

**EXHIBIT NO. ___(JAP-3C)
DOCKET NO. UE-11___/UG-11___
2011 PSE GENERAL RATE CASE
WITNESS: JON A. PILIARIS**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

**Docket No. UE-11___
Docket No. UG-11___**

**SECOND EXHIBIT (CONFIDENTIAL) TO THE
PREFILED DIRECT TESTIMONY OF
JON A. PILIARIS
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**REDACTED
VERSION**

JUNE 13, 2011

Puget Sound Energy
Electric Cost of Service
Derivation of Peak Credit

PEAK CREDIT METHOD FOR 2011 COST OF SERVICE STUDY
COMPANY PROPOSAL

	Peaker	CCCT	Peak Credit
Levelized Cost (\$/MWh)		129	
Levelized Cost (\$/kW-yr)	210	1,094	19.2%

Assumptions

	Plant Assumptions		Notes
	Peaker	CCCT	
1 Capital Costs (\$/kW-yr)	\$1,010	\$1,540	2010 Dollars
2 Fixed Charge Rate	12.91%	12.91%	
3 Fixed O&M (\$/kW-yr)	\$15.90	\$53.80	2010 Dollars
4 Variable O&M (\$/MWh)	\$5.87	\$2.44	2010 Dollars
5 Heat Rate (Btu/kWh)	10,440	7,085	
6 Weighted Cost of Capital	8.42%	8.42%	
7 Capacity Factor		97%	
8 Reserve Margin	7.0%	7.0%	
9 Planning Margin	15.7%	15.7%	
10 CO ₂ Emissions (tons/GWh)	605.0	410.6	
11 SO ₂ Emissions (tons/GWh)	0.0470	0.0248	
12 NO _x Emissions (tons/GWh)	0.0522	0.0354	

	Weighted Cost of Capital		Cost of Capital
	Pro Forma Capital %	Cost %	
13 Short-Term Debt	4.00%	4.62%	0.18%
14 Long-Term Debt	48.00%	6.37%	3.06%
15 Common Equity	48.00%	10.80%	5.18%
16 TOTAL	100.00%		8.42%

Puget Sound Energy
Electric Cost of Service
Derivation of Peak Credit

PEAK CREDIT METHOD FOR 2011 COST OF SERVICE STUDY
COMPANY PROPOSAL

Combined Cycle Plant (Nominal \$)

Year	Capital Cost \$/MWh	Fixed O&M \$/MWh	Variable O&M \$/MWh	Natural Gas \$/MWh	Emissions \$/MWh	Margin \$/MWh	Total \$/MWh	Annual Inflation
2012	\$24.58	\$6.65	\$2.56		\$0.09	\$7.09		2.50%
2013	\$24.58	\$6.82	\$2.62		\$7.59	\$7.13		2.50%
2014	\$24.58	\$6.99	\$2.69		\$8.18	\$7.17		2.50%
2015	\$24.58	\$7.16	\$2.76		\$8.87	\$7.20		2.50%
2016	\$24.58	\$7.34	\$2.83		\$9.47	\$7.25		2.50%
2017	\$24.58	\$7.52	\$2.90		\$10.20	\$7.29		2.50%
2018	\$24.58	\$7.71	\$2.97		\$11.00	\$7.33		2.50%
2019	\$24.58	\$7.90	\$3.04		\$11.85	\$7.37		2.50%
2020	\$24.58	\$8.10	\$3.12		\$12.78	\$7.42		2.50%
2021	\$24.58	\$8.30	\$3.20		\$13.74	\$7.46		2.50%
2022	\$24.58	\$8.51	\$3.28		\$14.79	\$7.51		2.50%
2023	\$24.58	\$8.72	\$3.36		\$15.88	\$7.56		2.50%
2024	\$24.58	\$8.94	\$3.44		\$17.09	\$7.61		2.50%
2025	\$24.58	\$9.16	\$3.53		\$18.38	\$7.66		2.50%
2026	\$24.58	\$9.39	\$3.62		\$19.77	\$7.71		2.50%
2027	\$24.58	\$9.62	\$3.71		\$21.26	\$7.76		2.50%
2028	\$24.58	\$9.86	\$3.80		\$22.85	\$7.82		2.50%
2029	\$24.58	\$10.11	\$3.90		\$24.58	\$7.87		2.50%
2030	\$24.58	\$10.36	\$4.00		\$26.44	\$7.93		2.50%
2031	\$24.58	\$10.62	\$4.10		\$27.10	\$7.99		2.50%
2032	\$24.58	\$10.89	\$4.20		\$27.77	\$8.05		2.50%
2033	\$24.58	\$11.16	\$4.31		\$28.47	\$8.11		2.50%
2034	\$24.58	\$11.44	\$4.42		\$29.18	\$8.18		2.50%
2035	\$24.58	\$11.73	\$4.53		\$29.91	\$8.24		2.50%
2036	\$24.58	\$12.02	\$4.64		\$30.66	\$8.31		2.50%
2037	\$24.58	\$12.32	\$4.76		\$31.42	\$8.38		2.50%
2038	\$24.58	\$12.63	\$4.88		\$32.21	\$8.45		2.50%
2039	\$24.58	\$12.95	\$5.00		\$33.01	\$8.52		2.50%
2040	\$24.58	\$13.27	\$5.13		\$33.84	\$8.59		2.50%
2041	\$24.58	\$13.60	\$5.26		\$34.69	\$8.67		2.50%

REDACTED
VERSION

Puget Sound Energy
Electric Cost of Service
Derivation of Peak Credit

PEAK CREDIT METHOD FOR 2011 COST OF SERVICE STUDY
COMPANY PROPOSAL

Peaker Plant (Nominal \$)

Year	Capital Cost \$/kW-yr	Fixed O&M \$/kW-yr	Variable O&M \$/kW-yr	Natural Gas \$/kW-yr	Emissions \$/kW-yr	Margin \$/kW-yr	Total \$/kW-yr	Annual Inflation
2012	\$136.99	\$16.70	\$0.00	\$0.00	\$0.00	\$34.89	\$188.58	2.50%
2013	\$136.99	\$17.12	\$0.00	\$0.00	\$0.00	\$34.98	\$189.09	2.50%
2014	\$136.99	\$17.55	\$0.00	\$0.00	\$0.00	\$35.08	\$189.62	2.50%
2015	\$136.99	\$17.99	\$0.00	\$0.00	\$0.00	\$35.18	\$190.16	2.50%
2016	\$136.99	\$18.44	\$0.00	\$0.00	\$0.00	\$35.28	\$190.71	2.50%
2017	\$136.99	\$18.90	\$0.00	\$0.00	\$0.00	\$35.39	\$191.28	2.50%
2018	\$136.99	\$19.37	\$0.00	\$0.00	\$0.00	\$35.49	\$191.85	2.50%
2019	\$136.99	\$19.85	\$0.00	\$0.00	\$0.00	\$35.60	\$192.44	2.50%
2020	\$136.99	\$20.35	\$0.00	\$0.00	\$0.00	\$35.72	\$193.06	2.50%
2021	\$136.99	\$20.86	\$0.00	\$0.00	\$0.00	\$35.83	\$193.68	2.50%
2022	\$136.99	\$21.38	\$0.00	\$0.00	\$0.00	\$35.95	\$194.32	2.50%
2023	\$136.99	\$21.91	\$0.00	\$0.00	\$0.00	\$36.07	\$194.97	2.50%
2024	\$136.99	\$22.46	\$0.00	\$0.00	\$0.00	\$36.20	\$195.65	2.50%
2025	\$136.99	\$23.02	\$0.00	\$0.00	\$0.00	\$36.32	\$196.33	2.50%
2026	\$136.99	\$23.60	\$0.00	\$0.00	\$0.00	\$36.45	\$197.04	2.50%
2027	\$136.99	\$24.19	\$0.00	\$0.00	\$0.00	\$36.59	\$197.77	2.50%
2028	\$136.99	\$24.79	\$0.00	\$0.00	\$0.00	\$36.72	\$198.50	2.50%
2029	\$136.99	\$25.41	\$0.00	\$0.00	\$0.00	\$36.86	\$199.26	2.50%
2030	\$136.99	\$26.05	\$0.00	\$0.00	\$0.00	\$37.01	\$200.05	2.50%
2031	\$136.99	\$26.70	\$0.00	\$0.00	\$0.00	\$37.16	\$200.85	2.50%
2032	\$136.99	\$27.37	\$0.00	\$0.00	\$0.00	\$37.31	\$201.67	2.50%
2033	\$136.99	\$28.05	\$0.00	\$0.00	\$0.00	\$37.46	\$202.50	2.50%
2034	\$136.99	\$28.75	\$0.00	\$0.00	\$0.00	\$37.62	\$203.36	2.50%
2035	\$136.99	\$29.47	\$0.00	\$0.00	\$0.00	\$37.79	\$204.25	2.50%
2036	\$136.99	\$30.21	\$0.00	\$0.00	\$0.00	\$37.95	\$205.15	2.50%
2037	\$136.99	\$30.97	\$0.00	\$0.00	\$0.00	\$38.13	\$206.09	2.50%
2038	\$136.99	\$31.74	\$0.00	\$0.00	\$0.00	\$38.30	\$207.03	2.50%
2039	\$136.99	\$32.53	\$0.00	\$0.00	\$0.00	\$38.48	\$208.00	2.50%
2040	\$136.99	\$33.34	\$0.00	\$0.00	\$0.00	\$38.66	\$208.99	2.50%
2041	\$136.99	\$34.17	\$0.00	\$0.00	\$0.00	\$38.85	\$210.01	2.50%