



PUGET  
SOUND  
ENERGY

UE-040926 (P)

RECEIVED  
REC'D TO INVESTMENT  
04 MAY 12 PM 2:17  
WASHINGTON  
UTIL. AND TRANSP.  
COMMISSION

May 12, 2004

Ms. Carole J. Washburn  
Executive Secretary  
Washington Utilities and Transportation Commission  
P.O. Box 47250  
Olympia, WA 98504-7250

Re: Petition to Continue the Accounting Treatment of the Virtual Right-of-Way Program  
("Tree Watch Program") Expenditures

Dear Ms. Washburn:

Enclosed is a petition whereby Puget Sound Energy, Inc. (PSE or the "Company") is requesting authority to continue the current accounting treatment of the Tree Watch Program expenditures.

The Commission, under Docket No. UE-980877, authorized the Company to spend \$43 million on its Tree Watch Program over five years, starting July 1998 through June 30, 2003. On June 28, 2002, the Company filed a petition to extend the Tree Watch Program for an additional 12 months, through June 30, 2004, in order to allow for efficient completion of Program efforts that were then underway. The Commission granted the Company's petition in its Order of July 28, 2002.

The benefits of the Tree Watch Program are significant:

- It has allowed the Company to achieve tremendous improvements in the reliability of the electric service it provides.
- Through Tree Watch, the Company has achieved significant reductions in its major storm tree related overhead outage rates and in repair costs during major storm events. PSE believes that additional benefits can be achieved through the continuation of the Program.

In PSE's pending general rate case, Docket Nos. UG-040640 and UE-040641, PSE has requested that the Tree Watch Program be continued beyond June 30, 2004, as an

on-going program with no expiration date. However, the current program is scheduled to end prior to issuance of an order in the general rate case. By this Petition, the Company requests that the Commission issue an Order authorizing the continuation of the accounting treatment of the Tree Watch Program expenditures for up to \$2 million dollars annually until such time as the Commission orders otherwise.

Please contact me in Bellevue at (425) 456-2797 if there are any questions regarding this filing.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Karzmar', with a long horizontal flourish extending to the right.

Karl R. Karzmar  
Director, Regulatory Relations

Enclosure

cc WUTC Staff (2 copies)

**BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION  
COMMISSION**

Petition of

PUGET SOUND ENERGY, INC.

For an Order Regarding the Continuation of  
the Accounting Treatment of Expenditures  
for the Virtual Right-Of-Way Program  
("Tree Watch Program")

PETITION

RECEIVED  
OFFICE OF THE  
COMMISSIONER  
MAY 12 11 21 17

1. In accordance with WAC 480-09-370(b), Puget Sound Energy, Inc. ("PSE" or "the Company") respectfully petitions the Washington Utilities & Transportation Commission ("the Commission") for an order approving the continuation of the accounting treatment of its Tree Watch Program expenditures, up to \$2 million annually beginning July 1, 2004.
2. PSE's representative for this Petition and address are as follows:  

Karl R. Karzmar  
Director, Regulatory Relations  
Puget Sound Energy, Inc.  
P.O Box 97034, PSE-08N  
Bellvue, WA 98009-9734

**INTRODUCTION**

3. Electric reliability is important to the Company's customers. A targeted expanded right-of-way tree removal program (known as "Tree Watch") is the Company's innovative

approach to improving reliability and taking proactive steps toward vegetation management.

4. In the Commission's Order in Docket No. UE-980877 dated July 8<sup>th</sup>, 1998, the Company received authorization: 1) to implement the Tree Watch Program, and 2) for specific accounting treatment for expenditures for the Tree Watch Program. The Tree Watch Program is currently scheduled to expire on June 30, 2004, pursuant to the Commission's Order in Docket No. UE-980877 dated July 29, 2002.
5. By this Petition, the Company requests that the Commission authorize the continuation of the accounting treatment of its Tree Watch Program expenditures, up to \$2 million annually beginning July 1, 2004.

#### **BACKGROUND**

6. Petitioner is engaged in the business of furnishing electric and gas service within the State of Washington as a public service company, and is subject to the regulatory authority of the Commission as to its rates, service, facilities and practices.
7. The Commission, under Docket No. UE -980877, authorized the Company to spend \$43 million on its Tree Watch Program over five years, starting July 1998 through June 30, 2003.
8. On June 28, 2002, the Company filed a petition to extend the Program for an additional 12 months, through June 30, 2004, in order to allow for efficient completion of Program efforts that were then underway. The Commission granted the Company's petition in its July 28, 2002 Order.

#### **TREE WATCH PROGRAM BENEFITS**

9. The benefits of the Tree Watch Program are considerable. At a relatively low cost, the Company has significantly reduced its major storm tree related overhead outage rates

without purchasing expensive easements. The Tree Watch Program Annual Report issued May 1, 2004, provides specific details of such benefits and is attached hereto as Exhibit A. Additionally, the impact of a hardened transportation system, (i.e., one that is less susceptible to damage from storms) has provided substantial storm related benefits, in terms of both reduced costs and increased performance. Also, due to Tree Watch, vegetation management costs have been reduced. Community and customer acceptance levels of the Tree Watch Program are outstanding.

10. As shown on Page 14 of Exhibit A, Tree Watch Program Annual Report, issued May 1, 2004, the Program has (a) reduced the levels of major storm damage expensed each year, (b) reduced repair costs from storm tree damage, and (c) reduced the level of expenditures per mile under the Company's traditional within-right-of-way tree trimming program. As a result, the Tree Watch Program has had a favorable impact on the Company's revenue requirement; the expenditures under the Program have essentially been offset by the reductions described above. Continuation of the Program would thus allow the Company to achieve additional reliability improvements over an extended number of years without any unfavorable revenue requirement impacts. The Company has requested, in its general rate case testimony, to continue the program, at a reduced level of expenditure: up to \$2 million annually.

#### **PROGRAM CONTINUATION PROPOSAL**

11. The original Tree Watch Program was a one time, deferred asset program that has demonstrated it can deliver cost-effective improvements to system reliability and safety. PSE anticipates that additional benefits can be achieved through the Tree Watch Program. In PSE's pending general rate case, Docket Nos. UG-040640 and UE-040641, PSE has requested that the Tree Watch Program be continued beyond June 30, 2004, as an ongoing program with no expiration date. However, the current program is scheduled to end prior to issuance of an order in the general rate case. Therefore, the Company seeks

approval through this Petition to continue the accounting treatment of the Program, up to \$2 million annually, until otherwise decided in the pending general rate case or subsequent Commission order.

12. While the original Tree Watch program had specific criteria for how the dollars allocated could be spent, the continuation of this program, if approved, could target specific areas of current business and customer concerns, where off right-of-way trees are a reliability problem. This flexibility will give PSE the ability to adapt its Tree Watch program to pursue additional potential program benefits. While it is anticipated in the first three years of the continued program that approximately 75% of the funds would be utilized on enhancements to the transmission system, if other customer and environmental priorities appear to be more cost effective, the program can rapidly adapt and respond to those priorities.

13. PSE plans to continue to utilize Tree Watch in three ways:

- (a) Create new, enhanced vegetation management areas outside of the Company's rights-of-way along targeted transmission corridors (efforts to date have focused on distribution, rather than transmission, corridors).
- (b) Apply Tree Watch to distribution circuits that were not initially targeted under the original program. These circuits may have reliability issues due to changes in the environment or area surrounding the circuit. Changes that directly affect reliability includes the recent land development, logging that creates new tree buffers, and the recent drought.
- (c) Target circuits where Tree Watch was applied and reliability results did not meet expectations due to permitting limitations and lower customer acceptance rates.

These proposed continued program components are described in greater detail below.

**(a) Transmission**

The August 14, 2003 blackout in the eastern portion of the U.S. and Canada, which was triggered by vegetation growing into transmission lines, highlights the importance of utilizing all available vegetation management options within and adjacent to transmission corridors. PSE proposes to expand its Tree Watch Program to include removal of trees adjacent to its transmission corridors to improve system reliability. Outages caused by trees in the transmission system are typically of long duration and impact potentially thousands of customers, even those served from underground distribution systems. Continuation of the Tree Watch program to include transmission corridors will further improve reliability of the Company's system by removing trees outside the existing rights-of-way.

PSE currently performs in-corridor vegetation management activities on 2,127 miles of transmission system on a three-year cycle. Of these miles, 57% are cross-country corridors, while the other 43% are roadside (many in cities). These two environments will be targeted differently but overall will comprise 75% of the proposed spending during the first three years of a continued Tree Watch program.

The following is a yearly estimate of off-corridor tree removal, and excessive conifer overhang targeted for the years 2005 through 2007.

Cross Country Corridors

404 miles per year

Target 20 hazard trees per mile

8,080 trees per year

Cost of Removal \$115 per tree

Times 8,080 trees = \$929,200

Cost of permitting, mitigation and

Notification (Permission) = \$160,000

Road-Side Corridors

305 miles per year

Target 8 hazard trees per mile

2,440 trees per year

Cost of Removal \$75 per tree

Times 2,440 trees = \$183,000

Cost of permitting, mitigation and

Notification (Permission) = \$ 80,000

Additional conifer overhang

Work = \$150,000

Total Transmission Yearly Tree Watch

Cost = \$1,502,200



**(b) Distribution circuits not previously Tree Watch treated**

As more time elapses from the original Tree Watch program, changes to the environment and to the landscape comprising the Company's distribution system will occur. As a result some circuits which were not candidates for inclusion in the original Tree Watch program could now benefit from treatment. Example 1 is included in Exhibit C - Tree Watch Program Components Examples & Charts.

**(c) Distribution circuits with previous Tree Watch treatment, with performance improvement less than anticipated**

Some circuits that had Tree Watch treatment did not perform as well as anticipated due to a variety of causes. Example 2 is included in Exhibit C - Tree Watch Program Components Examples & Charts. Some of those causes may be mitigated with further effort in the future. However over time the reliability results have been reduced, due to the following reasons:

- **Refusal of hazard tree removal by property owners.** Property owners in this rural area place high value on their tree surroundings. PSE targeted 1,709 trees for removal, but was only allowed to remove 1,093 of these targeted trees. This refusal rate of 36% far exceeds the norm (10-15%). The Foothills Blast of December 2003 and the ice storm of January 2004 took down a significant number of these remaining trees. The prolonged outages, and the knowledge that we are targeting trees which may fail in such weather conditions, would work to the Company's benefit in receiving permission to remove hazard trees. If property owners are contacted again, it is expected that results may be better than the original acceptance rate.
- **Endangered Species Act mitigation costs.** Since the time when Tree Watch was originally proposed, environmental protection ordinances have become increasingly restrictive. The Endangered Species Act, and King County Critical Area ordinances limit the amount of tree removal (and pruning) allowed, without costly mitigation. At the time Tree Watch work was performed, it was determined that mitigation costs for removing trees near Bear Creek (a critical salmon bearing stream), which meanders through this

circuit's area, would exceed the benefit. PSE has worked diligently with King County to develop a new permitting process, which is resulting in more cooperative agreements. The King County Programmatic Clearing Permit, approved April 2003, is an annual permit that will allow future tree removals to be more cost-effective. The areas, which were determined in the year 2000 as having a low cost/benefit, may be more cost effective today.

- **Drought in the summers of 2001-2003.** The droughts in the summers of 2001-2003 are an example of how weather conditions can quickly change the environmental factors impacting tree-related outages. Since 1998, PSE has investigated and documented over 6,000 tree-caused outages throughout our service area. Example 3 is included in Exhibit C - Tree Watch Program Components Examples & Charts.
- **Land development.** As areas which were rural during Tree Watch treatment become more populated, and land development occurs, new trouble areas for tree failure evolve. Trees growing in rural dense forests actively compete for light, space and resources resulting in poor trunk taper and limited root development. When tree clearing for land development in dense forest occurs, newly created buffers of trees must now survive in the open. The newly exposed trees are now open to the elements and to greater wind speed than prior to the clearing. The combination of poor trunk taper and limited root development significantly increase the likelihood of tree failure.

### **PROPOSED ACCOUNTING TREATMENT**

14. The Company proposes to continue to defer the Tree Watch Program costs, up to \$2 million dollars per year beginning July 1, 2004, in a regulatory asset account, or until otherwise decided in the pending general rate case or subsequent Commission order.

15. The Tree Watch expenditures will continue to be amortized to the appropriate operation and maintenance accounts using a half-year amortization convention consistent with the accounting originally ordered in Docket No. UE-980877.
16. The Company would continue to normalize federal income tax benefits related to Tree Watch over the amortization period.
17. The Company would continue to include all program related balance sheet accounts in working capital.
18. The Company proposes to continue to expense the costs associated with its traditional, dedicated right-of-way tree trimming costs to operation and maintenance accounts, in accordance with prior Commission orders.

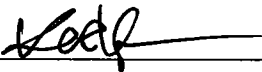
#### **REQUESTED ORDER**

19. The Company seeks an order in the form shown in Exhibit B that would allow the Company to continue to apply the accounting treatment originally ordered in Docket No. UE-980877 regarding Tree Watch Program costs. The accounting treatment would be applied indefinitely or until otherwise decided in the pending general rate case or subsequent Commission order. By this Petition, the Company requests that the Commission authorize the Company to continue the Tree Watch Program and during that period:
  - a) Capitalize, for recovery in rates, the Tree Watch Program costs, up to \$2 million annually beginning July 1, 2004, in a regulatory asset account as a deferred charge;
  - b) Amortize the regulatory asset using a half-year amortization convention over the ensuing ten-year period;
  - c) Normalize federal income taxes related to Tree Watch expenditures; and
  - d) Include the regulatory asset and related deferred tax accounts in working capital for ratemaking purposes.

WHEREFORE, Puget Sound Energy, Petitioner, respectfully requests that the Commission enter an order in the form attached as Exhibit B approving the continuation of the accounting treatment for Tree Watch Program expenditures.

DATED: May 12, 2004.

PUGET SOUND ENERGY, INC.

By  \_\_\_\_\_


Karl R. Karzmar

Director, Regulatory Relations

**VERIFICATION**

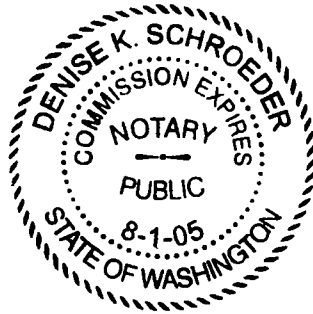
KARL R. KARZMAR, being first duly sworn, on oath deposes and says:

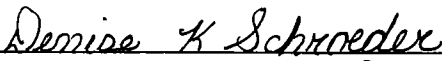
That he is Director, Regulatory Relations, of Puget Sound Energy, Inc., that he has read the foregoing Petition, that he knows the contents thereof, and that he believes the same to be true to the best of his knowledge and belief.

  
\_\_\_\_\_  
KARL R. KARZMAR

State of WASHINGTON  
County of KING

SUBSCRIBED AND SWORN to before me this 12 day of MAY, 2004.



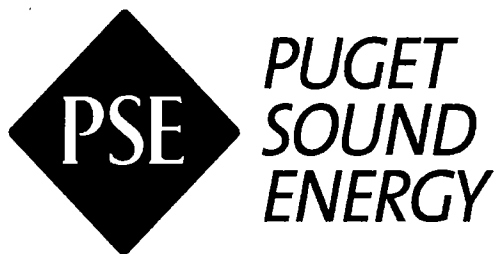
  
\_\_\_\_\_  
Print Name: DENISE K SCHROEDER  
Notary Public in and for the State of Washington,  
residing at SNOQUALMIE, WA  
My commission expires: 8-1-05

**LIST OF EXHIBITS**

- |           |   |
|-----------|---|
| EXHIBIT A | Tree Watch Program Annual Report–Issued May 1, 2004 |
| EXHIBIT B | Proposed Order                                      |
| EXHIBIT C | Tree Watch Program Components Examples & Charts     |

**Petition**  
of Puget Sound Energy  
For an Order Regarding the Continuance of the Accounting Treatment of  
Expenditures for the Virtual Right-Of-Way Program (“Tree Watch Program”)

Exhibit A



# **TREEWATCH PROGRAM**

## **ANNUAL REPORT**

**Issued May 1, 2004**



# TREEWATCH PROGRAM REPORT

## TABLE OF CONTENTS

<b>I.</b>	<b><i>PROGRAM IMPLEMENTATION.</i></b> . . . . .	<b>2</b>
	<b>A.</b> Report Content. . . . .	2
	<b>B.</b> Program Continuation. . . . .	2
	<b>C.</b> Program Recommendation. . . . .	3
	<b>D.</b> Map – Completed TreeWatch Circuit Miles per County . . . . .	4
<b>II.</b>	<b><i>EFFECTIVENESS EVALUATION.</i></b> . . . . .	<b>5</b>
	<b>A.</b> Weather Characteristics . . . . .	5
	<b>B.</b> Graphs – Average Wind Speed . . . . .	6
	<b>C.</b> Graph - Maximum Wind Speed . . . . .	7
<b>III.</b>	<b><i>STORM STATISTICS.</i></b> . . . . .	<b>8</b>
	<b>A.</b> Graph – Major Wind Storm Days . . . . .	9
<b>IV.</b>	<b><i>SUMMARY CIRCUIT STATISTICS RESULTS</i></b> . . . . .	<b>10</b>
	<b>A.</b> Table – TreeWatch Circuit Outages (Full Year Data) . . . . .	10
	<b>B.</b> Table – TreeWatch Circuit Outages (Winter Storm Season) . . . . .	11
<b>V.</b>	<b><i>COMMUNITY ACCEPTANCE</i></b> . . . . .	<b>12</b>
<b>VI.</b>	<b><i>EXPENDITURES</i></b> . . . . .	<b>13</b>
	<b>A.</b> Economic Analysis. . . . .	14
	<b>B.</b> Notes and Calculations. . . . .	15

## **I. Program Implementation**

On July 8, 1998, the WUTC, in Docket UE-980877, granted an order authorizing PSE to implement PSE's TreeWatch program (originally known as VROW). In the proposed program, PSE had demonstrated that it could realize significant reliability improvements for its customers as a result of a focused and targeted off right-of-way tree removal plan. This plan entailed identification of trees whose structural integrity had been compromised, often from disease or recent exposure to greater wind forces via the creation of tree buffer strips or improper logging operations. The program would essentially "harden" the electric delivery system for both routine and significant weather events. The benefits from the program will be realized during 20 years while the Program expenditures occur within the first five years, and thus a "regulatory asset" was considered a reasonable accounting mechanism for the program. Upon receiving the approved order, the TreeWatch program commenced by significantly increasing the vegetation resources available, by communicating the program within PSE's jurisdictions and by initiating communication with owners whose property bordered selected circuits.

### **A. Report Content**

This report covers several different data time periods.

- The financial data and cost analysis covers the period January 2003, through December 2003.
- The outage data covers two periods.
  - Full calendar year outage data 2003 (and prior years) are included for TreeWatch circuits which were complete as of the beginning of 1999, 2000, 2001, 2002 and 2003.
  - October 2003 through March 2004 (winter season) outage data is included for TreeWatch circuits which were complete by October 2003.
- Weather data is for calendar years 1996 through 2003.

### **B. Program Continuation**

It is recommended that the TreeWatch program continue. While the outage data does not show a significant everyday outage reduction, weather data appears to reflect that the electric distribution system is able to withstand more inclement weather, including higher velocity winds. As a consequence, more non-storm outages are being recorded and fewer major storms are being experienced. Since storm outage data is less precise, more outages and outage minutes are being reflected in non-storm measures. With the reduction of major storm costs, as computed on page 15, the program appears to provide O&M economic benefits in excess of amortization expense. The TreeWatch case study did not expect economic benefits to be realized until approximately year four, so this cost benefit exceeds expectations in the case study. This, together with the positive customer response to the program, justifies program continuation.

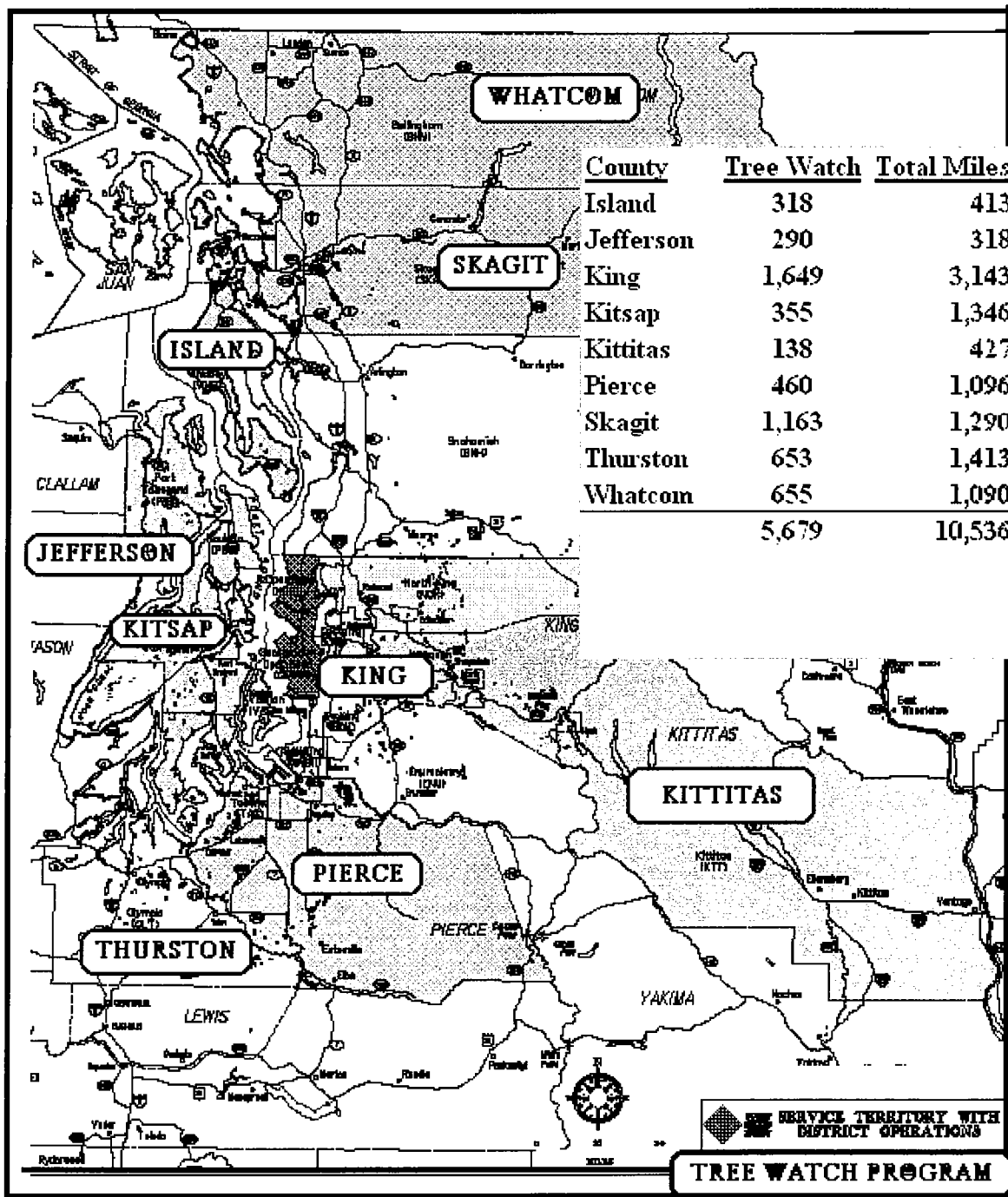
---

**C. Program Recommendations**

The TreeWatch program was initially developed as a one of a kind and one time, deferred asset program which has proven it can deliver cost-effective improvements to system reliability and safety. The Company is seeking in the PSE General Rate Case approval to continue the program, at a reduced level of expenditure: \$2 million annually. Because the existing program expires at the end of June 2004, the Company intends to file an accounting petition prior to the expiration date to continue deferring these costs pending the Commissions' decision on PSE's proposal in the rate case.

D. Map

Completed TreeWatch Circuit Miles per County (as of December 31, 2003) and total Overhead Line miles.



## **II. Effectiveness Evaluation**

### **A. Weather Characteristics**

The following summarizes the effect of wind over the past eight years. In the original TreeWatch technical analysis, it was found that the outages experienced within PSE correlated relatively well to Maximum Sustained Wind Speed recorded at Sea-Tac Airport. While the data is limited to Sea-Tac, and is not a comprehensive review of all weather stations within the full service territory, it is generally considered to be representative of the weather events occurring throughout the service territory.

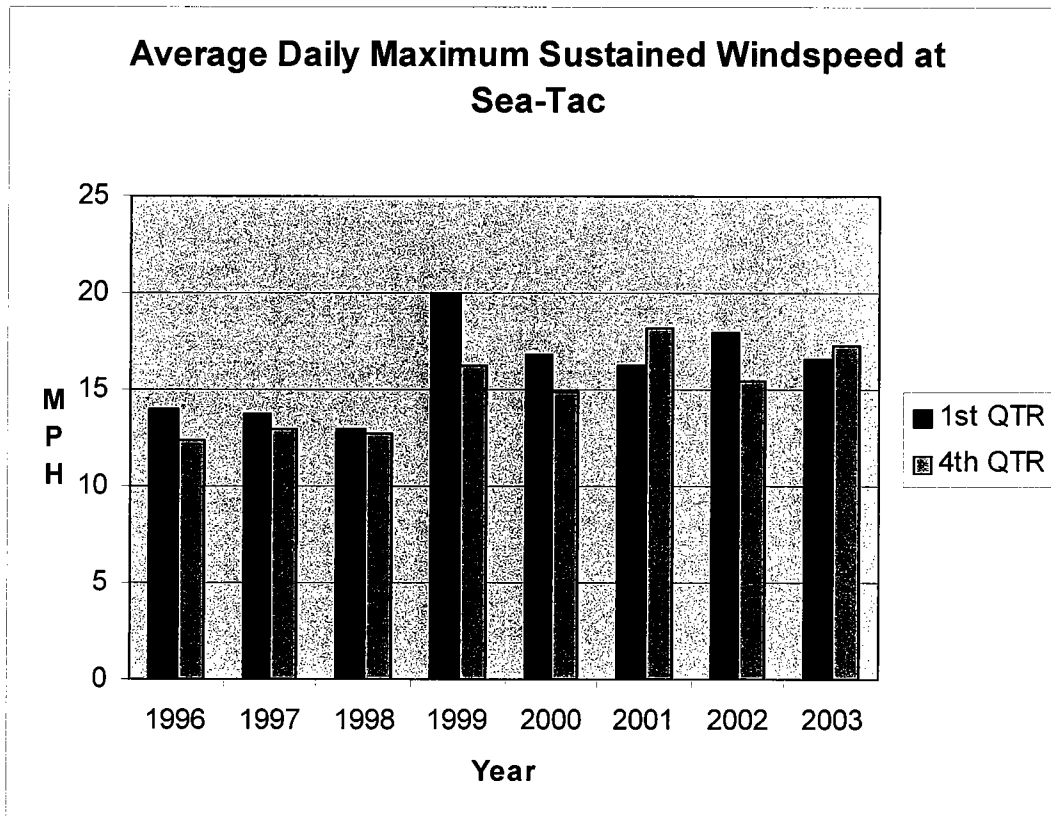
The following table shows the Maximum Sustained Wind Speeds averages for the calendar years 1996 through 2003.

This data confirms that in comparing eight years of data, 1999 experienced the highest Maximum Sustained Wind Speed average, followed by the year 2002, which had significant winds in the first quarter. The year 2003 had significant winds in the fourth quarter.

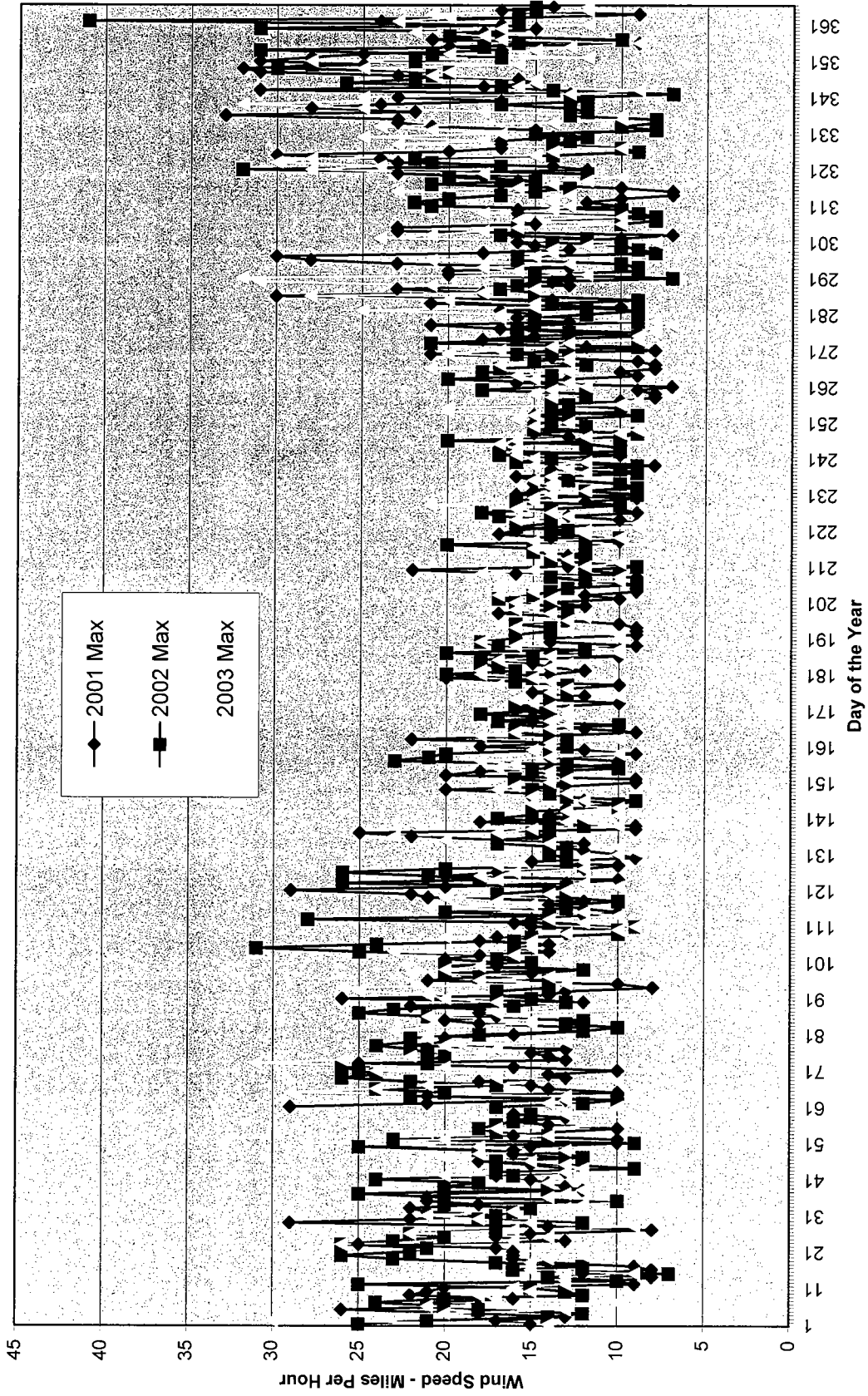
**Maximum Wind Speed Averages**

<b>Period Average</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
1 <sup>st</sup> Quarter	14.0	13.8	13.0	20.0	16.8	16.2	18.0	16.6
4 <sup>th</sup> Quarter	12.4	12.9	12.7	16.3	14.9	18.2	15.4	17.3
1 <sup>st</sup> and 4 <sup>th</sup> Qtr. Average	13.2	13.4	12.9	18.2	15.9	17.2	16.7	16.7
Full-year average	12.8	11.9	11.3	16.1	15.1	15.3	15.7	15.7

The following shows the above data for first and fourth quarters in graphical format.



2001 - 2003 MAXIMUM WIND SPEEDS



### **III. Storm Statistics**

For the purposes of the SQI measurement, a Major Storm is defined as an event where more than 5% of PSE's electric customers are without power due to weather-related causes. Weather-related causes may include wind, ice, snow, rain or some combination of the above.

For the purposes of Storm Deferral Accounting, a Catastrophic Storm is defined as an event where more than 25% of PSE's electric customers are without power due to weather-related causes.

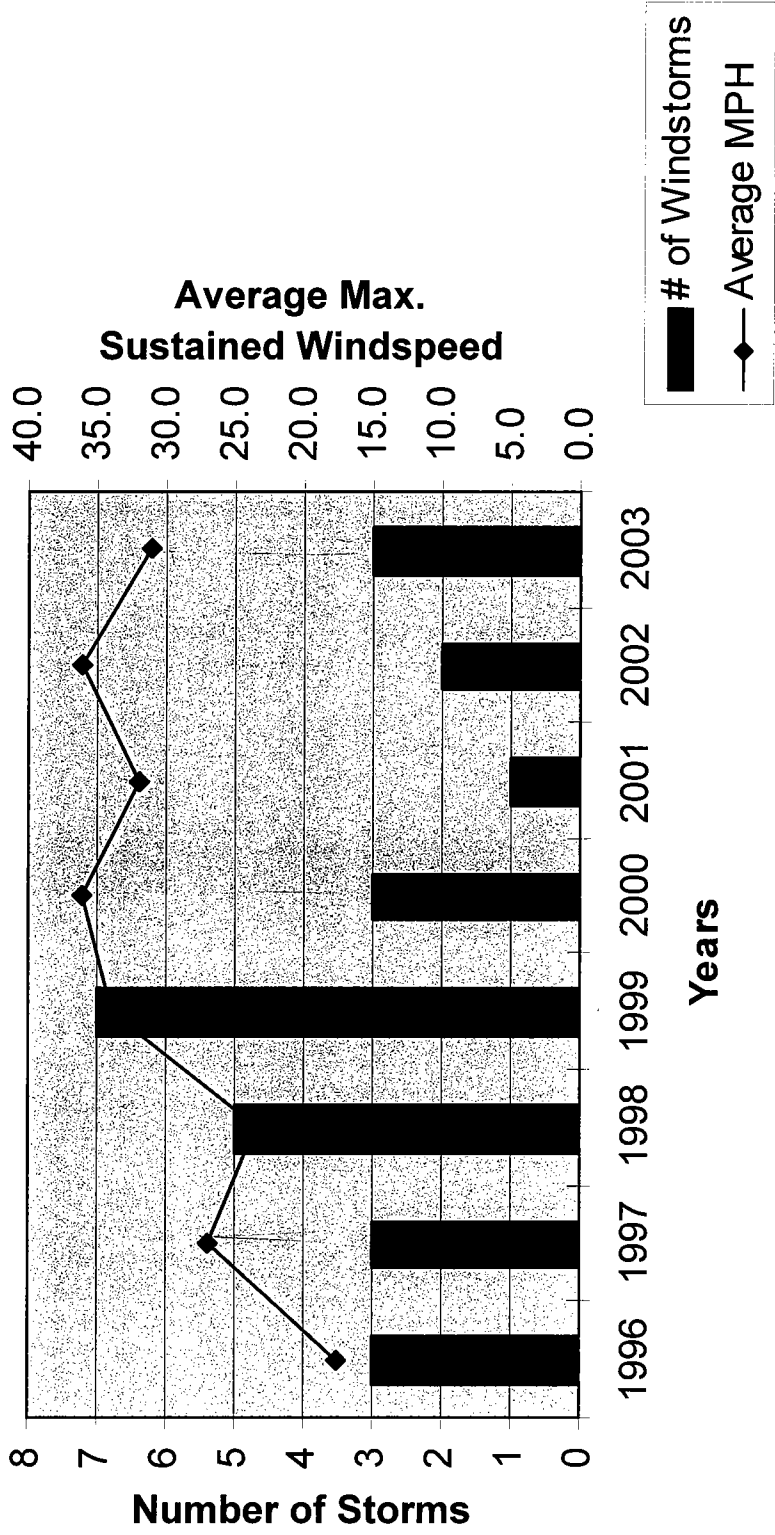
For the purposes of PSE accounting purposes, employee's charge their time to storm expense whenever the Company's Emergency Operations Center is opened, regardless of whether or not the 5% threshold is met.

Taking both the first and fourth quarters into consideration, the year 2003 was a moderate windstorm year for Puget Sound Energy, with the fourth quarter having significant winds. There were two Major Storms in 2003, both due to wind (4/07/2003 and 10/16/2003). There was one Catastrophic Storm on 12/04/2003.

The following chart shows how PSE appears to have "hardened" the electric overhead system, through TreeWatch and other capital reliability projects. Thus even with increased sustained wind speeds, fewer customers are affected so that the Company does not need to declare as many events a Major Storm. We believe that the advantage of this work is that Major Storms affects fewer customers. However, an unanticipated outcome is that because we have fewer Major Storms, more outage data is reflected in our SQI measures. Since outage events that would have been excluded in the past are now being included, it may appear as though our SAIDI and SAIFI performance is deteriorating when clearly that is not the case when you take into consideration the reduction in Major Storm events.



# PSE Major (5%) Windstorm Days and Average Maximum Sustained Windspeeds for those Storm Days



#### IV. Summary Circuit Statistics Results

##### A. Summary of TreeWatch Treated Circuit Outages

Full Year Data  
Pre- and Post-TreeWatch Treatment

##### Number of Outages

TW Year	1996	1997	1998	1999	2000	2001	2002	2003	2003 Total	Average Pre-TW	Average Post-TW	Percent Change
2002 (87 Circuits)	423	280	308	428	321	559	293	372	372	373	372	-0.3%
2001 (82 Circuits)	345	202	199	295	256	332	168	256	256	272	212	-21.9%
2000 (62 Circuits)	279	175	191	253	143	248	167	230	230	208	215	3.3%
1999 (26 Circuits)	331	222	205	207	113	212	190	235	235	241	188	-22.3%
Total (257 Circuits)	1378	879	903	1183	833	1351	818	1093	1093	242	219	-9.6%

##### SAIDI

TW Year	1996	1997	1998	1999	2000	2001	2002	2003	2003 Total	Average Pre-TW	Average Post-TW	Percent Change
2002 (87 Circuits)	97.3	43.7	102.9	73.5	47.5	143.4	61.5	135.0	135.0	81.4	135.0	65.8%
2001 (82 Circuits)	72.0	30.4	52.5	46.3	53.2	66.0	43.6	94.0	94.0	53.4	68.8	28.8%
2000 (62 Circuits)	177.0	101.1	64.5	76.8	80.7	81.0	77.9	100.7	100.7	100.0	86.5	-13.5%
1999 (26 Circuits)	156.4	82.1	92.4	153.1	55.2	143.2	105.3	180.1	180.1	121.0	121.0	0.0%
Total (257 Circuits)	112.9	56.4	80.0	77.4	56.1	108.3	66.6	123.7	123.7			

Note: Shaded area represents Post TreeWatch Treatment.

**B. Summary of TreeWatch Treated Circuit Outages**

October through March Data  
(Winter Storm Season)  
Pre- and Post-TreeWatch Treatment

**Number of Outages**

Winter Data	October – March										Average Pre-TW	Average Post-TW	Percent Change
	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04					
2003 (66 Circuits)	147	99	196	137	124	296	168	219	167	219	31.4%		
2002 (87 Circuits)	249	149	339	210	156	423	187	323	254	255	0.3%		
2001 (82 Circuits)	174	96	239	144	123	256	137	220	155	204	31.7%		
2000 (62 Circuits)	156	99	198	118	70	208	138	207	143	156	9.1%		
1999 (26 Circuits)	186	124	196	72	63	176	147	197	169	131	-22.3%		
Total (323 Circuits)	912	567	1168	681	536	1359	777	1166	888	965	8.7%		

**SAIDI**

Winter Data	October – March										Average Pre-TW	Average Post-TW	Percent Change
	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04					
2003 (66 Circuits)	52.5	35.5	46.2	31.6	25.0	103.9	75.1	79.8	52.8	79.8	51.0%		
2002 (87 Circuits)	71.8	18.1	126.8	36.3	14.2	136.5	129.0	73.2	67.3	130.1	93.4%		
2001 (82 Circuits)	28.9	17.5	52.0	25.8	46.8	46.0	78.6	60.0	34.2	61.5	79.9%		
2000 (62 Circuits)	176.7	42.0	68.2	43.6	34.8	85.0	75.4	99.5	82.6	73.7	-10.8%		
1999 (26 Circuits)	91.0	76.0	151.9	29.7	30.9	95.8	130.8	120.2	106.3	84.3	-20.7%		
Total (323 Circuits)	76.3	32.6	88.5	33.6	28.6	97.3	98.6	81.6					

**Note: Shaded area represents post-TreeWatch Treatment**

## *V. Community Acceptance*

### Community Acceptance

Community and customer acceptances to the TreeWatch program and to PSE's vegetation management program, in general, have met acceptance levels documented in previous reports. With direct interaction and efforts educating property owners on the power reliability benefits of both TreeWatch and routine vegetation management, acceptance levels continue to be outstanding.

PSE's commitment to line clearance vegetation management outreach and education in 2003 produced a comprehensive and effective community forestry program. PSE identified local and non-profit organizations that would achieve mutual benefit by joining with PSE on specific projects. We formed partnerships with the National Tree Trust, the Rocky Mountain Elk Foundation, Mountain to Sound Greenway, Washington Department of Transportation, regional stream teams, local school districts and other non-profit green organizations. An example of such a partnership included Puget Sound Energy uniting with the National Tree Trust and other local non-profit groups to establish fifteen tree nurseries throughout our service territory. The tree nurseries are used for both PSE replanting projects in addition to other projects. To date, Puget Sound Energy and the National Tree Trust distributed three trees for every tree removed under Tree Watch.

For the fourth year in a row, PSE has been designated as a Tree Line USA utility. This award is given by the National Arbor Day Foundation, in cooperation with the National Association of State Foresters. Tree Line USA is a program of the National Arbor Day Foundation to promote the dual goals of dependable utility service and abundant, healthy trees along America's streets and highways. To meet these goals, criteria have been developed that highlight – for the consumer public as well as utility workers – key practices that need to be followed. In order to achieve Tree Line USA status, you must meet 3 goals.

- Perform Quality Tree Care.
- Annual worker training.
- Tree Planting and Public Education. PSE also received awards from the Washington Arbor Day Council, recognizing our efforts in establishing public and private partnerships and promoting the public's interest and participation in proper tree planting and care.

As PSE further develops our community forestry initiative, emphasis will be place on promoting such programs as "The Right Tree Right Place", and developing an educational program targeted at college and university career paths in urban planning and landscape architecture.

*VI. Expenditures*

	<b>Tree Watch Deferred</b>	<b>Tree Watch Amortization</b>	<b>Vegetation Management O&amp;M</b>
Jan-03	\$523,411	\$283,171	\$671,835
Feb-03	440,669	288,025	767,617
Mar-03	474,801	292,042	841,343
Apr-03	401,301	295,856	858,756
May-03	483,225	299,507	958,109
Jun-03	347,895	303,192	627,227
Jul-03	442,827	306,655	878,572
Aug-03	596,802	309,950	462,880
Sep-03	675,198	314,282	452,722
Oct-03	836,403	319,582	453,234
Nov-03	476,497	325,880	555,466
Dec-03	512,503	331,350	390,209
<b>2003 Spending</b>	<b>\$6,211,533</b>	<b>\$3,669,492</b>	<b>\$7,917,969</b>

In 2003 an additional \$847,618 was spent on vegetation management during storm events. The \$847,618 is not included in the summary above.

**TreeWatch Spending Inception to Date  
July 1998 through December 2003  
And projected 2004**

<b>Inception to date</b>	<b>\$40,533,012</b>
<b><u>Projected 2004</u></b>	<b><u>2,466,988</u></b>
<b>Total Program</b>	<b>\$43,000,000</b>

## A. Economic Analysis

The TreeWatch report and filing contained the following table, which projected the first 5-year revenue requirement with and without TreeWatch. **Note that the program was not expected to produce expense savings until approximately year 4.**

Projected	Dollars in Thousands					
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Total
<b>Comparison Rev. Requirement</b>						
With TreeWatch	\$19,660	\$19,600	\$19,600	\$19,270	\$18,120	\$96,250
Without TreeWatch	19,250	19,250	19,250	19,250	19,250	96,250

The following table compares 1999 through 2003 Actuals vs. Year 1 through 5 projections (from the VROW filing), Delivery Business Unit, O&M expense only.

		Years 1, 2 & 3 Projected (1999, 2000,2001)	Years 1, 2 & 3 Actual (1999, 2000,2001)	4th Year Projected (2002)	4th Year Actual (2002)	5th Year Projected (2003)	5th Year Actual (2003)
<b>Dollars in Thousands</b>							
<b>1</b>	<b>With TreeWatch</b>						
2	Major Storm Expense	\$15,810	\$20,420	\$3,110	\$4,958	\$1,650	\$5,905
3	Non-storm tree damage repair						
4	Reduced Repair Costs**	(3,200)	(584)	(2,140)	(116)	(2,660)	(46)
5	Proactive Vegetation Management						
6	Dedicated right-of-way	21,834	23,163	6,550	8,272	5,800	7,918
7	Additional Mile value accomplished***		(1,577)		(967)		
8	Virtual right-of-way amortized	3,750	4,628	2,990	3,109	3,860	3,670
<b>9</b>	<b>Without TreeWatch</b>						
10	Major Storm Expense*	19,200	26,990	6,400	12,358	6,400	14,705
11	Proactive Vegetation Management						
12	Dedicated right-of-way	21,900	23,162	7,300	8,272	7,300	7,918
<b>14</b>	<b>Comparison Expense*</b>						
15	With TreeWatch	38,194	46,050	10,510	15,256	8,650	17,447
16	Without TreeWatch	41,100	50,152	13,700	20,630	13,700	22,623

## B. Notes and Calculations

**\*The company's actual storm expense (non Catastrophic) for 2003 was \$5,905,000. The estimated number without TreeWatch (line 10) is computed as follows:**

From the graph under storm statistics depicting PSE major (5%) windstorm days, and average maximum sustained wind speeds for those storm days, it can be seen that PSE has hardened its system, from wind events averaging less than 27 MPH causing Major or Catastrophic Storms to wind speeds in excess of 32 MPH causing the same level of damage. The following shows the number of days winds were in this "hardened" range and how many did cause a storm.

Year	Total Days	Caused Storm	% Causing Storm	Average	96-98 less 99-03.
1996	1	1	100.00%		
1997	3	2	66.67%		
1998	4	2	50.00%	72.22%	
1999	13	2	15.38%		
2000	8	1	12.50%		
2001	9	1	11.11%		
2002	7	1	14.29%		
2003	12	3	25.00%	16.32%	55.90%

Based on this information, it appears in the year 2003, 3 to 6 potential storm days were avoided, compared to the years 1996 through 1998. Of these, 56% may have historically caused a storm. Therefore, we estimate that a minimum of three major storm days were avoided.

Two Major Storm (non-catastrophic) events did occur in 2003 for a total cost to PSE of \$5,905,000. Each day of storm equates to \$2,952,500. If three storm events were avoided, there would be additional savings of approximately \$8.8 million.

Without TreeWatch and other capital improvements (tree wire, conductor replacement), it is anticipated that the O&M storm cost would have been approximately \$14,705,000.

### **\*\*Reduced repair costs in non-storm conditions.**

- The circuits which had TreeWatch treatment prior to 2003, had 23 less outages than pre-TreeWatch (page 12).
- 23 outages \* \$2,000 per outages = \$46,000 less costs incurred for non-storm outages.

### **\*\*\*Vegetation Management Expense**

- While PSE is continuing to spend more than the level of vegetation management expense allowed in the last rate case, by working TreeWatch and 6-year cycle trimming together, PSE has saved over \$730 per mile in vegetation management expenses. (We eliminate the need for two sets of mobilization, flagging, notification, and supervision costs, etc.) Prior to TreeWatch, maintenance work was costing in excess of \$3,500 per mile. This O&M work is now being done for approximately \$2,770 per mile.

**Petition**  
of Puget Sound Energy  
For an Order Regarding the Continuance of the Accounting Treatment of  
Expenditures for the Virtual Right-Of-Way Program (“Tree Watch Program”)

Exhibit B



**BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION  
COMMISSION**

Petition of

PUGET SOUND ENERGY, INC.

For an Order Regarding the Continuation  
of the Accounting Treatment of  
Expenditures for the Virtual Right-Of-  
Way Program ("Tree Watch Program")

Docket No. UE-

ORDER (PROPOSED)

**BACKGROUND**

1. On May [ ], 2004, Puget Sound Energy, Inc. ("PSE" or "the Company") filed with the Commission a Petition pursuant to WAC 480-09-370(b) for an order regarding the continuation of the accounting treatment of its Virtual Right-Of-Way Program expenditures.
2. According to the Petition, the Tree Watch Program has allowed the Company to achieve significant improvements in the reliability of the electric service it provides. Through the Tree Watch Program, the Company has achieved significant reductions in its major storm tree related overhead outage rates and in repair costs during major storm events. The Company anticipates that additional benefits can be achieved through the continuation of the Program.
3. According to the Petition, the Company proposes to spend up to \$2 million dollars annually and there will be three components under the Program:
  - a) Create new, enhanced vegetation management areas outside of the Company's rights-of-way along targeted transmission corridors.

- b) Apply Tree Watch to distribution circuits that were not initially targeted under the original program.
  - c) Target circuits where Tree Watch was applied and reliability results did not meet expectations due to permitting limitations, and lower than optimal customer acceptance rates.
4. The Company requested that the Commission authorize the Company to continue the accounting treatment of the Tree Watch Program without expiration, until otherwise ordered in the pending general rate case or subsequent Commission order, and during that period:
- a) Capitalize, for recovery in rates, the Tree Watch Program costs, up to \$2 million dollars annually beginning July 1, 2004, in a regulatory asset account as a deferred charge;
  - b) The Tree Watch expenditures will continue to be amortized to the appropriate operation and maintenance accounts using a half-year amortization convention consistent with the accounting originally ordered in Docket No. UE-980877.
  - c) Normalize federal income taxes related to Tree Watch expenditures; and
  - d) Include the regulatory asset and related deferred tax accounts in working capital for ratemaking purposes.

## **FINDINGS**

### **THE COMMISSION FINDS:**

1. PSE is a public service company furnishing electric and gas service primarily within the State of Washington as a public service company, and is subject to the

regulatory authority of the Commission as to its rates, service, facilities and practices.

2. On May [ ], 2004, the Company filed with the Commission, a petition for an order regarding the continuation of the accounting treatment of the Tree Watch Program expenditures.
3. PSE's request to continue the accounting treatment of the Tree Watch Program expenditures is reasonable, and should be approved.

### **ORDER**

WHEREFORE, THE COMMISSION HEREBY ORDERS:

1. Authorization is hereby given for PSE to continue the accounting treatment of its Tree Watch Program until otherwise decided in the pending general rate case or subsequent Commission order, and during that period:
  - a) Capitalize, for recovery in rates, the Tree Watch Program costs, up to \$2 million dollars annually, in a regulatory asset account as a deferred charge;
  - b) Amortize the regulatory asset using a half-year amortization convention over the ensuing ten-year period;
  - c) Normalize federal income taxes related to Tree Watch expenditures; and
  - d) Include the regulatory asset and related deferred tax accounts in working capital for ratemaking purposes.
2. Nothing herein shall be construed to waive or otherwise impair the jurisdiction of the Commission over the rates, services, accounts and practices of Applicant Puget Sound Energy. The Commission, under its general ratemaking authority, will have the ability in subsequent PSE general rate proceedings to evaluate the reasonableness of the Company's expenditures under the Tree Watch Program.

3. The Commission retains jurisdiction to effectuate the provisions of this Order.

DATED in Olympia, Washington and effective this \_\_\_\_ day of May, 2004.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

MARILYN SHOWALTER, Chair

RICHARD HEMSTAD, Commissioner

PATRICK OSHIE, Commissioner

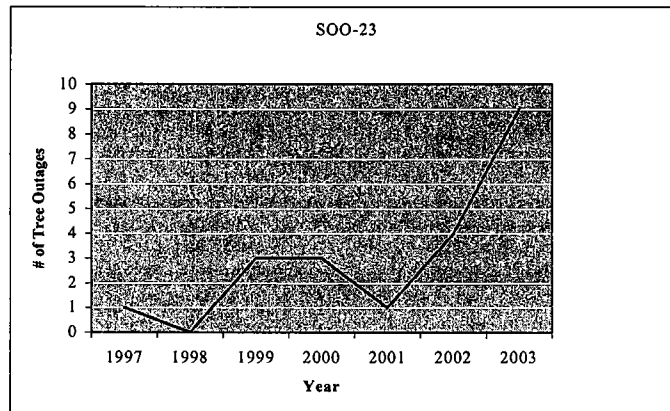
DATED: May [ ], 2004.

**Petition**  
of Puget Sound Energy  
For an Order Regarding the Continuance of the Accounting Treatment of  
Expenditures for the Virtual Right-Of-Way Program (“Tree Watch Program”)

Exhibit C

**Tree Watch Program Components Examples & Charts**

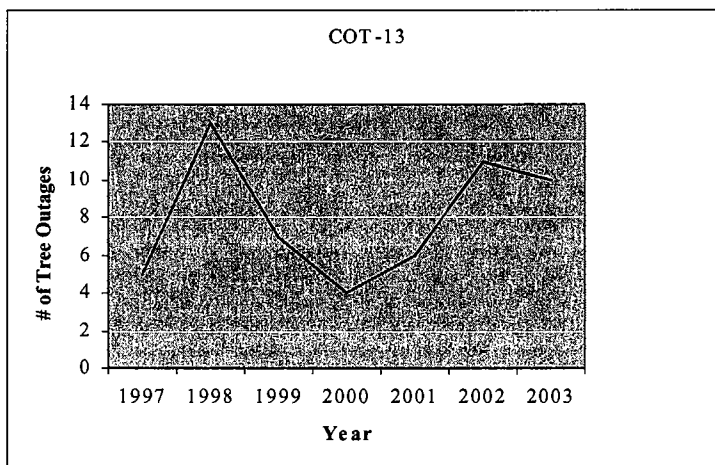
**Example 1** - Soos Creek 23 is a nine-mile distribution circuit in the Lake Meridian area on the east hill of Kent. Since 1997, largely due to the incorporation of nearby Covington, customers served on this circuit have grown by 37%, from 1,122 to 1,517. New construction and development in the area has increased incidents of tree related outages as new clearing has left unprotected single trees and buffer strips. Customer complaints to PSE and the WUTC have increased along with the outages. This circuit's reliability would now benefit from the Tree Watch program.



**Example 2** - Cottagebrook 13, is a twenty-mile distribution circuit in King County, outside of the City of Woodinville, serving 1,981 customers. Tree Watch was performed on this circuit in early 2000. This heavily treed circuit has experienced growth and development since then. (Approximately 200 customers have been added to this circuit since that time). The number of customers with reliability concerns in the Cottagebrook 13 area is growing. Trees off the traditional rights-of-way have been identified as a major cause of continued

outages. Tree Watch funding would enable the company to utilize further Tree Watch improvements to respond to these customers' concerns.

Initially the Tree Watch reliability performance enhancement was positive, as shown on the following graph:



**Example 3** - The Black Cottonwood species, as a percent of total tree caused outages, has become much more troublesome. This is typically a very brittle species, but the droughts caused it to become even more so. This past winter PSE observed a great number of Cottonwoods trunks snapping about 10 feet off the ground. This had rarely been observed prior to then. Because of this, PSE will be targeting more Black Cottonwoods in the upcoming years for removal than previously.

The following charts show the six primary species of trees causing non-storm outages.

