

EXHIBIT NO. ___(JAH-27)
DOCKET NO. UG-040640, *et al.* (consolidated)
2004 PSE GENERAL RATE CASE
WITNESS: JAMES A. HEIDELL

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

Docket No. UG-040640
Docket No. UE-040641
(*consolidated*)

In the Matter of the Petition of

PUGET SOUND ENERGY, INC.

For an Order Regarding the Accounting
Treatment for Certain Costs of the Company's
Power Cost Only Rate Filing.

Docket No. UE-031471 (*consolidated*)

In the Matter of the Petition of

PUGET SOUND ENERGY, INC.

For an Accounting Order Authorizing
Deferral and Recovery of the Investment
and Costs Related to the White River
Hydroelectric Project.

Docket No. UE-032043 (*consolidated*)

THIRTEENTH EXHIBIT TO THE
PREFILED REBUTTAL TESTIMONY OF
JAMES A. HEIDELL (NONCONFIDENTIAL)
ON BEHALF OF PUGET SOUND ENERGY, INC.

NOVEMBER 3, 2004

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket Nos. UG-040640 and UE-040641
WUTC v. PSE**

**RESPONSE TO PSE DATA REQUEST TO PUBLIC COUNSEL, THE ENERGY
PROJECT & A.W.I.S.H.**

Request No: 12
Directed to: Simon ffitich
Date Received: September 25, 2004
Date Produced: October 6, 2004
Witness: Jim Lazar

PSE Data Request No. 12 to Public Counsel, The Energy Project & A.W.I.S.H.:

Please provide all support, including analysis, models, studies, calculations and workpapers, for the following statement on line 11, page 12 of Exhibit No. ___(JL-1T): “[E]ssentially all of the declining usage per customer is explained by the fact that new customers – new homes and apartments – use less electricity and natural gas than existing, less efficient homes.” Please provide any spreadsheets in the same format as they were used in the preparation of the testimony, with formulae intact and fully functional.

RESPONSE:

Public Counsel requested, and Puget indicated it could not provide usage data by housing cohort.

We therefore relied primarily on three documents for this.

- 1) Northwest Power Planning Council, 1983 Northwest Conservation and Electric Power Plan, Volume 1,
 - p. 7-3, showing dramatically different electricity use by pre-code, early-code, and current code housing types.
 - p. 7-2 estimated residential usage of 5,253 MW, and planned savings of 520 mw for space heat in existing homes, compared with 880 MW of savings in new homes. For water heating, the Council estimated 510 mw of savings in existing homes. Thus, the total estimated savings in existing homes was about 20% of usage, while the reduction in average usage has been more on the order of 40%.

A hard copy of these pages are attached.

- 2) As explained in the testimony, Mr. Lazar believes that growth in residential end-uses (such as computers) has offset much of the efficiency improvement in existing homes. For this conclusion, he has relied upon USEIA 2001 Housing Characteristics Tables, Home Office Equipment Tables, available at:
<http://www.eia.doe.gov/emeu/consumption;>

A hard copy of these pages are attached.

- 3) 1997 EIA Residential Energy Consumption Survey, Table CE-1-2c, showing energy consumption by housing cohort. (This task is provided in response to PSE Data Request No. 10 to Public Counsel, The Energy Project, and A.W.I.S.H) This shows that usage by cohort rose steadily from 1949 through 1979, and then growth slowed dramatically, reaching approximately 0% for the period 1990 to 1997. This data was national in origin, not reflecting the very significant shift of residential space and water heat from electricity in the pre-1980 period to natural gas in the post-1990 era. When this shift is taken into account, one would expect to find dramatic reductions in usage by new homes (with gas heat) compared with older homes (more predominantly electric heat).