

Appendix A  
PacifiCorp  
Avoided Cost (Partial Displacement Differential Revenue  
Requirement)  
Model Updates through October 2015  
Docket No. 03-035-14  
Docket No. 15-035-56

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**Assumptions that have changed since the 2015.Q2 compliance filing are in bold.**

### **GRID Scenario Study Period**

January 1, **2017** through December 31, **2036** - 20-year study  
Avoided cost prices starting in January **2017**

### **Official Forward Price Curve (Gas and Electric Market Prices)**

**Updated to PacifiCorp's September 2015 Official Forward Price Curve (1509 OFPC)**  
OFPC reflecting the changes in forecasted prices inclusive of and the impact of the  
Environmental Protection Agency's Clean Power Plan final rule

### **Fuel Prices (Coal)**

Average and incremental coal costs based on forecast dated **August 2015**  
**Coal burn expense reflects incremental coal costs and coal take or pay minimum burn  
levels**

### **Integrated Resource Plan (IRP) Resources**

2015 IRP filed with the Commission on March 31, 2015  
Resource additions, including generating resources, and front office transactions (FOT),  
consistent with 2015 IRP Table 8.7  
Existing plant retirement consistent with 2015 IRP Table 8.7  
Transmission additions consistent with the 2015 IRP - Scenario EG 1

### **Hydro Resources**

2015 hydro forecast prepared **June 2015**  
2015 hydro levels extended thereafter with known and measurable changes  
Adjust Klamath dispatch to reflect current operating patterns  
Update Mid-Columbia generation forecast

## Discount Rate

6.66% discount rate - 2015 IRP page 141

Discount rate is consistent with the Commission's order in Docket No. 11-035-T06

## Inflation Rates

Company's inflation rate forecast dated **September 2015**

## Levelized Prices (Nominal) @ 6.66% Discount Rate

20 years **2017** through **2036**

Calculated annually

Levelized prices are for illustrative purposes only

## Load Forecast (Retail)

20-Year load forecast dated May 2015

## Long-Term Contracts

Long-term contracts which have prices that are indexed to market are consistent with the **1509 OFPC**

Contracts are modeled based on 48 months ended **June 2015**

**QF contracts are assumed to terminate and not renew at the end of their contracts**  
**Norwest Energy 12 LLC (Falvey), an 8 MW signed Oregon Schedule 37 solar project, elected to terminate their contract and was removed from the QF queue**  
**Sigurd Solar LLC, an 80 MW signed Utah solar project, notified the company the project will not be completed and was removed from the QF queue**

**Three QF Contracts were signed:**

Project Name	Size (MW)	Location	COD
Chiloquin Solar	9.9	Klamath, OR	2016 12 16
Tumbleweed Solar	9.9	Klamath, OR	2016 12 16
Three Peaks Solar	80.0	Cedar City, Utah	2016 12 31

## Market Capacity

Capacity set at 48 month average of all STF sales ended **June 2015**

Mid-Columbia and Palo Verde markets uncapped

Additional heavy load hour (HLH) and light load hour (LLH) sales limited to historical 48 month average less monthly executed STF contracts as of **October 2015**

## Potential Environmental Costs

Potential environmental costs are excluded from fuel cost for net power costs and plant commitment and dispatch decisions.

### Regulating Margin

Consistent with the 2014 Wind Integration Study

Regulation reserves starting at 432 aMW and increasing as necessary to provide wind integration

Increasing at 7.0 MW of regulation reserve per 100 MW of incremental east side wind

Reserve modeling reflects reliability Standard BAL-003-1 related to frequency response

### Contingency Reserve Calculation

Reserve modeling reflects reliability Standard BAL-002-WECC-2 – contingency reserves set to 3% of retail load plus 3% of generating resources

Hourly retail load reserve calculation through 2016

Typical weekday retail load reserve calculation thereafter

### Short-Term Firm (STF) Transactions

Executed STF contracts as of **October 2015**

### Size of the Avoided Cost Resource

The avoided cost thermal resource is a 100 MW and 85% capacity factor thermal resource located in the Utah North transmission bubble

### Thermal Resources

Thermal resource operating characteristics updated to be consistent with current Company official characteristics

Forced outage, planned outage, and heat rate levels based on 48 months ended December 2014

### Wind and Solar Resources

Existing wind generation profiles modeled using 2014 actual generation shape

New wind and solar generation profiles modeled using 12x24 profile

Integration cost methodology pursuant to Commission orders in Docket No. 12-035-100 (issued August 16, 2013, and October 4, 2013)

Wind integration costs set at \$2.09/MWh (2016-2035) on a 20-year nominal levelized basis

Solar integration costs set at \$2.83 per megawatt hour for fixed solar resources and \$2.18 per megawatt hour for tracking solar resources

Capacity contribution applied to renewable resources consistent with June 26, 2015, Commission order in Docket No. 14-035-140 (see table below)

Renewable Type	Capacity Contribution Percent of Nameplate	
	East	West
Wind	14.5%	25.4%
Solar – Fixed Mount	34.1%	32.2%
Solar –Tracking	39.1%	36.7%

## Transmission

**Updated to reflect the revised firm transmission rights consistent with the Joint Ownership and Operating Agreement, and Joint Purchase and Sale Agreement both dated October 24, 2014 between Idaho Power Company and PacifiCorp. This transaction closed on October 30, 2015, and operational changes commenced on November 4, 2015**

Short term transmission modeled based on 48 months ended **June 2015**

Energy Gateway transmission rights - 2015 IRP Scenario EG 1

Wyoming Central -> Wyoming Northeast transmission link included

## IRP Partial Displacements (This Filing)

Thermal partial displacement is 735.99 MW in the base case and 835.99 MW in the avoided cost case. Listed below are the QFs that have executed a power purchase agreement or are actively negotiating for a power purchase agreement. Signed QFs are new QFs that were not included in the 2015 IRP.

QF Queue						
No.	QF	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	Utah Pavant Solar II	19.55	50.00	29.6%	39.1%	2016 12 01
2	Granite Mtn Solar West	19.71	50.40	31.4%	39.1%	2016 08 01
3	Iron Springs Solar	31.28	80.00	31.1%	39.1%	2016 09 01
4	Granite Mtn Solar East	31.28	80.00	31.4%	39.1%	2016 08 01
5	Oregon Sch 37 Solar QF COD before 7/2017	54.92	152.59	26.3%	35.99%	2017 07 01
6	Oregon Sch 37 Solar QF COD before 7/2018	3.92	10.90	26.3%	35.99%	2018 07 01
7	Three Peaks Solar	31.28	80.00	31.3%	39.1%	2016 12 31
Total Signed MW		191.94	503.89			

1	QF - 101 - OR - Geoth	3.50	3.50	85.0%	100.0%	2015 08 01
2	QF - 172 - UT - Solar	5.67	14.50	25.3%	39.1%	2016 12 31
3	QF - 173 - UT - Solar	2.93	7.50	25.8%	39.1%	2016 12 31
4	QF - 182 - OR - Solar	16.22	44.20	24.0%	36.7%	2017 01 01

QF Queue						
No.	QF	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
5	QF - 183 - OR - Solar	16.52	45.00	27.5%	36.7%	2016 12 31
6	QF - 220 - OR - Solar	29.36	80.00	26.6%	36.7%	2016 12 31
7	Oregon Potential Solar	3.67	10.00	27.2%	36.7%	2016 12 31
8	Utah Potential Solar COD before 7/2016	3.41	9.00	29.1%	37.9%	2016 07 01
9	Utah Potential Solar COD before 7/2017	1.14	3.00	29.1%	37.9%	2017 07 01
10	QF - 230 - UT - Solar	31.28	80.00	30.7%	39.1%	2016 12 01
11	QF - 231 - UT - Solar	31.28	80.00	30.7%	39.1%	2016 12 01
12	QF - 232 - UT - Solar	31.28	80.00	30.7%	39.1%	2016 12 01
13	QF - 233 - UT - Solar	31.28	80.00	30.7%	39.1%	2016 12 01
14	QF - 234 - UT - Solar	21.51	55.00	30.7%	39.1%	2016 12 01
15	Tesoro QF	25.00	25.00	85.0%	100.0%	2016 01 01
16	QF - 177 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
17	QF - 180 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
18	QF - 193 - WY - Wind	11.01	75.90	42.7%	14.5%	2016 12 01
19	QF - 194 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
20	QF - 195 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
21	QF - 217 - WY - Wind	11.60	80.00	42.3%	14.5%	2016 12 31
22	QF - 218 - WY - Wind	11.60	80.00	35.5%	14.5%	2016 12 31
23	QF - 219 - WY - Wind	11.60	80.00	45.5%	14.5%	2016 12 31
24	QF - 223 - WY - Solar	31.28	80.00	26.6%	39.1%	2018 11 01
25	QF - 235 - UT - Solar	27.28	80.00	32.7%	34.1%	2018 12 31
26	QF - 236 - UT - Solar	27.28	80.00	32.7%	34.1%	2018 12 31
27	QF - 237 - UT - Solar	27.28	80.00	32.7%	34.1%	2018 12 31
28	QF - 238 - UT - Solar	27.28	80.00	32.7%	34.1%	2018 12 31
29	QF - 239 - UT - Solar	10.23	30.00	32.7%	34.1%	2018 12 31
30	QF - 240 - UT - Solar	10.23	30.00	32.7%	34.1%	2018 12 31
31	QF - 241 - OR - Solar	20.19	55.00	23.5%	36.7%	2016 12 01
32	QF - 242 - OR - Solar	16.74	52.00	23.8%	32.2%	2016 12 31
Total Potential MW		544.05	1819.60			
Total Partial Displacement		<b>735.99</b>	<b>2323.49</b>			
33	Avoided Cost Resource	100.00	100.00	85.0%	100.0%	2017 01 01
Partial Displacement after QF		<b>835.99</b>				

Partial displacement, adjusted for solar degradation, is shown below.

Year	a		b	c		d		e	f		g	h		i	j		k
	Signed & Potential QFs			Cumulative		Base Case		Avoided Cost Case									
	Adjusted For Solar Degradation			2015 IRP		Displacement		Nameplate		Displacement							
	Signed	Potential	Total	CCCT MW	FOT	CCCT	FOT	New QF	Total	CCCT	FOT						
a + b			MIN(c,d)		MIN(e,c-f)		c + h		MIN(d,i)		MIN(e,i-j)						
2015	-	-	-	-	726.8	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	31.9	31.9	-	937.2	-	31.9	100.0	131.9	-	31.9	100.0	131.9	-	-	-	131.9
2017	188.0	358.1	546.2	-	904.3	-	546.2	100.0	646.2	-	546.2	100.0	646.2	-	-	-	646.2
2018	190.8	356.3	547.1	-	869.8	-	547.1	100.0	647.1	-	547.1	100.0	647.1	-	-	-	647.1
2019	189.5	515.4	705.0	-	935.2	-	705.0	100.0	805.0	-	705.0	100.0	805.0	-	-	-	805.0
2020	188.3	512.7	701.1	-	978.6	-	701.1	100.0	801.1	-	701.1	100.0	801.1	-	-	-	801.1
2021	187.2	510.1	697.2	-	768.7	-	697.2	100.0	797.2	-	697.2	100.0	797.2	-	-	-	768.7
2022	186.0	507.5	693.4	-	791.3	-	693.4	100.0	793.4	-	693.4	100.0	793.4	-	-	-	791.3
2023	184.8	504.8	689.6	-	760.6	-	689.6	100.0	789.6	-	689.6	100.0	789.6	-	-	-	760.6
2024	183.6	502.2	685.8	-	754.4	-	685.8	100.0	785.8	-	685.8	100.0	785.8	-	-	-	754.4
2025	182.4	499.6	682.0	-	770.5	-	682.0	100.0	782.0	-	682.0	100.0	782.0	-	-	-	770.5
2026	181.2	497.0	678.3	-	791.5	-	678.3	100.0	778.3	-	678.3	100.0	778.3	-	-	-	778.3
2027	180.0	494.5	674.5	-	834.9	-	674.5	100.0	774.5	-	674.5	100.0	774.5	-	-	-	774.5
2028	178.9	491.9	670.8	423.0	1,304.0	423.0	247.8	100.0	770.8	423.0	247.8	100.0	770.8	423.0	-	-	347.8
2029	177.7	489.4	667.1	423.0	1,166.5	423.0	244.1	100.0	767.1	423.0	244.1	100.0	767.1	423.0	-	-	344.1
2030	176.5	486.9	663.4	1,582.0	1,252.5	663.4	-	100.0	763.4	663.4	-	100.0	763.4	663.4	-	-	-
2031	175.3	484.4	659.7	1,582.0	1,246.8	663.4	-	100.0	759.7	663.4	-	100.0	759.7	663.4	-	-	-
2032	156.2	481.9	638.1	1,582.0	1,410.5	663.4	-	100.0	738.1	663.4	-	100.0	738.1	663.4	-	-	-
2033	155.2	479.5	634.6	2,217.0	1,360.3	663.4	-	100.0	734.6	663.4	-	100.0	734.6	663.4	-	-	-
2034	154.1	477.0	631.1	2,852.0	1,086.5	663.4	-	100.0	731.1	663.4	-	100.0	731.1	663.4	-	-	-
2035	153.1	474.6	627.6	2,852.0	1,086.5	663.4	-	100.0	727.6	663.4	-	100.0	727.6	663.4	-	-	-
2036	152.0	465.7	617.7	2,852.0	1,086.5	663.4	-	100.0	717.7	663.4	-	100.0	717.7	663.4	-	-	-
2037	3.6	145.5	149.0	2,852.0	1,086.5	663.4	-	100.0	249.0	663.4	-	100.0	249.0	663.4	-	-	-
2038	-	144.7	144.7	2,852.0	1,086.5	663.4	-	100.0	244.7	663.4	-	100.0	244.7	663.4	-	-	-
2039	-	-	-	2,852.0	1,086.5	663.4	-	100.0	100.0	663.4	-	100.0	100.0	663.4	-	-	-
2040	-	-	-	2,852.0	1,086.5	663.4	-	100.0	100.0	663.4	-	100.0	100.0	663.4	-	-	-

CCCT Partial Displacement in 2030	Base Case	AC Case
Before Solar Degradation	735.99	835.99
After Solar Degradation	663.40	763.40

## IRP Partial Displacements (Previous Filing)

Thermal partial displacement is 1,401.87 MW in the base case and 1,501.87 in the avoided cost case. Listed below are the QFs that have executed a power purchase agreement or are actively negotiating for a power purchase agreement. Signed QFs are new QFs that were not included in the 2015 IRP.

QF Queue						
No.	QF	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	Utah Pavant Solar II	19.55	50.00	29.6%	39.1%	2016 12 01
2	Granite Mtn Solar West	19.71	50.40	31.4%	39.1%	2016 08 01
3	Iron Springs Solar	31.28	80.00	31.1%	39.1%	2016 09 01
4	Granite Mtn Solar East	31.28	80.00	31.4%	39.1%	2016 08 15
5	Oregon Sch 37 Solar QF - COD before 7/2017	13.54	36.89	26.6%	36.7%	2017 07 01
6	Oregon Sch 37 Solar QF - COD before 7/2018	4.00	10.90	26.6%	36.7%	2018 07 01
Total Signed MW		119.36	308.19			

1	QF - 82 - UT - Wind	11.48	79.20	33.8%	14.5%	2015 10 01
2	QF - 122 - UT - Solar	17.05	50.00	20.2%	34.1%	2015 08 31
3	QF - 125 - UT - Wind	6.53	45.00	28.1%	14.5%	2015 11 01
4	QF - 132 - UT - Solar	31.28	80.00	32.4%	39.1%	2016 01 01
5	QF - 133 - UT - Solar	8.29	21.20	32.8%	39.1%	2016 01 01
6	QF - 137 - UT - Solar	7.82	20.00	29.2%	39.1%	2016 12 31
7	QF - 138 - UT - Solar	3.41	10.00	25.2%	34.1%	2015 12 31
8	QF - 141 - UT - Solar	7.82	20.00	30.7%	39.1%	2016 10 01
9	QF - 142 - UT - Solar	31.28	80.00	31.3%	39.1%	2016 10 01
10	QF - 144 - UT - Solar	31.28	80.00	30.6%	39.1%	2016 11 01
11	QF - 145 - UT - Solar	31.28	80.00	30.1%	39.1%	2016 11 01
12	QF - 149 - UT - Solar	31.28	80.00	31.0%	39.1%	2018 01 01
13	QF - 150 - UT - Solar	31.28	80.00	31.0%	39.1%	2018 01 01
14	QF - 156 - UT - Solar	27.28	80.00	26.4%	34.1%	2015 12 31
15	QF - 161 - UT - Solar	31.28	80.00	30.1%	39.1%	2016 11 01
16	QF - 162 - UT - Solar	31.28	80.00	30.6%	39.1%	2016 11 01
17	QF - 164 - UT - Solar	17.05	50.00	25.2%	34.1%	2016 12 31
18	QF - 166 - UT - Solar	27.28	80.00	25.2%	34.1%	2016 12 31
19	QF - 167 - UT - Wind	11.60	80.00	26.4%	14.5%	2018 01 01
20	QF - 168 - UT - Wind	11.60	80.00	27.5%	14.5%	2018 01 01
21	QF - 169 - UT - Solar	1.96	5.00	29.5%	39.2%	2015 12 31
22	QF - 170 - UT - Solar	2.05	6.00	25.0%	34.2%	2016 12 31
23	QF - 171 - UT - Solar	30.58	78.20	22.7%	39.1%	2016 12 31
24	QF - 172 - UT - Solar	5.67	14.50	25.3%	39.1%	2016 12 31
25	QF - 173 - UT - Solar	2.93	7.50	25.8%	39.1%	2016 12 31
26	QF - 174 - ID - Solar	7.82	20.00	23.2%	39.1%	2016 10 31
27	QF - 175 - ID - Solar	7.82	20.00	23.4%	39.1%	2016 10 31
28	QF - 177 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31

QF Queue						
No.	QF	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
29	QF - 178 - UT - Wind	10.01	69.00	35.9%	14.5%	2016 12 31
30	QF - 179 - UT - Solar	27.28	80.00	27.8%	34.1%	2016 12 31
31	QF - 180 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
32	QF - 181 - ID - Solar	7.16	21.00	27.0%	34.1%	2016 12 31
33	QF - 182 - OR - Solar	16.22	44.20	24.0%	36.7%	2017 01 01
34	QF - 183 - OR - Solar	16.52	45.00	27.5%	36.7%	2016 12 31
35	QF - 184 - OR - Solar	7.34	20.00	22.5%	36.7%	2016 12 31
36	QF - 185 - UT - Solar	27.28	80.00	25.8%	34.1%	2016 06 01
37	QF - 186 - UT - Solar	27.28	80.00	24.5%	34.1%	2016 06 01
38	QF - 187 - UT - Solar	27.28	80.00	25.8%	34.1%	2016 06 01
39	QF - 188 - UT - Solar	27.28	80.00	24.5%	34.1%	2016 06 01
40	QF - 189 - UT - Solar	27.28	80.00	25.8%	34.1%	2016 06 01
41	QF - 190 - UT - Solar	27.28	80.00	24.5%	34.1%	2016 06 01
42	QF - 191 - UT - Solar	27.28	80.00	29.6%	34.1%	2015 12 31
43	QF - 192 - UT - Solar	27.28	80.00	31.7%	34.1%	2015 12 31
44	QF - 193 - WY - Wind	10.53	72.60	45.2%	14.5%	2016 09 01
45	QF - 194 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
46	QF - 195 - WY - Wind	11.60	80.00	40.7%	14.5%	2016 12 31
47	QF - 196 - ID - Solar	7.82	20.00	27.1%	39.1%	2016 12 31
48	QF - 197 - ID - Solar	7.82	20.00	27.1%	39.1%	2016 12 31
49	QF - 198 - ID - Solar	7.82	20.00	27.1%	39.1%	2016 12 31
50	QF - 199 - ID - Solar	7.82	20.00	27.1%	39.1%	2016 12 31
51	QF - 200 - OR - Solar	29.36	80.00	26.6%	36.7%	2016 11 01
52	QF - 201 - UT - Solar	5.87	15.00	25.6%	39.1%	2016 12 31
53	QF - 202 - ID - Solar	13.64	40.00	25.9%	34.1%	2016 08 01
54	QF - 203 - ID - Solar	17.05	50.00	25.9%	34.1%	2016 08 01
55	QF - 204 - ID - Solar	6.82	20.00	25.5%	34.1%	2016 08 01
56	QF - 205 - ID - Solar	6.82	20.00	25.5%	34.1%	2016 08 01
57	QF - 206 - ID - Wind	2.90	20.00	31.8%	14.5%	2017 12 01
58	QF - 207 - UT - Solar	15.64	40.00	29.9%	39.1%	2017 12 01
59	QF - 208 - ID - Solar	27.28	80.00	23.5%	34.1%	2016 08 01
60	QF - 209 - ID - Solar	6.82	20.00	23.8%	34.1%	2016 08 01
61	QF - 210 - ID - Solar	6.82	20.00	23.8%	34.1%	2016 08 01
62	QF - 211 - ID - Solar	6.82	20.00	25.0%	34.1%	2016 08 01
63	QF - 212 - ID - Solar	6.82	20.00	25.0%	34.1%	2016 08 01
64	QF - 213 - ID - Solar	6.82	20.00	25.0%	34.1%	2016 08 01
65	QF - 214 - ID - Solar	6.82	20.00	25.2%	34.1%	2016 08 01
66	QF - 215 - ID - Solar	6.82	20.00	25.2%	34.1%	2016 08 01
67	QF - 216 - ID - Solar	6.82	20.00	25.2%	34.1%	2016 08 01
68	QF - 217 - WY - Wind	11.60	80.00	42.3%	14.5%	2016 12 01
69	QF - 218 - WY - Wind	11.60	80.00	35.5%	14.5%	2016 12 01
70	QF - 219 - WY - Wind	11.60	80.00	45.5%	14.5%	2016 12 01
71	QF - 220 - UT - Solar	27.28	80.00	18.3%	34.1%	2016 04 30
72	QF - 221 - UT - Solar	22.68	58.00	32.5%	39.1%	2016 12 01
73	QF - 222 - UT - Solar	31.28	80.00	34.4%	39.1%	2016 12 01
74	QF - 223 - WY - Solar	31.28	80.00	26.6%	39.1%	2018 11 01
75	QF - 224 - OR - Solar	47.94	133.80	27.9%	35.8%	2017 07 01
76	QF - 225 - UT - Solar	7.82	20.00	33.6%	39.1%	2016 12 01



QF Queue						
No.	QF	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
77	QF - 226 - UT - Solar	7.82	20.00	33.6%	39.1%	2016 12 01
78	QF - 227 - UT - Solar	31.28	80.00	33.6%	39.1%	2016 12 01
79	QF - 228 - UT - Solar	3.13	8.00	34.7%	39.1%	2016 12 01
Total Potential MW		1282.51	4123.20			

Total Partial Displacement	<b>1401.87</b>	<b>4431.39</b>
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80	Avoided Cost Resource	100.00	100.00	85.0%	100.0%	2016 01 01
Partial Displacement after QF		<b>1501.87</b>				

Please note that after the 2015.Q2 study was prepared, eleven Oregon Schedule 37 solar projects signed contracts with the Company. Had the Company modeled these QFs a signed, the signed "Oregon Sch 37 Solar QF" resource would have increased by 103.9 MW nameplate and the potential "QF - 224 - OR – Solar" resource would have decreased by 103.9 MW. This shift from potential to signed status has no impact on the reported avoided costs.

Going forward, partial displacement will be adjusted to reflect solar degradation. The partial displacement, adjusted for solar degradation is shown below.

Year	a		b		c		d		e		f		g		h		i		j		k	
	Signed & Potential QFs					Cumulative		Base Case		Avoided Cost Case												
	Adjusted For Solar Degradation					2015 IRP		Displacement		Nameplate		Displacement										
	Signed	Potential	Total	CCCT MW	FOT	CCCT	FOT	CCCT	FOT	New QF	Total	CCCT	FOT									
	a + b			MIN(c,d)		MIN(e,c-f)		c + h		MIN(d,i)		MIN(e,i-j)										
2015	-	-	-	-	726.8	-	-	-	-	-	-	-	-									
2016	-	352.8	352.8	-	937.2	-	352.8	100.0	452.8	-	452.8	-	452.8									
2017	115.4	1,144.5	1,259.9	-	904.3	-	904.3	100.0	1,359.9	-	904.3	-	904.3									
2018	118.6	1,242.0	1,360.6	-	869.8	-	869.8	100.0	1,460.6	-	869.8	-	869.8									
2019	117.7	1,266.1	1,383.8	-	935.2	-	935.2	100.0	1,483.8	-	935.2	-	935.2									
2020	116.9	1,258.6	1,375.5	-	978.6	-	978.6	100.0	1,475.5	-	978.6	-	978.6									
2021	116.1	1,251.1	1,367.2	-	768.7	-	768.7	100.0	1,467.2	-	768.7	-	768.7									
2022	115.3	1,243.7	1,359.0	-	791.3	-	791.3	100.0	1,459.0	-	791.3	-	791.3									
2023	114.5	1,236.2	1,350.7	-	760.6	-	760.6	100.0	1,450.7	-	760.6	-	760.6									
2024	113.7	1,228.7	1,342.4	-	754.4	-	754.4	100.0	1,442.4	-	754.4	-	754.4									
2025	112.9	1,221.3	1,334.1	-	770.5	-	770.5	100.0	1,434.1	-	770.5	-	770.5									
2026	112.0	1,213.8	1,325.9	-	791.5	-	791.5	100.0	1,425.9	-	791.5	-	791.5									
2027	111.2	1,206.3	1,317.6	-	834.9	-	834.9	100.0	1,417.6	-	834.9	-	834.9									
2028	110.4	1,198.9	1,309.3	423.0	1,304.0	423.0	886.3	100.0	1,409.3	423.0	986.3	-	986.3									
2029	109.6	1,191.4	1,301.0	423.0	1,166.5	423.0	878.0	100.0	1,401.0	423.0	978.0	-	978.0									
2030	108.8	1,184.0	1,292.8	1,582.0	1,252.5	1,292.8	-	100.0	1,392.8	1,392.8	-	-	-									
2031	108.0	1,176.5	1,284.5	1,582.0	1,246.8	1,292.8	-	100.0	1,384.5	1,392.8	-	-	-									
2032	107.2	1,169.1	1,276.3	1,582.0	1,410.5	1,292.8	-	100.0	1,376.3	1,392.8	-	-	-									
2033	106.4	1,161.6	1,268.0	2,217.0	1,360.3	1,292.8	-	100.0	1,368.0	1,392.8	-	-	-									
2034	105.6	1,154.2	1,259.7	2,852.0	1,086.5	1,292.8	-	100.0	1,359.7	1,392.8	-	-	-									
2035	104.8	1,146.7	1,251.5	2,852.0	1,086.5	1,292.8	-	100.0	1,351.5	1,392.8	-	-	-									
2036	103.9	1,139.3	1,243.2	2,852.0	1,086.5	1,292.8	-	100.0	1,343.2	1,392.8	-	-	-									
2037	103.1	1,131.8	1,235.0	2,852.0	1,086.5	1,292.8	-	100.0	1,335.0	1,392.8	-	-	-									
2038	102.3	1,124.4	1,226.7	2,852.0	1,086.5	1,292.8	-	100.0	1,326.7	1,392.8	-	-	-									
2039	101.5	1,117.0	1,218.5	2,852.0	1,086.5	1,292.8	-	100.0	1,318.5	1,392.8	-	-	-									
2040	100.7	1,109.5	1,210.2	2,852.0	1,086.5	1,292.8	-	100.0	1,310.2	1,392.8	-	-	-									

CCCT Partial Displacement in 2030	Base Case	AC Case
Before Solar Degradation	1,401.87	1,501.87
After Solar Degradation	1,292.78	1,392.78