

## Errata, 2007 Integrated Resource Plan

Page 61, Chapter Highlights, first bullet: The expected system-wide average load growth per year from 2007 through 2016 should be 2.4 percent, rather than 2.5 percent.

Page 61, Chapter Highlights, second bullet: The western system average annual peak growth rate should be 1.2 percent, not 0.8 percent.

Page 148, first bullet: The PVRR difference between the 15% PRM portfolio and the higher-cost 18% PRM portfolio is \$377 million, not \$6.9 billion. The PVRR difference between the 12% PRM portfolio and the higher-cost 15% PRM portfolio is \$206 million, not \$6.3 billion. (CAF01 was mistakenly used as the basis of comparison rather than CAF11.)

Page 183, Table 7.31: The east-side front office transaction megawatt amount for 2016 is missing a digit. The value should be “1,209” rather than “ ,209”.

Page 190, second paragraph: Referring to Table 7.39, Portfolio RA16 has the lowest overall risk when averaging risk measures across the CO<sub>2</sub> cost adder cases, and not RA13. This error is due to the text not being updated after a table data update.

Page 95 and 96, Tables 5.2 and 5.3: Under the Variable Costs headings of Tables 5.3 and 5.4, the column reporting “Fuel/Other” was mistakenly hidden. The corrected tables are shown below.

Page 161, Table 7.17: The front office transaction annual average for portfolio RA11, for the period 2012 through 2016, should be 982 MW rather than 1,009 MW. The front office transaction annual average for portfolio RA12, for the period 2012 through 2016, should be 886 MW rather than 863 MW. Additionally, the Utah IGCC plant should be 508 MW rather than 497 MW.

Appendix C, Table C.5, Page 102: The annual megawatts of front office transactions are incorrect for SAS16. The correct values are shown below.

Scenario	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
SAS16	-	683	613	1,080	1,334	1,372	782	413	413	649

Appendix C, Page 103, Table C.6: Gas addition values reported for CAF01 to CAF15 and SAS01 through SAS04 are incorrect. The affected table rows and corrected values are included below in “Table C.6 – Gas Additions, Including Combined Heat and Power”.

**Table 5.3 – Total Resource Cost for East Side Supply-Side Resource Options**  
(2006 Dollars)

Description	Capital Cost \$/kW			Fixed Cost			Convert to Mills				Variable Costs				Total Resource Cost (Mills/kWh)	
	Total Capital Cost	Payment Factor	Annual Payment (\$/kW-Yr)	Fixed O&M (\$/kW-Yr)			Total Fixed (\$/kW-Yr)	Capacity Factor	Total Fixed (Mills/kWh)	Levelized Fuel		mills/kWh				
				O&M	Other	Total				e/mmBtu	Mills/kWh	O&M	Fuel/Other	Tax Credits		Environmental
<b>East Side Options (4500')</b>																
<b>Coal</b>																
Utah PC Supercritical 1 (600 MW)	\$ 2,103	8.10%	\$ 170.43	\$ 35.65	\$ 6.00	\$ 41.65	\$ 212.08	91%	26.49	187.20	17.16	\$ 2.41	-	-	5.39	\$ 51.46
Utah PC Supercritical 2 (600 MW)	\$ 2,103	8.10%	\$ 170.43	\$ 35.65	\$ 6.00	\$ 41.65	\$ 212.08	91%	26.49	187.20	17.16	\$ 2.41	-	-	5.39	\$ 51.46
Utah IGCC (Min. Carbon Prep/Level II Controls)	\$ 2,479	7.82%	\$ 193.86	\$ 81.31	\$ 6.00	\$ 87.31	\$ 281.17	89%	36.06	187.20	16.35	\$ 1.10	-	-	4.83	\$ 58.35
Utah IGCC (Min. Carbon Prep/Level II - no spare gas.)	\$ 2,339	7.82%	\$ 182.90	\$ 76.71	\$ 6.00	\$ 82.71	\$ 265.62	79%	38.38	187.20	16.35	\$ 1.10	-	-	4.83	\$ 60.66
Utah IGCC with Carbon Capture & Sequestration	\$ 3,170	7.82%	\$ 247.87	\$ 114.50	\$ 6.00	\$ 120.50	\$ 368.37	89%	47.25	187.20	18.56	\$ 6.28	-	-	0.64	\$ 72.74
Wyoming PC Supercritical (750 MW)	\$ 2,093	8.10%	\$ 169.61	\$ 41.06	\$ 6.00	\$ 47.06	\$ 216.67	91%	27.06	103.67	9.77	\$ 2.08	-	-	5.54	\$ 44.46
Wyoming IGCC (Min. Carbon Prep/Level II Controls)	\$ 2,700	7.82%	\$ 211.11	\$ 81.32	\$ 6.00	\$ 87.32	\$ 298.43	89%	38.28	103.67	9.24	\$ 1.08	-	-	4.93	\$ 53.53
<b>Natural Gas</b>																
Microturbine	\$ 1,003	11.21%	\$ 112.38	\$ 200.00	\$ 0.50	\$ 200.50	\$ 312.88	98%	36.45	693.70	89.39	\$ 2.00	7.09	-	4.45	\$ 139.37
Small Non-CT CHP	\$ 884	9.84%	\$ 87.01	\$ 29.49	\$ 0.50	\$ 29.99	\$ 117.01	85%	15.71	693.70	35.77	\$ 0.20	2.84	-	1.75	\$ 56.26
Small Industrial CHP	\$ 1,561	9.84%	\$ 153.64	\$ 8.22	\$ 0.50	\$ 8.72	\$ 162.36	90%	20.59	693.70	87.34	\$ (0.32)	6.92	-	4.49	\$ 119.03
Small Commercial CHP	\$ 1,253	9.84%	\$ 123.29	\$ 1.35	\$ 0.50	\$ 1.85	\$ 125.14	90%	15.87	693.70	69.61	\$ (0.03)	5.52	-	3.84	\$ 94.82
Fuel Cell - Small (Solid Oxide)	\$ 1,745	8.50%	\$ 148.23	\$ 9.70	\$ 0.50	\$ 10.20	\$ 158.43	97%	18.65	693.70	54.25	\$ 0.03	4.30	-	2.46	\$ 79.69
Fuel Cell - Large (Solid Oxide)	\$ 1,236	8.50%	\$ 105.01	\$ 8.40	\$ 0.50	\$ 8.90	\$ 113.91	95%	13.69	693.70	43.36	\$ 0.03	3.44	-	1.97	\$ 62.48
SCCT Aero	\$ 752	9.51%	\$ 71.53	\$ 20.91	\$ 0.50	\$ 21.41	\$ 92.94	21%	50.52	693.70	74.53	\$ 7.08	3.86	-	3.41	\$ 139.40
Intercooled Aero SCCT	\$ 750	9.51%	\$ 71.27	\$ 29.02	\$ 0.50	\$ 29.52	\$ 100.79	21%	54.79	693.70	65.46	\$ 2.58	3.39	-	2.99	\$ 129.21
Internal Combustion Engines	\$ 885	9.51%	\$ 84.14	\$ 12.80	\$ 0.50	\$ 13.30	\$ 97.44	94%	11.83	693.70	58.20	\$ 5.20	4.61	-	2.68	\$ 82.53
SCCT Frame (2 Frame "F")	\$ 499	8.33%	\$ 41.61	\$ 5.78	\$ 0.50	\$ 6.28	\$ 47.89	21%	26.03	693.70	79.84	\$ 10.86	4.01	-	3.79	\$ 124.53
CCCT (Wet "F" 1x1)	\$ 895	8.62%	\$ 77.16	\$ 16.42	\$ 0.50	\$ 16.92	\$ 94.08	56%	19.18	693.70	50.11	\$ 2.60	3.73	-	2.29	\$ 77.90
CCCT Duct Firing (Wet "F" 1x1)	\$ 298	8.62%	\$ 25.67	-	\$ 0.50	\$ 0.50	\$ 26.17	16%	18.67	693.70	61.52	\$ 0.11	3.58	-	2.81	\$ 86.70
CCCT (Wet "F" 2x1)	\$ 815	8.62%	\$ 70.20	\$ 9.98	\$ 0.50	\$ 10.48	\$ 80.68	56%	16.45	693.70	49.69	\$ 2.60	3.70	-	2.27	\$ 74.71
CCCT Duct Firing (Wet "F" 2x1)	\$ 273	8.62%	\$ 23.56	-	\$ 0.50	\$ 0.50	\$ 24.06	16%	17.17	693.70	61.52	\$ 0.11	3.58	-	2.81	\$ 85.19
CCCT (Wet "G" 1x1)	\$ 847	8.62%	\$ 72.96	\$ 12.42	\$ 0.50	\$ 12.92	\$ 85.88	56%	17.51	693.70	49.08	\$ 2.55	3.65	-	2.25	\$ 75.03
CCCT Duct Firing (Wet "G" 1x1)	\$ 314	8.62%	\$ 27.05	-	\$ 0.50	\$ 0.50	\$ 27.55	16%	19.66	693.70	61.52	\$ 0.11	3.58	-	2.81	\$ 87.68
<b>Other - Renewables</b>																
SW Wyoming Wind	\$ 2,011	9.48%	\$ 190.70	\$ 29.78	\$ 0.50	\$ 30.28	\$ 220.98	35%	72.49	-	-	-	3.29	(20.65)	-	\$ 55.13
Idaho Wind	\$ 1,729	9.48%	\$ 163.96	\$ 29.78	\$ 0.50	\$ 30.28	\$ 194.24	33%	68.23	-	-	-	3.29	(20.65)	-	\$ 50.87
Geothermal, Dual Flash	\$ 3,346	7.46%	\$ 249.55	\$ 22.60	\$ 0.50	\$ 23.10	\$ 272.65	96%	32.32	-	21.13	\$ 5.50	-	(20.65)	-	\$ 38.30
Battery Storage	\$ 1,400	8.51%	\$ 119.15	\$ 1.00	\$ 0.50	\$ 1.50	\$ 120.65	21%	65.59	693.70	83.24	\$ 10.00	-	-	8.62	\$ 167.45
Pumped Storage	\$ 1,191	7.86%	\$ 93.62	\$ 4.30	\$ 1.35	\$ 5.65	\$ 99.27	20%	56.66	693.70	90.18	\$ 4.30	-	-	9.340	\$ 160.48
Compressed Air Energy Storage (CAES)	\$ 753	8.69%	\$ 65.45	\$ 3.80	\$ 1.35	\$ 5.15	\$ 70.60	25%	32.24	693.70	80.96	\$ 5.50	-	-	3.704	\$ 122.40
Nuclear, Passive Safety	\$ 2,635	8.01%	\$ 210.97	\$ 109.72	\$ 6.00	\$ 115.72	\$ 326.69	85%	43.87	-	6.63	\$ 0.38	-	-	-	\$ 50.88
Solar Thermal Trough with Natural Gas Backup	\$ 3,939	7.87%	\$ 310.11	\$ 26.10	\$ 6.00	\$ 32.10	\$ 342.21	21%	186.03	-	-	\$ 3.10	-	-	-	\$ 189.13

**Table 5.3 – Total Resource Cost for West Side Supply-Side Resource Options**  
(2006 Dollars)

Description	Capital Cost \$/kW			Fixed Cost				Convert to Mills				Variable Costs				Total Resource Cost (Mills/kWh)
	Total Capital Cost	Payment Factor	Annual Payment (\$/kW-Yr)	Fixed O&M (\$/kW-Yr)			Total Fixed (\$/kW-Yr)	Capacity Factor	Total Fixed (Mills/kWh)	Levelized Fuel		O&M	Fuel / Other	Tax Credits	Environmental	
				O&M	Other	Total				¢/mmBtu	Mills/kWh					
<b>West Side Options (1500')</b>																
<b>Natural Gas</b>																
Microturbine	\$ 912	11.21%	\$ 102.16	\$ 181.82	\$ 0.50	\$ 182.32	\$ 284.48	98%	33.14	699.25	90.10	\$ 1.82	7.22	-	4.45	\$ 136.72
Fuel Cell - Small (Solid Oxide)	\$ 1,586	8.50%	\$ 134.76	\$ 8.82	\$ 0.50	\$ 9.32	\$ 144.08	97%	16.96	699.25	54.68	\$ 0.03	4.38	-	2.46	\$ 78.51
SCCT Aero	\$ 684	9.51%	\$ 65.02	\$ 19.01	\$ 0.50	\$ 19.51	\$ 84.53	21%	45.95	699.25	75.13	\$ 6.44	3.60	-	3.41	\$ 134.53
Intercooled Aero SCCT	\$ 682	9.51%	\$ 64.79	\$ 26.38	\$ 0.50	\$ 26.88	\$ 91.68	21%	49.83	699.25	65.98	\$ 2.35	3.16	-	2.99	\$ 124.32
Internal Combustion Engines	\$ 805	9.51%	\$ 76.49	\$ 12.80	\$ 0.50	\$ 13.30	\$ 89.79	94%	10.90	699.25	58.67	\$ 5.20	4.70	-	2.68	\$ 82.15
SCCT Frame (2 Frame "F")	\$ 454	8.33%	\$ 37.83	\$ 5.25	\$ 0.50	\$ 5.75	\$ 43.58	21%	23.69	699.25	80.48	\$ 9.87	3.71	-	3.79	\$ 121.54
CCCT (Wet "F" 1x1)	\$ 814	8.62%	\$ 70.15	\$ 14.93	\$ 0.50	\$ 15.43	\$ 85.57	56%	17.44	699.25	50.51	\$ 2.36	3.76	-	2.29	\$ 76.36
CCCT Duct Firing (Wet "F" 1x1)	\$ 271	8.62%	\$ 23.34	-	\$ 0.50	\$ 0.50	\$ 23.84	16%	17.01	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 85.37
CCCT (Wet "F" 2x1)	\$ 741	8.62%	\$ 63.82	\$ 9.07	\$ 0.50	\$ 9.57	\$ 73.39	56%	14.96	699.25	50.09	\$ 2.36	3.73	-	2.27	\$ 73.42
CCCT Duct Firing (Wet "F" 2x1)	\$ 249	8.62%	\$ 21.42	-	\$ 0.50	\$ 0.50	\$ 21.92	16%	15.64	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 84.00
CCCT (Wet "G" 1x1)	\$ 770	8.62%	\$ 66.33	\$ 11.29	\$ 0.50	\$ 11.79	\$ 78.12	56%	15.92	699.25	49.47	\$ 2.32	3.68	-	2.25	\$ 73.64
CCCT Duct Firing (Wet "G" 1x1)	\$ 285	8.62%	\$ 24.59	-	\$ 0.50	\$ 0.50	\$ 25.09	16%	17.90	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 86.27
<b>Other - Renewables</b>																
Oregon Wind	\$ 1,737	9.48%	\$ 164.75	\$ 29.78	\$ 22.22	\$ 52.00	\$ 216.75	34%	72.35	-	-	-	3.29	(20.65)	-	\$ 54.99
Geothermal, Dual Flash	\$ 3,346	7.46%	\$ 249.55	\$ 22.60	\$ 0.50	\$ 23.10	\$ 272.65	96%	32.32	-	21.13	\$ 5.50	-	(20.65)	-	\$ 38.30
Compressed Air Energy Storage (CAES)	\$ 685	8.69%	\$ 59.50	\$ 3.45	\$ 1.35	\$ 4.80	\$ 64.31	25%	29.36	699.25	81.60	\$ 5.00	-	-	3.70	\$ 119.67
<b>West Side Options (Sea Level)</b>																
<b>Coal</b>																
Washington IGCC (Min. Carbon Prep/Level II Controls)	\$ 2,479	7.82%	\$ 193.86	\$ 81.31	\$ 6.00	\$ 87.31	\$ 281.17	89%	36.06	150.00	13.10	\$ 1.10	-	-	4.83	\$ 55.10
<b>Natural Gas</b>																
Microturbine	\$ 866	11.21%	\$ 97.06	\$ 172.73	\$ 0.50	\$ 173.23	\$ 270.28	98%	31.48	699.25	90.10	\$ 1.73	7.22	-	4.45	\$ 134.98
Large CHP	\$ 790	9.84%	\$ 77.75	\$ 14.22	\$ 0.50	\$ 14.72	\$ 92.46	89%	11.93	699.25	81.50	\$ (17.75)	6.72	-	3.84	\$ 86.23
Small Non-CT CHP	\$ 840	9.84%	\$ 82.66	\$ 29.49	\$ 0.50	\$ 29.99	\$ 112.65	85%	15.13	699.25	36.05	\$ 0.17	2.89	-	1.75	\$ 55.99
Small Industrial CHP	\$ 1,358	9.84%	\$ 133.60	\$ 7.15	\$ 0.50	\$ 7.65	\$ 141.25	90%	17.92	699.25	88.04	\$ (0.28)	7.05	-	4.49	\$ 117.22
Small Commercial CHP	\$ 1,253	9.84%	\$ 123.29	\$ 1.17	\$ 0.50	\$ 1.67	\$ 124.96	90%	15.85	699.25	70.17	\$ (0.02)	5.62	-	3.84	\$ 95.46
Fuel Cell - Small (Solid Oxide)	\$ 1,507	8.50%	\$ 128.02	\$ 8.82	\$ 0.50	\$ 9.32	\$ 137.34	97%	16.16	699.25	54.68	\$ 0.03	4.38	-	2.46	\$ 77.71
SCCT Aero	\$ 650	9.51%	\$ 61.77	\$ 18.06	\$ 0.50	\$ 18.56	\$ 80.33	21%	43.67	699.25	75.13	\$ 6.13	3.60	-	3.41	\$ 131.93
Intercooled Aero SCCT	\$ 647	9.51%	\$ 61.55	\$ 25.06	\$ 0.50	\$ 25.56	\$ 87.12	21%	47.36	699.25	65.98	\$ 2.23	3.16	-	2.99	\$ 121.73
Internal Combustion Engines	\$ 764	9.51%	\$ 72.67	\$ 12.80	\$ 0.50	\$ 13.30	\$ 85.97	94%	10.44	699.25	58.67	\$ 5.20	4.70	-	2.68	\$ 81.68
SCCT Frame (2 Frame "F")	\$ 431	8.33%	\$ 35.94	\$ 5.00	\$ 0.50	\$ 5.50	\$ 41.44	21%	22.53	699.25	80.48	\$ 9.40	3.71	-	3.79	\$ 119.90
CCCT (Wet "F" 1x1)	\$ 773	8.62%	\$ 66.64	\$ 14.22	\$ 0.50	\$ 14.72	\$ 81.36	56%	16.58	699.25	50.51	\$ 2.25	3.76	-	2.29	\$ 75.39
CCCT Duct Firing (Wet "F" 1x1)	\$ 257	8.62%	\$ 22.17	-	\$ 0.50	\$ 0.50	\$ 22.67	16%	16.18	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 84.53
CCCT (Wet "F" 2x1)	\$ 703	8.62%	\$ 60.63	\$ 8.64	\$ 0.50	\$ 9.14	\$ 69.77	56%	14.22	699.25	50.09	\$ 2.25	3.73	-	2.27	\$ 72.56
CCCT Duct Firing (Wet "F" 2x1)	\$ 236	8.62%	\$ 20.35	-	\$ 0.50	\$ 0.50	\$ 20.85	16%	14.88	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 83.24
CCCT (Wet "G" 1x1)	\$ 731	8.62%	\$ 63.01	\$ 10.75	\$ 0.50	\$ 11.25	\$ 74.26	56%	15.14	699.25	49.47	\$ 2.21	3.68	-	2.25	\$ 72.74
CCCT Duct Firing (Wet "G" 1x1)	\$ 271	8.62%	\$ 23.36	-	\$ 0.50	\$ 0.50	\$ 23.86	16%	17.02	699.25	62.01	\$ 0.10	3.44	-	2.81	\$ 85.38
<b>Other - Renewables</b>																
Oregon Wind	\$ 1,729	9.48%	\$ 163.96	\$ 29.78	\$ 22.22	\$ 52.00	\$ 215.96	34%	72.51	-	-	-	3.29	(20.65)	-	\$ 55.15
Biomass (closed loop)	\$ 2,388	7.46%	\$ 178.11	\$ 4.12	\$ 0.50	\$ 4.62	\$ 182.73	91%	22.82	300.00	32.94	\$ 1.91	-	(20.65)	7.42	\$ 44.44
Nuclear, Passive Safety	\$ 2,635	8.01%	\$ 210.97	\$ 109.72	\$ 6.00	\$ 115.72	\$ 326.69	85%	43.87	-	6.35	\$ 0.38	-	-	-	\$ 50.60
Compressed Air Energy Storage (CAES)	\$ 651	8.69%	\$ 56.53	\$ 3.28	\$ 1.35	\$ 4.63	\$ 61.16	25%	27.93	699.25	81.60	\$ 4.76	-	-	3.70	\$ 117.99
Customer Owned Standby Generation	\$ 170	11.00%	\$ 18.70	\$ 3.50	\$ 0.50	\$ 4.00	\$ 22.70	25%	10.36	-	-	\$ 146.00	-	-	6.22	\$ 162.59

**Table C.6 – Gas Additions, Including Combined Heat and Power**  
(Corrected rows only)

Scenario	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CAF01	-	-	-	-	-	25	25	25	25	25
CAF02	-	-	-	-	-	-	-	-	-	-
CAF03	-	-	25	25	25	1,059	1,059	1,059	1,059	1,059
CAF04	-	-	-	-	-	1,150	1,275	1,823	1,823	1,823
CAF05	-	-	-	-	-	125	125	125	125	125
CAF06	-	-	25	25	25	2,140	2,742	3,134	3,566	3,923
CAF07	-	-	-	-	-	100	100	100	100	100
CAF08	-	-	-	-	-	1,175	1,175	1,175	1,175	1,275
CAF09	-	-	-	-	-	-	-	-	-	-
CAF10	-	-	-	-	-	1,150	1,150	1,150	1,150	1,225
CAF11	-	-	-	-	-	734	759	759	759	759
CAF12	-	-	-	-	-	50	50	50	50	50
CAF13	-	-	-	-	302	1,628	1,628	1,628	1,628	1,628
CAF14	-	-	-	-	-	25	25	25	25	25
CAF15	-	-	25	25	327	1,211	1,211	1,211	1,211	1,211
SAS01	-	-	-	-	-	125	125	125	125	125
SAS02	-	-	-	-	634	634	734	734	734	734
SAS03	-	-	-	-	-	125	125	125	125	125
SAS04	-	-	-	-	-	125	125	125	125	125