

EXHIBIT NO. _____ (DWH-8)
DOCKET NO. UE-92 _____
WITNESS: D.W. HOFF

**BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION
COMMISSION**

COMPLAINANT

VS.

PUGET SOUND POWER & LIGHT COMPANY

RESPONDENT

EXHIBIT

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
UE-920499 15 ✓

CALCULATION OF WATER HEAT INTERRUPTION CREDIT

1992 Rate Design Case

INTERH20.xls

4/25/92

Residential Interruptible Water Heating Credit

Line	Item	Equation	Cost
Substation Costs			
1	Property		500,000
2	230/115 - 12.5 kV Transformers		1,000,000
3	Switching / Disconnets etc.		100,000
4	3 Getaways		100,000
5	Total	(1+2+3+4)	1,700,000
6	Lifetime - years		30
7	Fixed Charge Rate		0.1316
8	Annual Cost	(5*7)	223,720
9	kW Capacity - 25 mVa Bank		22,000
10	Substation Cost (\$/kW-Year)	(8/9)	\$10.17
Peak Capacity Costs			
11	Peak CT (\$/kW-Year)		\$53.06
Water Heater Interrupters			
12	Mature Cost / Control Point		300
13	Lifetime - Years		10
14	Fixed Charge Rate		0.2
15	Annualized Capital Cost	(12*14)	60
16	Annual O&M		3
17	Annual Program Costs		N.A.
18	Total Annual Costs (\$/Year)	(15+16)	63
Water Heater Characteristics			
19	Water Heater Load (kW)		3.8
20	System Peak Coincidence		0.52
21	Expected Peak Interruption (k (19*20)		2
Program Economics			
22	Peak Capacity Credit	(11*21)	\$106.12
23	Summer Peaking Credit	(10*21)	\$20.34
24	Total Credits / Customer	(22+23)	\$126.46
25	Total Cost / Customer	18	63
26	Net Utility Benefits	(24-25)	\$63.46
27	Monthly Customer Credit		\$5.29