,000	13,320,000	12,216,000	13,872,000	11,904,000	12,816,000	11,752,000	14,112,000	161,736,000
Off Peak KW	23,136	23,549	23,792	24,154	22,944	22,944	22,118	22,896	21,888	22,560	21,318	22,886	161,736,000
On Peak KW	24,202	24,461	25,488	24,643	24,518	23,827	22,243	22,819	23,088	23,155	23,760	24,384	277,621
KVAR	10,272	10,416	10,608	9,960	10,032	9,840	9,804	10,152	10,032	10,176	10,272	9,768	286,588
													121,032

Energy Charges:

Miscellaneous Charge	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$2,238,400.00
First 14,000,000 KWH	13,416,000	14,136,000	13,872,000	14,000,000	12,960,000	13,320,000	12,216,000	13,872,000	11,904,000	12,816,000	11,752,000	14,000,000	160,128,000
KWH	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$4,007,778
SKWH	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$384,780.96
Charge	\$375,379.68	\$395,137.68	\$388,138.56	\$372,693.60	\$362,620.80	\$372,693.60	\$341,803.68	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,480,381.44
All Additional KWH	0	136,000	0	1,360,000	0	0	0	0	0	0	0	0	1,608,000
KWH	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$40,409.04
SKWH	\$0.00	\$3,417.68	\$0.00	\$34,176.80	\$0.00	\$0.00	\$0.00	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,520,790.48
Charge	\$375,379.68	\$395,137.68	\$388,138.56	\$425,896.80	\$362,620.80	\$372,693.60	\$341,803.68	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,520,790.48

Kilovar Charges:

Load Factor %	72%	80%	78%	81%	79%	77%	79%	78%	74%	76%	77%	75%	6%
Adjustment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Monthly Bill to Customer	\$375,379.68	\$395,137.68	\$388,138.56	\$425,896.80	\$362,620.80	\$372,693.60	\$341,803.68	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,520,790.48

Summary

Load Factor %	72.2%	80.3%	78.2%	81.3%	78.7%	77.6%	78.9%	78.9%	74.1%	76.9%	77.8%	75.4%	930.1%
Off Peak KW	23,136	23,549	23,792	24,154	22,944	22,944	22,118	22,896	21,888	22,560	21,318	22,886	277,621
On Peak KW	24,202	24,461	25,488	24,643	24,518	23,827	22,243	22,819	23,088	23,155	23,760	24,384	286,588
Demand KW Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KWH	13,416,000	14,136,000	13,872,000	15,360,000	12,960,000	13,320,000	12,216,000	13,872,000	11,904,000	12,816,000	11,752,000	14,112,000	161,736,000
KWH Dollars	\$375,379.68	\$395,137.68	\$388,138.56	\$425,896.80	\$362,620.80	\$372,693.60	\$341,803.68	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,520,790.48
Kvar KW	10,272	10,416	10,608	9,960	10,032	9,840	9,804	10,152	10,032	10,176	10,272	9,768	121,032
Kvar Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Dollars	\$375,379.68	\$395,137.68	\$388,138.56	\$425,896.80	\$362,620.80	\$372,693.60	\$341,803.68	\$388,138.56	\$333,073.92	\$358,591.68	\$384,780.96	\$394,534.56	\$4,520,790.48

Jan-00 Feb-00 Mar-00 Apr-00 May-00 Jun-00 Jul-00 Aug-00 Sep-00 Oct-00 Nov-00 Dec-00 12 Months

	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00	Oct-00	Nov-00	Dec-00	12 Months
Energy Charges:													
Present Meter Read Date	01/15/00	02/15/00	03/15/00	04/15/00	05/15/00	06/15/00	07/15/00	08/15/00	09/15/00	10/15/00	11/15/00	12/15/00	
Previous Meter Read Date	12/01/99	01/01/00	02/01/00	03/01/00	04/01/00	05/01/00	06/01/00	07/01/00	08/01/00	09/01/00	10/01/00	11/01/00	
Days in Billing Cycle	33	29	29	31	29	31	30	31	31	30	29	34	367
Hours in Billing Cycle	792	696	696	743	696	744	720	744	744	720	696	816	8,807
KWH	13,728,000	13,464,000	16,032,000	12,408,000	12,744,000	13,656,000	12,696,000	14,544,000	10,824,000	12,120,000	12,360,000	15,144,000	159,720,000
Off Peak KW	22,880	23,300	24,960	24,960	24,000	24,720	23,520	22,320	19,920	21,840	22,560	23,040	257,832
On Peak KW	23,040	24,000	25,200	24,960	23,280	24,999	22,800	27,120	24,360	21,760	22,560	23,040	288,000
KVAR	9,768	9,864	10,104	10,104	10,248	11,136	10,872	10,704	10,776	9,432	10,608	9,600	123,216
Minimum Charge	\$223,846.60	\$233,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$223,840.00	\$0.00	\$0.00	\$0.00	\$0.00
First 14,000,000 KWH	13,728,000	13,464,000	14,000,000	12,408,000	12,744,000	13,656,000	12,696,000	14,000,000	10,824,000	12,120,000	12,360,000	15,144,000	157,144,000
KWH	\$0.02796	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.02798	\$0.18594	\$0.12192	\$0.19926	\$0.19926
SKWH	\$384,109.44	\$376,722.72	\$391,720.00	\$347,175.84	\$356,577.12	\$382,094.88	\$355,234.08	\$391,720.00	\$302,855.52	\$1,283,975.40	\$1,506,889.82	\$3,017,562.27	\$9,096,637.09
Charge	0	2,032,000	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.10594	\$0.12192	\$0.19926	2,276,000
All Additional KWH	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513	\$0.02513
KWH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SKWH	\$184,109.44	\$176,722.72	\$182,784.16	\$147,175.84	\$156,577.12	\$182,094.88	\$155,234.08	\$182,784.16	\$147,175.84	\$1,283,975.40	\$1,506,889.82	\$3,017,562.27	\$9,161,371.97
Charge	75%	81%	91%	67%	76%	74%	75%	72%	60%	71%	79%	81%	6%
Load Factor %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%
Adjustment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,542.83	\$0.00	\$0.00	\$0.00	\$4,542.83
Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$500.00	\$500.00	\$500.00	\$500.00	\$5,275.00
Other Charges:													
Low Income Surcharge													
Monthly Bill to Customer	\$184,109.44	\$176,997.72	\$182,284.16	\$147,675.84	\$157,077.12	\$182,594.88	\$155,734.08	\$182,784.16	\$147,675.84	\$1,284,475.40	\$1,507,389.82	\$3,018,662.27	\$9,171,895.90
Summary													
Load Factor %	75.2%	80.6%	91.4%	66.9%	76.3%	74.3%	75.0%	72.1%	60.0%	70.8%	78.7%	80.6%	75.2%
Off Peak KW	22,880	23,280	24,960	24,960	24,000	24,720	23,520	22,320	19,920	21,840	22,560	23,040	257,832
On Peak KW	23,040	24,000	25,200	24,960	23,280	24,999	22,800	27,120	24,360	21,760	22,560	23,040	288,000
Demand KW Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KWH	13,728,000	13,464,000	16,032,000	12,408,000	12,744,000	13,656,000	12,696,000	14,544,000	10,824,000	12,120,000	12,360,000	15,144,000	159,720,000
KWH Dollars	\$384,109.44	\$376,722.72	\$442,784.16	\$347,175.84	\$356,577.12	\$382,094.88	\$355,234.08	\$405,390.72	\$302,855.52	\$1,283,975.40	\$1,506,889.82	\$3,017,562.27	\$9,161,372
Kvar KW	9,768	9,864	10,104	10,104	10,248	11,136	10,872	10,704	10,776	9,432	10,608	9,600	123,216
Kvar Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,542.83	\$0.00	\$0.00	\$0.00	\$4,543
Total Dollars	\$384,109.44	\$376,997.72	\$443,284.16	\$347,675.84	\$357,077.12	\$382,594.88	\$355,734.08	\$405,890.72	\$307,898.35	\$1,284,475.40	\$1,507,389.82	\$3,018,662.27	\$9,171,190

Wah Chang Attachment 1

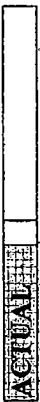
Wah Chang Attachment 1

3/26/2008

ACTUAL

	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	12 Months
Energy Charges													
Previous Meter Read Date	01/04/01	02/02/01	03/02/01	04/02/01	05/01/01	06/01/01	06/30/01	07/02/01	08/02/01	09/05/01	10/04/01	11/02/01	12/04/01
Days in Billing Cycle	31	29	31	31	31	31	31	31	31	31	30	31	32
Hours in Billing Cycle	744	696	744	744	744	744	744	744	744	744	696	744	768
KWH	11,496,000	11,040,000	12,696,000	12,528,000	13,056,000	13,080,000	10,968,000	5,976,000	7,344,000	7,272,000	9,288,000	10,728,000	125,472,000
Off Peak KW	22,560	21,504	20,880	22,968	23,304	22,080	23,160	8,304	14,280	12,936	16,152	18,600	230,544
On Peak KW	22,320	21,552	22,056	23,880	23,880	23,880	9,192	18,240	14,904	17,904	18,600	21,864	256,504
KVAR	10,248	9,408	10,008	10,176	10,968	11,856	15,816	7,704	6,480	8,304	9,312	9,216	119,496
Minimum Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
First 14,000,000 KWH	11,496,000	11,040,000	12,696,000	12,528,000	13,056,000	13,080,000	10,968,000	5,976,000	7,344,000	7,272,000	9,288,000	10,728,000	125,472,000
KWH	11,496,000	11,040,000	12,696,000	12,528,000	13,056,000	13,080,000	10,968,000	5,976,000	7,344,000	7,272,000	9,288,000	10,728,000	125,472,000
Charge	\$0.50419	\$0.30963	\$0.30677	\$0.27740	\$0.25198	\$0.07877	\$0.07877	\$0.06771	\$0.05126	\$0.03709	\$0.03997	\$0.03791	\$0.00
Charge	\$5,796,212.49	\$3,418,311.48	\$3,894,706.92	\$3,475,216.85	\$3,295,840.98	\$863,970.24	\$863,970.24	\$404,661.82	\$376,457.73	\$267,747.60	\$371,241.55	\$406,709.79	\$26,675,585.03
All Additional KWH	0	0	0	0	0	0	0	0	0	0	0	0	0
KWH	0	0	0	0	0	0	0	0	0	0	0	0	0
Charge	\$0.50419	\$0.30963	\$0.30677	\$0.27740	\$0.25198	\$0.07877	\$0.07877	\$0.06771	\$0.05126	\$0.03709	\$0.03997	\$0.03791	\$0.00
Total Charges	\$5,796,212.49	\$3,418,311.48	\$3,894,706.92	\$3,475,216.85	\$3,295,840.98	\$863,970.24	\$863,970.24	\$404,661.82	\$376,457.73	\$267,747.60	\$371,241.55	\$406,709.79	\$26,675,585.03
Load Factor %	68.5%	73.6%	71.4%	81.3%	78.6%	73.6%	63.7%	42.7%	60.4%	60.4%	71.7%	62.3%	67.8%
Adjustment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	1.5%	1.5%	1.5%	0.0%	0.0%	1.5%
Changes	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,959.35	\$6,069.93	\$5,646.87	\$4,046.21	\$0.00	\$6,100.65	\$14,823.21
Low Income Charge	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
Manager Credit	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Public Purpose Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$5,796,712.49	\$3,418,811.48	\$3,895,206.92	\$3,475,716.85	\$4,103,007.58	\$3,296,340.98	\$877,429.79	\$411,231.75	\$382,604.60	\$274,293.81	\$371,741.55	\$413,310.44	\$26,716,408.24
Monthly Bill to Customer													
Load Factor %	68.5%	73.6%	71.4%	81.3%	78.6%	73.6%	63.7%	42.7%	60.4%	60.4%	71.7%	62.3%	67.8%
Off Peak KW	22,560	21,504	20,880	22,968	23,304	22,080	23,160	8,304	14,280	12,936	16,152	18,600	230,544
On Peak KW	22,320	21,552	22,056	23,880	23,880	23,880	9,192	18,240	14,904	17,904	18,600	21,864	256,504
Demand KW Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KWH	11,496,000	11,040,000	12,696,000	12,528,000	13,056,000	13,080,000	10,968,000	5,976,000	7,344,000	7,272,000	9,288,000	10,728,000	125,472,000
KWH Dollars	\$5,796,212.49	\$3,418,311.48	\$3,894,706.92	\$3,475,216.85	\$4,103,007.58	\$3,295,840.98	\$863,970.24	\$404,661.82	\$376,457.73	\$267,747.60	\$371,241.55	\$406,709.79	\$26,675,585.03
Kvar KW	10,248	9,408	10,008	10,176	10,968	11,856	15,816	7,704	6,480	8,304	9,312	9,216	119,496
Kvar Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,959.35	\$6,069.93	\$5,646.87	\$4,046.21	\$0.00	\$6,100.65	\$14,823.21
Total Dollars	\$5,796,712.49	\$3,418,811.48	\$3,895,206.92	\$3,475,716.85	\$4,103,007.58	\$3,296,340.98	\$877,429.79	\$411,231.75	\$382,604.60	\$274,293.81	\$371,741.55	\$413,310.44	\$26,716,408.24
Summary													

Prepared by Pricing



	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	10 Months
										7 days on contract	
Present Meter Read Date	01/04/02	02/04/02	03/05/02	04/03/02	05/02/02	06/03/02	07/02/02	08/02/02	09/03/02	10/02/02	
Previous Meter Read Date	12/04/01	01/04/02	02/04/02	03/05/02	04/03/02	05/02/02	06/03/02	07/02/02	08/02/02	09/03/02	
Days in Billing Cycle	31	31	31	29	29	29	29	29	31	31	29
Hours in Billing Cycle	744	744	744	695	695	695	768	744	744	768	696
											302
											7,247
KWH	10,944,000	12,576,000	14,112,000	12,792,000	12,456,000	12,744,000	12,768,000	12,504,000	13,368,000	10,992,000	125,256,000
Off Peak KW	20,352	22,320	22,224	18,768	19,320	23,424	22,824	23,328	24,504	20,688	217,752
On Peak KW	21,816	22,656	23,256	25,416	22,152	23,616	24,048	23,472	23,940	22,728	232,200
KVAR	9,384	11,592	10,392	11,136	10,896	7,008	11,472	11,952	11,160	3,246	98,238
Minimum Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
First 14,000,000 KWH											
KWH	10,944,000	12,576,000	14,112,000	12,792,000	12,456,000	12,744,000	12,768,000	12,504,000	13,368,000	10,992,000	125,256,000
\$/KWH	\$0.03882	\$0.03355	\$0.03640	\$0.04947	\$0.03664	\$0.03488	\$0.03009	\$0.03187	\$0.03649	\$0.03000	\$0.03649
Charge	\$424,846.08	\$421,924.80	\$513,676.80	\$632,820.24	\$456,387.84	\$444,510.72	\$384,189.12	\$398,502.48	\$487,798.32	\$389,799.34	\$4,554,455.74
All Additional KWH											
KWH/Basic Charge KW	0	0	0	0	0	0	0	0	0	0	0
\$/KWH/KW	\$0.03882	\$0.03355	\$0.03640	\$0.04947	\$0.03664	\$0.03488	\$0.03009	\$0.03187	\$0.03649	\$0.03000	\$0.03649
Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Charges	\$424,846.08	\$421,924.80	\$513,676.80	\$632,820.24	\$456,387.84	\$444,510.72	\$384,189.12	\$398,502.48	\$487,798.32	\$397,773.34	\$4,562,429.74
Load Factor %/Demand Charge	67.4%	74.6%	87.2%	72.4%	80.8%	70.3%	76.3%	71.6%	71.0%	69.0%	61.7%
Adjustment/Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Low Income Charge	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$5,000.00
Merch Credit											
Public Purpose Charge	\$500.00	\$500.00	\$2,617.69	\$18,704.04	\$13,489.29	\$13,138.26	\$11,355.33	\$11,778.39	\$14,417.67	(\$4,943.22)	(\$4,943.22)
Total:	\$425,346.08	\$422,424.80	\$516,794.49	\$652,024.28	\$470,377.13	\$458,148.98	\$396,044.45	\$410,780.87	\$502,715.99	\$458,896.29	\$4,713,553.36
Monthly Bill to Customer											
Load Factor %	67.4%	74.6%	87.2%	72.4%	80.8%	70.3%	76.3%	71.6%	71.0%	69.0%	61.7%
Off Peak KW	20,352	22,320	22,224	18,768	19,320	23,424	22,824	23,328	24,504	20,688	217,752
On Peak KW	21,816	22,656	23,256	25,416	22,152	23,616	24,048	23,472	23,940	22,728	232,200
Demand KW Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,071
KWH	10,944,000	12,576,000	14,112,000	12,792,000	12,456,000	12,744,000	12,768,000	12,504,000	13,368,000	10,992,000	125,256,000
Kvar KW	9,384	11,592	10,392	11,136	10,896	7,008	11,472	11,952	11,160	3,246	98,238
Kvar Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Dollars	\$425,346.08	\$422,424.80	\$516,794.49	\$652,024.28	\$470,377.13	\$458,148.98	\$396,044.45	\$410,780.87	\$502,715.99	\$458,896.29	4,713,553

Energy Charges:

Kilovar Charges:

Other Charges:

Monthly Bill to Customer

Summary

Docket UM 1002
WC/1302

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

PacifiCorp's Response to ALJ Data Request 2

dated July 30, 2008

UM-1002/PacifiCorp
July 30, 2008
ALJ Data Request 2

ALJ Data Request 2

Did Pacific Power, in fact, serve Wah Chang in this manner?

Response to ALJ Data Request 2

It is not possible to allocate specific, individual, sales and purchases at COB to the Wah Chang agreement or to any other customer. The Company serves its portfolio of customers, including Wah Chang, from a portfolio of power resources. Specific resources are not assigned to specific customers. However, it is reasonable to value the Wah Chang agreement based on the COB index.

The Company served its customers, including Wah Chang, from a portfolio of thermal, hydro, and purchased power resources. The Company, then as now, operated a control area that includes retail loads within Oregon, Washington and California and includes generation in those states plus Montana and Wyoming. The aggregated resources in the control area are balanced to the aggregated loads within the control area continuously. This is accomplished with long-term forward purchases and sales (e.g., several months to several years ahead of delivery) in order to roughly balance, with short term purchases and sales (e.g., day-ahead) to more finely balance, and with intra-day (real-time) adjustments to generation and intra-day purchases and sales to precisely balance. The purchases and sales are made at the most economically advantageous locations within the limits of the Company's transmission rights.

During the period in question, the Company made purchases and sales primarily at the two major market hubs in the Pacific Northwest, the California-Oregon border (COB) and the Mid-Columbia. The day-ahead COB prices are published and can be used as an index for pricing transactions, as they were eight years ago.

It is a common industry practice to price transactions at an index. Both fixed-priced transactions and index-priced transactions are commonplace. Index-priced transactions normally use a published index at or near to the point of delivery of the transaction in order to minimize the "basis risk", which is the risk that the value of the energy at the index location would be different than the value of the energy at the point of delivery of the transaction.

While it is not possible to simulate or recreate how the Company served any individual customer such as Wah Chang during this time, it is reasonable to value the incremental retail sale to Wah Chang at an index located nearby, which is COB.

Docket UM 1002
WC/1303

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

PacifiCorp's Response to ALJ Data Request 3

dated July 30, 2008

UM-1002/PacifiCorp
July 30, 2008
ALJ Data Request 3

ALJ Data Request 3

If not, why is the DJ COB index rate a good measure of the cost to Pacific Power and its customers of serving Wah Chang?

Response to ALJ Data Request 3

See Response to ALJ Data Request 2.

Docket UM 1002
WC/1304

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

PacifiCorp's Response to ALJ Data Request 4

dated July 30, 2008

UM-1002/PacifiCorp
July 30, 2008
ALJ Data Request 4

ALJ Data Request 4

The original contract was approved pursuant to the statute [ORS 757.230], which provides that the Commission, in approving a tariff filing primarily related to price competition or a service alternative, at a minimum, shall consider:

- (a) Whether the rate generates revenues at least sufficient to cover relevant short and long run costs of the utility during the term of the rates; and
- (b) Whether the rate generates revenues sufficient to insure that just and reasonable rates are established for remaining customers of the utility.

Pacific Power is requested to address how the Commission should apply that statutory standard in the context of its review of Wah Chang's petition in December, 2000, i.e., whether granting the petition and returning Wah Chang to standard tariff rates would meet these statutory standards.

Response to ALJ Data Request 4

PacifiCorp does not believe that this statute is the proper statutory standard to be applied in reviewing whether Wah Chang's petition should be granted. ORS 757.230 is used in approving a special contract; however, it should not be the standard applied to determine whether a special contract, approved and adopted by the Commission as consistent with this statutory standard at the time the contract is entered into, is subsequently abrogated due to events not in existence at the time the contract was negotiated and executed. As the Commission has stated in its orders, "it is our general policy that only the most compelling circumstances justify retroactive modification of a Commission order adopting a fully negotiated settlement agreement. Such circumstances might include facts constituting mistake, fraud, impossibility, or some other extraordinary basis for modifying an executed agreement." Order No. 01-873 at 6 (citing Order No. 95-857). Both parties have fully briefed what they believe the applicable legal standards to be in this situation and those will not be repeated here.

It is worth noting however, that PacifiCorp does not believe that returning Wah Chang to standard tariff rates is consistent with Commission's statutory and policy decisions on special contracts. For the first three years of the MESA, Wah Chang paid \$5,285,232 less to PacifiCorp than it would have paid under Schedule 48T (standard industrial customer tariff). See Order No. 01-185 at p.2. If Wah Chang had been on the standard 48T tariff rather than the MESA during the last 2 years of the MESA, PacifiCorp would have received less revenue from Wah Chang to offset its own higher costs during the energy crisis and would have had to seek recovery of those costs from its other customers.

UM-1002/PacifiCorp
July 30, 2008
ALJ Data Request 4

The Commission has stated: "One very important factor we consider when a special contract comes before us for review is the impact of the proposed contract on the utility's other customers. Our obligations encompass all customers of the utility companies we regulate. We do not approve proposed special contracts unless it appears that a utility's other customers will benefit. . . The obvious implication is that revenues that Wah Chang would save by being released from the MESA may need to be recovered from other PacifiCorp customers." Order No. 01-085 at p.4.

As stated in the Commission's Order No. 01-873 at p.5, "PacifiCorp points out that its cost of serving its customers will not change whether Wah Chang pays the prices established in the MESA or some other price. Therefore, if Wah Chang is allowed to pay rates less than those established in the MESA, PacifiCorp would need to recover the lost revenue from its other customers as long as market rates are higher than any new rates established in this proceeding." As PacifiCorp stated in its post-hearing brief at page 20, granting Wah Chang's requested relief would require an additional \$25.5 million to be recovered from PacifiCorp's Oregon customers through the UM 995 deferral mechanism. *See also* Confidential Declaration of Mr. William R. Griffith at page 5, ¶ 21.

Docket UM 1002
WC/1305

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

Attachment 1 to
Wah Chang's Response to Ruling dated June 26, 2008,
submitted July 31, 2008

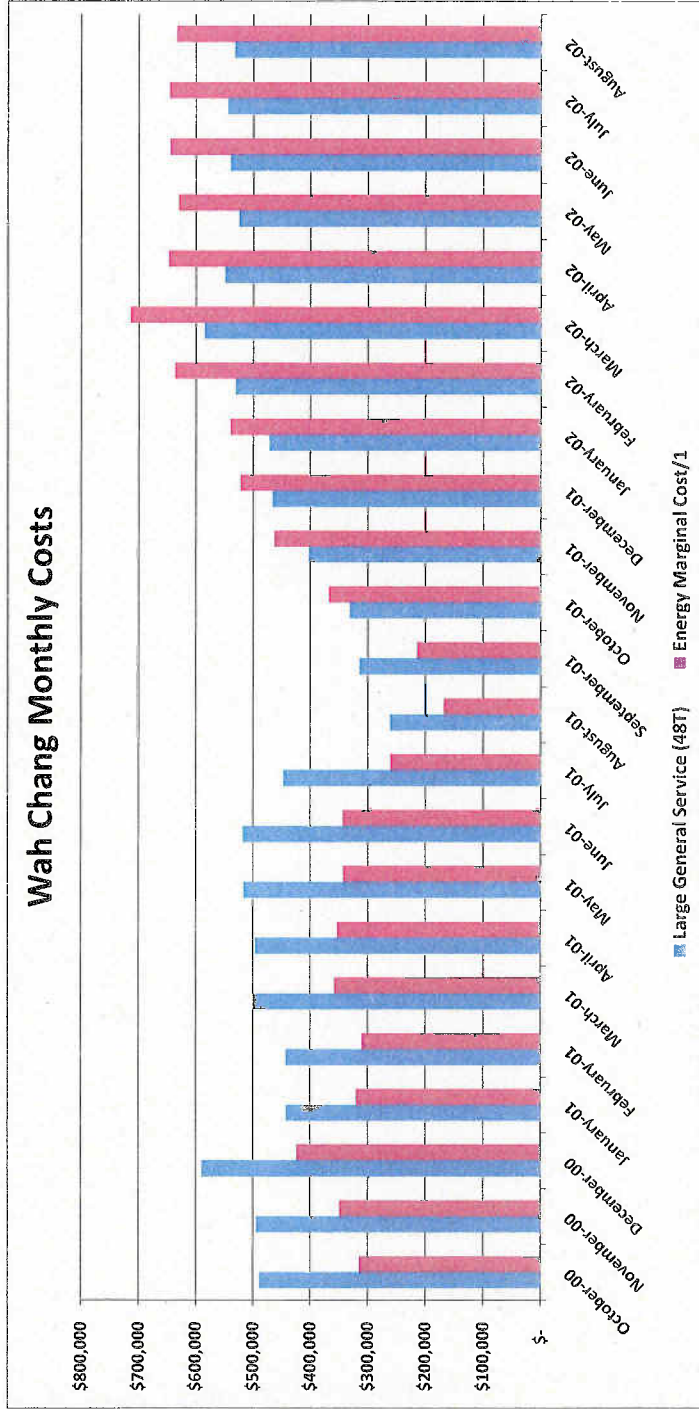
Attachment 1

2000		Oct-00	Nov-00	Dec-00
Large General Service (48T)		\$ 489,151	\$ 494,865	\$ 589,830
Energy Marginal Cost/1		\$ 315,178	\$ 349,616	\$ 424,148

2001		Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01
Large General Service (48T)		\$ 442,777	\$ 442,803	\$ 500,048	\$ 496,741	\$ 517,251	\$ 518,470	\$ 447,098	\$ 261,827	\$ 314,072	\$ 331,643	\$ 402,702	\$ 466,551
Energy Marginal Cost/1		\$ 320,394	\$ 310,165	\$ 358,824	\$ 353,278	\$ 343,121	\$ 343,432	\$ 259,885	\$ 167,273	\$ 214,065	\$ 366,470	\$ 462,305	\$ 521,928

2002		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02
Large General Service (48T)		\$ 471,442	\$ 530,906	\$ 584,186	\$ 549,467	\$ 524,713	\$ 539,465	\$ 543,297	\$ 532,366
Energy Marginal Cost/1		\$ 539,230	\$ 636,138	\$ 713,773	\$ 647,055	\$ 630,073	\$ 644,629	\$ 645,842	\$ 632,499

Wah Chang Monthly Costs



Totals December 2000 Through August 2002	
total 48T, Large General Service	\$ 10,007,653
Energy Marginal Cost/1	\$ 9,534,526
Difference	\$ 473,127

Totals October 2000 Through August 2002	
total 48T, Large General Service	\$ 10,991,668
Energy Marginal Cost/1	\$ 10,199,320
Difference	\$ 792,348

Note: /1 Schedule 5 Avoided Cost with Line Losses and Transmission and Ancillary Services Costs

Docket UM 1002
WC/1306

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

Attachment 2 to
Wah Chang's Response to Ruling dated June 26, 2008,
submitted July 31, 2008

**PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE
METERED TIME OF USE - 1,000 KW AND OVER**

SEP 28 2000
P.U.C.
Utility Program

**OREGON
SCHEDULE 48T**
Page 1

Available:

In all territory served by Company in Oregon.

Applicable:

This schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This schedule will remain applicable until customer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47T.

Monthly Billing:

The Monthly Billing shall be the sum of the Basic, Demand, Energy, and Reactive Power Charges plus applicable Metering and Delivery Adjustments. All Monthly Billings shall be adjusted in accordance with Schedule 91.

Basic Charge:

If Load Size* Is: The Monthly Basic Charge* Is:

4,000 kW or less \$240 plus \$.50 per kW

Over 4,000 kW \$440 plus \$.45 per kW

* Note: kW load size, for the determination of the Basic Charge, shall be the average of the two greatest non-zero monthly demands established anytime during the 12-month period which includes and ends with the current billing month.

Demand Charge:

On-Peak Period Demand

(Monday through Friday: 6:00 a.m. to 10:00 p.m.)

\$2.99 For each kW of Billing Demand (I)

Energy Charge:

Base Rate	Adjustments	Effective Rate	
3.279¢	0.161¢	3.440¢	per kWh

Adjustments:

The Effective Rate includes Adjustments as follows:

	Adjustments
Schedule 191 (Adjustment - System Benefit Charge)	0.027¢ per kWh
Schedule 192 (Adjustment - DSM Recovery)	0.097¢ per kWh
Schedule 195 (Adjustment - Decoupling)	0.037¢ per kWh
Total	0.161¢ per kWh

Minimum Charge:

The minimum monthly charge shall be the Basic Charge. A higher minimum may be required by contract.

(continued)
Advice # 20-077
By P.U.C. Or. No. 34 15th Revised Sheet No. 1
Effective 1-1-2001 (cp)

Issued: September 28, 2000
Effective: With service rendered on and after October 1, 2000

P.U.C. OR No. 34
Fourteenth Revision of Sheet No. 48T-1
Canceling Thirteenth Revision of Sheet No. 48T-1

Issued by
Matthew Wright, Vice President, Regulation

TF1 48T-1.pcf

Order No. 00-580

PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE
METERED TIME OF USE - 1,000 KW AND OVER

RECEIVED
NOV 28 2000
P U C
Utility Program

OREGON
SCHEDULE 48T
Page 1

Available:

In all territory served by Company in Oregon.

Applicable:

This schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This schedule will remain applicable until customer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47T.

Monthly Billing:

The Monthly Billing shall be the sum of the Basic, Demand, Energy, and Reactive Power Charges plus applicable Metering and Delivery Adjustments. All Monthly Billings shall be adjusted in accordance with Schedule 91 and Schedule 99.

(c)

Basic Charge:

If Load Size* Is:	The Monthly Basic Charge* Is:
4,000 kW or less	\$240 plus \$.50 per kW
Over 4,000 kW	\$440 plus \$.45 per kW

* **Note:** kW load size, for the determination of the Basic Charge, shall be the average of the two greatest non-zero monthly demands established anytime during the 12-month period which includes and ends with the current billing month.

Demand Charge:

On-Peak Period Demand

(Monday through Friday: 6:00 a.m. to 10:00 p.m.)

\$2.99 For each kW of Billing Demand

Energy Charge:

Base Rate	Adjustments	Effective Rate	
3.279¢	0.025¢	3.304¢	per kWh

Adjustments:

The Effective Rate includes Adjustments as follows:

	<u>Adjustments</u>
Schedule 96 (Adjustment - Y2K Deferral)	0.002¢ per kWh
Schedule 97 (Adjustment - Sale of Centralia)	(0.138¢) per kWh
Schedule 191 (Adjustment - System Benefit Charge)	0.027¢ per kWh
Schedule 192 (Adjustment - DSM Recovery)	0.097¢ per kWh
Schedule 195 (Adjustment - Decoupling)	0.037¢ per kWh
Total	0.025¢ per kWh

Minimum Charge:

The minimum monthly charge shall be the Basic Charge. A higher minimum may be required by contract.

Advice # 01-002

SUPERSEDED

By P.U.C. Or. No. 34 *16th* Revised Sheet No. 1
Effective 2-1 2001 (op)
(continued)

Issued: November 28, 2000
Effective: With service rendered on and after January 1, 2001

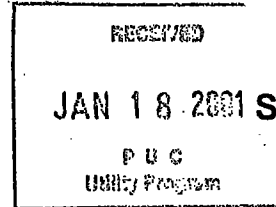
P.U.C. OR No. 34
Fifteenth Revision of Sheet No. 48T-1
Canceling Fourteenth Revision of Sheet No. 48T-1

Issued by
Matthew Wright, Vice President, Regulation

TF1 48T-1:MER

Advice No. 00-017

**PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE
METERED TIME OF USE - 1,000 KW AND OVER**



**OREGON
SCHEDULE 48T
Page 1**

Available:

In all territory served by Company in Oregon.

Applicable:

This schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This schedule will remain applicable until customer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47T.

Monthly Billing:

The Monthly Billing shall be the sum of the Basic, Demand, Energy, and Reactive Power Charges plus applicable Metering and Delivery Adjustments. All Monthly Billings shall be adjusted in accordance with Schedule 91 and Schedule 99.

Basic Charge:

If Load Size* Is:	The Monthly Basic Charge* Is:
4,000 kW or less	\$240 plus \$.50 per kW
Over 4,000 kW	\$440 plus \$.45 per kW

* Note: kW load size, for the determination of the Basic Charge, shall be the average of the two greatest non-zero monthly demands established anytime during the 12-month period which includes and ends with the current billing month.

Demand Charge:

On-Peak Period Demand

(Monday through Friday: 6:00 a.m. to 10:00 p.m.)

\$2.99 For each kW of Billing Demand

Energy Charge:

Base Rate	Adjustments	Effective Rate		
3.279¢	0.190¢	3.469¢	per kWh	(I)

Adjustments:

The Effective Rate includes Adjustments as follows:

	Adjustments	
Schedule 94 (Adjustment - Deferred Accounting)	0.165¢ per kWh	(N)
Schedule 96 (Adjustment - Y2K Deferral)	0.002¢ per kWh	(N)
Schedule 97 (Adjustment - Sale of Centralia)	(0.138¢) per kWh	
Schedule 191 (Adjustment - System Benefit Charge)	0.027¢ per kWh	
Schedule 192 (Adjustment - DSM Recovery)	0.097¢ per kWh	
Schedule 195 (Adjustment - Decoupling)	0.037¢ per kWh	
Total	0.190¢ per kWh	(I)

Minimum Charge:

The minimum monthly charge shall be the Basic Charge. A higher minimum may be required by contract. *Advice #*

SUPERSEDED 01-0

By P.U.C. Or. No. 34 17th Revised Sheet No. 48T
Effective 7-1 2001 (P)

(continued)

Issued: January 18, 2001
Effective: With service rendered on and after February 1, 2001

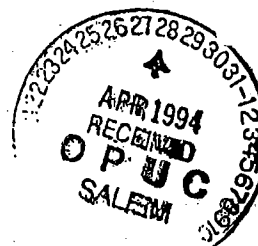
P.U.C. OR No. 34
Sixteenth Revision of Sheet No. 48T-1
Canceling Fifteenth Revision of Sheet No. 48T-1

Issued by
Matthew Wright, Vice President, Regulation

TF1 48T-1.DEF

Advice No. 01-002

**PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE
METERED TIME OF USE - 1,000 KW AND OVER**



**OREGON
SCHEDULE 48T**
Page 2

Reactive Power Charge:

(C)

The maximum 15-minute reactive demand for the month in kilovolt-amperes in excess of 40% of the maximum measured kilowatt demand for the same month will be billed, in addition to the above charges, at 60¢ per kvar of such excess reactive demand.

Company retains the right to change its line voltage or classifications thereof at any time, and after reasonable advance notice to any Customer affected by such change, such Customer then has the option to take service at the new line voltage or to accept service through transformers to be supplied by Company subject to the voltage adjustments above.

Primary Voltage Metering and Delivery Adjustments:

The above monthly charges are applicable without adjustment for voltage when delivery and metering are at Company's standard secondary voltage.

Metering:

For so long as metering voltage is at Company's available primary distribution voltage of 11 kv or greater, the above charges will be reduced by 1.5%.

Delivery:

For so long as delivery is made at the Company's current locally available primary or transmission voltage, the total of the above charges will be reduced by the following amounts per kW of load size used for the determination of the Basic Charge billed in the month; and where such deliveries are metered at the delivery voltage, the following High Voltage Charges shall be added:

<u>Standard Service Voltage</u>	<u>Reduction</u>	<u>High Voltage Charge</u>
Primary voltage of 11 kv or greater	15¢ per kW	\$ 35 per month
Transmission voltage of 60 kv and greater (57 kv locally in Portland)	27¢ per kW	\$340 per month

When a new delivery or an increase in capacity for an existing delivery is, at request of Customer, made by means of Company-owned transformers at a voltage other than a locally standard distribution voltage, the above charges for any month will be increased by 15¢ per kW of load size used for the determination of the Basic Charge billed in the month.

On-Peak Period Billing Demand:

The On-Peak Period kW shown by or computed from the readings of Company's demand meter for the 15-minute period of Customer's greatest use during the month, determined to the nearest kW.

Special Conditions:

Customer shall not resell electric service received from Company under provisions of this schedule to any person, except by written permission of Company and where Customer meters and bills any of his tenants at Company's regular tariff rate for the type of service which such tenant may actually receive.

Term of Contract:

Company may require the Customer to sign a written contract which shall have a term of not less than one year.

Rules and Regulations:

Service under this schedule is subject to the General Rules and Regulations contained in the tariff of which this schedule is a part and to those prescribed by regulatory authorities.

CANCELLED

Issued: April 28, 1994
Effective: With service rendered on and after June 8, 1994

P.U.C. Or. No. 34
First Revision of Sheet No. 48T-2
Cancelling Original Sheet No. 48T-2

Issued by
Robert V. Sirvaltis, Director, Pricing

TF1 48T-2E

Advice No. 94-104

PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE
METERED TIME OF USE - 1,000 KW AND OVER

RECEIVED
JUN 19 2001
PUC
Utility Program

OREGON
SCHEDULE 48T
Page 1

Available:

In all territory served by Company in Oregon.

Applicable:

This schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This schedule will remain applicable until customer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47T.

Monthly Billing:

The Monthly Billing shall be the sum of the Basic, Demand, Energy, and Reactive Power Charges plus applicable Metering and Delivery Adjustments. All Monthly Billings shall be adjusted in accordance with Schedule 91 and Schedule 99.

Basic Charge:

If Load Size* Is:	The Monthly Basic Charge* Is:
4,000 kW or less	\$240 plus \$.50 per kW
Over 4,000 kW	\$440 plus \$.45 per kW

* Note: kW load size, for the determination of the Basic Charge, shall be the average of the two greatest non-zero monthly demands established anytime during the 12-month period which includes and ends with the current billing month.

Demand Charge:

On-Peak Period Demand

(Monday through Friday: 6:00 a.m. to 10:00 p.m.)

\$2.99 For each kW of Billing Demand

Energy Charge:

Base Rate	Adjustments	Effective Rate	
3.279¢	0.182¢	3.461¢	per kWh (R)

Adjustments:

The Effective Rate includes Adjustments as follows:

	Adjustments	
Schedule 93 (Adjustment - AFOR)	0.004¢ per kWh	(N)
Schedule 94 (Adjustment - Deferred Accounting)	0.165¢ per kWh	(N)
Schedule 96 (Adjustment - Y2K Deferral)	0.002¢ per kWh	
Schedule 97 (Adjustment - Sale of Centralia)	(0.138¢) per kWh	
Schedule 191 (Adjustment - System Benefit Charge)	0.027¢ per kWh	
Schedule 192 (Adjustment - DSM Recovery)	0.097¢ per kWh	
Schedule 195 (Adjustment - Decoupling)	0.025¢ per kWh	(R)
Total	0.182¢ per kWh	(R)

Minimum Charge:

The minimum monthly charge shall be the Basic Charge. A higher minimum may be required by contract.

CANCELLED
(continued)

Issued: June 19, 2001
Effective: With service rendered on and after July 1, 2001

P.U.C. OR No. 34
Seventeenth Revision of Sheet No. 48T-1
Canceling Sixteenth Revision of Sheet No. 48T-1

Issued by
D. Douglas Larson, Vice President, Regulation

TF1 48T-1.AFOR

Advice No. 01-014

PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE - 1,000 KW AND OVER
DELIVERY SERVICE

OREGON
SCHEDULE 48
Page 1

RECEIVED

SEP 10 2001

PUC
Utility Program

Available

In all territory served by the Company in the State of Oregon.

Applicable

This Schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This Schedule will remain applicable until the Consumer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47.

Monthly Billing

The Monthly Billing shall be the sum of the Distribution Charge and Transmission & Ancillary Services Charge plus applicable adjustments as specified in Schedule 90.

	<u>Delivery Voltage</u>		
	Secondary	Primary	Transmission
<u>Distribution Charge</u>			
Basic Charge			
Load Size ≤ 4000 kW, per month	\$240.00	\$220.00	\$200.00
Load Size > 4000 kW, per month	\$440.00	\$400.00	\$370.00
Load Size Charge			
Load Size ≤ 4000 kW, per kW Load Size	\$ 0.50	\$ 0.45	\$ 0.40
Load Size > 4000 kW, per kW Load Size	\$ 0.45	\$ 0.40	\$ 0.40
Demand Charge, per kW of billing demand	\$ 1.95	\$ 1.41	\$ 0.53
Reactive Power Charge, per kvar	\$ 0.60	\$ 0.60	\$ 0.60
<u>Transmission & Ancillary Services Charge</u>			
Per kW of billing demand	\$ 1.57	\$ 1.62	\$ 1.85

kW Load Size

For determination of the Basic Charge and the Load Size Charge, the kW load size shall be the average of the two greatest non-zero monthly demands established during the 12-month period, which includes and ends with the current billing month.

Minimum Charge

The minimum monthly charge shall be the Basic Charge and the Load Size Charge. A higher minimum may be required by contract.

Reactive Power Charge

The maximum 15-minute reactive demand for the month in kilovolt-amperes in excess of 40% of the maximum measured kilowatt demand for the same month will be billed at 60¢ per kvar of such excess reactive demand.

(continued)

Issued:	September 10, 2001	P.U.C. OR No. 35
Effective:	With service rendered on and after September 10, 2001	Original Sheet No. 48-1

Issued By

D. Douglas Larson, Vice President, Regulation

TF1 48-1.NB

Advice No. 01-020

Advice #02-019
SUPPLEMENTED
 By P.U.C. Or. No. 35
 Effective 6-1-2002 (P)
 Revised Sheet No. 48-1

PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE - 1,000 KW AND OVER
DELIVERY SERVICE

OREGON
SCHEDULE 48
Page 2

Billing Demand

The kW shown by or computed from the readings of the Company's demand meter for the 15-minute period of the Consumer's greatest use during the month, determined to the nearest kW.

Metering Adjustment

For a Consumer receiving service at secondary delivery voltage where metering is at primary delivery shall have all billing quantities multiplied by an adjustment factor of 0.9583.

For a Consumer receiving service at primary delivery voltage where metering is at secondary delivery voltage shall have all billing quantities multiplied by an adjustment factor of 1.0435.

Supply Service Options

A Consumer taking Delivery Service under this Schedule shall select Supply Service Schedule 200 or Schedule 220, as appropriate and in accordance with the Applicable section of Schedule 200 or Schedule 220.

Special Conditions

The Consumer shall not resell electric service received from the Company under provisions of this Schedule to any person, except by written permission of the Company and where the Consumer meters and bills any of his tenants at the Company's regular Tariff rate for the type of service which such tenant may actually receive.

Term of Contract

The Company may require the Consumer to sign a written contract which shall have a term of not less than one year.

Rules and Regulations

Service under this Schedule is subject to the General Rules and Regulations contained in the tariff of which this Schedule is a part and to those prescribed by regulatory authorities.

Advice 05-013
SUPERSEDED
P.U.C. Or. No. 35 *lot* Revised Sheet No. 48-2
Effective 10-4-05 19 05 *(kw)*

RECEIVED
SEP 10 2001
PUC
Utility Program

Issued: September 10, 2001 P.U.C. OR No. 35
Effective: With service rendered on and after September 10, 2001 Original Sheet No. 48-2

Issued By
D. Douglas Larson, Vice President, Regulation

TF1 48-2.NB Advice No. 01-020

PACIFIC POWER & LIGHT COMPANY
LARGE GENERAL SERVICE - 1,000 KW AND OVER
DELIVERY SERVICE

OREGON
SCHEDULE 48
Page 1

RECEIVED
MAY 30 2002
PUC
Utility Program

Available

In all territory served by the Company in the State of Oregon.

Applicable

This Schedule is applicable to electric service loads which have registered 1,000 kW or more, more than once in a preceding 18-month period. This Schedule will remain applicable until the Consumer fails to exceed 1,000 kW for a subsequent period of 36 consecutive months. Deliveries at more than one point, or more than one voltage and phase classification, will be separately metered and billed. Service for intermittent, partial requirements, or highly fluctuating loads, or where service is seasonally disconnected during any one-year period will be provided only by special contract for such service.

Partial requirements service for loads of 1,000 kW and over will be provided only by application of the provisions of Schedule 47.

Monthly Billing

The Monthly Billing shall be the sum of the Distribution Charge and Transmission & Ancillary Services Charge plus applicable adjustments as specified in Schedule 90.

<u>Distribution Charge</u>	<u>Delivery Voltage</u>		
	Secondary	Primary	Transmission
<u>Basic Charge</u>			
Load Size ≤ 4000 kW, per month	\$240.00	\$220.00	\$200.00
Load Size > 4000 kW, per month	\$440.00	\$400.00	\$370.00
<u>Load Size Charge</u>			
Load Size ≤ 4000 kW, per kW Load Size	\$ 0.50	\$ 0.45	\$ 0.40
Load Size > 4000 kW, per kW Load Size	\$ 0.45	\$ 0.40	\$ 0.40
Demand Charge, per kW of billing demand	\$ 1.94	\$ 1.40	\$ 0.53
Reactive Power Charge, per kvar	\$ 0.60	\$ 0.60	\$ 0.60
<u>Transmission & Ancillary Services Charge</u>			
Per kW of billing demand	\$ 1.57	\$ 1.62	\$ 1.85

Load Size

For determination of the Basic Charge and the Load Size Charge, the kW load size shall be the average of the two greatest non-zero monthly demands established during the 12-month period, which includes and ends with the current billing month.

Minimum Charge

The minimum monthly charge shall be the Basic Charge and the Load Size Charge. A higher minimum may be required by contract.

Reactive Power Charge

The maximum 15-minute reactive demand for the month in kilovolt-amperes in excess of 40% of the maximum measured kilowatt demand for the same month will be billed at 60¢ per kvar of such excess reactive demand.

(continued)

Issued: May 30, 2002
Effective: With service rendered on and after June 1, 2002

P.U.C. OR No. 35
First Revision of Sheet No. 48-1
Canceling Original Sheet No. 48-1

Issued By
D. Douglas Larson, Vice President, Regulation

TF1 48-1.REV2.

Advice No. 02-019

Attachment 2
Page 8 of 8

Case # UE 147
SUPERSEDED
 By P.U.C. Or. No. 35
 Effective 9/1
 Revised Sheet No. 48-1
 2003 kW (JAK)

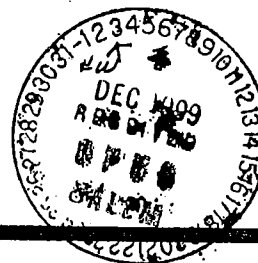
Docket UM 1002
WC/1307

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

WAH CHANG

Attachment 3 to
Wah Chang's Response to Ruling dated June 26, 2008,
submitted July 31, 2008

**PACIFIC POWER & LIGHT COMPANY
PARTIAL REQUIREMENTS SERVICE
1,000 KW OR LESS**



**OREGON
SCHEDULE 5
Page 1**

Available:

In all territory served by Company in Oregon.

Applicable:

To qualifying facilities with a generating design capacity of 1000 kW or less.

Monthly Billing:

(N) The Monthly Billing to the qualifying facility shall be the sum of the Basic Charge specified hereunder and the monthly billing for takings from Company, in accordance with the applicable schedule or schedules for the type of service received. All Monthly Billings shall be adjusted in accordance with Schedule 91.

Basic Charge:

\$5.00 per month

Generation Credit (On-Peak):

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility on-peak generation, 2.71 cents per kilowatt-hour for the period November through April, and 2.52 cents per kilowatt-hour for the period May through October. Peak hours are defined as 6:00 a.m. to 10:00 p.m., Monday through Saturday.

Generation Credit (Off-Peak):

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility off-peak generation, 1.74 cents per kilowatt-hour for the period November through April, and 1.55 cents per kilowatt-hour for the period May through October. Off-peak hours are defined as 10:00 p.m. to 6:00 a.m., Monday through Saturday and all day Sunday.

Parallel Operation:

Interconnection of a qualifying facility with Company's system will be permitted only under the terms of a contract between the qualifying facility and Company. Such contract shall include but not be limited to the following:

- (1) The qualifying facility shall indemnify and hold harmless the Company from any and all liability arising from the operation and interconnection of qualifying facility.
- (2) Qualifying facility shall provide a lockable disconnect switch to isolate qualifying facility's generation from Company's system. Such switch shall be accessible to Company and Company shall have the right to lock such disconnect switch open whenever necessary to maintain safe electrical operating conditions, or whenever the qualifying facility adversely affects Company's system.
- (3) Qualifying facility shall provide an additional meter base adjacent to the delivery meter to measure the qualifying facility's total generation independently from the qualifying facility's load. For three-phase generation the qualifying facility will also provide a meter base for a kvar meter.
- (4) Except for the metering, qualifying facility shall own and maintain all facilities on the qualifying facility's side of a single point of delivery as specified by Company. Qualifying facility's system, including interconnecting equipment, shall meet the requirements of and be inspected and approved by state electrical inspector and any other public authority having jurisdiction before any connection is made to Company.

Advice # 01-017

SUPERSEDED
(continued)

By P.U.C. Or. No. 34 845 Revised Street No. 1

Effective 9-27-2001 (dp)

Issued: December 3, 1999
Effective: With service rendered on and after January 19, 2000

P.U.C. OR No. 34
Seventh Revision of Sheet No. 5-1
Canceling Sixth Revision of Sheet No. 5-1

Issued by
Matthew Wright, Vice President, Regulation

TF1 5-1.LIA

Advice No. 99-011

**PACIFIC POWER & LIGHT COMPANY
PARTIAL REQUIREMENTS SERVICE
1,000 KW OR LESS**



**OREGON
SCHEDULE 5
Page 2**

Unmetered Generation:

If the qualifying facility does not desire to make sales to Company, then the requirement for separate metering of the generation shall be waived. Such generation may reduce the net delivery and billing to the qualifying facility by Company. The delivery meter will be of a type that will not reverse registration and the qualifying facility will not be compensated for unmetered incidental flows to Company.

Definitions:

Qualifying Facility means either a cogeneration facility or small power production facility as defined hereunder:

- (a) **Cogeneration Facility** means a facility which produces electric energy and steam or other forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes through the sequential use of energy.
- (b) **Small Power Production Facility** means a facility which produces electric energy using as a primary energy source biomass, waste, renewable resources, or any combination thereof.

Rules and Regulations:

Service hereunder is subject to the General Rules and Regulations contained in the Company's regularly filed and published tariff and to those prescribed by regulatory authorities.

CANCELLED

Issued:	December 3, 1999	P.U.C. OR No. 34
Effective:	With service rendered on and after January 19, 2000	Third Revision of Sheet No. 5-2 Canceling Second Revision of Sheet No. 5-2

Issued by
Matthew Wright, Vice President, Regulation

TF1 5-2.LIA

Advice No. 99-011

**PACIFIC POWER & LIGHT COMPANY
PARTIAL REQUIREMENTS SERVICE
1,000 KW OR LESS**

**OREGON
SCHEDULE 5
Page 1**

Available:

In all territory served by Company in Oregon.

Applicable:

To qualifying facilities with a generating design capacity of 1000 KW or less.

Monthly Billing:

The Monthly Billing to the qualifying facility shall be the sum of the Basic Charge specified hereunder and the monthly billing for takings from Company, in accordance with the applicable schedule or schedules for the type of service received. All Monthly Billings shall be adjusted in accordance with Schedule 91.

Basic Charge:

\$5.00 per month

Generation Credit (On-Peak):

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility on-peak generation, 4.82 cents per kilowatt-hour. Peak hours are defined as 6:00 a.m. to 10:00 p.m., Monday through Saturday.

Generation Credit (Off-Peak):

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility off-peak generation, 3.42 cents per kilowatt-hour. Off-peak hours are defined as 10:00 p.m. to 6:00 a.m., Monday through Saturday and all day Sunday.

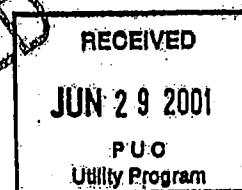
Parallel Operation:

Interconnection of a qualifying facility with Company's system will be permitted only under the terms of a contract between the qualifying facility and Company. Such contract shall include but not be limited to the following:

- (1) The qualifying facility shall indemnify and hold harmless the Company from any and all liability arising from the operation and interconnection of qualifying facility.
- (2) Qualifying facility shall provide a lockable disconnect switch to isolate qualifying facility's generation from Company's system. Such switch shall be accessible to Company and Company shall have the right to lock such disconnect switch open whenever necessary to maintain safe electrical operating conditions, or whenever the qualifying facility adversely affects Company's system.
- (3) Qualifying facility shall provide an additional meter base adjacent to the delivery meter to measure the qualifying facility's total generation independently from the qualifying facility's load. For three-phase generation the qualifying facility will also provide a meter base for a kvar meter.
- (4) Except for the metering, qualifying facility shall own and maintain all facilities on the qualifying facility's side of a single point of delivery as specified by Company. Qualifying facility's system, including interconnecting equipment, shall meet the requirements of and be inspected and approved by state electrical inspector and any other public authority having jurisdiction before any connection is made to Company.

(continued)

CANCELLED



Issued: June 29, 2001
Effective: With service rendered on and after September 27, 2001

P.U.C. OR No. 34
Eighth Revision of Sheet No. 5-1
Cancelling Seventh Revision of Sheet No. 5-1

Issued by
D. Douglas Larson, Vice President, Regulation

TF1 5-1.ACF

Advice No. 01-017

**PACIFIC POWER & LIGHT COMPANY
PARTIAL REQUIREMENTS SERVICE
1,000 KW OR LESS**

**OREGON
SCHEDULE 5**
Page 1

Available

In all territory served by Company in Oregon.

Applicable

To qualifying facilities with a generating design capacity of 1000 kW or less.

Monthly Billing

The Monthly Billing to the qualifying facility shall be the sum of the Basic Charge specified hereunder and the monthly billing for takings from Company, in accordance with the applicable schedule or schedules for the type of service received. All Monthly Billings shall be adjusted in accordance with Schedule 91.

Basic Charge

\$5.00 per month

Generation Credit (On-Peak)

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility on-peak generation, 4.82 cents per kilowatt-hour. Peak hours are defined as 6:00 a.m. to 10:00 p.m., Monday through Saturday.

Generation Credit (Off-Peak)

Company, in accordance with the terms of a contract between the qualifying facility and Company, shall pay, for all separately metered kilowatt-hours of qualifying facility off-peak generation, 3.42 cents per kilowatt-hour. Off-peak hours are defined as 10:00 p.m. to 6:00 a.m., Monday through Saturday and all day Sunday.

Parallel Operation

Interconnection of a qualifying facility with Company's system will be permitted only under the terms of a contract between the qualifying facility and Company. Such contract shall include but not be limited to the following:

- (1) The qualifying facility shall indemnify and hold harmless the Company from any and all liability arising from the operation and interconnection of qualifying facility.
- (2) Qualifying facility shall provide a lockable disconnect switch to isolate qualifying facility's generation from Company's system. Such switch shall be accessible to Company and Company shall have the right to lock such disconnect switch open whenever necessary to maintain safe electrical operating conditions, or whenever the qualifying facility adversely affects Company's system.

(continued)

Issued:	September 18, 2001	P.U.C. OR No. 35
Effective:	With service rendered on and after October 10, 2001	First Revision of Sheet No. 5-1 Canceling Original Sheet No. 5-1

Issued By
D. Douglas Larson, Vice President, Regulation

TF1 5-1.E

Advice No. 01-022

**PACIFIC POWER & LIGHT COMPANY
PARTIAL REQUIREMENTS SERVICE
1,000 KW OR LESS**

**OREGON
SCHEDULE 5
Page 2**

Parallel Operation (continued)

- (3) Qualifying facility shall provide an additional meter base adjacent to the delivery meter to measure the qualifying facility's total generation independently from the qualifying facility's load. For three-phase generation the qualifying facility will also provide a meter base for a kvar meter.

- (3) Except for the metering, qualifying facility shall own and maintain all facilities on the qualifying facility's side of a single point of delivery as specified by Company. Qualifying facility's system, including interconnecting equipment, shall meet the requirements of and be inspected and approved by state electrical inspector and any other public authority having jurisdiction before any connection is made to Company.

Unmetered Generation

If the qualifying facility does not desire to make sales to Company, then the requirement for separate metering of the generation shall be waived. Such generation may reduce the net delivery and billing to the qualifying facility by Company. The delivery meter will be of a type that will not reverse registration and the qualifying facility will not be compensated for unmetered incidental flows to Company.

Definitions

Qualifying Facility means either a cogeneration facility or small power production facility as defined hereunder:

- (a) **Cogeneration Facility** means a facility which produces electric energy and steam or other forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes through the sequential use of energy.

- (b) **Small Power Production Facility** means a facility which produces electric energy using as a primary energy source biomass, waste, renewable resources, or any combination thereof.

Rules and Regulations

Service hereunder is subject to the General Rules and Regulations contained in the Company's regularly filed and published tariff and to those prescribed by regulatory authorities.

Issued:	September 10, 2001	P.U.C. OR No. 35
Effective:	With service rendered on and after September 10, 2001	Original Sheet No. 5-2

Issued By
D. Douglas Larson, Vice President, Regulation

TF1 5-2.E

Advice No. 01-020

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CERTIFICATE OF SERVICE

I certify that on October 14, 2008, I served the foregoing WAH CHANG'S UNOPPOSED MOTION TO ADMIT INTO EVIDENCE RESPONSES TO INFORMATION REQUESTS BY ADMINISTRATIVE LAW JUDGE upon all parties of record in this proceeding, by electronic mail pursuant to OAR 860-013-0070 and by mailing a copy properly addressed with first class postage prepaid, to the following parties or attorneys of parties:

Paul Graham
Assistant Attorney General
Department of Justice
Regulated Utility & Business Section
1162 Court Street NE
Salem, OR 97301-4096
paul.graham@state.or.us

Natalie Hocken
Vice President & General Counsel
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232-2152
natalie.hocken@pacificorp.com

Robert L. Aldisert
Perkins Coie LLP
1120 NW Couch Street, Tenth Floor
Portland, OR 97209-4128
jvannostrand@perkinscoie.com



Richard H. Williams
Of Attorneys for Petitioner Wah Chang

UM 1002. CERTIFICATE OF SERVICE TO WAH CHANG'S UNOPPOSED MOTION TO ADMIT INTO EVIDENCE PARTIES' RESPONSES TO INFORMATION REQUESTS BY ADMINISTRATIVE LAW JUDGE