Puget Sound Power & Light Company
Docket No. UE-920499
Response to WICFUR Data Request Number 319

Request

With reference to Exhibit No. DWH-1, pages 57 to 60, Proposed Power Factor Adjustment, provide any analysis performed by the company comparing the proposed resulting charge to the customers with cost to correct the power factor to 0.95 (eg. the cost of installing capacitors near the customers premise).

Response by Mr. Hoff

Our analysis indicates that the cost to the company of installing line capacitors near the customer's premise is comparable to the charges under the proposed rate, assuming that we could install line capacitors near all customers who have power factor problems.

The following cost estimate assumes that measurements and engineering costs for sizing and locating a capacitor bank are $3,500, installation is $1,600, and capacitor costs are $2.50 / kVar. These initial costs were levelized at a fixed charge rate of 0.210561 and no maintenance costs were included in the analysis.

Schedule	Number Customers	Puget Power Cost	Customer Cost	Average Capacitor Size
all	3,997	3,863,616	3,893,464	79
24	3,364	3,184,406	2,283,117	56
29	17	14,145	2,203	28
31	413	450,116	1,461,918	277
35	1	1,521	1,583	844
43	202	213,428	144,642	51

This analysis does not support the conclusion that installing line capacitors near the customer premise is a viable option. There are a number of problems with installing line capacitors near each customer including:

- Capacitor banks for underground service are not available so we are unable to provide line capacitors in areas with underground feeders.
- As our customer load grows, there are fewer poles with sufficient space available to install line capacitors.