e-FILING REPORT COVER SHEET

REPORT NAME: Compliance Filing

COMPANY NAME: Idaho Power Company

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? ☒ No ☐ Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation: ☒ RE (Electric) ☐ RG (Gas) ☐ RW (Water) ☐ RO (Other)

Report is required by:

☒	OAR	860-029-0040(4)(a)
☐	Statute	Enter Statute; e.g., ORS 757.135
☐	Order	Enter Commission Order No.; e.g., 95-1335
☐	Other	Enter reason; e.g., at Request of Lee Sparling

Is this report associated with a specific docket/case? ☐ No ☒ Yes

If Yes, enter docket number: LC 58 and UM 1610

Key words: Avoided cost update

If known, please select the PUC Section to which the report should be directed:

- ☐ Corporate Analysis and Water Regulation
- ☐ Economic and Policy Analysis
- ☐ Electric and Natural Gas Revenue Requirements
- ☐ Electric Rates and Planning
- ☐ Natural Gas Rates and Planning
- ☐ Utility Safety, Reliability & Security
- ☐ Administrative Hearings Division
- ☐ Consumer Services Section

PLEASE NOTE: Do NOT use this form or e-filing with the PUC Filing Center for:

- **Annual Fee Statement form and payment remittance or**
- **OUS or RSPF Surcharge form or surcharge remittance or**
- **Any other Telecommunications Reporting or**
- **Any daily safety or safety incident reports or**
- **Accident reports required by ORS 654.715.**

McDowell Rackner & Gibson PC

ADAM LOWNEY
Direct (503) 595-3926
adam@mcd-law.com

June 24, 2014

Attention: Filing Center
Public Utility Commission of Oregon
550 Capitol Street NE, Suite 215
P. O. Box 2148
Salem, OR 97308-2148

RE: Idaho Power Company's Avoided Cost Schedule Compliance Filing

Dear Sir or Madam:

Enclosed for filing are the following revisions to Idaho Power Company's ("Idaho Power" or "Company") Schedule 85:

Third Revised Sheet No. 85-6	replaces	Second Revised Sheet No. 85-6
Second Revised Sheet No. 85-7	replaces	First Revised Sheet No. 85-7

The purpose of this filing is to update the Company's avoided cost prices pursuant to OAR 860-029-0040(4)(a)[1] while the investigation into the Company's Docket UM 1610 compliance filing is pending. The avoided cost prices in this filing do not account for any of the changes approved by the Commission in Order No. 14-058 in Docket UM 1610. Rather, the avoided cost prices included in this filing were calculated using the Commission-approved methodology set forth in Order No. 12-146, which authorized Idaho Power to use the "Oregon method" to determine its avoided costs prices. Also enclosed are Idaho Power's workpapers used to prepare this filing. The inputs used in the calculations are consistent with those used in the acknowledged 2013 IRP.

On April 25, 2014, Idaho Power filed updated avoided cost prices and contracts compliant with Order No. 14-058. On May 28, 2014, the Commission issued Order No. 14-181 adopting Staff's recommendation that the Commission investigate the filing. Thereafter, several parties to Docket UM 1610 filed motions for reconsideration and clarification of various aspects of Order No. 14-181.

On April 24, 2014, Obsidian Renewables, LLC ("Obsidian") filed a Motion for Clarification, asking that the Commission clarify the manner in which the capacity payments for solar qualifying facility ("QF") resources are calculated. One Energy, Inc. ("OneEnergy") and the Community

[1] OAR 860-029-0040(4)(a) requires Idaho Power to file updated avoided cost prices for standard contracts within 30 days of the Commission acknowledgement of the Company's most recent Integrated Resource Plan ("IRP"). Idaho Power's 2013 IRP was acknowledged by the Commission at its May 28, 2014 public meeting.

Renewable Energy Association ("CREA") filed a similar motion on the same day. Although both motions claim to seek "clarification" of the Commission's Order No. 14-058, they have effectively asked the Commission to reconsider its decision in Order No. 14-058 directing the parties to use the method proposed by Staff to calculate the solar capacity payments.

On June 10, 2014, Administrative Law Judge ("ALJ") Shani Pines issued a Ruling granting the motions for clarification filed by Obsidian, OneEnergy, and CREA. The Ruling directs the parties to "address the methodology applicable to renewable solar QF resources, raised by Obsidian's Motion for Clarification, in the investigations currently taking place for Pacific Power's and Idaho Power's compliance filings in this docket."[2]

On June 23, 2014, PacifiCorp filed a Request for Certification of the ALJ's June 10, 2014. PacifiCorp argues that the Ruling "improperly grants rehearing of an issue that was addressed in Phase I of [Docket UM 1610] and finally decided in Order No. 14-058."[3] Addressing this issue in the compliance filing investigations, PacifiCorp argues, will cause further delay of PacifiCorp's avoided cost updates that will harm PacifiCorp's customers.

Concurrent with this filing, Idaho Power is also filing a Response in Support of PacifiCorp's Request for Certification of ALJ Ruling. Like PacifiCorp, Idaho Power's customers face real and substantial harm if the Order No. 14-058 compliance filing is delayed to allow the parties to re-litigate the appropriate method for calculating the solar capacity payment. To avoid this harm, the Company requests that the Commission immediately approve the updated avoided cost prices set forth in the Company's compliance filing to Order No. 14-058. In the alternative, and in order for the Company to remain compliant with OAR 860-029-0040(4)(a), and to avoid additional harm to its customers, the Company requests that the Commission immediately approve the updated avoided cost prices set forth in this filing pending the conclusion of its investigation into the Company's Order No. 14-058 compliance filing.

---

[2] *Investigation into Qualifying Facility Contracting and Pricing*, Docket UM 1610, Ruling at 2 (June 10, 2014).

[3] *Investigation into Qualifying Facility Contracting and Pricing*, Docket UM 1610, PacifiCorp's Request for Certification of ALJ Ruling at 9 (June 23, 2014).

If you have any questions regarding this filing, please call Mike Youngblood at (208) 388-2882.

Sincerely,

Adam Lowney

cc: Parties identified on attached Certificate of Service

SCHEDULE 85
COGENERATION AND SMALL POWER
PRODUCTION STANDARD
CONTRACT RATES
(Continued)

AVOIDED COST COMPONENTS

The Avoided Cost Components are calculated based upon the Surrogate Avoided Resource methodology (SAR) for determining the Company's standard avoided costs.

Year	Capacity Cost (mills/kWh)	Fuel Cost (mills/kWh)
2014	Resource Sufficiency Period (2014 through 2015)	
2015		
2016	13.62	43.16
2017	14.03	44.82
2018	14.45	46.72
2019	14.88	49.30
2020	15.33	51.98
2021	15.79	55.90
2022	16.26	60.49
2023	16.75	64.48
2024	17.25	67.94
2025	17.77	71.86
2026	18.30	75.63
2027	18.85	79.88
2028	19.41	83.40
2029	20.00	87.39
2030	20.60	91.79
2031	21.21	96.25
2032	21.85	101.27
2033	22.50	106.00
2034	23.18	114.03
2035	23.88	121.87
2036	24.59	124.93
2037	25.33	130.92

SCHEDULE 85
COGENERATION AND SMALL POWER
PRODUCTION STANDARD
CONTRACT RATES
(Continued)

NET ENERGY PURCHASE PRICE

During the period of resource sufficiency, the Company will pay the Seller the following fixed market based prices:

Year	On-Peak Market Price (mills/kWh)	Off-Peak Market Price (mills/kWh)
2014	42.25	29.50
2015	39.75	29.09

For all other periods, the Company will pay the Seller monthly, for each kWh of Energy delivered and accepted at the Point of Delivery during the preceding calendar month, in accordance with the Standard Contract, an amount determined by the Seller's choice of one of the following options:

Option 1 - Fixed Price Method

Net Energy Purchase Price =

On-peak = (Fuel Cost + Capacity Cost) X Seasonality Factor
Off-peak = Fuel Cost X Seasonality Factor

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company.

Option 2 – Dead Band Method

Net Energy Purchase Price =

On-peak = (AGPU + Capacity Cost) X Seasonality Factor
Off-peak = AGPU X Seasonality Factor

Actual Gas Price Used (AGPU) =
90% of Fuel Cost if
Indexed Fuel Cost is less than 90% Fuel Cost; else
110% of Fuel Cost if
Indexed Fuel Cost is greater than 110% Fuel Cost; else
Indexed Fuel Cost

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company, and

Indexed Fuel Cost is the applicable weighted monthly average index price of natural gas at Sumas multiplied by the Heat Rate Conversion Factor.

SCHEDULE 85
COGENERATION AND SMALL POWER
PRODUCTION STANDARD
CONTRACT RATES
(Continued)

AVOIDED COST COMPONENTS

The Avoided Cost Components are calculated based upon the Surrogate Avoided Resource methodology (SAR) for determining the Company's standard avoided costs.

~~Year~~	~~Capacity Cost (mills/kWh)~~	~~Fuel Cost (mills/kWh)~~
~~2012~~	Resource Sufficiency Period (2012 through 2015)	
~~2013~~		
~~2014~~		
~~2015~~		
~~2016~~	~~13.56~~	~~44.41~~
~~2017~~	~~13.97~~	~~46.73~~
~~2018~~	~~14.39~~	~~49.33~~
~~2019~~	~~14.82~~	~~51.93~~
~~2020~~	~~15.26~~	~~54.68~~
~~2021~~	~~15.72~~	~~57.64~~
~~2022~~	~~16.20~~	~~60.81~~
~~2023~~	~~16.68~~	~~64.05~~
~~2024~~	~~17.18~~	~~67.50~~
~~2025~~	~~17.70~~	~~71.25~~
~~2026~~	~~18.23~~	~~74.99~~
~~2027~~	~~18.77~~	~~79.08~~
~~2028~~	~~19.34~~	~~83.38~~
~~2029~~	~~19.92~~	~~87.89~~
~~2030~~	~~20.52~~	~~92.62~~
~~2031~~	~~21.13~~	~~96.93~~
~~2032~~	~~21.77~~	~~101.74~~
~~2033~~	~~22.42~~	~~106.72~~
~~2034~~	~~23.09~~	~~111.87~~
~~2035~~	~~23.79~~	~~117.17~~

Year	Capacity Cost (mills/kWh)	Fuel Cost (mills/kWh)
2014	Resource Sufficiency Period (2014 through 2015)	
2015		
2016	13.62	43.16
2017	14.03	44.82
2018	14.45	46.72
2019	14.88	49.30
2020	15.33	51.98
2021	15.79	55.90
2022	16.26	60.49
2023	16.75	64.48
2024	17.25	67.94

2025	17.77	71.86
2026	18.30	75.63
2027	18.85	79.88
2028	19.41	83.40
2029	20.00	87.39
2030	20.60	91.79
2031	21.21	96.25
2032	21.85	101.27
2033	22.50	106.00
2034	23.18	114.03
2035	23.88	121.87
2036	24.59	124.93
2037	25.33	130.92

SCHEDULE 85
COGENERATION AND SMALL POWER
PRODUCTION STANDARD
CONTRACT RATES
(Continued)

NET ENERGY PURCHASE PRICE

During the period of resource sufficiency, the Company will pay the Seller the following fixed market based prices:

Year	On-Peak Market Price (mills/kWh)	Off-Peak Market Price (mills/kWh)
~~2012~~	~~23.15~~	~~15.92~~
~~2013~~	~~31.14~~	~~23.31~~
2014	~~37.00~~42.25	~~26.40~~29.50
2015	~~40.00~~39.75	~~28.65~~29.09

For all other periods, the Company will pay the Seller monthly, for each kWh of Energy delivered and accepted at the Point of Delivery during the preceding calendar month, in accordance with the Standard Contract, an amount determined by the Seller's choice of one of the following options:

Option 1 - Fixed Price Method

Net Energy Purchase Price =

On-peak = (Fuel Cost + Capacity Cost) X Seasonality Factor
Off-peak = Fuel Cost X Seasonality Factor

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company.

Option 2 – Dead Band Method

Net Energy Purchase Price =

On-peak = (AGPU + Capacity Cost) X Seasonality Factor
Off-peak = AGPU X Seasonality Factor

Actual Gas Price Used (AGPU) =
90% of Fuel Cost if
Indexed Fuel Cost is less than 90% Fuel Cost; else
110% of Fuel Cost if
Indexed Fuel Cost is greater than 110% Fuel Cost; else
Indexed Fuel Cost

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company, and

Indexed Fuel Cost is the applicable weighted monthly average index price of natural gas at Sumas multiplied by the Heat Rate Conversion Factor.

Exhibit 1
Fixed Avoided Cost Prices

Year	Capacity Price	Capacity Cost Allocated to On-Peak Hours	Energy Only Price	On-Peak	Off-Peak
	$/kW-yr	($/MWh)	$/MWh	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)
		(a) /(8.76 x 100.0% x 55.5%)		(b) + (c)	(b)
2014	Market Based Prices			$42.25	$29.50
2015	2014 through 2015			$39.75	$29.09
2016	$66.20	$13.62	$43.16	$56.78	$43.16
2017	$68.19	$14.03	$44.82	$58.85	$44.82
2018	$70.24	$14.45	$46.72	$61.17	$46.72
2019	$72.34	$14.88	$49.30	$64.18	$49.30
2020	$74.51	$15.33	$51.98	$67.31	$51.98
2021	$76.75	$15.79	$55.90	$71.69	$55.90
2022	$79.05	$16.26	$60.49	$76.75	$60.49
2023	$81.42	$16.75	$64.48	$81.23	$64.48
2024	$83.86	$17.25	$67.94	$85.19	$67.94
2025	$86.37	$17.77	$71.86	$89.63	$71.86
2026	$88.96	$18.30	$75.63	$93.93	$75.63
2027	$91.63	$18.85	$79.88	$98.73	$79.88
2028	$94.38	$19.41	$83.40	$102.81	$83.40
2029	$97.22	$20.00	$87.39	$107.39	$87.39
2030	$100.13	$20.60	$91.79	$112.39	$91.79
2031	$103.14	$21.21	$96.25	$117.46	$96.25
2032	$106.23	$21.85	$101.27	$123.12	$101.27
2033	$109.41	$22.50	$106.00	$128.50	$106.00
2034	$112.70	$23.18	$114.03	$137.21	$114.03
2035	$116.08	$23.88	$121.87	$145.75	$121.87
2036	$119.56	$24.59	$124.93	$149.52	$124.93
2037	$123.15	$25.33	$130.92	$156.25	$130.92

Columns
- (a) Full Fixed Cost of a Proxy CCCT less capitalized energy
- (b) 100.0% is the on-peak capacity factor of the Proxy Resource
- (c) Fuel and Capitalized Energy Cost of the Proxy CCCT
- (d) 2014-2015 On-Peak Market Prices
- (e) 2014-2015 Off-Peak Market Prices

Exhibit 2
Gas Market Indexed Avoided Cost Prices

Year	Avoided Firm Capacity Costs	Total Avoided Energy Cost	Sumas Gas Price	Proxy CCCT Raw Fuel Index	Fixed Prices On-Peak	Fixed Prices Off-Peak	On-Peak Capacity Adder	Off-Peak Energy Adder
	($/kW-yr)	($/MWh)	$/MMBtu	($/MWh)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
				(c) x 6.720			(a) /(8.76 x 100.0% x 55.5%)	(b) - (d)
2014	Market Based Prices 2014 through 2015				$42.25	$29.50	Market Based Prices 2014 through 2015	
2015					$39.75	$29.09		
2016	$66.20	$43.16	$5.19	$34.85			$13.62	$8.31
2017	$68.19	$44.82	$5.40	$36.26			$14.03	$8.56
2018	$70.24	$46.72	$5.64	$37.89			$14.45	$8.83
2019	$72.34	$49.30	$5.98	$40.18			$14.88	$9.12
2020	$74.51	$51.98	$6.34	$42.57			$15.33	$9.41
2021	$76.75	$55.90	$6.87	$46.18			$15.79	$9.72
2022	$79.05	$60.49	$7.51	$50.44			$16.26	$10.05
2023	$81.42	$64.48	$8.05	$54.11			$16.75	$10.37
2024	$83.86	$67.94	$8.52	$57.25			$17.25	$10.69
2025	$86.37	$71.86	$9.05	$60.83			$17.77	$11.03
2026	$88.96	$75.63	$9.56	$64.24			$18.30	$11.39
2027	$91.63	$79.88	$10.14	$68.13			$18.85	$11.75
2028	$94.38	$83.40	$10.61	$71.27			$19.41	$12.13
2029	$97.22	$87.39	$11.14	$74.89			$20.00	$12.50
2030	$100.13	$91.79	$11.74	$78.90			$20.60	$12.89
2031	$103.14	$96.25	$12.34	$82.95			$21.21	$13.30
2032	$106.23	$101.27	$13.03	$87.55			$21.85	$13.72
2033	$109.41	$106.00	$13.67	$91.89			$22.50	$14.11
2034	$112.70	$114.03	$14.80	$99.48			$23.18	$14.55
2035	$116.08	$121.87	$15.91	$106.89			$23.88	$14.98
2036	$119.56	$124.93	$16.30	$109.50			$24.59	$15.43
2037	$123.15	$130.92	$17.12	$115.04			$25.33	$15.88

Columns

(a)	Fixed Cost of a Proxy CCCT less Capitalized Energy included in Energy Component
(b)	Fuel and Capitalized Energy Cost of the Proxy CCCT
(c)	EIA Henry Hub Real 2010 $ forecast is escalated @ 3% to derive nominal price.
(d)	6.720 MMBtu/MWh Proxy CCCT Heat Rate
(e)	2014-2015 On-Peak Market Prices
(f)	2014-2015 Off-Peak Market Prices
(g)	100.0% is the on-peak capacity factor of the Proxy Resource

Exhibit 3
Banded Gas Indexed Avoided Cost Prices

Year	Avoided Firm Capacity Costs	Total Avoided Energy Cost	Sumas Gas Price	Proxy CCCT Raw Fuel Index	Fixed Prices On-Peak	Fixed Prices Off-Peak	On-Peak Capacity Adder	Off-Peak Energy Adder	Fuel Index Floor 90%	Fuel Index Ceiling 110%
	($/kW-yr)	($/MWh)	$/MMBtu	($/MWh)	($/MWh)	($/MWh)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
				(c) x 6.770			(a) /(8.76 x 100.0% x 55.5%	(b) - (d)	(d) x 90%	(d) x 110%
2014	Market Based Prices 2014 through 2015				$42.25	$29.50	Market Based Prices 2014 through 2015			
2015					$39.75	$29.09				
2016	$66.20	$43.16	$5.19	$34.85			$13.62	$8.31	$31.37	$38.34
2017	$68.19	$44.82	$5.40	$36.26			$14.03	$8.56	$32.63	$39.89
2018	$70.24	$46.72	$5.64	$37.89			$14.45	$8.83	$34.10	$41.68
2019	$72.34	$49.30	$5.98	$40.18			$14.88	$9.12	$36.16	$44.20
2020	$74.51	$51.98	$6.34	$42.57			$15.33	$9.41	$38.31	$46.83
2021	$76.75	$55.90	$6.87	$46.18			$15.79	$9.72	$41.56	$50.80
2022	$79.05	$60.49	$7.51	$50.44			$16.26	$10.05	$45.40	$55.48
2023	$81.42	$64.48	$8.05	$54.11			$16.75	$10.37	$48.70	$59.52
2024	$83.86	$67.94	$8.52	$57.25			$17.25	$10.69	$51.53	$62.98
2025	$86.37	$71.86	$9.05	$60.83			$17.77	$11.03	$54.75	$66.91
2026	$88.96	$75.63	$9.56	$64.24			$18.30	$11.39	$57.82	$70.66
2027	$91.63	$79.88	$10.14	$68.13			$18.85	$11.75	$61.32	$74.94
2028	$94.38	$83.40	$10.61	$71.27			$19.41	$12.13	$64.14	$78.40
2029	$97.22	$87.39	$11.14	$74.89			$20.00	$12.50	$67.40	$82.38
2030	$100.13	$91.79	$11.74	$78.90			$20.60	$12.89	$71.01	$86.79
2031	$103.14	$96.25	$12.34	$82.95			$21.21	$13.30	$74.66	$91.25
2032	$106.23	$101.27	$13.03	$87.55			$21.85	$13.72	$78.80	$96.31
2033	$109.41	$106.00	$13.67	$91.89			$22.50	$14.11	$82.70	$101.08
2034	$112.70	$114.03	$14.80	$99.48			$23.18	$14.55	$89.53	$109.43
2035	$116.08	$121.87	$15.91	$106.89			$23.88	$14.98	$96.20	$117.58
2036	$119.56	$124.93	$16.30	$109.50			$24.59	$15.43	$98.55	$120.45
2037	$123.15	$130.92	$17.12	$115.04			$25.33	$15.88	$103.54	$126.54

Columns

(a) Fixed Cost of a Proxy CCCT less Capitalized Energy included in Energy Component
(b) Fuel and Capitalized Energy Cost of the Proxy CCCT
(c) EIA Henry Hub Real 2010 $ forecast is escalated @ 3% to derive nominal price.
(d) 6.720 MMBtu/MWh Proxy CCCT Heat Rate
(e) 2014-2015 On-Peak Market Prices
(f) 2014-2015 Off-Peak Market Prices
(g) 100.0% is the on-peak capacity factor of the Proxy Resource

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance

	1/2013	2/2013	3/2013	4/2013	5/2013	6/2013
Load Forecast (95th% w/ no DSM)	(2,513)	(2,392)	(2,099)	(1,978)	(2,813)	(3,272)
Existing DSM (Energy Efficiency)	7	7	7	8	8	8
Peak-Hour Forecast w/ demand response	(2,505)	(2,384)	(2,092)	(1,971)	(2,805)	(3,264)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,505)**	**(2,384)**	**(2,092)**	**(1,971)**	**(2,805)**	**(3,264)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	966	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	854	1,085	1,023	1,062	1,133	1,027
Hydro (90th%)—Other	245	246	224	244	347	360
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,099	1,331	1,247	1,306	1,480	1,387
CSPP (PURPA)	73	76	82	117	163	171
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	4	4	4	6	6	7
Clatskanie Exchange - Return	0	0	(10)	(15)	0	0
Total Power Purchase Agreements	29	40	30	27	42	43
Firm Pacific NW Import Capability	0	0	0	0	205	292
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,940	3,186	3,099	3,189	3,572	3,632
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	1	2	3
Commercial	6	6	6	6	6	7
Residential	0	0	0	0	0	0
Total New DSM Peak Reduction	6	6	6	7	9	10
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2013	8/2013	9/2013	10/2013	11/2013	12/2013
Load Forecast (95th% w/ no DSM)	(3,390)	(3,035)	(2,785)	(2,033)	(2,274)	(2,690)
Existing DSM (Energy Efficiency)	8	8	8	8	7	7
Peak-Hour Forecast w/ demand response	(3,382)	(3,027)	(2,778)	(2,026)	(2,267)	(2,683)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,382)**	**(3,027)**	**(2,778)**	**(2,026)**	**(2,267)**	**(2,683)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	916	878	761	887	673	938
Hydro (90th%)—Other	304	270	255	249	240	245
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	48	0	0	0	0	0
Total Hydro (90th%)	1,268	1,148	1,016	1,136	912	1,183
CSPP (PURPA)	177	168	155	117	84	77
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	6	4	3	1	2	3
Clatskanie Exchange - Return	0	0	0	(10)	(15)	0
Total Power Purchase Agreements	41	40	39	27	23	39
Firm Pacific NW Import Capability	194	264	68	0	0	0
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,420	3,359	3,018	3,020	2,759	3,038
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	3	3	1	0	0	0
Commercial	7	7	6	6	6	6
Residential	0	0	0	0	0	0
Total New DSM Peak Reduction	10	9	8	7	6	7
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance

	1/2014	2/2014	3/2014	4/2014	5/2014	6/2014
Load Forecast (95th% w/ no DSM)	(2,548)	(2,417)	(2,129)	(2,010)	(2,868)	(3,325)
Existing DSM (Energy Efficiency)	14	14	14	15	16	16
Peak-Hour Forecast w/ demand response	(2,534)	(2,403)	(2,115)	(1,996)	(2,852)	(3,310)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,534)**	**(2,403)**	**(2,115)**	**(1,996)**	**(2,852)**	**(3,310)**
Existing Resources						
Coal	1,024	1,024	1,024	966	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	852	1,078	1,017	1,061	1,132	1,024
Hydro (90th%)—Other	244	245	224	243	343	356
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,097	1,323	1,241	1,304	1,475	1,380
CSPP (PURPA)	75	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	4	4	4	6	6	7
Clatskanie Exchange - Return	0	0	(10)	(15)	0	0
Total Power Purchase Agreements	29	40	30	27	42	43
Firm Pacific NW Import Capability	0	0	0	0	230	352
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,940	3,192	3,103	3,141	3,661	3,697
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	1	4	6
Commercial	13	13	13	13	13	13
Residential	0	0	0	0	0	0
Total New DSM Peak Reduction	13	13	13	14	17	19
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2014	8/2014	9/2014	10/2014	11/2014	12/2014
Load Forecast (95th% w/ no DSM)	(3,458)	(3,087)	(2,837)	(2,061)	(2,303)	(2,718)
Existing DSM (Energy Efficiency)	16	16	15	14	14	14
Peak-Hour Forecast w/ demand response	(3,442)	(3,071)	(2,822)	(2,047)	(2,289)	(2,704)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,442)**	**(3,071)**	**(2,822)**	**(2,047)**	**(2,289)**	**(2,704)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	914	874	758	880	673	935
Hydro (90th%)—Other	303	269	255	248	238	244
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	48	0	0	0	0	0
Total Hydro (90th%)	1,265	1,143	1,012	1,129	911	1,179
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	6	4	3	1	2	3
Clatskanie Exchange - Return	0	0	0	(10)	(15)	0
Total Power Purchase Agreements	41	40	39	27	23	39
Firm Pacific NW Import Capability	237	277	113	0	0	1
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,471	3,379	3,070	3,024	2,769	3,047
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	6	5	3	0	0	0
Commercial	13	13	13	13	13	13
Residential	0	0	0	0	0	0
Total New DSM Peak Reduction	20	19	16	14	13	13
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance

	1/2015	2/2015	3/2015	4/2015	5/2015	6/2015
Load Forecast (95th% w/ no DSM)	(2,552)	(2,435)	(2,129)	(2,002)	(2,922)	(3,369)
Existing DSM (Energy Efficiency)	21	21	21	22	24	24
Peak-Hour Forecast w/ demand response	(2,530)	(2,413)	(2,108)	(1,980)	(2,898)	(3,345)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,530)**	**(2,413)**	**(2,108)**	**(1,980)**	**(2,898)**	**(3,345)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	855	1,080	1,029	1,062	1,134	1,025
Hydro (90th%)—Other	244	246	231	245	352	365
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,100	1,326	1,260	1,307	1,487	1,390
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	4	4	4	6	6	7
Clatskanie Exchange - Return	0	0	(10)	(15)	0	0
Total Power Purchase Agreements	29	40	30	27	42	43
Firm Pacific NW Import Capability	0	0	0	0	276	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,954	3,195	3,122	3,202	3,718	3,697
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	2	6	8
Commercial	19	19	19	19	19	20
Residential	1	1	1	1	1	1
Total New DSM Peak Reduction	20	20	20	21	26	28
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2015	8/2015	9/2015	10/2015	11/2015	12/2015
Load Forecast (95th% w/ no DSM)	(3,520)	(3,129)	(2,879)	(2,087)	(2,310)	(2,739)
Existing DSM (Energy Efficiency)	24	23	23	22	21	21
Peak-Hour Forecast w/ demand response	(3,495)	(3,106)	(2,856)	(2,065)	(2,289)	(2,718)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,495)**	**(3,106)**	**(2,856)**	**(2,065)**	**(2,289)**	**(2,718)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	914	873	756	886	672	937
Hydro (90th%)—Other	304	272	255	252	241	244
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	48	0	0	0	0	0
Total Hydro (90th%)	1,266	1,145	1,011	1,138	913	1,181
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	6	4	3	1	2	3
Clatskanie Exchange - Return	0	0	0	(10)	(15)	0
Total Power Purchase Agreements	41	40	39	27	23	39
Firm Pacific NW Import Capability	237	274	147	0	0	15
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,472	3,377	3,103	3,033	2,771	3,063
Monthly Surplus/Deficit	(24)	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	8	7	4	1	0	0
Commercial	20	20	19	19	19	19
Residential	1	1	1	1	1	1
Total New DSM Peak Reduction	29	27	23	20	20	20
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2016	2/2016	3/2016	4/2016	5/2016	6/2016
Load Forecast (95th% w/ no DSM)	(2,572)	(2,452)	(2,144)	(2,013)	(2,967)	(3,401)
Existing DSM (Energy Efficiency)	26	26	26	27	29	30
Peak-Hour Forecast w/ demand response	(2,546)	(2,426)	(2,118)	(1,986)	(2,937)	(3,371)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,546)**	**(2,426)**	**(2,118)**	**(1,986)**	**(2,937)**	**(3,371)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	966	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	854	1,082	1,026	1,061	1,133	1,022
Hydro (90th%)—Other	244	248	231	244	353	365
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,098	1,329	1,257	1,305	1,485	1,388
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	0	0	0	0	314	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,948	3,194	3,125	3,209	3,692	3,688
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	2	7	9
Commercial	25	24	24	24	25	25
Residential	2	2	2	2	2	2
Total New DSM Peak Reduction	27	26	26	28	33	36
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance

	7/2016	8/2016	9/2016	10/2016	11/2016	12/2016
Load Forecast (95th% w/ no DSM)	(3,571)	(3,163)	(2,916)	(2,109)	(2,329)	(2,764)
Existing DSM (Energy Efficiency)	30	29	28	26	26	26
Peak-Hour Forecast w/ demand response	(3,541)	(3,134)	(2,888)	(2,083)	(2,303)	(2,738)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,541)**	**(3,134)**	**(2,888)**	**(2,083)**	**(2,303)**	**(2,738)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	911	797	753	881	672	934
Hydro (90th%)—Other	303	233	256	252	241	244
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,215	1,030	1,009	1,133	913	1,178
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	272	178	0	0	34
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,415	3,256	3,129	3,037	2,784	3,076
Monthly Surplus/Deficit	(126)	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	10	8	4	1	0	0
Commercial	25	25	24	24	24	24
Residential	2	2	2	2	2	2
Total New DSM Peak Reduction	37	35	31	27	26	26
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(89)	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2017	2/2017	3/2017	4/2017	5/2017	6/2017
Load Forecast (95th% w/ no DSM)	(2,603)	(2,475)	(2,169)	(2,038)	(3,016)	(3,445)
Existing DSM (Energy Efficiency)	30	30	30	31	34	35
Peak-Hour Forecast w/ demand response	(2,574)	(2,445)	(2,139)	(2,007)	(2,982)	(3,410)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,574)**	**(2,445)**	**(2,139)**	**(2,007)**	**(2,982)**	**(3,410)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	852	1,080	1,023	1,060	1,132	1,020
Hydro (90th%)—Other	244	246	231	244	350	363
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,096	1,326	1,254	1,304	1,482	1,383
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	0	0	0	0	359	347
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,946	3,191	3,123	3,208	3,791	3,688
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	2	8	11
Commercial	29	29	29	29	30	30
Residential	4	4	4	4	4	3
Total New DSM Peak Reduction	33	33	33	35	41	44
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2017	8/2017	9/2017	10/2017	11/2017	12/2017
Load Forecast (95th% w/ no DSM)	(3,632)	(3,208)	(2,961)	(2,134)	(2,358)	(2,795)
Existing DSM (Energy Efficiency)	35	34	33	30	30	30
Peak-Hour Forecast w/ demand response	(3,596)	(3,174)	(2,929)	(2,103)	(2,328)	(2,765)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,596)**	**(3,174)**	**(2,929)**	**(2,103)**	**(2,328)**	**(2,765)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	909	794	750	875	673	932
Hydro (90th%)—Other	303	232	256	252	240	244
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,212	1,026	1,006	1,126	914	1,176
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	269	219	0	0	61
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,413	3,250	3,167	3,030	2,785	3,101
Monthly Surplus/Deficit	(184)	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	11	9	5	1	0	0
Commercial	30	30	29	29	29	30
Residential	3	3	4	4	4	4
Total New DSM Peak Reduction	45	43	38	34	33	33
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(139)	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2018	2/2018	3/2018	4/2018	5/2018	6/2018
Load Forecast (95th% w/ no DSM)	(2,629)	(2,492)	(2,190)	(2,059)	(3,064)	(3,488)
Existing DSM (Energy Efficiency)	34	34	34	35	39	40
Peak-Hour Forecast w/ demand response	(2,595)	(2,459)	(2,156)	(2,023)	(3,025)	(3,448)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,595)**	**(2,459)**	**(2,156)**	**(2,023)**	**(3,025)**	**(3,448)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	850	1,073	1,013	1,058	1,131	1,017
Hydro (90th%)—Other	243	245	230	244	347	358
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,093	1,318	1,243	1,303	1,478	1,376
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	0	0	0	0	385	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,943	3,183	3,111	3,206	3,812	3,676
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	2	9	12
Commercial	35	35	35	35	35	36
Residential	7	7	7	7	7	6
Total New DSM Peak Reduction	42	42	41	44	51	55
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2018	8/2018	9/2018	10/2018	11/2018	12/2018
Load Forecast (95th% w/ no DSM)	(3,691)	(3,251)	(3,003)	(2,154)	(2,381)	(2,823)
Existing DSM (Energy Efficiency)	40	39	37	34	34	34
Peak-Hour Forecast w/ demand response	(3,651)	(3,212)	(2,966)	(2,120)	(2,347)	(2,789)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,651)**	**(3,212)**	**(2,966)**	**(2,120)**	**(2,347)**	**(2,789)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	907	790	747	870	673	930
Hydro (90th%)—Other	302	231	255	250	240	243
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,209	1,021	1,002	1,121	912	1,173
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	267	257	0	0	86
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,409	3,243	3,201	3,025	2,784	3,123
Monthly Surplus/Deficit	(242)	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	13	11	6	1	0	0
Commercial	36	36	35	35	35	35
Residential	6	6	7	7	7	7
Total New DSM Peak Reduction	55	53	48	42	42	42
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(187)	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2019	2/2019	3/2019	4/2019	5/2019	6/2019
Load Forecast (95th% w/ no DSM)	(2,657)	(2,511)	(2,212)	(2,081)	(3,112)	(3,532)
Existing DSM (Energy Efficiency)	37	37	37	39	44	45
Peak-Hour Forecast w/ demand response	(2,620)	(2,474)	(2,175)	(2,042)	(3,068)	(3,487)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,620)**	**(2,474)**	**(2,175)**	**(2,042)**	**(3,068)**	**(3,487)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	966	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	848	1,071	1,007	1,057	1,130	1,015
Hydro (90th%)—Other	243	245	230	243	344	355
Shoshone Falls Upgrade (90th%)	0	0	0	0	0	0
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,091	1,316	1,237	1,300	1,473	1,371
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	0	0	0	0	384	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,941	3,180	3,106	3,204	3,749	3,670
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	3	10	14
Commercial	40	39	40	39	40	41
Residential	10	10	10	10	10	9
Total New DSM Peak Reduction	49	49	49	52	60	64
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	**7/2019**	**8/2019**	**9/2019**	**10/2019**	**11/2019**	**12/2019**
Load Forecast (95th% w/ no DSM)	(3,752)	(3,295)	(3,046)	(2,176)	(2,406)	(2,851)
Existing DSM (Energy Efficiency)	45	44	41	38	37	37
Peak-Hour Forecast w/ demand response	(3,707)	(3,251)	(3,005)	(2,139)	(2,368)	(2,814)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,707)**	**(3,251)**	**(3,005)**	**(2,139)**	**(2,368)**	**(2,814)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	905	787	744	862	674	927
Hydro (90th%)—Other	302	231	229	250	238	242
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,208	1,018	973	1,112	912	1,171
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	265	270	0	0	111
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,409	3,237	3,184	3,016	2,783	3,146
Monthly Surplus/Deficit	(298)	(14)	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	15	12	7	1	0	0
Commercial	41	41	40	39	40	40
Residential	9	9	10	10	10	10
Total New DSM Peak Reduction	65	62	56	50	49	50
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(233)	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2020	2/2020	3/2020	4/2020	5/2020	6/2020
Load Forecast (95th% w/ no DSM)	(2,690)	(2,535)	(2,239)	(2,107)	(3,166)	(3,580)
Existing DSM (Energy Efficiency)	42	42	42	44	49	50
Peak-Hour Forecast w/ demand response	(2,648)	(2,493)	(2,197)	(2,063)	(3,117)	(3,529)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,648)**	**(2,493)**	**(2,197)**	**(2,063)**	**(3,117)**	**(3,529)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	843	1,068	1,005	1,056	1,128	1,013
Hydro (90th%)—Other	243	243	230	243	341	353
Shoshone Falls Upgrade (90th%)	3	2	0	0	9	11
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,088	1,313	1,235	1,298	1,479	1,377
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	0	0	0	0	383	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,938	3,178	3,104	3,202	3,811	3,676
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	3	12	16
Commercial	45	45	45	45	46	47
Residential	9	9	9	9	9	8
Total New DSM Peak Reduction	54	54	54	57	66	71
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2020	8/2020	9/2020	10/2020	11/2020	12/2020
Load Forecast (95th% w/ no DSM)	(3,817)	(3,342)	(3,092)	(2,204)	(2,436)	(2,885)
Existing DSM (Energy Efficiency)	51	49	46	43	42	42
Peak-Hour Forecast w/ demand response	(3,766)	(3,293)	(3,046)	(2,161)	(2,394)	(2,843)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,766)**	**(3,293)**	**(3,046)**	**(2,161)**	**(2,394)**	**(2,843)**
Existing Resources						
Coal	1,024	1,024	1,024	1,024	1,024	1,024
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	902	783	741	853	673	927
Hydro (90th%)—Other	301	230	228	250	237	241
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,205	1,013	968	1,103	910	1,170
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	262	269	0	4	139
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,406	3,230	3,179	3,007	2,785	3,173
Monthly Surplus/Deficit	(360)	(64)	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	17	14	8	1	0	0
Commercial	47	47	45	45	46	45
Residential	8	8	9	9	9	9
Total New DSM Peak Reduction	72	69	62	55	55	54
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(288)	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2021	2/2021	3/2021	4/2021	5/2021	6/2021
Load Forecast (95th% w/ no DSM)	(2,720)	(2,564)	(2,261)	(2,126)	(3,222)	(3,627)
Existing DSM (Energy Efficiency)	45	45	45	48	54	55
Peak-Hour Forecast w/ demand response	(2,674)	(2,519)	(2,216)	(2,079)	(3,168)	(3,572)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,674)**	**(2,519)**	**(2,216)**	**(2,079)**	**(3,168)**	**(3,572)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	841	1,066	1,004	1,054	1,127	1,009
Hydro (90th%)—Other	242	243	229	243	341	328
Shoshone Falls Upgrade (90th%)	3	2	0	0	8	10
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,086	1,311	1,233	1,297	1,476	1,347
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	87	0	0	0	434	395
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,965	3,118	3,044	3,143	3,802	3,643
Monthly Surplus/Deficit	0	0	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	4	13	19
Commercial	51	51	50	51	52	53
Residential	9	9	9	9	9	8
Total New DSM Peak Reduction	60	60	60	64	74	80
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2021	8/2021	9/2021	10/2021	11/2021	12/2021
Load Forecast (95th% w/ no DSM)	(3,882)	(3,391)	(3,139)	(2,232)	(2,463)	(2,919)
Existing DSM (Energy Efficiency)	56	54	51	46	45	45
Peak-Hour Forecast w/ demand response	(3,827)	(3,337)	(3,088)	(2,186)	(2,418)	(2,874)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,827)**	**(3,337)**	**(3,088)**	**(2,186)**	**(2,418)**	**(2,874)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	899	779	737	840	674	923
Hydro (90th%)—Other	300	229	227	248	235	241
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,202	1,008	964	1,089	909	1,166
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	290	313	320	0	83	225
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,398	3,218	3,168	2,935	2,806	3,197
Monthly Surplus/Deficit	(429)	(119)	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	20	16	9	2	0	0
Commercial	53	53	51	51	51	51
Residential	8	8	9	9	9	9
Total New DSM Peak Reduction	80	77	69	62	60	60
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(349)	(41)	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2022	2/2022	3/2022	4/2022	5/2022	6/2022
Load Forecast (95th% w/ no DSM)	(2,745)	(2,585)	(2,281)	(2,144)	(3,272)	(3,668)
Existing DSM (Energy Efficiency)	49	49	49	51	58	60
Peak-Hour Forecast w/ demand response	(2,696)	(2,537)	(2,232)	(2,092)	(3,213)	(3,608)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,696)**	**(2,537)**	**(2,232)**	**(2,092)**	**(3,213)**	**(3,608)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	839	1,063	1,000	1,052	1,126	1,006
Hydro (90th%)—Other	242	242	229	242	339	326
Shoshone Falls Upgrade (90th%)	3	2	0	0	8	9
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,083	1,307	1,229	1,294	1,473	1,342
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	113	0	0	0	433	349
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	2,988	3,115	3,040	3,140	3,798	3,591
Monthly Surplus/Deficit	0	0	0	0	0	(17)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	4	15	22
Commercial	59	58	58	58	59	60
Residential	9	9	10	10	9	8
Total New DSM Peak Reduction	68	67	67	72	84	90
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2022	8/2022	9/2022	10/2022	11/2022	12/2022
Load Forecast (95th% w/ no DSM)	(3,941)	(3,432)	(3,180)	(2,257)	(2,487)	(2,950)
Existing DSM (Energy Efficiency)	60	58	55	50	49	49
Peak-Hour Forecast w/ demand response	(3,881)	(3,374)	(3,126)	(2,207)	(2,438)	(2,901)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,881)**	**(3,374)**	**(3,126)**	**(2,207)**	**(2,438)**	**(2,901)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	896	775	733	831	674	920
Hydro (90th%)—Other	300	228	226	247	234	240
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,198	1,003	960	1,078	909	1,162
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	308	318	0	103	254
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,341	3,208	3,162	2,924	2,826	3,222
Monthly Surplus/Deficit	(540)	(166)	0	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	22	19	10	2	0	0
Commercial	60	60	58	58	58	58
Residential	8	8	9	9	9	10
Total New DSM Peak Reduction	91	88	78	70	68	67
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(449)	(78)	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance

	1/2023	2/2023	3/2023	4/2023	5/2023	6/2023
Load Forecast (95^{th}% w/ no DSM)	(2,771)	(2,603)	(2,301)	(2,164)	(3,319)	(3,709)
Existing DSM (Energy Efficiency)	52	52	52	55	62	64
Peak-Hour Forecast w/ demand response	(2,719)	(2,551)	(2,249)	(2,109)	(3,257)	(3,645)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,719)**	**(2,551)**	**(2,249)**	**(2,109)**	**(3,257)**	**(3,645)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90^{th}%)—HCC	835	1,061	1,001	1,051	1,124	1,003
Hydro (90^{th}%)—Other	241	242	228	241	336	323
Shoshone Falls Upgrade (90^{th}%)	3	2	0	0	7	9
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90^{th}%)	1,078	1,305	1,229	1,292	1,467	1,335
CSPP (PURPA)	86	89	93	128	174	181
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	136	0	0	0	431	346
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,007	3,112	3,040	3,138	3,790	3,580
Monthly Surplus/Deficit	0	0	0	0	0	(65)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	5	18	25
Commercial	64	64	64	64	65	67
Residential	10	10	10	10	10	9
Total New DSM Peak Reduction	74	74	73	79	92	100
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2023	8/2023	9/2023	10/2023	11/2023	12/2023
Load Forecast (95th% w/ no DSM)	(4,000)	(3,474)	(3,222)	(2,278)	(2,510)	(2,976)
Existing DSM (Energy Efficiency)	65	62	58	53	52	52
Peak-Hour Forecast w/ demand response	(3,935)	(3,412)	(3,164)	(2,225)	(2,458)	(2,924)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,935)**	**(3,412)**	**(3,164)**	**(2,225)**	**(2,458)**	**(2,924)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	893	770	730	828	674	918
Hydro (90th%)—Other	299	227	225	246	234	240
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,195	997	955	1,074	908	1,159
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	306	316	0	123	291
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,337	3,201	3,156	2,921	2,845	3,257
Monthly Surplus/Deficit	(598)	(211)	(9)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	26	22	11	2	0	0
Commercial	67	67	64	64	64	65
Residential	9	9	10	10	10	10
Total New DSM Peak Reduction	101	97	85	76	74	74
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(497)	(114)	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2024	2/2024	3/2024	4/2024	5/2024	6/2024
Load Forecast (95th% w/ no DSM)	(2,783)	(2,613)	(2,308)	(2,168)	(3,363)	(3,746)
Existing DSM (Energy Efficiency)	55	54	55	57	65	68
Peak-Hour Forecast w/ demand response	(2,728)	(2,558)	(2,254)	(2,111)	(3,298)	(3,679)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,728)**	**(2,558)**	**(2,254)**	**(2,111)**	**(3,298)**	**(3,679)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	832	1,058	999	1,049	1,112	1,000
Hydro (90th%)—Other	240	242	228	240	335	321
Shoshone Falls Upgrade (90th%)	3	2	0	0	7	9
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,075	1,301	1,228	1,289	1,453	1,330
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	143	0	0	0	430	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,011	3,109	3,039	3,135	3,775	3,572
Monthly Surplus/Deficit	0	0	0	0	0	(106)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	6	20	28
Commercial	71	71	71	71	71	74
Residential	12	12	12	12	12	11
Total New DSM Peak Reduction	84	83	84	89	104	113
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2024	8/2024	9/2024	10/2024	11/2024	12/2024
Load Forecast (95th% w/ no DSM)	(4,055)	(3,511)	(3,259)	(2,296)	(2,522)	(2,993)
Existing DSM (Energy Efficiency)	68	66	62	56	55	55
Peak-Hour Forecast w/ demand response	(3,987)	(3,445)	(3,198)	(2,240)	(2,467)	(2,938)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(3,987)**	**(3,445)**	**(3,198)**	**(2,240)**	**(2,467)**	**(2,938)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	891	766	727	819	673	917
Hydro (90th%)—Other	298	226	225	245	233	239
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,191	992	951	1,064	906	1,158
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	303	315	0	132	312
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,334	3,192	3,150	2,911	2,852	3,276
Monthly Surplus/Deficit	(653)	(254)	(47)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	29	25	13	2	0	0
Commercial	74	74	72	71	71	72
Residential	11	11	12	12	12	12
Total New DSM Peak Reduction	114	109	97	86	84	84
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(539)	(144)	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2025	2/2025	3/2025	4/2025	5/2025	6/2025
Load Forecast (95th% w/ no DSM)	(2,786)	(2,624)	(2,308)	(2,163)	(3,406)	(3,776)
Existing DSM (Energy Efficiency)	57	57	57	60	68	71
Peak-Hour Forecast w/ demand response	(2,730)	(2,568)	(2,252)	(2,103)	(3,337)	(3,705)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,730)**	**(2,568)**	**(2,252)**	**(2,103)**	**(3,337)**	**(3,705)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	830	1,055	998	1,047	1,111	998
Hydro (90th%)—Other	240	241	228	240	334	320
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,073	1,298	1,225	1,287	1,451	1,326
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	160	0	0	0	428	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,025	3,105	3,036	3,133	3,771	3,569
Monthly Surplus/Deficit	0	0	0	0	0	(137)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	6	23	32
Commercial	77	77	77	77	77	80
Residential	16	16	16	16	16	14
Total New DSM Peak Reduction	93	93	93	99	116	126
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(10)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2025	8/2025	9/2025	10/2025	11/2025	12/2025
Load Forecast (95th% w/ no DSM)	(4,105)	(3,542)	(3,291)	(2,312)	(2,527)	(3,009)
Existing DSM (Energy Efficiency)	72	69	64	58	57	57
Peak-Hour Forecast w/ demand response	(4,033)	(3,473)	(3,226)	(2,254)	(2,470)	(2,952)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,033)**	**(3,473)**	**(3,226)**	**(2,254)**	**(2,470)**	**(2,952)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	888	761	723	812	674	914
Hydro (90th%)—Other	298	225	224	245	232	239
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,188	987	947	1,057	906	1,155
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	300	313	0	135	321
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,331	3,184	3,144	2,903	2,854	3,282
Monthly Surplus/Deficit	(703)	(289)	(82)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	33	28	15	3	0	0
Commercial	80	80	77	77	78	77
Residential	14	14	16	16	16	16
Total New DSM Peak Reduction	127	122	108	96	94	93
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(575)	(167)	0	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2026	2/2026	3/2026	4/2026	5/2026	6/2026
Load Forecast (95th% w/ no DSM)	(2,810)	(2,640)	(2,326)	(2,180)	(3,450)	(3,811)
Existing DSM (Energy Efficiency)	59	59	59	62	71	74
Peak-Hour Forecast w/ demand response	(2,751)	(2,581)	(2,267)	(2,117)	(3,379)	(3,737)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,751)**	**(2,581)**	**(2,267)**	**(2,117)**	**(3,379)**	**(3,737)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	827	1,050	994	1,046	1,109	995
Hydro (90th%)—Other	239	241	227	239	331	318
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,068	1,292	1,222	1,285	1,447	1,322
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	183	0	0	0	427	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,044	3,099	3,032	3,131	3,766	3,564
Monthly Surplus/Deficit	0	0	0	0	0	(173)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	7	26	36
Commercial	83	83	83	83	84	86
Residential	21	21	21	21	21	18
Total New DSM Peak Reduction	104	104	104	111	131	141
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(32)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2026	8/2026	9/2026	10/2026	11/2026	12/2026
Load Forecast (95th% w/ no DSM)	(4,157)	(3,578)	(3,328)	(2,332)	(2,548)	(3,036)
Existing DSM (Energy Efficiency)	75	72	67	60	59	59
Peak-Hour Forecast w/ demand response	(4,083)	(3,506)	(3,262)	(2,272)	(2,489)	(2,977)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,083)**	**(3,506)**	**(3,262)**	**(2,272)**	**(2,489)**	**(2,977)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	885	758	720	803	675	910
Hydro (90th%)—Other	297	225	223	244	231	238
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,184	982	943	1,047	906	1,150
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	298	311	0	154	319
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,327	3,177	3,138	2,893	2,874	3,275
Monthly Surplus/Deficit	(756)	(329)	(124)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	38	32	17	3	0	0
Commercial	86	86	83	83	84	83
Residential	18	18	21	21	21	21
Total New DSM Peak Reduction	142	136	120	107	105	104
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(613)	(193)	(3)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2027	2/2027	3/2027	4/2027	5/2027	6/2027
Load Forecast (95th% w/ no DSM)	(2,835)	(2,657)	(2,346)	(2,199)	(3,496)	(3,854)
Existing DSM (Energy Efficiency)	61	61	61	64	74	77
Peak-Hour Forecast w/ demand response	(2,774)	(2,596)	(2,285)	(2,135)	(3,422)	(3,777)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,774)**	**(2,596)**	**(2,285)**	**(2,135)**	**(3,422)**	**(3,777)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825.0	1,047.9	990.6	1,044.4	1,107.9	992.1
Hydro (90th%)—Other	238.7	239.8	226.9	213.9	330.4	317.5
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	218	0	0	0	425	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,077	3,097	3,028	3,104	3,761	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(217)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	8	29	41
Commercial	89	88	88	88	90	92
Residential	27	27	27	27	26	23
Total New DSM Peak Reduction	116	115	115	123	146	156
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(61)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2027	8/2027	9/2027	10/2027	11/2027	12/2027
Load Forecast (95th% w/ no DSM)	(4,217)	(3,622)	(3,372)	(2,354)	(2,570)	(3,061)
Existing DSM (Energy Efficiency)	77	74	69	63	61	61
Peak-Hour Forecast w/ demand response	(4,139)	(3,547)	(3,303)	(2,291)	(2,509)	(3,000)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,139)**	**(3,547)**	**(3,303)**	**(2,291)**	**(2,509)**	**(3,000)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882.4	753.7	716.2	795.7	675.6	891.3
Hydro (90th%)—Other	296.2	223.9	222.7	243.8	230.5	237.7
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	295	308	0	174	317
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,170	3,131	2,886	2,894	3,254
Monthly Surplus/Deficit	(816)	(378)	(172)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	43	36	19	4	0	0
Commercial	92	92	89	89	89	89
Residential	23	23	27	27	27	27
Total New DSM Peak Reduction	158	151	134	119	115	115
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(658)	(226)	(37)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2028	2/2028	3/2028	4/2028	5/2028	6/2028
Load Forecast (95th% w/ no DSM)	(2,844)	(2,667)	(2,350)	(2,201)	(3,538)	(3,891)
Existing DSM (Energy Efficiency)	63	62	62	66	75	79
Peak-Hour Forecast w/ demand response	(2,781)	(2,605)	(2,288)	(2,135)	(3,463)	(3,812)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,781)**	**(2,605)**	**(2,288)**	**(2,135)**	**(3,463)**	**(3,812)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825.0	1047.9	990.6	1044.4	1107.9	992.1
Hydro (90th%)—Other	238.7	239.8	226.9	213.9	330.4	317.5
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	236	0	7	0	423	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,095	3,097	3,035	3,104	3,759	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(252)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	9	33	46
Commercial	96	94	94	95	96	98
Residential	33	33	33	33	33	29
Total New DSM Peak Reduction	128	127	127	137	161	174
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(78)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2028	8/2028	9/2028	10/2028	11/2028	12/2028
Load Forecast (95th% w/ no DSM)	(4,270)	(3,659)	(3,408)	(2,370)	(2,579)	(3,079)
Existing DSM (Energy Efficiency)	79	76	71	64	63	63
Peak-Hour Forecast w/ demand response	(4,191)	(3,582)	(3,337)	(2,306)	(2,517)	(3,016)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,191)**	**(3,582)**	**(3,337)**	**(2,306)**	**(2,517)**	**(3,016)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882.4	753.7	716.2	795.7	675.6	891.3
Hydro (90th%)—Other	296.2	223.9	222.7	243.8	230.5	237.7
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	293	306	0	182	314
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,168	3,129	2,886	2,902	3,251
Monthly Surplus/Deficit	(868)	(414)	(208)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	48	40	21	4	0	0
Commercial	98	98	95	95	95	96
Residential	29	29	33	33	33	33
Total New DSM Peak Reduction	175	168	149	132	128	128
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(693)	(247)	(59)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2029	2/2029	3/2029	4/2029	5/2029	6/2029
Load Forecast (95th% w/ no DSM)	(2,864)	(2,680)	(2,365)	(2,214)	(3,582)	(3,927)
Existing DSM (Energy Efficiency)	64	64	64	68	77	80
Peak-Hour Forecast w/ demand response	(2,800)	(2,616)	(2,301)	(2,147)	(3,505)	(3,847)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,800)**	**(2,616)**	**(2,301)**	**(2,147)**	**(3,505)**	**(3,847)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825.0	1,047.9	990.6	1,044.4	1,107.9	992.1
Hydro (90th%)—Other	238.7	239.8	226.9	213.9	330.4	317.5
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	247	0	24	0	421	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,106	3,097	3,052	3,104	3,757	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(287)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	10	37	52
Commercial	100	100	100	100	101	104
Residential	38	38	38	38	37	33
Total New DSM Peak Reduction	138	138	137	148	175	189
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(98)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2029	8/2029	9/2029	10/2029	11/2029	12/2029
Load Forecast (95th% w/ no DSM)	(4,325)	(3,697)	(3,447)	(2,389)	(2,598)	(3,104)
Existing DSM (Energy Efficiency)	81	78	73	65	64	64
Peak-Hour Forecast w/ demand response	(4,244)	(3,619)	(3,375)	(2,324)	(2,534)	(3,040)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,244)**	**(3,619)**	**(3,375)**	**(2,324)**	**(2,534)**	**(3,040)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882.4	753.7	716.2	795.7	675.6	891.3
Hydro (90th%)—Other	296.2	223.9	222.7	243.8	230.5	237.7
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	290	304	0	199	312
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,165	3,127	2,886	2,919	3,249
Monthly Surplus/Deficit	(920)	(454)	(248)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	54	45	24	5	0	0
Commercial	104	104	101	100	100	101
Residential	33	33	37	38	38	37
Total New DSM Peak Reduction	191	182	163	142	138	139
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(729)	(271)	(85)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2030	2/2030	3/2030	4/2030	5/2030	6/2030
Load Forecast (95th% w/ no DSM)	(2,902)	(2,708)	(2,395)	(2,242)	(3,635)	(3,978)
Existing DSM (Energy Efficiency)	65	65	65	69	79	82
Peak-Hour Forecast w/ demand response	(2,836)	(2,642)	(2,329)	(2,174)	(3,556)	(3,895)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,836)**	**(2,642)**	**(2,329)**	**(2,174)**	**(3,556)**	**(3,895)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825	1,048	991	1,044	1,108	992
Hydro (90th%)—Other	239	240	227	214	330	317
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	281	0	61	0	419	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,140	3,097	3,089	3,104	3,755	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(336)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	11	38	54
Commercial	105	105	105	105	105	109
Residential	43	43	43	43	43	38
Total New DSM Peak Reduction	148	148	148	158	186	200
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(135)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2030	8/2030	9/2030	10/2030	11/2030	12/2030
Load Forecast (95th% w/ no DSM)	(4,391)	(3,748)	(3,498)	(2,418)	(2,631)	(3,142)
Existing DSM (Energy Efficiency)	83	80	74	67	65	66
Peak-Hour Forecast w/ demand response	(4,308)	(3,668)	(3,424)	(2,351)	(2,566)	(3,077)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,308)**	**(3,668)**	**(3,424)**	**(2,351)**	**(2,566)**	**(3,077)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882	754	716	796	676	891
Hydro (90th%)—Other	296	224	223	244	230	238
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	287	302	0	231	310
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,162	3,125	2,886	2,951	3,247
Monthly Surplus/Deficit	(984)	(507)	(299)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	56	47	25	5	0	0
Commercial	109	109	106	105	105	106
Residential	38	38	43	43	43	43
Total New DSM Peak Reduction	202	194	174	152	148	149
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(782)	(313)	(125)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2031	2/2031	3/2031	4/2031	5/2031	6/2031
Load Forecast (95th% w/ no DSM)	(2,918)	(2,720)	(2,405)	(2,251)	(3,679)	(4,019)
Existing DSM (Energy Efficiency)	66	66	66	70	80	83
Peak-Hour Forecast w/ demand response	(2,851)	(2,654)	(2,339)	(2,181)	(3,599)	(3,936)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,851)**	**(2,654)**	**(2,339)**	**(2,181)**	**(3,599)**	**(3,936)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825	1,048	991	1,044	1,108	992
Hydro (90th%)—Other	239	240	227	214	330	317
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	291	12	78	15	418	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,150	3,109	3,106	3,119	3,754	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(376)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	11	40	56
Commercial	110	110	110	109	110	114
Residential	48	48	48	48	48	42
Total New DSM Peak Reduction	158	157	158	168	198	212
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(164)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2031	8/2031	9/2031	10/2031	11/2031	12/2031
Load Forecast (95th% w/ no DSM)	(4,448)	(3,790)	(3,540)	(2,437)	(2,646)	(3,163)
Existing DSM (Energy Efficiency)	84	81	75	68	66	66
Peak-Hour Forecast w/ demand response	(4,365)	(3,710)	(3,465)	(2,369)	(2,580)	(3,097)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,365)**	**(3,710)**	**(3,465)**	**(2,369)**	**(2,580)**	**(3,097)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882	754	716	796	676	891
Hydro (90th%)—Other	296	224	223	244	230	238
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	285	300	0	245	308
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,160	3,123	2,886	2,965	3,245
Monthly Surplus/Deficit	(1,041)	(550)	(342)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	58	49	26	5	0	0
Commercial	114	114	110	109	111	110
Residential	42	42	48	48	47	48
Total New DSM Peak Reduction	214	205	184	162	159	158
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(827)	(345)	(158)	0	0	0

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	1/2032	2/2032	3/2032	4/2032	5/2032	6/2032
Load Forecast (95th% w/ no DSM)	(2,933)	(2,719)	(2,416)	(2,260)	(3,722)	(4,057)
Existing DSM (Energy Efficiency)	67	67	67	70	81	84
Peak-Hour Forecast w/ demand response	(2,867)	(2,652)	(2,349)	(2,189)	(3,642)	(3,973)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(2,867)**	**(2,652)**	**(2,349)**	**(2,189)**	**(3,642)**	**(3,973)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	825	1,048	991	1,044	1,108	992
Hydro (90th%)—Other	239	240	227	214	330	317
Shoshone Falls Upgrade (90th%)	3	2	0	0	6	8
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,066	1,289	1,218	1,258	1,444	1,318
CSPP (PURPA)	86	89	93	128	174	182
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	11	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	25	36	36	36	36	36
Firm Pacific NW Import Capability	313	10	85	33	416	342
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,172	3,107	3,113	3,137	3,752	3,560
Monthly Surplus/Deficit	0	0	0	0	0	(413)
2013 IRP DSM (Energy Efficiency)						
Irrigation	0	0	0	12	42	59
Commercial	115	115	114	114	117	119
Residential	52	52	52	52	52	46
Total New DSM Peak Reduction	167	167	167	178	210	224
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	0	0	0	0	0	(190)

Table 1
2013 IRP Load & Resource Balance
First Deficit Year - 2016

Peak-hour Load and Resource Balance	7/2032	8/2032	9/2032	10/2032	11/2032	12/2032
Load Forecast (95th% w/ no DSM)	(4,503)	(3,829)	(3,579)	(2,455)	(2,661)	(3,185)
Existing DSM (Energy Efficiency)	84	81	75	68	67	67
Peak-Hour Forecast w/ demand response	(4,418)	(3,748)	(3,504)	(2,387)	(2,594)	(3,118)
Existing DSM (DR)	0	0	0	0	0	0
Peak-Hour Forecast w/DR	**(4,418)**	**(3,748)**	**(3,504)**	**(2,387)**	**(2,594)**	**(3,118)**
Existing Resources						
Coal	966	966	966	966	966	966
Gas (Langley Gulch)	300	300	300	300	300	300
Hydro (90th%)—HCC	882	754	716	796	676	891
Hydro (90th%)—Other	296	224	223	244	230	238
Shoshone Falls Upgrade (90th%)	2	0	0	0	0	2
Sho-Ban Water Lease	0	0	0	0	0	0
Total Hydro (90th%)	1,181	978	939	1,040	906	1,131
CSPP (PURPA)	189	179	167	128	96	88
Power Purchase Agreements						
Elkhorn Valley Wind	5	5	5	5	5	5
Raft River Geothermal	9	9	9	9	9	9
Neal Hot Springs Geothermal	21	22	22	22	22	22
Clatskanie Exchange - Take	0	0	0	0	0	0
Clatskanie Exchange - Return	0	0	0	0	0	0
Total Power Purchase Agreements	35	36	36	36	36	36
Firm Pacific NW Import Capability	237	281	299	0	259	306
Gas Peakers	416	416	416	416	416	416
Existing Resource Subtotal	3,324	3,156	3,122	2,886	2,979	3,243
Monthly Surplus/Deficit	(1,095)	(592)	(382)	0	0	0
2013 IRP DSM (Energy Efficiency)						
Irrigation	61	51	27	5	0	0
Commercial	119	119	115	115	115	115
Residential	46	46	52	52	52	52
Total New DSM Peak Reduction	226	216	194	172	167	167
Remaining Monthly Surplus/Deficit (CAPACITY DEFICIENCY)	(869)	(375)	(187)	0	0	0

Table 2
Avoided Costs ($/MWh)
Energy Prices 2014 through 2016

Year	Winter Season					Summer Season				Winter Season		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
On-Peak (HLH Market Purchase)												
2014	40.98	73.63	31.76	28.56	25.75	26.25	41.50	50.75	48.00	44.25	44.80	50.80
2015	45.50	43.35	43.35	30.30	27.95	27.95	43.85	43.70	43.65	42.35	42.45	42.60
2016	40.95	40.95	40.95	29.65	29.65	29.65	45.15	45.15	45.15	42.45	42.45	42.45
Off-Peak (LLH Market Purchase)												
2014	39.34	62.18	18.75	12.25	6.50	7.25	18.50	35.10	37.35	36.50	37.15	43.15
2015	38.75	36.55	36.60	15.00	14.70	14.60	28.65	28.50	28.45	35.60	35.75	35.90
2016	34.30	34.30	34.30	15.90	15.90	15.90	30.85	30.85	30.85	36.20	36.20	36.20
Combined (55.5% On-Peak 44.5% Off-Peak)												
2014	40.25	68.53	25.97	21.30	17.18	17.80	31.27	43.79	43.26	40.80	41.40	47.40
2015	42.50	40.32	40.35	23.49	22.05	22.01	37.09	36.94	36.89	39.35	39.47	39.62
2016	37.99	37.99	37.99	23.53	23.53	23.53	38.79	38.79	38.79	39.67	39.67	39.67

Annual Average

	On-Peak	Off-Peak	Combined
2014	$42.25	$29.50	$36.58
2015	$39.75	$29.09	$35.01
2016	$39.55	$29.31	$34.99

NOTES:

Jan - Mar 2014 are settled monthly market prices at mid-Columbia (April 16, 2014) from Inter-Continental Exchange (ICE)
Apr 2014 -Dec 2016 are forward monthly market quotes at mid-Columbia (April 16, 2014) from Inter-Continental Exchange (ICE)

Total Light-Load Hours	3,898	44.5%
Mon-Sat - Hour Ending 2300-0600 PST		
All Day Sundays		
6 NERC Holidays		
Total Heavy-Load Hours	4,862	55.5%
Mon-Sat - Hour Ending 0700-2200 PST		
Less 6 NERC Holidays		
Total Hours in a Year	8,760	100.0%

Table 3
Capitalized Energy Costs

Year	Combined Cycle CT Fixed Costs ($/kW-yr)	Simple Cycle CT Fixed Costs ($/kW-yr)	Capitalized Energy Costs ($/kW-yr)	Capitalized Energy Costs 58.6% CF ($/MWh)
	(a)	(b)	(c) ((a) - (b))	(d) (c)/(8.760 x 58.6%)
2016	$104.63	$66.20	$38.43	$7.49
2017	$107.77	$68.19	$39.58	$7.71
2018	$111.01	$70.24	$40.77	$7.94
2019	$114.34	$72.34	$42.00	$8.18
2020	$117.75	$74.51	$43.24	$8.42
2021	$121.26	$76.75	$44.51	$8.67
2022	$124.92	$79.05	$45.87	$8.94
2023	$128.67	$81.42	$47.25	$9.20
2024	$132.52	$83.86	$48.66	$9.48
2025	$136.48	$86.37	$50.11	$9.76
2026	$140.60	$88.96	$51.64	$10.06
2027	$144.83	$91.63	$53.20	$10.36
2028	$149.19	$94.38	$54.81	$10.68
2029	$153.66	$97.22	$56.44	$10.99
2030	$158.25	$100.13	$58.12	$11.32
2031	$163.01	$103.14	$59.87	$11.66
2032	$167.90	$106.23	$61.67	$12.01
2033	$172.92	$109.41	$63.51	$12.37
2034	$178.14	$112.70	$65.44	$12.75
2035	$183.49	$116.08	$67.41	$13.13
2036	$188.98	$119.56	$69.42	$13.52
2037	$194.63	$123.15	$71.48	$13.92
2038	$200.47	$126.84	$73.63	$14.34
2039	$206.49	$130.64	$75.85	$14.78
2040	$212.66	$134.56	$78.10	$15.21

Columns

(a) Table 8 Column (f)

(b) Table 8 Column (f)

(d) 58.6% CCCT Energy Weighted Capacity Factor - Table 8 page 3

Table 4
Total Avoided Energy Cost

Year	Combined Cycle		Capitalized Energy Costs 58.6% CF	Total Avoided Energy Cost
	Gas Price	Energy Cost		
	($/MMBtu)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)
		(a) x 6.720		(b) + (c)
2016	$5.31	$35.67	$7.49	$43.16
2017	$5.52	$37.11	$7.71	$44.82
2018	$5.77	$38.78	$7.94	$46.72
2019	$6.12	$41.12	$8.18	$49.30
2020	$6.48	$43.56	$8.42	$51.98
2021	$7.03	$47.23	$8.67	$55.90
2022	$7.67	$51.55	$8.94	$60.49
2023	$8.23	$55.28	$9.20	$64.48
2024	$8.70	$58.46	$9.48	$67.94
2025	$9.24	$62.10	$9.76	$71.86
2026	$9.76	$65.57	$10.06	$75.63
2027	$10.34	$69.52	$10.36	$79.88
2028	$10.82	$72.72	$10.68	$83.40
2029	$11.37	$76.40	$10.99	$87.39
2030	$11.97	$80.47	$11.32	$91.79
2031	$12.59	$84.59	$11.66	$96.25
2032	$13.28	$89.26	$12.01	$101.27
2033	$13.93	$93.63	$12.37	$106.00
2034	$15.07	$101.28	$12.75	$114.03
2035	$16.18	$108.74	$13.13	$121.87
2036	$16.58	$111.41	$13.52	$124.93
2037	$17.41	$117.00	$13.92	$130.92
2038	$18.27	$122.76	$14.34	$137.10
2039	$19.15	$128.69	$14.78	$143.47
2040	$20.06	$134.78	$15.21	$149.99

Columns

(a) Table 9 Column (d)
(b) 6.720 MWh/MMBtu Heat Rate - Table 8
(c) Table 3 Column (d)

Table 5
Total Avoided Cost

Year	Avoided Firm Capacity Costs	Total Avoided Energy Cost	Total Avoided Costs At Stated Capacity Factor		
			75%	85%	90%
	($/kW-yr)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)
			(b)+(a)/(8.76 x 0.75)	(b)+(a)/(8.76 x 0.85)	(b)+(a)/(8.76 x 0.9)
2016	$66.20	$43.16	$53.24	$52.05	$51.56
2017	$68.19	$44.82	$55.20	$53.98	$53.47
2018	$70.24	$46.72	$57.41	$56.15	$55.63
2019	$72.34	$49.30	$60.31	$59.02	$58.48
2020	$74.51	$51.98	$63.32	$61.99	$61.43
2021	$76.75	$55.90	$67.58	$66.21	$65.63
2022	$79.05	$60.49	$72.52	$71.11	$70.52
2023	$81.42	$64.48	$76.87	$75.41	$74.81
2024	$83.86	$67.94	$80.70	$79.20	$78.58
2025	$86.37	$71.86	$85.01	$83.46	$82.82
2026	$88.96	$75.63	$89.17	$87.58	$86.91
2027	$91.63	$79.88	$93.83	$92.19	$91.50
2028	$94.38	$83.40	$97.77	$96.08	$95.37
2029	$97.22	$87.39	$102.19	$100.45	$99.72
2030	$100.13	$91.79	$107.03	$105.24	$104.49
2031	$103.14	$96.25	$111.95	$110.10	$109.33
2032	$106.23	$101.27	$117.44	$115.54	$114.74
2033	$109.41	$106.00	$122.65	$120.69	$119.88
2034	$112.70	$114.03	$131.18	$129.17	$128.32
2035	$116.08	$121.87	$139.54	$137.46	$136.59
2036	$119.56	$124.93	$143.13	$140.99	$140.09
2037	$123.15	$130.92	$149.66	$147.46	$146.54
2038	$126.84	$137.10	$156.41	$154.13	$153.19
2039	$130.64	$143.47	$163.35	$161.01	$160.04
2040	$134.56	$149.99	$170.47	$168.06	$167.06

Columns
- (a) Table 3 Column (b)
- (b) Table 4 Column (d)

Table 6
On- & Off- Peak Energy Prices

Year	Avoided Firm Capacity Costs	Capacity Cost Allocated to On-Peak Hours	Total Avoided Energy Cost	On-Peak 4,862 Hours	Off-Peak 3,898 Hours
	($/kW-yr)	($/MWh)	($/MWh)	($/MWh)	($/MWh)
	(a)	(b)	(c)	(d)	(e)
		(a) /(8.76 x 100.0% x 55.5%)		(b) + (c)	= (c)
2016	$66.20	$13.62	$43.16	$56.78	$43.16
2017	$68.19	$14.03	$44.82	$58.85	$44.82
2018	$70.24	$14.45	$46.72	$61.17	$46.72
2019	$72.34	$14.88	$49.30	$64.18	$49.30
2020	$74.51	$15.33	$51.98	$67.31	$51.98
2021	$76.75	$15.79	$55.90	$71.69	$55.90
2022	$79.05	$16.26	$60.49	$76.75	$60.49
2023	$81.42	$16.75	$64.48	$81.23	$64.48
2024	$83.86	$17.25	$67.94	$85.19	$67.94
2025	$86.37	$17.77	$71.86	$89.63	$71.86
2026	$88.96	$18.30	$75.63	$93.93	$75.63
2027	$91.63	$18.85	$79.88	$98.73	$79.88
2028	$94.38	$19.41	$83.40	$102.81	$83.40
2029	$97.22	$20.00	$87.39	$107.39	$87.39
2030	$100.13	$20.60	$91.79	$112.39	$91.79
2031	$103.14	$21.21	$96.25	$117.46	$96.25
2032	$106.23	$21.85	$101.27	$123.12	$101.27
2033	$109.41	$22.50	$106.00	$128.50	$106.00
2034	$112.70	$23.18	$114.03	$137.21	$114.03
2035	$116.08	$23.88	$121.87	$145.75	$121.87
2036	$119.56	$24.59	$124.93	$149.52	$124.93
2037	$123.15	$25.33	$130.92	$156.25	$130.92
2038	$126.84	$26.09	$137.10	$163.19	$137.10
2039	$130.64	$26.87	$143.47	$170.34	$143.47
2040	$134.56	$27.68	$149.99	$177.67	$149.99

Columns

(a) Table 3 Column (b)
(b) Table 8 100.0% is the on-peak capacity factor of the Proxy Resource
(c) Table 4 Column (d)

Table 7
Comparison between Proposed and Current Avoided Costs
$/MWh

Year	Oregon Approved Avoided Cost Prices (Current)	Updated Avoided Cost Prices (Proposed)	Difference from Current Prices
	(a)	(b)	(c) (b) - (a)
2014	$32.28	$36.58	$4.29
2015	$34.95	$35.01	$0.06
2016	$51.94	$50.72	($1.22)
2017	$54.48	$52.61	($1.88)
2018	$57.32	$54.74	($2.58)
2019	$60.16	$57.56	($2.60)
2020	$63.15	$60.49	($2.66)
2021	$66.36	$64.66	($1.70)
2022	$69.80	$69.51	($0.29)
2023	$73.31	$73.78	$0.47
2024	$77.04	$77.51	$0.48
2025	$81.07	$81.72	$0.65
2026	$85.11	$85.79	$0.68
2027	$89.50	$90.34	$0.84
2028	$94.11	$94.17	$0.06
2029	$98.95	$98.49	($0.46)
2030	$104.01	$103.22	($0.79)
2031	$108.66	$108.02	($0.64)
2032	$113.82	$113.40	($0.43)
2033	$119.16	$118.49	($0.68)
2034	$124.69	$126.90	$2.21
2035	$130.37	$135.12	$4.75

20 Year Levelized Price at 6.70% IRP Discount Rate

Beginning Year	$/MWh	$/MWh	Difference
2014	**$67.98**	**$67.58**	($0.40)
2015	**$72.70**	**$71.93**	($0.77)
2016	**$77.64**	**$76.93**	($0.71)

Table 8
Total Cost of Displaceable Resources

Year	Estimated Capital Cost	Fixed Capital Cost at Real Levelized Rate	Fixed O&M	Variable O&M	Total O&M at Expected CF	Total Resource Fixed Costs
	$/kW	$/kW-yr	$/kW-yr	$/MWh	$/kW-yr	$/kW-yr
	(a)	(b)	(c)	(d)	(e)	(f)
Simple Cycle CT - Industrial Frame 501 F (170 MW)						
2013	$821	$55.01	$4.00	$3.00	$5.58	$60.59
2014		$56.66	$4.12	$3.09	$5.74	$62.40
2015		$58.36	$4.24	$3.18	$5.91	$64.27
2016		$60.11	$4.37	$3.28	$6.09	$66.20
2017		$61.91	$4.50	$3.38	$6.28	$68.19
2018		$63.77	$4.64	$3.48	$6.47	$70.24
2019		$65.68	$4.78	$3.58	$6.66	$72.34
2020		$67.65	$4.92	$3.69	$6.86	$74.51
2021		$69.68	$5.07	$3.80	$7.07	$76.75
2022		$71.77	$5.22	$3.91	$7.28	$79.05
2023		$73.92	$5.38	$4.03	$7.50	$81.42
2024		$76.14	$5.54	$4.15	$7.72	$83.86
2025		$78.42	$5.71	$4.27	$7.95	$86.37
2026		$80.77	$5.88	$4.40	$8.19	$88.96
2027		$83.19	$6.06	$4.53	$8.44	$91.63
2028		$85.69	$6.24	$4.67	$8.69	$94.38
2029		$88.26	$6.43	$4.81	$8.96	$97.22
2030		$90.91	$6.62	$4.95	$9.22	$100.13
2031		$93.64	$6.82	$5.10	$9.50	$103.14
2032		$96.45	$7.02	$5.25	$9.78	$106.23
2033		$99.34	$7.23	$5.41	$10.07	$109.41
2034		$102.32	$7.45	$5.57	$10.38	$112.70
2035		$105.39	$7.67	$5.74	$10.69	$116.08
2036		$108.55	$7.90	$5.91	$11.01	$119.56
2037		$111.81	$8.14	$6.09	$11.34	$123.15
2038		$115.16	$8.38	$6.27	$11.68	$126.84
2039		$118.61	$8.63	$6.46	$12.03	$130.64
2040		$122.17	$8.89	$6.65	$12.39	$134.56

Source: (a)(c)(d) 2013 Integrated Resource Plan (2013 Dollars)
(b) = (a) x Discount Factor
(e) = (d) x (8.76 x 6%) + (c)
(f) = (b) + (e)

Simple Cycle CT - Industrial Frame 501 F (170 MW)			
	170	MW Plant capacity	MW
$	821	Plant Capital plus Transmission Capital Cost	2013 $/kW-yr
$	4.00	Fixed O&M plus on-going capital cost	2013 $/kW-yr
$	3.00	Variable O&M and Other Costs	2013 $/MWH
$	3.00	Variable O&M	2013 $/MWH
$	-	Other Costs	2013 $/MWH
	6.70%	Discount Factor	%
	6%	Capacity Factor	%

Table 8
Total Cost of Displaceable Resources

Year	Estimated Capital Cost	Fixed Capital Cost at Real Levelized Rate	Fixed O&M	Variable O&M	Total O&M at Expected CF	Total Resource Fixed Costs	Fuel Cost	IRP Resource Energy Cost	Total Avoided Costs
	$/kW	$/kW-yr	$/kW-yr	$/MWh	$/kW-yr	$/kW-yr	$/MMBtu	$/MWh	$/MWh
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
CCCT (1x1) 300 MW									
2013	$1,193	$79.93	$6.80	$1.76	$15.83	$95.76			
2014		$82.33	$7.00	$1.81	$16.29	$98.62			
2015		$84.80	$7.21	$1.86	$16.76	$101.56			
2016		$87.34	$7.43	$1.92	$17.29	$104.63	$5.31	$35.67	$56.05
2017		$89.96	$7.65	$1.98	$17.81	$107.77	$5.52	$37.11	$58.10
2018		$92.66	$7.88	$2.04	$18.35	$111.01	$5.77	$38.78	$60.41
2019		$95.44	$8.12	$2.10	$18.90	$114.34	$6.12	$41.12	$63.39
2020		$98.30	$8.36	$2.16	$19.45	$117.75	$6.48	$43.56	$66.50
2021		$101.25	$8.61	$2.22	$20.01	$121.26	$7.03	$47.23	$70.85
2022		$104.29	$8.87	$2.29	$20.63	$124.92	$7.67	$51.55	$75.88
2023		$107.42	$9.14	$2.36	$21.25	$128.67	$8.23	$55.28	$80.35
2024		$110.64	$9.41	$2.43	$21.88	$132.52	$8.70	$58.46	$84.28
2025		$113.96	$9.69	$2.50	$22.52	$136.48	$9.24	$62.10	$88.69
2026		$117.38	$9.98	$2.58	$23.22	$140.60	$9.76	$65.57	$92.96
2027		$120.90	$10.28	$2.66	$23.93	$144.83	$10.34	$69.52	$97.73
2028		$124.53	$10.59	$2.74	$24.66	$149.19	$10.82	$72.72	$101.78
2029		$128.27	$10.91	$2.82	$25.39	$153.66	$11.37	$76.40	$106.33
2030		$132.12	$11.24	$2.90	$26.13	$158.25	$11.97	$80.47	$111.30
2031		$136.08	$11.58	$2.99	$26.93	$163.01	$12.59	$84.59	$116.35
2032		$140.16	$11.93	$3.08	$27.74	$167.90	$13.28	$89.26	$121.97
2033		$144.36	$12.29	$3.17	$28.56	$172.92	$13.93	$93.63	$127.32
2034		$148.69	$12.66	$3.27	$29.45	$178.14	$15.07	$101.28	$135.98
2035		$153.15	$13.04	$3.37	$30.34	$183.49	$16.18	$108.74	$144.48
2036		$157.74	$13.43	$3.47	$31.24	$188.98	$16.58	$111.41	$148.22
2037		$162.47	$13.83	$3.57	$32.16	$194.63	$17.41	$117.00	$154.91
2038		$167.34	$14.24	$3.68	$33.13	$200.47	$18.27	$122.76	$161.81
2039		$172.36	$14.67	$3.79	$34.13	$206.49	$19.15	$128.69	$168.92
2040		$177.53	$15.11	$3.90	$35.13	$212.66	$20.06	$134.78	$176.21

Table 8
Total Cost of Displaceable Resources

Sources, Inputs and Assumptions

Source: (a)(c)(d)	2013 Integrated Resource Plan (2013 Dollars)
(b)	= (a) x 6.70%
(e)	= (d) x (8.76 x 58.6%) + (c)
(f)	= (b) + (e)
(g)	Gas Price Forecast
(h)	= 6720 x (g) / 1000
(i)	= (f) / (8.76 x 58.6%) + (h)

CCCT (1x1) 300 MW

CCCT Statistics	MW	Percent	Cap Cost	Fixed
CCCT (1X1)	270	90.0%	$1,260	$7.50
CCCT Duct Firing (1X1)	30	10.0%	$588	$0.55
Capacity Weighted	300	100.0%	$1,193	$6.80

CCCT Statistics	MW	CF	aMW	Percent	Variable	Heat Rate
CCCT (1X1)	270	65.0%	176	99.8%	$1.75	6,714
CCCT Duct Firing (1X1)	30	1.0%	0	0.2%	5.30	8,473
Energy Weighted	300	58.6%	176	100.0%	$1.76	6,720
						Rounded

CCCT	Duct Firing	2013 Integrated Resource Plan (2013 Dollars)	
270	30	MW Plant capacity	MW
$1,260	$588	Plant Capital plus Transmission Capital Cost	2013 $/kW-yr
$7.50	$0.55	Fixed O&M plus on-going capital cost	2013 $/kW-yr
$1.75	$5.30	Variable O&M and Other Costs	2013 $/MWH
$1.75	$5.30	Variable O&M	2013 $/MWH
$0.00	$0.00	Other Costs	2013 $/MWH
6,714	8,473	Heat Rate in btu/kWh	btu/kWh
6.70%	6.70%	Payment Factor	%
65%	1%	Capacity Factor	%
	58.6%	Energy Weighted Capacity Factor	
	100.0%	Capacity Factor - On-peak	58.6% / 55.5% (percent of hours on-peak)

Note: Duct Firing Costs are from PAC's 2010 costs, escalated at 3.0% to 2013 Dollars

Inflation Forecast

2014	3.0%	2020	3.0%	2026	3.0%	2032	3.0%	2038	3.0%
2015	3.0%	2021	3.0%	2027	3.0%	2033	3.0%	2039	3.0%
2016	3.0%	2022	3.0%	2028	3.0%	2034	3.0%	2040	3.0%
2017	3.0%	2023	3.0%	2029	3.0%	2035	3.0%		
2018	3.0%	2024	3.0%	2030	3.0%	2036	3.0%		
2019	3.0%	2025	3.0%	2031	3.0%	2037	3.0%		

Table 9
Gas Price Forecast
$/MMBtu

Year	EIA Henry Hub Forecast Annual Energy Outlook 2012 (Nominal $/mmBtu)	2013 IRP Sumas Basis (Nominal $/mmBtu)	2013 IRP Transport Cost (Nominal $/mmBtu)	2013 IRP Delivered NG Cost (Idaho City Gate Price) (Nominal $/mmBtu)
	(a)	(b)	(c)	(d) (a) + (b) + (c)
2016	$5.09	$0.10	$0.12	$5.31
2017	$5.28	$0.12	$0.13	$5.52
2018	$5.50	$0.14	$0.13	$5.77
2019	$5.82	$0.16	$0.14	$6.12
2020	$6.16	$0.18	$0.15	$6.48
2021	$6.67	$0.20	$0.16	$7.03
2022	$7.29	$0.22	$0.17	$7.67
2023	$7.81	$0.24	$0.17	$8.23
2024	$8.26	$0.26	$0.18	$8.70
2025	$8.77	$0.28	$0.19	$9.24
2026	$9.26	$0.30	$0.20	$9.76
2027	$9.82	$0.32	$0.21	$10.34
2028	$10.27	$0.34	$0.22	$10.82
2029	$10.78	$0.36	$0.22	$11.37
2030	$11.36	$0.38	$0.23	$11.97
2031	$11.94	$0.40	$0.24	$12.59
2032	$12.61	$0.42	$0.26	$13.28
2033	$13.23	$0.44	$0.26	$13.93
2034	$14.34	$0.46	$0.27	$15.07
2035	$15.43	$0.48	$0.28	$16.18
2036	$15.80	$0.50	$0.28	$16.58
2037	$16.60	$0.52	$0.29	$17.41
2038	$17.43	$0.54	$0.30	$18.27
2039	$18.28	$0.56	$0.31	$19.15
2040	$19.16	$0.58	$0.32	$20.06

Source

EIA Henry Hub Real 2010 $ forecast is escalated @ 3% to derive nominal price. See graph on page 62 of 2013 IRP.

Note: Numbers in red are extrapulated.

CERTIFICATE OF SERVICE

I hereby certify that I served a true and correct copy of the foregoing documents on in the individuals listed on the service list in Dockets LC 58 and UM 1610 on the following named persons on the date indicated below by e-mail or (U.S. Mail as noted below) addressed to said persons at his or her last-known address indicated below:

Annala, Carey, Baker, et al., PC
Will K. Carey
wcarey @hoodriverattorneys.com

Association of Oregon Counties
Mike McArthur
mmcarthur@aocweb.org

Cable Huston Benedict et al.
Chad Stokes
cstokes@cablehuston

Cable Huston Benedict et al.
Richard Lorenz
rlorenz@cablehuston.com

Citizens' Utility Board of Oregon
OPUC Dockets
dockets@oregoncub.org

Citizens' Utility Board of Oregon
G. Catriona McCracken
catriona@oregoncub.org

City of Portland — Planning and Sustainability
David Tooze
david.tooze@portlandoregon.gov

Citizens' Utility Board of Oregon
Robert Jenks
bob@oregoncub.org

Loyd Fery
dlchain@wvi.com

Cleantech Law Partners PC
Diane Henkels
dhenkels@cleantechlawpartners.com

Davison Van Cleve PC
S. Bradley Van Cleve
bvc@dvclaw.com

Davison Van Cleve PC
Tyler C. Pepple
tcp@dvclaw.com

Irion A. Sanger
Sanger Law PC
irion@sanger-law.com

Nancy Esteb, Ph.D
esteb44@centurylink.net

Energy Trust of Oregon
Thad Roth
thad.roth@energytrust.org

Energy Trust of Oregon
John M. Volkman
john.volkman@energytrust.org

Exelon Wind LLC
John Harvey
John.harvey@exeloncorp.com

Exelon Business Services Company, LLC
Paul Ackerman
paul.ackerman@constellation.com

McDowell Rackner & Gibson PC
419 SW 11th Avenue, Suite 400
Portland, OR 97205

Lovinger Kaufmann LLP
Kenneth Kaufmann
kaufmann@lklaw.com

Lovinger Kaufmann LLP
Jeffery S. Lovinger
lovinger@lklaw.com

NW Energy Systems Company LLC
Daren Anderson
da@thenescogroup.com

One Energy Renewables
Bill Eddie
bill@oneenergyrenewables.com

Oregon Department of Energy
Kacia Brockman
kacia.brockman@state.or.us

Oregon Department of Energy
Matt Krumenauer
matt.krumenauer@state.or.us

Oregon Department of Justice
Stephanie S. Andrus
Business Activities Section
stephanie.andrus@doj.state.or.us

Oregon Solar Energy Industries Association
PUC Dockets
dockets@oseia.org

Oregonians for Renewable Energy Policy
Kathleen Newman
kathleenoipl@frontier.com
k.a.newman@frontier.com

Oregonians for Renewable Energy Policy
Mark Pete Pengilly
mpengilly@gmail.com

Pacific Power
Dustin T. Till
dustin.till@pacificorp.corn

Pacific Power
R. Bryce Dalley
bryce.dalley@pacificorp.com

Pacificorp, dba Pacific Power
Oregon Dockets
oregondockets@pacificorp.com

Portland General Electric Company
J. Richard George
richard.george@pgn.com

Portland General Electric
Jay Tinker
pge.opuc.filings@pgn.com

Public Utility Commission of Oregon
Adam Bless
adam.bless@state.or.us

Public Utility Commission of Oregon
Brittany Andrus
brittany.andrus@state.or.us

Davison Van Cleve, P.C.
Tyler C. Pepple
@dvclaw.com

Renewable Energy Coalition
John Lowe
jravenesanmarcos@yahoo.com

Renewable Northwest
Megan Walseth Decker
megan@renewablenw.org

Renewable Northwest
Renewable NW Dockets
dockets@renewablenw.org

Roush Hydro Inc.
Toni Roush
tmroush@wvi.com

Richardson Adams, PLLC
Peter J. Richardson
peter@richardsonadams.corn

Richardson Adams, PLLC
Gregory M. Adams
greg@richardsonadams.com

Small Business Utility Advocates
James Birkelund
james@utiltiyadvocates.org

Thomas H. Nelson
Attorney at Law
nelson@thnelson.com

Obsidian Renewables, LLC
Todd Gregory
tgregory@obsidianrenewables.com

Portland General Electric
Brian Kuehne
Brian.Kuehne@pgn.com

Portland General Electric
Patrick Hager
pge.opuc.filings@pgn.com

Stoll Berne
David A. Lokting
dlokting@stollberne.com

Obsidian Renewables, LLC
David Brown
dbrown@obsidianfinance.com

Oregon Department of Energy
Phil Carver
phil.carver@state.or.us

Portland General Electric
V. Denise Saunders
Denise.saunders@pgn.com

Oregon Department of Justice
Renee M. France
renee.m.france@doj.state.or.us

DATED: June 24, 2014.

Vimla Mathi
Legal Assistant

McDowell Rackner & Gibson PC
419 SW 11th Avenue, Suite 400
Portland, OR 97205