

## **Appendix A**

### **PacifiCorp Avoided Cost (GRID and Differential Revenue Requirement) Model Updates through January 2010 Case No. 03-035-14**

#### **GRID Scenario Study Period**

January 1, 2010 through December 31, 2029 (20-year study)

#### **Official Market Price Forecast (Gas and Market Prices)**

Updated to PacifiCorp's December 2009 official forward price forecast (1209)

#### **Short-Term Firm (STF) Transactions**

STF transactions have been updated to include executed STF contracts as of January 2010; Extract 505

#### **Inflation Rates**

The Company updated inflation rates consistent with the Company's most recent inflation rate study dated December 2009

#### **Market Capacity**

12 Months ended December 2008  
This item remains unchanged from the prior filing.

#### **Load Forecast (Retail)**

20-year load forecast dated October 2009

#### **Fuel Prices (Coal)**

Jan through June 2010 – Semi-Annual forecast dated October 2009  
July 2010 through December 2010 – Oregon GRC Forecast dated March 2009  
2011 through December 2017 – 10 Year forecast dated November 2008  
Thereafter escalated at 2.5%  
Incremental coal cost study dated July 2009

#### **Potential Environmental Costs**

Costs included in incremental fuel costs for plant commitment and dispatch decisions starting in 2013  
Costs are excluded from fuel costing and are excluded from avoided costs

#### **Proxy Resource (Next Deferrable Resource)**

2010 through 2013 - Mona Third Quarter (Q3) High Load Hour (HLH)  
Front Office Trade (FOT) - 2008 IRP Table 8.44  
2014 and thereafter – CCCT (Wet "F" 2x1) - East Side Resource (4500')  
- 2008 IRP Tables 6.2 and 6.4  
These items remain unchanged from the prior filing.

**IRP Resources**

2008 IRP Resources transmission, thermal, DSM, front office trades (FOT) and wind resources - 2008 IRP Dated May 2009.

With the exception of items partially displaced as discussed below, these items remain unchanged from the prior filing.

**IRP Partial Displacements (this filing)**

Thermal and Market Purchase Resources

Base Case - No potential qualifying facility (QF) resources were included in the Base Case.

Queue	Thermal Resource	Capacity	Energy
1	No thermal resources were included	0.0 MW	
<b>Displacement in Base Case MW</b>		<b>0.0 MW</b>	

Displacement in Base Case - 0.0 MW				
Year	Displaced Resource	2008 IRP	Displacement	Remaining MW
2010	Market FOT – Mona 3Q	50	0.0	50
2011	Market FOT – Mona 3Q	150	0.0	150
2012	Market FOT – Mona 3Q	350	0.0	350
2013	Market FOT – Mona 3Q	443	0.0	443
2014	Proxy Resource (see above)	570	0.0	570

Avoided Cost Case – a 100 MW 85% capacity factor (CF) avoided cost resource is added to the thermal resource queue. The increase in capacity is partially offset so the Mona FOT is partially displaced by 100.0 MW in 2010 through 2013, and the proxy resource is partially displaced by 100.0 MW starting in 2014.

Queue	Thermal Resource	Capacity	Energy
1	Avoided Cost Resource	100.0 MW	85%
<b>Displacement in Avoided Cost Case MW</b>		<b>100.0 MW</b>	

Displacement in Avoided Cost Case – 100.0 MW				
Year	Displaced Resource	2008 IRP	Displacement	Remaining MW
2010	Market FOT – Mona 3Q	50	50.0	0.0
2011	Market FOT – Mona 3Q	150	100.0	50.0
2012	Market FOT – Mona 3Q	350	100.0	250.0
2013	Market FOT – Mona 3Q	443	100.0	343.0
2014	Proxy Resource (see above)	571	100.0	471.0

The 2008 IRP has a total of 50 MW of FOT in 2010, all of which are Mona 3Q market purchases. Since the 100.0 MW displacement is greater than total 50 MW of FOT resources available, no further displacements are made in 2010.

### Wind Resources

A total of 1,600 MW of wind is included in the 2008 IRP by 2021. Of this total, the Company has added owned wind resources of 356.2 MW and has potential QF requests outstanding for an additional 196.6 MW.

Owned Wind Resource Partial Displacement of IRP Wind		
Year	Displaced Resource	MW
2009	McFadden Ridge Wind	28.5
2010	Chevron Wind QF	16.5
2011	Top of the World Wind p575862	200.2
2011	Dunlap I Wind	<u>111.0</u>
Owned Wind Resource Partial Displacement of IRP Wind		356.2

Potential QF Wind Resource		
Year	Displaced Resource	MW
2011	QF - Bridger Butte Wind	50.0
2012	QF - Teton Wind	50.0
2012	QF - Wasatch Wind Wyo I	48.3
2013	QF - Wasatch Wind Wyo II	<u>48.3</u>
Owned Wind Resource Partial Displacement of IRP Wind		196.6

Potential wind resources listed in the 2008 IRP as Duke Energy (Three Buttes) and High Plains are included as Company owned wind resources and a potential wind resource listed as Wind PPA is included as Oregon Wind Farm.

### IRP Partial Displacements (last filing)

#### Thermal and Market Purchase Resources

In the Company's last filing for the Base Case the thermal partial displacement was 31.8 MW. The potential qualifying facility (QF) resources included in the Base Case consists of a request by Kennecott QF for a new contract.

Queue	Thermal Resource	Capacity	Energy
1	Kennecott QF	<u>31.8 MW</u>	85%
Displacement in Base Case MW		<b>31.8 MW</b>	

Displacement in Base Case - 31.8 MW				
Year	Displaced Resource	2008 IRP	Displacement	Remaining MW
2010	Market FOT – Mona 3Q	50	31.8	18.2
2011	Market FOT – Mona 3Q	150	31.8	118.2
2012	Market FOT – Mona 3Q	350	31.8	318.2
2013	Market FOT – Mona 3Q	443	31.8	411.2
2014	Proxy Resource (see above)	570	31.8	538.2

In the Company's last filing for the Avoided Cost Case the addition of a 100 MW 85% CF avoided cost resource increased the thermal resource queue from 31.8 MW to 131.8 MW.

Queue	Thermal Resource	Capacity	Energy
1	Kennecott QF	32 MW	85%
2	Avoided Cost Resource	<u>100 MW</u>	85%
<b>Displacement in Avoided Cost Case MW</b>		<b>131.8 MW</b>	

<b>Displacement in Avoided Cost Case – 131.8 MW</b>				
Year	Displaced Resource	2008 IRP	Displacement	Remaining MW
2010	Market FOT – Mona 3Q	50	50.0	0.0
2011	Market FOT – Mona 3Q	150	131.8	18.2
2012	Market FOT – Mona 3Q	350	131.8	218.2
2013	Market FOT – Mona 3Q	443	131.8	311.2
2014	Proxy Resource (see above)	571	131.8	438.2

#### Wind Resources

In the Company's last filing, the 2008 IRP wind resources were not partially offset by any Company owned or potential QF wind resources. Two potential wind resources listed in the 2008 IRP, Duke Energy and High Plains, were included as Company owned wind resources.

#### **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**

Transmission modeling of the Wyoming region has been updated to reflect three transmission bubbles consisting of Wyoming Northeast, Wyoming Central and Trona. To assure the reliability of the transmission network in the area governed by the Western Electricity Coordinating Council (“WECC”), the constraint in the cut plane named Tot 4A in Wyoming has been redefined by PacifiCorp Transmission and approved by WECC. As a result, the previously modeled transmission areas of “Wyoming NE” and “Wyoming SW” in GRID have been redefined. In addition, because of constraints that are present in the previous “Wyoming SW” transmission area, a “Trona” transmission area has been added to the topology to reflect such constraints.

#### **Transmission (Firm Transmission Rights)**

Transmission constraints were redesigned to facilitate the split of Wyoming into three transmission bubbles.

Other transmission was updated to reflect current firm transmission rights

#### **Transmission (Non-Firm and Short Term Firm)**

48 months ended December 2008

This item remain unchanged from the prior filing

**Thermal Resources**

Blundell, Dave Johnston, Jim Bridger 2 and some gas-fired resources have updated modeling assumptions to reflect current expected operation. Effective Outage Rates (EOR) have been updated to reflect more current information.

**Long-Term Contracts**

Long-term contracts which have prices that are indexed to market were updated to be consistent with the December 2009 Official Price Forecast (1209).

Modeling updates include changes to APS Supplemental, BPA South Idaho Exchange, Black Hills Losses, Kennecott Incentive, MagCorp Curtailment, Monsanto Curtailment, and US Magnesium Reserve. New Contracts include Cargill, Chevron Wind QF, NV Energy (NVE), Pacific Gas and Electric, Southern Bal Edison (SCE), San Diego Gas & Electric (SDGE) and Shell. Contracts that were removed include Co-Gen II QF, Weyerhaeuser QF and Weyerhaeuser Reserves.

**Company Owned Resources**

The two wind resources were added; Dunlap I Wind and Top of the World Wind.

**Discount Rate**

7.17% which is consistent with the Company's most recent discount rate dated December 2009