

September 2, 2015

VIA ELECTRONIC MAIL ONLY

Attention: Filing Center Public Utility Commission of Oregon 2930 Fairview Industrial Drive SE PO Box 1088 Salem, OR 97308-1088

Re:

In the Matter of PACIFICORP, dba PACIFIC POWER's 2015 Integrated Resource Plan

OPUC Docket No.: LC 62

DOJ File No.: 330030-GN0339-14

Filing Center:

Enclosed for electronic filing today with the Commission in the above-captioned matter are Oregon Department of Energy's Appendices 1 and 2. Due to a clerical error, they were not included with the OPENING COMMENTS OF THE OREGON DEPARTMENT OF ENERGY, originally filed on August 27, 2015.

Sincerely,

Jeffery R. Seeley Legal Secretary

Natural Resources Section

Enclosures JRS:jrs/#6769844

Oregon Department of Energy Appendix 1

				Data That Un	ıde	rlies 2015 Pacific	Cor	p IRP Figure 7.7	on '	Vol. I Page	149	1			
													(ODOE	
	A				В				C				Calculation		
	Medium Gas 111(d)				Medium Gas, Incremental CO2				Medium Gas No CO2				111d Price Decline		
	Sep 2014 O	FPC	Sep	2014 OFPC	11:	1(d) + CO2 Price	11	1(d) + CO2 Price		No CO2	N	No CO2	(C	minus A)	
											A	Avg Power			
Year	HH Gas Pı	rice	Avg	g Power Price		HH Gas Price		Avg Power Price	H	H Gas Price		Price	Avg.	Power Price	
2015	\$ 4	4.00	\$	33.51	\$	4.28	\$	36.33	\$	4.00	\$	33.59	\$	0.08	
2016	\$ 4	4.08	\$	35.06	\$	4.28	\$	35.41	\$	4.08	\$	35.15	\$	0.09	
2017	\$ 4	4.22	\$	37.53	\$	4.46	\$	37.74	\$	4.22	\$	37.65	\$	0.12	
2018	\$ 4	4.32	\$	40.39	\$	4.56	\$	39.29	\$	4.32	\$	40.51	\$	0.12	
2019	\$ 4	4.42	\$	42.88	\$	4.91	\$	42.20	\$	4.80	\$	43.39	\$	0.51	
2020	\$ 4	4.63	\$	45.32	\$	5.58	\$	57.14	\$	5.29	\$	46.27	\$	0.95	
2021	\$	5.17	\$	47.37	\$	6.21	\$	64.52	\$	5.48	\$	48.69	\$	1.32	
2022	\$	5.68	\$	49.37	\$	6.79	\$	70.15	\$	5.68	\$	50.30	\$	0.93	
2023	\$	5.87	\$	51.53	\$	7.23	\$	75.23	\$	5.87	\$	52.02	\$	0.49	
2024	\$	5.07	\$	53.73	\$	7.53	\$	79.66	\$	6.07	\$	53.93	\$	0.20	
2025	\$	5.22	\$	55.47	\$	7.82	\$	84.06	\$	6.22	\$	56.21	\$	0.74	
2026	\$	5.41	\$	58.29	\$	8.13	\$	89.00	\$	6.41	\$	58.40	\$	0.11	
2027	\$	6.65	\$	60.31	\$	8.40	\$	93.34	\$	6.65	\$	60.57	\$	0.26	
2028	\$	5.89	\$	61.89	\$	8.67	\$	96.95	\$	6.89	\$	62.73	\$	0.84	
2029	\$	7.18	\$	64.01	\$	8.94	\$	101.17	\$	7.18	\$	65.19	\$	1.18	
2030	\$	7.46	\$	66.18	\$	9.23	\$	105.20	\$	7.46	\$	67.58	\$	1.40	
2031	\$	7.60	\$	67.53	\$	9.40	\$	108.57	\$	7.60	\$	68.74	\$	1.21	
2032	\$	7.74	\$	68.47	\$	9.58	\$	112.06	\$	7.74	\$	69.98	\$	1.51	
2033	\$	7.90	\$	69.69	\$	9.77	\$	116.02	\$	7.90	\$	71.18	\$	1.50	
2034	\$ 8	8.05	\$	71.10	\$	9.96	\$	118.96	\$	8.05	\$	72.24	\$	1.13	
													_		
													Range		
													\$.08 to \$1.51		
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Oregon Department of Energy Appendix II

ODOE Data Request 4

Please refer to Figures 8.11, 8.12 and 8.13 on pages 180 and 181 of Vol. 1 of the 2015 IRP. In each of the three price curve scenarios C13-1 ranks better (lower and to the left) on both the Upper Tail Mean PVRR scale and Stochastic Mean PVRR scale. Yet the IRP explores Portfolio 5 in combination with RH scenario number 3 but does not explore Portfolio 13 with RH scenario number 3. Why did PacifiCorp exclude Portfolio C-13 from this kind of analyses?

[Company] Response to ODOE Data Request 4

Portfolio C-13 assumes a mass-cap based approach to meeting the United States (U.S.) Environmental Protection Agency's (EPA) Section 111(d) requirements. There is significant uncertainty around the draft rule itself, with a final rule expected in the summer of 2015, and in how states may choose to implement the final rule once issued. There is additional uncertainty as to how and whether states may choose to coordinate when developing their state implementation plans (SIP), and inasmuch as states choose to coordinate *and* choose to develop a mass cap implementation plan, it is unknown how those states might choose to develop the mass cap target and whether EPA will accept such a target. It is further uncertain how that mass cap might be applied to individual entities within the states. When case assumptions were being developed for the 2015 Integrated Resource Plan (IRP), there was limited multi-state coordination activity and limited discussion among state entities responsible for developing state implementation plans to indicate a multi-state plan with a mass cap applied to PacifiCorp's system as a likely outcome. Nonetheless, PacifiCorp developed case C-13 to begin to understand how a mass cap approach might influence long-term resource needs.

Moreover, PacifiCorp explored Regional Haze scenario 3 upon reviewing System Optimizer model (SO Model) results, which capture the emission constraint impacts of assumed Section 111(d) regulations. As noted in Volume I, Chapter 7 (page 168), Planning and Risk (PaR) model results do not capture the relative impacts of Section 111(d) emission rate or mass cap constraints, and therefore Section111(d) impacts are not fully captured in Figures 8.11, 8.12, and 8.13. Based upon SO Model results, case C05-1 outperforms case C13-1 by a considerable amount. This is highlighted in Figure 8.14. Upon viewing these SO Model results, the Company applied Regional Haze Scenario 3 assumptions as a variant to Case C05-1.

Additionally, please refer to Figure 8.17 on page 187 in Volume I of the Company's 2015 IRP. As noted on page 186:

This figure illustrates the similarity among the top performing portfolios, identified using cost and risk metrics, through the first 10 years of the planning period when differences in resources among portfolios is most likely to influence the 2015 IRP action plan.

That is, focusing on C13-1 would not have changed the resource outcomes in the action plan time horizon.