EXHIBIT NO. _____ (JMS-1T)
DOCKET NO. _____
2001 PSE RATE CASE
WITNESS: JOHN M. SHEARMAN

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.

Respondent.

DIRECT TESTIMONY OF JOHN M. SHEARMAN ON BEHALF OF PUGET SOUND ENERGY, INC.

NOVEMBER 26, 2001

PUGET SOUND ENERGY, INC.

DIRECT TESTIMONY OF JOHN M. SHEARMAN

I. INTRODUCTION

Q: Please state your name and business address.

A: My name is John M. Shearman. My business address is 2001 Route 46 East, Suite 410, Parsippany, New Jersey, 07054.

Q: By whom are you employed and in what capacity?

A: I am the Chairman and Chief Executive of UMS Group Inc. a firm engaged in diagnostic, strategic and management consulting services to utility companies worldwide.

Q: **Have you prepared an exhibit describing your educational and professional qualifications?**

A: Yes, I have. It is Exhibit JMS-2.

Q: What is the purpose of your testimony?

A: The intent of my testimony is to:

1. Provide an assessment of Puget Sound Energy's (PSE's) performance relative to its peers from a customer service perspective as well as from a cost perspective in the areas of Distribution, Transmission, Customer Service and Administrative & General (A&G).
2. Asses whether management actions were the driver for performance improvement, and
3. Determine the benefits that have accrued to PSE customers as a result of the concerted efforts of management to control operating costs and improve service in the last few years.

Q: What conclusions have you drawn from the analyses you conducted?

A: First, based on a benchmarking cost analysis, I conclude that PSE's Electric O&M and Capital related costs and PSE's Gas O&M costs are among the lowest in the industry. PSE successfully reduced its costs during a time period when others in the industry were not able to do so.

Second, that such low cost has been the result of a concerted and focused effort by management. These low costs have been achieved without deterioration in service levels and PSE has almost always achieved or exceeded the target levels for the Service Quality Indices (SQIs) approved by the WUTC. It should be noted that making and delivering on extensive service level commitments while implementing initiatives to streamline operations and introducing new innovative technologies is a complex and difficult undertaking. Accomplishing it while integrating two separate companies is an extremely challenging feat.

Finally, PSE efforts have resulted in $156 Million in savings over the last 3 years. Compared with the $370 million merger synergy savings (to be captured over 10 years) identified at the time of the merger, PSE is ahead of schedule to deliver the savings. This is significantly better performance than achieved by other utility mergers over the past 10 years.

Q: How is your testimony structured?

A: In Section II, Context, I discuss the sources of comparative performance (benchmarking) information used and the basis for the formulation of the industry and regional peer comparison panels. In Section III, PSE's Operating Performance, I discuss PSE's Electric Operations, Gas Operations, Customer Service and A&G performance relative to its peers from a service (reliability and customer service) as well as a total cost (O&M and Capital) perspective. In Section IV, PSE's Performance Improvement Initiatives, I discuss the reasons why

PSE has been able to achieve such superior performance relative to the industry. In Section V, Total Cost Savings, I quantify the financial benefits that I believe have accrued to the ratepayers through PSE's efforts to manage costs. Finally in Section VI, Summary, I present a summary of my testimony.

Q: What exhibits are you sponsoring?

A: Exhibit JMS-3 lists the exhibits that I am sponsoring.

II. CONTEXT

Q: Please summarize the experience of UMS in assessing utility performance?

A: UMS Group has been at the forefront of the use of benchmarking, a performance assessment technique, in the utility industry and has extensive experience conducting benchmarking studies. Benchmarking is a measurement technique used to compare the business performance and practices of a company to a group of its peers and/or its competitors. Overall company performance, as well as the performance of specific activities, can be evaluated using this technique. Its general use began as early as 1983 and has evolved over the last decade or so. Today, benchmarking is a legitimate and widely accepted tool for managing business performance. It provides a framework for management to drive business performance improvements in a predictable and logical way.

For the past 10 years, UMS Group has conducted a comprehensive benchmarking program, which has systematically compared the performance of most utility functions, including generation, transmission, distribution, customer service and corporate functions. Numerous utilities from the U.S. as well as other countries such as Australia and England, participate in these studies. We have also performed specific benchmarking studies for a large number of clients. Consequently, we have developed a comprehensive knowledge base about benchmarking. In addition, because of our extensive benchmarking experience,

we have developed a large database of information on utility strategies, best practices, operating approaches and cost and service level performance. Exhibit JMS-4 shows the functions and sub-functions that UMS benchmarking studies address. Through this work, we have been able to develop significant insights into strategic management and operational performance of utilities.

Q: Why were you retained in connection with this rate case?

A: PSE believes that it has had a focused effort on driving performance improvement and, in addition, has implemented a variety of innovative processes and technologies to further leverage performance improvement. In connection with this rate case, UMS Group was retained to provide an independent comparative assessment of PSE's operational performance relative to the industry and to review and comment on the effectiveness of the actions taken by management to drive performance improvement. UMS was also asked to review and comment on the financial benefits that have accrued to PSE's customers as a result of its focus on performance improvement.

Q: How familiar are you with PSE?

A: My association with PSE commenced in 1994. Over the past several years, I have had numerous discussions with members of the Puget executive management team about performance management and cost reduction strategies and initiatives. In addition, over the last 7 years, I have studied PSE's performance periodically as a part of industry comparative analyses. UMS Group has had no formal engagement with PSE prior to this rate case.

In connection with this rate case, in addition to examining various data and documents relating to PSE's operating performance, I interviewed the key executives responsible for PSE's performance. The intent of these interviews was to assess the level of commitment and alignment of the senior executives to

improving service levels and cost efficiencies and to identify the specific actions taken to accomplish the stated objectives. In essence, I wanted to determine whether senior management had taken deliberate strategic steps to improve performance, and whether performance improvement was a direct consequence of those management actions.

III. PSE'S OPERATING PERFORMANCE

Q: Would you please discuss the method used to compare PSE's performance to other utilities?

A: Business performance has two components, the level or quality of service and the associated cost. These two components are interdependent and in evaluating either, it is necessary to assess the other as well. High service levels are desirable, but if achieved simply by spending more money, then it cannot be said that overall business performance is necessarily better. Similarly, driving costs lower by sacrificing service levels is usually not considered as better business performance. Conventional wisdom suggests that there is a direct correlation between service and cost and that the only way to improve service is to increase costs. However, benchmarking results have demonstrated that this conventional perspective is not always correct. Our experience has demonstrated that top performing companies can deliver high levels of service at low costs.

In evaluating PSE's service performance, I first reviewed the Service Quality Indices (SQIs) established by PSE and approved by the Washington Utilities and Transportation Commission (WUTC). The SQIs consist of 10 key performance indicators of Electric and Gas service. Since these SQIs were established in conjunction with the Commission Staff and the Public Counsel and since the WUTC agreed to the targets for performance, meeting or exceeding these SQIs would seem to be a reasonable indication that PSE has been providing

a high level of service to its customers. I confirmed that from 1998 through 2001, with 3 exceptions out of 38 targets, PSE has consistently met or exceeded the SQIs since their establishment. Further, to corroborate the assumption that the SQIs represented a reasonable standard for superior service levels, I reviewed the SQI performance measures from an industry practices perspective and assessed whether the targets established for the SQIs were in accordance with industry norms. I also compared PSE's performance in the area of electric and gas reliability, which is one of the most critical service performance indicators, to other companies.

After reviewing PSE's level of service against both the service level prescribed by and acceptable to the WUTC and industry norms, the focus of my analysis shifted to PSE's costs. In order to assess overall cost performance, I looked at both O&M and Capital costs. This is important since there is a relationship between these two cost elements. Because tradeoffs can be made between the two, excessive capital spending can result in lower O&M costs, and underspending in the capital arena can result in high O&M costs. Consequently, it is necessary to review both cost elements simultaneously to make assessments about the relative efficiency of a company.

Q: Please discuss your findings regarding PSE's service levels?

A: I reviewed the SQIs and the associated target levels developed by PSE in conjunction with the WUTC and reviewed PSE's performance since the SQIs were established in 1997. Exhibit JMS-5 presents a review of the SQI's from an industry perspective for the year 2000 (Industry data for 2001 is not yet available). PSE's performance relative to the industry for the majority of the SQI's is better than the industry averages.

Exhibit JMS-6 presents PSE's actual performance on the 10 SQIs from 1998-2001. As I mentioned earlier, PSE's performance relative to the SQI performance targets since their establishment has been excellent. Overwhelmingly, the SQIs focus on meeting customer expectations for service, and PSE's performance has, with a greater than 92% success rate, met or exceeded the targets. It is evident to me that management's focus on customer service did not diminish during a period of significant change brought about by the merger of the two companies.

Further, I compared PSE's performance in the area of electric and gas service reliability to the industry. Apart from price, electric and gas service reliability are key drivers of customer satisfaction and examining PSE's performance relative to the industry and some of its regional peers provides a good proxy of PSE's overall quality of service. Exhibit JMS-7 presents information on electric and gas service reliability. As the Exhibit illustrates, PSE's 2000 performance is on par with or exceeds industry averages.

Q: Based on your analysis what did you conclude?

A: First that the set of SQI's selected by PSE are a reasonable set of performance measures to track the performance of a gas and electric utility and second, that PSE's performance with regard to the SQI's relative to the industry is above average.

Overall these findings demonstrate that PSE has consistently delivered a high level of service to its customers and that this high level of service has been attained during a time of significant change brought about by the merger.

Q: Having concluded that PSE has been delivering a high level of service to its customers, can you discuss how you analyzed PSE's cost performance?

A: To provide a complete view of PSE's costs, I examined costs from two separate perspectives. First, I compared PSE's electric and gas O&M and Capital costs separately to a national panel of utilities and, in the case of electric costs, to a peer group of regional utilities as well. These electric and gas comparisons were designed to provide a perspective of how PSE compares against a large group of companies, both single commodity and dual commodity utilities. Second, I compared PSE's O&M costs to a peer group of combination gas and electric utilities. This second comparison is, in my opinion, a more stringent test for comparing PSE's O&M costs because combination utilities presumably enjoy the advantages of capturing scale and synergy efficiencies associated with certain Customer Service, A&G and other gas and electricity service delivery costs.

Analyzing costs from these two perspectives provides a comprehensive comparison of PSE's costs.

PSE's Electric Cost Performance

Q: Can you describe the method used to compare PSE's electric cost performance to other companies' performance?

A: In order to compare the cost performance of a company to a peer group, it is first necessary to determine a common means of measurement. In a manufacturing environment, a common measure is the total cost of a unit of production. In electric generation, the analogous measure is cents per Kilowatt-hour (kWh) generated. However, for a "wires" business, such as electric service, a more appropriate measure is a cost per customer or cost per line mile. Density of customers and the assets used to deliver power to customers are the major drivers of costs associated with O&M as well as Capital in the "wires" business.

Once a common basis of comparison has been determined, it is necessary to establish an appropriate panel of companies against which cost performance can be compared. In order to provide a broad perspective of PSE's performance in this analysis of electric costs, I decided to compare PSE's costs to two separate panels of utilities. To get a view of PSE's total O&M and Capital costs relative to the entire industry, I compared them to a large and diverse panel of investor owned utilities (National Panel). I also compared them to a second panel of companies that operate in the same northwest geographic region as PSE (NW Panel). The intent was to derive a comprehensive evaluation of PSE's comparative performance and by comparing PSE's cost performance to these two panels of utilities, a reasonable view of PSE's cost performance could be discerned.

Q: Can you describe how you assembled the National Panel of Investor Owned Utility (IOU) electric companies for comparison purposes?

A: The National Panel is a group of 90 IOUs. Utilities are required to file financial and performance information annually with the Federal Energy Regulatory Commission (FERC). This information is supplied by the utilities annually on FERC Form 1 filings. National Panel averages and first quartile (best 25%) performance was compiled using the information from the FERC Form 1 annual filings as provided in database by SNL (a company that collects and compiles information on gas, electric and telecommunications industry). This panel of utilities is diverse in terms of size and service territory, and represents a good approximation of the average costs in the industry (Exhibit JMS-8, the National Panel.) The National Panel does not include PSE, generation companies nor companies with less than 300,000 customers. Companies with missing or suspect data for the time period under consideration were also excluded.

Q: Can you describe how you assembled the Northwest Regional Panel of electric utilities for comparison purposes?

A: The second panel is a group of 8 utilities that are within the northwest geographic region and consist of Investor Owned Utilities in the states of Oregon, Idaho, and Washington, and Municipal utilities in the state of Washington. This panel of companies provides a reasonable proxy for companies that operate in a similar climate and economy as PSE, and includes some companies operating in the same jurisdiction (Exhibit JMS-9, the NW Panel). The panel was assembled using the FERC Form 1 database as well as the Energy Information Administration database and consists of IOU's with at least 300,000 customers and Municipal Utilities with at least 100,000 customers. The panel excludes PSE.

Q: How does PSE compare with the "average" electric utility represented by the National Panel and the Northwest Panel?

A: The characteristics of the "average" electric utility represented by the National and the Northwest Panels in relation to PSE are shown in Exhibits JMS-9 to JMS-15. While the Exhibits compare PSE to the two panels on a number of different dimensions in order to provide a comprehensive view, I will refer only to the pertinent differences in my testimony. The "average" utility represented by the National Panel in 2000 consists of approximately 963,000 customers and delivered approximately 24,600,000 MWH of power to customers and the "average" Northwest utility had approximately 469,000 customers and delivered 14,200,000 MWH of electricity. In comparison, PSE has a customer base of approximately 916,000 and delivered approximately 21,700,000 MWH of electricity in 2000 (Exhibits JMS-10 & JMS-11). PSE's customer base is 5% smaller than the "average" National Company and about twice as large as the "average" Northwest Company. However, PSE delivered about 12% less energy

than the National Panel "average" utility and about 53% more than the "average" Northwest Panel utility.

PSE's service area customer density (Exhibit JMS-12) is higher than the average National Panel utility, but lower than the average Northwest Panel utility.

In terms of infrastructure used to deliver power (Exhibit JMS-13), PSE has about 17,800 miles of distribution line, which is 28% less than the average National Panel utility (24,600 miles of line) and 33% more than the average Northwest Panel utility (13,400 miles of line). However, 41% of PSE's distribution lines are underground (Exhibit JMS-14), a significantly higher percentage than either the average National Panel utility (25%) or Northwest Panel utility (35%).

From a transmission perspective (Exhibit JMS-15), PSE has 28% less miles of transmission than the National Panel average and 26% less than the Northwest Panel average. This may be due to the fact that BPA provides significant transmission wheeling services to PSE.

Q: Given the differences between PSE and the "average" National and Northwest Panel utility, what are the likely implications on the results of the cost benchmarking analysis?

A: The comparison between PSE and the National Panel illustrates that PSE has a higher customer growth rate, a higher customer density and a larger percentage of its distribution lines underground than the average National Panel utility. These differences imply that PSE's annual capital expenditures should be somewhat higher than the average National Panel utility (with a lower customer growth rate and a significantly lower distribution underground rate). I would also expect PSE's total asset base to be somewhat higher (higher distribution underground rate) than the average National Panel's asset base. From an O&M perspective, I would expect PSE's distribution and transmission O&M costs to be reasonably

close to the average National Panel utility because the number of customers served and the annual power consumed is comparable. However, with PSE's higher customer density, I would expect to see slightly lower customer service O&M costs. Also, I would expect to see A&G costs to be similar to the average National Panel utility costs.

The key differences between PSE and the average Northwest Panel utility are that PSE has a larger customer base, a lower customer density, and a higher amount of underground distribution facilities. These differences imply that PSE's capital costs and asset base are likely to be higher than the average Northwest Panel utility due to the larger customer base and a higher amount of underground distribution. From an O&M perspective, I would expect to see distribution and transmission O&M costs to be slightly lower than the average Northwest Panel utility due to the scale differential. I would also expect to see higher efficiencies in customer service and therefore lower costs. However, I would expect A&G costs to be similar.

Q: What specific PSE electric costs did you compare?

A: In order to get a comprehensive view of PSE's electric cost performance, I reviewed PSE's costs for the five year period, 1996 to 2000, in the areas of Electric Distribution, Transmission, Customer Service and A&G. I also examined PSE's aggregate electric O&M costs relative to the industry. FERC Form 1 was used as the primary source for IOU operating and cost data, and the Energy Information Administration database was the primary source of data for municipal utilities.

Q: Why did you use the FERC Form 1 data to compare PSE's electric cost performance to other utilities?

A: FERC data is readily available since utilities are required to report operating and financial data annually. FERC publishes this data annually making it possible to compare performance among the different companies on an annual as well as on a historical basis. FERC Form 1 data is used widely for comparative purposes in the industry.

Q: Was the FERC data modified in any way?

A: Some adjustments are sometimes made to FERC data to facilitate a more accurate "apples to apples" comparison. To make the data more comparable, it is also sometimes adjusted to exclude certain obvious anomalies such as accounting changes, one-time events (e.g. hurricanes) and other issues, which may bias the data and lead to incorrect conclusions. This is a common practice in the use of FERC data for benchmarking analysis. For this analysis, the FERC data for the National Panel and the NW Panel was adjusted to account for inflation. The National Panel was considered to be sufficiently large and diverse (geography & size) to obviate the need for any further broad exceptions or adjustments to the data. Some modifications were necessary for specific analyses and these are noted in the Exhibits as appropriate.

Q: Please discuss the findings of your benchmarking analysis of PSE's electric distribution costs.

A: In order to assess overall cost performance, I looked at both O&M and Capital costs. As I mentioned previously, this is important since there is a relationship between these two cost elements. Excessive capital spending can result in lower O&M and underspending in the capital arena can result in high O&M costs. Consequently, it is necessary to review both cost elements simultaneously.

The results of the overall benchmarking are shown in Exhibits JMS-16 to JMS-21. These Exhibits show the comparison, on an inflation-adjusted basis, of PSE's total distribution O&M costs to the National and NW Panels. Costs were reviewed on a customer as well as a line mile basis. While all results are presented in the Exhibits, in the interest of brevity, the testimony refers to the main findings only.

Exhibits JMS-16 and JMS-17 compare Distribution O&M costs and illustrate that:

- The National Panel's 2000 Distribution O&M cost per Customer is 45% higher and the Northwest Panel's cost is 65% higher than PSE's cost. On a cost per Line Mile basis, PSE's cost is about the same as the National Panel's and the NW Panel's cost.
- PSE's Distribution O&M cost per Customer decreased by a Compound Annual Growth Rate (CAGR) of -3.1%, and the NW Panel's costs decreased at a rate of -3.5%. In contrast, the National Panel's costs remained about the same (CAGR of 0.2%).

Consequently, from a cost per customer perspective, PSE's Distribution O&M costs are lower than both the National Panel's and the NW Panel's cost. From a cost per Line Mile perspective PSE's costs are on par with the National Panel's costs. In addition, PSE's Distribution O&M costs per Customer have declined at a faster rate than the National Panel.

Exhibits JMS-18 and JMS-19 compare average Incremental Annual Capital Additions. Since capital expenditures can vary significantly from year to year and since capital additions per year reflect completed capital projects that may have been started in previous years, a 5-year average of capital additions has been used for comparative purposes. This is more reflective of the incremental

investments made for system growth and expansion. These Exhibits illustrate that:

- PSE's 2000 annual Capital Additions cost per Customer is in the same range as the National Panel and lower than the NW Panel; PSE's 2000 costs are 3% lower than the National Panel and 18% lower than the NW Panel.
- PSE's 2000 Capital Additions cost per Line Mile is 28% higher than the National Panel but 35% lower than the NW Panel.

Therefore, from an overall perspective, PSE's annual Capital Additions per customer are comparable to the National Panel and lower than the NW Panel. On a Line Mile basis, PSE's annual Capital Additions are somewhat higher than the National Panel but significantly lower than the NW Panel. Given the degree of distribution undergrounding in PSE's service territory relative to the industry (41% of PSE's distribution system is underground whereas the National Panel's average is 25%), PSE's annual capital additions can be considered comparable to or lower than the National Panel.

Q: Did you review PSE's annual capital expenditures since the merger?

A: Yes. PSE's distribution capital budget has remained relatively constant between 1998 and 2000. However, even though PSE's annual capital expenditures have been relatively constant in the past three years, PSE initiated several capital-intensive programs to address a number of reliability related concerns. PSE's review of historical outage records on the overhead distribution system had shown that a combination of tree failures, equipment failures, and bird and animal caused outages were responsible for over 85% of the overhead line outages. Cable failures were primarily responsible for the underground outages. Consequently, for overhead reliability, a program of reconductoring, undergrounding, installation

of animal guards and the strategic removal of trees was instituted. For underground outages, a program of cable replacement and cable remediation (using silicon injection life extension technology) was continued. In addition, PSE installed an Automatic Meter Reading (AMR) system in order to get real time meter reads as well as real time information on outages. The ability to quickly identify outages provided PSE with the ability to respond faster to outages minimizing the time customers are without power. Collectively these programs significantly enhance PSE's ability to manage current and future reliability concerns (as well as outage response). The fact that PSE is accomplishing these improvements within the constraints of a "flat" capital budget needs to be recognized.

Q: Did you review any other electric distribution costs?

A: Yes. I also reviewed PSE's total distribution asset base relative to the industry. Exhibits JMS-20 and JMS-21 compare PSE's net distribution asset base (gross asset base less depreciation) to National and NW Panels. The Exhibits illustrate that:

- On a $ per customer basis, PSE's 2000 total distribution asset base is about the same as the National Panel's and the NW Panel's. However, on a $ per Line Mile basis PSE's asset base is 43% larger than the National Panel and 17% smaller than the NW Panel.

From an industry perspective, PSE's asset base per customer compares well against the National Panel's and the NW Panel. On a $ per Line Mile basis it is significantly larger than the National Panel's, but considerably smaller than the NW Panel. As has been discussed previously, the differential in asset base relative to the National Panel is most likely due to the degree of distribution undergrounding in PSE's service area.

Q: Can you explain why there is such a difference between the asset costs on a customer and a Line Mile basis?

A: Yes. One of the reasons why we look at alternative measures of performance is to assure that performance is not masked or biased by factors that are not readily apparent. That is the reason we chose to examine costs on both a Customer and a Line Mile basis. On a $ per Customer basis, PSE's costs are the same as or lower than the industry and regional peers. However, on a $ per Line Mile basis they seem to be higher than the National average but lower than regional peers. This anomaly, as I mentioned, is most likely due to the fact that a high proportion of its distribution system is underground (Exhibit JMS-14). PSE primarily serves suburban communities and for the past several years, PSE has been undergrounding its distribution facilities in new subdivisions and developments throughout its service territory.

Q: Please discuss the findings of your benchmarking analysis of PSE's electric transmission costs.

A: As with distribution, I looked at both O&M and Capital costs associated with transmission. The results of the overall benchmarking are shown in Exhibits JMS-22 through JMS-27. These Exhibits show the comparison, on an inflation-adjusted basis, of PSE's total transmission costs to the National and NW Panels. Costs were reviewed on a customer as well as a line mile basis.

Exhibits JMS-22 and JMS-23 compare Transmission O&M costs and illustrate that:

- PSE's 2000 Transmission O&M cost per Customer is considerably lower than the National Panel and the NW Panel. On a $ per Line Mile basis, PSE's 2000 Transmission costs are significantly lower (213%) than the National Panel cost but higher (15%) than the NW Panels' costs.

- PSE's Transmission O&M cost per Customer as well as per Line Mile decreased between 1996 & 2000, while the costs of the National Panel and NW Panel increased during the same time period.

Exhibits JMS-24 and JMS-25 compare average incremental annual Transmission capital additions and illustrate that:

- PSE's 2000 annual capital additions per Customer and per Line Mile are lower than or about the same as the National Panel and lower than the NW Panel's costs.

Exhibits JMS-26 and JMS-27 compare PSE's Transmission asset base to the National and NW Panels and illustrate that:

- PSE's Transmission asset base per Customer is about the same as the National Panel and 9% higher than the NW Panel.
- On a $ per Line Mile basis, PSE's Transmission asset base is slightly higher (8%) than the National Panel but considerably higher (56%) than the NW Panel.

On a per customer basis, PSE's asset base is comparable to both the National and NW Panel but on a Line Mile basis, PSE's asset base, while comparable to the National Panel, is considerably higher than the NW Panel. The most likely reason for this difference is that the NW Panel is comprised of utilities that are about half the size of PSE. (Exhibits JMS-10, JMS-11 and JMS-13).

Q: Please discuss the findings of your benchmarking analysis of PSE's Electric Customer Service costs.

A: For Customer Service, I reviewed total electric customer accounting and customer service costs. The results of the benchmarking are shown in Exhibits JMS-28 and JMS-29.

The Exhibit shows the comparison, on an inflation-adjusted basis, of PSE's total Customer Service costs to the National and NW Panels. Costs were reviewed on a per customer basis.

Exhibit JMS-28 compares Customer Service costs and illustrates that:

- PSE's 2000 Customer Service cost per Customer is considerably lower than both the National and NW Panels' costs. The National Panel costs are 82% higher and the NW Panel costs are 66% higher than PSE's Customer Service cost.
- PSE's Customer Service cost per Customer (on an inflation adjusted basis) has remained relatively flat, while the costs of the two panels have declined slightly.

Exhibit JMS-29 shows the Customer Service costs of the companies within the NW Panel and illustrates the disparity of costs among the utilities within the NW Panel and the significant cost advantage for PSE. PSE has been able to hold its Customer Service costs relatively flat while at the same time significantly improving the functionality of its customer service systems and has made a variety of changes to ultimately serve customers better without having customer satisfaction ratings suffer during the implementation process.

From an overall perspective, PSE's Customer Service costs are among the lowest in the industry and considerably lower than PSE's regional peers.

Q: Please discuss the findings of your benchmarking analysis of PSE's electric A&G costs.

A: The results of the benchmarking of electric A&G costs are shown in Exhibit JMS-30. The comparison of PSE's total A&G costs to the National and NW Panels is on an inflation-adjusted basis. Costs were reviewed on a per customer basis and illustrates that:

- PSE's 2000 A&G cost per Customer is considerably lower than the National and NW Panels' costs. The National Panel costs are 167% higher and the NW Panel costs are 142% higher than PSE's A&G cost.
- PSE's A&G cost per Customer has declined significantly at a CAGR of –11% in contrast to the National Panel's rate of –5% and the NW Panel's rate of –0.8%.

Clearly, PSE's A&G costs are among the lowest in the industry and considerably lower than PSE's regional peers. As I will discuss later in my testimony, the improvement in A&G cost is due in large part to management's aggressive drive to capture merger synergies, institute a performance oriented culture and introduce innovative technologies.

Q: Please discuss the findings of your benchmarking analysis of PSE's total electric O&M costs?

A: The results of the benchmarking of total electric O&M costs are shown in Exhibit JMS-31. Total electric O&M costs include the aggregate of Distribution, Transmission, Customer Service and A&G costs. The costs were compared on a per Customer basis.

- PSE's Total electric O&M cost per Customer in 2000 is considerably lower than the National and NW Panels' costs.
- The National Panel costs are 89% higher and the NW Panel costs are 73% higher than PSE's O&M cost per Customer.
- PSE's total electric O&M cost per Customer is significantly lower than the 1st quartile companies (the 25% of companies in the industry with the lowest costs).
- PSE's total electric O&M cost per Customer has declined at a faster rate than the National Panel as well as the companies in the 1st quartile.

Clearly, as the Exhibit illustrates, PSE's total electric O&M cost is among the lowest in the industry.

Q: What conclusions have you drawn from the findings of the electric benchmarking analysis?

A: On a total electric O&M cost basis, as well as on a Capital cost basis, PSE compares favorably to the industry and its regional peers:

- Overall, PSE's total Electric O&M costs (Distribution, Transmission, Customer Service and A&G) are lower than the average utility in the National Panel and the NW Panel.
- PSE's Annual Capital Additions are low relative to the industry, particularly given the higher rate of distribution undergrounding in PSE's service area.
- PSE's distribution and transmission asset base is comparable to the average asset base in the National and the NW Panels.

Collectively these results demonstrate that PSE's electric costs are amongst the lowest in the industry and point to a company that is not only committed to a disciplined approach to cost management but also to a high level of customer service.

PSE's Gas Cost Performance

Q: Can you describe the method used to compare PSE's gas cost performance to other companies' performance?

A: I approached the analysis of gas costs in the same manner as I approached the analysis of the electric costs. I first determined a common means of measurement. For gas costs, it was only possible to use cost per Customer, as data on miles of gas distribution and transmission line are not readily available. Assembling this data for a large number of companies was not practical and it would be difficult

for a regulatory body such as the WUTC to verify the data used in the analysis. Consequently, for the cost analysis, cost per Customer was used as the primary basis of comparison.

For analytical purposes, it was necessary to look at Total Distribution and Transmission costs in aggregate. Due to significant differences in the manner Companies specify distribution and transmission facilities, it was not possible to separate the facilities functionally. Consequently, the analysis examines cost per customer for aggregate Gas Distribution and Transmission costs. In addition, data on gas annual capital additions was not readily available for the five-year period under review for the companies within the gas National Panel. Since capital expenditures can vary significantly from year to year, it was not possible to conduct a meaningful analysis of annual capital additions. However, a comparison of PSE's gas asset base to the National Panel was possible.

For comparison purposes, data from the State Local Distribution Company (LDC) filings was utilized. However, data for the year 2000 is not yet available and consequently it was not possible to review gas performance for the period 1996 to 2000, as was done for electric costs. Instead gas performance for the time period 1995 to 1999 was reviewed.

As with the electric cost analysis, to compare PSE to the industry, a group of large and diverse companies was assembled (The National Panel). To compare PSE to companies within the geographic region, a group of companies from Washington, Oregon and Idaho was considered. However, even considering gas utilities as small as 50,000 customers, the group consisted of only five companies and was considered too small for meaningful comparisons.

Q: Can you describe how you assembled the National Panel of gas companies for comparison purposes?

A: The National Panel consists of 68 companies. The States require Gas Local Distribution Companies (LDC) to file certain operating information on an annual basis, and this data was used for comparative purposes in the following analyses. The panel of companies in the gas National Panel is diverse in terms of size and service territory and is a good approximation of the average costs in the industry (Exhibit JMS-32, the National Gas Panel). This panel excludes PSE, companies with less than 100,000 customers and companies with missing or suspect data for the time period under consideration. As I pointed out earlier, because gas data is collected from a different source than the FERC electric data, relevant gas information for 2000 was not available. Consequently, the five-year time period from 1995 to 1999 was reviewed.

Q: Was the State LDC data used in the analysis modified in any way?

A: LDC data used for the Gas National Panel was adjusted to account for inflation. Other modifications, where necessary, are noted on the specific exhibits.

Q: How does PSE compare with the "average" gas utility represented by the Gas National Panel?

A: The characteristics of the "average" gas utility represented by the Gas National Panel in relation to PSE are shown in Exhibits JMS-33 and JMS-34. The " average" gas utility represented by the National Panel in 1999 consisted of approximately 534,000 customers and delivered approximately 68,000,000 Decatherms of gas to customers. PSE's gas customer base is about 4% smaller than the National Panel's customer base. However, PSE delivers considerably more gas (28%) to its customers than the National Panel.

Q: Given the differences between PSE and the "average" gas National utility, what are the likely implications on the results of the gas cost benchmarking analysis?

A: Given that the average National gas utility is almost identical in terms of customer size to PSE, I would expect to see very similar O&M costs.

Q: What specific PSE gas costs did you compare?

A: In order to get a comprehensive view of PSE's gas cost performance, I reviewed PSE's costs for the five-year period, 1995 to 1999, in the areas of Gas Distribution and Transmission, Customer Service and A&G. I also compared PSE's Total O&M costs (Distribution and Transmission, Customer Service and A&G) to the industry.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's gas distribution costs.

A: I reviewed gas Transmission and Distribution O&M as well as capital costs. The results of the gas transmission and distribution benchmarking are shown in Exhibits JMS-35 and JMS-36. These Exhibits show the comparison, on an inflation-adjusted basis, of PSE's total gas transmission and distribution costs to the Gas National Panel. Costs were reviewed on a cost per customer basis.

Exhibit JMS-35 compares O&M costs and illustrates that:

- PSE's 1999 gas Transmission and Distribution cost per Customer is considerably lower than the National costs.
- The National Panel costs are 116% higher than PSE's O&M costs.
- PSE's gas Transmission and Distribution cost per Customer has been significantly reduced. Between 1995 and 1999, PSE's Gas distribution costs declined at a CAGR of –11.0% whereas the National Panel declined at a rate of –3.8%.

Clearly, PSE's gas Transmission and Distribution O&M costs have been aggressively reduced and are significantly lower than the Industry.

For an analysis of the gas Annual Capital Additions, reliable data was not available for the time period under review and a meaningful analysis was not possible. Exhibit JMS-36 compares the 1999 gas asset base to the Nation Panel. The Exhibit illustrates that PSE's 1999 gas asset base per Customer is 40% higher than the National Panel.

Therefore, from an overall perspective, PSE's gas Distribution and Transmission O&M costs are significantly lower than the National Panel average. PSE's Asset Base is higher than the National Panel average. This is most likely due to PSE's largely suburban service territory.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's gas Customer Service costs.

A: The results of the gas Customer Service benchmarking are shown in Exhibit JMS-37. The Exhibit shows the comparison, on an inflation-adjusted basis, of PSE's gas Customer Service costs to the gas National Panel. Costs were reviewed on a cost per customer basis. As the Exhibit illustrates:

- PSE's 1999 gas Customer Service costs of $28.15 per Customer are well below the average National Panel costs of $51.53. Further, PSE's Customer Service costs have declined at a CAGR of –5.1% in comparison to the National Panel costs, which declined at a slower rate of –2.6%

From an industry perspective, PSE's Customer Service costs have been aggressively managed and are significantly lower than the average industry Customer Service costs.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's gas A&G costs.

A: The results of the gas A & G benchmarking are shown in Exhibit JMS-38. This Exhibit shows the comparison, on an inflation-adjusted basis, of PSE's total gas A&G costs to the gas National Panel. Costs were reviewed on a cost per customer basis and illustrate:

- PSE's 1999 gas A&G costs per Customer are considerably lower ($41.41) than the average National Panel's costs ($79.78). In addition, PSE has reduced its A&G costs at a CAGR of –11.9% in contrast to the industry's rate of –2.5%.

Overall, PSE's gas A&G costs have been aggressively managed and are well below the industry average.

Q: Please discuss the findings of your benchmarking analysis of PSE's total gas O&M costs?

A: The results of the benchmarking of total gas O&M costs are shown in Exhibit JMS-39. Total gas O&M costs include the aggregate of Distribution & Transmission, Customer Service and A&G costs. The costs were compared on a per Customer basis.

- PSE's Total gas O&M cost per Customer in 1999 is considerably lower than the National Panels' costs.
- The National Panel total gas O&M costs are 98% higher than PSE's costs.
- The total gas O&M costs of an average 1st Quartile company in the National Panel is 48% higher than PSE's costs.
- PSE's total gas O&M cost per Customer has declined significantly at a CAGR of –10.0% in contrast to the National Panel's rate of 3.0%.

Clearly, as the Exhibit illustrates, PSE's total gas O&M costs are among the lowest in the industry.

Q: What conclusions have you drawn from the findings of the gas benchmarking analysis?

A: On a total Gas O&M cost basis, PSE's costs are very competitive. In particular:

- Overall, PSE's gas Distribution and Transmission O&M costs are significantly lower than the average utility in the National Panel.
- PSE's total gas asset base per Customer is higher than the average asset base in the industry.

PSE's Total Gas & Electric O&M Cost Performance

Q: Can you describe the method used to compare PSE's total gas and electric O&M cost performance to other companies' performance?

A: In order to compare O&M costs on an integrated basis (gas & electric), it was necessary to compare PSE to a panel of combination gas and electric utilities only. By comparing PSE only to combination utilities, a view of how it compares to other companies with similar structures and cost synergies can be discerned.

For analytical purposes, a panel of 38 combination utilities (Exhibit JMS-40) was compiled. Because the proportion of gas to electric customers varies significantly across the industry, costs per customer were calculated on a "weighted" average basis. Consequently, O&M costs of each company were calculated as if their gas and electric customer mix was the same as PSE's customer mix. It was not possible to compile a regional panel for comparative purposes, so costs are compared to a single panel of combination utilities from across the U.S. FERC Form 1 and State Gas LDC data was used and it was

adjusted for inflation. As discussed previously, since gas data for 2000 was not available, the time period analyzed is 1995 to 1999.

Q: Can you describe the characteristics of the panel of combination gas and electric companies assembled for comparison purposes?

A: The Combination utilities panel consists of 38 combination gas and electric IOUs assembled from the FERC Form 1 and State Gas LDC databases. (Exhibit JMS-40, the Combination Panel). This panel includes companies with at least 300,000 gas and electric customers. The panel excludes PSE and companies with missing or suspect data for the time period under consideration. Since the comparison is done on a weighted average, a comparative analysis of the "average" combination utility to PSE was not necessary.

Q: What specific PSE gas and electric O&M costs did you compare?

A: I reviewed PSE's O&M costs per Customer from 1995 to 1999 for gas and electric Distribution and Transmission, Customer Service and A&G. (Distribution and Transmission O&M costs were looked at in aggregate due to the difficulties associated with distinguishing between gas distribution and transmission). I also reviewed total aggregated O&M costs

Q: Please discuss the findings of your cost benchmarking analysis of PSE's total gas and electric Distribution and Transmission O&M costs.

A: The results of the O&M benchmarking are shown in Exhibit JMS-41, which illustrates that:

- PSE's 1999 total gas and electric O&M cost per Customer is considerably lower than the Combination Panels' costs.
- The average Combination Panel's cost is 58% higher than PSE's cost.

- PSE's gas & electric Distribution and Transmission O&M cost per Customer (inflation adjusted) has declined since 1995 compared with a relatively flat cost performance of the Combination Panel.

Clearly, PSE's total Gas and electric Distribution and Transmission O&M costs per Customer are significantly lower than the peer group of combination utilities. In addition PSE's total O&M costs have declined slightly since 1995 while the Combination Utility Panel's O&M costs have remained basically the same.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's total gas and electric Customer Service O&M costs.

A: The results of the total Customer Service O&M benchmarking are shown in Exhibit JMS-42, which illustrates that:

- PSE's 1999 total gas and electric Customer Service cost per Customer is considerably lower than the Combination Panels' costs.
- The average Combination Panel's Customer Service cost is 82% higher than PSE's cost.
- PSE's Customer Service cost per Customer has declined since 1995 at a CAGR of –5.0% whereas the Combination Panel's costs increased at a CAGR of 2.6%.

PSE's gas and electric utility Customer Service costs have declined significantly in the last few years and are considerably lower than the average combination utility costs.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's total gas and electric A&G costs.

A: The results of the total A&G benchmarking are shown in Exhibit JMS-43, which illustrates that:

- PSE's 1999 total gas and electric A&G cost per Customer is also considerably lower than the Combination Panels' costs.
- The average Combination Panel's A&G cost is 113% higher than PSE's costs.
- Since 1995, PSE's gas and electric A&G cost per Customer (inflation adjusted) has declined by a CAGR of –4.9% whereas the Combination Panel's costs have basically remained the same over the same time period (CAGR of 0.3%).

It is evident that PSE's total A&G costs have been aggressively managed and are significantly lower than the Combination Panel.

Q: Please discuss the findings of your cost benchmarking analysis of PSE's total gas and electric O&M costs.

A: The results of the total gas and electric O&M benchmarking are shown in Exhibit JMS-44, which illustrates that:

- PSE's 1999 total gas and electric O&M cost per Customer is considerably lower than the Combination Panels' costs.
- The average Combination Panel's cost is 85% higher than PSE's cost.
- The total O&M costs of an average 1st Quartile company in the National Panel is 64% higher than PSE's costs.
- In contrast to the Combination Panels costs (inflation adjusted) which have increase between 1995 & 1999 by a CAGR of 1.4%, PSE's aggregated O&M cost per Customer has declined at a CAGR of –3.6% during the same period.

PSE's total gas and electric O&M costs are amongst the lowest in the industry. PSE successfully reduced its costs during a time period when others in the industry were not able to do so.

Q: What conclusions have you drawn from the findings of the overall cost benchmarking analyses you conducted?

A: I examined PSE's costs from two perspectives.

First, I examined PSE's electric and gas costs separately from an industry as well as a regional perspective. I reviewed the costs both from a functional as well as a total aggregated viewpoint. Based on this analysis, I concluded that:

- From an O&M perspective, PSE's electric and gas Distribution, Transmission, Customer Service and A&G costs are, in general, lower than the average utility in the National Panel on both an individual functional basis as well as a total aggregated basis.
- From a Capital perspective, PSE's annual electric Capital additions and asset base can be considered to be low in comparison to the National Panel, given the characteristics of PSE's service area. However, PSE's gas asset base is higher than the average National Panel utility.

Second, I reviewed PSE's total electric and gas O&M costs to an industry panel of combined electric and gas utilities. In this analysis, I reviewed PSE's functional O&M costs (Distribution and Transmission, Customer Service and A&G) and total aggregated O&M costs. Based on this analysis, I concluded that:

- From an individual functional O&M perspective, PSE's costs have declined since 1995 and are considerably lower than the average utility functional costs in the Combined Panel.
- From a total aggregated O&M perspective, PSE's costs are considerably lower than the average utility in the combined panel.

Overall, PSE's cost performance relative to the industry is, in my opinion, extraordinary. The magnitude of the accomplishment is even more admirable given that it has been achieved in a period of tumultuous change following the

merger and during a period when major new systems were replaced and new emerging technologies were introduced.

IV. PSE'S PERFORMANCE IMPROVEMENT INITIATIVES

Q: You have testified that PSE has in the last five years significantly improved its electric and gas cost and service performance relative to the industry. Do you have an opinion as to the reasons why PSE has been able to achieve superior performance?

A: Yes. As a part of the overall performance evaluation I conducted, I interviewed the key executives responsible for operating performance. I also visited a number of PSE's field facilities and spoke to first line supervisors as well as customer service employees. My intent in conducting these interviews was to determine whether the performance improvement had occurred as a matter of course or was the result of a deliberate effort initiated by management to improve performance.

In my experience, companies that have been able to broadly and significantly improve their performance in a short period of time have typically expended a great deal of effort to mobilize the organization to achieve those results.

Q: Based on your review of PSE's performance and the interviews you conducted, what conclusions did you reach?

A: Based on my review, I concluded that, indeed, management had undertaken a systematic and comprehensive program to remake the company in ways that would improve customer service, reduce costs and build shareholder value. These initiatives are described in the testimony of PSE's other witnesses in this proceeding, including Susan McLain and Penny Gullekson. In my opinion, PSE's extraordinary performance with respect to cost control and service quality is the result of deliberate management actions and a dedication to improving company performance.

It is particularly impressive that PSE was able to implement these major initiatives at the same time as the merger of the two companies. For many companies, focusing on merger activities would have been a tall agenda alone.

Q: Based on your experience and knowledge of the utility industry, how does PSE's plan and approach to mobilize the company to improve service and reduce costs compare with other utilities with similar agendas?

A: I believe that there were several actions taken by PSE's management that distinguishes PSE's performance from other utilities.

First, by establishing and widely communicating a "vision" of becoming the "best" distribution company (achieving low costs while maintaining high levels of customer service), PSE formally established a direction and a road map for all employees within the company. Many in the utility industry believe that improving levels of customer service while reducing costs is unattainable. However, PSE has aggressively pursued this goal and has obtained extraordinary results.

Second, PSE's decisions to fully integrate the two separate, pre-merger companies and operate as a single combination company rather than as one company with separate gas and electric divisions was also a very aggressive decision. Many utilities in the industry continue to operate with separate gas and electric divisions and are unable to capture the synergies associated with an integrated organization. In addition, my review of PSE's actions suggests that management went well beyond the range of initiatives required to integrate the two separate companies, embarking in parallel on initiatives to improve customer service levels, reduce costs and better position the business to meet future customer needs. The range of challenges undertaken simultaneously was unusual for this industry.

Finally, many companies embark on major restructuring efforts only to lose heart midway and to abandon the original course of action. By doing so, they lose the initial large investment made to initiate the broad changes and also reinforce the employees' belief that management does not have a serious intent on changing the direction of the company. By contrast, PSE management has had the ability to "stay the course" and has actually implemented its integration of the pre-merger companies and new initiatives.

V. TOTAL COST SAVINGS

Q: Based on your analysis of PSE's cost performance, can you quantify the value of the benefits that have accrued to PSE's customers as a result of PSE's actions?

A: Yes. In order to calculate the value of the benefits produced, I reviewed PSE's total aggregated gas and electric O&M costs from 1995 through 1999. The intent of my analysis was to develop an order of magnitude estimate of the cumulative savings produced in making the test year savings possible. My hypothesis is that with a test year rate case structure, the only real savings to customers are future prospective savings, from the date of the rate order onward. But, for a company with a downward cost trend like PSE, cost reductions in the test year cannot be produced overnight. They are the cumulative effect of many management decisions and actions and sustained pressure on employees to change behaviors, innovate, and take managed risks to find more efficient and effective ways to run the business. In such an environment, savings produced in the test year are only possible if built upon sustainable efficiency improvements made (with resulting savings earned) over several preceding years. In effect, each dollar of savings in the test year will produce many dollars of savings in the future, but requires several dollars of savings in the previous years. These previous year's savings can

be considered as "efficiency benefits". They do not directly accrue to customers in the years they are produced, but they are the engine that makes future savings possible.

The cumulative efficiency benefit created by PSE over the time period is, in my opinion, a conservative estimate of the total benefit actually produced when compared to other approaches which factor in multi year projections of future savings.

As I discussed previously, Exhibit JMS-44 compares PSE's total O&M cost performance over the period 1995 through 1999 and compares it to the performance of the average utility in the Combined Panel. The Exhibit also illustrates the O&M cost performance of an average "top performing utility," a utility in the first quartile within the Combined Panel, as a point of reference.

Exhibit JMS-45 illustrates the cost reductions (efficiency benefit) and relative cost performance that PSE has achieved since 1995:

- When compared against the "average" Combined Panel Utility, PSE's costs are significantly lower than the average cost for all years, with the efficiency differential between 1995 and 1999 ranging from $77 to $184 Million
- Even when compared to a top performing (1st Quartile) Combined Panel utility, PSE's efficiency differential ranges from $24 to $139 Million.

Exhibit JMS-45 also illustrates the cumulative cost differential (efficiency benefit) that PSE has attained since 1995:

- PSE's total cumulative O&M costs have declined by $887 Million over the 1995-1999 time period.
- When compared to a 1st Quartile Combined Panel utility, PSE's cumulative efficiency benefit is approximately $609 Million

Clearly, PSE is and has consistently been a superior performer in the industry. But beyond that accomplishment, their actions over the past few years have created substantial additional benefits for customers. There is no question in my mind that the resulting high level of operating efficiency has reduced the magnitude of future rate increases for PSE's customers.

Q: In your opinion, is PSE's O&M cost performance sustainable into the future?

A: No, I believe that their current cost levels will be under constant pressure from inflation, customer growth and an aging asset base. The Company is at the leading edge of efficiency for this industry and has, in my opinion, very limited opportunities for additional gains.

As I have illustrated, PSE has been able to operate at significantly lower costs than the average utility and has still been able to find further cost reductions in its operating expenditures. Had PSE merely aspired to be an "average" or a "1st Quartile" utility as depicted by the Combined Panel, it would have experienced cost increases potentially leading to significantly higher revenue requirements and higher customer rates. But, PSE management adopted a far more aggressive target for their performance, and pursued opportunities to innovate, rationalize and optimize their business.

In my experience, companies that have aggressively managed costs reach a plateau of cost reductions after a period of time. Regulators should recognize that these companies experience legitimate and unavoidable cost increases. Rather than burdening an aggressive cost management company, such as PSE, with requirements for further cost reductions, these companies should be acknowledged for their excellent cost containment record and provided revenues

to cover the legitimate increases in costs which will be required to serve customers with high levels of service in the future.

Q: At the time of the merger of PSPL and WNG, the merger synergy savings were estimated to be "nearly $370 million over the next 10 years." In your opinion, to date, has PSE achieved the level of savings necessary to meet this projection?

A: Yes. In fact PSE is well ahead of schedule in terms of delivering the savings projected at the time of the merger.

Exhibit JMS-46 shows a comparison of PSE's actual O&M cost savings to two different approaches for capturing $370 Million over a 10-year time period. As the exhibit illustrates, PSE needed to save at least $123.3 Million (approximately 33% of the total estimated savings) by year 2000 based on the synergy savings estimated at the time of the merger by Deloitte and Touche. The exhibit also shows that based on a ten-year straight-line savings capture basis, the company would have had to save at least $33.3 Million (approximately 9% of the total estimated savings) between 1998 and 2000. In contrast, PSE has already realized savings of $156 Million between 1998 and 2000 (approximately 42% of the total estimated savings). These savings were calculated by comparing PSE's actual total O&M expenditures in 1998, 1999 and 2000 to PSE's actual 1997 total O&M costs. The differential between the expenditure levels in 1998, 1999 and 2000 is estimated as the net savings. As the Exhibit JMS-46 illustrates, PSE is well ahead in delivering the cumulative savings, both from the perspective of the estimates made at the time of the merger as well as from a perspective of a ten-year straight line savings capture.

In fact, because of the downward cost improvement trend which PSE has achieved, projecting these cost reductions forward over the next seven years (the time period during which merger savings were to be captured), the cumulative

savings will potentially be significantly greater than the original estimates. However, if one assumes that PSE's current savings level does not improve further and that its O&M expenditures remain flat over the next seven years, then on a net present value basis (NPV), the estimated value of the total savings that will be achieved through 2007 are $332 Million (Exhibit JMS-47). On the other hand, had PSE been on the path to realize savings on the original estimate at the time of the merger or on a straight line ten-year basis (as shown on the Exhibit), the NPV of the total savings over the same time period is estimated to be $198 Million and 217 respectively. It is evident that PSE has implemented an aggressive program to capture savings quickly and is well on its way to capturing the total savings estimated at the time of the merger.

Q: What impact will PSE's progress against estimated merger synergy savings have on customers?

A: PSE's rapid progress in capturing merger savings has resulted in the test year costs being significantly below the level that would be expected if management had demonstrated industry average performance in the integration process, or if they were merely "on track" with their own merger savings estimates. Clearly, the fact that PSE has accelerated the savings achieved from the merger has produced greater benefits for customers because of the lower resulting costs in this test year and the resulting projection of lower future revenue requirements.

Q: Based on your knowledge of other mergers in the utility industry, how would you rate PSE's performance?

A: Typically, companies that merge anticipate significant merger synergies and are optimistic in the amount of projected savings. However, analysis shows that companies have found it difficult to realize the savings they have projected. I reviewed six electric and gas IOU mergers between 1996 and 1998. By

comparing the synergy savings projections as reported in the merger orders of these companies with the actual post merger total O&M cost performance, it was

possible to estimate the relative progress made by the companies in capturing the estimated savings. Exhibit JMS-48 shows the results of the analysis. The "average" projected synergy savings to be attained as reported by the merger orders is 8.4% (of the total O&M cost at the time of the merger). The actual savings realized by these companies through 2000 is 1.2%. In contrast PSE has achieved a savings of 19.5% in 3 years against a target of 4.2%. This is an outstanding result given what other utilities have been able to accomplish.

VI. SUMMARY

Q: Please summarize your testimony.

A: Benchmarking is a widely accepted technique to compare the business performance and practices of a company to a group of its peers. In my testimony, I have used benchmarking as a diagnostic tool, to compare PSE's performance to the industry and a group of its peers. As a part of the analysis, I also reviewed the actions taken by PSE's management to determine whether such actions were the drivers for PSE's superior performance. Finally, based on PSE's recent performance, I estimated the value of the efficiency benefit that has accrued to PSE customers.

Based on the O&M and Capital benchmarking cost analysis, PSE's costs are among the lowest in the industry and the region. This superior cost performance has been the result of a concerted and focused effort by the Company. PSE has achieved $156 Million in savings over the last 3 years since the merger.

Overall, when measured against the cost and service quality performance achieved by other utilities in the industry and the savings achieved through other utility mergers, PSE's performance is truly extraordinary.

Q: Does this conclude your testimony?

A: Yes.