# BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Petition of Spring Canyon LLC for Approval of a Contract For the Sale of Capacity and Energy from its Proposed QF Facilities	DOCKET NO. 05-035-08
In the Matter of the Petition of Pioneer Ridge LLC & Mountain Wind For Approval of a Contract For the Sale of Capacity and Energy from its Existing and Proposed QF Facilities	DOCKET NO. 05-035-09  DIRECT TESTIMONY OF RODGER WEAVER

**MARCH 2005** 

1	Q.	Please state your name, business address and present position with PacifiCorp (the
2		Company).
3	A.	My name is Rodger Weaver, my business address is 825 N. E. Multnomah, Suite 800,
4		Portland, Oregon 97232, and my present position is Director, Regulation Discovery and
5		Industry Research.
6	Q.	Please briefly describe your education and business experience.
7	A.	I received an undergraduate degree in Economics and a PhD. in Economics from the
8		University of Utah. I worked for the Public Service Commission of Utah from 1984-1987
9		and from 1987 to 1992 for the Utah Division of Public Utilities. In both positions my title
10		was Senior Economist. I began working for PacifiCorp in 1992.
11	Q.	Please describe your current duties.
12	A.	In my current position, I am responsible for directing the Company's regulatory discovery
13		process across all states and proceedings. I also direct the Company's efforts to keep
14		informed and abreast of regulatory mechanisms and developments across the US.
15	Q.	What is the purpose of your testimony?
16	A.	Pursuant to the procedural schedule adopted by the Commission in this proceeding,
17		PacifiCorp previously filed information regarding how avoided costs adopted in the
18		stipulation adopted in Docket No. 03-035-14 ("Stipulation") would be affected if they were
19		updated to reflect current information. The information previously provided contained one
20		error inconsistent with the original Stipulation methodology. The first purpose of my

testimony is to provide the updated avoided cost information based on the Stipulation

methodology with that error corrected. The second purpose of my testimony is to address

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1	the Commission's question regarding the impact on Stipulation avoided cost prices of
2	increasing the 275 MW cap included in the Stipulation.

## **Stipulation Proxy Method**

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- 4 Q. As background for the following discussion, please provide a general description of the Stipulation proxy method of calculating avoided cost rates.
- A. The Stipulation proxy method was the basis for the prices that were agreed to by the parties in the Stipulation which was later adopted by the Commission. The Stipulation proxy method assumes that the fixed and variable costs of a single resource, the proxy resource, are the utility's avoided costs during the resource deficit period. During the resource sufficiency period, avoided costs is the difference in total system net power costs between a GRID production cost model run with and without a zero cost 100 MW QF resource.

#### **Updated Settlement Avoided Cost Methodology**

- 13 Q. How did the Company update the Stipulation avoided costs prices?
- 14 A. The Company completed the update in four distinct stages.
- First, the Company updated the loads and resources study which was used in the original

  Stipulation avoided cost study to determine the updated sufficiency and deficit period.
- Second, the Company updated the GRID Model and produced the updated total net
   system power costs difference between runs with and without the 100 MW zero running
   cost resource.
- Third, the Company updated the gas price forecast used by the proxy plant during the deficit period.
- Finally, the Company updated the proxy plant cost and operating characteristics to be consistent with assumptions included in the Company's 2004 IRP study.

- These updates caused the 20 year levelized avoided costs to increase from \$50.03 to \$59.08
- per MWH. The fully updated Stipulation method avoided costs are shown in Column A of
- Table 1 below.

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Table 1

C-11	1 A . 1 1 C . 4 . 4 0 7 0 / OTE 1		
Calendar	Avoided Costs at 85% CF in \$/MWH		
	(A) Fully Updated	(B) Original Stipulation	(C) Original Stipulation
Year	Stipulation*	<ul><li>Fixed Price</li></ul>	<ul><li>Indexed Gas</li></ul>
2005	\$48.75	\$44.08	\$55.80
2006	\$41.48	\$48.54	\$63.09
2007	\$39.38	\$46.17	\$57.10
2008	\$39.30	\$45.16	\$54.83
2009	\$41.62	\$45.46	\$56.58
2010	\$47.33	\$45.08	\$61.37
2011	\$67.14	\$46.04	\$63.46
2012	\$67.19	\$47.52	\$63.29
2013	\$67.21	\$48.61	\$63.15
2014	\$67.55	\$49.69	\$63.32
2015	\$67.88	\$50.99	\$63.45
2016	\$69.52	\$52.53	\$64.88
2017	\$71.41	\$53.98	\$66.55
2018	\$73.39	\$55.52	\$68.27
2019	\$75.38	\$57.09	\$70.08
2020	\$77.40	\$58.81	\$71.88
2021	\$79.83	\$60.53	\$73.83
2022	\$82.35	\$62.27	\$75.82
2023	\$84.89	\$64.00	\$77.89
2024	\$87.58	\$65.87	\$79.98
	\$59.08	\$50.03	\$63.24

20 Year Levelized Prices (Nominal) @ 7.2%

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## Q. How is this information different than the information filed by the Company on

## February 28, 2005?

- 5 A. As noted above, pursuant to the schedule adopted in this proceeding, the Company filed
- 6 updated avoided cost information based on the Stipulation methodology on that date. It
- was brought to the Company's attention that the Company had inadvertently included a 10
- 8 MW zero cost QF resource in that analysis rather than a 100 MW zero cost QF resource,

<sup>\*</sup> Column (A) represents both fixed and indexed price options at the updated Gas Index projection

22	Q.	Please explain PacifiCorp Exhibit UP&L(RW-1).
21		would be a precipitous drop in avoided cost prices.
20		avoided cost prices were updated to reflect this increase from 275 to 848 MWs, the result
19		of QF resources have requested PacifiCorp pricing under the Stipulation. If the Stipulation
18		costs. Mr. Griswold's Exhibit UP&L (BMG-2) shows that approximately 848 MW
17		resources are added, load and resource balances become more surplus and reduce avoided
16	A.	No. Avoided costs are established based on an expected load and resource balance. When
15		represent the Company's avoided cost?
14	Q.	If the Commission were to raise the 275 MW cap, would the \$50.03 price still
13		update of the Stipulation prices (Column A of Table 1 above).
12		1 above). The December Official Price Projection is the same gas forecast used in the full
11		the 20 year levelized value of the QF's prices would be \$63.24/MWH (Column C of Table
10		gas prices. If these gas prices match the Company's December Official Price Projection,
9	A.	A QF opting to take the gas-indexed price option would see prices that change with actual
8		opting for gas-indexed prices?
7		\$50.03 /MWH (Column B of Table 1 above). How does that price compare to QFs
6	Q.	The fixed price payment stream under the Stipulation has a 20 year levelized price of
5		conference as Attachment CCS 1.1b.
4		information was previously provided to parties at the February 18, 2005 technical
3		terms of updated data) except that it now uses a 100 MW zero cost QF resource. This
2		am discussing in this testimony is identical to the information provided previously (in
1		which was inconsistent with the original Stipulation methodology. The information that I

1 A. Exhibit UP&L\_\_\_(RW-1) was prepared under my direction and is the Company's updated 2 stipulation avoided cost study summarized in Column A of Table 1, above and previously 3 provided to parties at the February 18, 2005 technical conference. Table 1 of Exhibit 4 UP&L (RW-1) summarizes the Company's load and resource overview as of March 5 2005. The first section shows the balance of energy requirements and resources. The 6 second and third sections show the summer and winter capacity load and resource 7 balances, respectively. Table 1b shows the Company's capacity position by month from 8 January 2005 through December 2011. Table 1b is used to determine the number of deficit 9 months per year and thus the number of months of capacity payments per year. Table 2 10 shows the results of the Company's GRID production cost model runs with and without the 11 zero cost 100 MW QF resource. The on-peak prices include the capacity payment spread 12 to on-peak hours at an 85% capacity factor. Table 3 shows the capitalize energy 13 calculation. Consistent with the stipulation agreement 50% of the difference between the 14 proxy resource, column (a), and a SCCT resource, column (b), is included as a capitalized 15 energy cost. The remaining 50% is included as part of the capacity payment. Table 4 shows the calculation of avoided energy costs. Costs for the surplus period are carried 16 17 forward from Table 2, while costs for the deficit period are the running costs of the proxy 18 plant. Table 5 shows the final capacity payment brought forward from Table 3 and the energy costs from Table 4. Table 4 has a column showing avoided costs at an assumed 19 20 85% capacity factor. This is the column of avoided cost prices that is commonly used in 21 comparing avoided cost results. Table 6 establishes on-and off-peak energy prices.

#### Q. Please explain PacifiCorp Exhibit UP&L\_\_(RW-2).

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- 1 A. Exhibit UP&L\_\_\_(RW-2) is a six page exhibit prepared under my direction showing the 2 calculation of Column C in Table 1, above. Page 1 of .Exhibit UP&L\_\_\_(RW-2) is a 3 summary page by year. Pages 2 through 6 provide the monthly cost calculation. 4 Q. In the Stipulation agreement, the parties agreed that the QF resource must be online 5 by June 1, 2007 in order to get stipulation prices. Does your exhibit show why this is 6 so important? 7 A. Yes. Exhibit UP&L (RW-1) Table 1b shows that the Company is capacity deficit during 8 the summer of 2007 with July and August having capacity deficits of 1,275 and 1,415 MW 9 respectively. The Company agreed to the stipulation pricing provided that the QF resource 10 be dispatchable and available June 2007. If the QF does not come online by June 2007, the 11 Company would need to acquire additional resources to help cover this capacity deficit 12 thus exposing rate payers to the risks and uncertainties of market purchases.
- 13 Q. Does this conclude your testimony?
- 14 A. Yes