



2011 Integrated Resource Plan

Portfolio Evaluation Results Preferred Portfolio Selection

February 14, 2011

Recap of Portfolio Resource Differences, 2011-2020

- Significant resource variations include:
 - Number of CCCTs, two vs. three; timing of 2nd and 3rd CCCTs
 - Wind and geothermal
- Small variation in energy efficiency, load control, distributed generation, and market purchases

Case	CO ₂ Tax Scenario	Gas Price Scenario	Excludes RPS	PTC Extended to 2020	Cumulative Installed Capacity, 2011-2020 (Megawatts)							
					Gas, CCCT	Gas, SCCT	Energy Efficiency	Load Control	Wind	Geothermal	Distributed Generation	Market Purchase (Annual Ave.)
1	None	Medium			1697	0	1211	150	0	150	91	918
2	None	Medium	Yes		1697	0	1272	157	0	80	101	900
3	Medium	Low			1697	0	1251	157	0	150	99	896
4	High	Low			1697	0	1258	157	0	150	95	892
5	Low to Very High	Low		Yes	1697	0	1252	157	0	150	99	896
6	Low to Very High	Low			1697	0	1217	156	200	185	91	923
7	Medium	Medium			1697	0	1258	157	0	150	88	892
8	High	Medium			1697	0	1264	153	0	150	95	887
9	Low to Very High	Medium			1697	0	1262	146	0	150	74	915
10	Low to Very High	Medium		Yes	1222	118	1250	153	360	465	100	909
11	Medium	High			1222	0	1338	157	100	500	97	893
12	High	High			1222	0	1300	153	360	535	95	882
13	Low to Very High	High			1222	0	1338	157	100	500	96	893
14	Low to Very High	High		Yes	1100	118	1367	157	800	465	106	957
15	Hard Cap -Base	Low			1697	0	1250	157	0	150	100	895
16	Hard Cap -Base	Medium			1697	0	1252	143	0	185	95	890
17	Hard Cap -Base	High			1222	0	1341	153	800	500	94	889
18	Hard Cap -OR	Medium			1697	0	1259	139	0	185	95	887
19	Medium	Medium			1819	0	1409	157	660	0	0	921
Megawatt Range					719	118	198	18	800	535	106	75
PrefPort	Medium	Low			1697	0	1293	195	142	0	103	966

Recap of Portfolio Resource Differences, 2011-2030

- Significant resource variations include:
 - Number of CCCTs range from two to eight in response to gas price scenarios
 - Wind and geothermal
 - Small variations in energy efficiency, load control, distributed generation, and market purchases continue

Case	CO ₂ Tax Scenario	Gas Price Scenario	Excludes RPS	PTC Extended to 2020	Cumulative Installed Capacity, 2011-2030 (Megawatts)							
					Gas, CCCT	Gas, SCCT	Energy Efficiency	Load Control	Wind	Geothermal	Distributed Generation	Market Purchase (Annual Ave.)
1	None	Medium			1697	0	2526	155	143	185	151	826
2	None	Medium	Yes		1697	0	2600	162	0	80	153	857
3	Medium	Low			1697	0	2624	157	139	220	165	762
4	High	Low			2647	0	2697	162	136	220	168	654
5	Low to Very High	Low		Yes	4194	0	2684	157	227	185	167	623
6	Low to Very High	Low			4194	0	2648	156	305	220	148	638
7	Medium	Medium			1697	0	2654	162	137	220	153	792
8	High	Medium			1697	0	2717	158	50	255	161	702
9	Low to Very High	Medium			3244	0	2720	151	418	395	144	686
10	Low to Very High	Medium		Yes	2647	118	2709	158	760	605	152	685
11	Medium	High			1222	0	2818	162	100	535	159	779
12	High	High			1222	0	2797	158	2160	535	178	754
13	Low to Very High	High			1222	0	2831	162	1700	535	179	717
14	Low to Very High	High		Yes	3122	118	2847	162	1200	675	182	750
15	Hard Cap -Base	Low			2647	0	2655	157	139	220	165	757
16	Hard Cap -Base	Medium			3122	0	2705	147	50	255	160	717
17	Hard Cap -Base	High			1222	0	2842	158	2600	535	182	774
18	Hard Cap -OR	Medium			3597	0	2724	141	408	220	161	572
19	Medium	Medium			1819	0	2804	162	1260	0	52	805
Megawatt Range					2972	118	321	21	2600	675	130	285
PrefPort	Medium	Low			1697	0	2670	195	699	0	175	795



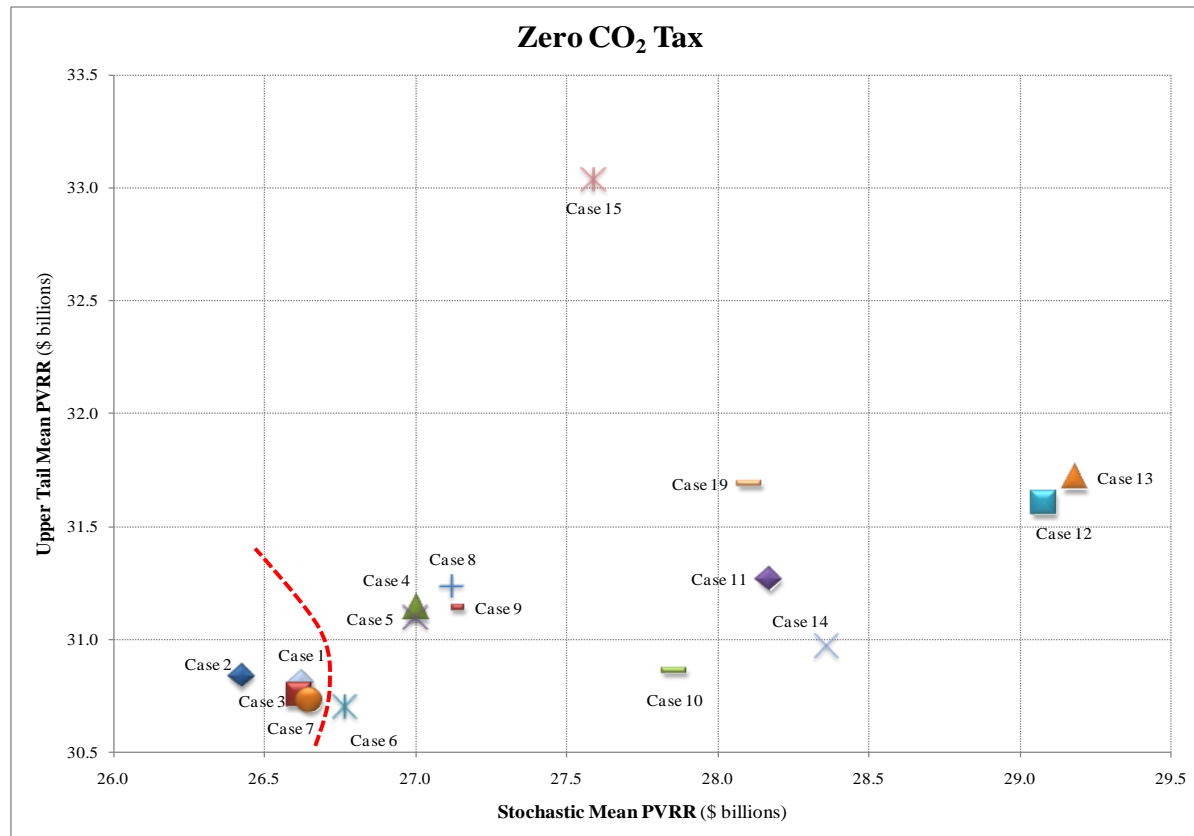
Initial Portfolio Screening Results

Initial Screening Process

- For each of the three CO₂ tax scenarios, along with costs averaged across the scenarios:
 - Select the portfolio with the lowest stochastic *mean PVRR* as well as portfolios within \$500 million of the least-cost portfolio
 - Select the portfolio with the lowest stochastic *upper-tail mean PVRR* as well as portfolios within \$500 million of the lowest upper-tail mean PVRR portfolio
 - Select portfolios within both least-cost groups as the top performers for the CO₂ tax scenario
 - All portfolios identified as top performers for the four cost comparisons pass the initial screening
- The next four slides visually show the screened portfolios using scatter-plot graphs
 - Some of the CO₂ hard cap cases (with outlying PVRRs) not shown due to impact on scaling

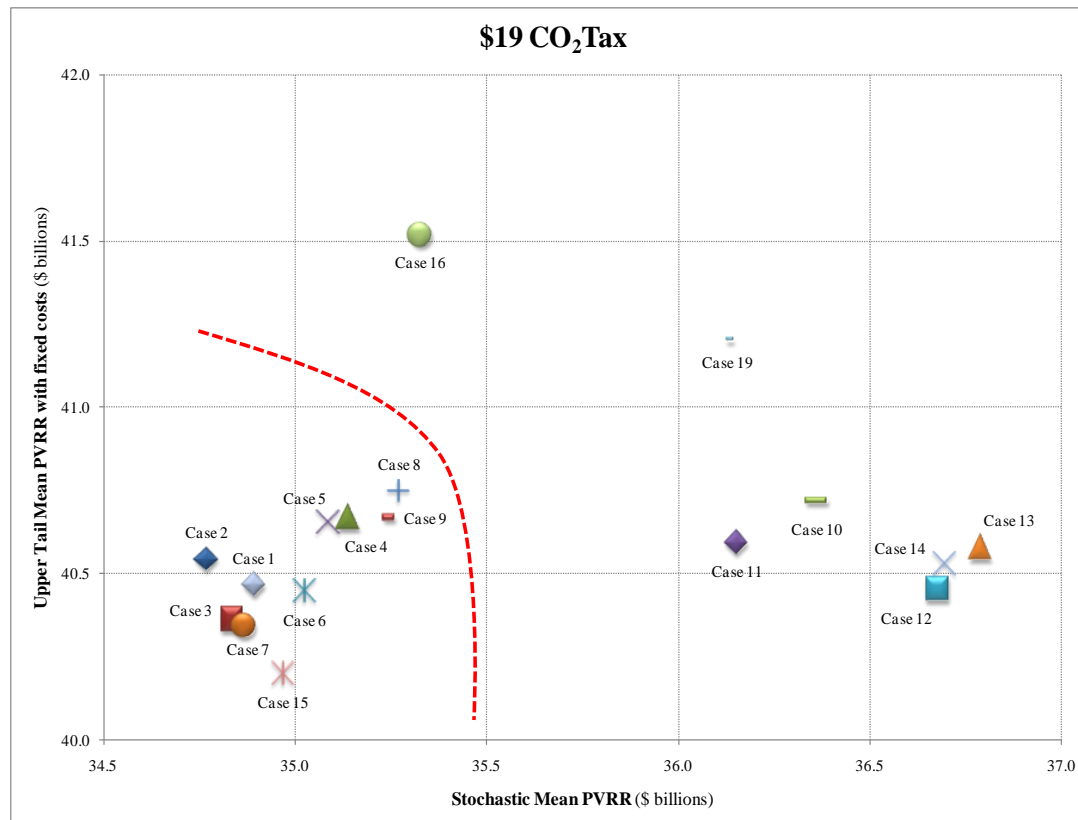
\$0 CO₂ Tax Scenario Scatter-plot

- Portfolios for Cases 1, 2, 3, and 7 meet the criteria for lowest cost/risk combination
 - More reliant on gas, distributed generation, and FOT in the out years
 - Less reliant on energy efficiency, wind, and geothermal



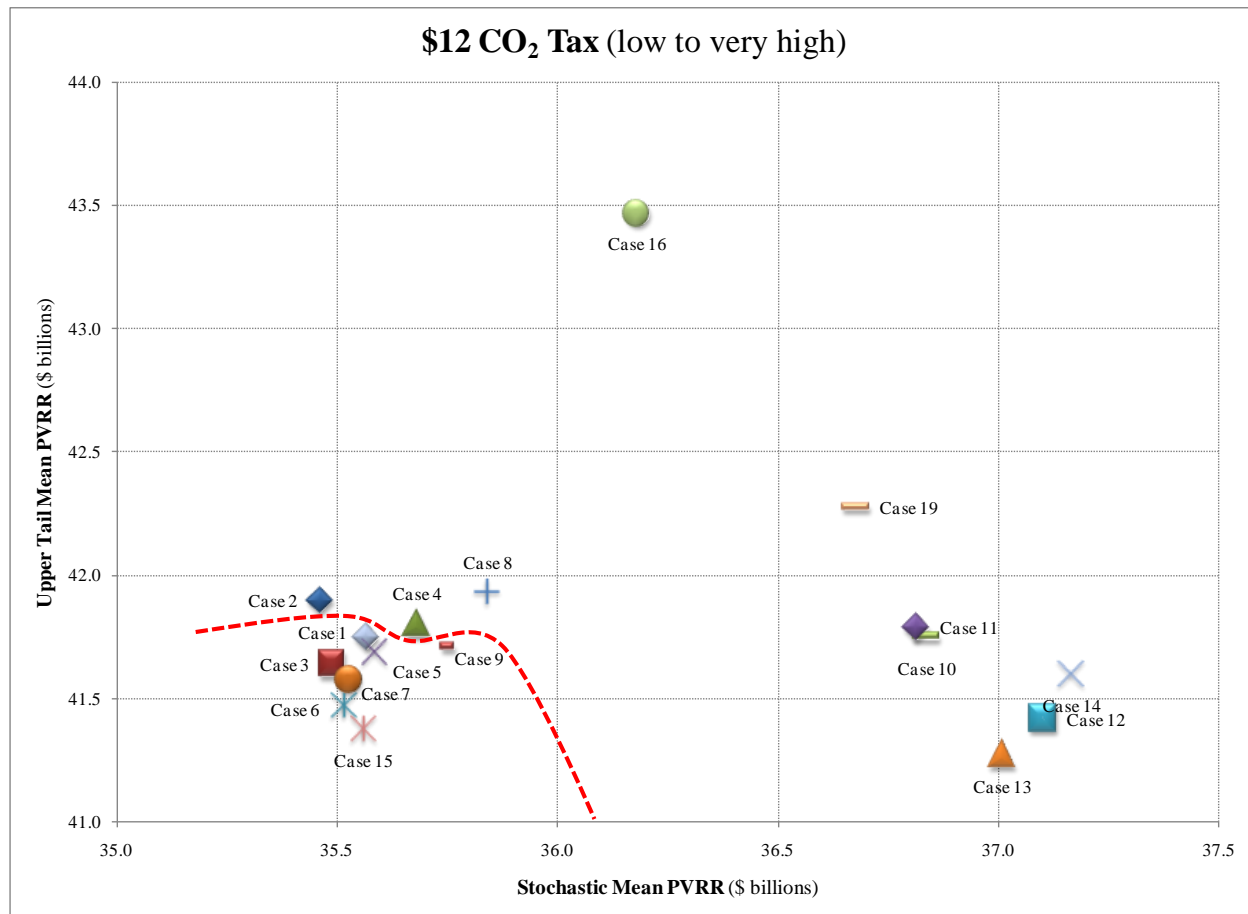
\$19 CO₂ Tax Scenario Scatter-plot

- Portfolios for 1, 2, 3, 4, 5, 6, 7, 9, and 15 meet the criteria for lowest cost/risk combination
 - More reliant on gas and FOT; less reliant on wind and geothermal
 - Case 15 (hard cap) relies on coal generation displacement to meet physical emission limits



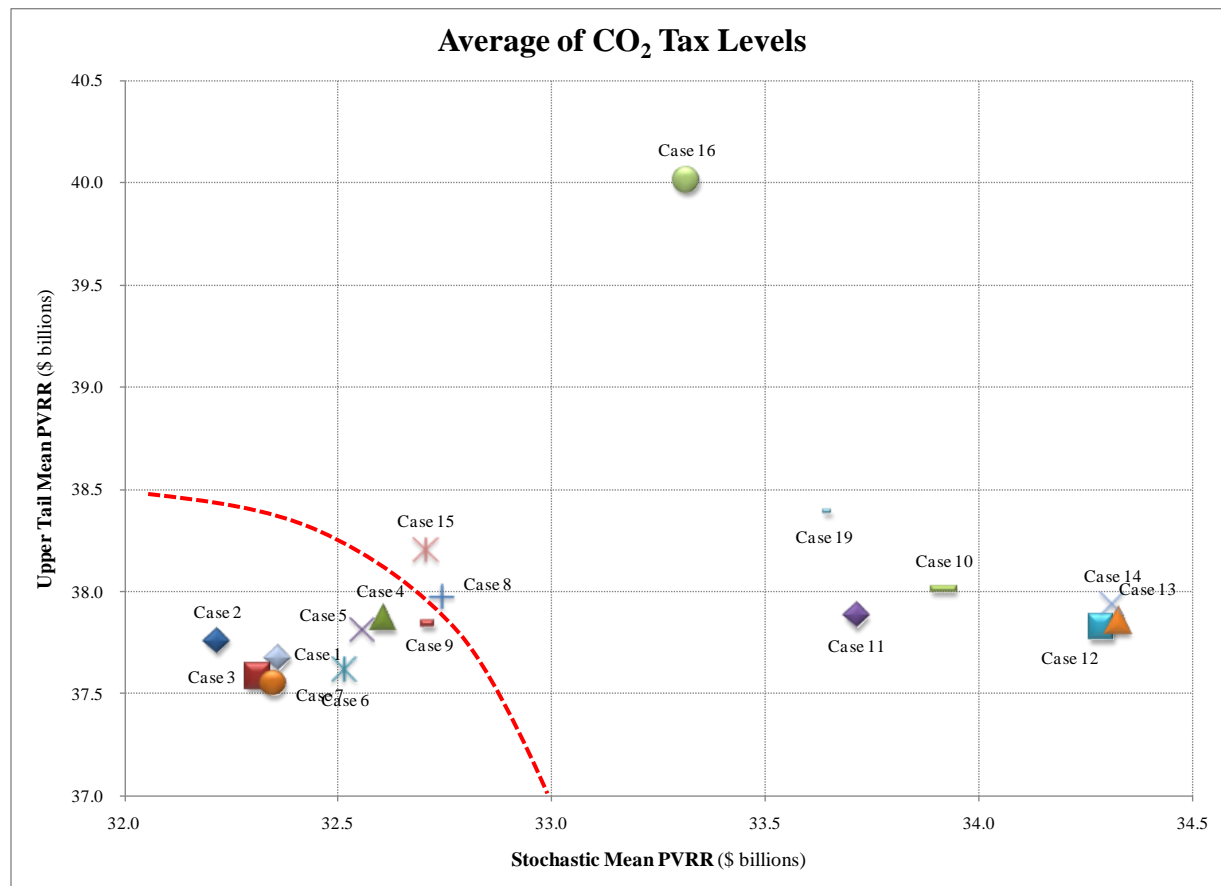
Low to Very High CO₂ Tax Scenario Scatter-plot

- Portfolios for Cases 1, 3, 5, 6, 7, 9, and 15 meet the criteria for lowest cost/risk combination
 - More reliant on gas; less reliant on wind, geothermal, energy efficiency



CO₂ Tax Scenario Average Scatter-plot

- Portfolios for 1, 3, 4, 5, 6, 7, and 9 meet the criteria for lowest cost/risk combination



Initial Screening Results

- Based on the mean versus upper-tail cost comparisons, PacifiCorp selected eight of the 19 core case portfolios for the final screening—1, 3, 4, 5, 6, 7, 9, and 15
 - Case 2 is designed for reference purposes – it does not meet state RPS requirements

CO ₂ Tax Scenario (Price Range, 2015-2030)	None (S)	Medium (S1 - S39)	Low to Very High (S12 - S93)	Average (None, Medium, Low to Very High)	Final Screening Selections
Cases Selected	1	1	1	1	1
	3	3	3	3	3
	7	4	5	4	4
		5	6	5	5
		6	7	6	6
		7	9	7	7
		9	15	9	9
		15			15



Final Screening Results

Risk-adjusted PVRR

- Risk-adjusted PVRR = stochastic mean PVRR plus the expected value of the 95th percentile production cost PVRR (Expected Value = $PVRR_{95} \times 5\%$)
- Cases 1 and 3 have the lowest risk-adjusted PVRR under the \$0 and Medium CO₂ tax scenarios
- Cases 3 and 6 have the lowest values under the Low to Very High scenario
- On an average cost basis (two columns far right), Cases 3 and 7 perform the best

Case	Risk-adjusted PVRR (Million \$)											
	CO ₂ Tax Scenario, \$/ton											Rank
	None (\$0)	Cost Spread Relative to Lowest Cost Case	Rank	Medium (\$19 - \$39)	Cost Spread Relative to Lowest Cost Case	Rank	Low to Very High (\$12 - \$93)	Cost Spread Relative to Lowest Cost Case	Rank	CO ₂ Scenario Average	Cost Spread Relative to Lowest Cost Case	
1	27,819	11	2	36,561	62	3	37,311	94	5	33,897	54	3
3	27,808	0	1	36,499	0	1	37,223	6	2	33,843	0	1
4	28,207	399	6	36,811	311	7	37,419	203	7	34,146	302	6
5	28,194	386	5	36,747	248	6	37,313	96	6	34,085	241	5
6	28,182	374	4	36,661	162	5	37,216	0	1	34,020	176	4
7	27,842	34	3	36,530	31	2	37,261	45	3	33,878	34	2
9	28,323	515	7	36,896	397	8	37,470	253	8	34,230	386	7
15	28,882	1,074	8	36,614	114	4	37,275	59	4	34,257	414	8

10-Year Customer Rate Impact

- 10-year customer rate impact = cumulative incremental percentage increase through 2020 relative to the 2010 forecasted system full revenue requirements
- The Case 3 portfolio performs the best across all CO₂ tax scenarios, with Case 7 and Case 1 following closely behind

Case	10-year Customer Rate Impact (Cumulative Percentage Rate Increase, 2011 - 2020)											
	CO ₂ Tax Scenario, \$/ton											
	None (\$0)	Percent Spread Relative to Lowest Case	Rank	Medium (\$19 - \$39)	Percent Spread Relative to Lowest Case	Rank	Low to Very High (\$12 - \$93)	Percent Spread Relative to Lowest Case	Rank	CO ₂ Scenario Average	Percent Spread Relative to Lowest Case	Rank
1	27.52%	0.05%	2	45.55%	0.10%	5	39.15%	0.08%	3	37.41%	0.08%	2
3	27.47%	0.00%	1	45.45%	0.00%	1	39.07%	0.00%	1	37.33%	0.00%	1
4	27.78%	0.31%	5	45.75%	0.30%	6	39.38%	0.31%	6	37.64%	0.31%	5
5	27.57%	0.10%	4	45.55%	0.10%	4	39.17%	0.10%	4	37.43%	0.10%	4
6	28.11%	0.64%	7	45.77%	0.32%	8	39.54%	0.47%	8	37.81%	0.48%	7
7	27.56%	0.08%	3	45.53%	0.08%	2	39.15%	0.08%	2	37.41%	0.08%	3
9	27.79%	0.32%	6	45.76%	0.31%	7	39.39%	0.32%	7	37.65%	0.32%	6
15	29.01%	1.54%	8	45.55%	0.10%	3	39.35%	0.28%	5	37.97%	0.64%	8

Cumulative Generator CO₂ Emissions

- Generator emissions derived from the PaR production cost model; reflects the average of the 100 Monte Carlo iterations
- Case 15 has the lowest emissions due to CO₂ prices that constrain emissions to no more than the physical hard cap; CO₂ prices were imported from the System Optimizer hard cap simulation
- The portfolios for Cases 5 and 6 have the next lowest emissions

Case	Cumulative Carbon Dioxide Emissions for 2011 - 2030 (Short Tons)											
	CO ₂ Tax Scenario, \$/ton											
	None (\$0)	Percent Spread Relative to Lowest Case	Rank	Medium (\$19 - \$39)	Percent Spread Relative to Lowest Case	Rank	Low to Very High (\$12 - \$93)	Percent Spread Relative to Lowest Case	Rank	CO ₂ Scenario Average	Percent Spread Relative to Lowest Case	Rank
1	941,203	126,522	8	842,439	21,733	7	801,497	23,897	8	861,713	36,676	8
3	937,901	123,220	6	837,918	17,211	5	796,784	19,184	5	857,534	32,498	6
4	930,958	116,277	5	829,216	8,510	4	787,440	9,839	4	849,205	24,168	5
5	929,942	115,261	3	826,233	5,527	2	782,864	5,263	2	846,346	21,310	3
6	924,985	110,303	2	820,706	-	1	777,600	-	1	841,097	16,060	2
7	938,503	123,821	7	838,639	17,933	6	797,611	20,011	6	858,251	33,214	7
9	930,726	116,045	4	828,225	7,518	3	785,834	8,233	3	848,262	23,225	4
15	814,681	-	1	859,920	39,213	8	800,509	22,909	7	825,037	-	1

Supply Reliability – Energy Not Served

- ENS = Amount of load (GWh) that cannot be met with generation
- Two measures: Average annual ENS for 2011-2030, and upper-tail mean ENS for 2011-2030
- Results are reported for the \$19/ton CO₂ tax scenario (minimal variation based on the CO₂ tax value)
- The Case 5 and Case 6 portfolios perform the best on these two measures

Case	Average Annual Energy Not Served, 2011-2030 (GWh)	ENS Spread Relative to Lowest Case	Rank	Upper-tail Mean Energy Not Served Cumulative Total, 2011-2030 (GWh)	ENS Spread Relative to Lowest Case	Rank
1	46.9	7.9	8	48.8	9.1	8
3	44.3	5.2	6	45.7	6.0	6
4	41.1	2.1	4	42.0	2.3	4
5	39.0	0.0	1	39.7	0.0	1
6	39.2	0.1	2	39.7	0.0	2
7	45.5	6.5	7	47.0	7.3	7
9	39.7	0.7	3	40.1	0.4	3
15	41.6	2.6	5	42.7	3.1	5

Resource Diversity

- Resource diversity represented as the generation share attributable to renewables and DSM for a representative year (2020)
 - Generation shares beyond 2020 influenced by addition of growth resources
- Portfolios for Cases 1 and 7 have the highest combined renewable/DSM generation shares; renewable shares for Case 1 and 9 reflect the addition of a 50 MW utility-scale biomass resource

Case	Thermal	Renewable	DSM	Combined Renewable/DSM
1	51.8%	10.9%	29.5%	40.4%
3	61.1%	8.6%	24.2%	32.8%
4	61.1%	8.5%	24.3%	32.8%
5	60.7%	8.7%	24.5%	33.1%
6	58.3%	12.8%	22.9%	35.7%
7	52.3%	10.4%	29.7%	40.2%
9	52.9%	10.3%	29.4%	39.7%
15	61.1%	8.6%	24.2%	32.8%

Top Portfolio Selection / Deterministic Risk Assessment

- Portfolios for Cases 1, 3, and 7 chosen as the top-performing portfolios
- PacifiCorp selected the Case 1 and Case 3 portfolios for deterministic risk assessment
 - Case 7 portfolio was excluded because resource differences between this portfolio and the Case 3 portfolio were relatively small, primarily limited to the amount of DSM—35 MW more DSM in Case 7—and the timing and location of out-year growth resources
 - In contrast, the Case 1 and Case 3 portfolios exhibit more significant resource differences; specifically a one-year shift in the timing of the first CCCT, 100 MW more DSM in Case 3, and a 50 MW biomass plant in Case 1 that was not included in Case 3

Deterministic Risk Assessment Approach

- Purpose is to determine the range of deterministic costs that could result given a fixed set of resources under varying gas/electricity price and CO₂ cost assumptions
- Selected 10 case definitions (combinations of CO₂ and natural gas/electricity price scenarios)

CO ₂ Tax Level	Base Gas Cost
None	Medium
Medium	Low
High	Low
Low to Very High	Low
Medium	Medium
High	Medium
Low to Very High	Medium
Medium	High
High	High
Low to Very High	High

- Case 1 and Case 3 portfolios chosen for deterministic risk assessment
 - Minimal resource differences between Case 7 and Case 3 portfolios; primarily limited to the amount of DSM—35 MW more DSM in Case 7—and the timing and location of out-year growth resources

Deterministic Risk Assessment Results

For case definitions except #1, the Case 3 portfolio has a lower PVRR than the Case 1 portfolio

Core Case	CO ₂ cost (2015\$/ton)	Natural gas cost	PVRR (millions)		Difference, Case 1 less Case 3
			Portfolio Case 1	Portfolio Case 3	
1	None (\$0)	Medium	\$30,936	\$30,978	(42)
3	Medium (\$19)	Low	\$39,752	\$39,581	172
4	High (\$25)	Low	\$44,717	\$44,651	65
5	Low to very high (\$12)	Low	\$40,443	\$40,398	46
7	Medium (\$19)	Medium	\$41,099	\$41,074	25
8	High (\$25)	Medium	\$46,284	\$46,221	63
9	Low to very high (\$12)	Medium	\$41,869	\$41,815	54
11	Medium (\$19)	High	\$42,398	\$42,337	60
12	High (\$25)	High	\$47,548	\$47,456	92
13	Low to very high (\$12)	High	\$43,226	\$43,142	83

Minimum	\$30,936	\$30,978
Maximum	\$47,548	\$47,456
Mean	\$41,827	\$41,765

Average of medium CO ₂ cases	\$41,083	\$40,997
Average of high CO ₂ cases	\$46,183	\$46,110
Average of low to very high CO ₂ cases	\$41,846	\$41,785

Preliminary Preferred Portfolio Selection

- Case 3 selected as the preliminary preferred portfolio
- Table at right provides a performance summary

Performance Characteristic	Case 1	Case 3	Case 7
Primary Measures			
Least-cost/least-risk group (initial screening)	One of only three portfolios selected in all four least-cost/least risk groups	One of only three portfolios selected in all four least-cost/least risk groups	One of only three portfolios selected in all four least-cost/least risk groups
Risk-adjusted cost	Ranked second under the \$0 CO ₂ tax scenario; ranked third under the Medium CO ₂ tax scenario	Ranked first under the \$0, Medium, and averaged CO ₂ tax scenarios; ranked second under the Low to Very High CO ₂ tax scenario	Ranked second under the Medium and averaged CO ₂ tax scenarios; ranked third under the Low to Very High CO ₂ tax scenario
10-year customer rate impact	Ranked second under the \$0 and averaged CO ₂ tax scenarios; ranked third under Low to Very High CO ₂ tax scenario	Ranked first under all CO ₂ tax scenarios	Ranked second under the Medium and Low to Very High CO ₂ tax scenarios; ranked third under the \$0 and averaged CO ₂ tax scenarios
CO ₂ Emissions	Not among the top three portfolios; highest emissions among Case 1, 3, and 7 portfolios	Not among the top three portfolios; lowest emissions among Case 1, 3, and 7 portfolios	Not among the top three portfolios; second after Case 3 on emissions
Supply Reliability (Energy Not Served)	Not among the top three portfolios; highest mean and upper-tail mean ENS among Case 1, 3, and 7 portfolios	Not among the top three portfolios; lowest mean and upper-tail mean ENS among Case 1, 3, and 7 portfolios	Not among the top three portfolios; second after Case 3 on mean and upper-tail mean ENS
Resource Diversity	Highest combined renewable/DSM generation share for 2020	Not among the top three portfolios	Second highest combined renewable/DSM generation share for 2020
Secondary Measures			
5 th Percentile PVRR	Ranked second under the \$0, Medium and averaged CO ₂ tax scenarios; ranked fourth under the Low to Very High CO ₂ tax scenario (Ranked fourth to seventh among all 14 core case portfolios)	Ranked first under the Medium and averaged CO ₂ tax scenarios; ranked second under the Low to Very High CO ₂ tax scenario, and third under the \$0 CO ₂ tax scenario (Ranked fourth or fifth among all 19 core case portfolios)	Ranked third under the Medium and averaged CO ₂ tax scenarios; ranked fourth under the \$0 tax scenario and fifth under the Low to Very High CO ₂ tax scenario (Ranked sixth to eighth among all 19 core case portfolios)
Production Cost Standard Deviation	Not among the top three portfolios	Not among the top three portfolios	Ranked first under the \$0 CO ₂ tax scenario; ranked second under the averaged \$0 CO ₂ tax scenario; ranked third under the Medium and Low to Very High CO ₂ tax scenarios

Second Utah CCCT Timing Evaluation

- Portfolios developed for stochastic production cost simulation do not isolate the impact of CCCT acquisition timing
- While all portfolios included a CCCT in 2014, one of the final preferred portfolio candidates (Case 1) included a second CCCT in 2016, indicating that the decision to acquire the CCCT in 2015 or 2016 is driven by economic considerations
- The Company conducted a one-year CCCT deferral study using the stochastic PaR production model
 - Included 597 MW of 3rd quarter front office transaction products to fill the resource gap: 100 MW from Mead, 200 MW from Utah, 101 MW from Mid-Columbia , and 196 MW from California-Oregon Border (COB). These FOT additions are well below the limits specified for the market hubs

Cost Component	Dry-cooled CCCT in 2015 (Case 3 Portfolio)	Dry-cooled CCCT in 2016 (Case 3 Portfolio)	Difference, CCCT in 2016 less CCCT in 2015
Variable Costs			
Fuel & O&M	15,729.2	15,695.6	(33.6)
Emission Cost	7,424.5	7,427.7	3.3
FOT's & Long Term Contracts	3,955.8	4,035.7	79.8
Demand Side Management	\$3,670	\$3,670	-
Renewables	\$848	\$848	0.03
System Balancing Sales	(5,936.6)	(5,957.4)	(20.8)
System Balancing Purchases	3,168.3	3,160.8	(7.5)
Energy Not Served	137.0	137.4	0.4
Dump Power	(116.8)	(116.9)	(0.1)
Reserve Deficiency	2.4	2.5	0.0
Total Variable Costs	28,881.8	28,903.4	21.6
Capital and Fixed Costs	5,953.6	5,917.3	(36.3)
Total PVRR	34,835.4	34,820.7	(14.7)

Geothermal Resource Acquisition

- Case 3 includes 105 MW of geothermal resources.
 - As indicated at the December 15, 2010 IRP public input meeting, a decision to pursue additional geothermal resources will be dependent on a clear signal that legislators and regulators will support full recovery of resource development costs.
 - In the absence of enabling cost recovery legislation and pre-approval of cost recovery from regulators, the Company is viewing geothermal acquisition of up to 105 MW as representing an alternate resource procurement path to be explored for the next IRP if progress is made regarding cost recovery.

Final Preferred Portfolio

- Based on the results of the CCCT deferral study and geothermal resource situation, PacifiCorp developed a new System Optimizer portfolio using the Case 3 input assumptions along with exclusion of geothermal resources as model options. To compel the model to defer the second CCCT from 2015 to 2016, the Company increased the limit on Utah FOT from 200 MW to 250 MW (in line with Utah market purchase depth for the 2008 IRP)
- The tables below shows the resource mix of the preferred portfolio relative to the original Case 3 portfolio for 2011-2020 and 2011-2030
 - Removal of geothermal options resulted in 560 MW of additional wind by 2030

Case	CO ₂ Tax Scenario	Gas Price Scenario	Excludes RPS	PTC Extended to 2020	Cumulative Installed Capacity, 2011-2020 (Megawatts)							
					Gas, CCCT	Gas, SCCT	Energy Efficiency	Load Control	Wind	Geothermal	Distributed Generation	Market Purchase (Annual Ave.)
3	Medium	Low			1697	0	1251	157	0	150	99	896
PrefPort	Medium	Low			1697	0	1293	195	142	0	103	966

Case	CO ₂ Tax Scenario	Gas Price Scenario	Excludes RPS	PTC Extended to 2020	Cumulative Installed Capacity, 2011-2030 (Megawatts)							
					Gas, CCCT	Gas, SCCT	Energy Efficiency	Load Control	Wind	Geothermal	Distributed Generation	Market Purchase (Annual Ave.)
3	Medium	Low			1697	0	2624	157	139	220	165	762
PrefPort	Medium	Low			1697	0	2670	195	699	0	175	795

Final Preferred Portfolio

- The Company simulated the final preferred portfolio with the PaR model to compare with the original Case 3 PVRR results
- Final preferred portfolio has a \$23.6 million portfolio cost improvement over the original Case 3 portfolio

Cost Component	Original Case 3 Portfolio (Preliminary Preferred Portfolio)	Preferred Portfolio (2016 CCCT/no geothermal/increased Commercial Curtailment DSM)	Difference, Preferred Portfolio less Original Case 3
Variable Costs			
Fuel & O&M	15,729.2	15,991.6	262.4
Emission Cost	7,424.5	7,433.0	8.6
FOT's & Long Term Contracts	3,955.8	4,044.7	88.9
Demand Side Management	\$3,670	\$3,684	13.69
Renewables	\$848	\$656	(191.92)
System Balancing Sales	(5,936.6)	(6,058.3)	(121.7)
System Balancing Purchases	3,168.3	3,089.4	(78.9)
Energy Not Served	137.0	143.1	6.1
Dump Power	(116.8)	(116.4)	0.4
Reserve Deficiency	2.4	1.9	(0.5)
Total Variable Costs	28,881.8	28,868.7	(13.1)
Capital and Fixed Costs	5,953.6	5,943.1	(10.4)
Total PVRR	34,835.4	34,811.8	(23.6)

Preferred Portfolio, Detailed Resource View

Resource	Capacity (MW)																				Resource Totals 2/	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	10-year	20-year
East																						
CCCT F 2x1 (Utah North, Utah South)	-	-	-	625	-	597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,222	1,222
CCCT H 2x1 (Utah South)	-	-	-	-	-	-	-	-	475	-	-	-	-	-	-	-	-	-	-	-	475	475
Coal Plant Turbine Upgrades	12.1	18.9	1.8	-	-	18.0	-	-	-	-	2.4	-	-	-	-	-	-	-	-	-	51	53
Wind, WY, 35% Cap. Factor	-	-	-	-	-	-	-	-	-	142	200	31	-	51	200	21	8	9	4	34	142	699
CHP - Biomass	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10	20
CHP - Reciprocating Engine	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	-	-	-	-	-	-	-	-	-	8	8
DSM, Class 1, UT-Cool Keeper	5.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11
DSM, Class 1, Goshen-DLC-Irrigation	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8
DSM, Class 1, UT-Curtailment	-	43	-	-	6	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	53	53
DSM, Class 1, UT-DLC-Residential	-	20	-	-	12	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	37	37
DSM, Class 1, UT-DLC-Irrigation	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11
DSM, Class 1 Total	6	67	-	-	38	-	3	5	-	-	-	-	-	-	-	-	-	-	-	-	120	120
DSM, Class 2, Goshen	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	2	14	38
DSM, Class 2, UT	45	48	41	43	48	51	70	70	71	74	52	60	57	59	60	65	60	63	64	69	562	1,171
DSM, Class 2, WY	3	4	4	5	5	6	7	7	7	8	8	9	10	12	13	18	20	23	29	28	55	224
DSM, Class 2 Total	48	53	46	49	55	58	79	79	80	84	62	70	69	74	75	86	82	89	95	99	631	1,433
Micro Solar - Water Heating	-	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	-	-	-	-	-	24	37
FOT Mead Q3 HLH	-	168	264	260	99	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	44
FOT Utah Q3 HLH	200	200	204	-	241	-	104	224	-	250	-	-	-	-	-	-	-	-	-	-	71	71
FOT Mona-3 Q3 HLH	-	-	-	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	255	255
FOT Mona-4 Q3 HLH	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8
Growth Resource Goshen 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	162	304	127	279	123	4	N/A	100
Growth Resource Utah North 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	145	217	356	279	N/A	100
Growth Resource Wyoming 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	73	354	382	-	N/A	100
West																						
Coal Unit CCS Retrofit (replacement capacity)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	216
Coal Plant Turbine Upgrades	-	-	3.7	-	-	-	-	8.3	-	-	-	-	-	-	-	-	-	-	-	-	12	12
CHP - Biomass	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	42	84
CHP - Reciprocating Engine	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-	-	-	-	-	-	-	-	3	3
DSM, Class 1, South/Central OR & CA, DLC-Curtailment	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36
DSM, Class 1, South/Central OR & CA, DLC-Residential	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7
DSM, Class 1, South/Central OR & CA, DLC-Irrigation	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19
DSM, Class 1, Washington-DLC-Residential	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5
DSM, Class 1, Washington-DLC-Irrigation	-	-	2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9
DSM, Class 1 Total	-	-	57	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
DSM, Class 2, Walla Walla	4	4	4	5	5	5	5	5	5	5	4	5	5	5	5	4	4	3	3	4	46	88
DSM, Class 2, South/Central OR & CA	51	51	54	59	60	60	59	52	52	52	51	51	52	52	52	44	36	36	36	36	550	1,015
DSM, Class 2, Yakima	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	7	6	6	6	7	65	134
DSM, Class 2 Total	61	62	65	70	72	71	71	63	63	64	63	64	64	65	65	63	54	46	46	46	661	1,237
OR Solar Cap Standard	-	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9
OR Solar Pilot	4	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10
Micro Solar - Water Heating	-	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.0	1.0	1.0	-	-	-	-	-	16	23
FOT COB Q3 HLH	150	150	150	149	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	32
FOT Mid-Columbia Q3 HLH	-	400	400	400	400	400	400	400	383	400	-	41	400	400	400	400	400	400	396	396	358	341
FOT Mid-Columbia Q3 HLH - 10% Price Premium	-	271	211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	24
FOT West Main Q3 HLH	-	50	50	50	50	50	50	50	-	50	-	-	-	-	-	-	-	-	-	-	40	20
Growth Resource Walla Walla 1/	-	-	-	-	-	-	-	-	-	-	-	-	65	93	122	79	205	35	202	200	N/A	100
Growth Resource South-Central OR & CA 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	-	-	796	N/A	100
Growth Resource Yakima 1/	-	-	-	-	-	-	-	-	-	-	373	465	146	166	269	145	115	100	97	123	N/A	200
Annual Additions, Long Term Resources	137	216	189	758	197	755	163	167	629	300	337	174	142	198	349	176	150	149	150	400		
Annual Additions, Short Term Resources	350	1,239	1,428	1,160	1,140	829	854	974	683	1,000	673	806	911	959	1,254	1,422	1,569	1,685	1,860	2,098		
Total Annual Additions	487	1,455	1,617	1,918	1,337	1,584	1,017	1,141	1,312	1,300	1,010	980	1,053	1,157	1,603	1,598	1,718	1,834	2,010	2,498		

1/ Front office transaction and growth resource amounts reflect one-year transaction periods, and are not additive.

2/ Front office transactions are reported as a 20-year annual average. Growth resources are reported as a 10-year average.