



PACIFIC POWER UTAH POWER

DATE: September 12, 2003

TO: ~~Utah Service Centers~~

FROM: Mark Tucker - 800 LCT

SUBJECT: Advice No. 03-09
Schedule 37 - Avoided Cost Purchases From Qualifying Facilities

The attached letter, support documents and tariff sheets were filed with the Utah Public Service Commission on September 12, 2003. The Company has requested an approval date of October 13, 2003.

Second Revision of Sheet No. 37.2	Schedule 37	Avoided Cost Purchases From Qualifying Facilities
Second Revision of Sheet No. 37.3	Schedule 37	Avoided Cost Purchases From Qualifying Facilities

Enclosures



September 12, 2003

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84111

Attn: Julie P. Orchard
Commission Secretary

RE: Advice Filing 03-009
Schedule 37 - Avoided Cost Purchases From Qualifying Facilities

PacifiCorp (d.b.a. Utah Power & Light Company) hereby submits for filing an original and ten copies of proposed changes to Schedule 37 of Tariff P.S.C.U. No. 44 of Utah Power & Light Company applicable to electric service in the State of Utah. Pursuant to the requirement of Rule R746-405D, PacifiCorp states that the proposed tariff sheets do not constitute a violation of state law or Commission rule. PacifiCorp will also provide an electronic version of this filing to aflanders@utah.gov. PacifiCorp respectfully requests an effective date of October 13, 2003.

Second Revision of Sheet No. 37.2	Schedule 37	Avoided Cost Purchases From Qualifying Facilities
Second Revision of Sheet No. 37.3	Schedule 37	Avoided Cost Purchases From Qualifying Facilities

On May 30, 2003 the Commission issued their order in Docket No. 03-2035-01, acknowledging the Company's Integrated Resource Plan 2003. The Company is filing updated avoided costs that are consistent with the acknowledged plan.

On January 15, 2002 the Commission issued their order in Docket No. 01-2035-01, in which they specified the specific methodology to be used for the calculation of avoided costs. This filing complies with the Commission adopted methodology.

Tariff Sheet No. 37.2 is being filed with the updated dates. Tariff Sheet No. 37.3 is being filed with the updated prices. All other Schedule 37 tariff pages are not effected by this filing and are not being updated.



Proud Sponsor of the
2002/2004 U.S. Olympic Team

Advice No. 03-09
PacifiCorp
September 12, 2003
Page 2

It is respectfully requested that all formal correspondence and staff requests regarding this matter be addressed to:

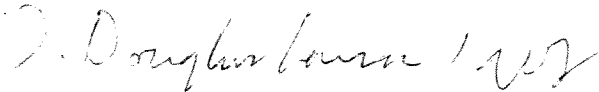
By E-mail (preferred): datarequest@pacificorp.com

By Fax: (503) 813-6060

By regular Mail: Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 800
Portland, Or 97232

Informal inquiries may be directed to Laren Hale at (503) 813-6054 or Mark Widmer at (503) 813-5541.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. Douglas Larson".

D. Douglas Larson
Vice President, Regulation

Enclosures

Appendix A

Avoided Cost Calculation

Commission Ordered Methodology
(Wholesale Market 12 Months, SCCT 22 Months, CCCT Thereafter)

September 2003

The starting point for the avoided cost calculation is the loads and resource balance developed in conjunction with the Company's Integrated Resource Plan (IRP) filed in Utah in January 2003. It should be noted that the input assumptions for the IRP were fixed in August 2002, in order to enable completion of the IRP in early 2003. Due to the age of the input assumptions, many of the inputs have been updated for known changes for purposes of this avoided cost calculation.

Loads and Resources

The load forecast included in the January 2003 IRP was developed in early 2002. Due to the age of the forecast, it was replaced with a more current forecast dated March 2003.

Long-term sales and purchase contracts were also updated to include information available as of July 2003. These changes include the addition or revision of several long-term purchase contracts, including Pinnacle West, Grant County (Priest Rapids) and P4 Production.

Table 1 shows the Company's loads and resource balance. Table 1 shows an energy surplus of 596 aMW in 2003 declining to an energy deficit of 226 aMW in 2007 and a summer capacity deficit of 670 MW in 2003. The winter peak has a capacity surplus of 853 MW in 2003 declining to a capacity deficit of 520 MW in 2008.

Avoided Cost Calculation

The methodology used in this filing is consistent with the Commissions Order in Docket No. 01-2035-01. The Company used its Official Market Price Projections for market prices for 12 months. The theoretical costs of a simple cycle combustion turbine (SCCT) are used for 22 months. The Company then used the cost of a combined cycle combustion turbine (CCCT) for the remainder of the study.

Official Market Price Projection

Wholesale market prices used in this filing were developed by the Company's Market Price Steering Committee and represent the Company's "Official Market Price Projections." This forecast was updated and released in late July 2003.

Table 2 shows the avoided costs for the first four and a half years of the study. The Company can obtain power from a number of markets within the region. For this reason, prices are the simple average of the primary wholesale markets the Company does business in (COB, Mid Columbia and Palo Verde). Two seasons, summer and winter, are

calculated to provide the seasonal prices required by Schedule 37. To calculate 2004 avoided costs, wholesale market prices are used for the first eight months and SCCT prices are used for the remaining four months. SCCT prices apply for only four months so SCCT Fixed Costs have been adjusted for the partial year. To calculate 2006 avoided costs, SCCT prices are used for the first six months and CCCT costs are used for the remaining six months.

Combined Cycle Combustion Turbine

Consistent with the Commissions Order in Docket No. 01-2035-01, the Company uses a combined cycle combustion turbine (CCCT) as a proxy of future resource costs. The avoided costs are determined to be the fixed and variable costs of the planned resource that could be avoided or deferred.

Since CCCTs are built as base load units that provide both capacity and energy, the fixed costs of this unit are split into capacity and energy components. The fixed cost of a SCCT, which is usually acquired as a capacity resource, defines the portion of the fixed cost of the CCCT that is assigned to capacity. Fixed costs associated with the construction of a CCCT which are in excess of SCCT costs are assigned to energy and are added to the variable production (fuel) cost of the CCCT to determine the total avoided energy costs. Table 3 shows this calculation.

The fuel cost of the CCCT defines the avoided variable energy costs. The gas price forecast used as the basis for the CCCT fuel cost is discussed later in this document. Table 4 shows the CCCT fuel cost, the addition of capitalized energy costs at an assumed 85% capacity factor and the total avoided energy costs.

Since energy generated by a qualifying facility may not exactly match the 85% capacity factor shown in Table 4, we have revised the calculation at 75%, 85% and 95% to illustrate the impact of differing generation levels. This calculation is shown in Table 5.

Avoided energy costs can be differentiated between on-peak and off-peak periods. To make this calculation, the Company assumed that all capacity costs are incurred to meet on-peak load requirements. On an annual basis, approximately 57% of all hours are on-peak and 43% are off-peak. Table 6 shows the calculation of on-peak and off-peak avoided energy prices.

For informational purposes, Table 7 shows a comparison between the avoided costs currently in effect in Utah and the proposed avoided costs in this filing.

Table 8 shows the calculation of the total fixed costs and fuel costs that are used in Table 3 and Table 4.

Gas Price Forecast

Gas prices used in this filing were developed by the Company's Market Price Steering Committee and represent the Company's "Official Market Price Projections." The Market Price Steering Committee developed three different scenarios that represent a

reasonable range of future market prices. The medium future titled “Base Case” was used in this calculation.

The Official Forward Gas Curve consists of a blend of the July 22, 2003 market gas curve and the gas prices used in the Company’s market price clearing model (Midas) to produce the power curve. (The Midas input gas prices, in turn, were a combination of the July 15, 2003 market gas projections and PIRA long-term gas forecast dated April 10, 2003.) The proportions used in this blending are shown in the table below.

	Market	Midas
Through August, 2006	100%	0%
September 2006-February 2007	75%	25%
March 2007-August 2007	50%	50%
September 2007-February 2008	25%	75%
March 2008 onward (Midas/PIRA)	0%	100%

Table 9 shows the natural gas price used in this avoided cost calculation.

Table 1
Loads and Resources

	2003	2004	2005	2006	2007	2008	2009
Peak (July)		(1)	(1)				
Net Load	8,029	8,214	8,682	8,944	9,230	9,552	9,863
Long Term Sales	<u>1,397</u>	<u>1,101</u>	<u>940</u>	<u>968</u>	<u>696</u>	<u>554</u>	<u>479</u>
Total Requirements	9,426	9,315	9,622	9,912	9,926	10,106	10,342
Long Term Purchases	2,089	1,693	1,251	1,407	1,075	1,069	1,064
Thermal Generation	6,641	6,641	6,641	6,641	6,400	6,400	6,400
Other Generation	621	567	567	621	621	621	621
Reserves	<u>(594)</u>	<u>(592)</u>	<u>(592)</u>	<u>(594)</u>	<u>(577)</u>	<u>(577)</u>	<u>(577)</u>
Total Resources	8,756	8,309	7,867	8,074	7,518	7,512	7,507
Surplus / (Deficit)	(670)	(1,006)	(1,754)	(1,837)	(2,408)	(2,593)	(2,834)
Percent Surplus / (Deficit)	-7.1%	-10.8%	-18.2%	-18.5%	-24.3%	-25.7%	-27.4%
Peak (January)							
Net Load	7,326	7,586	7,925	8,010	8,202	8,398	8,610
Long Term Sales	<u>1,232</u>	<u>989</u>	<u>836</u>	<u>828</u>	<u>558</u>	<u>509</u>	<u>509</u>
Total Requirements	8,558	8,575	8,761	8,838	8,760	8,907	9,119
Long Term Purchases	2,577	2,441	2,221	2,206	2,212	1,777	1,774
Thermal Generation	6,641	6,641	6,641	6,641	6,400	6,400	6,400
Other Generation	871	871	871	871	871	871	871
Reserves	<u>(678)</u>	<u>(678)</u>	<u>(678)</u>	<u>(678)</u>	<u>(661)</u>	<u>(661)</u>	<u>(661)</u>
Total Resources	9,411	9,275	9,055	9,040	8,822	8,387	8,384
Surplus / (Deficit)	853	700	294	202	62	(520)	(734)
Percent Surplus / (Deficit)	10.0%	8.2%	3.4%	2.3%	0.7%	-5.8%	-8.1%
aMW							
Net Load	5,936	6,148	6,369	6,491	6,645	6,822	6,971
Long Term Sales	<u>829</u>	<u>706</u>	<u>585</u>	<u>532</u>	<u>398</u>	<u>383</u>	<u>343</u>
Total Requirements	6,765	6,854	6,953	7,023	7,042	7,205	7,314
Long Term Purchases	1,258	1,248	1,164	1,189	922	718	908
Thermal Generation	6,124	6,124	6,124	6,124	5,898	5,898	5,898
Other Generation	585	585	585	585	585	585	585
Reserves	<u>(605)</u>	<u>(606)</u>	<u>(605)</u>	<u>(605)</u>	<u>(589)</u>	<u>(590)</u>	<u>(589)</u>
Total Resources	7,361	7,352	7,268	7,293	6,816	6,610	6,801
Surplus / (Deficit)	596	497	315	270	(226)	(594)	(513)
Percent Surplus / (Deficit)	8.8%	7.3%	4.5%	3.8%	-3.2%	-8.2%	-7.0%

(1) Summer peak is August rather than July

(2) Loads - March 2003 update

Table 2
Wholesale Market Based Avoided Energy Costs August 2003 - July 2004
Simple Cycle CT (SCCT) August 2004 - May 2006
Combined Cycle CT (CCCT) Based Avoided Costs June 2006 to Dec 2007)
\$/MWH

Year	Winter Season				Summer Season						Winter Season	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

On-Peak

2003											\$52.00	\$49.00	\$49.17	\$53.17
2004	\$52.36	\$50.76	\$45.95	\$40.47	\$36.41	\$37.99	\$47.75	\$55.76	\$60.46	\$60.46	\$60.46	\$60.46	\$60.46	\$60.46
2005	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70	\$68.70
2006	\$69.14	\$69.14	\$69.14	\$69.14	\$69.14	\$69.14	\$50.16	\$50.16	\$50.16	\$50.16	\$50.16	\$50.16	\$50.16	\$50.16
2007	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96	\$50.96

Off-Peak

2003											\$38.50	\$38.88	\$39.75	\$43.50
2004	\$43.75	\$42.25	\$37.75	\$32.39	\$23.97	\$23.46	\$33.73	\$39.05	\$54.93	\$54.93	\$54.93	\$54.93	\$54.93	\$54.93
2005	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70	\$51.70
2006	\$51.71	\$51.71	\$51.71	\$51.71	\$51.71	\$51.71	\$32.73	\$32.73	\$32.73	\$32.73	\$32.73	\$32.73	\$32.73	\$32.73
2007	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10	\$33.10

Combined

2003											\$46.43	\$44.36	\$44.56	\$47.90
2004	\$47.22	\$45.94	\$41.80	\$36.87	\$32.20	\$32.96	\$42.59	\$49.29	\$58.08	\$58.08	\$58.08	\$58.08	\$58.08	\$58.08
2005	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39	\$61.39
2006	\$61.65	\$61.65	\$61.65	\$61.65	\$61.65	\$61.65	\$42.66	\$42.66	\$42.66	\$42.66	\$42.66	\$42.66	\$42.66	\$42.66
2007	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28	\$43.28

Annual Seasonal Average

	Winter Season			Summer Season		
	On-Peak	Off-Peak	Combined	On-Peak	Off-Peak	Combined
2003	\$51.17	\$41.63	\$46.23	\$50.50	\$38.69	\$45.39
2004	\$51.74	\$44.33	\$48.00	\$49.80	\$38.34	\$45.53
2005	\$68.70	\$51.70	\$61.39	\$68.70	\$51.70	\$61.39
2006	\$62.81	\$45.39	\$55.32	\$56.48	\$39.06	\$48.99
2007	\$50.96	\$33.10	\$43.28	\$50.96	\$33.10	\$43.28

Annual Average

	On-Peak	Off-Peak	Combined
2003	\$50.83	\$40.16	\$45.81
2004	\$50.77	\$41.34	\$46.77
2005	\$68.70	\$51.70	\$61.39
2006	\$59.65	\$42.22	\$52.15
2007	\$50.96	\$33.10	\$43.28

Source

Official Price Forecast - Quoted July 22, 2003

CCCT Avoided Costs: Table 6 - Combined costs are 57% On-Peak 43% Off-Peak

Table 3
Capitalized Energy Costs

Year	Combined Cycle CT Fixed Costs	Simple Cycle CT Fixed Costs	Capitalized Energy Costs	Capitalized Energy Costs 85% CF
	(\$/kW-yr)	(\$/kW-yr)	(\$/kW-yr)	(\$/MWH)
	(a)	(b)	(c)	(d)
			(a) - (b)	(c)/(8.76*0.85)

Wholesale Market

2003
2004

Simple Cycle

2004(1)	\$23.47	(3)
2005	\$72.16	
2006	\$73.97	

Combined Cycle

2006(2)	\$93.96	\$73.97	\$19.99	\$2.68
2007	\$96.31	\$75.81	\$20.49	\$2.75
2008	\$98.71	\$77.71	\$21.00	\$2.82
2009	\$101.18	\$79.65	\$21.53	\$2.89
2010	\$103.71	\$81.64	\$22.07	\$2.96
2011	\$106.30	\$83.69	\$22.62	\$3.04
2012	\$108.96	\$85.78	\$23.18	\$3.11
2013	\$111.68	\$87.92	\$23.76	\$3.19
2014	\$114.48	\$90.12	\$24.36	\$3.27
2015	\$117.34	\$92.37	\$24.97	\$3.35
2016	\$120.27	\$94.68	\$25.59	\$3.44
2017	\$123.28	\$97.05	\$26.23	\$3.52
2018	\$126.36	\$99.48	\$26.89	\$3.61
2019	\$129.52	\$101.96	\$27.56	\$3.70
2020	\$132.76	\$104.51	\$28.25	\$3.79
2021	\$136.08	\$107.12	\$28.95	\$3.89
2022	\$139.48	\$109.80	\$29.68	\$3.99
2023	\$142.97	\$112.55	\$30.42	\$4.09
2024	\$146.54	\$115.36	\$31.18	\$4.19
2025	\$150.20	\$118.25	\$31.96	\$4.29
2026	\$153.96	\$121.20	\$32.76	\$4.40
2027	\$157.81	\$124.23	\$33.58	\$4.51

Columns

- (a) Table 8 Column (f)
- (b) Table 8 Column (f)

- (1) 2004 and 2006 SCCT Costs Calculated for use in Table 2
- (2) 2006 CCCT Costs Calculated for use in Table 2
- (3) Adjusted annual charge for partial year September - December 2004

Table 4
Total Avoided Energy Cost

Year	Combined Cycle		Capitalized Energy Costs 85% CF	Total Avoided Energy Cost
	Gas Price	Energy Cost		
	(\$/MMBtu)	(\$/MWH)	(\$/MWH)	(\$/MWH)
	(a)	(b)	(c)	(d)
				(b) + (c)

Wholesale Market

2003	Wholesale Market Based Avoided Costs			\$45.81
2004	Table 2			\$46.77

Simple Cycle

(a) x 12.176

2004(1)	\$4.51	\$54.93	\$0.00	\$54.93
2005	\$4.25	\$51.70	\$0.00	\$51.70
2006	\$4.25	\$51.71	\$0.00	\$51.71

Combined Cycle

(a) x 7.074

2006(2)	\$4.25	\$30.04	\$2.68	\$32.73
2007	\$4.29	\$30.35	\$2.75	\$33.10
2008	\$4.38	\$30.97	\$2.82	\$33.79
2009	\$4.29	\$30.38	\$2.89	\$33.27
2010	\$3.97	\$28.08	\$2.96	\$31.05
2011	\$3.82	\$27.02	\$3.04	\$30.06
2012	\$3.94	\$27.88	\$3.11	\$31.00
2013	\$4.06	\$28.75	\$3.19	\$31.94
2014	\$3.64	\$25.74	\$3.27	\$29.01
2015	\$3.72	\$26.31	\$3.35	\$29.66
2016	\$3.97	\$28.10	\$3.44	\$31.53
2017	\$4.20	\$29.73	\$3.52	\$33.26
2018	\$4.32	\$30.56	\$3.61	\$34.17
2019	\$4.45	\$31.46	\$3.70	\$35.16
2020	\$4.58	\$32.42	\$3.79	\$36.21
2021	\$4.58	\$32.42	\$3.89	\$36.31
2022	\$4.71	\$33.30	\$3.99	\$37.29
2023	\$4.84	\$34.23	\$4.09	\$38.31
2024	\$4.97	\$35.18	\$4.19	\$39.37
2025	\$5.12	\$36.25	\$4.29	\$40.54
2026	\$5.27	\$37.31	\$4.40	\$41.71
2027	\$5.43	\$38.38	\$4.51	\$42.89

Columns

- (a) Table 9 Column (d)
- (c) Table 3 Column (d)
- (d) For 2003-2004 Table 2

- (1) 2004 and 2006 SCCT Costs Calculated for use in Table 2
- (2) 2006 CCCT Costs Calculated for use in Table 2

Table 5
Total Avoided Cost

Year	Avoided Firm Capacity Costs	Total Avoided Energy Cost	Total Avoided Costs At Stated Capacity Factor		
			75%	85%	95%
	(\$/kW-yr)	(\$/MWH)	(\$/MWH)	(\$/MWH)	(\$/MWH)
	(a)	(b)	(c)	(d)	(e)
			$(b)+((a)/8.76 \times 0.75)$	$(b)+((a)/8.76 \times 0.85)$	$(b)+((a)/8.76 \times 0.95)$

Wholesale Market

2003		\$45.81	\$47.87	\$46.96	\$46.24
2004		\$46.77	\$48.15	\$47.35	\$46.72

Simple Cycle

2004(1)	\$23.47	\$54.93	\$58.50	\$58.08	\$57.75
2005	\$72.16	\$51.70	\$62.68	\$61.39	\$60.37
2006	\$73.97	\$51.71	\$62.97	\$61.65	\$60.60

Combined Cycle

2006(2)	\$73.97	\$32.73	\$43.99	\$42.66	\$41.62
2007	\$75.81	\$33.10	\$44.64	\$43.28	\$42.21
2008	\$77.71	\$33.79	\$45.62	\$44.23	\$43.13
2009	\$79.65	\$33.27	\$45.39	\$43.97	\$42.84
2010	\$81.64	\$31.05	\$43.47	\$42.01	\$40.86
2011	\$83.69	\$30.06	\$42.80	\$41.30	\$40.12
2012	\$85.78	\$31.00	\$44.05	\$42.52	\$41.30
2013	\$87.92	\$31.94	\$45.32	\$43.75	\$42.51
2014	\$90.12	\$29.01	\$42.73	\$41.12	\$39.84
2015	\$92.37	\$29.66	\$43.72	\$42.07	\$40.76
2016	\$94.68	\$31.53	\$45.94	\$44.25	\$42.91
2017	\$97.05	\$33.26	\$48.03	\$46.29	\$44.92
2018	\$99.48	\$34.17	\$49.31	\$47.53	\$46.12
2019	\$101.96	\$35.16	\$50.68	\$48.86	\$47.41
2020	\$104.51	\$36.21	\$52.12	\$50.25	\$48.77
2021	\$107.12	\$36.31	\$52.62	\$50.70	\$49.18
2022	\$109.80	\$37.29	\$54.00	\$52.03	\$50.48
2023	\$112.55	\$38.31	\$55.44	\$53.43	\$51.84
2024	\$115.36	\$39.37	\$56.93	\$54.86	\$53.23
2025	\$118.25	\$40.54	\$58.54	\$56.42	\$54.75
2026	\$121.20	\$41.71	\$60.16	\$57.99	\$56.27
2027	\$124.23	\$42.89	\$61.79	\$59.57	\$57.81

Columns

- (a) Table 3 Column (b)
- (b) Table 4 Column (d)
- (c) For Years 2003-2004 - 4,744 Hours On-Peak, 1,826 Hours Off-Peak
- (d) For Years 2003-2004 - 4,744 Hours On-Peak, 2,702 Hours Off-Peak
- (e) For Years 2003-2004 - 4,744 Hours On-Peak, 3,578 Hours Off-Peak
- (1) 2004 and 2006 SCCT Costs Calculated for use in Table 2
- (2) 2006 CCCT Costs Calculated for use in Table 2

Table 6
On- & Off- Peak Energy Prices

Year	Avoided Firm Capacity Costs	Total Avoided Energy Cost	Capacity Cost Allocated to On-Peak Hours	On-Peak 4,993 Hours	Off-Peak 3,767 Hours
	(\$/kW-yr)	(\$/MWH)	(\$/MWH)	(\$/MWH)	(\$/MWH)
	(a)	(b)	(c)	(d)	(e)
	(a) / (8.76 x 85% x 57%)			(b) + (c)	

Wholesale Market

2003	Wholesale Market Based Avoided Costs			\$50.83	\$40.16
2004	Table 2			\$50.77	\$41.34

Simple Cycle

2004(1)	\$23.47	\$54.93	\$5.53	\$60.46	\$54.93
2005	\$72.16	\$51.70	\$17.00	\$68.70	\$51.70
2006	\$73.97	\$51.71	\$17.43	\$69.14	\$51.71

Combined Cycle

2006(2)	\$73.97	\$32.73	\$17.43	\$50.16	\$32.73
2007	\$75.81	\$33.10	\$17.86	\$50.96	\$33.10
2008	\$77.71	\$33.79	\$18.31	\$52.10	\$33.79
2009	\$79.65	\$33.27	\$18.77	\$52.04	\$33.27
2010	\$81.64	\$31.05	\$19.24	\$50.28	\$31.05
2011	\$83.69	\$30.06	\$19.72	\$49.78	\$30.06
2012	\$85.78	\$31.00	\$20.21	\$51.21	\$31.00
2013	\$87.92	\$31.94	\$20.72	\$52.66	\$31.94
2014	\$90.12	\$29.01	\$21.23	\$50.25	\$29.01
2015	\$92.37	\$29.66	\$21.76	\$51.43	\$29.66
2016	\$94.68	\$31.53	\$22.31	\$53.84	\$31.53
2017	\$97.05	\$33.26	\$22.87	\$56.12	\$33.26
2018	\$99.48	\$34.17	\$23.44	\$57.61	\$34.17
2019	\$101.96	\$35.16	\$24.02	\$59.19	\$35.16
2020	\$104.51	\$36.21	\$24.62	\$60.83	\$36.21
2021	\$107.12	\$36.31	\$25.24	\$61.55	\$36.31
2022	\$109.80	\$37.29	\$25.87	\$63.16	\$37.29
2023	\$112.55	\$38.31	\$26.52	\$64.83	\$38.31
2024	\$115.36	\$39.37	\$27.18	\$66.55	\$39.37
2025	\$118.25	\$40.54	\$27.86	\$68.40	\$40.54
2026	\$121.20	\$41.71	\$28.56	\$70.27	\$41.71
2027	\$124.23	\$42.89	\$29.27	\$72.16	\$42.89

Columns

- (a) Table 3 Column (b)
- (b) Table 4 Column (d)
- (d) & (e) For 2003-2004 Table 2

- (1) 2004 and 2006 SCCT Costs Calculated for use in Table 2
- (2) 2006 CCCT Costs Calculated for use in Table 2

Table 7
Comparison between Proposed and Current Avoided Costs

Year	Total Avoided Costs at 85% CF		
	Proposed Avoided Costs (\$/MWH)	Current Avoided Costs (\$/MWH)	Difference (\$/MWH)
	(a)	(b)	(c) (a) - (b)
2003(1)	\$45.81	\$47.38	-\$1.57
2004	\$46.77	\$44.10	\$2.67
2005	\$61.39	\$38.77	\$22.62
2006	\$52.15	\$39.66	\$12.50
2007	\$43.28	\$39.89	\$3.39
2008	\$44.23	\$40.66	\$3.57
2009	\$43.97	\$40.88	\$3.08
2010	\$42.01	\$41.17	\$0.84
2011	\$41.30	\$41.86	-\$0.56
2012	\$42.52	\$42.76	-\$0.24
2013	\$43.75	\$43.79	-\$0.05
2014	\$41.12	\$44.42	-\$3.30
2015	\$42.07	\$45.18	-\$3.11
2016	\$44.25	\$45.78	-\$1.53
2017	\$46.29	\$46.33	-\$0.04
2018	\$47.53	\$47.07	\$0.46
2019	\$48.86	\$47.75	\$1.11
2020	\$50.25	\$48.66	\$1.58
2021	\$50.70		
2022	\$52.03		
2023	\$53.43		
2024	\$54.86		
2025	\$56.42		
2026	\$57.99		
2027	\$59.57		

Columns

- (a) Table 4 Column (d)
- (b) Avoided Costs Approved by the Commission February 6, 2002
- (1) Wholesale Market Based Avoided Energy Costs August 2003 - July 2004
Simple Cycle CT (SCCT) August 2004 - May 2006
Combined Cycle CT (CCCT) Based Avoided Costs June 2006 to Dec 2007)

Table 8
Total Cost of Gas Turbine Resources

Year	Estimated Capital Cost \$/kW	Fixed Capital Cost at Real Levelized Rate \$/kW-yr	Fixed O&M \$/kW-yr	Variable O&M \$/MWH	Total O&M at Expected CF \$/kW-yr	Total Resource Fixed Costs \$/kW-yr	Fuel Cost \$/MMBtu	Fuel Cost \$/MWH	Total Avoided Costs \$/MWH
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

Simple Cycle

2003	\$554	\$53.13	\$11.43	3.14	\$15.56	\$68.68			
2004		\$54.46	\$11.72	\$3.22	\$15.94	\$70.40			
2005		\$55.82	\$12.01	\$3.30	\$16.34	\$72.16			
2006		\$57.21	\$12.31	\$3.38	\$16.75	\$73.97			
2007		\$58.64	\$12.62	\$3.47	\$17.17	\$75.81			
2008		\$60.11	\$12.93	\$3.55	\$17.60	\$77.71			
2009		\$61.61	\$13.26	\$3.64	\$18.04	\$79.65			
2010		\$63.15	\$13.59	\$3.73	\$18.49	\$81.64			
2011		\$64.73	\$13.93	\$3.83	\$18.95	\$83.69			
2012		\$66.35	\$14.27	\$3.92	\$19.43	\$85.78			
2013		\$68.01	\$14.63	\$4.02	\$19.91	\$87.92			
2014		\$69.71	\$15.00	\$4.12	\$20.41	\$90.12			
2015		\$71.45	\$15.37	\$4.22	\$20.92	\$92.37			
2016		\$73.24	\$15.76	\$4.33	\$21.44	\$94.68			
2017		\$75.07	\$16.15	\$4.44	\$21.98	\$97.05			
2018		\$76.95	\$16.55	\$4.55	\$22.53	\$99.48			
2019		\$78.87	\$16.97	\$4.66	\$23.09	\$101.96			
2020		\$80.84	\$17.39	\$4.78	\$23.67	\$104.51			
2021		\$82.86	\$17.83	\$4.90	\$24.26	\$107.12			
2022		\$84.93	\$18.27	\$5.02	\$24.87	\$109.80			
2023		\$87.06	\$18.73	\$5.15	\$25.49	\$112.55			
2024		\$89.23	\$19.20	\$5.27	\$26.13	\$115.36			
2025		\$91.46	\$19.68	\$5.41	\$26.78	\$118.25			
2026		\$93.75	\$20.17	\$5.54	\$27.45	\$121.20			
2027		\$96.10	\$20.67	\$5.68	\$28.14	\$124.23			

Combined Cycle

2003	\$767	\$66.04	\$8.03	1.77	\$21.21	\$87.25	\$ 4.54	\$ 32.11	43.83
2004		\$67.69	\$8.23	\$1.81	\$21.74	\$89.43	\$ 4.51	\$ 31.91	43.92
2005		\$69.38	\$8.44	\$1.86	\$22.28	\$91.67	\$ 4.25	\$ 30.04	42.35
2006		\$71.12	\$8.65	\$1.91	\$22.84	\$93.96	\$ 4.25	\$ 30.04	42.66
2007		\$72.89	\$8.86	\$1.95	\$23.41	\$96.31	\$ 4.29	\$ 30.35	43.28
2008		\$74.72	\$9.09	\$2.00	\$24.00	\$98.71	\$ 4.38	\$ 30.97	44.23
2009		\$76.58	\$9.31	\$2.05	\$24.60	\$101.18	\$ 4.29	\$ 30.38	43.97
2010		\$78.50	\$9.55	\$2.10	\$25.21	\$103.71	\$ 3.97	\$ 28.08	42.01
2011		\$80.46	\$9.78	\$2.16	\$25.84	\$106.30	\$ 3.82	\$ 27.02	41.30
2012		\$82.47	\$10.03	\$2.21	\$26.49	\$108.96	\$ 3.94	\$ 27.88	42.52
2013		\$84.54	\$10.28	\$2.27	\$27.15	\$111.68	\$ 4.06	\$ 28.75	43.75
2014		\$86.65	\$10.54	\$2.32	\$27.83	\$114.48	\$ 3.64	\$ 25.74	41.12
2015		\$88.81	\$10.80	\$2.38	\$28.52	\$117.34	\$ 3.72	\$ 26.31	42.07
2016		\$91.04	\$11.07	\$2.44	\$29.24	\$120.27	\$ 3.97	\$ 28.10	44.25
2017		\$93.31	\$11.35	\$2.50	\$29.97	\$123.28	\$ 4.20	\$ 29.73	46.29
2018		\$95.64	\$11.63	\$2.56	\$30.72	\$126.36	\$ 4.32	\$ 30.56	47.53
2019		\$98.03	\$11.92	\$2.63	\$31.49	\$129.52	\$ 4.45	\$ 31.46	48.86
2020		\$100.49	\$12.22	\$2.69	\$32.27	\$132.76	\$ 4.58	\$ 32.42	50.25
2021		\$103.00	\$12.52	\$2.76	\$33.08	\$136.08	\$ 4.58	\$ 32.42	50.70
2022		\$105.57	\$12.84	\$2.83	\$33.91	\$139.48	\$ 4.71	\$ 33.30	52.03
2023		\$108.21	\$13.16	\$2.90	\$34.75	\$142.97	\$ 4.84	\$ 34.23	53.43
2024		\$110.92	\$13.49	\$2.97	\$35.62	\$146.54	\$ 4.97	\$ 35.18	54.86
2025		\$113.69	\$13.82	\$3.05	\$36.51	\$150.20	\$ 5.12	\$ 36.25	56.42
2026		\$116.53	\$14.17	\$3.12	\$37.43	\$153.96	\$ 5.27	\$ 37.31	57.99
2027		\$119.45	\$14.52	\$3.20	\$38.36	\$157.81	\$ 5.43	\$ 38.38	59.57

Source: (a)(c)(d) Plant Costs - Page 214, Table C.20 IRP 2003
 (b) = (a) x Payment Factor - Page 214, Table C.20 IRP 2003
 (e) = (d) x (8.76 x 'Capacity Factor') + (c)
 (f) = (b) + (e)
 (g) Natural Gas Price Forecast (\$/MMBtu)
 (h) = 7074 x (g) / 1000
 (i) = (f) / (8.76 x 'Capacity Factor') + (h)

SCCT	CCCT	
9.59%	8.61%	Payment Factor - Page 214, Table C.20 IRP 2003
15%	85%	Assumed Capacity Factor
12.176	7.074	Heat Rate in btu/kWh - Page 209 , Table C.18 IRP 2003
2.50%	2.50%	Inflation Rate - page 358 IRP 2003

Table 9
Natural Gas Price Forecast (\$/MMBtu)

Year	Raw Fuel	Transport Cost	Distribution Cost	Combined Cycle CT Fuel Cost
	(a)	(b)	(c)	(d)
		$(a) \times 0.016 + 0.13$	$((a)+(b)) \times 0.015 + 0.09$	$(a) + (b) + (c)$
2003	4.18	0.20	0.16	\$ 4.54
2004	4.15	0.20	0.16	\$ 4.51
2005	3.91	0.19	0.15	\$ 4.25
2006	3.91	0.19	0.15	\$ 4.25
2007	3.95	0.19	0.15	\$ 4.29
2008	4.04	0.19	0.15	\$ 4.38
2009	3.95	0.19	0.15	\$ 4.29
2010	3.63	0.19	0.15	\$ 3.97
2011	3.48	0.19	0.15	\$ 3.82
2012	3.60	0.19	0.15	\$ 3.94
2013	3.72	0.19	0.15	\$ 4.06
2014	3.32	0.18	0.14	\$ 3.64
2015	3.40	0.18	0.14	\$ 3.72
2016	3.63	0.19	0.15	\$ 3.97
2017	3.86	0.19	0.15	\$ 4.20
2018	3.98	0.19	0.15	\$ 4.32
2019	4.10	0.20	0.15	\$ 4.45
2020	4.22	0.20	0.16	\$ 4.58
2021	4.22	0.20	0.16	\$ 4.58
2022	4.35	0.20	0.16	\$ 4.71
2023	4.48	0.20	0.16	\$ 4.84
2024	4.61	0.20	0.16	\$ 4.97
2025	4.75	0.21	0.16	\$ 5.12
2026	4.89	0.21	0.17	\$ 5.27
2027	5.05	0.21	0.17	\$ 5.43

Columns

(a) Official Price Forecast July 2003 - Opal Index

		<u>Shrinkage</u>	<u>Fees</u>
(b)	Transport Cost	0.016	0.13
(c)	Distribution Cost	0.015	0.09

Tariff Utah Schedule 37 Prices

Year	Capacity Price \$/kW-mo	Energy Only Price ¢/kWh	Peak Energy Prices		Off-Peak Energy Prices		Total Price @ 85% Capacity Factor ¢/kWh
			Winter ¢/kWh	Summer ¢/kWh	Winter ¢/kWh	Summer ¢/kWh	
2003	\$0.00	4.02	5.12	5.05	4.16	3.87	4.58
2004	\$1.96	4.13	5.17	4.98	4.43	3.83	4.45
2005	\$6.01	5.17	6.87	6.87	5.17	5.17	6.14
2006	\$6.16	4.22	6.28	5.65	4.54	3.91	5.22
2007	\$6.32	3.31	5.10	5.10	3.31	3.31	4.33
2008	\$6.48	3.38	5.21	5.21	3.38	3.38	4.42
2009	\$6.64	3.33	5.20	5.20	3.33	3.33	4.40
2010	\$6.80	3.10	5.03	5.03	3.10	3.10	4.20
2011	\$6.97	3.01	4.98	4.98	3.01	3.01	4.13
2012	\$7.15	3.10	5.12	5.12	3.10	3.10	4.25
2013	\$7.33	3.19	5.27	5.27	3.19	3.19	4.37
2014	\$7.51	2.90	5.02	5.02	2.90	2.90	4.11
2015	\$7.70	2.97	5.14	5.14	2.97	2.97	4.21
2016	\$7.89	3.15	5.38	5.38	3.15	3.15	4.42
2017	\$8.09	3.33	5.61	5.61	3.33	3.33	4.63
2018	\$8.29	3.42	5.76	5.76	3.42	3.42	4.75
2019	\$8.50	3.52	5.92	5.92	3.52	3.52	4.89
2020	\$8.71	3.62	6.08	6.08	3.62	3.62	5.02
2021	\$8.93	3.63	6.16	6.16	3.63	3.63	5.07
2022	\$9.15	3.73	6.32	6.32	3.73	3.73	5.20
20 Year Levelized Prices (Nominal) @			Discount Rate ¹				
\$/MWH		6.04	7.52%	5.43	3.68	3.56	4.65
		36.22	54.95	54.26	36.84	35.60	46.47

¹ Discount Rate IRP 2003, Page 352



ELECTRIC SERVICE SCHEDULE NO. 37 - Continued

DEFINITIONS (continued)

Winter Season

The months of November through April.

Summer Season

The months of May through October.

Peak Hours

On-peak hours are defined as 6:00 a.m. to 10:00 p.m. Monday through Saturday, excluding holidays.

Holidays include only New Year's Day, President's Day, Memorial Day, Independence Day, Pioneer Day, Labor Day, Thanksgiving Day and Christmas Day. When a holiday falls on a Saturday or Sunday, the Friday before the holiday (if the holiday falls on a Saturday) or the Monday following the holiday (if the holiday falls on a Sunday) will be the holiday and will be Off-peak.

Off-Peak Hours

All hours other than On-peak.

MONTHLY PAYMENTS: The Qualifying Facility shall have the option of either: a) taking the applicable capacity and average energy price payment, or b) taking the applicable winter and summer energy payment for Peak and Off-Peak hours. Once an option is selected the option will remain in effect for the duration of the Facility's contract. Capacity kW will be the maximum 15-minute generation during Peak Hours.

RATES FOR PURCHASES: The non-levelized and levelized prices shown below are subject to change from time to time to reflect changes in the Company's determination of Utah avoided costs. The prices applicable to a Utah Qualifying Facility shall be those in effect at the time a written contract is executed by the parties. The levelized prices shown are for a 20-year contract and assume a 2003 starting date. Levelized prices for contracts which start after 2003 and are for periods of 20 years or less are available upon request. (C)

(continued)

**PROPOSED TARIFF
DO NOT BILL**



P.S.C.U. No. 44

Second Revision of Sheet No. 37.3
Canceling First Revision of Sheet No. 37.3

ELECTRIC SERVICE SCHEDULE NO. 37 - Continued

PROPOSED TARIFF
DO NOT BILL

Non-Levelized Prices

Deliveries During Calendar Year	Capacity Price \$/kW - month	Average Energy Price ¢/kWh	<u>Peak Energy Prices</u>		<u>Off-Peak Energy Prices</u>		
			<u>Winter</u> ¢/kWh	<u>Summer</u> ¢/kWh	<u>Winter</u> ¢/kWh	<u>Summer</u> ¢/kWh	
2003	\$0.00	4.02	5.12	5.05	4.16	3.87	C I-I
2004	\$1.96	4.13	5.17	4.98	4.43	3.83	
2005	\$6.01	5.17	6.87	6.87	5.17	5.17	
2006	\$6.16	4.22	6.28	5.65	4.54	3.91	
2007	\$6.32	3.31	5.10	5.10	3.31	3.31	
2008	\$6.48	3.38	5.21	5.21	3.38	3.38	
2009	\$6.64	3.33	5.20	5.20	3.33	3.33	
2010	\$6.80	3.10	5.03	5.03	3.10	3.10	I-I
2011	\$6.97	3.01	4.98	4.98	3.01	3.01	I,D,I,I,D,D
2012	\$7.15	3.10	5.12	5.12	3.10	3.10	I-I
2013	\$7.33	3.19	5.27	5.27	3.19	3.19	I-I
2014	\$7.51	2.90	5.02	5.02	2.90	2.90	I, D-D
2015	\$7.70	2.97	5.14	5.14	2.97	2.97	I, D-D
2016	\$7.89	3.15	5.38	5.38	3.15	3.15	I,D,I,I,D,D
2017	\$8.09	3.33	5.61	5.61	3.33	3.33	I-I
2018	\$8.29	3.42	5.76	5.76	3.42	3.42	
2019	\$8.50	3.52	5.92	5.92	3.52	3.52	
2020	\$8.71	3.62	6.08	6.08	3.62	3.62	
2021	\$8.93	3.63	6.16	6.16	3.63	3.63	
2022	\$9.15	3.73	6.32	6.32	3.73	3.73	C I-I

Levelized Prices (Nominal)

Deliveries During Calendar Year	Capacity Price \$/kW - month	Average Energy Price ¢/kWh	<u>Peak Energy Prices</u>		<u>Off-Peak Energy Prices</u>		
			<u>Winter</u> ¢/kWh	<u>Summer</u> ¢/kWh	<u>Winter</u> ¢/kWh	<u>Summer</u> ¢/kWh	
	6.04	3.62	5.50	5.43	3.68	3.56	I-I

Issued by authority of Report and Order of the Public Service Commission of Utah in Advice No. 03-009.

FILED: September 12, 2003

EFFECTIVE: October 13, 2003