

**Portfolio Development Case Definitions, 6/23/08**

Case #	CO2 Compliance Strategy and Costs		Base Gas Cost (Prior to CO2 compliance impact adjustments)	Load Growth	RPS <sup>4/</sup>	Clean Baseload Plant Available	Plant Construction Cost	Planning Reserve Margin	Class 3 DSM for Peak Load Reduction
	Compliance Type (CO2 tax, federal cap-and-trade, hard cap)	CO2 Cost per Ton (2008 Dollars)  Cost compliance begins in 2013	Low = \$/MMBtu by 2030 Medium = Forward Price Curve, June 2008 High = \$/MMBtu by 2030	Medium = Expected "1-in-2" Forecast Low = Medium AAG minus 1.5 percentage point High = Medium AAG plus 1.5 percentage point	Base = OR System- Allocated (MSP revised protocol) <sup>5/</sup> Low = 6% system-wide based on OR, WA, CA shares None (Reference)	Base = 2025 Early = 2020 Late = 2030	Base High = Base + 20%		Excluded as capacity resource Included as capacity resource
<b>Core Cases</b>									
1	CO2 tax	\$0	Low	Low	None	Base	Base	12%	Excluded
2	CO2 tax	\$0	Low	Medium	None	Base	Base	12%	Excluded
3	CO2 tax	\$0	Low	High	None	Base	Base	12%	Excluded
4	CO2 tax	\$0	Medium	Low	None	Base	Base	12%	Excluded
5	CO2 tax	\$0	Medium	Medium	None	Base	Base	12%	Excluded
6	CO2 tax	\$0	Medium	High	None	Base	Base	12%	Excluded
7	CO2 tax	\$0	High	Low	None	Base	Base	12%	Excluded
8	CO2 tax	\$0	High	Medium	None	Base	Base	12%	Excluded
9	CO2 tax	\$0	High	High	None	Base	Base	12%	Excluded
10	CO2 tax	\$45	Low	Low	None	Base	Base	12%	Excluded
11	CO2 tax	\$45	Low	Medium	None	Base	Base	12%	Excluded
12	CO2 tax	\$45	Low	High	None	Base	Base	12%	Excluded
13	CO2 tax	\$45	Medium	Low	None	Base	Base	12%	Excluded
14	CO2 tax	\$45	Medium	Medium	None	Base	Base	12%	Excluded
15	CO2 tax	\$45	Medium	High	None	Base	Base	12%	Excluded
16	CO2 tax	\$45	High	Low	None	Base	Base	12%	Excluded
17	CO2 tax	\$45	High	Medium	None	Base	Base	12%	Excluded
18	CO2 tax	\$45	High	High	None	Base	Base	12%	Excluded
19	CO2 tax	\$70	Medium	Low	None	Base	Base	12%	Excluded
20	CO2 tax	\$70	Medium	Medium	None	Base	Base	12%	Excluded
21	CO2 tax	\$70	High	Low	None	Base	Base	12%	Excluded
22	CO2 tax	\$70	High	Medium	None	Base	Base	12%	Excluded
23	CO2 tax	\$100	Medium	Low	None	Base	Base	12%	Excluded
24	CO2 tax	\$100	Medium	Medium	None	Base	Base	12%	Excluded
25	CO2 tax	\$100	High	Low	None	Base	Base	12%	Excluded
26	CO2 tax	\$100	High	Medium	None	Base	Base	12%	Excluded
<b>Real CO2 Cost Escalation with Changing Load Growth</b>									
27	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	Medium	Medium (2009-2020) Low (2021-2030)	None	Base	Base	12%	Excluded
28	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	High	Medium (2009-2020) Low (2021-2030)	None	Base	Base	12%	Excluded
<b>National CO2 Cap-and-Trade Policy: Lieberman-Warner "Climate Security Act of 2008" (SB 3036, introduced May 20, 2008)</b>									
29	Cap-and-Trade	Market <sup>2/</sup>	Medium	Medium (2009-2020) Low (2021-2030)	None	Base	Base	12%	Excluded
<b>High-Cost Outcome</b>									
30	CO2 tax	\$100	High	High	None	Late	High	12%	Excluded
<b>Clean Base-Load Generation Availability</b>									
31	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	Medium	Medium (2009-2020) Low (2021-2030)	None	Early	Base	12%	Excluded
32	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	High	Medium (2009-2020) Low (2021-2030)	None	Early	Base	12%	Excluded
33	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	Medium	Medium (2009-2020) Low (2021-2030)	None	Late	Base	12%	Excluded
34	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	High	Medium (2009-2020) Low (2021-2030)	None	Late	Base	12%	Excluded
<b>High Plant Construction Costs</b>									
33	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	Medium	Medium (2009-2020) Low (2021-2030)	None	Base	High	12%	Excluded
34	CO2 tax	\$45 (2013) to \$179 (2030) <sup>1/</sup>	High	Medium (2009-2020) Low (2021-2030)	None	Base	High	12%	Excluded
<b>Oregon CO2 Reduction Targets (from HB 3543) Applied as System-wide Hard Caps</b>									
35	Hard Cap <sup>3/</sup>	N/A	Medium	Medium	None	Base	Base	12%	Excluded
<b>Alternative Planning Reserve Margin Level</b>									
36	CO2 tax	\$45	Medium	Low	None	Base	Base	15%	Excluded
37	CO2 tax	\$45	Medium	High	None	Base	Base	15%	Excluded
38	CO2 tax	\$45	High	Low	None	Base	Base	15%	Excluded
39	CO2 tax	\$45	High	High	None	Base	Base	15%	Excluded
<b>Incremental Renewable Requirements to Meet RPS Requirements (If Needed) <sup>6/</sup></b>									
40	CO2 compliance scenario <sup>7/</sup>		Medium	Medium	Base	Base	Base	12%	Excluded
41	CO2 compliance scenario <sup>7/</sup>		Medium	Medium	Low	Base	Base	12%	Excluded
<b>Business Plan Base Case <sup>8/</sup></b>									
42	CO2 compliance scenario <sup>7/</sup>		Medium	Medium	Base	Base	Base	12%	Excluded
<b>Class 3 DSM For Peak Load Reduction</b>									
43	CO2 tax	\$45	Medium	Medium	Base	Base	Base	12%	Included

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<sup>1/</sup> Cases 27-28 and 31-34 have the following annual CO2 cost values assuming straight-line real escalation:

<u>Year</u>	<u>\$/ton (2008 dollars)</u>
2013	45
2014	53
2015	61
2016	69
2017	76
2018	84
2019	92
2020	100
2021	108
2022	116
2023	124
2024	131
2025	139
2026	147
2027	155
2028	163
2029	171
2030	179

<sup>2/</sup> The CO2 market prices resulting from implementation of the Lieberman-Warner Climate Security Act of 2008. This proposed legislation specifies a final CO2 emissions target of 71% below 2005 levels in 2050. A CO2 price curve and natural gas price impacts will be derived by running the IPM model with a national set of input assumptions.

<sup>3/</sup> Oregon HB 3543 targets are to achieve GHG levels 10% below 1990 levels by 2020, and by 2050, achieve at least 75% below 1990 levels.

<sup>4/</sup> The renewable production tax credit is assumed to expire in 2013, corresponding to the start of CO2 controls. This assumption is based on the expectation that the PTC will be used to spur renewables development to meet escalating state RPS requirements in the 2011-2013 timeframe, but that afterwards, the PTC is no longer necessary given the combination of utility CO2 and RPS regulatory compliance requirements.

<sup>5/</sup> The system-allocated renewable requirement reaches about 6,300 MW by 2025 based on Oregon's RPS rules.

<sup>6/</sup> If the "best cost/risk" portfolio without RPS constraints does not meet system-wide RPS requirements, PacifiCorp will run the capacity expansion model with this portfolio along with the RPS constraint. The resulting "post-RPS" portfolio will be simulated with the Planning and Risk model, and average cost and risk measures compared to those of the original "best cost/risk" portfolio. This approach is intended to address a Utah commission 2007 IRP acknowledgment order requirement.

<sup>8/</sup> CO2 compliance strategy and costs may reflect those defined for one of the above cases, or may reflect updated assumptions based on a reassessment of regulatory policy developments.

<sup>7/</sup> This case represents the combination of input assumptions used to develop business plan financial results for each *Business Planning Scenario* .