

Docket Nos. UE-072300 and UG-072301

Puget Sound Energy

PETITION FOR TEMPORARY SUSPENSION OF SERVICE QUALITY INDICES NOS. 6 AND 8

Attachment D:

VALIDATION OF DOCKET UE-960195 SURVEY METHODOLOGY AND PROCEDURES



Christine O. Gregoire

ATTORNEY GENERAL OF WASHINGTON

Utilities and Transportation Division

1400 S Evergreen Park Drive SW • PO Box 40128 • Olympia WA 98504-0128 • (360) 753-2281

August 7, 1997

Mr. Steve McLellan, Secretary
Washington Utilities and
Transportation Commission
1300 S. Evergreen Park Dr. SW
P. O. Box 47250
Olympia, Washington 98504-7250

Re: Application of Puget Sound Power & Light Co. & Washington Natural Gas
Co.; Docket UE-960195

Dear Mr. McLellan:

Enclosed are the original and nineteen copies of the Customer Service Compliance Filing in the above case. Please accept the same for filing.

Sincerely,

Robert Cedarbaum/dc

ROBERT D. CEDARBAUM
Assistant Attorney General

dc
Enclosure
cc: Parties



August 7, 1997

Docket No. UE-960196

Mr. Steve McLellan, Secretary
Washington Utilities and Transportation Commission
Chandler Plaza Building
1300 S. Evergreen Park Drive SW
Olympia, WA 98504-7250

SUBJECT: Customer Service Compliance Filing in Docket No. UE-960195

Dear Mr. McLellan:

Under the terms of the Supplemental Stipulation re Customer Service Program, filed July 7, 1997, the parties agreed to hire an independent third party to conduct a review of the Service Quality Program survey procedures. See Supplemental Stipulation at 5. The parties selected Dean Douglas MacLachlan of the University of Washington to conduct the review, which he has completed. A copy of his report is attached. The report does not recommend any changes to the survey procedures or methodology. The undersigned parties have reviewed and are satisfied with the report, and agree that no further action is required by the Commission.

PUBLIC COUNSEL SECTION, OFFICE
OF THE ATTORNEY GENERAL

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION
STAFF

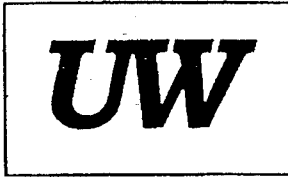
(By ^{with telephone authorization} per Robert W. Kunkel
By: Robert W. Kunkel
Its: Counsel

By: [Signature]
Its: Cancel

PUGET SOUND ENERGY

By: [Signature]
Its: Attorney

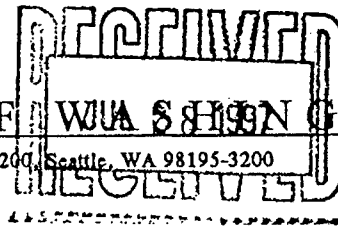
Enclosure



Associate Dean Douglas L. MacLachlan

UNIVERSITY OF WASHINGTON

Office of the Dean, School of Business, Box 353200, Seattle, WA 98195-3200



July 25, 1997

Matt Harris
1505 Westlake Avenue North
Suite 300
Seattle, WA 98109

RE: Survey Methodology and Procedures Review

Dear Matt:

Enclosed is my report as requested. I spoke with Deborah Stephens who suggested that I forward it to you for duplication and sending to the appropriate parties. If you have any questions about it or would like to talk with me further, please do so. I will be out of the office, however, until August 18.

As you instructed in the letter of June 30, I will send my invoice to James Heidell.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Mac'.

Douglas L. MacLachlan
Associate Dean for Academic Programs

Enclosures

**Survey Methodology and Procedures Review
Puget Sound Energy Service Quality Program**

by

Douglas L. MacLachlan, Ph.D.
Associate Dean
University of Washington Business School

July 25, 1997

In June, 1997, I was retained as an expert consultant by the Washington Utilities and Transportation Commission, Public Counsel, and Puget Sound Energy (PSE) to provide an unaffiliated third-party review of the sampling procedures and survey methodology used by the Gilmore Research Group to assess customer satisfaction for PSE in its Service Quality Program. For that purpose, I received from Gilmore Research Group (1) a document describing those procedures and methodology, (2) a hard-copy of the survey instrument(s) with answer codes; and (3) summary reports; monthly and quarterly tables; and tabulations/banners of the data for gas and power companies by appropriate subsamples. In addition to reading those documents, I interviewed executives of Gilmore Research involved with the project: Mary Monroe, JoElla Weybright, and Pat Fullmer.

Any survey research project is only as strong as its weakest link. Such links in this case include (1) specification of objectives of the survey and target populations, (2) development of the questionnaire, (3) sampling design, (4) sample selection and field implementation of the survey, and (5) data tabulation and report of findings. Each stage provides opportunity for error and potentially misleading results. I was unable physically to be present during any of these stages; however, I did read Gilmore Research Group's statement regarding decisions and actions taken in the stages and had the opportunity to ask them clarifying questions. Given the knowledge thus gained about this entire process for the survey project in question, my opinion is that each stage was conducted with the highest standard of professionalism extant today in the survey research discipline. That is to say, I have no reason to suspect any significant error or bias exists in the survey results provided by Gilmore Research Group in this instance. I will elaborate on this opinion in the following paragraphs.

The objectives of the surveys were straightforward: to provide PSE with reliable and valid measures of customer satisfaction with PSE as a provider of gas and electric services. In particular, customer satisfaction regarding their experiences with call center and field service representatives and the company overall was desired at regular intervals. The target populations were, for call-center and field representatives, all those customers

who had made contact with PSE or its two merged companies (Puget Power or Washington Natural Gas) in the week prior to the survey. For the "typical" customer, the target population was any customer of the two merged companies regardless of whether they had had contact with the companies in the week prior to being surveyed. Initially (i.e., prior to the merger), separate samples were obtained from the two companies. From Puget Power, Gilmore received samples of people calling during regular business hours and people calling during non-business hours. From Washington Natural Gas, Gilmore received entire universes of customers who had contact with call centers and customers who had field services. For the typical customer, Gilmore received from the merged companies separate samples.

In the cases where Gilmore received the entire universe of target population, a well-constructed and automated random sampling procedure was employed by them to assure appropriate representativeness of the target universes. I presume that similarly unbiased methods were used to create the samples that were delivered to Gilmore by the merged companies. In the case that subsamples are to be combined at the data analysis stage, information was available about appropriate target population sizes, so that correct weights can be used. (It is my understanding from speaking with project heads at Gilmore that no subsamples were combined in the reports, so the issue of appropriate caseweights is moot.) Apparently, different subsamples continue to be provided by the separate subdivisions of the merged PSE, but presumably this will change as the merger consolidation extends to the development of a single database.

Since a week is the smallest aggregate of customers in the survey, that was used as the basis for specifying minimum sample size. Gilmore's approach was to work with a random sample of each subsample, make sure that each of those customers selected received at least one call, up to five call attempts, before moving to supplement the sample with additional randomly selected customers. In talking with them, I learned that rarely was it necessary to use the supplementary samples. This is a good procedure, in that it assures that the contacted and ultimately interviewed respondents well-represent the target populations.

The questionnaires appear to me to be well-constructed and were developed through a careful procedure involving working with the clients, investigating other similar survey instruments, using customer focus groups and pretests. I learned from Gilmore executives that the two merged companies had previously used different scaling methods to measure customer satisfaction. The 7-point rating scales are a reasonable compromise between 10- and 4-point scales and are commonly employed in satisfaction studies. Separate designation of "don't know" and "refused" is appropriate. Interviewers write down verbatim responses to open-ended questions that are later coded into a large number of categories, reducing the need for interviewers to classify responses "on the fly" (the latter tends to add error). I understand that minor wording changes have occurred in refining the questionnaires over time, but that it seems to be stabilizing at this point. Overall, I found the questionnaire to be very well done, as are the instructions to interviewers. The questionnaire is imbedded in a Computer Assisted Telephone Interviewing (CATI) system

and all question branches and skip patterns thoroughly tested for system logic. The questionnaire is relatively easy to administer and simple for the respondent to understand. The CATI system automatically records the data for analysis, eliminating the need for separate data entry (thus avoiding another potential source of error).

The data collection procedure is computer controlled and timed in accordance with standard instructions over the designated weekly intervals to maximize respondent cooperation and minimize sample bias due to respondent work and household presence patterns. Proper procedures are in place for reducing nonresponse and assuring interviewing quality. Coding of verbatim responses is also done according to accepted procedures to reduce inter-coder inconsistency.

At the data processing stage, the data file is cleaned and verified, marginal tabulations are examined for consistency before banners and other analyses are performed. Tables of all question responses and selected crosstabulations are created.

Summary reports contain executive summaries (which include some conclusions), some specifics of research methodology pertaining to the particular subsample and time period, detailed findings including tables and interpretation of their important features, a respondent gender and geographic profile, and appendix containing sample contact attempt/disposition information. These allow readers of the reports not only to refer to and use the information collected in the survey, but to assess how generalizable it might be.

Although the value of the surveys will depend on how they are used in practice, the findings provided in the summary reports I reviewed look potentially to be very useful. Quantitative measures should be useful in period-to-period comparison and the qualitative reasons reported for satisfaction/dissatisfaction should be diagnostic.

Gilmore Research Group has an excellent reputation among firms in the Pacific Northwest for maintaining high standards of professional performance in their survey projects. I found nothing in this project to diminish that reputation. Indeed, this is a fine example of how to do quality survey research. In my opinion, PSE and the Washington Utilities and Transportation Commission can trust the survey findings as being of high validity and reliability.

BIOGRAPHICAL SKETCH

Dr. Douglas L. MacLachlan is Associate Dean for Academic Programs and Professor, Department of Marketing and International Business, UW Business School (School of Business Administration at the University of Washington). He is also Executive Director of UW's Center for International Business Education and Research (CIBER). He has a BA in Physics, MA in Statistics, MBA and PhD in Marketing, all from the University of California, Berkeley. He teaches primarily Marketing Research, Marketing Management, and Marketing Decision Models. In addition to being formerly Vice President of an electronic systems corporation, he has had extensive experience in consulting, marketing research, and management development. He has published many articles in various academic and business journals and has presented papers at numerous professional conferences and universities. A past president of the Puget Sound chapter of the American Marketing Association, he also has membership in INFORMS, the Decision Sciences Institute, the Association for Consumer Research, the American Statistical Association, the International Institute of Forecasters, American Society for Quality Control, and the Advertising Research Foundation, among other professional organizations. He has been Visiting Scholar at the European Institute of Business Administration (INSEAD) in Fontainebleau, France (1982-83). He was Chairman of UW's Department of Marketing and International Business between 1978 and 1986, and again during 1993-94. Since 1985 he has been a Director and Trustee of the University Book Store in Seattle. During 1988-89 he was named Nordstrom Professor in Retail Marketing, he held the Ford Motor Company Professorship during 1989-90, and was the Simpson Timber Faculty Scholar 1992-94. He spent a UW sabbatical leave in 1991-92 as Visiting Professor of Marketing at Catholic University in Leuven, Belgium. Important travel since 1992 included doing research, lecturing and/or presenting academic papers in Denmark, Finland, Norway, England, Brazil, Canada, Belgium, Singapore, Australia, Japan, South Korea and Eastern Russia. He has taught in Romania on numerous occasions in UW's joint executive MBA program with the Academy of Economic Sciences.

April 1997