

December 30, 2009

***VIA ELECTRONIC FILING***

Washington Utilities and Transportation Commission  
1300 S. Evergreen Park Drive SW  
P.O. Box 47250  
Olympia, WA 98504-7250

Attention: David W. Danner  
Executive Director and Secretary

RE: **Advice No 09-06**  
**Schedules of Estimated Avoided Cost and**  
**Update to Schedule 37 – Avoided Cost Purchases from Cogeneration and**  
**Small Power Purchases**

Dear Mr. Danner:

Pursuant to RCW 80.28.050 and 80.28.060, WAC 480-107-055 and WAC 480-107-095 and the Washington Utilities and Transportation Commission's ("Commission") Rules and Regulations, PacifiCorp, d.b.a. Pacific Power, ("Company") submits for filing a copy of the proposed tariffs applicable to Pacific Power's electric service in the state of Washington. PacifiCorp respectfully requests an effective date of February 12, 2010.

Fifth Revision of Sheet No. 37.2      Schedule 37      Avoided Cost Purchases from  
Cogeneration and Small Power  
Production

The Company's current avoided cost prices and Schedule 37 became effective in February 2009. Since that time resource requirements, natural gas and market prices have changed, as have the Company's avoided costs. This filing is being made to update the Company's estimated avoided cost prices and Schedule 37 based on the costs that the Company would expect to pay but for the QF resource.


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

By e-mail (preferred):      [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)

By regular mail:                      Data Request Response Center  
   PacifiCorp  
   825 NE Multnomah, Suite 2000  
   Portland, Oregon, 97232

Informal questions should be directed to Cathie Allen, Regulatory Manager, at (503) 813-5934.

Sincerely,

  
Andrea L. Kelly  
Vice President, Regulation

Enclosures

Attachments and Exhibits

Attachment A: Notice

Attachment B: Summary Page of Tariffs

Attachment C: Proposed Tariff Schedule 37

Exhibit 1: Summary of the Company's avoided cost calculation methodology

# **ATTACHMENT A**

**NOTICE  
PACIFIC POWER**

Pursuant to Washington Law (including without limitation RCW 80.28.050 and -060) and the Washington Utilities and Transportation Commission's (the "Commission") Rules & Regulations, Pacific Power has filed with the Commission the original tariff schedules for electric service in the State of Washington.

**Overview**

Pacific Power's (the "Company") current avoided cost prices became effective in February 2009. Since that time resource requirements, natural gas and market prices have changed as have the Company's avoided costs. This filing is being made to bring the Commission approved avoided cost prices in line with the costs that the Company would expect to pay but for the QF resource.

The Commission will examine the Company's proposed tariff sheets. As a result of such examination, the Commission may determine that any or all of said schedules should be accepted as filed, modified or rejected.

Unless suspended by the Commission, these tariff sheets will become effective February 12, 2010.

DATED: December 30, 2009

PACIFIC POWER

By Andrea L. Kelly / ca  
Andrea L. Kelly  
Vice President, Regulation  
Pacific Power

# **ATTACHMENT B**

The proposed tariff sheets to be revised in Pacific Power's currently effective Tariff WN U-74 are designated as follows:

Fifth Revision of Sheet No. 37.2

Schedule 37

Avoided Cost Purchases from  
Cogeneration and Small Power  
Production

# **ATTACHMENT C**

# **EXHIBIT 1**



**PACIFIC POWER**  
**AVOIDED COST CALCULATION**  
**WASHINGTON - DECEMBER 2009**

**PACIFIC POWER  
AVOIDED COST CALCULATION**

**WASHINGTON - DECEMBER 2009**

The starting point for the avoided cost calculation is the load and resource balance developed for the Company's 2008 Integrated Resource Plan (IRP). It should be noted that many of the input assumptions for the IRP were fixed in November 2008, in order to enable filing of the IRP in May 2009. 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. The avoided cost prices were also developed consistent with the west control area allocation methodology adopted for the Company in Docket No. UE-061546.

**Loads and Resources**

The Company's October 2009 load forecast was used in the study.

Long-term sales and purchase contracts were updated to include information available as of December 2009. These changes include the addition or revision of several long-term purchase contracts<sup>1</sup>.

Table 1 presents the Company's western control area loads and resource balance. Table 1 shows an energy balance with a surplus of 488 aMW in 2010 declining to a surplus of 326 aMW in 2014. The winter peak has a capacity deficit of 73 MW in 2010, a surplus of 109 MW in 2011 and a capacity deficit of over 600 MW in 2012 through 2014. The summer months have two years of surplus - 2010 and 2011 followed by a capacity deficit of over 800 MW in 2012 through 2014. The change in capacity position is primarily caused by the expiration of the BPA Peaking contract in August 2011.

**Avoided Cost Calculation**

Based on the load and resource balance, the avoided cost calculation is separated into two distinct periods: (1) the Short Run – a period of resource sufficiency in which the avoided costs are based on the marginal production cost of existing resources plus the cost of purchasing summer capacity; and (2) the Long Run – a resource deficit period in which new resources are required to provide both capacity and energy to meet the Company's resource requirements. Avoided costs during the deficit period are based on the cost of a combined cycle combustion turbine. The load and resource balances in **Table 1** indicate resource sufficiency for all five years, only Short Run avoided costs are included in the current study.

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<sup>1</sup> Additions and revisions to the long-term contracts portfolio include the addition of a Pacific Gas and Electric sale contract and an Idaho Power purchase contract. The Weyerhaeuser Reserve contract has been removed. Included is a new adjustment for Lewis River loss of efficiency and motoring loss and the addition of Seattle City Light State Line reserves. Short term firm transmission capacity was included.

### **Short Run Avoided Costs**

During periods of resource sufficiency, avoided energy costs are based on the displacement of purchased power and existing thermal resources calculated by the Company's GRID model. The model input data includes the monthly load and resource data, which are the basis for the annual summary of loads and resources shown in **Table 1**. To calculate short-run avoided costs, two production cost studies are prepared. The only difference between the two studies is an assumed 50 aMW zero running cost system resource. The 50 aMW resource is a proxy for qualifying facility generation. The avoided energy cost is the difference between the two studies. The outputs of the production cost model run are provided as **Table 2**.

Winter capacity costs during the Short Run period are based on three-month capacity purchases. The annual value as shown in **Table 3** is one-fourth of the total fixed costs of a simple cycle combustion turbine (SCCT). Because energy generated by a qualifying facility may vary, avoided costs at 75%, 85% and 95% capacity factors are prepared to illustrate the impact of differing generation levels. This calculation is also shown in **Table 3**.

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 4** shows the calculation of on-peak and off-peak avoided energy prices.

For informational purposes, **Table 5** shows a comparison between the avoided costs currently in effect in Washington and the proposed avoided costs in this filing.

**Table 6** shows the calculation of the total fixed costs of a SCCT that are used in **Table 3**.

**Table 1**  
**Loads and Resources**  
**2010 through 2019**

	2010	2011	2012	2013	2014
<b>aMW</b>					
Net Load	2,249	2,276	2,325	2,350	2,360
Long Term Sales	169	169	169	94	94
Short Term Firm Sales	132	16	5	-	-
Total Requirements	2,550	2,461	2,499	2,444	2,454
Long Term Purchases	467	441	357	364	364
Short Term Firm Purchase	115	-	-	-	-
Thermal Generation	1,904	1,904	1,904	1,904	1,904
Other Generation	562	550	544	527	531
Reserves	(9)	(12)	(29)	(21)	(18)
Total Resources after Reserves	3,038	2,883	2,777	2,775	2,781
Surplus / (Deficit)	488	422	278	331	326
Percent Surplus / (Deficit)	19.1%	17.2%	11.1%	13.5%	13.3%
<b>Peak (July)</b>					
Net Load	3,309	3,360	3,462	3,484	3,511
Long Term Sales	463	463	463	463	463
Short Term Firm Sales	175	-	-	-	-
Total Requirements	3,947	3,823	3,924	3,946	3,974
Long Term Purchases	1,402	1,285	629	628	508
Short Term Firm Purchase	478	-	-	-	-
Thermal Generation	1,957	1,957	1,957	1,957	1,957
Other Generation	1,060	1,057	975	996	1,014
Reserves	(470)	(467)	(470)	(469)	(471)
Total Resources after Reserves	4,427	3,832	3,090	3,111	3,008
Surplus / (Deficit)	480	9	(834)	(835)	(966)
Percent Surplus / (Deficit)	12.2%	0.2%	-21.3%	-21.2%	-24.3%
<b>Peak (January)</b>					
Net Load	3,653	3,663	3,712	3,774	3,806
Long Term Sales	200	200	200	100	100
Short Term Firm Sales	275	-	-	-	-
Total Requirements	4,128	3,863	3,912	3,874	3,906
Long Term Purchases	1,285	1,256	469	503	519
Short Term Firm Purchase	78	-	-	-	-
Thermal Generation	2,027	2,027	2,027	2,027	2,027
Other Generation	1,140	1,134	1,149	1,177	1,202
Reserves	(477)	(445)	(462)	(438)	(488)
Total Resources after Reserves	4,054	3,971	3,183	3,270	3,261
Surplus / (Deficit)	(73)	109	(729)	(604)	(646)
Percent Surplus / (Deficit)	-1.8%	2.8%	-18.6%	-15.6%	-16.5%

**Table 2**  
**Avoided Costs (\$/MWh)**  
**Non-Firm Energy**

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

**GRID Production Cost Study**

2010	50.48	47.53	40.98	38.23	31.27	29.92	44.76	50.73	50.55	48.73	55.38	59.84
2011	57.94	57.05	52.44	45.37	31.81	30.55	46.14	57.94	52.89	52.04	55.89	60.16
2012	58.79	58.17	53.76	45.39	32.33	30.34	46.22	58.60	53.38	53.37	56.54	60.60
2013	58.29	58.57	54.05	46.04	32.75	30.43	47.25	59.03	54.08	53.76	56.94	61.00
2014	59.76	59.50	53.94	46.98	33.68	31.79	48.62	59.47	54.87	53.12	57.60	62.16

**Annual Seasonal Average**

2010	\$46.55	\$43.99	\$45.70
2011	\$51.59	\$46.88	\$50.02
2012	\$52.37	\$47.13	\$50.62
2013	\$52.67	\$47.70	\$51.02
2014	\$53.34	\$48.69	\$51.79

Source: GRID Production Cost Study

**Table 3**  
**Total Avoided Cost**

Year	Avoided Firm Capacity Costs (\$/kW-yr) (a)	Total Avoided Energy Cost (\$/MWh) (b)	Total Avoided Costs At Stated Capacity Factor		
			75% (\$/MWh) (c)	85% (\$/MWh) (d)	90% (\$/MWh) (e)
			(b)+(a)/8.76 x 0.75)	(b)+(a)/8.76 x 0.85)	(b)+(a)/8.76 x 0.9)

**Avoided Resource**

2010	\$21.76	\$45.70	\$49.01	\$48.62	\$48.46
2011	(1)	\$50.02	\$50.02	\$50.02	\$50.02
2012	\$22.58	\$50.62	\$54.06	\$53.66	\$53.49
2013	\$22.98	\$51.02	\$54.51	\$54.10	\$53.93
2014	\$23.39	\$51.79	\$55.35	\$54.93	\$54.76

Columns

(a) Table 6 Column (f) for three months (multiplied by 3/12)

(b) Table 2 Annual Average

Note: (1) No capacity payment is made in 2011 because the Company is capacity surplus during the winter peak 2011.

**Table 4**  
**On- & Off- Peak Energy Prices**

Year	Avoided Firm Capacity Costs	Capacity Cost Allocated to On-Peak Hours	Total Avoided Energy Cost	On-Peak Hours	Off-Peak Hours
	(\$/kW-yr)	(\$/MWh)	(\$/MWh)	4,993 Hours	3,767 Hours
	(a)	(b)	(c)	(d)	(e)
		(a)/(8.76 x 21.0% x 57%)		(b) + (c)	(c)

**Avoided Resource**

2010	\$21.76	\$20.75	\$45.70	\$66.45	\$45.70
2011	(1)		\$50.02	\$50.02	\$50.02
2012	\$22.58	\$21.53	\$50.62	\$72.15	\$50.62
2013	\$22.98	\$21.92	\$51.02	\$72.93	\$51.02
2014	\$23.39	\$22.31	\$51.79	\$74.10	\$51.79

**Columns**

- (a) Table 3 Column (a)
- (b) Table 6 21.0% is the on-peak capacity factor of the SCCT Proxy Resource
- (c) Table 3 Column (b)

Note: (1) No capacity payment is made in 2011 because the Company is capacity surplus during the winter peak 2011.

**Table 5**  
**Comparison between Proposed and Current Avoided Costs**

Year	Total Avoided Costs at 85% CF		Difference (\$/MWh)
	Proposed Avoided Costs (\$/MWh) (a)	Washington Approved Avoided Costs (\$/MWh) (b)	
2009		\$58.60	(a) - (b)
2010	\$48.62	\$63.69	-\$15.06
2011	\$50.02	\$63.73	-\$13.71
2012	\$53.66	\$64.60	-\$10.94
2013	\$54.10	\$65.84	-\$11.74
2014	\$54.93		

Levelized Prices \$/MWH (Nominal) @ 7.1% Discount Rate (1)

5 Year (2009 - 2013)

5 Year (2010 - 2014)

63.08

52.04

Columns

(a) Table 3 Column (d)

(b) Avoided Costs Approved by the Commission February 13, 2009

Note (1): Discount Rate - Company Official Discount Rate - Dated September 2009



**Table 6**  
**Total Cost of Displaceable Resources**  
**SCCT Frame (2 Frame "F") - West Side Options (1500')**

Year	Estimated Capital Cost \$/kW	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
	(a)	(b)	(c)	(d)	(e)	(f)
2008	\$679	\$58.53	\$3.90	\$12.63	\$27.13	\$85.66
2009		\$58.76	\$3.92	\$12.68	\$27.25	\$86.01
2010		\$59.47	\$3.97	\$12.83	\$27.57	\$87.04
2011		\$60.60	\$4.05	\$13.07	\$28.09	\$88.69
2012		\$61.69	\$4.12	\$13.31	\$28.61	\$90.30
2013		\$62.80	\$4.19	\$13.55	\$29.12	\$91.92
2014		\$63.93	\$4.27	\$13.79	\$29.64	\$93.57

Source: (a)(c)(d) Plant Costs 2008 IRP (Table 6.3 and 6.5)

(b) = (a) x Payment Factor

(e) = (d) x (8.76 x 21%) + (c)

(f) = (b) + (e)

SCCT Frame (2 Frame "F") - West Side Options (1500')			
338	Plant capacity		MW
\$ 679	Plant capacity cost		\$/kW
\$ 3.90	Fixed O&M plus on-going capital cost		\$/kW-yr
\$ 12.63	Variable O&M and Other Costs		\$/MWH
\$ 8.56	Fixed Pipeline Costs Included Above		\$/MWH
8.62%	Payment Factor		
21%	Capacity Factor		

Company Official Inflation Forecast - Dated September 2009	
2009	0.40%
2010	1.20%
2011	1.90%
2012	1.80%
2013	1.80%
2014	1.80%