

Annual Report of Gas Conservation Programs  
for the 1998 Calendar Year

Docket No. UG-950288

February, 1999

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## **Introduction**

This Annual Report of Puget Sound Energy's Gas Conservation Programs is filed in accordance with Docket No. UG-950288 authorizing approval and accounting treatment for conservation programs in 1998. This filing contains a progress report on the results of the Company's conservation programs for the year 1998 and a summary of accounting for each of the programs for the same period. Several of these programs are offered to both gas and electric service customers. In such cases, the progress report will refer to both gas and electric customers. The accounting summary shows costs associated with service to gas customers only.

## **Program Activities**

### ***Residential Energy Efficiency Services***

Described in electric tariff Schedule 200 and gas tariff Schedule 206, Residential Energy Efficiency Services (REES) is a portfolio of conservation offerings to residential energy customers. It includes an Energy Efficiency Hotline for customers to call; a mail-in home energy audit known as Personal Energy Profile; Home Solutions, an on-site inspection for electric service customers; and the distribution of a variety of energy efficiency information and brochures. These offerings are packaged together in order to deliver the most benefit to customers through: 1) Access to a package of tools to serve varied individual customer needs and 2) Operational efficiencies for program implementation.

### **Energy Efficiency Hotline**

Hotline staff members are available to provide energy-efficiency recommendations and offer customers suggestions regarding alternatives for energy improvements. A primary connection with customers seeking assistance, the Hotline is an essential element of REES. In addition to providing customers with energy efficiency information over the phone, Hotline calls often result in referrals to a Personal Energy Profile or additional printed information. Calls are routed to the Hotline from the toll-free number 800-562-1482, from PSE's toll-free customer service number (888-225-5773, option #5) or from Customer Call Center transfers. The Hotline is promoted through customer bill inserts, numerous PSE publications and by reference from Call Center representatives.

Significant progress has been made this year to improve the quality of Hotline service and insure that information provided to customers is accurate and consistent. Beginning in May the introductory message for the Hotline was revised to more efficiently route customer calls to the available technicians. By the end of August refinement of a Hotline Quick Reference Manual was nearly complete and additional training for staff was underway.

January through December, 1998, the Hotline answered 24,660 energy efficiency calls. Call volume for the year has averaged 85 calls per day. Systems developed by the end of December enable random sampling of callers for follow-up calls to monitor customer satisfaction with the service provided. Beginning in January 1999, PSE will begin an exploratory follow-up survey to obtain customer feedback and comments.

## Personal Energy Profile

The Personal Energy Profile (PEP) includes a self-service home energy survey that walks a customer through the home and helps identify ways to conserve energy and reduce bills. Based on the customer's answers and, in most cases, analysis of the customer's energy use history, PSE produces a report with a month-by-month illustration of energy usage and costs, annual estimates of energy consumption by "energy uses" in the home, as well as recommendations for how to reduce energy costs. Currently, PEP is promoted through bill inserts, the Hotline and the Customer Call Center.

Approximately 40% of participating customers complete their home audit survey, return it to PSE for analysis and receive a report. We refer to these as full participants. Partial participants receive the home audit survey and for one reason or another, do not return it to PSE. Recent evaluation involving survey research and billing analysis indicate that both full and partial participants achieve measurable energy savings, as a whole as much as 158 kWh per home in first year savings, full and partial participants combined. Prior to this research, PSE claimed energy savings of 182 kWh or 15 therms for full participants only. Based on the evaluation results, PSE proposes conservative, prescriptive savings of 120 kWh or 10 therms for every electric or gas customer sent a PEP home audit survey.

## Home Solutions

Offered to a niche of electric service customers seeking on-site, one-on-one consultation regarding energy efficiency in the home, this element of the REES portfolio will be discontinued due to its relatively high cost, low volume, and marginal contribution to REES. Though PSE staff will stop offering Home Solutions to customers in October, prior appointments are expected to extend into November.

Home Solutions provided an on-site energy inspection and energy efficiency recommendations to residential customers for a fee of \$19.95. Alternative delivery mechanisms and fee structures may be considered for inclusion at a later date.

## Printed Materials and Promotional Activities

PSE customers may request a variety of informational brochures and guides promoting energy-efficient practices, appliances, equipment and building shell measures. Calls to the Hotline, responses to bill inserts, and requests expressed through PEP or Home Solutions often result in the delivery of informational materials to residential customers. Brochures are also distributed to local business offices, seminars and trade shows. They are available regarding the following topics:

- Appliances and Equipment
- Energy-Saving Tips in Single Family , Multi-family, and Mobile Homes
- Heat Pumps
- Insulation
- LightWise Compact Fluorescent Bulbs
- Reading the Meter
- WashWise Tumble Action Washing Machines
- Weatherization for Low Income Customers
- Windows and Doors

In addition, coupled with an existing contractor referral network, Energy Select Efficiency Service (ESES) packets provide customers with informational materials regarding energy-efficient windows, insulation or heat pumps, a recommended contractor list, and financing information for implementing these types of conservation measures. The packet also provides guidelines to

customers so they can determine whether these types of measures would be cost effective. Reports of contractors completing work on ESES conservation measures are expected to begin later this year. Changes in the way the contractor referral network will be managed over the next year are expected to improve our ability to track installation of qualifying ESES measures.

This year, over 1,500,000 bill inserts were mailed to customers promoting energy efficiency, specifically informing customers of the Energy Efficiency Hotline, Personal Energy Profile and available informational brochures. In addition, PSE's EnergyWise customer newsletter, mailed with customer bills each month, has regularly featured residential energy efficiency services. In the Fall of this year a newspaper insert, the Winter Home Comfort Guide, was distributed to an estimated 85,000 households subscribing to King County Journal newspapers in PSE's combined service area. Residential Energy Efficiency Services staff also participated in King County's Livable Communities Fair in November. Staff also participated in the US Navy Energy Fairs for Navy personnel and families at Naval Station Bremerton, Submarine Base Bangor, and Keyport Undersea Weapons Station.

**Numbers of REES Customers and Energy Savings, January - December, 1998**

	Customers		Savings	
	Electric	Gas	kWh	Therms
Energy Efficiency Hotline	13,583	11,077	828,563	27,692
Personal Energy Profile <sup>1</sup>	19,182	8,221	2,301,840	82,210
Home Solutions	114	n.a.	27,360	n.a.
Energy Efficiency Information				
Brochures	20,946	32,319	1,256,760	161,595
ESES Packets	3,400	450	204,000	2250

***In Concert with the Environment***

In Concert with the environment (ICE) is a curriculum-based educational program that teaches secondary school students and other members of their households about the efficient use of energy, water and other resources, responsible waste management and hazardous waste disposal. The program was originally developed by EcoGroup, an Arizona company that sells utilities around the nation rights to ICE and other education, environmental and conservation programs. PSE has since expanded and customized the program to meet the needs of several energy, waste and environmental utilities or agencies in Western Washington. ICE is listed as electric tariff Schedule 253 and gas Schedule 208.

Since May of this year, eight additional sponsors agreed to be financial contributors. Currently, 25 contributing sponsors are partnered with PSE to provide this program. In 1999 PSE will seek additional sponsors, as well as other ways to work with existing sponsors and control costs.

For the period January through December, 11,026 students completed the ICE curriculum. The gas and electric numbers in the table below are estimates of activity for the calendar year 1998, based on actual numbers of participating students and survey results. PSE estimates that approximately 40 percent of participants have natural gas service for space heating. Sixty percent are electric service only customers of PSE.

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<sup>1</sup> PEP savings adjusted to 120 kWh or 10 therms per PEP home energy survey delivered to electric or gas customers.

*Ice Participation and Energy Savings, January - August, 1998*

<b>Student Households</b>		<b>Energy Savings</b>	
<b>Electric</b>	<b>Gas</b>	<b>kWh</b>	<b>Therms</b>
6,615	4,411	641,655	35,288

A survey of an initial sample of ICE students and parents was begun in December. This was the beginning of series of periodic surveys planned throughout 1999 to obtain feedback on the ICE curriculum as well as resulting consumer actions, both current and planned, that are expected to have energy and other resource impacts.

In addition to energy savings, other benefits of ICE are recognized:

- Reductions in water use, air pollution, and household waste
- Postponement of costly development (e.g., power plants, water facilities, water treatment plants)
- Contributions to economic sustainability and a better economy
- Encouragement of proper disposal of hazardous materials
- Development of lifelong resource conservation habits
- Communication between students and household members regarding environmental and conservation issues.
- Support of sponsoring agency programs, such development of renewable resources, water conservation measures, and community recycling
- Assistance to schools in meeting Washington State mandated environmental education
- Support for other school curriculum including science, math, home and family life and computer skills
- Involvement of business in environmental issues and education

The In Concert with the Environment curriculum includes:

- A video describing the ICE program, objectives, and expected benefits
- A student handbook and accompanying teacher's guide designed to teach students about how their use of natural resources affects the environment
- Customized student surveys that transform the classroom curriculum into a real-life learning opportunity by requiring students to complete a homework assignment with the help of other family members, in which they use the survey to determine how energy, water and other resources are actually used in their home
- Computer software enabling students to input their own energy and resource usage information from their written survey forms
- A computer-generated report providing each student with a variety of suggested strategies for saving energy and other resources

Along with the materials listed above, PSE and sponsors provide:

- Instructors for the 4 to 5-day classroom program
- A "Kick-Off" presentation highlighting students' connections with daily activities and natural resource use
- A computer with supervision
- A "Wrap-Up" presentation ensuring the students' understanding of their survey results and empowering them to take action and use the resource conservation suggestions

## **Residential Low Income Program**

In accordance with electric Schedule 201 and gas Schedule 203, PSE provides prescriptive funding for cost-effective retrofit weatherization measures installed in qualifying structures. Installed measures must meet PSE and Washington State Department of Community, Trade and Economic Development (CTED) standards for quality and energy efficiency. PSE and CTED jointly signed the Low Income Matchmaker Agreement on December 29, 1997. The agreement covers low income weatherization measures and payments for the period of July 1, 1997, through June 30, 1999. PSE, under its Matchmaker Agreement, has provided the following funding to CTED in 1998 in payment for completed and in-progress weatherization jobs:

**Electric Tariff**  
\$550,000

**Gas Tariff**  
\$550,000

As part of its contractual agreement with PSE, CTED provides tracking/reporting to PSE of completed low income jobs/measures.

As of December 31, 1998 CTED reported the following:

	Multi Family Units	Annual Energy Savings	Measure \$	Measure + Agency & CTED ADMIN	Single Family Units	Annual Energy Savings	Measure \$	Measure + Agency & CTED ADMIN
<b>Tariff Electric</b>	112	196,575 kWh	\$46,082	\$55,644	137	219,622	\$100,540	\$119,972
<b>Tariff Gas</b>	26	7,090 Therms	\$8,846	\$10,615	155	44,169	\$132,430	\$158,492

Billing analysis of the Gas Low Income Pilot and the Electric Mobile Home Pilot was begun in December. Results are expected in February 1999.

## **Residential Duct Systems**

Residential Duct Systems is outlined in electric tariff Schedule 203 and gas tariff Schedule 204. It includes a retrofit duct sealing pilot and a new construction pilot. See also, page 13, Northwest Energy Efficiency Alliance, Residential Duct Systems.

### **Retrofit Duct Sealing Pilot**

Field work for this project was completed in June. A total of 166 gas homes and 71 electric homes received only screening visits during the project. The preliminary final report was presented in October. Major findings of this pilot project were that it proved more difficult to identify sufficient homes that would meet the 10% annual heating cost savings target from duct sealing than has generally been perceived by energy specialists in the Northwest region.

Extensive screening involved selecting target homes with bill histories showing above average high space heating use. A telephone survey of owners of candidate high bill homes was conducted to determine duct location (in unheated crawl spaces and attics) heated square footage of the home and existing insulation measures. Homes that passed this portion of the screening process were then field screened using diagnostic pressurization methods. Of 237 homes receiving 237 diagnostic screening visits, 127 were retrofitted with duct sealing.

A frequent source of major duct leakage was disconnection of flex duct that has been commonly installed in homes built during the last 20 years. Older installations of this flex duct are also showing failure of the inner plastic liner which allows hot air leakage from the supply ducts. Many flex duct installations were observed to not have been installed to the manufacturer's specifications in terms of support and full extension of the duct material. This improper installation leads to higher static air pressures, reduced heating system air flow and increased probability of sagging and disconnection.

Very significant in the findings of the project was that nearly 25% of the 166 gas furnaces tested (as a safety measure associated with the field screening) showed greater than 50 parts-per-million (PPM) carbon monoxide in the furnace exhaust. There was a much larger number of minor and major problems diagnosed with gas furnaces that had originally been expected. Similarly, there appeared to be a substantial percentage of heat pumps that showed symptoms of control malfunction or low refrigerant pressure.

Given the outcomes described above, research contractor's recommendation was that PSE do follow-up work with its Customer Field Service and gas and heat pump service contractors to determine if a duct diagnostic test could be incorporated with a heating system service call. Because the contractor is already in the home the additional time required for the duct leakage test would be minimal. Following the test, customers with very leaky ducts would be referred to a retrofit sealing contractor to perform the work required.

### **New Construction Duct Pilot**

Ecotope, Inc. contracted for architectural design services to prepare detailed drawings that include heating ducts within the heated envelope of new home plans sets. In March, calls and mailings were made to new home builders with the objective of recruiting up to two builders to participate in the project. A participating builder would agree to modification of an actual set of home plans, to relocate ductwork from the traditional crawl space location to areas within the home's heated envelope.

As of August, no builders could be recruited for participation. Ecotope attributes this to builders' focus on meeting the current high market demand for homes and unwillingness to divert time and attention from that focus. The project was discontinued in August.

### ***Commercial/Industrial Energy Efficiency Services (C/I EES)***

This program, electric schedule 250 and gas Schedule 205, offers customers services to identify and encourage implementation of energy-efficient projects and practices in commercial and industrial facilities. Services include energy analyses, assessment of costs and savings of energy-efficiency improvements, recommendations and performance criteria for capital-intensive projects, as well as low-cost/no-cost actions. Where significant engineering costs are involved in the analyses, the Company may require the customer to contribute toward the costs. Some utility grant funding is available for customers toward the cost of installing conservation measures.

In 1998, 118 electric projects saved a total of 10,268 MWh. Seven natural gas projects saved 32,314 therms. Grants totaling \$571,197 for installation of energy efficiency measures were provided to 14 commercial and industrial customers.



PSE conducted a Commercial/Industrial Energy Efficiency Services Follow-up Survey, completed for the 90-Day Evaluation Project in August. This study supported the cost-effective impact of PSE's technical assistance in achieving significant gas and electric energy savings.

Many customers, especially smaller commercial businesses where the business leases a facility, find value in having the energy engineer explain how the space uses energy and seek recommendations on how to operate systems to control costs. These customers often do not have cost-effective opportunities to invest in equipment or controls, but can realize savings benefits from understanding how their equipment works, and what to look for with maintenance.

The most common electric energy-efficiency measures reviewed with customers continue to involve lighting and heating, ventilating and air-conditioning systems. Gas energy-efficiency opportunities primarily include maintenance and operational improvements to gas-fired boilers, heating systems and controls.

PSE continues to work with prospective customers to participate in Building Commissioning projects. These projects are in the early planning stages, and PSE plans to be involved in the pre- through post- construction phases of the new facilities. Project completion will not be until sometime in the year 2000.

PSE has piloted energy-efficient traffic signals, to monitor the reliability of the LEDs and cost reductions for red lights. Plans are underway to expand this service in 1999.

Two series of Building Operator Certification (BOC) classes, hosted at PSE facilities in Olympia and Kent were very successful, and have generated demand for future class offerings in the area. PSE has supported these efforts with recruitment, and has provided instructors for Power Quality. We plan to continue facilitating these classes throughout the service territory, and will host the initial Level 2 classes 1999.

PSE provided information regarding foundations and other funding sources to a handful of non-profit customers. This information is available using PSE's "Non-traditional funders" database.

C/I Energy-Efficiency Services Staff participated in the FEMP Energy 1998 Conference held in August at the Meydenbauer Center in Bellevue. PSE also coordinated the "Powerful Tools for Commercial Building Design and Management" conference, held October 28<sup>th</sup> in Tukwila. This conference was sponsored jointly with Tacoma Public Utilities and Seattle City Light. Energy-efficiency sessions and PSE's utility resources booth were featured.

PSE is monitoring the Northwest Sustainable Building Action Plan Project, coordinated by the City of Seattle to identify barriers and solutions to sustainable building practices in the region. PSE will look for an opportunity to support an owner willing to commit to a sustainable building project.

PSE continues to seek ideas from customers and trade allies to support new approaches to achieving energy-efficiency for commercial and industrial customers, in light of industry transitions. Input from the Technical Advisory Group will be helpful in defining workable elements of the plan.

## ***Resource Conservation Manager***

The Resource Conservation Manager Program (RCM), electric schedule 253 and gas schedule 208, primarily targets school districts, and city governments. Energy savings, as well as savings from other resources (e.g., water, sewer, solid waste, and recycling) are achieved through use of an on-site resource conservation manager. The current status of RCM is summarized below.

- Formal agreements for on-site resource conservation managers in five school districts: Federal Way, Seattle, North Thurston, Puyallup and Lake Washington
- Eight additional school districts are obtaining monthly billing data downloads from PSE to track their energy with Utility Manager software
- Providing training and support for resource conservation managers at four school districts: Central Kitsap, Kent, Northshore, and Tahoma (These school districts have no formal RCM agreements with PSE)
- Three quarterly RCM training and round table meetings hosted in January, May and August
- Sponsored state-wide RCM meetings in February and December, 1998.

Most school districts have completed at least one full year with a resource conservation manager (RCM). The focus of their initial efforts was on setting up accounting systems for tracking resource costs; establishing baseline usage and costs for each facility; and addressing items that achieve immediate cost savings. Some of these immediate savings include energy savings, while others typically include water/sewer savings and reduction in solid waste disposal costs. Three school districts have reported energy savings: 1) In spite of growth, one district has achieved a 13% reduction in electricity costs, 8% in natural gas costs, and 4% in water & sewer costs. Their net savings is twice the cost of their RCM program; 2) Another large district has reduced their overall resource costs by 15%; approximately 14% of their savings is due to reductions in natural gas costs; 3) A third district saved about \$72,000 in their second year, 70% due to water and sewer reductions, and 15% each from energy savings and solid waste reductions.

The quarterly meetings hosted by PSE have focused on providing a technical training opportunity for the RCMs and their key maintenance staff. Training topics have included "how to establish baselines," "how to analyze reports," "efficient irrigation practices," "efficient boiler operation - site tour," "HVAC controls - site tour," and a "central kitchen tour" at a school district. The meetings also include time for a round table forum where RCMs can share their experiences and exchange ideas.

## Accounting Overview

### Deferred Costs

The following section presents a summary of program costs subject to deferral. In accordance with the Commission's letter in Docket No. UG-950288, the Company may also defer lost margins and an allowance for funds used to conserve energy ("AFUCE"), including a 2% low income and elderly kicker.

Through December 31, 1998 lost margins were calculated based on price per therms included in Rate Schedules 23 & 24. The amount calculated for January through December, 1998 is \$54,419.46.

Through December 31, 1998, AFUCE has been calculated at an annual rate of 7.77% of program costs respectively and deferred for each of the tracker programs as shown below. The equity kicker portion of AFUCE was calculated at an annual rate of .88% of program costs and deferred for the LIW DSM only.

C/I DSM - AFUCE	\$ 566.99
Residential DSM - AFUCE	26,594.06
LIW DSM - AFUCE	10,868.79
LIW DSM - Equity Kicker	<u>1,229.92</u>
	<u>\$39,259.76</u>

### Recovery

Program costs for the DSM programs and related AFUCE have been debited to FERC account No. 182.3 "Other Regulatory Assets" for consideration of annual recovery in rates. The attached worksheet provides a summary of all deferred costs to be recovered in the twelve months beginning April 1, 1999, through the DSM tracker filing accompanying this report. An adjustment was made to the calculation to true-up the 1996 Tracker Recovery for the amount of \$20,230.65 and is presented on page 10. Based on costs determined to be appropriate at the time of filing the petition in Docket No. UG-950288, the annual tariff tracker was anticipated to be apportioned 85% and 15% to firm sales rate schedules and interruptible sales rate schedules, respectively. Subsequent to implementation of the rate structure approved coincident with the Company's last general rate change, interruptible sales volumes now comprise a significantly smaller fraction of the total sales. Consequently, the distribution of current gas costs is much different than that expected when the application relevant to this filing was originally made. Gas costs are now 88.05% firm sales and 11.95% interruptible sales as shown in Exhibit 2 of this filing. Accordingly, it is appropriate and consistent with prior action under this docket, that the fourth year program recovery, excluding revenue related taxes and fees, be collected at .1120 cents per therm for all firm sales customers and .0959 cents per therm for all interruptible sales customers, as shown on lines 15 and 16 of Exhibit M. This methodology is consistent with the Commission's finding on conservation costs as outlined in the Seventh Supplemental Order in Docket No. UG-940814. The Company will debit FERC account No. 908 "Customer Assistance Expense" based on actual recoveries and credit Other Regulatory Assets.

**Puget Sound Energy**  
**Summary of Gas Tracker Costs by Program**  
**For the year ended December 31, 1998**

Acct/Order No.	Tariff Sch. No.	Description	Expenditures
<b>RESIDENTIAL</b>			
18230681	204	Duct System Retrofit	\$ 7,275.04
18230682	204	Duct System New Construction	1,170.97
18230652	206	Hotline	51,270.40
18230653	206	Personal Energy Profile	21,591.05
18230654	206	Energy Efficiency Financing	1,849.32
18230661/z00182103052	203	Low Income Retrofit	91,296.16
18230671/z00182103042	207	In Concert with the Environment	37,076.57
18230691	208	Resource Conservation Management	5,569.60
1823GA1		Conservation not in Rate Base-Admin	375,085.70
1823GA2		Conservation not in Rate Base-Training	9,033.14
1823GA3		Conservation not in Rate Base-Evaluation	13,592.38
1823GA4		Conservation not in Rate Base-Planning	9,474.03
1823GA5		Conservation not in Rate Base-Tracker Report	15,998.27
1823GC1		Conservation not in Rate Base-Seminars	1,822.29
1823GC2		Conservation not in Rate Base-Facility Services	233.66
1823GE8		Conservation not in Rate Base-Info Gas	1,826.69
1823GJ1		Conservation not in Rate Base-Grants Paid	200,000.00
			<u>\$844,165.27</u>
<b>COMMERCIAL/INDUSTRIAL</b>			
18230731	205	Energy Efficiency	\$ 9,044.86
1823GE4		Conservation not in Rate Base -Assessment	9,611.91
1823GE9		Conservation not in Rate Base-Util Cost	3,390.56
1823GJ1		Conservation not in Rate Base-Grants Paid	781.70
			<u>22,829.03</u>
		Sub-Total	<u>\$866,994.30</u>
<b>AFUCE</b>			
18230372/z00182103112		Commercial Conservation	\$ 566.99
18230382/z00182103122		Energy Conservation Program	26,594.06
18230392/z00182103132		Low Income Weatherization Program	10,868.79
18230402/z00182103142		Equity Kicker on Low Income Weather Program	1,229.92
18230735		Tracker	28.53
			<u>\$ 39,288.29</u>
		Sub-Total	<u>\$906,282.59</u>
<b>1996 Tracker Recovery True-up</b>			<u>20,230.65</u>
<b>Total Conservation Tracker Recovery</b>			<u><u>\$926,513.24</u></u>

## Exhibits

The exhibits provided in the enclosed envelope are labeled Exhibits A - M. The exhibits labeled A - K are samples of natural gas conservation informational materials provided to customers during the calendar year 1998. Exhibit L illustrates the forecast of 1999 therms as well as the development of the apportionment factors for the Firm and Interruptible Schedules. Exhibit M provides the 1999 Tracker Recovery allocation which includes the 1996 Tracker Recovery True-up.

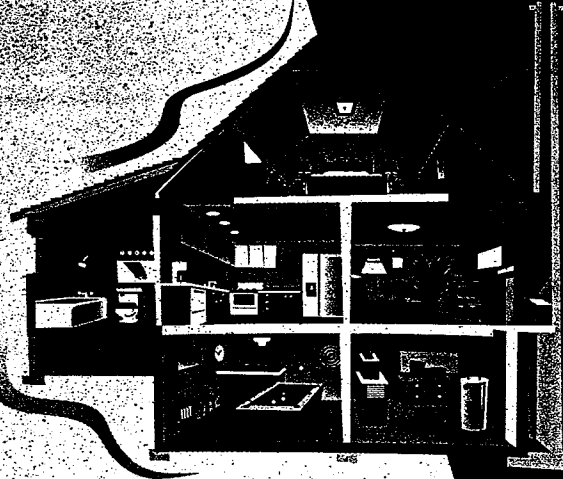
- A. WEATHERIZATION FOR LOW INCOME CUSTOMERS
- B. INDOOR AIR QUALITY AND YOUR HOME
- C. CONTROLLING MOISTURE IN YOUR HOME
- D. SAVING BY DEGREES
- E. ENERGY SELECT EFFICIENCY SERVICES
- F. HELPING YOU TO USE NATURAL GAS MORE EFFICIENTLY
- G. HELPING YOU TO USE NATURAL GAS & ELECTRICITY MORE EFFICIENTLY
- H. IN CONCERT WITH THE ENVIRONMENT HANDBOOK
- I. IN CONCERT WITH THE ENVIRONMENT HOME SURVEY
- J. PERSONAL ENERGY PROFILE
- K. COMMERCIAL & INDUSTRIAL CUSTOMERS, CONSERVATION SERVICES
- L. COST ALLOCATION
- M. TRACKER RECOVERY CALCULATION

*Weatherization*

Low Income  
Customers

**NO COST**

Exhibit A.



PUGET  
SOUND  
ENERGY

# Indoor Air Quality and Your Home

Exhibit B.



PUGET  
SOUND  
ENERGY

In February, 1997, Puget Power and Washington Natural Gas merged to become Puget Sound Energy. To be good stewards of resources, this publication has not yet been reprinted to reflect this change.

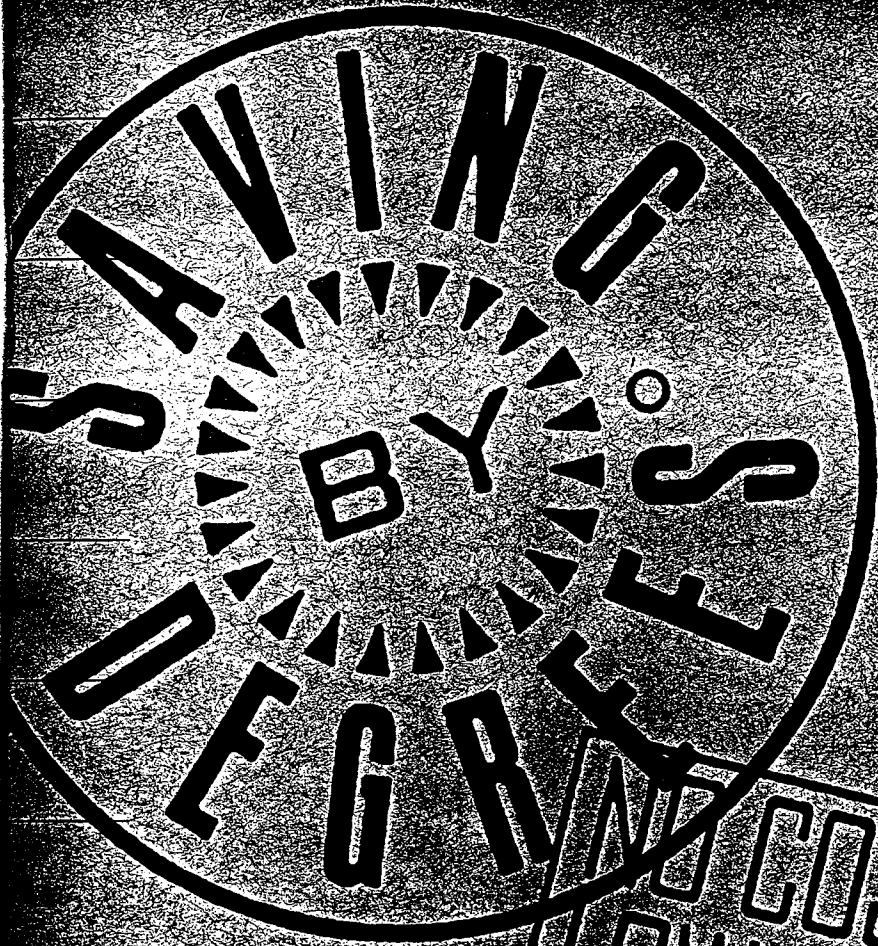
2393 • KSBG • 25m • 6/97

# Controlling Moisture in Your Home

Exhibit C.







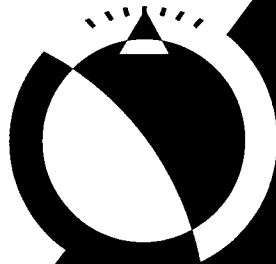
LOW COST pure  
LOW COST  
WAYS TO SAVE  
and ENERGY  
MONEY

Exhibit E.

# ENERGY EFFICIENCY SERVICES

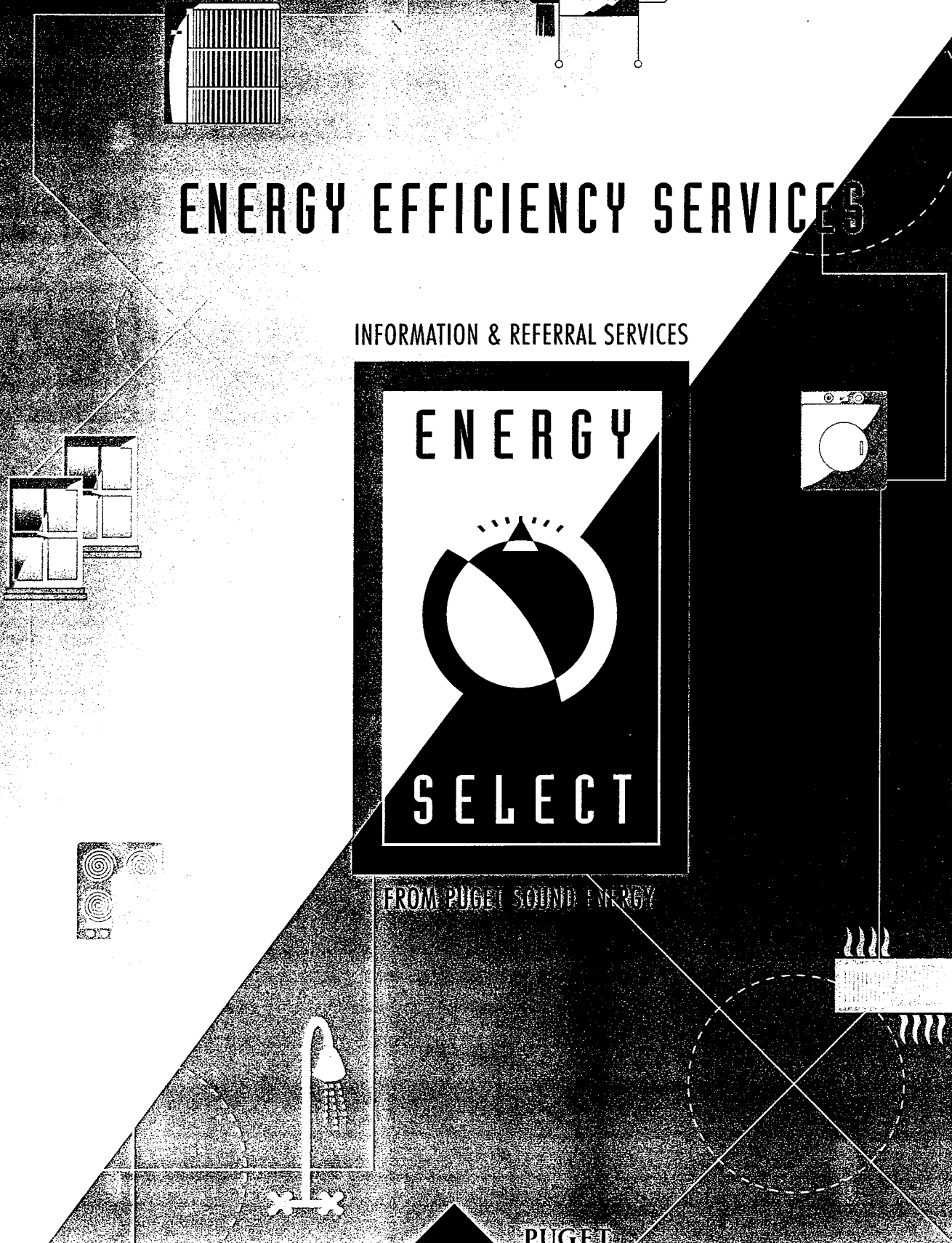
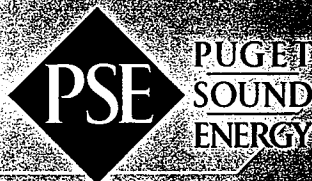
INFORMATION & REFERRAL SERVICES

## ENERGY



## SELECT

FROM PUGET SOUND ENERGY



# Energy Conservation

*Helping you to use natural gas more efficiently.*



*To help customers identify opportunities to conserve energy and save money on their energy bills, Puget Sound Energy offers a number of energy efficiency programs for our natural gas customers.*

*The Residential Energy Efficiency Hotline is a free energy information service that is available Monday through Friday between 8 a.m. and 5 p.m. You can speak to one of our energy specialists toll-free by calling 1-800-562-1482.*

*We offer a wide variety of energy efficiency information, programs and brochures to assist you with your conservation efforts.*

## **HOTLINE**

**1-800-562-1482**

◆ ***A free guide offering 30 opportunities to conserve natural gas and save money.***

*Savings by Degrees* is designed for our residential gas customers. This brochure walks you through the process of evaluating the efficiency of your home in an easy to understand guide. Many of the suggestions are no cost or low cost options which can significantly improve the overall energy efficiency of your home. Call us to order your brochure. (A limited number of video tapes also are available.)

◆ ***A \$25 rebate on gas water heaters is now available.***

If you are planning to purchase a new natural gas water heater, Puget Sound Energy will pay you a \$25 rebate when you install a gas water heater with a seasonal energy efficiency rating of 60 percent (.60) or higher. Call us for a rebate form or a listing of participating stores and contractors.

◆ ***A free do-it-yourself home energy audit: The Personal Energy Profile.***

Have you ever wondered where and how much energy is consumed by the many types of uses in your home? *The Personal Energy Profile (PEP)* program provides you with a report on your energy usage and specific recommendations about energy and money saving opportunities. We'll send you a questionnaire on energy consumption in your home. When you send it back, we'll use the information from your answers to create a personalized report which charts the major uses of energy in your home and what each costs you per year and how you can save energy and money.

◆ ***High quality lighting at a lower price: look for the LightWise and EnergyStar labels on product packaging.***

*The LightWise Program* will provide you information about energy-efficient compact fluorescent light bulbs. (Fluorescent lights use approximately 1/4 the energy of equivalent incandescent light bulbs and last 10 times longer.)

EnergyStar lighting fixtures use two-thirds less energy than standard fixtures and are available in many attractive models, including torchiere floor lamps, kitchen, bath and bedroom lights and porch lights.

Ask us for a list of participating LightWise and EnergyStar retailers and more information. Be sure to look for the special low price LightWise and EnergyStar stickers on product packaging at participating retailers.

◆ ***Carbon Monoxide safety alert.***

*Carbon Monoxide (CO) Detectors* and information on how to prevent CO exposure—which can be caused by the incomplete combustion of natural gas, firewood, heating oil, motor fuel, or charcoal—are available to customers. Call us for more information on what to look for when buying a CO Detector.

# Energy Conservation

*Helping you to use natural gas & electricity more efficiently.*



*To help customers identify opportunities to conserve energy and save money on their energy bills, Puget Sound Energy offers a number of energy efficiency programs for our combination natural gas and electric customers.*

*The Residential Energy Efficiency Hotline is a free energy information service that is available Monday through Friday between 8 a.m. and 5 p.m. You can speak to one of our energy specialists toll-free by calling 1-800-562-1482.*

*We offer a wide variety of energy efficiency information, programs and brochures to assist you with your conservation efforts.*

## **HOTLINE**

### **1-800-562-1482**

◆ *A free do-it-yourself home energy audit: The Personal Energy Profile.*

Have you ever wondered where and how much energy is consumed by the many types of uses in your home? The *Personal Energy Profile* (PEP) program provides you with a report on your energy usage and specific recommendations about energy and money saving opportunities. We'll send you a questionnaire on energy consumption in your home. When you send it back, we'll use the information from your answers to produce your personalized report which charts the major uses of energy in your home and what each costs you per year and identifies ways you can reduce these costs.

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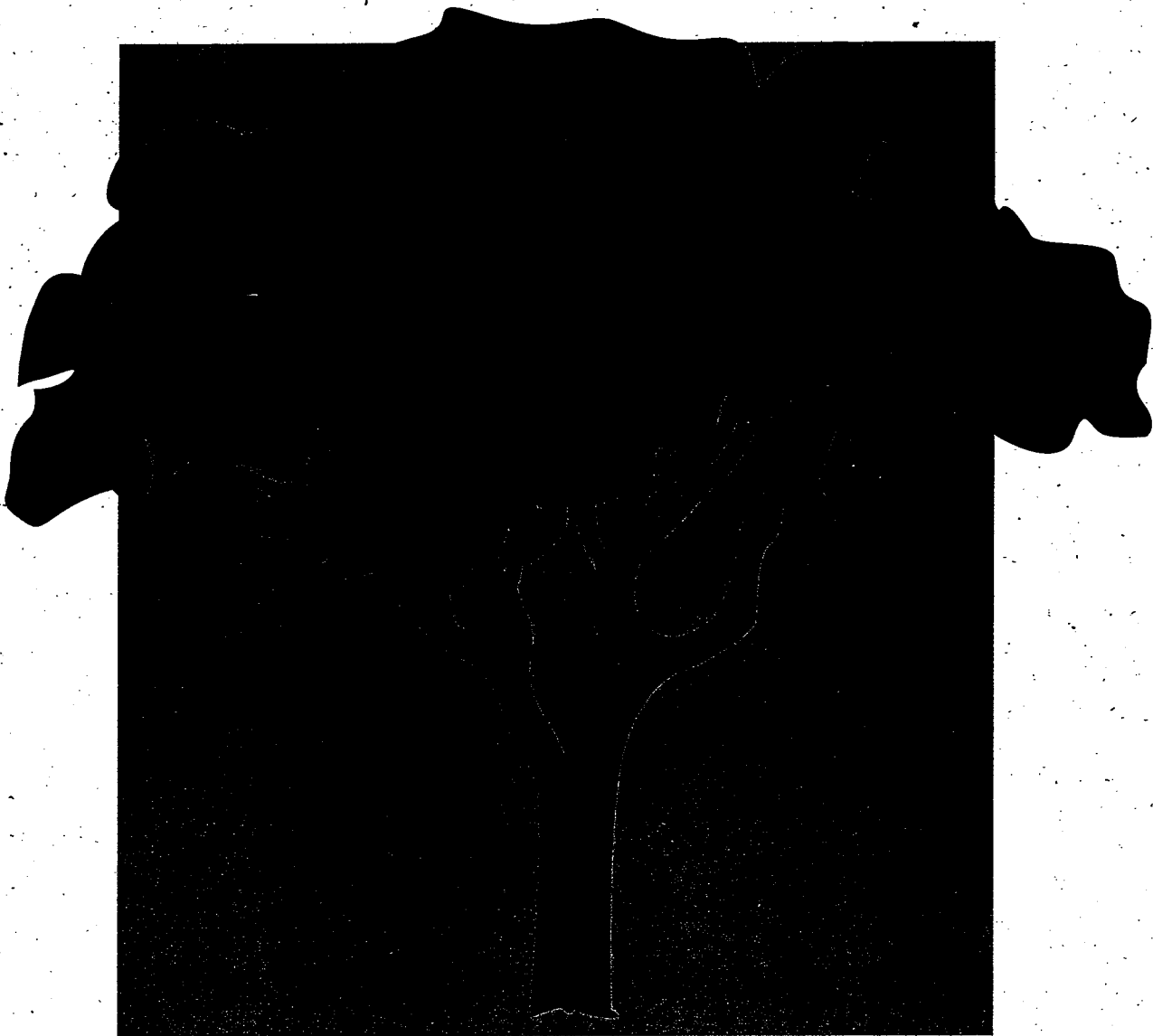
◆ *A free guide offering 30 opportunities to conserve natural gas and save money.*

*Savings by Degrees* is a conservation brochure designed for our residential gas customers. The brochure walks you through the process of evaluating the efficiency of your home in an easy to understand guide. Many of the suggestions are no cost or low cost options which can significantly improve the overall energy efficiency of your home. Call us to order your brochure. (A limited number of video tapes also are available.)

◆ *A \$25 rebate on gas water heaters is now available.*

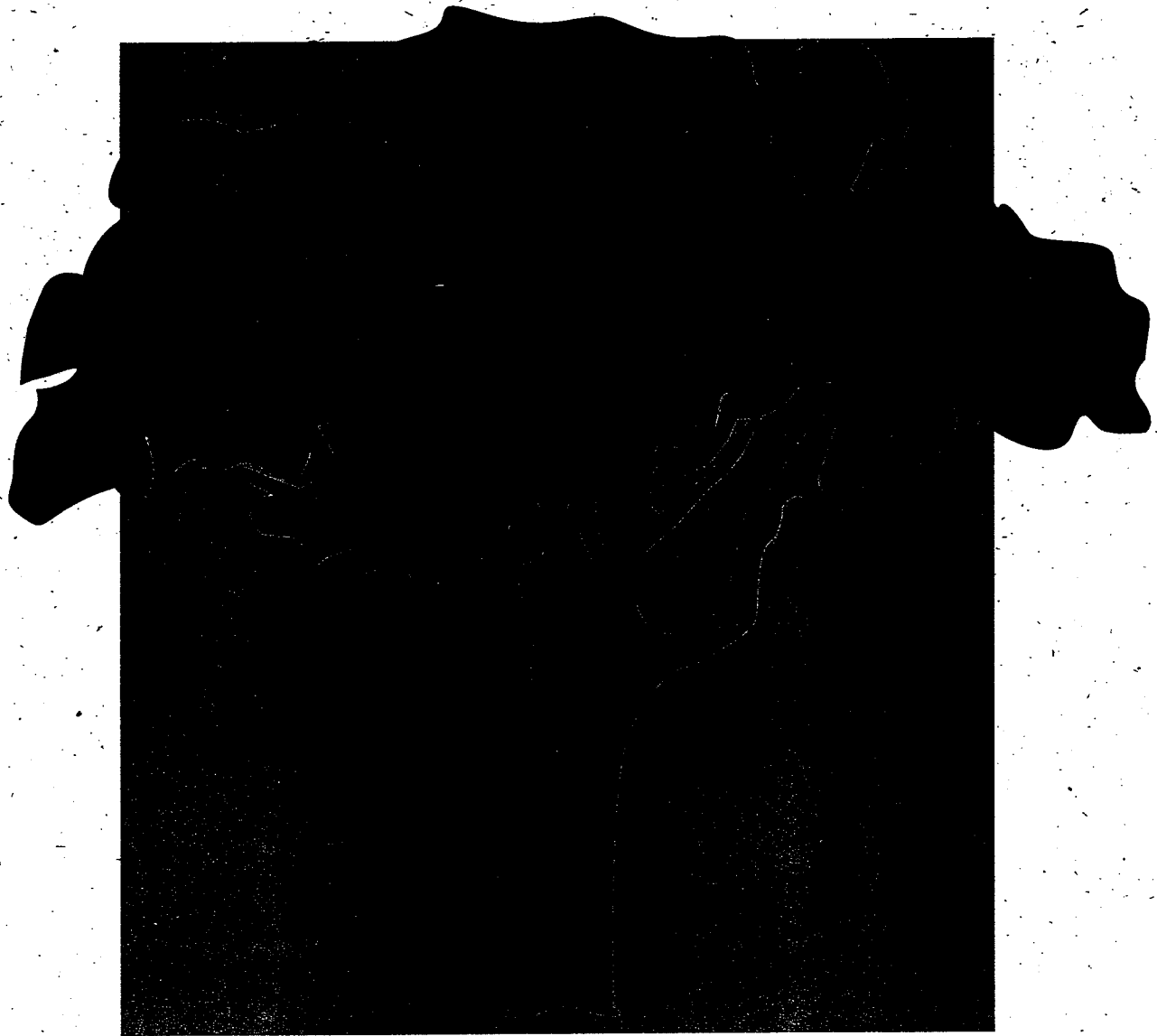
If you are planning to purchase a new gas water heater, Puget Sound Energy will pay you a \$25 rebate when you install a gas water heater with a seasonal energy efficiency rating of 60 percent (.60) or higher. Call today for a rebate form or a listing of participating stores and contractors.

**H A N D B O O K**



*In Concert With The Environment<sup>®</sup>*

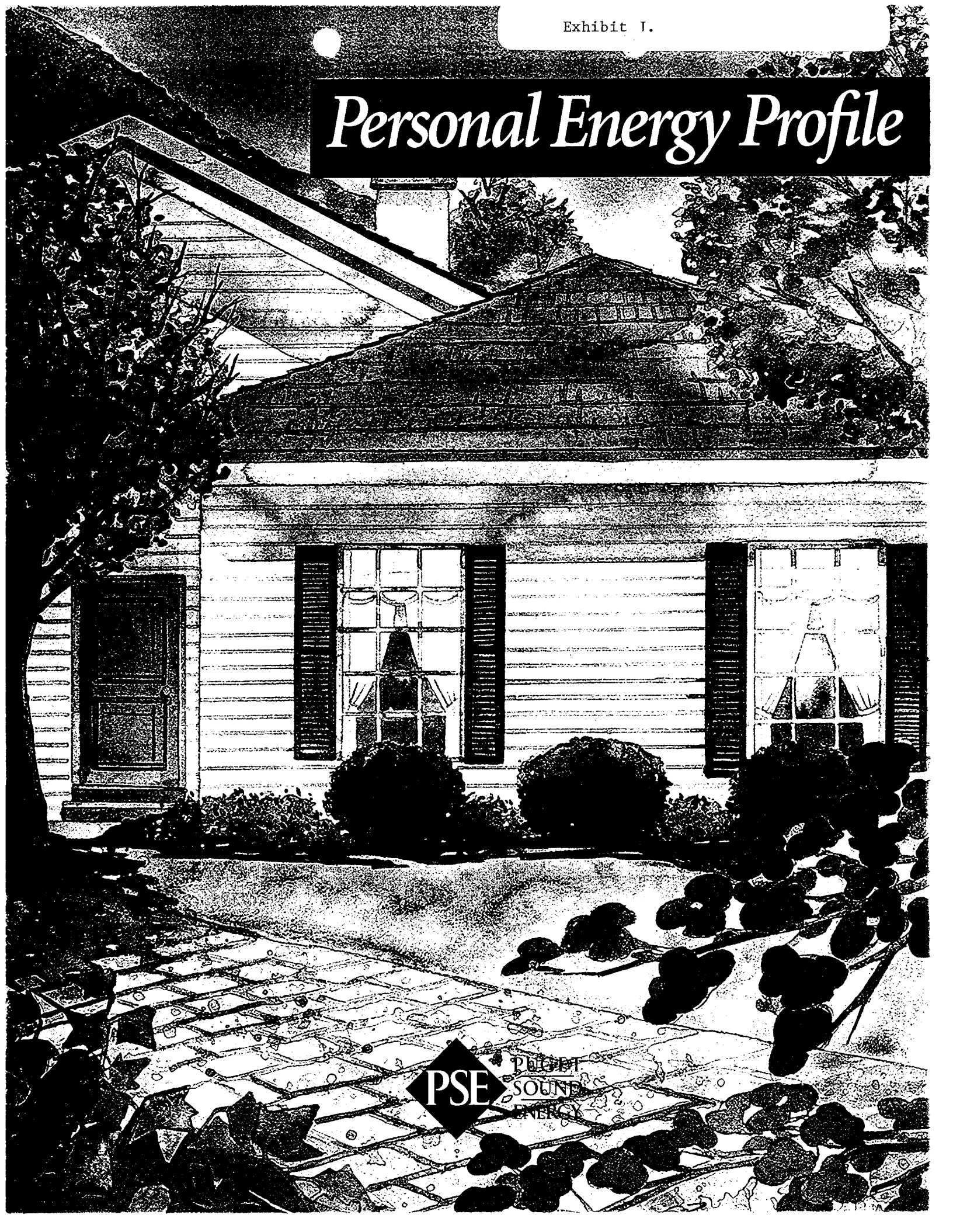
# H O M E S U R V E Y



*In Concert With The Environment<sup>®</sup>*



# Personal Energy Profile



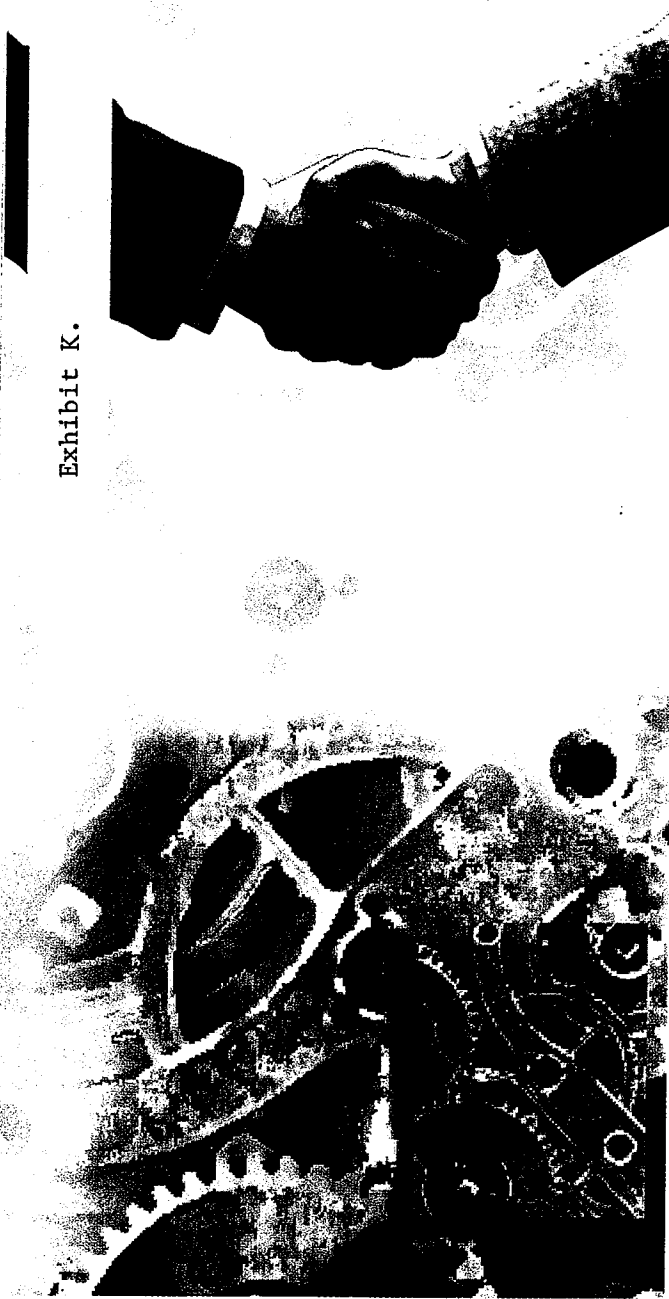
**PSE** PUGET  
SOUND  
ENERGY

1998

Commercial & Industrial Customers

# CONSERVATION SERVICES

Exhibit K.





DOCKET NO.	UG-950288	
EXHIBIT NO.	1998 Annual Report Exhibit L	
SCHEDULE NO.		
SHEET NO.	1	OF 2

1999 Annual Forecast of Therms and Gas Cost Recoveries

Line No.	Gas Cost Recovery Rates				4/99 - 3/00 Forecast Volumes (e) (in therms)	Total Forecast Gas Cost Recoveries (f)
	Rate (a)	Commodity (b)	Demand (c)	Total (d)		
1	11,16	\$ 0.14165	\$ 0.08602	\$ 0.22767	148,226	\$ 33,747
2	23,24	\$ 0.14165	\$ 0.12117	\$ 0.26282	491,637,976	129,212,293
3	31,36,51	\$ 0.14165	\$ 0.10921	\$ 0.25086	210,387,314	52,777,762
4	41	\$ 0.14165	\$ 0.06115	\$ 0.20280	38,853,384	7,879,466
5	43	\$ 0.14165	\$ 0.11448	\$ 0.25613	-	-
6	50	\$ 0.14165	\$ 0.03924	\$ 0.18089	379,242	68,601
7					<u>741,406,142</u>	<u>\$ 189,971,869</u>
8	85	\$ 0.14165	\$ 0.08415	\$ 0.22580	27,261,893	\$ 6,155,735
9	86	\$ 0.14165	\$ 0.08415	\$ 0.22580	54,904,712	12,397,484
10	87	\$ 0.14165	\$ 0.05062	\$ 0.19227	18,453,985	3,548,148
11					<u>100,620,590</u>	<u>\$ 22,101,367</u>
12			<b>TOTAL SALES VOLUMES</b>		<u><b>842,026,732</b></u>	
13			<b>FIRM SCHEDULES</b>		<u><b>741,406,142</b></u>	<b>88.05%</b>
14			<b>INT. SCHEDULES</b>		<u><b>100,620,590</b></u>	<b>11.95%</b>
15			<b>TOTAL GAS COST RECOVERIES</b>			<u><b>\$ 212,073,236</b></u>
16			<b>FIRM SCHEDULES</b>			<b>\$ 189,971,869 89.58%</b>
17			<b>INT. SCHEDULES</b>			<b>22,101,367 10.42%</b>

DOCKET NO.	UG-950288
EXHIBIT NO.	1998 Annual Report Exhibit M
SCHEDULE NO.	
SHEET NO.	2 OF 2

1999 Annual Forecast of Therms and Gas Cost Recoveries

Tracker Recovery Calculation

Line No.	(a)	(b)	(c)
1	1999 Budget Therms		
2	Firm	741,406,142	88.05%
3	Interruptible	100,620,590	11.95%
4	Total Sales Volumes	<u>842,026,732</u>	<u>100%</u>
	1998 Program Costs	\$ -	
6	1996 Tracker Recovery True-up		
7	Firm	\$ -	89.75%
8	Interruptible	\$ -	10.25%
9	Total Required True-Up	<u>\$ -</u>	<u>100.00%</u>
10	Tracker Recovery Allocation - Including 1996 Recovery		
11	Firm	\$ -	89.58%
12	Interruptible	\$ -	10.42%
13	Tracker Recovery	<u>\$ -</u>	<u>100%</u>
14	Tracker Recovery Cents per Therm (Excluding Revenue Sensitive Items)		
15	Firm (line 9 / line 3)	\$ -	89.58%
16	Interruptible (line 10 / line 4)	\$ -	10.42%
17	Total Required Recovery	<u>\$ -</u>	<u>100%</u>