Appendix A

PacifiCorp
Avoided Cost (GRID and Differential Revenue Requirement)
Model Updates through October 2011
Case No. 03-035-14

GRID Scenario Study Period

January 1, 2012 through December 31, 2031 (20-year study)
Avoided Cost prices starting in January 2012

Official Forward Price Curve (Gas and Market Prices)

Updated to PacifiCorp's September 2011 official forward price curve (1109 OFPC)

Short-Term Firm (STF) Transactions

STF transactions have been updated to include executed STF contracts as of October 2011

Market Capacity

48 Months ended June 2011
Market cap HLH & LLH sales limited to 48 month average of all STF sales less monthly executed STF contracts as of October 2011

Inflation Rates

The Company updated inflation rates consistent with the Company's most recent inflation rate study dated June 2011

Discount Rate

7.17% which is the discount rate used in the 2011 IRP. This change is consistent with the Commission's order in Docket 11-035-T06.

Load Forecast (Retail)

20-year load forecast dated November 2011

Fuel Prices (Coal)

Average coal cost study
2012 through 2021 – 10 Year forecast dated October 2011
Thereafter escalated at 2.5%
Incremental coal cost study dated August 2011

Potential Environmental Costs

Costs included in incremental fuel costs for plant commitment and dispatch decisions starting in 2021
Environmental costs are for carbon dioxide
Costs are consistent with the Company's forecast dated September 2011
Costs are excluded from fuel costing and are excluded from avoided costs

Proxy Resource (Next Deferrable Resource)

2012 through 2015 - Mona, Utah, West Main, Mid-Columbia and COB Third Quarter (Q3) High Load Hour (HLH) Front Office Trade (FOT) – 2011 IRP Table 8.16
2016 and thereafter – 597 MW Combined Cycle Combustion Turbine (CCCT)
Dry "F" 2x1 - East Side Resource (4500') – 2011 IRP Table 6.1 & 6.3
Commencing operation June 1, 2016

IRP Resources

IRP Resources transmission, thermal, DSM, FOT, Growth Station and wind resources
2011 IRP Dated March 31, 2011
Preferred Portfolio Table 8.16

IRP Partial Displacements (this filing)

Thermal and Market Purchase Resources

Base Case - thermal partial displacement was 123.1 MW. Included are QFs that are actively negotiating for new power purchase agreements as shown below.

Queue	Thermal Resource	Capacity MW	Energy – Capacity Factor
1	QF - 02 - OR - Biomass	38.5	85.0%
2	QF - 05 - OR - Biomass	10.0	85.0%
3	Roseburg Dillard Biomass (Signed)	20.0	90.0%
4	AG Hydro (Signed - QF Oregon)	10.0	29.7%
5	Dorena Hydro (Signed - QF Oregon)	6.1	28.2%
6	QF - 10 - UT - Biogas	3.0	95.0%
7	QF - 16 - UT - Geothermal	25.0	69.3%
8	QF - 18 - UT - Biomass	10.5	94.0%
Displacement in Base Case MW		**123.1 MW**	

Market front office trades (FOT) are displaced based upon the year the FOT is availability and from highest to lowest price. FOT available in order of highest to lowest price are Mona (Available 2013), Utah, West Main, Mid Columbia, and California Oregon Border (COB). FOT are listed in Table 8.16 of the 2011 IRP. The partial displacement is shown below.

Displacement in Base Case				
Year	**Displaced Resource**	**2011 IRP**	**Displacement**	**Remaining MW**
2012	FOT – Utah	200	123.1	76.9
	– West Main	50	0.0	50.0
2013	FOT – Mona	150	123.1	26.9204.0
	– Utah	204	0.0	
2014	FOT – Mona	300	123.1	176.9
2015	FOT – Mona	300	123.1	176.9
2016	597 MW CCCT Dry "F" 2x1 - East Side Resource (4500')	597	123.1	473.9

Avoided Cost Case – a 100 MW 85% capacity factor (CF) avoided cost resource is added to the thermal resource queue.

Queue	Thermal Resource	Capacity MW	Energy – Capacity Factor
1	QF - 02 - OR - Biomass	38.5	85.0%
2	QF - 05 - OR - Biomass	10.0	85.0%
3	Roseburg Dillard Biomass (Signed)	20.0	90.0%
4	AG Hydro (Signed - QF Oregon)	10.0	29.7%
5	Dorena Hydro (Signed - QF Oregon)	6.1	28.2%
6	QF - 10 - UT - Biogas	3.0	95.0%
7	QF - 16 - UT - Geothermal	25.0	69.3%
8	QF - 18 - UT - Biomass	10.5	94.0%
9	Avoided Cost Resource	100.0	85.0%
Displacement in Base Case MW		**223.1 MW**	

The Table below shows the FOT that are displaced for the Avoided Cost Case which includes the 100 MW 85% capacity factor avoided cost resource.

Displacement in Avoided Cost Case				
Year	**Displaced Resource**	**2011 IRP**	**Displacement**	**Remaining MW**
2012	FOT – Utah	200	200.0	0.0
	– West Main	50	23.1	26.9
2013	FOT – Mona	150	150.0	0.0
	– Utah	204	73.1	130.9
2014	FOT – Mona	300	223.1	76.9
2015	FOT – Mona	300	223.1	76.9
2016	597 MW CCCT Dry "F" 2x1 - East Side Resource (4500')	597	223.1	373.9

Wind Resources

A total of 2,100 MW of wind is included in the 2011 IRP, by 2020 of which 684.0 MW is partially displaced by potential QF Wind Resources. All IRP wind is located in Wyoming with the first proposed wind projects available in 2018. The Table below shows the potential wind resources that partially displace the 2,100 MW of wind listed in the IRP.

Potential QF Wind Resource		
Year	**Displaced Resource**	**MW**
2012	QF - 01 - ID - Wind	133.0
2013	QF - 03 - ID - Wind	78.0
2013	QF - 06 - ID - Wind	20.0
2013	–Blue Mtn Wind I (Signed – QF Utah)	80.0
2012	QF - 08 - OR - Wind	40.0
2013	QF - 09 - ID - Wind	80.0
2012	QF - 12 - ID - Wind	20.0
2013	QF - 14 - WY - Wind	76.5
2014	QF - 15 - WY - Wind	76.5
2013	QF - 17 - UT - Wind	80.0
Wind Resource Partial Displacement of IRP Wind		684.0

The 684.0 MW of potential QF wind resources will displace all IRP wind scheduled for 2018 and 2019, 300 MW each year, and will displace 84.0 MW of wind scheduled for 2020.

IRP Partial Displacements (last filing)

Thermal and Market Purchase Resources

Base Case - thermal partial displacement was 112.7 MW. Included are QFs that are actively negotiating for new power purchase agreements as shown below.

Queue	Thermal Resource	Capacity MW	Energy – Capacity Factor
1	Klamath Falls Biomass	38.5	85.0%
2	Roseburg Weed Biomass	10.0	85.0
3	Roseburg Dillard Biomass	20.0	90.0
4	AG Hydro	10.0	29.7
5	Dorena Hydro	6.1	28.2
6	Surprise Valley Ranch Geothermal	28.1	91.9
Displacement in Base Case MW		**112.7 MW**	

Market front office trades (FOT) are displaced based upon the year the FOT is availability and from highest to lowest price. FOT available in order of highest to lowest price are Mona (Available 2013), Utah, West Main, Mid Columbia, and California Oregon Border (COB). FOT are listed in Table 8.16 of the 2011 IRP. The partial displacement is shown below.

Displacement in Base Case - 112.7 MW				
Year	**Displaced Resource**	**IRP Update**	**Displacement**	**Remaining MW**
2012	FOT – Utah	200	112.7	87.3
2013	FOT – Mona	150	112.7	37.3
2014	FOT – Mona	300	112.7	187.3
2015	FOT – Mona	300	112.7	187.3
2016	597 MW CCCT Dry "F" 2x1 - East Side Resource (4500')	597	112.7	484.3

Avoided Cost Case – a 100 MW 85% capacity factor (CF) avoided cost resource is added to the thermal resource queue.

Queue	Thermal Resource	Capacity MW	Energy – Capacity Factor
1	Klamath Falls Biomass	38.5	85.0%
2	Roseburg Weed Biomass	10.0	85.0
3	Roseburg Dillard Biomass	20.0	90.0
4	AG Hydro	10.0	29.7
5	Dorena Hydro	6.1	28.2
6	Surprise Valley Ranch Geothermal	28.1	91.9
7	Avoided Cost Resource	100.0	85.0
Displacement in Base Case MW		**212.7 MW**	

The Table below shows the FOT that are displaced for the Avoided Cost Case which includes the 100 MW 85% capacity factor avoided cost resource.

Displacement in Avoided Cost Case - 212.7 MW				
Year	**Displaced Resource**	**IRP Update**	**Displacement**	**Remaining MW**
2012	FOT – Utah	200	200.0	0.0
	– West Main	50	12.7	37.3
2013	FOT – Mona	150	150.0	0.0
	– Utah	204	62.7	141.3
2014	FOT – Mona	300	212.7	87.3
2015	FOT – Mona	300	212.7	87.3
2016	597 MW CCCT Dry "F" 2x1 - East Side Resource (4500')	597	212.7	384.3

Wind Resources

A total of 2,100 MW of wind is included in the 2011 IRP by 2020 of which 568.4 MW is partially displaced by potential QF Wind Resources. All IRP wind is located in Wyoming with the first proposed wind projects available in 2018. The Table below shows the potential wind resources which partially displace the 2,100 MW of wind listed in the IRP.

Potential QF Wind Resource		
Year	**Displaced Resource**	**MW**
2012	Cedar Creek Wind I through V	133.0
2013	Vivaldi Wind QF	78.0
2013	Latigo Wind Park	59.2
2015	QF - Big Wind Wyo	78.2
2013	QF - Black Canyon Wind	20.0
2013	QF - Blue Mtn Wind	80.0
2012	QF - Butter Creek Wind	40.0
2013	QF - Meadow Creek Wind	80.0
Wind Resource Partial Displacement of IRP Wind		568.4

568.4 MW of potential QF wind resources will fully displace IRP wind scheduled for 2018 and 268.4 MW of wind scheduled for 2019.

Size of the Avoided Cost Resource

The avoided cost resource is assumed to be a 100 MW 85% CF thermal resource. The size of the avoided cost resource has not been changed.

Topology

There are two main changes to the GRID model topology.

The first change was to separate the Idaho transmission bubble into IPC East, IPC West and Brady bubbles. This better reflects the wheeling contracts with Idaho Power Company and the impact of the Energy Gateway project, specifically the Populus to Terminal line.

The second change was to add BPA Network, Hermiston and Central Oregon bubbles. This better reflects the operational constraints of the Company's wheeling contracts with the Bonneville Power Administration ("BPA") after the expiration of the BPA Peaking contract.

Transmission (Firm Transmission Rights)

Transmission updated to reflect current transmission rights and to reflect the Topology changes described above

Transmission (Non-Firm and Short Term Firm)

Non-firm transmission - 48 months ended June 2011
Short term firm transmission – 48 months ended June 2011
STF and non-firm combined and modeled as a single transmission link
Modeled without incremental wheeling costs
This assumption has not changed from the last filing.

Thermal Resources

Thermal resources operating characteristics were updated to reflect expected operations. Forced Outage, Planned Outage and Heat rate levels reflect 48 months ended June 2010.

Long-Term Contracts

Long-term contracts which have prices that are indexed to market were updated to be consistent with the 2011 September Official Forward Price Curve (1109 OFPC).

Modeling updates include APS Supplemental Purchase, BPA South Idaho Exchange, Cowlitz Swift, Deseret Purchase, Roseburg Forest Products, SMUD, and Threemile Canyon Wind. West Valley Toll was added as a new contract. Modeling was added to more accurately track fixed pipeline costs and gas (swap and physical) transactions.

Hydro Resources

10 year forecast dated September 9, 2011
Hydro forecast extended past 2022 at 2022 hydro level