Let's turn the answers on.

2008
Integrated Resource Plan
Volume II - Appendices

PACIFICORP
A MIDAMERICAN ENERGY HOLDINGS COMPANY

May 28, 2009

Pacific Power | Rocky Mountain Power | PacifiCorp Energy

This 2008 Integrated Resource Plan (IRP) Report is based upon the best available information at the time of preparation. The IRP action plan will be implemented as described herein, but is subject to change as new information becomes available or as circumstances change. It is PacifiCorp's intention to revisit and refresh the IRP action plan no less frequently than annually. Any refreshed IRP action plan will be submitted to the State Commissions for their information.

For more information, contact:

PacifiCorp
IRP Resource Planning
825 N.E. Multnomah, Suite 600
Portland, Oregon 97232
(503) 813-5245
IRP@PacifiCorp.com
http://www.PacifiCorp.com

This report is printed on recycled paper

Cover Photos (Left to Right):
Wind: Foot Creek 1
Hydroelectric Generation: Yale Reservoir (Washington)
Demand side management: Agricultural Irrigation
Thermal-Gas: Currant Creek Power Plant
Transmission: South Central Wyoming line

TABLE OF CONTENTS

INDEX OF TABLES

INDEX OF FIGURES

APPENDIX A – DETAIL CAPACITY EXPANSION RESULTS

This appendix provides additional System Optimizer results for each of the cases studied during the 2008 IRP. A prior version of this appendix was provided to IRP public participants in December 2008 and later updated. New to this appendix are the additional "B-Series" cases and their respective charts and tables which are at the end of each section of this appendix. The follow bullets layout this appendix;

Reference Information

- Case Definition List
- Resource Name List

Charts and Pivot Summaries

- Portfolio Area Charts
    - "B-Series" Area Charts
- Core Cases – Pivot Summary
    - 2009 to 2013
    - 2014 to 2020
    - 2021 to 2028
- Core Cases – 20-Year Summary by Scenario Variable
    - CO_2 Tax Level
    - Gas Price Curves
    - Load Growth Level
- Core Cases – Resource Type Summary

Detail Portfolio Data

- Portfolio RPS Summary
- Portfolio Summary Tables
- B Series Delta Summary Comparison

Table A.1 – Core Case Definitions

Case #	CO2 Compliance Strategy and Costs		Base Gas Cost (Prior to CO2 compliance impact adjustments)		Load Growth	Renewable Portfolio Standard	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, with inflation rate cost escalation	Nominal Prices: Low June 2008 Med June 2008 High June 2008 Low Oct 2008 Med Oct 2008 High Oct 2008	Price Curve Date	**Medium** = Expected "1-in-2" Forecast **Low** = Medium AAG minus 1.0 percentage point **High** = Medium AAG plus 1.0 percentage point	**High** = OR System-Allocated (MSP revised protocol) **Base** = Individual state requirements met	**Base** = 2025 **Early** = 2020 **Late** = 2030	**Base** **High** = Base + 20%		**Excluded** as capacity resource **Included** as capacity resource
Core Cases										
1	CO2 tax	$0	Low	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
2	CO2 tax	$0	Medium	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
3	CO2 tax	$0	High	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
4	CO2 tax	$45	Low	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
5	CO2 tax	$45	Low	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
6	CO2 tax	$45	Low	Jun-08	High	Base, if needed	Base	Base	12%	Excluded
7	CO2 tax	$45	Medium	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
8	CO2 tax	$45	Medium	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
9	CO2 tax	$45	Low	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
10	CO2 tax	$45	Medium	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
11	CO2 tax	$45	High	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
12	CO2 tax	$45	Medium	Jun-08	High	Base, if needed	Base	Base	12%	Excluded
13	CO2 tax	$45	High	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
14	CO2 tax	$45	High	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
15	CO2 tax	$45	High	Jun-08	High	Base, if needed	Base	Base	12%	Excluded
16	CO2 tax	$70	Medium	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
17	CO2 tax	$70	Medium	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
18	CO2 tax	$70	Low	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
19	CO2 tax	$70	Medium	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
20	CO2 tax	$70	High	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
21	CO2 tax	$70	High	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
22	CO2 tax	$70	High	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
23	CO2 tax	$100	Medium	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
24	CO2 tax	$100	Medium	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded
25	CO2 tax	$100	Low	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
26	CO2 tax	$100	Medium	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
27	CO2 tax	$100	High	Oct-08	Medium	Base, if needed	Base	Base	12%	Excluded
28	CO2 tax	$100	High	Jun-08	Low	Base, if needed	Base	Base	12%	Excluded
29	CO2 tax	$100	High	Jun-08	Medium	Base, if needed	Base	Base	12%	Excluded

Table A.2 – Sensitivity and Business Plan Reference Case Definitions

Case #	CO2 Compliance Strategy and Costs		Base Gas Cost (Prior to CO2 compliance impact adjustments)		Load Growth	Renewable Portfolio Standard	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, with inflation rate cost escalation	Nominal Prices: Low June 2008 Med June 2008 High June 2008 Low Oct 2008 Med Oct 2008 High Oct 2008	Price Curve Date	**Medium** = Expected "1-in-2" Forecast **Low** = Medium AAG minus 1.0 percentage point **High** = Medium AAG plus 1.0 percentage point	**High** = OR System-Allocated (MSP revised protocol) **Base** = Individual state requirements met	**Base** = 2025 **Early** = 2020 **Late** = 2030	**Base** **High** = Base + 20%		**Excluded** as capacity resource **Included** as capacity resource
Real CO2 Cost Escalation with Changing Load Growth										
30	CO2 tax	$45 (2013) to $163 (2028)	Medium	Jun-08	Medium (2009-2020) Low (2021-2028)	Base	Base	Base	12%	Excluded
31	CO2 tax	$45 (2013) to $163 (2028)	High	Jun-08	Medium (2009-2020) Low (2021-2028)	Base	Base	Base	12%	Excluded
National CO2 Cap-and-Trade Policy: Lieberman-Warner "Climate Security Act of 2008" (SB 3036, introduced May 20, 2008)										
32	Cap-and-Trade	Market	Medium	Oct-08	Medium	Base	Base	Base	12%	Excluded
High-Cost Outcome										
33	CO2 tax	$100	High	Jun-08	High	Base	Late	High	12%	Excluded
Clean Base-Load Generation Availability										
34	CO2 tax	$45	Medium	Jun-08	Medium	Base	Early	Base	12%	Excluded
35	CO2 tax	$45	High	Jun-08	Medium	Base	Early	Base	12%	Excluded
36	CO2 tax	$70	Medium	Jun-08	Medium	Base	Early	Base	12%	Excluded
37	CO2 tax	$70	High	Jun-08	Medium	Base	Early	Base	12%	Excluded
High Plant Construction Costs										
38	CO2 tax	$45	Medium	Jun-08	Medium	Base	Base	High	12%	Excluded
39	CO2 tax	$45	High	Jun-08	Medium	Base	Base	High	12%	Excluded
Oregon CO2 Reduction Targets (from HB 3543) Applied as System-wide Hard Caps										
40	Hard Cap	N/A	Medium	Jun-08	Medium	Base	Base	Base	12%	Excluded
Alternative Planning Reserve Margin Level (15%)										
41	CO2 tax	$45	Medium	Jun-08	Medium	Base	Base	Base	15%	Excluded
42	CO2 tax	$70	Medium	Jun-08	Medium	Base	Base	Base	15%	Excluded
43	CO2 tax	$100	Medium	Jun-08	Medium	Base	Base	Base	15%	Excluded
Alternative renewable policy assumptions										
44	Cap-and-Trade	$8 allowance price	Medium	Oct-08	Medium	High	Base	Base	12%	Excluded
45	Cap-and-Trade	$8 allowance price	Medium	Oct-08	Medium	Base/PTC expires	Base	Base	12%	Excluded
Business Plan Reference Cases										
46	Cap-and-Trade	$8 allowance price	Medium	Oct-08	Medium	Fixed RPS-compliant wind schedule	Base	Base	12%	Excluded
47	Cap-and-Trade	$8 allowance price	Medium	Oct-08	Medium	Optimized RPS-compliant renewables	Base	Base	12%	Excluded
Class 3 DSM For Peak Load Reduction										
48	CO2 tax	$45	Medium	Jun-08	Medium	Base	Base	Base	12%	Included

Table A.3 – Resource Name and Description

Plant	Side	Description
CCS Hunter3	East	IRP Carbon Capture & Sequestration Hunter 3
Coal Plant Turbine Upgrades	East	Coal Plant Turbine Upgrades
UT IGCC CCS	East	IRP Utah Integrated Gasificafication Combine Cycle Carbon Capture & Sequestration
UT Pulverized Coal	East	IRP Utah Pulverized Coal
UT Pulverized Coal CCS	East	IRP Utah Pulverized Coal Carbon Capture & Sequestration
WY IGCC CCS	East	IRP Wyoming Integrated Gasificafication Combine Cycle Carbon Capture & Sequestration
WY Pulverized Coal	East	IRP Wyoming Pulverized Coal
WY Pulverized Coal CCS	East	IRP Wyoming Pulverized Coal Carbon Capture & Sequestration
CCS Bridger1	West	IRP Carbon Capture & Sequestration Bridger 1
CCS Bridger2	West	IRP Carbon Capture & Sequestration Bridger 2
CCCT F 1x1	East / West	Combine Cycle Combustion Turbine F-Machine 1x1 with Duct Firing
CCCT F 2x1	East / West	Combine Cycle Combustion Turbine F-Machine 2x1 with Duct Firing
CCCT G 1x1	East / West	Combine Cycle Combustion Turbine G-Machine 1x1 with Duct Firing
CCCT H 2x1	East / West	Combine Cycle Combustion Turbine H-Machine 2x1 with Duct Firing
ICE	East / West	Internal Combustion Engine
IC Aero	East / West	Simple Cycle Combustion Turbine Intercooled Aero
SCCT Aero	East / West	Simple Cycle Combustion Turbine Aero Dérivative
SCCT Frame	East / West	Simple Cycle Combustion Turbine Frame
Geothermal	East / West	Geothermal (East-Blundell,East-Greenfield, West-Greenfield)
Nuclear	East / West	Nuclear
Battery Storage	East / West	Battery Storage
Utility Biomass	East / West	Utility Biomass
CAES	East / West	Compressed Air Energy Storage
CHP - Biomass	East / West	Combined Heat and Power - Biomass
CHP - Reciprocating Engine	East / West	Combined Heat and Power - Reciprocating Engine
CHP - Kern River	East / West	Combined Heat and Power - Kern River (Recovered Energy Generation)
CHP - Other	East / West	Combined Heat and Power - Other
Distributed Standby Generation	East / West	Distributed Standby Generation
Fuel Cell	East / West	Fuel Cell
Pump Storage	East / West	Pump Storage
Wave	West	Wave (Hydrokinetic)
Solar	East / West	Solar Concentrating (PV)
Solar Gas	East / West	Solar Concentrating (PV, Natural Gas Backup)
Solar Storage	East / West	Solar Concentrating (Trough, Thermal Storage)
Micro Solar	East / West	Micro Solar - Roof-top PV
DSM, Class 1, UT-Coolkeeper	East / West	DSM - Class 1 - Utah Coolkeeper
DSM, Class 1, [Bubble]-Curtail *	East / West	IRP DSM Class 1 *[Bubble] Curtailment*
DSM, Class 1, [Bubble]-DLC-Com *	East / West	IRP DSM Class 1 *[Bubble] Direct Load Control-Commercial*

Plant	Side	Description
DSM, Class 1, [Bubble]-DLC-RES *	East / West	IRP DSM Class 1 *[Bubble] Direct Load Control-Residential*
DSM, Class 1, [Bubble]-DLC-WH *	East / West	IRP DSM Class 1 *[Bubble] Direct Load Control-Water Heater*
DSM, Class 1, [Bubble]-Irrigate *	East / West	IRP DSM Class 1 *[Bubble] Irrigation*
DSM, Class 1, [Bubble]-Sch-TES *	East / West	IRP DSM Class 1 *[Bubble] Scheduled-Thermal Energy Storage*
DSM, Class 3, [Bubble]-CPP-CI *	East / West	IRP DSM Class 3 *[Bubble] Critical Peak Pricing-Small commercial*
DSM, Class 3, [Bubble]-CPP-RES *	East / West	IRP DSM Class 3 *[Bubble] Critical Peak Pricing-Residential*
DSM, Class 3, [Bubble]-DemandB *	East / West	IRP DSM Class 3 *[Bubble] Demand Buyback-Ind/Comm*
DSM, Class 3, [Bubble]-RTP-CI *	East / West	IRP DSM Class 3 *[Bubble] Time-of-Use - Small Commercial*
DSM, Class 3, [Bubble]-TOU-RES *	East / West	IRP DSM Class 3 *[Bubble] Time-of-Use - Residential*
DSM, Class 2, [Bubble]	East	DSM, Class 2, - *Goshen, Utah, Total Wyoming, Washington, West Main, Yakima*
Wind, *[Bubble]*, 24	East / West	*[Bubble]* Wind 24% Capacity Factor
Wind, *[Bubble]*, 29	East / West	*[Bubble]* Wind 29% Capacity Factor
Wind, *[Bubble]*, 35	East / West	*[Bubble]* Wind 35% Capacity Factor
Wind, Project I	East	Wind, Project I
Wind, Project II	East	Wind, Project II
Wind, Duke Energy PPA	East	Wind, Duke Energy PPA
Wind, HighPlains	East	Wind, High Plains
Wind PPA	West	Wind Power Purchase Agreement
2012 RFP Lake Side	East	2012 RFP Lake Side 2 ***
East PPA	East	East Power Purchase Agreement
Coal & Gas Capacity Upgrades	East	Coal & Gas Capacity Turbine Upgrades
Coal Plant Turbine Upgrades	West	Coal Plant Turbine Upgrades
Blundell 3	East	Blundell Geothermal 3 (Expansion)
Swift Hydro Upgrades	West	Swift Hydro Upgrades
FOT *[Market Bubble]* Q3 **	East	Front Office Transaction - *3rd Quarter HLH Product*
FOT *[Market Bubble]* Flat **	East	Front Office Transaction - *Flat Annual Product*
Growth Resource *[Bubble]*	East / West	**Growth Resource (Goshen, Utah North, Wyoming, Walla Walla, West Main, Yakima)**

Notes on Market and Topology Bubbles:

Please see the Transmission Topology chart for the "bubbles" used for location of modeled resource options.

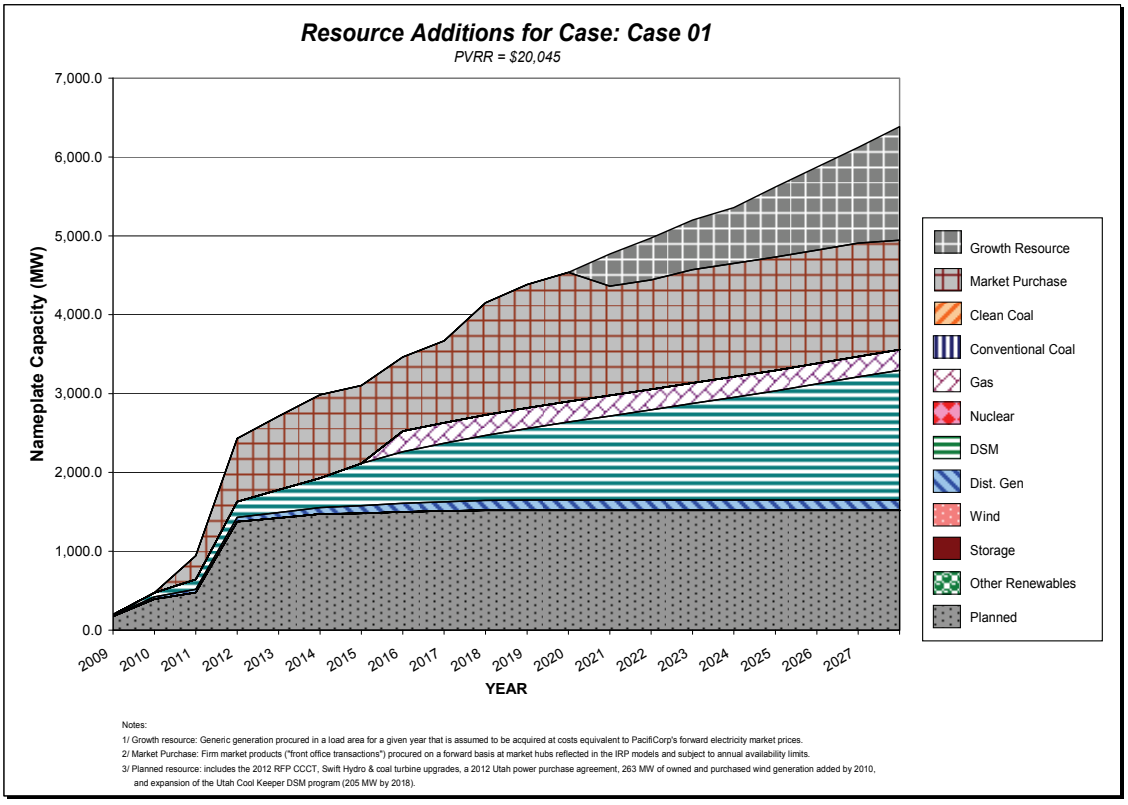
** **Topology Bubbles:** Goshen (GO), Utah (UT), WYAE (Wyoming Aeolus), MC (Mid-Columbia), WM (West Main), WW (Walla Walla), YA (Yakima)*

WYSW (Wyoming Southwest)

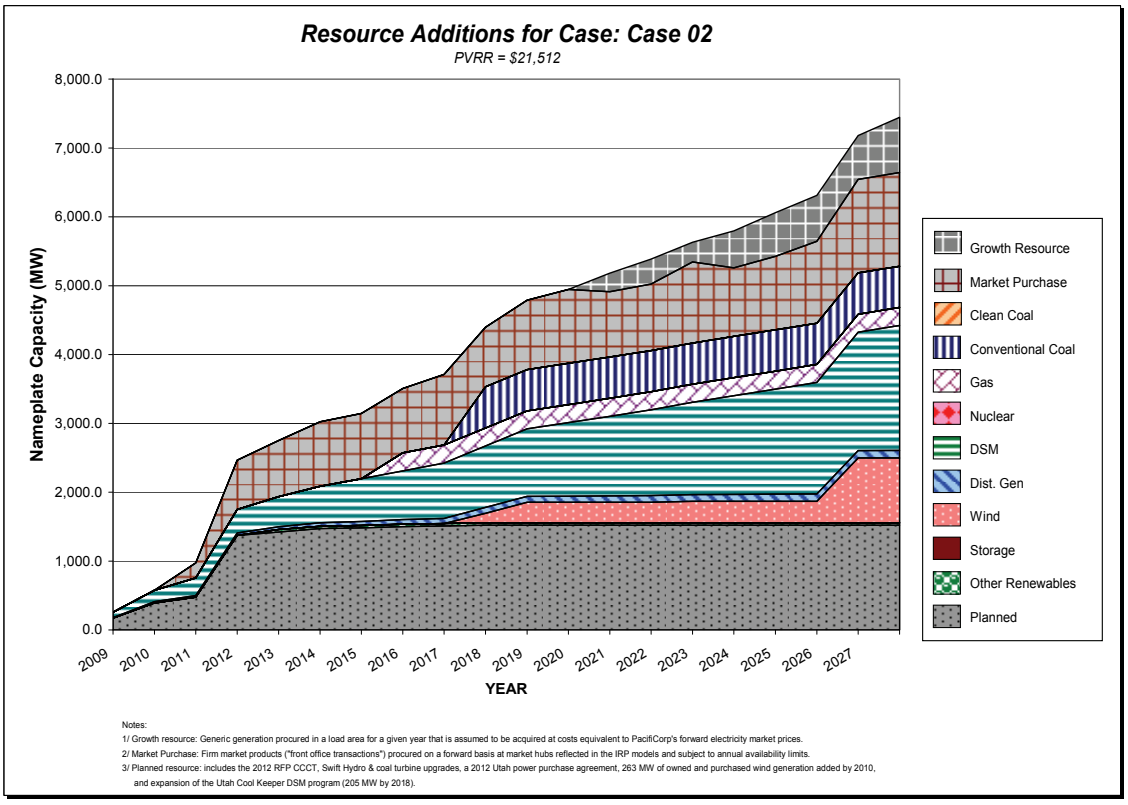
*** **Market Bubble:** Mead, Mona, Utah, California Oregon Border, Mid-Columbia, West Main, Nevada-Utah Border (NUB)*

*** The 2012 RFP Lake Side 2 resource option was removed in February 2009 during the planning process.

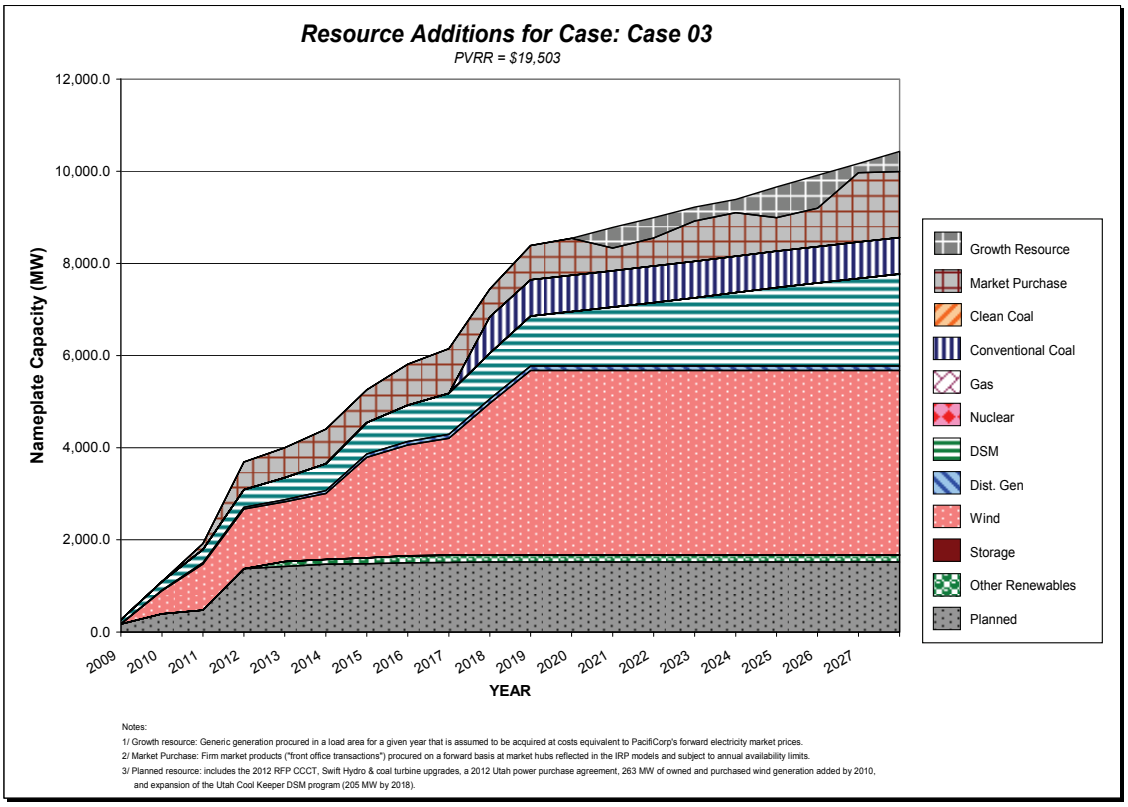
AREA CHARTS: PORTFOLIO CAPACITY ADDITIONS BY RESOURCE TYPE



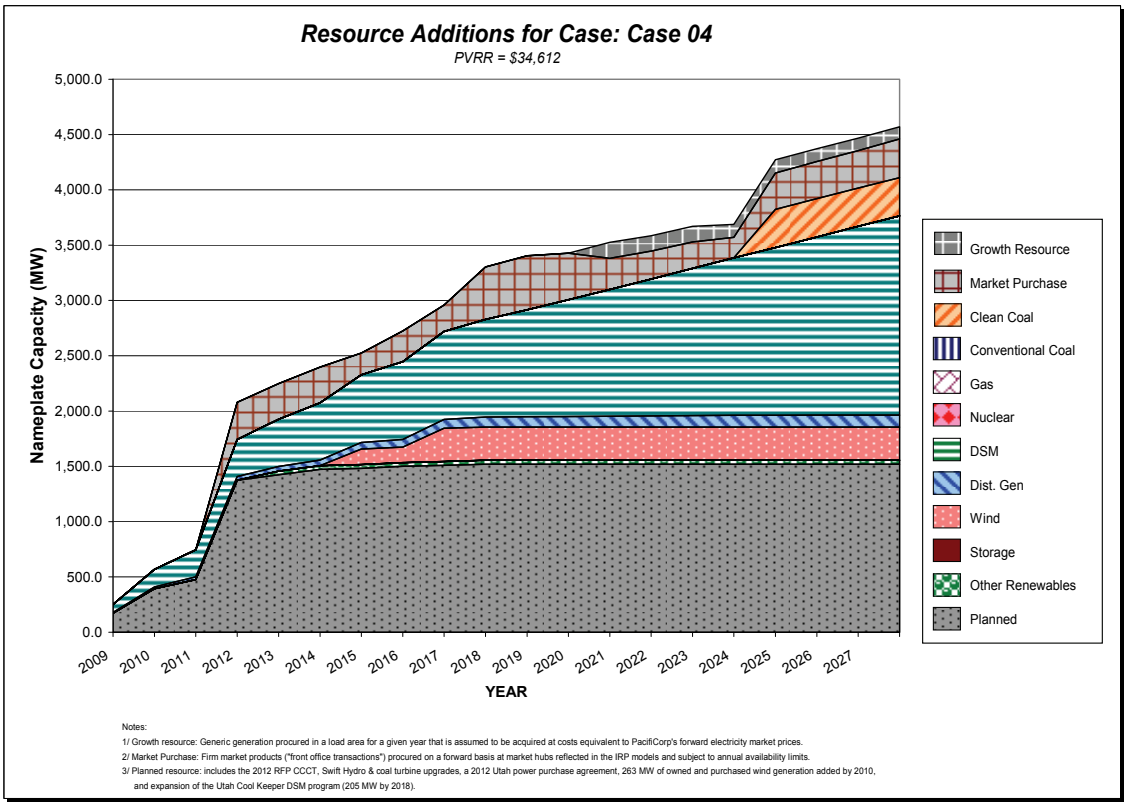
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



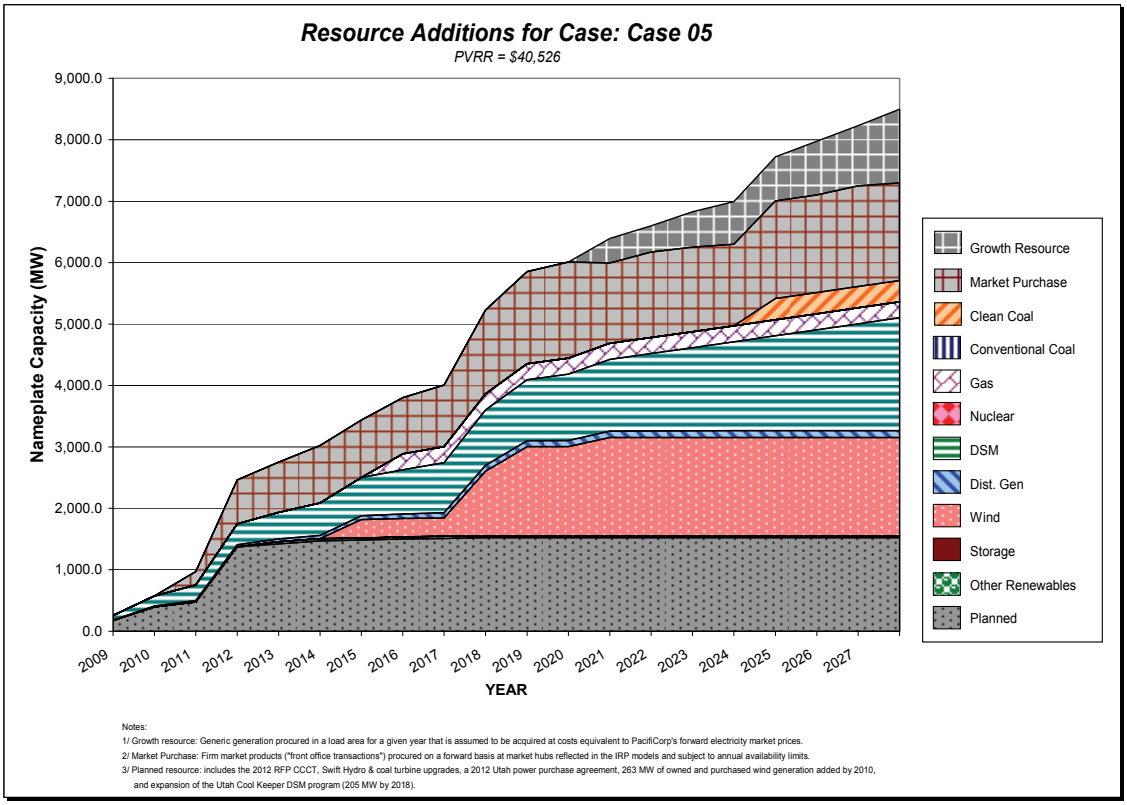
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

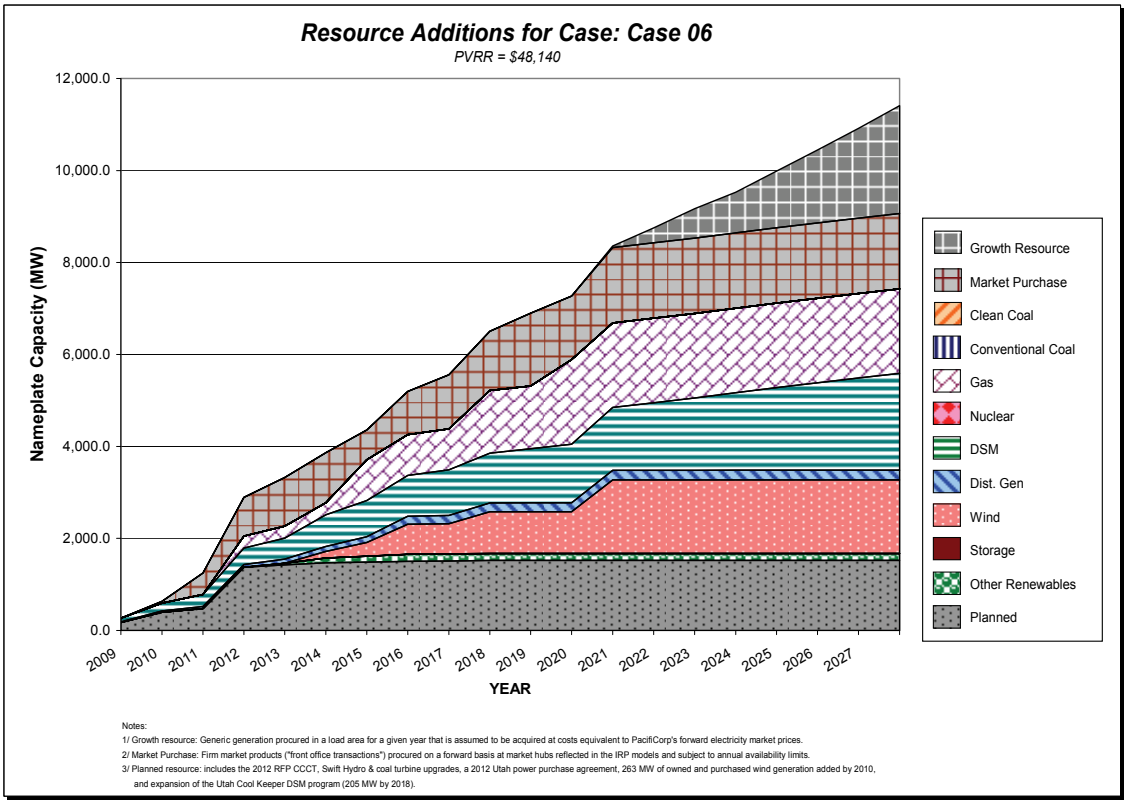


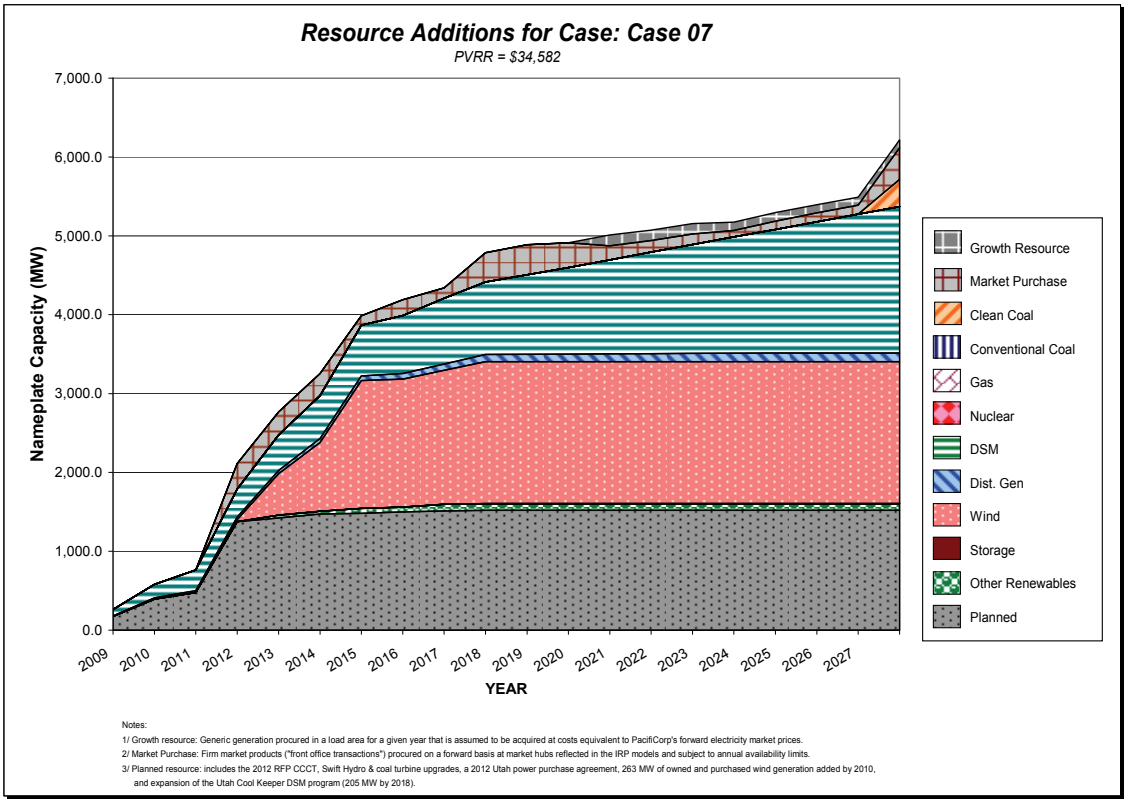
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



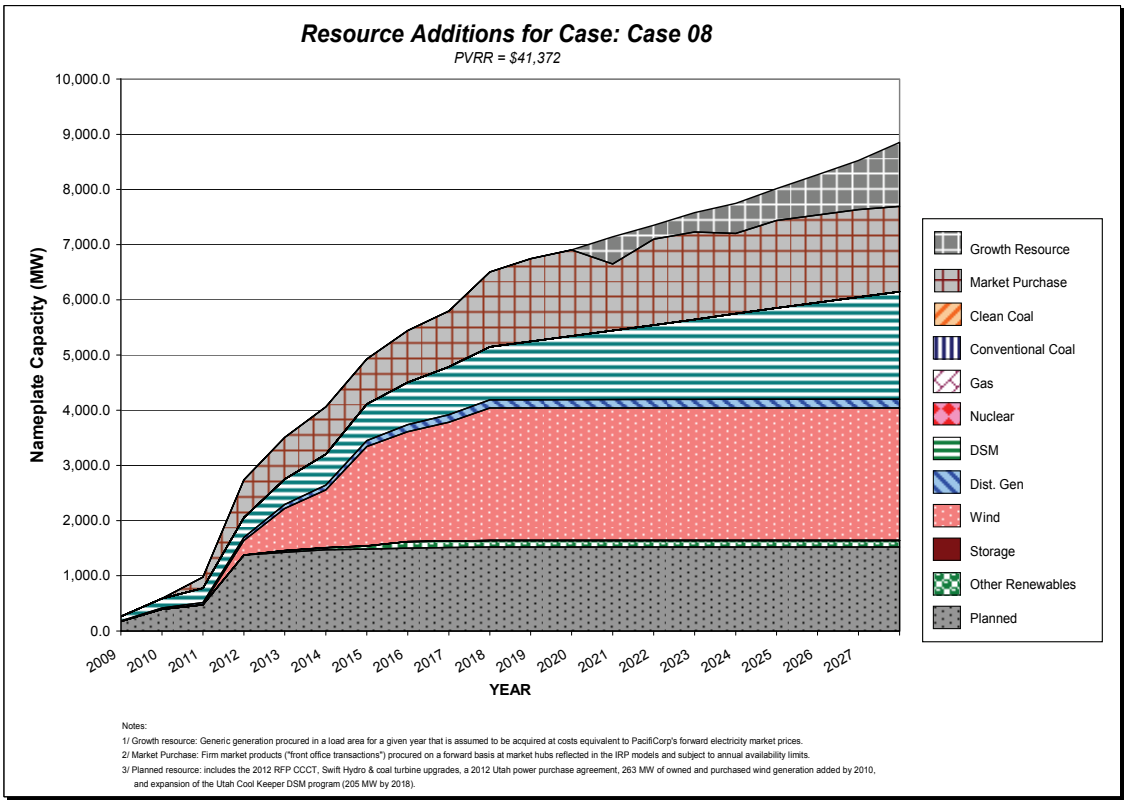
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 05
PVRR = $40,526
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

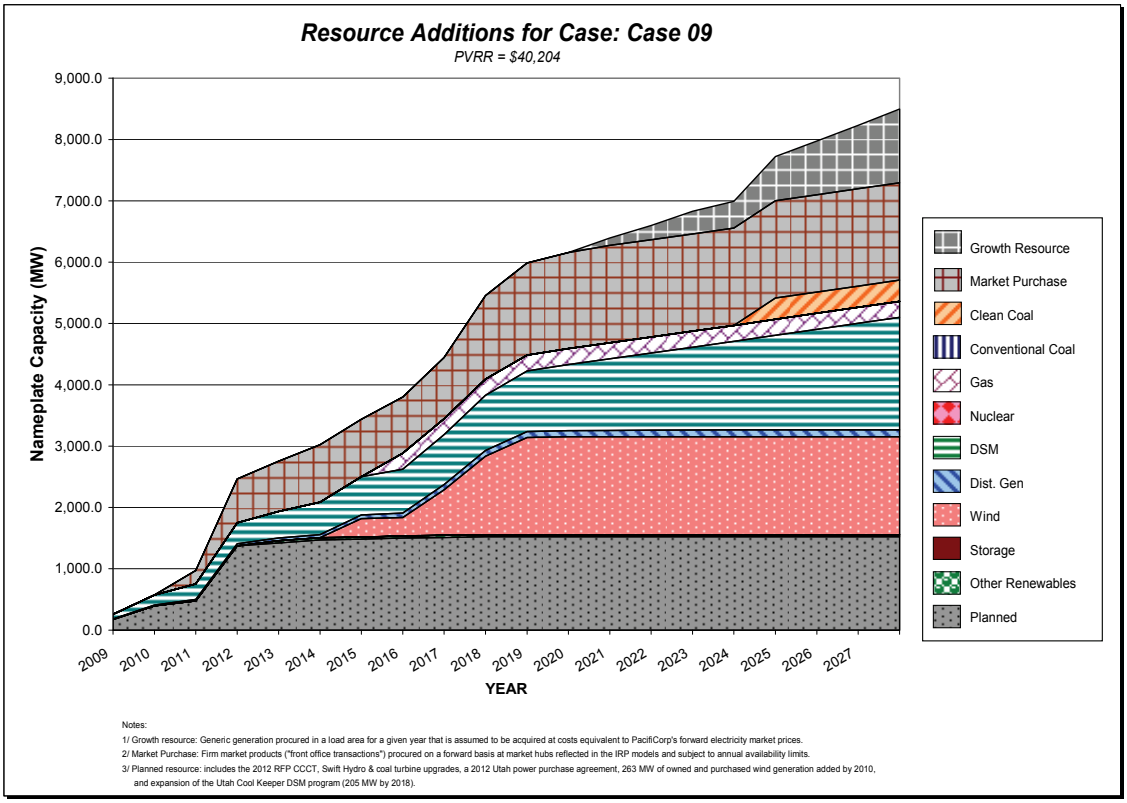

Resource Additions for Case: Case 06
PVRR = $48,140
Nameplate Capacity (MW)
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



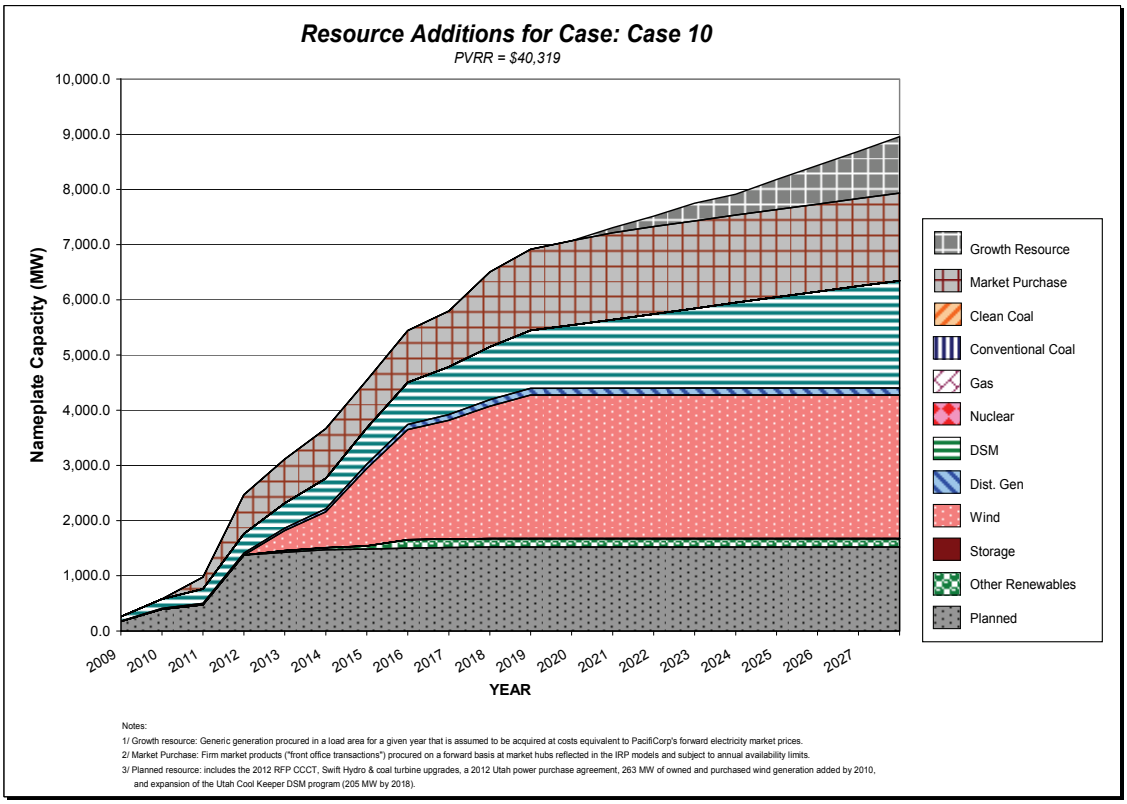
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



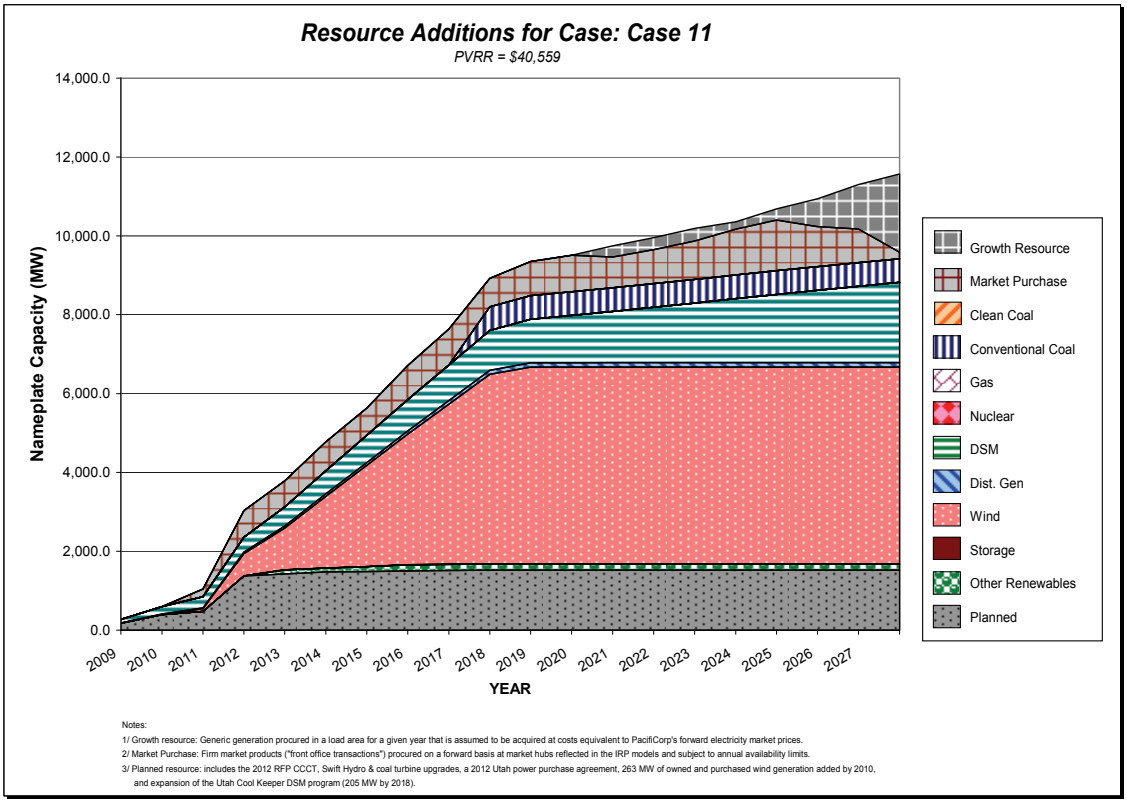
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



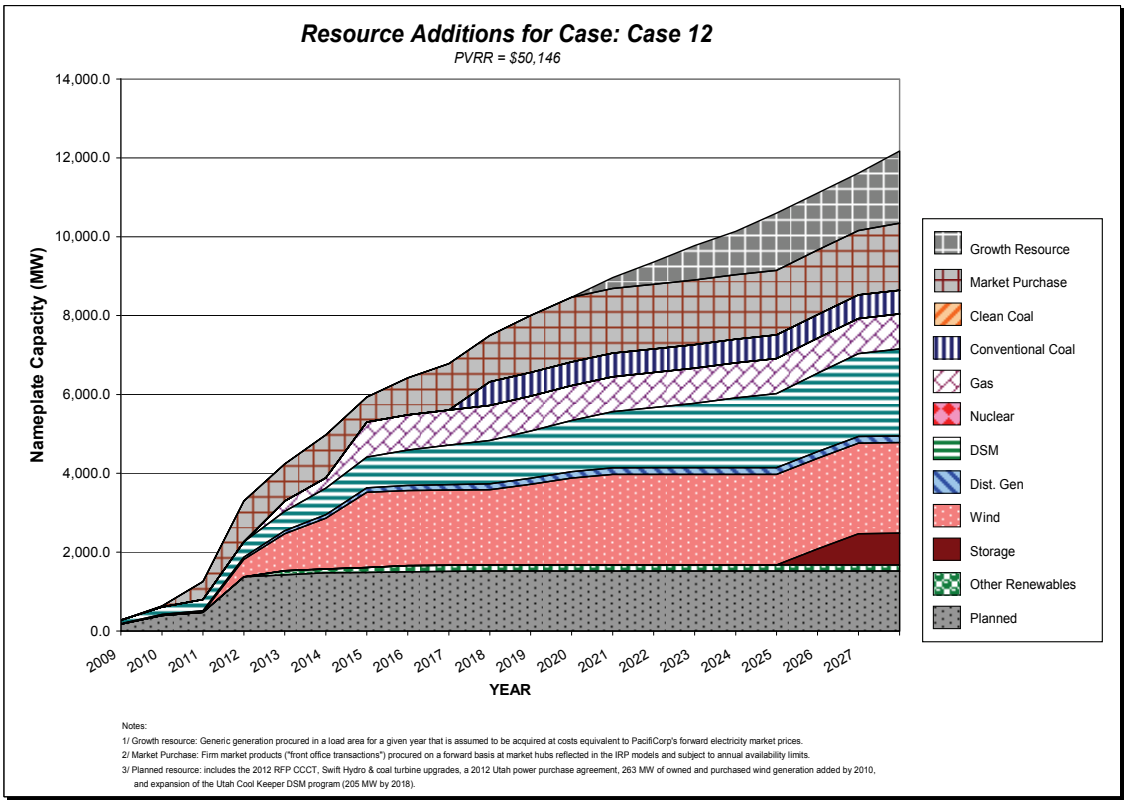
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



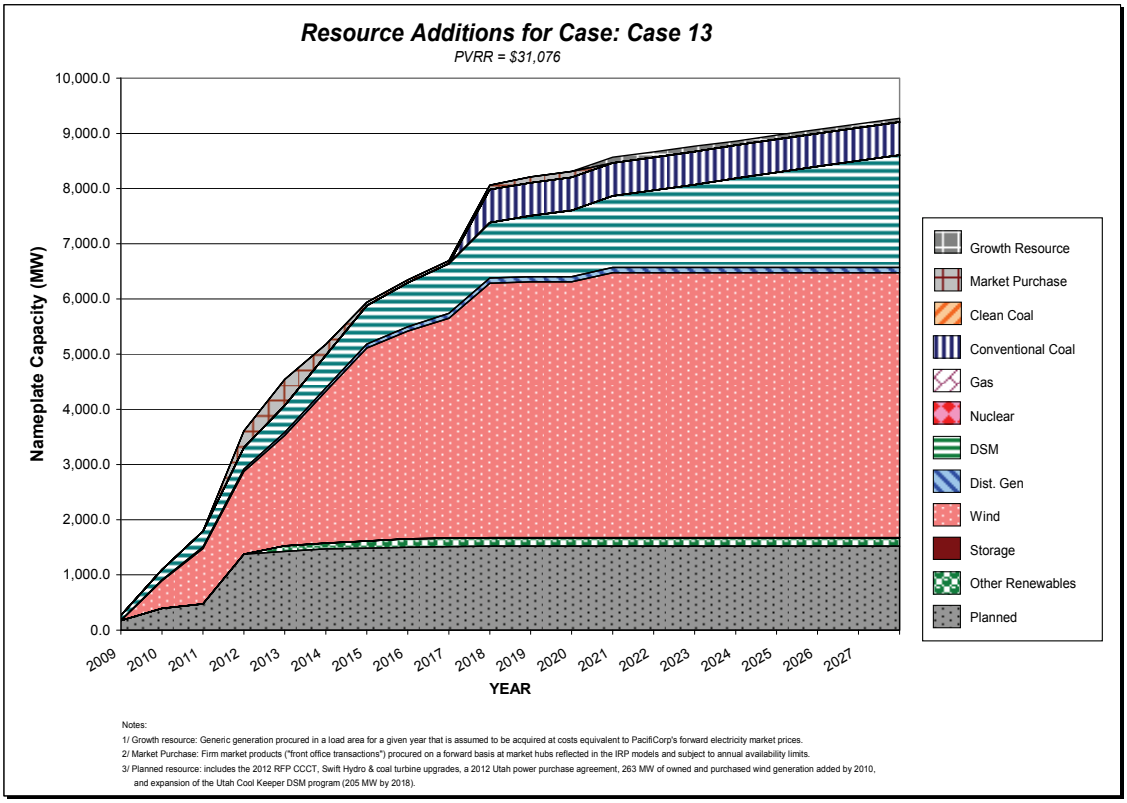
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

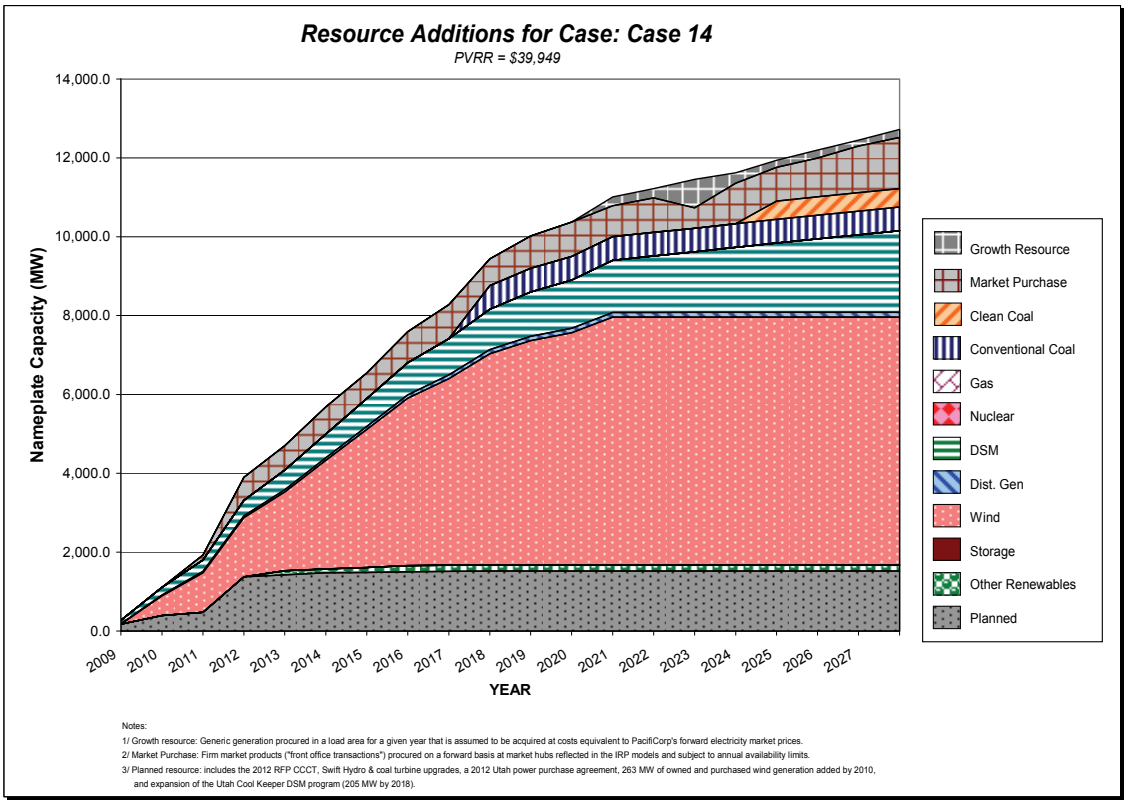


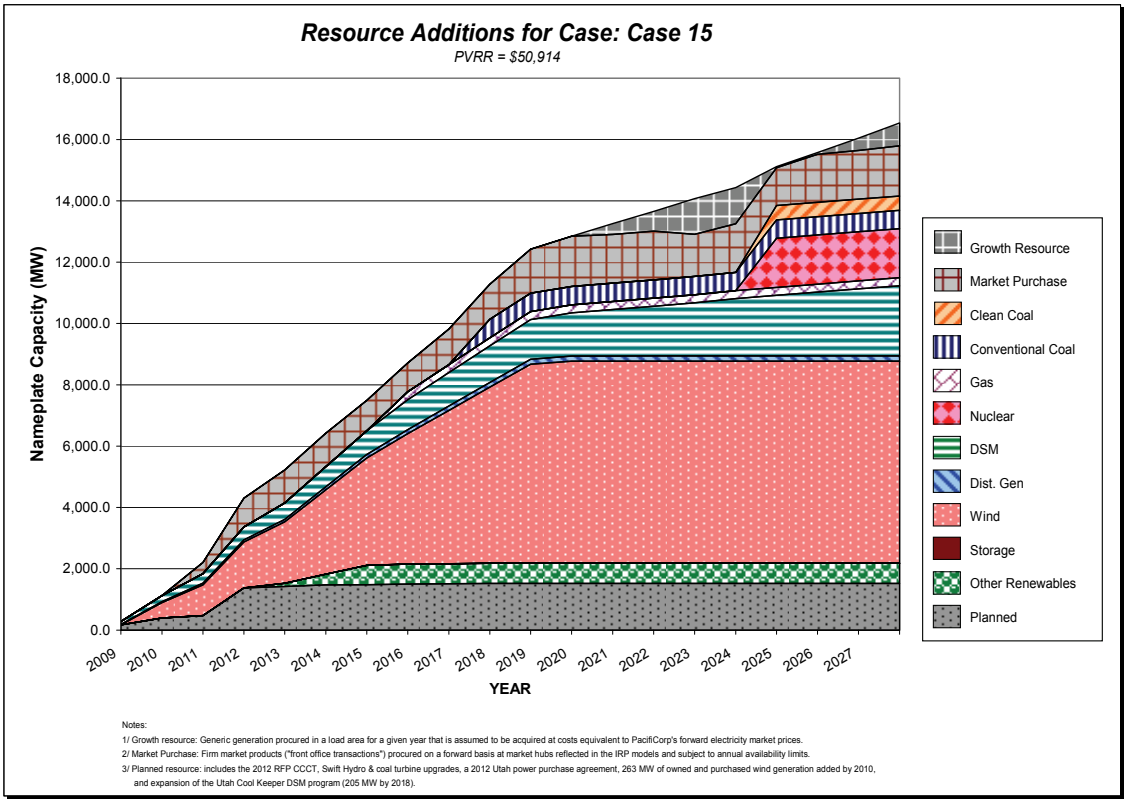
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

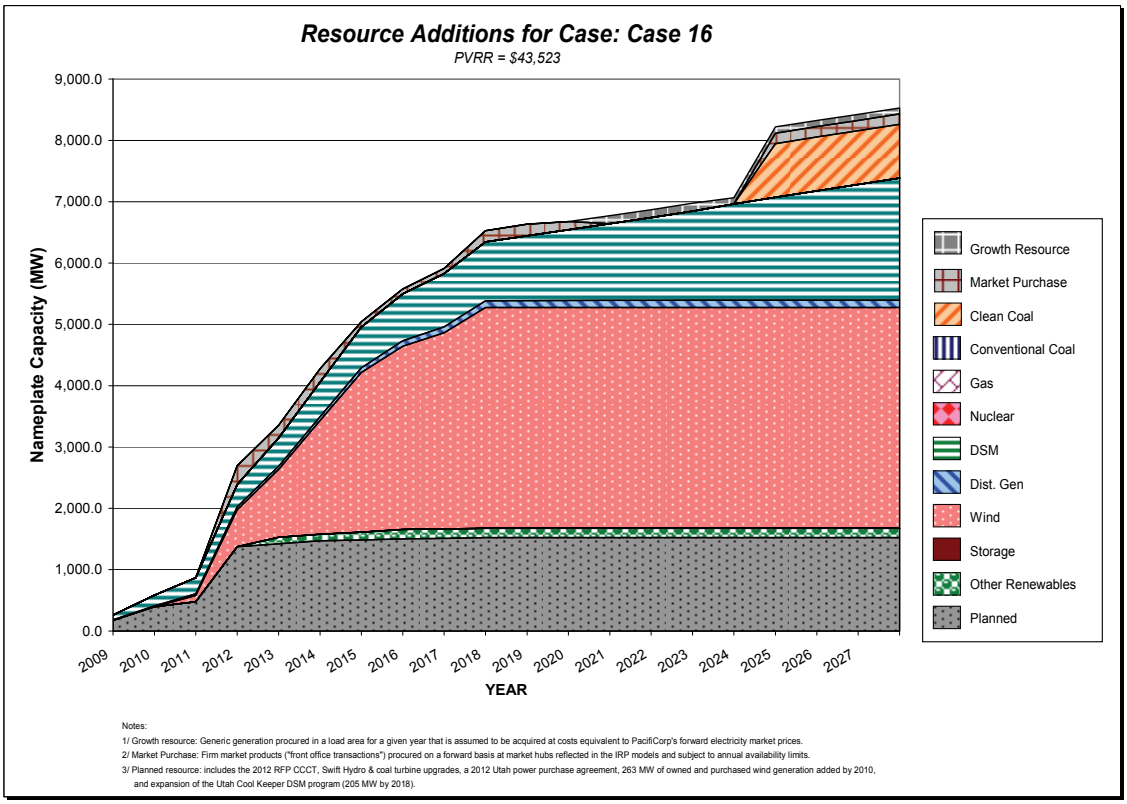


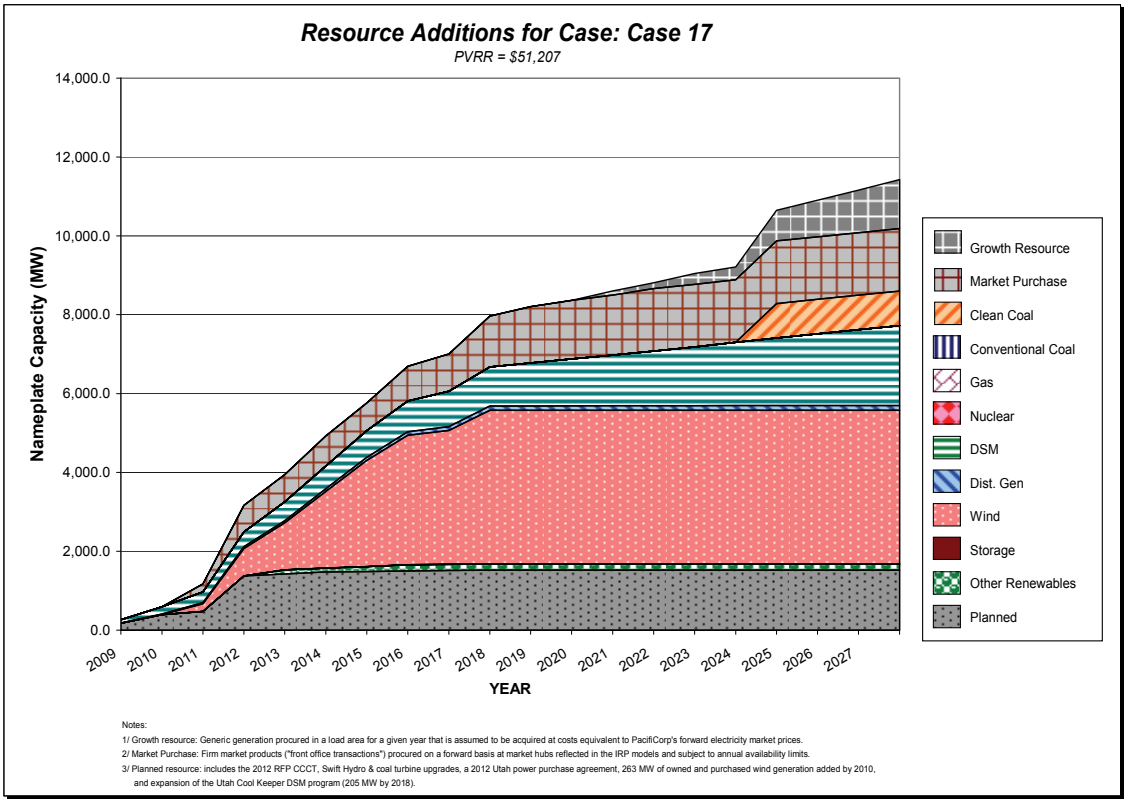
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 13
PVRR = $31,076
Nameplate Capacity (MW)
10,000.0
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

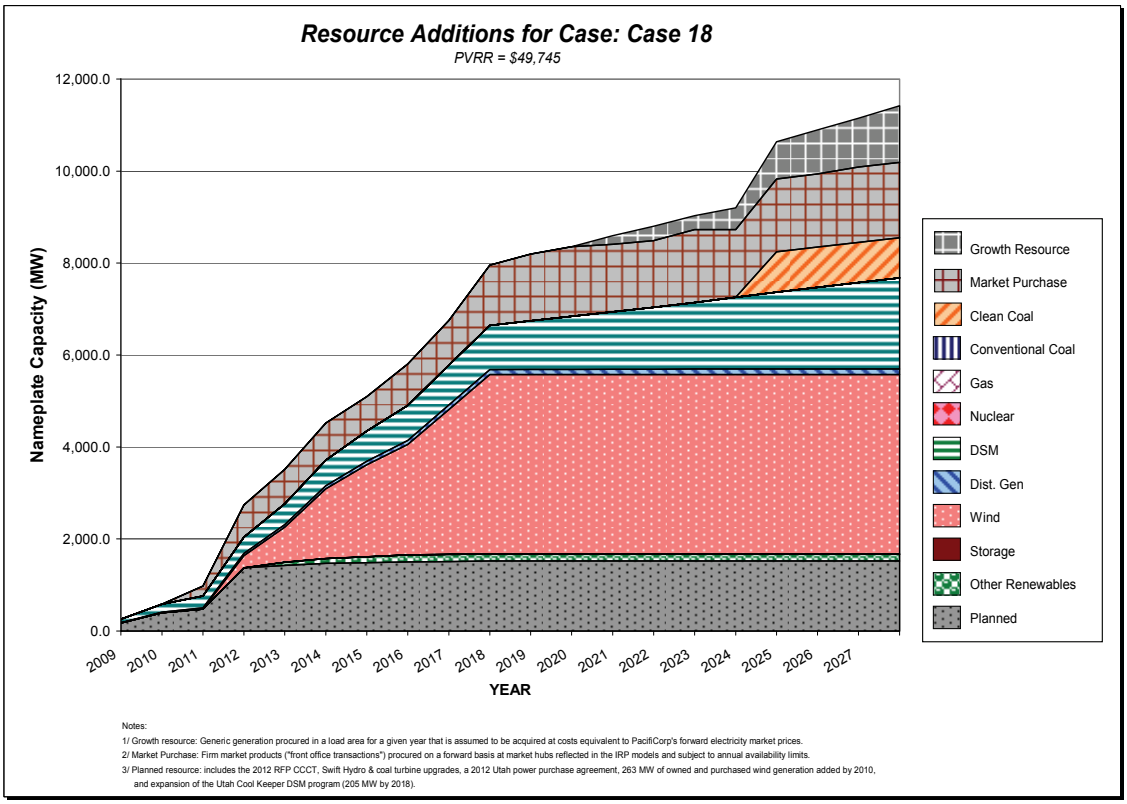

Resource Additions for Case: Case 14
PVRR = $39,949
Nameplate Capacity (MW)
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 15
PVRR = $50,914
Nameplate Capacity (MW)
18,000.0
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

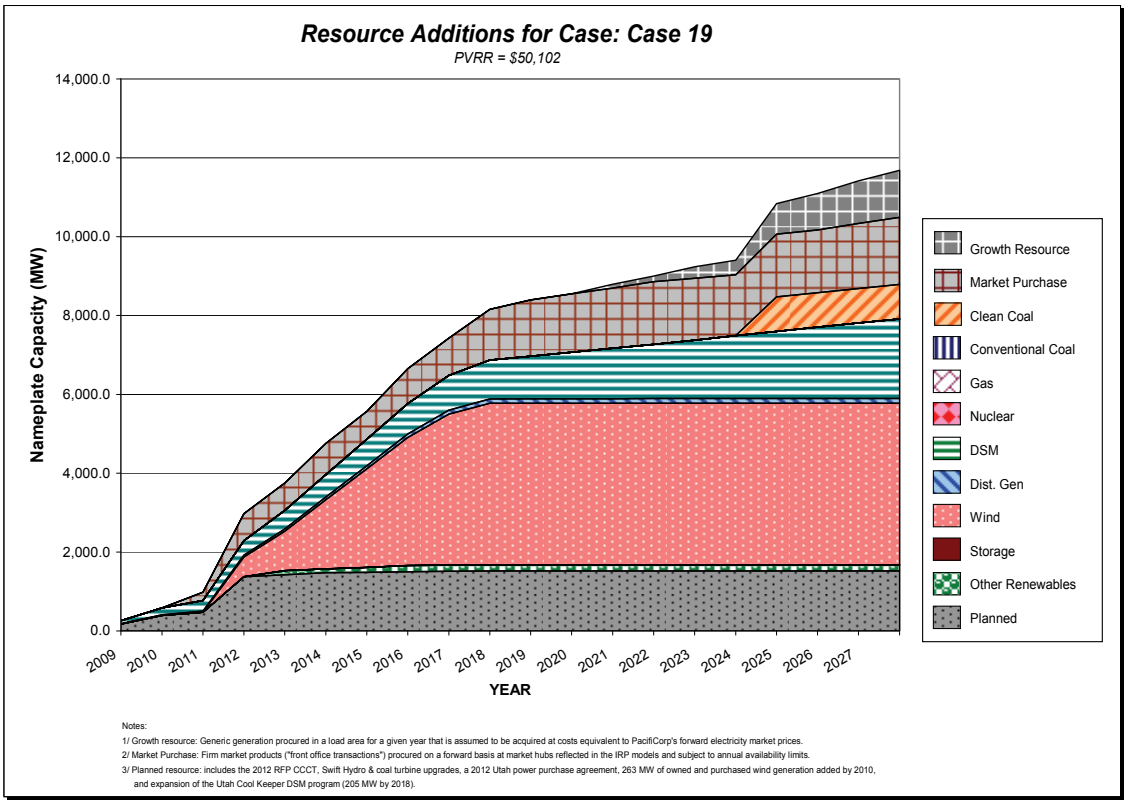

Resource Additions for Case: Case 16
PVRR = $43,523
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



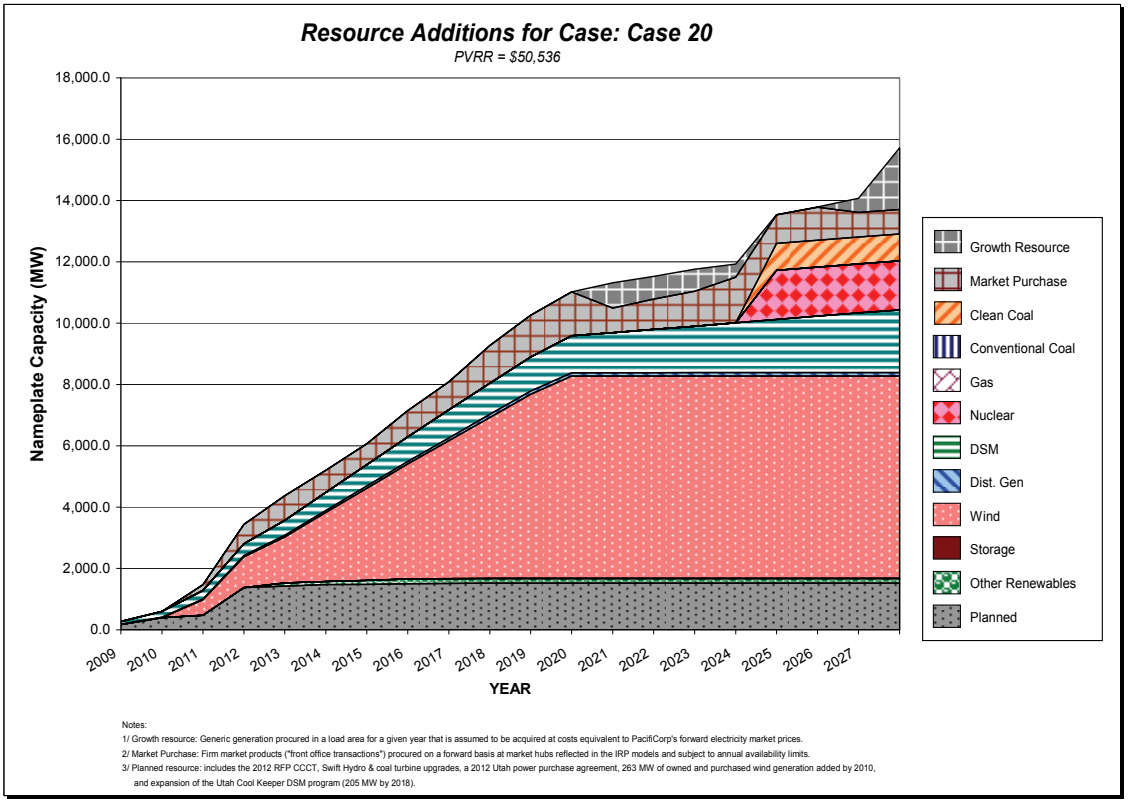
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



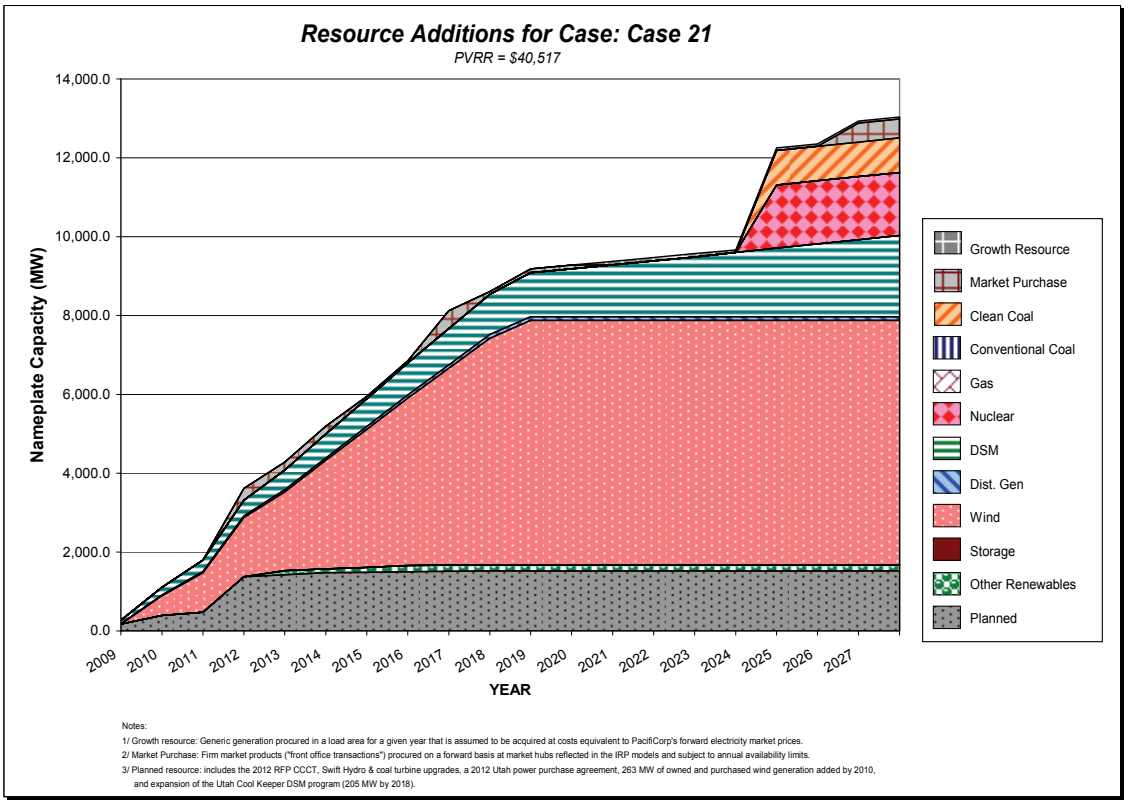
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



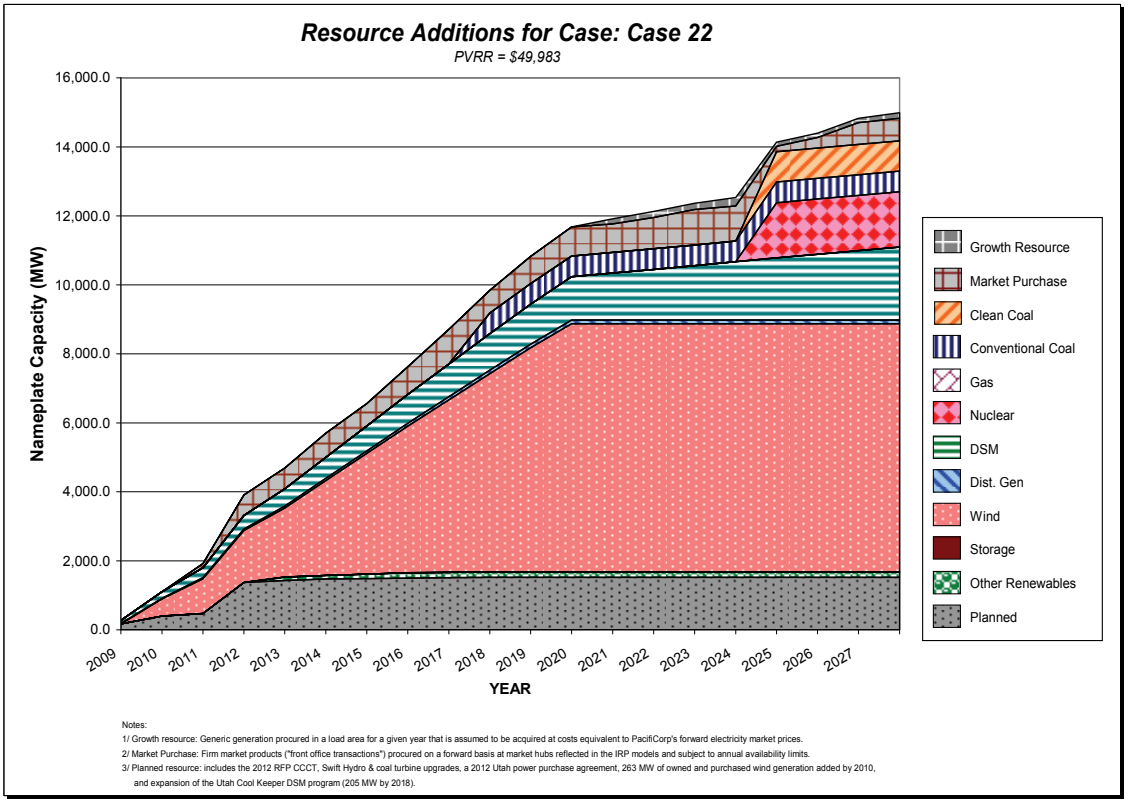
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



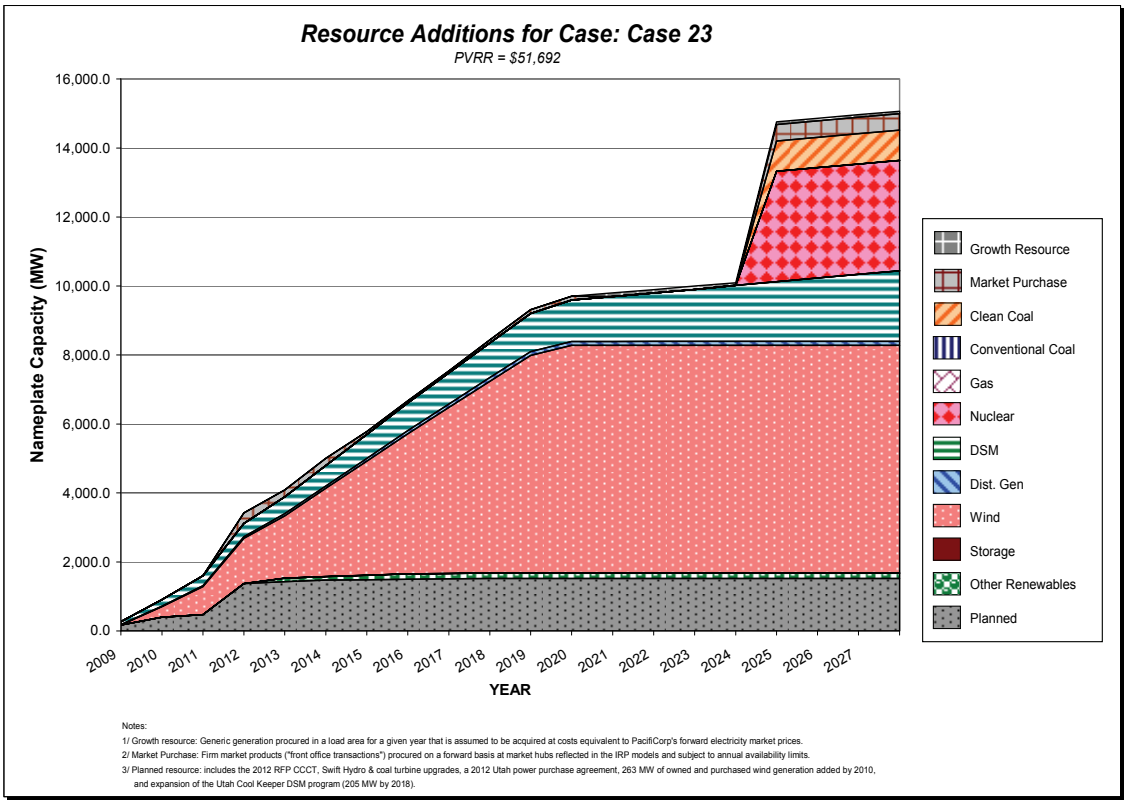
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



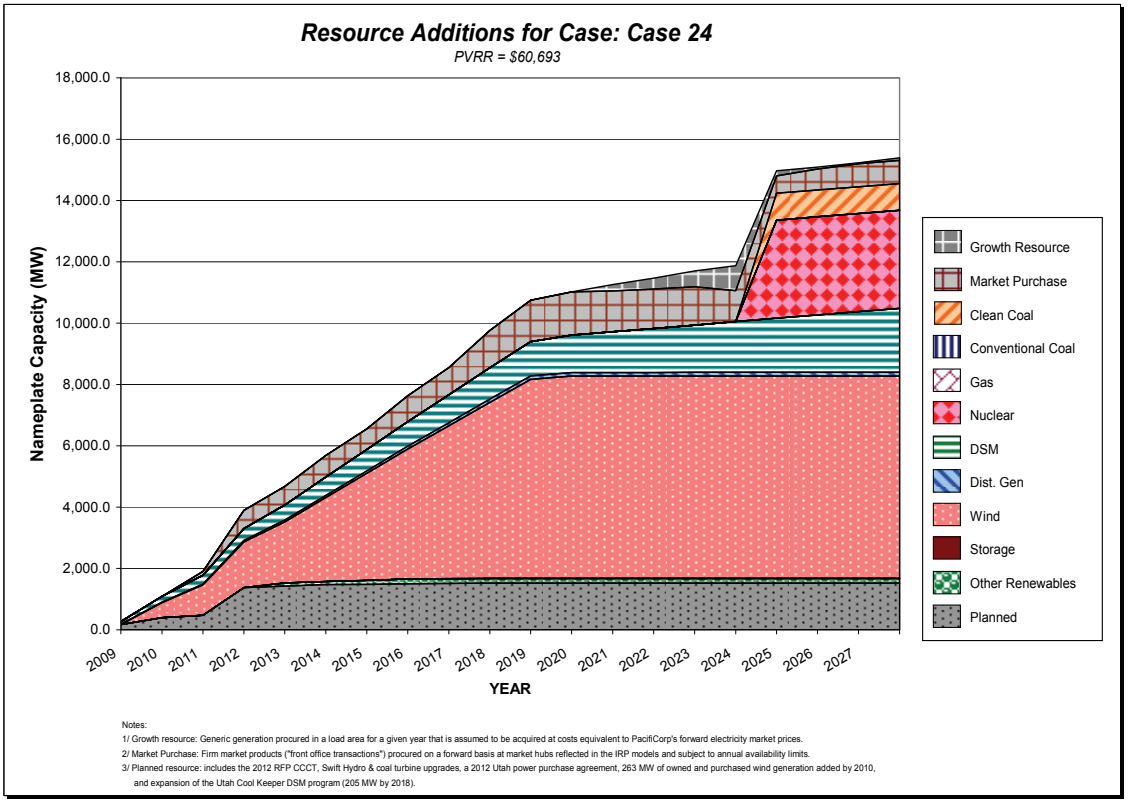
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



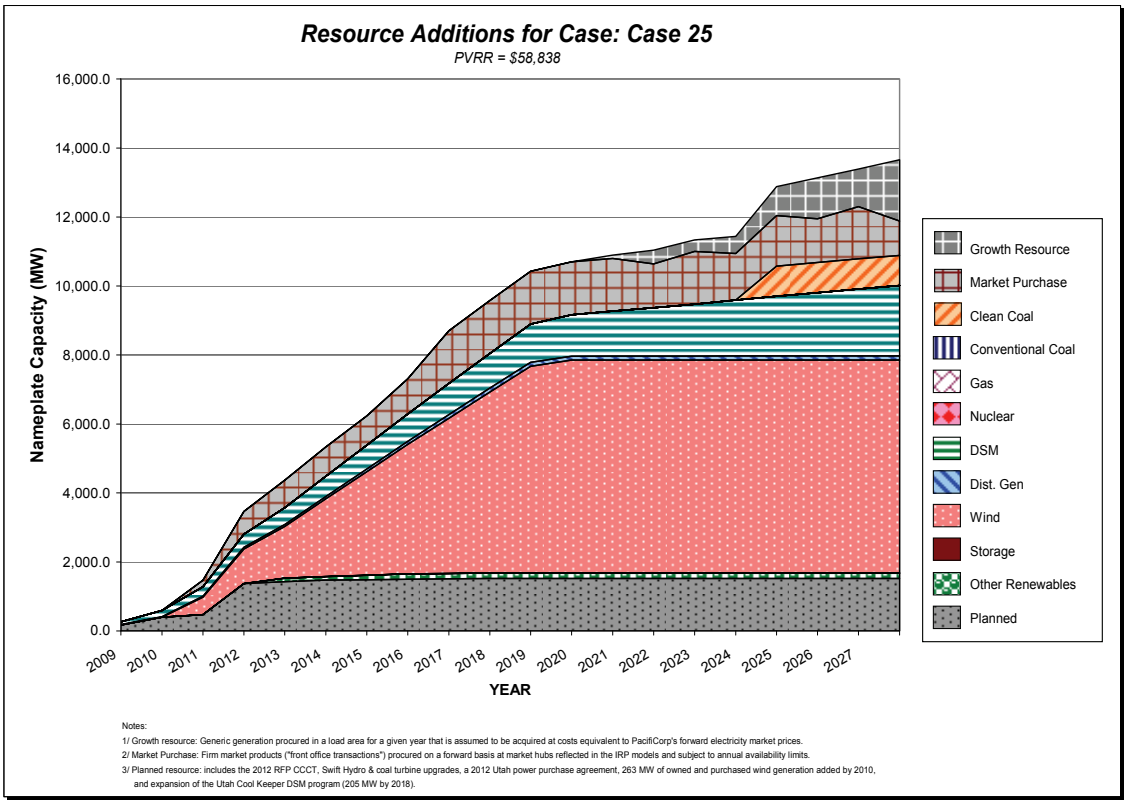
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



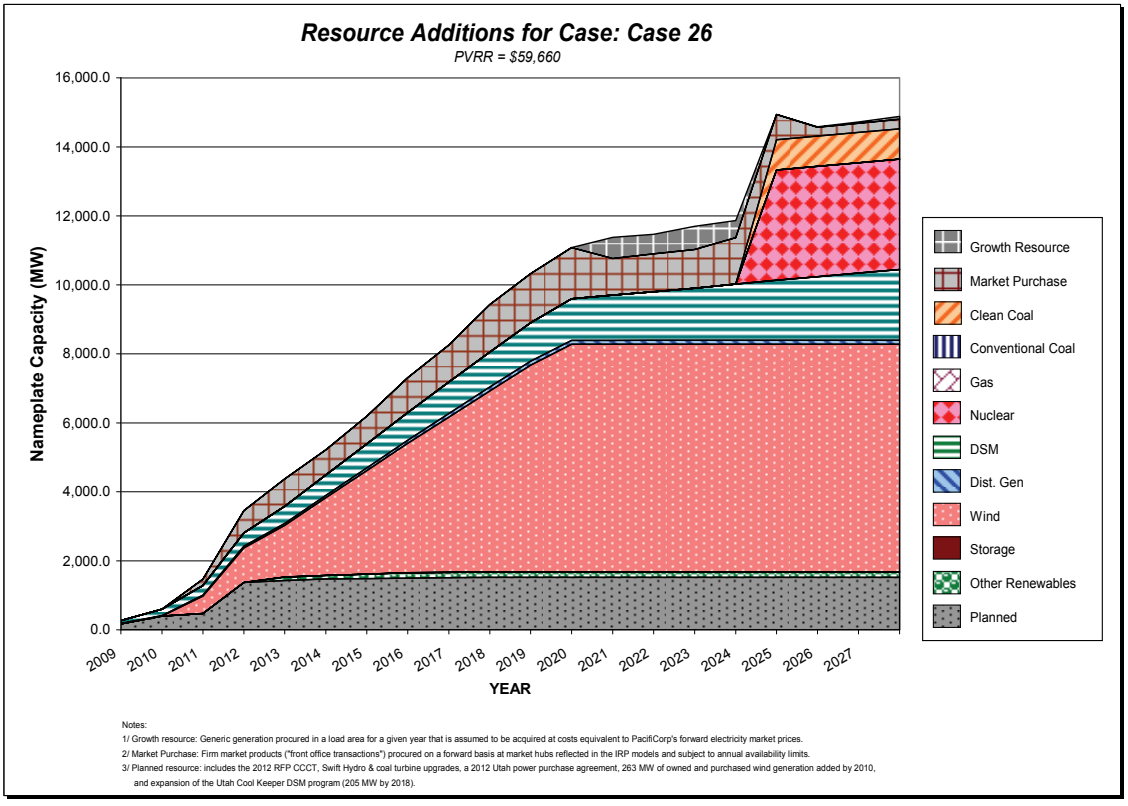
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



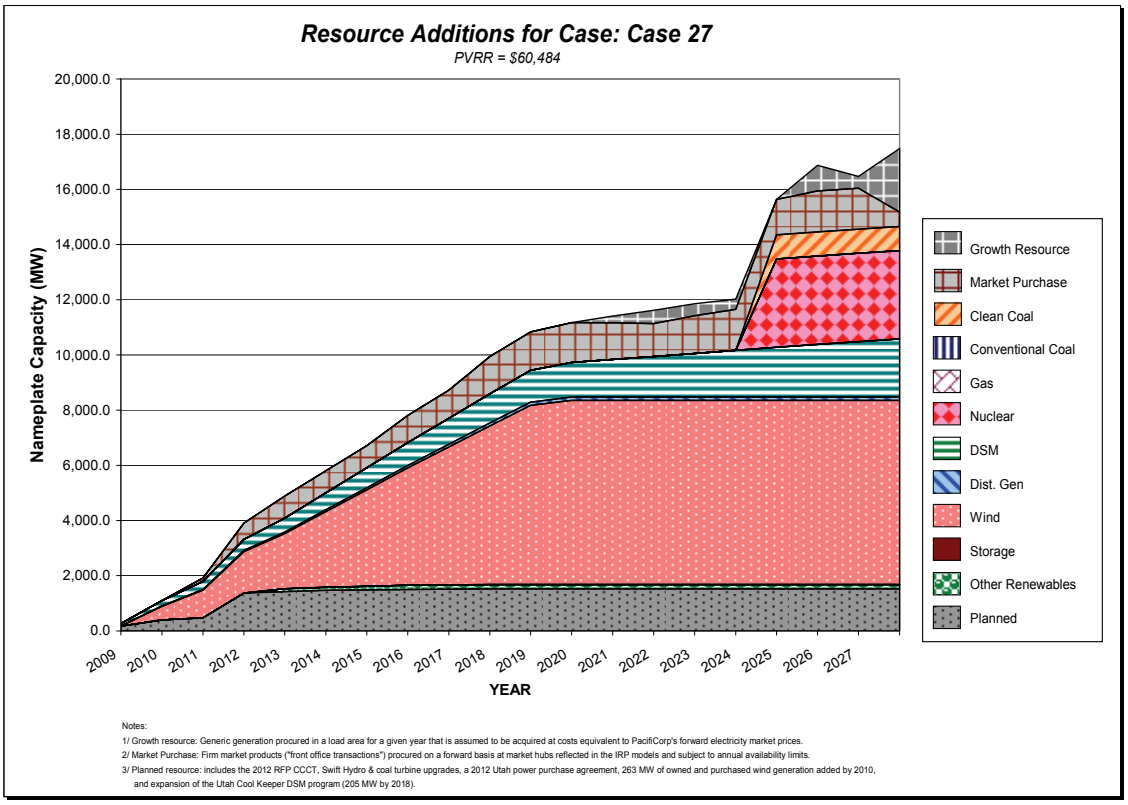
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

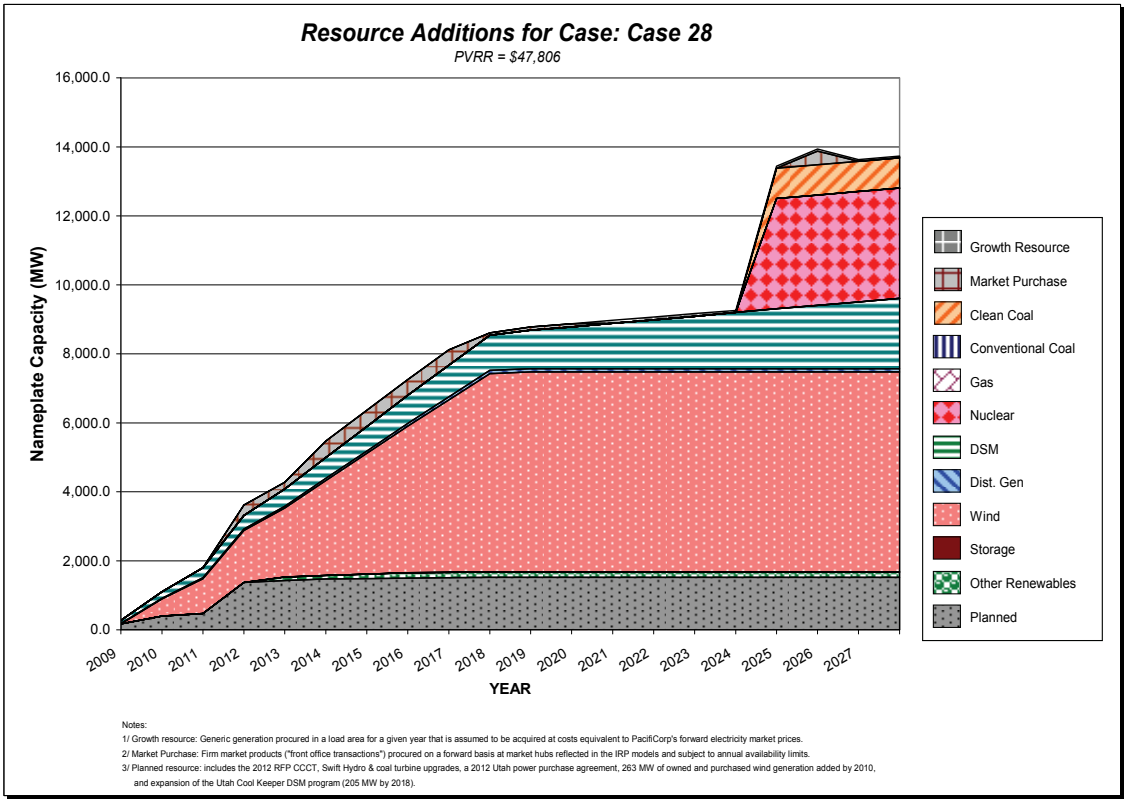


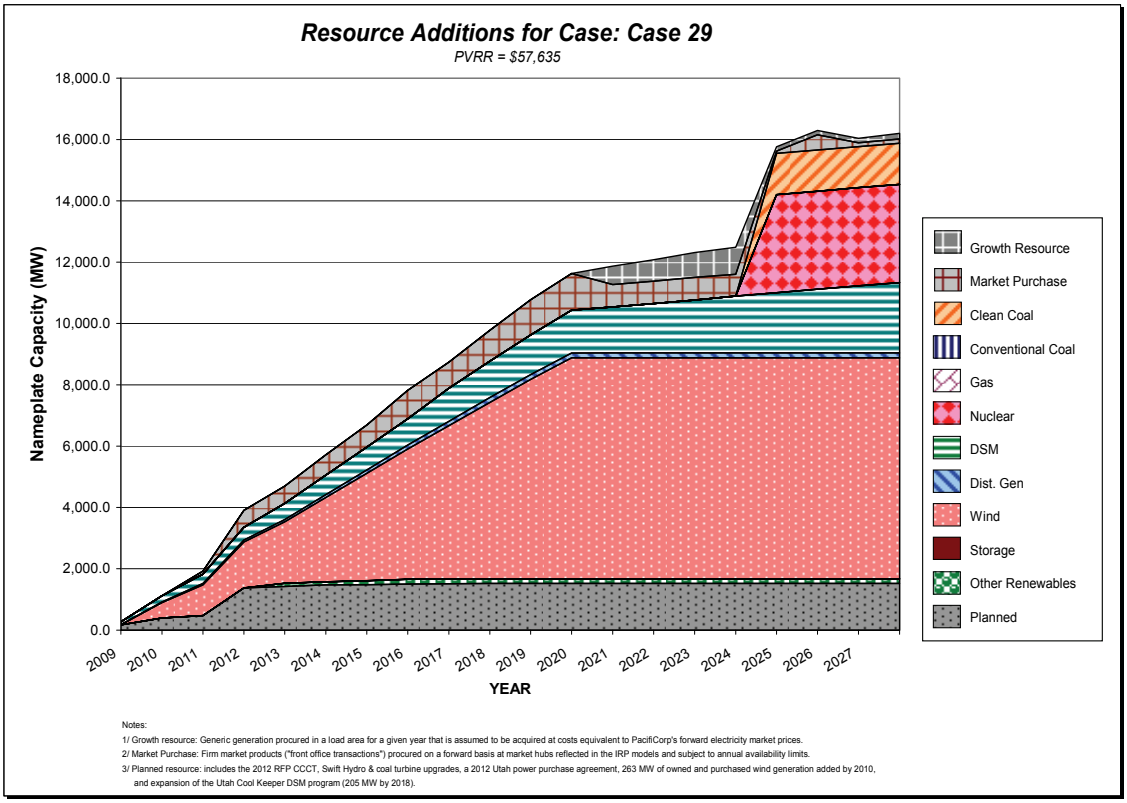
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



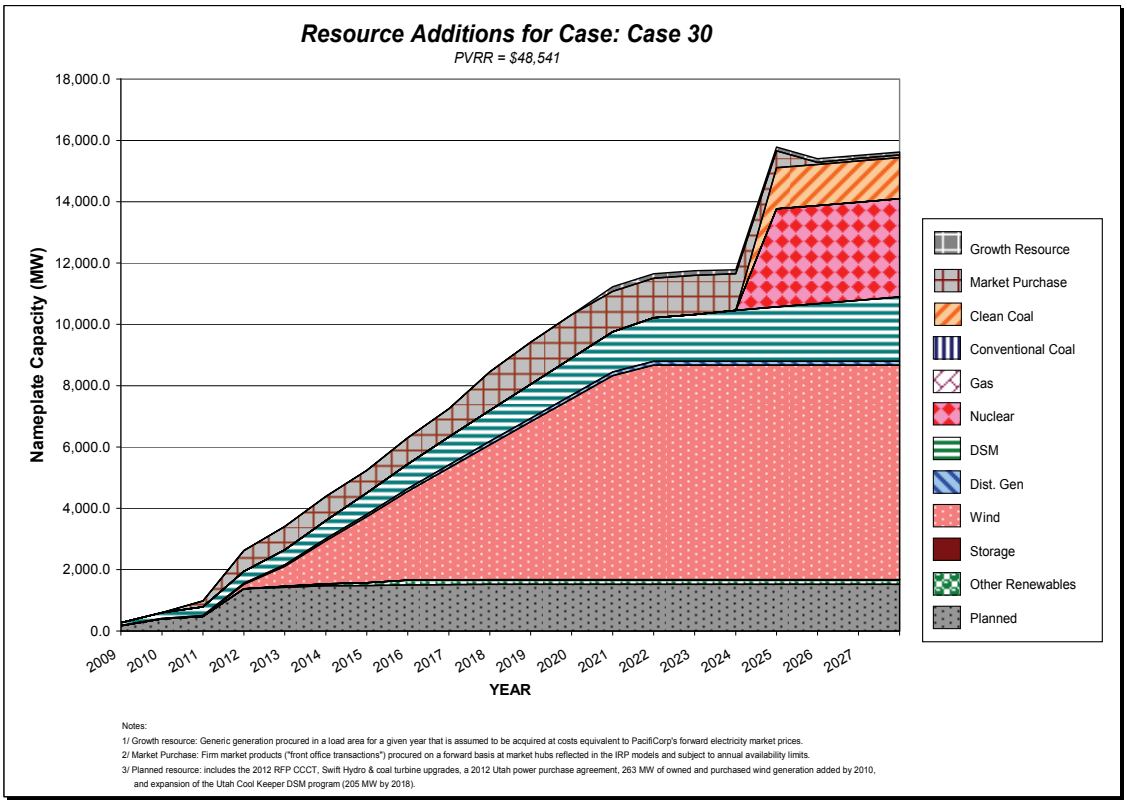
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 27
PVRR = $60,484
Nameplate Capacity (MW)
20,000.0
18,000.0
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

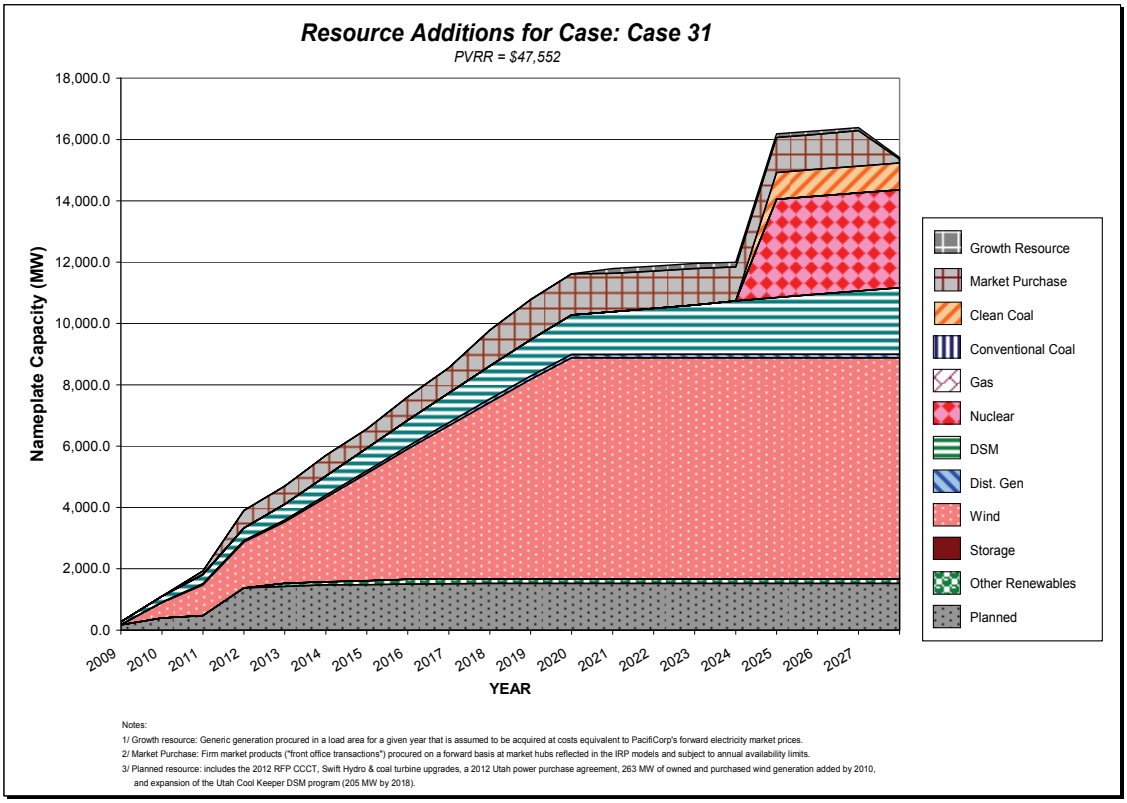

Resource Additions for Case: Case 28
PVRR = $47,806
Nameplate Capacity (MW)
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

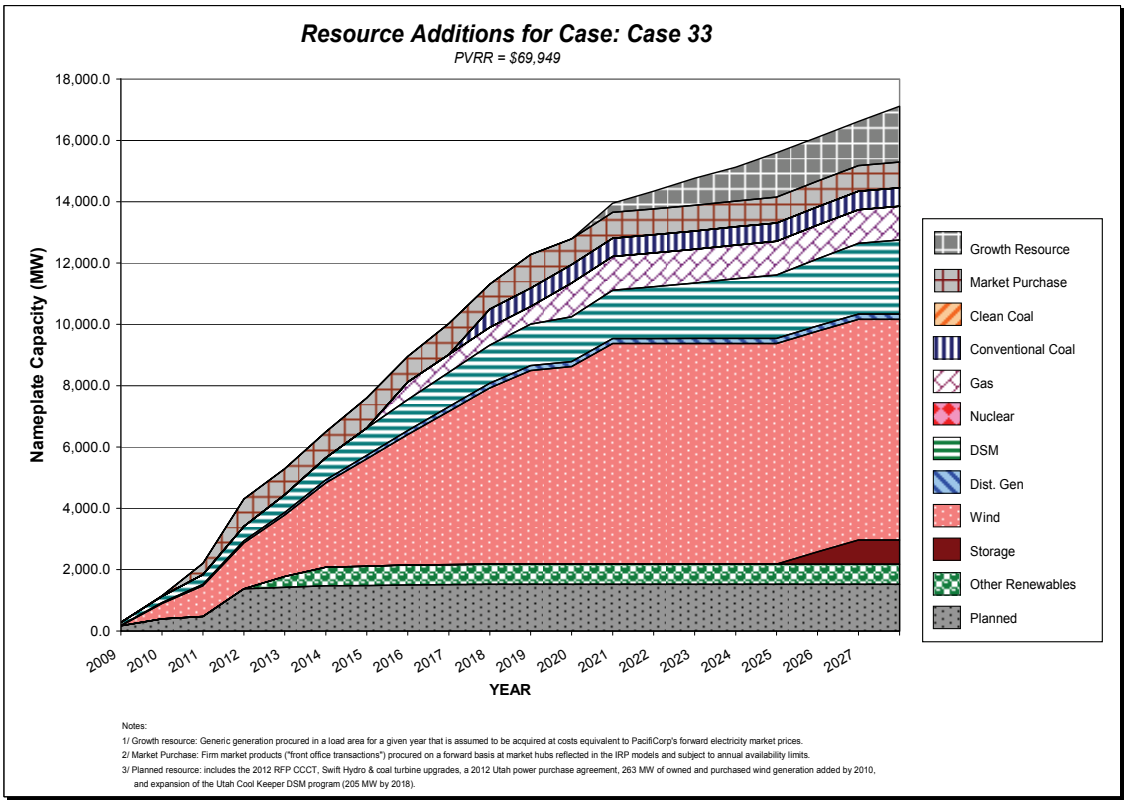


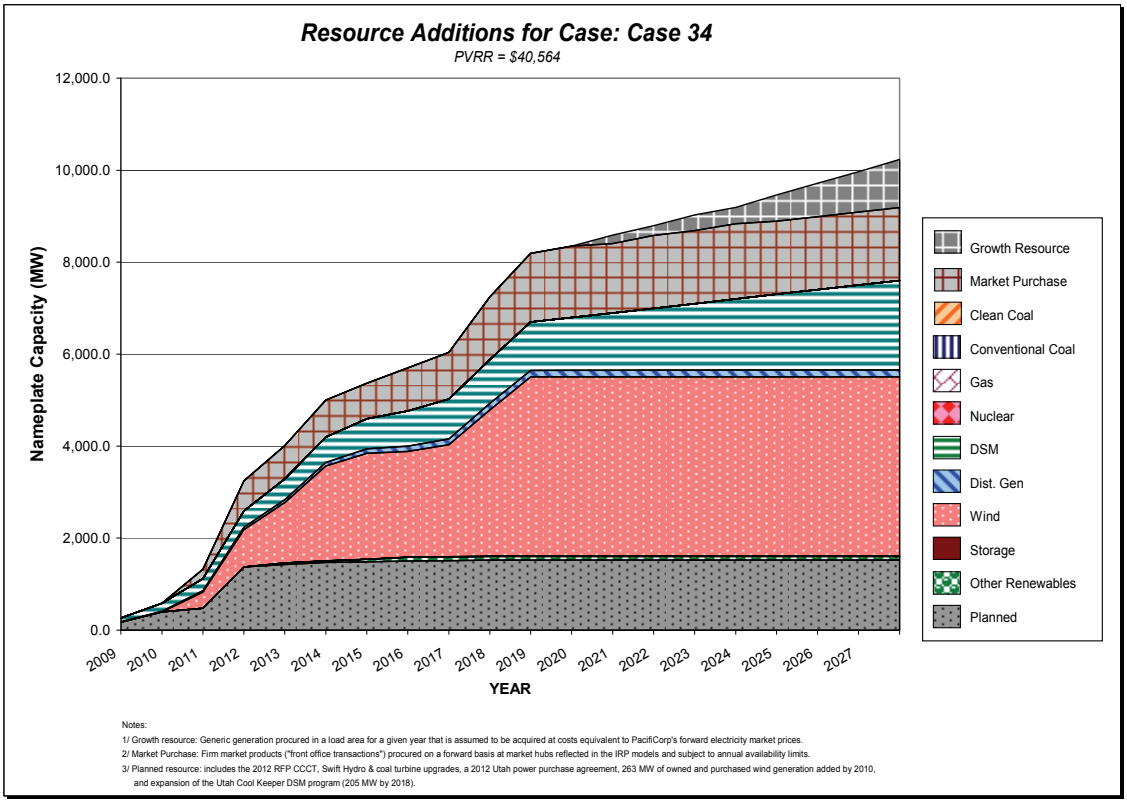
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



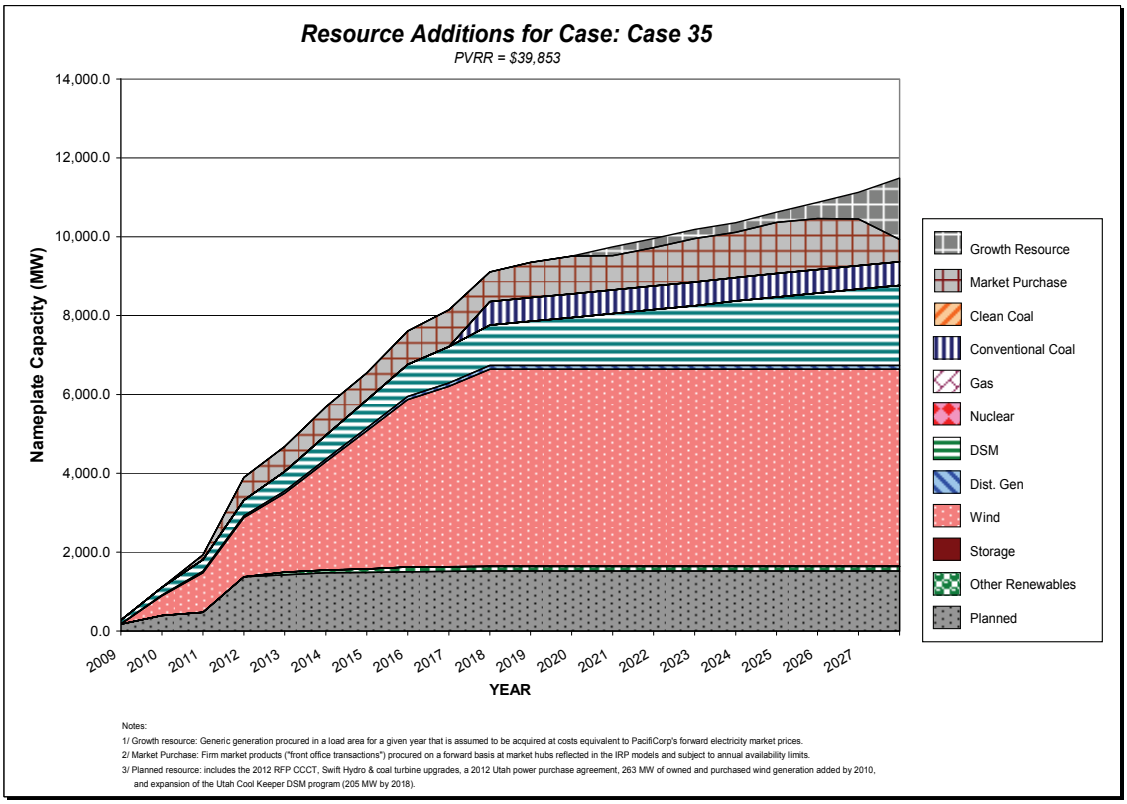
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 31
PVRR = $47,552
Nameplate Capacity (MW)
18,000.0
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

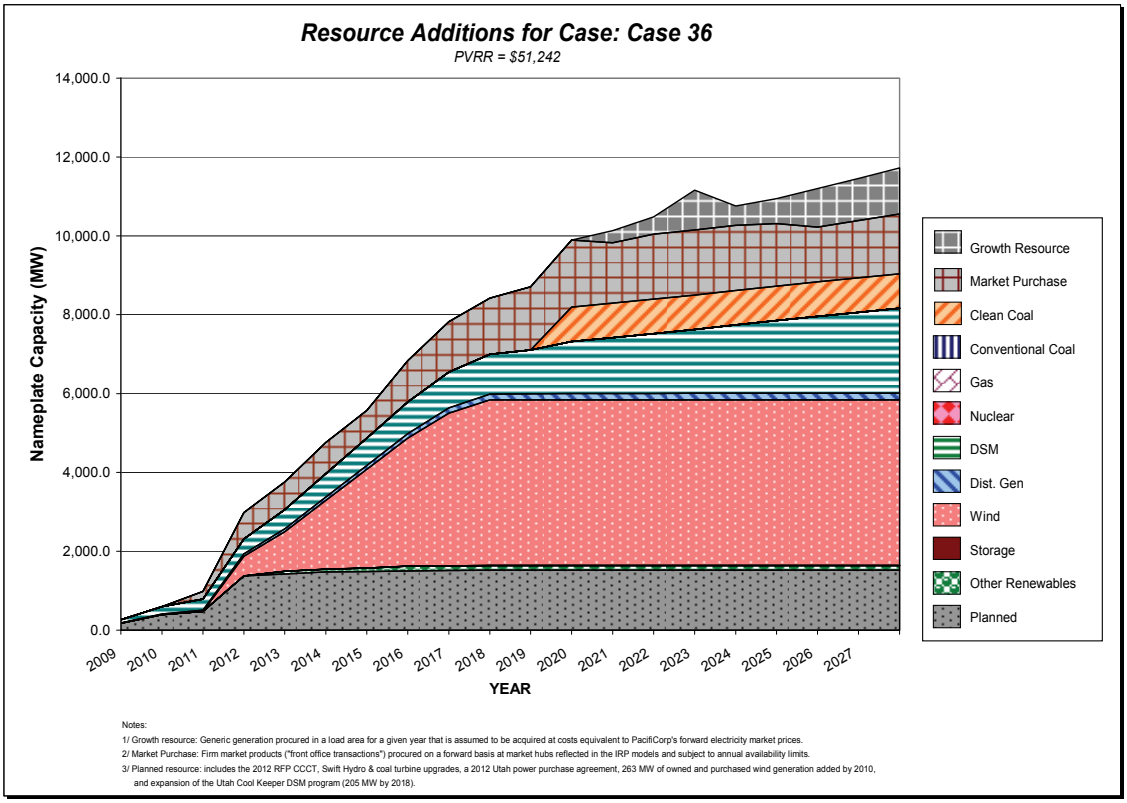

Resource Additions for Case: Case 33
PVRR = $69,949
Nameplate Capacity (MW)
18,000.0
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



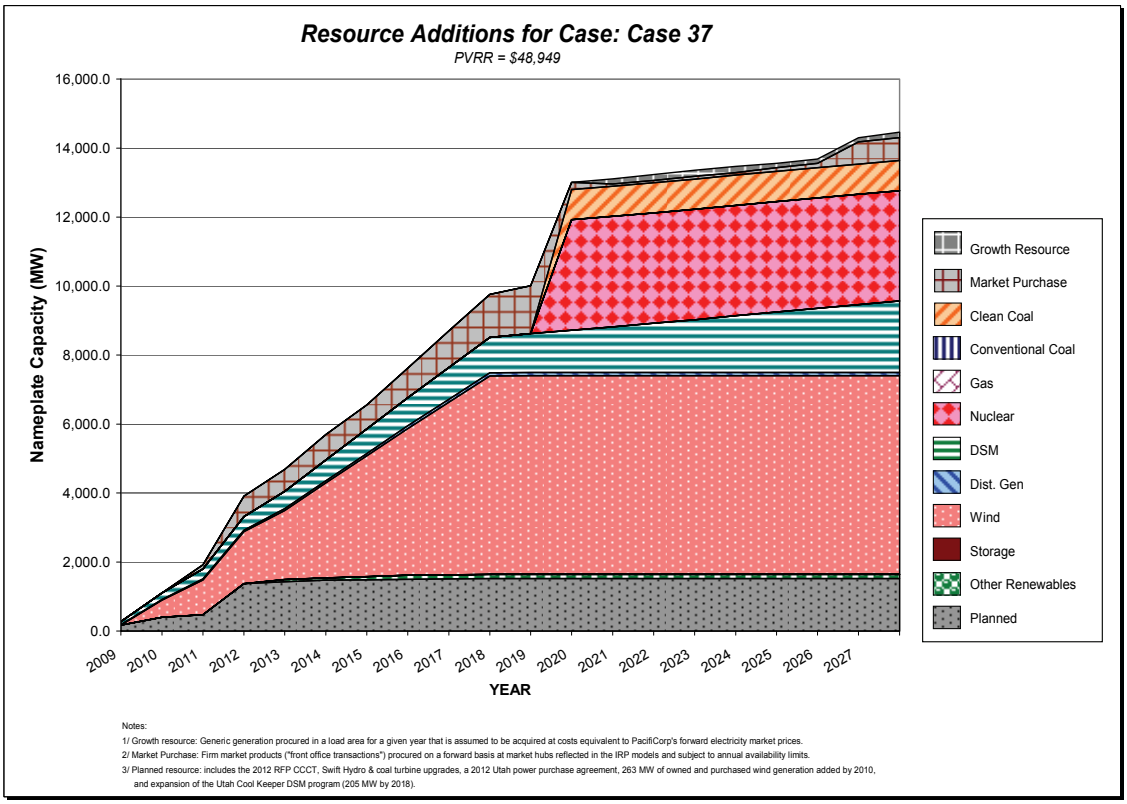
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



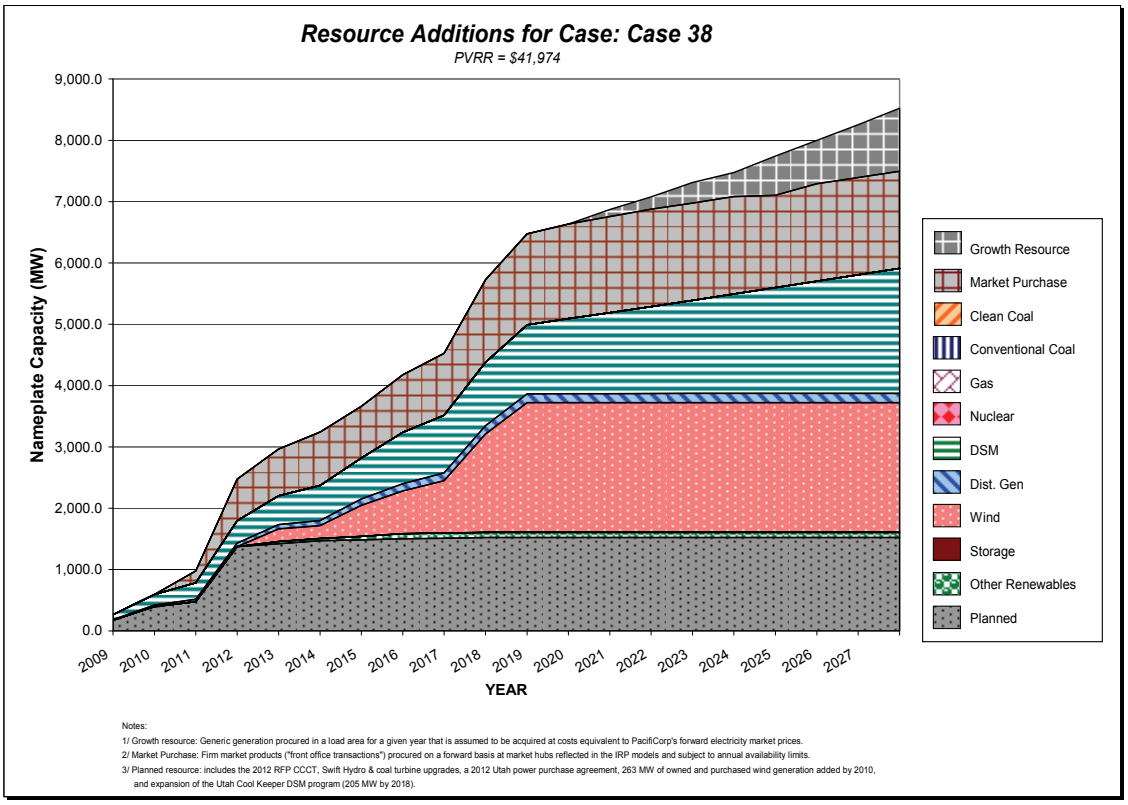
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

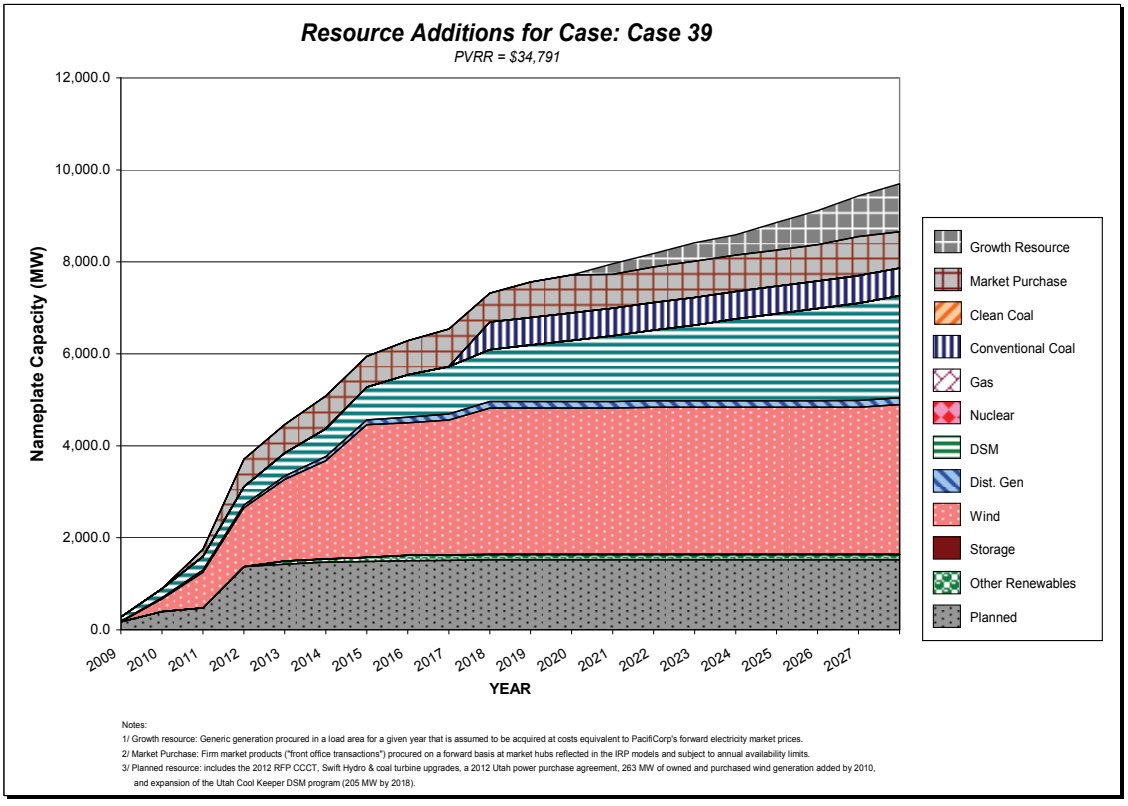


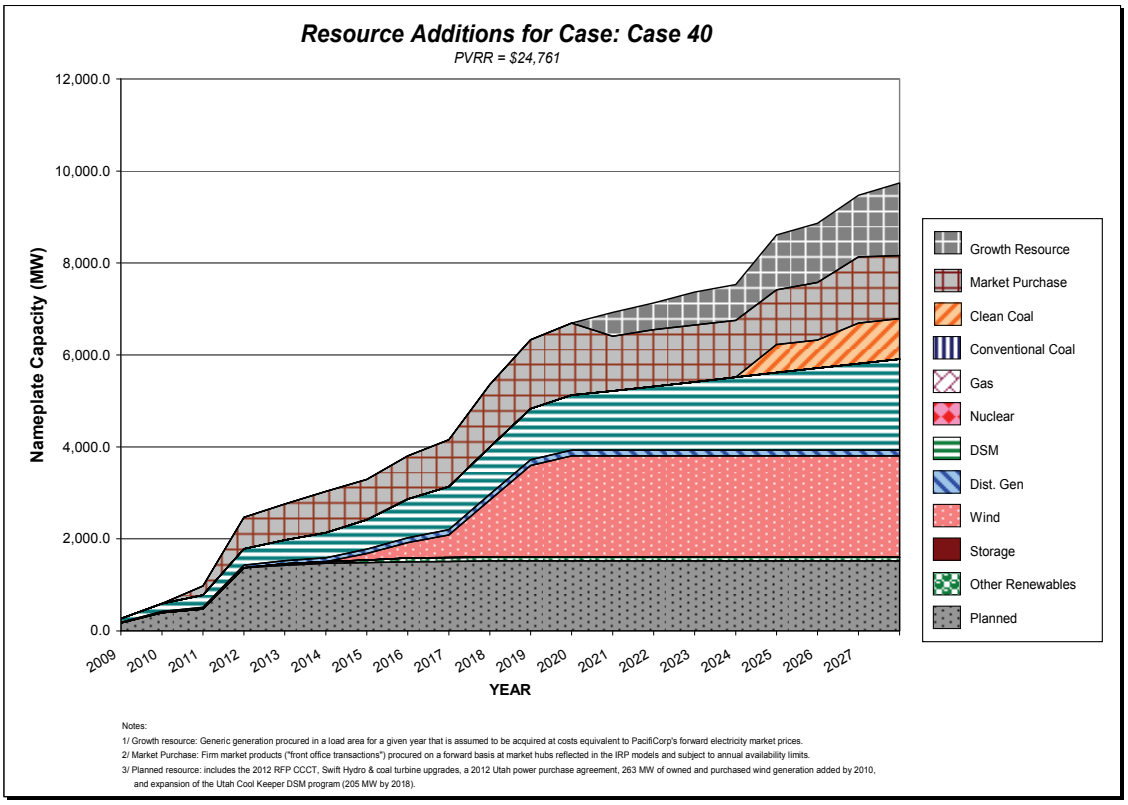
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



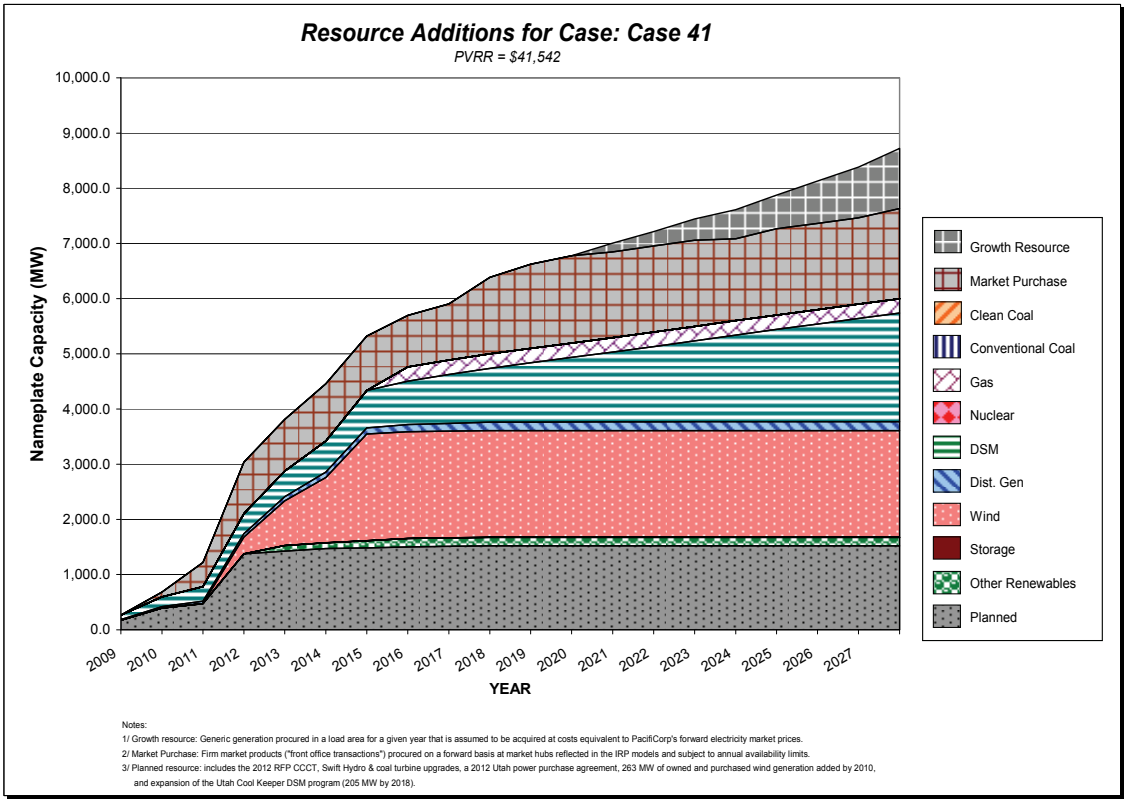
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 38
PVRR = $41,974
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

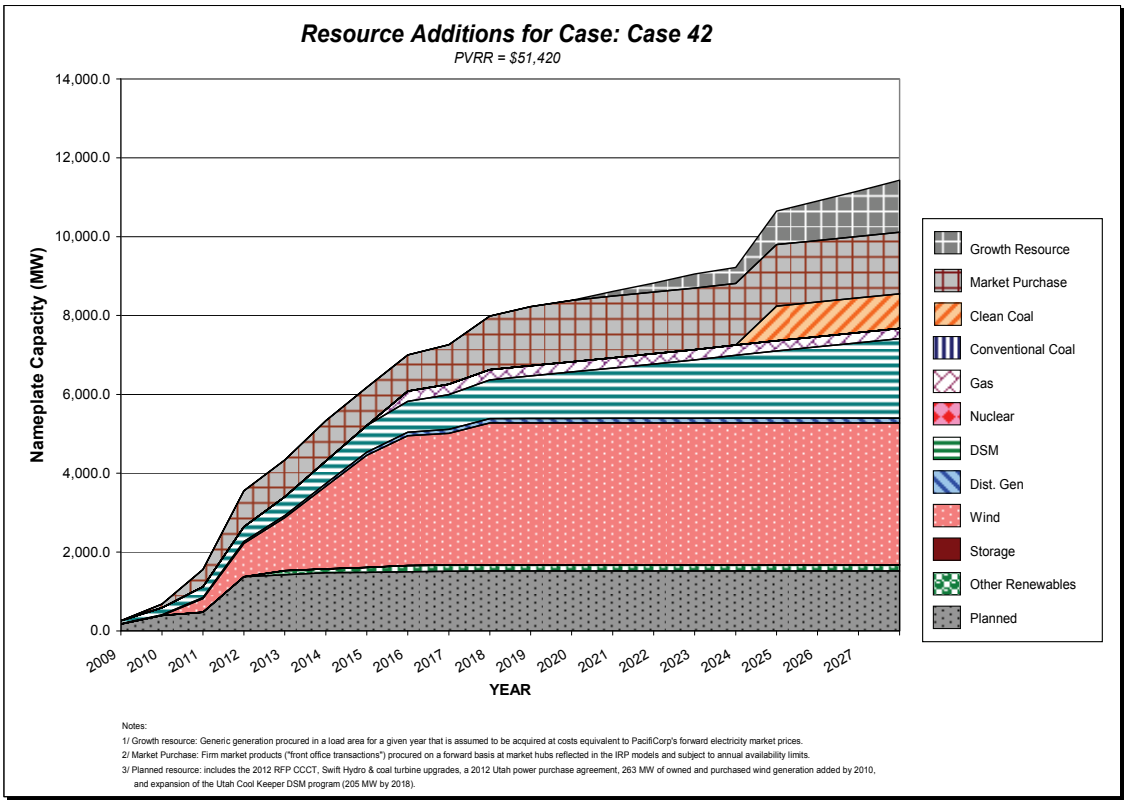

Resource Additions for Case: Case 39
PVRR = $34,791
Nameplate Capacity (MW)
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
2,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



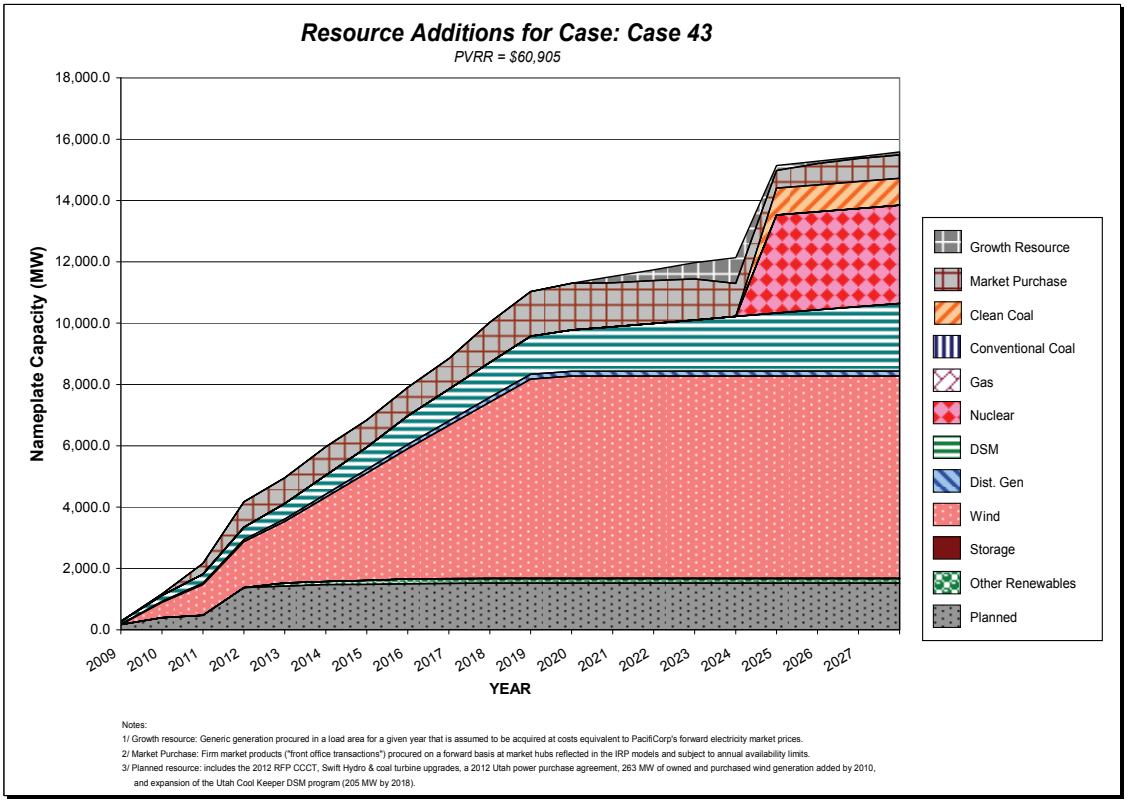
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



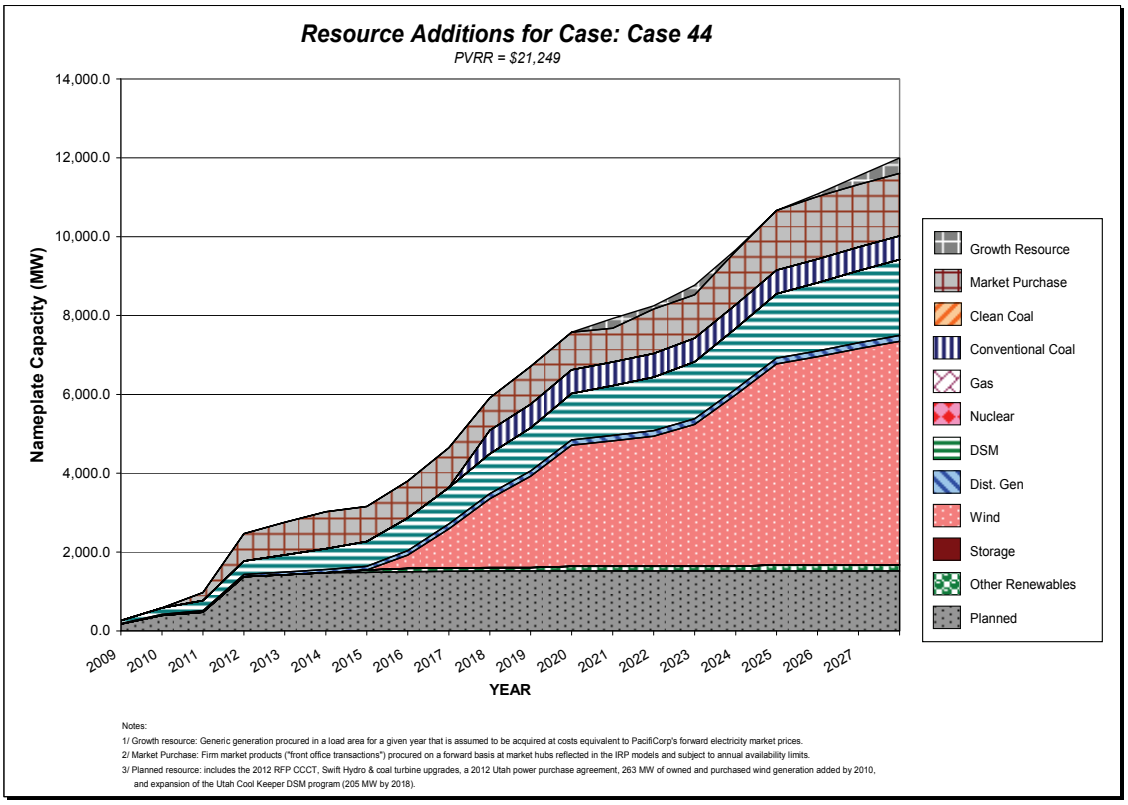
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



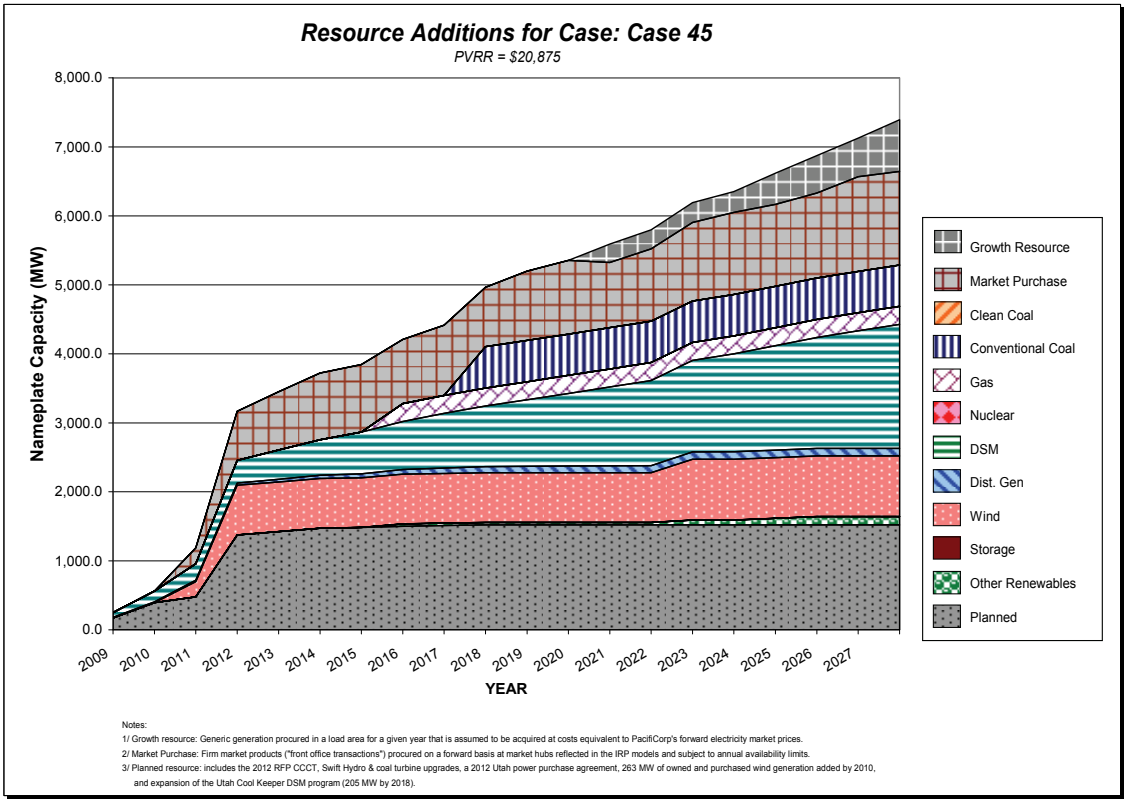
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



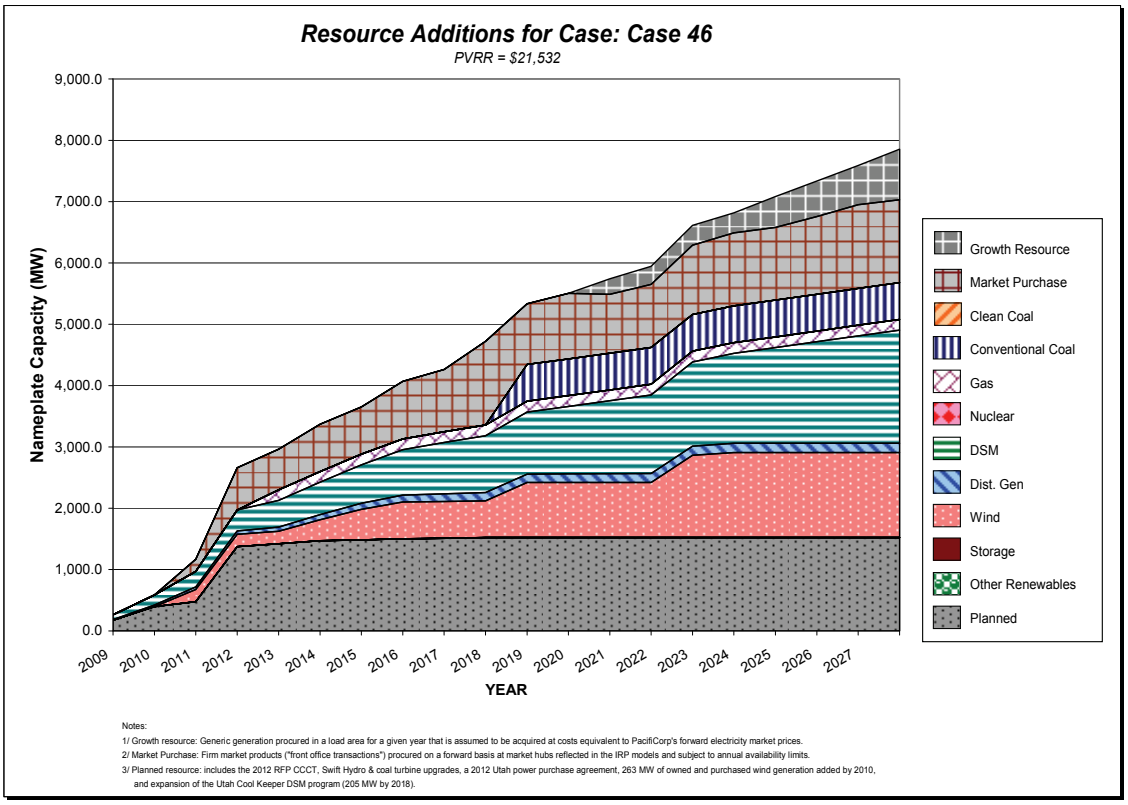
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

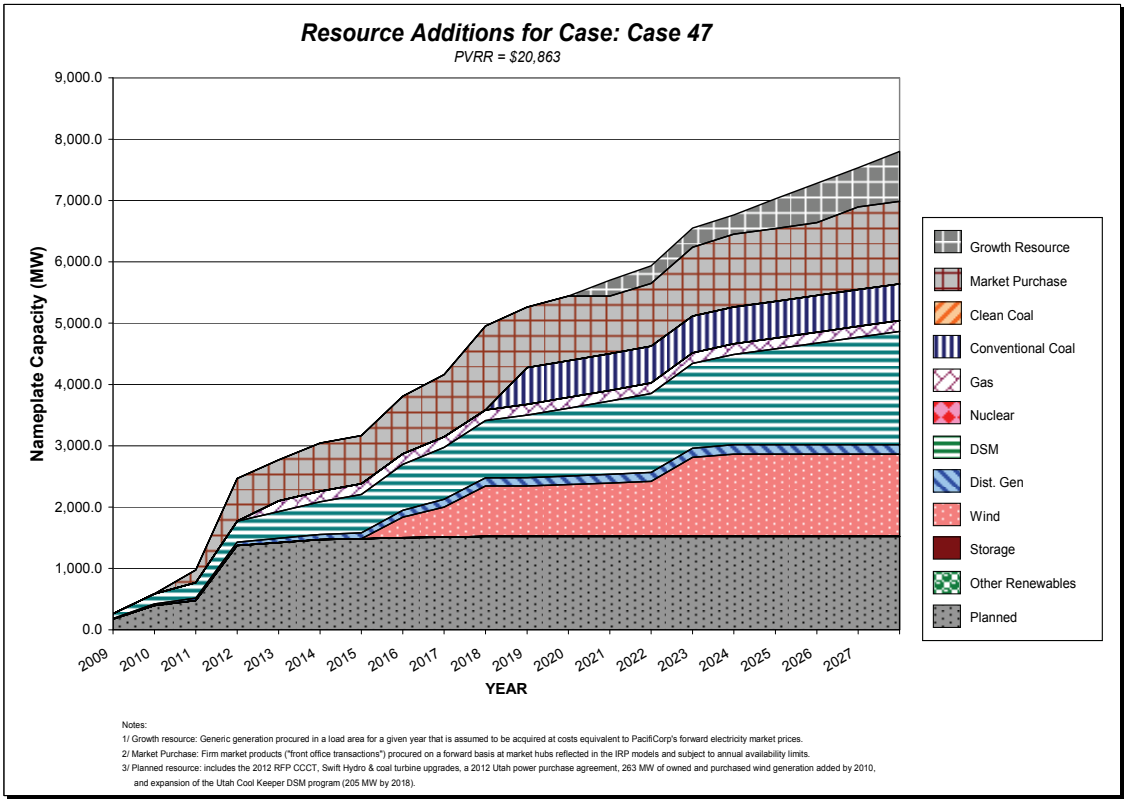


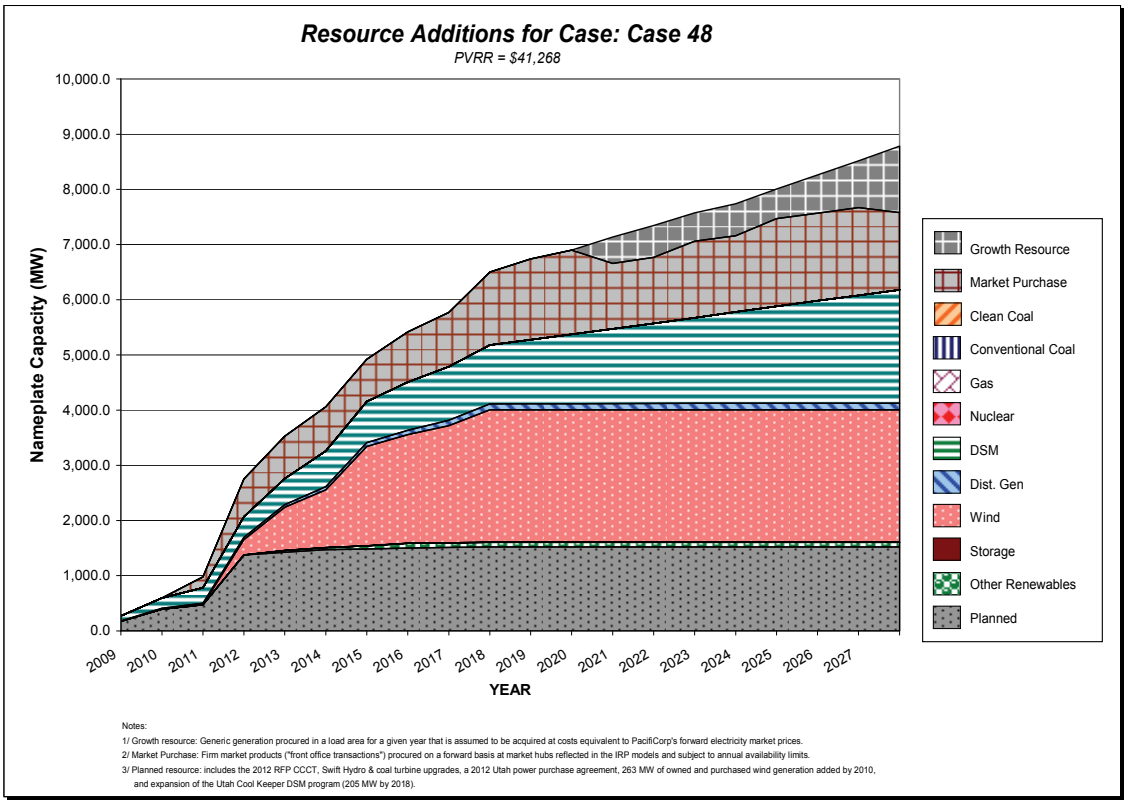
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



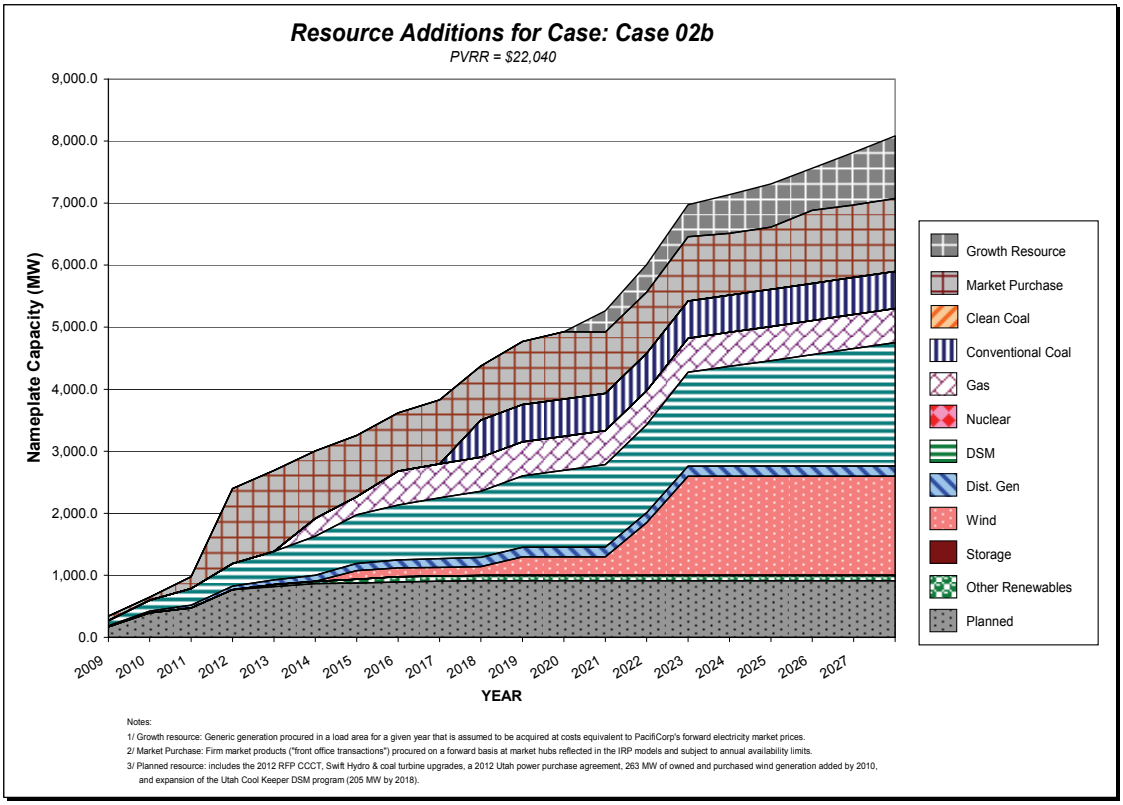
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

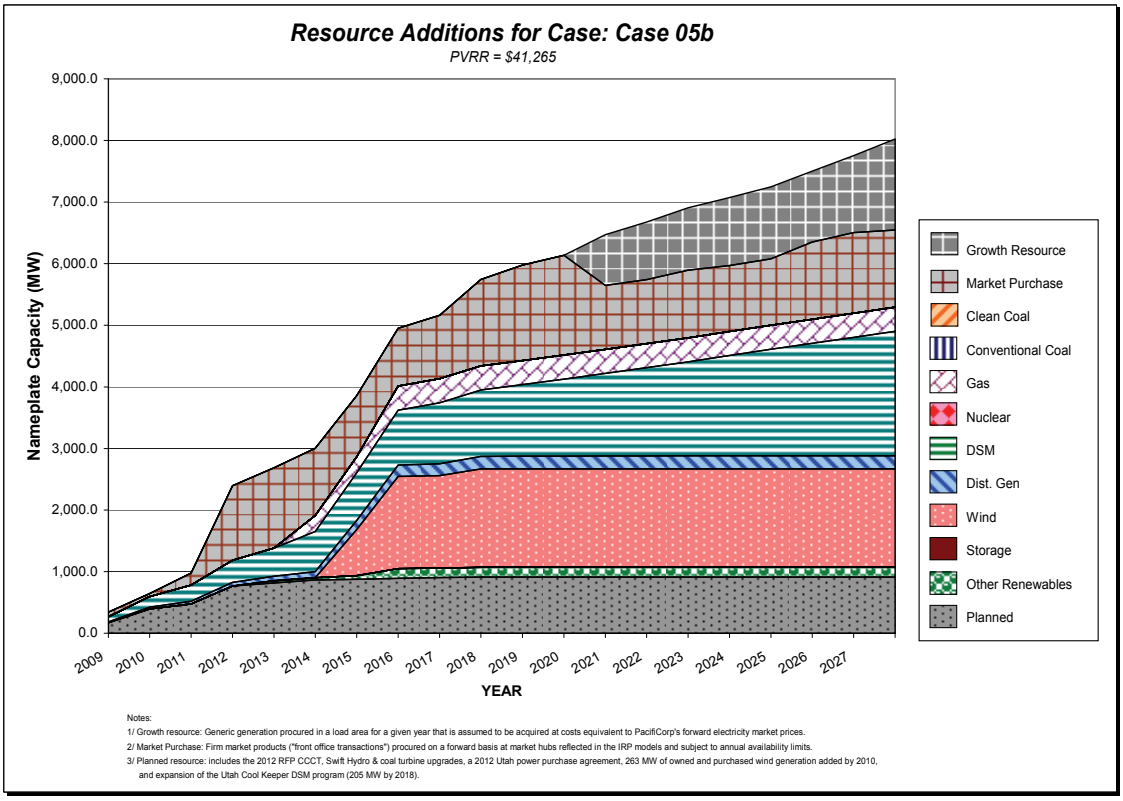

Resource Additions for Case: Case 46
PVRR = $21,532
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

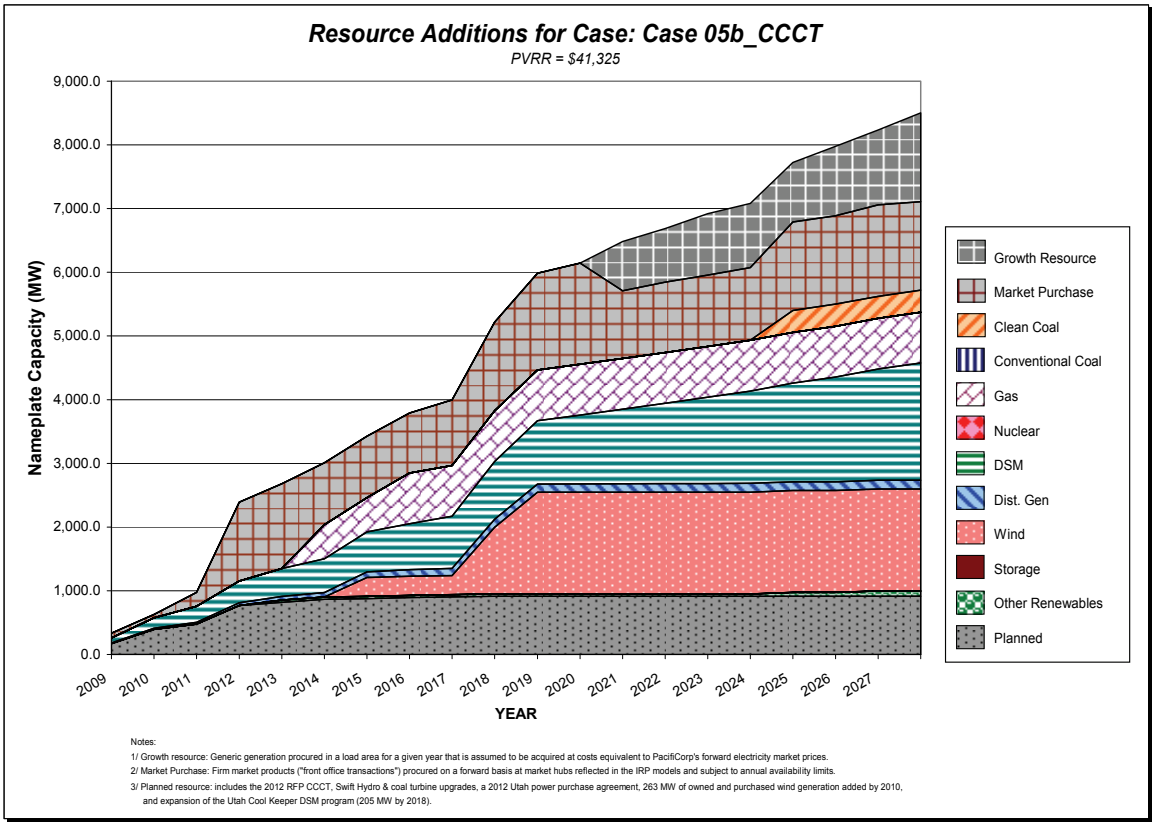

Resource Additions for Case: Case 47
PVRR = $20,863
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 48
PVRR = $41,268
Nameplate Capacity (MW)
10,000.0
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

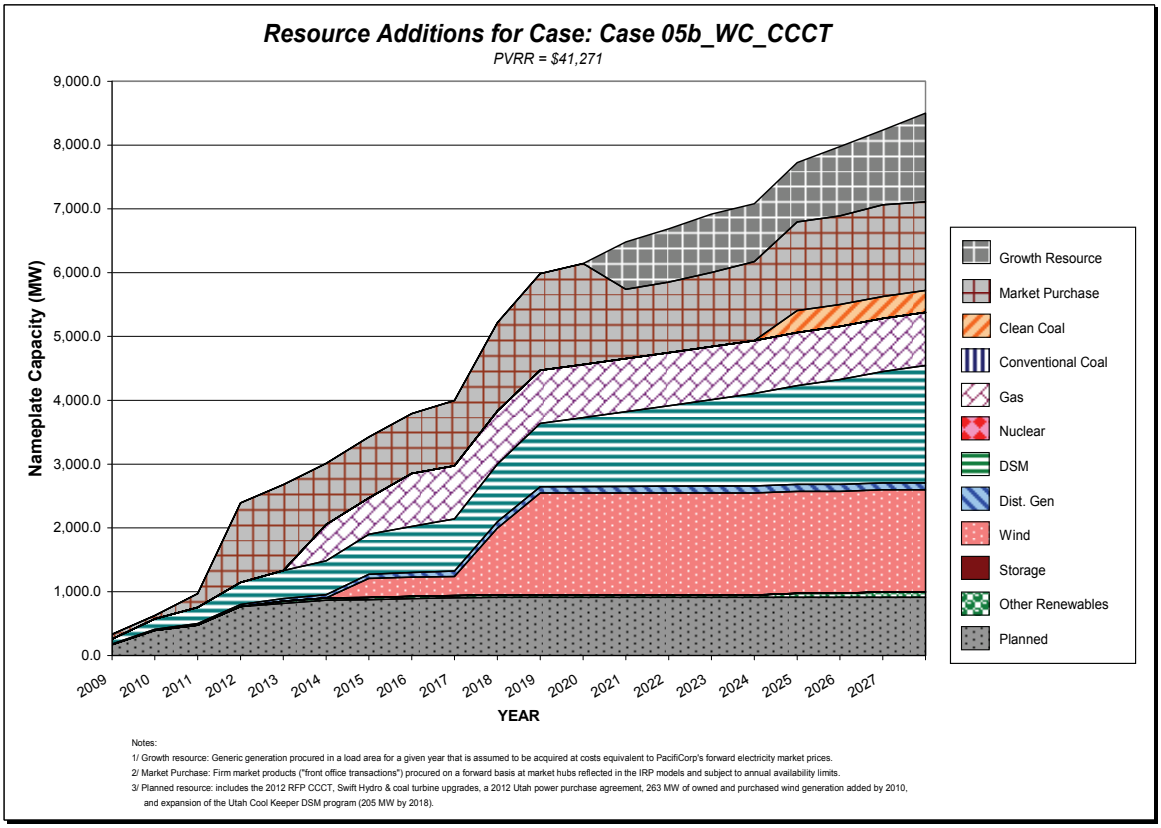
Area Charts: "B-Series" – Portfolio Capacity Additions by Resource Type



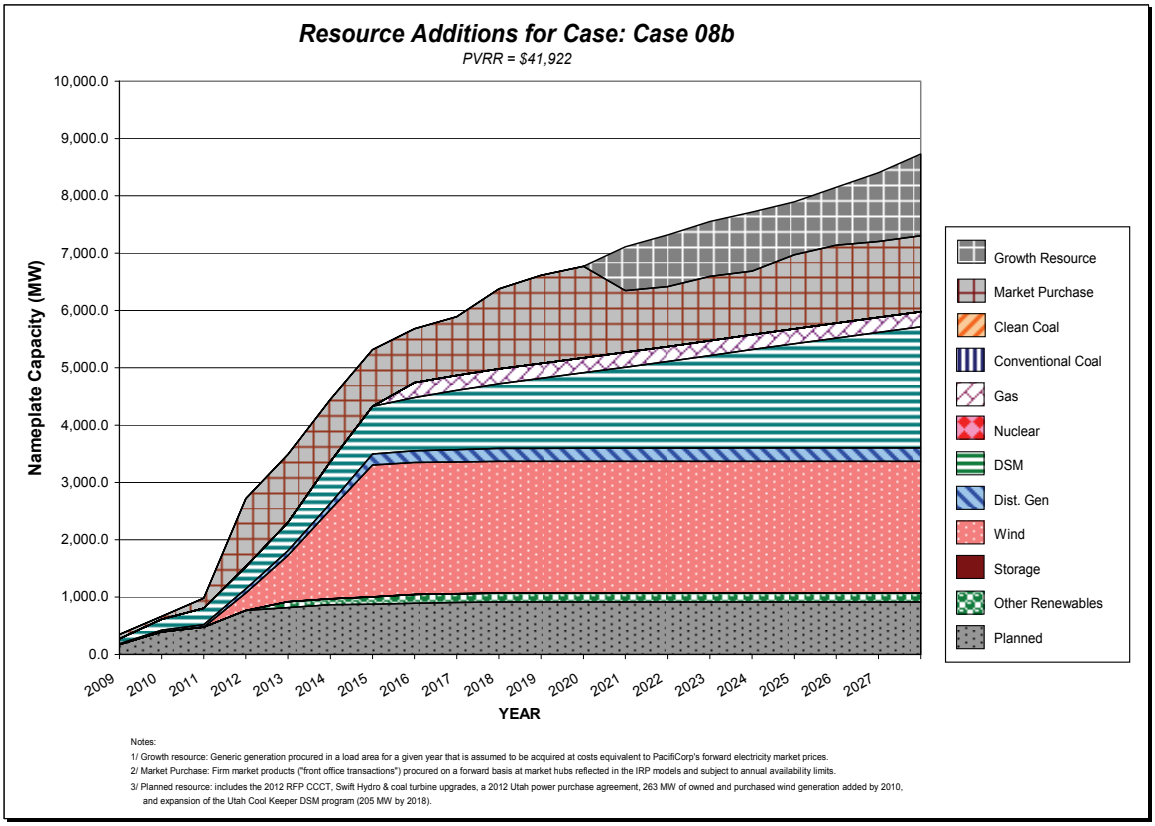


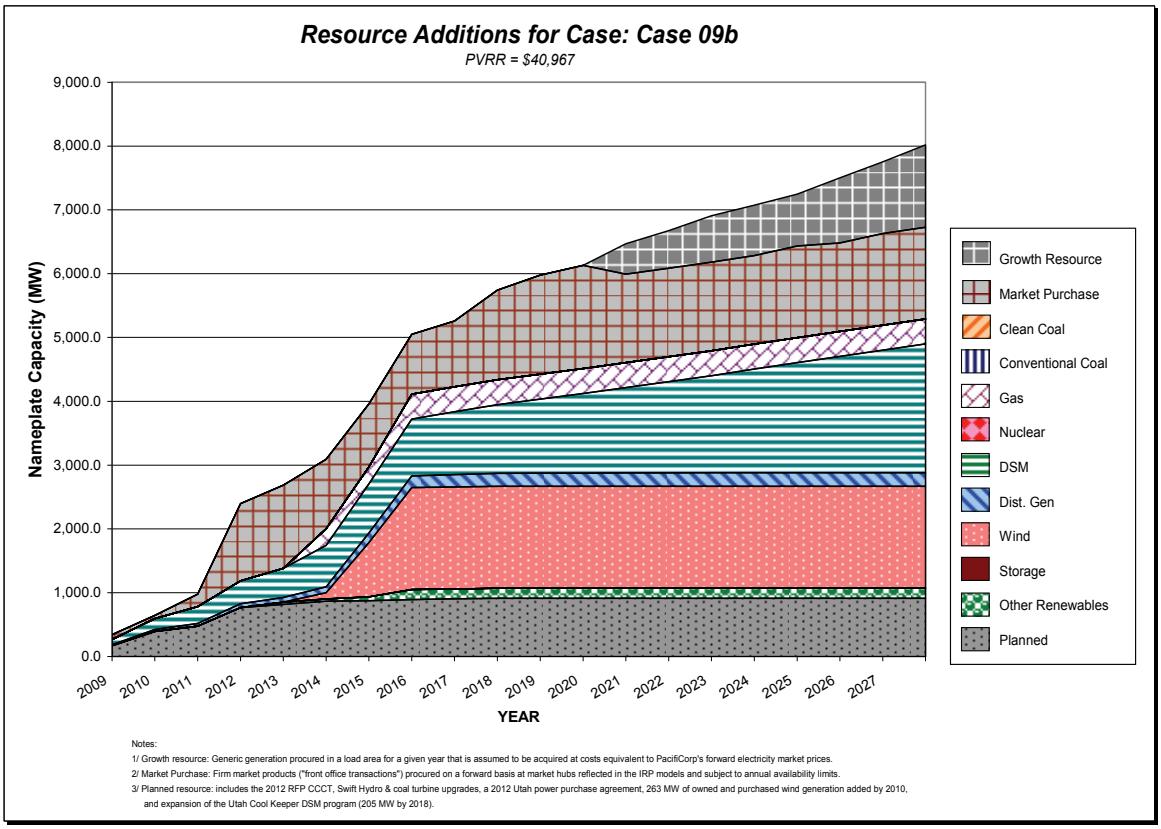


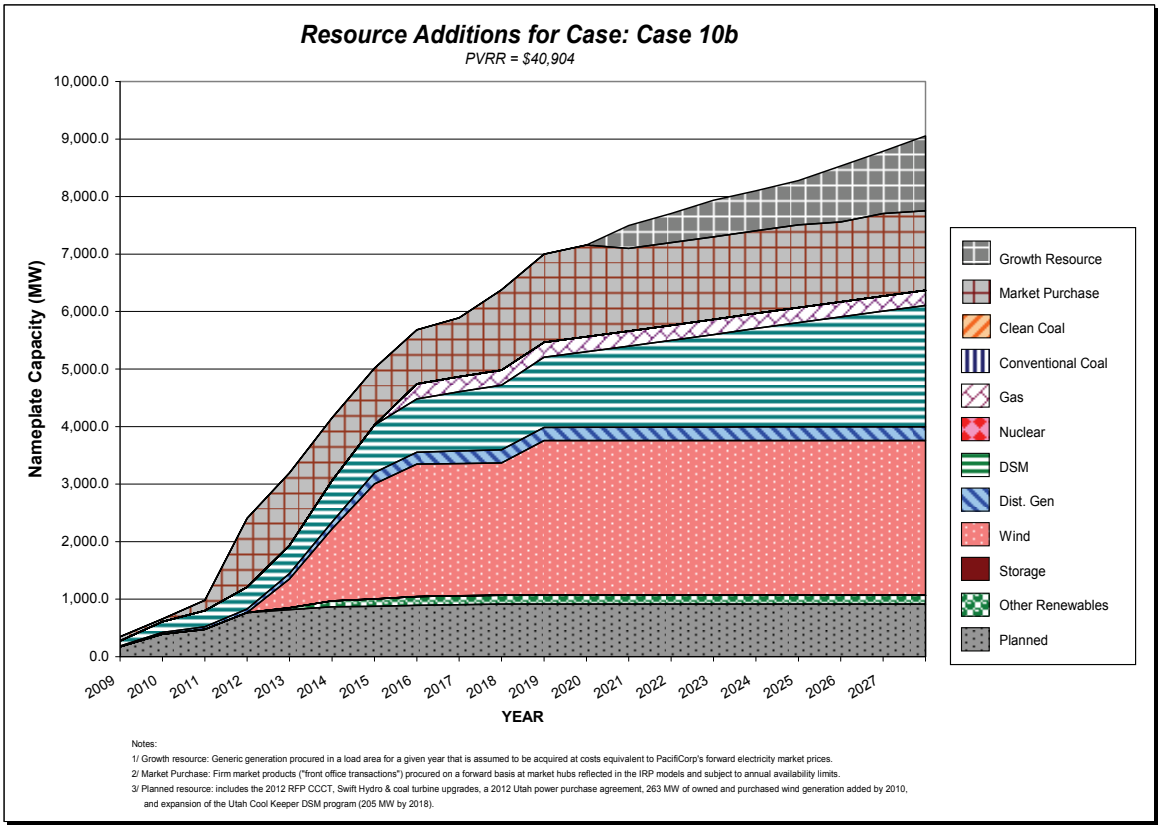
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



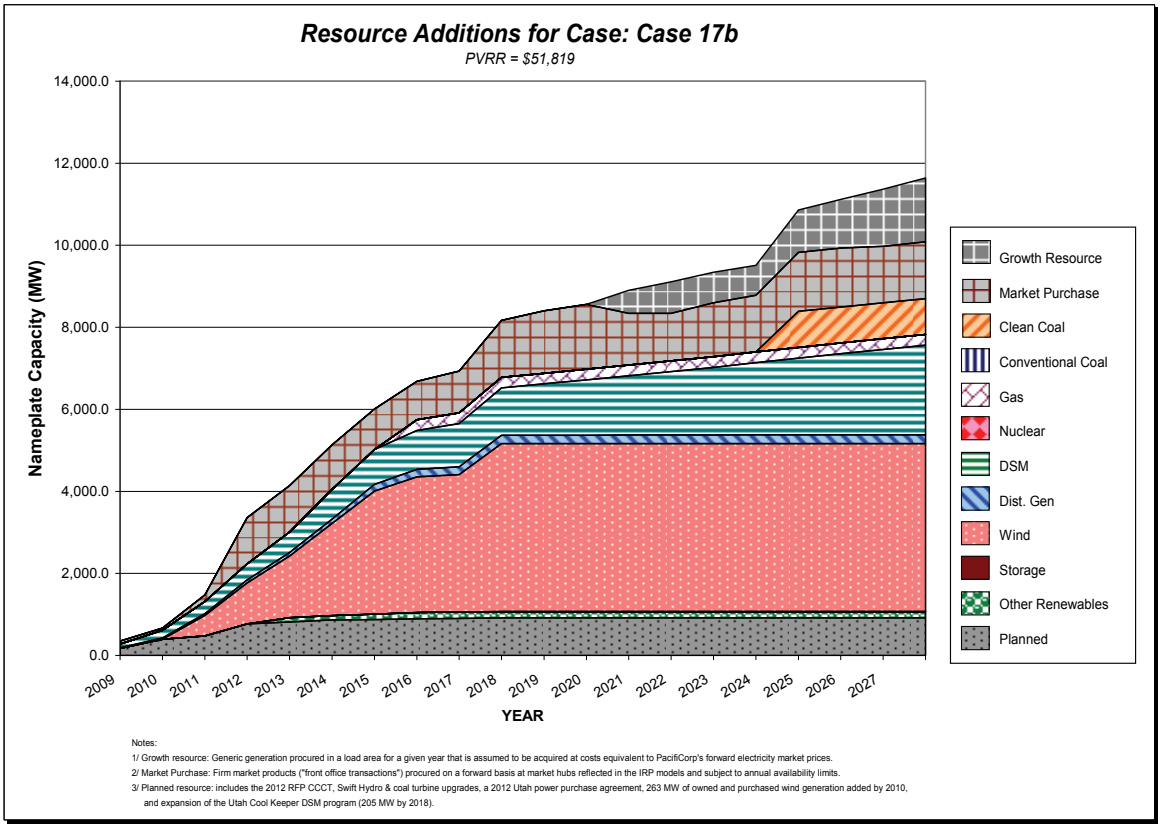
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).


Resource Additions for Case: Case 08b
PVRR = $41,922
Nameplate Capacity (MW)
10,000.0
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

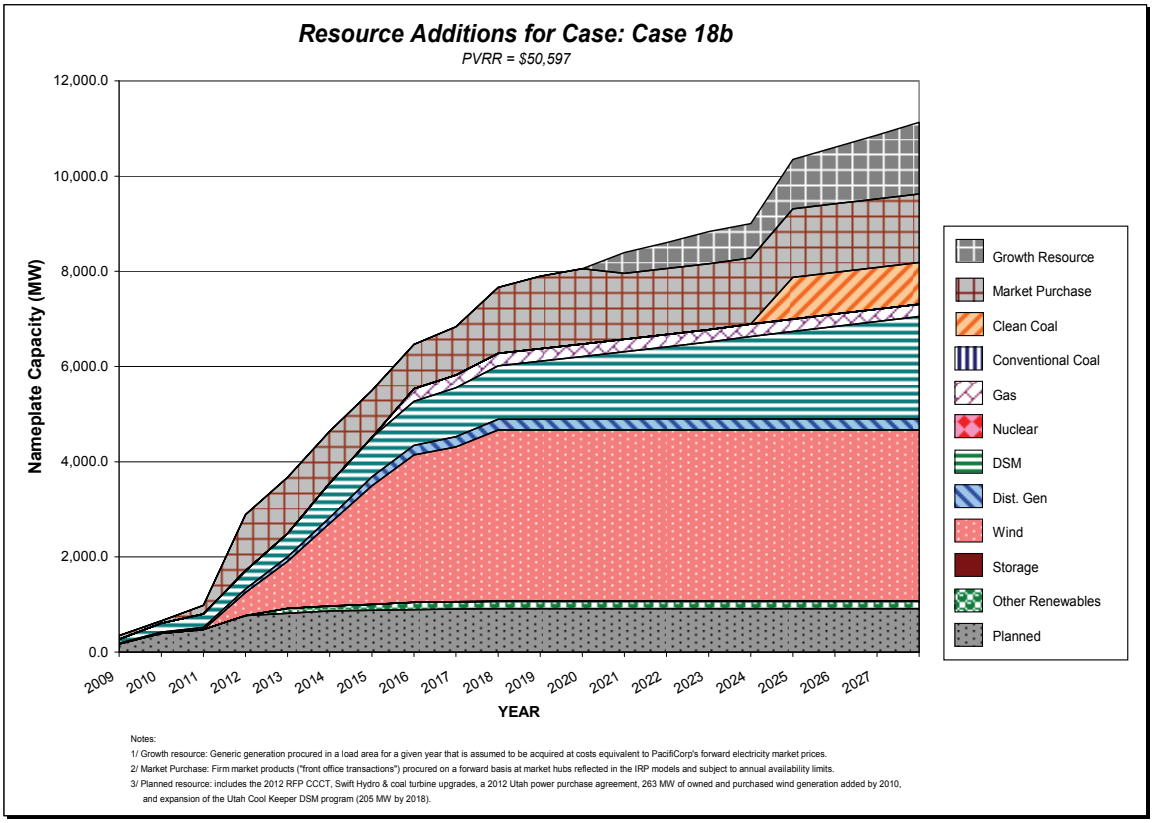

Resource Additions for Case: Case 09b
PVRR = $40,967
Nameplate Capacity (MW)
9,000.0
8,000.0
7,000.0
6,000.0
5,000.0
4,000.0
3,000.0
2,000.0
1,000.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
YEAR
Growth Resource
Market Purchase
Clean Coal
Conventional Coal
Gas
Nuclear
DSM
Dist. Gen
Wind
Storage
Other Renewables
Planned
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



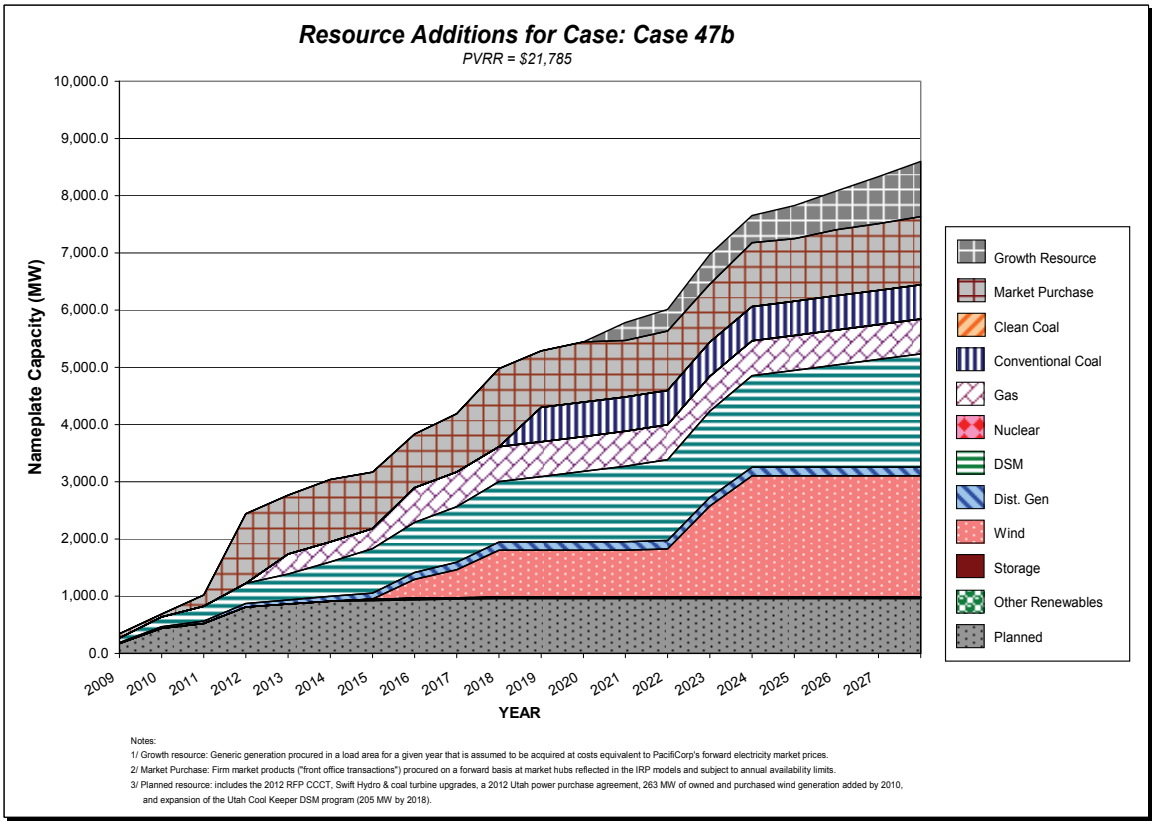
Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).



Notes:
1/ Growth resource: Generic generation procured in a load area for a given year that is assumed to be acquired at costs equivalent to PacifiCorp's forward electricity market prices.
2/ Market Purchase: Firm market products ("front office transactions") procured on a forward basis at market hubs reflected in the IRP models and subject to annual availability limits.
3/ Planned resource: includes the 2012 RFP CCCT, Swift Hydro & coal turbine upgrades, a 2012 Utah power purchase agreement, 263 MW of owned and purchased wind generation added by 2010, and expansion of the Utah Cool Keeper DSM program (205 MW by 2018).

CORE CASES – PIVOT SUMMARY

Table A.4 – Pivot Summary Year 2009 to 2013 (Medium Load Growth Only)

Load	Medium													2009-2013
Sum of Capacity			Group											
Co2	Case (Price Curve)	Year	Wind	Other Renewables	Nuclear	Gas	Dist. Gen	DSM	SCPC	Clean Coal	Storage	Growth Resource	Market Purchase	Planned Resource
$0	Case 01 (Low - June 2008)	2009					13	9						172
		2010					13	44						222
		2011					13	72					301	82
		2012					13	75					801	899
		2013					13	89					933	49
	Case 01 (Low - June 2008) Total						67	289						1,423
	Case 02 (Medium - June 2008)	2009					8	78						172
		2010					8	87						222
		2011					8	88					219	82
		2012					8	90					714	899
		2013		35			8	93					817	49
	Case 02 (Medium - June 2008) Total			35			41	436						1,423
	Case 03 (High - June 2008)	2009					8	87						172
		2010	500				8	99						222
		2011	500				14	97					129	82
		2012	295				8	98					601	899
		2013		105			8	99					648	49
	Case 03 (High - June 2008) Total		1,295	105			47	480						1,423
$45	Case 05 (Low - June 2008)	2009					8	76						172
		2010					8	87						222
		2011					8	88					220	82
		2012					8	90					716	899
		2013		35			9	95					817	49
	Case 05 (Low - June 2008) Total			35			42	436						1,423
	Case 08 (Medium - June 2008)	2009					10	81						172
		2010					13	92						222
		2011					13	91					200	82
		2012	264				20	93					683	899
		2013	500	35			15	100					758	49
	Case 08 (Medium - June 2008) Total		764	35			72	458						1,423
	Case 09 (Low - Oct 2008)	2009					8	76						172
		2010					8	87						222
		2011					8	88					220	82
		2012					8	90					716	899
		2013		35			9	93					818	49
	Case 09 (Low - Oct 2008) Total			35			42	434						1,423
	Case 10 (Medium - Oct 2008)	2009					8	78						172
		2010					8	91						222
		2011					9	91					213	82
		2012					9	93					705	899
		2013	361	35			9	96					798	49
	Case 10 (Medium - Oct 2008) Total		361	35			44	450						1,423
	Case 11 (High - Oct 2008)	2009					8	86						172
		2010					8	99						222
		2011	64				8	97					196	82
		2012	500				14	99					674	899
		2013	500	105			8	103					663	49
	Case 11 (High - Oct 2008) Total		1,064	105			47	484						1,423
	Case 14 (High - June 2008)	2009					8	90						172
		2010	500				8	103						222
		2011	500				20	98					122	82
		2012	500				9	103					586	899
		2013	500	105			9	104					615	49
	Case 14 (High - June 2008) Total		2,000	105			55	499						1,423
$70	Case 17 (Medium - June 2008)	2009					8	82						172
		2010					8	98						222
		2011	194				9	97					197	82
		2012	500				21	99					673	899
		2013	500	105			9	99					688	49
	Case 17 (Medium - June 2008) Total		1,194	105			56	475						1,423
	Case 18 (Low - Oct 2008)	2009					8	78						172
		2010					9	91						222
		2011					9	91					213	82
		2012	263				21	93					699	899
		2013	500	70			9	100					745	49
	Case 18 (Low - Oct 2008) Total		763	70			57	454						1,423
	Case 19 (Medium - Oct 2008)	2009					8	81						172
		2010					9	92						222
		2011					9	96					207	82
		2012	500				21	98					682	899
		2013	500	105			9	101					695	49
	Case 19 (Medium - Oct 2008) Total		1,000	105			57	468						1,423
	Case 20 (High - Oct 2008)	2009					8	87						172
		2010					8	99						222
		2011	500				8	97					184	82
		2012	500				20	102					631	899
		2013	500	105			8	104					800	49
	Case 20 (High - Oct 2008) Total		1,500	105			53	490						1,423
	Case 22 (High - June 2008)	2009					8	90						172
		2010	500				8	103						222
		2011	500				14	98					122	82
		2012	500				14	103					591	899
		2013	500	105			9	105					605	49
	Case 22 (High - June 2008) Total		2,000	105			54	500						1,423

Load	Medium													2009-2013
Sum of Capacity			Group											
Co2	Case (Price Curve)	Year	Wind	Other Renewables	Nuclear	Gas	Dist. Gen	DSM	SCPC	Clean Coal	Storage	Growth Resource	Market Purchase	Planned Resource
$100	Case 24 (Medium - June 2008)	2009					9	87						172
		2010	489				9	99						222
		2011	500				9	98					128	82
		2012	500				21	103					596	899
		2013	500	105			9	104					607	49
	Case 24 (Medium - June 2008) Total		1,989	105			59	492						1,423
	Case 25 (Low - Oct 2008)	2009					9	82						172
		2010					9	98						222
		2011	500				9	97					185	82
		2012	500				21	102					661	899
		2013	500	105			9	104					800	49
	Case 25 (Low - Oct 2008) Total		1,500	105			59	483						1,423
	Case 26 (Medium - Oct 2008)	2009					9	87						172
		2010					9	99						222
		2011	500				9	97					182	82
		2012	500				21	103					643	899
		2013	500	105			9	104					800	49
	Case 26 (Medium - Oct 2008) Total		1,500	105			59	490						1,423
	Case 27 (High - Oct 2008)	2009					8	87						172
		2010	500				9	103						222
		2011	500				9	98					126	82
		2012	500				21	103					593	899
		2013	500	105			9	104					800	49
	Case 27 (High - Oct 2008) Total		2,000	105			57	496						1,423
	Case 29 (High - June 2008)	2009					9	91						172
		2010	500				14	109						222
		2011	500				20	106					102	82
		2012	500				21	109					556	899
		2013	500	105			15	110					564	49
	Case 29 (High - June 2008) Total		2,000	105			78	526						1,423

Table A.5 – Pivot Summary Year 2014 to 2020 (Medium Load Growth Only)

Load	Medium													2014-2020
Sum of Capacity			Group											
Co2	Case (Price Curve)	Year	Wind	Other Renewables	Nuclear	Gas	Dist. Gen	DSM	SCPC	Clean Coal	Storage	Growth Resource	Market Purchase	Planned Resource
$0	Case 01 (Low - June 2008)	2014					13	85					1,055	49
		2015					13	162					989	10
		2016				261	13	118					939	18
		2017					8	87					1,039	10
		2018					8	82					1,422	10
		2019					5	82					1,566	
		2020					0	82					1,638	
	Case 01 (Low - June 2008) Total					261	63	699						97
	Case 02 (Medium - June 2008)	2014					8	92					938	49
		2015					8	92					949	10
		2016				261	8	89					933	18
		2017					8	96					1,027	10
		2018	140				10	87	600				863	10
		2019	160				2	87					1,008	
		2020					3	88					1,074	
	Case 02 (Medium - June 2008) Total		300			261	48	630	600					97
	Case 03 (High - June 2008)	2014	135				14	102					749	49
		2015	750	25			8	102					709	10
		2016	223	25			8	101					891	18
		2017	138				8	104					967	10
		2018	750				8	99	790				604	10
		2019	712					97					739	
		2020						97					800	
	Case 03 (High - June 2008) Total		2,708	50			47	702	790					97
$45	Case 05 (Low - June 2008)	2014					9	94					935	49
		2015	300				11	95					936	10
		2016				261	11	95					914	18
		2017					11	97					1,004	10
		2018	750				11	87					1,365	10
		2019	400				3	87					1,500	
		2020					3	88					1,566	
	Case 05 (Low - June 2008) Total		1,450			261	59	642						97
	Case 08 (Medium - June 2008)	2014	286				15	101					859	49
		2015	750	25			22	101					821	10
		2016	193	60			16	107					939	18
		2017	158				11	104					1,010	10
		2018	249				11	92					1,358	10
		2019					3	96					1,500	
		2020					3	95					1,561	
	Case 08 (Medium - June 2008) Total		1,636	85			80	695						97
	Case 09 (Low - Oct 2008)	2014					9	94					937	49
		2015	300				11	95					938	10
		2016				261	11	95					916	18
		2017	444				11	97					996	10
		2018	536				11	87					1,362	10
		2019	305				3	87					1,499	
		2020	15				3	88					1,565	
	Case 09 (Low - Oct 2008) Total		1,600			261	58	642						97
	Case 10 (Medium - Oct 2008)	2014	291				9	101					902	49
		2015	750	25			25	102					867	10
		2016	591	95			16	107					939	18
		2017	158				11	104					1,010	10
		2018	248				11	92					1,358	10
		2019	200				3	96					1,468	
		2020					3	95					1,529	
	Case 10 (Medium - Oct 2008) Total		2,238	120			78	696						97
	Case 11 (High - Oct 2008)	2014	750				14	105					733	49
		2015	750	25			10	104					689	10
		2016	750	25			10	104					863	18
		2017	750				10	105					915	10
		2018	750				10	106	600				726	10
		2019	185				2	97					866	
		2020					2	97					925	
	Case 11 (High - Oct 2008) Total		3,935	50			60	718	600					97
	Case 14 (High - June 2008)	2014	750				9	105					689	49
		2015	750	25			11	104					651	10
		2016	750	25			11	105					790	18
		2017	482				11	106					866	10
		2018	622			0	11	106	600				679	10
		2019	335				3	98					819	
		2020	199				3	98					877	
	Case 14 (High - June 2008) Total		3,888	50		0	58	722	600					97

Load	Medium													2014-2020
Sum of Capacity			Group											
$70	Case 17 (Medium - June 2008)	2014	750				9	102					764	49
		2015	750	25			11	102					701	10
		2016	595	25			11	103					875	18
		2017	110				11	112					947	10
		2018	500				11	99					1,287	10
		2019					3	97					1,429	
		2020					3	97					1,487	
	Case 17 (Medium - June 2008) Total		2,706	50			59	713						97
	Case 18 (Low - Oct 2008)	2014	750	35			9	102					810	49
		2015	486	25			11	102					749	10
		2016	400	25			11	101					903	18
		2017	750				11	110					969	10
		2018	750				11	92					1,310	10
		2019					3	96					1,453	
		2020					2	95					1,514	
	Case 18 (Low - Oct 2008) Total		3,136	85			58	698						97
	Case 19 (Medium - Oct 2008)	2014	750				9	102					794	49
		2015	750	25			11	102					707	10
		2016	750	25			11	101					881	18
		2017	585				11	111					944	10
		2018	265				11	98					1,287	10
		2019					3	97					1,429	
		2020					2	97					1,488	
	Case 19 (Medium - Oct 2008) Total		3,100	50			58	708						97
	Case 20 (High - Oct 2008)	2014	750				9	105					720	49
		2015	750	25			10	104					685	10
		2016	750	25			10	104					855	18
		2017	750				10	112					914	10
		2018	750				10	99					1,228	10
		2019	750				2	97					1,368	
		2020	600				2	97					1,426	
	Case 20 (High - Oct 2008) Total		5,100	50			55	719						97
	Case 22 (High - June 2008)	2014	750				9	110					700	49
		2015	750	25			10	112					653	10
		2016	750	25			10	110					807	18
		2017	750				10	113					1,007	10
		2018	750				8	111	600				658	10
		2019	750					102					791	
		2020	700					102					843	
	Case 22 (High - June 2008) Total		5,200	50			47	760	600					97
$100	Case 24 (Medium - June 2008)	2014	750				9	105					706	49
		2015	750	25			11	104					673	10
		2016	750	25			11	104					841	18
		2017	750				11	105					883	10
		2018	750				11	106					1,218	10
		2019	750				2	102					1,355	
		2020	111				2	103					1,411	
	Case 24 (Medium - June 2008) Total		4,611	50			57	729						97
	Case 25 (Low - Oct 2008)	2014	750				9	105					850	49
		2015	750	25			11	104					850	10
		2016	750	25			11	104					1,015	18
		2017	750				11	112					1,530	10
		2018	750				11	99					1,530	10
		2019	750				2	97					1,530	
		2020	175				2	97					1,530	
	Case 25 (Low - Oct 2008) Total		4,675	50			57	719						97
	Case 26 (Medium - Oct 2008)	2014	750				9	105					728	49
		2015	750	25			11	104					800	10
		2016	750	25			11	104					1,009	18
		2017	750				11	112					1,072	10
		2018	750				11	99					1,381	10
		2019	750				2	97					1,423	
		2020	600				2	97					1,482	
	Case 26 (Medium - Oct 2008) Total		5,100	50			57	719						97
	Case 27 (High - Oct 2008)	2014	750				9	110					800	49
		2015	750	25			11	112					800	10
		2016	750	25			11	109					987	18
		2017	750				11	114					1,019	10
		2018	750				11	111					1,352	10
		2019	750				3	103					1,390	
		2020	180				2	103					1,443	
	Case 27 (High - Oct 2008) Total		4,680	50			58	763						97
	Case 29 (High - June 2008)	2014	750				15	112					661	49
		2015	750	25			16	113					716	10
		2016	750	25			16	110					926	18
		2017	750				16	218					850	10
		2018	750				16	110					1,009	10
		2019	750				2	103					1,144	
		2020	700				2	103					1,197	
	Case 29 (High - June 2008) Total		5,200	50			84	870						97

Table A.6 – Pivot Summary Year 2021 to 2028 (Medium Load Growth Only)

Load	Medium														2021-2028
Sum of Capacity			Group												
Co2	Case (Price Curve)	Year	Wind	Other Renewables	Nuclear	Gas	Dist. Gen	DSM	SCPC	Clean Coal	Storage	Growth Resource	Market Purchase	Planned Resource	
$0	Case 01 (Low - June 2008)	2021						76				407	1,388		
		2022						79				531	1,388		
		2023						80				629	1,438		
		2024						79				708	1,438		
		2025						81				889	1,438		
		2026						88				1,051	1,438		
		2027						89				1,213	1,438		
		2028						85				1,441	1,388		
	Case 01 (Low - June 2008) Total							657							
	Case 02 (Medium - June 200	2021					3	90				268	950		
		2022					3	91				363	966		
		2023	14				3	93				287	1,177		
		2024					3	93				535	995		
		2025					3	92				633	1,068		
		2026					3	95				668	1,188		
		2027	628				3	98				636	1,359		
		2028					1	97				804	1,361		
	Case 02 (Medium - June 2008) Total		641				20	750							
	Case 03 (High - June 2008)	2021						98				450	491		
		2022						99				440	608		
		2023						101				299	881		
		2024						116				289	942		
		2025						107				664	728		
		2026						98				713	834		
		2027						100				198	1,504		
		2028						98				438	1,433		
	Case 03 (High - June 2008) Total							817							
$45	Case 05 (Low - June 2008)	2021	150				3	90				399	1,308		
		2022					3	91				430	1,389		
		2023					2	93				578	1,377		
		2024					2	93				693	1,329		
		2025						100		346		719	1,588		
		2026						97				875	1,588		
		2027						98				981	1,638		
		2028						97				1,200	1,588		
	Case 05 (Low - June 2008) Total		150				9	760		346					
	Case 08 (Medium - June 200	2021					3	95				495	1,206		
		2022					2	97				250	1,558		
		2023					2	100				352	1,588		
		2024					2	105				545	1,453		
		2025						102				575	1,588		
		2026						98				731	1,588		
		2027						100				885	1,588		
		2028						98				1,161	1,543		
	Case 08 (Medium - June 2008) Total						8	797							
	Case 09 (Low - Oct 2008)	2021					3	90				121	1,588		
		2022					3	91				233	1,588		
		2023					2	93				369	1,588		
		2024					2	93				435	1,588		
		2025						100		346		720	1,588		
		2026						97				877	1,588		
		2027						98				1,032	1,588		
		2028						97				1,202	1,588		
	Case 09 (Low - Oct 2008) Total						10	760		346					
	Case 10 (Medium - Oct 2008	2021					2	95				95	1,574		
		2022					2	97				190	1,588		
		2023					2	100				321	1,588		
		2024					2	105				379	1,588		
		2025						102				544	1,588		
		2026						98				700	1,588		
		2027						100				854	1,588		
		2028						98				1,023	1,588		
	Case 10 (Medium - Oct 2008) Total						7	797							
	Case 11 (High - Oct 2008)	2021					2	99				285	778		
		2022					2	100				306	862		
		2023					2	102				321	977		
		2024						117				186	1,162		
		2025						108				288	1,283		
		2026						106				706	1,015		
		2027						100				1,130	850		
		2028						98				1,984	168		
	Case 11 (High - Oct 2008) Total						6	828							
	Case 14 (High - June 2008)	2021	398				3	105				224	785		
		2022					2	106				235	875		
		2023					2	102				724	515		
		2024						117				261	1,029		
		2025						108		466		181	853		
		2026						106				199	984		
		2027						104				151	1,184		
		2028						104				200	1,300		
	Case 14 (High - June 2008) Total		398				7	852		466					

Load	Medium														2021-2028
Sum of Capacity			Group												
Co2	Case (Price Curve)	Year	Wind	Other Renewables	Nuclear	Gas	Dist. Gen	DSM	SCPC	Clean Coal	Storage	Growth Resource	Market Purchase	Planned Resource	
$70	Case 17 (Medium - June 200	2021					2	99				107	1,518		
		2022					2	100				144	1,588		
		2023					2	102				274	1,588		
		2024					2	117				323	1,588		
		2025						108		876		778	1,588		
		2026						106				927	1,588		
		2027						104				1,078	1,588		
		2028						104				1,243	1,588		
	Case 17 (Medium - June 2008) Total						7	840		876					
	Case 18 (Low - Oct 2008)	2021					2	95				186	1,468		
		2022					2	97				310	1,452		
		2023					2	101				305	1,588		
		2024					2	116				474	1,468		
		2025						107		876		810	1,588		
		2026						106				960	1,588		
		2027						103				1,062	1,638		
		2028						103				1,227	1,638		
	Case 18 (Low - Oct 2008) Total						7	829		876					
	Case 19 (Medium - Oct 2008	2021					2	99				94	1,532		
		2022					2	100				144	1,588		
		2023					2	102				290	1,572		
		2024					2	117				368	1,543		
		2025						108		876		779	1,588		
		2026						106				928	1,588		
		2027						104				1,079	1,650		
		2028						104				1,194	1,700		
	Case 19 (Medium - Oct 2008) Total						7	840		876					
	Case 20 (High - Oct 2008)	2021					2	99				826	800		
		2022					2	100				743	989		
		2023					2	102				716	1,146		
		2024						117				431	1,481		
		2025			1,600			108		876			939		
		2026						106				11	1,077		
		2027						104				464	800		
		2028						98				2,014	800		
	Case 20 (High - Oct 2008) Total				1,600		6	833		876					
	Case 22 (High - June 2008)	2021						105				154	824		
		2022						106				173	908		
		2023						108				179	1,029		
		2024						117				242	1,016		
		2025			1,600			109		876		123	161		
		2026						107				125	308		
		2027						104				124	639		
		2028						106				165	654		
	Case 22 (High - June 2008) Total				1,600			862		876					
$100	Case 24 (Medium - June 200	2021					2	105				211	1,333		
		2022					2	106				357	1,289		
		2023					2	108				517	1,254		
		2024					2	118				815	1,005		
		2025			3,200			109		876		163	565		
		2026						107				62	683		
		2027						104				34	745		
		2028						106				82	753		
	Case 24 (Medium - June 2008) Total				3,200		6	862		876					
	Case 25 (Low - Oct 2008)	2021					2	99				96	1,530		
		2022					2	100				402	1,268		
		2023					2	102				332	1,530		
		2024					2	117				499	1,349		
		2025						108		876		836	1,468		
		2026						106				1,186	1,268		
		2027						104				1,087	1,518		
		2028						104				1,776	993		
	Case 25 (Low - Oct 2008) Total						6	840		876					
	Case 26 (Medium - Oct 2008	2021					2	99				613	1,063		
		2022					2	100				570	1,094		
		2023					2	102				676	1,117		
		2024					2	117				502	1,341		
		2025			3,200			108		876			731		
		2026						106				11	257		
		2027						104				35	268		
		2028						104				82	277		
	Case 26 (Medium - Oct 2008) Total				3,200		6	840		876					
	Case 27 (High - Oct 2008)	2021					2	105				245	1,330		
		2022					2	107				482	1,194		
		2023					2	108				435	1,366		
		2024						117				374	1,477		
		2025			3,200			108		876			1,280		
		2026						106				930	1,480		
		2027						99				431	1,480		
		2028						97				2,304	517		
	Case 27 (High - Oct 2008) Total				3,200		5	846		876					
	Case 29 (High - June 2008)	2021					2	106				601	728		
		2022					2	107				695	736		
		2023					2	110				809	745		
		2024						135				878	713		
		2025			3,200			110		1,342		140	81		
		2026						112				137	501		
		2027						112				148	125		
		2028						107				187	141		
	Case 29 (High - June 2008) Total				3,200		5	898		1,342					

Core Cases – 20-Year Summary by Scenario Variable

This section provides the 47 core cases 20-Year summarization for Load Growth, CO2 Tax Levels and Natural Gas Forward Price Curves. Additionally a Minimum and Maximum value for each resource group is provide at the bottom.

Table A.7 – 20-year Summary by Scenario Variable, Load Growth

Sum of 20 Year (MW)				Resource Group												
Load	CASE	Gas	CO2	SCPC	IGCC CCS	SCPC CCS	Gas	Dist. Gen	Other Renewables	Wind	Storage	Nuclear	Mkt Purchases	Planned Resource	DSM 1	DSM 2
Low	Case 04	Low - June 2008	$45			346		110	35	300			394	1,520		1,801
	Case 07	Medium - June 2008	$45			346		110	85	1,800			300	1,520		1,857
	Case 13	High - June 2008	$45	600				95	155	4,800			152	1,520		2,038
	Case 16	High - June 2008	$70			876		122	155	3,599			219	1,520		1,990
	Case 21	High - June 2008	$70			876		95	155	6,202		1,600	194	1,520		2,058
	Case 23	Medium - June 2008	$100			876		122	155	6,600		3,200	242	1,520		2,045
	Case 28	High - June 2008	$100			876		95	155	5,800		3,200	217	1,520		2,036
Medium	Case 01	Low - June 2008	$0				261	130					1,960	1,520	108	1,537
	Case 02	Medium - June 2008	$0	600			261	109	35	941			1,405	1,520	2	1,815
	Case 03	High - June 2008	$0	790				95	155	4,003			1,150	1,520	7	1,992
	Case 05	Low - June 2008	$45			346	261	110	35	1,600			1,823	1,520	2	1,835
	Case 08	Medium - June 2008	$45					160	120	2,400			1,714	1,520	7	1,942
	Case 09	Low - Oct 2008	$45			346	261	110	35	1,600			1,757	1,520	2	1,834
	Case 10	Medium - Oct 2008	$45					129	155	2,600			1,637	1,520	7	1,936
	Case 11	High - Oct 2008	$45	600				114	155	5,000			1,368	1,520	7	2,024
	Case 14	High - June 2008	$45	600	466			120	155	6,287			983	1,520	7	2,066
	Case 17	Medium - June 2008	$70			876		122	155	3,900			1,693	1,520	7	2,020
	Case 18	Low - Oct 2008	$70			876		122	155	3,900			1,756	1,520	7	1,974
	Case 19	Medium - Oct 2008	$70			876		122	155	4,100			1,703	1,520	7	2,009
	Case 20	High - Oct 2008	$70			876		114	155	6,600		1,600	1,493	1,520	7	2,035
	Case 22	High - June 2008	$70	600		876		101	155	7,200		1,600	776	1,520	7	2,115
	Case 24	Medium - June 2008	$100			876		122	155	6,600		3,200	1,082	1,520	7	2,076
	Case 25	Low - Oct 2008	$100			876		122	155	6,175			1,847	1,520	7	2,035
	Case 26	Medium - Oct 2008	$100			876		122	155	6,600		3,200	1,095	1,520	7	2,042
	Case 27	High - Oct 2008	$100			876		120	155	6,680		3,200	1,622	1,520	7	2,098
	Case 29	High - June 2008	$100		466	876		167	155	7,200		3,200	1,024	1,520	110	2,183
	Case 46	Medium - Oct 2008	Cap-and-Trade	600			174	151		1,388			1,365	1,520	19	1,825
	Case 47	Medium - Oct 2008	Cap-and-Trade	600			174	151		1,344			1,361	1,520	29	1,822
High	Case 06	Low - June 2008	$45				1,838	209	155	1,600			2,306	1,520	126	1,983
	Case 12	Medium - June 2008	$45	600			888	169	155	2,299	805		2,311	1,520	126	2,082
	Case 15	High - June 2008	$45	600	466		261	169	655	6,599		1,600	1,719	1,520	125	2,163
			Min	600	466	346	174	95	35	300	805	1,600	152	1,520	2	1,537
			Max	790	466	876	1,838	209	655	7,200	805	3,200	2,311	1,520	126	2,183

Table A.8 – 20-year Summary by Scenario Variable, CO_2 level

Sum of 20 Year (MW)				Resource Group												
CO2	CASE	Load	Gas	SCPC	SCPC CCS	IGCC CCS	Gas	Dist. Gen	Wind	Other Renewables	Storage	Nuclear	Mkt Purchases	Planned Resource	DSM 1	DSM 2
$0	Case 01	Medium	Low - June 2008				261	130					1,960	1,520	108	1,537
	Case 02	Medium	Medium - June 2008	600			261	109	941	35			1,405	1,520	2	1,815
	Case 03	Medium	High - June 2008	790				95	4,003	155			1,150	1,520	7	1,992
$45	Case 04	Low	Low - June 2008		346			110	300	35			394	1,520		1,801
	Case 05	Medium	Low - June 2008		346		261	110	1,600	35			1,823	1,520	2	1,835
	Case 06	High	Low - June 2008				1,838	209	1,600	155			2,306	1,520	126	1,983
	Case 07	Low	Medium - June 2008		346			110	1,800	85			300	1,520		1,857
	Case 08	Medium	Medium - June 2008					160	2,400	120			1,714	1,520	7	1,942
	Case 09	Medium	Low - Oct 2008		346		261	110	1,600	35			1,757	1,520	2	1,834
	Case 10	Medium	Medium - Oct 2008					129	2,600	155			1,637	1,520	7	1,936
	Case 11	Medium	High - Oct 2008	600				114	5,000	155			1,368	1,520	7	2,024
	Case 12	High	Medium - June 2008	600			888	169	2,299	155	805		2,311	1,520	126	2,082
	Case 13	Low	High - June 2008	600				95	4,800	155			152	1,520		2,038
	Case 14	Medium	High - June 2008	600		466		120	6,287	155			983	1,520	7	2,066
	Case 15	High	High - June 2008	600		466	261	169	6,599	655		1,600	1,719	1,520	125	2,163
$70	Case 16	Low	High - June 2008		876			122	3,599	155			219	1,520		1,990
	Case 17	Medium	Medium - June 2008		876			122	3,900	155			1,693	1,520	7	2,020
	Case 18	Medium	Low - Oct 2008		876			122	3,900	155			1,756	1,520	7	1,974
	Case 19	Medium	Medium - Oct 2008		876			122	4,100	155			1,703	1,520	7	2,009
	Case 20	Medium	High - Oct 2008		876			114	6,600	155		1,600	1,493	1,520	7	2,035
	Case 21	Low	High - June 2008		876			95	6,202	155		1,600	194	1,520		2,058
	Case 22	Medium	High - June 2008	600	876			101	7,200	155		1,600	776	1,520	7	2,115
$100	Case 23	Low	Medium - June 2008		876			122	6,600	155		3,200	242	1,520		2,045
	Case 24	Medium	Medium - June 2008		876			122	6,600	155		3,200	1,082	1,520	7	2,076
	Case 25	Medium	Low - Oct 2008		876			122	6,175	155			1,847	1,520	7	2,035
	Case 26	Medium	Medium - Oct 2008		876			122	6,600	155		3,200	1,095	1,520	7	2,042
	Case 27	Medium	High - Oct 2008		876			120	6,680	155		3,200	1,622	1,520	7	2,098
	Case 28	Low	High - June 2008		876			95	5,800	155		3,200	217	1,520		2,036
	Case 29	Medium	High - June 2008		876	466		167	7,200	155		3,200	1,024	1,520	110	2,183
Cap-and-Trade	Case 46	Medium	Medium - Oct 2008	600			174	151	1,388				1,365	1,520	19	1,825
	Case 47	Medium	Medium - Oct 2008	600			174	151	1,344				1,361	1,520	29	1,822
			Min	600	346	466	174	95	300	35	805	1,600	152	1,520	2	1,537
			Max	790	876	466	1,838	209	7,200	655	805	3,200	2,311	1,520	126	2,183

Table A.9 – 20-year Summary by Scenario Variable, Natural Gas Price Forecast

Sum of 20 Year (MW)				Resource Group											
Gas	CASE	Load	CO2	SCPC	SCPC CCS	IGCC CCS	Gas	Dist. Gen	Other Renewables	Wind	Storage	Nuclear	Mkt Purchases	Planned Resource	DSM 1	DSM 2
Low - June 2008	Case 01	Medium	$0				261	130					1,960	1,520	108	1,537
	Case 04	Low	$45		346			110	35	300			394	1,520		1,801
	Case 05	Medium	$45		346		261	110	35	1,600			1,823	1,520	2	1,835
	Case 06	High	$45				1,838	209	155	1,600			2,306	1,520	126	1,983
Medium - June 2008	Case 02	Medium	$0	600			261	109	35	941			1,405	1,520	2	1,815
	Case 07	Low	$45		346			110	85	1,800			300	1,520		1,857
	Case 08	Medium	$45					160	120	2,400			1,714	1,520	7	1,942
	Case 12	High	$45	600			888	169	155	2,299	805		2,311	1,520	126	2,082
	Case 17	Medium	$70		876			122	155	3,900			1,693	1,520	7	2,020
	Case 23	Low	$100		876			122	155	6,600		3,200	242	1,520		2,045
	Case 24	Medium	$100		876			122	155	6,600		3,200	1,082	1,520	7	2,076
High - June 2008	Case 03	Medium	$0	790				95	155	4,003			1,150	1,520	7	1,992
	Case 13	Low	$45	600				95	155	4,800			152	1,520		2,038
	Case 14	Medium	$45	600		466		120	155	6,287			983	1,520	7	2,066
	Case 15	High	$45	600		466	261	169	655	6,599		1,600	1,719	1,520	125	2,163
	Case 16	Low	$70		876			122	155	3,599			219	1,520		1,990
	Case 21	Low	$70		876			95	155	6,202		1,600	194	1,520		2,058
	Case 22	Medium	$70	600	876			101	155	7,200		1,600	776	1,520	7	2,115
	Case 28	Low	$100		876			95	155	5,800		3,200	217	1,520		2,036
	Case 29	Medium	$100		876	466		167	155	7,200		3,200	1,024	1,520	110	2,183
Low - Oct 2008	Case 09	Medium	$45		346		261	110	35	1,600			1,757	1,520	2	1,834
	Case 18	Medium	$70		876			122	155	3,900			1,756	1,520	7	1,974
	Case 25	Medium	$100		876			122	155	6,175			1,847	1,520	7	2,035
Medium - Oct 2008	Case 10	Medium	$45					129	155	2,600			1,637	1,520	7	1,936
	Case 19	Medium	$70		876			122	155	4,100			1,703	1,520	7	2,009
	Case 26	Medium	$100		876			122	155	6,600		3,200	1,095	1,520	7	2,042
	Case 46	Medium	Cap-and-Trade	600			174	151		1,388			1,365	1,520	19	1,825
	Case 47	Medium	Cap-and-Trade	600			174	151		1,344			1,361	1,520	29	1,822
High - Oct 2008	Case 11	Medium	$45	600				114	155	5,000			1,368	1,520	7	2,024
	Case 20	Medium	$70		876			114	155	6,600		1,600	1,493	1,520	7	2,035
	Case 27	Medium	$100		876			120	155	6,680		3,200	1,622	1,520	7	2,098
			Min	600	346	466	174	95	35	300	805	1,600	152	1,520	2	1,537
			Max	790	876	466	1,838	209	655	7,200	805	3,200	2,311	1,520	126	2,183

Resource Type Summary

In the following tables, resource additions are reported at capacity megawatts accrued as of the year listed.

Table A.10 – Total Aggregate Capacity Additions for 20 years

Aggregate Resource Additions

(Capacity MW) (Does not include Short Term Resources)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	195	474	641	1,628	1,780	1,927	2,113	2,524	2,629	2,730	2,817	2,900	2,976	3,055	3,134	3,213	3,294	3,382	3,471	3,556
Case 02	258	575	753	1,751	1,935	2,085	2,195	2,572	2,685	3,532	3,781	3,872	3,964	4,058	4,168	4,264	4,358	4,456	5,185	5,283
Case 03	267	1,096	1,789	3,090	3,351	3,651	4,546	4,922	5,182	6,840	7,648	7,745	7,842	7,942	8,043	8,159	8,266	8,365	8,464	8,562
Case 04	253	569	746	1,744	1,926	2,076	2,328	2,446	2,721	2,828	2,917	3,007	3,100	3,194	3,290	3,386	3,824	3,920	4,016	4,111
Case 05	256	573	750	1,748	1,935	2,088	2,503	2,888	3,005	3,864	4,353	4,444	4,686	4,780	4,875	4,970	5,417	5,513	5,612	5,709
Case 06	266	593	781	2,052	2,266	2,772	3,711	4,257	4,380	5,216	5,314	5,886	6,687	6,788	6,890	7,008	7,115	7,221	7,325	7,429
Case 07	261	581	762	1,790	2,476	2,975	3,865	3,988	4,207	4,416	4,506	4,597	4,695	4,794	4,890	4,987	5,081	5,177	5,274	5,718
Case 08	263	590	777	2,053	2,751	3,201	4,109	4,503	4,786	5,147	5,247	5,344	5,442	5,542	5,643	5,750	5,851	5,950	6,050	6,148
Case 09	256	573	751	1,749	1,934	2,086	2,501	2,885	3,447	4,092	4,486	4,591	4,684	4,778	4,873	4,969	5,415	5,512	5,610	5,707
Case 10	259	579	761	1,763	2,314	2,764	3,676	4,502	4,785	5,147	5,446	5,543	5,641	5,740	5,841	5,948	6,050	6,148	6,248	6,346
Case 11	267	595	847	2,359	3,123	4,041	4,941	5,848	6,724	8,200	8,485	8,584	8,685	8,787	8,891	9,008	9,116	9,221	9,321	9,419
Case 12	271	604	797	2,263	3,295	3,883	5,298	5,478	5,604	6,323	6,558	6,828	7,049	7,156	7,266	7,400	7,509	8,026	8,523	8,643
Case 13	267	1,096	1,790	3,305	4,070	4,982	5,879	6,295	6,642	7,983	8,105	8,203	8,467	8,567	8,669	8,786	8,894	9,000	9,104	9,207
Case 14	271	1,104	1,804	3,315	4,081	4,994	5,895	6,803	7,413	8,762	9,198	9,497	10,003	10,111	10,215	10,333	10,906	11,013	11,117	11,221
Case 15	281	1,125	1,840	3,362	4,147	5,330	6,500	7,773	8,657	10,132	10,987	11,209	11,316	11,425	11,534	11,669	13,844	13,950	14,054	14,158
Case 16	262	583	869	2,387	3,149	4,059	4,957	5,496	5,829	6,345	6,444	6,541	6,640	6,742	6,845	6,964	7,947	8,054	8,158	8,262
Case 17	262	589	971	2,490	3,252	4,163	5,061	5,813	6,057	6,677	6,777	6,877	6,978	7,079	7,183	7,301	8,285	8,391	8,496	8,599
Case 18	259	580	762	2,039	2,767	3,712	4,346	4,902	5,782	6,646	6,745	6,841	6,939	7,038	7,140	7,258	8,241	8,347	8,450	8,553
Case 19	262	583	770	2,289	3,053	3,963	4,861	5,767	6,483	6,867	6,966	7,066	7,167	7,269	7,372	7,490	8,474	8,581	8,685	8,789
Case 20	267	596	1,284	2,805	3,571	4,484	5,384	6,291	7,173	8,043	8,892	9,591	9,692	9,794	9,898	10,015	12,599	12,705	12,809	12,907
Case 21	271	1,104	1,798	3,314	4,080	4,992	5,890	6,795	7,669	8,536	9,086	9,184	9,284	9,384	9,486	9,604	12,188	12,295	12,399	12,505
Case 22	271	1,104	1,799	3,315	4,082	5,000	5,907	6,820	7,703	9,181	10,034	10,836	10,941	11,046	11,155	11,272	13,857	13,964	14,068	14,174
Case 23	267	905	1,594	3,117	3,884	4,797	5,697	6,604	7,480	8,350	9,200	9,591	9,692	9,794	9,897	10,016	14,201	14,307	14,412	14,517
Case 24	268	1,087	1,776	3,300	4,067	4,980	5,880	6,788	7,664	8,541	9,396	9,611	9,717	9,825	9,935	10,054	14,238	14,345	14,450	14,556
Case 25	262	592	1,280	2,803	3,570	4,483	5,383	6,291	7,174	8,044	8,893	9,167	9,268	9,369	9,472	9,591	10,575	10,681	10,786	10,889
Case 26	267	598	1,286	2,810	3,576	4,490	5,390	6,298	7,181	8,051	8,900	9,599	9,699	9,801	9,904	10,023	14,207	14,313	14,417	14,521
Case 27	267	1,101	1,790	3,314	4,081	4,999	5,907	6,821	7,705	8,587	9,443	9,729	9,836	9,944	10,054	10,171	14,354	14,460	14,560	14,656
Case 28	271	1,104	1,799	3,315	4,081	4,993	5,891	6,796	7,670	8,537	8,685	8,783	8,882	8,983	9,085	9,202	13,381	13,480	13,581	13,682
Case 29	272	1,116	1,825	3,353	4,132	5,057	5,971	6,891	7,885	8,771	9,627	10,432	10,539	10,648	10,759	10,894	15,545	15,658	15,770	15,877
Case 30	267	595	784	1,941	2,644	3,599	4,499	5,442	6,324	7,194	8,045	8,900	9,757	10,215	10,325	10,460	15,110	15,217	15,329	15,436
Case 31	272	1,106	1,815	3,331	4,104	5,024	5,932	6,847	7,731	8,614	9,469	10,274	10,382	10,491	10,602	10,738	14,924	15,031	15,135	15,238
Case 33	282	1,127	1,837	3,409	4,442	5,644	6,617	8,118	9,018	10,499	11,182	11,948	12,812	12,928	13,046	13,185	13,309	13,835	14,341	14,452
Case 34	262	583	1,121	2,592	3,284	4,198	4,595	4,762	5,020	5,883	6,698	6,795	6,894	6,993	7,095	7,202	7,304	7,402	7,502	7,600
Case 35	271	1,105	1,806	3,316	4,047	4,959	5,856	6,759	7,209	8,358	8,455	8,552	8,651	8,751	8,852	8,968	9,070	9,168	9,268	9,365
Case 36	266	595	788	2,314	3,052	3,970	4,871	5,784	6,544	6,995	7,105	8,194	8,294	8,396	8,499	8,618	8,726	8,832	8,936	9,040
Case 37	271	1,104	1,798	3,314	4,046	4,958	5,856	6,763	7,637	8,511	8,622	12,796	12,895	12,996	13,098	13,215	13,324	13,431	13,535	13,641
Case 38	267	594	785	1,796	2,203	2,369	2,822	3,236	3,517	4,380	4,993	5,090	5,188	5,288	5,389	5,496	5,598	5,703	5,807	5,909
Case 39	276	893	1,593	3,108	3,845	4,372	5,275	5,545	5,722	6,692	6,790	6,888	6,992	7,116	7,224	7,358	7,469	7,584	7,699	7,865
Case 40	266	591	777	1,782	1,974	2,133	2,417	2,864	3,138	3,994	4,831	5,127	5,217	5,314	5,412	5,516	6,228	6,325	6,690	6,788
Case 41	267	593	781	2,104	2,874	3,421	4,338	4,762	4,886	4,999	5,098	5,195	5,293	5,392	5,494	5,600	5,702	5,800	5,900	5,999
Case 42	262	589	1,120	2,639	3,402	4,312	5,209	6,081	6,257	6,628	6,728	6,828	6,929	7,031	7,134	7,252	8,236	8,342	8,447	8,550
Case 43	277	1,116	1,811	3,340	4,112	5,036	5,949	6,973	7,849	8,720	9,574	9,778	9,884	9,991	10,101	10,221	14,405	14,512	14,617	14,722
Case 44	263	585	768	1,771	1,927	2,085	2,266	2,862	3,637	5,091	5,749	6,620	6,823	7,035	7,428	8,274	9,153	9,430	9,736	10,017
Case 45	251	560	958	2,455	2,605	2,754	2,867	3,280	3,397	4,104	4,195	4,287	4,380	4,474	4,765	4,861	4,978	5,099	5,195	5,289
Case 46	263	586	969	1,973	2,301	2,599	2,881	3,130	3,247	3,356	4,345	4,435	4,528	4,622	5,161	5,301	5,394	5,489	5,585	5,679
Case 47	263	585	768	1,771	2,101	2,259	2,381	2,871	3,145	3,585	4,274	4,388	4,504	4,626	5,115	5,263	5,356	5,451	5,547	5,640
Case 48	270	596	780	2,068	2,760	3,259	4,156	4,505	4,789	5,177	5,276	5,374	5,472	5,572	5,674	5,781	5,882	5,981	6,081	6,179

Table A.11 – Total Wind Aggregate Capacity Additions for 20 years

Wind

(Capacity MW)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	144	263	263	263	263	263	263	263	263	263	263	263	263	263	263	263	263	263	263	263
Case 02	144	263	263	263	263	263	263	263	263	403	563	563	563	563	576	576	576	576	1,204	1,204
Case 03	144	763	1,263	1,558	1,558	1,693	2,443	2,666	2,804	3,554	4,266	4,266	4,266	4,266	4,266	4,266	4,266	4,266	4,266	4,266
Case 04	144	263	263	263	263	263	403	403	563	563	563	563	563	563	563	563	563	563	563	563
Case 05	144	263	263	263	263	263	563	563	563	1,313	1,713	1,713	1,863	1,863	1,863	1,863	1,863	1,863	1,863	1,863
Case 06	144	263	263	263	263	403	563	916	916	1,167	1,167	1,167	1,863	1,863	1,863	1,863	1,863	1,863	1,863	1,863
Case 07	144	263	263	290	790	1,136	1,886	1,886	1,963	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063
Case 08	144	263	263	527	1,027	1,313	2,063	2,256	2,414	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663
Case 09	144	263	263	263	263	263	563	563	1,007	1,543	1,848	1,863	1,863	1,863	1,863	1,863	1,863	1,863	1,863	1,863
Case 10	144	263	263	263	624	915	1,665	2,256	2,414	2,663	2,863	2,863	2,863	2,863	2,863	2,863	2,863	2,863	2,863	2,863
Case 11	144	263	327	827	1,327	2,077	2,827	3,577	4,327	5,077	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263
Case 12	144	263	263	704	1,204	1,542	2,170	2,170	2,170	2,170	2,305	2,466	2,562	2,562	2,562	2,562	2,562	2,562	2,562	2,562
Case 13	144	763	1,263	1,763	2,263	3,013	3,763	4,024	4,248	4,873	4,897	4,897	5,063	5,063	5,063	5,063	5,063	5,063	5,063	5,063
Case 14	144	763	1,263	1,763	2,263	3,013	3,763	4,513	4,995	5,618	5,953	6,151	6,550	6,550	6,550	6,550	6,550	6,550	6,550	6,550
Case 15	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	6,862	6,862	6,862	6,862	6,862	6,862	6,862	6,862	6,862
Case 16	144	263	367	867	1,367	2,117	2,867	3,252	3,460	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862	3,862
Case 17	144	263	457	957	1,457	2,207	2,957	3,552	3,662	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163
Case 18	144	263	263	526	1,026	1,776	2,263	2,663	3,413	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163
Case 19	144	263	263	763	1,263	2,013	2,763	3,513	4,098	4,363	4,363	4,363	4,363	4,363	4,363	4,363	4,363	4,363	4,363	4,363
Case 20	144	263	763	1,263	1,763	2,513	3,263	4,013	4,763	5,513	6,263	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Case 21	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,465	6,465	6,465	6,465	6,465	6,465	6,465	6,465	6,465	6,465
Case 22	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463
Case 23	144	572	1,072	1,572	2,072	2,822	3,572	4,322	5,072	5,822	6,572	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Case 24	144	752	1,252	1,752	2,252	3,002	3,752	4,502	5,252	6,002	6,752	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Case 25	144	263	763	1,263	1,763	2,513	3,263	4,013	4,763	5,513	6,263	6,438	6,438	6,438	6,438	6,438	6,438	6,438	6,438	6,438
Case 26	144	263	763	1,263	1,763	2,513	3,263	4,013	4,763	5,513	6,263	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Case 27	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	6,943	6,943	6,943	6,943	6,943	6,943	6,943	6,943	6,943
Case 28	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,063	6,063	6,063	6,063	6,063	6,063	6,063	6,063	6,063	6,063
Case 29	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463
Case 30	144	263	263	413	913	1,663	2,413	3,163	3,913	4,663	5,413	6,163	6,913	7,263	7,263	7,263	7,263	7,263	7,263	7,263
Case 31	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463
Case 33	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,582	6,713	7,463	7,463	7,463	7,463	7,463	7,463	7,463	7,463
Case 34	144	263	616	1,074	1,574	2,324	2,563	2,563	2,696	3,446	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163	4,163
Case 35	144	763	1,263	1,763	2,263	3,013	3,763	4,511	4,837	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263	5,263
Case 36	144	263	263	763	1,263	2,013	2,763	3,513	4,136	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463
Case 37	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025
Case 38	144	263	263	263	471	471	771	961	1,118	1,868	2,381	2,381	2,381	2,381	2,381	2,381	2,381	2,381	2,381	2,381
Case 39	144	541	1,041	1,541	2,041	2,395	3,145	3,145	3,192	3,445	3,445	3,445	3,445	3,462	3,462	3,462	3,462	3,462	3,462	3,518
Case 40	144	263	263	263	263	263	403	596	754	1,504	2,254	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Case 41	144	263	263	570	1,070	1,447	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197	2,197
Case 42	144	263	607	1,107	1,607	2,357	3,107	3,561	3,611	3,863	3,863	3,863	3,863	3,863	3,863	3,863	3,863	3,863	3,863	3,863
Case 43	144	763	1,263	1,763	2,263	3,013	3,763	4,513	5,263	6,013	6,763	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Case 44	144	263	263	263	263	263	263	598	1,259	2,009	2,582	3,332	3,444	3,563	3,862	4,612	5,362	5,542	5,750	5,936
Case 45	144	263	484	984	984	984	984	984	984	984	984	984	984	984	1,144	1,144	1,144	1,144	1,144	1,144
Case 46	144	263	463	463	463	603	763	863	863	863	1,163	1,163	1,163	1,163	1,606	1,651	1,651	1,651	1,651	1,651
Case 47	144	263	263	263	263	263	263	596	754	1,085	1,085	1,110	1,132	1,161	1,555	1,607	1,607	1,607	1,607	1,607
Case 48	144	263	263	544	1,044	1,313	2,063	2,234	2,388	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663	2,663

Table A.12 – Total Market Purchases Capacity Additions for 20 years

Market Purchase

(Figures shown are megawatts acquired in each year. Annual figures are not additive.)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01			301	801	933	1,055	989	939	1,039	1,422	1,566	1,638	1,388	1,388	1,438	1,438	1,438	1,438	1,438	1,388
Case 02			219	714	817	938	949	933	1,027	863	1,008	1,074	950	966	1,177	995	1,068	1,188	1,359	1,361
Case 03			129	601	648	749	709	891	967	604	739	800	491	608	881	942	728	834	1,504	1,433
Case 04				335	322	321	197	278	237	475	488	421	281	251	240	186	329	338	339	349
Case 05			220	716	817	935	936	914	1,004	1,365	1,500	1,566	1,308	1,389	1,377	1,329	1,588	1,588	1,638	1,588
Case 06		39	469	841	1,058	1,089	644	939	1,179	1,288	1,582	1,381	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638
Case 07				321	292	279	123	201	134	370	382	315	180	146	134	81	105	113	115	400
Case 08			200	683	758	859	821	939	1,010	1,358	1,500	1,561	1,206	1,558	1,588	1,453	1,588	1,588	1,588	1,543
Case 09			220	716	818	937	938	916	996	1,362	1,499	1,565	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588
Case 10			213	705	798	902	867	939	1,010	1,358	1,468	1,529	1,574	1,588	1,588	1,588	1,588	1,588	1,588	1,588
Case 11			196	674	663	733	689	863	915	726	866	925	778	862	977	1,162	1,283	1,015	850	168
Case 12		30	457	1,037	943	1,089	633	939	1,177	1,173	1,445	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,700
Case 13				303	471	193	60	52	52	80	108	106								
Case 14			122	586	615	689	651	790	866	679	819	877	785	875	515	1,029	853	984	1,184	1,300
Case 15			367	940	1,075	1,089	989	939	1,160	1,148	1,437	1,638	1,588	1,588	1,374	1,588	1,237	1,571	1,588	1,638
Case 16				308	204	217	85	80	80	183	188	135					170	171	167	172
Case 17			197	673	688	764	701	875	947	1,287	1,429	1,487	1,518	1,588	1,588	1,588	1,588	1,588	1,588	1,588
Case 18			213	699	745	810	749	903	969	1,310	1,453	1,514	1,468	1,452	1,588	1,468	1,588	1,588	1,638	1,638
Case 19			207	682	695	794	707	881	944	1,287	1,429	1,488	1,532	1,588	1,572	1,543	1,588	1,588	1,650	1,700
Case 20			184	631	800	720	685	855	914	1,228	1,368	1,426	800	989	1,146	1,481	939	1,077	800	800
Case 21				302	198	200	60	54	453	72	97	94							480	480
Case 22			122	591	605	700	653	807	1,007	658	791	843	824	908	1,029	1,016	161	308	639	654
Case 23				305	201	209	79	67	55	90	112	109					480	480	480	480
Case 24			128	596	607	706	673	841	883	1,218	1,355	1,411	1,333	1,289	1,254	1,005	565	683	745	753
Case 25			185	661	800	850	850	1,015	1,530	1,530	1,530	1,530	1,530	1,268	1,530	1,349	1,468	1,268	1,518	993
Case 26			182	643	800	728	800	1,009	1,072	1,381	1,423	1,482	1,063	1,094	1,117	1,341	731	257	268	277
Case 27			126	593	800	800	800	987	1,019	1,352	1,390	1,443	1,330	1,194	1,366	1,477	1,280	1,480	1,480	517
Case 28				302	197	479	470	453	445	70	94	92						400		
Case 29			102	556	564	661	716	926	850	1,009	1,144	1,197	728	736	745	713	81	501	125	141
Case 30			197	681	764	791	738	863	922	1,256	1,373	1,414	1,319	1,287	1,276	1,191	550	70	86	88
Case 31			115	570	586	671	626	762	824	1,172	1,308	1,348	1,249	1,220	1,187	1,108	1,136	1,137	1,153	120
Case 33		18	371	889	846	850	984	833	1,014	814	1,092	837	838	838	838	838	838	838	838	838
Case 34			200	653	728	803	772	939	1,019	1,360	1,493	1,554	1,509	1,588	1,588	1,634	1,588	1,588	1,588	1,588
Case 35			122	578	632	726	690	851	933	750	895	956	873	970	1,104	1,145	1,293	1,296	1,182	567
Case 36			192	665	703	790	702	1,050	1,280	1,423	1,600	1,700	1,530	1,650	1,650	1,650	1,588	1,390	1,455	1,517
Case 37			122	592	637	736	697	856	1,064	1,245	1,388	206	60	63	81	76	109	124	645	662
Case 38			193	678	765	873	841	939	1,010	1,346	1,483	1,544	1,568	1,588	1,588	1,588	1,505	1,588	1,588	1,588
Case 39			156	596	617	713	668	739	817	626	770	830	738	770	788	788	788	788	850	788
Case 40			199	688	785	899	874	939	1,017	1,363	1,499	1,563	1,188	1,238	1,238	1,238	1,188	1,249	1,445	1,372
Case 41		91	440	931	937	1,037	983	933	1,018	1,387	1,523	1,584	1,552	1,563	1,563	1,485	1,563	1,563	1,563	1,634
Case 42		91	437	913	932	1,017	968	918	1,002	1,362	1,497	1,556	1,563	1,563	1,563	1,563	1,563	1,563	1,563	1,563
Case 43		50	352	830	842	932	892	933	992	1,311	1,454	1,521	1,436	1,399	1,337	1,071	575	691	755	763
Case 44			206	696	825	939	886	939	1,011	820	959	958	855	1,130	1,098	1,359	1,511	1,588	1,588	1,588
Case 45			227	713	847	968	976	928	1,019	861	1,004	1,068	943	1,048	1,140	1,188	1,188	1,232	1,372	1,355
Case 46			197	688	663	771	771	939	1,016	1,367	988	1,069	961	1,028	1,130	1,188	1,188	1,267	1,363	1,352
Case 47			205	696	670	784	784	939	1,016	1,367	988	1,053	939	1,020	1,123	1,188	1,188	1,188	1,349	1,346
Case 48			200	687	767	799	766	910	981	1,324	1,464	1,525	1,188	1,196	1,386	1,378	1,588	1,588	1,588	1,402

Table A.13 – Total Gas Capacity Additions for 20 years

Gas

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 02	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 03	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 04	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 05	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 06	3	3	3	1,072	1,072	1,072	1,699	1,699	1,699	2,174	2,174	2,649	2,649	2,649	2,649	2,649	2,649	2,649	2,649	2,649
Case 07	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 08	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 09	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 10	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 11	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 12	3	3	3	811	1,072	1,072	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699
Case 13	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 14	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 15	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 16	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 17	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 18	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 19	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 20	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 21	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 22	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 23	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 24	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 25	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 26	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 27	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 28	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 29	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 30	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 31	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 33	3	3	3	811	811	811	811	1,388	1,388	1,388	1,388	1,911	1,911	1,911	1,911	1,911	1,911	1,911	1,911	1,911
Case 34	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 35	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 36	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 37	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 38	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 39	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 40	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 41	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 42	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 43	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 44	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
Case 45	3	3	3	811	811	811	811	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Case 46	3	3	3	811	985	985	985	985	985	985	985	985	985	985	985	985	985	985	985	985
Case 47	3	3	3	811	985	985	985	985	985	985	985	985	985	985	985	985	985	985	985	985
Case 48	3	3	3	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811

Table A.14 – Total Conventional Coal Capacity Additions for 20 years

Conventional Coal

(Capacity MW)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 02	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 03	0	53	95	131	145	159	159	167	167	957	957	957	957	957	957	957	957	957	957	957
Case 04	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 05	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 06	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 07	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 08	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 09	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 10	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 11	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 12	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 13	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 14	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 15	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 16	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 17	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 18	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 19	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 20	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 21	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 22	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 23	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 24	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 25	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 26	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 27	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 28	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 29	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 30	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 31	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 33	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 34	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 35	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 36	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 37	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 38	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 39	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 40	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 41	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 42	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 43	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167
Case 44	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 45	0	53	95	131	145	159	159	167	167	767	767	767	767	767	767	767	767	767	767	767
Case 46	0	53	95	131	145	159	159	167	167	167	767	767	767	767	767	767	767	767	767	767
Case 47	0	53	95	131	145	159	159	167	167	167	767	767	767	767	767	767	767	767	767	767
Case 48	0	53	95	131	145	159	159	167	167	167	167	167	167	167	167	167	167	167	167	167

Table A.15 – Total Clean Coal Capacity Additions for 20 years

Clean Coal

(Capacity MW)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346	346	346	346
Case 05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346	346	346	346
Case 06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346
Case 08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346	346	346	346
Case 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	466	466	466	466
Case 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	466	466	466	466
Case 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,342	1,342	1,342	1,342
Case 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,342	1,342	1,342	1,342
Case 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 36	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876	876	876	876	876	876
Case 37	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876	876	876	876	876	876
Case 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	611	611	876	876
Case 41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876	876	876
Case 44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Case 48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A.16 – Total Demand-side Management Capacity Additions for 20 years

Demand Side Management

(Capacity MW)

Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	34	128	240	345	444	539	711	839	937	1,029	1,111	1,193	1,270	1,348	1,428	1,507	1,588	1,676	1,765	1,850
Case 02	103	240	368	488	591	693	795	894	1,000	1,097	1,184	1,271	1,361	1,453	1,546	1,639	1,731	1,826	1,925	2,022
Case 03	112	261	398	526	635	747	859	971	1,085	1,194	1,290	1,387	1,485	1,584	1,685	1,801	1,909	2,007	2,107	2,204
Case 04	97	233	361	481	582	684	787	886	991	1,087	1,174	1,261	1,351	1,443	1,536	1,629	1,721	1,816	1,912	2,006
Case 05	101	238	365	485	591	694	799	904	1,011	1,108	1,195	1,282	1,372	1,464	1,557	1,650	1,750	1,847	1,945	2,042
Case 06	105	246	377	504	612	850	962	1,074	1,187	1,287	1,383	1,478	1,575	1,675	1,776	1,892	1,999	2,105	2,209	2,313
Case 07	105	246	377	500	605	710	815	920	1,027	1,125	1,213	1,301	1,396	1,493	1,586	1,680	1,773	1,869	1,965	2,062
Case 08	106	248	379	503	613	723	834	951	1,064	1,167	1,263	1,357	1,453	1,550	1,650	1,755	1,857	1,956	2,056	2,154
Case 09	101	238	366	486	589	693	798	902	1,009	1,106	1,193	1,281	1,371	1,462	1,555	1,649	1,749	1,845	1,944	2,041
Case 10	103	244	375	499	605	716	828	945	1,058	1,161	1,257	1,352	1,447	1,544	1,644	1,750	1,851	1,950	2,050	2,148
Case 11	111	260	397	526	639	754	868	982	1,097	1,213	1,310	1,407	1,506	1,607	1,708	1,825	1,933	2,038	2,138	2,236
Case 12	111	258	395	531	643	840	953	1,084	1,198	1,306	1,404	1,506	1,628	1,733	1,841	1,974	2,083	2,195	2,307	2,412
Case 13	112	261	399	530	644	758	872	986	1,100	1,209	1,306	1,404	1,503	1,603	1,705	1,822	1,929	2,035	2,139	2,243
Case 14	115	269	407	540	654	769	883	998	1,114	1,230	1,328	1,426	1,531	1,637	1,739	1,856	1,964	2,071	2,175	2,278
Case 15	120	278	424	563	690	819	948	1,161	1,284	1,398	1,501	1,616	1,722	1,829	1,937	2,070	2,179	2,285	2,389	2,493
Case 16	106	248	380	508	617	729	840	951	1,065	1,167	1,263	1,358	1,454	1,554	1,656	1,772	1,880	1,987	2,091	2,195
Case 17	107	254	391	520	630	742	854	967	1,089	1,197	1,295	1,392	1,491	1,591	1,693	1,810	1,918	2,024	2,128	2,232
Case 18	103	244	376	499	609	721	833	944	1,064	1,166	1,262	1,357	1,452	1,550	1,651	1,767	1,874	1,980	2,083	2,186
Case 19	106	248	384	512	623	735	847	958	1,079	1,187	1,284	1,382	1,481	1,581	1,682	1,799	1,907	2,014	2,118	2,221
Case 20	112	261	398	531	645	760	875	988	1,110	1,219	1,316	1,414	1,513	1,613	1,714	1,831	1,939	2,045	2,149	2,247
Case 21	115	269	407	539	653	768	883	997	1,113	1,222	1,320	1,418	1,517	1,618	1,720	1,837	1,946	2,053	2,157	2,263
Case 22	115	269	407	540	655	775	897	1,017	1,140	1,260	1,363	1,465	1,570	1,676	1,784	1,901	2,010	2,117	2,221	2,327
Case 23	112	261	398	531	645	759	873	987	1,102	1,210	1,308	1,406	1,505	1,606	1,708	1,825	1,933	2,040	2,145	2,250
Case 24	112	261	399	532	647	762	876	990	1,105	1,221	1,323	1,426	1,531	1,637	1,745	1,863	1,971	2,078	2,183	2,288
Case 25	107	255	392	524	638	753	868	981	1,104	1,212	1,309	1,407	1,506	1,606	1,708	1,824	1,932	2,039	2,143	2,247
Case 26	112	261	398	531	645	760	875	988	1,111	1,219	1,316	1,414	1,513	1,613	1,714	1,831	1,939	2,046	2,150	2,254
Case 27	112	266	404	537	651	771	893	1,012	1,136	1,257	1,360	1,464	1,569	1,676	1,784	1,901	2,008	2,114	2,213	2,310
Case 28	115	269	407	540	654	769	884	998	1,114	1,222	1,321	1,419	1,518	1,619	1,721	1,838	1,941	2,040	2,141	2,241
Case 29	116	275	421	560	681	802	925	1,045	1,274	1,394	1,497	1,600	1,706	1,813	1,923	2,057	2,167	2,279	2,391	2,498
Case 30	111	260	398	527	642	757	871	985	1,106	1,215	1,313	1,416	1,521	1,627	1,735	1,869	1,977	2,084	2,196	2,303
Case 31	116	270	416	554	674	795	918	1,039	1,162	1,284	1,387	1,490	1,596	1,703	1,813	1,947	2,057	2,164	2,268	2,371
Case 33	121	281	427	610	735	884	1,065	1,190	1,324	1,444	1,556	1,666	1,778	1,893	2,009	2,147	2,271	2,392	2,513	2,624
Case 34	106	247	379	502	607	718	828	946	1,060	1,162	1,258	1,353	1,448	1,546	1,646	1,751	1,853	1,951	2,051	2,149
Case 35	115	269	407	540	654	768	883	996	1,112	1,227	1,324	1,421	1,520	1,620	1,721	1,837	1,939	2,037	2,137	2,234
Case 36	111	259	397	527	642	756	871	985	1,106	1,214	1,316	1,521	1,620	1,720	1,822	1,939	2,046	2,153	2,257	2,361
Case 37	115	269	407	540	654	770	885	999	1,115	1,231	1,329	1,427	1,527	1,628	1,730	1,847	1,956	2,063	2,167	2,273
Case 38	107	248	384	512	623	734	846	1,021	1,135	1,237	1,334	1,428	1,524	1,621	1,721	1,826	1,928	2,034	2,137	2,240
Case 39	115	269	408	541	655	771	885	1,109	1,225	1,334	1,432	1,530	1,634	1,740	1,848	1,982	2,093	2,206	2,319	2,426
Case 40	105	246	376	499	604	710	816	1,024	1,131	1,229	1,316	1,403	1,493	1,590	1,688	1,792	1,893	1,991	2,090	2,188
Case 41	106	248	379	506	618	729	854	968	1,081	1,183	1,280	1,374	1,470	1,567	1,667	1,772	1,874	1,972	2,072	2,171
Case 42	106	254	391	520	629	740	852	965	1,079	1,188	1,285	1,382	1,481	1,581	1,683	1,800	1,908	2,014	2,118	2,222
Case 43	115	269	407	540	654	774	896	1,121	1,236	1,346	1,448	1,551	1,656	1,762	1,870	1,988	2,096	2,203	2,308	2,413
Case 44	102	239	367	487	590	695	800	1,013	1,118	1,213	1,298	1,383	1,472	1,562	1,655	1,748	1,840	1,935	2,031	2,125
Case 45	97	229	356	475	578	680	782	882	987	1,084	1,170	1,258	1,348	1,439	1,532	1,626	1,717	1,813	1,908	2,002
Case 46	103	240	368	489	591	696	802	926	1,033	1,131	1,218	1,305	1,395	1,487	1,580	1,673	1,765	1,860	1,956	2,050
Case 47	102	239	367	488	591	695	801	933	1,040	1,137	1,223	1,311	1,401	1,493	1,585	1,679	1,771	1,866	1,962	2,055
Case 48	114	261	395	518	628	811	921	1,055	1,168	1,271	1,367	1,461	1,557	1,654	1,754	1,859	1,961	2,060	2,160	2,258

Table A.17 – Total Other Capacity Additions for 20 years

Other

(Capacity MW) (Other includes Distributed Generation, Other Renewables, and Nuclear)

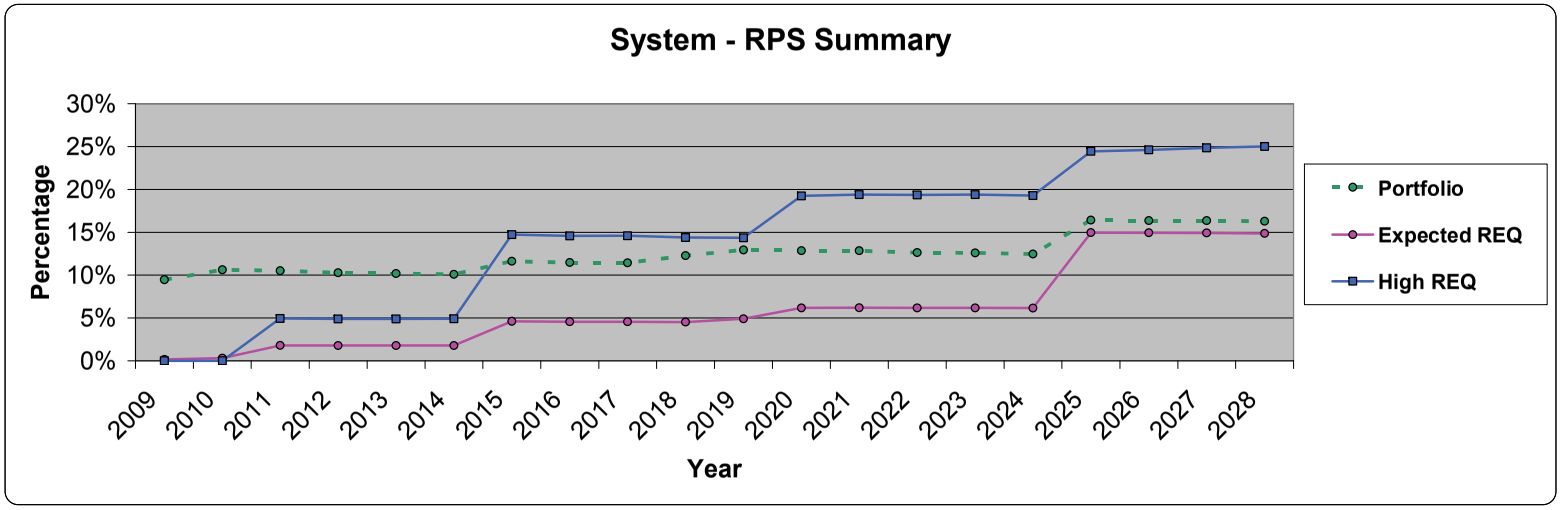
Case	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Case 01	13	27	40	79	117	156	169	183	191	199	205	205	205	205	205	205	205	205	205	205
Case 02	8	17	25	58	126	159	167	176	184	194	196	199	202	205	207	210	213	215	218	219
Case 03	8	17	31	64	202	241	274	308	316	324	324	324	324	324	324	324	324	324	324	324
Case 04	8	17	25	58	126	159	170	180	190	201	203	206	209	211	214	217	217	218	219	219
Case 05	8	17	25	58	126	161	172	183	194	205	208	210	213	216	218	219	219	219	219	219
Case 06	14	29	43	83	174	289	330	401	412	422	424	426	434	435	437	438	438	438	438	438
Case 07	8	17	25	58	126	159	194	204	240	251	253	256	259	262	264	267	268	269	269	269
Case 08	10	23	37	82	156	196	243	319	330	341	344	346	349	351	353	354	354	354	354	354
Case 09	8	17	25	58	126	160	171	182	193	204	207	210	212	215	217	219	219	219	219	219
Case 10	8	17	25	60	129	163	213	324	335	346	349	352	354	355	357	358	358	358	358	358
Case 11	8	17	25	64	202	241	277	312	322	333	335	337	339	341	343	343	343	343	343	343
Case 12	13	27	41	87	231	270	318	359	370	381	384	391	394	395	397	398	398	803	1,188	1,203
Case 13	8	17	31	70	208	241	274	308	316	324	324	324	324	324	324	324	324	324	324	324
Case 14	8	17	37	71	209	243	279	315	326	337	340	342	345	347	349	349	349	349	349	349
Case 15	14	28	55	94	239	528	819	861	872	883	885	892	894	895	897	898	2,498	2,498	2,498	2,498
Case 16	8	17	25	71	210	244	280	316	327	338	341	343	346	348	350	351	351	351	351	351
Case 17	8	17	25	72	211	245	281	317	328	339	342	345	347	348	350	351	351	351	351	351
Case 18	8	17	26	72	176	246	282	318	329	340	342	345	347	348	350	351	351	351	351	351
Case 19	8	17	26	72	211	246	282	318	329	340	342	345	347	348	350	351	351	351	351	351
Case 20	8	17	25	70	208	242	277	312	323	333	335	337	339	342	344	344	1,944	1,944	1,944	1,944
Case 21	8	17	31	70	208	241	274	308	316	324	324	324	324	324	324	324	1,924	1,924	1,924	1,924
Case 22	8	17	31	70	208	242	278	313	322	331	331	331	331	331	331	331	1,931	1,931	1,931	1,931
Case 23	8	17	27	73	212	246	282	318	329	340	343	345	347	348	350	351	3,551	3,551	3,551	3,551
Case 24	9	18	28	74	213	248	284	320	331	341	344	345	347	348	350	351	3,551	3,551	3,551	3,551
Case 25	9	18	28	74	213	248	283	319	330	341	344	345	347	348	350	351	351	351	351	351
Case 26	9	18	28	74	213	248	283	319	330	341	344	345	347	348	350	351	3,551	3,551	3,551	3,551
Case 27	8	17	26	72	211	246	282	318	329	340	342	345	347	348	350	350	3,550	3,550	3,550	3,550
Case 28	8	17	31	70	208	241	274	308	316	324	324	324	324	324	324	324	3,524	3,524	3,524	3,524
Case 29	9	23	43	89	233	272	314	355	371	387	389	391	394	395	397	397	3,597	3,597	3,597	3,597
Case 30	8	17	25	60	135	210	246	317	328	339	342	345	347	348	350	351	3,551	3,551	3,551	3,551
Case 31	9	18	39	73	211	246	282	318	329	340	342	344	346	348	350	351	3,551	3,551	3,551	3,551
Case 33	14	28	49	94	489	778	819	861	877	888	890	891	894	895	897	898	898	1,303	1,688	1,688
Case 34	8	17	29	74	147	187	234	275	286	297	300	303	306	308	310	311	311	311	311	311
Case 35	9	18	39	72	175	208	241	275	283	291	291	291	291	291	291	291	291	291	291	291
Case 36	8	17	31	83	192	232	268	309	325	341	349	357	359	360	362	363	363	363	363	363
Case 37	8	17	31	70	173	206	239	273	281	289	289	3,489	3,489	3,489	3,489	3,489	3,489	3,489	3,489	3,489
Case 38	13	27	40	80	154	194	235	276	287	298	300	303	306	308	309	311	311	311	311	311
Case 39	13	27	46	85	193	237	276	314	328	336	336	336	336	336	336	336	336	338	341	344
Case 40	13	27	40	79	152	190	229	267	276	284	284	284	284	284	284	284	284	284	284	284
Case 41	13	27	41	87	231	276	318	359	370	381	384	386	388	390	391	393	393	393	393	393
Case 42	8	17	25	72	211	245	281	317	328	339	342	345	347	348	350	351	351	351	351	351
Case 43	15	29	44	96	240	279	321	362	373	384	385	387	388	390	391	393	3,593	3,593	3,593	3,593
Case 44	13	27	40	79	118	158	233	274	283	291	291	328	330	332	334	336	373	376	378	379
Case 45	6	13	21	54	88	121	131	176	187	198	203	207	210	213	250	253	279	304	304	305
Case 46	13	27	40	79	118	158	174	190	200	211	213	216	219	222	224	226	226	226	226	226
Case 47	13	27	40	79	118	158	174	190	200	211	213	216	219	222	224	226	226	226	226	226
Case 48	8	17	25	64	132	167	203	239	256	267	270	272	275	278	280	281	281	281	281	281

DETAILED PORTFOLIO DATA

Renewable Portfolio Summary by Case

For each case, PacifiCorp generated an RPS compliance report. This report shows the annual system RPS requirements, REC bank balances, REC-adjusted qualifying generation, RPS compliance percentages, and the system load used in the calculations. The report also includes a line chart comparing the RPS compliance and system generation requirements percentages for both the base and high RPS scenarios (Expected REQ and High REQ, respectively). See Chapter 7 "Representation and Modeling of Renewable Portfolio Standards" for additional information.

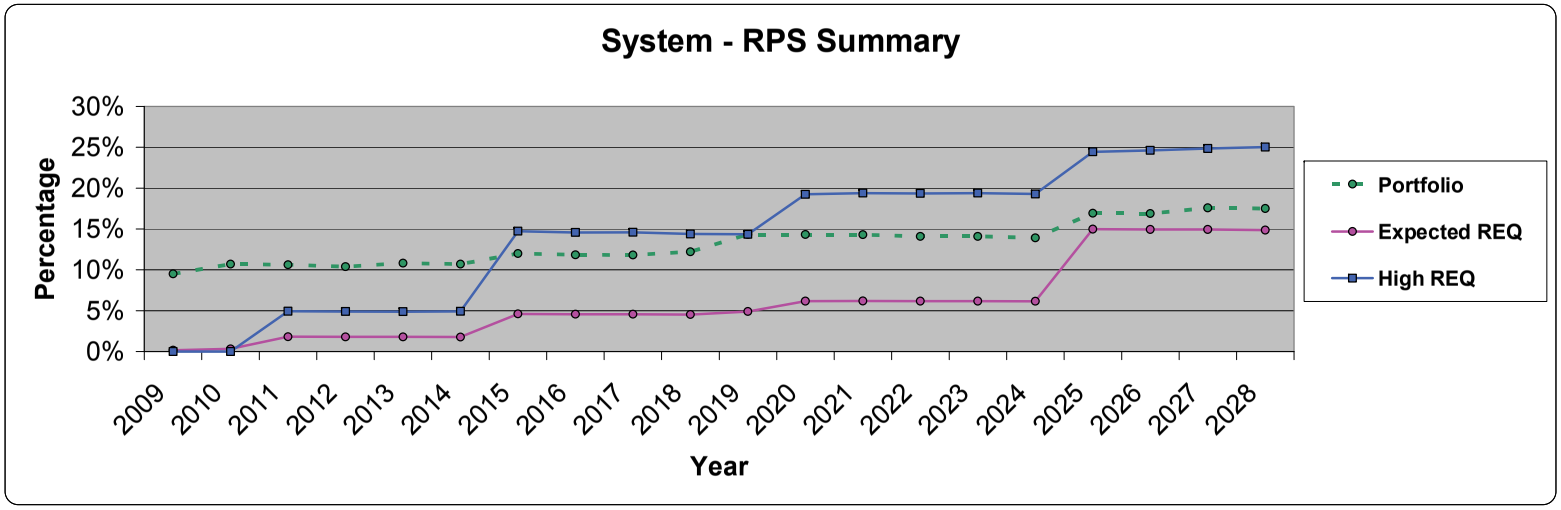
System - RPS Report - Case # 1	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	11,920	15,131	18,404	21,743	25,007	28,225	31,466	34,074	35,843	37,610	39,340	40,915	42,474	43,948	39,329	34,645	29,878	25,051
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	340	345	357	118	-	-	-	-	-	-	-	-	-	-	-	-	-
Oregon	1,376	2,519	2,952	3,376	3,782	4,166	2,986	1,794	581	-	-	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,534**	**15,343**	**18,847**	**22,531**	**26,266**	**28,111**	**30,019**	**32,048**	**34,074**	**35,843**	**37,610**	**39,340**	**40,915**	**42,474**	**43,948**	**39,329**	**34,645**	**29,878**	**25,051**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,205	3,211	3,273	3,340	3,264	3,281	3,306	3,314	3,334	3,357	3,370	3,321	3,337	3,342	5,257	5,301	5,358	5,391
Other (ID,WY)	822	1,022	1,034	1,046	1,052	1,071	1,018	1,029	1,038	1,035	1,038	1,041	1,042	1,010	1,013	983	991	996	1,003	1,009
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	290	299	303	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	982	1,143	1,133	1,132	1,126	1,116	2,228	2,244	2,266	2,918	3,163	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,107**	**5,807**	**5,850**	**5,873**	**5,953**	**6,043**	**7,104**	**7,160**	**7,229**	**7,897**	**8,430**	**8,465**	**8,525**	**8,469**	**8,524**	**8,534**	**11,317**	**11,396**	**11,503**	**11,586**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	10%	10%	12%	11%	11%	12%	13%	13%	13%	13%	13%	12%	16%	16%	16%	16%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $0, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded

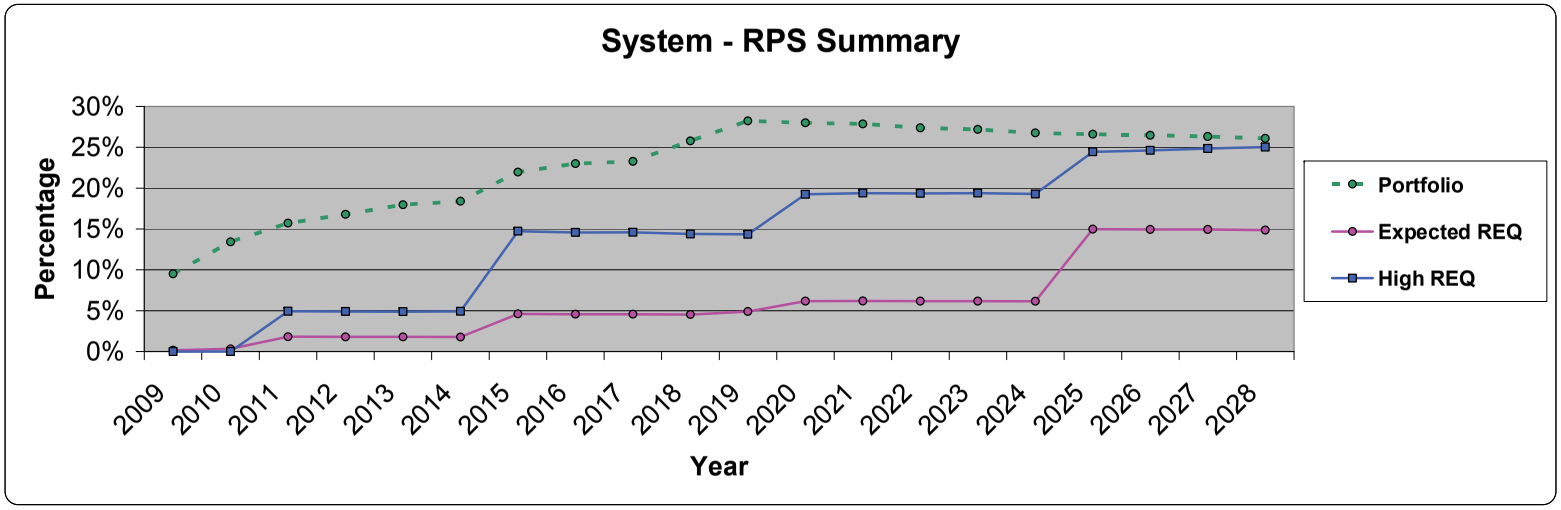
System - RPS Report - Case # 2	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,743	11,975	15,216	18,646	22,145	25,557	28,947	32,369	36,054	38,983	42,216	45,419	48,470	51,548	54,519	51,372	48,147	46,782	45,340
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	350	380	415	174	-	-	2	-	-	-	-	-	-	-	-	-	-
Oregon	1,382	2,536	2,985	3,428	3,928	4,407	3,315	2,209	1,086	82	-	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,941**	**11,583**	**15,439**	**18,994**	**22,954**	**26,967**	**29,047**	**31,156**	**33,455**	**36,139**	**38,983**	**42,216**	**45,419**	**48,470**	**51,548**	**54,519**	**51,372**	**48,147**	**46,782**	**45,340**
Adjusted Qualifying Renewables																				
Utah	2,959	3,184	3,231	3,241	3,430	3,499	3,412	3,427	3,459	3,685	3,942	3,971	3,987	3,939	3,974	3,969	5,257	5,301	5,358	5,391
Other (ID,WY)	828	1,032	1,049	1,063	1,141	1,162	1,103	1,113	1,126	1,249	1,389	1,398	1,402	1,371	1,386	1,349	1,355	1,361	1,861	1,872
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	296	328	332	370	372	375	379	632	636	640	644	647	651	655	659	662	666
Oregon	988	1,155	1,149	1,150	1,220	1,211	2,228	2,244	2,266	2,277	3,106	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,129**	**5,850**	**5,912**	**5,945**	**6,322**	**6,417**	**7,337**	**7,389**	**7,469**	**7,843**	**9,331**	**9,437**	**9,502**	**9,448**	**9,534**	**9,527**	**11,681**	**11,761**	**12,361**	**12,449**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	10%	11%	11%	12%	12%	12%	12%	14%	14%	14%	14%	14%	14%	17%	17%	18%	17%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $0, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded

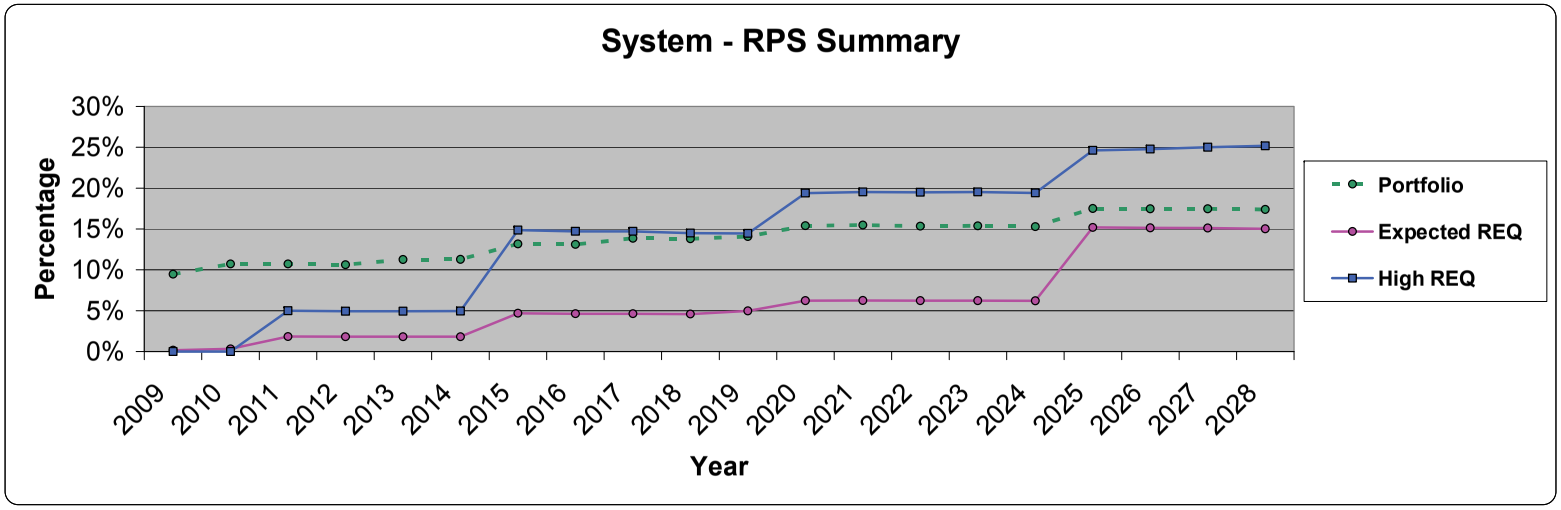
System - RPS Report - Case # 3	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,377	13,818	18,615	23,830	29,290	35,777	42,658	49,694	57,515	66,116	74,739	83,394	91,990	100,611	109,224	112,576	115,904	119,184	122,434
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	419	816	855	990	1,099	1,093	1,120	1,210	1,373	1,398	1,274	1,264	1,247	1,231	1,224	1,204	1,180	1,159	1,136
Oregon	1,382	2,926	4,110	5,493	7,067	8,711	9,436	10,362	11,338	12,766	14,613	15,629	16,604	17,516	18,394	19,221	19,137	18,978	18,730	18,388
Cumulative Surplus Credit Bank Balance	**6,942**	**12,721**	**18,744**	**24,963**	**31,887**	**39,099**	**46,306**	**54,140**	**62,242**	**71,655**	**82,126**	**91,642**	**101,261**	**110,752**	**120,236**	**129,670**	**132,917**	**136,062**	**139,074**	**141,958**
Adjusted Qualifying Renewables																				
Utah	2,960	3,817	4,441	4,797	5,215	5,460	6,487	6,881	7,037	7,821	8,600	8,624	8,654	8,596	8,621	8,613	8,609	8,629	8,638	8,640
Other (ID,WY)	828	1,380	1,721	1,932	2,144	2,279	2,867	3,102	3,193	3,633	4,078	4,105	4,125	4,091	4,107	4,059	4,081	4,115	4,142	4,164
California	88	176	185	194	204	213	223	233	243	269	300	336	339	341	345	348	352	354	357	360
Washington	266	419	519	580	654	690	896	966	991	1,134	1,272	1,269	1,271	1,260	1,261	1,260	1,250	1,244	1,237	1,228
Oregon	989	1,543	1,885	2,091	2,294	2,376	2,953	3,170	3,242	3,706	4,146	4,112	4,108	4,066	4,061	4,038	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,131**	**7,335**	**8,750**	**9,593**	**10,511**	**11,018**	**13,427**	**14,353**	**14,706**	**16,563**	**18,396**	**18,445**	**18,497**	**18,354**	**18,395**	**18,318**	**18,353**	**18,428**	**18,496**	**18,552**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	17%	18%	18%	22%	23%	23%	26%	28%	28%	28%	27%	27%	27%	27%	26%	26%	26%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $0, Gas = High - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

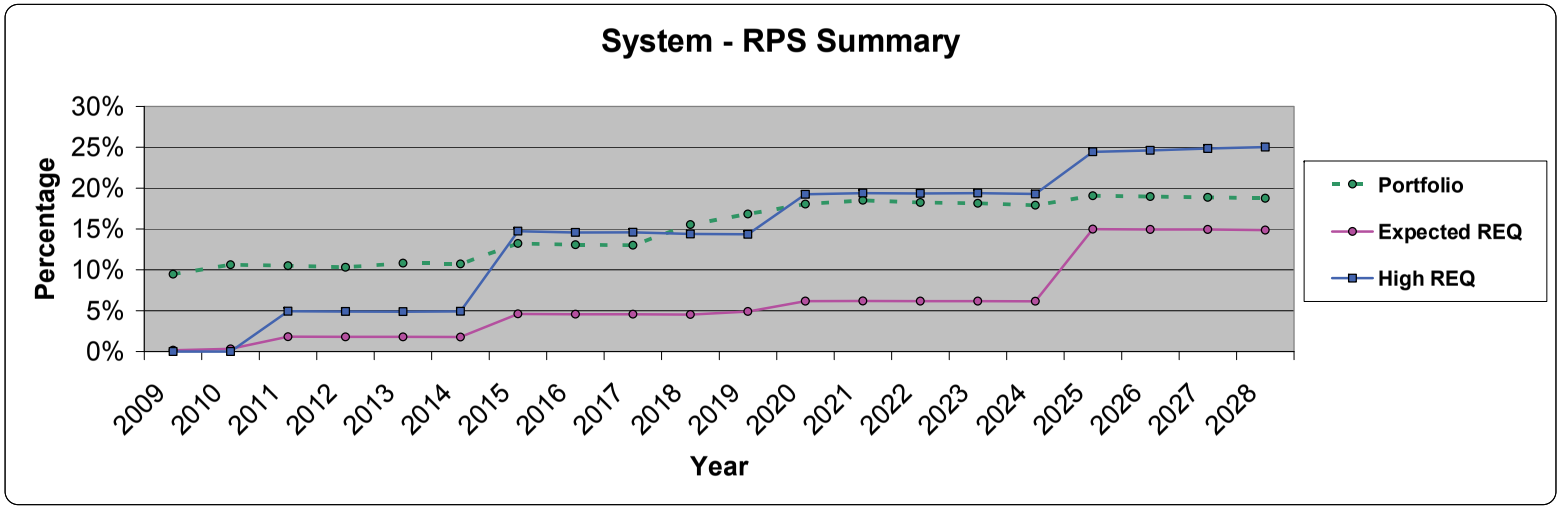
System - RPS Report - Case # 4	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,550	8,715	11,919	15,138	18,571	22,075	25,704	29,360	33,272	37,195	41,062	44,887	48,563	52,128	55,719	59,250	57,591	55,984	54,409	52,888
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	472	344	381	424	235	47	96	144	-	-	-	-	-	-	-	-	-	-
Oregon	1,376	2,519	2,958	3,402	3,926	4,437	3,587	2,753	2,057	1,382	710	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,534**	**15,349**	**18,883**	**22,878**	**26,935**	**29,526**	**32,160**	**35,425**	**38,721**	**41,773**	**44,887**	**48,563**	**52,128**	**55,719**	**59,250**	**57,591**	**55,984**	**54,409**	**52,888**
Adjusted Qualifying Renewables																				
Utah	2,950	3,165	3,204	3,219	3,433	3,503	3,629	3,656	3,912	3,923	3,948	3,978	3,993	3,942	3,957	3,952	4,505	4,479	4,464	4,426
Other (ID,WY)	823	1,022	1,034	1,050	1,142	1,164	1,228	1,245	1,387	1,386	1,392	1,402	1,405	1,372	1,376	1,338	1,345	1,351	1,357	1,363
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	264	300	293	292	328	333	374	377	421	423	577	574	572	568	564	561	558	554	550	546
Oregon	982	1,143	1,133	1,137	1,222	1,214	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Adjusted Qualifying Renewables	**5,108**	**5,806**	**5,848**	**5,891**	**6,330**	**6,426**	**7,568**	**7,616**	**8,063**	**8,071**	**8,262**	**9,033**	**9,050**	**8,946**	**8,952**	**8,898**	**10,141**	**10,095**	**10,068**	**10,019**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	9%	11%	11%	11%	11%	11%	13%	13%	14%	14%	14%	15%	15%	15%	15%	15%	18%	17%	17%	17%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

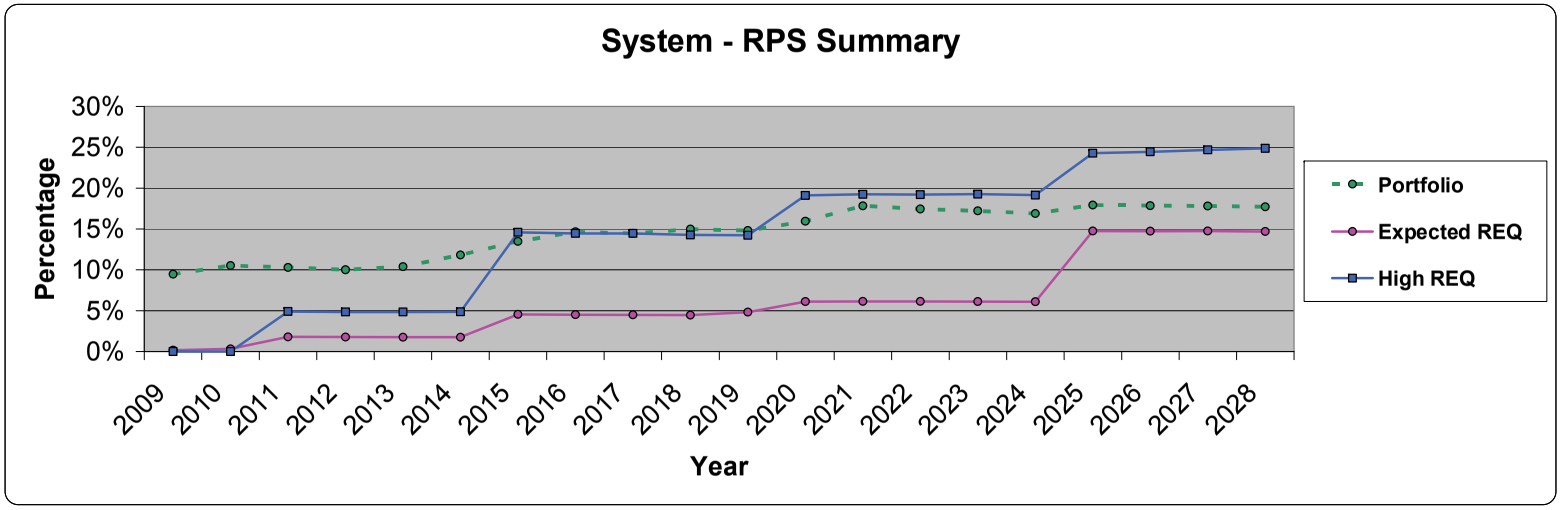
System - RPS Report - Case # 5	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,716	11,920	15,138	18,572	22,075	25,936	29,823	33,735	38,638	44,089	49,570	55,262	60,902	66,558	72,209	72,622	73,013	73,368	73,712
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	416	256	94	93	270	290	125	149	166	149	141	126	107	89	71
Oregon	1,376	2,519	2,952	3,381	3,883	4,364	3,537	2,702	1,844	1,557	1,555	739	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,535**	**15,342**	**18,860**	**22,831**	**26,856**	**29,730**	**32,619**	**35,671**	**40,465**	**45,934**	**50,434**	**55,411**	**61,068**	**66,707**	**72,350**	**72,748**	**73,120**	**73,457**	**73,783**
Adjusted Qualifying Renewables																				
Utah	2,950	3,166	3,204	3,219	3,433	3,503	3,861	3,887	3,912	4,903	5,451	5,481	5,692	5,640	5,656	5,651	5,671	5,692	5,713	5,734
Other (ID,WY)	823	1,022	1,034	1,050	1,142	1,164	1,360	1,378	1,387	1,951	2,260	2,277	2,396	2,365	2,370	2,330	2,347	2,364	2,380	2,396
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	292	328	333	417	420	421	602	697	695	730	720	720	719	713	708	702	697
Oregon	982	1,143	1,133	1,137	1,222	1,214	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**5,807**	**5,848**	**5,891**	**6,330**	**6,427**	**8,089**	**8,162**	**8,229**	**9,986**	**10,971**	**11,885**	**12,290**	**12,220**	**12,273**	**12,258**	**13,144**	**13,204**	**13,275**	**13,347**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	13%	13%	13%	16%	17%	18%	19%	18%	18%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

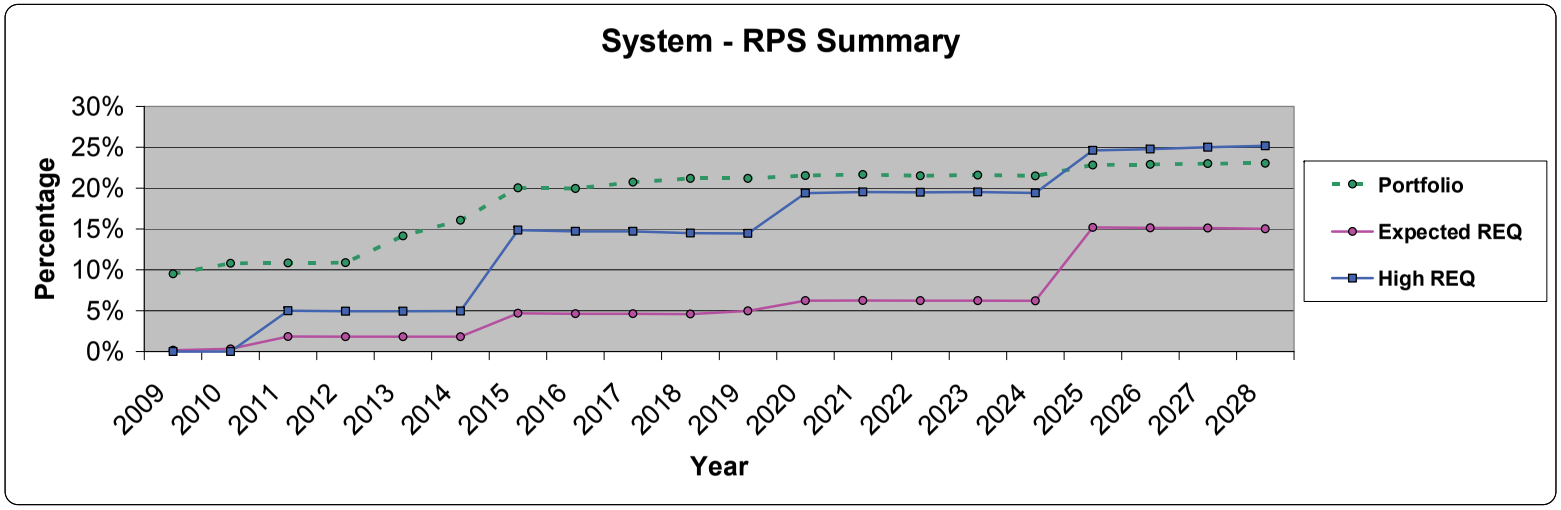
System - RPS Report - Case # 6	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,103	6,233	6,383	6,509
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	-	-	122	124	125	127	388	394	401	408	691	703	716	728	739	752	766	780	793	807
Oregon	-	-	708	722	742	763	2,346	2,388	2,439	2,478	2,531	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Total RPS Requirement	88	176	1,015	1,040	1,072	1,104	2,958	3,017	3,086	3,143	3,489	4,519	4,621	4,703	4,797	4,893	12,063	12,300	12,571	12,823
Bank Balance																				
Utah	5,550	8,716	11,920	15,139	18,572	22,508	26,682	31,430	36,202	41,314	46,451	51,553	57,643	63,683	69,738	75,787	75,755	75,599	75,172	74,493
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	470	339	371	488	371	269	359	408	181	-	87	153	119	93	59	21	-	-
Oregon	1,376	2,519	2,945	3,359	3,839	4,547	3,788	3,314	2,789	2,423	2,006	658	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,535**	**15,335**	**18,836**	**22,783**	**27,542**	**30,841**	**35,013**	**39,350**	**44,146**	**48,638**	**52,211**	**57,731**	**63,836**	**69,856**	**75,880**	**75,814**	**75,619**	**75,172**	**74,493**
Adjusted Qualifying Renewables																				
Utah	2,950	3,166	3,204	3,219	3,433	3,936	4,175	4,748	4,772	5,112	5,137	5,167	6,091	6,040	6,055	6,050	6,103	6,233	6,383	6,509
Other (ID,WY)	823	1,022	1,034	1,050	1,143	1,411	1,540	1,874	1,885	2,071	2,078	2,094	2,629	2,598	2,604	2,563	2,583	2,602	2,621	2,639
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	264	300	293	292	328	412	474	577	578	640	691	703	803	793	793	792	786	781	793	807
Oregon	982	1,143	1,133	1,137	1,222	1,471	2,346	2,388	2,439	2,478	2,531	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Adjusted Qualifying Renewables	**5,108**	**5,807**	**5,849**	**5,892**	**6,331**	**7,443**	**8,760**	**9,822**	**9,919**	**10,558**	**10,704**	**11,780**	**13,428**	**13,406**	**13,509**	**13,545**	**14,665**	**14,902**	**15,192**	**15,462**
System Load	53,963	55,209	56,795	58,885	60,891	63,017	64,985	67,026	68,617	70,513	72,287	73,862	75,258	76,828	78,432	80,241	81,763	83,490	85,259	87,266
Portfolio	9%	11%	10%	10%	10%	12%	13%	15%	14%	15%	15%	16%	18%	17%	17%	17%	18%	18%	18%	18%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	4%	4%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = High, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

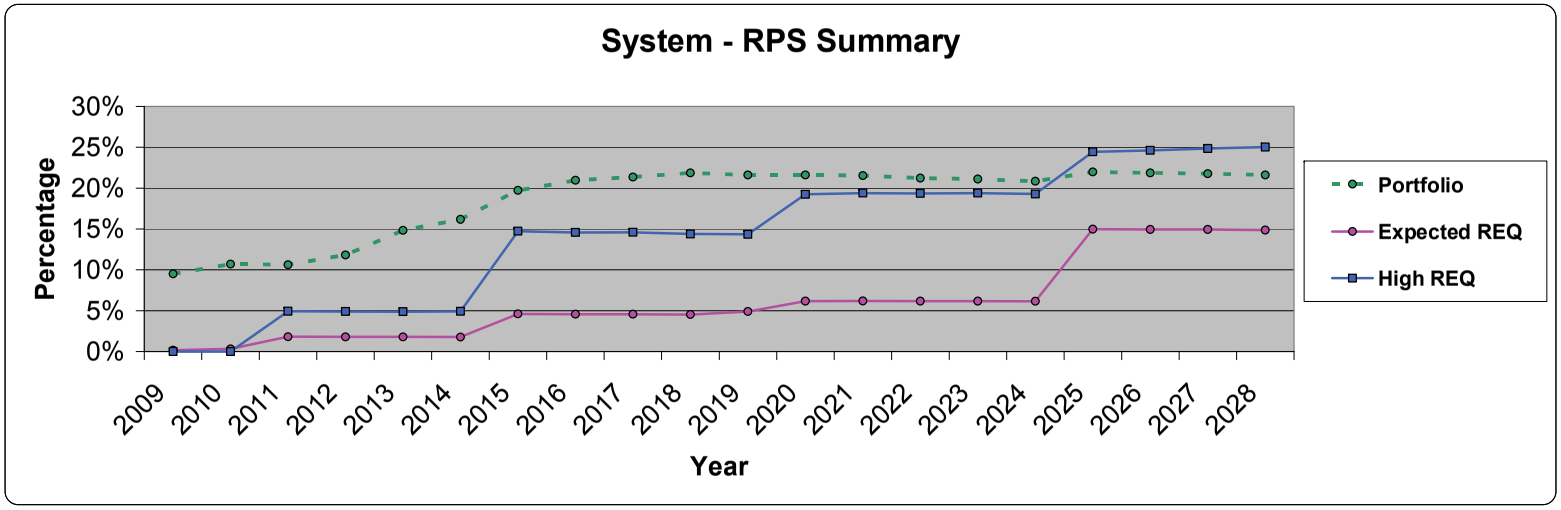
System - RPS Report - Case # 7	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	8,742	11,973	15,249	19,371	24,034	29,708	35,410	41,318	47,369	53,444	59,550	65,670	71,739	77,824	83,903	85,497	87,139	88,817	90,555
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	480	359	517	761	821	794	834	898	697	469	471	467	464	470	470	465	462	459
Oregon	1,382	2,536	2,991	3,469	4,408	5,608	5,966	6,335	6,812	7,387	7,965	7,832	7,690	7,525	7,361	7,181	6,281	5,368	4,435	3,482
Cumulative Surplus Credit Bank Balance	**6,942**	**11,580**	**15,444**	**19,077**	**24,296**	**30,403**	**36,495**	**42,539**	**48,964**	**55,654**	**62,106**	**67,851**	**73,831**	**79,731**	**85,649**	**91,554**	**92,248**	**92,972**	**93,715**	**94,496**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,231	3,276	4,122	4,663	5,674	5,701	5,909	6,051	6,075	6,106	6,120	6,069	6,084	6,079	6,100	6,121	6,142	6,163
Other (ID,WY)	828	1,031	1,049	1,082	1,530	1,825	2,401	2,423	2,541	2,612	2,620	2,640	2,647	2,615	2,621	2,580	2,600	2,620	2,638	2,657
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	266	303	298	302	454	544	748	751	785	811	811	809	808	799	798	797	792	786	781	775
Oregon	989	1,154	1,149	1,171	1,637	1,903	2,473	2,476	2,580	2,665	2,664	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Adjusted Qualifying Renewables	**5,130**	**5,845**	**5,912**	**6,025**	**7,946**	**9,148**	**11,518**	**11,582**	**12,056**	**12,389**	**12,430**	**12,633**	**12,655**	**12,547**	**12,559**	**12,503**	**13,224**	**13,236**	**13,258**	**13,280**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	11%	11%	11%	14%	16%	20%	20%	21%	21%	21%	22%	22%	22%	22%	21%	23%	23%	23%	23%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

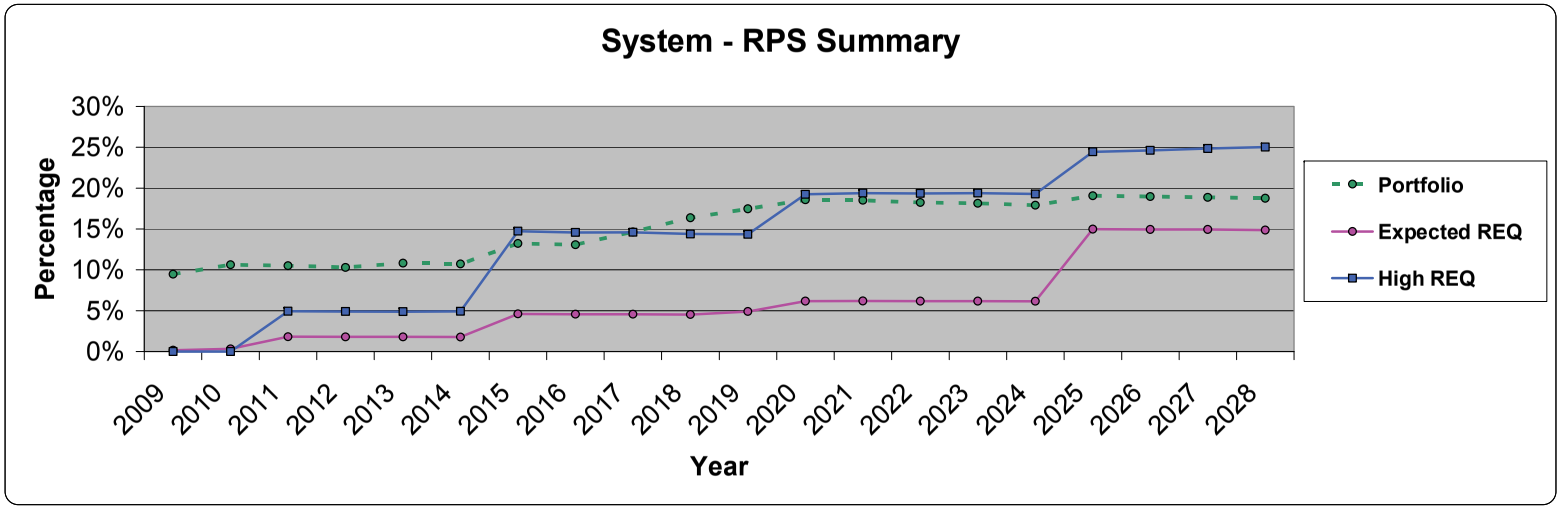
System - RPS Report - Case # 8	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,742	11,973	15,559	19,990	24,883	30,787	37,127	43,651	50,409	57,191	64,004	70,831	77,608	84,399	91,185	92,735	94,262	95,752	97,232
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	413	625	852	883	915	1,018	1,086	872	611	599	581	564	556	541	522	504	486
Oregon	1,382	2,536	2,984	3,635	4,738	6,045	6,426	7,033	7,708	8,511	9,291	9,251	9,164	9,020	8,839	8,606	7,484	6,301	5,044	3,715
Cumulative Surplus Credit Bank Balance	**6,942**	**11,580**	**15,436**	**19,607**	**25,353**	**31,780**	**38,097**	**45,074**	**52,376**	**60,006**	**67,354**	**73,866**	**80,595**	**87,208**	**93,802**	**100,347**	**100,760**	**101,084**	**101,301**	**101,433**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,231	3,586	4,431	4,893	5,904	6,339	6,524	6,758	6,782	6,813	6,827	6,776	6,791	6,786	6,807	6,828	6,849	6,870
Other (ID,WY)	828	1,031	1,049	1,255	1,703	1,956	2,533	2,790	2,897	3,020	3,029	3,051	3,059	3,028	3,035	2,993	3,017	3,041	3,064	3,087
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	359	511	586	790	867	898	940	940	938	937	928	927	926	921	915	910	904
Oregon	989	1,154	1,149	1,359	1,823	2,040	2,609	2,851	2,941	3,081	3,079	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**5,846**	**5,912**	**6,752**	**8,672**	**9,689**	**12,059**	**13,081**	**13,503**	**14,052**	**14,093**	**14,234**	**14,296**	**14,227**	**14,281**	**14,264**	**15,158**	**15,224**	**15,303**	**15,382**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	12%	15%	16%	20%	21%	21%	22%	22%	22%	22%	21%	21%	21%	22%	22%	22%	22%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

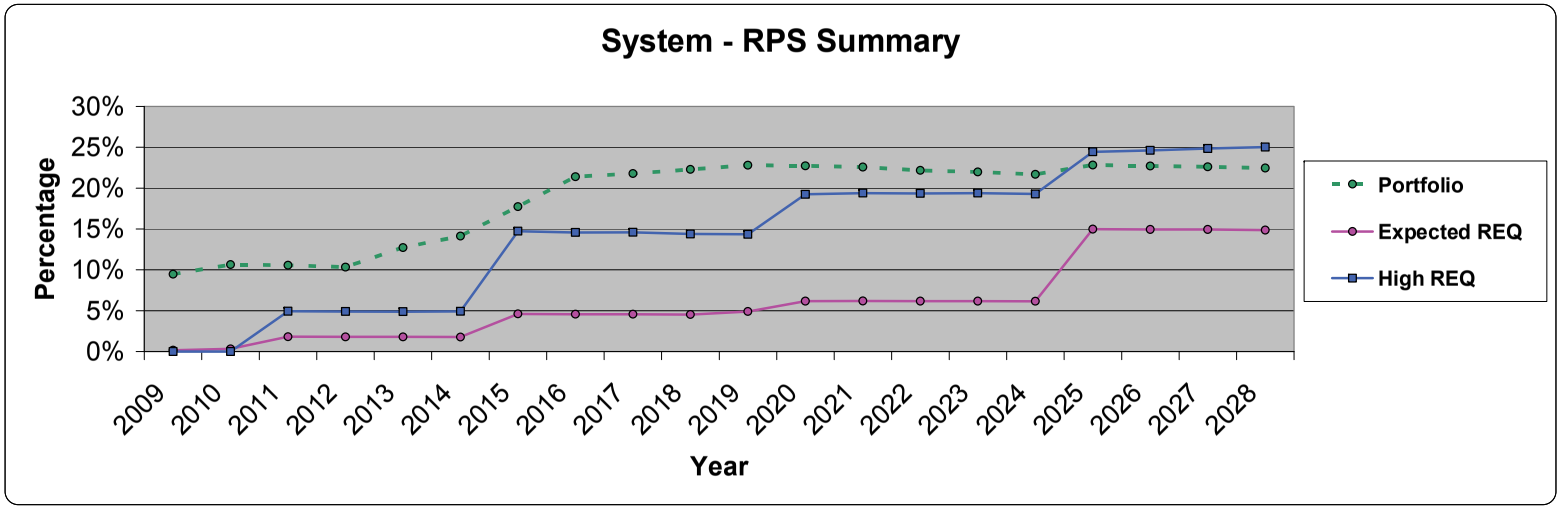
System - RPS Report - Case # 9	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	11,920	15,137	18,571	22,074	25,934	29,822	34,314	39,519	45,146	50,823	56,515	62,155	67,811	73,461	73,875	74,266	74,621	74,964
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	416	256	94	199	431	377	193	184	166	149	141	126	107	89	71
Oregon	1,376	2,519	2,952	3,380	3,882	4,363	3,537	2,701	2,184	2,074	2,175	1,474	727	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,925**	**11,534**	**15,343**	**18,858**	**22,829**	**26,854**	**29,728**	**32,617**	**36,697**	**42,023**	**47,699**	**52,489**	**57,426**	**62,321**	**67,960**	**73,602**	**74,001**	**74,373**	**74,710**	**75,036**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,204	3,217	3,433	3,503	3,861	3,887	4,492	5,205	5,628	5,677	5,692	5,640	5,656	5,651	5,671	5,692	5,713	5,734
Other (ID,WY)	822	1,022	1,034	1,049	1,143	1,164	1,360	1,378	1,723	2,125	2,362	2,390	2,396	2,365	2,370	2,330	2,347	2,364	2,380	2,396
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	291	328	333	417	420	527	657	730	731	730	720	720	719	713	708	702	697
Oregon	982	1,144	1,133	1,136	1,222	1,214	2,228	2,244	2,266	2,277	2,401	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,106**	**5,807**	**5,849**	**5,888**	**6,331**	**6,427**	**8,089**	**8,162**	**9,251**	**10,516**	**11,383**	**12,230**	**12,290**	**12,220**	**12,273**	**12,258**	**13,144**	**13,204**	**13,275**	**13,347**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	13%	13%	15%	16%	17%	19%	19%	18%	18%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

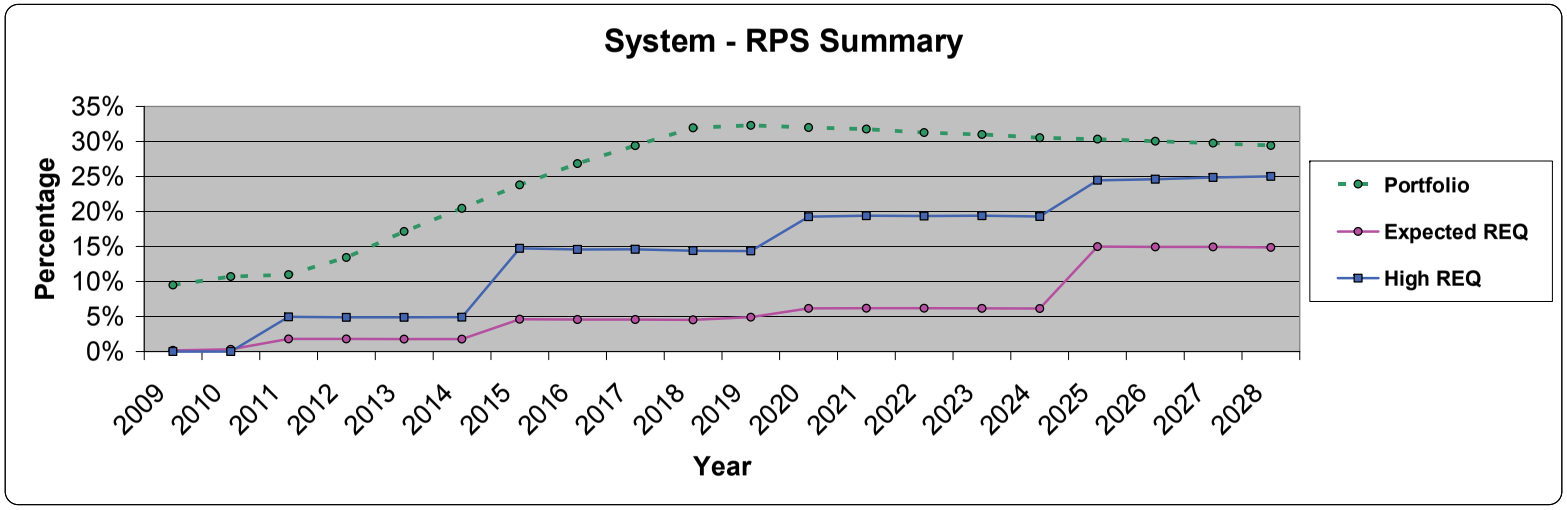
System - RPS Report - Case # 10	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,551	8,721	11,942	15,168	19,073	23,448	28,834	35,289	41,929	48,803	55,917	63,061	70,220	77,328	84,451	91,569	93,450	95,308	97,131	98,941
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	475	346	464	662	694	841	1,060	1,128	953	732	720	702	685	677	662	643	625	607
Oregon	1,376	2,522	2,965	3,398	4,185	5,184	5,258	5,934	6,677	7,548	8,522	8,676	8,782	8,830	8,841	8,800	7,869	6,875	5,805	4,661
Cumulative Surplus Credit Bank Balance	**6,927**	**11,544**	**15,381**	**18,912**	**23,722**	**29,293**	**34,786**	**42,064**	**49,666**	**57,479**	**65,392**	**72,469**	**79,722**	**86,860**	**93,977**	**101,046**	**101,981**	**102,826**	**103,561**	**104,209**
Adjusted Qualifying Renewables																				
Utah	2,950	3,170	3,221	3,226	3,906	4,375	5,386	6,455	6,640	6,874	7,114	7,144	7,159	7,108	7,123	7,118	7,138	7,159	7,180	7,202
Other (ID,WY)	823	1,025	1,043	1,054	1,408	1,661	2,235	2,857	2,964	3,087	3,220	3,244	3,253	3,222	3,229	3,187	3,213	3,239	3,264	3,289
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	301	296	293	415	492	695	889	919	961	1,001	999	998	988	988	987	981	976	970	965
Oregon	983	1,146	1,143	1,141	1,506	1,731	2,303	2,920	3,009	3,149	3,274	3,250	3,239	3,202	3,193	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,109**	**5,817**	**5,888**	**5,909**	**7,438**	**8,472**	**10,842**	**13,353**	**13,775**	**14,323**	**14,872**	**14,972**	**14,988**	**14,861**	**14,878**	**14,850**	**15,745**	**15,814**	**15,894**	**15,975**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	13%	14%	18%	21%	22%	22%	23%	23%	23%	22%	22%	22%	23%	23%	23%	22%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

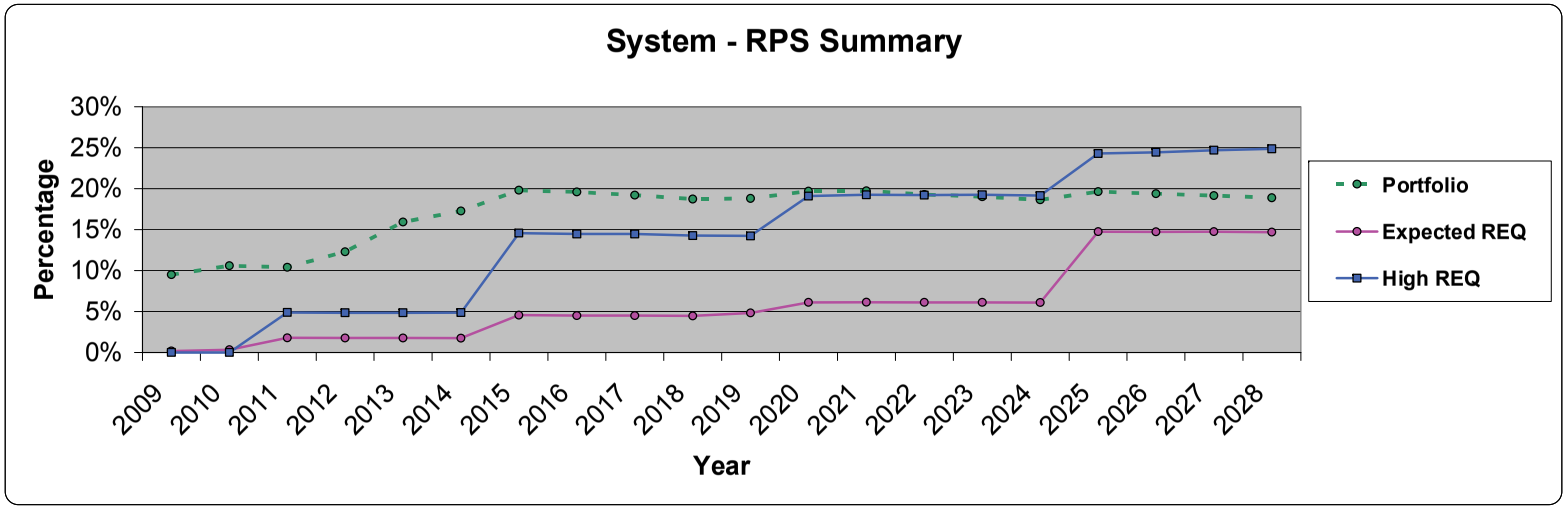
System - RPS Report - Case # 11	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,556	8,739	12,055	16,033	21,039	27,026	33,987	41,869	50,530	60,015	69,725	79,466	89,221	98,925	108,645	118,359	122,836	127,291	131,710	136,117
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	495	500	802	1,157	1,276	1,389	1,689	1,974	1,904	1,680	1,669	1,650	1,634	1,625	1,611	1,591	1,573	1,555
Oregon	1,380	2,534	3,034	3,922	5,370	7,328	8,333	9,848	11,776	14,183	16,681	18,348	19,963	21,518	23,032	24,499	25,061	25,544	25,937	26,241
Cumulative Surplus Credit Bank Balance	**6,936**	**11,576**	**15,584**	**20,455**	**27,211**	**35,511**	**43,596**	**53,106**	**63,995**	**76,172**	**88,310**	**99,494**	**110,852**	**122,094**	**133,310**	**144,483**	**149,508**	**154,426**	**159,220**	**163,913**
Adjusted Qualifying Renewables																				
Utah	2,956	3,183	3,316	3,978	5,006	5,987	6,961	7,882	8,661	9,485	9,710	9,741	9,755	9,704	9,719	9,714	9,735	9,756	9,777	9,798
Other (ID,WY)	826	1,032	1,096	1,474	2,027	2,580	3,139	3,679	4,132	4,592	4,719	4,755	4,768	4,738	4,750	4,702	4,745	4,787	4,828	4,869
California	88	176	185	194	204	213	236	273	303	336	344	341	341	341	345	348	352	354	357	360
Washington	265	303	313	430	616	786	983	1,149	1,288	1,438	1,475	1,473	1,472	1,462	1,462	1,461	1,455	1,450	1,444	1,439
Oregon	986	1,154	1,201	1,596	2,168	2,690	3,233	3,759	4,195	4,685	4,798	4,763	4,748	4,709	4,696	4,678	4,623	4,569	4,516	4,463
Adjusted Qualifying Renewables	**5,122**	**5,848**	**6,110**	**7,671**	**10,020**	**12,256**	**14,552**	**16,742**	**18,578**	**20,535**	**21,047**	**21,072**	**21,084**	**20,955**	**20,972**	**20,903**	**20,910**	**20,915**	**20,922**	**20,929**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	13%	17%	20%	24%	27%	29%	32%	32%	32%	32%	31%	31%	31%	30%	30%	30%	29%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

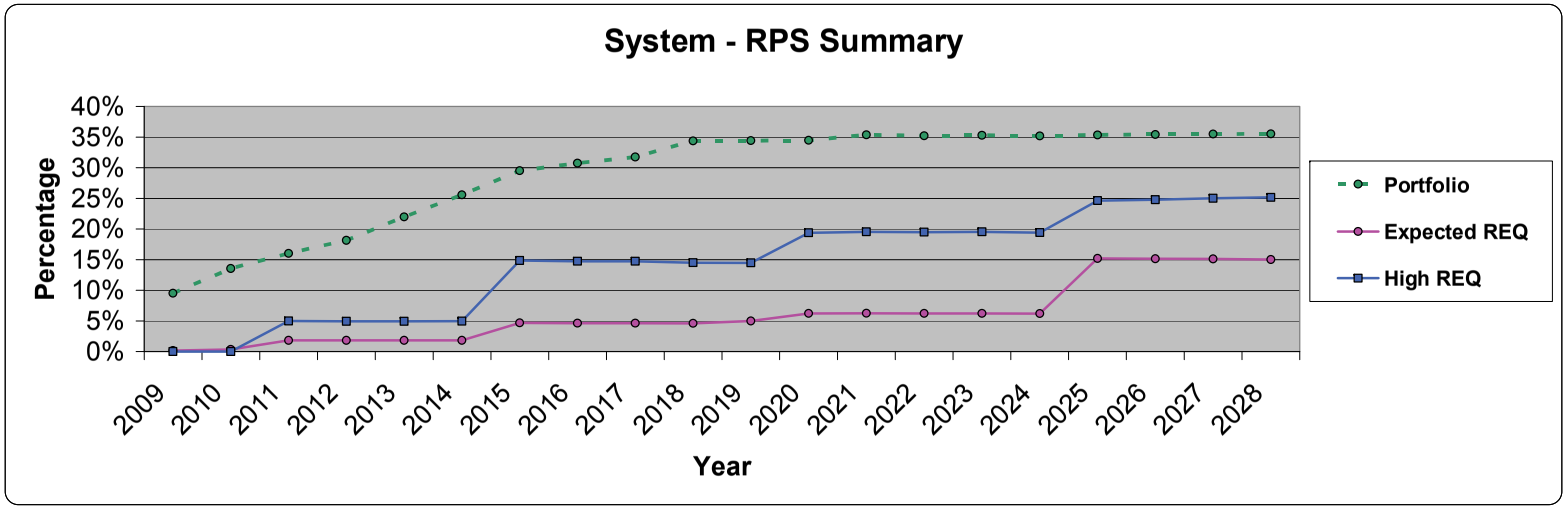
System - RPS Report - Case # 12	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,103	6,233	6,383	6,509
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	-	-	122	124	125	127	388	394	401	408	691	703	716	728	739	752	766	780	793	807
Oregon	-	-	708	722	742	763	2,346	2,388	2,439	2,478	2,531	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Total RPS Requirement	88	176	1,015	1,040	1,072	1,104	2,958	3,017	3,086	3,143	3,489	4,519	4,621	4,703	4,797	4,893	12,063	12,300	12,571	12,823
Bank Balance																				
Utah	5,560	8,742	11,973	15,766	20,636	26,036	32,288	38,650	45,037	51,435	58,004	64,776	71,667	78,507	85,362	92,213	92,981	93,639	94,168	94,594
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	478	448	738	1,017	1,018	943	949	938	677	439	461	445	411	385	352	313	276	238
Oregon	1,382	2,536	2,977	3,739	5,083	6,661	7,129	7,606	8,027	8,419	8,841	8,429	7,988	7,446	6,822	6,099	4,294	2,366	301	-
Cumulative Surplus Credit Bank Balance	**6,942**	**11,580**	**15,429**	**19,953**	**26,457**	**33,715**	**40,435**	**47,199**	**54,013**	**60,792**	**67,523**	**73,644**	**80,116**	**86,398**	**92,596**	**98,697**	**97,627**	**96,318**	**94,745**	**94,832**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,231	3,793	4,870	5,401	6,252	6,362	6,387	6,398	6,568	6,772	6,891	6,840	6,855	6,850	6,871	6,892	6,913	6,934
Other (ID,WY)	828	1,031	1,049	1,371	1,950	2,245	2,732	2,804	2,818	2,813	2,905	3,028	3,096	3,065	3,073	3,030	3,055	3,079	3,103	3,126
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	266	303	298	396	591	679	853	872	873	875	901	931	949	939	939	938	932	927	921	916
Oregon	989	1,154	1,149	1,484	2,086	2,341	2,814	2,865	2,860	2,870	2,954	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Adjusted Qualifying Renewables	**5,130**	**5,846**	**5,912**	**7,238**	**9,701**	**10,880**	**12,876**	**13,138**	**13,183**	**13,212**	**13,596**	**14,547**	**14,842**	**14,820**	**14,924**	**14,959**	**16,052**	**16,184**	**16,332**	**16,483**
System Load	53,963	55,209	56,795	58,885	60,891	63,017	64,985	67,026	68,617	70,513	72,287	73,862	75,258	76,828	78,432	80,241	81,763	83,490	85,259	87,266
Portfolio	10%	11%	10%	12%	16%	17%	20%	20%	19%	19%	19%	20%	20%	19%	19%	19%	20%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	4%	4%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = High, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

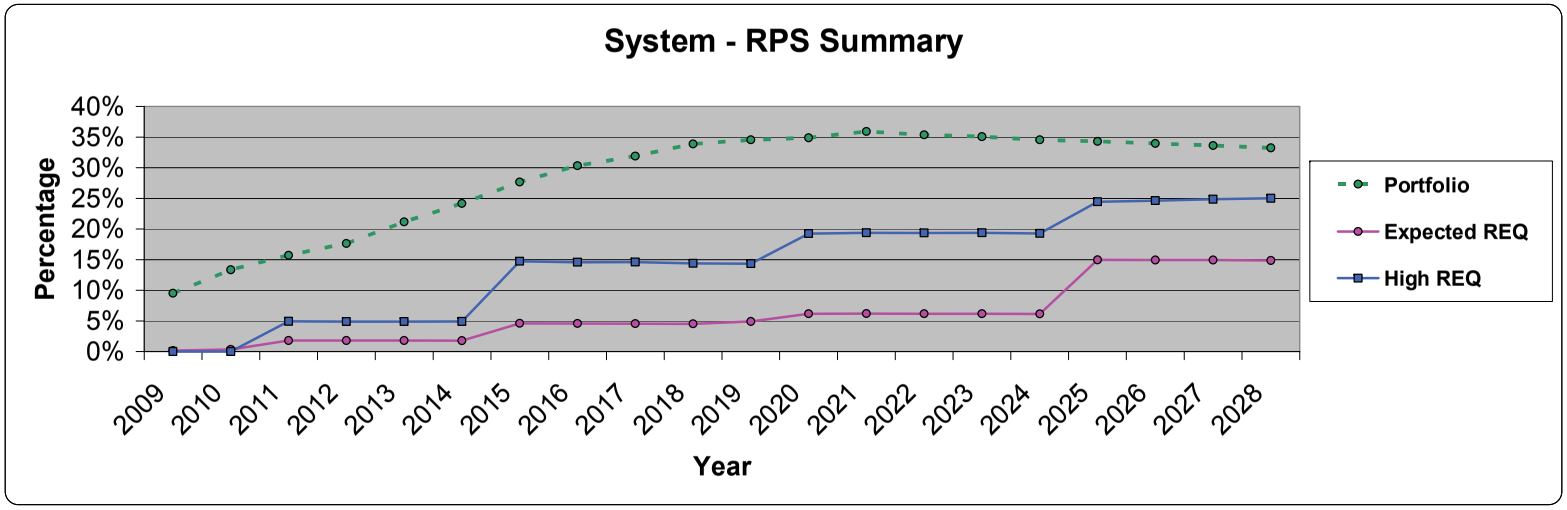
System - RPS Report - Case # 13	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	9,376	13,814	18,810	24,806	31,771	39,743	48,090	56,704	66,007	75,360	84,743	94,320	103,846	113,387	122,923	127,974	133,073	138,208	143,402
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	419	816	894	1,174	1,524	1,661	1,697	1,811	1,985	1,889	1,666	1,701	1,729	1,727	1,733	1,733	1,728	1,725	1,722
Oregon	1,382	2,925	4,115	5,633	7,698	10,266	11,982	13,909	15,972	18,459	20,961	22,739	24,605	26,447	28,285	30,111	31,198	32,253	33,268	34,243
Cumulative Surplus Credit Bank Balance	**6,942**	**12,720**	**18,744**	**25,337**	**33,678**	**43,561**	**53,386**	**63,695**	**74,487**	**86,451**	**98,210**	**109,148**	**120,626**	**132,023**	**143,399**	**154,767**	**160,905**	**167,054**	**173,201**	**179,367**
Adjusted Qualifying Renewables																				
Utah	2,960	3,816	4,437	4,997	5,995	6,965	7,972	8,347	8,614	9,302	9,353	9,384	9,577	9,526	9,541	9,536	9,557	9,577	9,598	9,620
Other (ID,WY)	828	1,379	1,719	2,043	2,583	3,137	3,719	3,947	4,105	4,486	4,513	4,547	4,664	4,634	4,645	4,598	4,640	4,680	4,721	4,760
California	88	176	185	194	203	235	277	292	301	329	330	327	334	332	332	332	328	323	319	315
Washington	266	419	518	616	796	965	1,167	1,234	1,279	1,405	1,410	1,407	1,439	1,430	1,429	1,428	1,423	1,417	1,412	1,407
Oregon	989	1,543	1,883	2,212	2,763	3,271	3,831	4,033	4,167	4,577	4,588	4,555	4,645	4,605	4,593	4,574	4,521	4,468	4,416	4,364
Adjusted Qualifying Renewables	**5,131**	**7,333**	**8,742**	**10,062**	**12,341**	**14,572**	**16,966**	**17,853**	**18,466**	**20,100**	**20,194**	**20,220**	**20,658**	**20,527**	**20,541**	**20,469**	**20,467**	**20,466**	**20,466**	**20,466**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	14%	16%	18%	22%	26%	30%	31%	32%	34%	34%	34%	35%	35%	35%	35%	35%	35%	36%	36%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

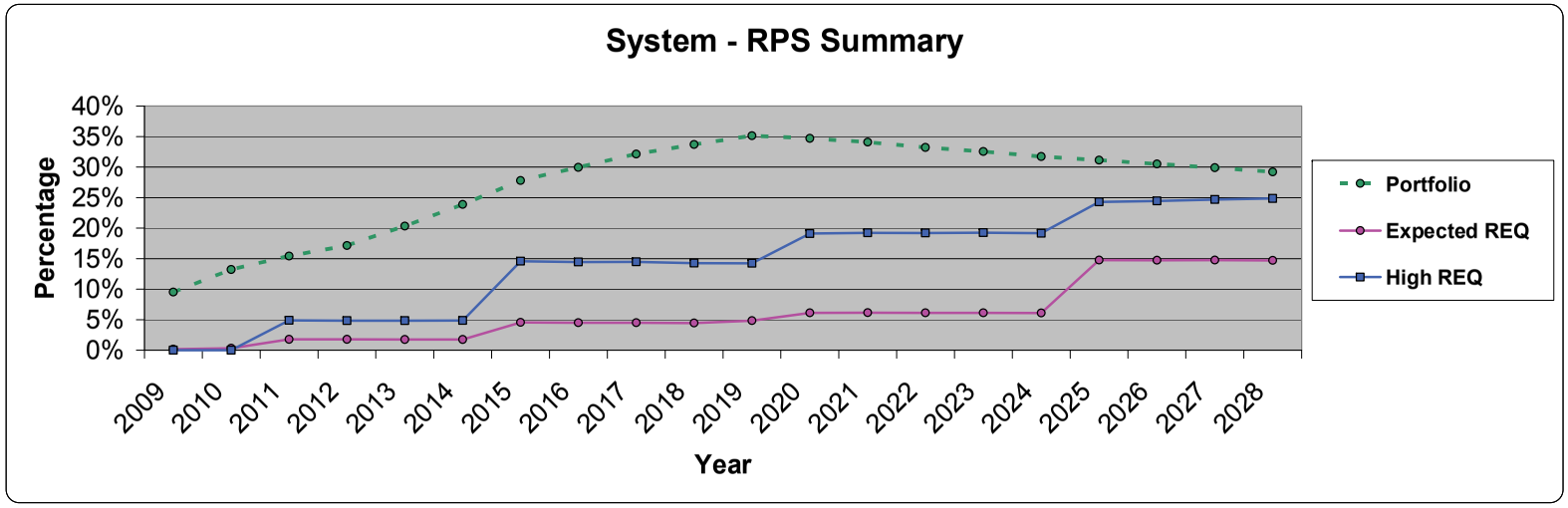
System - RPS Report - Case # 14	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,358	13,798	18,800	24,810	31,734	39,687	48,487	57,816	67,819	78,148	88,685	99,594	110,451	121,324	132,192	137,823	143,431	149,004	154,564
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	415	812	893	1,172	1,511	1,628	1,738	1,979	2,190	2,112	1,939	2,025	2,071	2,055	2,047	2,032	2,012	1,994	1,977
Oregon	1,382	2,914	4,098	5,605	7,657	10,171	11,762	13,818	16,138	18,850	21,711	23,842	26,127	28,352	30,534	32,670	33,895	35,035	36,078	37,025
Cumulative Surplus Credit Bank Balance	**6,942**	**12,687**	**18,708**	**25,298**	**33,640**	**43,416**	**53,078**	**64,044**	**75,932**	**88,859**	**101,970**	**114,465**	**127,745**	**140,874**	**153,913**	**166,909**	**173,750**	**180,478**	**187,076**	**193,566**
Adjusted Qualifying Renewables																				
Utah	2,960	3,798	4,440	5,002	6,010	6,924	7,953	8,800	9,328	10,004	10,328	10,537	10,909	10,858	10,873	10,868	10,888	10,909	10,930	10,952
Other (ID,WY)	828	1,369	1,720	2,046	2,591	3,113	3,708	4,208	4,517	4,891	5,076	5,218	5,441	5,412	5,425	5,375	5,425	5,474	5,523	5,571
California	88	176	185	194	204	233	276	310	330	357	369	373	387	385	386	386	381	376	371	366
Washington	266	415	519	617	799	957	1,164	1,317	1,410	1,533	1,588	1,618	1,683	1,673	1,673	1,672	1,666	1,661	1,655	1,650
Oregon	989	1,532	1,885	2,215	2,772	3,246	3,820	4,300	4,586	4,990	5,161	5,227	5,419	5,378	5,364	5,348	5,286	5,226	5,166	5,107
Adjusted Qualifying Renewables	**5,131**	**7,290**	**8,748**	**10,075**	**12,376**	**14,473**	**16,921**	**18,934**	**20,171**	**21,774**	**22,522**	**22,973**	**23,837**	**23,706**	**23,720**	**23,648**	**23,647**	**23,646**	**23,645**	**23,645**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	18%	21%	24%	28%	30%	32%	34%	35%	35%	36%	35%	35%	35%	34%	34%	34%	33%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

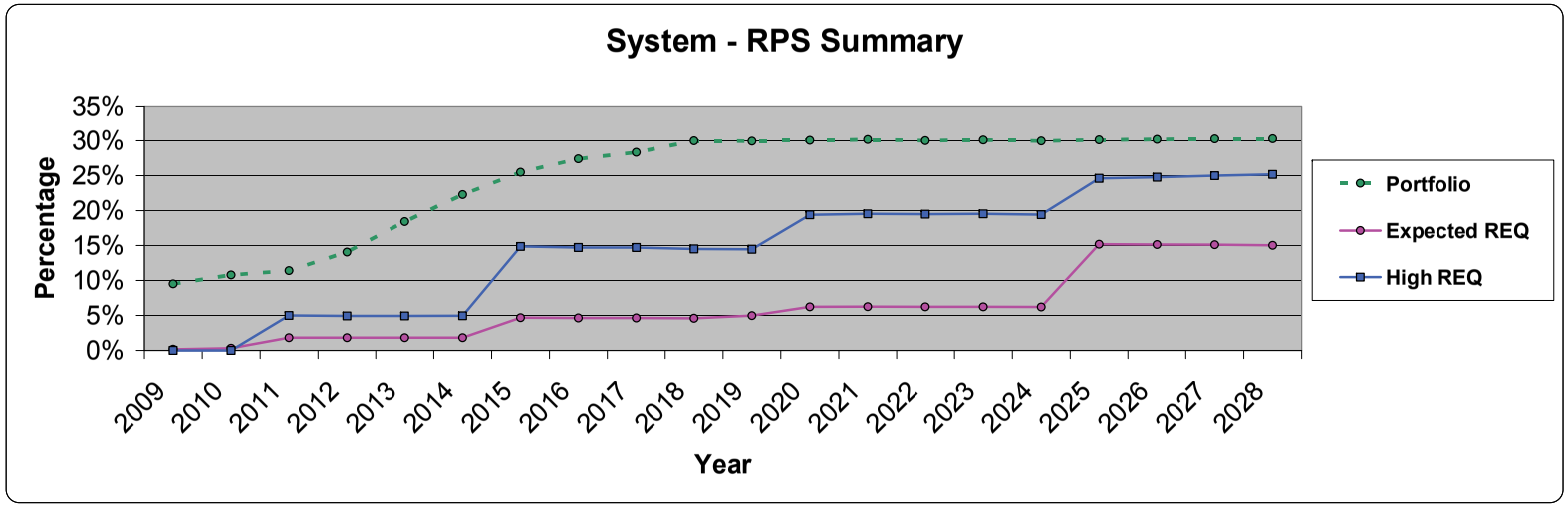
System - RPS Report - Case # 15	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,103	6,233	6,383	6,509
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	-	-	122	124	125	127	388	394	401	408	691	703	716	728	739	752	766	780	793	807
Oregon	-	-	708	722	742	763	2,346	2,388	2,439	2,478	2,531	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Total RPS Requirement	88	176	1,015	1,040	1,072	1,104	2,958	3,017	3,086	3,143	3,489	4,519	4,621	4,703	4,797	4,893	12,063	12,300	12,571	12,823
Bank Balance																				
Utah	5,560	9,360	13,806	18,818	24,828	31,995	40,428	49,705	59,818	70,653	82,185	93,837	105,503	117,118	128,749	140,374	145,917	151,350	156,655	161,855
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	416	813	893	1,169	1,548	1,739	1,874	2,162	2,429	2,394	2,236	2,224	2,189	2,155	2,129	2,096	2,057	2,020	1,982
Oregon	1,382	2,915	4,095	5,595	7,624	10,252	12,009	14,201	16,808	19,808	23,145	25,577	27,910	30,140	32,281	34,330	35,271	36,061	36,686	37,145
Cumulative Surplus Credit Bank Balance	**6,942**	**12,691**	**18,714**	**25,306**	**33,621**	**43,796**	**54,176**	**65,779**	**78,788**	**92,891**	**107,725**	**121,650**	**135,638**	**149,448**	**163,185**	**176,834**	**183,284**	**189,468**	**195,360**	**200,982**
Adjusted Qualifying Renewables																				
Utah	2,960	3,800	4,446	5,012	6,009	7,168	8,433	9,277	10,113	10,835	11,532	11,652	11,666	11,615	11,630	11,625	11,646	11,667	11,688	11,709
Other (ID,WY)	828	1,371	1,723	2,052	2,591	3,253	3,983	4,482	4,971	5,370	5,771	5,867	5,883	5,854	5,868	5,817	5,872	5,926	5,979	6,031
California	88	176	185	194	204	243	296	329	361	390	417	417	417	416	416	416	412	419	428	436
Washington	266	416	520	619	799	1,002	1,252	1,404	1,553	1,685	1,808	1,822	1,821	1,811	1,811	1,810	1,804	1,799	1,793	1,788
Oregon	989	1,533	1,888	2,221	2,772	3,391	4,103	4,580	5,047	5,479	5,867	5,877	5,859	5,818	5,803	5,788	5,722	5,657	5,593	5,529
Adjusted Qualifying Renewables	**5,131**	**7,295**	**8,762**	**10,100**	**12,375**	**15,056**	**18,065**	**20,072**	**22,046**	**23,758**	**25,395**	**25,634**	**25,645**	**25,514**	**25,528**	**25,456**	**25,456**	**25,468**	**25,481**	**25,494**
System Load	53,963	55,209	56,795	58,885	60,891	63,017	64,985	67,026	68,617	70,513	72,287	73,862	75,258	76,828	78,432	80,241	81,763	83,490	85,259	87,266
Portfolio	10%	13%	15%	17%	20%	24%	28%	30%	32%	34%	35%	35%	34%	33%	33%	32%	31%	31%	30%	29%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	4%	4%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - June 2008, Load Growth = High, Renewable Std = None 6/, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

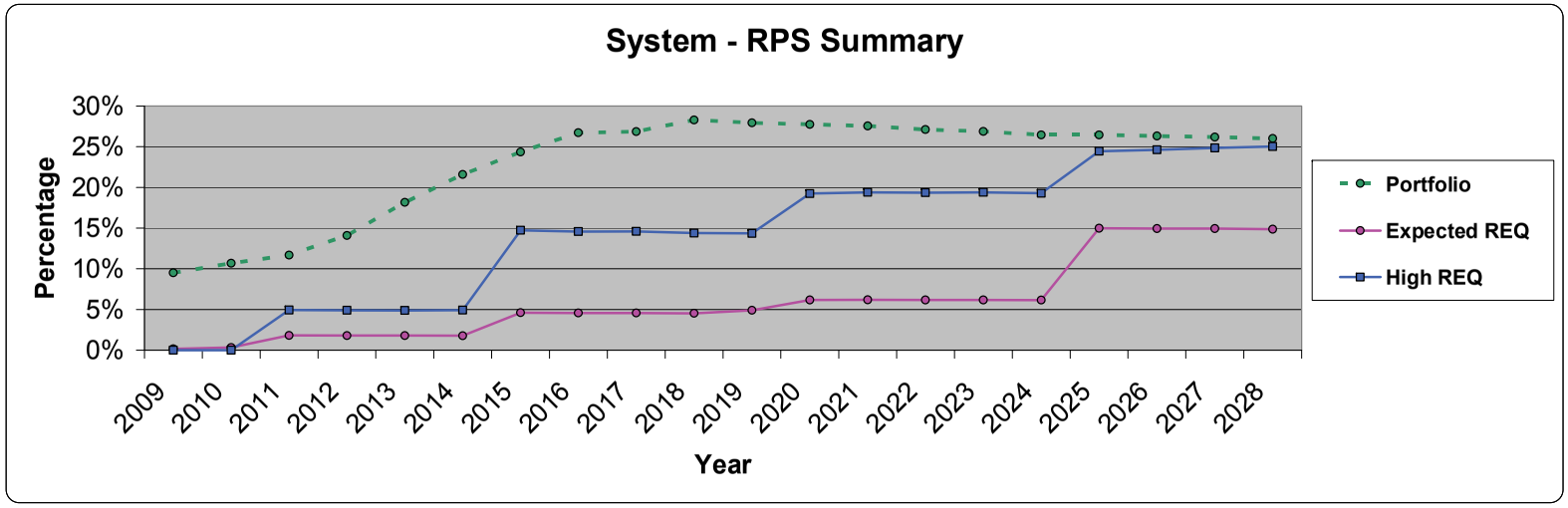
System - RPS Report - Case # 16	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	8,741	12,106	16,134	21,283	27,455	34,461	41,993	49,775	58,005	66,259	74,544	82,843	91,091	99,355	107,613	111,387	115,207	119,064	122,981
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	504	521	842	1,224	1,339	1,371	1,511	1,638	1,493	1,265	1,267	1,262	1,260	1,266	1,266	1,261	1,258	1,255
Oregon	1,382	2,535	3,073	4,005	5,561	7,658	8,802	10,250	11,825	13,681	15,538	16,675	17,799	18,900	19,998	21,082	21,435	21,763	22,058	22,320
Cumulative Surplus Credit Bank Balance	**6,942**	**11,579**	**15,683**	**20,660**	**27,686**	**36,337**	**44,602**	**53,614**	**63,110**	**73,324**	**83,290**	**92,484**	**101,909**	**111,254**	**120,612**	**129,962**	**134,087**	**138,231**	**142,380**	**146,556**
Adjusted Qualifying Renewables																				
Utah	2,959	3,181	3,365	4,028	5,148	6,172	7,005	7,532	7,782	8,230	8,254	8,285	8,299	8,248	8,263	8,258	8,279	8,300	8,321	8,342
Other (ID,WY)	828	1,031	1,124	1,502	2,106	2,685	3,164	3,478	3,624	3,868	3,878	3,908	3,918	3,888	3,897	3,852	3,886	3,919	3,951	3,983
California	88	176	185	194	203	212	238	259	268	286	286	302	302	301	300	299	299	297	296	295
Washington	266	303	322	439	642	820	991	1,085	1,127	1,209	1,209	1,207	1,206	1,197	1,196	1,195	1,190	1,184	1,179	1,173
Oregon	989	1,153	1,231	1,626	2,254	2,800	3,260	3,554	3,679	3,947	3,943	3,914	3,902	3,864	3,853	3,832	3,786	3,741	3,696	3,651
Adjusted Qualifying Renewables	**5,130**	**5,844**	**6,227**	**7,789**	**10,353**	**12,690**	**14,658**	**15,908**	**16,479**	**17,540**	**17,571**	**17,616**	**17,627**	**17,497**	**17,510**	**17,437**	**17,439**	**17,440**	**17,443**	**17,445**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	11%	11%	14%	18%	22%	25%	27%	28%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = High - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

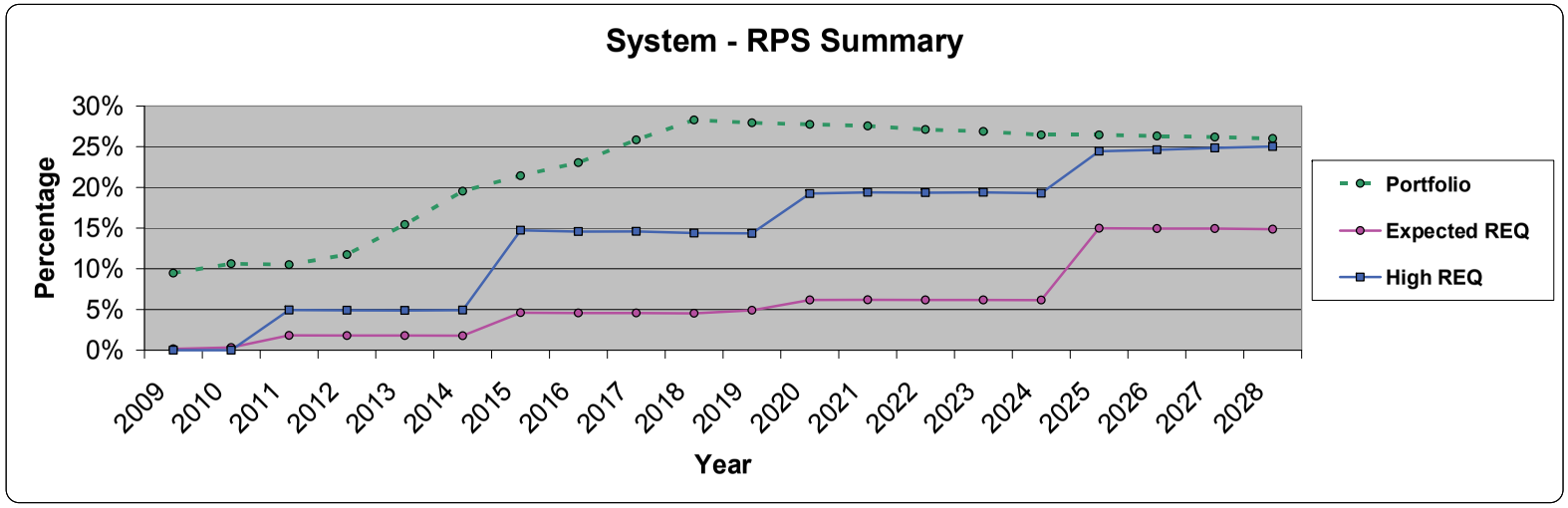
System - RPS Report - Case # 17	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,741	12,223	16,364	21,626	27,903	35,005	42,862	50,854	59,351	67,873	76,426	84,993	93,509	102,040	110,566	113,855	117,122	120,352	123,571
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	525	560	878	1,257	1,355	1,411	1,563	1,671	1,507	1,246	1,235	1,216	1,200	1,192	1,177	1,157	1,139	1,121
Oregon	1,382	2,535	3,137	4,123	5,725	7,855	8,943	10,444	11,979	13,806	15,606	16,580	17,505	18,370	19,197	19,973	19,852	19,659	19,383	19,024
Cumulative Surplus Credit Bank Balance	**6,942**	**11,579**	**15,885**	**21,048**	**28,230**	**37,014**	**45,303**	**54,717**	**64,395**	**74,828**	**84,986**	**94,252**	**103,732**	**113,095**	**122,436**	**131,731**	**134,884**	**137,938**	**140,874**	**143,716**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,482	4,141	5,262	6,277	7,102	7,857	7,991	8,498	8,522	8,553	8,567	8,516	8,531	8,526	8,547	8,567	8,589	8,610
Other (ID,WY)	828	1,031	1,188	1,565	2,170	2,745	3,219	3,665	3,745	4,023	4,033	4,064	4,074	4,044	4,054	4,008	4,044	4,078	4,112	4,146
California	88	176	185	194	204	213	242	272	276	296	296	336	339	341	345	348	352	354	357	360
Washington	266	303	344	460	662	839	1,009	1,145	1,166	1,258	1,258	1,256	1,255	1,245	1,245	1,244	1,238	1,233	1,227	1,222
Oregon	989	1,153	1,302	1,694	2,322	2,862	3,317	3,745	3,802	4,104	4,100	4,070	4,058	4,019	4,008	3,988	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**5,844**	**6,501**	**8,055**	**10,620**	**12,936**	**14,889**	**16,683**	**16,979**	**18,179**	**18,210**	**18,278**	**18,293**	**18,166**	**18,183**	**18,114**	**18,242**	**18,319**	**18,408**	**18,497**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	12%	14%	18%	22%	24%	27%	27%	28%	28%	28%	28%	27%	27%	26%	26%	26%	26%	26%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

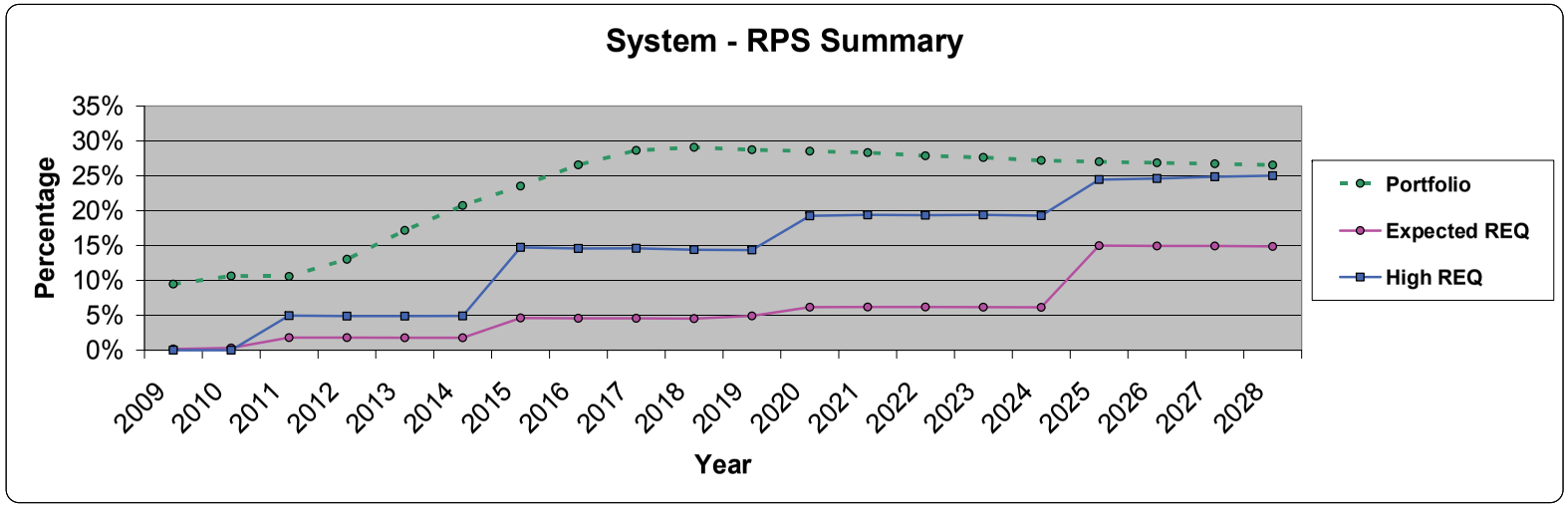
System - RPS Report - Case # 18	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	11,920	15,486	20,073	25,826	32,177	39,071	46,792	55,290	63,812	72,365	80,932	89,448	97,979	106,505	109,794	113,061	116,291	119,510
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	405	650	1,038	1,122	1,098	1,337	1,622	1,507	1,246	1,235	1,216	1,200	1,192	1,177	1,157	1,139	1,121
Oregon	1,376	2,519	2,952	3,591	4,787	6,605	7,250	8,184	9,561	11,387	13,188	14,162	15,086	15,952	16,778	17,555	17,434	17,240	16,964	16,605
Cumulative Surplus Credit Bank Balance	**6,925**	**11,534**	**15,343**	**19,481**	**25,510**	**33,468**	**40,549**	**48,353**	**57,690**	**68,299**	**78,507**	**87,773**	**97,253**	**106,616**	**115,956**	**125,251**	**128,404**	**131,458**	**134,395**	**137,237**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,204	3,566	4,587	5,753	6,352	6,894	7,721	8,498	8,522	8,553	8,567	8,516	8,531	8,526	8,547	8,567	8,589	8,610
Other (ID,WY)	822	1,022	1,034	1,244	1,791	2,446	2,789	3,110	3,589	4,023	4,033	4,064	4,074	4,044	4,054	4,008	4,044	4,078	4,112	4,146
California	88	176	185	194	204	213	223	233	266	296	296	336	339	341	345	348	352	354	357	360
Washington	264	300	293	355	539	743	872	969	1,116	1,258	1,258	1,256	1,255	1,245	1,245	1,244	1,238	1,233	1,227	1,222
Oregon	982	1,144	1,133	1,347	1,916	2,550	2,873	3,178	3,643	4,104	4,100	4,070	4,058	4,019	4,008	3,988	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,106**	**5,807**	**5,849**	**6,706**	**9,038**	**11,706**	**13,108**	**14,384**	**16,335**	**18,179**	**18,210**	**18,278**	**18,293**	**18,166**	**18,183**	**18,114**	**18,242**	**18,319**	**18,408**	**18,497**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	12%	15%	20%	21%	23%	26%	28%	28%	28%	28%	27%	27%	26%	26%	26%	26%	26%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Low - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

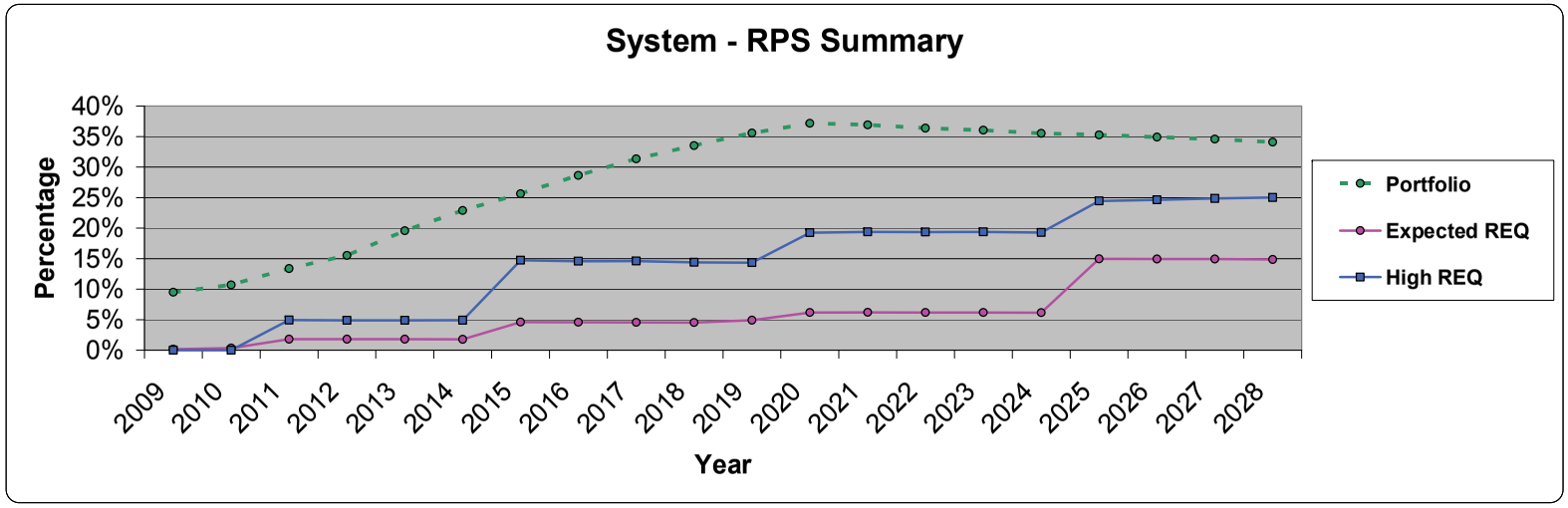
System - RPS Report - Case # 19	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,551	8,720	11,939	15,821	20,833	26,895	33,787	41,603	50,065	58,779	67,517	76,285	85,069	93,801	102,548	111,290	114,795	118,278	121,724	125,159
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	474	465	786	1,172	1,277	1,365	1,641	1,797	1,586	1,325	1,314	1,295	1,279	1,270	1,256	1,236	1,218	1,200
Oregon	1,376	2,522	2,964	3,794	5,245	7,247	8,211	9,688	11,499	13,453	15,380	16,480	17,530	18,521	19,472	20,375	20,378	20,307	20,153	19,915
Cumulative Surplus Credit Bank Balance	**6,927**	**11,542**	**15,377**	**20,080**	**26,864**	**35,314**	**43,276**	**52,655**	**63,205**	**74,028**	**84,483**	**94,091**	**103,912**	**113,617**	**123,299**	**132,935**	**136,428**	**139,821**	**143,096**	**146,274**
Adjusted Qualifying Renewables																				
Utah	2,950	3,169	3,219	3,882	5,012	6,062	6,892	7,815	8,462	8,714	8,738	8,769	8,783	8,732	8,747	8,742	8,763	8,783	8,805	8,826
Other (ID,WY)	823	1,024	1,043	1,421	2,030	2,622	3,099	3,641	4,017	4,147	4,158	4,189	4,200	4,170	4,180	4,135	4,171	4,207	4,242	4,277
California	88	176	185	194	204	213	234	270	295	305	305	336	339	341	345	348	352	354	357	360
Washington	264	300	296	413	617	800	970	1,137	1,252	1,297	1,298	1,295	1,294	1,285	1,284	1,283	1,278	1,272	1,267	1,262
Oregon	983	1,146	1,142	1,538	2,172	2,734	3,193	3,720	4,078	4,231	4,227	4,196	4,183	4,145	4,133	4,113	4,064	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,109**	**5,815**	**5,884**	**7,447**	**10,034**	**12,431**	**14,388**	**16,583**	**18,104**	**18,694**	**18,726**	**18,785**	**18,800**	**18,673**	**18,690**	**18,621**	**18,628**	**18,703**	**18,794**	**18,884**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	13%	17%	21%	24%	27%	29%	29%	29%	29%	28%	28%	28%	27%	27%	27%	27%	27%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

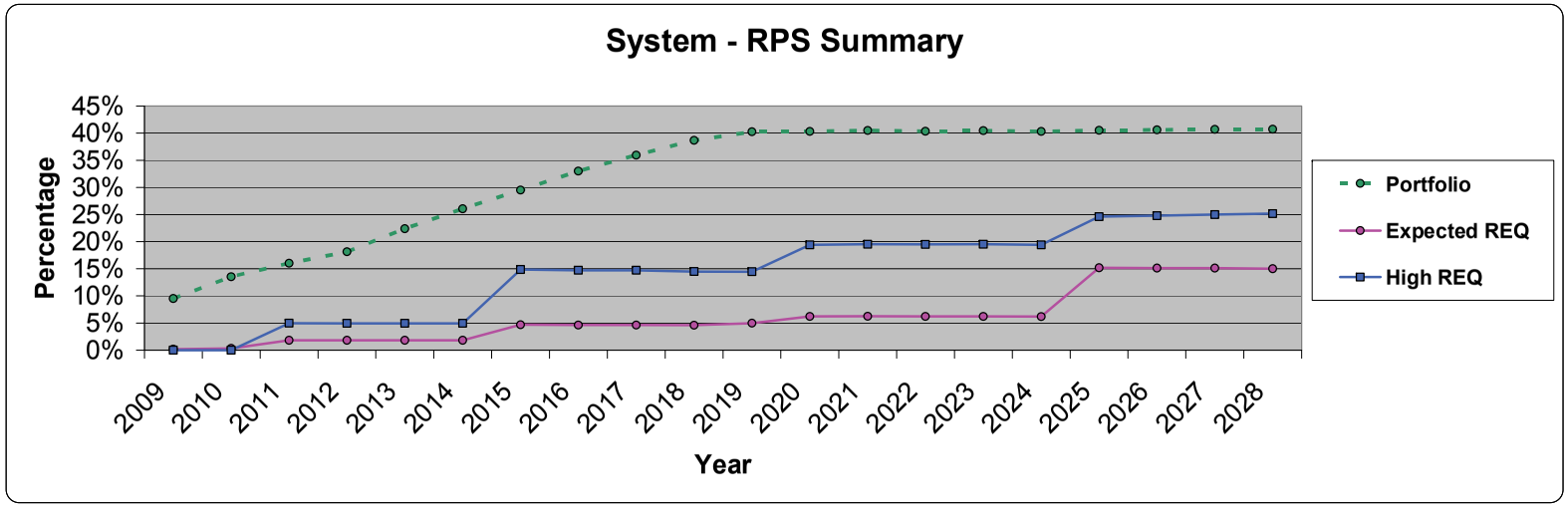
System - RPS Report - Case # 20	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,556	8,739	12,623	17,116	22,729	29,335	36,768	45,123	54,303	64,213	74,820	85,995	97,184	108,323	119,476	130,625	136,537	142,426	148,279	154,095
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	598	698	1,007	1,381	1,476	1,562	1,870	2,146	2,146	2,106	2,192	2,174	2,157	2,149	2,134	2,115	2,097	2,075
Oregon	1,380	2,534	3,380	4,579	6,392	8,718	10,001	11,795	14,027	16,684	19,709	22,211	24,660	27,048	29,392	31,692	33,079	34,378	35,579	36,669
Cumulative Surplus Credit Bank Balance	**6,936**	**11,576**	**16,601**	**22,393**	**30,128**	**39,434**	**48,245**	**58,479**	**70,200**	**83,043**	**96,674**	**110,312**	**124,037**	**137,545**	**151,026**	**164,466**	**171,750**	**178,918**	**185,955**	**192,839**
Adjusted Qualifying Renewables																				
Utah	2,956	3,183	3,884	4,493	5,613	6,607	7,433	8,354	9,180	9,910	10,607	11,175	11,190	11,138	11,154	11,149	11,169	11,190	11,211	11,207
Other (ID,WY)	826	1,032	1,411	1,762	2,368	2,933	3,409	3,951	4,432	4,837	5,237	5,590	5,605	5,576	5,589	5,539	5,591	5,642	5,692	5,726
California	88	176	185	194	204	220	255	292	324	353	380	398	398	397	397	397	392	387	382	376
Washington	265	303	417	524	726	899	1,069	1,235	1,383	1,516	1,639	1,735	1,734	1,724	1,724	1,723	1,717	1,712	1,706	1,696
Oregon	986	1,154	1,546	1,907	2,533	3,058	3,512	4,037	4,499	4,935	5,324	5,599	5,582	5,541	5,527	5,511	5,448	5,386	5,324	5,249
Adjusted Qualifying Renewables	**5,122**	**5,847**	**7,443**	**8,881**	**11,443**	**13,717**	**15,679**	**17,870**	**19,817**	**21,550**	**23,187**	**24,496**	**24,508**	**24,376**	**24,391**	**24,318**	**24,317**	**24,316**	**24,315**	**24,255**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	13%	16%	20%	23%	26%	29%	31%	34%	36%	37%	37%	36%	36%	36%	35%	35%	35%	34%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = High - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

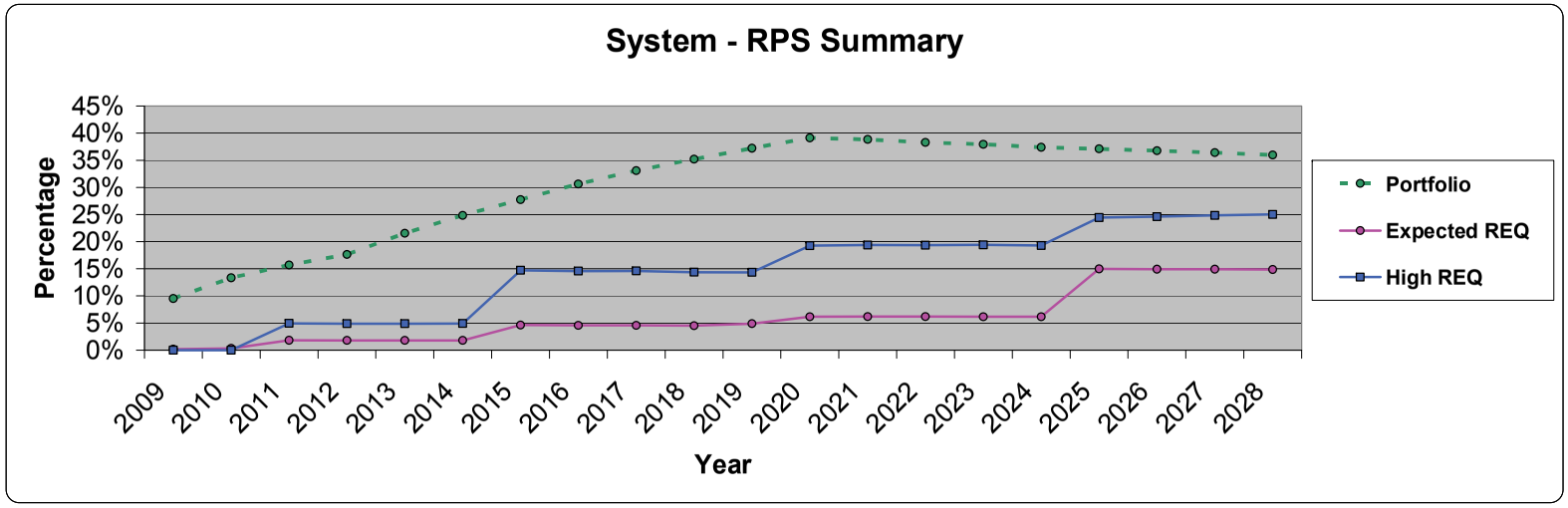
System - RPS Report - Case # 21	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	9,376	13,813	18,809	24,903	31,980	39,953	48,848	58,484	68,842	79,628	90,445	101,276	112,056	122,852	133,642	139,948	146,300	152,689	159,138
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	419	816	893	1,192	1,562	1,681	1,797	2,098	2,365	2,343	2,189	2,192	2,187	2,185	2,191	2,191	2,186	2,183	2,180
Oregon	1,382	2,925	4,114	5,632	7,757	10,391	12,107	14,356	17,019	20,127	23,470	26,083	28,678	31,249	33,812	36,367	38,176	39,944	41,666	43,340
Cumulative Surplus Credit Bank Balance	**6,942**	**12,720**	**18,742**	**25,335**	**33,852**	**43,934**	**53,741**	**65,001**	**77,602**	**91,333**	**105,441**	**118,717**	**132,146**	**145,492**	**158,849**	**172,200**	**180,314**	**188,431**	**196,538**	**204,659**
Adjusted Qualifying Renewables																				
Utah	2,960	3,816	4,437	4,996	6,094	7,077	7,972	8,895	9,637	10,357	10,786	10,817	10,831	10,780	10,795	10,790	10,811	10,832	10,853	10,874
Other (ID,WY)	828	1,379	1,718	2,043	2,638	3,201	3,719	4,262	4,695	5,094	5,340	5,381	5,396	5,366	5,380	5,330	5,380	5,428	5,476	5,523
California	88	176	185	194	205	239	277	314	342	371	387	384	384	382	383	382	377	373	368	363
Washington	266	419	518	616	814	985	1,167	1,334	1,466	1,598	1,672	1,669	1,668	1,659	1,658	1,657	1,652	1,646	1,641	1,636
Oregon	989	1,543	1,882	2,212	2,823	3,337	3,831	4,356	4,767	5,198	5,430	5,390	5,374	5,334	5,319	5,303	5,242	5,182	5,122	5,064
Adjusted Qualifying Renewables	**5,131**	**7,333**	**8,740**	**10,062**	**12,574**	**14,839**	**16,966**	**19,161**	**20,907**	**22,618**	**23,615**	**23,641**	**23,652**	**23,521**	**23,535**	**23,463**	**23,462**	**23,461**	**23,460**	**23,460**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	14%	16%	18%	22%	26%	30%	33%	36%	39%	40%	40%	40%	40%	40%	40%	41%	41%	41%	41%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = High - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

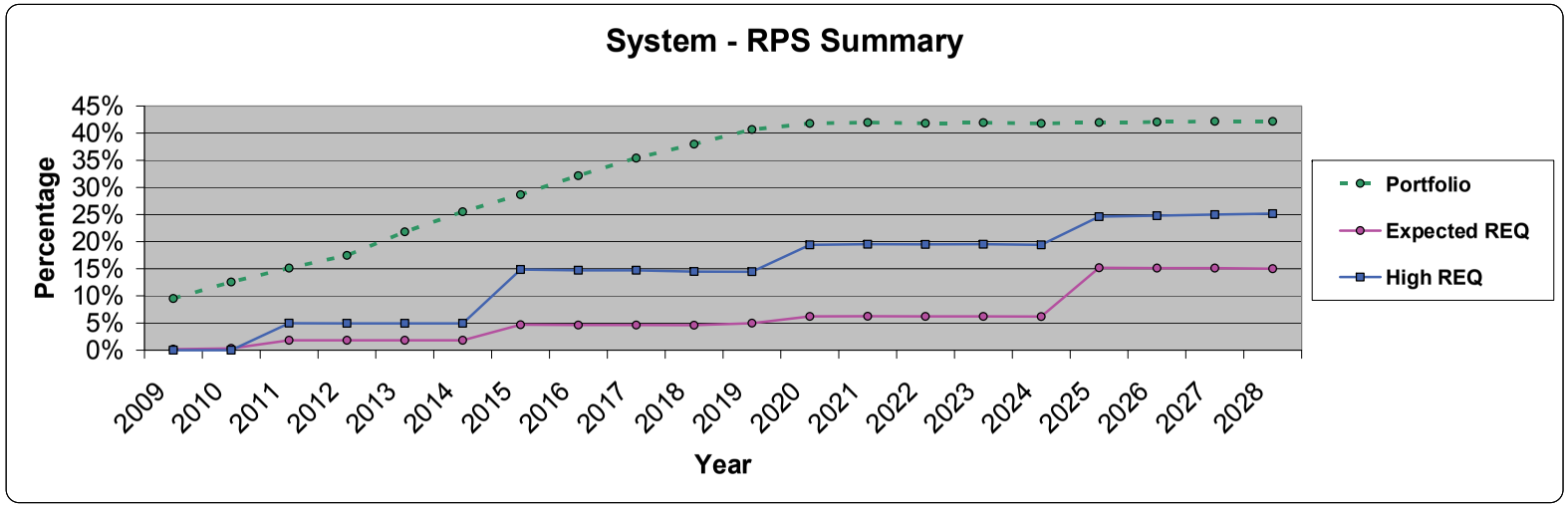
System - RPS Report - Case # 22	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,357	13,796	18,803	24,907	32,004	39,976	48,849	58,486	68,843	79,898	91,609	103,335	115,010	126,700	138,385	144,833	151,258	157,648	164,026
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	415	812	893	1,190	1,560	1,663	1,755	2,049	2,311	2,309	2,286	2,388	2,370	2,353	2,345	2,330	2,311	2,293	2,275
Oregon	1,382	2,913	4,097	5,607	7,716	10,332	11,935	14,033	16,533	19,454	22,741	25,556	28,316	31,016	33,670	36,282	37,977	39,581	41,085	42,488
Cumulative Surplus Credit Bank Balance	**6,942**	**12,685**	**18,705**	**25,304**	**33,813**	**43,896**	**53,574**	**64,637**	**77,068**	**90,609**	**104,948**	**119,451**	**134,040**	**148,395**	**162,724**	**177,012**	**185,140**	**193,150**	**201,025**	**208,788**
Adjusted Qualifying Renewables																				
Utah	2,960	3,797	4,440	5,007	6,104	7,096	7,972	8,873	9,637	10,358	11,054	11,711	11,726	11,675	11,690	11,685	11,705	11,726	11,747	11,769
Other (ID,WY)	828	1,369	1,720	2,049	2,644	3,212	3,719	4,250	4,695	5,095	5,495	5,902	5,918	5,889	5,903	5,852	5,907	5,962	6,015	6,068
California	88	176	185	194	205	240	277	313	342	371	398	419	419	418	419	418	413	408	402	397
Washington	266	415	518	618	816	989	1,167	1,330	1,466	1,598	1,721	1,833	1,832	1,822	1,822	1,821	1,815	1,810	1,804	1,799
Oregon	989	1,531	1,884	2,218	2,829	3,349	3,831	4,342	4,767	5,198	5,587	5,911	5,893	5,853	5,837	5,822	5,756	5,691	5,626	5,563
Adjusted Qualifying Renewables	**5,131**	**7,287**	**8,747**	**10,086**	**12,598**	**14,886**	**16,966**	**19,108**	**20,907**	**22,619**	**24,255**	**25,776**	**25,788**	**25,657**	**25,671**	**25,599**	**25,597**	**25,596**	**25,596**	**25,595**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	18%	22%	25%	28%	31%	33%	35%	37%	39%	39%	38%	38%	37%	37%	37%	36%	36%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = High - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

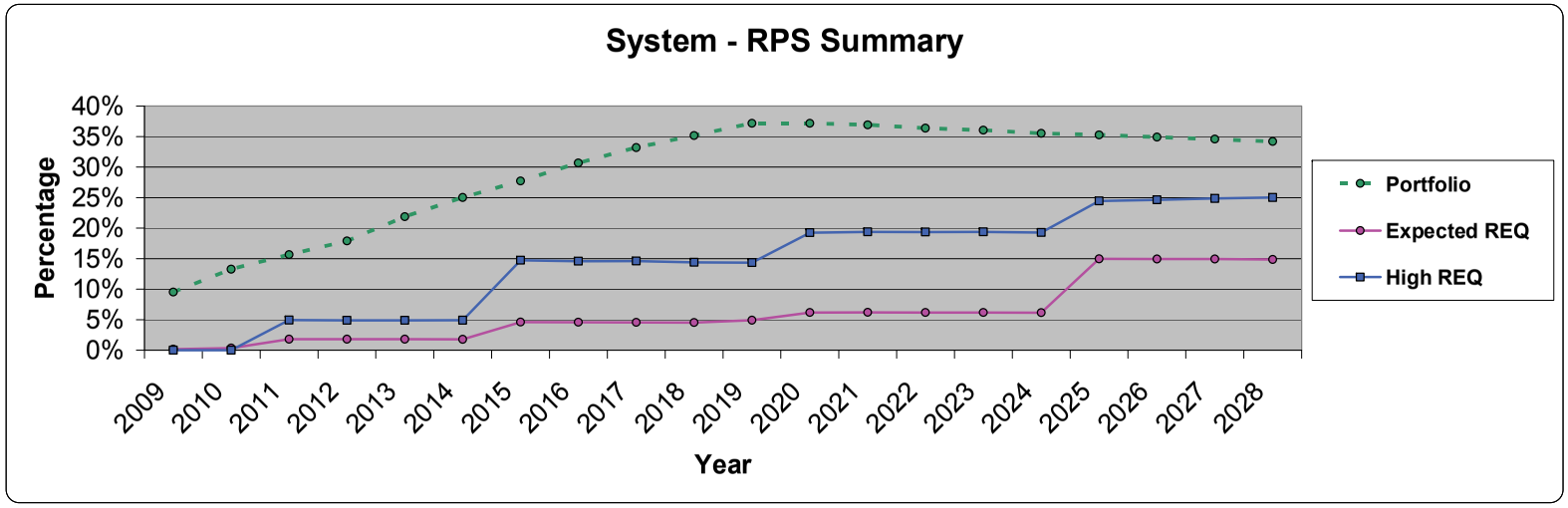
System - RPS Report - Case # 23	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	9,144	13,372	18,206	24,161	31,107	38,875	47,564	57,068	67,255	78,140	89,315	100,505	111,644	122,797	133,946	140,605	147,311	154,053	160,856
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	376	735	825	1,136	1,513	1,620	1,722	2,036	2,310	2,331	2,273	2,322	2,318	2,316	2,322	2,321	2,315	2,312	2,309
Oregon	1,382	2,783	3,845	5,264	7,305	9,862	11,457	13,585	16,170	19,178	22,579	25,401	28,204	30,983	33,754	36,517	38,528	40,498	42,419	44,290
Cumulative Surplus Credit Bank Balance	**6,942**	**12,303**	**17,952**	**24,295**	**32,603**	**42,481**	**51,951**	**62,871**	**75,274**	**88,743**	**103,050**	**116,989**	**131,032**	**144,944**	**158,866**	**172,784**	**181,453**	**190,124**	**198,784**	**207,455**
Adjusted Qualifying Renewables																				
Utah	2,959	3,585	4,228	4,833	5,955	6,946	7,768	8,689	9,503	10,188	10,885	11,175	11,190	11,138	11,154	11,149	11,164	11,185	11,206	11,228
Other (ID,WY)	828	1,252	1,602	1,952	2,560	3,126	3,601	4,144	4,619	4,997	5,397	5,590	5,605	5,576	5,589	5,539	5,588	5,639	5,689	5,739
California	88	176	185	194	203	234	269	305	337	364	391	398	398	397	397	397	391	386	381	376
Washington	266	376	480	586	789	961	1,130	1,297	1,442	1,567	1,690	1,735	1,734	1,724	1,724	1,723	1,716	1,711	1,705	1,700
Oregon	989	1,401	1,755	2,113	2,739	3,259	3,710	4,234	4,689	5,098	5,487	5,599	5,582	5,541	5,527	5,511	5,445	5,383	5,322	5,261
Adjusted Qualifying Renewables	**5,130**	**6,790**	**8,250**	**9,679**	**12,247**	**14,526**	**16,478**	**18,670**	**20,589**	**22,213**	**23,851**	**24,496**	**24,508**	**24,376**	**24,391**	**24,318**	**24,305**	**24,304**	**24,304**	**24,304**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	13%	15%	17%	22%	26%	29%	32%	35%	38%	41%	42%	42%	42%	42%	42%	42%	42%	42%	42%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = Medium - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

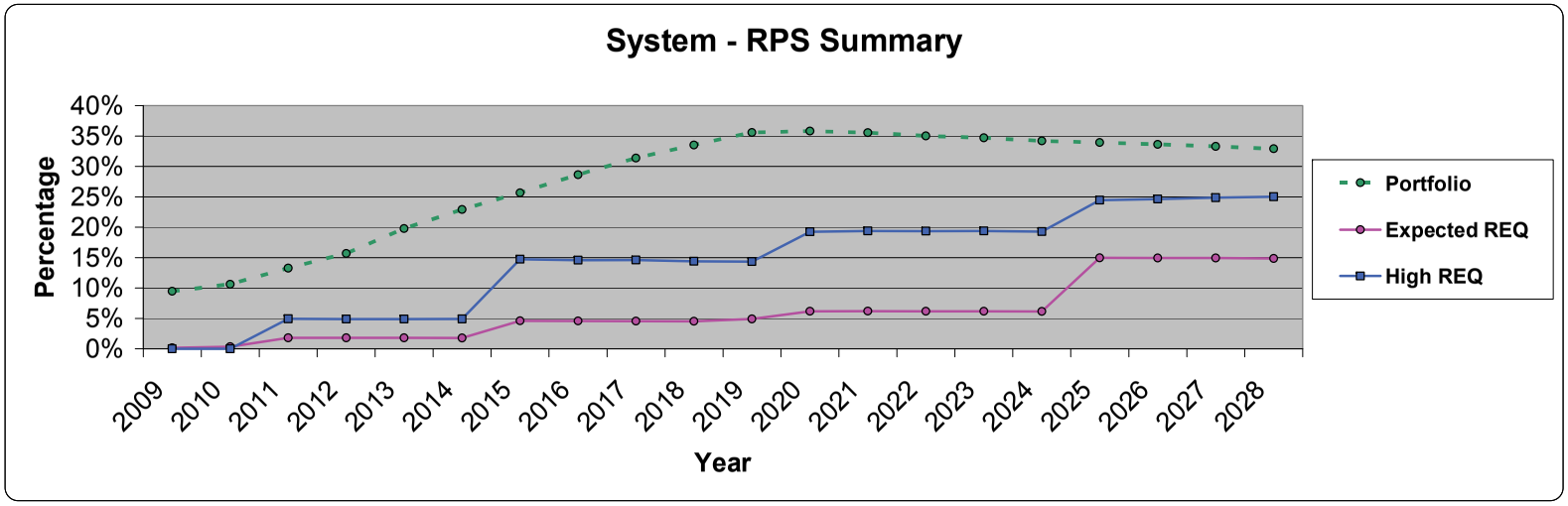
System - RPS Report - Case # 24	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,342	13,768	18,835	25,025	32,165	40,127	49,011	58,675	69,023	80,068	91,244	102,433	113,572	124,725	135,874	141,785	147,675	153,528	159,369
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	412	807	902	1,217	1,584	1,670	1,755	2,056	2,315	2,306	2,186	2,192	2,174	2,157	2,149	2,134	2,115	2,097	2,079
Oregon	1,382	2,904	4,079	5,626	7,787	10,429	12,025	14,130	16,647	19,561	22,843	25,346	27,794	30,182	32,527	34,826	36,213	37,512	38,714	39,817
Cumulative Surplus Credit Bank Balance	**6,942**	**12,659**	**18,654**	**25,363**	**34,029**	**44,178**	**53,822**	**64,896**	**77,378**	**90,899**	**105,217**	**118,775**	**132,420**	**145,928**	**159,409**	**172,849**	**180,133**	**187,302**	**194,338**	**201,266**
Adjusted Qualifying Renewables																				
Utah	2,959	3,783	4,426	5,067	6,190	7,140	7,962	8,884	9,664	10,348	11,045	11,175	11,190	11,138	11,154	11,149	11,169	11,190	11,211	11,233
Other (ID,WY)	828	1,361	1,712	2,083	2,692	3,237	3,713	4,256	4,711	5,089	5,490	5,590	5,605	5,576	5,589	5,539	5,591	5,642	5,692	5,741
California	88	176	185	194	209	242	277	313	343	370	398	398	398	397	397	397	392	387	382	377
Washington	266	412	516	629	832	997	1,166	1,332	1,471	1,596	1,719	1,735	1,734	1,724	1,724	1,723	1,717	1,712	1,706	1,701
Oregon	989	1,522	1,876	2,254	2,880	3,375	3,825	4,349	4,783	5,192	5,581	5,599	5,582	5,541	5,527	5,511	5,448	5,386	5,324	5,264
Adjusted Qualifying Renewables	**5,130**	**7,254**	**8,714**	**10,228**	**12,803**	**14,990**	**16,942**	**19,134**	**20,973**	**22,596**	**24,233**	**24,496**	**24,508**	**24,376**	**24,391**	**24,318**	**24,317**	**24,316**	**24,315**	**24,315**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	18%	22%	25%	28%	31%	33%	35%	37%	37%	37%	36%	36%	36%	35%	35%	35%	34%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

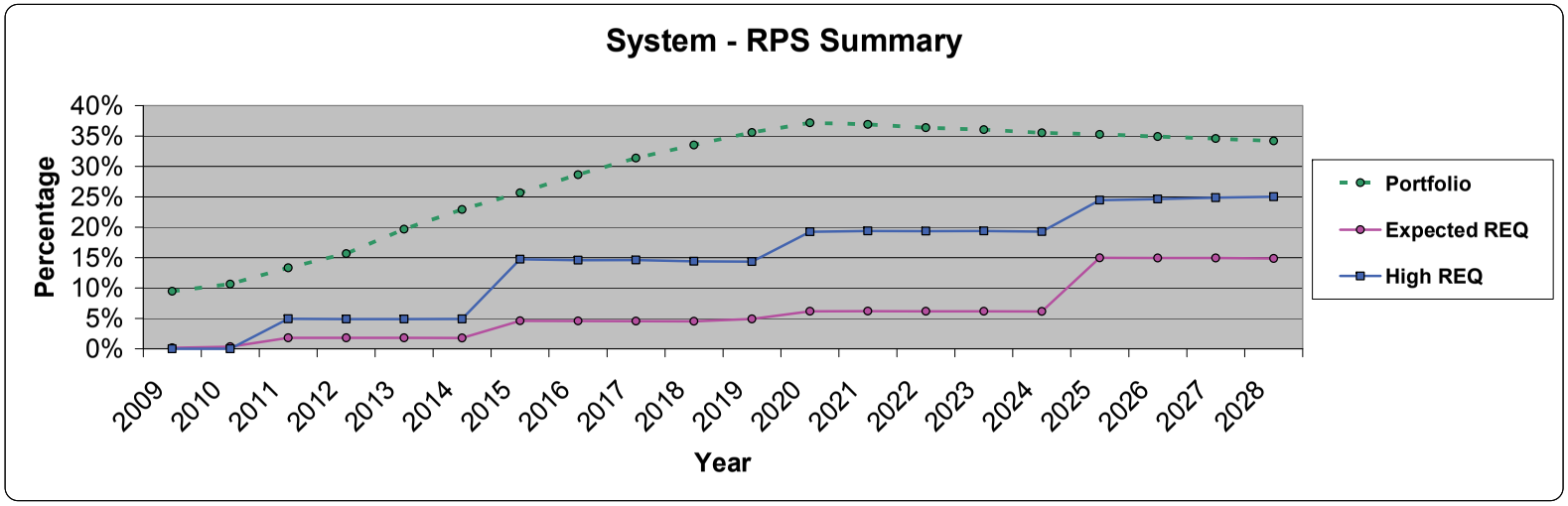
System - RPS Report - Case # 25	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	12,573	17,100	22,763	29,375	36,809	45,165	54,347	64,257	74,864	85,658	96,466	107,224	117,997	128,764	134,295	139,803	145,275	150,736
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	590	699	1,022	1,391	1,477	1,562	1,871	2,146	2,146	2,036	2,053	2,035	2,018	2,010	1,995	1,976	1,958	1,940
Oregon	1,376	2,519	3,349	4,569	6,412	8,741	10,025	11,820	14,053	16,710	19,735	22,015	24,242	26,409	28,533	30,611	31,779	32,862	33,848	34,740
Cumulative Surplus Credit Bank Balance	**6,925**	**11,534**	**16,512**	**22,369**	**30,197**	**39,507**	**48,311**	**58,547**	**70,271**	**83,113**	**96,744**	**109,709**	**122,762**	**135,668**	**148,548**	**161,386**	**168,069**	**174,641**	**181,082**	**187,416**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,857	4,528	5,662	6,612	7,434	8,356	9,181	9,910	10,607	10,794	10,809	10,758	10,773	10,768	10,788	10,809	10,830	10,852
Other (ID,WY)	822	1,022	1,397	1,781	2,396	2,936	3,410	3,952	4,432	4,837	5,237	5,368	5,382	5,353	5,366	5,317	5,366	5,415	5,463	5,510
California	88	176	185	194	204	220	255	292	324	353	380	383	383	381	382	382	377	372	367	362
Washington	264	300	412	531	735	900	1,069	1,236	1,383	1,516	1,639	1,665	1,664	1,655	1,654	1,653	1,648	1,642	1,637	1,631
Oregon	982	1,144	1,530	1,928	2,563	3,061	3,513	4,038	4,500	4,935	5,324	5,377	5,360	5,320	5,306	5,290	5,229	5,169	5,110	5,051
Adjusted Qualifying Renewables	**5,106**	**5,807**	**7,381**	**8,962**	**11,560**	**13,730**	**15,681**	**17,874**	**19,820**	**21,550**	**23,187**	**23,587**	**23,598**	**23,467**	**23,481**	**23,409**	**23,408**	**23,407**	**23,406**	**23,406**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	13%	16%	20%	23%	26%	29%	31%	34%	36%	36%	36%	35%	35%	34%	34%	34%	33%	33%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = Low - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

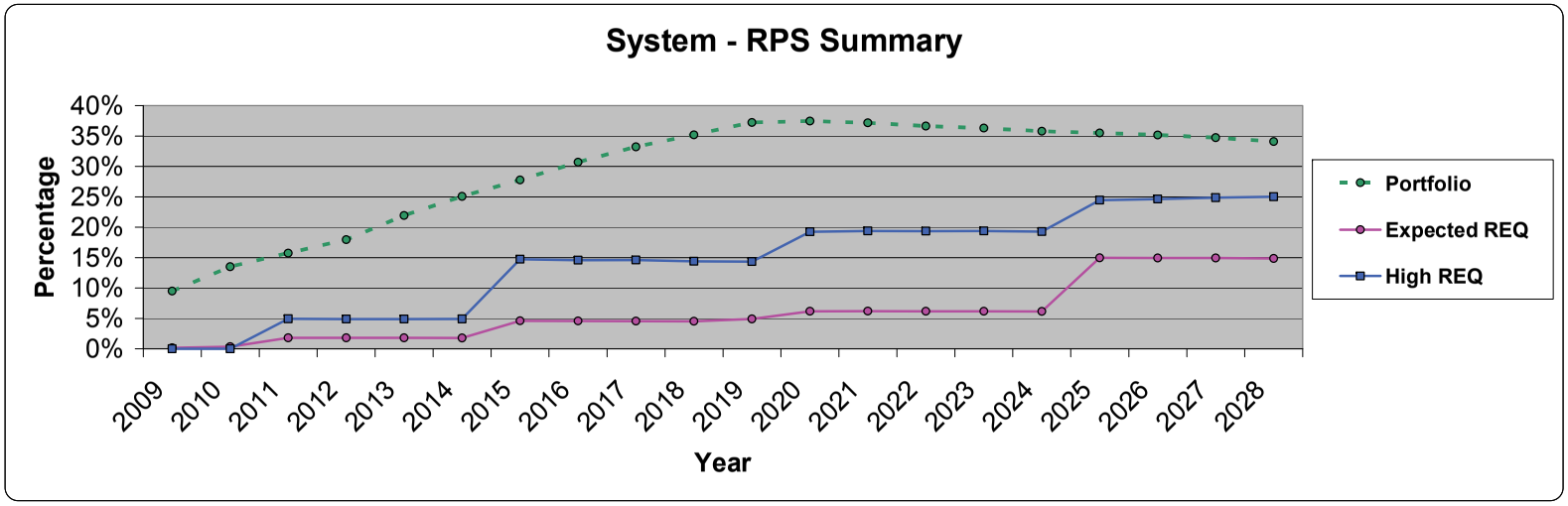
System - RPS Report - Case # 26	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,551	8,720	12,589	17,108	22,749	29,361	36,795	45,151	54,333	64,243	74,850	86,025	97,215	108,353	119,507	130,655	136,567	142,456	148,309	154,151
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	593	700	1,017	1,387	1,477	1,562	1,871	2,147	2,146	2,106	2,192	2,174	2,157	2,149	2,134	2,115	2,097	2,079
Oregon	1,376	2,522	3,359	4,574	6,404	8,733	10,017	11,812	14,045	16,702	19,727	22,229	24,678	27,066	29,410	31,710	33,096	34,396	35,597	36,701
Cumulative Surplus Credit Bank Balance	**6,927**	**11,542**	**16,541**	**22,381**	**30,170**	**39,481**	**48,289**	**58,525**	**70,249**	**83,092**	**96,722**	**110,360**	**124,085**	**137,593**	**151,074**	**164,514**	**171,798**	**178,967**	**186,003**	**192,931**
Adjusted Qualifying Renewables																				
Utah	2,950	3,169	3,869	4,518	5,641	6,612	7,434	8,356	9,182	9,910	10,607	11,175	11,190	11,138	11,154	11,149	11,169	11,190	11,211	11,233
Other (ID,WY)	823	1,024	1,403	1,776	2,384	2,936	3,410	3,952	4,433	4,837	5,237	5,590	5,605	5,576	5,589	5,539	5,591	5,642	5,692	5,741
California	88	176	185	194	204	220	255	292	324	353	380	398	398	397	397	397	392	387	382	377
Washington	264	300	414	529	732	900	1,069	1,236	1,383	1,516	1,639	1,735	1,734	1,724	1,724	1,723	1,717	1,712	1,706	1,701
Oregon	983	1,146	1,537	1,923	2,550	3,061	3,513	4,038	4,500	4,935	5,324	5,599	5,582	5,541	5,527	5,511	5,448	5,386	5,324	5,264
Adjusted Qualifying Renewables	**5,109**	**5,816**	**7,409**	**8,940**	**11,511**	**13,730**	**15,681**	**17,874**	**19,821**	**21,550**	**23,187**	**24,496**	**24,508**	**24,376**	**24,391**	**24,318**	**24,317**	**24,316**	**24,315**	**24,315**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	13%	16%	20%	23%	26%	29%	31%	34%	36%	37%	37%	36%	36%	36%	35%	35%	35%	34%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

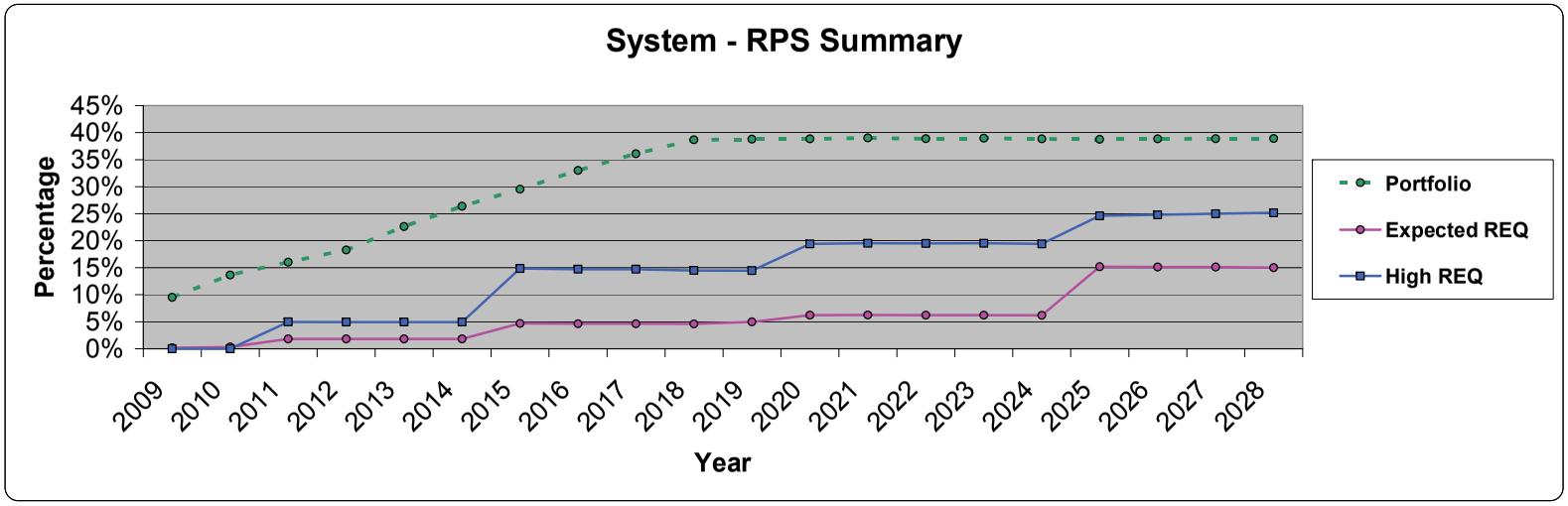
System - RPS Report - Case # 27	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,556	9,391	13,836	18,911	25,109	32,261	40,235	49,131	58,806	69,164	80,220	91,467	102,728	113,939	125,164	136,385	142,369	148,329	154,225	160,041
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	422	820	907	1,220	1,587	1,674	1,760	2,060	2,318	2,309	2,201	2,219	2,200	2,184	2,176	2,161	2,141	2,118	2,082
Oregon	1,380	2,934	4,121	5,673	7,838	10,487	12,091	14,203	16,725	19,646	22,934	25,479	27,969	30,399	32,785	35,126	36,554	37,894	39,120	40,209
Cumulative Surplus Credit Bank Balance	**6,936**	**12,746**	**18,776**	**25,491**	**34,166**	**44,336**	**54,000**	**65,094**	**77,591**	**91,129**	**105,463**	**119,146**	**132,916**	**146,538**	**160,133**	**173,687**	**181,084**	**188,364**	**195,463**	**202,333**
Adjusted Qualifying Renewables																				
Utah	2,956	3,834	4,445	5,076	6,197	7,152	7,974	8,896	9,675	10,358	11,055	11,247	11,262	11,211	11,226	11,221	11,241	11,261	11,254	11,207
Other (ID,WY)	826	1,389	1,723	2,088	2,696	3,244	3,720	4,263	4,717	5,095	5,496	5,632	5,647	5,618	5,632	5,581	5,633	5,684	5,718	5,726
California	88	176	185	194	209	242	277	314	344	371	398	401	401	399	400	400	395	389	383	376
Washington	265	422	519	631	833	999	1,168	1,334	1,473	1,598	1,721	1,748	1,747	1,738	1,737	1,736	1,730	1,725	1,714	1,696
Oregon	986	1,554	1,888	2,260	2,885	3,382	3,832	4,356	4,789	5,198	5,588	5,641	5,624	5,583	5,568	5,553	5,489	5,426	5,348	5,249
Adjusted Qualifying Renewables	**5,122**	**7,375**	**8,760**	**10,248**	**12,821**	**15,019**	**16,971**	**19,162**	**20,998**	**22,620**	**24,257**	**24,668**	**24,680**	**24,548**	**24,563**	**24,490**	**24,489**	**24,486**	**24,417**	**24,254**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	13%	16%	18%	22%	25%	28%	31%	33%	35%	37%	37%	37%	37%	36%	36%	36%	35%	35%	34%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = High - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

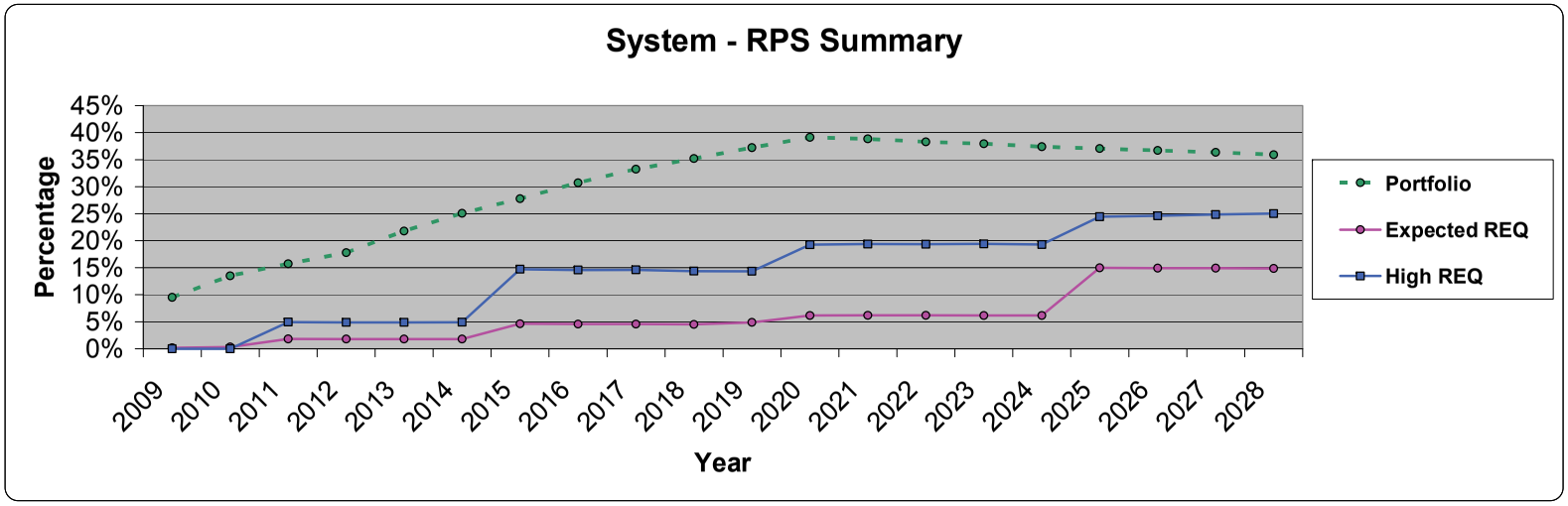
System - RPS Report - Case # 28	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,505	4,479	4,464	4,426
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	203	212	222	231	240	249	258	302	302	301	300	299	299	297	296	295
Washington	-	-	121	120	119	118	353	352	350	349	577	574	572	568	564	561	558	554	550	546
Oregon	-	-	693	693	698	703	2,115	2,106	2,104	2,090	2,087	2,777	2,778	2,763	2,756	2,748	3,434	3,413	3,401	3,389
Total RPS Requirement	88	176	999	1,007	1,020	1,034	2,690	2,689	2,694	2,688	2,922	3,653	3,652	3,632	3,620	3,607	8,796	8,744	8,711	8,656
Bank Balance																				
Utah	5,560	9,397	13,833	18,863	25,014	32,166	40,140	49,036	58,710	69,067	79,492	89,948	100,418	110,838	121,272	131,702	137,580	143,506	149,455	155,464
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	422	819	899	1,208	1,586	1,695	1,797	2,105	2,372	2,277	2,058	2,060	2,055	2,053	2,059	2,047	2,030	2,025	2,019
Oregon	1,382	2,938	4,126	5,665	7,824	10,503	12,220	14,469	17,154	20,262	23,393	25,795	28,181	30,542	32,896	35,242	36,805	38,331	39,804	41,233
Cumulative Surplus Credit Bank Balance	**6,942**	**12,757**	**18,779**	**25,427**	**34,046**	**44,255**	**54,055**	**65,302**	**77,969**	**91,700**	**105,162**	**117,801**	**130,659**	**143,435**	**156,221**	**169,002**	**176,431**	**183,867**	**191,284**	**198,716**
Adjusted Qualifying Renewables																				
Utah	2,959	3,837	4,436	5,030	6,152	7,152	7,974	8,895	9,674	10,357	10,425	10,456	10,470	10,419	10,434	10,429	10,384	10,405	10,412	10,434
Other (ID,WY)	828	1,391	1,718	2,062	2,670	3,244	3,720	4,262	4,717	5,094	5,132	5,171	5,185	5,156	5,168	5,119	5,128	5,174	5,211	5,256
California	88	176	185	194	207	242	277	314	344	371	373	369	369	368	368	368	361	356	351	346
Washington	266	422	518	622	825	999	1,168	1,334	1,473	1,598	1,606	1,603	1,603	1,593	1,592	1,592	1,574	1,569	1,561	1,555
Oregon	989	1,556	1,882	2,232	2,857	3,382	3,832	4,356	4,789	5,197	5,218	5,180	5,164	5,124	5,110	5,093	4,996	4,939	4,874	4,818
Adjusted Qualifying Renewables	**5,130**	**7,381**	**8,739**	**10,139**	**12,711**	**15,019**	**16,970**	**19,161**	**20,997**	**22,617**	**22,754**	**22,779**	**22,791**	**22,660**	**22,674**	**22,601**	**22,443**	**22,443**	**22,409**	**22,410**
System Load	53,963	54,123	54,572	55,451	56,177	56,946	57,500	58,058	58,165	58,495	58,672	58,637	58,419	58,306	58,183	58,179	57,922	57,782	57,636	57,623
Portfolio	10%	14%	16%	18%	23%	26%	30%	33%	36%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = High - June 2008, Load Growth = Low, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

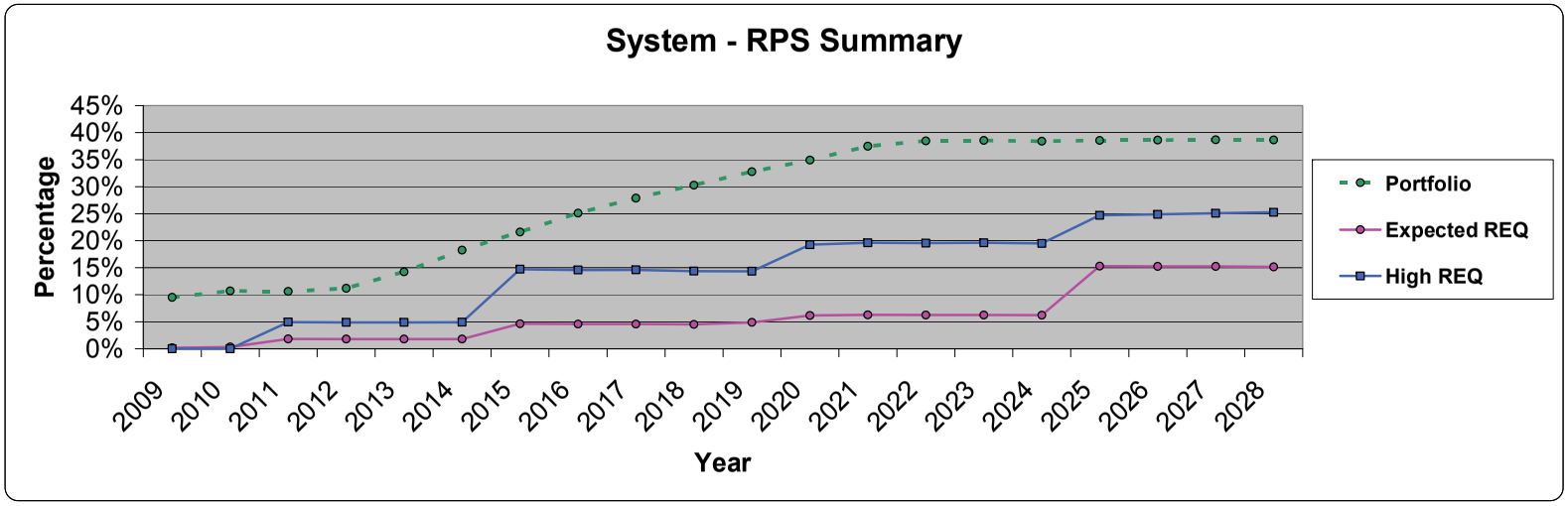
System - RPS Report - Case # 29	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,397	13,840	18,881	25,043	32,196	40,170	49,065	58,740	69,097	80,150	91,862	103,588	115,263	126,953	138,638	145,066	151,475	157,849	164,212
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	422	820	900	1,207	1,581	1,674	1,759	2,060	2,318	2,309	2,285	2,388	2,370	2,353	2,345	2,327	2,304	2,287	2,269
Oregon	1,382	2,938	4,124	5,655	7,798	10,448	12,051	14,163	16,686	19,606	22,892	25,708	28,468	31,167	33,822	36,433	38,117	39,712	41,207	42,602
Cumulative Surplus Credit Bank Balance	**6,942**	**12,757**	**18,784**	**25,436**	**34,049**	**44,224**	**53,895**	**64,988**	**77,486**	**91,021**	**105,352**	**119,855**	**134,444**	**148,800**	**163,128**	**177,416**	**185,510**	**193,491**	**201,343**	**209,083**
Adjusted Qualifying Renewables																				
Utah	2,960	3,837	4,443	5,041	6,162	7,152	7,974	8,896	9,675	10,357	11,054	11,711	11,726	11,675	11,690	11,685	11,686	11,710	11,732	11,754
Other (ID,WY)	828	1,391	1,722	2,068	2,676	3,244	3,720	4,263	4,717	5,094	5,495	5,902	5,918	5,889	5,903	5,852	5,896	5,952	6,006	6,059
California	88	176	185	194	208	242	277	314	344	371	398	419	419	418	419	418	412	407	402	397
Washington	266	422	519	624	827	999	1,168	1,334	1,473	1,598	1,720	1,833	1,832	1,822	1,822	1,821	1,812	1,807	1,802	1,796
Oregon	989	1,556	1,887	2,239	2,864	3,382	3,832	4,356	4,789	5,197	5,586	5,911	5,893	5,853	5,837	5,822	5,745	5,681	5,618	5,554
Adjusted Qualifying Renewables	**5,130**	**7,381**	**8,756**	**10,166**	**12,736**	**15,019**	**16,971**	**19,162**	**20,998**	**22,616**	**24,253**	**25,776**	**25,788**	**25,657**	**25,671**	**25,599**	**25,551**	**25,556**	**25,559**	**25,560**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	14%	16%	18%	22%	25%	28%	31%	33%	35%	37%	39%	39%	38%	38%	37%	37%	37%	36%	36%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = High - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

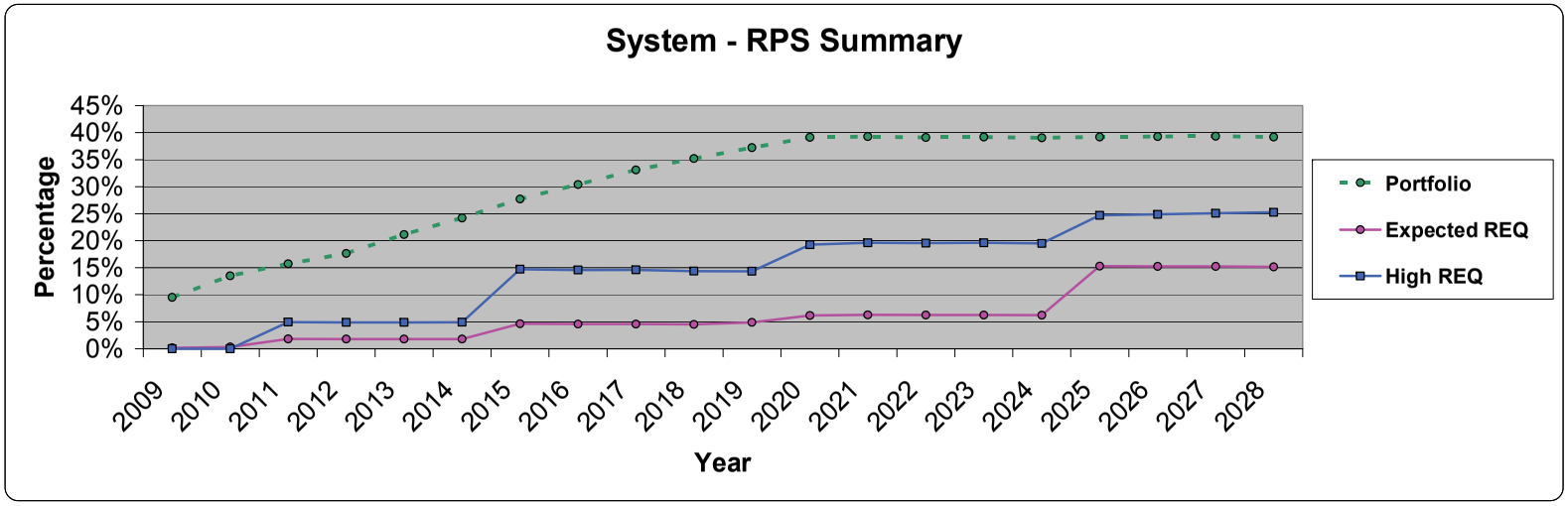
System - RPS Report - Case # 30	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,134	5,114	5,105	5,071
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	338	337	337	337	335	334	333
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	640	636	633	630	627	623	619
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,119	3,113	3,106	3,884	3,864	3,853	3,843
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,097	4,086	4,076	9,986	9,939	9,915	9,866
Bank Balance																				
Utah	5,560	8,745	11,975	15,410	19,691	25,112	31,510	38,945	47,207	56,245	66,089	76,636	87,869	99,365	110,877	122,383	128,773	135,206	141,668	148,185
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	385	570	921	1,070	1,205	1,535	1,819	1,847	1,852	2,086	2,251	2,302	2,308	2,307	2,302	2,299	2,295
Oregon	1,382	2,537	2,986	3,545	4,558	6,178	6,851	8,103	9,797	11,941	14,518	16,654	19,128	21,758	24,379	26,992	28,760	30,485	32,156	33,775
Cumulative Surplus Credit Bank Balance	**6,942**	**11,585**	**15,441**	**19,341**	**24,820**	**32,212**	**39,431**	**48,253**	**58,539**	**70,005**	**82,454**	**95,142**	**109,083**	**123,374**	**137,558**	**151,682**	**159,840**	**167,992**	**176,123**	**184,256**
Adjusted Qualifying Renewables																				
Utah	2,960	3,185	3,231	3,435	4,282	5,421	6,398	7,435	8,262	9,038	9,844	10,547	11,233	11,496	11,511	11,506	11,525	11,546	11,567	11,588
Other (ID,WY)	828	1,033	1,049	1,171	1,619	2,257	2,816	3,422	3,901	4,334	4,797	5,224	5,630	5,785	5,799	5,748	5,801	5,854	5,907	5,958
California	88	176	185	194	204	213	223	255	287	318	349	373	400	411	411	411	406	401	395	390
Washington	266	303	298	331	483	683	880	1,068	1,215	1,357	1,500	1,620	1,742	1,790	1,789	1,788	1,782	1,777	1,771	1,766
Oregon	989	1,155	1,149	1,267	1,733	2,353	2,901	3,496	3,960	4,422	4,877	5,232	5,607	5,749	5,734	5,718	5,652	5,588	5,525	5,462
Adjusted Qualifying Renewables	**5,131**	**5,852**	**5,911**	**6,397**	**8,320**	**10,927**	**13,217**	**15,676**	**17,626**	**19,468**	**21,367**	**22,996**	**24,612**	**25,230**	**25,244**	**25,172**	**25,167**	**25,166**	**25,165**	**25,164**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	65,679	65,596	65,504	65,544	65,302	65,191	65,074	65,105
Portfolio	10%	11%	11%	11%	14%	18%	22%	25%	28%	30%	33%	35%	37%	38%	39%	38%	39%	39%	39%	39%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45 (2013) to $179 (2030) 1/, Gas = Medium - June 2008, Load Growth = Medium (2009-2020) Low (2021-2030), Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

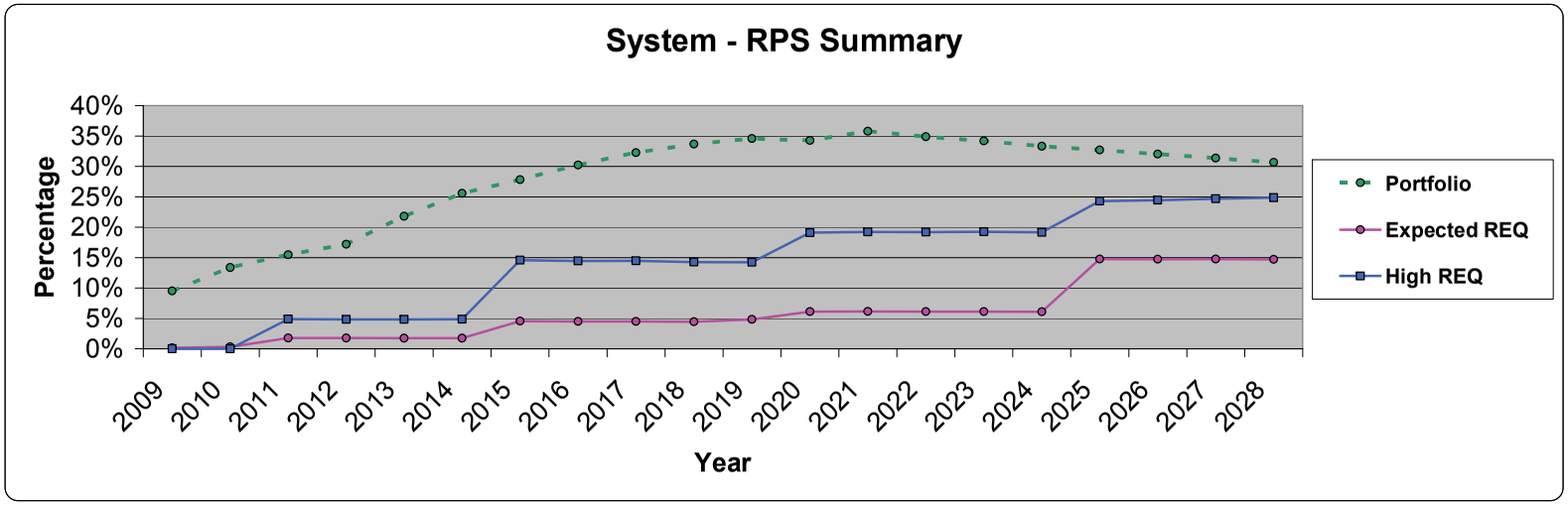
System - RPS Report - Case # 31	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,134	5,114	5,105	5,071
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	338	337	337	337	335	334	333
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	640	636	633	630	627	623	619
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,119	3,113	3,106	3,884	3,864	3,853	3,843
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,097	4,086	4,076	9,986	9,939	9,915	9,866
Bank Balance																				
Utah	5,560	9,399	13,842	18,845	24,852	31,792	39,753	48,569	58,206	68,564	79,620	91,331	103,057	114,732	126,422	138,107	144,678	151,291	157,932	164,593
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	423	820	893	1,172	1,514	1,633	1,743	2,038	2,311	2,309	2,286	2,388	2,373	2,367	2,373	2,373	2,368	2,364	2,354
Oregon	1,382	2,939	4,125	5,633	7,683	10,206	11,802	13,867	16,368	19,289	22,576	25,392	28,152	30,885	33,610	36,326	38,198	40,025	41,798	43,497
Cumulative Surplus Credit Bank Balance	**6,942**	**12,761**	**18,787**	**25,371**	**33,708**	**43,512**	**53,188**	**64,179**	**76,612**	**90,164**	**104,505**	**119,008**	**133,597**	**147,991**	**162,399**	**176,806**	**185,249**	**193,684**	**202,094**	**210,444**
Adjusted Qualifying Renewables																				
Utah	2,960	3,839	4,443	5,003	6,007	6,940	7,961	8,816	9,637	10,358	11,055	11,711	11,726	11,675	11,690	11,685	11,705	11,726	11,746	11,732
Other (ID,WY)	828	1,392	1,722	2,047	2,589	3,123	3,712	4,217	4,695	5,095	5,496	5,902	5,918	5,889	5,903	5,852	5,907	5,962	6,014	6,045
California	88	176	185	194	204	234	277	310	342	371	398	419	419	418	419	418	413	408	402	396
Washington	266	423	519	617	798	960	1,165	1,320	1,466	1,598	1,721	1,833	1,832	1,822	1,822	1,821	1,815	1,810	1,804	1,792
Oregon	989	1,557	1,886	2,216	2,771	3,256	3,824	4,309	4,767	5,198	5,588	5,911	5,893	5,853	5,837	5,822	5,756	5,691	5,626	5,542
Adjusted Qualifying Renewables	**5,131**	**7,386**	**8,755**	**10,077**	**12,369**	**14,512**	**16,939**	**18,973**	**20,907**	**22,620**	**24,257**	**25,776**	**25,788**	**25,657**	**25,671**	**25,599**	**25,597**	**25,596**	**25,593**	**25,507**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	65,679	65,596	65,504	65,544	65,302	65,191	65,074	65,105
Portfolio	10%	14%	16%	18%	21%	24%	28%	30%	33%	35%	37%	39%	39%	39%	39%	39%	39%	39%	39%	39%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45 (2013) to $179 (2030) 1/, Gas = High - June 2008, Load Growth = Medium (2009-2020) Low (2021-2030), Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

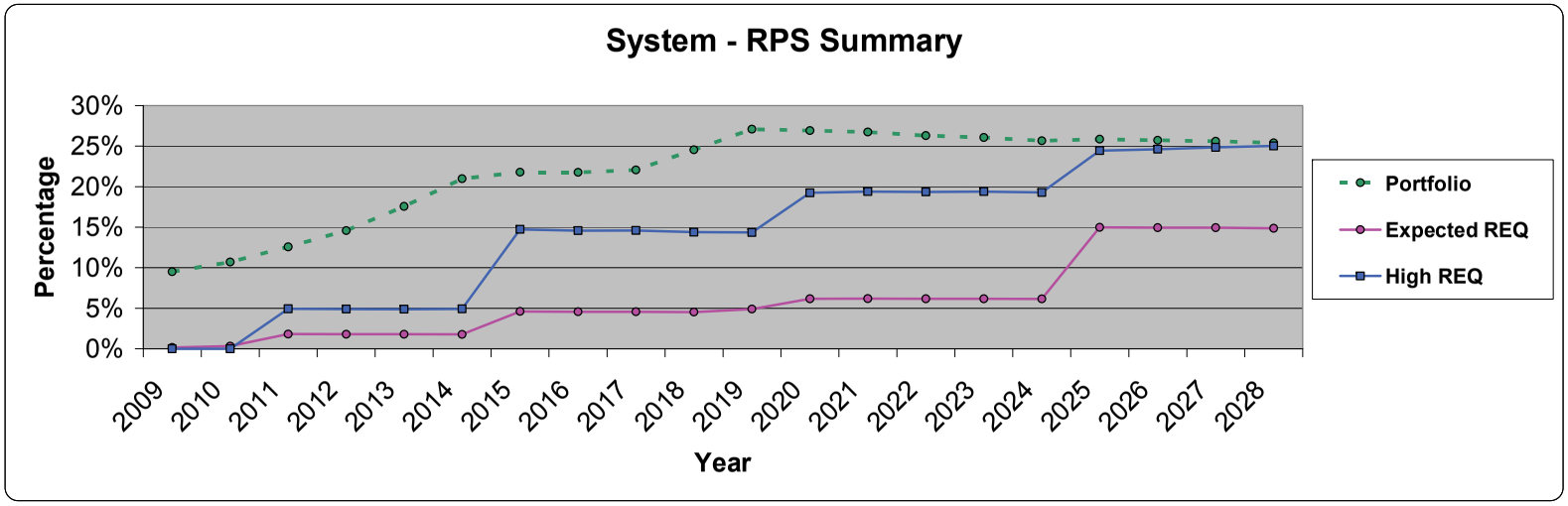
System - RPS Report - Case # 33																				
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,103	6,233	6,383	6,509
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	214	225	235	246	256	268	372	380	387	395	403	412	419	428	436
Washington	-	-	122	124	125	127	388	394	401	408	691	703	716	728	739	752	766	780	793	807
Oregon	-	-	708	722	742	763	2,346	2,388	2,439	2,478	2,531	3,445	3,525	3,588	3,662	3,738	4,781	4,867	4,968	5,071
Total RPS Requirement	88	176	1,015	1,040	1,072	1,104	2,958	3,017	3,086	3,143	3,489	4,519	4,621	4,703	4,797	4,893	12,063	12,300	12,571	12,823
Bank Balance																				
Utah	5,560	9,398	13,854	18,879	25,263	32,877	41,311	50,668	60,819	71,652	83,020	94,535	106,738	118,889	131,056	143,218	149,297	155,267	161,108	166,844
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	423	822	897	1,240	1,698	1,820	1,888	2,183	2,435	2,364	2,181	2,297	2,385	2,351	2,325	2,292	2,253	2,215	2,178
Oregon	1,382	2,938	4,125	5,632	7,887	10,780	12,538	14,776	17,406	20,405	23,645	25,998	28,643	31,184	33,635	35,996	37,245	38,340	39,267	40,025
Cumulative Surplus Credit Bank Balance	**6,941**	**12,759**	**18,800**	**25,408**	**34,390**	**45,355**	**55,670**	**67,332**	**80,408**	**94,493**	**109,029**	**122,714**	**137,678**	**152,458**	**167,042**	**181,539**	**188,833**	**195,859**	**202,590**	**209,047**
Adjusted Qualifying Renewables																				
Utah	2,959	3,838	4,456	5,025	6,384	7,614	8,435	9,356	10,151	10,833	11,368	11,515	12,203	12,151	12,167	12,162	12,182	12,203	12,224	12,246
Other (ID,WY)	828	1,391	1,729	2,060	2,801	3,507	3,984	4,528	4,993	5,369	5,676	5,788	6,196	6,167	6,183	6,131	6,189	6,246	6,302	6,358
California	88	176	185	194	217	261	296	332	363	390	411	412	438	437	438	437	432	426	428	436
Washington	266	423	521	622	867	1,083	1,252	1,418	1,560	1,685	1,778	1,797	1,919	1,909	1,909	1,908	1,902	1,897	1,891	1,886
Oregon	988	1,556	1,894	2,229	2,997	3,656	4,104	4,627	5,069	5,478	5,771	5,797	6,170	6,129	6,113	6,099	6,030	5,962	5,895	5,829
Adjusted Qualifying Renewables	**5,130**	**7,384**	**8,785**	**10,130**	**13,267**	**16,120**	**18,070**	**20,261**	**22,136**	**23,754**	**25,003**	**25,309**	**26,926**	**26,795**	**26,809**	**26,736**	**26,735**	**26,734**	**26,740**	**26,754**
System Load	53,963	55,209	56,795	58,885	60,891	63,017	64,985	67,026	68,617	70,513	72,287	73,862	75,258	76,828	78,432	80,241	81,763	83,490	85,259	87,266
Portfolio	10%	13%	15%	17%	22%	26%	28%	30%	32%	34%	35%	34%	36%	35%	34%	33%	33%	32%	31%	31%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	4%	4%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = High - June 2008, Load Growth = High, Renewable Std = Base, Baseload Plant Avail = Late, Plant Cost = High, Rsv Margin = 12%, Class 3 DSM = Excluded

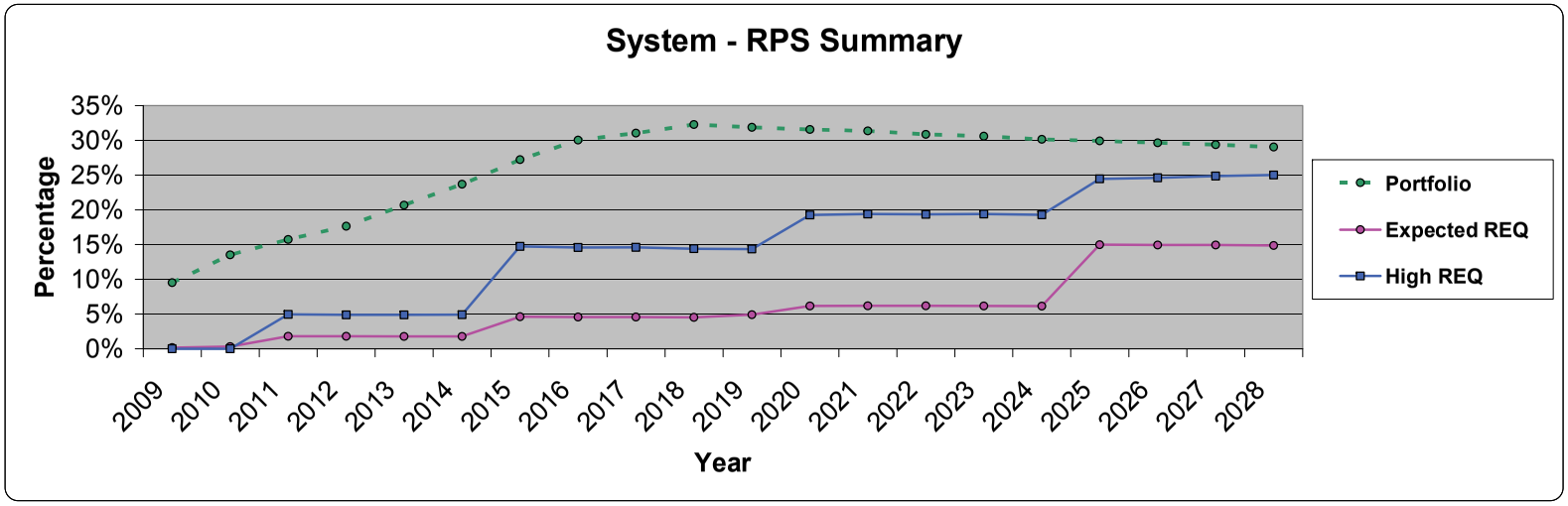
System - RPS Report - Case # 34	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,745	12,437	16,695	21,812	27,935	34,378	40,933	47,647	55,137	63,428	71,749	80,085	88,369	96,669	104,964	108,021	111,057	114,056	117,043
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	564	620	873	1,202	1,207	1,053	1,091	1,254	1,281	1,162	1,150	1,132	1,115	1,107	1,092	1,073	1,055	1,037
Oregon	1,382	2,537	3,267	4,324	5,839	7,877	8,576	9,310	10,096	11,330	12,995	13,834	14,624	15,356	16,048	16,690	16,436	16,111	15,705	15,217
Cumulative Surplus Credit Bank Balance	**6,942**	**11,585**	**16,268**	**21,640**	**28,523**	**37,013**	**44,161**	**51,296**	**58,834**	**67,721**	**77,704**	**86,745**	**95,859**	**104,857**	**113,832**	**122,761**	**125,550**	**128,241**	**130,815**	**133,297**
Adjusted Qualifying Renewables																				
Utah	2,960	3,185	3,693	4,258	5,116	6,123	6,444	6,555	6,714	7,490	8,291	8,321	8,336	8,285	8,300	8,295	8,315	8,336	8,357	8,379
Other (ID,WY)	828	1,033	1,305	1,631	2,088	2,657	2,842	2,914	3,006	3,442	3,899	3,929	3,939	3,909	3,918	3,873	3,907	3,940	3,973	4,005
California	88	176	185	194	204	213	223	233	243	256	287	336	339	341	345	348	352	354	357	360
Washington	266	303	382	481	636	811	888	907	932	1,074	1,216	1,213	1,213	1,203	1,203	1,202	1,196	1,191	1,185	1,180
Oregon	989	1,155	1,430	1,765	2,235	2,770	2,928	2,978	3,052	3,512	3,965	3,935	3,923	3,885	3,874	3,853	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,131**	**5,852**	**6,995**	**8,330**	**10,279**	**12,575**	**13,325**	**13,587**	**13,947**	**15,774**	**17,658**	**17,735**	**17,750**	**17,623**	**17,640**	**17,571**	**17,831**	**17,907**	**17,995**	**18,083**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	13%	15%	18%	21%	22%	22%	22%	25%	27%	27%	27%	26%	26%	26%	26%	26%	26%	25%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Early, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

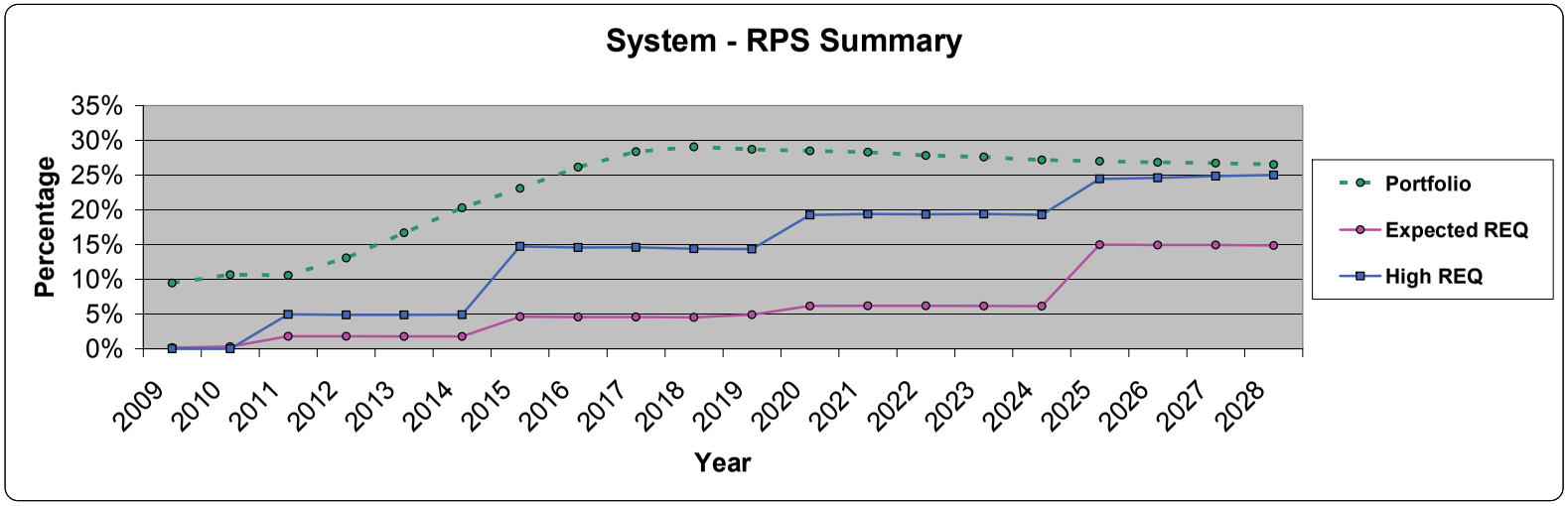
System - RPS Report - Case # 35																				
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,399	13,842	18,845	24,733	31,541	39,378	48,098	57,196	66,766	76,361	85,986	95,625	105,214	114,817	124,416	128,778	133,117	137,420	141,712
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	423	820	893	1,150	1,468	1,586	1,702	1,922	2,069	1,899	1,638	1,626	1,608	1,591	1,583	1,568	1,549	1,531	1,513
Oregon	1,382	2,939	4,125	5,633	7,612	10,056	11,579	13,588	15,772	18,229	20,659	22,259	23,806	25,294	26,742	28,141	28,637	29,054	29,382	29,621
Cumulative Surplus Credit Bank Balance	**6,942**	**12,761**	**18,788**	**25,371**	**33,495**	**43,065**	**52,544**	**63,388**	**74,890**	**87,064**	**98,918**	**109,882**	**121,058**	**132,116**	**143,150**	**154,140**	**158,983**	**163,719**	**168,333**	**172,846**
Adjusted Qualifying Renewables																				
Utah	2,960	3,839	4,443	5,003	5,888	6,808	7,838	8,720	9,097	9,570	9,595	9,625	9,640	9,588	9,604	9,599	9,619	9,640	9,661	9,683
Other (ID,WY)	828	1,392	1,722	2,047	2,522	3,047	3,641	4,161	4,384	4,641	4,652	4,688	4,700	4,670	4,682	4,635	4,676	4,718	4,758	4,798
California	88	176	185	194	204	228	272	307	321	339	339	336	339	341	345	348	352	354	357	360
Washington	266	423	519	617	777	936	1,143	1,302	1,368	1,454	1,454	1,452	1,451	1,441	1,441	1,440	1,434	1,429	1,423	1,418
Oregon	989	1,557	1,887	2,215	2,699	3,177	3,751	4,252	4,451	4,735	4,730	4,695	4,681	4,642	4,629	4,611	4,557	4,504	4,451	4,399
Adjusted Qualifying Renewables	**5,131**	**7,386**	**8,756**	**10,076**	**12,090**	**14,197**	**16,644**	**18,742**	**19,620**	**20,739**	**20,770**	**20,796**	**20,811**	**20,683**	**20,700**	**20,631**	**20,638**	**20,644**	**20,651**	**20,658**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	14%	16%	18%	21%	24%	27%	30%	31%	32%	32%	32%	31%	31%	31%	30%	30%	30%	29%	29%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Early, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

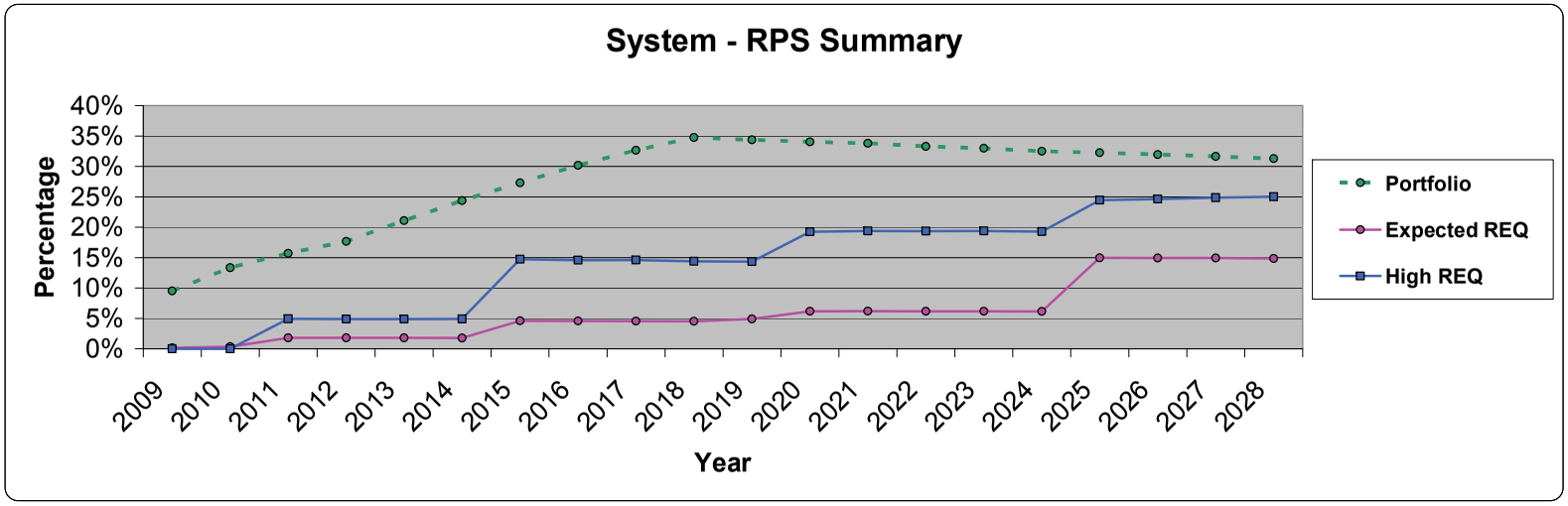
System - RPS Report - Case # 36	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,553	8,728	11,951	15,840	20,737	26,683	33,459	41,159	49,547	58,253	66,983	75,744	84,520	93,244	101,984	110,718	114,216	117,691	121,130	124,557
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	302	476	467	766	1,129	1,235	1,322	1,606	1,782	1,583	1,322	1,311	1,292	1,276	1,268	1,253	1,233	1,215	1,197
Oregon	1,378	2,527	2,971	3,805	5,188	7,120	8,016	9,424	11,192	13,141	15,064	16,160	17,206	18,192	19,139	20,037	20,036	19,961	19,802	19,559
Cumulative Surplus Credit Bank Balance	**6,931**	**11,557**	**15,398**	**20,112**	**26,690**	**34,932**	**42,711**	**51,906**	**62,345**	**73,176**	**83,631**	**93,227**	**103,036**	**112,729**	**122,398**	**132,023**	**135,504**	**138,885**	**142,147**	**145,314**
Adjusted Qualifying Renewables																				
Utah	2,953	3,175	3,223	3,889	4,897	5,946	6,777	7,699	8,388	8,706	8,731	8,761	8,775	8,724	8,740	8,734	8,755	8,776	8,797	8,818
Other (ID,WY)	824	1,028	1,044	1,425	1,965	2,556	3,033	3,574	3,974	4,143	4,153	4,185	4,196	4,166	4,176	4,130	4,167	4,203	4,238	4,273
California	88	176	185	194	204	213	229	266	292	305	305	336	339	341	345	348	352	354	357	360
Washington	265	302	296	414	596	779	949	1,116	1,238	1,296	1,296	1,294	1,293	1,283	1,283	1,282	1,276	1,271	1,266	1,260
Oregon	984	1,149	1,144	1,542	2,102	2,665	3,124	3,652	4,034	4,227	4,223	4,192	4,179	4,140	4,129	4,109	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,114**	**5,830**	**5,892**	**7,464**	**9,763**	**12,159**	**14,112**	**16,306**	**17,927**	**18,676**	**18,708**	**18,767**	**18,782**	**18,655**	**18,672**	**18,603**	**18,611**	**18,690**	**18,780**	**18,871**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	13%	17%	20%	23%	26%	28%	29%	29%	28%	28%	28%	28%	27%	27%	27%	27%	27%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Early, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

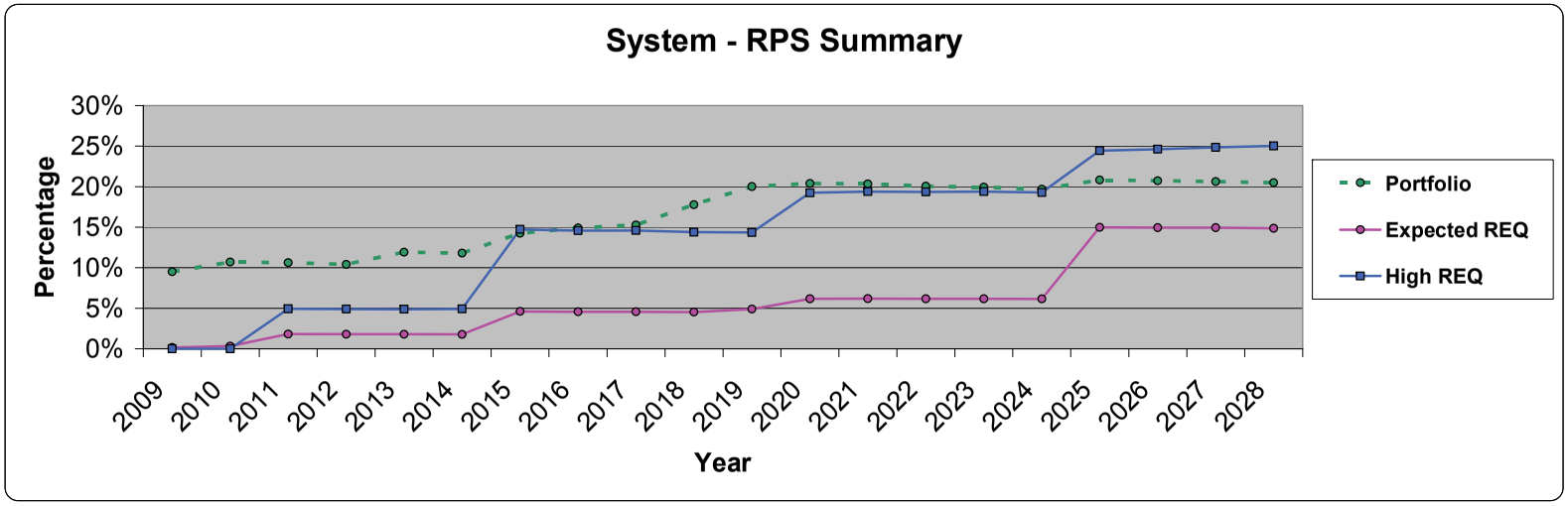
System - RPS Report - Case # 37	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,357	13,797	18,803	24,792	31,773	39,629	48,386	57,907	68,148	78,424	88,731	99,053	109,324	119,609	129,890	134,933	139,955	144,940	149,913
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	415	812	893	1,169	1,518	1,621	1,713	2,006	2,269	2,146	1,887	1,875	1,857	1,840	1,832	1,817	1,798	1,780	1,762
Oregon	1,382	2,913	4,097	5,607	7,646	10,194	11,728	13,758	16,191	19,042	21,873	23,870	25,814	27,698	29,540	31,335	32,223	33,028	33,741	34,360
Cumulative Surplus Credit Bank Balance	**6,942**	**12,685**	**18,705**	**25,304**	**33,608**	**43,485**	**52,979**	**63,857**	**76,104**	**89,459**	**102,443**	**114,488**	**126,742**	**138,878**	**150,989**	**163,057**	**168,974**	**174,781**	**180,460**	**186,036**
Adjusted Qualifying Renewables																				
Utah	2,960	3,797	4,440	5,007	5,989	6,981	7,857	8,756	9,521	10,241	10,277	10,307	10,322	10,270	10,286	10,281	10,301	10,322	10,343	10,365
Other (ID,WY)	828	1,369	1,720	2,049	2,579	3,146	3,652	4,182	4,629	5,027	5,046	5,085	5,098	5,069	5,081	5,033	5,079	5,124	5,169	5,213
California	88	176	185	194	204	235	272	308	338	366	367	363	363	362	362	362	357	354	357	360
Washington	266	415	518	618	795	968	1,146	1,309	1,445	1,576	1,579	1,576	1,575	1,566	1,565	1,564	1,559	1,553	1,548	1,542
Oregon	989	1,531	1,884	2,218	2,759	3,280	3,763	4,274	4,699	5,129	5,130	5,093	5,077	5,038	5,024	5,007	4,949	4,892	4,835	4,779
Adjusted Qualifying Renewables	**5,131**	**7,287**	**8,747**	**10,086**	**12,325**	**14,610**	**16,690**	**18,830**	**20,631**	**22,340**	**22,398**	**22,424**	**22,436**	**22,304**	**22,319**	**22,246**	**22,245**	**22,245**	**22,252**	**22,260**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	18%	21%	24%	27%	30%	33%	35%	34%	34%	34%	33%	33%	32%	32%	32%	32%	31%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = High - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Early, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

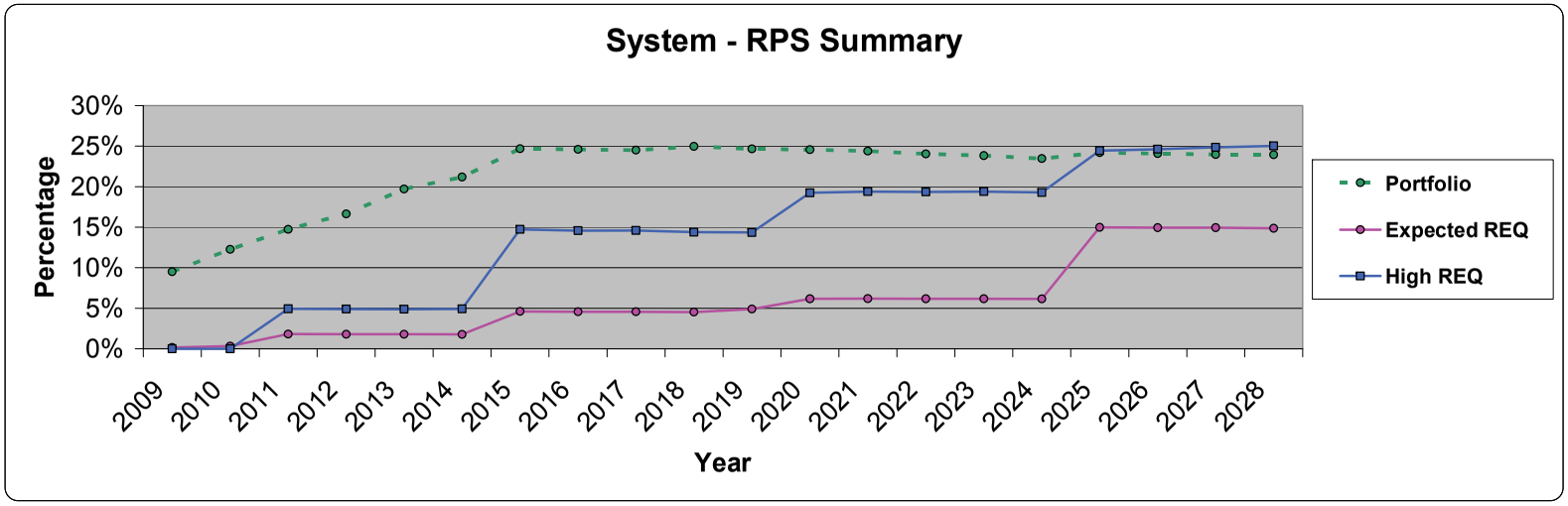
System - RPS Report - Case # 38	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,745	11,978	15,219	18,925	22,700	26,917	31,449	36,167	41,805	48,139	54,502	60,881	67,208	73,550	79,887	80,988	82,066	83,107	84,138
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	480	351	430	516	371	277	358	551	585	447	435	417	400	392	377	358	340	322
Oregon	1,382	2,537	2,987	3,430	4,096	4,739	4,122	3,667	3,282	3,427	3,943	3,641	3,294	2,889	2,448	1,954	574	-	-	-
Cumulative Surplus Credit Bank Balance	**6,942**	**11,585**	**15,444**	**19,000**	**23,451**	**27,954**	**31,410**	**35,392**	**39,806**	**45,784**	**52,667**	**58,591**	**64,610**	**70,513**	**76,398**	**82,233**	**81,939**	**82,423**	**83,447**	**84,460**
Adjusted Qualifying Renewables																				
Utah	2,960	3,185	3,233	3,242	3,705	3,775	4,217	4,532	4,718	5,639	6,333	6,364	6,378	6,327	6,342	6,337	6,358	6,379	6,400	6,421
Other (ID,WY)	828	1,033	1,050	1,063	1,295	1,319	1,565	1,750	1,853	2,375	2,769	2,790	2,797	2,766	2,772	2,731	2,752	2,773	2,794	2,814
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	296	378	382	482	537	568	736	858	856	855	846	845	844	839	833	828	822
Oregon	989	1,155	1,150	1,151	1,386	1,375	2,228	2,244	2,266	2,423	2,816	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,131**	**5,852**	**5,916**	**5,945**	**6,969**	**7,066**	**8,714**	**9,297**	**9,648**	**11,425**	**13,040**	**13,441**	**13,503**	**13,434**	**13,487**	**13,471**	**14,362**	**14,425**	**14,501**	**14,577**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	10%	12%	12%	14%	15%	15%	18%	20%	20%	20%	20%	20%	20%	21%	21%	21%	20%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = High, Rsv Margin = 12%, Class 3 DSM = Excluded

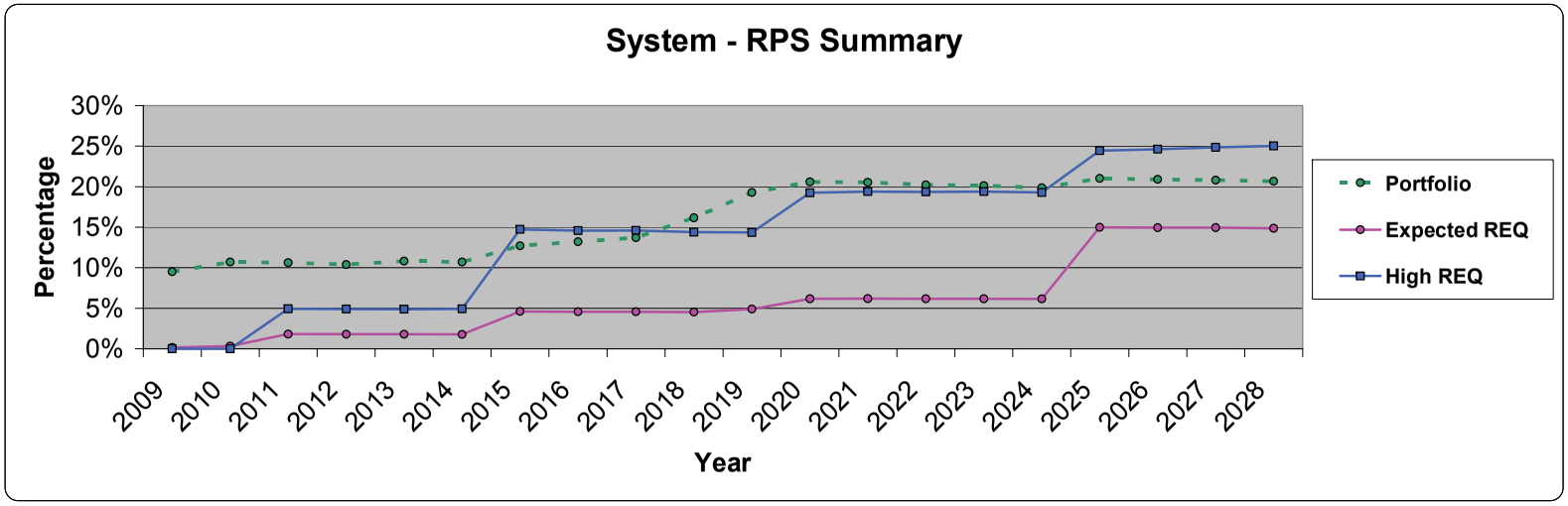
System - RPS Report - Case # 39	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,108	13,316	18,076	23,725	29,902	37,090	44,389	51,755	59,358	66,985	74,642	82,314	89,954	97,610	105,260	107,674	110,065	112,420	114,823
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	370	724	806	1,062	1,309	1,352	1,324	1,346	1,394	1,180	919	908	893	880	872	857	837	819	812
Oregon	1,382	2,760	3,803	5,164	6,999	9,069	10,209	11,381	12,549	13,849	15,124	15,577	15,981	16,339	16,658	16,926	16,302	15,610	14,840	14,026
Cumulative Surplus Credit Bank Balance	**6,941**	**12,238**	**17,844**	**24,045**	**31,786**	**40,281**	**48,651**	**57,095**	**65,651**	**74,601**	**83,289**	**91,139**	**99,203**	**107,186**	**115,147**	**123,058**	**124,832**	**126,512**	**128,079**	**129,661**
Adjusted Qualifying Renewables																				
Utah	2,959	3,548	4,208	4,759	5,649	6,177	7,188	7,299	7,366	7,603	7,627	7,657	7,672	7,640	7,655	7,650	7,671	7,692	7,713	7,794
Other (ID,WY)	828	1,232	1,591	1,911	2,388	2,688	3,269	3,343	3,383	3,507	3,516	3,543	3,552	3,533	3,541	3,497	3,527	3,556	3,585	3,649
California	88	176	185	194	204	213	246	250	251	260	263	336	339	341	345	348	352	354	357	360
Washington	266	370	476	573	733	821	1,024	1,043	1,051	1,095	1,095	1,092	1,092	1,086	1,085	1,084	1,078	1,073	1,068	1,073
Oregon	988	1,379	1,743	2,068	2,555	2,803	3,368	3,416	3,435	3,578	3,575	3,549	3,538	3,511	3,501	3,479	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**6,705**	**8,204**	**9,505**	**11,530**	**12,702**	**15,095**	**15,350**	**15,487**	**16,042**	**16,076**	**16,177**	**16,192**	**16,111**	**16,128**	**16,059**	**16,689**	**16,761**	**16,845**	**17,036**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	12%	15%	17%	20%	21%	25%	25%	24%	25%	25%	25%	24%	24%	24%	23%	24%	24%	24%	24%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = High - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = High, Rsv Margin = 12%, Class 3 DSM = Excluded

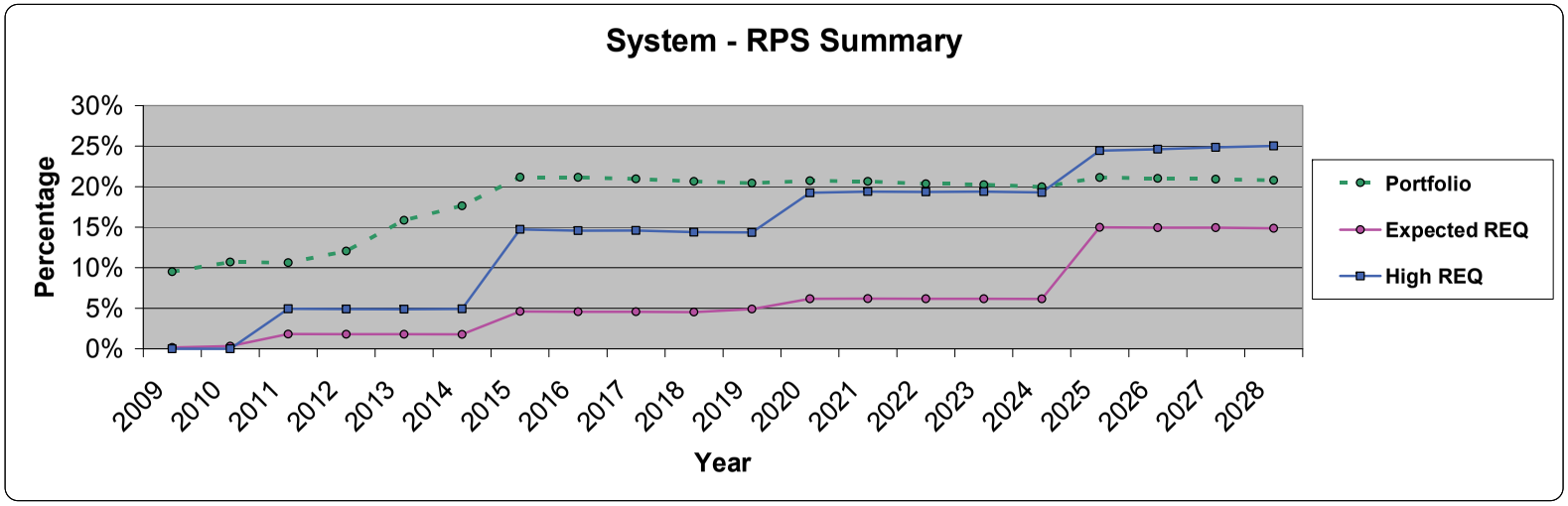
System - RPS Report - Case # 40	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,743	11,975	15,216	18,646	22,145	25,822	29,757	33,915	39,042	45,175	51,612	58,062	64,462	70,877	77,287	78,459	79,610	80,724	81,827
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	350	380	415	222	69	146	356	455	424	462	443	427	419	404	384	366	348
Oregon	1,382	2,536	2,985	3,428	3,928	4,407	3,472	2,664	1,951	1,796	2,194	1,935	1,629	1,267	867	415	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,941**	**11,583**	**15,439**	**18,994**	**22,954**	**26,967**	**29,517**	**32,490**	**36,013**	**41,194**	**47,825**	**53,970**	**60,153**	**66,172**	**72,171**	**78,121**	**78,863**	**79,994**	**81,090**	**82,175**
Adjusted Qualifying Renewables																				
Utah	2,959	3,184	3,231	3,241	3,430	3,499	3,677	3,934	4,158	5,127	6,133	6,436	6,451	6,400	6,415	6,410	6,430	6,451	6,472	6,494
Other (ID,WY)	828	1,032	1,049	1,063	1,141	1,162	1,255	1,405	1,530	2,080	2,654	2,832	2,839	2,808	2,815	2,773	2,795	2,817	2,838	2,858
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	296	328	332	383	428	466	643	822	869	869	859	858	857	852	846	841	836
Oregon	988	1,155	1,149	1,150	1,220	1,211	2,228	2,244	2,266	2,277	2,698	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,129**	**5,850**	**5,912**	**5,945**	**6,322**	**6,418**	**7,767**	**8,245**	**8,663**	**10,380**	**12,570**	**13,569**	**13,631**	**13,562**	**13,615**	**13,599**	**14,490**	**14,554**	**14,630**	**14,707**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	10%	11%	11%	13%	13%	14%	16%	19%	21%	21%	20%	20%	20%	21%	21%	21%	21%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = Hard Cap 3/, CO2 Cost = N/A, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

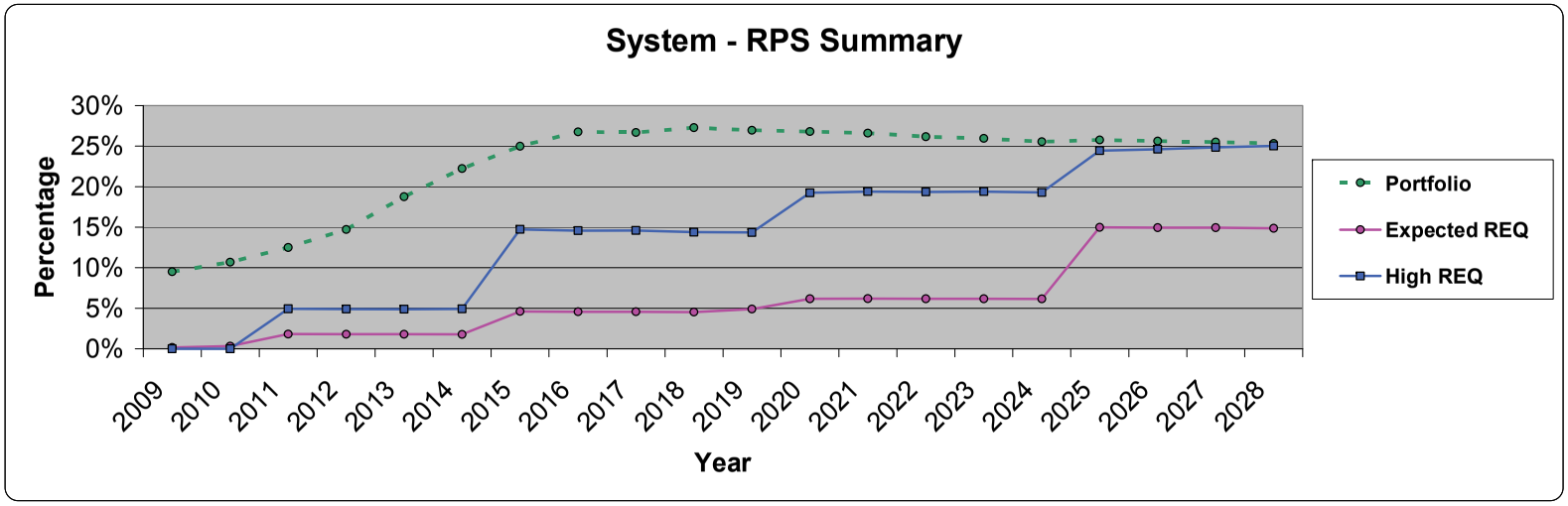
System - RPS Report - Case # 41	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,742	11,973	15,614	20,302	25,571	31,852	38,243	44,659	51,086	57,537	64,019	70,516	76,961	83,421	89,877	91,095	92,291	93,451	94,600
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	423	682	968	1,021	993	1,007	1,005	751	490	478	460	443	435	420	401	383	365
Oregon	1,382	2,536	2,984	3,669	4,926	6,456	7,059	7,697	8,308	8,917	9,502	9,270	8,991	8,655	8,282	7,856	6,545	5,173	3,730	2,216
Cumulative Surplus Credit Bank Balance	**6,942**	**11,580**	**15,436**	**19,706**	**25,910**	**32,996**	**39,932**	**46,933**	**53,974**	**61,008**	**67,790**	**73,779**	**79,985**	**86,075**	**92,147**	**98,168**	**98,061**	**97,865**	**97,565**	**97,181**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,231	3,641	4,688	5,269	6,280	6,391	6,415	6,427	6,452	6,482	6,496	6,445	6,461	6,455	6,476	6,497	6,518	6,539
Other (ID,WY)	828	1,031	1,049	1,286	1,848	2,171	2,748	2,820	2,834	2,829	2,838	2,859	2,866	2,835	2,842	2,800	2,822	2,844	2,865	2,886
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	369	558	655	859	877	878	880	880	878	877	867	867	866	860	855	849	844
Oregon	989	1,154	1,149	1,392	1,977	2,263	2,831	2,882	2,877	2,886	2,885	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**5,846**	**5,912**	**6,882**	**9,274**	**10,572**	**12,942**	**13,203**	**13,248**	**13,275**	**13,317**	**13,650**	**13,712**	**13,642**	**13,696**	**13,680**	**14,571**	**14,636**	**14,712**	**14,789**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	12%	16%	18%	21%	21%	21%	21%	20%	21%	21%	20%	20%	20%	21%	21%	21%	21%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 15%, Class 3 DSM = Excluded

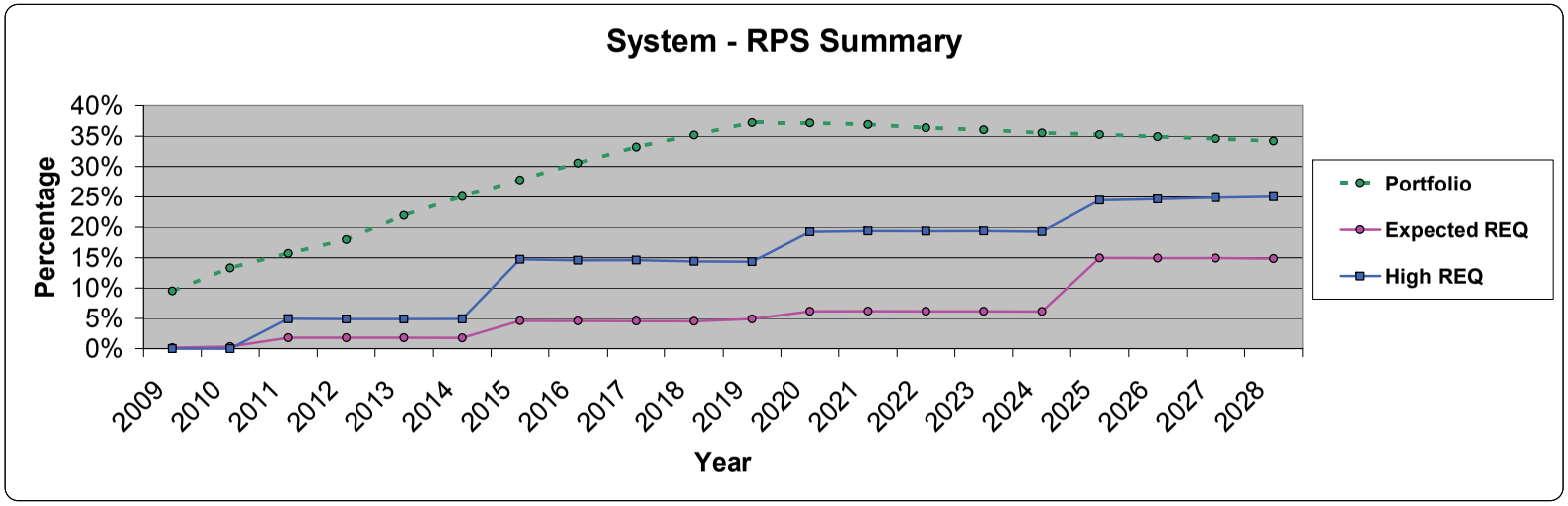
System - RPS Report - Case # 42	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,741	12,419	16,712	22,126	28,565	35,829	43,696	51,642	59,872	68,126	76,411	84,710	92,958	101,222	109,480	112,501	115,501	118,463	121,415
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	560	624	934	1,314	1,414	1,442	1,556	1,614	1,409	1,149	1,137	1,118	1,102	1,094	1,079	1,059	1,041	1,024
Oregon	1,382	2,535	3,256	4,334	6,028	8,253	9,438	10,944	12,453	14,122	15,765	16,583	17,352	18,062	18,734	19,355	19,080	18,734	18,307	17,799
Cumulative Surplus Credit Bank Balance	**6,942**	**11,579**	**16,235**	**21,671**	**29,087**	**38,132**	**46,681**	**56,083**	**65,650**	**75,607**	**85,300**	**94,143**	**103,199**	**112,139**	**121,057**	**129,929**	**132,660**	**135,294**	**137,812**	**140,237**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,678	4,293	5,413	6,439	7,265	7,867	7,945	8,230	8,254	8,285	8,299	8,248	8,263	8,258	8,279	8,300	8,321	8,342
Other (ID,WY)	828	1,031	1,297	1,650	2,255	2,837	3,313	3,670	3,718	3,868	3,878	3,908	3,918	3,888	3,897	3,852	3,886	3,919	3,951	3,983
California	88	176	185	194	204	213	249	272	275	286	286	336	339	341	345	348	352	354	357	360
Washington	266	303	379	488	690	869	1,038	1,146	1,157	1,209	1,209	1,207	1,206	1,197	1,196	1,195	1,190	1,184	1,179	1,173
Oregon	989	1,153	1,421	1,786	2,413	2,958	3,413	3,750	3,775	3,947	3,943	3,914	3,902	3,864	3,853	3,832	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**5,844**	**6,960**	**8,412**	**10,976**	**13,316**	**15,277**	**16,706**	**16,870**	**17,540**	**17,571**	**17,649**	**17,665**	**17,538**	**17,555**	**17,486**	**17,767**	**17,843**	**17,930**	**18,018**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	13%	15%	19%	22%	25%	27%	27%	27%	27%	27%	27%	26%	26%	26%	26%	26%	26%	25%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 15%, Class 3 DSM = Excluded

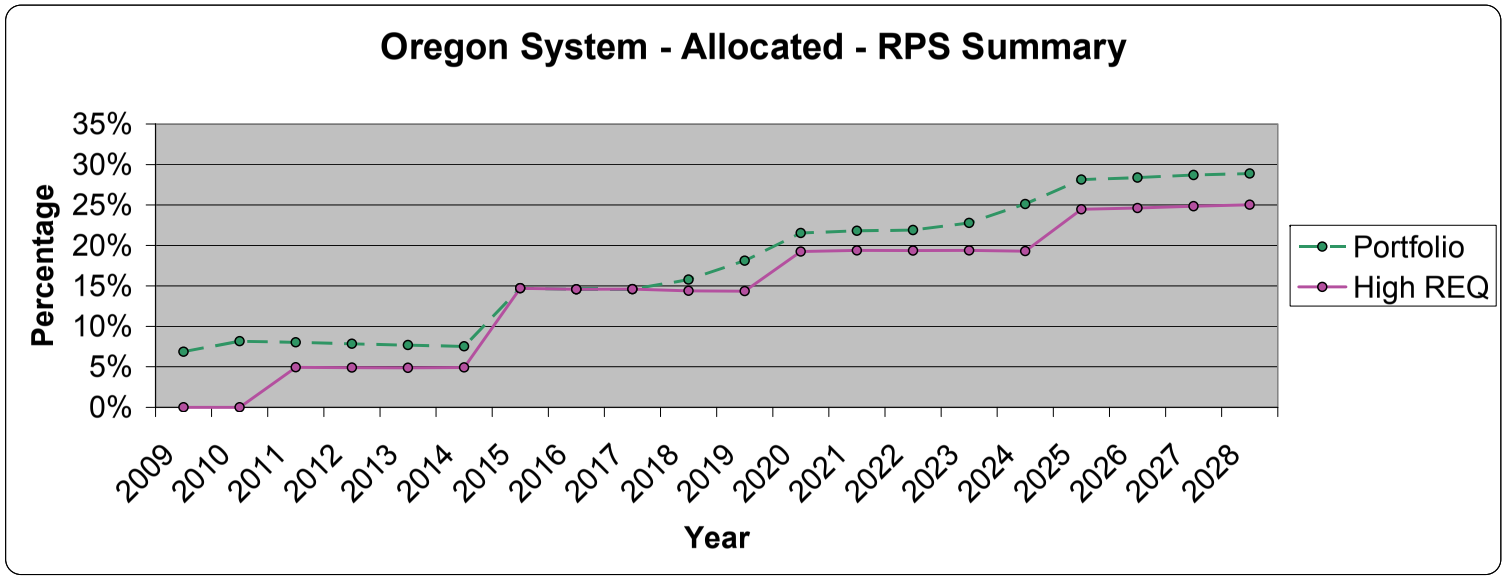
System - RPS Report - Case # 43	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	9,355	13,793	18,875	25,080	32,232	40,207	49,070	58,733	69,091	80,147	91,322	102,511	113,650	124,804	135,952	141,864	147,753	153,606	159,448
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	415	811	907	1,223	1,589	1,674	1,754	2,052	2,316	2,309	2,188	2,192	2,174	2,157	2,149	2,134	2,115	2,097	2,079
Oregon	1,382	2,912	4,095	5,650	7,820	10,469	12,073	14,166	16,682	19,603	22,890	25,393	27,841	30,229	32,574	34,873	36,260	37,559	38,761	39,865
Cumulative Surplus Credit Bank Balance	**6,942**	**12,681**	**18,699**	**25,432**	**34,122**	**44,290**	**53,954**	**64,989**	**77,467**	**91,010**	**105,347**	**118,903**	**132,545**	**146,053**	**159,535**	**172,975**	**180,258**	**187,427**	**194,464**	**201,391**
Adjusted Qualifying Renewables																				
Utah	2,959	3,795	4,438	5,082	6,205	7,152	7,974	8,863	9,663	10,358	11,055	11,175	11,190	11,138	11,154	11,149	11,169	11,190	11,211	11,233
Other (ID,WY)	828	1,368	1,719	2,091	2,700	3,244	3,720	4,244	4,711	5,095	5,496	5,590	5,605	5,576	5,589	5,539	5,591	5,642	5,692	5,741
California	88	176	185	194	209	242	277	312	343	371	398	398	398	397	397	397	392	387	382	377
Washington	266	415	518	632	835	999	1,168	1,328	1,471	1,598	1,721	1,735	1,734	1,724	1,724	1,723	1,717	1,712	1,706	1,701
Oregon	989	1,530	1,883	2,264	2,889	3,382	3,832	4,337	4,783	5,198	5,588	5,599	5,582	5,541	5,527	5,511	5,448	5,386	5,324	5,264
Adjusted Qualifying Renewables	**5,130**	**7,283**	**8,743**	**10,263**	**12,839**	**15,019**	**16,971**	**19,084**	**20,971**	**22,620**	**24,257**	**24,496**	**24,508**	**24,376**	**24,391**	**24,318**	**24,317**	**24,316**	**24,315**	**24,315**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	13%	16%	18%	22%	25%	28%	31%	33%	35%	37%	37%	37%	36%	36%	36%	35%	35%	35%	34%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



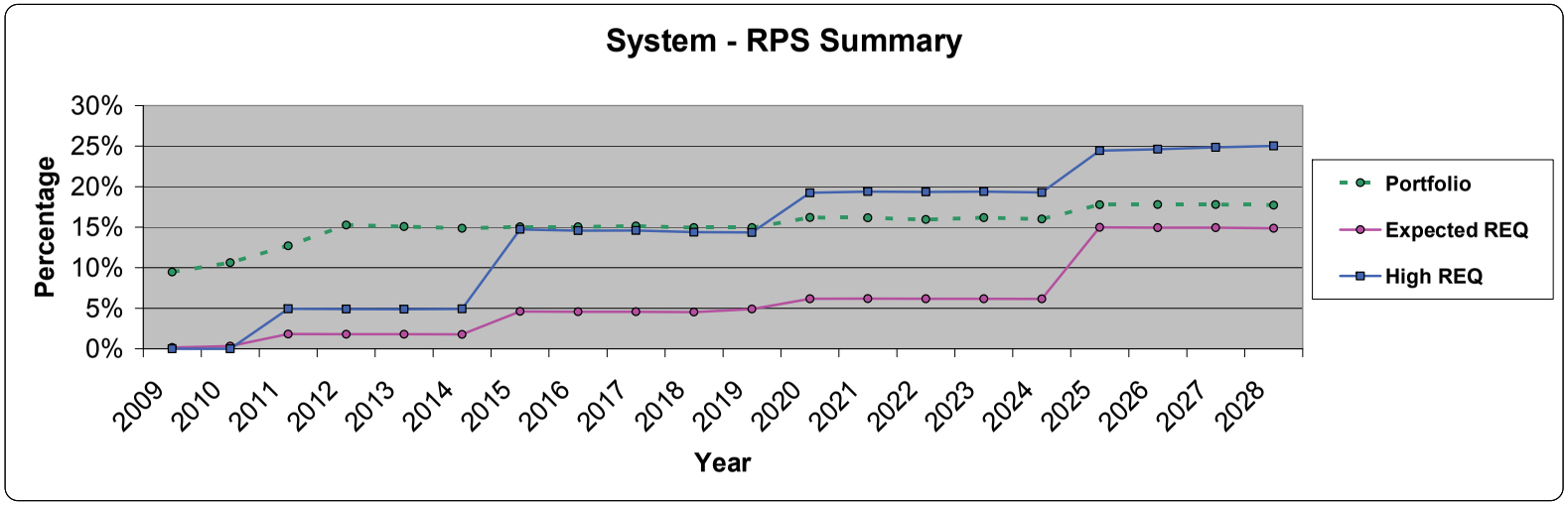
Study Description

CO2 Type = CO2 tax, CO2 Cost = $100, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 15%, Class 3 DSM = Excluded

Oregon System - Allocated RPS Report - Case # 44																				
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Oregon - System																				
Energy GWh																				
RPS Requirement (System)	-	-	2,750	2,794	2,858	2,942	9,003	9,102	9,223	9,245	9,353	12,680	12,871	12,969	13,121	13,200	16,863	17,140	17,467	17,802
Eligible Resources	3,581	4,090	4,090	4,091	4,090	4,088	3,818	3,843	3,836	3,818	3,832	3,829	3,827	3,687	3,686	3,577	3,571	3,564	3,558	3,552
Incremental IRP Resources	127	365	372	391	403	423	818	2,000	4,097	6,327	7,977	10,362	10,658	10,988	11,729	13,624	15,838	16,196	16,615	16,988
Surplus/(Deficit)	3,708	4,456	1,712	1,688	1,636	1,568	(4,367)	(3,260)	(1,290)	900	2,457	1,510	1,613	1,707	2,294	4,001	2,545	2,620	2,707	2,739
Banking:																				
Surplus Credit Prior Year	1,484	5,191	9,647	11,359	13,047	14,683	16,251	11,883	8,624	7,333	8,233	10,690	12,200	13,813	15,520	17,814	21,815	24,360	26,980	29,687
Current Year Surplus Credits	3,708	4,456	1,712	1,688	1,636	1,568	-	-	-	900	2,457	1,510	1,613	1,707	2,294	4,001	2,545	2,620	2,707	2,739
Surplus Credits Used in Current Year	-	-	-	-	-	-	(4,367)	(3,260)	(1,290)	-	-	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	5,191	9,647	11,359	13,047	14,683	16,251	11,883	8,624	7,333	8,233	10,690	12,200	13,813	15,520	17,814	21,815	24,360	26,980	29,687	32,426
Adjusted Qualifying Renewables	3,708	4,456	4,462	4,481	4,493	4,511	9,003	9,102	9,223	10,145	11,809	14,191	14,484	14,675	15,415	17,201	19,408	19,760	20,174	20,540
Allocation Factor	26.5%	25.7%	25.5%	25.3%	25.2%	24.9%	24.8%	24.7%	24.6%	24.6%	24.6%	24.4%	24.3%	24.3%	24.3%	24.3%	24.1%	23.8%	23.6%	23.4%
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	7%	8%	8%	8%	8%	8%	15%	15%	15%	16%	18%	22%	22%	22%	23%	25%	28%	28%	29%	29%
Portfolio Meets RPS																				
High REQ	0%	0%	5%	5%	5%	5%	15%	15%	15%	14%	14%	19%	19%	19%	19%	19%	24%	25%	25%	25%



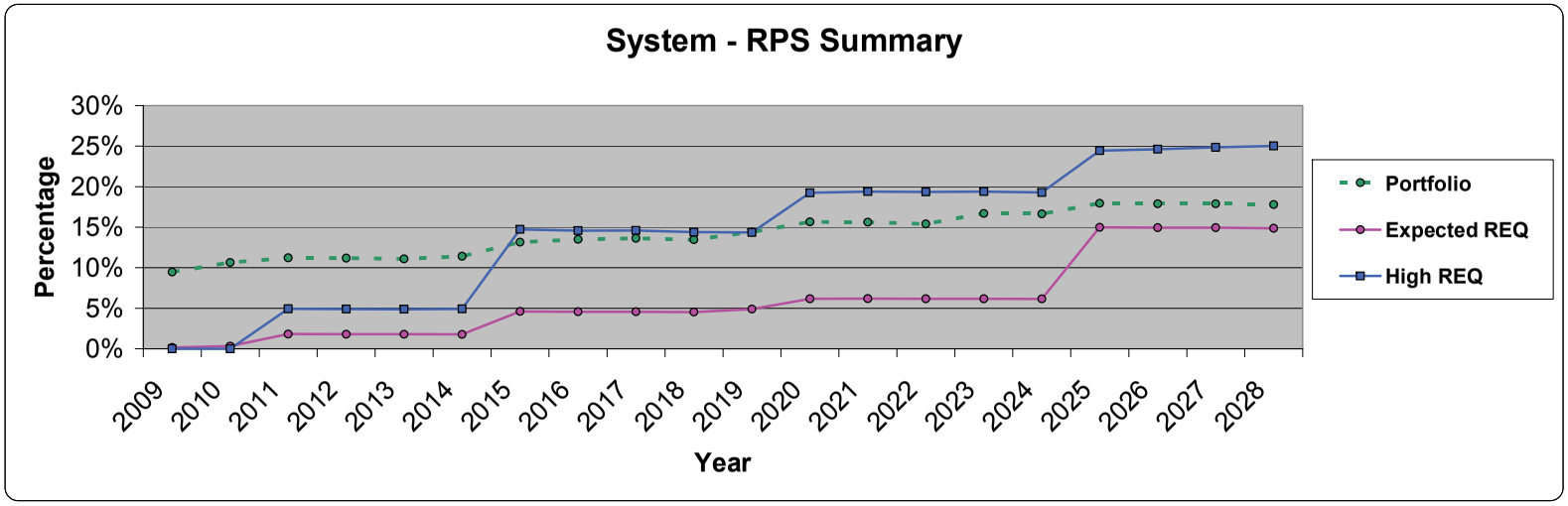
System - RPS Report - Case # 45	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,718	12,446	16,874	21,369	25,929	30,421	35,002	39,674	44,357	49,072	53,748	58,431	63,055	67,850	72,643	71,855	71,166	70,376	69,536
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	567	658	791	803	565	336	358	369	115	-	-	-	-	-	-	-	-	-
Oregon	1,376	2,521	3,272	4,432	5,573	6,682	6,228	5,801	5,389	4,972	4,538	3,296	2,010	670	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,539**	**16,284**	**21,964**	**27,732**	**33,414**	**37,214**	**41,138**	**45,421**	**49,697**	**53,725**	**57,044**	**60,441**	**63,725**	**67,850**	**72,643**	**71,855**	**71,166**	**70,376**	**69,536**
Adjusted Qualifying Renewables																				
Utah	2,950	3,168	3,728	4,428	4,495	4,560	4,492	4,581	4,672	4,683	4,715	4,750	4,763	4,717	4,866	4,868	5,257	5,301	5,358	5,391
Other (ID,WY)	823	1,024	1,325	1,726	1,739	1,767	1,722	1,778	1,827	1,824	1,835	1,851	1,855	1,825	1,908	1,873	1,938	1,994	2,006	2,026
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	388	512	522	526	532	546	559	561	632	636	640	644	647	651	655	659	662	666
Oregon	983	1,145	1,451	1,868	1,861	1,842	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**5,812**	**7,077**	**8,729**	**8,820**	**8,908**	**9,197**	**9,381**	**9,568**	**9,598**	**9,745**	**10,669**	**10,730**	**10,681**	**10,948**	**10,950**	**12,264**	**12,394**	**12,506**	**12,602**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	13%	15%	15%	15%	15%	15%	15%	15%	15%	16%	16%	16%	16%	16%	18%	18%	18%	18%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 compliance scenario, CO2 Cost = , Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base/PTC expires, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

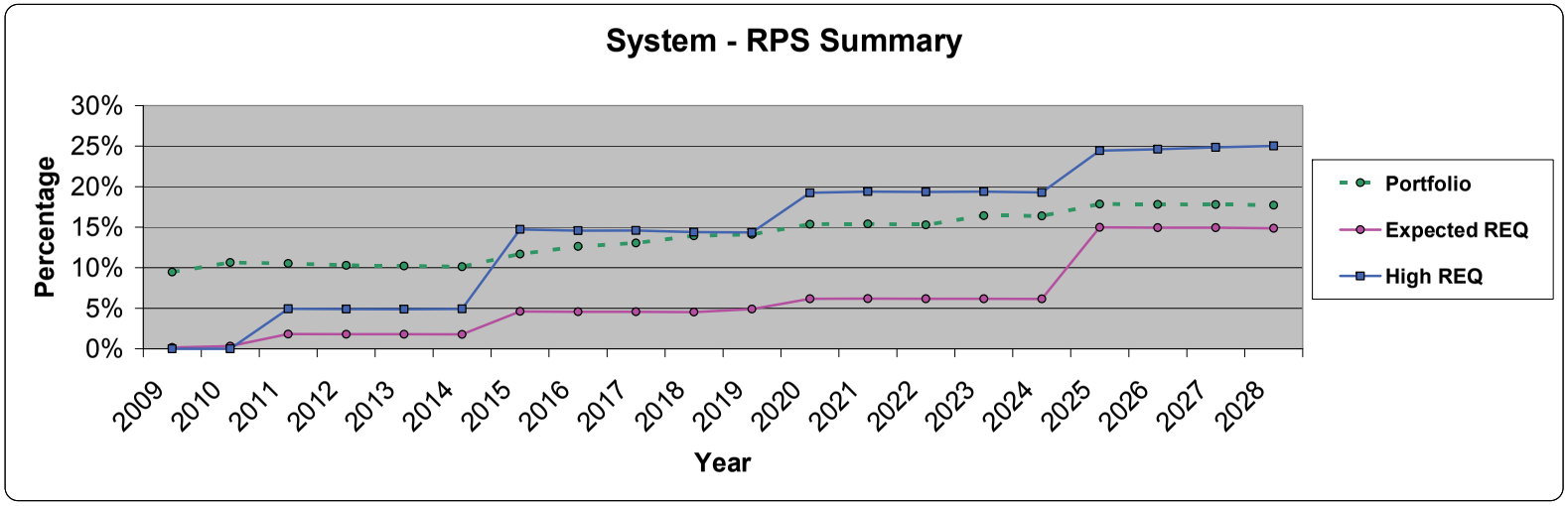
System - RPS Report - Case # 46	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,552	8,721	12,096	15,528	19,027	22,704	26,534	30,572	34,702	38,844	43,311	47,717	52,131	56,485	61,544	66,663	66,319	65,899	65,379	64,782
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	503	411	427	460	283	116	160	171	-	-	-	-	-	-	-	-	-	-
Oregon	1,377	2,523	3,059	3,617	4,159	4,743	3,898	3,152	2,422	1,687	1,122	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,928**	**11,545**	**15,658**	**19,556**	**23,613**	**27,907**	**30,715**	**33,839**	**37,284**	**40,702**	**44,433**	**47,717**	**52,131**	**56,485**	**61,544**	**66,663**	**66,319**	**65,899**	**65,379**	**64,782**
Adjusted Qualifying Renewables																				
Utah	2,951	3,170	3,375	3,432	3,499	3,677	3,830	4,038	4,130	4,142	4,492	4,522	4,535	4,488	5,090	5,143	5,257	5,301	5,358	5,391
Other (ID,WY)	823	1,025	1,129	1,169	1,179	1,263	1,343	1,465	1,514	1,512	1,706	1,718	1,722	1,692	2,039	2,034	2,048	2,061	2,075	2,087
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	265	301	324	330	340	364	411	447	461	463	632	636	640	644	647	651	655	659	662	666
Oregon	983	1,146	1,237	1,265	1,262	1,317	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,111**	**5,817**	**6,249**	**6,391**	**6,484**	**6,835**	**8,036**	**8,427**	**8,614**	**8,646**	**9,393**	**10,308**	**10,369**	**10,319**	**11,302**	**11,386**	**12,373**	**12,461**	**12,574**	**12,664**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	11%	11%	11%	13%	14%	14%	13%	14%	16%	16%	15%	17%	17%	18%	18%	18%	18%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 compliance scenario, CO2 Cost = , Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = Fixed RPS-compliant wind schedule, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

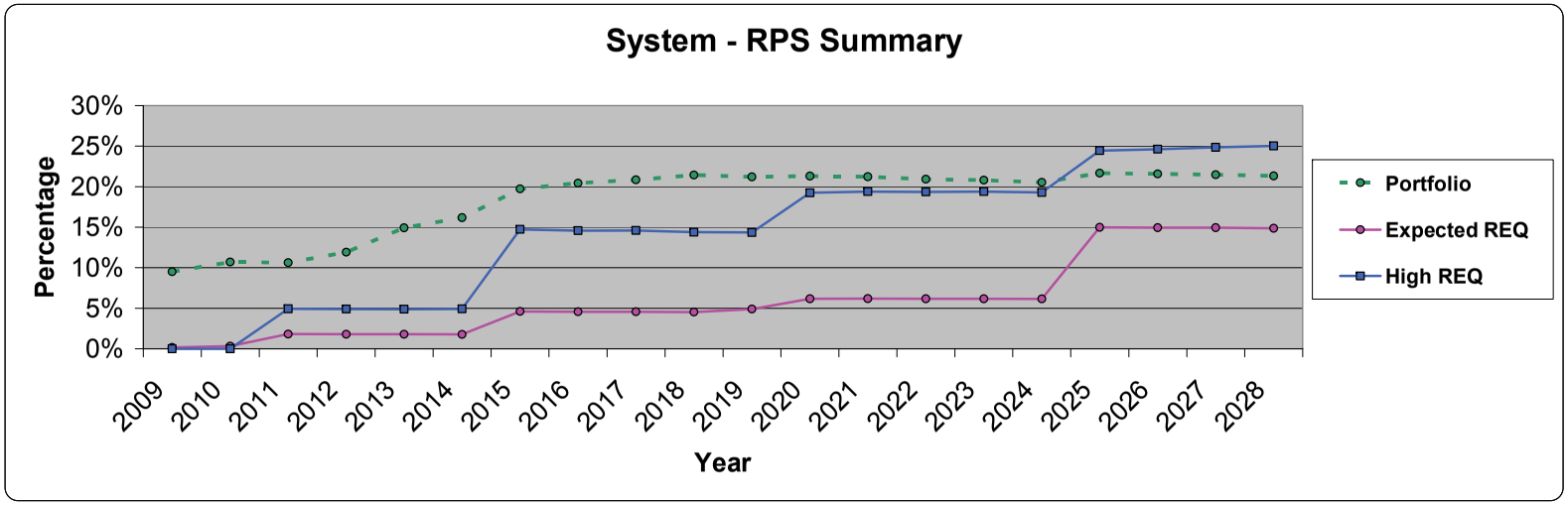
System - RPS Report - Case # 47	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,552	8,721	11,932	15,148	18,431	21,782	25,069	28,797	32,719	37,037	41,320	45,589	49,893	54,139	59,062	64,057	63,463	62,794	62,024	61,178
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	473	342	348	361	124	18	66	165	-	-	-	-	-	-	-	-	-	-
Oregon	1,377	2,523	2,959	3,387	3,799	4,189	3,023	2,094	1,243	611	-	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,928**	**11,545**	**15,364**	**18,877**	**22,578**	**26,332**	**28,216**	**30,910**	**34,027**	**37,813**	**41,320**	**45,589**	**49,893**	**54,139**	**59,062**	**64,057**	**63,463**	**62,794**	**62,024**	**61,178**
Adjusted Qualifying Renewables																				
Utah	2,951	3,170	3,210	3,216	3,283	3,351	3,287	3,729	3,922	4,318	4,344	4,406	4,449	4,439	4,975	5,039	5,257	5,301	5,358	5,391
Other (ID,WY)	823	1,025	1,038	1,049	1,058	1,077	1,031	1,287	1,393	1,613	1,621	1,651	1,671	1,663	1,972	1,973	1,986	1,999	2,012	2,024
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	265	301	294	291	301	305	370	391	422	495	632	636	640	644	647	651	655	659	662	666
Oregon	983	1,146	1,137	1,135	1,132	1,123	2,228	2,244	2,266	2,277	2,341	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,111**	**5,817**	**5,864**	**5,886**	**5,978**	**6,068**	**7,140**	**7,883**	**8,247**	**8,956**	**9,200**	**10,124**	**10,232**	**10,241**	**11,120**	**11,221**	**12,312**	**12,399**	**12,511**	**12,601**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	10%	10%	12%	13%	13%	14%	14%	15%	15%	15%	16%	16%	18%	18%	18%	18%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 compliance scenario, CO2 Cost = , Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = Optimized RPS-compliant renewables, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Excluded

System - RPS Report - Case # 48	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,745	11,977	15,585	20,039	24,932	30,837	37,036	43,422	50,064	56,731	63,428	70,139	76,800	83,476	90,146	91,580	92,991	94,366	95,730
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	480	418	634	856	883	889	967	1,039	829	569	557	539	522	514	499	479	462	444
Oregon	1,382	2,537	2,987	3,651	4,767	6,075	6,455	6,981	7,574	8,309	9,021	8,914	8,760	8,549	8,300	8,000	6,812	5,563	4,241	2,847
Cumulative Surplus Credit Bank Balance	**6,942**	**11,585**	**15,443**	**19,654**	**25,440**	**31,863**	**38,175**	**44,906**	**51,962**	**59,413**	**66,581**	**72,910**	**79,456**	**85,887**	**92,298**	**98,660**	**98,891**	**99,033**	**99,069**	**99,021**
Adjusted Qualifying Renewables																				
Utah	2,960	3,185	3,232	3,609	4,454	4,893	5,904	6,200	6,385	6,642	6,667	6,697	6,712	6,661	6,676	6,671	6,691	6,712	6,733	6,755
Other (ID,WY)	828	1,033	1,050	1,268	1,716	1,956	2,533	2,710	2,817	2,953	2,962	2,984	2,992	2,960	2,968	2,925	2,949	2,972	2,995	3,017
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	363	515	586	790	842	872	919	919	917	916	907	906	905	900	894	889	883
Oregon	989	1,155	1,150	1,372	1,836	2,040	2,609	2,769	2,860	3,013	3,011	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,131**	**5,852**	**5,915**	**6,806**	**8,724**	**9,689**	**12,059**	**12,754**	**13,177**	**13,780**	**13,822**	**14,030**	**14,092**	**14,022**	**14,076**	**14,060**	**14,953**	**15,018**	**15,096**	**15,174**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	12%	15%	16%	20%	20%	21%	21%	21%	21%	21%	21%	21%	21%	22%	22%	21%	21%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%

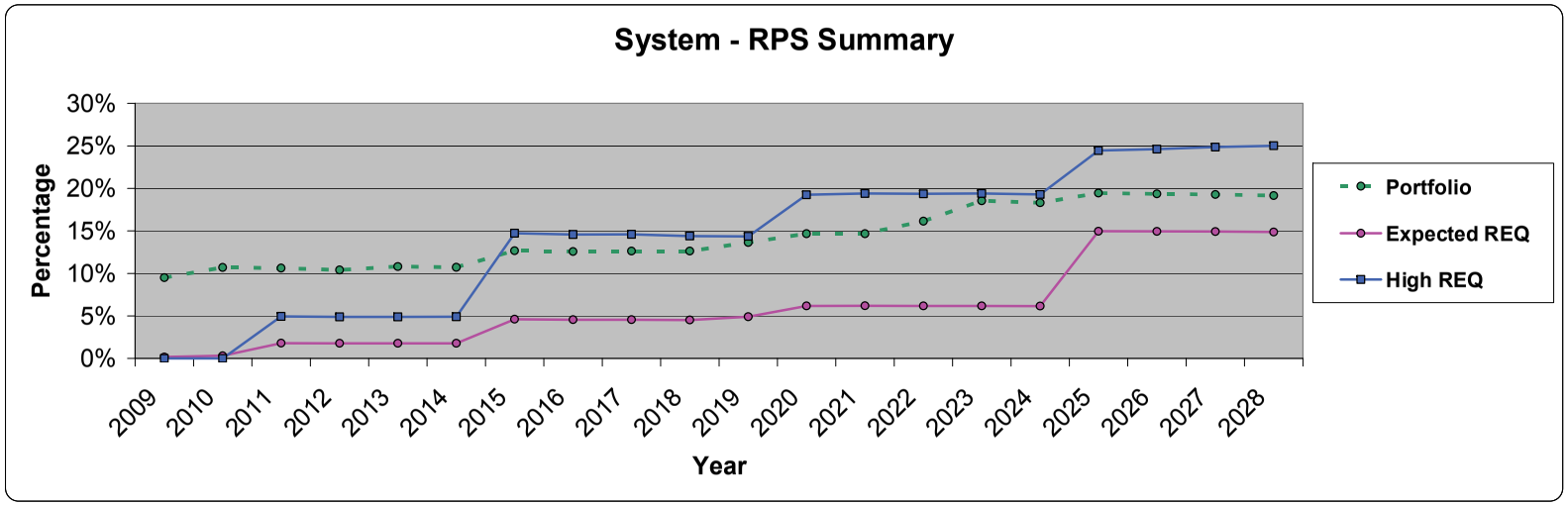


Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = Base, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 12%, Class 3 DSM = Included

B-Series Portfolio RPS Summary

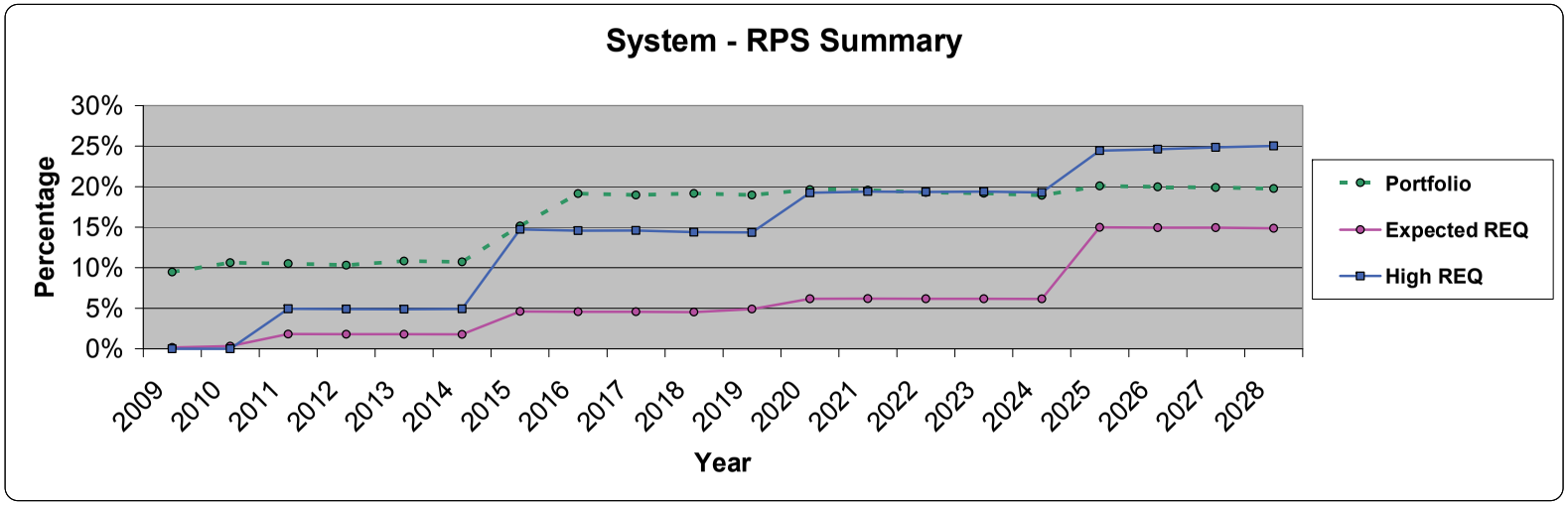
System - RPS Report - Case # 2B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,743	11,975	15,216	18,646	22,145	25,809	29,515	33,284	37,125	40,937	44,506	48,067	52,798	58,613	64,419	64,987	65,531	66,044	66,542
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	350	380	415	220	25	34	50	-	-	-	-	102	199	183	163	146	128
Oregon	1,382	2,536	2,985	3,428	3,928	4,407	3,464	2,522	1,581	669	-	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,941**	**11,583**	**15,439**	**18,994**	**22,954**	**26,967**	**29,494**	**32,062**	**34,898**	**37,843**	**40,937**	**44,506**	**48,067**	**52,798**	**58,715**	**64,618**	**65,170**	**65,694**	**66,190**	**66,670**
Adjusted Qualifying Renewables																				
Utah	2,959	3,184	3,231	3,241	3,430	3,499	3,664	3,706	3,769	3,841	4,094	4,112	4,138	4,807	5,814	5,807	5,825	5,845	5,871	5,889
Other (ID,WY)	828	1,032	1,049	1,063	1,140	1,162	1,248	1,274	1,305	1,338	1,476	1,480	1,490	1,878	2,463	2,421	2,438	2,455	2,476	2,490
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	296	328	332	381	386	395	408	632	636	640	644	749	747	741	736	731	725
Oregon	988	1,155	1,149	1,150	1,220	1,211	2,228	2,244	2,266	2,277	2,430	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,129**	**5,850**	**5,912**	**5,945**	**6,322**	**6,417**	**7,744**	**7,843**	**7,978**	**8,117**	**8,895**	**9,660**	**9,740**	**10,823**	**12,553**	**12,534**	**13,417**	**13,476**	**13,558**	**13,625**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	10%	11%	11%	13%	13%	13%	13%	14%	15%	15%	16%	19%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $0, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

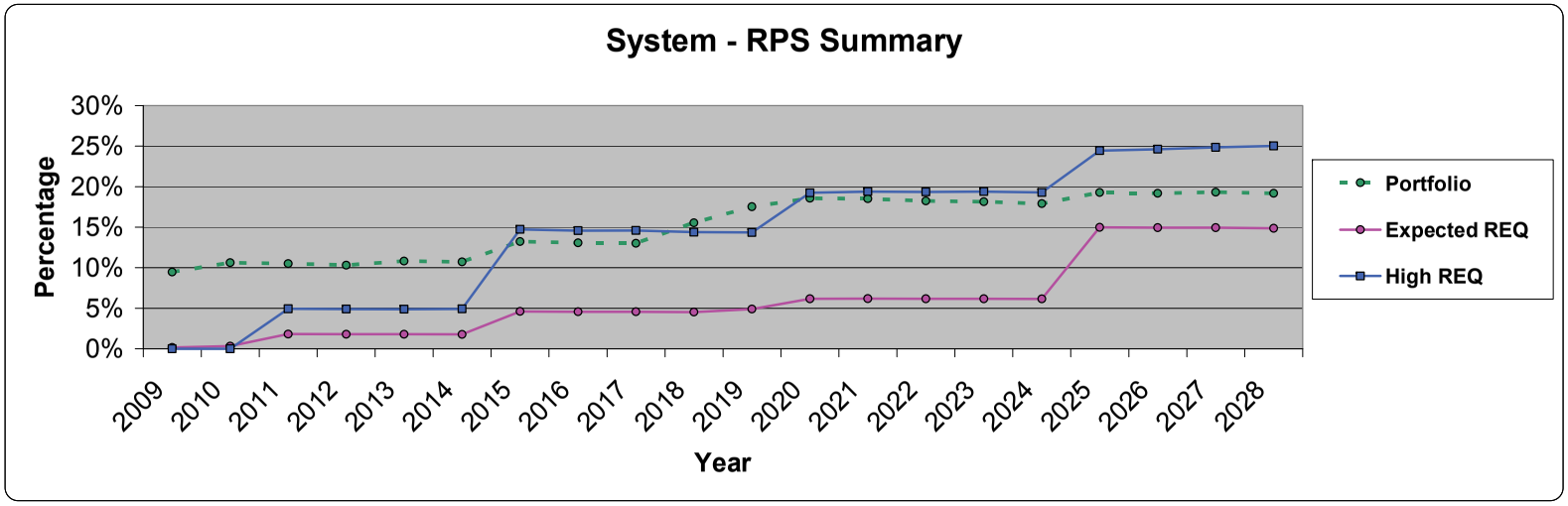
System - RPS Report - Case # 5B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,716	11,920	15,139	18,572	22,076	26,608	32,463	38,342	44,362	50,407	56,483	62,574	68,614	74,668	80,718	81,531	82,321	83,075	83,818
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	416	379	576	811	833	602	342	330	312	295	287	272	253	235	217
Oregon	1,376	2,519	2,952	3,381	3,883	4,364	3,935	4,257	4,553	4,923	5,269	4,800	4,286	3,714	3,107	2,445	901	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,535**	**15,342**	**18,861**	**22,832**	**26,856**	**30,922**	**37,295**	**43,706**	**50,118**	**56,279**	**61,626**	**67,190**	**72,639**	**78,070**	**83,451**	**82,704**	**82,574**	**83,310**	**84,035**
Adjusted Qualifying Renewables																				
Utah	2,950	3,166	3,204	3,219	3,433	3,503	4,533	5,855	5,879	6,021	6,045	6,076	6,091	6,040	6,055	6,050	6,070	6,091	6,112	6,134
Other (ID,WY)	823	1,022	1,034	1,050	1,142	1,164	1,746	2,511	2,524	2,595	2,603	2,623	2,629	2,598	2,604	2,563	2,583	2,602	2,621	2,639
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	292	328	333	539	779	780	806	806	803	803	793	793	792	786	781	775	770
Oregon	982	1,143	1,133	1,137	1,222	1,214	2,228	2,566	2,563	2,647	2,646	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**5,807**	**5,848**	**5,892**	**6,330**	**6,427**	**9,269**	**11,944**	**11,988**	**12,321**	**12,363**	**12,934**	**12,995**	**12,926**	**12,978**	**12,963**	**13,852**	**13,914**	**13,988**	**14,062**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	15%	19%	19%	19%	19%	20%	20%	19%	19%	19%	20%	20%	20%	20%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

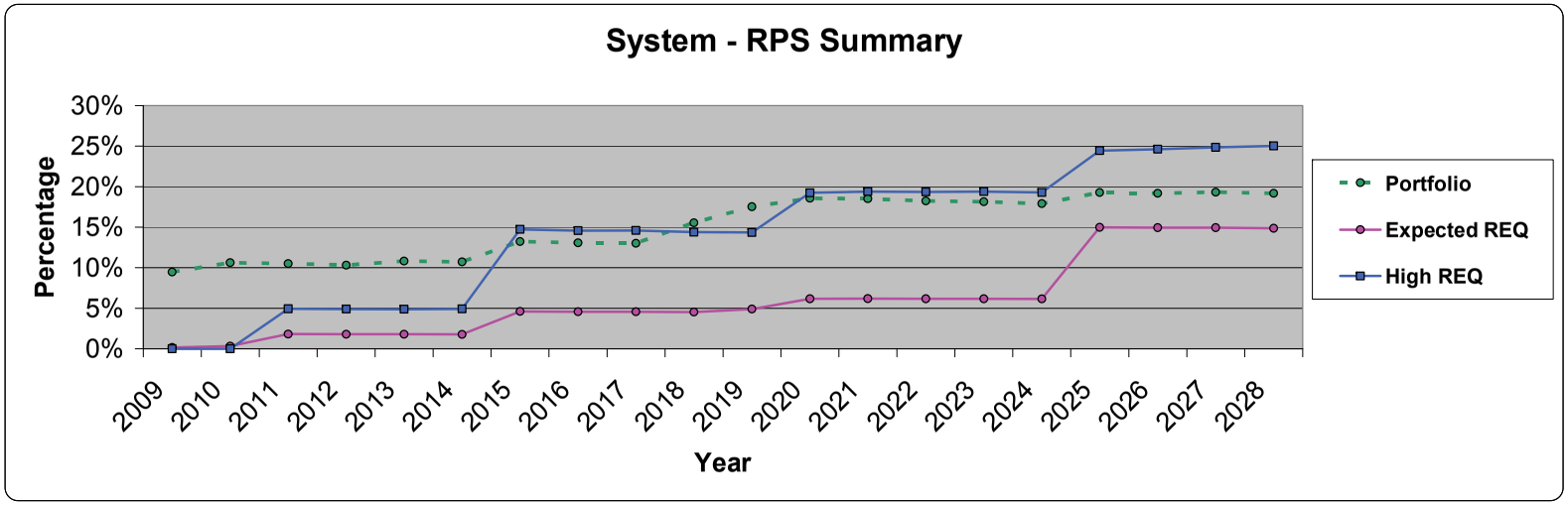
System - RPS Report - Case # 5B_CCCT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,716	11,920	15,139	18,572	22,076	25,936	29,823	33,735	38,638	44,285	49,962	55,654	61,294	66,950	72,600	73,098	73,573	74,096	74,607
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	416	256	94	93	270	326	196	184	166	149	141	142	137	135	132
Oregon	1,376	2,519	2,952	3,381	3,883	4,364	3,538	2,702	1,844	1,557	1,670	968	222	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,535**	**15,342**	**18,861**	**22,832**	**26,856**	**29,730**	**32,619**	**35,672**	**40,466**	**46,281**	**51,126**	**56,060**	**61,460**	**67,099**	**72,741**	**73,239**	**73,710**	**74,230**	**74,739**
Adjusted Qualifying Renewables																				
Utah	2,950	3,166	3,204	3,219	3,433	3,503	3,861	3,887	3,912	4,903	5,647	5,677	5,692	5,640	5,656	5,651	5,755	5,776	5,881	5,902
Other (ID,WY)	823	1,022	1,034	1,050	1,142	1,164	1,360	1,378	1,387	1,951	2,373	2,390	2,396	2,365	2,370	2,330	2,397	2,414	2,481	2,498
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	292	328	333	417	420	421	602	733	731	730	720	720	719	729	723	733	728
Oregon	982	1,143	1,133	1,137	1,222	1,214	2,228	2,244	2,266	2,277	2,412	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**5,807**	**5,848**	**5,892**	**6,330**	**6,427**	**8,089**	**8,162**	**8,229**	**9,986**	**11,428**	**12,230**	**12,290**	**12,220**	**12,273**	**12,258**	**13,293**	**13,353**	**13,575**	**13,648**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	13%	13%	13%	16%	18%	19%	19%	18%	18%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II, Fixed CCCT)

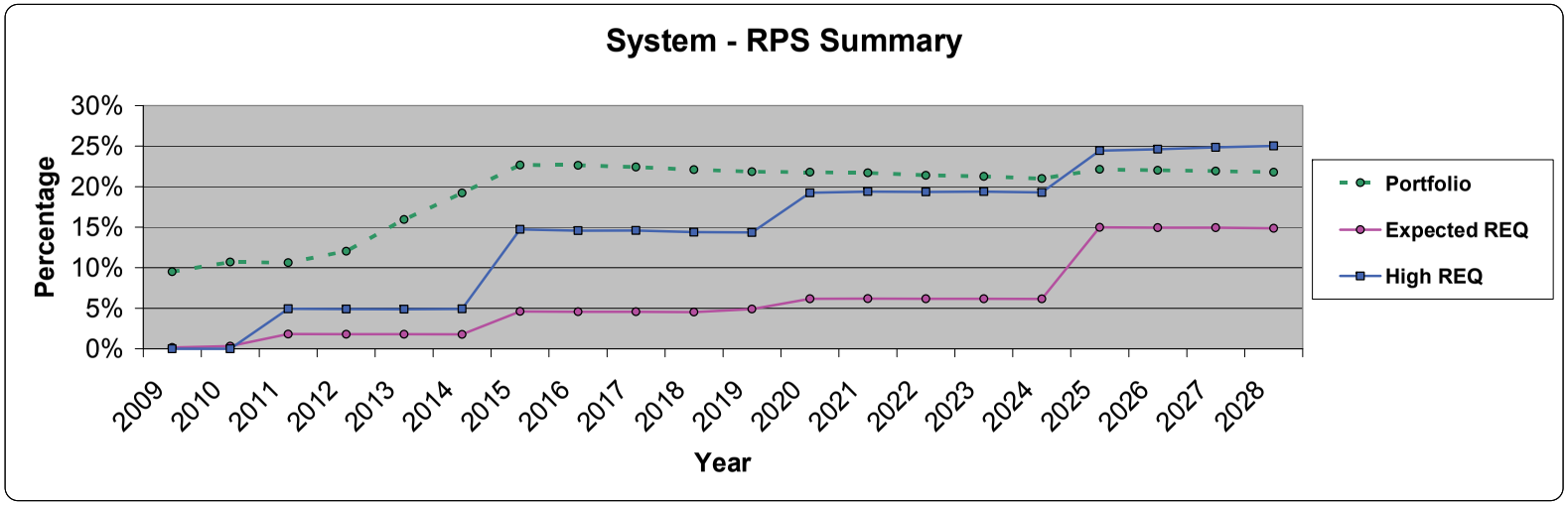
System - RPS Report - Case # 5B_CCCT-WC	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,716	11,920	15,139	18,572	22,076	25,936	29,823	33,735	38,638	44,285	49,962	55,653	61,294	66,949	72,600	73,097	73,573	74,095	74,607
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	416	256	94	93	270	326	196	184	166	149	141	142	137	135	132
Oregon	1,376	2,519	2,952	3,381	3,883	4,364	3,538	2,702	1,844	1,557	1,670	968	221	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,535**	**15,342**	**18,861**	**22,832**	**26,856**	**29,730**	**32,619**	**35,672**	**40,465**	**46,280**	**51,126**	**56,059**	**61,460**	**67,099**	**72,741**	**73,239**	**73,710**	**74,230**	**74,739**
Adjusted Qualifying Renewables																				
Utah	2,950	3,166	3,204	3,219	3,433	3,503	3,860	3,887	3,912	4,903	5,647	5,677	5,692	5,640	5,656	5,651	5,755	5,776	5,881	5,902
Other (ID,WY)	823	1,022	1,034	1,050	1,142	1,164	1,360	1,378	1,387	1,951	2,373	2,390	2,396	2,365	2,370	2,330	2,397	2,414	2,481	2,498
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	292	328	333	417	420	421	602	733	731	730	720	720	719	729	723	733	728
Oregon	982	1,143	1,133	1,137	1,222	1,214	2,228	2,244	2,266	2,277	2,412	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**5,807**	**5,848**	**5,892**	**6,330**	**6,427**	**8,089**	**8,162**	**8,229**	**9,986**	**11,428**	**12,230**	**12,290**	**12,220**	**12,273**	**12,258**	**13,293**	**13,353**	**13,575**	**13,648**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	13%	13%	13%	16%	18%	19%	19%	18%	18%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II, Fixed CCCT-WC)

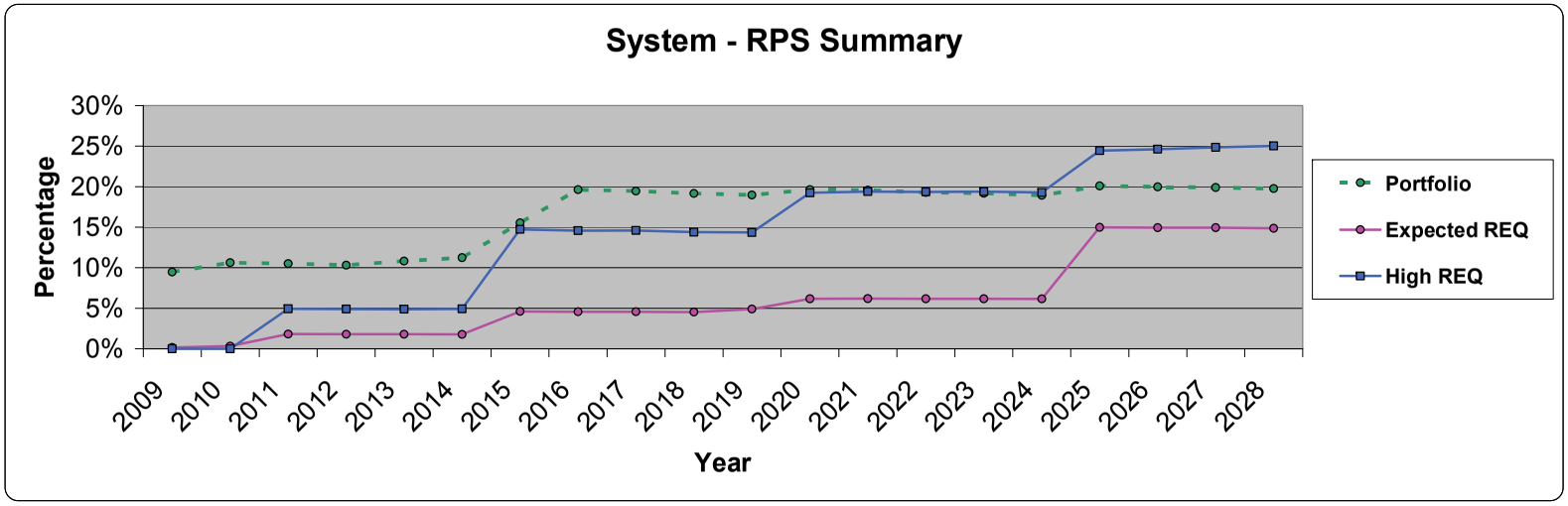
System - RPS Report - Case # 8B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,560	8,742	11,973	15,613	20,324	25,996	32,671	39,457	46,267	53,089	59,935	66,812	73,703	80,543	87,399	94,249	95,862	97,453	99,008	100,551
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	303	479	423	686	1,046	1,166	1,137	1,151	1,150	895	634	623	604	588	579	565	545	527	509
Oregon	1,382	2,536	2,984	3,668	4,939	6,709	7,545	8,415	9,258	10,099	10,916	10,913	10,864	10,757	10,613	10,416	9,332	8,185	6,964	5,670
Cumulative Surplus Credit Bank Balance	**6,942**	**11,581**	**15,436**	**19,703**	**25,949**	**33,750**	**41,383**	**49,009**	**56,676**	**64,338**	**71,746**	**78,359**	**85,190**	**91,904**	**98,599**	**105,244**	**105,758**	**106,183**	**106,499**	**106,731**
Adjusted Qualifying Renewables																				
Utah	2,959	3,182	3,231	3,640	4,712	5,672	6,675	6,786	6,810	6,822	6,846	6,877	6,891	6,840	6,855	6,850	6,871	6,892	6,913	6,934
Other (ID,WY)	828	1,031	1,049	1,285	1,861	2,400	2,975	3,048	3,062	3,057	3,065	3,089	3,096	3,065	3,073	3,030	3,055	3,079	3,103	3,126
California	88	176	185	194	204	213	225	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	266	303	298	368	562	729	931	949	950	952	952	950	949	939	939	938	932	927	921	916
Oregon	989	1,154	1,149	1,391	1,991	2,502	3,065	3,114	3,109	3,119	3,117	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,130**	**5,846**	**5,912**	**6,879**	**9,329**	**11,516**	**13,870**	**14,130**	**14,174**	**14,202**	**14,243**	**14,346**	**14,409**	**14,340**	**14,394**	**14,377**	**15,271**	**15,338**	**15,417**	**15,496**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	10%	11%	11%	12%	16%	19%	23%	23%	22%	22%	22%	22%	22%	21%	21%	21%	22%	22%	22%	22%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

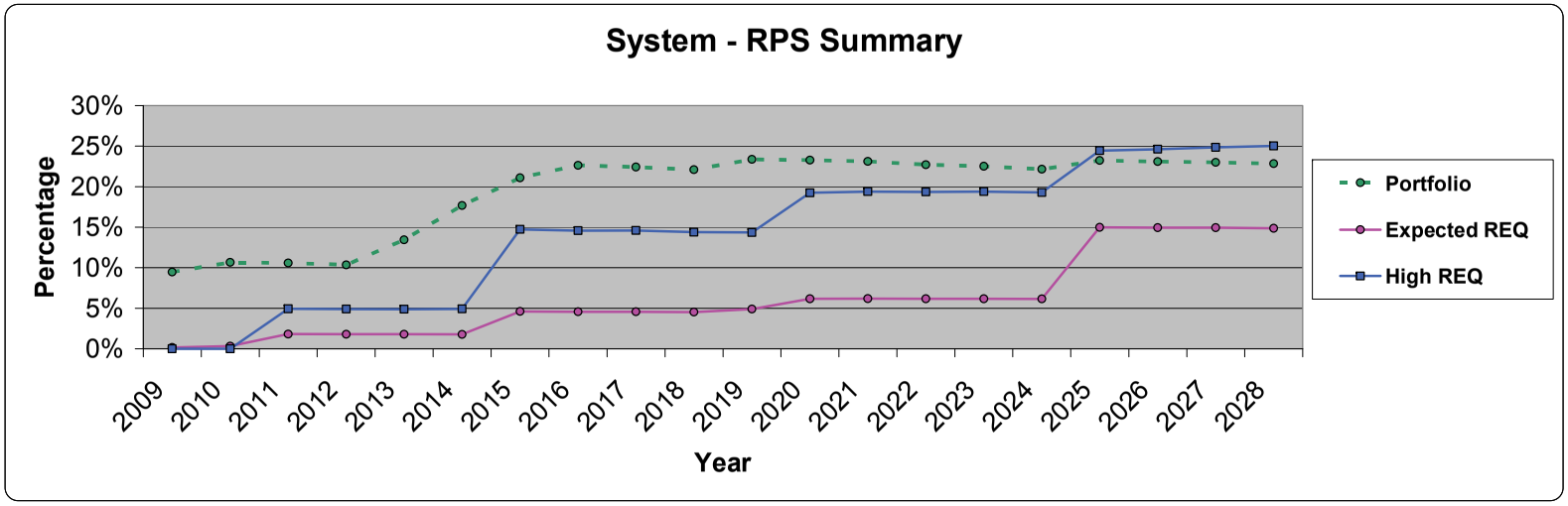
System - RPS Report - Case # 9B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	11,920	15,139	18,573	22,206	26,869	32,854	38,863	44,884	50,930	57,006	63,097	69,136	75,191	81,241	82,053	82,844	83,598	84,341
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	341	376	440	427	623	859	857	603	342	330	312	295	287	272	253	235	217
Oregon	1,376	2,519	2,952	3,381	3,883	4,442	4,089	4,488	4,860	5,231	5,578	5,109	4,594	4,022	3,415	2,754	1,209	-	-	-
Cumulative Surplus Credit Bank Balance	**6,925**	**11,534**	**15,343**	**18,861**	**22,832**	**27,088**	**31,385**	**37,965**	**44,582**	**50,972**	**57,110**	**62,456**	**68,021**	**73,470**	**78,901**	**84,281**	**83,534**	**83,096**	**83,833**	**84,557**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,204	3,219	3,433	3,633	4,663	5,985	6,009	6,021	6,046	6,076	6,091	6,040	6,055	6,050	6,070	6,091	6,112	6,134
Other (ID,WY)	822	1,022	1,034	1,050	1,143	1,238	1,821	2,586	2,599	2,595	2,603	2,623	2,629	2,598	2,604	2,563	2,583	2,602	2,621	2,639
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	300	293	292	328	356	563	803	804	806	806	803	803	793	793	792	786	781	775	770
Oregon	982	1,144	1,133	1,137	1,222	1,291	2,228	2,643	2,639	2,648	2,647	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,106**	**5,807**	**5,849**	**5,893**	**6,331**	**6,732**	**9,498**	**12,249**	**12,294**	**12,323**	**12,365**	**12,934**	**12,995**	**12,926**	**12,978**	**12,963**	**13,852**	**13,914**	**13,988**	**14,062**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	11%	11%	16%	20%	19%	19%	19%	20%	20%	19%	19%	19%	20%	20%	20%	20%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

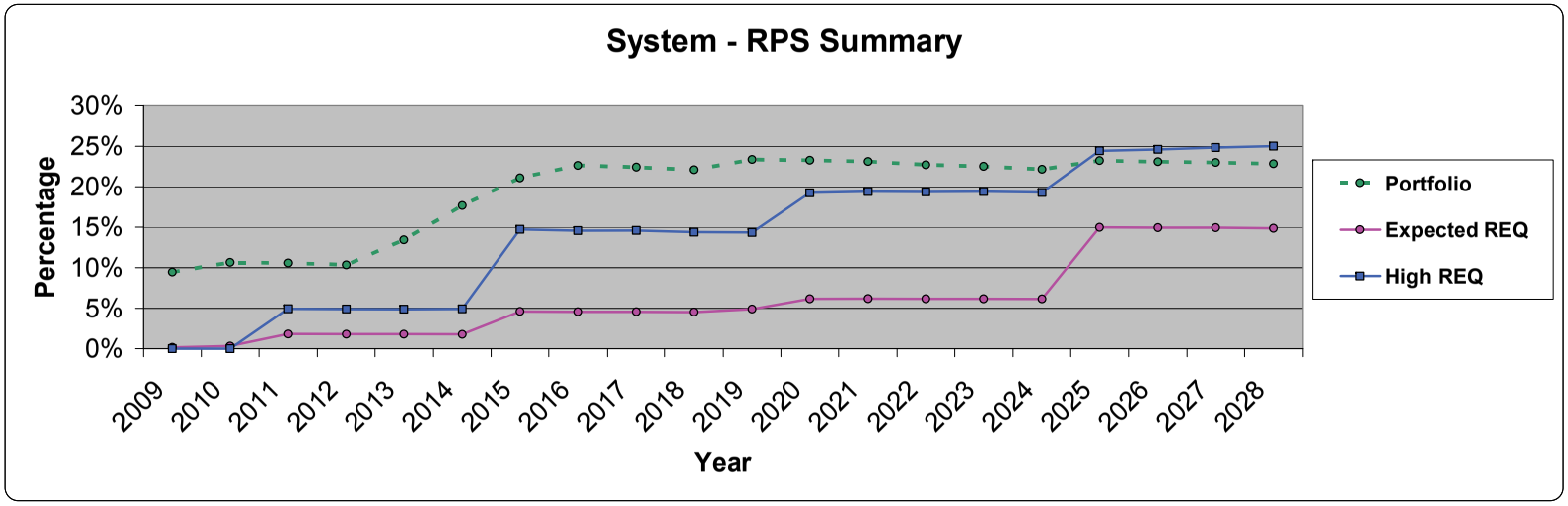
System - RPS Report - Case # 10B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,552	8,724	11,947	15,177	19,264	24,544	30,806	37,592	44,402	51,224	58,492	65,790	73,103	80,365	87,642	94,914	96,948	98,961	100,937	102,902
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	476	347	498	860	1,019	1,062	1,151	1,150	972	788	777	758	742	733	719	699	681	663
Oregon	1,377	2,525	2,968	3,404	4,299	5,836	6,428	7,299	8,141	8,982	10,047	10,290	10,485	10,623	10,723	10,772	9,930	9,023	8,040	6,981
Cumulative Surplus Credit Bank Balance	**6,929**	**11,550**	**15,390**	**18,927**	**24,060**	**31,240**	**38,253**	**45,952**	**53,694**	**61,355**	**69,510**	**76,868**	**84,365**	**91,746**	**99,106**	**106,419**	**107,597**	**108,683**	**109,658**	**110,547**
Adjusted Qualifying Renewables																				
Utah	2,951	3,173	3,222	3,230	4,087	5,280	6,262	6,786	6,810	6,822	7,268	7,298	7,313	7,262	7,277	7,272	7,292	7,313	7,334	7,356
Other (ID,WY)	823	1,026	1,044	1,056	1,510	2,177	2,738	3,048	3,062	3,057	3,309	3,334	3,343	3,312	3,320	3,276	3,304	3,331	3,357	3,383
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	265	301	296	294	448	657	855	949	950	952	1,029	1,027	1,026	1,016	1,016	1,015	1,009	1,004	998	993
Oregon	983	1,148	1,144	1,144	1,615	2,269	2,820	3,114	3,109	3,119	3,364	3,339	3,329	3,291	3,282	3,260	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,111**	**5,824**	**5,891**	**5,918**	**7,864**	**10,597**	**12,898**	**14,130**	**14,174**	**14,202**	**15,233**	**15,334**	**15,349**	**15,222**	**15,239**	**15,171**	**16,018**	**16,088**	**16,169**	**16,251**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	13%	18%	21%	23%	22%	22%	23%	23%	23%	23%	23%	22%	23%	23%	23%	23%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

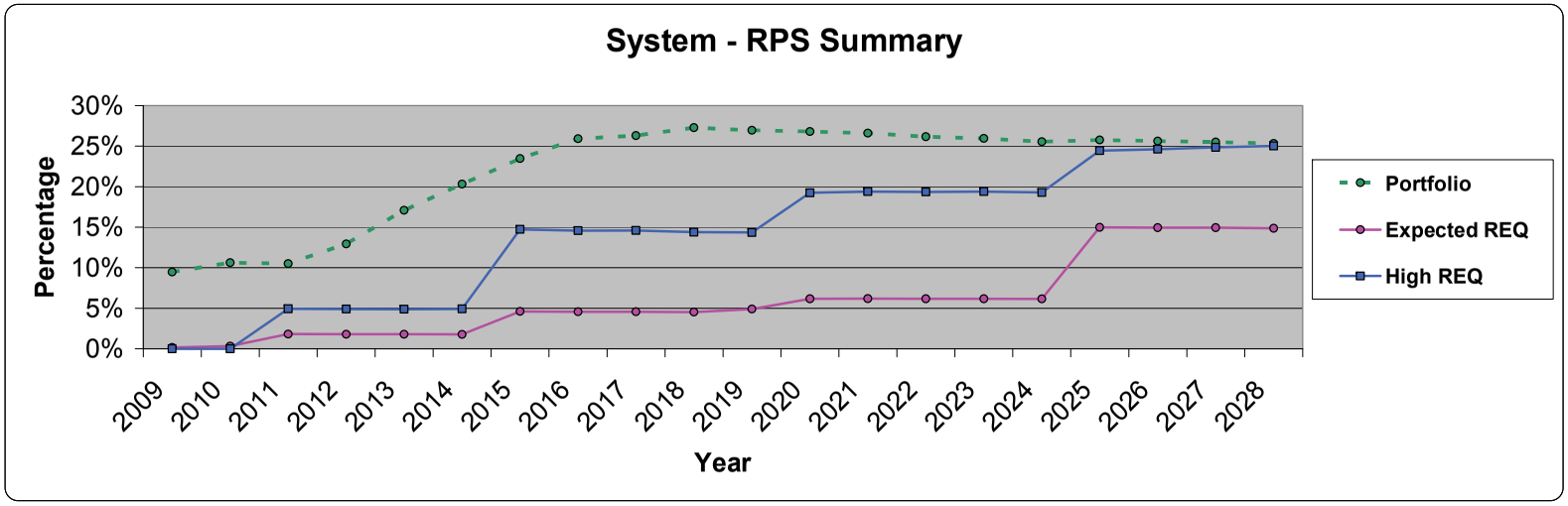
System - RPS Report - Case # 17b	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,552	8,724	11,947	15,177	19,264	24,544	30,806	37,592	44,402	51,224	58,492	65,790	73,103	80,365	87,642	94,914	96,948	98,961	100,937	102,902
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	476	347	498	860	1,019	1,062	1,151	1,150	972	788	777	758	742	733	719	699	681	663
Oregon	1,377	2,525	2,968	3,404	4,299	5,836	6,428	7,299	8,141	8,982	10,047	10,290	10,485	10,623	10,723	10,772	9,930	9,023	8,040	6,981
Cumulative Surplus Credit Bank Balance	**6,929**	**11,550**	**15,390**	**18,927**	**24,060**	**31,240**	**38,253**	**45,952**	**53,694**	**61,355**	**69,510**	**76,868**	**84,365**	**91,746**	**99,106**	**106,419**	**107,597**	**108,683**	**109,658**	**110,547**
Adjusted Qualifying Renewables																				
Utah	2,951	3,173	3,222	3,230	4,087	5,280	6,262	6,786	6,810	6,822	7,268	7,298	7,313	7,262	7,277	7,272	7,292	7,313	7,334	7,356
Other (ID,WY)	823	1,026	1,044	1,056	1,510	2,177	2,738	3,048	3,062	3,057	3,309	3,334	3,343	3,312	3,320	3,276	3,304	3,331	3,357	3,383
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	265	301	296	294	448	657	855	949	950	952	1,029	1,027	1,026	1,016	1,016	1,015	1,009	1,004	998	993
Oregon	983	1,148	1,144	1,144	1,615	2,269	2,820	3,114	3,109	3,119	3,364	3,339	3,329	3,291	3,282	3,260	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,111**	**5,824**	**5,891**	**5,918**	**7,864**	**10,597**	**12,898**	**14,130**	**14,174**	**14,202**	**15,233**	**15,334**	**15,349**	**15,222**	**15,239**	**15,171**	**16,018**	**16,088**	**16,169**	**16,251**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	13%	18%	21%	23%	22%	22%	23%	23%	23%	23%	23%	22%	23%	23%	23%	23%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Medium - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

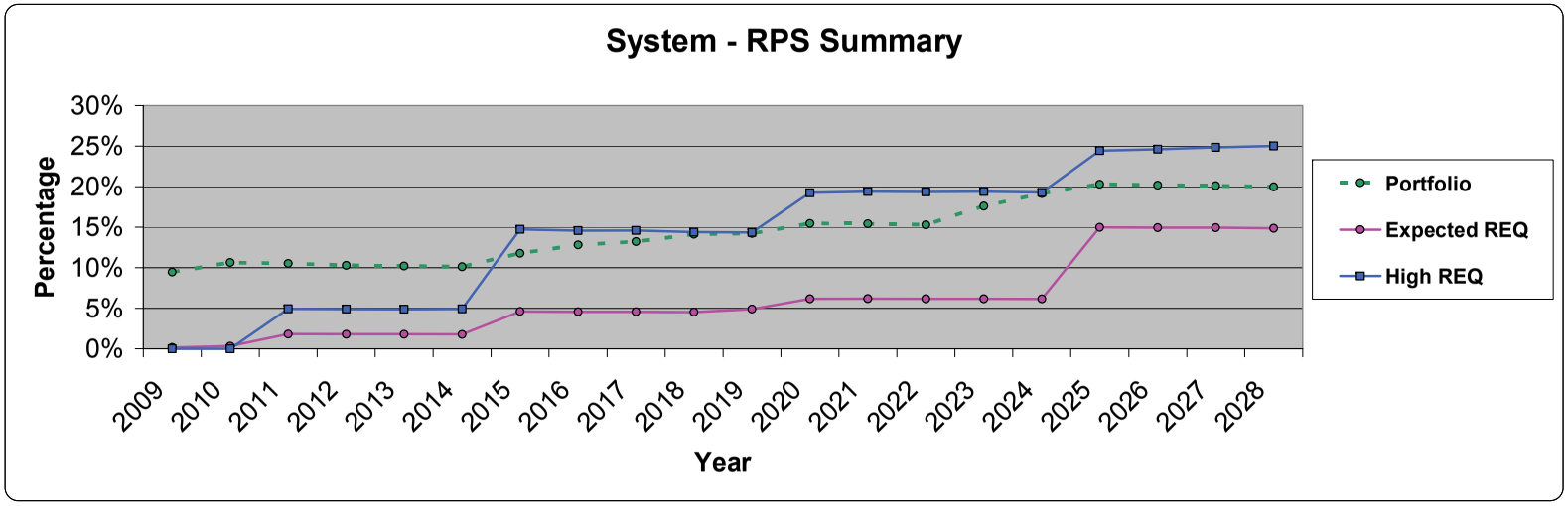
System - RPS Report - Case # 18B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,715	11,920	15,778	20,772	26,725	33,602	41,247	49,090	57,320	65,575	73,859	82,159	90,407	98,670	106,929	109,950	112,949	115,912	118,863
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	300	471	458	778	1,149	1,255	1,331	1,497	1,595	1,409	1,149	1,137	1,118	1,102	1,094	1,079	1,059	1,041	1,024
Oregon	1,376	2,519	2,952	3,767	5,208	7,145	8,101	9,476	10,925	12,594	14,237	15,056	15,824	16,535	17,206	17,827	17,552	17,206	16,780	16,271
Cumulative Surplus Credit Bank Balance	**6,925**	**11,534**	**15,343**	**20,003**	**26,758**	**35,019**	**42,958**	**52,053**	**61,512**	**71,510**	**81,221**	**90,063**	**99,120**	**108,060**	**116,978**	**125,849**	**128,581**	**131,215**	**133,733**	**136,158**
Adjusted Qualifying Renewables																				
Utah	2,949	3,166	3,204	3,858	4,994	5,953	6,877	7,644	7,844	8,230	8,254	8,285	8,299	8,248	8,263	8,258	8,279	8,300	8,321	8,342
Other (ID,WY)	822	1,022	1,034	1,407	2,020	2,560	3,090	3,542	3,659	3,868	3,878	3,908	3,918	3,888	3,897	3,852	3,886	3,919	3,951	3,983
California	88	176	185	194	204	213	233	263	270	286	286	336	339	341	345	348	352	354	357	360
Washington	264	300	293	408	613	780	968	1,106	1,139	1,209	1,209	1,207	1,206	1,197	1,196	1,195	1,190	1,184	1,179	1,173
Oregon	982	1,144	1,133	1,523	2,161	2,669	3,184	3,619	3,715	3,947	3,943	3,914	3,902	3,864	3,853	3,832	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,106**	**5,807**	**5,849**	**7,391**	**9,992**	**12,177**	**14,352**	**16,174**	**16,627**	**17,540**	**17,571**	**17,649**	**17,665**	**17,538**	**17,555**	**17,486**	**17,767**	**17,843**	**17,930**	**18,018**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	13%	17%	20%	23%	26%	26%	27%	27%	27%	27%	26%	26%	26%	26%	26%	26%	25%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $70, Gas = Low - Oct 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

System - RPS Report - Case # 47B	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,552	8,724	11,936	15,153	18,436	21,787	25,117	28,911	32,895	37,282	41,698	46,016	50,325	54,576	60,027	66,160	67,057	67,930	68,768	69,593
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	301	474	342	348	361	132	30	89	189	7	-	-	-	36	192	303	283	265	247
Oregon	1,377	2,524	2,961	3,389	3,801	4,192	3,052	2,161	1,346	755	146	-	-	-	-	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,929**	**11,549**	**15,370**	**18,884**	**22,586**	**26,341**	**28,300**	**31,102**	**34,330**	**38,226**	**41,851**	**46,016**	**50,325**	**54,576**	**60,062**	**66,353**	**67,360**	**68,213**	**69,033**	**69,840**
Adjusted Qualifying Renewables																				
Utah	2,952	3,172	3,212	3,217	3,283	3,351	3,329	3,794	3,984	4,387	4,417	4,447	4,451	4,441	5,451	6,134	6,154	6,173	6,196	6,216
Other (ID,WY)	824	1,026	1,038	1,049	1,058	1,077	1,056	1,325	1,430	1,653	1,663	1,675	1,673	1,664	2,250	2,612	2,632	2,651	2,671	2,689
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	265	301	294	291	301	305	370	403	434	507	632	636	640	644	682	807	802	796	791	785
Oregon	984	1,147	1,137	1,136	1,132	1,123	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,112**	**5,821**	**5,866**	**5,888**	**5,978**	**6,070**	**7,207**	**7,998**	**8,357**	**9,077**	**9,274**	**10,190**	**10,236**	**10,245**	**11,911**	**13,111**	**14,001**	**14,060**	**14,138**	**14,210**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	11%	10%	10%	10%	12%	13%	13%	14%	14%	15%	15%	15%	18%	19%	20%	20%	20%	20%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 compliance scenario, CO2 Cost = , Gas = Medium - Oct 2008, Load Growth = Medium, Renewable Std = Optimized RPS-compliant renewables, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II)

Portfolio Summary Tables

Notes for the Portfolio Resource Tables

- Nameplate Capacity, MW
  - Nameplate capacities are reported for wind resources
  - Gas resource capacities reflect average annual capability rather than the generator nameplate. For combined-cycle resources, the values shown approximate the July maximum capabilities
  - Class 2 DSM resources (energy efficiency) capacities reflect summer peak values
  - Capacities shown for the coal plant CCS (carbon capture and sequestration) retrofits represent replacement capacity for an existing unit; the replacement capacity is smaller than the original unit size, which is due to a capacity penalty for capturing the CO_2
  - Capacities for all other resources represent maximum summer capabilities
- Swift 1 Upgrades – The three Swift upgrade projects (25 MW each) are shown under the year for which they enter commercial service (2012, 2013, and 2014); however, the planned in-service dates occur after the system peaks for these years. They are available to support the summer peak load in 2013, 2014, and 2015, respectively.
- High Plains and Duke PPA Wind Projects – The High Plains wind project has an October December 2009 in-service date, and is therefore shown under the year for which it enters commercial service (2009); the Duke project has a December 2009 in-service date, but is modeled with a start date of January 1, 2010, and is therefore shown in the year it is available to support the summer peak load (2010).
- Front Office Transactions – For the 10- and 20-year total columns, the megawatts represent the annual average values, as these resources are not accumulative over the planning period.
- Growth Stations – For the 20 Year column "Growth Resources" reflect an 8-year average for 2021-2028, the period that these resources are available for selection by the System Optimizer model.
- The resources shown with a zero are less than 0.5 megawatts
- Short-term resource totals at the bottom of the tables comprise the sum of front office transactions and growth resources

Table A.18 – Planned Resources

		Capacity, MW										Resource Total
	Planned Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
East												
	East PPA	-	-	-	201	-	-	-	-	-	-	**201**
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	**128**
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	**99**
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	**99**
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	**205**
West												
	Coal Plant Turbine Upgrades	-	9	8.9	12	12	-	-	-	-	-	**42**
	Swift Hydro Upgrades	-	-	-	25	25	25	-	-	-	-	**75**
	Wind PPA	45	20	-	-	-	-	-	-	-	-	**65**
	Total Planned Resources	**172**	**222**	**82**	**292**	**49**	**49**	**10**	**18**	**10**	**10**	**913**

Note: The 2012 RFP Lake Side resource was removed as a planned resource in February 2009.

Case 01

PVRR: $20,045

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Total Wind	99	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	198
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	4	-	-	-	-	-	-	-	-	-	68	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	4.2	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	11.4	18.5	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1 & 3 Total	25	50.0	40	30	14	10	62	36	10	10	-	-	-	-	-	-	-	-	-	-	287	287
	DSM, Class 2, GO	-	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11	27
	DSM, Class 2, UT	6	37.5	34	36	39	39	43	40	40	46	45	46	40	42	42	43	43	51	51	48	361	810
	DSM, Class 2, WY	-	-	-	-	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	47	133
	DSM, Class 2 Total	6	37.5	34	38	48	48	52	50	49	55	55	55	50	52	52	53	53	61	62	58	418	970
	FOT Utah Q3	-	-	-	-	50	50	50	50	-	50	50	50	-	-	50	50	50	50	50	-	25	30
	FOT Mead Q3	-	-	-	-	-	-	-	-	580	600	600	600	600	600	600	600	600	600	600	600	118	359
	FOT Mona/Nevada Utah Border	-	-	-	-	44	166	200	200	-	82	129	200	-	-	-	-	-	-	-	-	69	51
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	222	218	173	220	-	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166	138	322	375	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	307	-	-	-	N/A	46
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	2	-	-	-	-	-	-	-	-	-	24	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	20	5	-	-	-	-	-	-	-	-	-	-	-	-	26	26
	DSM, Class 2, WA	-	2	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	23	47
	DSM, Class 2, WM	-	-	30	30	30	30	30	30	30	20	20	20	20	20	20	20	20	20	20	20	231	430
	DSM, Class 2, YA	3	5	4	4	4	4	4	4	5	5	5	5	5	5	5	4	5	5	5	5	43	89
	DSM, Class 2 Total	3	6.2	37	37	37	37	37	37	38	27	27	27	27	27	27	26	27	27	27	27	298	567
	FOT COB Flat	-	-	301	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	248	293
	FOT MidColumbia Q3	-	-	-	362	400	400	400	400	170	400	400	400	400	400	400	400	400	400	400	400	253	327
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	122	128	135	138	129	130	132	219	N/A	142
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	284	283	109	-	-	230	200	893	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	119	217	120	97	196	287	329	N/A	171
	Annual Additions, Long Term Resources	195	279	167	988	151	148	186	411	106	100	88	82	76	79	80	79	81	88	89	85		
	Annual Additions, Short Term Resources	-	-	301	801	933	1,055	989	939	1,039	1,422	1,566	1,638	1,794	1,918	2,066	2,146	2,327	2,489	2,651	2,828		
	Total Annual Additions	195	279	468	1,789	1,085	1,203	1,175	1,350	1,145	1,522	1,654	1,720	1,871	1,997	2,146	2,225	2,407	2,577	2,739	2,914		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 02

PVRR: $21,512

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	628	-	641
	Total Wind	99	99	-	-	-	-	-	-	-	140	160	-	-	-	-	14	-	-	-	628	338	1,139
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	21
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	1.9
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	38
	DSM, Class 2, UT	41	46.1	42	42	43	44	43	41	46	48	47	48	49	51	52	52	50	53	57	55	436	950
	DSM, Class 2, WY	1	3.1	6	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	10	67	164
	DSM, Class 2 Total	43	50.8	49	52	53	54	53	51	57	58	58	59	60	62	64	64	63	66	69	67	520	1,151
	FOT Utah Q3	-	-	-	-	-	-	9	44	-	-	-	-	-	-	-	-	-	-	-	-	5	3
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	411	421	427	480	480	590	480	480	600	600	600	89	302
	FOT Mona/Nevada Utah Border	-	-	-	120	200	200	200	200	87	-	-	-	82	98	200	128	200	200	200	200	101	116
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	-	5
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
	DSM, Class 2, WM	28	28	30	30	30	30	30	30	30	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	5	6	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	52	113
	DSM, Class 2 Total	35	36.5	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	370	663
	FOT COB Flat	-	-	219	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	239	288
	FOT Mid Columbia Flat	-	-	-	-	-	299	400	-	170	213	250	-	-	-	-	-	-	-	-	-	108	84
	FOT MidColumbia Q3	-	-	-	155	178	-	-	400	-	-	-	259	-	-	-	-	-	-	-	-	73	50
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	-	-	50	50	50	50	50	50	50	50	50	30	38
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	141	142	115	149	117	163	198	168	N/A	149
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	89	-	262	344	372	298	635	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	127	132	172	124	172	133	140	-	N/A	125
	Annual Additions, Long Term Resources	258	317	178	998	185	149	110	377	114	847	249	91	93	94	109	96	95	98	729	98		
	Annual Additions, Short Term Resources	-	-	219	714	817	938	949	933	1,027	863	1,008	1,074	1,217	1,329	1,464	1,530	1,700	1,856	1,995	2,164		
	Total Annual Additions	258	317	397	1,712	1,002	1,088	1,059	1,310	1,140	1,710	1,257	1,164	1,310	1,423	1,574	1,626	1,795	1,954	2,724	2,262		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 3

PVRR: $19,503

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	WY Pulverized Coal	-	-	-	-	-	-	-	-	-	790	-	-	-	-	-	-	-	-	-	-	790	790
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	43.6	33	24.5	1.8	14.1	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	138	162	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	237	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	97	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	-	-	588	212	-	-	-	-	-	-	-	-	-	588	800
	Wind, WYSW, 35	-	303	60	129	-	135	451	223	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	499	400	192	-	135	750	223	138	750	712	-	-	-	-	-	-	-	-	-	3,186	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	47	55	49	49	49	51	51	50	53	51	55	55	56	58	59	73	64	55	57	55	505	1,092
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	72	172
	DSM, Class 2 Total	50	61	57	59	60	62	62	61	64	63	67	67	68	70	71	85	77	68	69	67	599	1,308
	FOT Mona Q3	-	-	-	68	124	200	200	200	48	-	-	-	-	-	64	124	-	17	200	200	84	72
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	166	167	480	154	271	480	480	390	480	600	600	65	237
	FOT Utah Q3	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	35	83	N/A	26
West																							
	Coal Plant Turbine Upgrades	-	9	8.9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
	Total Wind	45	120	100	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	368	368
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	20	291	496
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	60	125
	DSM, Class 2 Total	37	38	40	40	39	40	40	40	40	30	30	30	30	30	30	31	30	30	30	30	383	684
	FOT COB Flat	-	-	-	-	-	-	-	-	-	-	338	-	338	338	338	-	-	-	-	338	-	84
	FOT COB Q3	-	-	129	389	400	389	289	239	239	239	-	77	-	-	-	338	338	338	338	-	232	187
	FOT Mid Columbia Flat	-	-	-	144	125	138	170	400	157	199	235	-	-	-	-	-	-	-	316	246	133	106
	FOT MidColumbia Q3	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	12
	FOT West Main Q3	-	-	-	-	-	21	50	50	43	-	-	-	-	-	-	-	-	-	50	50	16	13
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	247	208	99	-	99	160	53	187	N/A	132
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	89	97	-	-	392	423	65	169	N/A	154
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	114	119	172	257	173	119	45	-	N/A	125
	Annual Additions, Long Term Resources	267	829	693	1,301	261	300	895	375	261	1,658	808	97	98	99	101	116	107	98	100	98		
	Annual Additions, Short Term Resources	-	-	129	601	648	749	709	891	967	604	739	800	941	1,049	1,180	1,231	1,392	1,548	1,702	1,872		
	Total Annual Additions	267	829	823	1,902	909	1,049	1,604	1,266	1,227	2,261	1,547	897	1,039	1,148	1,281	1,347	1,499	1,646	1,802	1,969		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 4

PVRR: $34,612

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	43.6	33	24.5	1.8	14.1	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Total Wind	99	99	-	-	-	-	140	-	160	-	-	-	-	-	-	-	-	-	-	-	498	498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	-	-	-	-	8	21
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	37
	DSM, Class 2, UT	37	46	42	42	43	44	43	41	45	47	47	48	49	51	52	52	50	53	54	52	431	939
	DSM, Class 2, WY	-	3	6	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	10	66	162
	DSM, Class 2 Total	38	50	49	52	53	54	53	51	56	58	58	59	60	62	64	64	63	66	66	64	513	1,138
	FOT Mead Q3	-	-	-	-	-	-	-	-	-	104	3	-	-	-	-	-	-	-	-	-	10	5
West																							
	Coal Plant Turbine Upgrades	-	9	8.9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
	DSM, Class 2, WM	28	28	30	30	30	30	30	30	30	20	20	20	20	20	20	20	20	20	20	20	288	491
	DSM, Class 2, YA	4	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	52	113
	DSM, Class 2 Total	34	36	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	369	662
	FOT COB Flat	-	-	-	213	-	222	102	189	147	239	338	275	231	201	190	186	329	338	321	-	111	176
	FOT COB Q3	-	-	-	-	226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	299	23	26
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	90	119	148	146	-	-	-	-	-	-	-	-	21	25
	FOT MidColumbia Q3	-	-	-	123	96	99	94	89	-	-	-	-	-	-	-	-	-	-	-	-	50	25
	FOT West Main Q3	-	-	-	-	-	-	-	-	-	13	-	-	50	50	50	-	-	-	18	50	1	12
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	15	14	33	31	43	N/A	18
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	144	140	137	101	105	82	83	68	N/A	108
	Annual Additions, Long Term Resources	253	316	178	998	182	149	252	118	275	107	89	90	93	94	96	96	96	438	96	96	94	
	Annual Additions, Short Term Resources	-	-	-	335	322	321	197	278	237	475	488	421	425	391	381	302	448	452	453	461		
	Total Annual Additions	253	316	178	1,333	504	471	449	396	512	582	577	511	518	485	476	398	887	548	549	555		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 05

PVRR: $40,526

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	750	400	-	150	-	-	-	-	-	-	-	750	1,300
	Total Wind	99	99	-	-	-	-	300	-	-	750	400	-	150	-	-	-	-	-	-	-	1,248	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	1.9
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	38
	DSM, Class 2, UT	40	46.1	42	42	45	45	46	45	47	48	47	48	49	51	52	52	59	55	57	55	446	970
	DSM, Class 2, WY	-	2.6	6	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	67	164
	DSM, Class 2 Total	42	50.3	49	52	55	55	56	56	58	59	58	59	60	62	64	64	71	67	69	67	531	1,172
	FOT Utah Q3	-	-	-	-	-	-	-	25	-	-	-	-	50	50	-	-	-	-	50	-	2	9
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	600	600	600	600	600	108	354
	FOT Mona/Nevada Utah Border	-	-	-	121	200	200	200	200	64	200	200	200	200	200	200	200	200	200	200	200	119	159
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	199	200	198	219	-	-	183	-	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	2	106	249	341	-	-	111	-	N/A	101
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	3	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
	DSM, Class 2, WM	28	28	30	30	30	30	31	31	31	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	4	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	52	113
	DSM, Class 2 Total	34	36.5	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	370	663
	FOT COB Flat	-	-	220	389	-	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	201	252
	FOT COB Q3	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	39	36
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	171	276	313	379	71	151	189	141	400	400	400	400	45	165
	FOT MidColumbia Q3	-	-	-	156	178	296	396	400	-	-	-	-	-	-	-	-	-	-	-	-	143	71
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	118	123	130	133	124	135	153	149	N/A	133
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	498	215	887	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-	194	243	319	164	N/A	125
	Annual Additions, Long Term Resources	256	317	178	998	187	152	415	385	118	858	490	91	242	94	95	95	446	97	98	97		
	Annual Additions, Short Term Resources	-	-	220	716	817	935	936	914	1,004	1,365	1,500	1,566	1,707	1,818	1,954	2,021	2,306	2,463	2,618	2,788		
	Total Annual Additions	256	317	398	1,713	1,004	1,088	1,351	1,299	1,122	2,223	1,990	1,657	1,949	1,912	2,049	2,116	2,752	2,559	2,716	2,885		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 06

PVRR: $48,140

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCCT H 2x1	-	-	-	-	-	-	-	-	-	475	-	475	-	-	-	-	-	-	-	-	475	950
	IC Aero	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	354	-	251	-	-	696	-	-	-	-	-	-	-	604	1,300
	Total Wind	99	99	-	-	-	140	160	354	-	251	-	-	696	-	-	-	-	-	-	-	1,102	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	4	-	-	-	-	-	-	-	68	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	10	101	10	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	40
	DSM, Class 2, UT	43	48.7	44	48	49	52	51	52	52	51	55	54	56	58	59	73	64	62	60	60	490	1,091
	DSM, Class 2, WY	1	3.1	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	71	172
	DSM, Class 2 Total	45	53.3	52	58	59	62	61	63	63	61	66	65	68	70	71	85	77	75	73	73	579	1,303
	Fuel Cell	-	-	-	-	5	5	-	30	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	-	18	50	-	50	-	-	-	-	50	50	50	50	50	50	50	50	12	26
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	497	600	480	600	600	600	600	600	600	600	600	98	343
	FOT Mona/Nevada Utah Border	-	39	79	200	200	200	99	200	166	200	200	144	200	200	200	200	200	200	200	200	138	166
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	95	114	174	122	99	199	197	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	249	-	-	470	217	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-	21	127	211	129	-	249	263	N/A	125
West																							
	CCCT F 2x1	-	-	-	-	-	-	627	-	-	-	-	-	-	-	-	-	-	-	-	-	627	627
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	1	1	1	1	1	1	1	-	-	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	2	-	-	-	-	-	-	-	24	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 06

PVRR: $48,140

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	21	21	21	21	21	290	496
DSM, Class 2, YA	5	6	6	5	6	6	6	6	5	6	6	6	6	6	7	7	7	7	7	7	56	122
DSM, Class 2 Total	35	37.2	39	39	39	40	40	40	39	29	30	30	30	29	30	31	30	30	31	31	378	680
FOT COB Flat	-	-	389	389	-	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	218	261
FOT COB Q3	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	39	36
FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	244	302	395	370	400	400	400	400	400	400	400	400	55	225
FOT MidColumbia Q3	-	-	-	202	400	400	206	400	-	-	-	-	-	-	-	-	-	-	-	-	161	80
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	35	169	190	182	184	297	442	502	N/A	250
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	381	763	147	709	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	40	148	64	417	430	445	456	N/A	250
Annual Additions, Long Term Resources	266	327	188	1,272	214	506	940	546	123	836	98	572	801	101	102	118	107	106	104	104		
Annual Additions, Short Term Resources	-	39	469	841	1,058	1,089	644	939	1,179	1,288	1,582	1,381	1,673	1,962	2,279	2,517	2,870	3,226	3,591	3,982		
Total Annual Additions	266	366	656	2,113	1,271	1,595	1,584	1,485	1,302	2,124	1,681	1,953	2,474	2,063	2,382	2,635	2,977	3,332	3,695	4,086		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 7

PVRR: $34,582

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	43.6	33	24.5	1.8	14.1	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	27	400	207	590	-	76	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	27	400	346	750	-	76	-	-	-	-	-	-	-	-	-	-	-	1,798	1,798
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	1	-	-	-	8	21
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	39
	DSM, Class 2, UT	43	49	44	45	45	46	46	45	47	48	47	48	54	56	52	52	50	53	54	55	457	978
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	70	166
	DSM, Class 2 Total	45	53	52	55	56	56	56	56	58	59	58	59	65	67	64	64	63	66	66	67	544	1,183
	FOT Mead Q3	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	2	1
West																							
	Coal Plant Turbine Upgrades	-	9	8.9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	-	100	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	-	25	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	1	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	290	493
	DSM, Class 2, YA	5	6	6	5	5	6	6	5	6	6	6	6	6	6	7	7	7	7	7	7	56	121
	DSM, Class 2 Total	36	37	39	39	39	39	39	39	40	29	30	30	30	29	30	31	30	30	30	30	376	675
	FOT COB Flat	-	-	-	-	203	187	36	118	52	239	243	177	180	146	134	81	105	113	115	-	83	106
	FOT COB Q3	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	20	30
	FOT Mid Columbia Flat	-	-	-	-	89	92	87	82	82	111	139	138	-	-	-	-	-	-	-	-	54	41
	FOT MidColumbia Q3	-	-	-	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	6
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	N/A	1
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	136	131	132	107	109	105	104	89	N/A	114
	Annual Additions, Long Term Resources	261	320	181	1,028	686	499	890	123	219	209	90	91	97	99	96	97	94	96	97	444		
	Annual Additions, Short Term Resources	-	-	-	321	292	279	123	201	134	370	382	315	316	277	267	187	214	218	218	501		
	Total Annual Additions	261	320	181	1,349	978	778	1,013	324	352	579	473	406	413	377	363	285	308	314	315	944		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 8

PVRR: $41,372

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	43.6	33	24.5	1.8	14.1	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	51	249	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	193	107	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	264	300	146	590	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	264	300	286	750	193	158	249	-	-	-	-	-	-	-	-	-	-	2,398	2,398
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	CHP - Kern River	-	-	-	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	5	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	66	66
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	16	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	49	44	45	49	51	51	50	52	51	55	54	54	56	58	62	59	55	57	56	484	1,049
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	71	171
	DSM, Class 2 Total	45	54	52	55	60	62	62	61	64	63	66	65	66	68	70	74	72	68	70	68	577	1,264
	FOT Mona Q3	-	-	-	89	189	200	200	200	78	200	200	200	200	200	200	200	200	200	200	200	116	158
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	600	600	600	600	600	108	354
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	40	-	-	-	-	-	5	4
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	153	148	145	163	-	11	35	83	N/A	92
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	167	-	-	-	-	N/A	31
West																							
	Coal Plant Turbine Upgrades	-	9	8.9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	22	22
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	290	496
	DSM, Class 2, YA	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	56	122
	DSM, Class 2 Total	36	37	39	39	39	39	39	40	40	30	30	30	30	29	30	31	30	30	30	30	378	678
	FOT COB Flat	-	-	200	-	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	199	251
	FOT COB Q3	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	39	39
	FOT Mid Columbia Flat	-	-	-	-	130	220	281	400	163	269	313	373	18	331	400	265	400	400	400	293	146	233
	FOT MidColumbia Q3	-	-	-	154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	8
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	100	114	132	112	119	128	208	N/A	126
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	172	464	413	870	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	246	2	14	-	291	137	309	-	N/A	125
	Annual Additions, Long Term Resources	263	327	187	1,277	698	450	908	394	283	362	99	97	98	100	101	107	102	98	100	98		
	Annual Additions, Short Term Resources	-	-	200	683	758	859	821	939	1,010	1,358	1,500	1,561	1,701	1,808	1,939	1,998	2,163	2,318	2,473	2,704		
	Total Annual Additions	263	327	387	1,959	1,456	1,309	1,729	1,333	1,293	1,720	1,599	1,658	1,799	1,908	2,041	2,104	2,264	2,417	2,573	2,802		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 09

PVRR: $40,204

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	444	536	305	15	-	-	-	-	-	-	-	-	980	1,300
	Total Wind	99	99	-	-	-	-	300	-	444	536	305	15	-	-	-	-	-	-	-	-	1,478	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	1.9
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	38
	DSM, Class 2, UT	40	46.1	42	42	43	45	46	45	47	48	47	48	49	51	52	52	59	55	57	55	444	968
	DSM, Class 2, WY	-	3.1	6	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	68	164
	DSM, Class 2 Total	42	50.8	49	52	53	55	56	56	58	59	58	59	60	62	64	64	71	67	69	67	529	1,171
	FOT Utah Q3	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	3	1
	FOT Mead Q3	-	-	-	-	-	-	-	-	307	480	512	577	600	600	600	600	600	600	600	600	79	334
	FOT Mona/Nevada Utah Border	-	-	-	-	-	98	198	200	-	192	200	200	200	200	200	200	200	200	200	200	69	134
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	2	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
	DSM, Class 2, WM	28	28	30	30	30	30	31	31	31	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	4	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	52	113
	DSM, Class 2 Total	34	36.5	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	370	663
	FOT COB Flat	-	-	220	389	-	-	289	239	239	239	338	338	338	338	-	-	-	-	338	-	162	165
	FOT COB Q3	-	-	-	-	389	389	-	-	-	-	-	-	-	-	338	338	338	338	-	338	78	123
	FOT MidColumbia Q3	-	-	-	326	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	273	336
	FOT West Main Q3	-	-	-	-	29	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	28	39
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	118	123	130	124	124	128	221	407	N/A	172
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	306	287	436	492	474	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	3	110	234	5	309	313	319	321	N/A	202
	Annual Additions, Long Term Resources	256	317	178	998	185	152	415	385	562	645	394	105	93	94	95	96	446	97	98	97		
	Annual Additions, Short Term Resources	-	-	220	716	818	937	938	916	996	1,362	1,499	1,565	1,709	1,820	1,956	2,023	2,307	2,464	2,619	2,789		
	Total Annual Additions	256	317	398	1,713	1,003	1,089	1,353	1,300	1,558	2,007	1,894	1,670	1,801	1,914	2,051	2,118	2,753	2,561	2,718	2,886		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 10

PVRR: $40,319

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	52	248	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	194	106	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	361	151	590	197	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	-	361	291	750	391	158	248	200	-	-	-	-	-	-	-	-	-	2,398	2,598
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	6	8	4	4	-	-	-	-	-	-	-	-	-	-	44	44
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	16	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	41	49	44	45	45	51	51	50	53	51	55	54	54	56	58	62	59	55	57	56	478	1,043
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	71	171
	DSM, Class 2 Total	43	54	52	55	56	62	62	61	64	63	66	65	66	68	70	74	72	68	70	68	571	1,257
	FOT Mona Q3	-	-	-	-	-	63	177	200	78	200	200	200	200	200	200	200	200	200	200	200	72	136
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	531	577	587	600	600	600	600	600	600	600	96	343
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	5	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	35	83	N/A	26
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	3	1	1	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	290	495
	DSM, Class 2, YA	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	57	122
	DSM, Class 2 Total	35	37	39	39	39	40	40	40	40	30	30	30	30	29	30	31	30	30	30	30	378	679
	FOT COB Flat	-	-	213	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	239	288
	FOT MidColumbia Q3	-	-	-	316	371	400	400	400	162	389	400	400	400	400	400	400	400	400	400	400	244	322
	FOT West Main Q3	-	-	-	-	37	50	-	50	50	50	-	14	50	50	50	50	50	50	50	50	24	33
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	121	116	131	122	130	137	148	N/A	125
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	216	332	450	372	526	N/A	237
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	50	177	-	89	109	309	266	N/A	125
	Annual Additions, Long Term Resources	259	321	182	1,002	550	451	911	827	283	362	299	97	98	99	101	107	102	98	100	98		
	Annual Additions, Short Term Resources	-	-	213	705	798	902	867	939	1,010	1,358	1,468	1,529	1,669	1,777	1,908	1,966	2,131	2,287	2,441	2,610		
	Total Annual Additions	259	321	395	1,707	1,348	1,353	1,778	1,766	1,293	1,719	1,767	1,626	1,767	1,876	2,010	2,073	2,233	2,385	2,541	2,709		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 11

PVRR: $40,559

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	14	286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	133	-	-	-	-	-	-	-	-	-	-	133	133
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	12	352	617	185	-	-	-	-	-	-	-	-	-	981	1,167
	Wind, WYSW, 35	-	-	64	300	286	224	425	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	64	300	500	650	585	12	652	750	185	-	-	-	-	-	-	-	-	-	3,712	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	-	-	-	-	-	8	19
	CHP - Kern River	-	-	-	6	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	47	55	49	49	52	53	53	52	53	57	55	56	56	58	59	73	64	62	57	56	520	1,116
	DSM, Class 2, WY	1	3	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	73	175
	DSM, Class 2 Total	50	61	57	59	63	64	64	63	65	69	67	67	68	70	71	86	77	75	70	68	616	1,335
	FOT Mona Q3	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	20	10
	FOT Mead Q3	-	-	-	-	-	-	-	-	276	87	128	187	40	125	239	424	433	165	-	-	36	105
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	35	83	N/A	26
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	62	38	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	2	100	98	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	-	200	-	100	165	738	98	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	6	6	61	128
	DSM, Class 2 Total	36	38	40	40	40	41	40	40	40	30	30	30	31	30	31	31	30	30	30	30	385	689
	FOT COB Flat	-	-	196	-	-	389	289	239	-	-	-	-	-	338	-	-	-	-	-	-	111	73
	FOT COB Q3	-	-	-	389	389	-	-	-	239	239	338	338	338	-	338	338	400	400	400	-	126	207
	FOT MidColumbia Q3	-	-	-	285	273	344	400	400	400	400	400	400	400	400	400	400	400	400	400	118	250	311
	FOT West Main Q3	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	50	50	50	50	2	11
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	288	439	615	637	N/A	250
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	256	480	1,264	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	285	290	293	133	-	-	-	-	N/A	125
	Annual Additions, Long Term Resources	267	329	251	1,512	765	918	900	907	876	1,476	285	99	101	102	104	117	108	106	100	98		
	Annual Additions, Short Term Resources	-	-	196	674	663	733	689	863	915	726	866	925	1,063	1,168	1,298	1,348	1,571	1,721	1,980	2,152		
	Total Annual Additions	267	329	447	2,186	1,427	1,651	1,589	1,770	1,791	2,202	1,151	1,024	1,164	1,270	1,402	1,465	1,679	1,827	2,080	2,250		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 12

PVRR: $50,146

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	IC Aero	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	108	-	-	-	-	-	-	-	95	97	-	-	-	-	-	-	-	108	300
	Wind, UT, 29	-	-	-	-	-	-	-	-	-	-	135	65	-	-	-	-	-	-	-	-	-	200
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	334	300	199	468	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	441	300	338	628	-	-	-	135	161	97	-	-	-	-	-	-	-	1,905	2,297
	Battery Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	15
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	CHP - Kern River	-	-	-	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	4	-	-	-	-	-	-	-	-	68	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	22.6	-	7.3	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	37	10	71	10	25	10	10	-	-	8	-	-	-	-	-	-	-	288	296
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	42
	DSM, Class 2, UT	47	55.1	49	49	52	53	52	52	53	57	55	60	61	63	65	89	65	68	68	62	520	1,176
	DSM, Class 2, WY	1	3.4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	11	73	176
	DSM, Class 2 Total	50	60.4	57	59	63	64	63	63	64	68	67	72	73	75	77	102	78	81	81	75	612	1,393
	FOT Utah Q3	-	-	-	-	-	50	-	50	-	-	-	50	50	50	50	50	50	50	50	50	10	28
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	515	600	600	600	600	600	600	600	600	600	96	344
	FOT Mona/Nevada Utah Border	-	30	67	200	200	200	141	200	168	157	200	200	200	200	200	200	200	200	200	200	136	168
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	107	166	153	203	148	17	88	118	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	479	401	-	-	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	14	86	124	214	225	-	97	240	N/A	125
West																							
	CCCT F 2x1	-	-	-	-	-	-	627	-	-	-	-	-	-	-	-	-	-	-	-	-	627	627
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CAES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	405	385	-	-	790
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	2	-	-	-	-	-	-	-	-	24	25

Case 12

PVRR: $50,146

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	1.5
DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	0.1
DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	2.9	-	-	-	-	1.2	-	-	-	-	-	-	-	2.9	4.1
DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	5.8
DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	1.1
DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	0.2
DSM, Class 1 & 3 Total	-	-	-	-	-	21	-	3	-	-	-	-	10	-	-	-	-	-	-	-	24	34
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	291	498
DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	59	128
DSM, Class 2 Total	36	37.2	40	40	39	40	40	40	40	30	30	30	31	30	31	31	31	31	31	31	382	689
FOT COB Flat	-	-	389	-	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	218	261
FOT COB Q3	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	39	39
FOT Mid Columbia Flat	-	-	-	-	303	400	202	400	239	297	342	400	400	400	400	400	400	400	400	400	184	289
FOT MidColumbia Q3	-	-	-	398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	20
FOT West Main Q3	-	-	-	50	50	50	-	50	50	-	50	50	50	50	50	50	50	50	50	50	25	38
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	157	179	161	181	184	289	308	542	N/A	250
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	714	526	675	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	1	132	317	24	409	422	437	258	N/A	250
Annual Additions, Long Term Resources	271	333	193	1,467	1,032	588	1,415	180	126	719	235	270	221	107	109	134	109	517	497	121		
Annual Additions, Short Term Resources	-	30	457	1,037	943	1,089	633	939	1,177	1,173	1,445	1,638	1,916	2,201	2,513	2,737	3,089	3,079	3,094	3,533		
Total Annual Additions	271	363	650	2,504	1,974	1,678	2,048	1,119	1,303	1,892	1,680	1,908	2,138	2,308	2,622	2,872	3,198	3,596	3,591	3,654		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 13

PVRR: $31,076

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	250	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	92	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	286	24	-	165	-	-	-	-	-	-	-	286	476
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	101	161	224	339	-	-	-	-	-	-	-	-	-	-	824	824
	Wind, WYSW, 35	-	308	42	54	151	394	350	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	499	400	104	151	394	750	161	224	625	24	-	165	-	-	-	-	-	-	-	3,408	3,598
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	47	55	49	51	52	53	52	52	53	57	55	55	56	58	59	73	64	62	60	60	523	1,126
	DSM, Class 2, WY	1	3	6	8	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	73	173
	DSM, Class 2 Total	50	61	57	62	63	64	63	63	64	68	67	67	68	70	71	85	77	75	73	72	615	1,340
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	296	49	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	120	100	396	349	356	-	100	-	-	-	-	-	-	-	-	-	-	-	-	1,465	1,465
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	65
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	291	496
	DSM, Class 2, YA	6	7	6	6	6	6	6	7	7	7	7	7	7	7	7	8	7	7	7	7	65	136
	DSM, Class 2 Total	37	39	40	40	40	40	40	41	40	30	31	31	31	30	31	32	31	31	31	31	389	698
	FOT COB Q3	-	-	-	193	400	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	36
	FOT Mid Columbia Flat	-	-	-	110	71	66	60	52	52	80	108	106	-	-	-	-	-	-	-	-	49	35
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	103	98	98	72	74	70	68	65	N/A	81
	Annual Additions, Long Term Resources	267	829	694	1,515	765	911	897	416	347	1,341	122	97	264	100	102	117	108	106	104	103		
	Annual Additions, Short Term Resources	-	-	-	303	471	193	60	52	52	80	108	106	103	98	98	72	74	70	68	65		
	Total Annual Additions	267	829	694	1,818	1,236	1,105	957	469	399	1,421	230	203	367	198	200	189	182	176	172	168		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 14

PVRR: $39,949

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT IGCC CCS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	466	-	-	-	-	466
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	238	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	101	-	100	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	174	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	55	68	185	191	-	-	-	-	-	-	-	55	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	291	-	-	-	-	-	-	-	-	-	-	291	291
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	267	14	207	-	-	-	-	-	-	-	-	487
	Wind, WYSW, 29	-	-	-	-	-	-	-	351	382	276	-	-	-	-	-	-	-	-	-	-	1,009	1,009
	Wind, WYSW, 35	-	320.5	42	66	193	229	451	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	594	305	128	193	329	750	750	382	622	335	199	398	-	-	-	-	-	-	-	4,153	5,085
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	-	-	-	-	-	8	19
	CHP - Kern River	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6.3	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2.0	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	50	59.0	49	52	53	53	53	52	53	57	55	56	61	63	59	73	65	62	60	60	530	1,145
	DSM, Class 2, WY	1	3.7	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	176
	DSM, Class 2 Total	53	64.7	58	62	64	64	64	63	65	69	67	67	73	75	71	86	77	76	73	73	627	1,366
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	480	480	445	480	178	491	452	480	500	600	96	277
	FOT Mona/Nevada Utah Border	-	-	-	4	52	182	200	200	14	-	-	-	-	44	-	200	-	104	200	200	65	70
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	32	-	11	35	82	N/A	25
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	94	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	5	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	272	13	215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	25.0	195	372	307	421	-	-	100	-	-	-	-	-	-	-	-	-	-	-	1,465	1,465
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	3	4	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	34	66
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	293	499
	DSM, Class 2, YA	6	7	6	6	6	6	6	7	7	7	7	7	7	7	7	8	7	7	7	7	65	136
	DSM, Class 2 Total	37	38.7	40	40	40	41	40	41	41	30	31	31	31	31	31	32	31	31	31	31	391	701
	FOT COB Flat	-	-	-	-	-	-	289	-	-	25	-	179	338	338	338	-	-	-	-	-	31	75
	FOT COB Q3	-	-	122	389	400	389	-	239	239	-	129	-	-	-	-	338	338	338	338	338	178	180
	FOT Mid Columbia Flat	-	-	-	143	113	118	122	301	132	174	210	218	2	13	-	-	63	63	146	154	110	99
	FOT West Main Q3	-	-	-	50	50	-	40	50	-	-	-	-	-	-	-	-	-	-	-	9	19	10
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	9	83	153	-	41	116	117	N/A	65
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	452	-	-	-	-	-	N/A	57
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	224	210	161	76	181	147	-	-	N/A	125
	Annual Additions, Long Term Resources	271	833	700	1,511	766	913	900	909	609	1,350	436	299	506	108	104	117	574	106	104	104		
	Annual Additions, Short Term Resources	-	-	122	586	615	689	651	790	866	679	819	877	1,009	1,110	1,240	1,290	1,034	1,183	1,335	1,500		
	Total Annual Additions	271	833	823	2,097	1,381	1,602	1,551	1,699	1,475	2,028	1,255	1,176	1,515	1,218	1,344	1,407	1,608	1,290	1,439	1,603		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 15

PVRR: $50,914

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT IGCC CCS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	466	-	-	-	-	466
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-	-	-	-	1,600
	Wind, GO, 24	-	-	-	-	86	-	-	214	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	213	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	167	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	51	750	100	-	-	-	-	-	-	-	-	51	900
	Wind, WYSW, 29	-	-	-	-	-	-	15	336	750	200	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Wind, WYSW, 35	-	333.4	54	87	214	176	436	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	599	300	174	300	176	750	750	750	750	750	100	-	-	-	-	-	-	-	-	4,648	5,497
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	4	-	-	-	-	-	-	-	-	68	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	-	2.3	-	-	-	4.0	-	-	-	-	-	-	-	-	2.3	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	17	10	10	90	10	10	-	4	-	-	-	-	-	-	-	-	292	296
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	43
	DSM, Class 2, UT	54	64.0	56	57	58	58	60	57	60	61	60	60	62	63	65	89	65	62	60	60	587	1,233
	DSM, Class 2, WY	1	3.9	6	9	9	10	10	9	10	10	10	10	10	11	10	10	10	11	11	10	78	182
	DSM, Class 2 Total	57	69.9	65	68	69	70	71	69	72	73	72	72	74	76	77	102	77	76	73	73	685	1,457
	Solar	-	-	-	-	-	250	250	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	FOT Utah Q3	-	-	-	-	25	50	50	50	-	-	-	50	-	-	-	-	-	-	-	50	17	14
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	585	600	600	600	600	600	480	583	600	600	96	340
	FOT Mona/Nevada Utah Border	-	-	-	200	200	200	200	200	179	160	200	200	200	200	200	200	20	200	200	200	134	158
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	79	-	-	11	289	N/A	49
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171	N/A	21
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	226	-	274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20.0	200	326	200	574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	2	-	-	-	-	-	-	-	-	24	25

Case 15

PVRR: $50,914

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	1.5
DSM, Class 1, WW-Irrigate	-	-	-	-	-	1.0	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	5.5
DSM, Class 1, WM-Irrigate	-	-	-	-	-	7.4	-	5.1	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
DSM, Class 1 & 3 Total	-	-	-	-	-	8	7	12	-	-	-	7	-	-	-	-	-	-	-	-	27	34
DSM, Class 2, WA	3	4	4	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	34	67
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	21	21	21	21	21	20	21	21	21	21	21	294	501
DSM, Class 2, YA	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	7	66	138
DSM, Class 2 Total	37	38.7	41	41	41	41	41	42	41	31	31	31	31	31	31	32	31	31	31	31	394	705
FOT COB Flat	-	-	-	-	-	-	289	-	-	239	-	338	338	338	338	-	-	-	-	-	53	94
FOT COB Q3	-	-	367	389	400	389	-	239	239	-	338	-	-	-	-	338	338	338	338	338	202	202
FOT Mid Columbia Flat	-	-	-	301	400	400	400	400	212	269	314	400	400	400	236	400	400	400	400	400	238	307
FOT West Main Q3	-	-	-	50	50	50	50	50	50	-	-	50	50	50	-	50	-	50	50	50	30	33
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	110	120	165	264	-	47	150	147	N/A	125
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	32	438	999	530	-	-	-	-	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	196	82	-	302	34	8	243	139	N/A	125
Annual Additions, Long Term Resources	281	844	715	1,522	785	1,183	1,170	1,273	884	1,475	855	221	107	109	110	135	2,175	106	104	104		
Annual Additions, Short Term Resources	-	-	367	940	1,075	1,089	989	939	1,160	1,148	1,437	1,638	1,943	2,227	2,538	2,763	1,271	1,626	1,991	2,383		
Total Annual Additions	281	844	1,082	2,462	1,860	2,273	2,160	2,212	2,045	2,624	2,292	1,859	2,051	2,335	2,648	2,898	3,445	1,733	2,095	2,486		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 16

PVRR: $43,523

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	112	88	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	403	-	-	-	-	-	-	-	-	-	-	403	403
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	305	384	208	-	-	-	-	-	-	-	-	-	-	-	897	897
	Wind, WYSW, 35	-	-	104	300	201	638	57	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	104	300	500	750	750	384	208	403	-	-	-	-	-	-	-	-	-	-	3,597	3,597
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	43	49	44	48	49	51	51	50	53	51	55	54	54	58	59	73	65	62	60	60	489	1,088
	DSM, Class 2, WY	1	3	6	8	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	73	173
	DSM, Class 2 Total	46	54	52	59	60	62	62	61	64	62	66	65	66	70	71	85	77	76	73	73	580	1,302
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
	DSM, Class 2, WM	28	28	30	31	31	31	31	31	31	20	21	20	20	20	20	21	21	21	21	21	291	496
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	59	128
	DSM, Class 2 Total	36	37	40	40	39	40	40	40	40	30	30	30	31	30	31	31	31	31	31	31	381	687
	FOT COB Flat	-	-	-	-	-	118	-	-	-	74	51	-	-	-	-	-	-	171	167	172	19	38
	FOT COB Q3	-	-	-	192	116	7	-	-	-	-	-	-	-	-	-	-	170	-	-	-	32	24
	FOT Mid Columbia Flat	-	-	-	-	88	91	85	80	80	108	137	135	-	-	-	-	-	-	-	-	53	40
	FOT MidColumbia Q3	-	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	6
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	N/A	1
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	132	128	129	103	105	100	99	87	N/A	110
	Annual Additions, Long Term Resources	262	321	286	1,518	762	910	898	539	332	516	99	98	99	102	103	118	984	106	104	104		
	Annual Additions, Short Term Resources	-	-	-	308	204	217	85	80	80	183	188	135	132	128	129	103	275	271	266	267		
	Total Annual Additions	262	321	286	1,826	966	1,127	983	619	412	699	288	233	231	230	231	221	1,259	378	370	371		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 17

PVRR: $51,207

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	51	249	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	14	-	-	286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	150	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	151	-	-	-	-	-	-	-	-	-	-	-	151	151
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	394	595	59	101	-	-	-	-	-	-	-	-	-	-	-	1,149	1,149
	Wind, WYSW, 35	-	-	194	286	201	600	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	194	300	500	750	750	595	110	500	-	-	-	-	-	-	-	-	-	-	-	3,898	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	10	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	17	10	-	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	55	49	49	49	51	51	52	53	57	55	56	56	58	59	73	65	62	60	60	60	508	1,112
	DSM, Class 2, WY	1	3	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	10	73	175
	DSM, Class 2 Total	46	61	57	59	60	62	62	63	65	69	67	67	68	70	71	86	77	76	73	73	73	603	1,332
	FOT Mona Q3	-	-	-	85	119	182	200	200	67	200	200	200	200	200	200	200	200	200	200	200	200	105	153
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	600	600	600	600	600	600	108	354
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	30	163	-	11	190	83	N/A	62
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	7	-	-	N/A	3
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	291	497
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	59	128
	DSM, Class 2 Total	36	37	40	40	39	40	40	40	40	30	30	30	31	30	31	31	31	31	31	31	382	688
	FOT COB Flat	-	-	197	-	-	288	289	239	239	239	338	338	338	338	338	338	-	-	338	338	338	149	210
	FOT COB Q3	-	-	-	389	389	101	-	-	-	-	-	-	-	-	-	-	338	338	-	-	-	88	78
	FOT Mid Columbia Flat	-	-	-	-	129	143	161	386	161	203	241	300	331	400	400	400	400	400	400	400	400	118	243
	FOT MidColumbia Q3	-	-	-	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	7
	FOT West Main Q3	-	-	-	50	50	50	50	50	-	45	50	50	50	50	50	50	50	50	50	50	50	29	40
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	107	121	127	107	187	237	236	233	N/A	169
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486	467	370	677	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	6	116	36	105	212	276	250	N/A	125
	Annual Additions, Long Term Resources	262	328	381	1,519	762	910	898	752	243	620	100	100	101	102	103	118	984	106	104	104		
	Annual Additions, Short Term Resources	-	-	197	673	688	764	701	875	947	1,287	1,429	1,487	1,625	1,731	1,861	1,910	2,365	2,515	2,666	2,831		
	Total Annual Additions	262	328	578	2,192	1,450	1,674	1,599	1,628	1,191	1,907	1,529	1,587	1,726	1,833	1,964	2,029	3,349	2,621	2,770	2,934		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 18

PVRR: $49,745

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	52	248	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	100	698	2	-	-	-	-	-	-	-	-	-	-	-	800	800
	Wind, WYSW, 35	-	-	-	263	201	750	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	263	500	750	286	400	750	750	-	-	-	-	-	-	-	-	-	-	-	3,898	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	11	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	10	16	10	-	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	41	49	44	45	49	51	51	50	53	51	55	54	54	56	59	73	64	62	60	60	60	482	1,079
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	10	71	172
	DSM, Class 2 Total	43	54	52	55	60	62	62	61	64	63	66	65	66	68	71	85	77	75	73	72	72	576	1,295
	FOT Mona Q3	-	-	-	-	-	-	31	200	-	144	185	200	200	184	200	200	200	200	200	200	200	37	117
	FOT Mead Q3	-	-	-	-	-	-	-	-	305	480	480	526	480	480	600	480	600	600	600	600	600	79	312
	FOT Utah Q3	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	50	50	1	6
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	190	180	180	N/A	57
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166	682	682	N/A	106
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	21	290	496
	DSM, Class 2, YA	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	57	122
	DSM, Class 2 Total	35	37	39	39	39	40	40	40	40	30	30	30	30	29	30	31	30	30	30	30	30	378	679
	FOT COB Flat	-	-	213	389	-	-	289	239	-	-	338	338	338	338	338	-	338	338	338	338	338	113	208
	FOT COB Q3	-	-	-	-	345	389	-	-	239	239	-	-	-	-	-	338	-	-	-	-	-	121	77
	FOT MidColumbia Q3	-	-	-	310	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	271	335
	FOT West Main Q3	-	-	-	-	-	21	30	50	24	47	50	50	50	50	50	50	50	50	50	50	50	17	34
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	116	122	128	131	122	127	134	147	147	N/A	128
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	70	172	123	229	515	518	262	111	111	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	82	173	303	309	107	107	N/A	125
	Annual Additions, Long Term Resources	259	322	182	1,277	728	945	634	555	881	863	99	97	98	99	102	118	983	106	103	103			
	Annual Additions, Short Term Resources	-	-	213	699	745	810	749	903	969	1,310	1,453	1,514	1,654	1,762	1,892	1,942	2,397	2,547	2,699	2,864			
	Total Annual Additions	259	322	395	1,976	1,472	1,755	1,384	1,459	1,849	2,173	1,552	1,610	1,752	1,861	1,995	2,060	3,381	2,653	2,802	2,967		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 19

PVRR: $50,102

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	51	249	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	16	16
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	201	750	333	-	-	-	-	-	-	-	-	-	-	-	1,284	1,284
	Wind, WYSW, 35	-	-	-	400	201	650	50	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	400	500	650	750	750	385	265	-	-	-	-	-	-	-	-	-	-	3,898	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	10	16	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	49	48	49	49	51	51	50	53	57	55	56	56	58	59	73	65	62	60	60	500	1,104
	DSM, Class 2, WY	1	3	6	8	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	72	174
	DSM, Class 2 Total	45	54	56	59	60	62	62	61	65	68	67	67	68	70	71	86	77	76	73	73	594	1,322
	FOT Mona Q3	-	-	-	-	-	-	18	200	-	168	200	200	200	200	200	200	200	200	200	200	39	119
	FOT Mead Q3	-	-	-	-	-	-	-	-	305	480	492	551	544	600	585	556	600	600	600	600	78	326
	FOT Utah Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	116	180	N/A	48
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	471	N/A	59
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WM, 35	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	100	-	100	-	-	200	-	-	-	-	-	-	-	-	-	-	-	465	465
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	63
	DSM, Class 2, WM	28	28	30	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	291	497
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	59	128
	DSM, Class 2 Total	36	37	40	40	39	40	40	40	40	30	30	30	31	30	31	31	31	31	31	31	381	688
	FOT COB Flat	-	-	207	389	-	-	289	239	239	239	338	338	338	338	338	-	-	-	-	-	160	165
	FOT COB Q3	-	-	-	-	389	389	-	-	-	-	-	-	-	-	-	338	338	338	400	400	78	130
	FOT MidColumbia Q3	-	-	-	292	306	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	260	330
	FOT West Main Q3	-	-	-	-	-	5	-	42	-	-	-	-	50	50	50	50	50	50	50	50	5	22
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	94	121	128	130	127	144	131	147	N/A	128
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	7	134	206	362	479	534	279	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	294	299	118	N/A	125
	Annual Additions, Long Term Resources	262	322	187	1,519	764	910	898	905	716	384	100	100	101	102	103	118	984	106	104	104		
	Annual Additions, Short Term Resources	-	-	207	682	695	794	707	881	944	1,287	1,429	1,488	1,626	1,732	1,862	1,911	2,366	2,516	2,729	2,894		
	Total Annual Additions	262	322	393	2,201	1,459	1,704	1,605	1,787	1,660	1,671	1,529	1,588	1,727	1,834	1,965	2,030	3,350	2,622	2,833	2,998		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 20

PVRR: $50,536

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-	-	-	-	1,600
	Wind, GO, 24	-	-	-	-	-	-	-	-	53	247	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	32	-	245	23	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	51	326	123	-	-	-	-	-	-	-	-	51	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	133	253	-	-	-	-	-	-	-	-	-	-	386	386
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	424	476	-	-	-	-	-	-	-	-	-	900
	Wind, WYSW, 29	-	-	-	-	-	-	368	182	363	-	-	-	-	-	-	-	-	-	-	-	914	914
	Wind, WYSW, 35	-	-	344	224	201	505	26	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	344	456	500	750	418	182	550	750	750	600	-	-	-	-	-	-	-	-	4,148	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	1	2	2	2	2	2	2	2	2	2	-	-	-	-	-	9	19
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	17	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	45
	DSM, Class 2, UT	47	55	49	51	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	56	524	1,123
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	50	61	57	62	64	64	64	63	65	69	67	67	68	70	71	86	77	76	73	68	620	1,344
	FOT Mona Q3	-	-	-	-	-	-	-	200	-	58	101	159	-	-	-	151	-	-	-	-	26	33
	FOT Mead Q3	-	-	-	-	-	-	-	-	275	480	480	480	-	189	346	480	139	277	-	-	75	157
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	35	83	N/A	26
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	-	232	268	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	56	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	156	44	-	-	332	568	200	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	6	62	129
	DSM, Class 2 Total	37	38	40	40	40	41	40	40	40	30	30	30	31	30	31	31	31	31	30	30	387	691
	FOT COB Flat	-	-	184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	9
	FOT COB Q3	-	-	-	389	400	320	285	239	239	239	338	338	400	400	400	400	400	400	400	400	211	299
	FOT MidColumbia Q3	-	-	-	241	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	264	332
	FOT West Main Q3	-	-	-	-	-	-	-	16	-	50	50	50	-	-	-	50	-	-	-	-	7	11
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	273	181	92	94	-	-	363	998	N/A	250
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	389	257	304	50	-	-	66	934	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	164	289	292	254	-	-	-	-	N/A	125
	Annual Additions, Long Term Resources	267	329	688	1,522	766	913	900	907	882	869	849	699	101	102	104	117	2,584	106	104	98		
	Annual Additions, Short Term Resources	-	-	184	631	800	720	685	855	914	1,228	1,368	1,426	1,626	1,732	1,862	1,912	939	1,088	1,264	2,814		
	Total Annual Additions	267	329	872	2,153	1,566	1,633	1,585	1,762	1,797	2,097	2,218	2,125	1,728	1,834	1,965	2,029	3,522	1,194	1,367	2,912		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 21

PVRR: $40,517

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-	-	-	-	1,600
	Wind, GO, 24	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	251	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	93	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	151	339	-	-	-	-	-	-	-	-	-	151	489
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	229	200	-	-	-	-	-	-	-	-	-	-	429	429
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	101	750	21	-	-	-	-	-	-	-	-	-	-	-	871	871
	Wind, WYSW, 35	-	307	42	59	361	196	335	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	499	400	108	500	356	436	750	750	350	339	-	-	-	-	-	-	-	-	-	4,248	4,587
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	42
	DSM, Class 2, UT	50	59	49	52	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	60	530	1,134
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	176
	DSM, Class 2 Total	53	65	58	62	64	64	64	63	65	68	67	67	68	70	71	86	77	76	73	73	625	1,353
	FOT Mead Q3	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	480	480	0	48
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, YA, 29 PPA	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	292	-	94	114	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	-	113	-	-	-	-	-	-	-	-	-	-	113
	Wind, WW, 29 PPA	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	120	100	392	-	394	314	-	-	400	113	-	-	-	-	-	-	-	-	-	1,765	1,878
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	293	499
	DSM, Class 2, YA	6	7	6	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	66	139
	DSM, Class 2 Total	37	39	40	40	41	41	41	41	41	30	31	31	31	31	31	32	31	31	31	33	392	705
	FOT COB Q3	-	-	-	192	116	126	-	-	400	-	-	-	-	-	-	-	-	-	-	-	84	42
	FOT Mid Columbia Flat	-	-	-	110	82	73	60	54	53	72	97	94	-	-	-	-	-	-	-	-	50	35
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	92	87	87	61	63	58	57	52	N/A	70
	Annual Additions, Long Term Resources	271	833	694	1,516	766	912	898	906	874	867	550	98	100	101	102	117	2,585	107	104	106		
	Annual Additions, Short Term Resources	-	-	-	302	198	200	60	54	453	72	97	94	92	87	87	61	63	58	537	532		
	Total Annual Additions	271	833	694	1,818	964	1,112	958	960	1,327	939	647	192	191	187	189	178	2,647	165	641	638		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 22

PVRR: $49,983

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-	-	-	-	1,600
	Wind, GO, 24	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	238	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	118	82	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	179	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	376	124	-	-	-	-	-	-	-	-	-	376	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	66	200	-	-	-	-	-	-	-	-	-	-	265	265
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	376	524	-	-	-	-	-	-	-	-	-	900
	Wind, WYSW, 29	-	-	-	-	-	-	101	632	303	-	-	-	-	-	-	-	-	-	-	-	1,035	1,035
	Wind, WYSW, 35	-	321	41	90	361	238	249	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	599	300	152	500	398	350	750	750	575	501	524	-	-	-	-	-	-	-	-	4,473	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	5	5
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	50	59	49	52	53	58	60	57	60	61	60	60	61	63	65	73	65	62	60	60	559	1,188
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	177
	DSM, Class 2 Total	53	65	58	63	64	69	71	68	72	73	71	72	74	75	77	86	77	76	73	73	656	1,410
	FOT Mona Q3	-	-	-	16	43	132	193	200	-	-	-	-	-	28	131	192	-	-	-	-	58	47
	FOT Mead Q3	-	-	-	-	-	-	-	-	423	480	480	480	480	480	480	480	53	185	480	480	90	249
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	32	-	11	35	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	75	225	-	-	-	-	-	-	-	-	-	75	300
	Wind, YA, 29 PPA	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	248	-	152	100	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	-	24	176	-	-	-	-	-	-	-	-	-	200
	Wind, WW, 29 PPA	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	200	348	-	352	400	-	-	175	249	176	-	-	-	-	-	-	-	-	1,540	1,965
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12

Case # 22

PVRR: $49,983

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	3	4	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	21	21	20	21	21	21	21	21	293	499
DSM, Class 2, YA	6	7	6	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	66	139
DSM, Class 2 Total	37	39	40	40	41	41	41	41	41	30	31	31	31	31	31	32	31	31	31	33	392	705
FOT COB Flat	-	-	-	-	-	-	-	-	-	-	-	-	285	338	338	338	-	-	-	-	-	65
FOT COB Q3	-	-	122	389	389	389	289	239	400	7	110	158	-	-	-	-	-	-	-	-	223	125
FOT Mid Columbia Flat	-	-	-	143	123	128	121	318	134	172	201	205	59	62	80	6	108	123	159	174	114	116
FOT West Main Q3	-	-	-	43	50	50	50	50	50	-	-	-	-	-	-	-	-	-	-	-	29	15
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	-	-	5	7	N/A	10
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	154	157	151	141	123	114	84	75	N/A	125
Annual Additions, Long Term Resources	271	833	695	1,516	767	918	907	913	883	1,479	852	802	105	106	108	117	2,585	107	104	106		
Annual Additions, Short Term Resources	-	-	122	591	605	700	653	807	1,007	658	791	843	978	1,081	1,208	1,258	284	433	763	818		
Total Annual Additions	271	833	817	2,108	1,372	1,618	1,560	1,720	1,890	2,137	1,644	1,645	1,083	1,187	1,316	1,375	2,868	540	867	924		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 23

PVRR: $51,692

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	-	113	-	187	-	-	-	-	-	-	-	-	113	300
	Wind, GO, 29	-	-	44	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	109	91	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	436	64	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYNE, 24	-	-	-	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	88
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	47	750	15	-	-	-	-	-	-	-	-	47	812
	Wind, WYSW, 29	-	-	-	-	-	-	750	50	-	-	-	-	-	-	-	-	-	-	-	-	800	800
	Wind, WYSW, 35	-	309	56	244	201	491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	408	300	500	500	491	750	486	173	750	750	291	-	-	-	-	-	-	-	-	4,457	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	42
	DSM, Class 2, UT	47	55	49	52	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	60	524	1,128
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	50	61	57	62	64	64	64	63	65	68	67	67	68	70	71	86	77	76	73	73	617	1,346
	FOT Mead Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480	480	480	480	-	96
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	159	-	64	277	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	200	-	-	259	-	264	577	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	8	7	7	7	9	63	136
	DSM, Class 2 Total	37	38	40	40	40	41	40	40	40	30	31	31	31	30	31	32	31	31	31	32	388	699
	FOT COB Flat	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	1	0
	FOT COB Q3	-	-	-	191	114	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	21
	FOT Mid Columbia Flat	-	-	-	-	86	85	79	67	55	83	112	109	-	-	-	-	-	-	-	-	46	34
	FOT MidColumbia Q3	-	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	6
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	107	102	102	76	78	73	72	68	N/A	85
	Annual Additions, Long Term Resources	267	638	689	1,523	767	913	900	907	876	870	851	390	101	102	103	119	4,184	107	104	105		
	Annual Additions, Short Term Resources	-	-	-	305	201	209	79	67	55	90	112	109	107	102	102	76	558	553	552	548		
	Total Annual Additions	267	638	689	1,828	967	1,122	979	974	931	959	962	500	208	204	206	195	4,743	660	656	653		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 24

PVRR: $60,693

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	135	165	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	206	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	154	46	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	161	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	424	-	-	-	-	-	-	-	-	-	-	-	-	424	424
	Wind, WYNE, 24	-	-	-	-	-	-	-	-	-	-	-	111	-	-	-	-	-	-	-	-	-	111
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	39	750	-	-	-	-	-	-	-	-	-	39	789
	Wind, WYSW, 29	-	-	-	-	-	59	750	67	-	-	-	-	-	-	-	-	-	-	-	-	876	876
	Wind, WYSW, 35	-	327	55	406	201	311	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	588	300	500	500	370	750	491	289	750	750	111	-	-	-	-	-	-	-	-	4,637	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	46
	DSM, Class 2, UT	47	55	49	52	53	53	53	52	53	57	60	60	61	63	65	73	65	62	60	60	524	1,153
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	177
	DSM, Class 2 Total	51	61	58	63	64	64	64	63	65	69	71	72	74	75	77	86	77	76	73	73	621	1,375
	FOT Mona Q3	-	-	-	59	90	180	200	200	27	200	200	200	200	200	200	109	-	-	-	-	96	103
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	551	600	600	600	600	600	480	480	480	480	480	103	322
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	31	-	10	34	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	280	-	59	161	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	200	-	-	380	-	259	461	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	33	66
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	499
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	8	7	7	7	9	63	136
	DSM, Class 2 Total	37	38	40	40	40	41	40	40	40	30	31	31	31	31	31	32	31	31	31	33	388	701

Case # 24

PVRR: $60,693

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
FOT COB Flat	-	-	128	-	-	-	289	239	239	239	338	338	338	338	-	-	-	-	-	-	114	124
FOT COB Q3	-	-	-	389	389	389	-	-	-	-	-	-	-	-	338	338	-	-	-	-	117	92
FOT Mid Columbia Flat	-	-	-	-	128	137	140	352	136	178	214	223	146	102	66	28	85	202	265	273	107	134
FOT MidColumbia Q3	-	-	-	147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	7
FOT West Main Q3	-	-	-	-	-	-	43	50	-	50	4	50	50	50	50	50	-	-	-	-	14	20
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	5	10	-	24	-	-	-	-	N/A	5
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	125	297	578	-	-	-	-	N/A	125
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	206	205	193	181	163	52	-	-	N/A	125
Annual Additions, Long Term Resources	268	819	689	1,523	767	913	900	908	876	877	854	215	106	107	110	119	4,185	107	104	106		
Annual Additions, Short Term Resources	-	-	128	596	607	706	673	841	883	1,218	1,355	1,411	1,544	1,646	1,771	1,820	728	745	780	835		
Total Annual Additions	268	819	818	2,119	1,374	1,620	1,573	1,749	1,759	2,095	2,210	1,626	1,651	1,753	1,881	1,939	4,913	852	884	941		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 25

PVRR: $58,838

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	49	251	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	12	-	238	50	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	30	470	-	-	-	-	-	-	-	-	-	30	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYNE, 24	-	-	-	-	-	-	-	-	-	20	53	175	-	-	-	-	-	-	-	-	20	248
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	228	-	-	-	-	-	-	-	-	-	-	228
	Wind, WYSW, 29	-	-	-	-	-	-	701	100	-	-	-	-	-	-	-	-	-	-	-	-	800	800
	Wind, WYSW, 35	-	-	399	389	201	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	399	401	500	750	750	600	49	501	750	175	-	-	-	-	-	-	-	-	4,148	5,073
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	17	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	45
	DSM, Class 2, UT	43	55	49	51	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	60	519	1,123
	DSM, Class 2, WY	1	3	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	46	61	57	62	64	64	64	63	65	69	67	67	68	70	71	86	77	76	73	73	615	1,344
	FOT Mona Q3	-	-	-	-	-	-	-	165	200	200	200	200	200	-	200	82	200	-	200	-	57	92
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	480	480	480	480	480	480	480	480	480	189	96	273
	FOT Utah Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	16	-	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	242	234	N/A	70
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	966	N/A	125
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	51	49	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	-	-	51	450	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	1	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	101	99	-	-	-	151	701	249	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	61	129
	DSM, Class 2 Total	36	38	40	40	40	41	40	40	40	30	30	30	31	30	31	31	31	31	31	31	385	691

Case # 25

PVRR: $58,838

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
FOT COB Flat	-	-	185	389	-	-	-	-	-	-	-	-	-	-	-	-	338	338	338	338	57	96
FOT COB Q3	-	-	-	-	400	400	400	400	400	400	400	400	400	338	400	338	-	-	-	-	240	234
FOT MidColumbia Q3	-	-	-	272	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	267	334
FOT West Main Q3	-	-	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	25	38
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	86	85	103	79	335	325	321	318	N/A	206
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	10	22	120	389	398	567	459	36	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	278	82	-	103	283	31	223	N/A	125
Annual Additions, Long Term Resources	262	329	689	1,522	767	913	900	908	883	869	849	274	101	102	103	118	984	106	104	104		
Annual Additions, Short Term Resources	-	-	185	661	800	850	850	1,015	1,530	1,530	1,530	1,530	1,626	1,669	1,862	1,849	2,304	2,453	2,604	2,769		
Total Annual Additions	262	329	874	2,184	1,567	1,763	1,750	1,923	2,413	2,400	2,379	1,804	1,726	1,771	1,965	1,967	3,288	2,560	2,708	2,873		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 26

PVRR: $59,660

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	48	252	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	11	-	240	50	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	-	95	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	51	450	-	-	-	-	-	-	-	-	-	51	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	441	-	-	-	-	-	-	-	-	-	-	-	-	441	441
	Wind, WYNE, 24	-	-	-	-	-	-	-	-	-	-	-	116	-	-	-	-	-	-	-	-	-	116
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	301	484	-	-	-	-	-	-	-	-	-	784
	Wind, WYSW, 29	-	-	-	-	-	-	701	158	-	-	-	-	-	-	-	-	-	-	-	-	859	859
	Wind, WYSW, 35	-	-	359	335	201	405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	359	441	500	750	750	600	48	503	750	600	-	-	-	-	-	-	-	-	4,148	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	17	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	47	55	49	52	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	60	523	1,127
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	50	61	57	62	64	64	64	63	65	69	67	67	68	70	71	86	77	76	73	73	620	1,348
	FOT Mona Q3	-	-	-	-	-	-	-	200	-	51	143	200	-	-	-	124	-	-	-	-	25	36
	FOT Mead Q3	-	-	-	-	-	-	-	-	272	480	480	482	326	357	480	480	480	-	-	-	75	192
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	32	-	11	35	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	51	50	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	-	-	-	453	47	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	41	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	141	59	-	-	-	151	702	247	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	62	131
	DSM, Class 2 Total	37	38	40	40	40	41	40	40	40	30	30	30	31	30	31	31	31	31	31	31	387	693
	FOT COB Flat	-	-	182	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	29
	FOT COB Q3	-	-	-	-	400	400	400	400	400	400	400	400	338	338	237	338	-	-	-	-	240	222
	FOT MidColumbia Q3	-	-	-	254	400	328	400	400	400	400	400	400	400	400	400	400	251	257	268	277	258	302
	FOT West Main Q3	-	-	-	-	-	-	-	9	-	50	-	-	-	-	-	-	-	-	-	-	6	3
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	35	85	92	73	-	-	-	-	N/A	36
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	175	179	265	381	-	-	-	-	N/A	125
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	403	289	292	16	-	-	-	-	N/A	125
	Annual Additions, Long Term Resources	267	330	689	1,523	767	913	900	908	883	869	849	698	101	102	103	118	4,184	106	104	104		
	Annual Additions, Short Term Resources	-	-	182	643	800	728	800	1,009	1,072	1,381	1,423	1,482	1,676	1,664	1,794	1,843	731	268	303	360		
	Total Annual Additions	267	330	870	2,167	1,567	1,641	1,700	1,916	1,956	2,251	2,273	2,180	1,776	1,765	1,897	1,961	4,915	375	407	463		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 27

PVRR: $60,484

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	130	170	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	201	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	171	29	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	48	183	-	-	-	-	-	-	-	-	-	-	-	231	231
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	51	750	100	-	-	-	-	-	-	-	-	51	900
	Wind, WYSW, 29	-	-	-	-	-	-	750	319	-	-	-	-	-	-	-	-	-	-	-	-	1,069	1,069
	Wind, WYSW, 35	-	323	76	368	201	333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	422	477	467	500	333	750	367	483	750	750	100	-	-	-	-	-	-	-	-	4,648	5,497
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-	-	-	-	-	11	19
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	0	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	47	59	49	52	53	58	60	57	60	61	60	60	62	63	65	73	65	62	57	55	557	1,178
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	10	10	10	10	10	11	10	10	10	11	11	10	76	179
	DSM, Class 2 Total	51	65	58	63	64	69	71	69	73	74	72	72	74	76	77	86	77	75	70	67	655	1,403
	FOT Mona Q3	-	-	-	-	-	-	-	137	-	22	60	112	-	-	36	147	-	200	200	-	16	46
	FOT Mead Q3	-	-	-	-	-	-	-	-	169	480	480	480	480	344	480	480	480	480	480	-	65	242
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	27	31	-	11	35	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	317	-	183	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	77	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-	81
	Wind, WW, 29 PPA	-	-	-	33	-	100	-	100	67	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	197	23	33	-	417	-	383	267	-	-	81	-	-	-	-	-	-	-	-	1,365	1,446
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	34	65
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	21	21	21	21	21	20	21	21	21	21	20	293	500
	DSM, Class 2, YA	6	7	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	6	6	63	130
	DSM, Class 2 Total	37	39	40	40	40	41	41	41	41	31	31	31	31	30	31	31	30	30	30	29	390	695
	FOT COB Flat	-	-	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	6
	FOT COB Q3	-	-	-	389	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	279	339
	FOT MidColumbia Q3	-	-	-	204	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	117	260	316
	FOT West Main Q3	-	-	-	-	-	-	-	50	50	50	50	50	50	50	50	50	-	-	-	-	15	23
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	201	178	117	87	-	368	397	653	N/A	250
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	431	-	1,569	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	44	288	291	256	-	121	-	-	N/A	125
	Annual Additions, Long Term Resources	267	834	689	1,523	767	919	908	913	885	882	856	286	107	108	109	117	4,184	106	99	97		
	Annual Additions, Short Term Resources	-	-	126	593	800	800	800	987	1,019	1,352	1,390	1,443	1,575	1,676	1,802	1,852	1,280	2,410	1,911	2,821		
	Total Annual Additions	267	834	816	2,116	1,567	1,719	1,708	1,900	1,904	2,235	2,246	1,728	1,683	1,785	1,911	1,969	5,464	2,516	2,011	2,917		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 28

PVRR: $47,806

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	-	251	50	-	-	-	-	-	-	-	-	-	251	300
	Wind, GO, 29	-	-	249	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	668	203	429	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Wind, WYSW, 35	-	307	45	213	201	535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	406	493	264	500	535	668	203	429	451	50	-	-	-	-	-	-	-	-	-	4,048	4,098
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	42
	DSM, Class 2, UT	50	59	49	52	53	53	53	52	53	57	55	56	56	58	59	73	59	55	57	55	530	1,113
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	176
	DSM, Class 2 Total	53	65	58	62	64	64	64	63	65	68	67	67	68	70	71	85	72	68	70	68	625	1,331
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	201	100	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, YA, 29 PPA	-	-	-	-	-	18	82	100	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	136	-	97	-	247	20	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	93	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WW, 29 PPA	-	-	-	100	-	100	-	100	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	213	7	236	-	215	82	547	321	300	-	-	-	-	-	-	-	-	-	-	1,965	1,965
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	20	20	21	21	21	293	498
	DSM, Class 2, YA	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	66	140
	DSM, Class 2 Total	37	39	41	41	41	41	41	41	41	30	31	31	31	31	31	32	31	31	31	33	393	705
	FOT COB Q3	-	-	-	192	116	400	400	400	400	4	-	-	-	-	-	-	-	400	-	-	191	116
	FOT Mid Columbia Flat	-	-	-	109	81	79	70	53	45	66	94	92	-	-	-	-	-	-	-	-	50	35
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	89	84	85	58	60	55	54	49	N/A	67
	Annual Additions, Long Term Resources	271	833	695	1,516	766	912	898	906	874	867	148	98	100	101	102	117	4,179	99	101	101		
	Annual Additions, Short Term Resources	-	-	-	302	197	479	470	453	445	70	94	92	89	84	85	58	60	455	54	49		
	Total Annual Additions	271	833	695	1,818	963	1,392	1,368	1,359	1,319	937	242	190	188	185	187	175	4,239	555	155	150		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 29
PVRR: $57,635

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	UT IGCC CCS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	466	-	-	-	-	466
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	101	200	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	218	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	-	207	-	-	-	-	-	-	-	-	-	-	207
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	493	700	-	-	-	-	-	-	-	-	-	1,193
	Wind, WYSW, 29	-	-	-	-	-	-	750	223	327	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Wind, WYSW, 35	-	322	60	229	201	489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	421	478	311	500	489	750	223	628	200	701	700	-	-	-	-	-	-	-	-	4,098	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	-	-	-	-	-	10	19
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	8	8	8	8	8	8	8	8	8	-	-	-	-	-	-	-	-	-	-	72	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	92	12	-	-	-	-	-	-	-	-	-	-	290	290
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	46
	DSM, Class 2, UT	50	64	56	57	58	58	60	57	60	61	60	60	62	63	65	89	65	68	68	61	583	1,244
	DSM, Class 2, WY	1	4	6	9	9	10	10	9	10	10	10	10	10	11	11	11	10	11	11	10	78	183
	DSM, Class 2 Total	54	70	65	68	70	70	72	69	73	74	72	72	74	76	78	102	78	81	81	74	684	1,474
	FOT Mona Q3	-	-	-	-	-	-	-	26	-	200	200	200	-	-	-	-	-	-	-	-	23	31
	FOT Mead Q3	-	-	-	-	-	-	-	-	-	69	106	160	-	-	-	-	-	-	-	-	7	17
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	50	50	50	-	-	-	-	-	-	-	-	10	10
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	27	31	-	10	34	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	-	-	-	78	22	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	89	-	161	-	250	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	78	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	151	50	-	-	-	-	-	-	-	-	-	151	200
	Wind, WW, 29 PPA	-	-	-	100	-	100	-	100	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	198	22	189	-	261	-	527	122	551	50	-	-	-	-	-	-	-	-	-	1,916	1,965
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	1	3	3	3	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	25	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	4	4
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	22	3	-	-	-	-	-	-	-	-	-	-	26	26

Case # 29

PVRR: $57,635

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	3	4	4	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	21	21	21	21	21	21	21	21	21	21	21	294	502
DSM, Class 2, YA	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	67	140
DSM, Class 2 Total	37	39	41	41	41	41	41	42	41	31	31	31	31	31	31	32	31	31	31	33	395	709
FOT COB Flat	-	-	-	-	-	-	-	-	-	-	-	-	338	338	338	338	-	-	-	-	-	68
FOT COB Q3	-	-	102	389	389	400	400	400	400	239	338	338	-	-	-	-	-	400	-	-	272	190
FOT Mid Columbia Flat	-	-	-	142	124	211	266	400	400	400	400	400	328	348	358	326	81	101	125	141	194	228
FOT MidColumbia Q3	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	1
FOT West Main Q3	-	-	-	25	50	50	50	50	50	50	50	50	50	50	50	50	-	-	-	-	32	31
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	170	172	181	202	-	-	-	-	N/A	91
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	107	186	287	334	-	-	-	-	N/A	114
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	324	321	315	311	140	127	114	105	N/A	220
Annual Additions, Long Term Resources	272	845	708	1,529	778	925	914	920	995	886	855	805	108	109	111	135	4,652	112	112	107		
Annual Additions, Short Term Resources	-	-	102	556	564	661	716	926	850	1,009	1,144	1,197	1,330	1,431	1,555	1,591	221	638	273	328		
Total Annual Additions	272	845	811	2,085	1,342	1,586	1,630	1,845	1,845	1,895	1,999	2,002	1,438	1,539	1,666	1,726	4,873	750	384	435		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 30

PVRR: $48,541

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	UT IGCC CCS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	466	-	-	-	-	466
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	49	251	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	150	150	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	-	150	50	-	-	-	-	-	-	-	-	-	200
	Wind, UT, 29	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	-	-	47	453	-	-	-	-	-	-	-	-	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	360	-	-	-	-	-	-	-	-	-	-	360	360
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	-	408	142	350	-	-	-	-	-	-	-	900
	Wind, WYSW, 29	-	-	-	-	-	-	-	400	501	39	-	-	-	-	-	-	-	-	-	-	940	940
	Wind, WYSW, 35	-	-	-	150	300	411	440	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	150	300	750	750	550	550	650	150	506	594	350	-	-	-	-	-	-	3,898	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	CHP - Kern River	-	-	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	10	16	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	45
	DSM, Class 2, UT	47	55	49	49	52	53	53	52	53	57	55	60	61	63	65	89	65	62	68	61	520	1,170
	DSM, Class 2, WY	1	3	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	50	61	57	59	64	64	64	63	65	69	67	72	74	75	77	102	77	76	81	74	616	1,391
	FOT Mona Q3	-	-	-	90	196	200	200	200	59	200	200	200	200	200	200	200	-	-	-	-	115	117
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	599	480	-	-	-	108	258
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	-	-	6	N/A	1
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	100
	Wind, MC, 29	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	-	-	144	156	-	-	-	-	-	-	-	-	300
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	200	300
	Total Wind	45	20	-	-	200	-	-	200	200	100	600	244	156	-	-	-	-	-	-	-	765	1,765
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	33	66
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	21	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	8	7	7	7	9	63	136
	DSM, Class 2 Total	36	38	40	40	40	41	40	40	41	30	31	31	31	31	31	32	31	31	31	33	387	700
	FOT COB Flat	-	-	197	-	389	389	289	239	239	239	338	338	338	338	338	338	-	-	-	-	198	200
	FOT COB Q3	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	19
	FOT Mid Columbia Flat	-	-	-	-	128	152	199	373	144	217	236	277	181	149	138	55	70	70	86	88	121	128
	FOT MidColumbia Q3	-	-	-	152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	8
	FOT West Main Q3	-	-	-	50	50	50	50	50	-	-	-	-	-	-	-	-	-	-	-	-	25	13
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	152	149	147	131	119	114	98	91	N/A	125
	Annual Additions, Long Term Resources	267	329	188	1,157	704	954	900	943	883	870	851	855	857	458	110	135	4,651	107	112	107		
	Annual Additions, Short Term Resources	-	-	197	681	764	791	738	863	922	1,256	1,373	1,414	1,471	1,437	1,425	1,322	669	184	183	185		
	Total Annual Additions	267	329	385	1,839	1,467	1,746	1,639	1,805	1,805	2,126	2,224	2,270	2,328	1,895	1,535	1,457	5,319	291	295	292		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 31

PVRR: $47,552

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	215	85	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	227	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	61	-	139	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	33	200	-	-	-	-	-	-	-	-	-	-	232	232
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	51	750	100	-	-	-	-	-	-	-	-	51	900
	Wind, WYSW, 29	-	-	-	-	-	-	39	396	632	-	-	-	-	-	-	-	-	-	-	-	1,068	1,068
	Wind, WYSW, 35	-	320	53	54	182	280	411	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	419	480	127	182	341	750	750	750	750	750	100	-	-	-	-	-	-	-	-	4,648	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	CHP - Kern River	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	46
	DSM, Class 2, UT	50	59	56	57	58	58	60	57	60	61	60	60	62	63	65	89	65	62	60	60	577	1,225
	DSM, Class 2, WY	1	4	6	9	9	9	10	9	10	10	10	10	10	11	11	11	10	11	11	10	77	182
	DSM, Class 2 Total	54	65	65	68	69	70	72	69	73	74	72	72	74	76	78	102	78	76	73	72	677	1,452
	FOT Mona Q3	-	-	-	42	35	165	200	200	-	200	200	200	200	200	200	200	200	200	200	-	84	132
	FOT Mead Q3	-	-	-	-	-	-	-	-	451	508	560	600	600	600	600	543	480	480	480	-	96	295
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	6	N/A	1
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	100
	Wind, MC, 29	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	300
	Wind, YA, 29 PPA	-	-	-	5	95	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	168	123	209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	80	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	200
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	200	20	373	318	409	-	-	-	-	-	600	-	-	-	-	-	-	-	-	1,365	1,965
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	4	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	34	67
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	21	21	21	21	21	21	21	21	21	21	21	294	501
	DSM, Class 2, YA	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	7	67	139
	DSM, Class 2 Total	37	39	41	41	41	41	41	42	41	31	31	31	31	31	31	32	31	31	31	31	395	707
	FOT COB Flat	-	-	115	-	-	-	289	-	-	-	-	-	338	338	338	338	-	-	-	-	40	88
	FOT COB Q3	-	-	-	389	389	389	-	239	239	239	338	338	-	-	-	-	400	400	400	-	189	188
	FOT Mid Columbia Flat	-	-	-	138	111	117	120	273	133	175	211	204	61	49	50	28	56	57	73	120	107	99
	FOT West Main Q3	-	-	-	-	50	-	17	50	-	50	-	6	50	34	-	-	-	-	-	-	17	13
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	N/A	2
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-	N/A	2
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	160	153	154	150	124	118	102	39	N/A	125
	Annual Additions, Long Term Resources	272	835	709	1,516	773	919	909	914	885	882	855	805	108	109	111	136	4,185	107	104	103		
	Annual Additions, Short Term Resources	-	-	115	570	586	671	626	762	824	1,172	1,308	1,348	1,409	1,375	1,362	1,258	1,261	1,256	1,255	178		
	Total Annual Additions	272	835	824	2,086	1,359	1,590	1,535	1,677	1,709	2,055	2,164	2,153	1,517	1,484	1,473	1,394	5,446	1,363	1,359	281		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 33

PVRR: $69,949

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	SCCT Frame ID	-	-	-	-	-	-	-	302	-	-	-	-	-	-	-	-	-	-	-	-	302	302
	SCCT Frame WYNE	-	-	-	-	-	-	-	275	-	-	-	-	-	-	-	-	-	-	-	-	275	275
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	83	-	-	-	-	17	150	50	-	-	-	-	-	-	-	-	-	251	300
	Wind, GO, 29	-	-	172	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	-	182	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, High Plains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	519	131	750	-	-	-	-	-	-	-	-	1,400
	Wind, WYSW, 29	-	-	-	-	-	-	550	217	533	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Wind, WYSW, 35	-	314	124	171	201	491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	413	478	400	500	491	550	217	750	150	569	131	750	-	-	-	-	-	-	-	4,048	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	8	8	8	8	8	8	8	8	4	-	-	-	-	-	-	-	-	-	-	72	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	9	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	23	16	-	-	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, WY-Curtail	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	54	10	33	55	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	21	47
	DSM, Class 2, UT	54	64	57	57	62	63	65	61	64	66	68	66	67	69	70	90	78	74	73	63	614	1,331
	DSM, Class 2, WY	2	4	7	9	9	10	10	10	10	10	10	10	11	11	11	11	12	12	12	11	82	194
	DSM, Class 2 Total	58	70	66	68	74	75	78	73	77	79	81	78	80	82	84	104	92	88	88	77	717	1,571
	Solar	-	-	-	-	250	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	FOT Mona Q3	-	-	-	-	-	-	84	-	-	-	-	-	-	-	-	-	-	-	-	-	8	4
	FOT Mead Q3	-	-	-	-	-	-	-	-	114	75	254	-	-	-	-	-	-	-	-	-	19	22
	FOT Utah Q3	-	18	-	50	-	-	50	-	50	50	50	49	50	50	50	50	50	50	50	50	22	36
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220	279	243	259	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	252	144	267	337	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	155	362	452	N/A	125
West																							
	CCCT H 2x1	-	-	-	-	-	-	-	-	-	-	-	523	-	-	-	-	-	-	-	-	-	523
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	8	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, YA, 29 PPA	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	67	-	433	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	86	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WW, 29 PPA	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	206	22	100	-	259	200	533	-	600	-	-	-	-	-	-	-	-	-	-	1,965	1,965
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CAES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	405	385	-	-	790
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	3	1	-	-	-	-	-	-	-	-	-	-	25	25

Case # 33

PVRR: $69,949

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 1, WW-Curtail	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
DSM, Class 1, WW-Irrigate	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
DSM, Class 1, WM-Curtail	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6	6
DSM, Class 1, WM-Irrigate	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13
DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
DSM, Class 1, YA-Curtail	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
DSM, Class 1, YA-Irrigate	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5
DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
DSM, Class 1 & 3 Total	-	-	-	20	-	-	8	-	6	-	-	-	-	-	-	-	-	-	-	-	34	34
DSM, Class 2, WA	3	4	4	3	3	4	4	4	4	3	3	3	4	3	4	4	4	4	4	4	34	70
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	21	21	21	21	21	21	21	21	21	21	21	294	504
DSM, Class 2, YA	7	7	7	6	6	7	7	7	7	8	8	8	8	8	8	9	8	8	8	9	68	149
DSM, Class 2 Total	38	39	41	41	41	41	41	42	41	31	32	32	32	32	32	34	32	33	33	34	396	722
FOT COB Flat	-	-	371	-	-	-	-	-	-	-	-	338	338	338	338	338	338	338	338	-	37	154
FOT COB Q3	-	-	-	389	400	400	400	400	400	239	338	-	-	-	-	-	-	-	-	338	263	165
FOT Mid Columbia Flat	-	-	-	400	396	400	400	383	400	400	400	400	400	400	400	400	400	400	400	400	278	339
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	27	218	303	453	367	275	180	178	N/A	250
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267	489	294	203	253	495	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	272	358	314	164	281	374	133	104	N/A	250
Annual Additions, Long Term Resources	282	845	709	1,573	1,033	1,203	973	1,501	900	1,481	683	765	864	116	118	139	124	526	506	111		
Annual Additions, Short Term Resources	-	18	371	889	846	850	984	833	1,014	814	1,092	837	1,136	1,414	1,720	1,943	2,283	2,267	2,275	2,662		
Total Annual Additions	282	863	1,080	2,462	1,879	2,053	1,957	2,334	1,914	2,295	1,775	1,602	2,000	1,531	1,838	2,082	2,407	2,792	2,781	2,773		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 34

PVRR: $40,564

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	53	247	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	14	286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	180	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	-	80	503	716	-	-	-	-	-	-	-	-	-	584	1,300
	Wind, WYSW, 35	-	-	353	78	327	304	239	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	353	258	500	750	239	-	134	750	716	-	-	-	-	-	-	-	-	-	3,181	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	CHP - Kern River	-	-	-	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	7	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	60	60
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	17	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	49	44	45	45	51	51	50	52	51	55	54	54	56	58	62	59	55	57	56	480	1,045
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	70	171
	DSM, Class 2 Total	45	54	52	55	56	61	62	61	64	63	66	65	66	68	70	74	72	68	70	68	572	1,259
	FOT Mona Q3	-	-	-	79	158	200	200	200	87	200	200	200	200	200	200	200	200	200	200	200	112	156
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	600	600	600	600	600	108	354
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	47	-	-	-	-	5	5
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	94	163	-	11	35	83	N/A	50
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	2	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	20	20
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	290	495
	DSM, Class 2, YA	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	56	122
	DSM, Class 2 Total	36	37	39	39	39	39	39	40	40	30	30	30	30	29	30	31	30	30	30	30	377	678
	FOT COB Flat	-	-	200	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	238	271
	FOT COB Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	-	17
	FOT Mid Columbia Flat	-	-	-	-	130	163	233	400	163	271	306	366	321	400	400	400	400	400	400	400	136	258
	FOT MidColumbia Q3	-	-	-	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	7
	FOT West Main Q3	-	-	-	35	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	34	42
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	100	105	107	111	118	129	144	N/A	114
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	195	376	646	780	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	90	97	144	85	261	218	67	39	N/A	125
	Annual Additions, Long Term Resources	262	321	538	1,471	692	914	396	167	258	863	815	97	98	100	102	107	102	98	100	98		
	Annual Additions, Short Term Resources	-	-	200	653	728	803	772	939	1,019	1,360	1,493	1,554	1,694	1,801	1,932	1,990	2,155	2,311	2,465	2,634		
	Total Annual Additions	262	321	738	2,124	1,420	1,717	1,168	1,106	1,277	2,223	2,309	1,651	1,792	1,901	2,034	2,097	2,257	2,409	2,565	2,732		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 35

PVRR: $39,853

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	101	-	200	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	226	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	170	-	-	-	-	-	-	-	-	-	-	170	170
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	548	326	256	-	-	-	-	-	-	-	-	-	-	1,130	1,130
	Wind, WYSW, 35	-	321	53	51	167	257	451	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	420	479	125	167	358	750	748	326	426	-	-	-	-	-	-	-	-	-	-	3,898	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	50	59	49	52	53	53	53	52	53	57	55	55	56	58	59	73	59	55	57	55	530	1,113
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	174
	DSM, Class 2 Total	53	65	58	62	64	64	64	63	65	69	67	67	68	70	71	85	72	68	70	67	627	1,331
	FOT Mona Q3	-	-	-	53	134	200	200	200	78	-	-	-	-	132	200	200	200	200	200	-	87	100
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	333	343	396	480	480	508	531	600	600	480	-	81	262
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	35	83	N/A	26
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	75	133	292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	79	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	199	21	375	333	392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	20	293	498
	DSM, Class 2, YA	6	7	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	6	63	130
	DSM, Class 2 Total	37	39	40	40	40	41	40	40	40	30	30	30	31	30	31	31	30	30	30	30	389	691
	FOT COB Flat	-	-	122	-	-	389	289	239	239	239	338	-	338	338	338	338	338	338	-	-	152	194
	FOT COB Q3	-	-	-	389	389	-	-	-	-	-	-	338	-	-	-	-	-	-	338	400	78	93
	FOT Mid Columbia Flat	-	-	-	136	109	118	151	362	136	178	214	223	8	20	46	26	105	109	115	117	119	109
	FOT West Main Q3	-	-	-	-	-	19	50	50	-	-	-	-	47	-	12	50	50	50	50	50	12	21
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	5	9	-	7	54	168	285	472	N/A	125
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	232	359	1,000	N/A	203
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	218	208	203	202	168	-	-	-	N/A	125
	Annual Additions, Long Term Resources	271	834	701	1,510	731	912	898	902	450	1,149	97	97	99	100	101	116	102	98	100	97		
	Annual Additions, Short Term Resources	-	-	122	578	632	726	690	851	933	750	895	956	1,096	1,203	1,335	1,386	1,551	1,707	1,861	2,122		
	Total Annual Additions	271	834	823	2,088	1,362	1,638	1,587	1,754	1,383	1,900	992	1,053	1,194	1,303	1,436	1,502	1,653	1,805	1,961	2,219		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 36

PVRR: $51,242

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	-	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	49	251	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-	-	-	76	76
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	201	650	373	-	-	-	-	-	-	-	-	-	-	-	1,224	1,224
	Wind, WYSW, 35	-	-	-	418	201	632	50	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	418	500	632	750	650	423	327	-	-	-	-	-	-	-	-	-	-	3,898	3,898
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	8	8	8	8	4	8	8	8	4	4	-	-	-	-	-	-	-	-	64	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	7
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	10	16	10	-	78	-	-	-	-	-	-	-	-	212	290
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	45
	DSM, Class 2, UT	47	55	49	50	52	53	53	52	53	57	60	60	56	58	59	73	65	62	60	60	521	1,134
	DSM, Class 2, WY	1	3	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	74	176
	DSM, Class 2 Total	50	61	57	60	64	64	64	63	65	69	71	72	68	70	71	86	77	76	73	73	617	1,354
	FOT Mona Q3	-	-	-	-	130	200	-	200	-	143	200	200	200	200	200	200	200	200	200	200	67	134
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	600	600	480	600	600	600	600	600	600	600	96	342
	FOT Utah Q3	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	17	28	32	-	11	63	83	N/A	29
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 35	-	-	-	82	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	82	-	118	-	100	200	-	-	-	-	-	-	-	-	-	-	-	565	565
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	3	3	3	3	1	3	3	3	2	2	-	-	-	-	-	-	-	-	22	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	26
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	64
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	498
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	61	130
	DSM, Class 2 Total	36	38	40	40	40	41	40	40	40	30	30	30	31	30	31	31	31	31	31	31	385	691

Case # 36

PVRR: $51,242

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
FOT COB Flat	-	-	-	-	-	-	-	400	400	400	400	400	400	400	400	400	-	-	-	-	120	180
FOT COB Q3	-	-	192	389	389	389	289	-	-	-	-	-	-	-	-	-	338	338	338	338	165	150
FOT Mid Columbia Flat	-	-	-	-	-	-	363	400	400	400	400	400	400	400	400	400	400	-	-	-	156	218
FOT MidColumbia Q3	-	-	-	226	133	151	-	-	-	-	-	-	-	-	-	-	-	203	268	329	51	66
FOT West Main Q3	-	-	-	50	50	50	50	50	-	-	-	50	50	50	50	50	50	50	50	50	25	35
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	94	98	172	106	278	396	360	362	N/A	233
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	40	440	222	147	279	367	504	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	214	282	372	132	209	294	276	222	N/A	250
Annual Additions, Long Term Resources	266	328	194	1,526	738	919	900	913	760	451	109	1,089	101	102	103	118	108	106	104	104		
Annual Additions, Short Term Resources	-	-	192	665	703	790	702	1,050	1,280	1,423	1,600	1,700	1,838	2,088	2,661	2,142	2,221	2,371	2,522	2,687		
Total Annual Additions	266	328	386	2,191	1,440	1,709	1,602	1,963	2,040	1,874	1,709	2,789	1,939	2,189	2,764	2,260	2,329	2,477	2,626	2,790		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 37

PVRR: $48,949

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	-	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	-	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	238	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	123	77	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	179	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	101	627	373	200	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Wind, WYSW, 35	-	321	42	91	361	238	249	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	599	300	153	500	398	349	750	750	200	-	-	-	-	-	-	-	-	-	-	4,097	4,097
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Kern River	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Seh-TES	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	10	10	17	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	50	59	49	52	53	53	53	52	53	57	55	56	56	58	59	73	65	62	60	60	530	1,134
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	176
	DSM, Class 2 Total	53	65	58	62	64	64	64	63	65	69	67	67	68	70	71	86	77	76	73	73	628	1,356
	FOT Mona Q3	-	-	-	16	75	169	200	200	-	200	200	-	-	-	-	-	-	-	-	-	86	53
	FOT Mead Q3	-	-	-	-	-	-	-	-	479	594	600	-	-	-	-	-	-	-	-	480	480	107	132
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	32	-	11	35	82	N/A	25
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	-	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 24	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 29	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 24 PPA	-	-	-	-	-	-	-	-	-	288	12	-	-	-	-	-	-	-	-	-	288	300
	Wind, YA, 29 PPA	-	-	-	-	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	247	-	152	101	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 24 PPA	-	-	-	-	-	-	-	-	-	163	-	-	-	-	-	-	-	-	-	-	163	163
	Wind, WW, 29 PPA	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	200	347	-	352	401	-	-	551	12	-	-	-	-	-	-	-	-	-	1,916	1,928
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	3	4	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	293	499
	DSM, Class 2, YA	6	7	6	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	66	139
	DSM, Class 2 Total	37	39	40	40	41	41	41	41	41	30	31	31	31	31	31	32	31	31	31	33	392	705
	FOT COB Q3	-	-	122	389	389	389	289	239	400	239	338	-	-	-	-	-	-	-	-	-	246	140
	FOT Mid Columbia Flat	-	-	-	143	123	128	158	367	134	162	201	206	60	63	81	76	109	124	165	182	122	124
	FOT West Main Q3	-	-	-	44	50	50	50	50	50	50	50	-	-	-	-	-	-	-	-	-	34	20
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	154	157	151	141	123	114	84	75	N/A	125
	Annual Additions, Long Term Resources	271	833	694	1,516	731	913	898	906	874	874	110	4,174	100	101	102	117	109	107	104	106		
	Annual Additions, Short Term Resources	-	-	122	592	637	736	697	856	1,064	1,245	1,388	206	214	236	260	249	232	249	764	819		
	Total Annual Additions	271	833	817	2,108	1,369	1,649	1,595	1,762	1,938	2,119	1,499	4,380	314	337	362	367	341	356	868	925		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 38

PVRR: $41,974

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	48	171	-	-	-	-	-	-	-	-	-	-	219	219
	Wind, GO, 29	-	-	-	-	-	-	-	190	110	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	208	-	-	-	-	579	513	-	-	-	-	-	-	-	-	-	787	1,300
	Total Wind	99	99	-	-	208	-	300	190	157	750	513	-	-	-	-	-	-	-	-	-	1,803	2,316
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	Distributed Standby Generation	8	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	53	10	10	-	-	-	-	-	-	-	-	-	-	249	249
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	43	49	49	48	49	51	51	50	53	51	55	54	54	56	58	62	59	62	60	60	493	1,073
	DSM, Class 2, WY	1	3	6	8	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	73	173
	DSM, Class 2 Total	46	54	57	59	60	62	62	61	64	63	67	65	66	68	70	74	72	75	73	72	589	1,290
	FOT Mona Q3	-	-	-	-	-	34	102	200	-	176	200	200	200	200	200	200	200	200	200	200	51	126
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	480	496	557	580	600	600	600	518	600	600	600	96	336
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	5	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	23	34	38	-	17	42	89	N/A	30
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	1	1	1	1	1	-	1	1	1	1	1	-	-	-	-	-	-	4	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	20	20
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	62
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	291	496
	DSM, Class 2, YA	5	6	6	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	58	123
	DSM, Class 2 Total	36	37	39	39	39	40	40	40	40	30	30	30	30	29	30	31	30	30	30	30	379	680
	FOT COB Flat	-	-	193	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	237	287
	FOT MidColumbia Q3	-	-	-	288	326	400	400	400	241	400	400	400	400	400	400	400	400	400	400	400	245	323
	FOT West Main Q3	-	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	30	40
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	116	121	128	131	122	121	151	147	N/A	130
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	224	518	303	359	479	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	60	56	-	-	266	308	310	N/A	125
	Annual Additions, Long Term Resources	267	327	191	1,011	407	166	453	414	282	863	612	97	98	100	101	107	102	106	103	103		
	Annual Additions, Short Term Resources	-	-	193	678	765	873	841	939	1,010	1,346	1,483	1,544	1,684	1,791	1,922	1,981	2,145	2,296	2,447	2,613		
	Total Annual Additions	267	327	385	1,689	1,172	1,039	1,294	1,353	1,292	2,209	2,095	1,641	1,782	1,891	2,024	2,087	2,247	2,401	2,551	2,715		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 39

PVRR: $34,791

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	48	252	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	298	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	182	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	182	200
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	55
	Wind, WYSW, 35	-	178	224	16	178	114	590	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	277	224	315	362	253	750	-	48	252	-	-	-	18	-	-	-	-	-	55	2,580	2,653
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	6
	CHP - Kern River	-	-	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	8	8	8	8	8	8	8	8	4	-	-	-	-	-	-	-	-	-	-	72	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	93	10	10	-	-	-	-	-	-	-	-	-	-	288	288
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	23	45
	DSM, Class 2, UT	50	59	49	52	53	53	53	52	53	57	55	56	61	63	65	89	66	68	68	62	530	1,182
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	11	11	11	11	75	178
	DSM, Class 2 Total	53	65	58	62	64	64	64	63	65	69	67	67	73	75	77	102	79	82	81	75	627	1,405
	FOT Mona Q3	-	-	-	-	-	-	-	-	77	-	-	-	-	-	-	-	-	-	-	-	8	4
	FOT Utah Q3	-	-	-	-	-	-	-	50	50	-	-	43	-	-	-	-	-	-	-	-	10	7
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28	32	-	11	35	194	N/A	39
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	N/A	14
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	76	85	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	120	276	185	138	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	865	865
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1
	Distributed Standby Generation	3	3	3	3	3	3	3	3	3	1	-	-	-	-	-	-	-	-	-	-	25	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	26	26
	DSM, Class 2, WA	3	4	4	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	34	67
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	293	500
	DSM, Class 2, YA	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	8	7	7	7	9	67	140
	DSM, Class 2 Total	37	39	41	41	41	41	41	41	41	30	31	31	31	31	31	32	31	32	31	33	393	707
	FOT COB Flat	-	-	156	-	389	389	289	239	239	226	338	338	338	338	338	338	338	-	-	-	193	215
	FOT COB Q3	-	-	-	196	-	-	-	-	-	-	-	-	-	-	-	-	-	338	400	338	20	64
	FOT MidColumbia Q3	-	-	-	400	228	323	379	400	400	400	400	400	400	400	400	400	400	400	400	400	253	327
	FOT West Main Q3	-	-	-	-	-	-	-	50	50	-	32	50	-	33	50	50	50	50	50	50	10	26
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	163	295	197	256	209	N/A	152
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	257	365	247	N/A	125
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	228	279	282	247	173	278	229	284	N/A	250
	Annual Additions, Long Term Resources	276	617	700	1,516	736	527	903	270	177	970	98	98	105	124	108	134	111	115	115	166		
	Annual Additions, Short Term Resources	-	-	156	596	617	713	668	739	817	626	770	830	965	1,066	1,192	1,229	1,387	1,530	1,735	1,831		
	Total Annual Additions	276	617	856	2,112	1,353	1,240	1,572	1,009	994	1,596	868	928	1,070	1,189	1,300	1,363	1,498	1,645	1,850	1,997		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 40

PVRR: $25,139

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	51	249	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	193	107	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	341	750	209	-	-	-	-	-	-	-	-	341	1,300
	Total Wind	99	99	-	-	-	-	-	193	298	750	750	209	-	-	-	-	-	-	-	-	1,439	2,398
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	-	13
	CHP - Kern River	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	12
	Distributed Standby Generation	8	8	8	8	8	8	8	8	8	4	-	-	-	-	-	-	-	-	-	-	72	72
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	92	10	10	-	-	-	-	-	-	-	-	-	-	288	288
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	49	44	45	45	46	46	45	52	51	55	53	54	56	58	62	59	62	60	60	465	1,044
	DSM, Class 2, WY	1	3	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	70	170
	DSM, Class 2 Total	45	54	52	55	56	57	57	56	64	62	66	65	66	68	70	74	72	75	73	72	557	1,257
	FOT Mona Q3	-	-	-	93	200	200	200	200	-	200	200	200	200	200	200	200	200	200	200	200	109	155
	FOT Mead Q3	-	-	-	-	-	-	-	-	553	600	600	600	600	600	600	600	600	600	600	600	115	358
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	50	49	50	50	50	50	50	50	50	50	50	10	30
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	148	145	148	-	189	190	180	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	44	158	191	-	204	214	189	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-	26	89	86	-	104	279	415	N/A	125
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	100
	Total Wind	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	65	165
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	2
	Distributed Standby Generation	3	3	3	3	3	3	3	3	3	1	-	-	-	-	-	-	-	-	-	-	25	25
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	0	-	-	-	-	4	4
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	0	-	-	-	-	25	26
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	60
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	290	495
	DSM, Class 2, YA	5	6	5	5	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	53	115
	DSM, Class 2 Total	35	36	39	39	38	39	39	39	39	29	29	29	30	29	30	30	30	30	30	30	373	670
	FOT COB Flat	-	-	199	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	27
	FOT COB Q3	-	-	-	49	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	183	260
	FOT MidColumbia Q3	-	-	-	155	145	259	339	400	160	207	240	298	77	198	170	132	156	400	400	400	167	207
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	116	122	107	131	123	130	123	148	N/A	125
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	143	-	-	40	817	-	-	-	N/A	125
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	306	277	314	N/A	125
	Annual Additions, Long Term Resources	266	325	186	1,006	192	158	145	452	424	859	845	302	107	97	102	107	714	373	206	105		
	Annual Additions, Short Term Resources	-	-	199	688	784	898	879	939	1,003	1,347	1,476	1,535	1,677	1,776	1,907	1,965	2,333	2,571	2,720	2,883		
	Total Annual Additions	266	325	385	1,694	977	1,057	1,023	1,391	1,427	2,206	2,321	1,838	1,785	1,873	2,009	2,072	3,048	2,944	2,926	2,988		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 41

PVRR: $41,542

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	-	134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134	134
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	307	166	238	590	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	307	300	377	750	-	-	-	-	-	-	-	-	-	-	-	-	-	1,932	1,932
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	CHP - Kern River	-	-	-	6	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	3.8	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	34	13	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	43	49.0	44	45	49	51	51	50	53	51	55	54	54	56	58	62	59	55	57	56	484	1,049
	DSM, Class 2, WY	1	3.4	6	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	71	172
	DSM, Class 2 Total	46	54.2	52	55	59	61	61	61	63	62	66	65	66	68	70	74	72	68	70	68	575	1,261
	FOT Utah Q3	-	-	-	-	-	4	50	50	-	-	-	21	-	-	-	-	-	-	-	-	10	6
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	584	584	584	584	584	584	584	584	584	584	584	106	345
	FOT Mona/Nevada Utah Border	-	91	56	200	200	200	200	200	78	200	200	200	200	200	200	200	200	200	200	200	142	171
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	64	139	134	169	16	-	-	-	N/A	65
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	-	-	-	-	N/A	16
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	8.9	3.4	-	-	-	-	-	-	-	-	-	-	-	-	12.3	12.3
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	3.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	14	3	-	-	-	-	-	-	-	-	-	-	-	-	18	18
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	290	496
	DSM, Class 2, YA	5	6	6	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	57	123
	DSM, Class 2 Total	36	37.2	39	39	39	40	40	40	40	30	30	30	30	29	30	31	30	30	30	30	379	680
	FOT COB Flat	-	-	383	-	383	383	283	233	233	233	329	329	329	329	329	329	329	329	329	-	213	254
	FOT COB Q3	-	-	-	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	38	39
	FOT Mid Columbia Flat	-	-	-	-	304	400	400	400	177	320	360	400	389	400	400	322	400	400	400	400	200	294
	FOT MidColumbia Q3	-	-	-	298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	15
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	99	105	175	110	117	153	218	N/A	134
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	193	427	465	862	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	20	150	-	294	224	303	10	N/A	125
	Annual Additions, Long Term Resources	267	326	187	1,323	770	548	916	425	124	113	99	97	98	99	101	107	102	98	100	98		
	Annual Additions, Short Term Resources	-	91	440	931	937	1,037	983	933	1,018	1,387	1,523	1,584	1,712	1,821	1,952	2,010	2,175	2,331	2,485	2,725		
	Total Annual Additions	267	417	627	2,255	1,707	1,585	1,900	1,358	1,142	1,500	1,622	1,681	1,809	1,920	2,054	2,117	2,277	2,429	2,585	2,823		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 42

PVRR: $51,420

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	209	-	-	91	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	106	94	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	-	-	-	61	61
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	544	454	50	190	-	-	-	-	-	-	-	-	-	-	1,239	1,239
	Wind, WYSW, 35	-	-	344	91	201	644	20	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	344	300	500	750	750	454	50	252	-	-	-	-	-	-	-	-	-	-	3,598	3,598
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1 & 3 Total	25	50.0	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	42
	DSM, Class 2, UT	43	55.1	49	49	49	51	51	52	53	57	55	56	56	58	59	73	65	62	60	60	508	1,112
	DSM, Class 2, WY	1	3.4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	73	175
	DSM, Class 2 Total	46	60.4	57	59	60	62	62	63	64	68	67	67	68	70	71	86	77	76	73	73	601	1,329
	FOT Utah Q3	-	-	-	-	-	-	35	35	-	-	-	-	-	-	-	-	-	-	-	-	7	3
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	584	584	584	584	584	584	584	584	584	584	584	106	345
	FOT Mona/Nevada Utah Border	-	91	54	200	200	200	200	200	107	200	200	200	200	200	200	200	200	200	200	200	145	173
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	18	-	-	138	126	N/A	38
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215	-	N/A	27
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	5	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
	DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	291	497
	DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	59	128
	DSM, Class 2 Total	36	37.2	40	40	39	40	40	40	40	30	30	30	31	30	31	31	31	31	31	31	382	688
	FOT COB Flat	-	-	383	-	-	288	283	233	233	233	329	329	329	329	329	-	-	329	329	329	165	214
	FOT COB Q3	-	-	-	383	383	95	-	-	-	-	-	-	-	-	-	329	329	-	-	-	86	76
	FOT Mid Columbia Flat	-	-	-	-	299	384	400	400	181	295	334	393	400	400	400	400	400	400	400	400	196	294
	FOT MidColumbia Q3	-	-	-	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	14
	FOT West Main Q3	-	-	-	50	50	50	50	50	-	50	50	50	50	50	50	50	50	50	50	50	30	40
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	80	121	127	139	228	264	364	364	N/A	211
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	452	519	375	655	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	38	105	208	247	172	218	60	172	N/A	153
	Annual Additions, Long Term Resources	262	327	531	1,519	762	910	898	872	176	371	100	100	101	102	103	118	984	106	104	104		
	Annual Additions, Short Term Resources	-	91	437	913	932	1,017	968	918	1,002	1,362	1,497	1,556	1,682	1,789	1,919	1,968	2,415	2,565	2,715	2,880		
	Total Annual Additions	262	419	968	2,432	1,694	1,927	1,865	1,790	1,177	1,733	1,597	1,656	1,783	1,891	2,022	2,086	3,399	2,671	2,820	2,984		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 43

PVRR: $60,905

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	-	-	-	-	3,200
	Wind, GO, 24	-	-	-	-	-	-	-	97	181	22	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	217	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	81	-	119	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, UT, 29	-	173	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WYAE, 29	-	-	-	-	-	-	-	418	-	-	-	-	-	-	-	-	-	-	-	-	418	418
	Wind, WYNE, 24	-	-	-	-	-	-	-	-	-	-	9	100	-	-	-	-	-	-	-	-	-	109
	Wind, Project 1	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	51	741	-	-	-	-	-	-	-	-	-	51	791
	Wind, WYSW, 29	-	-	-	-	-	78	750	54	-	-	-	-	-	-	-	-	-	-	-	-	882	882
	Wind, WYSW, 35	-	327	55	417	201	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	599	300	500	500	377	750	650	181	692	750	100	-	-	-	-	-	-	-	-	4,648	5,498
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	93	10	10	-	-	-	-	-	-	-	-	-	-	288	288
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	24	48
	DSM, Class 2, UT	50	59	49	52	53	58	60	57	53	57	60	60	61	63	65	73	65	62	60	60	547	1,176
	DSM, Class 2, WY	1	4	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	177
	DSM, Class 2 Total	53	65	58	63	64	69	71	69	65	69	72	72	74	75	77	86	77	76	73	73	646	1,401
	FOT Mona Q3	-	50	-	200	200	200	200	200	129	200	200	200	200	200	200	161	-	-	-	-	138	127
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	584	584	584	584	584	584	480	480	480	480	480	106	319
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	5	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	34	46	49	-	28	52	100	N/A	39
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, MC, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	42	-	-	100	58	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WM, 29	-	-	-	-	-	231	-	-	269	-	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	-	-	-	100	-	100	100	-	-	-	-	-	-	-	-	-	-	-	300	300
	Total Wind	45	20	200	-	-	373	-	100	569	58	-	-	-	-	-	-	-	-	-	-	1,365	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	22	22

Case # 43

PVRR: $60,905

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	3	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	4	33	66
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	293	499
DSM, Class 2, YA	6	7	6	6	6	6	6	7	6	7	7	7	7	7	7	8	7	7	7	9	64	138
DSM, Class 2 Total	37	39	40	40	40	41	40	42	40	30	31	31	31	31	31	32	31	31	31	33	390	703
FOT COB Flat	-	-	352	-	-	-	283	233	233	233	329	329	329	329	-	-	-	-	-	-	133	132
FOT COB Q3	-	-	-	383	383	383	-	-	-	-	-	-	-	-	329	329	-	-	-	-	115	90
FOT Mid Columbia Flat	-	-	-	-	240	299	359	400	150	243	291	358	273	236	174	51	95	211	275	283	169	197
FOT MidColumbia Q3	-	-	-	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	10
FOT West Main Q3	-	-	-	50	19	50	50	50	-	50	50	50	50	50	50	50	-	-	-	-	27	28
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	1	9	-	11	-	-	-	-	N/A	3
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	99	295	606	-	-	-	-	N/A	125
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	206	205	193	181	163	53	-	-	N/A	125
Annual Additions, Long Term Resources	277	840	695	1,529	772	924	913	1,024	877	870	854	204	106	107	110	119	4,185	107	104	106		
Annual Additions, Short Term Resources	-	50	352	830	842	932	892	933	992	1,311	1,454	1,521	1,642	1,745	1,870	1,919	738	773	807	863		
Total Annual Additions	277	890	1,047	2,359	1,614	1,856	1,805	1,957	1,868	2,181	2,308	1,725	1,749	1,853	1,980	2,038	4,923	880	912	968		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 44

PVRR: $21,249

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	54	246	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	195	105	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	-	-	-	200
	Wind, UT, 29	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	200
	Wind, WYAE, 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	132	-	273
	Wind, Project I	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	67	54	-	200
	Wind, WYSW, 29	-	-	-	-	-	-	-	-	-	-	-	470	112	119	175	424	-	-	-	-	-	1,300
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	343	504	454	-	-	-	-	-	-	-	-	-	846	1,300
	Total Wind	99	99	-	-	-	-	-	335	661	750	454	670	112	119	175	424	100	180	208	186	1,944	4,571
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	-	-	-	2	2	2	2	2	2	2	2	-	5	21
	Distributed Standby Generation	8	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	30	30
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	39	39
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	7	7
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	92	10	10	-	-	-	-	-	-	-	-	-	-	288	288
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	42
	DSM, Class 2, UT	40	46	42	42	43	45	46	45	45	46	46	46	49	50	51	52	50	53	54	52	441	945
	DSM, Class 2, WY	-	3	5	8	8	8	8	9	9	9	9	9	9	9	9	10	10	10	10	10	66	161
	DSM, Class 2 Total	42	50	49	52	53	56	56	56	56	57	56	57	60	61	63	64	63	66	66	64	528	1,147
	FOT Mona Q3	-	-	-	152	200	200	200	200	81	-	-	-	31	118	200	200	200	200	200	200	103	119
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	378	386	376	480	480	480	578	600	600	600	600	86	302
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	5	3
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	29	33	-	12	36	84	N/A	26
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	-	35
	Wind, MC, 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	100
	Wind, MC, 35	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	100	76	-	-	-	-	200
	Wind, WM, 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	474	-	-	-	-	500
	Wind, WM, 35	-	-	-	-	-	-	-	-	-	-	20	80	-	-	-	-	-	-	-	-	-	100
	Wind, WW, 29 PPA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	-	-	-	300
	Total Wind	45	20	-	-	-	-	-	-	-	-	120	80	-	-	124	326	650	-	-	-	65	1,365
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	1	1	1	2	4
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	26	26

Case # 44

PVRR: $21,249

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
DSM, Class 2, WM	28	28	30	30	30	30	31	31	30	20	20	20	20	20	20	20	20	20	20	20	289	491
DSM, Class 2, YA	5	6	5	5	5	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	54	115
DSM, Class 2 Total	35	36	39	39	38	39	39	39	39	28	28	28	29	29	29	30	29	30	30	30	372	664
FOT COB Flat	-	-	206	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	238	288
FOT Mid Columbia Flat	-	-	-	-	-	-	-	400	161	203	235	245	6	194	53	243	324	400	400	400	76	163
FOT MidColumbia Q3	-	-	-	155	186	300	347	-	-	-	-	-	-	-	-	-	-	-	-	-	99	49
FOT West Main Q3	-	-	-	-	50	50	50	50	50	-	-	-	-	-	28	-	50	50	50	50	25	24
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	N/A	9
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	247	66	215	-	-	54	185	234	N/A	125
Annual Additions, Long Term Resources	263	322	183	1,003	156	158	181	596	774	1,454	658	872	203	212	393	846	879	277	305	281		
Annual Additions, Short Term Resources	-	-	206	696	825	939	886	939	1,011	820	959	958	1,101	1,213	1,342	1,392	1,511	1,653	1,808	1,980		
Total Annual Additions	263	322	388	1,700	981	1,097	1,068	1,536	1,786	2,274	1,617	1,829	1,304	1,425	1,735	2,238	2,390	1,931	2,114	2,261		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 45

PVRR: $20,967

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	IC Aero ID	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	397	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	598	598
	Total Wind	99	99	397	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,095	1,095
	CHP - Biomass	1	1	2	2	2	2	2	2	2	2	1	1	-	-	-	-	-	-	-	-	19	20
	CHP - Reciprocating Engine	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	-	-	-	-	8	21
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1 & 3 Total	25	50	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	37
	DSM, Class 2, UT	37	41	42	42	43	44	43	41	46	47	47	48	49	51	52	52	50	53	54	52	427	935
	DSM, Class 2, WY	-	3	5	7	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	10	65	161
	DSM, Class 2 Total	38	45	48	51	53	54	53	51	57	58	58	59	60	62	64	64	63	66	66	64	508	1,133
	FOT Mona Q3	-	-	-	165	200	200	200	200	75	-	-	-	72	178	200	200	200	200	200	200	104	125
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	405	413	467	480	480	549	600	600	600	600	600	88	314
	FOT Utah Q3	-	-	-	-	-	-	33	35	-	-	-	-	-	-	-	-	-	-	-	-	7	3
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	35
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	50
	CHP - Biomass	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	10	12
	CHP - Reciprocating Engine	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	1	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	29	58
	DSM, Class 2, WM	28	28	30	30	30	30	30	30	30	20	20	20	20	20	20	20	20	20	20	20	288	491
	DSM, Class 2, YA	4	6	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	52	113
	DSM, Class 2 Total	34	36	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	369	662
	Micro Solar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	0
	FOT COB Flat	-	-	223	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	240	289
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	400	171	213	250	259	-	-	-	-	-	45	184	168	78	85
	FOT MidColumbia Q3	-	-	-	156	204	325	400	-	-	-	-	-	-	-	-	-	-	-	-	-	108	54
	FOT West Main Q3	-	-	-	-	50	50	50	50	50	-	-	-	50	50	50	50	50	50	50	50	25	33
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	96	96	91	133	112	118	124	150	N/A	115
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	159	287	433	595	N/A	188
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	172	178	197	141	178	134	-	-	N/A	125
	Annual Additions, Long Term Resources	251	310	574	1,497	150	149	112	414	116	707	91	92	93	94	131	96	117	121	96	94		
	Annual Additions, Short Term Resources	-	-	223	710	843	964	973	924	1,016	857	1,000	1,064	1,208	1,320	1,424	1,489	1,636	1,772	1,929	2,101		
	Total Annual Additions	251	310	798	2,206	993	1,114	1,085	1,338	1,132	1,565	1,091	1,157	1,301	1,414	1,555	1,585	1,754	1,892	2,025	2,195		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 46

PVRR: $21,532

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600
	IC Aero UT	-	-	-	-	174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174	174
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Wind, GO, 29	-	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	300
	Wind, WYNE, 35	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	444	45	-	-	-	-	-	489
	Total Wind	99	99	-	-	-	140	160	100	-	-	300	-	-	-	444	45	-	-	-	-	598	1,386
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	Distributed Standby Generation	8	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	10	10	10	17	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	3	2	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	26	47
	DSM, Class 2, UT	40	46	42	42	43	45	46	45	46	47	47	48	49	51	52	52	50	53	54	52	443	952
	DSM, Class 2, WY	-	3	5	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	66	162
	DSM, Class 2 Total	43	51	49	53	54	56	57	56	58	59	58	59	60	62	64	64	63	66	66	64	535	1,161
	FOT Mona Q3	-	-	-	151	144	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	130	165
	FOT Mead Q3	-	-	-	-	-	-	-	-	372	600	217	288	373	440	543	600	600	600	600	600	97	292
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	50	-	-	-	-	-	-	-	-	-	-	10	5
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	38	49	71	-	33	57	104	N/A	44
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, YA, 29 PPA	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind, WW, 29 PPA	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	1	1	1	-	1	-	1	1	1	1	1	1	-	-	-	2	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
	DSM, Class 2, WM	28	28	30	30	30	30	31	31	30	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	5	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	53	114
	DSM, Class 2 Total	35	36	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	371	665
	FOT COB Flat	-	-	197	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	237	287
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	400	155	228	234	243	-	-	-	-	-	79	176	164	78	84
	FOT MidColumbia Q3	-	-	-	148	129	143	232	-	-	-	-	-	-	-	-	-	-	-	-	-	65	33
	FOT West Main Q3	-	-	-	-	-	39	50	50	50	50	-	-	50	50	50	50	50	50	50	50	24	32
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	68	69	82	120	84	91	116	138	N/A	96
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227	345	467	582	N/A	203
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	184	190	189	138	189	110	-	-	N/A	125
	Annual Additions, Long Term Resources	263	322	383	1,004	329	298	282	249	117	109	989	91	93	94	539	140	92	95	96	94		
	Annual Additions, Short Term Resources	-	-	197	688	663	771	771	939	1,016	1,367	988	1,069	1,213	1,324	1,451	1,516	1,688	1,846	2,004	2,176		
	Total Annual Additions	263	322	581	1,691	991	1,069	1,053	1,188	1,133	1,476	1,977	1,159	1,305	1,419	1,990	1,657	1,781	1,941	2,099	2,270		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 47

PVRR: $20,863

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600
	IC Aero UT	-	-	-	-	174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174	174
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Wind, GO, 24	-	-	-	-	-	-	-	-	52	171	-	-	-	-	-	-	-	-	-	-	223	223
	Wind, GO, 29	-	-	-	-	-	-	-	194	106	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	-	-	24	23	29	394	53	-	-	-	-	-	522
	Total Wind	99	99	-	-	-	-	-	333	158	331	-	24	23	29	394	53	-	-	-	-	1,020	1,542
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	Distributed Standby Generation	8	8	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1 & 3 Total	25	50	40	30	11	10	10	16	10	10	-	-	-	-	-	-	-	-	-	-	212	212
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	43
	DSM, Class 2, UT	40	46	42	42	43	45	46	45	46	47	47	48	49	51	52	52	50	53	54	52	443	952
	DSM, Class 2, WY	-	3	6	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	66	163
	DSM, Class 2 Total	42	50	49	52	53	56	56	56	57	59	58	59	60	62	64	64	63	66	66	64	532	1,157
	FOT Mona Q3	-	-	-	152	144	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	130	165
	FOT Mead Q3	-	-	-	-	-	-	-	-	366	600	211	266	351	432	536	600	600	600	600	600	97	288
	FOT Utah Q3	-	-	-	-	-	-	-	50	-	50	-	-	-	-	-	-	-	-	-	-	10	5
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	23	35	49	-	18	42	90	N/A	32
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	-	1	1	1	-	1	-	1	1	1	1	1	1	-	-	-	2	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	13	13
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	5
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	21	21
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
	DSM, Class 2, WM	28	28	30	30	30	30	31	31	30	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	5	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	53	114
	DSM, Class 2 Total	35	36	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	371	665
	FOT COB Flat	-	-	205	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	238	288
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	400	161	228	240	249	-	-	-	-	-	-	162	159	79	80
	FOT MidColumbia Q3	-	-	-	155	136	150	245	-	-	-	-	-	-	-	-	-	-	-	-	-	69	34
	FOT West Main Q3	-	-	-	-	-	44	50	50	50	50	-	-	50	50	50	50	50	50	50	50	24	32
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	96	96	91	132	111	118	124	149	N/A	115
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	206	338	460	575	N/A	197
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	162	169	187	132	168	169	13	-	N/A	125
	Annual Additions, Long Term Resources	263	322	183	1,003	329	158	122	490	275	440	688	115	115	123	489	148	92	95	96	94		
	Annual Additions, Short Term Resources	-	-	205	696	670	784	784	939	1,016	1,367	988	1,053	1,197	1,308	1,435	1,501	1,673	1,831	1,988	2,160		
	Total Annual Additions	263	322	389	1,699	999	942	906	1,429	1,291	1,807	1,677	1,168	1,312	1,430	1,924	1,649	1,765	1,926	2,084	2,254		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case # 48

PVRR: $41,268

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	2012 RFP Lake Side	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	607
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 24	-	-	-	-	-	-	-	-	25	275	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, GO, 29	-	-	-	-	-	-	-	171	129	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	281	300	129	590	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	281	300	268	750	171	154	275	-	-	-	-	-	-	-	-	-	-	2,398	2,398
	CHP - Biomass	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	-	-	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	9	21
	CHP - Kern River	-	-	-	6	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 3, GO-CPP-CI	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 3, GO-CPP-RES	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 3, GO-DemandB	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Irrigate	-	-	-	-	0	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	DSM, Class 3, GO-RTP-CI	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 3, GO-TOU-RES	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 3, UT-CPP-CI	-	-	-	-	2	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	44
	DSM, Class 3, UT-DemandB	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	18
	DSM, Class 3, UT-RTP-CI	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9
	DSM, Class 3, WY-CPP-CI	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16
	DSM, Class 3, WY-DemandB	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	8	8
	DSM, Class 3, WY-RTP-CI	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	DSM, Class 1 & 3 Total	39	50	40	30	13	86	10	26	10	10	-	-	-	-	-	-	-	-	-	-	314	314
	DSM, Class 2, GO	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	44
	DSM, Class 2, UT	43	49	44	45	45	46	51	50	52	51	55	54	54	56	58	62	59	55	57	56	475	1,040
	DSM, Class 2, WY	8	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	85	185
	DSM, Class 2 Total	53	59	55	55	56	57	62	61	64	63	66	65	66	68	70	74	72	68	70	68	582	1,269
	FOT Mona Q3	-	-	-	94	200	200	200	200	52	200	200	200	200	200	200	200	200	200	200	200	115	157
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	600	600	600	600	600	600	600	600	600	600	600	108	354
	FOT Utah Q3	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	50	50	-	-	-	2	6
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	153	148	145	163	144	9	33	81	N/A	110
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	67	79	152	298	-	-	-	-	N/A	75
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 3, WW-DemandB	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 3, WW-RTP-CI	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	DSM, Class 3, WM-RTP-CI	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 3, WM-DemandB	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	8	8
	DSM, Class 3, YA-DemandB	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 3, YA-RTP-CI	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	DSM, Class 1 & 3 Total	2	-	-	-	2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	12	12

Case # 48

PVRR: $41,268

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	61
DSM, Class 2, WM	14	28	30	30	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	276	481
DSM, Class 2, YA	5	6	6	5	5	6	6	5	6	6	6	6	6	6	7	7	7	7	7	7	56	121
DSM, Class 2 Total	21	37	39	39	39	39	39	39	40	30	30	30	30	29	30	31	30	30	30	30	362	663
FOT COB Flat	-	-	200	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	237	271
FOT COB Q3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	-	17
FOT Mid Columbia Flat	-	-	-	-	127	160	226	400	160	234	277	337	-	8	149	140	400	400	400	214	131	182
FOT MidColumbia Q3	-	-	-	153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	8
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	100	172	121	111	110	112	136	N/A	120
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	108	272	616	986	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	161	248	28	-	174	302	86	-	N/A	125
Annual Additions, Long Term Resources	270	326	184	1,288	692	499	897	349	284	388	99	97	98	100	102	107	102	98	100	98		
Annual Additions, Short Term Resources	-	-	200	687	767	799	766	910	981	1,324	1,464	1,525	1,664	1,771	1,902	1,960	2,125	2,281	2,435	2,604		
Total Annual Additions	270	326	384	1,975	1,459	1,299	1,662	1,259	1,265	1,712	1,563	1,622	1,762	1,871	2,004	2,067	2,227	2,379	2,535	2,702		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

B-Series Portfolio Summary Tables

Case 02b

PVRR: $22,040

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600	600
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	-	-	-	-	550	750	-	-	-	-	-	-	1,300
	Total Wind	99	99	-	-	-	-	140	-	-	-	160	-	-	550	750	-	-	-	-	-	338	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	11	21
	CHP - Kern River	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.8	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	10.8	27.9	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	55	54	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	39
	DSM, Class 2, UT	43	49.0	46	48	49	51	51	47	46	48	47	48	49	51	52	52	50	55	57	55	477	992
	DSM, Class 2, WY	1	3.4	6	8	8	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	70	167
	DSM, Class 2 Total	46	54.2	53	58	59	61	61	57	57	59	58	59	60	62	64	64	63	67	69	67	565	1,198
	FOT Utah Q3	-	-	-	29	50	50	50	50	-	-	-	-	-	-	50	-	-	-	-	-	23	14
	FOT Mead Q3	-	-	-	-	-	-	-	-	542	480	480	498	600	600	600	600	600	600	600	600	102	340
	FOT Mona/Nevada Utah Border	75	50	150	350	413	200	200	200	200	104	151	200	-	-	-	-	-	-	-	-	194	115
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	-	-	-	247	-	N/A	56
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	4	-	N/A	2
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	IC Aero	-	-	-	-	-	287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	287	287
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	-	-	-	-	-	1	1	-	-	-	-	-	5	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	20	14	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 02b

PVRR: $22,040

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	290	493
DSM, Class 2, YA	5	6	6	5	5	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	55	116
DSM, Class 2 Total	36	37.2	39	39	39	39	40	39	38	29	29	29	30	29	29	30	29	30	30	30	375	668
FOT COB Flat	-	-	43	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	222	280
FOT Mid Columbia Flat	-	-	-	-	-	-	176	-	-	-	-	-	-	-	-	10	17	191	176	187	18	38
FOT MidColumbia Q3	-	-	-	392	400	400	224	400	-	-	-	-	-	-	-	-	-	-	-	-	182	91
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	95	120	126	136	116	173	230	530	N/A	191
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	249	314	-	286	394	348	213	196	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	10	175	200	187	158	156	283	N/A	146
Annual Additions, Long Term Resources	268	328	189	404	198	528	350	416	115	707	248	89	92	644	845	95	92	97	98	97		
Annual Additions, Short Term Resources	75	50	193	1,210	1,302	1,089	989	939	1,032	874	1,019	1,085	1,332	1,432	1,552	1,619	1,701	1,858	2,013	2,183		
Total Annual Additions	343	378	382	1,614	1,500	1,618	1,339	1,356	1,146	1,581	1,267	1,175	1,424	2,076	2,397	1,714	1,793	1,955	2,112	2,280		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 05b

PVRR: $41.265

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	451	750	-	100	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	-	-	-	750	750	-	100	-	-	-	-	-	-	-	-	-	-	1,798	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	2.0	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	24.7	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	1.5	0.3	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	78	24	17	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	39
	DSM, Class 2, UT	43	48.7	44	48	49	53	52	52	47	48	47	48	49	51	52	62	59	55	57	55	485	1,019
	DSM, Class 2, WY	1	3.1	6	8	8	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	71	167
	DSM, Class 2 Total	45	53.4	52	58	59	64	63	63	58	59	58	59	60	62	64	74	71	67	69	67	574	1,225
	Fuel Cell	-	-	-	-	-	-	30	10	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	23	50	50	50	50	-	12	26	50	50	50	50	50	-	-	50	18	24	29
	FOT Mead Q3	-	-	-	-	-	-	-	-	540	600	600	600	600	600	600	600	600	600	600	600	114	357
	FOT Mona/Nevada Utah Border	75	50	150	350	415	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	204	122
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	204	200	198	219	-	-	128	52	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	370	268	267	95	-	-	-	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	143	223	223	412	-	-	-	-	N/A	125
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	SCCT Aero	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-	-	-	-	-	-	130	130
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	20	5	9	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 05b

PVRR: $41,265

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	60
DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	290	493
DSM, Class 2, YA	5	6	6	5	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	56	117
DSM, Class 2 Total	35	37.2	39	39	39	40	40	40	39	29	29	29	30	29	29	30	29	30	30	30	377	671
Fuel Cell	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	10	10
FOT COB Flat	-	-	45	389	-	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	183	243
FOT COB Q3	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	39	36
FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	-	205	264	262	-	-	60	32	60	89	161	241	21	69
FOT MidColumbia Q3	-	-	-	400	400	400	400	400	-	97	72	116	-	-	-	-	31	178	110	6	210	131
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	108	100	120	131	136	344	469	519	N/A	241
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	658	447	290	558	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	0	148	207	199	375	358	364	348	N/A	250
Annual Additions, Long Term Resources	267	327	188	404	199	528	954	1,148	118	208	88	89	92	93	94	105	100	97	98	97		
Annual Additions, Short Term Resources	75	50	195	1,212	1,304	1,089	989	939	1,029	1,404	1,549	1,616	1,863	1,976	2,112	2,171	2,247	2,404	2,559	2,729		
Total Annual Additions	342	377	383	1,616	1,502	1,618	1,944	2,087	1,147	1,612	1,638	1,705	1,954	2,069	2,207	2,276	2,347	2,501	2,658	2,826		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 05b_CCCT

PVRR: $41,325

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	CCCT F 2x1	-	-	-	-	-	536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	536	536
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	750	550	-	-	-	-	-	-	-	-	-	750	1,300
	Total Wind	99	99	-	-	-	-	300	-	-	750	550	-	-	-	-	-	-	-	-	-	1,248	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	Distributed Standby Generation	4	3.8	8	8	8	6	8	8	4	4	-	-	-	-	-	-	-	-	-	-	59	59
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	1.9
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	38
	DSM, Class 2, UT	40	46.1	42	42	45	45	46	45	47	48	47	48	49	51	52	52	59	55	57	55	447	971
	DSM, Class 2, WY	-	3.1	6	8	8	8	9	9	9	9	9	9	9	9	10	10	10	10	10	10	68	165
	DSM, Class 2 Total	42	50.8	49	52	55	55	56	56	58	59	58	59	60	62	64	64	71	67	69	67	532	1,173
	FOT Utah Q3	-	-	-	48	50	-	27	50	-	-	-	1	50	50	50	50	-	-	50	-	17	21
	FOT Mead Q3	-	-	-	-	-	-	-	-	540	600	600	600	600	600	600	600	600	600	600	600	114	357
	FOT Mona/Nevada Utah Border	75	50	150	350	444	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	207	123
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	204	173	198	219	-	-	206	-	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	183	274	252	290	-	-	-	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	92	96	95	98	-	-	194	-	N/A	72
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	25	-	-	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	3	3	3	1	3	3	1	1	-	-	-	-	-	-	-	-	-	-	19	19
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
	DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	289	493
	DSM, Class 2, YA	5	6	5	5	5	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	53	114
	DSM, Class 2 Total	35	36.5	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	372	665
	FOT COB Flat	-	-	65	389	-	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	185	244
	FOT COB Q3	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	39	36
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	-	206	244	263	22	65	80	92	87	157	246	204	21	83
	FOT MidColumbia Q3	-	-	-	400	400	331	400	400	-	95	92	137	-	-	-	14	311	243	154	196	203	159
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	115	101	145	154	145	141	400	411	N/A	201
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	625	651	57	667	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	182	199	273	245	166	299	318	316	N/A	250
	Annual Additions, Long Term Resources	258	317	183	396	193	691	421	390	118	858	639	91	93	94	94	95	471	97	123	97		
	Annual Additions, Short Term Resources	75	50	215	1,237	1,333	971	966	939	1,030	1,390	1,523	1,588	1,834	1,946	2,083	2,150	2,322	2,479	2,612	2,782		
	Total Annual Additions	333	367	398	1,634	1,526	1,662	1,387	1,329	1,147	2,249	2,162	1,679	1,927	2,040	2,177	2,245	2,793	2,576	2,735	2,879		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 05b_WC_CCCT

PVRR: $41,271

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	CCCT F 2x1	-	-	-	-	-	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	570	570
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	750	550	-	-	-	-	-	-	-	-	-	750	1,300
	Total Wind	99	99	-	-	-	-	300	-	-	750	550	-	-	-	-	-	-	-	-	-	1,248	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	10	21
	Distributed Standby Generation	4	3.8	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38	38
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	1.9
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	207	207
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	38
	DSM, Class 2, UT	40	46.1	42	42	45	45	46	45	47	48	47	48	49	51	52	52	59	55	57	55	447	971
	DSM, Class 2, WY	-	3.1	6	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	68	164
	DSM, Class 2 Total	42	50.8	49	52	55	55	56	56	58	59	58	59	60	62	64	64	71	67	69	67	532	1,173
	FOT Utah Q3	-	-	-	50	50	-	17	45	-	-	-	-	50	50	50	50	-	-	50	-	16	21
	FOT Mead Q3	-	-	-	-	-	-	-	-	536	600	600	600	600	600	600	600	600	600	600	600	114	357
	FOT Mona/Nevada Utah Border	75	50	150	357	458	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	209	124
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	176	187	198	219	-	-	220	-	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	235	282	207	252	-	-	24	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	31	69	96	98	-	-	120	-	N/A	52
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	25	-	-	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	4	6
	Distributed Standby Generation	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	DSM, Class 1 & 3 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
	DSM, Class 2, WM	28	28	30	30	30	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	289	492
	DSM, Class 2, YA	5	6	5	5	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	53	114
	DSM, Class 2 Total	35	36.5	39	39	38	39	39	39	39	29	29	29	30	29	29	30	29	30	30	30	372	665
	FOT COB Flat	-	-	69	389	-	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	186	245
	FOT COB Q3	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	39	36
	FOT Mid Columbia Flat	-	-	-	-	-	-	-	-	-	207	244	263	51	70	88	98	88	146	246	205	21	85
	FOT MidColumbia Q3	-	-	-	400	400	317	400	400	-	90	87	133	-	-	37	104	312	254	154	195	201	164
	FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
	Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	117	101	149	140	137	145	400	371	N/A	195
	Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	569	646	88	698	N/A	250
	Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	182	195	266	197	225	297	318	321	N/A	250
	Annual Additions, Long Term Resources	257	317	178	391	188	723	416	385	118	858	639	91	93	94	94	95	471	97	123	97		
	Annual Additions, Short Term Resources	75	50	219	1,247	1,347	956	957	935	1,025	1,386	1,518	1,584	1,830	1,942	2,078	2,145	2,318	2,474	2,607	2,777		
	Total Annual Additions	332	367	397	1,638	1,535	1,679	1,372	1,319	1,143	2,244	2,157	1,674	1,922	2,035	2,173	2,240	2,789	2,571	2,731	2,874		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 08b

PVRR: $41,922

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	23	177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	305	277	134	584	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	305	300	750	744	-	-	-	-	-	-	-	-	-	-	-	-	-	2,298	2,298
	CHP - Biomass	2	2.0	2	2	1	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	6	4	4	-	-	-	-	-	-	-	-	-	-	66	66
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.4	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	100	10	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	47	58.9	49	51	53	56	54	50	53	51	55	54	54	56	58	62	59	55	57	56	523	1,088
	DSM, Class 2, WY	1	3.7	6	9	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	74	174
	DSM, Class 2 Total	50	64.5	57	62	64	67	65	61	64	62	66	65	66	68	70	74	72	68	70	68	617	1,303
	Fuel Cell	-	-	-	-	-	5	35	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	10	50	50	50	50	-	-	-	10	50	50	50	50	50	-	50	-	21	26
	FOT Mead Q3	-	-	-	-	-	-	-	-	535	600	600	600	600	600	600	600	600	600	600	600	114	357
	FOT Mona/Nevada Utah Border	75	50	150	350	295	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	192	116
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	93	106	216	228	221	-	136	-	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	192	193	321	244	50	-	-	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	179	292	79	130	215	-	104	-	N/A	125
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	1	1	1	-	-	-	-	-	-	-	-	-	-	22	22
	DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 08b

PVRR: $41.922

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	292	497
DSM, Class 2, YA	6	6	6	6	6	6	6	5	6	6	6	6	6	6	7	7	7	7	7	7	60	126
DSM, Class 2 Total	37	38.1	40	40	40	41	40	39	40	30	30	30	30	29	30	31	30	30	30	30	385	685
Fuel Cell	-	-	-	-	-	5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
FOT COB Flat	-	-	27	-	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	-	181	242
FOT COB Q3	-	-	-	389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	39	39
FOT Mid Columbia Flat	-	-	-	-	400	400	351	180	-	260	348	400	36	10	83	70	251	372	285	279	159	186
FOT MidColumbia Q3	-	-	-	384	-	-	49	220	-	49	0	-	-	-	-	-	-	-	-	-	70	35
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	94	100	116	212	187	341	363	373	N/A	223
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	103	668	330	889	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	208	211	227	207	147	-	267	163	N/A	179
Annual Additions, Long Term Resources	274	339	194	726	773	1,055	966	417	125	113	98	96	97	99	101	107	102	98	100	98		
Annual Additions, Short Term Resources	75	50	177	1,183	1,184	1,089	989	939	1,024	1,398	1,536	1,598	1,840	1,948	2,080	2,138	2,213	2,368	2,523	2,754		
Total Annual Additions	349	389	371	1,909	1,957	2,144	1,955	1,356	1,149	1,511	1,634	1,694	1,937	2,047	2,181	2,244	2,314	2,467	2,623	2,853		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 09b

PVRR: $40.967

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, Project I	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	100	451	750	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	-	-	100	750	750	-	-	-	-	-	-	-	-	-	-	-	-	1,798	1,798
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	2.0	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	24.5	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	78	25	17	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	39
	DSM, Class 2, UT	43	48.7	44	48	49	51	52	52	47	48	47	48	49	51	52	62	59	55	57	55	483	1,016
	DSM, Class 2, WY	1	3.1	6	8	8	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	71	167
	DSM, Class 2 Total	45	53.3	52	58	59	61	63	63	58	59	58	59	60	62	64	74	71	67	69	67	572	1,223
	Fuel Cell	-	-	-	-	-	-	35	5	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	23	50	50	50	50	-	-	-	31	-	-	-	-	50	-	50	50	22	20
	FOT Mead Q3	-	-	-	-	-	-	-	-	340	517	564	600	600	600	600	600	600	600	600	600	86	341
	FOT Mona/Nevada Utah Border	75	50	150	350	415	200	200	200	-	200	200	200	-	-	-	-	-	-	-	-	184	112
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	-	215	237	N/A	68
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	163	118	N/A	35
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	SCCT Aero	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-	-	-	-	-	-	130	130
	Geothermal	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	1.3	1.3
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	0.1	1.1	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	20	6	8	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 09b

PVRR: $40.967

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	31	60
DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	21	290	494
DSM, Class 2, YA	5	6	6	5	5	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	56	117
DSM, Class 2 Total	35	37.2	39	39	39	40	40	40	39	29	29	29	30	29	29	30	29	30	30	30	377	671
Fuel Cell	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	10	10
FOT COB Flat	-	-	45	389	-	-	289	239	239	239	338	338	338	338	-	-	-	-	338	-	144	156
FOT COB Q3	-	-	-	-	389	389	-	-	-	-	-	-	-	-	338	338	338	338	-	338	78	123
FOT MidColumbia Q3	-	-	-	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	280	340
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	180	129	134	214	208	338	395	402	N/A	250
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	267	319	544	210	396	41	224	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	298	194	274	27	300	285	310	312	N/A	250
Annual Additions, Long Term Resources	267	327	188	404	198	619	966	1,142	118	108	88	89	92	93	94	105	100	97	98	97		
Annual Additions, Short Term Resources	75	50	195	1,212	1,304	1,089	989	939	1,029	1,406	1,552	1,618	1,865	1,978	2,114	2,173	2,249	2,406	2,561	2,731		
Total Annual Additions	342	377	383	1,616	1,502	1,709	1,956	2,081	1,147	1,515	1,640	1,708	1,957	2,071	2,209	2,278	2,349	2,503	2,660	2,828		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 10b

PVRR: $40,904

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	-	-	269	31	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, Project I	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	-	-	-	-	389	-	-	-	-	-	-	-	-	-	-	389
	Wind, WYSW, 35	-	-	-	-	500	41	719	40	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	-	500	650	750	200	-	-	389	-	-	-	-	-	-	-	-	-	2,298	2,687
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	4	4	4	-	-	-	-	-	-	-	-	-	-	64	64
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.5	4.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	100	10	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	47	55.2	49	51	53	58	53	50	53	51	55	54	54	56	58	62	59	55	57	56	520	1,084
	DSM, Class 2, WY	1	3.7	6	9	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	74	174
	DSM, Class 2 Total	50	60.7	57	62	63	69	64	61	64	62	66	65	66	68	70	74	72	68	70	68	613	1,300
	Fuel Cell	-	-	-	-	5	5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	4	50	50	50	50	-	-	-	5	50	50	50	50	50	-	50	-	20	25
	FOT Mead Q3	-	-	-	-	-	-	-	-	480	594	600	600	600	600	600	600	600	600	600	600	107	354
	FOT Mona/Nevada Utah Border	75	50	150	350	373	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	200	120
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	91	88	87	108	104	-	136	-	N/A	77
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	150	182	257	57	19	-	336	-	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	37	82	167	34	77	-	327	-	N/A	90
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	-	-	100	-	100	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	1	1	1	-	-	-	-	-	-	-	-	-	-	22	22
	DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34

Case 10b

PVRR: $40.904

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	292	497
DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	61	126
DSM, Class 2 Total	36	38.1	40	40	40	41	40	40	40	30	30	30	30	29	30	31	30	30	30	30	385	685
Fuel Cell	-	-	-	-	5	5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
FOT COB Flat	-	-	30	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	221	279
FOT MidColumbia Q3	-	-	-	400	400	400	400	400	55	315	343	400	400	400	400	400	400	400	400	400	237	316
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	115	120	127	129	121	126	135	148	N/A	128
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	289	241	621	-	848	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	5	33	-	78	207	228	146	303	N/A	125
Annual Additions, Long Term Resources	272	335	194	409	725	1,127	965	715	125	113	487	96	97	99	101	107	102	98	100	98		
Annual Additions, Short Term Resources	75	50	180	1,194	1,262	1,089	989	939	1,024	1,398	1,531	1,592	1,835	1,943	2,074	2,132	2,207	2,363	2,517	2,686		
Total Annual Additions	347	385	374	1,602	1,988	2,217	1,955	1,655	1,149	1,511	2,018	1,688	1,932	2,042	2,176	2,239	2,309	2,461	2,617	2,785		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 17b

PVRR: $51,819

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	139	-	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	-	125	-	-	-	-	-	-	-	-	-	-	125	125
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	701	308	42	125	-	-	-	-	-	-	-	-	-	-	1,175	1,175
	Wind, WYSW, 35	-	-	362	99	201	589	50	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	362	438	500	750	750	308	42	250	-	-	-	-	-	-	-	-	-	-	3,598	3,598
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	4	4	4	-	-	-	-	-	-	-	-	-	-	64	64
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	-	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	2.5	3.9	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	10	97	14	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	42
	DSM, Class 2, UT	50	58.9	49	52	58	58	60	52	53	57	55	56	56	58	59	73	65	62	60	60	547	1,151
	DSM, Class 2, WY	1	3.7	6	9	9	9	9	9	9	9	10	9	10	10	10	10	10	11	11	10	75	176
	DSM, Class 2 Total	53	64.5	58	62	69	69	71	63	65	68	67	67	68	70	71	86	77	76	73	73	641	1,369
	Fuel Cell	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	-	50	50	50	45	-	-	-	-	50	50	50	50	50	50	50	50	20	30
	FOT Mead Q3	-	-	-	-	-	-	-	-	529	600	600	600	600	600	600	600	600	600	600	600	113	356
	FOT Mona/Nevada Utah Border	75	50	150	350	240	200	200	200	200	200	200	200	-	-	-	-	-	-	-	-	187	113
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	91	88	87	122	30	23	285	275	N/A	125
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	96	194	241	163	-	-	138	167	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	61	61	88	130	-	-	313	347	N/A	125
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	38	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 29	-	-	-	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, WM, 35	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	138	62	-	-	-	-	-	500	-	-	-	-	-	-	-	-	-	-	765	765
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	1	1	1	-	-	-	-	-	-	-	-	-	-	22	22

Case 17b

PVRR: $51,819

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
DSM, Class 1, WW-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
DSM, Class 1, WM-Curtail	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
DSM, Class 1, WM-Sch-TES	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
DSM, Class 1, YA-Sch-TES	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
DSM, Class 1 & 3 Total	-	-	-	-	-	27	7	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34
DSM, Class 2, WA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	33	64
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	21	20	21	20	21	21	21	21	21	292	499
DSM, Class 2, YA	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	62	131
DSM, Class 2 Total	37	38.2	40	40	40	41	41	40	40	30	30	30	31	30	31	31	31	31	31	31	387	694
Fuel Cell	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10
FOT COB Flat	-	-	14	-	-	288	289	239	239	239	338	338	338	338	338	-	-	338	338	338	131	200
FOT COB Q3	-	-	-	389	389	101	-	-	-	-	-	-	-	-	-	338	338	-	-	-	88	78
FOT Mid Columbia Flat	-	-	-	-	400	400	184	159	-	231	334	322	224	119	272	338	400	400	341	343	137	223
FOT MidColumbia Q3	-	-	-	337	-	-	216	241	-	63	-	71	-	-	-	-	-	-	-	-	86	46
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	115	236	163	163	178	235	300	586	N/A	247
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	711	750	357	182	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	197	191	169	152	116	176	-	-	N/A	125
Annual Additions, Long Term Resources	276	339	695	921	777	1,038	974	726	168	869	99	99	101	102	103	118	984	106	104	104		
Annual Additions, Short Term Resources	75	50	164	1,127	1,130	1,089	989	935	1,019	1,384	1,521	1,581	1,821	1,927	2,057	2,106	2,471	2,621	2,772	2,937		
Total Annual Additions	351	389	859	2,048	1,907	2,127	1,963	1,660	1,186	2,253	1,620	1,680	1,921	2,029	2,160	2,225	3,455	2,727	2,876	3,040		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 18b

PVRR: $50,597

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	CCS Hunter3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346	-	-	-	-	346
	IC Aero	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	261	261
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	6	86	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	173	173
	Blundell 3	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, GO, 29	-	-	-	-	-	199	101	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, UT, 29	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200
	Wind, WYAE, 29	-	-	-	-	-	-	-	-	154	346	-	-	-	-	-	-	-	-	-	-	500	500
	Wind, Project I	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 29	-	-	-	-	-	-	186	606	8	-	-	-	-	-	-	-	-	-	-	-	800	800
	Wind, WYSW, 35	-	-	-	486	201	351	263	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	1,300
	Total Wind	99	99	-	486	500	750	550	606	162	346	-	-	-	-	-	-	-	-	-	-	3,598	3,598
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	CHP - Kern River	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
	Distributed Standby Generation	8	7.5	8	8	8	8	8	4	4	4	-	-	-	-	-	-	-	-	-	-	64	64
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.6	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	12	100	10	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19	41
	DSM, Class 2, UT	47	55.3	49	52	53	58	53	50	53	51	55	54	56	58	59	73	64	62	60	60	521	1,122
	DSM, Class 2, WY	1	3.7	6	9	9	9	9	9	9	9	9	9	10	10	10	10	10	11	11	10	74	174
	DSM, Class 2 Total	50	60.9	57	62	64	69	64	61	64	62	66	65	68	70	71	85	77	75	73	73	614	1,337
	Fuel Cell	-	-	-	-	5	5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
	FOT Utah Q3	-	-	-	-	50	50	50	43	-	-	-	-	-	-	-	-	50	50	50	50	19	20
	FOT Mead Q3	-	-	-	-	-	-	-	-	326	495	535	596	600	600	600	600	600	600	600	600	82	338
	FOT Mona/Nevada Utah Border	75	50	150	344	290	200	200	200	-	200	200	200	-	-	-	-	-	-	-	-	171	105
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	104	133	136	126	N/A	71
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	172	148	305	376	N/A	125
	Growth Resource Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139	333	416	N/A	111
West																							
	CCS Bridger1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	CCS Bridger2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	-	-	-	-	265
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Geothermal	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
	Wind, MC, 35	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Wind, WM, 35	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Wind	45	20.0	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	265	265
	Utility Biomass	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	1	1	1	-	-	-	-	-	-	-	-	-	-	22	22

Case 18b

PVRR: $50,597

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 1, WW-Curtail	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
DSM, Class 1, WW-DLC-RES	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
DSM, Class 1, WW-Sch-TES	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
DSM, Class 1, WM-Curtail	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
DSM, Class 1, WM-DLC-RES	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	5.8
DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
DSM, Class 1, WM-Sch-TES	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
DSM, Class 1, YA-Curtail	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
DSM, Class 1, YA-Sch-TES	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
DSM, Class 1 & 3 Total	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	34
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	32	63
DSM, Class 2, WM	28	28	31	31	31	31	31	31	31	20	21	20	20	20	20	20	20	21	21	21	292	497
DSM, Class 2, YA	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	61	126
DSM, Class 2 Total	36	38.1	40	40	40	41	40	40	40	30	30	30	30	29	30	31	30	30	30	30	385	686
Fuel Cell	-	-	-	-	5	5	25	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35
FOT COB Flat	-	-	30	389	-	-	289	239	-	-	338	338	338	338	338	-	338	338	338	338	95	199
FOT COB Q3	-	-	-	-	389	389	-	-	239	239	-	-	-	-	-	338	-	-	-	-	126	80
FOT MidColumbia Q3	-	-	-	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	280	340
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35	43
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	115	120	127	339	330	322	334	315	N/A	250
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	296	424	182	229	143	291	215	221	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	27	-	298	156	291	157	19	53	N/A	125
Annual Additions, Long Term Resources	275	377	194	907	784	1,057	960	1,022	286	458	98	96	99	101	102	118	983	106	103	103		
Annual Additions, Short Term Resources	75	50	180	1,183	1,179	1,089	989	932	1,015	1,384	1,522	1,584	1,825	1,931	2,062	2,111	2,477	2,627	2,778	2,944		
Total Annual Additions	350	427	374	2,090	1,963	2,147	1,950	1,954	1,301	1,843	1,620	1,680	1,924	2,032	2,164	2,229	3,460	2,732	2,882	3,047		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Case 47b

PVRR: $21,785

		Nameplate Capacity, MW																				Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
East																							
	UT Pulverized Coal	-	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-	-	-	-	-	-	600
	IC Aero	-	-	-	-	348	-	-	261	-	-	-	-	-	-	-	-	-	-	-	-	609	609
	East PPA	-	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201
	Coal & Gas Capacity Upgrades	3	44	33	25	2	14	-	8	-	-	-	-	-	-	-	-	-	-	-	-	128	128
	Wind, GO, 24	-	-	-	-	-	-	-	-	49	171	-	-	-	-	-	-	-	-	-	-	221	221
	Wind, GO, 29	-	-	-	-	-	-	4	187	108	-	-	-	-	-	-	-	-	-	-	-	300	300
	Wind, Project I	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	140	140
	Wind, Project II	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	160	160
	Wind, Duke Energy PPA	-	99.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, HighPlains	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99
	Wind, WYSW, 35	-	-	-	-	-	-	-	-	-	-	-	-	-	23	750	527	-	-	-	-	-	1,300
	Total Wind	99	99	-	-	-	-	4	327	158	331	-	-	-	23	750	527	-	-	-	-	1,018	2,318
	CHP - Biomass	2	2.0	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	20	20
	CHP - Reciprocating Engine	1	0.6	1	1	1	1	2	2	2	2	2	2	2	2	2	2	-	-	-	-	12	21
	Distributed Standby Generation	8	7.5	8	8	8	8	8	8	4	4	-	-	-	-	-	-	-	-	-	-	68	68
	DSM, Class 1, UT-Coolkeeper	25	50	40	30	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	205	205
	DSM, Class 1, GO-Curtail	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1, GO-DLC-RES	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
	DSM, Class 1, GO-Irrigate	-	-	-	-	1.2	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6.3
	DSM, Class 1, GO-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, UT-Curtail	-	-	-	-	-	-	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	29.9	29.9
	DSM, Class 1, UT-Irrigate	-	-	-	-	-	24.1	14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	38.7
	DSM, Class 1, UT-Sch-TES	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
	DSM, Class 1, WY-Curtail	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	7.4
	DSM, Class 1, WY-DLC-RES	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.8
	DSM, Class 1, WY-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1 & 3 Total	25	50.0	40	30	11	39	71	10	10	10	-	-	-	-	-	-	-	-	-	-	296	296
	DSM, Class 2, GO	2	2.0	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	22	43
	DSM, Class 2, UT	41	48.7	44	44	49	51	51	45	46	48	47	48	49	51	52	52	50	53	54	55	467	979
	DSM, Class 2, WY	1	3.1	6	8	8	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	69	166
	DSM, Class 2 Total	43	53.7	52	55	60	62	62	56	57	59	58	59	60	62	64	64	63	66	66	67	559	1,187
	FOT Utah Q3	-	-	-	28	-	50	50	50	-	50	-	-	-	50	-	-	-	-	-	-	23	14
	FOT Mead Q3	-	-	-	-	-	-	-	-	526	600	480	517	600	600	600	600	600	600	600	600	113	346
	FOT Mona/Nevada Utah Border	75	50	150	350	200	200	200	200	200	200	170	200	-	-	-	-	-	-	-	-	183	110
	Growth Resource Goshen	-	-	-	-	-	-	-	-	-	-	-	-	178	173	170	39	-	18	42	90	N/A	89
	Growth Resource Utah North	-	-	-	-	-	-	-	-	-	-	-	-	62	105	64	-	-	-	-	-	N/A	29
West																							
	Coal Plant Turbine Upgrades	-	9	9	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42
	Swift Hydro Upgrades*	-	-	-	25	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	75
	Wind PPA	45	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Total Wind	45	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	65
	Utility Biomass	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
	CHP - Biomass	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	12	12
	CHP - Reciprocating Engine	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6	6
	Distributed Standby Generation	3	3	3	3	3	3	3	3	1	1	-	-	-	-	-	-	-	-	-	-	24	24
	DSM, Class 1, WW-Curtail	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5
	DSM, Class 1, WW-DLC-RES	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5
	DSM, Class 1, WW-Irrigate	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2
	DSM, Class 1, WW-Sch-TES	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
	DSM, Class 1, WM-Curtail	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1
	DSM, Class 1, WM-DLC-RES	-	-	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	4.2
	DSM, Class 1, WM-Irrigate	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	12.5
	DSM, Class 1, WM-Sch-TES	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1
	DSM, Class 1, YA-Curtail	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9
	DSM, Class 1, YA-Irrigate	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	5.5
	DSM, Class 1, YA-Sch-TES	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2
	DSM, Class 1 & 3 Total	-	-	-	-	-	20	13	-	-	-	-	-	-	-	-	-	-	-	-	-	33	33

Case 47b

PVRR: $21,785

	Nameplate Capacity, MW																				Resource Sum, FOT Avg	
Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10 Year	20 Year *
DSM, Class 2, WA	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	59
DSM, Class 2, WM	28	28	30	30	31	31	31	31	31	20	20	20	20	20	20	20	20	20	20	20	290	493
DSM, Class 2, YA	5	6	6	5	5	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	55	116
DSM, Class 2 Total	35	36.5	39	39	39	39	40	39	39	29	29	29	30	29	29	30	29	30	30	30	375	668
FOT COB Flat	-	-	47	389	389	389	289	239	239	239	338	338	338	338	338	338	338	338	338	338	222	280
FOT Mid Columbia Flat	-	-	-	-	-	-	-	203	-	227	-	-	-	-	27	128	104	167	178	202	43	62
FOT MidColumbia Q3	-	-	-	400	390	400	400	197	-	-	-	-	-	-	-	-	-	-	-	-	179	89
FOT West Main Q3	-	-	-	50	50	50	50	50	50	50	-	-	50	50	50	50	50	50	50	50	35	38
Growth Resource Walla Walla	-	-	-	-	-	-	-	-	-	-	-	-	73	74	75	103	99	104	103	153	N/A	98
Growth Resource West Main	-	-	-	-	-	-	-	-	-	-	-	-	-	24	33	155	298	393	520	577	N/A	250
Growth Resource Yakima	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177	178	182	160	156	147	N/A	125
Annual Additions, Long Term Resources	265	326	187	400	511	214	230	717	275	440	688	89	92	116	844	622	92	95	96	97		
Annual Additions, Short Term Resources	75	50	197	1,217	1,030	1,089	989	939	1,015	1,366	987	1,054	1,301	1,413	1,534	1,589	1,672	1,830	1,987	2,157		
Total Annual Additions	340	376	385	1,617	1,541	1,303	1,220	1,657	1,291	1,806	1,676	1,143	1,392	1,529	2,378	2,212	1,764	1,925	2,083	2,254		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

RESOURCE DIFFERENCES, B-SERIES LESS CORRESPONDING ORIGINAL PORTFOLIOS

Table A.19 – Resource Capacity Differences, Case 2B less Original Case 2 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Dist. Gen	4	4	4	4	4	16	6	6	2	(1)	(1)	(1)	50	41
	Wind	-	-	-	-	-	-	140	-	-	(140)	-	-	-	659
	DSM	2.9	3.4	4.2	6.6	6.0	52.8	51.7	6.3	-	0.4	-	-	134.3	135.8
	Market Purchase	75	50	150	259	263	50	41	6	175	173	210	271	124	48
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		58
West															
	Gas	-	-	-	-	-	287	-	-	-	-	-	-	287	287
	Dist. Gen	2	2	2	2	2	2	2	2	-	-	-	(1)	17	13
	Other Renewables	-	-	-	-	-	-	25	25	-	-	-	-	50	50
	DSM	0.5	0.7	0.6	0.1	1.1	20.8	15.5	0.5	(0.5)	-	-	-	39.6	39.6
	Market Purchase	-	-	(176)	237	222	101	-	-	(170)	(163)	(200)	(259)	5	(9)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		62
	Annual Additions, Long Term Resources	10	10	11	(594)	13	379	240	40	1	(140)	(1)	(1)		
	Annual Additions, Short Term Resources	75	50	(26)	495	485	151	41	6	5	10	11	12		
	Total Annual Additions	85	60	(15)	(99)	498	530	280	46	6	(129)	10	11		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.20 – Resource Capacity Differences, Case 5B less Original Case 5 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Clean Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	(346)
	Gas	-	-	-	-	-	261	-	(261)	-	-	-	-	-	-
	Dist. Gen	4	4	4	4	4	16	34	14	-	-	(1)	(1)	84	81
	Wind	-	-	-	-	-	-	451	750	-	(651)	(400)	-	550	-
	Other Renewables	-	-	-	-	-	-	-	35	-	-	-	-	35	35
	DSM	2.9	3.1	3.0	6.6	4.1	76.2	22.2	14.1	-	-	-	-	132.1	142.1
	Market Purchase	75	50	150	252	265	50	50	25	196	12	26	50	113	(14)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		149
West															
	Gas	-	-	-	-	-	-	-	130	-	-	-	-	130	130
	Dist. Gen	2	2	2	2	2	2	2	12	-	-	(1)	(1)	25	22
	Other Renewables	-	-	-	-	-	-	25	60	-	-	-	-	85	85
	DSM	1.3	0.7	0.6	0.1	1.5	21.5	6.3	9.7	-	-	-	-	41.8	41.8
	Market Purchase	-	-	(175)	244	222	104	4	-	(171)	27	23	(0)	26	(45)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		233
	Annual Additions, Long Term Resources	11	10	10	(594)	11	376	539	763	-	(651)	(402)	(1)		
	Annual Additions, Short Term Resources	75	50	(25)	496	487	154	54	25	25	39	49	50		
	Total Annual Additions	86	60	(15)	(98)	498	530	593	788	25	(611)	(353)	49		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.21 – Resource Capacity Differences, Case 5B CCCT Dry less Original Case 5B Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	536	-	-	-	-	-	-	536	536
	Dist. Gen	-	-	4	4	4	2	4	4	-	-	-	-	21	21
	Wind	-	-	-	-	-	-	-	-	-	-	150	-	-	-
	DSM	0.2	0.5	-	-	-	-	0.8	-	-	-	-	-	1.4	1.4
	Market Purchase	75	50	150	277	294	-	27	25	196	-	-	1	109	(20)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		96
West															
	Dist. Gen	-	-	2	2	2	-	2	2	-	-	-	-	8	8
	Other Renewables	-	-	-	-	-	-	-	-	-	-	-	-	-	50
	DSM	1.3	-	-	-	0.2	0.5	0.1	-	-	-	-	-	2.1	2.1
	Market Purchase	-	-	(156)	244	222	35	4	-	(171)	25	22	21	20	(2)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		193
	Annual Additions, Long Term Resources	2	0	5	(601)	6	539	6	5	-	-	150	-		
	Annual Additions, Short Term Resources	75	50	(6)	521	516	35	30	25	25	25	22	22		
	Total Annual Additions	77	50	(1)	(80)	522	574	36	31	25	25	172	22		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.22 – Resource Capacity Differences, Case 5B CCCT Wet less Original Case 5 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	570	-	-	-	-	-	-	570	570
	Dist. Gen	-	-	-	1	-	-	-	-	-	-	-	-	1	-
	Wind	-	-	-	-	-	-	-	-	-	-	150	-	-	-
	Market Purchase	75	50	150	286	308	-	17	21	192	-	-	-	110	(20)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		76
West															
	Dist. Gen	-	-	-	-	1	-	-	-	-	-	-	-	1	0
	Other Renewables	-	-	-	-	-	-	-	-	-	-	-	-	-	50
	DSM	1.3	-	-	-	-	0.2	0.1	-	-	-	-	-	1.6	1.6
	Market Purchase	-	-	(151)	244	222	21	4	-	(171)	21	18	18	19	6
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		187
	Annual Additions, Long Term Resources	1	0	-	(606)	1	570	0	-	-	-	150	-		
	Annual Additions, Short Term Resources	75	50	(1)	531	530	21	21	21	21	21	18	18		
	Total Annual Additions	76	50	(1)	(76)	531	591	21	21	21	21	167	18		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.23 – Resource Capacity Differences, Case 8B less Original Case 8 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	-	-	261	-	-	-	-	261	261
	Dist. Gen	3	1	1	7	(1)	5	29	(2)	-	-	(1)	(1)	42	40
	Wind	-	-	-	41	-	464	(6)	(193)	(158)	(249)	-	-	(100)	(100)
	Other Renewables	-	-	-	-	35	-	-	-	-	-	-	-	35	35
	DSM	5.0	10.1	5.2	7.2	4.3	94.9	3.7	(6.1)	(0.0)	(0.5)	-	-	123.9	123.9
	Market Purchase	75	50	150	271	156	50	50	-	177	-	-	10	98	(18)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		252
West															
	Dist. Gen	2	1	1	-	-	5	30	(2)	-	-	(1)	(1)	37	35
	Other Renewables	-	-	-	-	35	-	-	(35)	-	-	-	-	-	-
	DSM	0.8	0.9	0.8	1.4	1.3	35.7	1.1	(0.6)	-	-	-	-	41.4	41.4
	Market Purchase	-	-	(174)	230	270	180	119	-	(163)	40	36	27	50	(28)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		151
	Annual Additions, Long Term Resources	11	12	7	(550)	75	605	58	23	(158)	(249)	(1)	(1)		
	Annual Additions, Short Term Resources	75	50	(24)	501	425	230	169	-	14	40	36	37		
	Total Annual Additions	86	62	(17)	(50)	500	835	227	23	(144)	(209)	34	35		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.24 – Resource Capacity Differences, Case 9B less Original Case 9 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Clean Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	(346)
	Gas	-	-	-	-	-	261	-	(261)	-	-	-	-	-	-
	Dist. Gen	4	4	4	4	4	10	45	9	-	-	(1)	(1)	84	81
	Wind	-	-	-	-	-	100	451	750	(444)	(536)	(305)	(15)	320	0
	Other Renewables	-	-	-	-	-	-	-	35	-	-	-	-	35	35
	DSM	2.9	2.5	3.0	6.6	6.1	73.8	22.7	13.8	-	-	-	-	131.3	141.3
	Market Purchase	75	50	150	373	465	152	52	24	33	45	52	53	142	4
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		104
West															
	Gas	-	-	-	-	-	-	-	130	-	-	-	-	130	130
	Dist. Gen	2	2	2	2	2	2	2	12	-	-	(1)	(1)	26	22
	Other Renewables	-	-	-	-	-	-	25	60	-	-	-	-	85	85
	DSM	1.3	0.7	0.6	0.1	1.2	21.5	6.7	9.1	-	-	-	-	41.3	41.4
	Market Purchase	-	-	(175)	124	21	-	-	-	-	-	-	-	(3)	(1)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		127
	Annual Additions, Long Term Resources	11	10	10	(594)	13	468	551	757	(444)	(536)	(306)	(16)		
	Annual Additions, Short Term Resources	75	50	(25)	497	486	152	52	24	33	45	52	53		
	Total Annual Additions	86	60	(15)	(97)	499	620	603	781	(411)	(492)	(254)	38		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.25 – Resource Capacity Differences, Case 10B less Original Case 10 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	-	-	261	-	-	-	-	261	261
	Dist. Gen	4	4	4	4	21	9	20	(4)	-	-	(1)	(1)	61	60
	Wind	-	-	-	-	139	359	-	(191)	(158)	(248)	189	-	(100)	89
	Other Renewables	-	-	-	-	-	35	-	(35)	-	-	-	-	-	-
	DSM	6.8	7.0	5.2	7.2	7.9	97.1	2.1	(6.0)	(0.1)	(0.5)	-	-	126.7	126.7
	Market Purchase	75	50	150	354	423	187	73	(0)	122	114	69	28	155	18
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		266
West															
	Dist. Gen	2	2	2	2	7	7	32	(2)	-	-	(1)	(1)	51	49
	Wind	-	-	-	-	-	100	-	(100)	-	-	-	-	-	-
	Other Renewables	-	-	-	-	-	35	-	(35)	-	-	-	-	-	-
	DSM	0.5	1.0	0.8	1.6	1.3	35.3	0.5	-	-	-	-	-	41.0	41.0
	Market Purchase	-	-	(183)	134	42	-	50	-	(107)	(74)	(7)	36	(14)	(5)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		16
	Annual Additions, Long Term Resources	14	14	12	(593)	175	677	54	(111)	(158)	(249)	188	(1)		
	Annual Additions, Short Term Resources	75	50	(33)	488	465	187	123	(0)	14	40	62	63		
	Total Annual Additions	89	64	(21)	(105)	640	863	177	(112)	(144)	(209)	251	62		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.26 – Resource Capacity Differences, Case 17B less Original Case 17 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	-	-	261	-	-	-	-	261	261
	Dist. Gen	4	4	4	4	4	4	44	-	-	-	(1)	(1)	67	66
	Wind	-	-	169	138	-	-	(0)	(288)	(68)	(250)	-	-	(300)	(300)
	DSM	7.2	4.0	0.5	3.0	8.6	94.3	12.5	(0.4)	(7.3)	(0.4)	-	-	121.9	121.9
	Market Purchase	75	50	150	265	171	68	50	45	182	-	-	-	106	(7)
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		310
West															
	Dist. Gen	2	2	2	2	2	2	12	-	-	-	(1)	(1)	22	21
	Wind	-	-	138	(138)	-	-	-	-	-	500	-	-	500	500
	DSM	0.8	1.0	0.6	0.7	0.9	27.7	7.9	0.1	(0.2)	-	-	-	39.6	39.6
	Market Purchase	-	-	(183)	189	271	257	239	14	(111)	97	92	94	77	13
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		77
	Annual Additions, Long Term Resources	14	11	313	(598)	15	127	76	(27)	(76)	249	(1)	(1)		
	Annual Additions, Short Term Resources	75	50	(33)	454	442	326	289	60	71	97	92	94		
	Total Annual Additions	89	61	281	(144)	457	453	364	33	(5)	346	91	92		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

Table A.27 – Resource Capacity Differences, Case 18B less Original Case 18 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	-	-	-	261	-	-	-	-	261	261
	Dist. Gen	4	4	4	4	9	9	34	-	-	-	(1)	-	66	66
	Wind	-	-	-	223	-	-	264	206	(588)	(404)	-	-	(300)	(300)
	DSM	6.8	6.9	5.2	7.2	4.9	97.0	1.6	(0.4)	(6.1)	(0.5)	-	-	122.6	127.0
	Market Purchase	75	50	150	344	340	250	219	29	21	71	70	70	155	28
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		144
West															
	Dist. Gen	2	2	2	2	7	7	27	-	-	-	(1)	(1)	47	46
	Other Renewables	-	-	-	-	35	(35)	-	-	-	-	-	-	-	-
	DSM	0.5	0.9	0.8	1.7	1.3	35.0	0.5	-	-	-	-	-	40.7	40.7
	Market Purchase	-	-	(182)	140	95	29	20	-	26	3	-	-	13	7
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		122
	Annual Additions, Long Term Resources	14	14	12	(370)	56	112	326	467	(594)	(405)	(1)	(1)		
	Annual Additions, Short Term Resources	75	50	(32)	484	434	279	240	29	46	74	70	70		
	Total Annual Additions	89	64	(20)	114	491	391	566	496	(548)	(331)	68	69		

** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

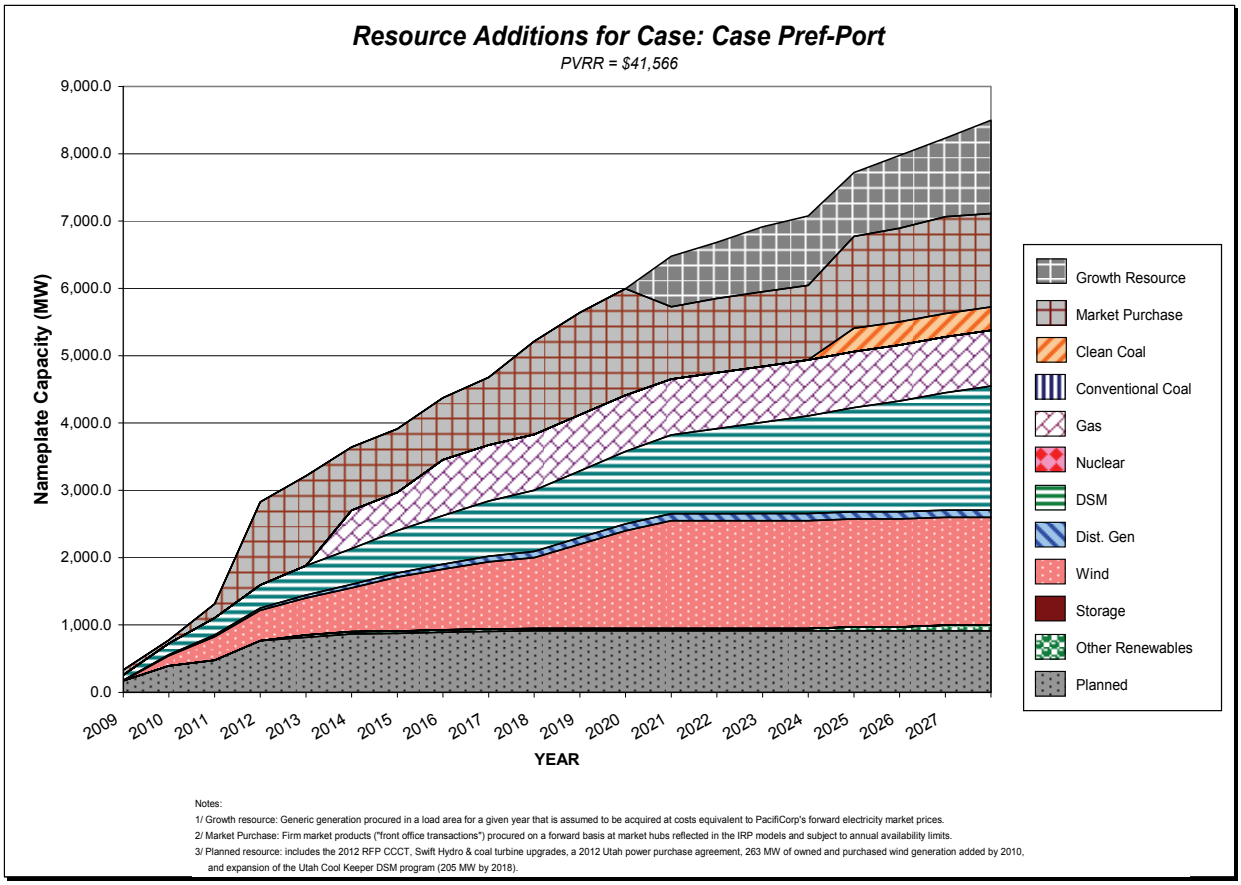
Table A.28 – Resource Capacity Differences, Case 47B less Original Case 47 Portfolio

		Nameplate Capacity, MW												Resource Sum, FOT Avg	
	Resource	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year	20 Year *
East															
	Planned Resource	-	-	-	(607)	-	-	-	-	-	-	-	-	(607)	(607)
	Gas	-	-	-	-	174	-	-	261	-	-	-	-	435	435
	Dist. Gen	1	1	1	1	-	-	-	-	-	-	(1)	(1)	2	(0)
	Wind	-	-	-	-	-	-	4	(6)	(0)	-	-	(24)	(2)	776
	DSM	0.9	3.3	2.2	2.4	6.3	34.7	66.1	(5.8)	-	0.7	0.4	-	110.8	114.3
	Market Purchase	75	50	150	227	56	50	50	-	160	-	239	250	82	12
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		86
West															
	Dist. Gen	1	1	1	1	1	-	-	-	1	-	-	(1)	4	0
	Other Renewables	-	-	-	-	-	-	25	-	-	-	-	-	25	25
	DSM	-	-	0.6	0.1	1.1	20.8	13.3	(21.5)	0.1	-	-	-	14.7	14.7
	Market Purchase	-	-	(158)	295	304	256	155	-	(161)	(1)	(240)	(249)	69	34
	Growth Resource	-	-	-	-	-	-	-	-	-	-	-	-		36
	Annual Additions, Long Term Resources	2	4	4	(603)	182	55	109	228	0	1	(0)	(25)		
	Annual Additions, Short Term Resources	75	50	(8)	521	360	306	205	-	(1)	(1)	(1)	1		
	Total Annual Additions	77	54	(4)	(82)	542	361	314	228	(0)	(0)	(1)	(25)		

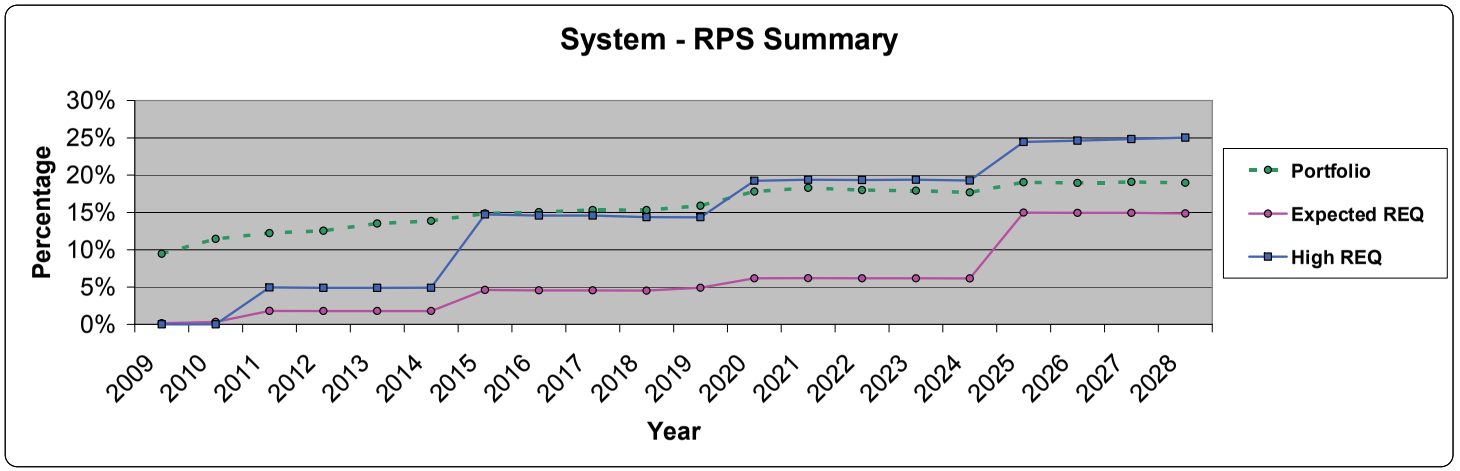
** For the 20 Year column "Growth Stations" are an 8 year average reflecting the available years from 2021-2028.*

2008 PREFERRED PORTFOLIO

This section consists of tables and charts showing System Optimizer results for the 2008 IRP preferred portfolio.



System - RPS Report - Case # Pref-Port	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System																				
RPS Requirement - Energy GWh																				
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,257	5,301	5,358	5,391
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	-	-	122	122	122	123	370	372	375	377	632	636	640	644	647	651	655	659	662	666
Oregon	-	-	701	708	720	732	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Total RPS Requirement	88	176	1,007	1,023	1,046	1,068	2,821	2,849	2,884	2,908	3,195	4,067	4,113	4,139	4,174	4,209	10,326	10,400	10,500	10,577
Bank Balance																				
Utah	5,550	8,912	12,527	16,289	20,396	24,704	29,132	33,718	38,459	43,277	48,380	53,776	59,382	64,937	70,507	76,072	76,484	76,874	77,311	77,737
Other (ID,WY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	336	582	516	598	686	507	325	372	406	211	46	117	135	118	110	111	106	104	101
Oregon	1,376	2,640	3,322	4,080	4,987	5,946	5,455	5,031	4,659	4,322	4,116	3,250	2,454	1,601	713	-	-	-	-	-
Cumulative Surplus Credit Bank Balance	**6,926**	**11,887**	**16,432**	**20,885**	**25,982**	**31,336**	**35,094**	**39,073**	**43,490**	**48,004**	**52,707**	**57,072**	**61,953**	**66,673**	**71,338**	**76,182**	**76,595**	**76,980**	**77,415**	**77,838**
Adjusted Qualifying Renewables																				
Utah	2,950	3,361	3,616	3,762	4,107	4,307	4,428	4,586	4,741	4,818	5,104	5,396	5,606	5,555	5,570	5,565	5,670	5,690	5,795	5,817
Other (ID,WY)	823	1,130	1,263	1,354	1,521	1,622	1,686	1,781	1,867	1,902	2,059	2,227	2,347	2,315	2,320	2,280	2,346	2,363	2,430	2,446
California	88	176	185	194	204	213	223	233	243	253	263	336	339	341	345	348	352	354	357	360
Washington	264	336	368	391	451	479	520	547	572	586	634	679	714	705	704	703	713	708	717	712
Oregon	982	1,264	1,383	1,465	1,627	1,691	2,228	2,244	2,266	2,277	2,300	3,096	3,133	3,154	3,182	3,211	4,061	4,087	4,123	4,160
Adjusted Qualifying Renewables	**5,108**	**6,266**	**6,815**	**7,166**	**7,910**	**8,314**	**9,086**	**9,391**	**9,689**	**9,836**	**10,360**	**11,733**	**12,139**	**12,069**	**12,121**	**12,107**	**13,142**	**13,201**	**13,422**	**13,495**
System Load	53,963	54,666	55,678	57,151	58,499	59,922	61,152	62,411	63,213	64,270	65,181	65,879	66,387	67,024	67,665	68,456	68,968	69,631	70,300	71,140
Portfolio	9%	11%	12%	13%	14%	14%	15%	15%	15%	15%	16%	18%	18%	18%	18%	18%	19%	19%	19%	19%
Portfolio Meets RPS																				
Expected REQ %	0%	0%	2%	2%	2%	2%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%	15%	15%	15%	15%



Study Description

CO2 Type = CO2 tax, CO2 Cost = $45, Gas = Low - June 2008, Load Growth = Medium, Renewable Std = None, Baseload Plant Avail = Base, Plant Cost = Base, Rsv Margin = 0.12, Class 3 DSM = Excluded, (No Lakeside II - CCCT -WC)

APPENDIX B – STOCHASTIC PRODUCTION COST SIMULATION RESULTS

This appendix reports additional results for the Monte Carlo production cost simulations conducted with PacifiCorp's Planning and Risk model. These results supplement the data presented in Chapter 8 of the main IRP document. The results presented include the following:

- Stochastic risk and other portfolio performance measures for the additional portfolios modeled to support a 2012 gas resource deferral strategy (referred to as the "B series" in this appendix)

- A component cost breakdown of the stochastic mean Present Value of Revenue Requirements (PVRR) reported for all the portfolios.

Table B.1 – Stochastic Mean PVRR by CO_2 Tax Level, B Series Portfolios

Case	CO2 Tax (Million 2009$)			
	$0/ton	$45/ton	$100/ton	Average
2B	22,126	40,062	60,448	40,879
5B	22,554	39,452	58,664	40,224
5B_CCCT Dry	22,462	39,369	58,751	40,194
5B_CCCT Wet	22,457	39,315	58,639	40,137
8B	23,402	39,673	57,809	40,295
9B	22,778	39,725	59,031	40,511
10B	23,921	40,261	58,542	40,908
17B	25,569	40,539	56,798	40,968
18B	25,102	40,353	57,136	40,864
47B	22,658	40,507	60,872	41,346

Table B.2 – Stochastic Risk Results by CO_2 Tax Level, B Series Portfolios

Case	Risk Measure by CO2 Tax Level (Million 2009$)			
	Production Cost Standard Deviation	5th Percentile	95th Percentile	Upper-Tail Mean
$0/ton CO2 Tax				
2B	8,702	12,646	36,914	50,630
5B	8,859	13,441	37,820	51,782
5B_CCCT Dry	9,140	13,595	37,386	52,993
5B_CCCT Wet	9,103	13,601	37,349	52,874
8B	8,267	14,270	37,697	50,203
9B	8,955	13,644	38,113	52,426
10B	8,350	14,832	38,506	51,241
17B	7,583	16,363	38,434	49,330
18B	7,905	15,901	38,712	50,424

Case	Risk Measure by CO2 Tax Level (Million 2009$)			
	Production Cost Standard Deviation	5th Percentile	95th Percentile	Upper-Tail Mean
47B	8,737	13,367	37,074	51,363
$45/ton CO2 Tax				
2B	11,114	25,686	59,314	73,178
5B	11,211	25,130	59,065	73,171
5B_CCCT Dry	11,480	24,932	58,565	74,252
5B_CCCT Wet	11,433	24,917	58,391	74,029
8B	10,593	26,224	58,397	70,946
9B	11,303	25,304	59,415	73,857
10B	10,720	26,463	59,354	72,143
17B	9,825	26,977	57,866	68,742
18B	10,178	27,621	58,429	70,111
47B	11,165	26,098	59,398	73,800
$100/ton CO2 Tax				
2B	16,792	38,762	90,087	106,209
5B	16,817	36,998	88,526	104,917
5B_CCCT Dry	17,186	37,396	88,207	106,410
5B_CCCT Wet	17,142	37,433	87,959	106,144
8B	16,038	36,943	86,765	101,179
9B	16,912	37,252	88,957	105,723
10B	16,250	37,635	88,046	102,765
17B	14,990	37,546	84,231	96,591
18B	15,453	37,354	85,373	98,767
47B	16,941	39,461	90,319	107,006
CO2 Tax Average				
2B	12,202	25,698	62,105	76,672
5B	12,296	25,190	61,804	76,623
5B_CCCT Dry	12,602	25,308	61,386	77,885
5B_CCCT Wet	12,559	25,317	61,233	77,682
8B	11,633	25,813	60,953	74,109
9B	12,390	25,400	62,162	77,335
10B	11,773	26,310	61,969	75,383
17B	10,799	26,962	60,177	71,554
18B	11,179	26,959	60,838	73,101
47B	12,281	26,308	62,264	77,390

Table B.3 – B Series Cases, Portfolio Emissions Externality Cost by CO_2 Adder Level

Case	Incremental Stochastic Mean PVRR by CO_2 Tax Level (Million 2009$)			
	$0/ton	$45/ton	$100/ton	Average
2B	0	17,936	38,322	28,129
5B	0	16,898	36,110	26,504
5B_CCCT Dry	0	16,907	36,289	26,598

Case	Incremental Stochastic Mean PVRR by CO_2 Tax Level (Million 2009$)			
	$0/ton	$45/ton	$100/ton	Average
5B_CCCT Wet	0	16,858	36,182	26,520
8B	0	16,272	34,408	25,340
9B	0	16,947	36,253	26,600
10B	0	16,340	34,620	25,480
17B	0	14,970	31,228	23,099
18B	0	15,252	32,034	23,643
47B	0	17,848	38,214	28,031

Table B.4 – B Series Cases, CO_2 Cost Exposure (non-weighted)

Case	CO2 Opportunity Loss by CO2 Tax Level, Million Dollars (2009$)			Maximum Loss	Rank
	$0/ton	$45/ton	$100/ton		
2B	-	793	3,943	3,943	9
5B	474	171	2,081	2,081	4
5B_CCCT Dry	360	62	2,152	2,152	5
5B_CCCT Wet	353	-	2,028	2,028	3
8B	1,315	359	1,139	1,315	1
9B	712	461	2,470	2,470	6
10B	1,875	994	1,935	1,935	2
17B	3,520	1,198	-	3,520	8
18B	3,066	1,040	396	3,066	7
47B	541	1,242	4,379	4,379	10

Table B.5 – B Series Cases, Customer Rate Impact

Case	Customer Rate Impact by CO2 Tax Level ($/MWh)				Rank
	$0/ton	$45/ton	$100/ton	Average	
2B	3.00	6.42	10.12	6.51	8
5B	3.03	6.25	9.74	6.34	4
5B_CCCT Dry	3.06	6.22	9.65	6.31	2
5B_CCCT Wet	3.05	6.20	9.62	6.29	1
8B	3.19	6.31	9.62	6.38	5
9B	3.02	6.24	9.73	6.33	3
10B	3.32	6.45	9.79	6.52	10
17B	3.67	6.43	9.26	6.45	7
18B	3.59	6.40	9.32	6.44	6
47B	3.05	6.43	10.08	6.52	9

Table B.6 – B Series Cases, Average Annual Energy Not Served

Case	Energy Not Served, Average Annual GWh, 2009-2028	Rank
2B	132.2	3
5B	169.7	9
5B_CCCT Dry	153.7	6
5B_CCCT Wet	152.4	5
8B	154.5	7
9B	184.3	10
10B	156.7	8
17B	131.7	2
18B	144.6	4
47B	131.3	1

Table B.7 – B Series Cases, Loss of Load Probability for a Major July Event

Case	Probability of ENS Event > 25,000 MWh in July (Annual average, 2009-2028)	Rank
2B	16.7%	1
5B	18.2%	7
5B_CCCT Dry	17.8%	6
5B_CCCT Wet	17.8%	5
8B	17.7%	4
9B	19.3%	10
10B	18.4%	8
17B	17.1%	2
18B	17.1%	2
47B	18.5%	9

Table B.8 – B Series Cases, Capital Costs for 2009-2018

Case	Net Present Value, (Thousand 2009$)	Rank
2B	580,304	1
5B	1,271,802	5
5B_CCCT Dry	744,635	3
5B_CCCT Wet	756,891	4
8B	2,417,994	8
9B	1,335,078	6
10B	2,164,993	7
17B	3,624,235	10
18B	3,013,923	9
47B	641,136	2

PROBABILITY-WEIGHTED STOCHASTIC MEASURE RESULTS

Tables B.9 and B.10 report the stochastic cost results for expected value CO_2 tax levels ranging from $15 to $70. The expected value CO_2 tax levels reflect probability weights applied to stochastic mean cost values for the three Monte Carlo simulations conducted for each portfolio at $0, $45, and $100 CO_2 tax values.

Table B.9 – Original Portfolio Stochastic Cost Results

Case	Expected Value CO2 Tax ($/ton)											
	$15	$20	$25	$30	$35	$40	$45	$50	$55	$60	$65	$70
Risk-adjusted PVRR, Million Dollars (2009$)												
1	30,487	32,588	34,505	36,603	38,708	40,813	42,918	45,022	47,127	51,632	51,337	53,442
2	29,962	32,050	33,955	36,002	38,056	40,110	42,164	44,218	46,272	50,677	50,380	52,434
3	32,372	34,236	35,936	37,697	39,464	41,231	42,998	44,765	46,533	50,961	50,067	51,834
5	30,453	32,423	34,219	36,152	38,092	40,031	41,971	43,910	45,850	50,226	49,729	51,668
8	30,789	32,681	34,406	36,234	38,068	39,903	41,737	43,571	45,406	49,734	49,074	50,909
9	30,575	32,544	34,339	36,272	38,210	40,149	42,087	44,026	45,965	50,352	49,842	51,781
10	31,504	33,389	35,109	36,948	38,794	40,639	42,484	44,330	46,175	50,588	49,866	51,712
11	33,043	34,845	36,489	38,192	39,900	41,609	43,318	45,026	46,735	51,191	50,153	51,862
14	34,835	36,586	38,183	39,808	41,439	43,070	44,702	46,333	47,964	52,537	51,226	52,858
17	32,562	34,305	35,895	37,559	39,230	40,900	42,570	44,240	45,910	50,297	49,250	50,920
18	32,478	34,247	35,861	37,558	39,262	40,965	42,669	44,372	46,075	50,480	49,482	51,186
19	32,937	34,686	36,281	37,954	39,633	41,311	42,990	44,669	46,348	50,780	49,706	51,385
20	35,293	36,904	38,373	39,885	41,403	42,920	44,438	45,955	47,473	52,022	50,508	52,026
22	36,646	38,279	39,769	41,277	42,791	44,305	45,820	47,334	48,849	53,523	1,877	53,392
24	37,077	38,624	40,037	41,471	42,911	44,350	45,790	47,230	48,670	53,339	51,549	52,989
25	34,237	35,896	37,410	38,976	40,548	42,120	43,692	45,264	46,836	51,318	49,979	51,551
26	36,850	38,424	39,860	41,330	42,808	44,285	45,762	47,239	48,716	53,392	51,670	53,148
27	37,041	38,591	40,005	41,441	42,883	44,324	45,766	47,208	48,650	53,317	51,533	52,975
29	39,348	40,885	42,289	43,709	45,136	46,563	47,990	49,416	50,843	55,730	53,697	55,124
46	31,620	33,678	35,556	37,571	39,592	41,614	43,635	45,656	47,678	52,224	51,720	53,742
47	30,622	32,689	34,574	36,600	38,632	40,665	42,697	44,730	46,763	51,219	50,828	52,861
Cost Exposure for CO2 Tax Scenarios, Million Dollars (2009$)												
1	646	698	745	997	1,250	1,503	1,756	2,009	2,262	2,564	2,768	3,021
2	120	160	195	397	599	801	1,003	1,205	1,407	1,609	1,811	2,013
3	2,530	2,345	2,176	2,091	2,007	1,922	1,837	1,752	1,668	1,893	1,498	1,413
5	612	532	460	547	634	722	810	897	985	1,158	1,160	1,247
8	948	790	646	629	611	593	576	558	541	667	505	488
9	734	653	580	666	753	839	926	1,013	1,100	1,284	1,273	1,360
10	1,662	1,499	1,349	1,343	1,336	1,330	1,323	1,317	1,310	1,521	1,297	1,291
11	3,201	2,954	2,729	2,586	2,443	2,300	2,157	2,013	1,870	2,123	1,584	1,441
14	4,993	4,695	4,423	4,203	3,982	3,761	3,540	3,320	3,099	3,470	2,658	2,437
17	2,720	2,414	2,136	1,954	1,772	1,590	1,408	1,227	1,045	1,230	681	499
18	2,636	2,356	2,102	1,953	1,804	1,656	1,507	1,359	1,210	1,412	913	765
19	3,096	2,795	2,521	2,348	2,175	2,002	1,829	1,656	1,483	1,713	1,137	964
20	5,451	5,013	4,614	4,280	3,945	3,611	3,277	2,942	2,608	2,955	1,939	1,605
22	6,804	6,388	6,009	5,671	5,334	4,996	4,659	4,321	3,984	4,455	3,308	2,971
24	7,235	6,734	6,277	5,865	5,453	5,041	4,629	4,217	3,805	4,271	2,981	2,568

	Expected Value CO2 Tax ($/ton)											
Case	$15	$20	$25	$30	$35	$40	$45	$50	$55	$60	$65	$70
25	4,396	4,005	3,651	3,371	3,091	2,811	2,531	2,251	1,971	2,251	1,410	1,130
26	7,009	6,533	6,100	5,725	5,350	4,975	4,601	4,226	3,851	4,324	3,101	2,727
27	7,200	6,700	6,245	5,835	5,425	5,015	4,605	4,195	3,785	4,249	2,964	2,554
29	9,507	8,995	8,529	8,104	7,679	7,253	6,828	6,403	5,978	6,662	5,128	4,703
46	1,778	1,788	1,797	1,965	2,135	2,304	2,474	2,643	2,813	3,157	3,151	3,321
47	780	798	814	994	1,175	1,356	1,536	1,717	1,898	2,151	2,259	2,440
Customer Rate Impact, Dollars per MWh (2009$)												
1	4.00	4.38	4.73	5.09	5.46	5.82	6.19	6.56	6.92	7.57	7.66	8.02
2	4.05	4.43	4.77	5.13	5.49	5.85	6.21	6.56	6.92	7.57	7.64	8.00
3	4.54	4.88	5.19	5.51	5.82	6.13	6.44	6.76	7.07	7.73	7.69	8.01
5	4.03	4.37	4.69	5.02	5.35	5.68	6.00	6.33	6.66	7.29	7.32	7.65
8	4.14	4.48	4.79	5.11	5.43	5.75	6.07	6.39	6.71	7.34	7.35	7.67
9	4.01	4.35	4.67	5.00	5.33	5.66	5.99	6.32	6.65	7.27	7.30	7.63
10	4.28	4.62	4.93	5.25	5.57	5.89	6.21	6.53	6.85	7.49	7.49	7.81
11	4.32	4.64	4.93	5.21	5.50	5.79	6.08	6.37	6.65	7.28	7.23	7.52
14	5.07	5.38	5.67	5.96	6.24	6.53	6.81	7.10	7.38	8.08	7.96	8.24
17	4.41	4.72	4.99	5.27	5.54	5.82	6.10	6.38	6.65	7.28	7.21	7.49
18	4.56	4.87	5.15	5.44	5.72	6.01	6.29	6.58	6.87	7.51	7.44	7.72
19	4.60	4.91	5.18	5.46	5.74	6.03	6.31	6.59	6.87	7.52	7.43	7.71
20	5.05	5.31	5.55	5.78	6.02	6.25	6.48	6.72	6.95	7.61	7.42	7.65
22	5.64	5.91	6.17	6.41	6.66	6.90	7.15	7.39	7.64	8.36	8.13	8.38
24	6.00	6.25	6.48	6.71	6.93	7.15	7.38	7.60	7.83	8.57	8.27	8.50
25	4.84	5.13	5.39	5.66	5.92	6.18	6.44	6.71	6.97	7.63	7.50	7.76
26	5.88	6.13	6.36	6.59	6.82	7.05	7.28	7.51	7.74	8.47	8.19	8.42
27	5.74	5.98	6.20	6.41	6.63	6.84	7.05	7.27	7.48	8.19	7.91	8.12
29	6.47	6.72	6.95	7.16	7.38	7.60	7.82	8.04	8.25	9.04	8.69	8.91
46	4.31	4.69	5.02	5.38	5.73	6.08	6.44	6.79	7.14	7.81	7.85	8.20
47	4.15	4.52	4.86	5.21	5.57	5.92	6.28	6.63	6.99	7.64	7.70	8.05
Upper-tail Mean PVRR, Million Dollars (2009$)												
1	65,144	67,632	69,883	72,746	75,620	78,495	81,369	84,243	87,118	95,741	92,866	95,741
2	58,812	61,294	63,542	66,332	69,134	71,935	74,736	77,537	80,338	88,256	85,941	88,742
3	51,373	53,739	55,883	58,419	60,964	63,509	66,055	68,600	71,146	78,099	76,236	78,782
5	60,337	62,706	64,850	67,535	70,231	72,927	75,623	78,319	81,016	89,016	86,408	89,104
8	56,895	59,185	61,259	63,809	66,369	68,929	71,490	74,050	76,610	84,155	81,731	84,291
9	60,620	62,983	65,122	67,802	70,493	73,183	75,874	78,565	81,256	89,281	86,638	89,329
10	59,030	61,205	63,174	65,694	68,225	70,756	73,287	75,819	78,350	86,114	83,412	85,943
11	51,781	54,099	56,200	58,681	61,172	63,662	66,153	68,644	71,135	78,089	76,116	78,607
14	51,809	54,091	56,159	58,561	60,974	63,386	65,798	68,210	70,622	77,512	75,446	77,859
17	55,938	58,085	60,028	62,399	64,780	67,161	69,542	71,922	74,303	81,616	79,064	81,445
18	56,883	59,050	61,013	63,422	65,841	68,260	70,679	73,098	75,517	82,957	80,355	82,775
19	56,912	59,053	60,992	63,367	65,752	8,137	70,522	72,907	75,292	82,709	80,062	82,448
20	53,336	55,469	57,401	59,677	61,963	64,249	66,535	68,821	71,107	78,070	75,679	77,965
22	52,314	54,504	56,487	58,758	61,039	63,319	65,599	67,879	70,159	76,996	74,719	76,999
24	53,427	55,521	57,417	59,616	61,824	64,032	66,240	68,448	70,656	77,562	75,072	77,281
25	54,523	56,606	58,492	60,786	63,089	65,393	67,696	70,000	72,303	79,418	76,910	79,214
26	54,074	56,181	58,089	60,327	62,573	64,820	67,067	69,313	71,560	78,565	76,053	78,300

Case	Expected Value CO2 Tax ($/ton)											
	$15	$20	$25	$30	$35	$40	$45	$50	$55	$60	$65	$70
27	53,182	55,277	57,174	59,374	61,582	63,791	66,000	68,209	70,417	77,299	74,835	77,044
29	55,173	57,264	59,158	61,330	63,512	65,693	67,875	70,057	72,238	79,293	76,601	78,783
46	59,779	62,233	64,455	67,209	69,973	72,738	75,502	78,267	81,032	89,019	86,561	89,326
47	59,158	61,626	63,860	66,634	69,419	72,203	74,988	77,773	80,557	88,498	86,127	88,912
Standard Deviation of Production Costs, Million Dollars (2009$)												
1	11,320	11,591	11,837	12,259	12,683	13,107	13,531	13,955	14,379	15,852	15,227	15,651
2	9,650	9,929	10,181	10,601	11,023	11,445	11,867	12,289	12,711	14,012	13,555	13,977
3	7,287	7,548	7,784	8,165	8,547	8,929	9,311	9,694	10,076	11,106	10,840	11,223
5	9,911	10,186	10,434	10,850	11,268	11,685	12,103	12,521	12,938	14,263	13,774	14,192
8	8,916	9,188	9,433	9,835	10,239	10,642	11,046	11,450	11,853	13,065	12,661	13,064
9	9,941	10,213	10,459	10,873	11,288	11,704	12,119	12,534	12,950	14,276	13,781	14,196
10	9,294	9,535	9,753	10,145	10,539	10,932	11,326	11,719	12,113	13,362	12,900	13,294
11	7,274	7,526	7,754	8,126	8,499	8,872	9,244	9,617	9,990	11,013	10,736	11,109
14	6,837	7,075	7,290	7,643	7,998	8,353	8,708	9,063	9,418	10,383	10,128	10,483
17	8,241	8,502	8,738	9,121	9,506	9,891	10,276	10,661	11,045	12,174	11,815	12,200
18	8,463	8,726	8,964	9,352	9,741	10,130	10,520	10,909	11,298	12,453	12,077	12,466
19	8,362	8,621	8,855	9,237	9,620	10,004	10,388	10,771	11,155	12,295	11,922	12,306
20	7,058	7,293	7,505	7,850	8,196	8,542	8,888	9,234	9,580	10,559	10,272	10,618
22	6,538	6,758	6,958	7,286	7,616	7,946	8,276	8,606	8,936	9,852	9,596	9,926
24	6,602	6,828	7,033	7,363	7,695	8,026	8,357	8,689	9,020	9,942	9,682	10,014
25	7,567	7,814	8,038	8,400	8,764	9,129	9,493	9,857	10,221	11,266	10,949	11,313
26	6,810	7,043	7,254	7,592	7,931	8,271	8,610	8,949	9,289	10,237	9,967	10,307
27	6,578	6,801	7,003	7,329	7,656	7,983	8,310	8,637	8,964	9,880	9,618	9,945
29	6,575	6,787	6,980	7,294	7,611	7,927	8,243	8,559	8,875	9,783	9,507	9,823
46	9,483	9,761	10,012	10,431	10,851	11,271	11,691	12,111	12,531	13,814	13,371	13,791
47	9,573	9,854	10,108	10,531	10,955	11,379	11,803	12,227	12,651	13,945	13,499	13,923

Table B.10 – Stochastic Cost Results based on Probability-weighted CO_2 Tax Levels

Case	Expected Value CO2 Tax											
	$15	$20	$25	$30	$35	$40	$45	$50	$55	$60	$65	$70
Risk-adjusted PVRR, Weighted Averages, Million Dollars (2009$)												
2B	30,457	32,553	34,459	36,501	38,550	40,599	42,649	44,698	46,747	48,796	50,845	52,896
5B	30,558	32,534	34,330	36,256	38,188	40,120	42,052	43,985	45,917	47,849	49,781	51,716
5B_CCCT Dry	30,446	32,422	34,219	36,154	38,095	40,037	41,978	43,920	45,861	47,803	49,744	51,688
5B_CCCT Wet	30,420	32,390	34,181	36,111	38,046	39,982	41,917	43,853	45,789	47,724	49,660	51,598
8B	31,177	33,081	34,811	36,648	38,491	40,334	42,177	44,020	45,863	47,707	49,550	51,395
9B	30,814	32,795	34,596	36,530	38,470	40,409	42,349	44,289	46,229	48,168	50,108	52,051
10B	31,763	33,675	35,413	37,262	39,116	40,971	42,826	44,681	46,536	48,391	50,246	52,103
17B	32,917	34,671	36,265	37,934	39,610	41,286	42,962	44,638	46,314	47,990	49,666	51,344
18B	32,564	34,350	35,974	37,686	39,405	41,123	42,841	44,560	46,278	47,996	49,715	51,436
47B	30,966	33,053	34,949	36,986	39,030	41,074	43,118	45,161	47,205	49,249	51,293	53,339
Cost Exposure for CO2 Tax Scenarios, Million Dollars (2009$)												
2B	270	357	437	634	831	1,028	1,225	1,422	1,619	1,816	2,014	2,211
5B	371	338	308	388	468	548	629	709	790	870	950	1,031
5B_CCCT Dry	259	226	196	286	376	465	555	644	734	824	913	1,003

Case	Expected Value CO2 Tax											
	$15	$20	$25	$30	$35	$40	$45	$50	$55	$60	$65	$70
5B_CCCT Wet	233	194	159	243	326	410	494	578	661	745	829	913
8B	990	885	789	780	772	763	754	745	736	727	718	710
9B	627	599	574	662	750	838	926	1,013	1,101	1,189	1,277	1,365
10B	1,576	1,479	1,391	1,394	1,397	1,400	1,403	1,406	1,409	1,412	1,415	1,418
17B	2,730	2,475	2,243	2,067	1,891	1,715	1,539	1,363	1,187	1,011	835	659
18B	2,377	2,155	1,952	1,818	1,685	1,551	1,418	1,284	1,151	1,017	884	750
47B	780	857	927	1,118	1,310	1,502	1,694	1,886	2,078	2,270	2,462	2,654
Customer Rate Impact, Dollars per MWh (2009$)												
2B	4.16	4.54	4.88	5.24	5.59	5.95	6.30	6.66	7.02	7.37	7.73	8.09
5B	4.13	4.48	4.80	5.14	5.47	5.81	6.14	6.48	6.81	7.15	7.49	7.82
5B_CCCT Dry	4.13	4.48	4.80	5.13	5.46	5.79	6.11	6.44	6.77	7.10	7.43	7.76
5B_CCCT Wet	4.12	4.47	4.78	5.11	5.44	5.77	6.10	6.43	6.75	7.08	7.41	7.74
8B	4.26	4.60	4.91	5.23	5.55	5.87	6.20	6.52	6.84	7.16	7.48	7.80
9B	4.11	4.47	4.79	5.12	5.46	5.80	6.13	6.47	6.80	7.14	7.47	7.81
10B	4.38	4.73	5.04	5.36	5.69	6.01	6.33	6.66	6.98	7.30	7.63	7.95
17B	4.61	4.91	5.19	5.47	5.75	6.02	6.30	6.58	6.86	7.14	7.42	7.70
18B	4.55	4.86	5.14	5.42	5.71	6.00	6.28	6.57	6.85	7.14	7.43	7.71
47B	4.20	4.57	4.91	5.26	5.61	5.96	6.31	6.66	7.01	7.37	7.72	8.07
Upper-tail Mean PVRR, Dollars per MWh (2009$)												
2B	58,307	60,787	63,042	65,810	68,589	71,368	74,147	76,926	79,705	82,484	85,263	88,047
5B	59,065	61,417	63,556	66,203	68,859	71,516	74,173	76,830	79,486	82,143	84,800	87,462
5B_CCCT Dry	60,232	62,570	64,696	67,356	70,027	72,698	75,369	78,040	80,710	83,381	86,052	88,728
5B_CCCT Wet	60,077	62,404	64,520	67,173	69,836	72,500	75,163	77,827	80,490	83,154	85,817	88,486
8B	57,266	59,548	61,622	64,161	66,709	69,258	71,807	74,356	76,904	79,453	82,002	84,556
9B	59,723	62,080	64,224	66,878	69,543	72,207	74,872	77,537	80,202	82,867	85,532	88,202
10B	58,358	60,657	62,747	65,313	67,889	70,465	73,042	75,618	78,194	80,770	83,346	85,928
17B	55,940	58,075	60,016	62,370	64,733	67,096	69,459	71,822	74,185	76,548	78,911	81,279
18B	57,128	59,293	61,262	63,669	66,086	68,504	70,921	73,338	75,755	78,172	80,589	83,012
47B	59,003	61,471	63,714	66,486	69,268	72,050	74,832	77,615	80,397	83,179	85,961	88,748
Standard Deviation of Production Costs, Million Dollars (2009$)												
2B	9,524	9,789	10,030	10,433	10,837	11,242	11,646	12,051	12,455	12,860	13,264	13,670
5B	9,660	9,919	10,154	10,550	10,948	11,346	11,744	12,142	12,540	12,938	13,336	13,735
5B_CCCT Dry	9,937	10,195	10,429	10,829	11,232	11,634	12,036	12,439	12,841	13,243	13,645	14,049
5B_CCCT Wet	9,897	10,154	10,387	10,787	11,189	11,591	11,992	12,394	12,796	13,198	13,600	14,003
8B	9,059	9,315	9,548	9,935	10,323	10,712	11,101	11,489	11,878	12,266	12,655	13,044
9B	9,755	10,013	10,248	10,644	11,042	11,440	11,838	12,236	12,634	13,031	13,429	13,828
10B	9,158	9,418	9,655	10,049	10,444	10,839	11,234	11,629	12,024	12,419	12,814	13,209
17B	8,347	8,593	8,818	9,186	9,557	9,927	10,297	10,668	11,038	11,409	11,779	12,150
18B	8,680	8,930	9,157	9,533	9,910	10,287	10,665	11,042	11,420	11,797	12,174	12,553
47B	9,564	9,831	10,074	10,482	10,893	11,303	11,713	12,123	12,533	12,944	13,354	13,765

PORTFOLIO MEASURE RANKINGS AND PREFERENCE SCORES

Tables (B.11 through B.22) display the portfolio measure ranking and preference scores based on probability-weighted CO_2 tax levels from $15/ton to $70/ton at $5 increments (The two non-cost-based measures, average annual ENS and LOLP, are not probability-weighted.) Tables are shown for the original 21 portfolios and the additional 10 portfolios developed to determine the 2012 gas resource deferral strategy associated with the termination of the Lake Side 2 combined-cycle plant construction contract ("B" series portfolios).

Table B.23 shows portfolio measure ranking and preference scores for the additional 10 gas resource deferral strategy portfolios given an alternate importance weighting scheme with the following characteristics:

- The mean PVRR substitutes for the risk-adjusted PVRR measure
- The mean upper-tail PVRR risk measure is added
- The mean PVRR and upper-tail PVRR measures are given importance weights of 25% and 20% respectively (importance weights for all other measures remain unchanged)

The purpose of this alternative ranking scheme is to show the portfolio performance impact of heavily weighting upper-tail risk as a separate measure.

Table B.11 – $15/ton Expected-value CO_2 Tax

	Cost Measures			Risk Measures					
Case	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh	Weighted Rankings	Normalized Scores (1 to 10)
1	1.5	1.0	1.0	1.5	10.0	10.0	10	**2.7**	**2.4**
2	1.0	1.2	1.3	1.0	6.9	3.9	2.1	**1.5**	**1.0**
3	3.3	3.0	6.7	3.3	2.4	2.0	2.1	**3.2**	**3.1**
5	1.5	1.1	1.6	1.5	7.3	5.2	4.6	**2.0**	**1.6**
8	1.8	1.5	4.3	1.8	5.5	5.1	7.6	**2.5**	**2.2**
9	1.6	1.0	1.8	1.6	7.4	5.9	5.8	**2.2**	**1.8**
10	2.5	2.0	3.8	2.5	6.2	5.5	8.9	**3.1**	**3.0**
11	4.0	2.2	7.1	4.0	2.4	2.2	2.9	**3.5**	**3.5**
14	5.7	4.9	9.7	5.7	1.6	1.4	1.3	**5.1**	**5.5**
17	3.5	2.5	6.6	3.5	4.2	4.2	6.6	**3.7**	**3.7**
18	3.4	3.1	5.4	3.4	4.6	4.4	7.8	**3.8**	**3.8**
19	3.9	3.2	6.4	3.9	4.4	4.4	7.1	**4.1**	**4.2**
20	6.1	4.8	8.0	6.1	2.0	2.1	4.3	**5.4**	**5.9**
22	7.4	7.0	10.0	7.4	1.0	1.0	1.0	**6.5**	**7.2**
24	7.8	8.3	9.6	7.8	1.1	1.1	1.5	**7.0**	**7.9**
25	5.1	4.1	8.0	5.1	2.9	3.1	5.1	**4.8**	**5.1**
26	7.6	7.8	9.6	7.6	1.5	1.5	3.4	**6.9**	**7.8**
27	7.8	7.3	9.6	7.8	1.1	1.3	2.6	**6.9**	**7.7**
29	10.0	10.0	9.7	10.0	1.1	1.0	1.7	**8.7**	**10.0**
46	2.6	2.1	2.7	2.6	6.5	4.8	9.0	**3.1**	**3.0**
47	1.6	1.5	1.5	1.6	6.7	4.5	6.9	**2.3**	**1.9**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	1.1	1.9	1.0	3.0	7.7	1.2	1	**1.5**	**1.2**
5B	1.5	1.2	3.0	4.0	8.4	7.5	6.3	**2.4**	**2.2**
5B_CCCT Dry	1.1	1.4	1.5	2.0	10.0	4.8	4.9	**1.6**	**1.3**
5B_CCCT Wet	1.0	1.2	1.5	1.0	9.8	4.6	4.7	**1.4**	**1.0**
8B	3.7	3.6	6.4	7.0	5.0	4.9	4.5	**4.2**	**4.5**
9B	2.4	1.0	3.2	5.0	9.0	10.0	10.0	**3.2**	**3.3**
10B	5.8	5.9	5.7	8.0	5.6	5.3	6.8	**5.9**	**6.6**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.7	8.9	8.2	9.0	2.9	3.3	2.2	**7.7**	**8.9**
47B	3.0	2.6	1.2	6.0	7.9	1.0	7.4	**3.2**	**3.3**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.12 – $20/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	1.5	1.1	1.0	1.5	10.0	10.0	10	**2.7**	**2.4**
2	1.0	1.3	1.3	1.0	6.9	3.9	2.1	**1.6**	**1.0**
3	3.2	3.0	6.7	3.2	2.5	2.0	2.1	**3.2**	**3.1**
5	1.4	1.1	1.6	1.4	7.4	5.2	4.6	**2.0**	**1.5**
8	1.6	1.5	4.3	1.6	5.5	5.1	7.6	**2.4**	**2.1**
9	1.5	1.0	1.8	1.5	7.4	5.9	5.8	**2.1**	**1.7**
10	2.4	2.0	3.8	2.4	6.2	5.5	8.9	**3.0**	**2.9**
11	3.8	2.1	7.1	3.8	2.4	2.2	2.9	**3.5**	**3.4**
14	5.6	4.9	9.7	5.6	1.6	1.4	1.3	**5.1**	**5.4**
17	3.3	2.4	6.6	3.3	4.2	4.2	6.6	**3.5**	**3.5**
18	3.2	3.0	5.4	3.2	4.7	4.4	7.8	**3.6**	**3.6**
19	3.7	3.1	6.4	3.7	4.5	4.4	7.1	**3.9**	**4.0**
20	5.9	4.6	8.0	5.9	2.0	2.1	4.3	**5.3**	**5.7**
22	7.3	6.9	10.0	7.3	1.0	1.0	1.0	**6.4**	**7.2**
24	7.7	8.2	9.6	7.7	1.1	1.1	1.5	**6.9**	**7.8**
25	4.9	4.0	8.0	4.9	3.0	3.1	5.1	**4.7**	**5.0**
26	7.5	7.8	9.6	7.5	1.5	1.5	3.4	**6.8**	**7.7**
27	7.7	7.2	9.6	7.7	1.1	1.3	2.6	**6.8**	**7.6**
29	10.0	10.0	9.7	10.0	1.1	1.0	1.7	**8.7**	**10.0**
46	2.7	2.3	2.7	2.7	6.6	4.8	9.0	**3.2**	**3.1**
47	1.7	1.6	1.5	1.7	6.8	4.5	6.9	**2.3**	**1.9**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	1.6	2.4	1.0	4.0	7.7	1.2	1	**2.0**	**1.8**
5B	1.6	1.3	3.0	3.0	8.5	7.5	6.3	**2.2**	**2.1**
5B_CCCT Dry	1.1	1.3	1.5	2.0	10.0	4.8	4.9	**1.6**	**1.3**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	3.7	3.7	6.4	7.0	5.1	4.9	4.5	**4.3**	**4.6**
9B	2.6	1.0	3.2	5.0	9.0	10.0	10.0	**3.3**	**3.4**
10B	6.1	6.3	5.7	8.0	5.6	5.3	6.8	**6.1**	**6.8**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.7	8.9	8.2	9.0	2.9	3.3	2.2	**7.7**	**8.9**
47B	3.6	3.1	1.2	6.0	8.0	1.0	7.4	**3.6**	**3.8**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.13 – $25/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	1.6	1.2	1.0	1.6	10.0	10.0	10	**2.7**	**2.5**
2	1.0	1.4	1.3	1.0	6.9	3.9	2.1	**1.6**	**1.0**
3	3.1	3.1	6.7	3.1	2.5	2.0	2.1	**3.2**	**3.0**
5	1.3	1.1	1.6	1.3	7.4	5.2	4.6	**1.9**	**1.4**
8	1.5	1.5	4.3	1.5	5.6	5.1	7.6	**2.3**	**1.9**
9	1.4	1.0	1.8	1.4	7.5	5.9	5.8	**2.1**	**1.6**
10	2.2	2.0	3.8	2.2	6.2	5.5	8.9	**3.0**	**2.7**
11	3.7	2.0	7.1	3.7	2.5	2.2	2.9	**3.4**	**3.3**
14	5.6	5.0	9.7	5.6	1.6	1.4	1.3	**5.0**	**5.4**
17	3.1	2.3	6.6	3.1	4.3	4.2	6.6	**3.4**	**3.3**
18	3.1	2.9	5.4	3.1	4.7	4.4	7.8	**3.5**	**3.5**
19	3.5	3.0	6.4	3.5	4.5	4.4	7.1	**3.8**	**3.8**
20	5.8	4.5	8.0	5.8	2.0	2.1	4.3	**5.2**	**5.6**
22	7.3	6.9	10.0	7.3	1.0	1.0	1.0	**6.4**	**7.1**
24	7.6	8.2	9.6	7.6	1.1	1.1	1.5	**6.8**	**7.7**
25	4.7	3.9	8.0	4.7	3.0	3.1	5.1	**4.6**	**4.8**
26	7.4	7.7	9.6	7.4	1.5	1.5	3.4	**6.8**	**7.6**
27	7.5	7.0	9.6	7.5	1.1	1.3	2.6	**6.7**	**7.4**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	2.7	2.4	2.7	2.7	6.6	4.8	9.0	**3.3**	**3.1**
47	1.7	1.8	1.5	1.7	6.8	4.5	6.9	**2.3**	**1.9**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	2.2	3.2	1.0	4.0	7.8	1.2	1	**2.4**	**2.3**
5B	1.6	1.4	3.0	3.0	8.5	7.5	6.3	**2.3**	**2.2**
5B_CCCT Dry	1.2	1.3	1.5	2.0	10.0	4.8	4.9	**1.6**	**1.4**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	3.7	3.8	6.4	6.0	5.1	4.9	4.5	**4.1**	**4.4**
9B	2.8	1.1	3.2	5.0	9.0	10.0	10.0	**3.4**	**3.5**
10B	6.3	6.7	5.7	8.0	5.7	5.3	6.8	**6.3**	**7.1**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.7	8.9	8.2	9.0	2.9	3.3	2.2	**7.7**	**8.9**
47B	4.3	3.8	1.2	7.0	8.0	1.0	7.4	**4.2**	**4.5**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.14 – $30/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	1.7	1.4	1.0	1.7	10.0	10.0	10	**2.8**	**2.6**
2	1.0	1.5	1.3	1.0	7.0	3.9	2.1	**1.6**	**1.0**
3	3.0	3.1	6.7	3.0	2.6	2.0	2.1	**3.1**	**2.9**
5	1.2	1.1	1.6	1.2	7.4	5.2	4.6	**1.9**	**1.3**
8	1.3	1.5	4.3	1.3	5.6	5.1	7.6	**2.2**	**1.7**
9	1.3	1.0	1.8	1.3	7.5	5.9	5.8	**2.0**	**1.5**
10	2.1	2.0	3.8	2.1	6.2	5.5	8.9	**2.9**	**2.6**
11	3.6	1.9	7.1	3.6	2.5	2.2	2.9	**3.2**	**3.1**
14	5.4	5.0	9.7	5.4	1.6	1.4	1.3	**5.0**	**5.3**
17	2.8	2.1	6.6	2.8	4.3	4.2	6.6	**3.2**	**3.0**
18	2.8	2.8	5.4	2.8	4.7	4.4	7.8	**3.4**	**3.2**
19	3.3	2.9	6.4	3.3	4.5	4.4	7.1	**3.7**	**3.6**
20	5.5	4.3	8.0	5.5	2.0	2.1	4.3	**5.0**	**5.3**
22	7.2	6.9	10.0	7.2	1.0	1.0	1.0	**6.3**	**7.0**
24	7.4	8.1	9.6	7.4	1.1	1.1	1.5	**6.7**	**7.5**
25	4.5	3.7	8.0	4.5	3.0	3.1	5.1	**4.4**	**4.5**
26	7.2	7.6	9.6	7.2	1.6	1.5	3.4	**6.7**	**7.4**
27	7.4	6.9	9.6	7.4	1.1	1.3	2.6	**6.5**	**7.2**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	2.8	2.6	2.7	2.8	6.7	4.8	9.0	**3.4**	**3.2**
47	1.7	1.9	1.5	1.7	6.9	4.5	6.9	**2.4**	**2.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	2.9	4.2	1.0	4.0	7.8	1.2	1	**2.9**	**2.9**
5B	1.7	1.6	3.0	3.0	8.5	7.5	6.3	**2.4**	**2.3**
5B_CCCT Dry	1.2	1.4	1.5	2.0	10.0	4.8	4.9	**1.7**	**1.4**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	3.7	4.0	6.4	6.0	5.1	4.9	4.5	**4.1**	**4.4**
9B	3.1	1.3	3.2	5.0	9.0	10.0	10.0	**3.6**	**3.7**
10B	6.7	7.4	5.7	8.0	5.7	5.3	6.8	**6.6**	**7.4**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.8	8.9	8.2	9.0	2.9	3.3	2.2	**7.8**	**8.9**
47B	5.3	4.7	1.2	7.0	8.1	1.0	7.4	**4.9**	**5.3**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.15 – $35/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	1.8	1.6	1.0	1.8	10.0	10.0	10	**3.0**	**2.7**
2	1.0	1.7	1.3	1.0	7.1	3.9	2.1	**1.7**	**1.0**
3	2.8	3.1	6.7	2.8	2.7	2.0	2.1	**3.0**	**2.7**
5	1.0	1.1	1.6	1.0	7.5	5.2	4.6	**1.8**	**1.2**
8	1.0	1.4	4.3	1.0	5.7	5.1	7.6	**2.0**	**1.5**
9	1.2	1.0	1.8	1.2	7.5	5.9	5.8	**2.0**	**1.4**
10	1.9	2.1	3.8	1.9	6.2	5.5	8.9	**2.8**	**2.5**
11	3.3	1.8	7.1	3.3	2.6	2.2	2.9	**3.1**	**2.8**
14	5.3	5.0	9.7	5.3	1.7	1.4	1.3	**4.9**	**5.1**
17	2.5	1.9	6.6	2.5	4.4	4.2	6.6	**3.0**	**2.7**
18	2.5	2.7	5.4	2.5	4.8	4.4	7.8	**3.2**	**3.0**
19	3.0	2.8	6.4	3.0	4.6	4.4	7.1	**3.5**	**3.4**
20	5.3	4.0	8.0	5.3	2.0	2.1	4.3	**4.8**	**5.0**
22	7.0	6.8	10.0	7.0	1.0	1.0	1.0	**6.2**	**6.9**
24	7.2	8.0	9.6	7.2	1.1	1.1	1.5	**6.6**	**7.3**
25	4.2	3.6	8.0	4.2	3.0	3.1	5.1	**4.2**	**4.2**
26	7.0	7.5	9.6	7.0	1.6	1.5	3.4	**6.5**	**7.3**
27	7.1	6.7	9.6	7.1	1.1	1.3	2.6	**6.3**	**7.0**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	3.0	2.8	2.7	3.0	6.7	4.8	9.0	**3.5**	**3.3**
47	1.7	2.1	1.5	1.7	6.9	4.5	6.9	**2.4**	**2.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	3.9	5.5	1.0	6.0	7.9	1.2	1	**3.9**	**4.2**
5B	1.8	1.9	3.0	3.0	8.5	7.5	6.3	**2.5**	**2.4**
5B_CCCT Dry	1.3	1.4	1.5	2.0	10.0	4.8	4.9	**1.7**	**1.5**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	3.6	4.3	6.4	5.0	5.1	4.9	4.5	**4.0**	**4.3**
9B	3.4	1.6	3.2	4.0	9.0	10.0	10.0	**3.6**	**3.8**
10B	7.2	8.3	5.7	8.0	5.8	5.3	6.8	**7.0**	**7.9**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.8	9.0	8.2	9.0	2.9	3.3	2.2	**7.8**	**8.9**
47B	6.7	6.0	1.2	7.0	8.2	1.0	7.4	**5.7**	**6.4**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.16 – $40/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	2.2	1.8	1.0	2.2	10.0	10.0	10	**3.2**	**2.8**
2	1.3	1.9	1.3	1.3	7.1	3.9	2.1	**1.9**	**1.0**
3	2.8	3.2	6.7	2.8	2.7	2.0	2.1	**3.0**	**2.5**
5	1.2	1.1	1.6	1.2	7.5	5.2	4.6	**1.9**	**1.0**
8	1.0	1.4	4.3	1.0	5.7	5.1	7.6	**2.0**	**1.2**
9	1.3	1.0	1.8	1.3	7.6	5.9	5.8	**2.1**	**1.3**
10	2.0	2.1	3.8	2.0	6.2	5.5	8.9	**2.8**	**2.3**
11	3.3	1.6	7.1	3.3	2.6	2.2	2.9	**3.0**	**2.6**
14	5.3	5.0	9.7	5.3	1.7	1.4	1.3	**4.9**	**5.0**
17	2.3	1.8	6.6	2.3	4.4	4.2	6.6	**2.8**	**2.3**
18	2.4	2.6	5.4	2.4	4.8	4.4	7.8	**3.1**	**2.6**
19	2.9	2.7	6.4	2.9	4.6	4.4	7.1	**3.4**	**3.0**
20	5.1	3.7	8.0	5.1	2.1	2.1	4.3	**4.6**	**4.6**
22	6.9	6.8	10.0	6.9	1.0	1.0	1.0	**6.2**	**6.7**
24	7.0	7.9	9.6	7.0	1.2	1.1	1.5	**6.5**	**7.1**
25	4.0	3.4	8.0	4.0	3.1	3.1	5.1	**4.0**	**3.9**
26	6.9	7.5	9.6	6.9	1.6	1.5	3.4	**6.4**	**7.1**
27	7.0	6.5	9.6	7.0	1.1	1.3	2.6	**6.2**	**6.7**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	3.3	3.0	2.7	3.3	6.8	4.8	9.0	**3.7**	**3.5**
47	2.0	2.2	1.5	2.0	7.0	4.5	6.9	**2.7**	**2.1**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	5.3	7.3	1.0	6.0	7.9	1.2	1	**4.9**	**5.4**
5B	2.0	2.4	3.0	3.0	8.5	7.5	6.3	**2.6**	**2.6**
5B_CCCT Dry	1.4	1.6	1.5	2.0	10.0	4.8	4.9	**1.8**	**1.6**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	3.4	4.7	6.4	4.0	5.1	4.9	4.5	**3.9**	**4.1**
9B	3.9	1.9	3.2	5.0	9.0	10.0	10.0	**4.1**	**4.4**
10B	7.8	9.5	5.7	7.0	5.8	5.3	6.8	**7.4**	**8.4**
17B	10.0	10.0	10.0	10.0	1.0	1.1	2.2	**8.7**	**10.0**
18B	8.9	9.0	8.2	9.0	2.9	3.3	2.2	**7.8**	**9.0**
47B	8.5	7.8	1.2	8.0	8.3	1.0	7.4	**7.1**	**8.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.17 – $45/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	2.7	2.0	1.0	2.7	10.0	10.0	10	**3.6**	**3.2**
2	1.6	2.1	1.3	1.6	7.2	3.9	2.1	**2.1**	**1.2**
3	2.8	3.2	6.7	2.8	2.8	2.0	2.1	**3.0**	**2.4**
5	1.3	1.1	1.6	1.3	7.6	5.2	4.6	**2.0**	**1.0**
8	1.0	1.4	4.3	1.0	5.8	5.1	7.6	**2.0**	**1.1**
9	1.5	1.0	1.8	1.5	7.6	5.9	5.8	**2.2**	**1.3**
10	2.1	2.1	3.8	2.1	6.2	5.5	8.9	**2.9**	**2.2**
11	3.3	1.4	7.1	3.3	2.7	2.2	2.9	**3.0**	**2.4**
14	5.3	5.1	9.7	5.3	1.8	1.4	1.3	**4.9**	**4.9**
17	2.2	1.5	6.6	2.2	4.5	4.2	6.6	**2.7**	**2.0**
18	2.3	2.5	5.4	2.3	4.9	4.4	7.8	**3.0**	**2.4**
19	2.8	2.6	6.4	2.8	4.7	4.4	7.1	**3.3**	**2.8**
20	4.9	3.4	8.0	4.9	2.1	2.1	4.3	**4.4**	**4.3**
22	6.9	6.7	10.0	6.9	1.1	1.0	1.0	**6.1**	**6.6**
24	6.8	7.8	9.6	6.8	1.2	1.1	1.5	**6.3**	**6.9**
25	3.8	3.3	8.0	3.8	3.1	3.1	5.1	**3.9**	**3.6**
26	6.8	7.4	9.6	6.8	1.6	1.5	3.4	**6.4**	**6.9**
27	6.8	6.2	9.6	6.8	1.1	1.3	2.6	**6.1**	**6.5**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	3.7	3.2	2.7	3.7	6.9	4.8	9.0	**4.1**	**3.8**
47	2.4	2.4	1.5	2.4	7.1	4.5	6.9	**2.9**	**2.3**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	6.5	8.9	1.0	6.0	8.0	1.2	1	**5.8**	**6.7**
5B	2.0	2.7	3.0	3.0	8.5	7.5	6.3	**2.7**	**2.8**
5B_CCCT Dry	1.5	1.7	1.5	2.0	10.0	4.8	4.9	**1.8**	**1.7**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	2.9	4.8	6.4	4.0	5.2	4.9	4.5	**3.7**	**4.0**
9B	4.2	2.3	3.2	5.0	9.0	10.0	10.0	**4.3**	**4.8**
10B	7.8	10.0	5.7	7.0	5.8	5.3	6.8	**7.5**	**8.9**
17B	8.8	8.9	10.0	9.0	1.0	1.1	2.2	**7.8**	**9.3**
18B	7.9	8.1	8.2	8.0	2.9	3.3	2.2	**7.1**	**8.4**
47B	10.0	9.2	1.2	10.0	8.3	1.0	7.4	**8.3**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.18 – $50/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	3.2	2.3	1.0	3.2	10.0	10.0	10	**3.9**	**3.6**
2	2.0	2.3	1.3	2.0	7.2	3.9	2.1	**2.4**	**1.5**
3	2.8	3.3	6.7	2.8	2.9	2.0	2.1	**3.0**	**2.4**
5	1.5	1.1	1.6	1.5	7.6	5.2	4.6	**2.1**	**1.1**
8	1.0	1.4	4.3	1.0	5.8	5.1	7.6	**2.0**	**1.0**
9	1.7	1.0	1.8	1.7	7.6	5.9	5.8	**2.3**	**1.4**
10	2.2	2.1	3.8	2.2	6.3	5.5	8.9	**2.9**	**2.3**
11	3.2	1.3	7.1	3.2	2.8	2.2	2.9	**2.9**	**2.3**
14	5.3	5.1	9.7	5.3	1.8	1.4	1.3	**4.9**	**4.9**
17	2.0	1.3	6.6	2.0	4.5	4.2	6.6	**2.6**	**1.8**
18	2.2	2.4	5.4	2.2	4.9	4.4	7.8	**2.9**	**2.3**
19	2.7	2.4	6.4	2.7	4.7	4.4	7.1	**3.2**	**2.6**
20	4.7	3.1	8.0	4.7	2.1	2.1	4.3	**4.2**	**4.0**
22	6.8	6.6	10.0	6.8	1.1	1.0	1.0	**6.1**	**6.5**
24	6.6	7.7	9.6	6.6	1.2	1.1	1.5	**6.2**	**6.7**
25	3.6	3.0	8.0	3.6	3.2	3.1	5.1	**3.7**	**3.3**
26	6.6	7.2	9.6	6.6	1.7	1.5	3.4	**6.2**	**6.7**
27	6.6	6.0	9.6	6.6	1.1	1.3	2.6	**5.9**	**6.2**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	4.2	3.5	2.7	4.2	6.9	4.8	9.0	**4.4**	**4.2**
47	2.8	2.7	1.5	2.8	7.1	4.5	6.9	**3.2**	**2.6**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	6.8	9.9	1.0	9.0	8.0	1.2	1	**6.5**	**7.6**
5B	1.9	3.0	3.0	3.0	8.5	7.5	6.3	**2.7**	**2.8**
5B_CCCT Dry	1.5	1.7	1.5	2.0	10.0	4.8	4.9	**1.9**	**1.7**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	2.2	4.5	6.4	4.0	5.2	4.9	4.5	**3.3**	**3.4**
9B	4.0	2.5	3.2	5.0	9.0	10.0	10.0	**4.2**	**4.6**
10B	6.7	9.7	5.7	8.0	5.9	5.3	6.8	**7.1**	**8.2**
17B	6.4	6.9	10.0	7.0	1.0	1.1	2.2	**6.0**	**6.9**
18B	5.9	6.4	8.2	6.0	2.9	3.3	2.2	**5.5**	**6.2**
47B	10.0	10.0	1.2	10.0	8.4	1.0	7.4	**8.5**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.19 – $55/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	3.8	2.6	1.0	3.8	10.0	10.0	10	**4.4**	**4.2**
2	2.4	2.6	1.3	2.4	7.3	3.9	2.1	**2.7**	**1.9**
3	2.9	3.4	6.7	2.9	3.0	2.0	2.1	**3.1**	**2.4**
5	1.7	1.1	1.6	1.7	7.6	5.2	4.6	**2.2**	**1.3**
8	1.0	1.4	4.3	1.0	5.9	5.1	7.6	**2.0**	**1.0**
9	1.9	1.0	1.8	1.9	7.7	5.9	5.8	**2.4**	**1.5**
10	2.3	2.1	3.8	2.3	6.3	5.5	8.9	**3.0**	**2.4**
11	3.2	1.0	7.1	3.2	2.8	2.2	2.9	**2.9**	**2.2**
14	5.2	5.1	9.7	5.2	1.9	1.4	1.3	**4.9**	**4.9**
17	1.8	1.0	6.6	1.8	4.5	4.2	6.6	**2.4**	**1.5**
18	2.1	2.2	5.4	2.1	5.0	4.4	7.8	**2.8**	**2.1**
19	2.6	2.3	6.4	2.6	4.7	4.4	7.1	**3.1**	**2.5**
20	4.4	2.7	8.0	4.4	2.2	2.1	4.3	**4.0**	**3.7**
22	6.7	6.6	10.0	6.7	1.1	1.0	1.0	**6.0**	**6.4**
24	6.4	7.6	9.6	6.4	1.2	1.1	1.5	**6.0**	**6.4**
25	3.4	2.8	8.0	3.4	3.2	3.1	5.1	**3.6**	**3.1**
26	6.5	7.1	9.6	6.5	1.7	1.5	3.4	**6.1**	**6.5**
27	6.4	5.7	9.6	6.4	1.1	1.3	2.6	**5.7**	**6.0**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	4.8	3.8	2.7	4.8	7.0	4.8	9.0	**4.8**	**4.8**
47	3.2	2.9	1.5	3.2	7.2	4.5	6.9	**3.5**	**3.1**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	7.1	10.0	1.0	9.0	8.1	1.2	1	**6.7**	**7.8**
5B	1.8	3.0	3.0	4.0	8.5	7.5	6.3	**2.9**	**2.9**
5B_CCCT Dry	1.5	1.7	1.5	2.0	10.0	4.8	4.9	**1.9**	**1.6**
5B_CCCT Wet	1.0	1.0	1.5	1.0	9.8	4.6	4.7	**1.3**	**1.0**
8B	1.5	3.9	6.4	3.0	5.2	4.9	4.5	**2.7**	**2.7**
9B	3.8	2.6	3.2	5.0	9.0	10.0	10.0	**4.1**	**4.5**
10B	5.7	8.7	5.7	8.0	5.9	5.3	6.8	**6.4**	**7.4**
17B	4.3	4.7	10.0	7.0	1.0	1.1	2.2	**4.6**	**5.1**
18B	4.1	4.4	8.2	6.0	2.9	3.3	2.2	**4.3**	**4.8**
47B	10.0	9.9	1.2	10.0	8.5	1.0	7.4	**8.5**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.20 – $60/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	4.6	3.1	1.0	4.6	10.0	10.0	10	**4.9**	**4.9**
2	2.9	3.0	1.3	2.9	7.3	3.9	2.1	**3.1**	**2.4**
3	2.9	3.6	6.7	2.9	3.0	2.0	2.1	**3.2**	**2.5**
5	2.0	1.4	1.6	2.0	7.7	5.2	4.6	**2.4**	**1.5**
8	1.0	1.6	4.3	1.0	5.9	5.1	7.6	**2.1**	**1.0**
9	2.2	1.3	1.8	2.2	7.7	5.9	5.8	**2.6**	**1.8**
10	2.4	2.4	3.8	2.4	6.3	5.5	8.9	**3.1**	**2.5**
11	3.2	1.1	7.1	3.2	2.9	2.2	2.9	**2.9**	**2.1**
14	5.2	5.3	9.7	5.2	1.9	1.4	1.3	**4.9**	**4.9**
17	1.6	1.0	6.6	1.6	4.6	4.2	6.6	**2.3**	**1.3**
18	2.0	2.3	5.4	2.0	5.0	4.4	7.8	**2.8**	**2.0**
19	2.4	2.3	6.4	2.4	4.8	4.4	7.1	**3.0**	**2.3**
20	4.1	2.5	8.0	4.1	2.2	2.1	4.3	**3.8**	**3.4**
22	6.6	6.6	10.0	6.6	1.1	1.0	1.0	**5.9**	**6.3**
24	6.1	7.5	9.6	6.1	1.3	1.1	1.5	**5.9**	**6.2**
25	3.1	2.8	8.0	3.1	3.2	3.1	5.1	**3.4**	**2.8**
26	6.3	7.0	9.6	6.3	1.7	1.5	3.4	**6.0**	**6.3**
27	6.1	5.5	9.6	6.1	1.2	1.3	2.6	**5.5**	**5.7**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	5.4	4.3	2.7	5.4	7.0	4.8	9.0	**5.3**	**5.4**
47	3.8	3.4	1.5	3.8	7.2	4.5	6.9	**4.0**	**3.6**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	7.4	10.0	1.0	9.0	8.1	1.2	1	**6.8**	**7.9**
5B	1.8	3.1	3.0	4.0	8.5	7.5	6.3	**2.9**	**2.8**
5B_CCCT Dry	1.6	1.6	1.5	3.0	10.0	4.8	4.9	**2.0**	**1.7**
5B_CCCT Wet	1.1	1.0	1.5	2.0	9.8	4.6	4.7	**1.5**	**1.0**
8B	1.0	3.4	6.4	1.0	5.2	4.9	4.5	**2.1**	**1.7**
9B	3.7	2.7	3.2	7.0	9.0	10.0	10.0	**4.4**	**4.8**
10B	5.0	7.8	5.7	8.0	6.0	5.3	6.8	**5.9**	**6.7**
17B	2.7	2.8	10.0	5.0	1.0	1.1	2.2	**3.2**	**3.1**
18B	2.7	2.8	8.2	6.0	2.9	3.3	2.2	**3.4**	**3.4**
47B	10.0	9.8	1.2	10.0	8.5	1.0	7.4	**8.4**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.21 – $65/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	5.4	3.7	1.0	5.4	10.0	10.0	10	**5.5**	**5.7**
2	3.5	3.6	1.3	3.5	7.4	3.9	2.1	**3.6**	**3.0**
3	2.9	3.9	6.7	2.9	3.1	2.0	2.1	**3.2**	**2.6**
5	2.3	1.7	1.6	2.3	7.7	5.2	4.6	**2.7**	**1.8**
8	1.0	1.9	4.3	1.0	6.0	5.1	7.6	**2.1**	**1.0**
9	2.5	1.6	1.8	2.5	7.7	5.9	5.8	**2.9**	**2.1**
10	2.5	2.7	3.8	2.5	6.3	5.5	8.9	**3.3**	**2.6**
11	3.1	1.1	7.1	3.1	2.9	2.2	2.9	**2.8**	**2.0**
14	5.2	5.5	9.7	5.2	2.0	1.4	1.3	**4.9**	**4.9**
17	1.3	1.0	6.6	1.3	4.6	4.2	6.6	**2.1**	**1.0**
18	1.8	2.4	5.4	1.8	5.0	4.4	7.8	**2.7**	**1.8**
19	2.2	2.4	6.4	2.2	4.8	4.4	7.1	**2.9**	**2.2**
20	3.8	2.3	8.0	3.8	2.2	2.1	4.3	**3.6**	**3.0**
22	6.5	6.6	10.0	6.5	1.1	1.0	1.0	**5.9**	**6.1**
24	5.8	7.5	9.6	5.8	1.3	1.1	1.5	**5.7**	**5.9**
25	2.8	2.7	8.0	2.8	3.3	3.1	5.1	**3.2**	**2.5**
26	6.1	7.0	9.6	6.1	1.7	1.5	3.4	**5.8**	**6.1**
27	5.8	5.3	9.6	5.8	1.2	1.3	2.6	**5.3**	**5.3**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	6.2	4.9	2.7	6.2	7.1	4.8	9.0	**5.8**	**6.1**
47	4.4	4.0	1.5	4.4	7.3	4.5	6.9	**4.5**	**4.2**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	7.7	10.0	1.0	9.0	8.2	1.2	1	**7.0**	**8.0**
5B	2.2	3.1	3.0	6.0	8.5	7.5	6.3	**3.3**	**3.2**
5B_CCCT Dry	2.0	1.6	1.5	5.0	10.0	4.8	4.9	**2.5**	**2.1**
5B_CCCT Wet	1.6	1.0	1.5	2.0	9.8	4.6	4.7	**1.7**	**1.0**
8B	1.0	3.0	6.4	1.0	5.2	4.9	4.5	**2.0**	**1.3**
9B	3.9	2.7	3.2	7.0	9.0	10.0	10.0	**4.5**	**4.7**
10B	4.6	7.1	5.7	8.0	6.0	5.3	6.8	**5.6**	**6.2**
17B	1.6	1.3	10.0	3.0	1.0	1.1	2.2	**2.1**	**1.5**
18B	1.9	1.4	8.2	4.0	2.9	3.3	2.2	**2.4**	**1.9**
47B	10.0	9.7	1.2	10.0	8.6	1.0	7.4	**8.4**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.22 – $70/ton Expected-value CO_2 Tax

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Ave. for July Event > 25 GWh		
1	6.4	4.4	1.0	6.4	10.0	10.0	10	**6.3**	**6.8**
2	4.3	4.2	1.3	4.3	7.4	3.9	2.1	**4.1**	**4.0**
3	3.0	4.3	6.7	3.0	3.2	2.0	2.1	**3.3**	**2.9**
5	2.6	2.0	1.6	2.6	7.7	5.2	4.6	**2.9**	**2.4**
8	1.0	2.2	4.3	1.0	6.0	5.1	7.6	**2.2**	**1.4**
9	2.9	1.9	1.8	2.9	7.8	5.9	5.8	**3.2**	**2.7**
10	2.7	3.1	3.8	2.7	6.4	5.5	8.9	**3.5**	**3.1**
11	3.0	1.2	7.1	3.0	3.0	2.2	2.9	**2.8**	**2.2**
14	5.2	5.8	9.7	5.2	2.0	1.4	1.3	**5.0**	**5.1**
17	1.0	1.0	6.6	1.0	4.7	4.2	6.6	**1.9**	**1.0**
18	1.6	2.5	5.4	1.6	5.1	4.4	7.8	**2.6**	**1.9**
19	2.0	2.4	6.4	2.0	4.8	4.4	7.1	**2.8**	**2.2**
20	3.4	2.1	8.0	3.4	2.2	2.1	4.3	**3.3**	**2.8**
22	6.3	6.6	10.0	6.3	1.2	1.0	1.0	**5.8**	**6.1**
24	5.4	7.4	9.6	5.4	1.3	1.1	1.5	**5.4**	**5.7**
25	2.4	2.7	8.0	2.4	3.3	3.1	5.1	**2.9**	**2.4**
26	5.8	6.9	9.6	5.8	1.7	1.5	3.4	**5.7**	**6.0**
27	5.4	5.0	9.6	5.4	1.2	1.3	2.6	**5.0**	**5.1**
29	10.0	10.0	9.7	10.0	1.0	1.0	1.7	**8.7**	**10.0**
46	7.0	5.5	2.7	7.0	7.1	4.8	9.0	**6.5**	**7.1**
47	5.2	4.6	1.5	5.2	7.3	4.5	6.9	**5.0**	**5.1**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Case	Cost Measures			Risk Measures				Weighted Rankings	Normalized Scores (1 to 10)
	Risk-adjusted PVRR	Rate Impact	Capital Cost	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	8.0	10.0	1.0	9.0	8.2	1.2	1	**7.1**	**8.3**
5B	2.7	3.8	3.0	6.0	8.5	7.5	6.3	**3.7**	**3.9**
5B_CCCT Dry	2.6	2.5	1.5	5.0	10.0	4.8	4.9	**3.0**	**2.9**
5B_CCCT Wet	2.1	1.9	1.5	4.0	9.8	4.6	4.7	**2.5**	**2.3**
8B	1.2	3.4	6.4	2.0	5.2	4.9	4.5	**2.3**	**2.1**
9B	4.2	3.6	3.2	7.0	9.0	10.0	10.0	**4.8**	**5.3**
10B	4.4	6.8	5.7	8.0	6.0	5.3	6.8	**5.5**	**6.2**
17B	1.0	1.0	10.0	1.0	1.0	1.1	2.2	**1.5**	**1.0**
18B	1.4	1.3	8.2	3.0	2.9	3.3	2.2	**2.0**	**1.7**
47B	10.0	9.6	1.2	10.0	8.7	1.0	7.4	**8.4**	**10.0**
Importance Weights	**45%**	**20%**	**5%**	**15%**	**5%**	**5%**	**5%**		

Table B.23 – Alternate Performance Ranking Scheme Including the Upper-Tail Mean PVRR

Case	Cost Measures			Risk Measures					Weighted Rankings	Normalized Scores (1 to 10)
	Mean PVRR	Rate Impact	Capital Cost	Upper-Tail Mean PVRR	CO2 Cost Exposure	Production Cost Standard Deviation	Ave. Annual Energy Not Served	LOLP, Annual Average for July Event > 25 GWh		
2B	6.0	8.9	1.0	6.0	6.0	8.0	1.2	1	**5.5**	**6.2**
5B	3.0	2.7	3.0	5.0	3.0	8.5	7.5	6.3	**3.6**	**2.3**
5B_CCCT Dry	2.0	1.7	1.5	10.0	2.0	10.0	4.8	4.9	**3.7**	**2.5**
5B_CCCT Wet	1.0	1.0	1.5	9.0	1.0	9.8	4.6	4.7	**2.9**	**1.0**
8B	4.0	4.8	6.4	3.0	4.0	5.2	4.9	4.5	**3.9**	**3.0**
9B	5.0	2.3	3.2	8.0	5.0	9.0	10.0	10.0	**5.2**	**5.5**
10B	7.0	10.0	5.7	4.0	7.0	5.8	5.3	6.8	**6.5**	**8.1**
17B	10.0	8.9	10.0	1.0	9.0	1.0	1.1	2.2	**6.5**	**8.1**
18B	8.0	8.1	8.2	2.0	8.0	2.9	3.3	2.2	**5.9**	**6.9**
47B	9.0	9.2	1.2	7.0	10.0	8.3	1.0	7.4	**7.5**	**10.0**
Importance Weights	**25%**	**20%**	**5%**	**20%**	**15%**	**5%**	**5%**	**5%**		

PORTFOLIO PVRR COST COMPONENT COMPARISON

Tables B.24 and B.25 show the breakdown of each portfolio's stochastic mean PVRR by variable and fixed cost components. These costs reflect the $45/ton CO_2 cost adder scenario. Table B.23 reports the cost component breakdown for the core case risk analysis portfolios, and table B.24 reports the cost component breakdown for the sensitivity cases.

Table B.26 reports the cost component breakdown for the "B-Series" cases.

Table B.24 – Core Case: Portfolio PVRR Cost Components ($45 CO2 - Tax Strategy)

Cost Component ($ 000)	Case 01	Case 02	Case 03	Case 05	Case 08	Case 09	Case 10
Variable Cost							
Total Fuel Cost	16,125,130	15,543,063	13,580,402	15,176,188	14,191,867	15,221,938	14,365,405
Variable O&M Cost	1,354,361	1,313,445	1,178,315	1,299,295	1,222,685	1,301,513	1,231,410
Total Emission Cost	16,572,039	16,423,972	14,513,519	15,372,854	14,691,301	15,402,030	14,814,449
Long Term Contracts and Front Office Transactions	7,683,311	7,645,536	6,218,678	8,279,365	8,978,705	7,043,480	7,898,602
DSM	1,960,939	2,698,475	3,183,577	2,731,677	3,015,434	2,727,382	2,982,268
Spot Market Balancing							
Sales	(11,241,728)	(12,148,264)	(12,685,112)	(12,257,235)	(13,089,333)	(11,693,493)	(12,469,007)
Purchases	5,242,221	4,484,667	3,865,500	4,376,068	3,714,988	4,919,231	4,438,725
Energy Not Served	260,803	160,944	129,235	180,780	184,495	192,675	192,339
Dump Power	(11,314)	(9,874)	(9,475)	(10,424)	(12,366)	(10,539)	(11,477)
Reserve Deficiency	105,557	57,384	42,426	70,640	73,920	84,875	77,276
Total Variable Net Power Costs	**38,051,318**	**36,169,346**	**30,017,065**	**35,219,208**	**32,971,694**	**35,189,092**	**33,519,990**
Real Levelized Fixed Costs	**1,841,501**	**3,372,843**	**10,727,798**	**4,070,089**	**6,272,174**	**4,209,077**	**6,351,579**
Total PVRR	**39,892,819**	**39,542,190**	**40,744,863**	**39,289,296**	**39,243,869**	**39,398,169**	**39,871,569**

Table B.24– *continued*

Cost Component ($ 000)	Case 11	Case 14	Case 17	Case 18	Case 19	Case 20	Case 22
Variable Cost							
Total Fuel Cost	13,411,665	12,979,334	13,625,227	13,894,512	13,812,607	12,774,851	12,558,146
Variable O&M Cost	1,164,587	1,174,538	1,204,222	1,220,845	1,213,726	1,143,695	1,126,059
Total Emission Cost	14,159,325	13,634,228	13,469,668	13,714,767	13,595,382	12,647,703	12,781,992
Long Term Contracts and Front Office Transactions	5,631,083	6,175,357	8,669,522	7,235,524	7,133,223	5,769,274	6,241,471
DSM	3,254,961	3,365,567	3,186,054	3,023,493	3,133,315	3,287,687	3,483,403
Spot Market Balancing							
Sales	(12,613,055)	(13,377,546)	(13,388,006)	(12,487,968)	(12,604,973)	(12,725,027)	(13,660,143)
Purchases	4,057,005	3,475,485	3,546,102	4,357,831	4,236,310	3,868,019	3,281,495
Energy Not Served	136,344	118,697	168,279	173,946	173,290	136,891	113,066
Dump Power	(14,693)	(11,743)	(21,406)	(17,158)	(20,959)	(29,967)	(17,258)
Reserve Deficiency	60,344	38,241	63,344	68,008	72,674	54,843	31,939
Total Variable Net Power Costs	**29,247,566**	**27,572,157**	**30,523,005**	**31,183,800**	**30,744,594**	**26,927,968**	**25,940,171**
Real Levelized Fixed Costs	**11,787,530**	**14,908,880**	**9,610,984**	**9,000,946**	**9,768,684**	**15,198,946**	**17,635,612**
Total PVRR	**41,035,097**	**42,481,038**	**40,133,989**	**40,184,746**	**40,513,279**	**42,126,914**	**43,575,783**

Table B.24 – *continued*

Cost Component ($ 000)	Case 24	Case 25	Case 26	Case 27	Case 29	Case 46	Case 47
Variable Cost							
Total Fuel Cost	12,231,023	13,129,485	12,576,599	12,220,360	12,238,723	15,333,331	15,396,709
Variable O&M Cost	1,099,133	1,168,243	1,121,716	1,098,935	1,132,357	1,298,792	1,301,473
Total Emission Cost	12,068,839	12,932,754	12,352,056	12,110,138	12,078,673	16,165,517	16,207,316
Long Term Contracts and Front Office Transactions	7,533,865	6,540,377	6,088,802	6,300,186	7,129,496	7,609,719	7,589,434
DSM	3,342,009	3,246,369	3,287,127	3,464,753	3,657,217	2,726,744	2,730,469
Spot Market Balancing							
Sales	(13,956,020)	(12,887,979)	(12,913,620)	(13,319,931)	(14,229,404)	(12,211,221)	(12,082,775)
Purchases	3,073,137	3,972,608	3,766,984	3,499,968	3,110,387	4,398,733	4,544,666
Energy Not Served	117,336	150,747	129,145	122,715	117,018	185,993	176,566
Dump Power	(27,096)	(28,268)	(25,987)	(29,421)	(24,641)	(10,206)	(10,145)
Reserve Deficiency	35,439	62,418	47,949	35,916	44,753	57,125	56,300
Total Variable Net Power Costs	**25,517,664**	**28,286,755**	**26,430,769**	**25,503,619**	**25,254,580**	**35,554,528**	**35,910,014**
Real Levelized Fixed Costs	**17,978,326**	**13,029,825**	**16,986,145**	**17,973,594**	**20,371,851**	**5,420,363**	**4,148,102**
Total PVRR	**43,495,990**	**41,316,580**	**43,416,914**	**43,477,213**	**45,626,430**	**40,974,891**	**40,058,117**

Table B.25 – Sensitivity Case: Portfolio PVRR Cost Components ($45 CO2 - Tax Strategy)

Cost Component ($ 000)	Case 04	Case 06	Case 07	Case 12	Case 13	Case 15	Case 16
Variable Cost							
Total Fuel Cost	15,884,444	15,730,813	14,991,433	14,562,408	13,537,752	11,929,242	14,206,320
Variable O&M Cost	1,338,612	1,351,623	1,271,070	1,237,469	1,170,671	1,100,516	1,236,954
Total Emission Cost	16,314,474	14,875,608	15,395,249	14,596,363	14,366,370	12,335,026	13,950,925
Long Term Contracts and Front Office Transactions	4,911,551	9,196,257	4,592,404	9,648,455	3,658,159	8,929,535	3,960,513
DSM	2,650,272	3,053,232	2,846,765	3,282,294	3,280,373	3,665,971	3,082,590
Spot Market Balancing							
Sales	(9,956,467)	(14,245,612)	(10,460,139)	(14,938,838)	(11,525,586)	(15,599,583)	(10,639,066)
Purchases	6,301,302	3,473,008	5,757,713	3,023,499	4,690,969	2,524,691	5,448,327
Energy Not Served	372,221	65,081	293,326	63,507	158,050	52,897	229,603
Dump Power	(11,262)	(10,881)	(11,158)	(12,168)	(11,069)	(15,063)	(18,523)
Reserve Deficiency	219,811	20,916	169,146	24,454	78,046	11,559	134,823
Total Variable Net Power Costs	**38,024,959**	**33,510,045**	**34,845,809**	**31,487,443**	**29,403,735**	**24,934,790**	**31,592,465**
Real Levelized Fixed Costs	**2,244,634**	**6,124,658**	**5,031,161**	**8,539,849**	**12,635,909**	**18,958,532**	**9,061,822**
Total PVRR	**40,269,592**	**39,634,703**	**39,876,970**	**40,027,293**	**42,039,643**	**43,893,322**	**40,654,287**

Table B.25 – *continued*

Cost Component ($ 000)	Case 21	Case 23	Case 28	Case 33	Case 41	Case 42	Case 43
Variable Cost							
Total Fuel Cost	13,007,111	12,578,685	12,742,452	12,501,704	14,418,506	13,740,869	12,159,435
Variable O&M Cost	1,160,870	1,120,171	1,138,737	1,114,443	1,241,622	1,215,560	1,094,393
Total Emission Cost	12,949,483	12,374,787	12,665,072	12,753,252	14,751,942	13,455,115	12,009,121
Long Term Contracts and Front Office Transactions	3,998,178	4,279,134	4,359,863	8,120,875	9,650,090	9,330,643	8,332,267
DSM	3,354,757	3,292,442	3,350,267	3,703,080	3,019,019	3,180,545	3,443,037
Spot Market Balancing							
Sales	(11,835,936)	(11,941,781)	(12,112,865)	(15,734,889)	(13,482,889)	(13,854,964)	(14,423,822)
Purchases	4,420,951	4,234,304	4,207,497	2,781,782	3,514,149	3,284,808	2,851,243
Energy Not Served	150,089	136,396	140,469	47,920	152,058	130,139	112,439
Dump Power	(16,975)	(23,563)	(21,984)	(24,885)	(10,982)	(19,997)	(27,081)
Reserve Deficiency	73,946	61,138	65,057	15,831	63,886	52,524	32,499
Total Variable Net Power Costs	**27,262,475**	**26,111,711**	**26,534,563**	**25,279,114**	**33,317,402**	**30,515,242**	**25,583,531**
Real Levelized Fixed Costs	**15,775,521**	**17,512,414**	**17,067,782**	**21,006,239**	**6,247,502**	**9,651,213**	**17,902,669**
Total PVRR	**43,037,996**	**43,624,125**	**43,602,345**	**46,285,353**	**39,564,904**	**40,166,454**	**43,486,200**

Table B.26 – B-Series Cases: Portfolio PVRR Cost Components ($45 CO2 - Tax Strategy)

Cost Component ($ 000)	Case 02b	Case 05b	Case 05b CCCT Dry	Case 05b CCCT Wet	Case 08b
Variable Cost					
Total Fuel Cost	14,981,715	14,323,649	15,157,854	15,208,477	13,688,145
Variable O&M Cost	1,287,418	1,253,185	1,312,868	1,310,220	1,204,987
Total Emission Cost	16,485,129	15,494,162	15,525,754	15,497,737	14,892,730
Long Term Contracts and Front Office Transactions	7,463,381	7,915,814	7,771,960	7,799,715	8,819,100
DSM	2,916,885	2,958,280	2,751,344	2,746,235	3,255,097
Spot Market Balancing					
Sales	(12,826,888)	(12,809,283)	(12,871,265)	(12,946,171)	(13,662,496)
Purchases	4,832,059	4,745,567	4,640,620	4,585,533	4,082,885
Energy Not Served	171,787	201,496	189,697	187,039	188,764
Dump Power	(10,619)	(10,784)	(9,671)	(9,597)	(11,626)
Reserve Deficiency	76,487	104,752	82,362	80,930	88,925
Total Variable Net Power Costs	**35,377,354**	**34,176,835**	**34,551,522**	**34,460,119**	**32,546,512**
Real Levelized Fixed Costs	**4,684,686**	**5,275,240**	**4,817,015**	**4,854,695**	**7,126,759**
Total PVRR	**40,062,040**	**39,452,075**	**39,368,538**	**39,314,814**	**39,673,271**

Table B.26– *continued*

Cost Component ($ 000)	Case 09b	Case 10b	Case 17b	Case 18b	Case 47b
Variable Cost					
Total Fuel Cost	14,391,506	13,782,388	13,145,794	13,439,719	15,038,431
Variable O&M Cost	1,256,859	1,207,522	1,186,321	1,205,510	1,299,997
Total Emission Cost	15,555,068	14,920,273	13,645,023	13,938,418	16,354,069
Long Term Contracts and Front Office Transactions	7,300,096	8,078,996	8,712,260	7,478,893	7,581,800
DSM	2,948,350	3,230,797	3,390,861	3,259,964	2,863,945
Spot Market Balancing					
Sales	(12,421,787)	(13,137,936)	(14,185,362)	(13,217,280)	(12,797,023)
Purchases	5,035,985	4,610,885	3,790,156	4,544,153	4,773,896
Energy Not Served	217,010	191,297	166,406	180,757	177,657
Dump Power	(10,960)	(10,849)	(21,524)	(18,375)	(9,913)
Reserve Deficiency	114,217	89,352	72,750	79,612	54,371
Total Variable Net Power Costs	**34,386,343**	**32,962,725**	**29,902,685**	**30,891,372**	**35,337,229**
Real Levelized Fixed Costs	**5,338,215**	**7,298,315**	**10,636,072**	**9,461,888**	**5,169,437**
Total PVRR	**39,724,558**	**40,261,040**	**40,538,757**	**40,353,260**	**40,506,666**

APPENDIX C – IRP REGULATORY COMPLIANCE

BACKGROUND

Least-cost planning (i.e., Integrated Resource Planning) guidelines were first imposed on regulated utilities by state commissions in the 1980s. Their purpose was to require utilities to consider all resource alternatives—including demand-side measures—on an equal comparative footing, when making resource planning decisions. Integrated resource planning has expanded since then to incorporate the consideration of risk, uncertainty, and environmental externality costs into the resource evaluation framework. Planning rules were also intended to require utilities to involve regulators and the general public in the planning process prior to making resource decisions.

PacifiCorp prepares an IRP for the states in which it provides retail service. While the rules among the jurisdictional states vary in substance and style concerning IRP submission requirements, there is a consistent thread in intent and approach. PacifiCorp is required to file an IRP every two years with most state commissions. The IRP must look at all resource alternatives on a level playing field and propose a near-term action plan that assures adequate supply to meet load obligations at least cost, while taking into account risks and uncertainties. The IRP must be developed in an open, public process and give interested parties a meaningful opportunity to participate in the planning.

This appendix provides a discussion on how the 2008 IRP complies with the various state commission IRP Standards and Guidelines, 2007 IRP acknowledgement requirements, and other commission decisions. Included at the end of this appendix are the following tables:

- Table C.1 – Provides an overview and comparison of the rules in each state for which IRP submission is required.[1]
- Table C.2 – Provides a description of how the 2007 IRP acknowledgement requirements and other commission requests were addressed.
- Table C.3 – Provides an explanation of how this plan addresses each of the items contained in the new Oregon IRP guidelines issued in January 2007.
- Table C.4 – Provides an explanation of how this plan addresses each of the items contained in the Utah Public Service Commission IRP Standard and Guidelines issued in June 1992.
- Table C.5 – Provides an explanation of how this plan addresses each of the items contained in the Washington Utilities and Trade Commission IRP guidelines issued in January 2006.

GENERAL COMPLIANCE

PacifiCorp prepares the IRP on a biennial basis and files the IRP with the state commissions. The preparation of the IRP is done in an open public process with consultation between all interested parties, including commissioners and commission staff, customers, and other

[1] California and Wyoming requirements are not summarized in Table C.1. The Wyoming requirements are discussed in the chapter text. California guidelines exempt a utility with less than 500,000 customers in the state from filing an IRP.

stakeholders. This open process provides parties with a substantial opportunity to contribute information and ideas in the planning process, and also serves to inform all parties on the planning issues and approach. The public input process for this IRP, described in Volume 1, Chapter 2, as well as in Appendix E, fully complies with the IRP Standards and Guidelines.

The IRP provides a framework and plan for future actions to ensure PacifiCorp continues to provide reliable and least-cost electric service to its customers. The IRP evaluates, over a twenty-year planning period, the future loads of PacifiCorp customers and the capability of existing resources to meet this load.

To fill any gap between changes in loads and existing resources, the IRP evaluates all available resource options, as required by state commission rules. These resource alternatives include supply-side, demand-side, and transmission alternatives. The evaluation of the alternatives in the IRP, as detailed in Chapters 7 and 8, meets this requirement and includes the impact to system costs, system operations, supply and transmission reliability, and the impacts of numerous risks, uncertainties and externality costs that could occur. To perform the analysis and evaluation, PacifiCorp employs a suite of models that simulate the complex operation of the PacifiCorp system and its integration within the Western Interconnection. The models allow for a rigorous testing of a reasonably broad range of commercially feasible resource alternatives available to PacifiCorp on a consistent and comparable basis. The analytical process, including the risk and uncertainty analysis, fully complies with IRP Standards and Guidelines, and is described at a high level in Chapter 2 and in greater detail in Chapter 7.

The IRP analysis is designed to define a resource plan that is least cost, after consideration of risks and uncertainties. To test resource alternatives and identify a least-cost, risk adjusted plan, portfolio resource options were developed and tested against each other. This testing included examination of various tradeoffs among the portfolios, such as average cost versus risk, reliability, customer rate impacts, and average annual CO_2 emissions. This portfolio analysis and the results and conclusions drawn from the analysis are described in Chapter 8.

Consistent with the IRP Standards and Guidelines of Oregon, Utah, and Washington, this IRP includes an Action Plan (See Chapter 9). The Action Plan details near-term actions that are necessary to ensure PacifiCorp continues to provide reliable and least-cost electric service after considering risk and uncertainty. Appendix D provides a progress report that relates the 2007 IRP Action Plan with those provided in the 2007 IRP and 2007 IRP Update.

The 2008 IRP and the related Action Plan are filed with each commission with a request for prompt acknowledgement. Acknowledgement means that a commission recognizes the IRP as meeting all regulatory requirements at the time the acknowledgement is made. In the case where a commission acknowledges the IRP in part or not at all, PacifiCorp works with the commission to modify and re-file an IRP that meets acknowledgement standards.

State commission acknowledgement orders or letters typically stress that an acknowledgement does not indicate approval or endorsement of IRP conclusions or analysis results. Similarly, an acknowledgement does not imply that favorable ratemaking treatment for resources proposed in the IRP will be given.

California

Subsection (i) of California Public Utilities Code, Section 454.5, states that utilities serving less than 500,000 customers in the state are exempt from filing an Integrated Resource Plan for California. PacifiCorp serves only 45,072 average customers in the most northern parts of the state. PacifiCorp filed for and received an exemption on July 10, 2003.

Idaho

The Idaho Public Utilities Commission's Order No. 22299, issued in January 1989, specifies integrated resource planning requirements. The Order mandates that PacifiCorp submit a Resource Management Report (RMR) on a biennial basis. The intent of the RMR is to describe the status of IRP efforts in a concise format, and cover the following areas:

> *Each utility's RMR should discuss any flexibilities and analyses considered during comprehensive resource planning, such as: (1) examination of load forecast uncertainties; (2) effects of known or potential changes to existing resources; (3) consideration of demand and supply side resource options; and (4) contingencies for upgrading, optioning and acquiring resources at optimum times (considering cost, availability, lead time, reliability, risk, etc.) as future events unfold.*

This IRP is submitted to the Idaho PUC as the Resource Management Report for 2007, and fully addresses the above report components. The IRP also evaluates DSM using a load decrement approach, as discussed in Chapters 6 and 7. This approach is consistent with using an avoided cost approach to evaluating DSM as set forth in IPUC Order No. 21249.

Oregon

This IRP is submitted to the Oregon PUC in compliance with its new planning guidelines issued in January 2007 (Order No. 07-002). These guidelines supersede previous ones, and many codify analysis requirements outlined in the Commission's acknowledgement order for PacifiCorp's 2004 IRP.

The Commission's new IRP guidelines consist of substantive requirements (Guideline 1), procedural requirements (Guideline 2), plan filing, review, and updates (Guideline 3), plan components (Guideline 4), transmission (Guideline 5), conservation (Guideline 6), demand response (Guideline 7), environmental costs (Guideline 8, Order No. 08-339), direct access loads (Guideline 9), multi-state utilities (Guideline 10), reliability (Guideline 11), distributed generation (Guideline 12), and resource acquisition (Guideline 13). Consistent with the earlier guidelines (Order 89-507), the Commission notes that acknowledgement does not guarantee favorable ratemaking treatment, only that the plan seems reasonable at the time acknowledgment is given. Table C.3 provides considerable detail on how this plan addresses each of the requirements.

Utah

This IRP is submitted to the Utah Public Service Commission in compliance with its 1992 Order on Standards and Guidelines for Integrated Resource Planning (Docket No. 90-2035-01, "Report

and Order on Standards and Guidelines"). Table C.4 documents how PacifiCorp complies with each of these standards.

Washington

This IRP is submitted to the Washington Utilities and Transportation Commission (WUTC) in compliance with its rule requiring least cost planning (Washington Administrative Code 480-100-238), and the rule amendment issued on January 9, 2006 (WAC 480-100-238, Docket No. UE-030311). In addition to a least cost plan, the rule requires provision of a two-year action plan and a progress report that "relates the new plan to the previously filed plan."

The rule amendment also now requires PacifiCorp to submit a work plan for informal commission review not later than 12 months prior to the due date of the plan. The work plan is to lay out the contents of the IRP, the resource assessment method, and timing and extent of public participation. PacifiCorp filed a work plan with the Commission on February 21, 2006, and had a follow-up conference call with WUTC staff to make sure the work plan met staff expectations.

Finally, the rule amendment now requires PacifiCorp to provide an assessment of transmission system capability and reliability. This requirement was met in this IRP by modeling the company's current transmission system along with both generation and transmission resource options as part of its resource portfolio analyses. These analyses used such reliability metrics as Loss of Load Probability and Energy Not Served to assess the impacts of different resource combinations on system reliability. The stochastic simulation and risk analysis section of Chapter 7 reports the reliability analysis results.

Wyoming

On October 4, 2001, the Public Service Commission of Wyoming issued an Order and Stipulation requiring PacifiCorp to file annual resource planning and transmission reports for a three-year time period beginning in 2002, each to be submitted on March 31, Each report "will address (1) load and resource planning issues affecting Wyoming, and (2) transmission investment, operation and planning issues affecting Wyoming." PacifiCorp submitted its last report in March 2004.

In 2009, Wyoming proposed a draft rule 253 for any utility serving Wyoming to file their Integrated Resource Plan with the commission. This rule is still under review and is open for public comment until April 27, 2009 and with a schedule public hearing on May 12, 2009.

> *Rule 253: Integrated Resource Planning.*
> *Any utility serving in Wyoming required to file an integrated resource plan (IRP) in any jurisdiction, shall file that IRP with the Wyoming Public Service Commission. The Commission may require any utility serving in Wyoming to prepare and file an IRP when the Commission determines it is in the public interest. Commission advisory staff shall review the IRP as directed by the Commission and report its findings to the Commission in open meeting. The review may be conducted in accordance with guidelines set from time to time as conditions warrant.*

Table C.1 – Integrated Resource Planning Standards and Guidelines Summary by State

Topic	Oregon	Utah	Washington	Idaho
Source	Order 89-507 *Least-cost Planning for Resource Acquisitions,* April 20, 1989. Order No. 07-002, *Investigation Into Integrated Resource Planning*, January 8, 2007.	Docket 90-2035-01 *Standards and Guidelines for Integrated Resource Planning* June 18, 1992.	WAC 480-100-251 Least cost planning, May 19, 1987, and as amended from WAC 480-100-238 *Least Cost Planning Rulemaking,* January 9, 2006 (Docket # UE-030311)	Order 22299 *Electric Utility Conservation Standards and Practices* January, 1989.
Filing Requirements	Least-cost plans must be filed with the Commission.	An Integrated Resource Plan (IRP) is to be submitted to Commission.	Submit a least cost plan to the Commission. Plan to be developed with consultation of Commission staff, and with public involvement.	Submit "Resource Management Report" (RMR) on planning status. Also file progress reports on conservation and low-income programs.
Frequency	Plans filed biennially. Interim reports on plan progress also required (informational filing only). Order 07-002 requires IRP filing within two years of its previous IRP acknowledgement order.	File biennially.	File biennially.	RMP to be filed at least biennially. Conservation reports to be filed annually.
Commission response	Least-cost plan (LCP) *acknowledged* if found to comply with standards and guidelines. A decision made in the LCP process does not guarantee favorable rate-making treatment. The OPUC may direct the utility to revise the IRP or conduct additional analysis before an acknowledgement order is issued. Note, however, that Rate Plan legislation allows pre-approval of near-term resource investments.	IRP *acknowledged* if found to comply with standards and guidelines. Prudence reviews of new resource acquisitions will occur during rate making proceedings.	The plan will be considered, with other available information, when evaluating the performance of the utility in rate proceedings. WUTC sends a letter discussing the report, making suggestions and requirements and acknowledges the report.	Report does not constitute pre-approval of proposed resource acquisitions. Idaho sends a short letter stating that they accept the filing and acknowledge the report as satisfying Commission requirements.

Topic	Oregon	Utah	Washington	Idaho
Process	The public and other utilities are allowed significant involvement in the preparation of the plan, with opportunities to contribute and receive information. Order 07-002 requires that the utility present IRP results to the OPUC at a public meeting prior to the deadline for written public comments. Commission staff and parties should complete their comments and recommendations within six months after IRP filing. Competitive secrets must be protected.	Planning process open to the public at all stages. IRP developed in consultation with the Commission, its staff, with ample opportunity for public input.	In consultation with Commission staff, develop and implement a public involvement plan. Involvement by the public in development of the plan is required. For the amended rules issued in January 2006, PacifiCorp is required to submit a work plan for informal commission review not later than 12 months prior to the due date of the plan. The work plan is to lay out the contents of the IRP, resource assessment method, and timing and extent of public participation.	Utilities to work with Commission staff when reviewing and updating RMRs. Regular public workshops should be part of process.
Focus	20-year plan, with end-effects, and a short-term (two-year) action plan. The IRP process should result in the selection of that mix of options which yields, for society over the long run, the best combination of expected costs and variance of costs.	20-year plan, with short-term (four-year) action plan. Specific actions for the first two years and anticipated actions in the second two years to be detailed. The IRP process should result in the selection of the optimal set of resources given the expected combination of costs, risk and uncertainty.	20-year plan, with short-term (two-year) action plan. The plan describes mix of resources sufficient to meet current and future loads at "lowest reasonable" cost to utility and ratepayers. Resource cost, market volatility risks, demand-side resource uncertainty, resource dispatchability, ratepayer risks, policy impacts, and environmental risks, must be considered.	20-year plan to meet load obligations at least-cost, with equal consideration to demand side resources. Plan to address risks and uncertainties. Emphasis on clarity, understandability, resource capabilities and planning flexibility.
Elements	Basic elements include: • All resources evaluated on a consistent and comparable basis. • Risk and uncertainty must be considered. • The primary goal must be least cost, consistent with the	IRP will include: • Range of forecasts of future load growth • Evaluation of all present and future resources, including demand side, supply side and market, on a consistent and comparable basis.	The plan shall include: • A range of forecasts of future demand using methods that examine the effect of economic forces on the consumption of electricity and that address changes in the number, type and efficiency of electrical end-uses.	Discuss analyses considered including: • Load forecast uncertainties; • Known or potential changes to existing resources; • Equal consideration of demand and supply side resource options;

Topic	Oregon	Utah	Washington	Idaho
	long-run public interest. • The plan must be consistent with Oregon and federal energy policy. • External costs must be considered, and quantified where possible. OPUC specifies environmental adders (Order No. 93-695, Docket UM 424). • Identify acquisition strategies for action plan resources, assess advantages/disadvantages of resource ownership versus purchases, and identify benchmark resources considered for competitive bidding. • Multi-state utilities should plan their generation and transmission systems on an integrated-system basis. • Avoided cost filing required within 30 days of acknowledgement.	• Analysis of the role of competitive bidding • A plan for adapting to different paths as the future unfolds. • A cost effectiveness methodology. • An evaluation of the financial, competitive, reliability and operational risks associated with resource options, and how the action plan addresses these risks. • Definition of how risks are allocated between ratepayers and shareholders • DSM and supply side resources evaluated at "Total Resource Cost" rather than utility cost.	• An assessment of commercially available conservation, including load management, as well as an assessment of currently employed and new policies and programs needed to obtain the conservation improvements. • Assessment of a wide range of conventional and commercially available nonconventional generating technologies • An assessment of transmission system capability and reliability (Added per amended rules issued in January 2006). • A comparative evaluation of energy supply resources (including transmission and distribution) and improvements in conservation using "lowest reasonable cost" criteria. • Integration of the demand forecasts and resource evaluations into a long-range (at least 10 years) plan. • All plans shall also include a progress report that relates the new plan to the previously filed plan.	• Contingencies for upgrading, optioning and acquiring resources at optimum times; • Report on existing resource stack, load forecast and additional resource menu.

Table C.2 – Handling of 2007 IRP Acknowledgement and Other IRP Requirements

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
Idaho		
Acceptance of Filing, Case No. PAC-E-07-11, p. 9	Staff further recommends that the Company address modifications to its 2007 resource acquisition strategies on a state-by-state basis in the form of periodic updates to its 2007 IRP.	Stakeholder and Bidder meetings are held throughout the RFP process on a periodic basis.
Acceptance of Filing, Case No. PAC-E-07-11, p. 9	Staff also recommends that the Company investigate critical peak pricing programs to augment its existing time-of-use schedule. Staff considers the deployment of advanced metering to be an indispensable part of that investigation.	Critical Peak Pricing (CPP) programs (Class 3 DSM) are included as resource options for portfolio modeling. PacifiCorp developed a sensitivity portfolio with these resources and other price-response programs, and simulated it using its stochastic production cost model (Chapter 8). Class 3 DSM programs are addressed in Item 7 of the IRP action plan (Chapter 9).
Acceptance of Filing, Case No. PAC-E-07-11, p. 10	Given the increasing role of jurisdictional resource mandates in the planning process, Staff further recommends that future IRPs incorporate a section devoted to the impacts, if any, of state policies on the selection of preferred portfolios.	State RPS requirements are explicitly accounted for in resource portfolio modeling, and the company is in the process of implementing capacity expansion modeling enhancements to improve representative of jurisdiction-specific CO_2 and RPS rules. Please refer to Chapter 3 RPS discussion and Chapter 7 discussing the Alternative Scenarios. State environmental/energy policies are discussed in Chapters 3, and are addressed in the IRP action plan (Chapter 9)
PURPA QF Wind, ID PAC-E-07-07, p. 6	(PacifiCorp) shall hereafter file notice with the Commission of any changes to its wind integration charge as reflected in subsequent changes to its IRP.	PacifiCorp is preparing an update to its wind integration cost estimates. This updated information will be provided in the final IRP document to be filed with state commissions by May 29, 2009
PURPA QF Wind, ID PAC-E-07-07, p. 6	Expected wind integration cost information will be included in the Company s integrated resource planning (IRP) process in the same way that costs for other generating resources are included in the IRP.	See slide 2 from the December 2, 2008 Conference, showing the adoption of PGE's integration cost of $11.75/MWh in 2008 dollars. This value was treated as a placeholder until the company completes its wind integration study
PURPA QF Wind, ID PAC-E-07-07, p. 7	Idaho wind developers will be notified as part of the public meeting process and can contribute their input at those meetings to discuss PacifiCorp s wind integration study and new data related to wind integration costs prior to the publishing of the Company s next (2009) IRP.	PacifiCorp has added several contacts for Idaho wind developers to the participant list. PacifiCorp held a wind integration cost technical conference on December 2, 2008.
Oregon		

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
Order No. 08-232, LC-42, p. 13	Staff also recommends further consideration of nuclear passive safety and pumped storage technologies in the next planning cycle.	PacifiCorp included advanced nuclear and pumped storage technologies as resource options in portfolio modeling. See Chapters 6 and 7.
Order No. 08-232, LC-42, p. 14	Addressing a requirement from the last planning cycle, the IRP includes a discussion of how various thermal resources affect wind integration costs. Staff recommends a more thorough discussion in the next resource plan.	See Appendix H for additional information on wind integration costs, to be provided when the IRP is filed May 29, 2009.
Order No. 08-232, LC-42, p. 15	Staff recommends the Company take a hard look at low market price scenarios in analyzing its resource choices. Such possible futures point out the risks of capital-intensive, base load resources.	PacifiCorp developed seven portfolios using low market price assumptions. See Chapter 7 for portfolio input assumptions.
Order No. 08-232, LC-42, p. 17	The IRP includes a cursory discussion of hedging. Staff recommends a more robust discussion of hedging in future resource plans. Commission agrees with staff…"[the] plan should include a more substantive discussion of hedging as specified by Guideline 1c.	See Chapter 9 for a discussion on Use of Physical and Financial Hedging for Electricity Price Risk.
Order No. 08-232, LC-42, p. 21	Staff recommends the Company model market purchases for the later years of the plan in order to consistently compare portfolios, and not inappropriately weight resource decisions in the distant future.	The 2008 IRP extends front office purchases to end of the simulation period (2028), and also specifies Growth Resources, available to the model after 2020, using forward market prices. See the section in Chapter 7, "Modeling Front Office Transactions and Growth Resources".
Order No. 08-232, LC-42, p. 26	We therefore support the agreed-upon modifications to Action Items 3 and 4 related to demand response resources. [Staff's concerns that the IRP may have underestimated the level of risk-adjusted, cost-effective demand response.]	See Chapter 6 on Resource Options and the results in Chapter 8.
Order No. 08-232, LC-42, p. 29	Pacific Power's next plan should further evaluate solar direct use and generating resources.	PacifiCorp complied with this recommendation. See Chapter 6 on the additional solar options included for portfolio development.
Order No. 08-232, LC-42, p. 36	4. In the next planning cycle, include IGCC plants with carbon capture and sequestration as a resource option for selection.	PacifiCorp included IGCC plants with CCS as resource options in all the portfolios modeled. See Chapter 6 for resource specifications and background information.
Order No. 08-232, LC-42, p. 36	5. In the next IRP, evaluate intermediate-term market purchases, modeling them as portfolio options that compete with other resource options, and analyze cost and risk.	In formulating market purchase options for the IRP models, the company lacked information with which to discriminate such purchases from the proxy FOT resources already modeled in this IRP. Lacking such information, the company anticipated using bid information from the 2008 All-Source RFP to inform the development of

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
		intermediate-term market purchase resources for modeling purposes. The company received no intermediate-term market purchase bids; therefore, such resources could not be reasonably modeled for this IRP. (See Chapter 6, "Resource Options)
Order No. 08-232, LC-42, p. 36	6. For the 2007 IRP update and next planning cycle, develop a scenario to meet the CO_2 emissions reduction goals in Oregon HB 3543, including development of a compliant portfolio that meets the Commission's best cost/risk standard.	PacifiCorp designed a portfolio analysis to address this requirement, estimating a system-wide hard cap based on Oregon's HB 3543 emission reduction goals. The company corrected a deficiency with the analysis pointed out by OPUC staff (assigning an emission rate to market purchases). A description of this portfolio scenario ("case 40") is provided in Chapter 7; modeling results are provided in Chapter 8.
Order No. 08-232, LC-42, p. 36	7. For the next planning cycle, further develop with stakeholders use of loss of load probability (LOLP) and energy not served (ENS). Fully develop cost and risk metrics of various LOLP and ENS criteria.	See the sections in Chapter 8 discussing the LOLP and ENS modeling results. PacifiCorp will investigate functionality in the company's capacity expansion optimization model (System Optimizer) to apply an LOLP constraint. This activity is identified in Action Plan item no. 9, Planning Process Improvements.
Order No. 08-232, LC-42, p. 36	8. For the next planning cycle, consider the impact of forced early retirements of existing coal plants, or retrofits necessary to reduce their CO_2 emissions, under stringent carbon regulation scenarios.	Forced early retirement is discussed in Chapter 9 under Managing Carbon Risk for Existing Plants. The option of retrofits is a resource option in the portfolio development process.
Order No. 08-232, LC-42, p. 36	9. Pursue refinement of CO_2 emissions modeling to improve treatment of compliance under various regulatory schemes, including assignment of emissions rates to short-term market transactions.	PacifiCorp is implementing System Optimizer capacity expansion model enhancements for improved representation of CO_2 and RPS regulatory requirements at the jurisdictional level. This activity is identified in Action Plan item no. 9, Planning Process Improvements. Development of this functionality was complicated and could not be completed in time for this IRP.
Order No. 08-232, LC-42, p. 37	1. For the 2007 IRP Update and next IRP, Pacific Power should model other renewable resources in addition to wind.	PacifiCorp included geothermal, biomass, solar, and hydrokinetic technologies as resource options in portfolio modeling. See Chapter 6 "Resource Options" and Chapter 7 "Modeling and Portfolio Evaluation Approach".
Order No. 08-232, LC-42, p. 37	2. For the next IRP, Pacific Power should rank portfolios based on the 95th Percentile and Upper-Tail PVRR risk metrics, and explain any inconsistencies between portfolios that rank highest	PacifiCorp reports the 95th Percentile and Upper-Tail PVRR metrics, along with a new measure called risk-adjusted PVRR, which was used for "2012 Base-load RFP" bid evaluation. The risk exposure measure was

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
	according to these measures and the Company's preferred portfolio.	dropped from the IRP. See Chapters 7 and 8 for descriptions of the risk measures and the portfolio ranking process, respectively. For portfolio ranking purposes, incorporation of the risk-adjusted PVRR in the preference scoring process addresses the requirement to reflect an upper-tail risk measure in portfolio ranking. However, Table B.23 in the Appendix volume shows an alternate ranking scheme where the upper-tail mean PVRR is included as a separate performance measure and given an importance weight nearly as large as the mean PVRR. This alternate ranking scheme is applied to the final 10 portfolios considered for preferred portfolio selection.
Order No. 08-232, LC-42, p. 37	3. For the next IRP, in response to concerns noted in this order, Pacific Power should further analyze and discuss the use of hedging, the level of short-term market purchases, projected load growth, modeling of resources to meet loads in the later years of the planning horizon, capital cost risks and assumed economic lives of coal plants, and the appropriate level of distributed generation.	• Hedging is addressed in Chapter 9. • PacifiCorp modeled market purchases based on several forward price futures (low, medium, high), and applying forward price curves developed at two points in time (See Chapter 7) • PacifiCorp modeled alternative load growth scenarios, and conducted portfolio analysis with two load forecasts developed in November 2008 and February 2009 • Resources, other than "growth resources", were allowed as model options for capacity expansion modeling (See Chapter 7) • PacifiCorp included 10-year capital costs as a portfolio performance evaluation measure, and developed a portfolio assuming a 20% increase in capital costs • Distributed generation resources (CHP and customer standby generation) were included as resource options in all portfolios modeled; the appropriate level of distributed generation is addressed in item no. 9 of the IRP action plan (Chapter 9)
Utah		
UT-07-2035-01, Report & Order, 2-6-08, p. 13	We direct the Company, in its next IRP process, to convene a public input meeting or technical workgroup session to review its approach to load forecast variation and to address the issue of load forecast error risk. This discussion must include the Committee's concerns	PacifiCorp held a load forecasting technical workshop on June 26, 2008. PacifiCorp attended two meetings with Utah parties to discuss various IRP and load forecasting issues (April 9 and May 14, 2008).

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
	regarding use of 30-year normal temperatures for estimating peak demand, the number of years relied upon for developing stochastic parameters, and the role of planning reserve in managing the risks of forecast error.	
UT-07-2035-01, Report & Order, 2-6-08, p. 16	We direct the Company to continue to study the tradeoffs in planning to different planning reserve targets in future IRPs.	PacifiCorp's planning reserve margin analysis is summarized in Chapter 8.
UT-07-2035-01, Report & Order, 2-6-08, p. 17	We direct the Company to address [the issue of hydro capacity accounting] in its next IRP. For example, it may be useful to conduct sensitivity analysis regarding this assumption to identify potential risks or shortcomings of [using the sustainable one-hour peak capacity method applied for the 2007 IRP]	This requirement is addressed in Chapter 5, Resource Needs Assessment, in the discussion on hydro resources.
UT-07-2035-01, Report & Order, 2-6-08, p. 23	We direct the Company to evaluate a full spectrum of supply-side and demand-side options which have different characteristics regarding size, dispatchability, expected cost, expected risks and lead time for construction. Modeling limitations will need to be addressed.	See Chapter 5 "Resource Options" for a description of the expanded number of resources included in portfolio modeling.
UT-07-2035-01, Report & Order, 2-6-08, p. 13	We direct the Company to host a public input meeting or technical workgroup to examine the reasonableness of the range of CO_2 adders for evaluating carbon regulation risk and risk mitigating resource strategies.	PacifiCorp held a public input meeting on modeling CO2 regulations (including specification of CO_2 adders) on June 26, 2008.
UT-07-2035-01, Report & Order, 2-6-08, p. 13	We direct the Company to consider the following three-step approach for developing its optimal portfolio: 1) Identify optimal portfolios for a relatively broad, and consistently applied, set of input assumptions; 2) subject all of these optimal portfolios to stochastic risk analysis and identify superior optimal portfolios with respect to the tradeoff between expected cost and risk exposure; 3) examine the cost consequences of the superior portfolios with respect to uncertainty by subjecting them to evaluation under the initial set of relatively broad input assumptions.	See Chapter 7 "Modeling and Portfolio Evaluation Approach". This three-step approach was implemented for this IRP. The assessment of the value of step 3 is provided in Chapter 8.
UT-07-2035-01, Report & Order, 2-6-08, p. 13	We direct the Company, with public input, to develop a manageable set of potential future conditions, defined by a consistently applied set of input assumptions, and to develop a set of optimal portfolios	PacifiCorp has complied with this directive, and sought public input on the specification of input assumption scenarios at several public meeting during2008. The company initially developed 47 input assumption

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
	consistent with these sets of conditions.	scenarios ("cases"), developed resource portfolios optimized according to these scenarios, and subjected these portfolios to stochastic (Monte Carlo) production cost simulation. The company subsequently developed another 10 portfolios accounting for the removal of the Lake Side 2 combined-cycle plant as a planned resource in 2012, and using a consistent set of input cases to do so (the cases that yielded the original top-performing portfolios).
Washington		
Letter Order, UE-071062, p. 1	PacifiCorp does need to identify and better support significant changes it makes to base demand projections relative to previous IRPs. For example, no explanation is given as to why this IRP cut the expected demand growth in Washington by 50 percent.	See Chapter 5 "Resource Needs Assessment" and Chapter 8 for details on the load forecasts used. The company held several conference calls with public stakeholders describing the reason for load forecast adjustments having to do with recessionary impacts.
Letter Order, UE-071062, p. 1	The company should also improve the presentation of its two-year action plan.	The company has provided more detail in the IRP action plan, included an acquisition path analysis, and addressed several resource risk management topics not addressed in previous IRPs. See chapter 9.
Letter Order, UE-071062, p. 2	The Commission expects the company to use the Quantec estimates as the basis for its conservation program achievement objective rather than the one included in the IRP.	PacifiCorp developed energy efficiency supply curves based on the Cadmus Group (previously Quantec LLP) potentials information. See the discussion on supply curve development in Chapter 6. These supply curves served as resource options in the capacity expansion model.
Letter Order, UE-071062, p. 2	In its next plan, the company needs to better explain how it chose the transmission options to study, the process used to integrate the selection of both new generating resources and transmission expansions/enhancements, and how the transmission expansion will affect system operation, dispatch of resources and the flow of electricity throughout PacifiCorp's service territory.	PacifiCorp included a new "Transmission planning" chapter (Chapter 4), and included a separate transmission expansion action plan in Chapter 9.
Letter Order, UE-071062, p. 3	Therefore, we remind the company that any baseload resources put in service after June 30, 2008 to serve Washington customers, or any transmission that allows the output of such resources to reach Washington must comply with this state's statutory requirements.	PacifiCorp will follow state statutory requirements for delivery of energy to Washington.

Reference	IRP Requirement or Recommendation	How the Requirement or Recommendation is Addressed in the 2008 IRP
Letter Order, UE-071062, p. 3	What is unclear from this discussion is how PacifiCorp will determine when a revision in the planning margin is warranted. PacifiCorp needs to identify the metrics it will use or the processes it will monitor that could lead the company to alter its new planning margin.	PacifiCorp will investigate the use of a LOLP capacity constraint in its capacity expansion model to supplement the current planning reserve margin approach (See Chapter 9, action item no. 9). Development of a process to modify planning reserve margins has thus been put on hold. PacifiCorp is also monitoring WECC resource supply adequacy criteria for possible implications to the IRP.
Letter Order, UE-071062, p. 4	As part of its next plan, PacifiCorp should more thoroughly explain why its preferred portfolio provides greater benefits and/or is lower risk than the alternative portfolios.	See chapter 8 for an in-depth discussion on the merits and disadvantages of the preferred portfolio relative to other top-performing portfolios.
Letter Order, UE-071062, p. 4	PacifiCorp should derive avoided cost for transmission and distribution resources. These avoided costs will guide generators or suppliers as they determine if they can supply electricity below the company's avoided cost.	PacifiCorp incorporated a T&D investment deferral cost credit to demand-side management program costs.
Letter Order, UE-071062, p. 1	The action plan needs to provide much more specific information regarding the actual steps the company will take to complete the identified action items.	The IRP action plan provides more detail on procurement approaches for resources identified in the IRP preferred portfolio (See Table 9.2 in Chapter 9).
Wyoming		
The Wyoming Commission provided the following comment: *Pursuant to open meeting action taken on January 11, 2008, PacifiCorp d/b/a Rocky Mountain Power's 2007 Integrated Resource Plan (IRP) is hereby placed in the Commission's files. No further action will be taken and this docketed matter is closed.*		

Table C.3 – Oregon Public Utility Commission IRP Standard and Guidelines

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
Guideline 1. Substantive Requirements		
1.a.1	All resources must be evaluated on a consistent and comparable basis: All known resources for meeting the utility's load should be considered, including supply-side options which focus on the generation, purchase and transmission of power – or gas purchases, transportation, and storage – and demand-side options which focus on conservation and demand response.	PacifiCorp considered a wide range of resources including renewables, demand-side management, distributed generation, energy storage, power purchases, thermal resources, and transmission. Chapters 6 and 7 document how PacifiCorp developed these resources and modeled them in its portfolio analysis. All these resources were established as resource options in the company's capacity expansion optimization model, and selected by the model based on relative economics, resource size, availability dates, and other factors.
1.a.2	All resources must be evaluated on a consistent and comparable basis: Utilities should compare different resource fuel types, technologies, lead times, in-service dates, durations and locations in portfolio risk modeling.	All portfolios developed with the capacity expansion optimization model were subjected to Monte Carlo production cost simulation. These portfolios contained a variety of resource types with different fuel types (coal, gas, biomass, nuclear fuel, "no fuel" renewables), lead-times (ranging from front office transactions to nuclear plants), in-service dates, life-times, and locations.
1.a.3	All resources must be evaluated on a consistent and comparable basis: Consistent assumptions and methods should be used for evaluation of all resources.	PacifiCorp fully complies with this requirement. The company developed generic supply-side resource attributes based on a consistent characterization methodology. For demand-side resources, the company used the Cadmus Group's supply curve data for representation of DSM and distributed generation resources, which was also based on a consistently applied methodology for determining technical, market, and achievable DSM potentials. All portfolio resources were evaluated using the same sets of price and load forecast inputs. These inputs are documented in Chapters 6 and 7.
1.a.4	All resources must be evaluated on a consistent and comparable basis: The after-tax marginal weighted-average cost of capital (WACC) should be used to discount all future resource costs.	PacifiCorp applied its after-tax WACC of 7.4 percent to discount all cost streams.
1.b.1	Risk and uncertainty must be considered: At a minimum, utilities should address the following sources of risk and uncertainty: 1. Electric utilities: load requirements, hydroelectric generation, plant forced outages, fuel prices, electricity prices, and costs to comply with any regulation of greenhouse gas emissions.	PacifiCorp fully complies with this requirement. Each of the sources of risk identified in this guideline is treated as a stochastic variable in Monte Carlo production cost simulation. See the stochastic modeling methodology section in Chapter 7.
1.b.2	Risk and uncertainty must be considered: Utilities should identify in their plans any additional sources of risk and uncertainty.	PacifiCorp complied with this guideline by discussing resource risk mitigation in Chapter 9. Topics covered include: (1) managing carbon risk for existing plants, (2) the use of physical and financial hedging for

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
		electricity price risk, and (3) managing gas supply risk. Regulatory and financial management risks associated with a large capital expenditure program were highlighted in several areas throughout the IRP document.
1.c	The primary goal must be the selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers ("best cost/risk portfolio").	PacifiCorp evaluated cost/risk tradeoffs for each of the portfolios considered, significantly expanding its representation of CO_2 cost risk and implementing a multi-measure portfolio preference ranking scheme. See Chapter 8 for the company's portfolio risk analysis and determination of the preferred portfolio.
1.c.1	The planning horizon for analyzing resource choices should be at least 20 years and account for end effects. Utilities should consider all costs with a reasonable likelihood of being included in rates over the long term, which extends beyond the planning horizon and the life of the resource.	PacifiCorp used a 20-year study period for portfolio modeling, and a real levelized revenue requirement methodology for treatment of end effects consistent with past IRP practice.
1.c.2	Utilities should use present value of revenue requirement (PVRR) as the key cost metric. The plan should include analysis of current and estimated future costs for all long-lived resources such as power plants, gas storage facilities, and pipelines, as well as all short-lived resources such as gas supply and short-term power purchases.	PacifiCorp fully complies. Chapter 7 provides a description of the PVRR methodology.
1.c.3.1	To address risk, the plan should include, at a minimum: 1. Two measures of PVRR risk: one that measures the variability of costs and one that measures the severity of bad outcomes.	PacifiCorp uses the standard deviation of stochastic production costs as the measure of cost variability. For the severity of bad outcomes, the company calculates several measures, including stochastic upper-tail PVRR (mean of highest five Monte Carlo iterations) and the 95th percentile stochastic PVRR.
1.c.3.2	To address risk, the plan should include, at a minimum: 2. Discussion of the proposed use and impact on costs and risks of physical and financial hedging.	A discussion on costs and risks of physical and financial hedging is provided in Chapter 9.
1.c.4	The utility should explain in its plan how its resource choices appropriately balance cost and risk.	Chapter 8 summarizes the results of PacifiCorp's cost/risk tradeoff analysis, and describes what criteria the company used to determine the best cost/risk portfolios and the preferred portfolio.
1.d	The plan must be consistent with the long-run public interest as expressed in Oregon and federal energy policies.	PacifiCorp considered both current and expected state and federal energy policies in portfolio modeling. Chapter 7 describes the decision process used to derive portfolios, which includes consideration of state resource policies. The IRP action plan chapter also presents an acquisition path analysis that describes resource strategies based on regulatory trigger events.
Guideline 2. Procedural Requirements		
2.a	The public, which includes other utilities, should be allowed significant involvement in the preparation of the IRP. Involvement includes	PacifiCorp fully complies with this requirement. Chapter 2 provides an overview of the public process, while Appendix D documents the details on public

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
	opportunities to contribute information and ideas, as well as to receive information. Parties must have an opportunity to make relevant inquiries of the utility formulating the plan. Disputes about whether information requests are relevant or unreasonably burdensome, or whether a utility is being properly responsive, may be submitted to the Commission for resolution.	meetings held for the 2008 IRP.
2.b	While confidential information must be protected, the utility should make public, in its plan, any non-confidential information that is relevant to its resource evaluation and action plan. Confidential information may be protected through use of a protective order, through aggregation or shielding of data, or through any other mechanism approved by the Commission.	Both IRP volumes provide non-confidential information the company used for portfolio evaluation, as well as other data requested by stakeholders. PacifiCorp also provided stakeholders with non-confidential information to support public meeting discussions via email.
2.c	The utility must provide a draft IRP for public review and comment prior to filing a final plan with the Commission.	PacifiCorp distributed a draft IRP document for external review on April 8, 2009.
Guideline 3: Plan Filing, Review, and Updates		
3.a	A utility must file an IRP within two years of its previous IRP acknowledgment order. If the utility does not intend to take any significant resource action for at least two years after its next IRP is due, the utility may request an extension of its filing date from the Commission.	This Plan complies with this requirement.
3.b	The utility must present the results of its filed plan to the Commission at a public meeting prior to the deadline for written public comment.	PacifiCorp will adhere to this guideline.
3.c	Commission staff and parties should complete their comments and recommendations within six months of IRP filing.	Not applicable
3.d	The Commission will consider comments and recommendations on a utility's plan at a public meeting before issuing an order on acknowledgment. The Commission may provide the utility an opportunity to revise the plan before issuing an acknowledgment order.	Not applicable
3.e	The Commission may provide direction to a utility regarding any additional analyses or actions that the utility should undertake in its next IRP.	Not applicable
3.f	Each utility must submit an annual update on its most recently acknowledged plan. The update is due on or before the acknowledgment order anniversary date. Once a utility anticipates a significant deviation from its acknowledged IRP, it must file an update with the Commission, unless the utility is within six months of filing its next IRP. The utility must summarize the update at a Commission public meeting. The utility may	Not applicable

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
	request acknowledgment of changes in proposed actions identified in an update.	
3.g	Unless the utility requests acknowledgement of changes in proposed actions, the annual update is an informational filing that: 1. Describes what actions the utility has taken to implement the plan; 2. Provides an assessment of what has changed since the acknowledgment order that affects the action plan, including changes in such factors as load, expiration of resource contracts, supply-side and demand-side resource acquisitions, resource costs, and transmission availability; and 3. Justifies any deviations from the acknowledged action plan.	Not applicable
Guideline 4. Plan Components (at a minimum, must include…)		
4.a	An explanation of how the utility met each of the substantive and procedural requirements	The purpose of this table is to comply with this guideline.
4.b	Analysis of high and low load growth scenarios in addition to stochastic load risk analysis with an explanation of major assumptions	PacifiCorp developed low, medium, and high load growth forecasts for scenario analysis using the System Optimizer model for portfolio development. Stochastic variability of loads was also captured in the risk analysis. See Chapters 5 and 8, and Appendix E, for load forecast information. Chapter 8 also describes how loads are handled in the stochastic modeling.
4.c	For electric utilities, a determination of the levels of peaking capacity and energy capability expected for each year of the plan, given existing resources; identification of capacity and energy needed to bridge the gap between expected loads and resources; modeling of all existing transmission rights, as well as future transmission additions associated with the resource portfolios tested	This Plan complies with the requirement. See Chapter 5 for details on annual capacity and energy balances. Existing transmission rights are reflected in the IRP model topologies, as mentioned in Chapter 7.
4.d	For gas utilities only	Not applicable
4.e	Identification and estimated costs of all supply-side and demand side resource options, taking into account anticipated advances in technology	Chapter 6 identifies the resources included in this IRP, and provides their detailed cost and performance attributes. See Tables 6.2 through 6.10 for supply-side resources, and Tables 6.15 through 6.20 for demand-side resources.
4.f	Analysis of measures the utility intends to take to provide reliable service, including cost-risk tradeoffs	In addition to incorporating a planning reserve margin for all portfolios evaluated, the company used several measures to evaluate relative portfolio supply reliability. These are described in Chapter 7 (Energy Not Served and Loss of Load Probability). PacifiCorp conducted a sensitivity study to determine the cost/risk tradeoff of different planning reserve margin levels. This study is documented in Chapter 8.
4.g	Identification of key assumptions about the future (e.g., fuel prices and environmental compliance	Chapter 7 describes the key assumptions and alternative scenarios used in this IRP.

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
	costs) and alternative scenarios considered	
4.h	Construction of a representative set of resource portfolios to test various operating characteristics, resource types, fuels and sources, technologies, lead times, in-service dates, durations and general locations – system-wide or delivered to a specific portion of the system	This Plan documents the development and results of 57 portfolios designed to determine resource selection under a variety of input assumptions (Chapter 8).
4.i	Evaluation of the performance of the candidate portfolios over the range of identified risks and uncertainties	Chapter 8 presents the stochastic portfolio modeling results, and describes portfolio attributes that explain relative differences in cost and risk performance.
4.j	Results of testing and rank ordering of the portfolios by cost and risk metric, and interpretation of those results.	Chapter 8 provides tables and charts with performance measure results, including rank ordering.
4.k	Analysis of the uncertainties associated with each portfolio evaluated.	PacifiCorp fully complies with this guideline. See the responses to 1.b.1 and 1.b.2 above.
4.l	Selection of a portfolio that represents the best combination of cost and risk for the utility and its customers.	See 1.c above.
4.m	Identification and explanation of any inconsistencies of the selected portfolio with any state and federal energy policies that may affect a utility's plan and any barriers to implementation.	This IRP is presumed to have no inconsistencies.
	An action plan with resource activities the utility intends to undertake over the next two to four years to acquire the identified resources, regardless of whether the activity was acknowledged in a previous IRP, with the key attributes of each resource specified as in portfolio testing.	Chapters 9 and 10 presents the 2008 IRP and transmission expansion action plans, respectively.
Guideline 5: Transmission		
5	Portfolio analysis should include costs to the utility for the fuel transportation and electric transmission required for each resource being considered. In addition, utilities should consider fuel transportation and electric transmission facilities as resource options, taking into account their value for making additional purchases and sales, accessing less costly resources in remote locations, acquiring alternative fuel supplies, and improving reliability.	PacifiCorp evaluated proxy transmission resources on a comparable basis with respect to other proxy resources in this IRP. Fuel transportation costs were factored into resource costs.
Guideline 6: Conservation		
6.a	Each utility should ensure that a conservation potential study is conducted periodically for its entire service territory.	A multi-state demand-side management potentials study was completed in June 2007, and those results were incorporated into this plan.
6.b	To the extent that a utility controls the level of funding for conservation programs in its service territory, the utility should include in its action plan all best cost/risk portfolio conservation resources for meeting projected resource needs, specifying annual savings targets.	PacifiCorp's energy efficiency supply curves incorporate Oregon resource potential. Oregon potential estimates were provided by the Energy Trust of Oregon. See Chapter 6, "Class 2 DSM, Capacity Supply Curves"
6.c	To the extent that an outside party administers	See the response for 6.b above.

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
	conservation programs in a utility's service territory at a level of funding that is beyond the utility's control, the utility should: 1. Determine the amount of conservation resources in the best cost/risk portfolio without regard to any limits on funding of conservation programs; and 2. Identify the preferred portfolio and action plan consistent with the outside party's projection of conservation acquisition.	
Guideline 7: Demand Response		
7	Plans should evaluate demand response resources, including voluntary rate programs, on par with other options for meeting energy, capacity, and transmission needs (for electric utilities) or gas supply and transportation needs (for natural gas utilities).	PacifiCorp evaluated demand response resources (Class 3 DSM) on a consistent basis with other resources in a portfolio study, and simulated the portfolio containing class 3 DSM resources using its stochastic production cost model (Chapter 8). Class 3 DSM programs are addressed in Item 7 of the IRP action plan in Chapter 9.
Guideline 8: Environmental Costs		
8	a. Base Case and Other Compliance Scenarios b. Testing Alternative Portfolios Against the Compliance Scenarios c. Trigger Point Analysis d. Oregon Compliance Portfolio	This IRP fully complies with the CO_2 compliance cost analysis requirements in Order No. 08-339. Performance results for CO_2 compliance scenario portfolios are reported in Chapter 8, as well as an Oregon compliance scenario (See Table C.2). Chapter 9 presents a discussion on "whether a CO_2 regulatory future that is equally or more stringent than the identified trigger point will be mandated" as required in Guideline 8c.
Guideline 9: Direct Access Loads		
9	An electric utility's load-resource balance should exclude customer loads that are effectively committed to service by an alternative electricity supplier.	PacifiCorp continues to plan for load for direct access customers.
Guideline 10: Multi-state Utilities		
10	Multi-state utilities should plan their generation and transmission systems, or gas supply and delivery, on an integrated system basis that achieves a best cost/risk portfolio for all their retail customers.	The 2008 IRP conforms to the multi-state planning approach as stated in Chapter 2.
Guideline 11: Reliability		
11	Electric utilities should analyze reliability within the risk modeling of the actual portfolios being considered. Loss of load probability, expected planning reserve margin, and expected and worst-case unserved energy should be determined by year for top-performing portfolios. Natural gas utilities should analyze, on an integrated basis, gas supply, transportation, and storage, along with demand-side resources, to reliably meet peak, swing, and base-load system requirements. Electric and natural	PacifiCorp fully complies with this guideline. See the response to 1.c.3.1 above. Chapter 8 describes the role of reliability, cost, and risk measures in determining the preferred portfolio. Scatter plots of portfolio cost versus risk at different CO_2 cost adder levels were used to inform the cost/risk tradeoff analysis. (Chapter 8).

No.	Requirement	How the Guideline is Addressed in the 2008 IRP
	gas utility plans should demonstrate that the utility's chosen portfolio achieves its stated reliability, cost and risk objectives.	
Guideline 12: Distributed Generation		
12	Electric utilities should evaluate distributed generation technologies on par with other supply-side resources and should consider, and quantify where possible, the additional benefits of distributed generation.	PacifiCorp evaluated several types of distribution generation, including combined heat and power and customer-owned standby generation. The results of these evaluations are documented in Chapter 8.
Guideline 13: Resource Acquisition		
13.a	An electric utility should, in its IRP: 1. Identify its proposed acquisition strategy for each resource in its action plan. 2. Assess the advantages and disadvantages of owning a resource instead of purchasing power from another party 3. Identify any Benchmark Resources it plans to consider in competitive bidding	Chapter 9 outlines the procurement approaches for resources identified in the preferred portfolio. A discussion of the advantages and disadvantages of owning a resource instead of purchasing it is included in Chapter 9. Company resources included in RFPs is addressed in the action plan (Table 9.2 and accompanying narrative).
13.b	For gas utilities only	Not applicable

Table C.4 – Utah Public Service Commission IRP Standard and Guidelines

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
Procedural Issues		
1	The Commission has the legal authority to promulgate Standards and Guidelines for integrated resource planning.	Not addressed; this is a Utah Public Service Commission responsibility
2	Information Exchange is the most reasonable method for developing and implementing integrated resource planning in Utah.	Information exchange has been conducted throughout the IRP process.
3	Prudence Reviews of new resource acquisitions will occur during ratemaking proceedings.	Not addressed; ratemaking occurs outside of the IRP process
4	PacifiCorp's integrated resource planning process will be open to the public at all stages. The Commission, its staff, the Division, the Committee, appropriate Utah state agencies, and other interested parties can participate. The Commission will pursue a more active-directive role if deemed necessary, after formal review of the planning process.	PacifiCorp's public process is described in Chapter 2. A record of public meetings is provided as Appendix D.
5	Consideration of environmental externalities and attendant costs must be included in the integrated resource planning analysis.	PacifiCorp used a scenario analysis approach along with externality cost adders to model environmental externality costs. See Chapter 7 for a description of

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
		the methodology employed, including how CO2 cost uncertainty is factored into the determination of relative portfolio performance.
6	The integrated resource plan must evaluate supply-side and demand-side resources on a consistent and comparable basis.	Supply, transmission, and demand-side resources were evaluated on a comparable basis using PacifiCorp's capacity expansion optimization model. Also see the response to number 4.b.ii below.
7	Avoided Cost should be determined in a manner consistent with the Company's Integrated Resource Plan.	Consistent with the Utah rules, PacifiCorp determination of avoided costs will be handled in a manner consistent with the IRP, with the caveat that the costs may be updated if better information becomes available.
8	The planning standards and guidelines must meet the needs of the Utah service area, but since coordination with other jurisdictions is important, must not ignore the rules governing the planning process already in place in other jurisdictions.	This IRP was developed in consultation with parties from all state jurisdictions, and meets all formal state IRP guidelines.
9	The Company's Strategic Business Plan must be directly related to its Integrated Resource Plan.	Chapter 2 outlines the IRP/business plan alignment effort that was initiated in 2008 and will continue through 2009. Chapter 9 also describes recent IRP/business planning alignment activities associated with selection of a preferred portfolio.
Standards and Guidelines		
1	Definition: Integrated resource planning is a utility planning process which evaluates all known resources on a consistent and comparable basis, in order to meet current and future customer electric energy services needs at the lowest total cost to the utility and its customers, and in a manner consistent with the long-run public interest. The process should result in the selection of the optimal set of resources given the expected combination of costs, risk and uncertainty.	PacifiCorp implemented a highly transparent portfolio preference scoring methodology that incorporates numerous portfolio performance measures and considers CO_2 cost uncertainty in the portfolio ranking process. This IRP also addresses concerns expressed by Utah stakeholders and the Utah commission concerning comprehensiveness of resources considered, consistency in applying input assumptions for portfolio modeling, and explanation of PacifiCorp's decision process for selecting top-performing portfolios and the preferred portfolio.
2	The Company will submit its Integrated Resource Plan biennially.	The company submitted its last IRP on May 30, 2007, and filed this IRP on May 29, 2009. PacifiCorp planned to file the IRP with all commissions on March 31 in each odd-numbered year. However, the Lake Side 2 decision prompted the company to revise the IRP accordingly, including conducting additional portfolio analysis.
3	IRP will be developed in consultation with the Commission, its staff, the Division of Public Utilities, the Committee of Consumer Services, appropriate Utah state agencies and interested	PacifiCorp's public process is described in Chapter 2. A record of public meetings is provided as Appendix D.

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
	parties. PacifiCorp will provide ample opportunity for public input and information exchange during the development of its Plan.	
4.a	PacifiCorp's integrated resource plans will include: a range of estimates or forecasts of load growth, including both capacity (kW) and energy (kWh) requirements.	PacifiCorp implemented a load forecast range for both capacity expansion optimization scenarios as well as for stochastic short-term and long-term variability. Details concerning the load forecasts used in the 2008 IRP are provided in Chapters 5 and 8, and Appendix E. Figures 7.3 and 7.4 in Chapter 7 show the range of forecasts used for capacity expansion modeling. Figures 7.22 through 7.26 show the range of stochastic loads modeled for each load area by the Monte Carlo production cost simulations.
4.a.i	The forecasts will be made by jurisdiction and by general class and will differentiate energy and capacity requirements. The Company will include in its forecasts all on-system loads and those off-system loads which they have a contractual obligation to fulfill. Non-firm off-system sales are uncertain and should not be explicitly incorporated into the load forecast that the utility then plans to meet. However, the Plan must have some analysis of the off-system sales market to assess the impacts such markets will have on risks associated with different acquisition strategies.	Price risk associated with market sales is captured in the company's stochastic simulation results. Current off-system sales agreements are included in the IRP models.
4.a.ii	Analyses of how various economic and demographic factors, including the prices of electricity and alternative energy sources, will affect the consumption of electric energy services, and how changes in the number, type and efficiency of end-uses will affect future loads.	Chapter 5 documents how demographic and price factors are used in PacifiCorp's new load forecasting methodology.
4.b	An evaluation of all present and future resources, including future market opportunities (both demand-side and supply-side), on a consistent and comparable basis.	Resources were evaluated on a consistent and comparable basis using the System Optimizer model and Planning and Risk production cost model.
4.b.i	An assessment of all technically feasible and cost-effective improvements in the efficient use of electricity, including load management and conservation.	PacifiCorp included supply curves for Class 1 DSM (dispatchable/schedulable load control) and Class 2 DSM (energy efficiency measures) in its capacity expansion model. Details are provided in Chapter 6.
4.b.ii	An assessment of all technically feasible generating technologies including: renewable resources, cogeneration, power purchases from other sources, and the construction of thermal resources.	PacifiCorp considered a wide range of resources including renewables, cogeneration (combined heat and power), customer standby generation, power purchases, thermal resources, energy storage, and transmission. Chapters 6 and 7 document how PacifiCorp developed and assessed these technologies.
4.b.iii	The resource assessments should include: life expectancy of the resources, the recognition of whether the resource is replacing/adding capacity or energy, dispatchability, lead-time requirements, flexibility, efficiency of the resource and	PacifiCorp captures and models these resource attributes in its IRP models. Resources are defined as providing capacity, energy, or both. The DSM supply curves and distributed generation resources used for portfolio modeling explicitly incorporate estimated

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
	opportunities for customer participation.	rates of program and event participation. Dispatchability is accounted for in both IRP models used; however, the Planning and Risk model provides a more detailed representation of unit dispatch than System Optimizer, and includes modeling of unit commitment and reserves.
4.c	An analysis of the role of competitive bidding for demand-side and supply-side resource acquisitions	A description of the role of competitive bidding and other procurement methods is provided in Chapter 9.
4.d	A 20-year planning horizon.	This IRP uses a 20-year study horizon (2009-2028)
4.e	An action plan outlining the specific resource decisions intended to implement the integrated resource plan in a manner consistent with the Company's strategic business plan. The action plan will span a four-year horizon and will describe specific actions to be taken in the first two years and outline actions anticipated in the last two years. The action plan will include a status report of the specific actions contained in the previous action plan.	The IRP action plan is provided in Chapter 9. As mentioned in the chapter, the major preferred portfolio resources were evaluated for financial and rate impacts by the PacifiCorp Energy Finance Department in alignment with business planning protocols. A status report of the actions outlined in the previous action plan (2007 IRP update) is provided in Chapter 9 as well. The action plan (Table 9.2) also identifies actions anticipated to extend beyond the next two years, or occur after the next two years
4.f	A plan of different resource acquisition paths for different economic circumstances with a decision mechanism to select among and modify these paths as the future unfolds.	Chapter 9 includes an acquisition path analysis that presents broad resource strategies based on regulatory trigger events, combinations of load growth and gas price futures, and procurement delays. The decision mechanism for pursuing the resource strategies is the outcome of the annual business planning process, which will be informed by portfolio modeling using the IRP models and updated input assumptions.
4.g	An evaluation of the cost-effectiveness of the resource options from the perspectives of the utility and the different classes of ratepayers. In addition, a description of how social concerns might affect cost effectiveness estimates of resource options.	PacifiCorp provides resource-specific utility and total resource cost information in Chapter 7. The IRP document addresses the impact of social concerns on resource cost-effectiveness in the following ways: ● Portfolios were evaluated using a range of CO_2 cost futures ● A discussion of environmental policy status and impacts on utility resource planning is provided in Chapter 3.
4.h	An evaluation of the financial, competitive, reliability, and operational risks associated with various resource options and how the action plan addresses these risks in the context of both the Business Plan and the 20-year Integrated Resource Plan. The Company will identify who should bear such risk, the ratepayer or the stockholder.	The handling of resource risks is discussed in Chapter 9, and covers the following topics: (1) managing carbon risk for existing plants, (2) the use of physical and financial hedging for electricity price risk, and (3) managing gas supply risk. Regulatory and financial management risks associated with a large capital expenditure program were highlighted in several areas throughout the IRP, and in relation to IRP and

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
		business plan alignment. Resource capital cost uncertainty and technological risk is addressed in Chapter 6 ("Handling of Technology Improvement Trends and Cost Uncertainty"). For reliability risks, the stochastic simulation model incorporates stochastic volatility of forced outages for new thermal plants and hydro availability. These risks are factored into the comparative evaluation of portfolios and the selection of the preferred portfolio upon which the action plan is based. Identification of the classes of risk and how these risks are allocated to ratepayers and investors is discussed in Chapter 9.
4.i	Considerations permitting flexibility in the planning process so that the Company can take advantage of opportunities and can prevent the premature foreclosure of options.	Flexibility in the planning and procurement processes is highlighted in Chapter 9 and the action plan (Table 9.2). In Chapter 8, PacifiCorp discusses how planning flexibility came into play for the timing of preferred portfolio resources such as wind.
4.j	An analysis of tradeoffs; for example, between such conditions of service as reliability and dispatchability and the acquisition of lowest cost resources.	PacifiCorp examined the trade-off between portfolio cost and risk. This trade-off analysis is documented in Chapter 8, and highlighted through the use of scatter plot graphs showing the relationship between expected and upper-tail stochastic PVRR.
4.k	A range, rather than attempts at precise quantification, of estimated external costs which may be intangible, in order to show how explicit consideration of them might affect selection of resource options. The Company will attempt to quantify the magnitude of the externalities, for example, in terms of the amount of emissions released and dollar estimates of the costs of such externalities.	PacifiCorp estimated environmental externality costs for CO_2, NO_X, SO_2, and mercury with use of cost adders and assumptions regarding the form of compliance strategy (for example, cap-and-trade versus a per-ton tax for CO_2). For CO_2 externality costs, the company used scenarios with various cost adder levels to capture a reasonable range of cost impacts. These adders are described in Chapter 7.
4.l	A narrative describing how current rate design is consistent with the Company's integrated resource planning goals and how changes in rate design might facilitate integrated resource planning objectives.	The role of Class 3 DSM (price response programs) at PacifiCorp and how these resources are modeled in the IRP are described in Chapter 6.
5	PacifiCorp will submit its IRP for public comment, review and acknowledgement.	PacifiCorp distributed the draft IRP document for public review and comment on April 8, 2009.
6	The public, state agencies and other interested parties will have the opportunity to make formal comment to the Commission on the adequacy of the Plan. The Commission will review the Plan for adherence to the principles stated herein, and will judge the merit and applicability of the public comment. If the Plan needs further work the Commission will return it to the Company with	Not addressed; this is a post-filing activity.

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
	comments and suggestions for change. This process should lead more quickly to the Commission's acknowledgement of an acceptable Integrated Resource Plan. The Company will give an oral presentation of its report to the Commission and all interested public parties. Formal hearings on the acknowledgement of the Integrated Resource Plan might be appropriate but are not required.	
7	Acknowledgement of an acceptable Plan will not guarantee favorable ratemaking treatment of future resource acquisitions.	Not addressed; this is not a PacifiCorp activity.
8	The Integrated Resource Plan will be used in rate cases to evaluate the performance of the utility and to review avoided cost calculations.	Not addressed; this refers to a post-filing activity.

Table C.5 – Washington Utilities and Trade Commission IRP Standard and Guidelines (WAC 480-100-238)

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
(4)	Work plan filed no later than 12 months before next IRP due date.	PacifiCorp filed the IRP work plan on January 18, 2008; at that time, the anticipated IRP filing date was January 20, 2009.
(4)	Work plan outlines content of IRP.	See pages 1-2 of the Work Plan document for a summarization of IRP contents.
(4)	Work plan outlines method for assessing potential resources. (See LRC analysis below)	See pages 2-3 of the Work Plan document for a summarization of resource analysis.
(5)	Work plan outlines timing and extent of public participation.	See Figure 2, page 6 of the Work Plan document for the IRP schedule.
(4)	Integrated resource plan submitted within two years of previous plan.	The Commission issued an Order on December 11, 2008, under Docket no. UE-070117, granting the Company permission to file its IRP on March 31 of each odd numbered year. On March 26, 2009, the Commission granted PacifiCorp a temporary exemption from the March 31st deadline allowing the Company to file its 2008 integrated resource plan on May 29, 2009 (Docket No. UE-081475).
(5)	Commission issues notice of public hearing after company files plan for review.	Not applicable
(5)	Commission holds public hearing.	Not applicable
(2)(a)	Plan describes the mix of energy supply resources.	Chapter 8 describes the 2008 IRP preferred portfolio. For example, see Tables 8.44 and 8.45, as well as Figures 8.29 and 8.30.
(2)(a)	Plan describes conservation supply.	See Chapter 8, Tables 8.44 and 8.45, as well as Figures 8.29 and 8.30.
(2)(a)	Plan addresses supply in terms of current and future needs.	The 2008 IRP preferred portfolio was based on a resource needs assessment that accounted for forecasted

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
		load growth, expiration of existing power purchase contracts, resources under construction, contract, or reflected in the Company's capital budget, as well as a capacity planning reserve margin. Details on PacifiCorp's findings of resource need are described in Chapter 5. For example, see Table 5.20 for PacifiCorp's capacity load and resource balance.
(2)(b)	Plan uses lowest reasonable cost (LRC) analysis to select the mix of resources.	PacifiCorp uses portfolio performance measures based on the Present Value of Revenue Requirements (PVRR) methodology. See the section on portfolio performance measures in Chapter 7.
(2)(b)	LRC analysis considers resource costs.	Chapter 6, Resource Options, provides detailed information on costs and other attributes for all resources analyzed for the IRP. For example, see Tables 6.2 through 6.10, 6.15 through 6.18, and 6.20.
(2)(b)	LRC analysis considers market-volatility risks.	PacifiCorp employs Monte Carlo production cost simulation with a stochastic model to characterize market price and gas price volatility. See the section entitled, "Monte Carlo Production Cost Simulation" in Chapter 7 for a summary of the modeling approach.
(2)(b)	LRC analysis considers demand side resource uncertainties.	PacifiCorp captured demand-side resource uncertainties through the development of numerous portfolios based on different sets of input assumptions.
(2)(b)	LRC analysis considers resource dispatchability.	PacifiCorp uses two IRP models that simulate the dispatch of existing and future resources based on such attributes as heat rate, availability, fuel cost, and variable O&M cost. The chronological production cost simulation model also incorporates unit commitment logic for handling start-up, shutdown, ramp rates, minimum up/down times, and run up rates, and reserve holding characteristics of individual generators.
(2)(b)	LRC analysis considers resource effect on system operation.	PacifiCorp's IRP models simulate the operation of its entire system, reflecting dispatch/unit commitment, forced/unforced outages, access to markets, and system reliability and transmission constraints,
(2)(b)	LRC analysis considers risks imposed on ratepayers.	PacifiCorp explicitly models risk associated with uncertain CO_2 regulatory costs, wholesale electricity and natural gas price escalation and volatility, load growth uncertainty, resource reliability, renewable portfolio standard requirement uncertainty, plant construction cost escalation, and resource affordability. These risks and uncertainties are handled through stochastic modeling and scenarios depicting alternative futures. In addition to risk modeling, the IRP discusses a number of resource risk topics not addressed in the IRP system simulation models. For example, Chapter 9 covers the following topics: (1) managing carbon risk for existing plants, (2) the use of physical and financial hedging for electricity price risk, and (3) managing gas supply risk. Regulatory and financial management risks associated with a large capital expenditure program were

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
		highlighted in several areas throughout the IRP, and in relation to IRP and business plan alignment.
(2)(b)	LRC analysis considers public policies regarding resource preference adopted by Washington state or federal government.	The IRP modeling incorporates resource expansion constraints tied to renewable portfolio standards (RPS) currently in place for Washington, Oregon, California, and Utah. (See Chapter 7, "Representation and Modeling of Renewable Portfolio Standards", as well as Appendix A for RPS compliance reports developed for each resource portfolio assessed for the IRP). PacifiCorp also evaluated various CO_2 regulatory schemes, including a CO_2 tax, hard cap, and cap-and-trade. Future modeling enhancements are planned for improved representation of state-level resource regulations.
(2)(b)	LRC analysis considers cost of risks associated with environmental effects including emissions of carbon dioxide.	A description of PacifiCorp's modeling of CO_2 cost risk is provided in Chapter 7, "Carbon Dioxide Compliance Strategy and Costs". Chapter 9 also discusses the implications of CO_2 cost uncertainty on resource acquisition plans. See Table 9.3.
(2)(c)	Plan defines conservation as any reduction in electric power consumption that results from increases in the efficiency of energy use, production, or distribution.	A description of how PacifiCorp classifies and defines energy conservation is provided in Chapter 6, "Demand-side Resources".
(3)(a)	Plan includes a range of forecasts of future demand.	PacifiCorp implemented a load forecast range for both capacity expansion optimization scenarios as well as for stochastic short-term and long-term variability. Details concerning the load forecasts used in the 2008 IRP are provided in Chapters 5 and 8, and Appendix E. Figures 7.3 and 7.4 in Chapter 7 show the range of forecasts used for capacity expansion modeling. Figures 7.22 through 7.26 show the range of stochastic loads modeled for each load area by the Monte Carlo production cost simulations.
(3)(a)	Plan develops forecasts using methods that examine the effect of economic forces on the consumption of electricity.	PacifiCorp's load forecast methodology employs econometric forecasting techniques that include such economic variables as household income, employment, and population. See Chapter 5, "Load Forecast", for a description of the load forecasting methodology.
(3)(a)	Plan develops forecasts using methods that address changes in the number, type and efficiency of electrical end-uses.	Residential sector load forecasts use a statistically-adjusted end-use model that accounts for equipment saturation rates and efficiency. See Chapter 5, "Load Forecast", for a description of the residential sector load forecasting methodology.
(3)(b)	Plan includes an assessment of commercially available conservation, including load management.	PacifiCorp conducted a comprehensive system-wide demand-side management potential study in 2007, which served as the basis for developing DSM resource supply curves for resource portfolio modeling. The supply curves account for technical and achievable (market) potential, while the IRP capacity expansion model identifies a cost-effective mix of DSM resources based on these limits and other model inputs. The DSM potential study is posted on PacifiCorp's Web page: http://www.pacificorp.com/Article/Article75535.html, and has been provided to the WUTC on a CD.

No.	Requirement	How the Standards and Guidelines are Addressed in the 2008 IRP
(3)(b)	Plan includes an assessment of currently employed and new policies and programs needed to obtain the conservation improvements.	A description of the current status of DSM programs and on-going activities to implement current and new programs is provided in Chapter 5, Resource Needs Assessment ("Existing Resources").
(3)(c)	Plan includes an assessment of a wide range of conventional and commercially available nonconventional generating technologies.	PacifiCorp considered a wide range of resources including renewables, cogeneration (combined heat and power), customer standby generation, power purchases, thermal resources, energy storage, and transmission. Chapters 6 and 7 document how PacifiCorp developed and assessed these technologies.
(3)(d)	Plan includes an assessment of transmission system capability and reliability (as allowed by current law).	PacifiCorp modeled transmission system capability to serve its load obligations, factoring in updates to the representation of major load and generation centers, regional transmission congestion impacts, import/export availability, external market dynamics, and significant transmission expansion plans (See the "Transmission System Representation" section in Chapter 7). System reliability given transmission capability was analyzed using stochastic production cost simulation and measures of insufficient energy and capacity for a load area (Energy Not Served and Unmet Capacity, respectively).
(3)(e)	Plan includes a comparative evaluation of energy supply resources (including transmission and distribution) and improvements in conservation using LRC.	PacifiCorp's capacity expansion optimization model (System Optimizer) is designed to compare alternative resources—including transmission expansion options—for the least-cost resource mix. System Optimizer was used to develop numerous resource portfolios for comparative evaluation on the basis of cost, risk, reliability, and other performance attributes. The DSM potentials study considered improvements in conservation Distribution considered alternative transmission expansion options.
(3)(f)	Demand forecasts and resource evaluations are integrated into the long range plan for resource acquisition.	PacifiCorp integrates demand forecasts, resources, and system operations in the context of a system modeling framework described in Chapter 7. Portfolio evaluation covers a 20-year period (2009-2028). PacifiCorp developed its preferred portfolio of resources judged to be least-cost after considering load requirements, risk, uncertainty, supply adequacy/reliability, and government resource policies in accordance with this rule.
(3)(g)	Plan includes a two-year action plan that implements the long range plan.	See Table 9.2, Chapter 9, for PacifiCorp's 2008 IRP action plan.
(3)(h)	Plan includes a progress report on the implementation of the previously filed plan.	A status report on action plan implementation is provided in the "Progress on Previous Action Plan Items" section of Chapter 9.
(5)	Plan includes description of consultation with commission staff. (Description not required)	Chapter 2 includes a summary of the 2008 IRP public process, while Appendix D provides deals on specific meetings held with Commission staff and the general public.
(5)	Plan includes description of completion of work plan. (Description not required)	Not applicable; the IRP schedule was modified to accommodate significant planning events. See the response to WAC 480-100-238(4).

APPENDIX D – PUBLIC INPUT PROCESS

A critical element of this resource plan is the public input process. PacifiCorp has pursued an open and collaborative approach involving the Commissions, customers and other stakeholders in PacifiCorp's planning process prior to making resource planning decisions. Since these decisions can have significant economic and environmental consequences, conducting the resource plan with transparency and full participation from Commissions and other interested and affected parties is essential.

The public has been involved in this resource plan from its earliest stages and at each decisive step. Participants have both shared comments and ideas and received information. As reflected in the report, many of the comments provided by the participants have been adopted by PacifiCorp and have contributed to the quality of this resource plan. PacifiCorp will adopt further comments going forward, either as elements of the Action Plan or as future refinements to the planning methodology.

The cornerstone of the public input process has been full-day public input meetings held approximately throughout the year-long plan development period. These meetings have been held jointly in two locations—Salt Lake City, Utah and Portland Oregon—using telephone and video conferencing technology.

A key change to the IRP public process occurring during the analysis preparation phase was the state stakeholder dialogue sessions from mid-March through April 2008. (For prior IRPs, the Company relied solely on general public meetings open to all participants.) These goal of these sessions, targeting a state-specific audience, were to (1) capture key resource planning issues of most concern to each state, and discuss how these can be tackled from a system planning perspective, (2) ensure that stakeholders understand PacifiCorp's planning principles and the logic behind its planning process, and (3) set expectations for what can be accomplished in the current IRP/business planning cycle. This change in public process enhance interaction with stakeholders early on in the planning cycle, and provided a forum to directly address stakeholder concerns regarding equitable representation of state interests during general public meetings.

As far as agenda setting is concerned, PacifiCorp solicited recommendations from the state stakeholders in advance of the session, as well as allowing open time to ensure that participants had adequate time for dialogue. Some follow-up activities arising from the sessions were addressed in subsequent public meetings or another state meeting.

The 2008 public input meetings were augmented by a series of focused technical workshops to provide an opportunity to discuss complex topics for a multi-state utility in more detail.

PARTICIPANT LIST

Among the organizations that were represented and actively involved in this collaborative effort were:

Commissions

- Idaho Public Utilities Commission
- Oregon Public Utilities Commission
- Public Service Commission of Utah
- Washington Utilities and Transportation Commission
- Wyoming Public Service Commission

Intervenors

- Brigham Young University
- Citizen's Utility Board of Oregon
- Committee for Consumer Services State of Utah
- ECOS Consulting
- Energy Trust of Oregon
- Energy Strategies, LLC
- Health Environment Alliance of Utah (HEAL)
- Horizon Wind Energy
- Industrial Customers of Northwest Utilities
- Kennecott
- Mountain West Consulting, LLC
- Northwest Power and Conservation Council
- NW Energy Coalition
- Oregon Department of Energy
- Renewables Northwest Project
- Salt Lake City
- Salt Lake Community Action Program
- Southwest Energy Efficiency Project
- Sierra Club , Utah Chapter
- Utah Association of Energy Users
- Utah Clean Energy Alliance
- Utah Division of Air Quality
- Utah Division of Public Utilities
- Utah Energy Office
- Utah Geological Survey
- Wasatch Clean Air Coalition
- Western Resource Advocates
- West Wind Wires
- Wyoming Industrial Energy Consumers
- Wyoming Office Of Consumer Advocacy

Others

- Portland General Electric (PGE)
- Avista Utilities
- Cadmus Group Inc. – Stuart McMenamin

- John Klingele (Washington Customer)

PacifiCorp extends its gratitude for the time and energy these participants have given to the resource plan. Your participation has contributed significantly to the quality of this plan, and your continued participation will help as PacifiCorp strives to improve its planning efforts going forward.

PUBLIC INPUT MEETINGS

PacifiCorp hosted five full-day public input meetings, two half day meetings, one conference call and six state meetings during the 2008. During the 2008 IRP process presentations and discussions covered various issues including inputs and assumptions, risks, modeling techniques, and analytical results. Below are the agendas from the public input meetings and the technical workshops.

General Meetings

February 29, 2008

- IRP Regulatory Compliance
- IRP Process Improvements
  - IRP/Business Plan Alignment Strategy
  - Public Process Changes
  - IRP Report Changes
- 2008 IRP Modeling Plan
- 2008 IRP Activity Timeline
- 10-Year Business Planning Process
- Resource Portfolio Development for the IRP Update/2008-2017 Business Plan
  - Load Forecast
- Demand-side Management Resources
- Capacity Load and Resource Balance
- Resource and Other Input Assumptions
- Resource Additions

May 22, 2008

- Update to the 2008 IRP Modeling Plan
- Case Definitions for Portfolio Development
- Natural Gas and Electricity Forecasts
- Resource Characterization
  - Supply side resources
  - DSM Supply Curves

May 23, 2008

- Proposed Oregon Public Utility Commission IRP guidelines on CO2 risk
- Range and timing of CO2 costs represented in the IRP
- Overview of the IPM (Integrated Planning Model) and usage for the IRP
- Overview of the EPRI study on CO2 policy impacts on western power markets

June 26, 2008

- Long-Term Load Forecast
  - Overview of the June 2008 Long Term Load Forecast
  - Total Company Profile
    - Forecast summary and Growth rate comparisons
    - Energy by State and Energy by Class
  - Rocky Mountain Power
    - Energy by Class
    - Utah, Wyoming, Idaho
  - Pacific Power
    - Energy by Class
    - Oregon, Washington, California
  - Risks to the Forecast
- Load and Resource Balance
- Update on portfolio development cases and modeling process

ITRON Agenda

- Modeling weather response using multi-part slopes and load research data
- Defining daily normal weather for weather normalization of energy
- Overview of the Statistically Adjusted End Use (SAE) approach
- Overview of sales models
- Overview of peak models and normal peak producing weather
- Overview of typical weather scenarios and hourly model forecasts

November 12, 2008 (Conference Call)

- IRP/ Business Plan Alignment
- IRP Development Status and Schedule
- Load Forecast

December 18, 2008

- Updated Schedule
- Updated Load Forecast
- Capacity Load and Resource Balance
- Portfolio Modeling Set-up
- Portfolio Development Results

Handout – Portfolio Development Results Package

January 7, 2009

(Repeat of 12/18/08 for Washington / Idaho participants that missed the earlier meeting)

- Updated Schedule
- Updated Load Forecast
- Capacity Load and Resource Balance
- Portfolio Modeling Set-up
- Portfolio Development Results

Handout – Portfolio Development Results Package

February 2, 2009

- Cover questions on portfolio development
- Stochastic simulation and top-performing portfolio selection approach
- Stochastic simulation results
    - Alternative capacity planning reserve margin analysis
- Portfolio ranking and preference scores
- Preferred portfolio selection
    - Scenario risk analysis

March 11, 2009 (Conference Call)

- IRP Schedule

March 19, 2009 (Conference Call) Utah Parties

- IRP Filing Extension

State Meetings

April 9, 2008 (Utah)

- DSM and enabling technologies
- Range of resource options
- Renewable energy resource analysis
    - Bramble (SB 202) renewables act and other renewable portfolio standards
    - Wind integration
    - Optimal wind amount under stochastic analysis
- Feedback on IRP/Business Plan Improvement Paper (distributed via email on 3/7/08)
- Load forecast

April 10, 2008 (Wyoming)

- DSM and enabling technologies
- Range of resource options
- Renewable energy resource analysis
- Feedback on IRP/Business Plan Improvement Paper (distributed via email on 3/7/08)
- Load forecast
- Planning reserve margin studies
- Regional capacity adequacy/market depth
- Environmental policy
    - CO2 costs/regulations
    - Other environmental externalities
- Other miscellaneous issues

April 21, 2008 (Oregon / California)

- DSM
- Range of supply-side resource options
- Feedback on the IRP/Business Plan improvement paper (distributed via email on 3/7/08)
- Impacts of the Oregon Commission 2008 IRP acknowledgment order
- Renewable energy resource analysis
- Planning reserve margin
- Environmental policy
    - Pending IRP environmental cost guideline no. 8 (UM 1302)
    - CO2 costs/regulations
- Load forecast
- Other miscellaneous issues

April 22, 2008 (Washington)

- DSM
- Range of supply-side resource options
- Feedback on the IRP/Business Plan improvement paper (originally distributed via email on 3/7/08)
- Renewable energy resource analysis and Renewable Portfolio Standards
- Planning reserve margin
- Environmental policy
- Load forecast
- Other miscellaneous issues

April 23, 2008 (Idaho)

- DSM
- Range of supply-side resource options
- Feedback on the IRP/Business Plan improvement paper (originally distributed via email on 3/7/08)
- Environmental/renewable regulatory resource constraints
- Planning reserve margin
- Load forecast
- Other miscellaneous issues

May 14, 2008 (Utah)

- Planning reserve margin studies
- Regional capacity adequacy/market depth
- Hydro capacity assumptions/sensitivity analysis
- Environmental policy
    - CO_2 costs/regulations
    - Other environmental externalities
- Other miscellaneous issues

PARKING LOT ISSUES

During the course of the public input meetings, certain concerns or questions needed additional follow-up from PacifiCorp. These questions or issues were taken off-line, addressed at a subsequent public input meeting or workshop, or assembled into a "parking lot" and responded to via a parking lot response document that is emailed to IRP participants. A number of public participants recommended that responses to individual information requests made through the IRP email "mailbox" or other means be made available to all IRP participants. PacifiCorp is investigating a process for doing do that is least burdensome to the company.

PUBLIC REVIEW OF IRP DRAFT DOCUMENT

PacifiCorp distributed the draft version of the IRP document on April 8, 2009, for public review, and requested written comments by May 6, 2009. Parties that submitted comments include:

- Renewable Northwest Project
- Oregon Department of Energy
- Public Utility Commission of Oregon Staff
- Washington Utilities and Transportation Commission Staff
- Utah Association of Energy Users (UAE)

In addition to these comments, a number of Utah parties submitted data requests prior to the filing of the final IRP document under the Utah commission's 2008 IRP acknowledgment docket (Docket No. 09-2035-01) established on April 27, 2009. These parties included the Utah Department of Public Utilities, the Utah Office of Consumer Services (formerly the Utah Committee of Consumer Services), Utah Association of Energy Users, and Utah Clean Energy.

Clarifications and information requested through the written comments and data requests were incorporated in the final version of the IRP to the extent that PacifiCorp had time to do so.

CONTACT INFORMATION

PacifiCorp's IRP internet website contains many of the documents and presentations that support the 2003, 2004, 2007 and 2008 Integrated Resource Plans. To access it, please visit the company's website at http://www.PacifiCorp.com , click on the menu "News & Info" and select "Integrated Resource Planning".

PacifiCorp requests that any informal request be sent in writing to the following address or email address below.

PacifiCorp
IRP Resource Planning
825 N.E. Multnomah, Suite 600
Portland, Oregon 97232

Electronic Email Address:
IRP@PacifiCorp.com

Phone Number:
(503) 813-5245

APPENDIX E – STATE LOAD FORECAST

LOAD FORECAST STATE LEVEL SUMMARIES

This section provides state-level forecasted retail sales summaries. The tables below show retail sales values after the load reduction impacts of Class 2 DSM programs included in the 2008 IRP preferred portfolio are deducted. For purposes of the 2008 IRP this version of the data is known as "Post-DSM". Chapter 5 provides the forecast information for each state and the system as a whole by year for 2009 through 2018 before Class 2 DSM load reductions are applied.

State Summaries

Oregon

Table E.1 summarizes Oregon state forecasted sales growth by customer class.

Table E.1 – Forecasted Sales Growth in Oregon

Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	5,401	4,819	2,781	266	38	0	**13,304**
2010	5,439	4,836	2,816	265	37	0	**13,393**
2011	5,445	4,849	2,816	265	37	0	**13,413**
2012	5,476	4,872	2,853	265	37	0	**13,504**
2013	5,435	4,892	2,891	265	37	0	**13,520**
2014	5,413	4,924	2,915	265	37	0	**13,554**
2015	5,390	4,955	2,936	265	37	0	**13,583**
2016	5,388	4,999	2,961	265	37	0	**13,651**
2017	5,351	5,016	2,980	265	37	0	**13,651**
2018	5,376	5,040	3,000	265	37	0	**13,718**
Average Annual Growth Rate							
2009-2018	(0.1)%	0.5%	0.8%	(0.0)%	(0.1)%	N/A	**0.3%**

The forecast of residential sales is expected to grow at a slower rate of 0.9% annually compared to average annual growth rate of around 2% experienced past five years. This slow down is mainly due to housing market slowdown and impact of worsening economic conditions. Population growth is expected to continue in the service area, which is driving some of the growth, while usage per customer in the residential class is expected to decline due to economic slowdown during earlier years. Starting with 2012, use per customer is expected to decline mainly due to the impact of long-term lighting efficiency gains resulting from 2007 Federal Energy legislation and other conservation programs.

Over the first two years of forecast horizon, forecasted commercial class sales are projected to grow at a slower average annual growth rate of 1.3% compared to historical periods due to the impact of worsening economic conditions. Educational, health service, and government related commercial activity are only sectors expected to still grow during the next two years. During the remaining years of the forecast horizon, commercial sales are expected to grow at a higher

average annual rate of 1.7%, which is similar to the average growth rate experienced historically. Usage per customer is projected to decline slightly due to increased equipment efficiency.

Forecasted industrial class sales are projected to decline at an average annual rate of 3.2% during 2009 and 2010 due to impacts of the housing market slowdown and current economic recession affecting mostly wood products and semi-conductor manufacturing. Starting with 2011, industrial sales is expected to grow again at an average annual growth rate of 1.7% reflecting recovery in special food processing and wood products sector, along with continued diversification in the manufacturing base in the state.

The factors influencing the forecasted sales growth rates are also influencing the forecasted peak demand growth rates.

Washington

Table E.2 summarizes Washington state forecasted sales growth by customer class.

Table E.2 – Forecasted Retail Sales Growth in Washington

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	1,556	1,379	806	159	10	0	**3,910**
2010	1,554	1,382	810	158	10	0	**3,915**
2011	1,559	1,388	807	158	10	0	**3,922**
2012	1,571	1,398	809	158	10	0	**3,947**
2013	1,564	1,408	812	158	10	0	**3,952**
2014	1,562	1,420	815	158	10	0	**3,965**
2015	1,561	1,432	819	158	10	0	**3,980**
2016	1,567	1,448	823	158	10	0	**4,006**
2017	1,564	1,458	826	158	10	0	**4,015**
2018	1,574	1,465	827	158	10	0	**4,035**
Average Annual Growth Rate							
2009-2018	0.1%	0.7%	0.3%	(0.0)%	0.1%	N/A	**0.4%**

The forecast of residential sales is expected to grow at a slower average annual growth rate of 0.4% compared to recent historical growth rates of around 1% due to the impact of housing market slowdown and economic recession. The slight growth in residential class sales is due to continuing customer growth driven by population growth and household formation in the PacifiCorp's service area. Usage per customer is expected to decrease slightly during the early years due to worsening economic conditions. Starting with 2012, use per customer is expected to decline mainly due to the impact of long-term lighting efficiency gains resulting from 2007 Federal Energy legislation.

Over the first two years of forecast horizon, forecasted commercial class sales are projected to grow at a slower rate of 0.8% compared to historical periods due to the impact of current economic recession. Beyond 2010, commercial sales are expected to grow at a higher average annual rate of 1.5%, which is close to average annual growth rate experienced historically.

The industrial class sales are projected to decline for the first four years of forecast horizon mainly due to housing market slowdown affecting wood products sector. For the remaining part of the forecast period industrial sales are expected to grow slightly reflecting recovery in wood products and food processing sectors.

California

Table E.3 summarizes California state forecasted sales growth by customer class.

Table E.3 – Forecasted Retail Sales Growth in California

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	387	298	51	98	2.49	0	**838**
2010	389	301	51	98	2.47	0	**841**
2011	391	308	71	98	2.47	0	**871**
2012	396	319	81	98	2.48	0	**897**
2013	394	327	88	98	2.47	0	**910**
2014	395	337	91	98	2.47	0	**924**
2015	397	348	91	98	2.47	0	**936**
2016	399	359	91	98	2.48	0	**950**
2017	400	368	91	98	2.47	0	**960**
2018	405	378	91	98	2.47	0	**975**
Average Annual Growth Rate							
2009-2018	0.5%	2.7%	6.6%	0.0%	(0.1)%	N/A	**1.7%**

The rate of growth in residential class sales is driven, by the continuing growth in population in this part of PacifiCorp's service area. Usage per customer in the residential class is expected to decline due to increasing adoption of more efficient appliances and the impact of long-term lighting efficiency gains resulting from 2007 Federal Energy legislation effective in 2012. .

The continuing population growth also affects sales in the commercial sector through continued commercial customer growth. Additionally, commercial usage per customer is increasing due to greater square footage per building in new construction, increases in the number of offices, and the increasing use of office equipment in all commercial structures. However, some of this growth is being offset from increased equipment efficiency over the forecast horizon.

Declines over the decade in the lumber and wood product industries production resulted in an overall decline in the industrial sales; however, there are indications that this trend has ended and growth in other businesses are expected to continue. During first four years of forecast horizon, industrial sales are expected to grow due to the addition of new industrial customers. For the remaining years sales are expected to remain flat.

Utah

Table E.4 summarizes Utah state forecasted sales growth by customer class.

Table E.4 – Forecasted Retail Sales Growth in Utah

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	6,556	7,410	7,337	189	76	437	**22,005**
2010	6,687	7,589	7,364	189	76	436	**22,341**
2011	6,807	7,826	7,700	189	76	436	**23,034**
2012	6,965	8,074	7,905	189	76	437	**23,646**
2013	6,978	8,271	8,241	189	76	436	**24,192**
2014	7,048	8,528	8,626	189	76	436	**24,904**
2015	7,123	8,788	9,007	189	76	436	**25,618**
2016	7,217	9,064	9,251	189	76	437	**26,234**
2017	7,278	9,300	9,331	189	76	436	**26,610**
2018	7,440	9,564	9,414	189	76	436	**27,119**
Average Annual Growth Rate							
2009-2018	1.4%	2.9%	2.8%	0.0%	0.0%	0.0%	**2.3%**

Utah continues to see natural population growth that is faster than many of the surrounding states. During the historical period, Utah experienced rapid population growth with a high rate of in-migration. However, the rate of population growth is expected to be lower in the coming decade as in-migration into the state slows down. Over the forecast horizon, residential sales are expected to grow at a slower rate of 1.7% compared to what has been experienced historically due to slow down in-migration and housing market slowdown in near-term. Usage per customer in the residential class is expected to decline due to recent economic recession during early part of the forecast horizon. Beyond 2012, the decline in use per customer is driven by the impact of long-term lighting efficiency gains resulting from 2007 Federal Energy legislation and other energy efficiency and conservation programs.

The continuing population growth also affects sales in the commercial sector by continued commercial customer growth. Usage per customer is projected to decline due to recent economic recession during early part of the forecast horizon, and starts increasing again during later years with new construction having greater square footage per building and increasing usage of office equipment. However, some of this growth is being offset from equipment efficiency gains over the forecast horizon.

The industrial class has been experiencing significant industrial diversification in the state and will continue to cause sales growth in the sector. Utah has a strategic location in the western half of the United States, which provides easy access into many regional markets. The industrial base has become more linked to the region and is less dependent on the natural resource base within the state. This provides a strong foundation for continued growth into the future. For the first two years of forecast horizon, industrial sales are expected grow at a much slower rate of 0.6% annually compared to historical average annual growth rate of 3.5% experienced over the past five years. Expansions by mining and natural resources are projected to slowdown with continuing downturn in manufacturing. Starting 2011, industrial sales are expected to grow again at higher rates similar to what was experienced historically, reflecting expected improvement in overall economic conditions.

Idaho
Table E.5 summarizes Idaho state forecasted sales growth by customer class.

Table E.5 – Forecasted Retail Sales Growth in Idaho

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	711	409	1,637	616	2.47	0	**3,375**
2010	719	414	1,648	615	2.51	0	**3,400**
2011	731	422	1,651	615	2.55	0	**3,421**
2012	747	432	1,657	615	2.59	0	**3,454**
2013	749	438	1,772	615	2.64	0	**3,577**
2014	756	450	1,856	615	2.68	0	**3,681**
2015	764	462	1,863	615	2.74	0	**3,707**
2016	776	475	1,871	615	2.80	0	**3,740**
2017	784	485	1,877	615	2.81	0	**3,764**
2018	802	497	1,884	615	2.87	0	**3,800**
Average Annual Growth Rate							
2009-2018	1.3%	2.2%	1.6%	(0.0)%	1.7%	N/A	**1.3%**

The recent migration to Idaho has led the residential sales to grow at an average annual growth rate of around 4.0% during past five years. Over the forecast horizon, the residential sales are still projected to grow but at a slower rate of 1.5% annually compared to historical periods due to expected slow-down in in-migration. Usage per customer is expected to decline mainly due to recent economic recession during earlier years, and due to increased energy efficiency and conservation programs for the later years.

The growth rate for commercial class sales is expected to continue to be strong due to customer growth in response to the increasing residential customer growth resulting further growth in service sectors such as education and health care services. Usage per customer is projected to increase, which has been influenced in part by new construction,, increased air conditioning saturation, office equipment, and exterior lighting. However, this growth is somewhat offset by equipment efficiency gains over the forecast horizon.

Industrial sales are expected to decline in 2009 due the impact of worsening economic conditions, and remain flat until the end of 2012. Industrial sales are expected to increase again in 2013 due to some new customers in the service area.

Wyoming
Table E.6 summarizes Wyoming state forecasted sales growth by customer class.

Table E.6 – Forecasted Retail Sales Growth in Wyoming

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2009	1,054	1,493	6,898	21	12	0	**9,478**
2010	1,079	1,510	7,296	21	11	0	**9,918**

Retail Sales – Gigawatt Hour (GWh)							
	Residential	**Commercial**	**Industrial**	**Irrigation**	**Lighting**	**Other**	**Total**
2011	1,098	1,537	7,742	21	11	0	**10,410**
2012	1,122	1,569	8,283	22	11	0	**11,008**
2013	1,132	1,597	8,617	22	11	0	**11,379**
2014	1,148	1,629	8,951	23	11	0	**11,762**
2015	1,166	1,660	9,276	23	11	0	**12,138**
2016	1,193	1,698	9,632	24	11	0	**12,559**
2017	1,217	1,729	9,903	24	11	0	**12,884**
2018	1,258	1,763	10,168	25	11	0	**13,225**
Average Annual Growth Rate							
2009-2018	2.0%	1.9%	4.4%	2.2%	(0.5)%	N/A	**3.8%**

Residential sales is expected to grow at a slower average annual rate of 0.8%, compared to an average annual growth rate of around 3% experienced during past five years. Population growth is still expected to continue in the service area, which causes some of the sales growth. Usage per customer in the residential class is expected to decline due to recent economic recession during earlier years. During later years of the forecast horizon, use per customer is expected to decline due to impact of long-term lighting efficiency gains resulting from the 2007 federal energy legislation, effective in 2012.

Over the forecast horizon, commercial class sales are also projected to grow at a slower annual growth rate of 1.3% compared to historical periods. Sales growth is driven mainly by the customer growth in response to still continuing residential customer growth and the growth of the office sector.

Wyoming industrial sales growth, driven by expansion in oil and gas extraction industries, is expected to continue, but at a much reduced rate due to declines in energy prices and worsening economic conditions. Continuing growth in industrial customers in the service area also contributes to the load growth in the residential and commercial customer sectors.

FEBRUARY 2009 LOAD FORECAST UPDATE

PacifiCorp prepared a new load forecast in February 2009 after reviewing actual loads through January 2009. With continuing worsening economic conditions, the Company reviewed the loads in PacifiCorp's service territories, and revised the forecast accordingly to reflect the latest impact on loads and latest forecast of economic variables. Below are the capacity and energy tables similar to those found in Chapter 5. These forecasts are net of DSM-related load reductions.

February 2009 Energy Forecast

Table E.7 – February 2009 Annual Load Growth forecasted in Megawatt-hours

Year	Total	OR	WA	CA	UT	WY	ID	SE-ID
2009	**60,513,585**	14,717,735	4,339,279	966,290	24,066,263	10,167,695	3,718,077	2,538,247
2010	**61,603,833**	14,810,829	4,344,912	966,218	24,522,312	10,646,811	3,750,820	2,561,930
2011	**63,263,930**	14,921,509	4,371,402	1,004,954	25,404,577	11,188,878	3,785,957	2,586,655
2012	**65,029,943**	15,115,696	4,417,268	1,037,281	26,168,642	11,845,914	3,829,464	2,615,678
2013	**66,466,245**	15,159,619	4,424,099	1,055,642	26,884,446	12,253,897	3,974,809	2,713,732
2014	**67,979,096**	15,223,467	4,443,316	1,071,104	27,682,221	12,674,296	4,088,986	2,795,706
2015	**69,346,652**	15,283,484	4,463,835	1,084,175	28,492,384	13,088,772	4,118,092	2,815,910
2016	**70,712,194**	15,382,412	4,496,642	1,100,268	29,188,167	13,549,959	4,154,171	2,840,577
2017	**71,559,345**	15,402,000	4,506,713	1,109,880	29,596,661	13,908,106	4,178,291	2,857,694
2018	**72,717,605**	15,513,152	4,542,282	1,126,645	30,141,988	14,293,815	4,215,982	2,883,742
Annual Average Growth Rate								
2009-18	**2.1%**	0.6%	0.5%	1.7%	2.5%	3.9%	1.4%	1.4%
2018-28	**1.1%**	0.5%	0.6%	1.3%	1.5%	1.3%	0.8%	0.8%
2009-28	**1.6%**	0.5%	0.6%	1.5%	2.0%	2.5%	1.1%	1.1%

February 2009 System-Wide Coincident Peak Load Forecast

Table E.8 – February 2009 Forecasted Coincidental Peak Load in Megawatts

Year	Total	OR	WA	CA	UT	WY	ID	SE-ID
2009	**9,941**	2,362	728	158	4,440	1,268	625	361
2010	**10,161**	2,395	737	158	4,546	1,307	649	368
2011	**10,481**	2,419	746	166	4,710	1,371	674	395
2012	**10,805**	2,446	782	172	4,838	1,439	705	423
2013	**11,024**	2,462	763	176	4,968	1,490	737	428
2014	**11,179**	2,486	775	177	5,126	1,538	683	395
2015	**11,425**	2,501	783	180	5,262	1,585	708	406
2016	**11,690**	2,517	790	183	5,382	1,635	746	436
2017	**11,876**	2,530	798	189	5,478	1,678	759	443
2018	**12,110**	2,551	837	189	5,581	1,722	770	461

Year	Total	OR	WA	CA	UT	WY	ID	SE-ID
Annual Average Growth Rate								
2009-2018	2.2%	0.9%	1.6%	2.0%	2.6%	3.5%	2.3%	2.8%
2018-2028	1.2%	0.7%	0.8%	1.5%	1.6%	1.3%	0.7%	0.4%
2009-2028	1.7%	0.8%	1.1%	1.7%	2.0%	2.3%	1.5%	1.5%

APPENDIX F – WIND INTEGRATION COSTS AND CAPACITY PLANNING CONTRIBUTIONS

This appendix summarizes the results of PacifiCorp's latest wind integration cost analysis, which will continue to be refined and expanded. This appendix also presents updated wind capacity contribution values using a statistical estimation methodology that was applied for the first time in the Company's 2007 IRP.

For the wind integration cost study, PacifiCorp developed a methodology to support the costs associated with resource portfolio analysis for the IRP as well as costs used in the evaluation of cost effective renewable resources. This approach decomposes the estimation of inter-hour (hour to hour) and intra-hour (within the hour) costs to integrate intermittent renewable resources. For inter-hour costs, these components include day-ahead and hour-ahead wind forecast variability, or what was referred to as system balancing costs in the 2007 IRP.[2] For intra-hour costs, the components include actual forecast variation, "regulation up" requirements, and "regulation down" requirements. These latter costs pertain to operational assessment and planning of wind variability down to 10-minute intervals or less. In addition to this cost breakdown, PacifiCorp reports integration costs for wind added in the PacifiCorp eastern balancing authority area (PACE), the PacifiCorp west balancing authority area (PACW), and a system weighted-average based on installed capacity in each control area.

The wind integration cost section first provides background on these cost components and then describes the estimation methodologies and cost results. Study caveats and areas for further research are also summarized. The costs results are expressed as a function of the amount and timing of wind included in the 2008 IRP preferred portfolio as well as existing wind (Table F.1). The section concludes with a discussion on future tools, approaches, and external coordination opportunities that PacifiCorp is actively considering or exploring to address the consequences of adding large quantities of wind.

Table F.1 – 2008 IRP Preferred Portfolio Wind Resource Additions by Year

Year	Capacity Additions (MW)	Capacity Factor	Region
Existing and Planned through 2010	1,284	--	System
2011	100	29%	Walla Walla
2011	100	29%	Yakima
2012	100	35%	Southwest Wyoming
2013	100	35%	Southwest Wyoming
2014	100	35%	Aeolus Wyoming
2015	150	35%	Aeolus Wyoming
2016	100	35%	Aeolus Wyoming
2017	100	35%	Southwest Wyoming

[2] PacifiCorp, 2007 Integrated Resource Plan, Appendix J, pp. 193-4.

Year	Capacity Additions (MW)	Capacity Factor	Region
2018	50	35%	Southwest Wyoming
2019	200	35%	Southwest Wyoming
2020	200	35%	Southwest Wyoming
2021	150	35%	Southwest Wyoming
TOTAL	2,734		

Due to a number of project schedules, this wind study was not completed in time to be incorporated into the 2008 IRP portfolio modeling. As discussed in Chapter 7 of Volume 1, a value of $11.75/MWh—based on Portland General Electric Company's latest wind integration study—was used for IRP capacity expansion optimization modeling purposes. While the Company acknowledged the differences between the PacifiCorp and PGE systems and the caveats associated with the PGE study, PacifiCorp believed that the PGE value represented a reasonable proxy until its own study could be completed. If the wind integration cost study yields a significantly different total value, the Company commits to perform a sensitivity study with the System Optimizer capacity expansion model and the 2008 IRP preferred portfolio modeling assumptions to determine the wind resource selection impact of the updated cost value.

WIND INTEGRATION COSTS

Background

In power planning and dispatch, any period in which load or generation varies from a steady value results in an increased cost for the utility to balance out this variation. Variations in the load and wind generation forecasts are managed with balancing activities. Once the hour-ahead schedule is given to the real-time staff, actual variation in load and wind generation within the hour is balanced using system generation resources. Current balancing activities treat wind forecast variations similarly to load forecast deviation; however, special attention is required for the greater percentage variability and near-term volume growth of wind generation.

The components of wind variability which give rise to integration costs can be divided into two groups: inter-hour and intra-hour. The inter-hour components of wind variability are:

- Day-ahead forecast variation: deviation of the long-term wind forecast (prior energy expectations) to the day-ahead forecast for the day prior to power delivery.
- Hour-ahead forecast variation: deviation of hour-ahead forecast from day-ahead forecast for the hour prior to delivery.

The rebalancing or closure of open positions generated as new load and wind forecast data becomes available requires the payment of transaction costs.

The other set of costs to be considered is associated with the intra-hour (within the hour) components of wind variability:

- Actual forecast variation: deviation of actual hourly average energy from the hour-ahead forecast,
- Regulate down: deviation of hourly maximum energy from the energy at the beginning of the hour, measured with ten minute granularity,
- Regulate up: deviation of hourly minimum energy from the energy at the beginning of the hour, measured with ten minute granularity,
- Automatic Generation Control (AGC): fine scale variation of energy over a one to two minute time scale.

These intra-hour factors require the holding of additional reserves above the standard requirement of 5 percent on wind generation. Due to the small impact, yet large analytical requirement, to determine reserves for AGC, this cost component is not addressed in the wind integration study; however, this issue may be pursued in the future as the company gains more experience in this area.

These inter- and intra-hour factors do not include long-term shaping effects. While benefits or costs may arise due to the hourly difference between expected future energy in moving from a flat-dispatched unit such as geothermal to a shaped profile unit such as wind, on a longer-term view, these differences are only the effect of different hourly prices or expected value on the forecasted future energy; therefore, no actual costs are incurred from balancing a new long-term wind pattern with system resource redispatch.

Determination of Incremental Reserve ("Intra-Hour") Requirements

Before all reserve costs can be estimated, the megawatt (MW) quantity of reserves required to maintain system reliability as additional wind in the Eastern and Western balancing authority areas of PacifiCorp's service region must be calculated. In previous wind integration studies, PacifiCorp has not captured the increased load-following reserve requirements caused by wind forecast error within the hour. Increasing the magnitude of wind resources on the system results in an increased reserve requirement due to the fact that wind forecasts are inherently inaccurate, particularly at within-hour granularity. Intra-hour wind variability requires the dispatch of existing units to balance the system as there is no intra-hour market.

Actual Variation

The deviation of the actual hourly average energy from the hour-ahead forecast can be computed given the historical hour-ahead wind generation forecast and actual hourly energy values. This produces statistical hourly distributions of the forecast versus actual energy. If this was the only source of the intra-hour uncertainty, the quantities of reserves may be easier to estimate by taking the 97.5th percentile of the variation distribution which represents two standard deviations of forecast error and the approximate PacifiCorp performance under Control Performance Standard II (CPS II)[3]). Reporting levels of reserves required with a 97.5% confidence interval adds an important reliability dimension to the calculation. While actual day-to-day balancing operations may require less reserves than suggested in this study, attention to tail events is an important consideration for overall system reliability. Additional considerations include the correlation

[3] The CPS II standard refers to the compliance bounds for the 10-minute average of the Area Control Error.

between forecast error and two additional sources of intra-hour uncertainty: "regulate down" and "regulate up".

Regulate Down
For the purposes of this study, regulate down is the difference between the maximum wind energy within the hour (using 10-minute interval wind generation data) and the energy at the beginning of the hour. When wind energy moves up within an hour, other generation resources are required to reduce their output to compensate for this intra-hour energy deviation. The analysis of 10-minute interval wind generation data yields a statistical distribution of the difference between the wind energy at the beginning of the hour and the ten-minute period of maximum energy within the hour. Taking two standard deviations of the resultant statistical distribution allows reserves associated with this factor to be estimated at a confidence interval consistent with PacifiCorp's CPS II standard.

Regulate Up
For the purposes of this study, regulate up is the difference between the minimum wind energy within the hour (using 10-minute interval wind generation data) and the energy at the beginning of the hour. When wind energy moves down within an hour, other resources on the system are required to increase output to compensate for this intra-hour energy deviation. The analysis of 10-minute interval wind generation data yields a statistical distribution of the difference between the wind energy at the beginning of the hour and minimum energy within the hour. Taking two standard deviations of the resultant statistical distribution allows reserves associated with this factor to be estimated at a confidence interval consistent with PacifiCorp's CPS II standard.

These three intra-hour factors for different locations are not independent of each other and tend to exhibit some positive and negative correlations that are taken into account when measuring the standard deviation of the simultaneous and combined effect of these factors. Before estimating the total reserves requirement for intra-hour integration, correlations are estimated and applied to determine the total combined uncertainty on a regional level. Two standard deviations for the total probability distribution allowed for computation of reserves associated with all intra-hour factors in the Eastern and Western control areas.

System Balancing ("Inter-Hour") Cost Calculation

The shape of a wind energy delivery pattern is different than the delivery patterns of other generation resources. The wind is intermittent and variable, so a wind pattern that is input as a forecast of expected generation differs considerably from the actual generation delivered. Alternatively, a dispatchable resource, like a CCCT, does maintain a flat schedule of energy delivery so generation units on the system do not have to redispatch and balancing activities do not have to occur to compensate for a block of flat energy. When a short-term wind forecast is created and compared to a longer-term wind energy expectation, balancing activities may have to occur to balance the deviation between the wind forecasts and realized output.

Day-ahead Variation
Because a day-ahead forecast of hourly wind energy always differs from the expected future energy level by some amount, the ideal of delivering a balanced energy profile on a day-ahead basis requires some adjustment in the energy position via transactional balancing. While

deviation from a perfectly balanced schedule is normal, estimation of the impacts are assumed to be eliminated by balancing activities to the extent possible.

Fixing the imbalance in real-time is generally more expensive and, to this end, this study assumes that all forecast imbalances are addressed in the day-ahead market. This is limited by the size and availability of standard 25 MW blocks for standard 16-hour or 8-hour (on-peak and off-peak) delivery patterns. PacifiCorp incurs transaction costs every time it trades a block of 25 MW. These transaction costs may vary depending on the time of day and location and are currently estimated to be about $0.50 per MWh over market for purchases to cover a shortfall in forecast, and under market for sales to cover a forecast excess during most transactional hours. This internal assumption is generally accepted by balancing staff and is consistent with the assumption used in Portland General Electric's wind integration study. Given the hourly difference between the long-term expected wind generation and the historical wind generation forecasts at the day-ahead horizon, these costs may be estimated.

To calculate the transactional costs associated with balancing the hourly long-term expected wind generation to the hourly day-ahead wind schedule, the variation was calculated as the absolute value of the difference between the two forecasts. For October 2008 through April 2009, a sample week of hourly data from all existing wind plants on the system (for which data was available) was chosen for each month[4]. The distinction of costs between the Eastern and Western side of the system is reflective of different degrees of forecast accuracy. The existing data was scaled up to reflect the planned East and West additions to the system, 200 and 1,250 MW, respectively, for a total of 773 MW on the West and 1,784 MW on the East. The total deviation was found for each day for both heavy load and light load hours.

For example, on Day 1, the deviation for all heavy-load hours was added. The same was done for light-load hours. The resulting totals were rounded up to the nearest 25 MW increment to reflect actual transaction sizes available in the day-ahead market. The total daily variation was added up for each sample week and multiplied by an estimated bid-ask spread of $0.50 per MWh. PacifiCorp's front office provided this bid-ask spread estimate. The total transaction costs incurred for all sample weeks was divided by the total MWh of long-term expected generation for the same sample weeks and presented on a $/expected MWh basis provided in Table F.2. Transaction costs in the table below are lower in the Eastern control area and may be the result of more accurate forecasting, a more uniform wind pattern, and higher locational diversity.

Table F.2 – Wind Inter-hour Day-Ahead Balancing Transaction Costs

System	Wind Expected to Day-Ahead ($/Expected MWh)
West	$0.41
East	$0.23

[4] This period was chosen due to limited data availability.

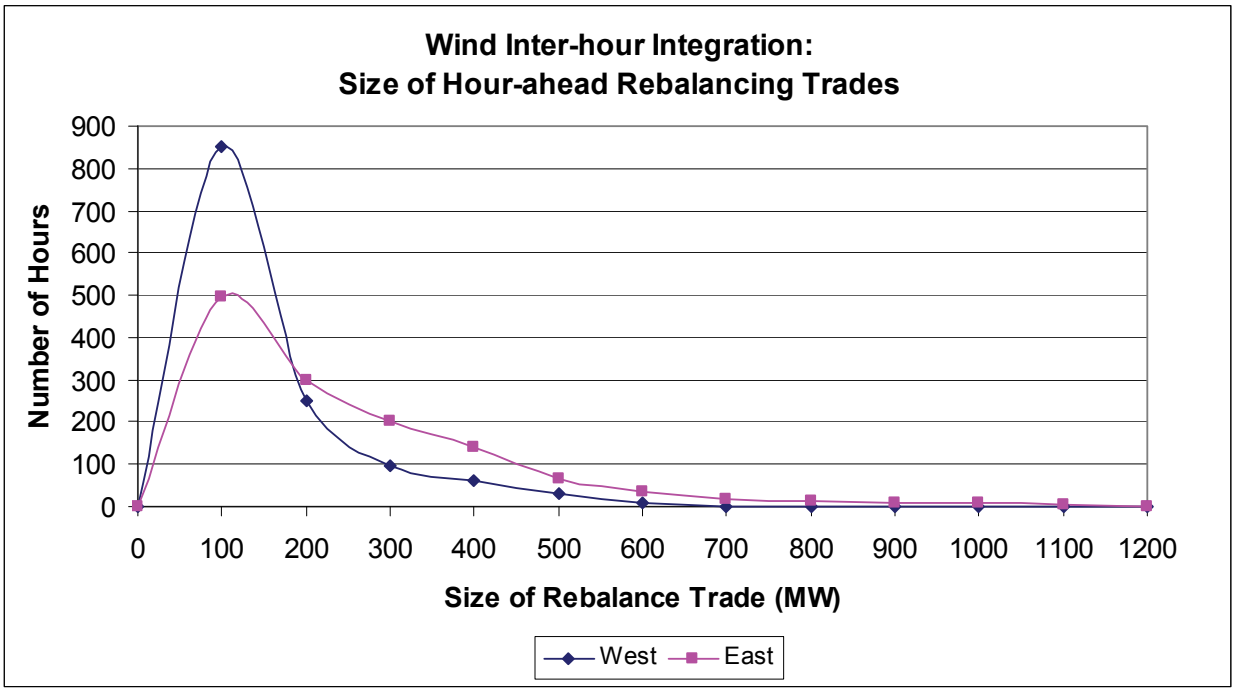
Hour-ahead variation

Similar to the day-ahead variation, the rebalancing of energy to close open positions due to the change in forecasted wind energy from the day-ahead schedule to the hour-ahead schedule also adds transaction costs. Hour-ahead transactions assume transactions in 1 MW increments, but transactions costs are up to twenty-five percent of the per-MWh energy costs. The precise percentage depends on then–current market conditions and the amount of energy traded.

In order to derive the hour-ahead forecast used by real-time for scheduling, a persistence methodology was used. When the real-time traders schedule wind for the upcoming hour, it is assumed that the actual wind generation level from the previous hour will persist for the next hour. In this study, the hour-ahead schedule was based on persistence. The existing October 2008 through April 2009 data was scaled up to reflect the planned East and West additions to the system, 200 and 1,250 MW, respectively, for a total of 773 MW on the West and 1,784 MW on the East. The total deviation was found for each day for both heavy load and light load hours.

The day-ahead to hour-ahead balancing transaction costs were calculated in largely the same fashion with the exception of the bid-ask spread used. Transactions undertaken to correct an imbalance, due to variations between the day-ahead and hour-ahead forecast, are of higher cost, which is dependent upon the quantity of power needed and market conditions. Figure F.1 shows the hourly frequency of various imbalance sizes based on 1,300 hourly deviations, which is constitutes the total number of sample hours.

Figure F.1 –Hour-Ahead Variation Frequency Distribution



It is also generally accepted in the hour-ahead market that, as the size of the transaction increases, the costs associated with transactions increases. Based on the frequency distribution above, a smaller cost is required for transactions of about 50 MW, which are transacted much more frequently. The distribution also indicates that, in general, transaction costs on the west portion of the system will be higher due to lower forecast accuracy. Specific transaction assumptions are listed in Table F.3.

Table F.3 – Inter-hour Hour-Ahead Balancing Transaction Cost Ranges

Trade Size (MW)		Transaction Cost (Bid-ask) Percentage by Region	
Lower Bound	Upper Bound	West	East
0	100	5%	5%
101	200	10%	10%
201	1,000	25%	15%

Table F.3 indicates that as more wind projects are added to the system, forecast improvements are necessary in order to prevent large variations which come with a higher market transaction cost. Consider, on an average basis, if a 100 MW wind project is added to the system, the shape of the distribution of the size of hourly errors will be about the same. As the distribution of error increases in a linear fashion, the cost associated with rebalancing does not. Since costs are greater as the size of transactions increases, the distribution of errors may increase on a linear basis, but costs will increase faster.

Once the hourly variance from the day-ahead forecast to the hour-ahead forecast has been calculated, the specific hourly variance is applied to the corresponding hourly real-time price from an independent energy information company that publishes hourly wholesale power indices. For PACE, Four Corners was used and for PACW, Mid-Columbia was used. The size of the variance determines the transaction cost, which is the product of the hourly price and the corresponding variance percentage. In Table F.4 below, the day-ahead to hour-ahead transaction cost is presented along with the total inter-hour cost for the east and west balancing authority areas.

Table F.4 – Wind Inter-hour Hour-Ahead Balancing Transaction Costs

System	Wind Expected to Day-Ahead ($/Expected MWh)	Wind Day-Ahead to Hour-Ahead ($/Expected MWh)[5]	Total Wind Inter-hour ($/Expected MWh)
West	$0.41	$2.80	$3.21
East	$0.23	$1.89	$2.12

Determination of Incremental Reserve ("Intra-Hour") Requirements

The indicated MW of additional reserves needed to balance the total intra-hour wind generation variations on PacifiCorp's system due to incremental wind addition is unique to each region of

[5] Values expressed are representative of the average cost to transact for the October 2008 through April 2009 period.

PacifiCorp's system. These values were derived by multiplying the within-hour standard deviation from all wind projects in each of the three regions in this study by a Z score of 1.96 (which is representative of the 97.5% confidence interval and PacifiCorp's CPS II requirement) and is inclusive of all three sources of inter-hour variation discussed. Table F.5 presents the corresponding reserve volumes for each region in the system and reflects fixed volumes of new annual wind projects spread through 2021 consistent with the company's general long-term wind acquisition strategy.

Table F.5 – Total Wind System Intra-hour Reserve Requirement (MW)

Resources	Capacity Additions	Total Reserve Requirement	Incremental Increase	Cumulative Increase
Existing and Planned through 2010	1,284	295.4		
2011	200	312.7	17.3	17.3
2012	100	331.2	18.5	35.8
2013	100	339.1	7.9	43.7
2014	100	349.1	9.9	53.6
2015	150	367.8	18.8	72.4
2016	100	380.5	12.6	85.0
2017	100	385.1	4.6	89.7
2018	50	402.0	16.9	106.6
2019	200	420.9	18.9	125.5
2020	200	433.2	12.3	137.7
2021	150	452.9	19.7	157.5

Incremental Reserve ("Intra-Hour") Cost Calculation

The previous section described the calculation of MW quantities associated with adding wind generation resources. In this section, the calculation of the cost associated with wind additions is described.

As the company installs larger volumes of wind resource generation, the company's cost to integrate these intermittent resources is anticipated to increase. This is because more and more non-wind resources must be held back to allow flexibility to follow the intra-hour volatility of the wind generation. Resources with greatest dispatch flexibility that are not already in use to serve load are typically used for integration.

The hour-to-hour dispatch of non-wind resources is not a trivial decision. The company's owned hydro plants with storage capability and the Mid-Columbia hydro contracts often provide the needed flexibility. However, these hydro resources are not of adequate size to integrate all of the anticipated wind variability. Partially loaded gas turbines provide additional flexibility. Due to its low cost, it is economically preferable that coal is fully utilized to serve load rather than backed off to provide wind integration.

The study assumes that PacifiCorp would balance the intermittency of the wind by holding additional reserves on existing and future flexible resources. A reserve resource stack model was developed that is used to estimate both in-the-money and out-of-the-money reserve costs. The modeling of reserves added the requirements for load and reduced the requirement for hydro and contract reserves in the valuation. In-the-money reserve costs are measured by calculating market prices less the cost of thermal dispatch (fuel, variable O&M, CO_2 emission costs, and SO_2 emission costs). Out-of-the-money reserve costs are estimated by calculating the above-market operating costs of a unit dispatched at minimum capacity divided by the total amount of reserve capability available once at minimum load. The reserve requirement is then filled by the lowest cost in-the-money or out-of-the-money thermal resource considering the resource reserve capacities and unit ramp rates. PacifiCorp used market prices at Mona, Mid-Columbia, and Four Corners with the \$45 CO_2 October 2008 price curve (2013 is the assumed start of CO_2 regulation).

The wind reserve results reported in Table F.6 are at the system level and include both existing and incremental wind projects. The reserve results are levelized on a real basis (with inflation effects removed) for the study period 2009 to 2030 by dividing the reserve cost by the wind expected megawatt-hour generation. The existing reserve available data ended in April 2014 so the data was escalated using the prior three-year average. The reserve study considered heavy load and light load hour for the analysis but was limited by the wind reserves calculated on an annual basis.

Table F.6 – Costs for Wind Intra-hour Incremental Reserves

Wind Existing and Incremental Approximately (MW)	System Wind Intra-hour Reserves
2,734	$9.40

To determine the cost impact of using a lower CO_2 cost, PacifiCorp estimated the intra-hour reserve cost assuming an \$8 CO_2 tax. The wind reserve costs dropped to \$7.51/MWh, expressed in \$2009, representing a 20-percent decline relative the cost under the \$45 CO_2 cost study. It is not necessarily true; however, that increasing the cost of CO_2 equates to a higher reserve cost. This relationship may be a function of near-term natural gas price curves.

Conclusion

The wind integration cost results are presented in Table F.7, and range from \$9.96/MWh to \$11.85/MWh for PacifiCorp's system in 2009 dollars, depending on the CO_2 tax level scenario. The inter-hour wind results were developed by weighting the PACW inter-hour wind costs by 30% (the PACW MW share of the system total) and the PACE wind costs by 70%, then adding the system wind reserves.

Table F.7 – Wind Integration Costs (2009 Dollars)

CO_2 Cost Scenario	System Balancing Cost (Inter-hour)			Intra-hour Cost ($/Expected MWh)	Total ($/Expected MWh)
	Expected to Day-Ahead Cost ($/Expected MWh)	Day-Ahead to Hour-Ahead Cost ($/Expected MWh)	Total Cost ($/Expected MWh)		
$8 tax	$0.28	$2.17	$2.45	$7.51	$9.96
$45 tax	$0.28	$2.17	$2.45	$9.40	$11.85

The system wind integration costs are in line with the $11.75/MWh proxy value used for 2008 IRP portfolio modeling. Consequently, PacifiCorp did not conduct a wind resource sensitivity study using PacifiCorp's updated values.

TOOLS, APPROACHES, AND EXTERNAL OPPORTUNITIES

There are a number of wind integration tools, approaches, and potential external coordination opportunities that the Company has implemented or is actively investigating. These include the following.

- **Real-Time Balancing:** PacifiCorp has significantly advanced its forecasting process. At present, forecasts in advance of real-time scheduling are done at 40 to 45-minutes prior to the delivery hour and on a persistence forecast[6]. Operational experience has shown that persistence based scheduling in real-time significantly reduces forecast error from using model-based techniques in advance of 40 to 45-minutes prior to the delivery hour.

- **Day-to-Day Balancing** - PacifiCorp has retained an external firm to prepare forecasts every six hours for the primary purpose of day-to-day balancing activities. Finding tools to enhance/improve the day-to-day forecast is likely to lead to enhanced real-time forecasting and, therefore, reduced load following reserve requirements during most hours. Specific tools that will require ongoing investigation and/or capital allocation may include: enhanced wind project status feedback (to the external forecasting contractor); on-site radar devices; and/or contracting with third parties who can provide regional real-time wind data or pooling information with other control area operators to obtain consolidated forecasts.

- **Peer Review –** PacifiCorp will consider incorporating the concept of the peer group review for evaluation of its ongoing refinement of wind integration cost estimation methods as part of the IRP public participation process. At present, the industry is suffering from the lack of standardized wind integration study methods. As a result, it is necessary to examine each such study to unravel its assumptions and methodology to be able to understand how it compares to other studies.

[6] Persistence based scheduling is the practice of scheduling production for the next hour based on then-current production.

- **Curtailment Tools** – A number of tools exist for either curtailing wind project output during those hours where a critical need exists or limiting the impact of wind resources on the system during unusual ramping events. Such tools may include:

  - **Ramp Rate Limiters:** PacifiCorp's General Electric wind turbines in Wyoming include a ramp rate limiter option. This option enables PacifiCorp operators to set a maximum rate by which a wind project's output will change over time (MW/minute) during periods when the wind is ramping up

  - **Curtailment -** PacifiCorp's General Electric wind turbines in Wyoming include a curtailment option. This option enables PacifiCorp operators to curtail or limit the output of wind projects on short notice.

  - **Power Purchase Agreements (PPA) -** Many of PacifiCorp's PPAs include provisions enabling the Company to curtail output for certain reliability events or for other reasons. New PPAs all have such provisions. For example, PPAs entered into via the RFP process all contain such curtailment provisions. Additionally, the company will continuously review and refine PPA contractual requirements for output forecasting, outage reporting and curtailment.

  - **Large Generator Interconnection Agreements** (LGIA) – Federal Energy Regulatory Commission LGIAs all contain provisions[7] enabling the transmission provider to curtail or disconnect generation if necessary for reliability reasons.

  - **Mid-Hour Scheduling Practices** – At present, the practice of the **WECC** only compels mid-hour schedule changes when there is an "emergency" on the sink balancing authority area. PacifiCorp currently has other third Party wind generators who schedule wind generation for export out of PACW and PACE. There is no established practice compelling mid-hour schedule changes when the source balancing authority area is having an "emergency" which results in other than comparable service for point-to-point transmission customers as compared to network transmission customers. An evolution of mid-hour scheduling practices at WECC for emergencies involving wind generation could lead to a reduction in load following reserves being held. As the level of wind resources being scheduled for export out of a balancing authority area increases, the need for mid-hour schedule changes can be expected to significantly increase.

- **Transmission Tariffs –** A variety of new tariffs and/or tariff adjustments can be expected to evolve over time:

  - **Integration Tariff:** At present, PacifiCorp does not have an integration tariff. An integration tariff may be appropriate when a transmission provider must integrate wind projects on an hourly basis that are scheduled off-system. As the demand for renewable resources continues to grow in the WECC, PacifiCorp may see a growing preponderance of interconnected wind projects being scheduled for export out of the

[7] Appendix G to the LGIA

balancing authority area. This is the main reason that BPA created an integration tariff. Integration tariffs attempt to appropriately capture the cost of intra-hour integration costs. An integration tariff also sends an appropriate price signal to generator owners regarding the value of good forecasting.

- **Imbalance Tariff:** PacifiCorp's imbalance tariff should be reviewed to determine if it provides an appropriate price signal to generation owners for good forecasting practices. It may be through the combination of an integration tariff and an imbalance tariff with increasing penalties that wind generation owners will have the incentive to deploy effective forecasting tools.

- **LGIA:** It may be necessary to evolve FERC standard LGIA language to capture the forecasting diligence and curtailment flexibility required of wind resources by transmission operators who also operate as the balancing authority.

- **Incentives**: If a transmission operator is also a regulated utility with load service obligation and is subject to RPS, it may be necessary for FERC to consider incentives for the entity who is the recipient of intermittent renewable resources (such as wind) to also be the entity responsible for providing the load-following reserves. Since RPS requirements are load-based, a fair application may be to require the load (i.e., sink control area) receiving the intermittent resource to either provide the load-following reserves necessary or telemeter the resource into its own balancing authority area.

- **Wind-only Balancing Authorities –** Some entities in the Pacific Northwest appear willing to pursue formation of a wind-only balancing authority. Here, an entity would contribute their wind resource into the balancing authority, schedule out of the balancing authority, and be responsible for their pro-rata share of intra-hour integration costs. Any entity in the market would be eligible to bid in load-following services to perform the balancing. This effort is only at the conceptual stage.

- **Reserve Sharing:** The creation of bilateral arrangements in addition to that found in the NWWP.

- **Balancing Market**: The creation of a 10-minute balancing market would provide accurate and appropriate price signals to owners of wind generation and would most likely be incorporated into integration tariffs in lieu of capacity costs.

- **ACE Pooling:** ACE pooling is yet another way to spread or socialize volatility associated with wind resources across multiple balancing authority areas.

- **Independent System Operator (ISO):** A reassessment of combining multiple balancing authorities.

- **Flexible Resources**: Creating more accurate forecasts, curtailing wind resources when necessary, and deploying one or more of the tools discussed above, can be expected to help optimize and minimize the amount of load-following reserves that a control area must carry

to integrate wind resources. Ultimately, this will not be enough, leading to the need for significant transmission investments and/or an ISO. It is reasonable to expect that flexible resources will be required to manage the significant influx of wind resources that is likely to result from a Federal RPS, or to respond to increasing RPS standards in states like California. A significant policy issue centers on the payment for these flexible resources when they are required to maintain control area reliability. A time honored alternative is to apply the costs on a causation basis or socialize them in some fashion as deemed by the Federal Energy Regulatory Commission.

WIND CAPACITY PLANNING CONTRIBUTION

For the 2008 IRP, PacifiCorp used the Z statistic method[8] for estimating peak load capacity contributions on a monthly basis for incremental 100 MW blocks of wind capacity at each site reflected in the IRP models. This method is based on estimating the effective load carrying capability of wind. No changes to the methodology took place for the capacity contribution update; wind output data was updated based on new information obtained for resources added to PacifiCorp's system.

The results of the updated analysis as applied to the proxy (100-megawatt) wind resource options are shown in Table F.8. The July peak load carrying capability (PLCC) values are highlighted, since these are used by the capacity expansion model for determining how capacity reliability constraints are met.

Key observations from these results include the following:

- The incremental capacity contribution within an area declines due to correlations (lack of diversity) among wind projects in an area.
- The capacity contribution decline is greatest for projects with more variability of their on-peak contributions.
- The capacity contribution varies over the year, primarily due to expected on-peak generation.

[8] See, Dragoon, K., Dvortsov, V, "Z-method for power system resource adequacy applications" IEEE Transactions on Power Systems (Volume 21, Issue 2, May 2006), pp. 982 – 988.

Table F.8 – Incremental Capacity Contributions from Proxy Wind Resources

Regional Resource by Capacity Factor	Resource Size (Nameplate MW)	Jan	Feb	Mar	Apr	May	Jun	July PLCC	Aug	Sep	Oct	Nov	Dec
West Main, 35%	100	0.7	6.9	3.5	4.2	2.6	3.2	1.8	2.0	1.9	3.4	3.1	26.5
	200	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	20.4
	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4
	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
West Main, 29%	100	0.0	2.9	0.0	1.0	0.0	0.0	0.2	0.0	0.0	0.9	1.1	16.4
	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West Main, 24%	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wyoming, 35%	100	4.2	30.5	14.4	0.0	1.3	2.9	5.2	8.1	3.5	0.8	13.2	10.3
	200	0.1	26.6	10.0	0.0	0.0	0.3	3.7	6.1	0.3	0.0	8.0	6.0
	300	0.0	22.8	5.7	0.0	0.0	0.0	2.3	4.2	0.0	0.0	2.9	1.7
	400	0.0	18.9	1.3	0.0	0.0	0.0	0.9	2.3	0.0	0.0	0.0	0.0
	500	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Wyoming, 29%	100	0.3	24.0	9.3	0.0	0.0	0.0	3.1	5.0	0.0	0.0	8.3	5.6
	200	0.0	20.4	5.3	0.0	0.0	0.0	2.3	3.7	0.0	0.0	3.6	1.9
	300	0.0	16.7	1.4	0.0	0.0	0.0	1.5	2.4	0.0	0.0	0.0	0.0
	400	0.0	13.0	0.0	0.0	0.0	0.0	0.6	1.1	0.0	0.0	0.0	0.0
	500	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wyoming, 24%	100	0.0	17.9	4.2	0.0	0.0	0.0	0.8	1.3	0.0	0.0	3.1	1.0
	200	0.0	14.1	0.5	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0
	300	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	400	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	500	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yakima, 29%	100	2.8	3.0	4.8	8.0	4.6	6.7	4.7	6.3	8.7	10.2	1.8	27.9
	200	0.0	0.0	0.9	4.2	1.7	6.0	4.4	2.7	5.0	4.1	0.0	21.2
	300	0.0	0.0	0.0	0.4	0.0	5.2	4.0	0.0	1.4	0.0	0.0	14.6
	400	0.0	0.0	0.0	0.0	0.0	4.4	3.6	0.0	0.0	0.0	0.0	7.9
	500	0.0	0.0	0.0	0.0	0.0	3.6	3.2	0.0	0.0	0.0	0.0	1.2
Yakima, 24%	100	2.3	2.2	3.1	6.0	3.1	4.5	3.0	4.5	5.5	7.4	0.6	22.9
	200	0.0	0.0	0.2	3.3	0.9	4.1	2.8	2.2	2.7	2.2	0.0	16.3
	300	0.0	0.0	0.0	0.6	0.0	3.8	2.7	0.0	0.0	0.0	0.0	9.8
	400	0.0	0.0	0.0	0.0	0.0	3.4	2.5	0.0	0.0	0.0	0.0	3.3
	500	0.0	0.0	0.0	0.0	0.0	3.0	2.3	0.0	0.0	0.0	0.0	0.0

Regional Resource by Capacity Factor	Resource Size (Nameplate MW)	Jan	Feb	Mar	Apr	May	Jun	July PLCC	Aug	Sep	Oct	Nov	Dec
Goshen, 29%	100	12.9	31.0	28.0	23.6	24.4	23.8	16.1	30.0	27.8	17.0	27.9	24.4
	200	8.4	25.4	20.6	18.7	19.7	18.0	13.5	25.2	23.1	12.7	21.5	18.4
	300	3.9	19.8	13.2	13.8	15.0	12.2	10.8	20.4	18.4	8.4	15.1	12.4
	400	0.0	14.2	5.8	9.0	10.3	6.5	8.2	15.7	13.8	4.2	8.7	6.4
	500	0.0	8.6	0.0	4.1	5.7	0.7	5.5	10.9	9.1	0.0	2.4	0.4
Goshen, 24%	100	10.6	25.3	23.9	18.7	20.0	20.1	12.4	24.8	22.2	13.1	23.0	20.7
	200	7.0	20.2	17.1	14.7	15.9	15.1	10.7	20.7	18.2	9.3	17.1	15.5
	300	3.4	15.0	10.2	10.6	11.9	10.1	9.0	16.6	14.3	5.5	11.2	10.4
	400	0.0	9.9	3.4	6.5	7.8	5.1	7.2	12.5	10.3	1.8	5.3	5.2
	500	0.0	4.8	0.0	2.4	3.8	0.2	5.5	8.4	6.4	0.0	0.0	0.1
Utah, 29%	100	13.6	11.1	33.1	40.8	51.0	42.4	37.6	38.2	36.2	28.4	22.0	21.2
	200	10.3	9.1	28.0	35.2	45.7	38.5	34.1	34.0	31.5	23.6	18.4	17.1
	300	7.0	7.0	22.8	29.5	40.3	34.6	30.7	29.9	26.9	18.8	14.8	13.1
	400	3.6	5.0	17.6	23.9	35.0	30.7	27.2	25.8	22.3	14.0	11.2	9.0
	500	0.3	2.9	12.5	18.3	29.7	26.8	23.8	21.7	17.6	9.2	7.6	5.0
Utah, 24%	100	11.7	7.8	24.8	35.5	41.7	32.8	27.3	30.0	27.0	24.6	16.9	17.4
	200	8.5	6.3	20.4	29.9	36.7	28.9	24.2	26.1	22.4	19.9	13.8	13.8
	300	5.3	4.8	16.0	24.2	31.6	25.1	21.0	22.2	17.9	15.3	10.7	10.2
	400	2.0	3.3	11.5	18.6	26.5	21.2	17.9	18.3	13.3	10.6	7.7	6.6
	500	0.0	1.8	7.1	13.0	21.4	17.4	14.7	14.4	8.8	6.0	4.6	3.1
Walla Walla, 35%	100	3.2	3.4	7.2	11.0	6.3	9.6	7.2	8.5	13.2	13.0	3.6	33.3
	200	0.0	0.0	1.9	5.6	2.3	8.1	6.3	3.3	8.2	5.5	0.0	26.3
	300	0.0	0.0	0.0	0.3	0.0	6.6	5.5	0.0	3.3	0.0	0.0	19.2
	400	0.0	0.0	0.0	0.0	0.0	5.1	4.6	0.0	0.0	0.0	0.0	12.2
	500	0.0	0.0	0.0	0.0	0.0	3.6	3.7	0.0	0.0	0.0	0.0	5.2
Walla Walla, 29%	100	2.7	2.4	5.6	8.8	4.6	7.0	5.2	6.7	9.8	10.0	2.7	27.1
	200	0.0	0.0	1.7	5.4	1.9	6.2	4.8	3.3	6.1	3.8	0.0	20.4
	300	0.0	0.0	0.0	1.9	0.0	5.4	4.3	0.0	2.4	0.0	0.0	13.8
	400	0.0	0.0	0.0	0.0	0.0	4.6	3.8	0.0	0.0	0.0	0.0	7.1
	500	0.0	0.0	0.0	0.0	0.0	3.9	3.4	0.0	0.0	0.0	0.0	0.4
Walla Walla, 24%	100	2.1	1.5	3.4	6.4	3.0	4.6	3.3	4.9	6.2	7.3	1.3	21.9
	200	0.0	0.0	0.5	4.1	1.1	4.2	3.1	2.6	3.4	2.0	0.0	15.4
	300	0.0	0.0	0.0	1.8	0.0	3.9	2.9	0.3	0.5	0.0	0.0	8.9
	400	0.0	0.0	0.0	0.0	0.0	3.5	2.7	0.0	0.0	0.0	0.0	2.5
	500	0.0	0.0	0.0	0.0	0.0	3.2	2.5	0.0	0.0	0.0	0.0	0.0

*The generation data used to determine the PLCC for the generic Utah wind resource was derived from a single bid from the 2003 Renewables RFP. When compared to generation from qualifying facilities within the general region, the estimates appear reasonable.

APPENDIX G – DSM DECREMENT ANALYSIS

CLASS 2 DSM DECREMENT ANALYSES

This section presents the results of the Class 2 demand-side management decrement analysis. For this analysis, the preferred portfolio was used to calculate the decrement value of various types of Class 2 programs following the methodology described in Chapter 7. PacifiCorp will use these decrement values when evaluating the cost-effectiveness of potential new programs between IRP cycles. Note that for the next IRP, the company intends to model Class 2 DSM programs as options in the CEM.

Modeling Results

For the 2008 IRP, results are provided for both the $8 and $45 CO_2 tax levels to provide a perspective on CO_2 tax impacts on DSM Decrement values. For each tax level there are two tables and two charts providing an east and west nominal dollar per megawatt values. Tables G.1 and G.2 show the nominal results of the 12 11 decrement cases for each year of the 2017-year study period. Although no resources were deferred or eliminated from the portfolio due to the addition of Class 2 decrements, there is value in having to produce less generation to meet a smaller load. Consistent with the results for the 2007 IRP, the residential air conditioning decrements produce the highest value for both the east and west locations. The commercial lighting, residential lighting, and system load shapes provide the lowest avoided costs. Much of their end use shapes reduce loads during a greater percentage of off-peak hours than the other shapes and during all seasons, not just the summer.

Table G.1 – Annual Nominal Avoided Costs for Decrements, $8 CO2 Tax, 2010-2017

Decrement Name	Actual Load Factor	Decrement Values (Nominal $/MWh)							
		2010	2011	2012	2013	2014	2015	2016	2017
EAST									
Residential Cooling	7%	52.83	58.07	61.88	73.26	69.99	75.43	82.86	93.08
Residential Lighting	60%	36.26	42.45	45.74	52.64	52.19	54.07	57.62	65.19
Residential Whole House	46%	36.61	42.33	45.54	52.09	52.12	53.99	57.92	65.67
Commercial Cooling	16%	44.08	49.76	53.28	59.67	58.96	61.71	67.75	76.04
Commercial Lighting	49%	37.02	43.44	46.09	52.92	52.77	54.55	58.36	65.96
System East System Load Shape	65%	35.01	40.62	43.85	50.50	50.66	52.16	55.99	63.10
WEST									
Residential Cooling	20%	45.46	54.20	57.77	65.81	65.06	73.29	81.77	87.30
Residential Heating	28%	40.65	50.96	53.06	55.86	56.89	61.13	66.48	71.37
Residential Lighting	60%	41.67	50.08	52.78	58.11	58.11	64.22	71.04	75.78
Commercial Cooling	16%	44.37	52.76	56.47	63.35	63.35	71.19	78.97	84.60
Residential Whole House	35%	40.86	49.54	52.44	57.27	57.90	63.27	69.45	73.94
Commercial Lighting	49%	40.94	49.62	52.39	57.38	58.28	63.77	69.64	74.96
System West System Load Shape	67%	40.46	48.34	50.81	56.11	56.41	62.06	68.65	73.05

Table G.2 – Annual Nominal Avoided Costs for Decrements, $8 CO2 Tax, 2018-2026

Decrement Name	Decrement Values (Nominal $/MWh)								
	2018	2019	2020	2021	2022	2023	2024	2025	2026
EAST									
Residential Cooling	102.24	112.31	121.93	112.80	112.66	124.13	124.39	135.27	145.24
Residential Lighting	70.62	78.45	79.26	78.82	80.00	85.72	89.19	95.44	98.77
Residential Whole House	71.16	79.20	80.09	78.90	80.18	86.15	88.88	95.27	98.67
Commercial Cooling	84.04	92.00	96.26	92.70	95.08	100.60	104.44	116.81	122.93
Commercial Lighting	70.47	78.29	78.36	78.19	79.21	84.77	87.05	94.65	98.23
System East System Load Shape	68.27	75.81	76.78	75.78	77.21	83.04	85.74	92.24	95.51
WEST									
Residential Cooling	93.85	94.81	95.96	91.33	93.32	98.57	105.22	102.35	104.04
Residential Heating	74.67	72.50	71.74	72.95	73.76	79.03	84.11	86.21	86.37
Residential Lighting	80.32	79.57	79.66	78.89	79.65	85.08	89.11	91.42	91.06
Commercial Cooling	89.91	90.65	92.57	88.36	91.16	95.41	101.51	102.57	101.83
Residential Whole House	78.50	77.34	77.06	76.33	78.12	83.98	86.93	87.72	87.72
Commercial Lighting	79.57	79.13	78.92	78.38	79.88	85.30	87.32	89.74	90.80
System West System Load Shape	77.82	76.59	77.55	75.90	77.41	82.75	85.88	88.18	88.50

Figures G.1 and G.2 show the decrement costs, at the $8 CO_2 tax level, for each end use along with the average annual forward market price for that location: Palo Verde (PV) for the east and Mid-Columbia (Mid-C) for the west.

Figure G.1 – East Decrement Price Trends

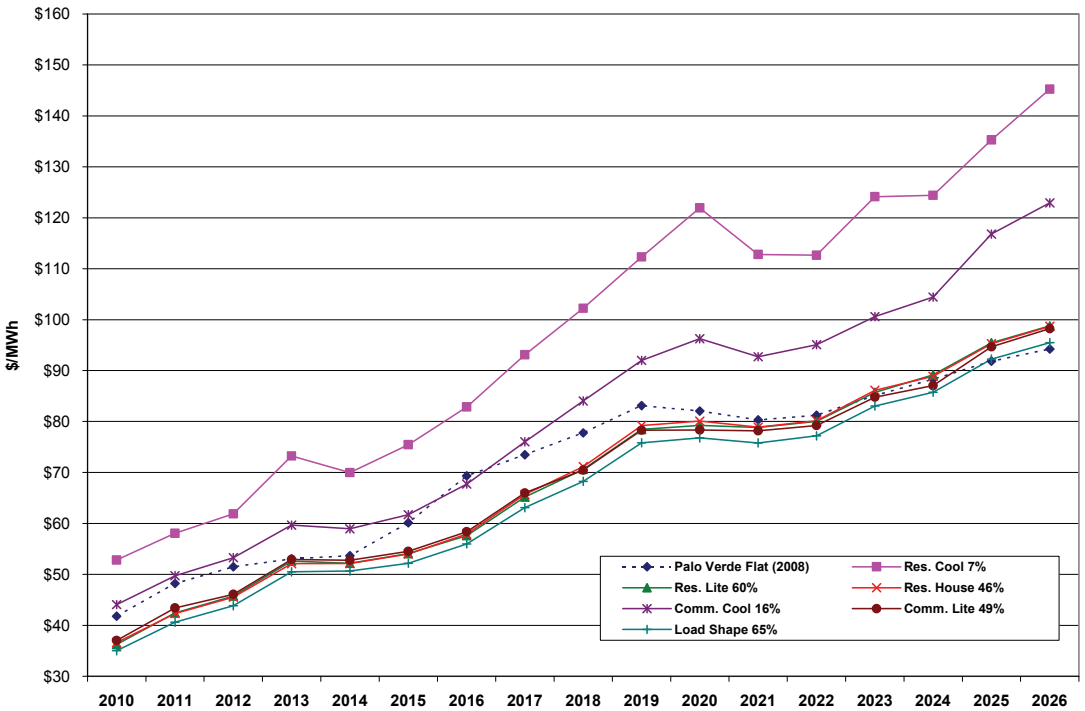


Figure G.2 – West Decrement Price Trends

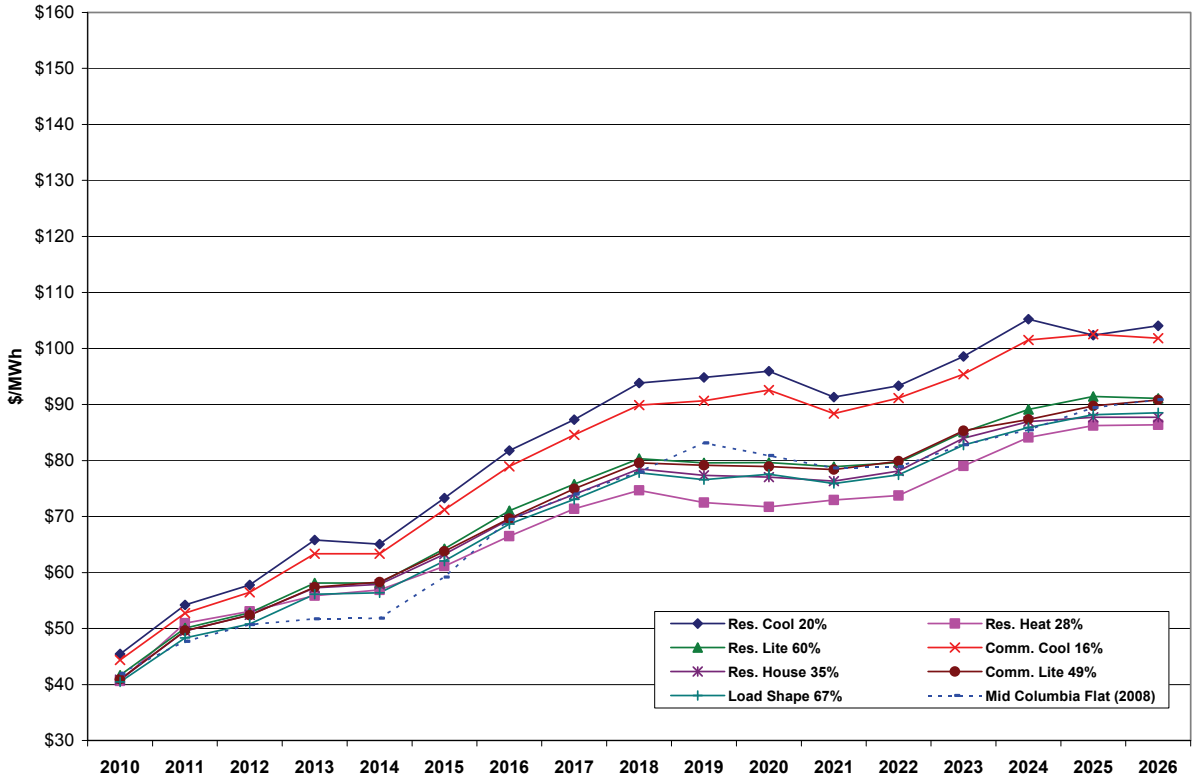


Table G.3 – Annual Nominal Avoided Costs for Decrements, $45 CO2 Tax, 2010-2017

Decrement Name	Actual Load Factor	Decrement Values (Nominal $/MWh)							
		2010	2011	2012	2013	2014	2015	2016	2017
EAST									
Residential Cooling	7%	53.70	73.94	74.98	117.68	116.62	122.25	135.21	144.46
Residential Lighting	60%	31.96	52.07	56.66	94.01	95.14	99.41	104.35	111.92
Residential Whole House	46%	32.57	51.83	56.38	93.24	94.45	99.71	105.21	112.12
Commercial Cooling	16%	43.18	63.20	65.63	102.02	104.76	109.17	117.81	124.47
Commercial Lighting	49%	32.54	52.90	57.46	93.25	96.33	100.21	104.79	111.92
East System Load Shape	65%	30.75	49.99	54.65	91.53	92.74	96.96	101.58	109.26
WEST									
Residential Cooling	20%	59.03	72.98	74.52	109.12	112.50	120.10	130.56	137.63
Residential Heating	28%	48.29	61.90	64.46	92.60	96.72	103.87	109.12	117.53
Residential Lighting	60%	52.62	65.45	66.90	97.27	100.74	108.47	116.47	123.88
Commercial Cooling	16%	57.25	71.28	73.28	104.00	109.54	116.75	127.23	133.53
Residential Whole House	35%	50.99	63.52	65.63	95.82	99.57	107.75	113.38	120.46
Commercial Lighting	49%	49.80	63.75	65.81	94.58	99.59	107.17	114.58	122.07
West System Load Shape	67%	51.08	63.26	64.58	94.71	98.48	105.64	113.12	120.18

Table G.4 – Annual Nominal Avoided Costs for Decrements, $45 CO2 Tax, 2018-2026

Decrement Name	Decrement Values (Nominal $/MWh)								
	2018	2019	2020	2021	2022	2023	2024	2025	2026
EAST									
Residential Cooling	152.82	158.52	180.89	165.62	172.36	178.33	172.47	185.17	188.46
Residential Lighting	116.88	125.76	130.84	129.93	134.57	141.52	140.90	143.71	144.93
Residential Whole House	116.75	124.37	132.11	129.20	133.77	141.87	141.18	143.20	144.61
Commercial Cooling	132.18	141.85	150.46	146.17	152.92	158.08	158.57	166.04	170.87
Commercial Lighting	115.94	124.05	129.78	127.73	133.24	138.94	140.62	142.57	145.73
East System Load Shape	114.21	121.38	127.20	125.65	130.03	136.92	136.81	139.36	140.93
WEST									
Residential Cooling	142.50	145.06	152.31	146.21	150.59	156.77	159.62	152.27	148.50
Residential Heating	120.50	118.93	122.56	123.06	127.82	133.85	136.06	133.37	130.60
Residential Lighting	126.32	127.27	132.71	130.32	135.19	140.90	141.74	138.77	136.02
Commercial Cooling	138.41	139.31	146.46	140.89	148.89	152.79	158.48	149.99	147.43
Residential Whole House	124.10	122.40	129.88	126.73	132.48	138.68	139.15	134.55	132.83
Commercial Lighting	124.51	124.80	131.95	128.38	134.59	139.90	141.22	136.24	134.93
West System Load Shape	123.39	122.35	129.20	125.80	131.20	137.05	137.61	134.76	132.21

Figures G.1 3 and G.2 3 show the decrement costs, at the $45 CO2 tax level, for each end use along with the average annual forward market price for that location: Palo Verde (PV) for the east and Mid-Columbia (Mid-C) for the west.

Figure G.3 – East Decrement Price Trends for $45 CO2 Tax Level

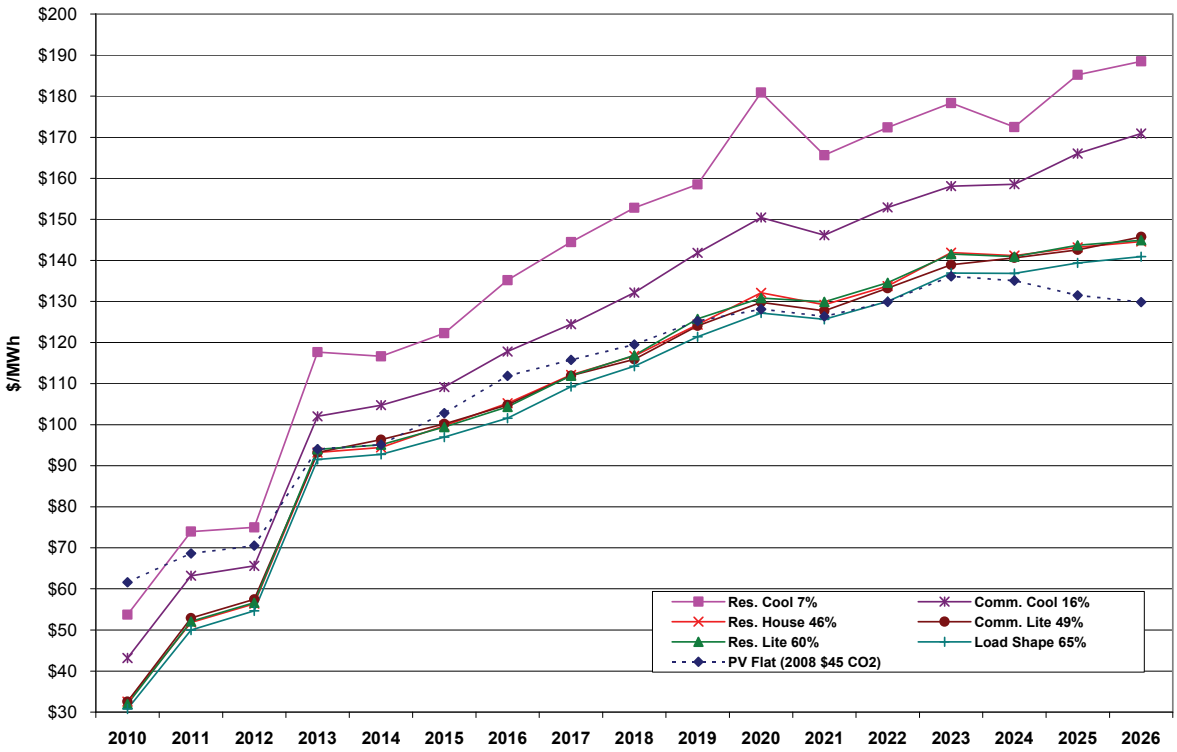
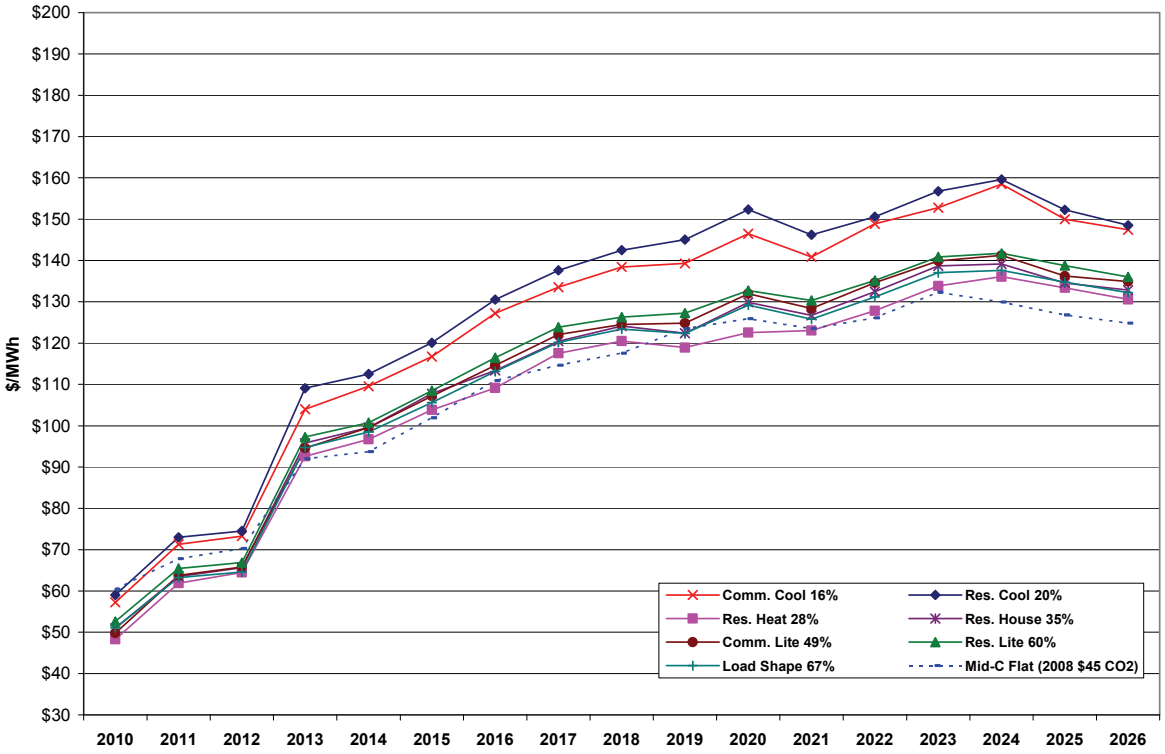


Figure G.4 – West Decrement Price Trends for $45 CO2 Tax Level



APPENDIX H – LOAD AND RESOURCE BALANCE WITH LAKE SIDE II INCLUDED AS A PLANNED RESOURCE IN 2012

The following tables and charts report load and resource balance information for capacity and energy assuming that the Lake Side II combined-cycle plant (with a 596 MW summer capability) is included as a planned resource in 2012. As noted in the IRP main volume, PacifiCorp's initial portfolio analysis assumed the inclusion of this resource.

Table H.1 – Capacity Loads and Resources including Lake Side II (12% Target Reserve Margin)

Calendar Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
East										
Thermal	5,983	5,998	6,025	6,662	6,662	6,674	6,675	6,683	6,684	6,459
Hydro	135	135	135	135	135	135	135	135	135	135
DSM	345	395	435	465	475	485	495	505	515	525
Renewable	157	157	157	157	157	157	154	154	154	154
Purchase	751	546	541	341	341	341	341	320	320	320
QF	151	151	151	151	151	151	151	151	151	151
Interruptible	237	237	237	237	237	237	237	237	237	237
Transfers	876	952	602	235	263	465	230	230	393	589
East Existing Resources	**8,636**	**8,572**	**8,284**	**8,384**	**8,422**	**8,645**	**8,418**	**8,415**	**8,589**	**8,571**
Load	6,757	6,949	7,150	7,404	7,643	7,779	8,029	8,303	8,491	8,696
Sale	781	768	758	747	745	745	745	745	659	659
East Obligation	**7,538**	**7,717**	**7,908**	**8,151**	**8,388**	**8,524**	**8,774**	**9,048**	**9,150**	**9,355**
Planning reserves	745	785	803	853	880	895	924	958	969	993
Non-owned reserves	70	70	70	70	70	70	70	70	70	70
East Reserves	**815**	**855**	**874**	**923**	**951**	**966**	**995**	**1,029**	**1,040**	**1,063**
East Obligation + Reserves	**8,352**	**8,572**	**8,781**	**9,074**	**9,339**	**9,490**	**9,769**	**10,077**	**10,190**	**10,418**
East Position	**284**	**1**	**(498)**	**(690)**	**(917)**	**(845)**	**(1,350)**	**(1,662)**	**(1,601)**	**(1,848)**
East Reserve Margin	**16%**	**12%**	**6%**	**4%**	**1%**	**2%**	**(3%)**	**(6%)**	**(5%)**	**(8%)**
West										
Thermal	2,550	2,559	2,568	2,579	2,591	2,591	2,591	2,591	2,577	2,577
Hydro	1,315	1,218	1,216	980	1,009	1,046	1,157	1,150	1,149	1,146
DSM	-	-	-	-	-	-	-	-	-	-
Renewable	90	96	96	90	90	90	90	90	90	90
Purchase	1,310	1,203	753	115	144	111	111	111	111	139
QF	120	120	120	120	120	120	120	120	120	120
Transfers	(878)	(953)	(603)	(235)	(264)	(465)	(229)	(229)	(392)	(588)
West Existing Resources	**4,507**	**4,242**	**4,150**	**3,649**	**3,691**	**3,492**	**3,840**	**3,833**	**3,654**	**3,483**
Load	3,393	3,422	3,490	3,587	3,638	3,722	3,769	3,824	3,893	3,978
Sale	499	490	290	258	258	258	158	108	108	108
West Obligation	**3,892**	**3,912**	**3,780**	**3,845**	**3,896**	**3,980**	**3,927**	**3,932**	**4,001**	**4,086**
Planning reserves	310	325	363	448	450	464	458	459	467	474
Non-owned reserves	7	7	7	7	7	7	7	7	7	7
West Reserves	**316**	**332**	**370**	**454**	**457**	**471**	**464**	**465**	**473**	**480**
West Obligation + Reserves	**4,208**	**4,243**	**4,149**	**4,299**	**4,353**	**4,451**	**4,391**	**4,397**	**4,474**	**4,566**
West Position	**299**	**(1)**	**0**	**(650)**	**(662)**	**(958)**	**(551)**	**(564)**	**(820)**	**(1,082)**
West Reserve Margin	**20%**	**12%**	**12%**	**(5%)**	**(5%)**	**(12%)**	**(2%)**	**(2%)**	**(9%)**	**(14%)**
System										
Total Resources	**13,143**	**12,815**	**12,433**	**12,033**	**12,112**	**12,137**	**12,258**	**12,248**	**12,243**	**12,054**
Obligation	**11,430**	**11,628**	**11,687**	**11,996**	**12,284**	**12,504**	**12,701**	**12,980**	**13,151**	**13,441**
Reserves	**1,131**	**1,187**	**1,243**	**1,377**	**1,407**	**1,437**	**1,459**	**1,494**	**1,513**	**1,543**
Obligation + Reserves	**12,561**	**12,815**	**12,931**	**13,373**	**13,692**	**13,940**	**14,160**	**14,474**	**14,664**	**14,984**
System Position	**583**	**(0)**	**(498)**	**(1,340)**	**(1,579)**	**(1,803)**	**(1,902)**	**(2,226)**	**(2,421)**	**(2,930)**
Reserve Margin	**17%**	**12%**	**8%**	**1%**	**(1%)**	**(2%)**	**(3%)**	**(5%)**	**(6%)**	**(10%)**

Table H.2 – System Capacity Loads and Resources including Lake Side II (15% Target Reserve Margin)

Calendar Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
System										
Total Resources	13,143	12,815	12,433	12,033	12,112	12,137	12,258	12,248	12,243	12,054
Obligation	11,430	11,628	11,687	11,996	12,284	12,504	12,701	12,980	13,151	13,441
Reserves	1,395	1,464	1,535	1,703	1,740	1,776	1,805	1,848	1,872	1,910
Obligation + Reserves (15%)	12,824	13,092	13,222	13,698	14,024	14,280	14,505	14,828	15,023	15,351
System Position	319	(277)	(789)	(1,665)	(1,912)	(2,143)	(2,247)	(2,580)	(2,780)	(3,297)
Reserve Margin	18%	13%	8%	1%	(1%)	(2%)	(3%)	(5%)	(6%)	(10%)

Figure H.1 – System Capacity Position Trend including Lake Side II

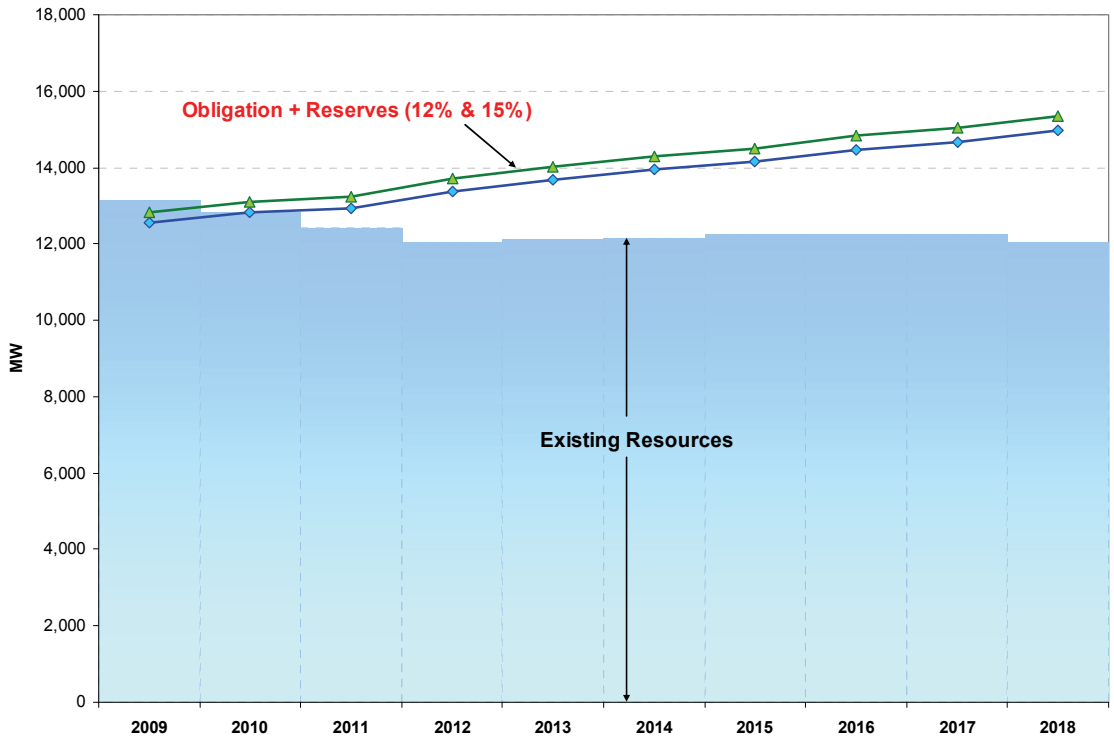


Figure H.2 – East Capacity Position Trend including Lake Side II

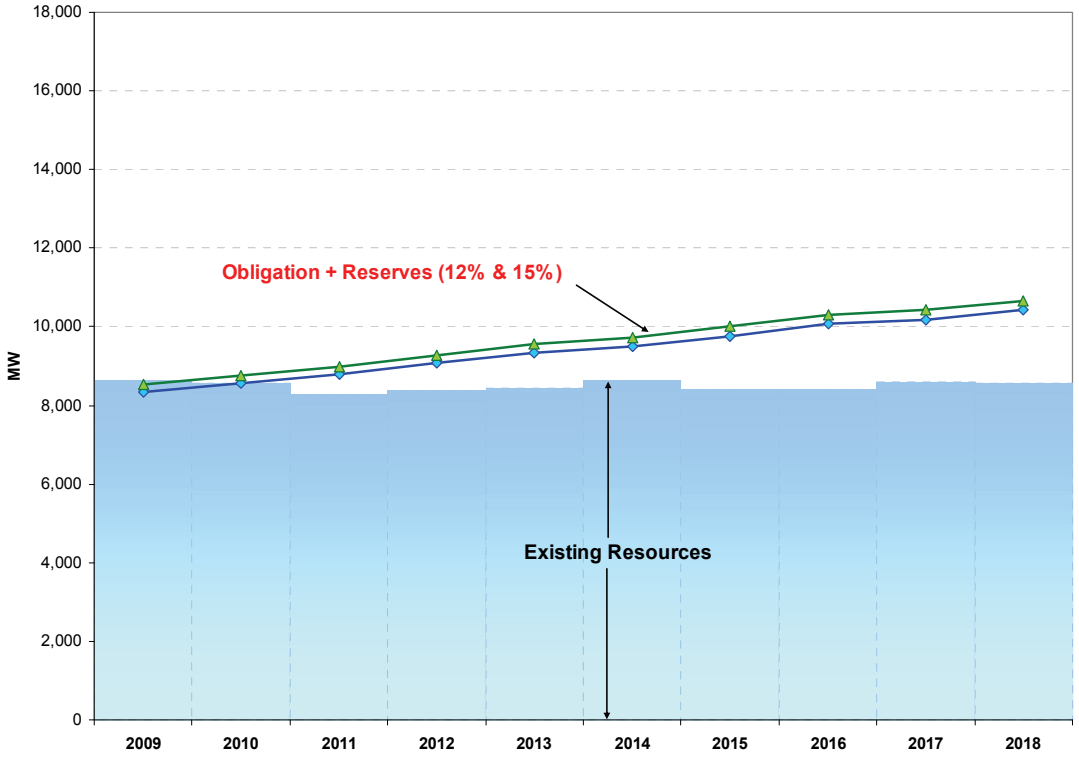


Figure H.3 – System Average Monthly and Annual Energy Balances including Lake Side II

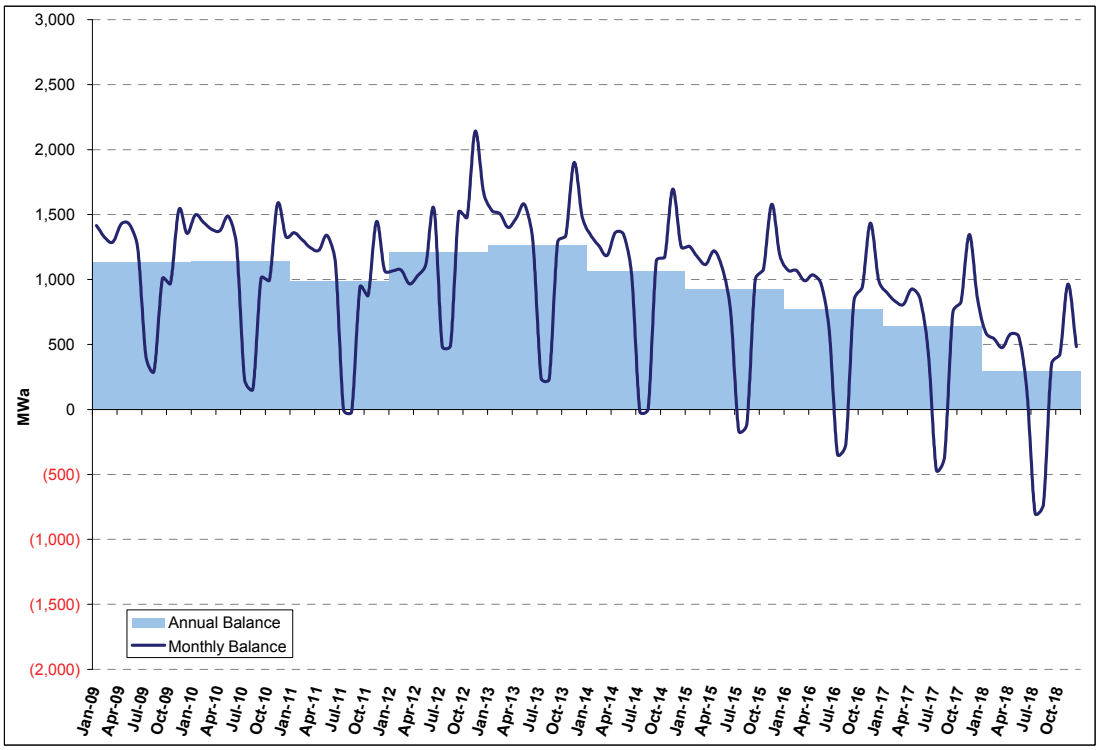


Figure H.4 – East Average Monthly and Annual Energy Balances including Lake Side II