PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 2000
Portland, Oregon 97232

May 1, 2017

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-3398

Attn: Filing Center

RE: UM 1729(2) – Standard Avoided Cost Purchases from Eligible Qualifying Facilities

In compliance with ORS 758.525 and Order No. 14-058 in Docket No. UM 1610, PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) hereby submits the enclosed update to its standard avoided cost schedule (formerly known as Schedule 37) to the Public Utility Commission of Oregon (Commission).

This filing satisfies the Company's obligation established in Order No. 14-058 to file avoided cost updates on May 1 of each year. Consistent with Order No. 14-058, this annual update is limited to the following four factors: (i) natural gas prices; (ii) on-peak and off-peak forward looking electricity market prices; (iii) production tax credit status; and (iv) any other action or change in an acknowledged integrated resource plan relevant to the calculation of avoided costs. The Company respectfully requests an effective date of June 1, 2017.

The Company's current standard avoided cost prices were approved in Order No. 16-307 and Order No. 16-417. In addition, the Commission ordered a new docket to be opened as a contested case proceeding to allow a more thorough vetting of the issues raised in Docket No. UM 1729(1) and possible revisions to standard avoided cost prices on a prospective basis. Docket No. UM 1794 was opened on August 26, 2016, and a schedule was set in a prehearing conference held on September 7, 2016. PacifiCorp filed opening testimony on October 14, 2016. On December 7, 2016, the administrative law judge issued a ruling suspending the procedural schedule in light of the need to clarify the scope of the proceeding. On March 23, 2017, the Commission issued an order affirming the administrative law judge's rulings on motions to compel, and indicated that it would issue a subsequent order outlining a more definitive list of issues encompassed by Docket No. UM 1729(1).

The Company believes an update to standard avoided cost prices at this time is reasonable and in compliance with Order No. 14-058. Further, the limited nature of the update to the four factors listed above is reasonable even as other Schedule 37 avoided cost price elements will be resolved in the UM 1794 proceeding.

In support of this filing, PacifiCorp submits Appendix 1- Avoided Cost Study and Appendix 2-

Method Write-up and Minimum Filing Requirements. Also included is a redline version of the Schedule 37 avoided cost price pages Sheet Nos. 37-5, 37-6, 37-7, and 37-8, which reflect the updates since the previous filing. Also provided are the supporting documentation in both "pdf" and original formats.

PacifiCorp respectfully requests that all communications related to this filing be addressed to:

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Please direct questions on this filing to Natasha Siores at (503) 813-6583.

Sincerely,

R. Bryce Dalley
Vice President, Regulation

PACIFIC POWER
PROPOSED CHANGES TO STANDARD AVOIDED COST PRICES

STANDARD RATES FOR AVOIDED COST PURCHASES FROM ELIGIBLE QUALIFYING FACILITIES

OREGON – MAY 2017

Monthly Payments

A Qualifying Facility shall select the option of payment at the time of signing the contract under one of the Pricing Options specified above. Once an option is selected the option will remain in effect for the duration of the Facility's contract.

Renewable or Standard Fixed Avoided Cost Prices

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at the renewable or standard fixed prices as provided in this schedule. On-Peak and Off-Peak are defined in the definitions section of this schedule.

Firm Market Indexed and Non-Firm Market Index Avoided Cost Prices

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at the market prices calculated at the time of delivery. On-Peak and Off-Peak are defined in the definitions section of this schedule.

Avoided Cost Prices

Standard Fixed Avoided Cost Prices for Base Load and Wind QF (¢/kWh)

Deliveries During Calendar Year	Base Load QF (1,3)		Wind QF (2,3)		
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price	
	(a)	(b)	(c)	(d)	
2017	2.66	2.00	2.34	1.68	(C)
2018	2.47	1.92	2.14	1.59	
2019	2.53	1.97	2.19	1.63	
2020	2.73	2.11	2.39	1.77	
2021	2.88	2.08	2.53	1.73	
2022	3.08	2.44	2.73	2.08	
2023	3.36	2.75	3.00	2.38	
2024	3.71	2.54	3.34	2.17	
2025	3.96	3.34	3.57	2.95	
2026	4.00	3.40	3.60	3.00	
2027	4.10	3.52	3.70	3.12	
2028	5.81	2.78	4.71	2.37	
2029	6.12	3.01	4.99	2.59	
2030	6.44	3.26	5.28	2.83	
2031	6.67	3.41	5.48	2.97	
2032	6.93	3.59	5.71	3.14	
2033	7.26	3.85	6.02	3.39	
2034	7.51	4.01	6.24	3.54	
2035	7.78	4.20	6.48	3.72	
2036	8.21	4.54	6.87	4.04	(C)

(continued)

Monthly Payments

A Qualifying Facility shall select the option of payment at the time of signing the contract under one of the Pricing Options specified above. Once an option is selected the option will remain in effect for the duration of the Facility's contract.

Renewable or Standard Fixed Avoided Cost Prices

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at the renewable or standard fixed prices as provided in this schedule. On-Peak and Off-Peak are defined in the definitions section of this schedule.

Firm Market Indexed and Non-Firm Market Index Avoided Cost Prices

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at the market prices calculated at the time of delivery. On-Peak and Off-Peak are defined in the definitions section of this schedule.

Avoided Cost Prices

Standard Fixed Avoided Cost Prices for Base Load and Wind QF (¢/kWh)

Deliveries During Calendar Year	Base Load QF (1,3)		Wind QF (2,3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(a)	(b)	(c)	(d)
2017	2.66	2.00	2.34	1.68
2018	2.47	1.92	2.14	1.59
2019	2.53	1.97	2.19	1.63
2020	2.73	2.11	2.39	1.77
2021	2.88	2.08	2.53	1.73
2022	3.08	2.44	2.73	2.08
2023	3.36	2.75	3.00	2.38
2024	3.71	2.54	3.34	2.17
2025	3.96	3.34	3.57	2.95
2026	4.00	3.40	3.60	3.00
2027	4.10	3.52	3.70	3.12
2028	5.81	2.78	4.71	2.37
2029	6.12	3.01	4.99	2.59
2030	6.44	3.26	5.28	2.83
2031	6.67	3.41	5.48	2.97
2032	6.93	3.59	5.71	3.14
2033	7.26	3.85	6.02	3.39
2034	7.51	4.01	6.24	3.54
2035	7.78	4.20	6.48	3.72
2036	8.21	4.54	6.87	4.04

(continued)

Deliveries During Calendar Year	Base Load QF (1,3)		Wind QF (2,3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(a)	(b)	(c)	(d)
2016	2.34	1.99	2.03	1.67
2017	2.63	2.17	2.31	1.85
2018	2.82	2.30	2.50	1.97
2019	2.94	2.38	2.61	2.05
2020	3.10	2.51	2.76	2.17
2021	3.30	2.71	2.95	2.36
2022	3.60	3.00	3.24	2.64
2023	4.03	3.37	3.66	3.00
2024	4.44	3.73	4.07	3.36
2025	4.66	3.93	4.28	3.55
2026	4.84	4.09	4.45	3.70
2027	5.06	4.27	4.66	3.87
2028	6.28	3.25	5.18	2.84
2029	6.44	3.34	5.31	2.92
2030	6.71	3.55	5.56	3.12
2031	6.88	3.64	5.70	3.20
2032	7.04	3.74	5.84	3.29
2033	7.24	3.86	6.01	3.40
2034	7.43	3.98	6.17	3.51
2035	7.62	4.09	6.33	3.61

(continued)

Avoided Cost Prices (Continued)

Standard Fixed Avoided Cost Prices for Fixed and Tracking Solar QF (¢/kWh)

Deliveries During Calendar Year	Fixed Solar QF (3)		Tracking Solar QF (3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(e)	(f)	(g)	(h)
2017	2.66	2.00	2.66	2.00
2018	2.47	1.92	2.47	1.92
2019	2.53	1.97	2.53	1.97
2020	2.73	2.11	2.73	2.11
2021	2.88	2.08	2.88	2.08
2022	3.08	2.44	3.08	2.44
2023	3.36	2.75	3.36	2.75
2024	3.71	2.54	3.71	2.54
2025	3.96	3.34	3.96	3.34
2026	4.00	3.40	4.00	3.40
2027	4.10	3.52	4.10	3.52
2028	5.37	2.78	5.32	2.78
2029	5.66	3.01	5.62	3.01
2030	5.97	3.26	5.93	3.26
2031	6.19	3.41	6.14	3.41
2032	6.44	3.59	6.39	3.59
2033	6.76	3.85	6.71	3.85
2034	7.00	4.01	6.94	4.01
2035	7.26	4.20	7.20	4.20
2036	7.67	4.54	7.62	4.54

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(C)

(1) Capacity Contribution to Peak for Avoided Proxy Resource and Base Load Qualifying Facility resource are assumed 100%.

(2) The standard avoided cost price for wind is reduced by an integration charge of $3.06/MWh ($2014). If Wind Qualifying Facility is not in PacifiCorp's balancing authority area, then no reduction is required.

(3) Standard Resource Sufficiency Period ends December 31, 2027 and Standard Resource Deficiency Period begins January 1, 2028.

(continued)

Avoided Cost Prices (Continued)

Standard Fixed Avoided Cost Prices for Fixed and Tracking Solar QF (¢/kWh)

Deliveries During Calendar Year	Fixed Solar QF (3)		Tracking Solar QF (3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(e)	(f)	(g)	(h)
2017	2.66	2.00	2.66	2.00
2018	2.47	1.92	2.47	1.92
2019	2.53	1.97	2.53	1.97
2020	2.73	2.11	2.73	2.11
2021	2.88	2.08	2.88	2.08
2022	3.08	2.44	3.08	2.44
2023	3.36	2.75	3.36	2.75
2024	3.71	2.54	3.71	2.54
2025	3.96	3.34	3.96	3.34
2026	4.00	3.40	4.00	3.40
2027	4.10	3.52	4.10	3.52
2028	5.37	2.78	5.32	2.78
2029	5.66	3.01	5.62	3.01
2030	5.97	3.26	5.93	3.26
2031	6.19	3.41	6.14	3.41
2032	6.44	3.59	6.39	3.59
2033	6.76	3.85	6.71	3.85
2034	7.00	4.01	6.94	4.01
2035	7.26	4.20	7.20	4.20
2036	7.67	4.54	7.62	4.54

~~Deliveries During Calendar Year~~	~~Fixed Solar QF (3)~~		~~Tracking Solar QF (3)~~	
	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~
	~~(e)~~	~~(f)~~	~~(g)~~	~~(h)~~
~~2016~~	~~2.34~~	~~1.99~~	~~2.34~~	~~1.99~~
~~2017~~	~~2.63~~	~~2.17~~	~~2.63~~	~~2.17~~
~~2018~~	~~2.82~~	~~2.30~~	~~2.82~~	~~2.30~~
~~2019~~	~~2.94~~	~~2.38~~	~~2.94~~	~~2.38~~
~~2020~~	~~3.10~~	~~2.51~~	~~3.10~~	~~2.51~~
~~2021~~	~~3.30~~	~~2.71~~	~~3.30~~	~~2.71~~
~~2022~~	~~3.60~~	~~3.00~~	~~3.60~~	~~3.00~~
~~2023~~	~~4.03~~	~~3.37~~	~~4.03~~	~~3.37~~
~~2024~~	~~4.44~~	~~3.73~~	~~4.44~~	~~3.73~~
~~2025~~	~~4.66~~	~~3.93~~	~~4.66~~	~~3.93~~

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~~2026~~	~~4.84~~	~~4.09~~		~~4.84~~	~~4.09~~
~~2027~~	~~5.06~~	~~4.27~~		~~5.06~~	~~4.27~~
~~2028~~	~~5.84~~	~~3.25~~		~~5.79~~	~~3.25~~
~~2029~~	~~5.98~~	~~3.34~~		~~5.93~~	~~3.34~~
~~2030~~	~~6.25~~	~~3.55~~		~~6.20~~	~~3.55~~
~~2031~~	~~6.40~~	~~3.64~~		~~6.35~~	~~3.64~~
~~2032~~	~~6.56~~	~~3.74~~		~~6.51~~	~~3.74~~
~~2033~~	~~6.74~~	~~3.86~~		~~6.69~~	~~3.86~~
~~2034~~	~~6.93~~	~~3.98~~		~~6.87~~	~~3.98~~
~~2035~~	~~7.10~~	~~4.09~~	-	~~7.05~~	~~4.09~~

(1) Capacity Contribution to Peak for Avoided Proxy Resource and Base Load Qualifying Facility resource are assumed 100%.

(2) The standard avoided cost price for wind is reduced by an integration charge of $3.06/MWh ($2014). If Wind Qualifying Facility is not in PacifiCorp's balancing authority area, then no reduction is required.

(3) Standard Resource Sufficiency Period ends December 31, 2027 and Standard Resource Deficiency Period begins January 1, 2028.

(continued)

Avoided Cost Prices (Continued)

Renewable Fixed Avoided Cost Prices for Base Load and Wind QF (¢/kWh)

Deliveries During Calendar Year	Renewable Base Load QF (1,4)		Wind QF (1,2,3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(a)	(b)	(c)	(d)
2017	2.66	2.00	2.34	1.68
2018	2.47	1.92	2.14	1.59
2019	2.53	1.97	2.19	1.63
2020	2.73	2.11	2.39	1.77
2021	2.88	2.08	2.53	1.73
2022	3.08	2.44	2.73	2.08
2023	3.36	2.75	3.00	2.38
2024	3.71	2.54	3.34	2.17
2025	3.96	3.34	3.57	2.95
2026	4.00	3.40	3.60	3.00
2027	4.10	3.52	3.70	3.12
2028	10.14	6.76	7.46	6.35
2029	10.35	6.95	7.62	6.53
2030	10.56	7.16	7.76	6.73
2031	10.81	7.34	7.94	6.90
2032	11.06	7.53	8.12	7.08
2033	11.29	7.75	8.28	7.29
2034	11.55	7.96	8.47	7.49
2035	11.85	8.13	8.69	7.65
2036	12.10	8.37	8.87	7.87

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Avoided Cost Prices (Continued)

Renewable Fixed Avoided Cost Prices for Base Load and Wind QF (¢/kWh)

Deliveries During Calendar Year	Renewable Base Load QF (1,4)		Wind QF (1,2,3)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(a)	(b)	(c)	(d)
2017	2.66	2.00	2.34	1.68
2018	2.47	1.92	2.14	1.59
2019	2.53	1.97	2.19	1.63
2020	2.73	2.11	2.39	1.77
2021	2.88	2.08	2.53	1.73
2022	3.08	2.44	2.73	2.08
2023	3.36	2.75	3.00	2.38
2024	3.71	2.54	3.34	2.17
2025	3.96	3.34	3.57	2.95
2026	4.00	3.40	3.60	3.00
2027	4.10	3.52	3.70	3.12
2028	10.14	6.76	7.46	6.35
2029	10.35	6.95	7.62	6.53
2030	10.56	7.16	7.76	6.73
2031	10.81	7.34	7.94	6.90
2032	11.06	7.53	8.12	7.08
2033	11.29	7.75	8.28	7.29
2034	11.55	7.96	8.47	7.49
2035	11.85	8.13	8.69	7.65
2036	12.10	8.37	8.87	7.87

~~Deliveries During Calendar Year~~	~~Renewable Base Load QF (1,4)~~		~~Wind QF (1,2,3)~~	
	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~
	~~(a)~~	~~(b)~~	~~(c)~~	~~(d)~~
~~2016~~	~~2.34~~	~~1.99~~	~~2.03~~	~~1.67~~
~~2017~~	~~2.63~~	~~2.17~~	~~2.31~~	~~1.85~~
~~2018~~	~~2.82~~	~~2.30~~	~~2.50~~	~~1.97~~
~~2019~~	~~2.94~~	~~2.38~~	~~2.61~~	~~2.05~~
~~2020~~	~~3.10~~	~~2.51~~	~~2.76~~	~~2.17~~
~~2021~~	~~3.30~~	~~2.71~~	~~2.95~~	~~2.36~~

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~~2022~~	~~3.60~~	~~3.00~~	~~3.24~~	~~2.64~~
~~2023~~	~~4.03~~	~~3.37~~	~~3.66~~	~~3.00~~
~~2024~~	~~4.44~~	~~3.73~~	~~4.07~~	~~3.36~~
~~2025~~	~~4.66~~	~~3.93~~	~~4.28~~	~~3.55~~
~~2026~~	~~4.84~~	~~4.09~~	~~4.45~~	~~3.70~~
~~2027~~	~~5.06~~	~~4.27~~	~~4.66~~	~~3.87~~
~~2028~~	~~10.26~~	~~6.60~~	~~7.59~~	~~6.19~~
~~2029~~	~~10.47~~	~~6.74~~	~~7.74~~	~~6.32~~
~~2030~~	~~10.72~~	~~6.87~~	~~7.93~~	~~6.44~~
~~2031~~	~~10.94~~	~~7.03~~	~~8.09~~	~~6.59~~
~~2032~~	~~11.18~~	~~7.20~~	~~8.26~~	~~6.76~~
~~2033~~	~~11.41~~	~~7.37~~	~~8.43~~	~~6.92~~
~~2034~~	~~11.65~~	~~7.55~~	~~8.61~~	~~7.08~~
~~2035~~	~~11.87~~	~~7.76~~	~~8.76~~	~~7.28~~

(continued)

Avoided Cost Prices (continued)

Renewable Fixed Avoided Cost Prices for Fixed and Tracking Solar QF (¢/kWh)

Deliveries During Calendar Year	Fixed Solar QF (1,4)		Tracking Solar QF (1,4)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(e)	(f)	(g)	(h)
2017	2.66	2.00	2.66	2.00
2018	2.47	1.92	2.47	1.92
2019	2.53	1.97	2.53	1.97
2020	2.73	2.11	2.73	2.11
2021	2.88	2.08	2.88	2.08
2022	3.08	2.44	3.08	2.44
2023	3.36	2.75	3.36	2.75
2024	3.71	2.54	3.71	2.54
2025	3.96	3.34	3.96	3.34
2026	4.00	3.40	4.00	3.40
2027	4.10	3.52	4.10	3.52
2028	8.42	6.76	8.65	6.76
2029	8.59	6.95	8.84	6.95
2030	8.76	7.16	9.01	7.16
2031	8.96	7.34	9.22	7.34
2032	9.17	7.53	9.43	7.53
2033	9.36	7.75	9.62	7.75
2034	9.57	7.96	9.84	7.96
2035	9.82	8.13	10.10	8.13
2036	10.02	8.37	10.31	8.37

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(1) For the purpose of determining: (i) when the Renewable Qualifying Facility is entitled to renewable avoided cost prices; and (ii) the ownership of Environmental Attributes and the transfer of Green Tags to PacifiCorp, the Renewable Resource Sufficiency Period ends December 31, 2027, and the Renewable Resource Deficiency Period begins January 1, 2028.

(2) During the Renewable Resource Deficiency Period, the renewable avoided cost price for a Wind Qualifying Facility will be adjusted by adding the difference between the avoided integration costs and the Qualifying Facility's integration costs. If the Wind Qualifying Facility is in PacifiCorp's Balancing Authority Area (BAA), the adjustment is zero (integration costs cancel each other out). If the Wind Qualifying Facility is not in PacifiCorp's BAA, the renewable avoided cost price will be increased by avoided integration charge of $3.06/MWh ($2014).

(3) During Renewable Resource Sufficiency Period, the renewable avoided cost price for a Wind Qualifying Facility is reduced by an integration charge of $3.06/MWh ($2014) for Wind Qualifying Facilities located in PacifiCorp's BAA (in-system). If a Wind Qualifying Facility is not in PacifiCorp's BAA, the renewable avoided cost price will be increased by avoided integration charge of $3.06/MWh ($2014).

(4) During the Renewable Resource Deficiency Period, the renewable avoided cost price for Base Load, Fixed Solar and Tracking Solar is increased by an integration charge of $3.06/MWh ($2014).

(continued)

Avoided Cost Prices (continued)

Renewable Fixed Avoided Cost Prices for Fixed and Tracking Solar QF (¢/kWh)

Deliveries During Calendar Year	Fixed Solar QF (1,4)		Tracking Solar QF (1,4)	
	On-Peak Energy Price	Off-Peak Energy Price	On-Peak Energy Price	Off-Peak Energy Price
	(e)	(f)	(g)	(h)
2017	2.66	2.00	2.66	2.00
2018	2.47	1.92	2.47	1.92
2019	2.53	1.97	2.53	1.97
2020	2.73	2.11	2.73	2.11
2021	2.88	2.08	2.88	2.08
2022	3.08	2.44	3.08	2.44
2023	3.36	2.75	3.36	2.75
2024	3.71	2.54	3.71	2.54
2025	3.96	3.34	3.96	3.34
2026	4.00	3.40	4.00	3.40
2027	4.10	3.52	4.10	3.52
2028	8.42	6.76	8.65	6.76
2029	8.59	6.95	8.84	6.95
2030	8.76	7.16	9.01	7.16
2031	8.96	7.34	9.22	7.34
2032	9.17	7.53	9.43	7.53
2033	9.36	7.75	9.62	7.75
2034	9.57	7.96	9.84	7.96
2035	9.82	8.13	10.10	8.13
2036	10.02	8.37	10.31	8.37

~~Deliveries During Calendar Year~~	~~Fixed Solar QF (1,4)~~		~~Tracking Solar QF (1,4)~~	
	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~	~~On-Peak Energy Price~~	~~Off-Peak Energy Price~~
	~~(e)~~	~~(f)~~	~~(g)~~	~~(h)~~
~~2016~~	~~2.34~~	~~1.99~~	~~2.34~~	~~1.99~~
~~2017~~	~~2.63~~	~~2.17~~	~~2.63~~	~~2.17~~
~~2018~~	~~2.82~~	~~2.30~~	~~2.82~~	~~2.30~~
~~2019~~	~~2.94~~	~~2.38~~	~~2.94~~	~~2.38~~
~~2020~~	~~3.10~~	~~2.51~~	~~3.10~~	~~2.51~~
~~2021~~	~~3.30~~	~~2.71~~	~~3.30~~	~~2.71~~
~~2022~~	~~3.60~~	~~3.00~~	~~3.60~~	~~3.00~~
~~2023~~	~~4.03~~	~~3.37~~	~~4.03~~	~~3.37~~
~~2024~~	~~4.44~~	~~3.73~~	~~4.44~~	~~3.73~~
~~2025~~	~~4.66~~	~~3.93~~	~~4.66~~	~~3.93~~

(continued)

2026	4.84	4.09	4.84	4.09
2027	5.06	4.27	5.06	4.27
2028	8.55	6.60	8.78	6.60
2029	8.72	6.74	8.96	6.74
2030	8.93	6.87	9.17	6.87
2031	9.11	7.03	9.36	7.03
2032	9.30	7.20	9.56	7.20
2033	9.49	7.37	9.76	7.37
2034	9.70	7.55	9.97	7.55
2035	9.87	7.76	10.15	7.76

(1) For the purpose of determining: (i) when the Renewable Qualifying Facility is entitled to renewable avoided cost prices; and (ii) the ownership of Environmental Attributes and the transfer of Green Tags to PacifiCorp, the Renewable Resource Sufficiency Period ends December 31, 2027, and the Renewable Resource Deficiency Period begins January 1, 2028.

(2) During the Renewable Resource Deficiency Period, the renewable avoided cost price for a Wind Qualifying Facility will be adjusted by adding the difference between the avoided integration costs and the Qualifying Facility's integration costs. If the Wind Qualifying Facility is in PacifiCorp's Balancing Authority Area (BAA), the adjustment is zero (integration costs cancel each other out). If the Wind Qualifying Facility is not in PacifiCorp's BAA, the renewable avoided cost price will be increased by avoided integration charge of $3.06/MWh ($2014).

(3) During Renewable Resource Sufficiency Period, the renewable avoided cost price for a Wind Qualifying Facility is reduced by an integration charge of $3.06/MWh ($2014) for Wind Qualifying Facilities located in PacifiCorp's BAA (in-system). If a Wind Qualifying Facility is not in PacifiCorp's BAA, the renewable avoided cost price will be increased by avoided integration charge of $3.06/MWh ($2014).

(4) During the Renewable Resource Deficiency Period, the renewable avoided cost price for Base Load, Fixed Solar and Tracking Solar is increased by an integration charge of $3.06/MWh ($2014).

(continued)

Appendix 1

PACIFIC POWER
AVOIDED COST CALCULATION

STANDARD RATES FOR AVOIDED COST PURCHASES FROM ELIGIBLE QUALIFYING FACILITIES

OREGON – MAY 2017

Exhibit 1
Standard Avoided Cost Prices for Base Load QF (1)
$/MWH

	Standard Avoided Resource		Base Load QF Resource				
Year	Avoided Firm Capacity Costs	Energy Only Price	Capacity Contribution	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	$/kW-yr	$/MWh		($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				= (a) * (c)	(d) *1000 / (100.0% x 8760 x 56%)	(e) + (b)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019	Market Based Prices					$25.27	$19.67
2020	2017 through 2027					$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$149.07	$27.75	100.0%	149.07	$30.36	$58.12	$27.75
2029	$152.60	$30.10	100.0%	152.60	$31.08	$61.19	$30.10
2030	$156.21	$32.58	100.0%	156.21	$31.82	$64.40	$32.58
2031	$159.99	$34.09	100.0%	159.99	$32.59	$66.68	$34.09
2032	$163.86	$35.92	100.0%	163.86	$33.38	$69.29	$35.92
2033	$167.82	$38.46	100.0%	167.82	$34.18	$72.65	$38.46
2034	$171.88	$40.09	100.0%	171.88	$35.01	$75.11	$40.09
2035	$176.02	$41.99	100.0%	176.02	$35.85	$77.84	$41.99
2036	$180.32	$45.38	100.0%	180.32	$36.73	$82.11	$45.38

(1) Capacity Contribution of the Avoided Proxy and Base Load QF resources are assumed to be 100%.

Columns

(a) Full fixed cost of a proxy CCCT less capitalized energy
(b) Fuel and Capitalized Energy Cost of the Proxy CCCT
(e) 100.0% is the on-peak capacity factor of the Base Load QF resource
(f) 56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

Exhibit 2
Standard Avoided Cost Prices for Wind QF (1,2)
$/MWH

	Standard Avoided Resource		Wind QF Resource				
Year	Avoided Firm Capacity Costs	Energy Only Price	Capacity Contribution	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	$/kW-yr	$/MWh		($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d) = (a) * (c)	(e) (d) *1000 / (33.0% x 8760 x 56%)	(f) = (b) + (e)	(g) = (b)
2017						$23.37	$16.79
2018						$21.42	$15.91
2019	Market Based Prices					$21.93	$16.33
2020	2017 through 2027					$23.87	$17.69
2021	less Wind Integration (2)					$25.34	$17.32
2022						$27.25	$20.84
2023						$29.95	$23.83
2024						$33.36	$21.65
2025						$35.73	$29.53
2026						$36.04	$30.04
2027						$37.01	$31.23
2028	$149.07	$27.75	25.4%	37.86	$23.40	$47.06	$23.66
2029	$152.60	$30.10	25.4%	38.76	$23.96	$49.87	$25.91
2030	$156.21	$32.58	25.4%	39.68	$24.52	$52.82	$28.29
2031	$159.99	$34.09	25.4%	40.64	$25.12	$54.81	$29.70
2032	$163.86	$35.92	25.4%	41.62	$25.72	$57.14	$31.42
2033	$167.82	$38.46	25.4%	42.63	$26.35	$60.20	$33.85
2034	$171.88	$40.09	25.4%	43.66	$26.98	$62.36	$35.37
2035	$176.02	$41.99	25.4%	44.71	$27.63	$64.79	$37.16
2036	$180.32	$45.38	25.4%	45.80	$28.31	$68.74	$40.43

(1) The avoided cost price is reduced by a wind integration charge of $3.06/MWh ($2014) for wind QF resources located in PacifiCorp's Balancing Area Authority (BAA) (in-system).
If QF wind resource is not in PacifiCorp's BAA, prices will be increased by the $3.06/MWh ($2014) integration charges.

(2) Wind Integration Cost is $3.06 (2015 IRP Volume II-Appendix H, Table H.3)

Columns
- (a) Full fixed cost of a proxy CCCT less capitalized energy
- (b) Fuel and Capitalized Energy Cost of the Proxy CCCT
- (c) Peak Capacity Contribution values for renewables (% of nameplate capacity), 2015 IRP
- (d) Column (c) multiplied by difference between capacity contributions of renewable Base Load QF and renewable proxy wind resource
- (e) 33.0% is the on-peak capacity factor of the Wind QF Resource
  56% is the percent of all hours that are on-peak
- (f) 2017-2027 On-Peak Blended Market Prices for QF resource
- (g) 2017-2027 Off-Peak Blended Market Prices for QF resource

Wind Capacity Contribution 25.4%

Exhibit 3
Standard Avoided Cost Prices for Fixed Solar QF
$/MWH

	Standard Avoided Resource		Fixed Solar QF				
Year	Capacity Price	Energy Only Price	Capacity Contribution	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	$/kW-yr	$/MWh		($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				= (a) * (c)	(d) *1000 / (37.7% x 8760 x 56%)	= (b) + (e)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019	Market Based Prices					$25.27	$19.67
2020	2017 through 2027					$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$149.07	$27.75	32.20%	$48.00	$25.90	$53.65	$27.75
2029	$152.60	$30.10	32.20%	$49.14	$26.52	$56.62	$30.10
2030	$156.21	$32.58	32.20%	$50.30	$27.14	$59.73	$32.58
2031	$159.99	$34.09	32.20%	$51.52	$27.80	$61.89	$34.09
2032	$163.86	$35.92	32.20%	$52.76	$28.47	$64.39	$35.92
2033	$167.82	$38.46	32.20%	$54.04	$29.16	$67.62	$38.46
2034	$171.88	$40.09	32.20%	$55.35	$29.87	$69.96	$40.09
2035	$176.02	$41.99	32.20%	$56.68	$30.58	$72.57	$41.99
2036	$180.32	$45.38	32.20%	$58.06	$31.33	$76.72	$45.38

Columns

(a) Full fixed cost of a proxy CCCT less capitalized energy
(b) Fuel and Capitalized Energy Cost of the Proxy CCCT
(c) Peak Capacity Contribution values for renewables (% of nameplate capacity), 2015 IRP
(d) Column (c) multiplied by the capacity contribution of a Standard Fixed Solar QF
(e) 37.7% is the on-peak capacity factor of the Fixed Solar QF Resource
56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

Fixed Solar Capacity Contribution 32.2%

Exhibit 4
Standard Avoided Cost Prices for Tracking Solar QF
$/MWH

	Standard Avoided Resource		Tracking Solar QF				
Year	Capacity Price	Energy Only Price	Capacity Contribution	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	$/kW-yr	$/MWh		($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				= (a) * (c)	(d) *1000 / (43.8% x 8760 x 56%)	= (b) + (e)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019	Market Based Prices					$25.27	$19.67
2020	2017 through 2027					$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$149.07	$27.75	36.70%	54.71	$25.45	$53.20	$27.75
2029	$152.60	$30.10	36.70%	56.00	$26.05	$56.16	$30.10
2030	$156.21	$32.58	36.70%	57.33	$26.67	$59.25	$32.58
2031	$159.99	$34.09	36.70%	58.72	$27.31	$61.40	$34.09
2032	$163.86	$35.92	36.70%	60.14	$27.97	$63.89	$35.92
2033	$167.82	$38.46	36.70%	61.59	$28.65	$67.11	$38.46
2034	$171.88	$40.09	36.70%	63.08	$29.34	$69.44	$40.09
2035	$176.02	$41.99	36.70%	64.60	$30.05	$72.04	$41.99
2036	$180.32	$45.38	36.70%	66.18	$30.78	$76.17	$45.38

Columns

(a) Full fixed cost of a proxy CCCT less capitalized energy
(b) Fuel and Capitalized Energy Cost of the Proxy CCCT
(c) Peak Capacity Contribution values for renewables (% of nameplate capacity), 2015 IRP
(d) Column (c) multiplied by the capacity contribution of a Standard Tracking Solar QF
(e) 43.8% is the on-peak capacity factor of the Tracking Solar QF Resource
56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

Tracking Solar Capacity Contribution 36.7%

Exhibit 5

Renewable Standard Avoided Cost Prices for Base Load QF(1)
$/MWH

Year	Renewable Wind Avoided Resource		Renewable Base Load QF Resource				
	On-Peak	Off-Peak	Avoided Firm Capacity Costs	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	($/MWh)	($/MWh)	$/kW-yr	($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				(c) x 75%	(d) *1000 / (100.0%x 8760 x 56%)	= (a) + (e)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019						$25.27	$19.67
2020						$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$74.62	$63.49	$149.07	$111.21	$22.65	$101.36	$67.58
2029	$76.16	$65.26	$152.60	$113.84	$23.19	$103.54	$69.45
2030	$77.59	$67.26	$156.21	$116.53	$23.74	$105.62	$71.55
2031	$79.35	$68.97	$159.99	$119.35	$24.31	$108.05	$73.36
2032	$81.16	$70.82	$163.86	$122.24	$24.90	$110.56	$75.32
2033	$82.80	$72.93	$167.82	$125.19	$25.50	$112.91	$77.54
2034	$84.68	$74.87	$171.88	$128.22	$26.12	$115.52	$79.59
2035	$86.88	$76.45	$176.02	$131.31	$26.75	$118.46	$81.28
2036	$88.68	$78.70	$180.32	$134.52	$27.40	$121.03	$83.65

Columns

(a) Table 13 Column (d)
(b) Table 13 Column (e)
(c) Full fixed cost of a proxy CCCT less capitalized energy
(d) Column (c) multiplied by difference between capacity contributions of renewable Base Load QF and renewable proxy wind resource
(e) 100.0% is the on-peak capacity factor of the Proxy CCCT Resource
56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

(1) The renewable avoided cost prices during the deficiency period are increased by the avoided integration charge

Exhibit 6
Renewable Standard Avoided Cost Prices for Wind QF (1) (2) (3)
$/MWH

Year	Renewable Wind Avoided Resource		Wind QF Resource			Wind QF Resource	
	On-Peak	Off-Peak	Avoided Firm Capacity Costs	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	($/MWh)	($/MWh)	$/kW-yr	($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				(c) x 0%	(d) *1000 / (33.0%x 8760 x 56%)	= (a) + (e)	= (b)
2017						$23.37	$16.79
2018						$21.42	$15.91
2019						$21.93	$16.33
2020						$23.87	$17.69
2021						$25.34	$17.32
2022						$27.25	$20.84
2023						$29.95	$23.83
2024						$33.36	$21.65
2025						$35.73	$29.53
2026						$36.04	$30.04
2027						$37.01	$31.23
2028	$74.62	$63.49	$149.07	$0.00	$0.00	$74.62	$63.49
2029	$76.16	$65.26	$152.60	$0.00	$0.00	$76.16	$65.26
2030	$77.59	$67.26	$156.21	$0.00	$0.00	$77.59	$67.26
2031	$79.35	$68.97	$159.99	$0.00	$0.00	$79.35	$68.97
2032	$81.16	$70.82	$163.86	$0.00	$0.00	$81.16	$70.82
2033	$82.80	$72.93	$167.82	$0.00	$0.00	$82.80	$72.93
2034	$84.68	$74.87	$171.88	$0.00	$0.00	$84.68	$74.87
2035	$86.88	$76.45	$176.02	$0.00	$0.00	$86.88	$76.45
2036	$88.68	$78.70	$180.32	$0.00	$0.00	$88.68	$78.70

(1) During the deficiency period, avoided cost prices will be adjusted by the difference between the avoided integration costs and QF's integration costs. If the QF is in PacifiCorp's Balancing Area Authority (BAA), the adjustment is zero (integration costs cancel each other out).
If QF wind resource is not in PacifiCorp's BAA, $3.06/MWh ($2014) will be added for avoided integration charges.

(2) During the sufficiency period, avoided cost prices are reduced by an integration charge of $3.06/MWh ($2014) for wind QF resources located in PacifiCorp's BAA (in-system).
If QF wind resource is not in PacifiCorp's BAA, prices will be increased by the $3.06/MWh ($2014) integration charges.

(3) Wind Integration Charge is $3.06 (2015 IRP Volume II-Appendix H, Table H.3)

Columns
- (a) Table 13 Column (d)
- (b) Table 13 Column (e)
- (c) Full fixed cost of a proxy CCCT less capitalized energy
- (d) Column (c) multiplied by difference between capacity contributions of renewable Wind QF and renewable proxy wind resource
- (e) 33.0% is the on-peak capacity factor of the Wind QF resource
  56% is the percent of all hours that are on-peak
- (f) 2017-2027 On-Peak Blended Market Prices for QF resource

Exhibit 7

Renewable Standard Avoided Cost Prices for Fixed Solar QF (1)
$/MWH

Year	Renewable Wind Avoided Resource		Fixed Solar QF Resource			Fixed Solar QF	
	On-Peak	Off-Peak	Avoided Firm Capacity Costs	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	($/MWh)	($/MWh)	$/kW-yr	($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				(c) x 6.8%	(d) *1000 / (37.7%x 8760 x 56%)	= (a) + (e)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019						$25.27	$19.67
2020						$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$74.62	$63.49	$149.07	$10.14	$5.47	$84.18	$67.58
2029	$76.16	$65.26	$152.60	$10.38	$5.60	$85.95	$69.45
2030	$77.59	$67.26	$156.21	$10.62	$5.73	$87.61	$71.55
2031	$79.35	$68.97	$159.99	$10.88	$5.87	$89.61	$73.36
2032	$81.16	$70.82	$163.86	$11.14	$6.01	$91.67	$75.32
2033	$82.80	$72.93	$167.82	$11.41	$6.16	$93.57	$77.54
2034	$84.68	$74.87	$171.88	$11.69	$6.31	$95.71	$79.59
2035	$86.88	$76.45	$176.02	$11.97	$6.46	$98.17	$81.28
2036	$88.68	$78.70	$180.32	$12.26	$6.62	$100.25	$83.65

Columns

(a) Table 13 Column (d)
(b) Table 13 Column (e)
(c) Full fixed cost of a proxy CCCT less capitalized energy
(d) Column (c) multiplied by difference between capacity contributions of Fixed Solar QF and renewable proxy wind resource.
(e) 37.7% is the on-peak capacity factor of the Fixed Solar QF resource
56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

(1) The renewable avoided cost prices during the deficiency period are increased by the avoided integration charge

Exhibit 8

Renewable Standard Avoided Cost Prices for Tracking Solar QF (1)
$/MWH

Year	Renewable Wind Avoided Resource		Tracking Solar QF Resource			Tracking Solar QF	
	On-Peak	Off-Peak	Avoided Firm Capacity Costs	QF Capacity Adder	Capacity Adder Allocated to On-Peak Hours	On-Peak	Off-Peak
	($/MWh)	($/MWh)	$/kW-yr	($/kW-yr)	($/MWh)	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				(c) x 11.3%	(d) *1000 / (43.8%x 8760 x 56%)	= (a) + (e)	= (b)
2017						$26.57	$19.99
2018						$24.69	$19.18
2019						$25.27	$19.67
2020						$27.28	$21.10
2021						$28.83	$20.81
2022						$30.82	$24.41
2023						$33.60	$27.48
2024						$37.09	$25.38
2025						$39.55	$33.35
2026						$39.95	$33.95
2027						$41.01	$35.23
2028	$74.62	$63.49	$149.07	$16.84	$7.84	$86.55	$67.58
2029	$76.16	$65.26	$152.60	$17.24	$8.02	$88.37	$69.45
2030	$77.59	$67.26	$156.21	$17.65	$8.21	$90.09	$71.55
2031	$79.35	$68.97	$159.99	$18.08	$8.41	$92.15	$73.36
2032	$81.16	$70.82	$163.86	$18.52	$8.61	$94.27	$75.32
2033	$82.80	$72.93	$167.82	$18.96	$8.82	$96.23	$77.54
2034	$84.68	$74.87	$171.88	$19.42	$9.04	$98.44	$79.59
2035	$86.88	$76.45	$176.02	$19.89	$9.25	$100.96	$81.28
2036	$88.68	$78.70	$180.32	$20.38	$9.48	$103.11	$83.65

Columns

(a) Table 13 Column (d)
(b) Table 13 Column (e)
(c) Full fixed cost of a proxy CCCT less capitalized energy
(d) Column (c) multiplied by difference between capacity contribution of Tracking Solar QF and renewable proxy wind resource.
(e) 43.8% is the on-peak capacity factor of the Tracking Solar QF Resource
56% is the percent of all hours that are on-peak
(f) 2017-2027 On-Peak Blended Market Prices for QF resource
(g) 2017-2027 Off-Peak Blended Market Prices for QF resource

(1) The renewable avoided cost prices during the deficiency period are increased by the avoided integration charge

Exhibit 9
Market Price - Blending Matrix (1)

	On-Peak				Off-Peak			
Period	COB	Mid Columbia	Palo Verde	Total	COB	Mid Columbia	Palo Verde	Total
1/1/2017	25.1%	27.0%	47.9%	100.0%	0.0%	47.9%	52.1%	100.0%
2/1/2017	4.6%	65.8%	29.6%	100.0%	1.0%	84.1%	14.9%	100.0%
3/1/2017	68.9%	14.0%	17.1%	100.0%	32.9%	67.1%	0.0%	100.0%
4/1/2017	91.1%	5.3%	3.6%	100.0%	58.0%	42.0%	0.0%	100.0%
5/1/2017	86.6%	8.5%	4.9%	100.0%	72.2%	27.8%	0.0%	100.0%
6/1/2017	42.9%	57.1%	0.0%	100.0%	92.6%	7.4%	0.0%	100.0%
7/1/2017	1.7%	98.3%	0.0%	100.0%	82.1%	17.7%	0.2%	100.0%
8/1/2017	5.3%	94.7%	0.0%	100.0%	4.1%	95.9%	0.0%	100.0%
9/1/2017	3.1%	92.6%	4.3%	100.0%	0.0%	48.4%	51.6%	100.0%
10/1/2017	1.0%	67.0%	32.1%	100.0%	0.3%	89.7%	10.0%	100.0%
11/1/2017	1.4%	80.3%	18.3%	100.0%	2.9%	17.2%	79.9%	100.0%
12/1/2017	1.2%	86.5%	12.3%	100.0%	0.0%	38.7%	61.3%	100.0%
1/1/2018	0.0%	85.0%	15.0%	100.0%	0.0%	45.6%	54.4%	100.0%
2/1/2018	12.0%	67.6%	20.4%	100.0%	1.8%	70.9%	27.3%	100.0%
3/1/2018	9.3%	61.1%	29.6%	100.0%	1.2%	86.8%	12.0%	100.0%
4/1/2018	20.0%	35.8%	44.2%	100.0%	24.4%	63.8%	11.7%	100.0%
5/1/2018	9.4%	86.5%	4.1%	100.0%	50.6%	48.7%	0.7%	100.0%
6/1/2018	18.5%	81.5%	0.0%	100.0%	82.5%	17.5%	0.0%	100.0%
7/1/2018	15.2%	84.8%	0.0%	100.0%	54.2%	44.9%	0.8%	100.0%
8/1/2018	7.6%	91.1%	1.4%	100.0%	0.0%	100.0%	0.0%	100.0%
9/1/2018	2.2%	91.8%	6.1%	100.0%	0.0%	7.5%	92.5%	100.0%
10/1/2018	0.0%	72.3%	27.7%	100.0%	0.0%	95.3%	4.7%	100.0%
11/1/2018	0.9%	81.4%	17.7%	100.0%	0.0%	26.8%	73.2%	100.0%
12/1/2018	0.0%	100.0%	0.0%	100.0%	0.0%	67.3%	32.7%	100.0%
1/1/2019	0.0%	26.9%	73.1%	100.0%	0.0%	42.2%	57.8%	100.0%
2/1/2019	27.1%	38.7%	34.2%	100.0%	0.0%	38.7%	61.3%	100.0%
3/1/2019	4.3%	49.5%	46.2%	100.0%	0.0%	78.2%	21.8%	100.0%
4/1/2019	3.2%	49.4%	47.4%	100.0%	4.5%	82.8%	12.7%	100.0%
5/1/2019	10.2%	85.5%	4.3%	100.0%	34.4%	53.8%	11.8%	100.0%
6/1/2019	38.5%	54.5%	7.0%	100.0%	82.6%	16.4%	1.0%	100.0%
7/1/2019	8.2%	91.7%	0.0%	100.0%	25.0%	75.0%	0.0%	100.0%
8/1/2019	14.7%	83.1%	2.2%	100.0%	0.0%	100.0%	0.0%	100.0%
9/1/2019	1.2%	98.6%	0.1%	100.0%	0.0%	82.7%	17.3%	100.0%
10/1/2019	0.0%	81.1%	18.9%	100.0%	0.0%	75.5%	24.5%	100.0%
11/1/2019	3.1%	80.3%	16.6%	100.0%	0.0%	14.9%	85.1%	100.0%
12/1/2019	0.0%	34.4%	65.6%	100.0%	0.0%	27.0%	73.0%	100.0%
1/1/2020	40.0%	54.5%	5.5%	100.0%	0.0%	48.9%	51.1%	100.0%
2/1/2020	26.7%	40.6%	32.7%	100.0%	0.0%	27.2%	72.8%	100.0%
3/1/2020	4.6%	48.6%	46.7%	100.0%	0.0%	28.5%	71.5%	100.0%
4/1/2020	2.3%	55.0%	42.7%	100.0%	0.8%	88.3%	10.9%	100.0%
5/1/2020	2.7%	89.6%	7.7%	100.0%	32.3%	58.3%	9.4%	100.0%
6/1/2020	4.1%	95.5%	0.4%	100.0%	48.3%	19.0%	32.8%	100.0%
7/1/2020	10.5%	88.1%	1.4%	100.0%	7.8%	92.2%	0.0%	100.0%
8/1/2020	11.9%	85.0%	3.1%	100.0%	0.0%	100.0%	0.0%	100.0%
9/1/2020	1.0%	98.9%	0.1%	100.0%	0.0%	4.1%	95.9%	100.0%
10/1/2020	0.0%	71.3%	28.7%	100.0%	0.0%	71.8%	28.2%	100.0%
11/1/2020	0.6%	74.1%	25.3%	100.0%	0.0%	34.2%	65.8%	100.0%
12/1/2020	0.6%	84.2%	15.2%	100.0%	0.0%	33.9%	66.1%	100.0%
1/1/2021	27.1%	39.2%	33.7%	100.0%	0.0%	0.0%	0.0%	0.0%
2/1/2021	49.6%	23.5%	26.9%	100.0%	0.0%	62.7%	37.3%	100.0%
3/1/2021	34.0%	45.3%	20.8%	100.0%	0.0%	45.0%	55.0%	100.0%
4/1/2021	9.1%	56.9%	34.0%	100.0%	0.5%	91.0%	8.4%	100.0%
5/1/2021	2.2%	96.0%	1.8%	100.0%	17.0%	62.8%	20.2%	100.0%
6/1/2021	7.7%	92.3%	0.0%	100.0%	25.6%	25.5%	48.9%	100.0%
7/1/2021	6.4%	92.2%	1.4%	100.0%	2.4%	93.5%	4.1%	100.0%
8/1/2021	10.4%	89.2%	0.5%	100.0%	0.0%	96.1%	3.9%	100.0%
9/1/2021	3.1%	96.7%	0.1%	100.0%	0.0%	0.0%	100.0%	100.0%
10/1/2021	0.0%	82.9%	17.1%	100.0%	0.0%	31.8%	68.2%	100.0%
11/1/2021	0.4%	76.6%	23.0%	100.0%	0.1%	61.5%	38.4%	100.0%
12/1/2021	0.0%	78.5%	21.5%	100.0%	0.0%	38.6%	61.4%	100.0%
1/1/2022	38.7%	61.3%	0.0%	100.0%	0.0%	96.0%	4.0%	100.0%
2/1/2022	84.6%	0.0%	15.4%	100.0%	0.0%	87.0%	13.0%	100.0%
3/1/2022	15.7%	54.7%	29.6%	100.0%	0.0%	100.0%	0.0%	100.0%
4/1/2022	21.5%	44.5%	34.0%	100.0%	0.0%	94.6%	5.4%	100.0%
5/1/2022	1.7%	89.5%	8.8%	100.0%	27.6%	54.7%	17.7%	100.0%
6/1/2022	8.1%	91.9%	0.0%	100.0%	52.6%	32.2%	15.2%	100.0%
7/1/2022	10.7%	89.3%	0.0%	100.0%	13.5%	65.8%	20.7%	100.0%
8/1/2022	11.3%	87.6%	1.1%	100.0%	0.0%	33.8%	66.2%	100.0%
9/1/2022	0.0%	99.6%	0.4%	100.0%	0.0%	0.0%	100.0%	100.0%
10/1/2022	0.0%	75.8%	24.2%	100.0%	0.0%	26.9%	73.1%	100.0%
11/1/2022	1.0%	99.0%	0.0%	100.0%	3.2%	46.9%	49.8%	100.0%
12/1/2022	0.0%	46.8%	53.2%	100.0%	0.0%	100.0%	0.0%	100.0%

	On-Peak				Off-Peak			
Period	COB	Mid Columbia	Palo Verde	Total	COB	Mid Columbia	Palo Verde	Total
1/1/2023	0.0%	99.3%	0.7%	100.0%	0.0%	100.0%	0.0%	100.0%
2/1/2023	21.2%	53.4%	25.4%	100.0%	0.0%	59.4%	40.6%	100.0%
3/1/2023	11.5%	58.4%	30.1%	100.0%	0.0%	38.7%	61.3%	100.0%
4/1/2023	46.5%	39.9%	13.7%	100.0%	11.3%	88.7%	0.0%	100.0%
5/1/2023	1.3%	90.6%	8.1%	100.0%	44.7%	48.1%	7.2%	100.0%
6/1/2023	9.5%	86.0%	4.5%	100.0%	52.6%	44.1%	3.3%	100.0%
7/1/2023	17.0%	82.3%	0.7%	100.0%	5.6%	57.5%	37.0%	100.0%
8/1/2023	8.1%	89.6%	2.3%	100.0%	0.0%	60.7%	39.3%	100.0%
9/1/2023	12.9%	66.3%	20.8%	100.0%	0.0%	0.0%	100.0%	100.0%
10/1/2023	18.4%	81.6%	0.0%	100.0%	0.0%	61.0%	39.0%	100.0%
11/1/2023	17.9%	76.2%	5.9%	100.0%	6.7%	55.8%	37.6%	100.0%
12/1/2023	7.6%	50.6%	41.9%	100.0%	0.0%	0.0%	100.0%	100.0%
1/1/2024	1.2%	98.8%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
2/1/2024	24.1%	58.7%	17.2%	100.0%	0.0%	0.0%	0.0%	0.0%
3/1/2024	68.3%	16.6%	15.0%	100.0%	0.0%	55.2%	44.8%	100.0%
4/1/2024	40.6%	38.8%	20.6%	100.0%	3.5%	91.3%	5.2%	100.0%
5/1/2024	14.5%	74.7%	10.9%	100.0%	31.1%	59.0%	9.9%	100.0%
6/1/2024	23.4%	55.8%	20.8%	100.0%	33.1%	55.9%	11.1%	100.0%
7/1/2024	16.6%	60.6%	22.8%	100.0%	4.6%	69.2%	26.2%	100.0%
8/1/2024	23.9%	73.7%	2.4%	100.0%	19.3%	76.2%	4.4%	100.0%
9/1/2024	21.1%	24.1%	54.7%	100.0%	4.6%	1.7%	93.7%	100.0%
10/1/2024	32.6%	38.0%	29.4%	100.0%	14.6%	15.2%	70.2%	100.0%
11/1/2024	40.3%	46.0%	13.7%	100.0%	3.4%	46.7%	49.9%	100.0%
12/1/2024	36.6%	31.1%	32.3%	100.0%	1.1%	30.4%	68.5%	100.0%
1/1/2025	4.7%	66.2%	29.1%	100.0%	0.0%	50.7%	49.3%	100.0%
2/1/2025	35.2%	19.7%	45.1%	100.0%	12.0%	0.0%	88.0%	100.0%
3/1/2025	32.9%	43.5%	23.6%	100.0%	0.0%	19.7%	80.3%	100.0%
4/1/2025	22.2%	53.7%	24.1%	100.0%	5.6%	52.0%	42.3%	100.0%
5/1/2025	3.5%	64.0%	32.5%	100.0%	25.0%	54.4%	20.6%	100.0%
6/1/2025	11.9%	63.0%	25.1%	100.0%	38.7%	61.3%	0.0%	100.0%
7/1/2025	14.6%	60.9%	24.4%	100.0%	7.7%	69.2%	23.1%	100.0%
8/1/2025	18.1%	80.1%	1.9%	100.0%	12.0%	79.5%	8.5%	100.0%
9/1/2025	14.2%	50.0%	35.9%	100.0%	10.5%	0.0%	89.5%	100.0%
10/1/2025	27.7%	51.3%	21.0%	100.0%	10.9%	44.3%	44.8%	100.0%
11/1/2025	40.0%	58.5%	1.5%	100.0%	9.7%	30.4%	59.9%	100.0%
12/1/2025	27.5%	31.2%	41.3%	100.0%	0.0%	30.7%	69.3%	100.0%
1/1/2026	22.6%	47.7%	29.7%	100.0%	9.9%	36.1%	54.0%	100.0%
2/1/2026	62.5%	27.1%	10.4%	100.0%	22.9%	18.9%	58.1%	100.0%
3/1/2026	44.8%	37.9%	17.3%	100.0%	0.0%	20.2%	79.8%	100.0%
4/1/2026	19.9%	52.4%	27.7%	100.0%	2.5%	60.4%	37.0%	100.0%
5/1/2026	6.4%	71.0%	22.7%	100.0%	26.3%	54.2%	19.5%	100.0%
6/1/2026	8.6%	64.6%	26.8%	100.0%	5.2%	82.7%	12.1%	100.0%
7/1/2026	18.3%	61.1%	20.6%	100.0%	6.6%	66.0%	27.4%	100.0%
8/1/2026	26.3%	71.1%	2.6%	100.0%	7.3%	82.9%	9.9%	100.0%
9/1/2026	12.0%	52.0%	36.0%	100.0%	3.0%	0.0%	97.0%	100.0%
10/1/2026	33.5%	31.7%	34.8%	100.0%	19.8%	10.6%	69.6%	100.0%
11/1/2026	62.0%	25.8%	12.3%	100.0%	32.5%	12.2%	55.3%	100.0%
12/1/2026	34.2%	16.6%	49.2%	100.0%	15.8%	25.1%	59.1%	100.0%
1/1/2027	15.7%	43.3%	40.9%	100.0%	4.7%	3.7%	91.6%	100.0%
2/1/2027	46.9%	30.6%	22.6%	100.0%	44.8%	5.8%	49.4%	100.0%
3/1/2027	20.9%	44.6%	34.5%	100.0%	0.0%	8.2%	91.8%	100.0%
4/1/2027	12.6%	55.3%	32.1%	100.0%	2.3%	68.2%	29.5%	100.0%
5/1/2027	11.3%	70.2%	18.5%	100.0%	43.7%	43.2%	13.0%	100.0%
6/1/2027	6.4%	64.2%	29.4%	100.0%	30.8%	65.1%	4.1%	100.0%
7/1/2027	14.3%	60.2%	25.5%	100.0%	9.9%	69.5%	20.6%	100.0%
8/1/2027	21.5%	75.9%	2.6%	100.0%	13.9%	76.5%	9.6%	100.0%
9/1/2027	10.6%	44.4%	45.0%	100.0%	5.0%	6.3%	88.7%	100.0%
10/1/2027	32.4%	43.9%	23.7%	100.0%	18.4%	15.7%	65.9%	100.0%
11/1/2027	67.6%	32.4%	0.0%	100.0%	19.9%	46.5%	33.5%	100.0%
12/1/2027	37.1%	14.8%	48.2%	100.0%	15.3%	26.0%	58.7%	100.0%

(1) Blending weights are calculated using system balancing purchases and sales from GRID run using Mar 2017 Official Forward Market Price Curve

Table 1
2015 IRP Preferred Portfolio
Excerpt from 2015 IRP Table 8.7

		Capacity (MW)													
	Resource	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
East	**Expansion Resources**														
	CCCT - DJohns - F 1x1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CCCT - DJohns - J 1x1	-	-	-	-	-	-	-	-	-	-	-	-	-	423
	CCCT - Utah-N - F 2x1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 1, UT-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 1 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, ID	4	4	5	5	5	4	4	4	5	5	5	5	5	5
	DSM, Class 2, UT	69	78	84	86	92	81	84	90	91	93	75	76	80	80
	DSM, Class 2, WY	6	8	10	12	14	12	13	14	15	16	13	13	14	15
	DSM, Class 2 Total	79	90	99	102	111	97	101	108	110	114	92	94	99	99
	FOT Mona Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	161
West	**Expansion Resources**														
	Oregon Solar Capacity Standard	-	7	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 1, OR-Curtail	-	-	-	-	-	-	-	-	10.6	-	-	10.6	-	-
	DSM, Class 1, OR-Irrigate	-	-	-	-	-	-	-	5.0	-	-	-	-	-	-
	DSM, Class 1 Total	-	-	-	-	-	-	-	5.0	10.6	-	-	10.6	-	-
	DSM, Class 2, CA	1	2	2	2	2	1	1	2	2	2	1	1	1	1
	DSM, Class 2, OR	44	39	36	33	29	27	25	25	23	23	21	22	22	22
	DSM, Class 2, WA	8	9	10	10	11	9	10	10	11	11	9	9	9	9
	DSM, Class 2 Total	54	49	47	44	42	38	36	36	36	35	31	32	32	32
	FOT COB Q3	-	62	29	-	60	104	-	-	-	-	-	-	-	268
	FOT MidColumbia Q3 - 2	227	375	375	370	375	375	269	291	261	254	271	292	335	375
	Total Annual Additions	860	1,084	1,050	1,016	1,088	1,113	906	941	917	903	893	928	965	1,859

The 2015 IRP was prepared using a 13% planning reserve margin. See 2015 IRP, page 81.

Table 2
Avoided Costs ($/MWh)
Energy Prices 2017 through 2027

On-Peak (HLH Market Purchase)

Year	Winter Season					Summer Season				Winter Season		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017						16.53	26.07	31.18	27.82	25.56	27.21	31.65
2018	29.90	27.43	25.01	19.49	16.76	18.03	26.31	29.34	25.77	24.17	25.40	28.66
2019	27.83	28.22	25.78	20.88	16.99	17.88	27.42	30.78	27.12	25.26	26.62	28.51
2020	30.86	29.93	27.36	24.19	20.24	19.32	29.44	32.50	28.95	26.66	27.77	30.18
2021	31.92	31.44	29.03	25.89	21.51	21.03	31.12	34.24	30.94	28.08	29.25	31.50
2022	33.74	33.41	30.26	27.88	23.68	23.02	33.47	36.54	33.11	30.14	31.83	32.75
2023	34.78	34.44	31.76	25.87	24.68	25.71	38.24	41.17	37.74	35.09	36.47	37.22
2024	37.56	38.48	36.33	28.86	26.11	28.74	42.92	45.94	40.04	38.43	40.51	41.19
2025	40.36	42.24	38.53	31.22	28.32	30.74	45.13	49.23	43.52	40.52	42.09	42.68
2026	41.91	42.23	38.00	31.01	28.17	32.25	47.17	50.02	43.84	41.04	41.84	41.95
2027	42.19	43.02	39.10	32.29	29.69	33.70	48.26	51.35	44.30	42.37	43.28	42.55

Off-Peak (LLH Market Purchase)

Year	Winter Season					Summer Season				Winter Season		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017						7.17	16.67	22.33	23.43	21.22	23.18	25.97
2018	25.32	23.83	20.17	13.92	10.85	11.56	16.50	21.65	21.29	19.70	21.92	23.48
2019	25.48	25.09	22.97	14.93	10.28	11.71	15.98	17.80	20.15	22.47	23.45	25.79
2020	26.91	26.10	24.60	16.48	11.92	13.48	18.80	20.65	19.96	23.27	24.53	26.48
2021	-	26.93	25.78	17.47	13.04	14.66	22.31	24.11	21.40	26.57	28.21	29.18
2022	25.96	25.61	23.67	18.45	14.54	15.56	26.93	27.38	23.85	28.87	30.04	32.01
2023	29.25	29.17	28.01	19.14	18.05	19.11	29.90	31.24	27.84	31.25	32.94	33.92
2024	-	-	31.78	23.40	21.19	23.29	32.78	34.53	31.92	33.69	35.27	36.75
2025	36.17	38.06	35.66	27.36	23.90	24.54	34.40	37.15	33.44	34.96	36.89	37.64
2026	37.47	38.42	35.41	27.46	24.12	25.23	36.21	38.03	34.03	35.99	37.10	37.88
2027	38.46	39.42	36.91	28.83	25.71	26.91	37.63	39.37	35.28	37.25	38.19	38.77

Combined

Year	Winter Season					Summer Season				Winter Season		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017						12.50	22.03	27.37	25.93	23.69	25.48	29.21
2018	27.93	25.88	22.93	17.09	14.22	15.24	22.09	26.03	23.84	22.25	23.90	26.43
2019	26.82	26.87	24.57	18.32	14.10	15.23	22.50	25.20	24.12	24.06	25.26	27.34
2020	29.16	28.28	26.17	20.88	16.66	16.81	24.86	27.41	25.09	25.21	26.38	28.59
2021	18.19	29.50	27.64	22.27	17.87	18.29	27.33	29.89	26.84	27.43	28.80	30.50
2022	30.39	30.06	27.42	23.83	19.75	19.81	30.66	32.60	29.13	29.59	31.06	32.43
2023	32.40	32.18	30.15	22.97	21.83	22.87	34.65	36.90	33.48	33.44	34.95	35.80
2024	21.41	21.93	34.37	26.51	24.00	26.39	38.56	41.04	36.55	36.39	38.26	39.28
2025	38.56	40.44	37.29	29.56	26.42	28.08	40.52	44.03	39.19	38.13	39.85	40.51
2026	40.00	40.59	36.89	29.48	26.43	29.23	42.46	44.87	39.63	38.87	39.80	40.20
2027	40.59	41.47	38.16	30.80	27.98	30.78	43.69	46.20	40.42	40.17	41.09	40.93

Annual Average

	On-Peak	Off-Peak	Combined
2017	$26.57	$19.99	$23.74
2018	$24.69	$19.18	$22.32
2019	$25.27	$19.67	$22.87
2020	$27.28	$21.10	$24.62
2021	$28.83	$20.81	$25.38
2022	$30.82	$24.41	$28.06
2023	$33.60	$27.48	$30.97
2024	$37.09	$25.38	$32.06
2025	$39.55	$33.35	$36.88
2026	$39.95	$33.95	$37.37
2027	$41.01	$35.23	$38.52

Source Offical Market Price Forecast dated March 2017
Blended Market Prices (Blending weights which are used to calculate blended prices are based on system balancing purchases and sales from GRID run using March 2017 Official Forward Market Price Curve

Table 3 (Renewable)
Capitalized Energy Costs

Year	Combined Cycle CT Fixed Costs ($/kW-yr) (a)	Simple Cycle CT Fixed Costs ($/kW-yr) (b)	Capitalized Energy Costs ($/kW-yr) (c) ((a) - (b))	Capitalized Energy Costs 72.1% CF ($/MWh) (d) (c)/(8.760 x 72.1%)
2028	$149.07	$162.87	$0.00	$0.00
2029	$152.60	$166.73	$0.00	$0.00
2030	$156.21	$170.70	$0.00	$0.00
2031	$159.99	$174.78	$0.00	$0.00
2032	$163.86	$178.99	$0.00	$0.00
2033	$167.82	$183.32	$0.00	$0.00
2034	$171.88	$187.77	$0.00	$0.00
2035	$176.02	$192.31	$0.00	$0.00
2036	$180.32	$196.98	$0.00	$0.00

Columns

(a) Table 9 Column (f)

(b) Table 9 Column (f)

(c) and (d) Capitalized energy costs are zero since fixed cost of CCCT is lower than the fixed cost of SCCT.

Table 4 (Renewable)
Avoided Capacity Costs

Year	Avoided Firm Capacity Costs ($/kW-yr) (a)
2028	$149.07
2029	$152.60
2030	$156.21
2031	$159.99
2032	$163.86
2033	$167.82
2034	$171.88
2035	$176.02
2036	$180.32

Columns

(a) Table 3 (Renewable) Column (a) minus Column (c)

Table 3
Capitalized Energy Costs

Year	Combined Cycle CT Fixed Costs ($/kW-yr) (a)	Simple Cycle CT Fixed Costs ($/kW-yr) (b)	Capitalized Energy Costs ($/kW-yr) (c) ((a) - (b))	Capitalized Energy Costs 72.1% CF ($/MWh) (d) (c)/(8.760 x 72.1%)
2028	$149.07	$162.87	$0.00	$0.00
2029	$152.60	$166.73	$0.00	$0.00
2030	$156.21	$170.70	$0.00	$0.00
2031	$159.99	$174.78	$0.00	$0.00
2032	$163.86	$178.99	$0.00	$0.00
2033	$167.82	$183.32	$0.00	$0.00
2034	$171.88	$187.77	$0.00	$0.00
2035	$176.02	$192.31	$0.00	$0.00
2036	$180.32	$196.98	$0.00	$0.00

Columns

(a) Table 9 Column (f)

(b) Table 9 Column (f)

(c) and (d) Capitalized energy costs are zero since fixed cost of CCCT is lower than the fixed cost of SCCT.

Table 4
Total Standard Avoided Energy Cost

Year	Combined Cycle		Capitalized Energy Costs 72.1% CF	Total Standard Avoided Energy Cost
	Gas Price	Energy Cost		
	($/MMBtu)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)
		(a) x 6.530		(b) + (c)
2028	$4.25	$27.75	$0.00	$27.75
2029	$4.61	$30.10	$0.00	$30.10
2030	$4.99	$32.58	$0.00	$32.58
2031	$5.22	$34.09	$0.00	$34.09
2032	$5.50	$35.92	$0.00	$35.92
2033	$5.89	$38.46	$0.00	$38.46
2034	$6.14	$40.09	$0.00	$40.09
2035	$6.43	$41.99	$0.00	$41.99
2036	$6.95	$45.38	$0.00	$45.38

Columns

(a) Table 10

(b) 6.530 MWh/MMBtu Heat Rate - Table 9

(c) Table 3 Column (d)

Table 5
Total Standard Avoided Cost

Year	Avoided Firm Capacity Costs	Total Standard Avoided Energy Cost	Total Standard Avoided Costs At Stated Capacity Factor		
			75%	85%	90%
	($/kW-yr)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)
			(b)+(a) x1000/(8760 x 0.75)	(b)+(a) x1000/(8760 x 0.85)	(b)+(a) x1000/(8760 x 0.9)
2028	$149.07	$27.75	$50.44	$47.77	$46.66
2029	$152.60	$30.10	$53.33	$50.60	$49.46
2030	$156.21	$32.58	$56.36	$53.56	$52.40
2031	$159.99	$34.09	$58.44	$55.57	$54.38
2032	$163.86	$35.92	$60.86	$57.92	$56.70
2033	$167.82	$38.46	$64.01	$61.00	$59.75
2034	$171.88	$40.09	$66.26	$63.18	$61.90
2035	$176.02	$41.99	$68.78	$65.63	$64.31
2036	$180.32	$45.38	$72.83	$69.60	$68.26

Columns

(a) Table 3 Column (a) minus Column (c)

(b) Table 4 Column (d)

Table 6
On- & Off- Peak Energy Prices

Year	Avoided Firm Capacity Costs	Capacity Cost Allocated to On-Peak Hours	Total Standard Avoided Energy Cost	On-Peak 4,909 Hours	Off-Peak 3,851 Hours
	($/kW-yr)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)
		(a) *1000 / (100.0% x 8760 x 56%		(b) + (c)	(c)
2028	$149.07	$30.36	$27.75	$58.12	$27.75
2029	$152.60	$31.08	$30.10	$61.19	$30.10
2030	$156.21	$31.82	$32.58	$64.40	$32.58
2031	$159.99	$32.59	$34.09	$66.68	$34.09
2032	$163.86	$33.38	$35.92	$69.29	$35.92
2033	$167.82	$34.18	$38.46	$72.65	$38.46
2034	$171.88	$35.01	$40.09	$75.11	$40.09
2035	$176.02	$35.85	$41.99	$77.84	$41.99
2036	$180.32	$36.73	$45.38	$82.11	$45.38

Columns

(a) Table 3 Column (a) minus Column (c)

(b) Table 9 100.0% is the on-peak capacity factor of the Proxy CCCT Resource

(d) 56% is the percent of all hours that are on-peak

(c) Table 4 Column (d)

Table 7

Comparison between Proposed and Current Standard Fixed Avoided Costs

$/MWh

Year	Proposed Standard Base Load QF	Current Standard Base Load QF	Difference Standard Base Load QF	Proposed Standard Wind QF (2)	Current Standard Wind QF (2)	Difference Standard Wind QF (2)	Proposed Standard Fixed Solar QF	Current Standard Fixed Solar QF	Difference Standard Fixed Solar QF	Proposed Standard Tracking Solar QF	Current Standard Tracking Solar QF	Difference Standard Tracking Solar QF
2017	$23.68	$24.27	($0.59)	$20.34	$20.99	($0.64)	$25.53	$25.57	($0.04)	$25.53	$25.57	($0.04)
2018	$22.27	$25.91	($3.64)	$18.89	$22.54	($3.65)	$23.82	$27.39	($3.57)	$23.82	$27.39	($3.57)
2019	$22.81	$26.96	($4.15)	$19.35	$23.50	($4.14)	$24.38	$28.55	($4.16)	$24.39	$28.55	($4.16)
2020	$24.56	$28.42	($3.86)	$21.03	$24.87	($3.84)	$26.30	$30.07	($3.76)	$26.30	$30.07	($3.76)
2021	$25.30	$30.44	($5.14)	$21.65	$26.81	($5.16)	$27.56	$32.10	($4.54)	$27.56	$32.10	($4.54)
2022	$28.00	$33.35	($5.35)	$24.30	$29.64	($5.34)	$29.81	$35.02	($5.22)	$29.81	$35.02	($5.22)
2023	$30.91	$37.37	($6.46)	$27.14	$33.57	($6.43)	$32.63	$39.22	($6.59)	$32.63	$39.22	($6.59)
2024	$31.94	$41.30	($9.35)	$27.97	$37.40	($9.43)	$35.24	$43.30	($8.06)	$35.24	$43.30	($8.06)
2025	$36.82	$43.41	($6.58)	$32.88	$39.43	($6.55)	$38.57	$45.46	($6.89)	$38.57	$45.46	($6.89)
2026	$37.31	$45.11	($7.80)	$33.28	$41.05	($7.77)	$39.00	$47.22	($8.22)	$39.00	$47.22	($8.22)
2027	$38.47	$47.13	($8.66)	$34.35	$42.97	($8.62)	$40.10	$49.33	($9.24)	$40.10	$49.33	($9.24)
2028	$44.77	$49.47	($4.70)	$36.30	$41.00	($4.70)	$49.56	$54.26	($4.70)	$49.19	$53.89	($4.70)
2029	$47.52	$50.74	($3.22)	$38.85	$42.09	($3.24)	$52.43	$55.63	($3.20)	$52.04	$55.25	($3.20)
2030	$50.42	$53.22	($2.80)	$41.54	$44.38	($2.84)	$55.44	$58.21	($2.78)	$55.04	$57.82	($2.78)
2031	$52.35	$54.52	($2.17)	$43.26	$45.49	($2.23)	$57.49	$59.63	($2.14)	$57.09	$59.23	($2.14)
2032	$54.62	$55.90	($1.28)	$45.31	$46.67	($1.36)	$59.88	$61.12	($1.24)	$59.47	$60.71	($1.24)
2033	$57.62	$57.55	$0.07	$48.08	$48.11	($0.03)	$63.01	$62.88	$0.13	$62.59	$62.47	$0.12
2034	$59.72	$59.14	$0.58	$49.95	$49.49	$0.45	$65.24	$64.59	$0.65	$64.81	$64.16	$0.64
2035	$62.08	$60.67	$1.41	$52.08	$50.82	$1.26	$67.74	$66.24	$1.49	$67.30	$65.81	$1.49
2036	$65.97			$55.72			$71.76			$71.31		
15 Year (2018 - 2032) Nominal levelized Price at 6.660% Discount Rate (1)												
$/MWh	$33.65	$38.77	($5.12)	$28.73	$33.86	($5.12)	$36.26	$41.30	($5.04)	$36.17	$41.21	($5.04)
15 Year (2019 - 2033) Nominal levelized Price at 6.660% Discount Rate (1)												
$/MWh	$35.85	$40.91	($5.07)	$30.58	$35.66	($5.07)	$38.69	$43.67	($4.99)	$38.58	$43.56	($4.99)

Notes: (1) Discount Rate - 2015 IRP Discount Rate

(2) Avoided cost prices have been reduced by a wind integration charge of $3.06/MWh ($2014) for wind QFs located resources located in PacifiCorp's Balancing Area Authority (BAA) (in-system) .
If the QF wind resource is not in PacifiCorp's BAA, prices will be increased by the $3.06/MWh ($2014) integration charges

Table 8

Comparison between Proposed and Current Renewable Standard Fixed Avoided Costs

$/MWh

Year	Proposed Renewable Standard Base Load QF	Current Renewable Standard Base Load QF	Difference Renewable Standard Base Load QF	Proposed Renewable Standard Wind QF (2)	Current Renewable Standard Wind QF (2)	Difference Renewable Standard Wind QF (2)	Proposed Renewable Standard Fixed Solar QF	Current Renewable Standard Fixed Solar QF	Difference Renewable Standard Fixed Solar QF	Proposed Renewable Standard Tracking Solar QF	Current Renewable Standard Tracking Solar QF	Difference Renewable Standard Tracking Solar QF
2017	$23.68	$24.27	($0.59)	$20.34	$20.99	($0.64)	$25.53	$25.57	($0.04)	$25.53	$25.57	($0.04)
2018	$22.27	$25.91	($3.64)	$18.89	$22.54	($3.65)	$23.82	$27.39	($3.57)	$23.82	$27.39	($3.57)
2019	$22.81	$26.96	($4.15)	$19.35	$23.50	($4.14)	$24.38	$28.55	($4.16)	$24.39	$28.55	($4.16)
2020	$24.56	$28.42	($3.86)	$21.03	$24.87	($3.84)	$26.30	$30.07	($3.76)	$26.30	$30.07	($3.76)
2021	$25.30	$30.44	($5.14)	$21.65	$26.81	($5.16)	$27.56	$32.10	($4.54)	$27.56	$32.10	($4.54)
2022	$28.00	$33.35	($5.35)	$24.30	$29.64	($5.34)	$29.81	$35.02	($5.22)	$29.81	$35.02	($5.22)
2023	$30.91	$37.37	($6.46)	$27.14	$33.57	($6.43)	$32.63	$39.22	($6.59)	$32.63	$39.22	($6.59)
2024	$31.94	$41.30	($9.35)	$27.97	$37.40	($9.43)	$35.24	$43.30	($8.06)	$35.24	$43.30	($8.06)
2025	$36.82	$43.41	($6.58)	$32.88	$39.43	($6.55)	$38.57	$45.46	($6.89)	$38.57	$45.46	($6.89)
2026	$37.31	$45.11	($7.80)	$33.28	$41.05	($7.77)	$39.00	$47.22	($8.22)	$39.00	$47.22	($8.22)
2027	$38.47	$47.13	($8.66)	$34.35	$42.97	($8.62)	$40.10	$49.33	($9.24)	$40.10	$49.33	($9.24)
2028	$86.51	$86.51	$0.00	$69.50	$69.44	$0.06	$81.56	$82.37	($0.82)	$83.55	$84.37	($0.82)
2029	$88.55	$88.32	$0.24	$71.15	$70.89	$0.26	$83.34	$84.06	($0.72)	$85.39	$86.10	($0.72)
2030	$90.64	$90.27	$0.37	$72.84	$72.45	$0.39	$85.07	$86.01	($0.94)	$87.17	$88.10	($0.93)
2031	$92.80	$92.20	$0.60	$74.58	$74.00	$0.58	$87.04	$87.79	($0.75)	$89.18	$89.92	($0.74)
2032	$95.07	$94.29	$0.78	$76.40	$75.68	$0.72	$89.09	$89.70	($0.61)	$91.28	$91.88	($0.60)
2033	$97.36	$96.35	$1.01	$78.26	$77.34	$0.92	$91.03	$91.59	($0.56)	$93.28	$93.82	($0.53)
2034	$99.73	$98.49	$1.24	$80.17	$79.07	$1.10	$93.16	$93.58	($0.42)	$95.46	$95.85	($0.39)
2035	$102.12	$100.63	$1.49	$82.08	$80.80	$1.28	$95.50	$95.39	$0.11	$97.86	$97.72	$0.14
2036	$104.60			$84.09			$97.62			$100.04		
15 Year (2018 - 2032) Nominal levelized Price at 6.660% Discount Rate (1)												
$/MWh	$43.17	$47.52	($4.35)	$36.18	$40.52	($4.34)	$43.34	$47.88	($4.54)	$43.83	$48.37	($4.54)
15 Year (2019 - 2033) Nominal levelized Price at 6.660% Discount Rate (1)												
$/MWh	$47.63	$51.84	($4.20)	$39.76	$43.96	($4.20)	$47.39	$51.87	($4.48)	$48.00	$52.48	($4.48)

Notes: (1) Discount Rate - 2015 IRP Discount Rate

(2) Avoided cost prices have been reduced by a wind integration charge of $3.06/MWh ($2014) for wind QFs located resources located in PacifiCorp's Balancing Area Authority (BAA) (in-system) .
If the QF wind resource is not in PacifiCorp's BAA, prices will be increased by the $3.06/MWh ($2014) integration charges

Table 9
Total Cost of Displaceable Resources

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)
SCCT Frame ("F"x1) - West Side Options (1500')						
2015	$829	$64.37	$46.35	$4.31	$58.81	$123.18
2016		$65.22	$46.96	$4.37	$59.59	$124.81
2017		$66.66	$48.00	$4.47	$60.92	$127.58
2018		$68.11	$49.04	$4.57	$62.25	$130.36
2019		$69.47	$50.02	$4.66	$63.49	$132.96
2020		$70.96	$51.09	$4.76	$64.85	$135.81
2021		$72.55	$52.24	$4.87	$66.32	$138.87
2022		$74.19	$53.42	$4.98	$67.82	$142.01
2023		$75.90	$54.65	$5.09	$69.36	$145.26
2024		$77.66	$55.91	$5.21	$70.97	$148.63
2025		$79.46	$57.20	$5.33	$72.61	$152.07
2026		$81.28	$58.51	$5.45	$74.26	$155.54
2027		$83.16	$59.87	$5.58	$76.00	$159.16
2028		$85.10	$61.26	$5.71	$77.77	$162.87
2029		$87.11	$62.71	$5.85	$79.62	$166.73
2030		$89.18	$64.20	$5.99	$81.52	$170.70
2031		$91.32	$65.74	$6.13	$83.46	$174.78
2032		$93.52	$67.32	$6.28	$85.47	$178.99
2033		$95.78	$68.95	$6.43	$87.54	$183.32
2034		$98.10	$70.62	$6.59	$89.67	$187.77
2035		$100.47	$72.33	$6.75	$91.84	$192.31
2036		$102.91	$74.09	$6.91	$94.07	$196.98
2037		$105.41	$75.89	$7.08	$96.36	$201.77

Source: (a)(c)(d) Plant Costs - 2015 IRP - Table 6.1 & 6.2
(b) = (a) x Payment Factor
(e) = (d) x (8.76 x 33%) + (c)
(f) = (b) + (e)

SCCT Frame ("F"x1) - West Side Options (1500')		
212	MW Plant capacity	MW
$ 820	Plant capacity cost	$/kW
$ 10.73	Fixed O&M & Capitalized O&M	$/kW-yr
$ 35.13	Fixed Pipeline	$/kW-yr
$ 45.86	Fixed O&M Including Fixed Pipeline & Capitalized	$/kW-yr
$ 4.27	Variable O&M and Other Costs	$/MWH
7.767%	Payment Factor	
33%	Capacity Factor	

Table 9
Total Cost of Displaceable Resources

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	Fuel Cost $/MMBtu	IRP Resource Energy Cost $/MWh	Total Avoided Costs $/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
CCCT (Dry "J" Adv 1x1) - West Side Options (1500')									
2015	$876	$67.32	$31.16	$2.26	$45.46	$112.78			
2016		$68.20	$31.57	$2.29	$46.03	$114.23			
2017		$69.71	$32.27	$2.34	$47.05	$116.76			
2018		$71.22	$32.97	$2.39	$48.07	$119.29			
2019		$72.65	$33.63	$2.44	$49.04	$121.69			
2020		$74.21	$34.35	$2.49	$50.08	$124.29			
2021		$75.88	$35.12	$2.55	$51.23	$127.11			
2022		$77.59	$35.91	$2.61	$52.39	$129.98			
2023		$79.38	$36.74	$2.67	$53.60	$132.98			
2024		$81.22	$37.59	$2.73	$54.83	$136.05			
2025		$83.10	$38.46	$2.79	$56.08	$139.18			
2026		$85.01	$39.34	$2.85	$57.34	$142.35			
2027		$86.98	$40.25	$2.92	$58.69	$145.67			
2028		$89.00	$41.19	$2.99	$60.07	$149.07	$4.25	$27.75	$51.35
2029		$91.11	$42.16	$3.06	$61.49	$152.60	$4.61	$30.10	$54.26
2030		$93.28	$43.16	$3.13	$62.93	$156.21	$4.99	$32.58	$57.31
2031		$95.52	$44.20	$3.21	$64.47	$159.99	$5.22	$34.09	$59.42
2032		$97.82	$45.26	$3.29	$66.04	$163.86	$5.50	$35.92	$61.86
2033		$100.19	$46.35	$3.37	$67.63	$167.82	$5.89	$38.46	$65.03
2034		$102.62	$47.47	$3.45	$69.26	$171.88	$6.14	$40.09	$67.30
2035		$105.10	$48.62	$3.53	$70.92	$176.02	$6.43	$41.99	$69.86
2036		$107.66	$49.80	$3.62	$72.66	$180.32	$6.95	$45.38	$73.93
2037		$110.27	$51.01	$3.71	$74.44	$184.71	$7.20	$47.02	$76.26

Table 9
Total Cost of Displaceable Resources

Sources, Inputs and Assumptions

Source: (a)(c)(d) Plant Costs - 2015 IRP - Table 6.1 & 6.2
(b) = (a) x 0.0768230723930572
(e) = (d) x (8.76 x 72.1%) + (c)
(f) = (b) + (e)
(g) Gas Price Forecast
(h) = 6530 x (g) / 1000
(i) = (f) / (8.76 x 'Capacity Factor') + (h)

CCCT (Dry "J" Adv 1x1) - West Side Options (1500')

CCCT Statistics	MW	Percent	Cap Cost	Fixed
CCCT (Dry "J" Adv 1x1)	434	91.0%	$906	$30.82
CCCT Duct Firing (Dry "J" Adv 1x1)	43	9.0%	$481	$30.93
Capacity Weighted	477	100.0%	$867	$30.83

CCCT Statistics	MW	CF	aMW	Percent	Variable	Heat Rate
CCCT (Dry "J" Adv 1x1)	434	78.0%	339	98.5%	$2.27	6,495
CCCT Duct Firing (Dry "J" Adv 1x1)	43	12.0%	5	1.5%	0.10	8,611
Energy Weighted	477	72.1%	344	100.0%	$2.24	6,530

Rounded

CCCT	Duct Firing	Plant Costs - 2015 IRP - Table 6.1 & 6.2
434	43	MW Plant capacity
$906	$481	Plant capacity cost
$7.50	$0.00	Fixed O&M & Capitalized O&M
$23.33	$30.93	Fixed Pipeline
$30.82	$30.93	Fixed O&M Including Fixed Pipeline & Capitalized O&M ($/kW-Yr)
$2.27	$0.10	Variable O&M and Other Costs
6,495	8,611	Heat Rate in btu/kWh
7.682%	7.682%	Payment Factor
78%	12%	Capacity Factor
	72.1%	Energy Weighted Capacity Factor
	100.0%	Capacity Factor - On-peak 72.1% / 56.0% (percent of hours on-peak)

Company Official Inflation Forecast - Dated March 2017

2015	1.1%	2021	2.2%	2027	2.3%	2033	2.4%
2016	1.3%	2022	2.3%	2028	2.3%	2034	2.4%
2017	2.2%	2023	2.3%	2029	2.4%	2035	2.4%
2018	2.2%	2024	2.3%	2030	2.4%	2036	2.4%
2019	2.0%	2025	2.3%	2031	2.4%	2037	2.4%
2020	2.1%	2026	2.3%	2032	2.4%	2038	2.4%

Table 10
Gas Price Forecast
$/MMBtu

Year	Burner tip West Side Gas Fuel Cost
2028	$4.25
2029	$4.61
2030	$4.99
2031	$5.22
2032	$5.50
2033	$5.89
2034	$6.14
2035	$6.43
2036	$6.95
2037	$7.20

Source
Offical Market Price Forecast dated March 2017

Table 11
Wind Integration Cost

Year	Wind Integration Cost $/MWh
2014	$3.06
2015	$3.09
2016	$3.13
2017	$3.20
2018	$3.27
2019	$3.34
2020	$3.41
2021	$3.49
2022	$3.57
2023	$3.65
2024	$3.73
2025	$3.82
2026	$3.91
2027	$4.00
2028	$4.09
2029	$4.19
2030	$4.29
2031	$4.39
2032	$4.50
2033	$4.61
2034	$4.72
2035	$4.83
2036	$4.95
2037	$5.07

Note: Wind Integration Charge is $3.06 (2014 $ per MWh)
2015 IRP Volume II-Appendix H, Table H.3

Official Inflation Forecast Dated March 2017					
2015	1.1%	2023	2.3%	2031	2.4%
2016	1.3%	2024	2.3%	2032	2.4%
2017	2.2%	2025	2.3%	2033	2.4%
2018	2.2%	2026	2.3%	2034	2.4%
2019	2.0%	2027	2.3%	2035	2.4%
2020	2.1%	2028	2.3%	2036	2.4%
2021	2.2%	2029	2.4%	2037	2.4%
2022	2.3%	2030	2.4%	2038	2.4%

Table 12
2015 IRP WY Wind Resource
43% Capacity Factor

Year	Estimated Capital Cost $/kW	Capital Cost at Real Levelized Rate $/kW-yr	Fixed O&M $/kW-yr	Fixed Costs $/MWh	Variable O&M $/MWh	Tax Credit $/MWh	Avoided Cost $/MWh	Wind Integration Cost $/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
2015 IRP WY Wind Resource - 43% Capacity Factor								
2015	$2,179	$161.22	$34.83	$52.05	$0.67	$0.00	$52.72	$3.09
2016		$163.34	$35.29	$52.73	$0.68	$0.00	$53.41	$3.13
2017		$166.95	$36.07	$53.90	$0.70	$0.00	$54.60	$3.20
2018		$170.57	$36.85	$55.07	$0.72	$0.00	$55.79	$3.27
2019		$173.99	$37.59	$56.17	$0.73	$0.00	$56.90	$3.34
2020		$177.72	$38.40	$57.37	$0.75	$0.00	$58.12	$3.41
2021		$181.71	$39.26	$58.66	$0.77	$0.00	$59.43	$3.49
2022		$185.81	$40.15	$59.99	$0.79	$0.00	$60.78	$3.57
2023		$190.09	$41.07	$61.37	$0.81	$0.00	$62.18	$3.65
2024		$194.49	$42.02	$62.79	$0.83	$0.00	$63.62	$3.73
2025		$198.99	$42.99	$64.24	$0.85	$0.00	$65.09	$3.82
2026		$203.56	$43.98	$65.72	$0.87	$0.00	$66.59	$3.91
2027		$208.28	$45.00	$67.24	$0.89	$0.00	$68.13	$4.00
2028		$213.13	$46.05	$68.81	$0.91	$0.00	$69.72	$4.09
2029		$218.17	$47.14	$70.43	$0.93	$0.00	$71.36	$4.19
2030		$223.36	$48.26	$72.11	$0.95	$0.00	$73.06	$4.29
2031		$228.72	$49.42	$73.84	$0.97	$0.00	$74.81	$4.39
2032		$234.23	$50.61	$75.62	$0.99	$0.00	$76.61	$4.50
2033		$239.90	$51.83	$77.45	$1.01	$0.00	$78.46	$4.61
2034		$245.71	$53.09	$79.32	$1.03	$0.00	$80.35	$4.72
2035		$251.65	$54.37	$81.24	$1.05	$0.00	$82.29	$4.83
2036		$257.77	$55.69	$83.22	$1.08	$0.00	$84.30	$4.95
2037		$264.03	$57.04	$85.24	$1.11	$0.00	$86.35	$5.07

Sources, Inputs and Assumptions

Source: (c)(f) Plant Costs 2015 IRP (Table 6.2) in $2014
(a) Plant capacity cost
(b) = (a) x 0.0739902205884359
(d) = ((b) + (c)) / (8.76 x 43.0%)
(g) = (d) + (f)
(h) 2015 IRP (Table 6.2) in $2014

2015 IRP WY Wind Resource - 43% Capacity Factor		
Wind	**Cost and Input Assumptions**	
$2,156	Plant capacity cost	$/kW-yr
$34.46	Fixed O&M, plus on-going capital cost 2015 IRP (Table 6.2) in $2014	$/kW-yr
$0.67	Variable O&M	$/MWH
-	Tax Credit $/MWh 2015 IRP (Table 6.2) in $2014	$/MWH
7.399%	Payment Factor	
43%	Capacity Factor	

Official Inflation Forecast Dated March 2017							
2015	1.1%	2021	2.2%	2027	2.3%	2033	2.4%
2016	1.3%	2022	2.3%	2028	2.3%	2034	2.4%
2017	2.2%	2023	2.3%	2029	2.4%	2035	2.4%
2018	2.2%	2024	2.3%	2030	2.4%	2036	2.4%
2019	2.0%	2025	2.3%	2031	2.4%	2037	2.4%
2020	2.1%	2026	2.3%	2032	2.4%	2038	2.4%

Table 13
2015 IRP Update Wind Resource Costs
Adjusted to On-Peak / Off-Peak Prices

	Renewable Price	On-Peak / Off-Peak Factors		On-Peak / Off-Peak Prices	
Year	$/MWH	On-Peak	Off-Peak	On-Peak	Off-Peak
	(a)	(b)	(c)	(d)	(e)
				(a) x (b)	(a) x (c)
2017	$54.60	1.1632	0.7936	$63.51	$43.33
2018	$55.79	1.1173	0.8505	$62.33	$47.45
2019	$56.90	1.1155	0.8517	$63.47	$48.46
2020	$58.12	1.1115	0.8572	$64.60	$49.82
2021	$59.43	1.0958	0.8773	$65.13	$52.14
2022	$60.78	1.0962	0.8764	$66.62	$53.27
2023	$62.18	1.0860	0.8904	$67.53	$55.36
2024	$63.62	1.0806	0.8967	$68.75	$57.05
2025	$65.09	1.0756	0.9038	$70.01	$58.83
2026	$66.59	1.0741	0.9056	$71.52	$60.30
2027	$68.13	1.0714	0.9093	$72.99	$61.95
2028	$69.72	1.0704	0.9107	$74.62	$63.49
2029	$71.36	1.0672	0.9145	$76.16	$65.26
2030	$73.06	1.0621	0.9206	$77.59	$67.26
2031	$74.81	1.0607	0.9219	$79.35	$68.97
2032	$76.61	1.0594	0.9244	$81.16	$70.82
2033	$78.46	1.0554	0.9295	$82.80	$72.93
2034	$80.35	1.0538	0.9317	$84.68	$74.87
2035	$82.29	1.0558	0.9291	$86.88	$76.45
2036	$84.30	1.0520	0.9336	$88.68	$78.70

Columns

(a) Table 12 Column (g)
(b) Ratio blended market On-Peak to annual prices
(c) Ratio blended market Off-Peak to annual prices

Appendix 2

PACIFIC POWER
AVOIDED COST CALCULATION

STANDARD RATES FOR AVOIDED COST PURCHASES FROM ELIGIBLE QUALIFYING FACILITIES

OREGON – MAY 2017

PACIFIC POWER
AVOIDED COST CALCULATION

STANDARD RATES FOR AVOIDED COST PURCHASES FROM ELIGIBLE QUALIFYING FACILITIES

OREGON –MAY 2017

Standard avoided cost rates are paid to eligible small qualifying facilities (QF). Oregon avoided cost filing requirements as listed in Oregon Administrative Rules (OAR) 860-029-0040 and OAR 860-029-0080 require the Company to file updated avoided costs at least every two years. Public Utilities Commission of Oregon (OPUC or Commission) Order 14-058 requires the Oregon investor owned utilities (IOU) to update avoided cost prices annually on May 1 of each year and within 30-days of Integrated Resource Plan (IRP) acknowledgment. Annual updates, filed on May 1 of each year, are required to update the following data inputs: (1) natural gas prices; (2) on-peak and off-peak forward looking electricity market prices; (3) production tax credit (PTC) status; and (4) any other action or change in an acknowledged IRP relevant to the calculation of avoided costs.

The last Oregon avoided costs were approved on October 25, 2016.

Sufficiency and Deficiency Periods

In Docket UM-1396 Order 10-488, the Commission directed that the start date of the first "major resource acquisition" in the action plan of the IRP determines the resource "sufficiency" and "deficiency" periods to be used in calculations of standard avoided cost prices. The sufficiency and deficiency periods used in this filing are based on the 2015 IRP which was acknowledged by the Commission on February 29, 2016.

Table 1 presents an excerpt from the 2015 IRP Table 8.7 and shows that the next major resource acquisition is a Combine Cycle Combustion Turbine (CCCT) starting in 2028. Therefore, the resource sufficiency period for the standard avoided cost rates is from 2017-2027 and the deficiency period starts in 2028.

The renewable resource deficiency period in this filing starts in 2028, pursuant to Order 16-307 in Docket UM-1729. Standard avoided costs are based on the performance characteristics and cost of a Wyoming wind resource. The PTC sunsets prior to the online date of the proxy resource, so it is not included as a credit against the proxy resource cost.

Avoided Cost Calculation

Based on the 2015 IRP preferred portfolio shown in **Table 1**, the standard avoided cost calculation is separated into two distinct periods: (1) a period of standard resource sufficiency (2017 through 2027); and (2) a period of standard resource deficiency (2028 and beyond). During the resource sufficiency period (2017 through 2027), standard

avoided energy costs are based on blended market prices. Market prices from the Company's Official Forward Price Curve (OFPC) are weighted by market transactions required to support the addition of an assumed 50 megawatts (MW) Oregon QF. To calculate the weighting, two production cost studies are prepared. The only difference between the two studies is an assumed 50 average megawatts (aMW), zero running cost resource. System balancing sales and purchase volumes are extracted from both studies and the change between the two studies is calculated for each market hub. This volume impact is used to weight the Company's Official Market Price Forecast on-peak and off-peak market prices for California-Oregon Border (COB), Mid-Columbia (Mid-C), and Palo Verde (PV) for each month. **Table 2** shows the result of this calculation.

The sufficiency period for standard renewable rates is 2017 through 2027 and the renewable resource deficiency period starts in 2028. During the renewable resource sufficiency period (2017 through 2027), the renewable avoided energy costs are based on weighted market prices.

During the resource deficiency period, standard avoided costs are the fixed and variable costs of a proxy resource that could be avoided or deferred. The current thermal proxy resource used to set standard avoided cost rates beginning in 2028 is a west side CCCT from the 2015 IRP.[1]

Since CCCTs are built as base load units that provide both capacity and energy, it is appropriate to split the fixed costs of this unit into capacity and energy components. The fixed cost of a simple cycle combustion turbine (SCCT), which is usually acquired as a capacity resource, defines the portion of the fixed cost of the CCCT that is assigned to capacity.[2] To the extent fixed costs associated with the construction of a CCCT are in excess of SCCT costs, they 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 the capitalized energy costs, which in this case are zero because the costs of an SCCT exceed those of the CCCT. 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.

During standard renewable resource deficiency period, the standard renewable avoided cost prices are based on the costs of a renewable proxy resource from the 2015 IRP. The standard renewable on-peak price also includes a capacity adder calculated based on the fixed costs of a thermal proxy CCCT adjusted by the incremental capacity contribution of QF resource relative to the avoided renewable proxy resource. The capacity adder is allocated to on-peak hours by using the on-peak capacity factor of the QF resource.

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[1] 477 MW CCCT (Dry "J" Adv 1x1) - West Side Options (1500') –available in 2028 as listed in Table 6.1 and Table 6.2 of the 2015 IRP. Fuel costs are from the Company's March 2016 Official Forward Price Curve (1603 OFPC).

[2] SCCT Frame ("F"x1) - West Side Options (1500'), as listed in Table 6.1 and Table 6.2 of the 2015 IRP.

Table 4 shows the CCCT fuel cost, the addition of capitalized energy costs at an assumed 72.1 percent capacity factor, and the total avoided energy costs.

Because energy generated by a QF may vary, the Company has prepared total standard avoided costs at 75 percent, 85 percent and 90 percent capacity factors to illustrate the impact of differing generation levels. This calculation is shown in **Table 5**.

Standard avoided costs are differentiated between on-peak and off-peak periods, with capacity costs allocated to on-peak periods. On an annual basis, approximately 56 percent of all hours are on-peak and 44 percent are off-peak. **Table 6** shows the calculation of on-peak and off-peak avoided energy prices.

For informational purposes, **Table 7 and Table 8** show a comparison between avoided costs currently in effect in Oregon and the proposed avoided costs in this filing.

Table 9 shows the calculation of the total fixed costs and fuel costs of the CCCT and SCCT that are used in **Table 3 and Table 4**. In this filing, the Company's thermal proxy resource is a CCCT located on the west side of the Company's system. Current Commission approved avoided costs are also based upon a CCCT located on the west side of the Company's system.

Gas Price Forecast

Gas prices used in this filing utilize the Company's March 2017 OFPC (1703 OFPC). **Table 10** shows the natural gas price used in this avoided cost calculation.

Table 11 shows wind integration costs used in 2015 IRP.

Table 12 shows the calculation of total resource cost of the renewable proxy plant from 2015 IRP. The total cost of the proxy wind resource is used in the calculation of standard renewable avoided cost rates as shown in **Exhibit 5 through Exhibit 8**.

Table 13 shows the calculation of on-peak and off-peak standard renewable avoided cost prices by applying on-peak and off-peak factors. On-peak and off-peak factors are calculated as a ratio of the average annual on-peak Mid-C market price to the flat Mid-C market price.

Exhibit 1 – Std Base Load QF tab shows the calculation of proposed standard avoided cost rates for a base load QF. On and off-peak avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, the off-peak price is based on the fuel and capitalized energy cost of the proxy CCCT. The on-peak price also includes a capacity adder based on the fixed costs a thermal proxy CCCT (in dollars per kilowatt-year ($/kW-yr)). The adjusted capacity adder in $/kW-yr is allocated to on-peak hours by

using the on-peak capacity factor of the base load QF resource, which is assumed to be equal to on-peak capacity factor of CCCT proxy resource.

Exhibit 2 – Std Wind QF tab shows the calculation of proposed standard avoided cost rates for a wind QF. On and off-peak avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, the off-peak price is based on the fuel and capitalized energy cost of the proxy CCCT. The on-peak price also includes a capacity adder calculated based on fixed costs of the thermal proxy CCCT (in $/kW-yr) adjusted by the expected capacity contribution of a wind QF as identified in the 2015 IRP (wind: 25.4 percent). The adjusted capacity adder (in $/kW-yr) is allocated to on-peak hours by using the on-peak capacity factor of a wind QF resource. Standard avoided cost rates for a wind QF are reduced by a wind integration charge of $3.06/MWh ($2014).

Exhibit 3 – Std FixedSolarQF and Exhibit 4 – Std TrackingSolar tabs shows the calculation of proposed standard avoided cost rates for a solar QF. On and off-peak avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, the off-peak price is based on the fuel and capitalized energy cost of the proxy CCCT. The on-peak price also includes a capacity adder calculated based on the fixed costs a thermal proxy CCCT (in $/kW-yr) adjusted by expected capacity contribution of a solar QF as identified in the 2015 IRP (fixed solar: 32.2 percent, tracking solar: 36.7 percent). The adjusted capacity adder (in $/kW-yr) is allocated to on-peak hours by using the on-peak capacity factor of a solar QF resource.

Exhibit 5 – Renewable BaseLoad tab shows the calculation of proposed standard renewable avoided cost rates for a renewable base load QF. On-peak and off-peak renewable avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, on-peak and off-peak prices are based on on-peak and off-peak prices of the renewable wind proxy resource as calculated in **Table 12** and **Table 13**. The standard renewable on-peak price also includes a capacity adder calculated based on the fixed costs of a thermal proxy CCCT (in $/kW-yr), adjusted by the incremental capacity contribution of a renewable base load QF relative to the avoided renewable wind resource. The adjusted capacity adder in $/kW-yr is allocated to on-peak hours by using the on-peak capacity factor of a base load QF resource, which is assumed to be equal to on-peak capacity factor of CCCT proxy resource. The renewable avoided cost rates for a base load QF are increased by the avoided wind integration charge of $3.06 per megawatt-hour ($/MWh) in 2014 dollars (2014$) during the renewable resource deficiency period.

Exhibit 6 – Renewable Wind tab shows the calculation of proposed standard renewable avoided cost rates for a wind QF. On-peak and off-peak renewable avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, on-peak and off-peak prices are based on on-peak and off-peak prices of the renewable wind proxy resource as calculated in **Table 12** and **Table 13**.

Exhibit 7 – Renewable FixedS and Exhibit 8 – Renewable TrackingS tabs shows the calculation of proposed standard renewable avoided cost rates for tracking and fixed solar resources. On-peak and off-peak renewable avoided cost rates are based on blended market rates for 2017 through 2027. For 2028 and beyond, on-peak and off-peak prices are based on on-peak and off-peak prices of the renewable wind proxy resource as calculated in **Table 12** and **Table 13**. The standard renewable on-peak price also includes a capacity adder calculated based on the fixed costs of a thermal proxy CCCT (in $/kW-yr), adjusted by the incremental capacity contribution of a renewable fixed and tracking solar QF relative to the avoided renewable wind resource. The adjusted capacity adder in $/kW-yr is allocated to on-peak hours by using the on-peak capacity factors of a solar QF resource. The standard renewable avoided cost rates for fixed and tracking solar QF resources are increased by the avoided wind integration charge of $3.06/MWh (2014$) during the renewable resource deficiency period.

Exhibit 9 – Blending tab shows the market blending used to weight the Company's OFPC on-peak and off-peak market prices at COB, Mid-C and PV by month, which are used in the calculation of rates shown in **Table 2.**

Docket UM 1729(2) / Compliance Filing – May 1, 2017
Minimum Filing Requirements
Public Utility Commission of Oregon (OPUC) Order No. 16-174

I. Resource Sufficiency / Deficiency Demarcation

		Explanation	Integrated Resource Plan (IRP) Reference
1.	Non-renewable: Identify the demarcation year for the end of sufficiency period / start of deficiency period.	Deficiency starting in 2028.	Table 8.7 – 2015 IRP Preferred Portfolio, page 81.
2.	Non-renewable: Identify the major resource to be acquired (>100 megawatts (MW) and longer than five years) at end of sufficiency period.	Combined-Cycle Combustion Turbine (CCCT) (Dry "J" Adv 1x1) with Duct Firing - West Side Options (1500').	Table 8.7 – 2015 IRP Preferred Portfolio, page 81.
3.	Renewable: Identify the demarcation year for the end of sufficiency period / start of deficiency period.	Deficiency starting in 2028.	2015 IRP, page 182
4.	Renewable: Identify the major resource to be acquired (>100 MW and longer than five years) at end of sufficiency period.	The renewable proxy plant costs and performance characteristics are from the 2015 IRP.	Table 6.2 – 2015 IRP - Plant Costs (2014$).

Docket UM 1729(2) / Compliance Filing – May 1, 2017
Minimum Filing Requirements
Public Utility Commission of Oregon (OPUC) Order No. 16-174

II. Gas Price Forecast

		Explanation	IRP Reference
1.	Identify the source of the gas price forecast.	Official forward price curve (OFPC) March 2017	-
2.	If the forecast source differs from that used in the most recent approved avoided cost filing / explain the reason(s) for the change.	The Company updates its OFPC every quarter. The March 2017 OFPC was the most recent curve available at the time of this filing. Currently effective rates were based on the March 2016 OFPC.	-
3.	Provide the yearly forecast price by year / and identify any rounding that has been applied.	Refer to the tabs entitled "Table 10" and "OFPC Source" of the Oregon Schedule 37 Avoided Cost Study work paper.	-
4.	Quantify and describe the extent to which the gas price forecast differs from the most recent approved avoided cost filing, include a description of carbon cost / tax assumption(s).	The Company updates its OFPC every quarter. The March 2017 OFPC was the most recent curve available that would have been used in the Company's May 2017 update. Currently approved rates were based on March 2016 OFPC. Refer to the spreadsheet entitled "OR Sch 37 - MFR - II.Gas Price Forecast_20170425" for the comparison of the gas price forecast. Refer to the files entitled "201603 OFPC - Environmental" and "201703 OFPC - Environmental" for the March 2016 OFPC and March 2017 OFPC carbon tax assumptions.	-

Docket UM 1729(2) / Compliance Filing – May 1, 2017
Minimum Filing Requirements
Public Utility Commission of Oregon (OPUC) Order No. 16-174

III. Sufficiency Period Prices

		Explanation	IRP Reference
1.	List the market hub(s) used for market price projections, the source for the forward price curves, and any adjustments or blending used in deriving the sufficiency period prices.	Market prices for California-Oregon Border (COB), Mid-Columbia (Mid-C) and Palo Verde (PV) from the March 2017 OFPC are blended based on change in system balancing purchases and sales using two the Generation and Regulation Initiative Decision Tool (GRID) runs - with and without a 50 MW qualifying facility (QF) resource.	-
2.	Provide the transmission costs assumed used in sufficiency period prices.	No transmission costs are incorporated in standard sufficiency period avoided cost pricing.	-
3.	Provide all other component(s) used to calculate sufficiency period prices.	Prices for wind resources are adjusted to account for wind integration. For the complete calculation of sufficiency period prices, refer to Oregon Schedule 37 Avoided Cost Study work.	Wind integration: 2015 IRP Volume II-Appendix H, Table H.3

Docket UM 1729(2) / Compliance Filing – May 1, 2017
Minimum Filing Requirements
Public Utility Commission of Oregon (OPUC) Order No. 16-174

IV. Standard Rates Deficiency Period Resource

		Explanation	IRP Reference
1.	Provide the resource type, geographic location, nameplate capacity, and annual capacity factor.	CCCT (Dry "J" Adv 1x1) with Duct Firing - West Side Options (1500'), Annual Energy weighted CF is 72.1 percent. Refer to Table 9 of Oregon Schedule 37 Avoided Cost Study work paper.	2015 IRP Table 6.1 and Table 6.2.
2.	Provide the source of natural gas supply / and the costs assumed for interconnection / infrastructure upgrades, transmission, storage, and any other costs necessary to deliver gas.	Burner Tip West Side Gas, refer to Table 10 of Oregon Schedule 37 Avoided Cost Study work paper.	-
3.	Provide the assumed heat rate. Include assumptions to account for elevation / temperature, and cooling method.	Refer to Table 9 of Oregon Schedule 37 Avoided Cost Study work paper.	2015 IRP Table 6.1 and Table 6.2.
4.	List the costs assumed for interconnection facilities.	-	2015 IRP Table 6.1 and Table 6.2.
5.	List the components of transmission costs used and their respective values.	-	2015 IRP Table 6.1 and Table 6.2.
6.	List the tax assumptions used.	-	2015 IRP Table 6.1 and Table 6.2.

Docket UM 1729(2) / Compliance Filing – May 1, 2017
Minimum Filing Requirements
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V. Renewable Rates Deficiency Period Resource

		Explanation	IRP Reference
1.	Provide the resource type, geographic location / nameplate capacity, and annual capacity factor.	Renewable proxy plant costs and performance characteristics are from the 2015 IRP.	Table 6.2– 2015 IRP - Plant Costs (2014$).
2.	Provide assumptions used for mechanical availability, annual hours of curtailment / and annual megawatt-hours (MWh) of energy curtailed.	None.	
3.	List the costs assumed for interconnection facilities.	-	Table 6.2 – 2015 IRP - Plant Costs (2014$).
4.	List the components of transmission costs used and their respective values.	-	Table 6.2 – 2015 IRP - Plant Costs (2014$).
5.	List the tax assumptions used. This includes assumed taxes paid (federal, state / local), and assumed tax benefits (e.g. PTC / investment tax credits (ITC) / grants in lieu of credits).	No PTC.	Table 6.2 – 2015 IRP - Plant Costs (2014$).
6.	Provide the capacity contribution value, and the method used to derive the capacity contribution value / for solar and wind resource types.	Capacity Contribution values - Wind: 25.4 percent, Fixed Solar: 32.2 percent, and Tracking Solar: 36.7 percent.	2015 Capacity Contribution Study, 2015 IRP Volume II-Appendix N, Table N.1, page 405.
7.	Provide the wind integration cost used / and the method used to derive the wind integration cost.	$3.06 per megawatt-hour ($/MWh) (2014$).	2015 IRP Volume II-Appendix H, Table H.3.

California CO_2: Updated

California cap-and-trade policy assumptions in Aurora

- Program start date was 2012 with 2013 being the first compliance year for power plants.
- In the absence of a Federal CO_2 tax, California CO_2 is assumed to continue post 2021 (extrapolated at rate of inflation).
- Assumed California cap-and-trade allowance prices came from an third-party expert.
- All fossil-fired generating units operating within California generate emissions consistent with the CO_2 content of the fuel and the unit's heat rate
- For instance, a combined cycle plant with a 7,500 Btu/kWh heat rate burning natural gas, with a CO_2 content of 118 lb/MMBtu, would produce 0.44 tons of CO_2 emissions for each MWh generated
- The assumed California CO_2 allowance price is modeled as a dispatch cost adder and applied to plant CO_2 emissions.

111(d) Policy: No Update

- **On August 3, 2015, the Environmental Protection Agency (EPA) released its finalized Clean Power Plan (CPP) (aka 111(d)) setting state-specific interim and final goals for carbon dioxide emissions beginning 2022. By 2030, each state* is to be fully compliant with EPA's calculated goal and maintain it post 2030. The Rule's objective is a 32% reduction in 2005 power sector emissions by 2030. *Note: Vermont is exempt from 111(d).**

- **EPA used three building blocks to define the "best system of emission reduction" (BSER). The three building blocks include:**
  - Coal plant efficiency improvements of 2.1% - 4.3%.
  - Increased utilization of natural gas-fueled units to average 75% of net summer capacity.
  - Increased deployment of zero-emitting resources
- **Using these building blocks the EPA calculated state-specific goals via three different formats, allowing each state to choose its format:**
  - A rate-based goal – CO_2 pounds per MWh.
  - A mass-based goal – short tons of CO_2.
  - A mass-based goal with a new source complement – short tons of CO_2.

- **States must develop plans (states can also enter into multi-state plans) to meet the established goal. State compliance mechanisms are flexible and do not need to be based on the three building blocks used to establish BSER. Plans are to be submitted to the EPA in the 2016-2018 timeframe.**

- **In developing the March 2016 OFPC, the 111(d) regulation was modeled as follows:**
  - No assumed coal unit efficiency improvements.
  - Renewable generation is tracked by renewable energy credit (REC) ownership, not by state boundary.
  - New fossil units are not regulated under 111(d).
  - 111(d) affected units must meet a mass-based state goal.

PACIFICORP
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Federal CO_2 Allowance Pricing: No Update

Federal CO_2 allowance pricing assumptions in Aurora

- With the addition of modeled impacts of EPA's 111(d) Clean Power Act, there is no assumed Federal CO_2 allowance pricing.

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

California CO_2: No Update

California cap-and-trade policy assumptions in Aurora

- Program start date was 2012 with 2013 being the first compliance year for power plants.
- In the absence of a Federal CO_2 tax, California CO_2 is assumed to continue post 2021 in accordance with current program guidelines.
- Assumed California cap-and-trade prices come from an third-party expert's forecast of California Carbon Allowance (CCA) prices.
- All fossil-fired generating units operating within California generate emissions consistent with the CO_2 content of the fuel and the unit's heat rate
- For instance, a combined cycle plant with a 7,500 Btu/kWh heat rate burning natural gas, with a CO_2 content of 118 lb/MMBtu, would produce 0.44 tons of CO_2 emissions for each MWh generated
- The assumed California CO_2 allowance price is modeled as a dispatch cost adder and applied to plant CO_2 emissions.

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

111(d) Policy: No Update

- **On August 3, 2015, the Environmental Protection Agency (EPA) released its finalized Clean Power Plan (CPP) (aka 111(d)) setting state-specific interim and final goals for carbon dioxide emissions beginning 2022. By 2030, each state* is to be fully compliant with EPA's calculated goal and maintain it post 2030. The Rule's objective is a 32% reduction in 2005 power sector emissions by 2030. *Note: Vermont is exempt from 111(d).**
- **EPA used three building blocks to define the "best system of emission reduction" (BSER). The three building blocks include:**
  - Coal plant efficiency improvements of 2.1% - 4.3%.
  - Increased utilization of natural gas-fueled units to average 75% of net summer capacity.
  - Increased deployment of zero-emitting resources.
- **Using these building blocks the EPA calculated state-specific goals via three different formats, allowing each state to choose its format:**
  - A rate-based goal – CO_2 pounds per MWh.
  - A mass-based goal – short tons of CO_2.
  - A mass-based goal with a new source complement – short tons of CO_2.
- **States must develop plans (states can also enter into multi-state plans) to meet the established goal. State compliance mechanisms are flexible and do not need to be based on the three building blocks used to establish BSER. Plans are to be submitted to the EPA in the 2016-2018 timeframe. In developing the September 2016 OFPC, the 111(d) regulation was modeled with the following assumptions:**
  - No coal unit efficiency improvements are implemented
  - Renewable generation is tracked by renewable energy credit (REC) ownership, not by state boundary
  - New natural gas combined cycle units (NGCC) are regulated under 111(d) in all states
  - Energy efficiency acquisition as assumed in EPA's calculation of emission rate goals is achievable
  - WECC-wide compliance targets are assumed (excluding California), using the sum of state allowance allocations with new source complement.

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111(d) Policy (cont.): No Update

- **On March 28, 2017, President Trump issued an Executive Order directing the EPA to review the Clean Power Plan and, if appropriate, suspend, revise or rescind the Clean Power Plan, as well as related rules and agency actions. We will continue to follow activities related to this Executive Order and update the Aurora model as appropriate.**

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Federal CO_2 Allowance Pricing: No Update

Federal CO_2 allowance pricing assumptions in Aurora

- With the addition of modeled impacts of EPA's 111(d) Clean Power Act, there is no assumed Federal CO_2 allowance pricing.

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Gas Price Forecast Comparison

	OFPC March 2017 West Side Gas	OFPC March 2016 West Side Gas	Change	% Change
2028	4.25	4.97	(0.72)	-14%
2029	4.61	5.11	(0.50)	-10%
2030	4.99	5.43	(0.44)	-8%
2031	5.22	5.57	(0.35)	-6%
2032	5.50	5.72	(0.22)	-4%
2033	5.89	5.91	(0.02)	0%
2034	6.14	6.09	0.05	1%
2035	6.43	6.26	0.17	3%