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	National Combination First Quartile
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# Functions and Sub-Functions Addressed In UMS Benchmarking Studies

Power Generation	Power Delivery
<ul> <li>Fossil Plant Operations</li> <li>Fossil Plant Maintenance</li> <li>Nuclear Plant Operations</li> </ul>	<ul> <li>Bulk Power Systems (Operations and Maintenance)</li> <li>Substation Operations and Maintenance</li> <li>Substation Design and Construction</li> <li>Distribution</li> <li>Transmission</li> <li>Project Implementation</li> </ul>
Retail	Corporate Support
<ul> <li>Retail</li> <li>Customer Service</li> <li>Marketing &amp; Sales</li> <li>Demand Side Management</li> </ul>	<ul> <li>Corporate Support</li> <li>Accounting</li> <li>Communications</li> <li>Facilities Mgmt.</li> <li>Fleet Mgmt.</li> <li>Risk Mgmt.</li> <li>Information Technology</li> <li>Legal</li> <li>Finance &amp; Treasury</li> <li>Internal Audit</li> <li>Procurement</li> <li>Human Resources</li> </ul>

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## Comparison of Service Quality Indices Performance to Peer Group / Industry Averages

	Metric	Definition	PSE 2000 Performance	2000 Industry Average
1	Overall Customer Satisfaction	Percent of Surveyed Customers rating 5 or higher on a 7 point scale	89.0%	85.6%
2	WUTC Complaint Ratio	Number of complaints to the WUTC per 1,000 Customers	0.30	0.58
3	SAIDI	Length of Non-Storm Outages per year (minutes)	103.8	106.9
4	SAIFI	Frequency of Non-Storm Outages per year	0.826	1.17
5	Telephone Center Answering Performance	Percent of calls answered "live" within 30 seconds	76.0%	69.0%
6	Telephone Center Transactions Customer Satisfaction	Percent of surveyed customers rating 5 or higher on a 7 point scale	91.0%	88.0%
7	Gas Safety Response Time	Time from customer call to arrival of field technicians in response to gas emergencies (minutes)	39	26
8	Field Service Operations Transactions Customer Satisfaction	Percent of surveyed customers rating 5 or higher on a 7 point scale	91.0%	89.7%
9	Percent Disconnects	Percent of customers disconnected for non-payment	1.80%	1.67%
10	Percent of Appointments Kept	Percent of in-home service appointments kept as promised	95.0%	97.5%

- Source: PSE SQI Report Card 1998 2000, Pennsylvania Public Utility Commission, Edison Electric Institute, Mid-American, Wisconsin Power, NSTAR, and Memphis Light, Gas, and Water
- SAIDI and SAIFI: Zero (0) values reported to EEI were excluded from average
- Field Operations Transactions Customer Satisfaction Industry Average is the percentage of customers who indicated that they were "satisfied." Data split between "very satisfied" and "somewhat satisfied" is not available.
- Percent of Appointments Kept Industry Average is for Customer Field Services only and does not include New Construction Appointments. Data split is not available. Comparable PSE performance is 98%.

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# PSE Performance On Service Quality Indices From 1998 – 2001

	Metric	Definition	2001 Target	1998	1999	2000	2001
1	Overall Customer Satisfaction	Percent of Surveyed Customers rating 5 or higher on a 7 point scale	>90%	92%	92%	89%	85%
2	WUTC Complaint Ratio	Number of complaints to the WUTC per 1,000 Customers	<0.5	0.3	0.3	0.3	0.3
3	SAIDI	Length of Non-Storm Outages per year (minutes)	<142.7	98	142.7	103.8	112.4
4	SAIFI	Frequency of Non-Storm Outages per year	<1.428	0.919	0.992	0.826	0.909
5	Telephone Center Answering Performance	Percent of calls answered "live" within 30 seconds	>75%	81%	76%	76%	75%
6	Telephone Center Transactions Customer Satisfaction	Percent of surveyed customers rating 5 or higher on a 7 point scale	>91%	92%	93%	91%	90%
7	Gas Safety Response Time	Time from customer call to arrival of field technicians in response to gas emergencies (minutes)	<55	50	45	39	41
8	Field Service Operations Transactions Customer Satisfaction	Percent of surveyed customers rating 5 or higher on a 7 point scale	>85%	88%	91%	91%	91%
9	Percent Disconnects	Percent of customers disconnected for non-payment	<3.8%	1.80%	2.20%	1.80%	2.10%
10	Percent of Appointments Kept	Percent of in-home service appointments kept as promised	>92%	98%	95%	95%	96%

#### Footnote:

1. Source: PSE SQI Report Card 1998 - 2001

# Comparison of PSE Electric and Gas Reliability to National Averages

SAIDI	1998	1999	2000
PSE	1.95	2.17	1.71
National Average	1.69	1.97	1.78
SAIFI	1998	1999	2000
PSE	0.85	1.00	0.85
National Average	1.38	1.21	1.15
Gas Leaks Repaired per Mile of Main	1998	1999	2000
PSE	0.17	0.12	0.08
National Average	0.31	0.26	0.25
Gas Leaks Repaired Per Service	1998	1999	2000
PSE	0.005	0.005	0.004
National Average	0.008	0.008	0.007

- 1. Source: PSE SAIDI and SAIFI from Delivery Business Unit Benchmark, 2001 Mid-Term Update
- 2. Source: National Average Electric Reliability Measures from EEI Report "2000 Reliability Report," June 2000
- 3. Source: PSE and National Average Gas Reliability Measures from US DOT, Office of Pipeline Safety "Natural Gas Distribution Annuals 1995 2000"

### The National Panel of Electric Companies (90 Utilities)

#### **National Panel**

Alabama Power Company Appalachian Power Company Arizona Public Service Company Atlantic City Electric Company Avista Corporation Baltimore Gas and Electric Company Boston Edison Company Carolina Power & Light Company Central Illinois Public Service Co. Central Maine Power Company Central Power and Light Company Cincinnati Gas & Electric Co. **Cleveland Electric Illuminating** Columbus Southern Power Company Commonwealth Edison Company Commonwealth Electric Company Connecticut Light and Power Co. Consolidated Edison Company of N.Y. **Consumers Energy Company** Dayton Power and Light Company Delmarva Power & Light Company Detroit Edison Company Duke Energy Corporation Duquesne Light Company El Paso Electric Company Entergy Arkansas, Inc. Entergy Gulf States, Inc. Entergy Louisiana, Inc. Entergy Mississippi, Inc. Florida Power & Light Company Florida Power Corporation Georgia Power Company Gulf Power Company Idaho Power Company IES Utilities, Inc. Illinois Power Company Indiana Michigan Power Company Indianapolis Power & Light Company Jersey Central Power & Light Co. Kansas City Power & Light Company Kentucky Utilities Company Louisville Gas and Electric Company Massachusetts Electric Company Metropolitan Edison Company

MidAmerican Energy Company Monongahela Power Company Narragansett Electric Company Nevada Power Company New York State Electric & Gas Corp Niagara Mohawk Power Corporation Northern Indiana Public Service Co. Northern States Power Company- Minn Ohio Edison Company Ohio Power Company Oklahoma Gas and Electric Company Pacific Gas and Electric Company PacifiCorp PECO Energy Pennsylvania Electric Company Portland General Electric Company Potomac Edison Company Potomac Electric Power Company PPL Electric Utilities Corporation PSI Energy, Inc. Public Service Company - New Mexico Public Service Company of Colorado Public Service Company of New Hamp Public Service Company of Oklahoma Public Service Electric and Gas Co. Reliant Energy HL&P Rochester Gas and Electric Corp San Diego Gas & Electric Company Sierra Pacific Power Company South Carolina Electric & Gas Co. Southern California Edison Company Southwestern Electric Power Company Southwestern Public Service Company Tampa Electric Company Toledo Edison Company Tucson Electric Power Company **TXU Electric Company** Union Electric Company United Illuminating Company UtiliCorp United Inc. Virginia Electric and Power Company West Penn Power Company Western Resources - KPL Wisconsin Electric Power Company Wisconsin Power and Light Company Wisconsin Public Service Corp

#### Footnote:

1. Source: FERC Form 1

2. Panel includes U.S. IOUs with greater than 300,000 customers in year 2000

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The Northwest Panel (NW) of Electric Companies (8 Utilities)

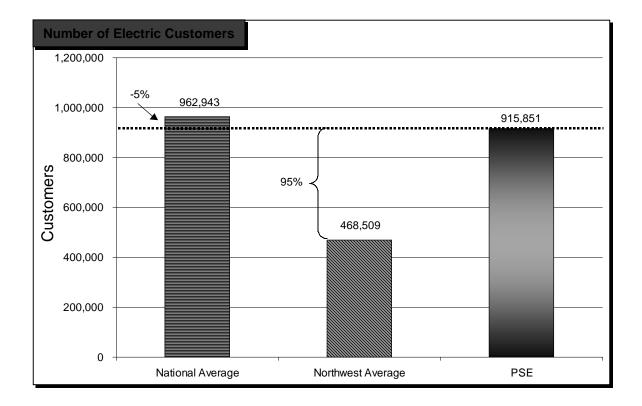
Northwest Panel

Avista Corporation Idaho Power Company PacificCorp Portland General Electric Company PUD of Clark County PUD of Snohomish County City of Seattle City of Tacoma

- 1. Source: FERC Form 1 and EIA Form-412
- 2. Panel includes IOUs with greater than 300,000 customers that provide electric service in Washington, Oregon, Idaho, and Utah
- 3. Panel includes Municipal Utilities with greater than 100,000 customers that provide electric service in Washington state only

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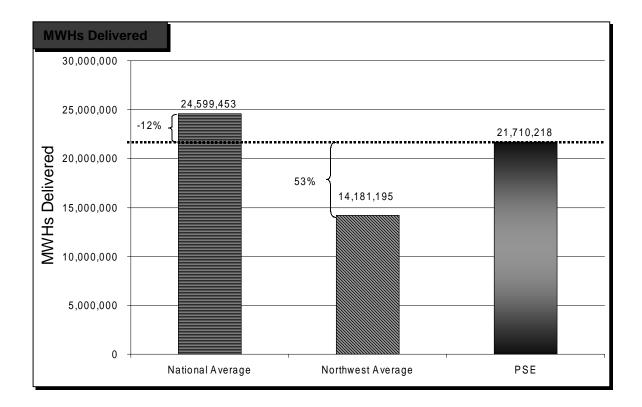
# Comparison of PSE Electric Customers to the National and Northwest Panels



- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Data for year 2000

Exhibit No. \_\_\_\_ (JMS-11) 2001 PSE Rate Case Page 1 of 1

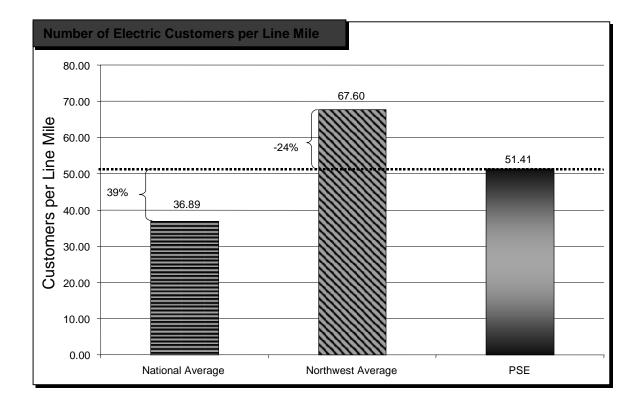
# Comparison of PSE MWH Delivered to the National and Northwest Panels



- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Data for year 2000

Exhibit No. \_\_\_\_ (JMS-12) 2001 PSE Rate Case Page 1 of 1

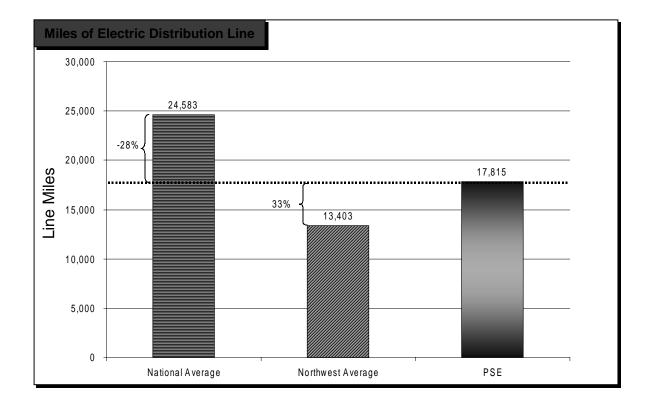
# Comparison of PSE Electric Customer Density to the National and Northwest Panels



- 1. Source: Customer information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. Data for year 2000

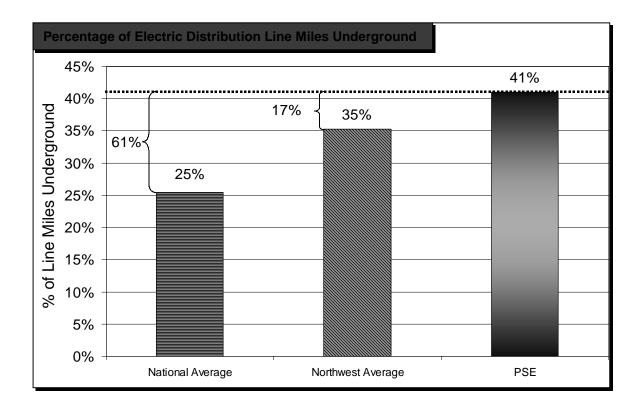
Exhibit No. \_\_\_\_ (JMS-13) 2001 PSE Rate Case Page 1 of 1

# Comparison of PSE Electric Distribution Line Miles to the National and Northwest Panels



- 1. Source: McGraw-Hill Directory of Electric Utilities (1998-2001)
- 2. Data for year 2000

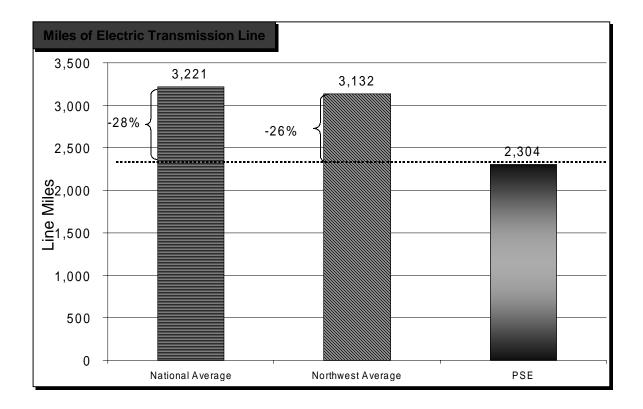
### Comparison of PSE Percentage of Electric Distribution Line Miles Underground to the National and Northwest Panels



#### Footnote:

1. Source: McGraw-Hill Directory of Electric Utilities (1998-2001)

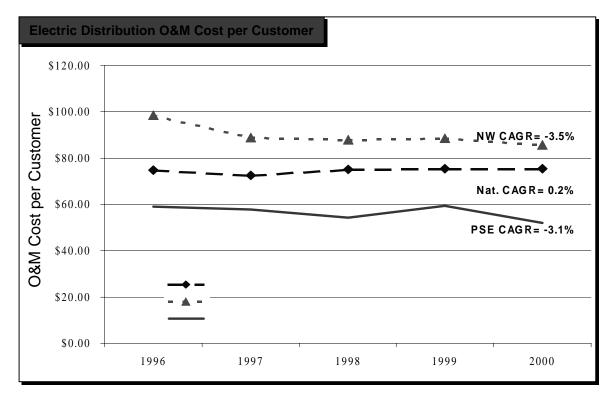
# Comparison of PSE Electric Transmission Line Miles to the National and Northwest Panels



- 1. Source: McGraw-Hill Directory of Electric Utilities (1998-2001)
- 2. Data for 2000
- 3. PSE Transmission Line Miles excludes 9% of the 3<sup>rd</sup> AV Line that they own jointly with the Bonneville Power Authority (approximately 20 miles)

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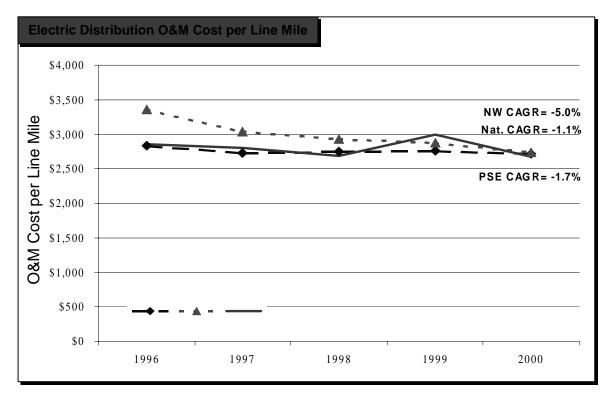
### Comparison of PSE Electric Distribution O&M Cost <u>Per</u> <u>Customer</u> to the National and Northwest Panels



	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$58.94	\$57.74	\$54.27	\$59.31	\$52.04	
National	\$74.76	\$72.48	\$75.10	\$75.32	\$75.37	+45%
NW	\$98.63	\$88.83	\$87.87	\$88.59	\$85.70	+65%

- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate

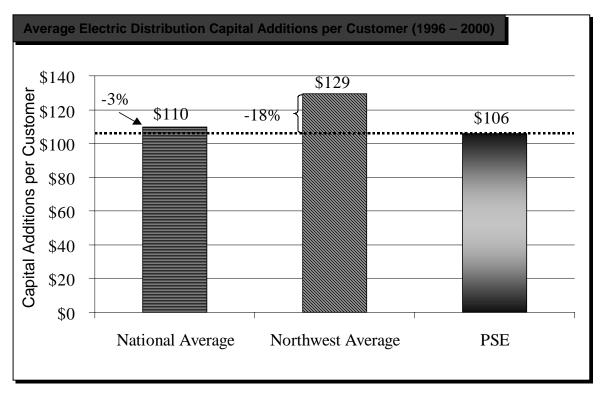
### Comparison of PSE Electric Distribution O&M Cost <u>Per Line</u> <u>Mile</u> to the National and Northwest Panels



	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$2,861	\$2,802	\$2,686	\$2,996	\$2,675	
National	\$2,829	\$2,731	\$2,747	\$2,764	\$2,711	+1%
NW	\$3,358	\$3,038	\$2,934	\$2,875	\$2,738	+2%

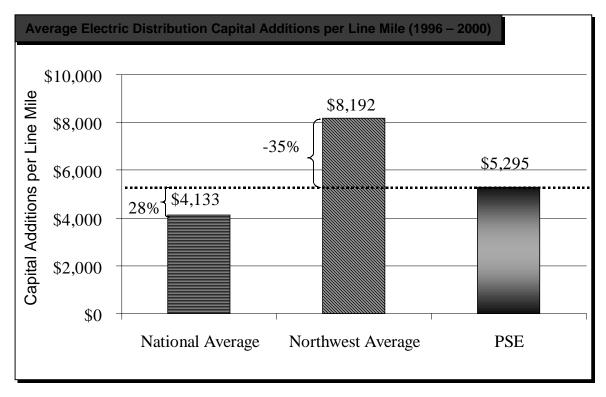
- 1. Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. 1996 Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles
- 5. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 6. CAGR is the Compound Annual Growth Rate
- 7. Seattle and Tacoma Municipal Utilities excluded since low Line Mile figures distort results.

Comparison of Five-Year Average PSE Electric Distribution Incremental Annual Capital Additions <u>Per Customer</u> to the National and Northwest Panels



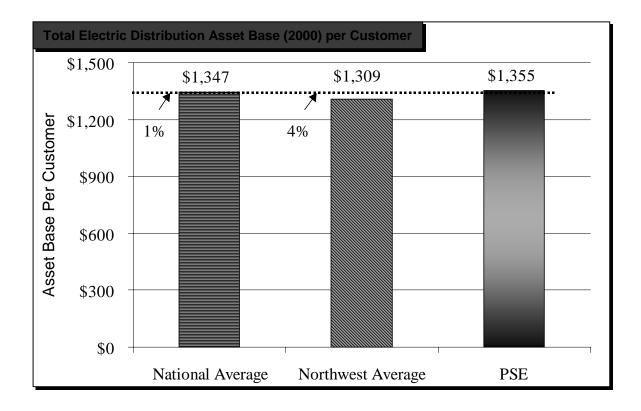
- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

## Comparison of Five-Year Average PSE Electric Distribution Incremental Annual Capital Additions <u>Per Line Mile</u> to the National and Northwest Panels



- 1. Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. 1996 Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles
- 5. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

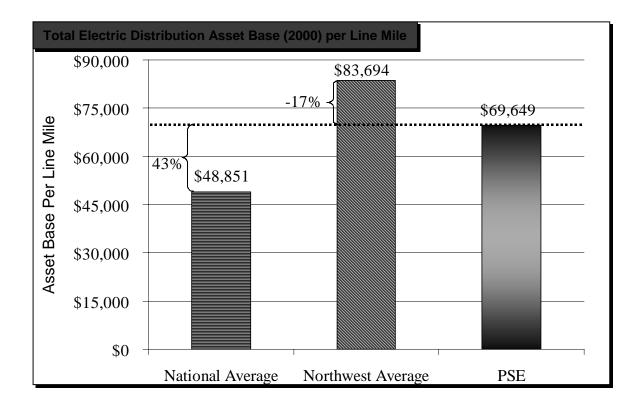
# Comparison of PSE Electric Total Distribution Asset Base (2000) <u>Per Customer</u> to the National and Northwest Panels



- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Asset Base equals Gross Plant minus Accumulated Depreciation. For municipal utilities, accumulated depreciation is allocated by taking the ratio of Distribution Plant to Total Plant and applying that ratio to Total Accumulated Depreciation Expense.
- 4. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

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2001 PSE Rate	Case
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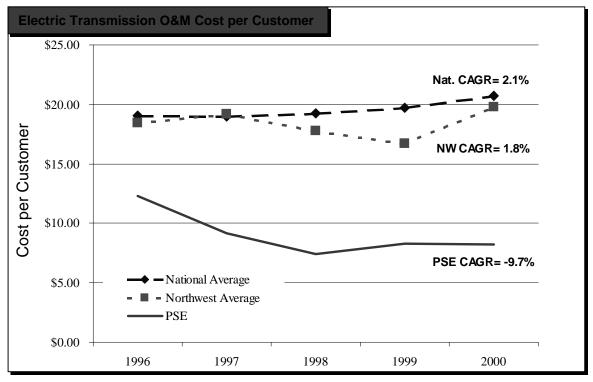
# Comparison of PSE Electric Total Distribution Asset Base (2000) <u>Per Line Mile</u> to the National and Northwest Panels



- 1. Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. Asset Base equals Gross Plant minus Accumulated Depreciation. For municipal utilities, accumulated depreciation is allocated by taking the ratio of Distribution Plant to Total Plant and applying that ratio to Total Accumulated Depreciation Expense.
- 5. 1996 Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles
- 6. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

Exhibit No. \_\_\_\_\_ (JMS-22) 2001 PSE Rate Case Page 1 of 1

# Comparison of PSE Electric Transmission O&M Cost (excluding FERC Account 565) <u>Per Customer</u> to the National and Northwest Panels

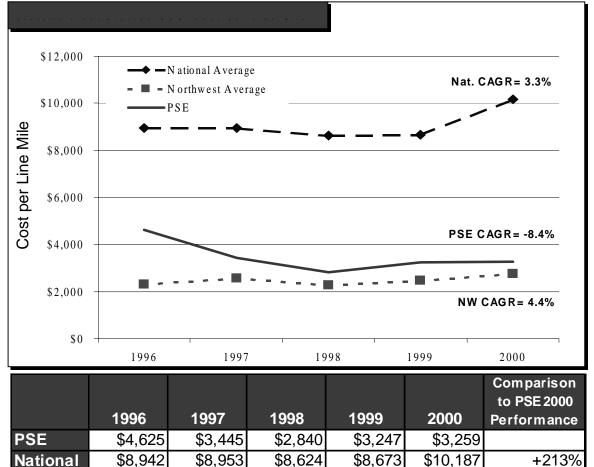


	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$12.32	\$9.18	\$7.42	\$8.31	\$8.20	
National	\$19.08	\$18.95	\$19.23	\$19.75	\$20.73	+153%
NW	\$18.48	\$19.17	\$17.76	\$16.72	\$19.82	+142%

- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. Excludes FERC Account 565: Transmission of Electricity by Others
- 5. Washington Municipal Utilities excluded from the Northwest Average because they do not report FERC Account 565
- 6. CAGR is the Compound Annual Growth Rate

Exhibit No. \_\_\_\_ (JMS-23) 2001 PSE Rate Case Page 1 of 1

Comparison of PSE Electric Transmission O&M Cost (excluding FERC Account 565) <u>Per Line Mile</u> to the National and Northwest Panels



NW

\$2,262

\$2,481

\$2,765

-15%

\$2,553

8. CAGR is the Compound Annual Growth Rate

\$2,326

9. PSE Transmission Line Miles excludes 9% of the 3<sup>rd</sup>AV Line that they own jointly with the Bonneville Power Authority (approximately 20 miles)

<sup>1.</sup> Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)

<sup>2.</sup> Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)

<sup>3.</sup> No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data

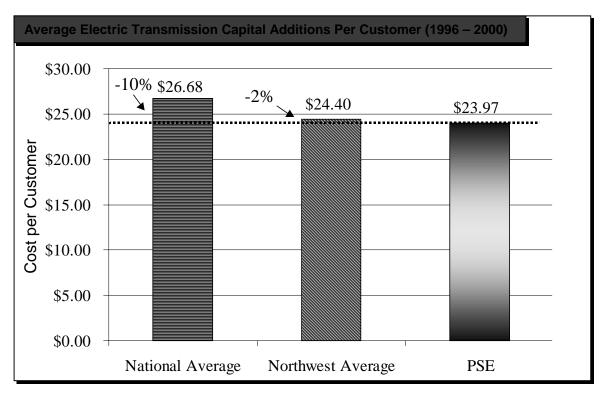
<sup>4. 1996</sup> Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles

<sup>5.</sup> Cost data inflated using Bureau of Labor Statistics Consumer Price Index

<sup>6.</sup> Excludes FERC Account 565: Transmission of Electricity by Others

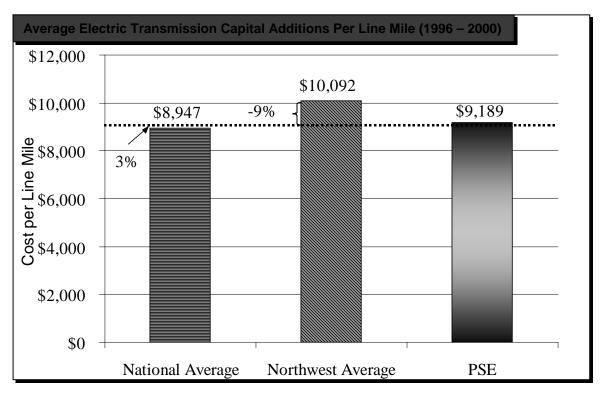
<sup>7.</sup> Washington Municipal Utilities excluded from the Northwest Average because they do not report FERC Account 565

Comparison of Five-Year Average PSE Electric Transmission Incremental Annual Capital Additions <u>Per Customer</u> to the National and Northwest Panels



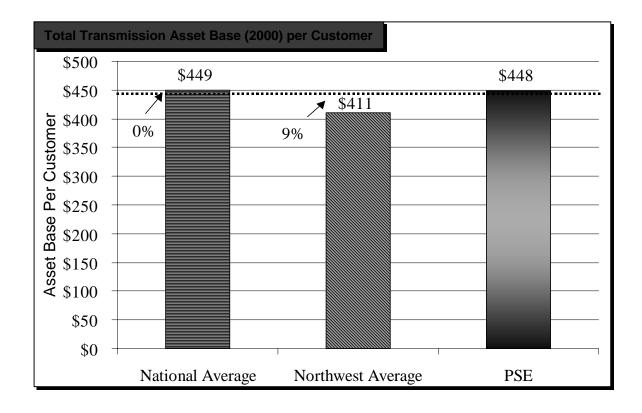
- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. PUD Clark County is excluded from the 2000 Northwest Average because of overly large increase in Transmission Capital Additions from 1998-1999. This anomaly skews their average 4 year growth rate, and thus the extrapolated 2000 Capital Additions.
- 4. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

Comparison of Five-Year Average PSE Electric Transmission Incremental Annual Capital Additions <u>Per Line Mile</u> to the National and Northwest Panels



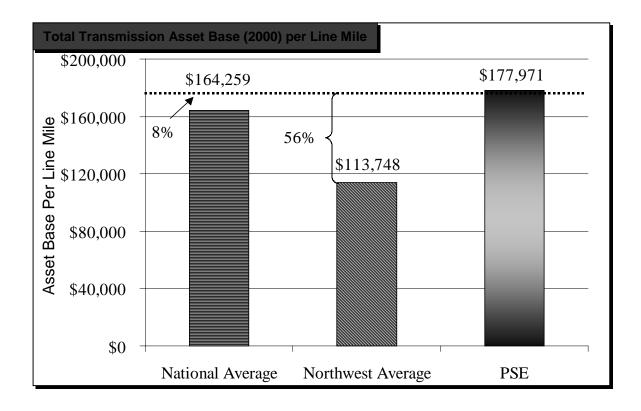
- 1. Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. PUD Clark County is excluded from the 2000 Northwest Average because of overly large increase in Transmission Capital Additions from 1998-1999. This anomaly skews their average 4 year growth rate, and thus the extrapolated 2000 Capital Additions.
- 5. 1996 Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles
- 6. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 7. PSE Transmission Line Miles excludes 9% of the 3<sup>rd</sup> AV Line that they own jointly with the Bonneville Power Authority (approximately 20 miles)

# Comparison of PSE Electric Total Transmission Asset Base (2000) <u>Per Customer</u> to the National and Northwest Panels



- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Asset Base equals Gross Plant minus Accumulated Depreciation. For municipal utilities, accumulated depreciation is allocated by taking the ratio of Distribution Plant to Total Plant and applying that ratio to Total Accumulated Depreciation Expense.
- 4. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

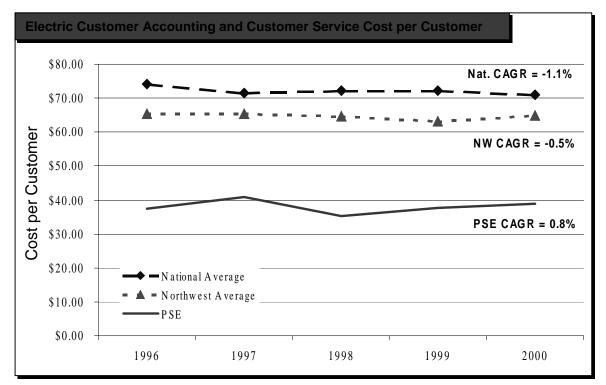
# Comparison of PSE Electric Total Transmission Asset Base (2000) <u>Per Line Mile</u> to the National and Northwest Panels



- 1. Source: Cost information from FERC Form 1 and EIA Form-412 (SNL Database)
- 2. Source: Line mile information from McGraw-Hill Directory of Electric Utilities (1998-2001)
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. Asset Base equals Gross Plant minus Accumulated Depreciation. For municipal utilities, accumulated depreciation is allocated by taking the ratio of Distribution Plant to Total Plant and applying that ratio to Total Accumulated Depreciation Expense.
- 5. 1996 Line Mile Data extrapolated by taking percent change in number of customers from 1996 to 1997 and applying it to 1997 Line Miles
- 6. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 7. PSE Transmission Line Miles excludes 9% of the 3<sup>rd</sup> AV Line that they own jointly with the Bonneville Power Authority (approximately 20 miles)

Exhibit No. \_\_\_\_ (JMS-28) 2001 PSE Rate Case Page 1 of 1

# Comparison of PSE Electric Customer Accounting and Customer Service Cost <u>Per Customer</u> to the National and Northwest Panels

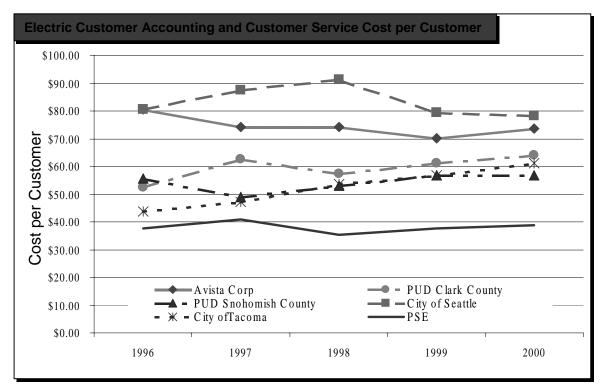


	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$37.56	\$40.75	\$35.25	\$37.66	\$38.96	
National	\$74.15	\$71.42	\$72.13	\$72.28	\$71.04	+82%
NW	\$65.35	\$65.31	\$64.71	\$63.33	\$64.84	+66%

- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate

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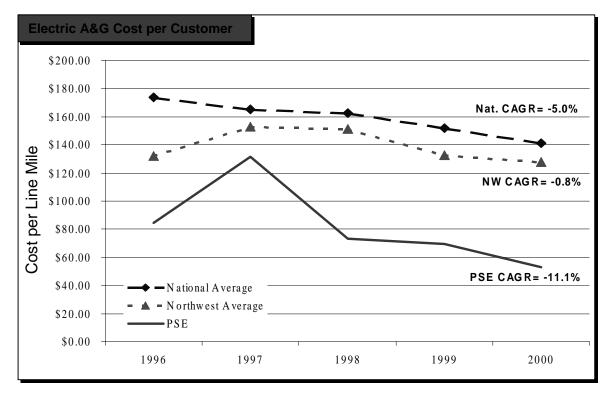
## Comparison of PSE Electric Customer Accounting and Customer Service Cost <u>Per Customer</u> to Individual Companies Included in Northwest Panel



	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$37.56	\$40.75	\$35.25	\$37.66	\$38.96	
Avista	\$80.58	\$74.32	\$74.29	\$70.13	\$73.63	+89%
Clark	\$52.58	\$62.72	\$57.30	\$61.30	\$64.04	+64%
Snoh.	\$55.68	\$49.08	\$53.10	\$56.78	\$56.93	+46%
Seattle	\$80.45	\$87.53	\$91.41	\$79.31	\$78.19	+101%
Tacoma	\$43.65	\$47.18	\$53.52	\$56.82	\$61.24	+57%

- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

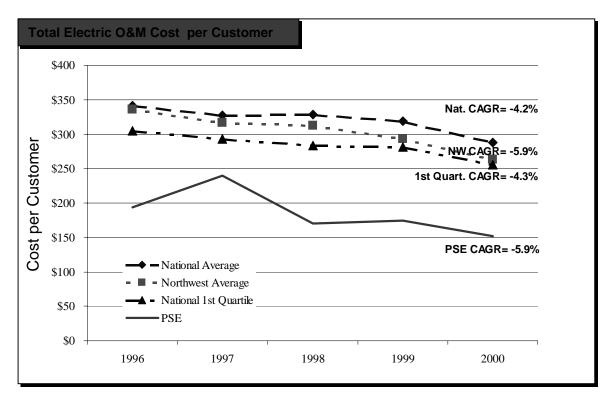
# Comparison of PSE Electric A&G Cost <u>Per Customer</u> to the National and Northwest Panels



	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$84.49	\$131.79	\$73.14	\$69.26	\$52.88	
National	\$173.79	\$165.27	\$162.57	\$152.04	\$141.39	+167%
NW	\$132.26	\$153.13	\$151.36	\$132.79	\$128.00	+142%

- 1. Source: FERC Form 1 and EIA Form-412 (SNL Database)
- 2. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate
- 5. Excludes FERC Account 565: Transmission of Electricity by Others

# Comparison of PSE Total Electric O&M Costs <u>Per Customer</u> to the National and Northwest Panels



	1996	1997	1998	1999	2000	Comparison to PSE 2000 Performance
PSE	\$193	\$239	\$170	\$175	\$152	
National	\$341	\$328	\$329	\$319	\$287	+89%
Nat. 1Q	\$304	\$293	\$283	\$282	\$256	+68%
NW	\$336	\$317	\$313	\$293	\$263	+73%

- 1. Source: FERC Form 1 and EIA Form 412 (SNL Database)
- 2. Electric Total O&M is the sum of Distribution O&M, Transmission O&M, Customer Accounting and Customer Service O&M, and A&G O&M.
- 3. No 2000 data available for Washington Municipal Utilities. Data extrapolated by applying average 4 year growth rate to 1999 data
- 4. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 5. CAGR is the Compound Annual Growth Rate
- 6. Excludes FERC Account 565: Transmission of Electricity by Others
- 7. Washington Municipal Utilities excluded from the Northwest Average because they do not report FERC Account 565

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### The National Panel of Gas Companies (68 Utilities)

#### **National Panel**

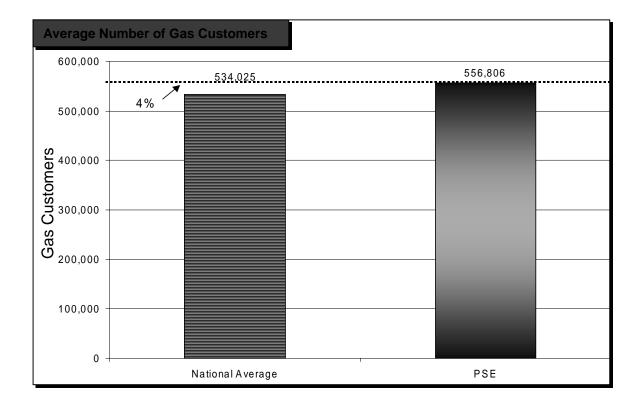
Avista Corporation - WA LDC Baltimore Gas & Electric Co - MD LDC Bay State Gas Company - MA LDC Boston Gas Company - MA LDC Brooklyn Union Gas Company - NY LDC Central Illinois Light Company - IL LDC Central Illinois Public Serv Co - IL LDC Colonial Gas Company - MA LDC Columbia Gas of Kentucky - KY LDC Columbia Gas of Ohio - OH LDC Connecticut Natural Gas Corp - CT LDC Consolidated Edison Co of N.Y. - NY LDC Consumers Energy Company - MI LDC Dayton Power and Light Co - OH LDC East Ohio Gas Company - OH LDC Elizabethtown Gas Company - NJ LDC Equitable Gas Company - PA LDC IES Utilities, Inc. - IA LDC Illinois Power Company - IL LDC Indiana Gas Company, Inc. - IN LDC KeySpan Gas East Corporation - NY LDC Laclede Gas Company - MO LDC Louisville Gas & Electric Co - KY LDC Madison Gas and Electric Co - WI LDC Michigan Consolidated Gas Co - MI LDC Mississippi Valley Gas Co - MS LDC Montana Power Company - MT LDC Mountain Fuel - Total LDC Mountaineer Gas Company - WV LDC National Fuel Gas Dist Corp - NY LDC National Fuel Gas Dist Corp - PA LDC National Fuel Gas Dist Corp - Total LDC New Jersey Natural Gas Co - NJ LDC New York State Electric & Gas Co- NY LDC Niagara Mohawk Power Corp - NY LDC North Shore Gas Company - IL LDC Northern Illinois Gas Company - IL LDC Northern States Power Co - MN LDC Northwest Natural Gas Company - Total LDC Orange and Rockland Utilities - NY LDC Pacific Gas and Electric Co - CA LDC PECO Energy Company - PA LDC Peoples Gas Light And Coke Co - IL LDC Public Service Co of Colorado - CO LDC Public Service Co.- North Carolina - NC LDC Public Service Electric & Gas Co - NJ LDC Reliant Energy-Arkla Division - AR LDC Reliant Energy-Entex Division - TX LDC Reliant Energy-Minnegasco Div - MN LDC Rochester Gas & Electric Corp. - NY LDC SEMCO Energy Gas Company - MI LDC Sierra Pacific Power Company - NV LDC South Jersey Gas Company - NJ LDC Southern Union Company - MO LDC Southwest Gas Corporation - AZ LDC Southwest Gas Corporation - CA LDC **TECO-Peoples Gas System - FL LDC** TXU Gas Company - TX LDC Union Electric Company - Total LDC UtiliCorp-Michigan Gas Utils- MI LDC UtiliCorp-Peoples Nat Gas- Total LDC Virginia Natural Gas, Inc.- VA LDC Washington Gas Light Company - Total LDC Western Kentucky Gas Company - KY LDC Wisconsin Electric Power Co - WI LDC Wisconsin Power and Light Co - WI LDC Wisconsin Public Service Corp - WI LDC Yankee Gas Services Company - CT LDC

#### Footnote:

1. Source: State LDC Filings (SNL Database)

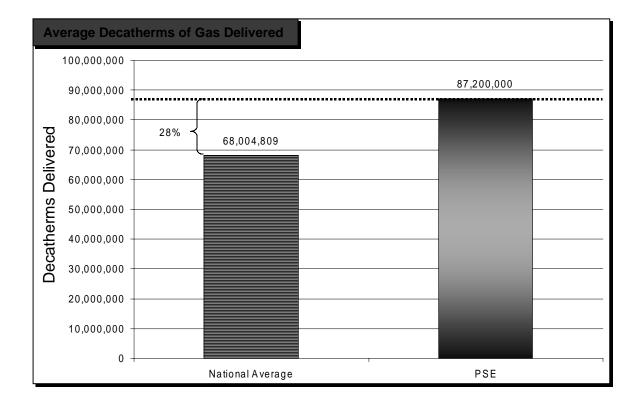
2. Panel includes U.S. IOUs with greater than 100,000 customers in year 2000

# Comparison of PSE Gas Customers to the National Panel



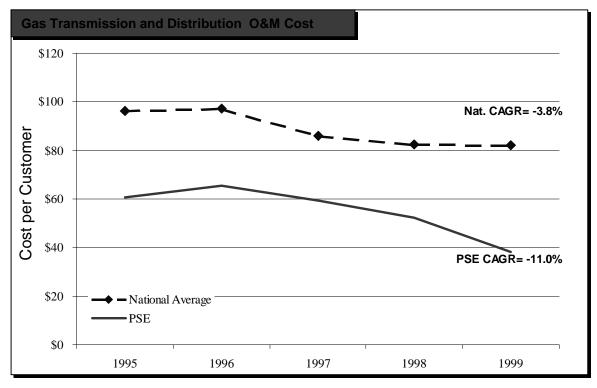
- 1. Source: State LDC filings (SNL Database)
- 2. Data is for year 1999

# Comparison of PSE Gas Delivery to the National Panel



- 1. Source: State LDC filings (SNL Database)
- 2. Data is for year 1999

### Comparison of PSE Gas Transmission and Distribution O&M Cost Per Customer to the National Panel

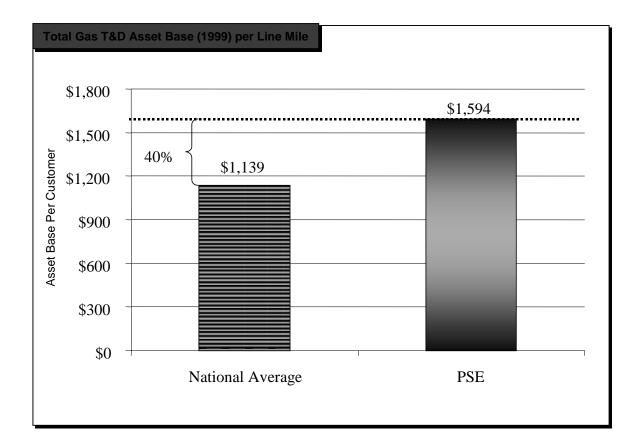


	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$60.66	\$65.33	\$59.43	\$52.23	\$38.04	
National	\$96.18	\$97.38	\$85.96	\$82.58	\$82.25	+116%

- 1. Source: State LDC filings (SNL Database)
- 2. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 3. CAGR is the Compound Annual Growth Rate

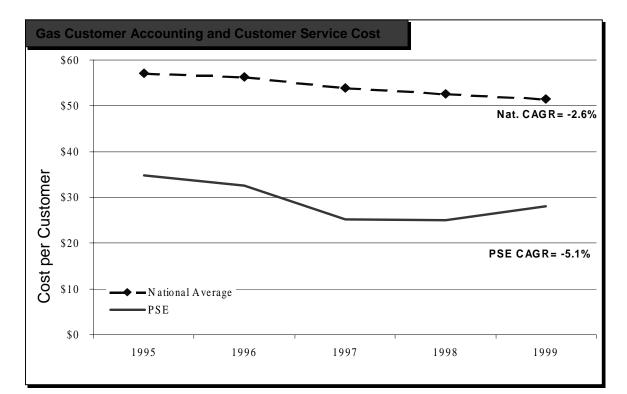
Exhibit No. \_\_\_\_ (JMS-36) 2001 PSE Rate Case Page 1 of 1

Comparison of PSE Gas Transmission and Distribution Net Asset Base (1999) Per Customer to the National Panel



- 1. Source: State LDC filings (SNL Database)
- 2. Asset Base equals Gross Plant minus Accumulated Depreciation. For all companies, Accumulated Depreciation is allocated by taking ratio of individual Plant type to Total Plant, and applying those ratios to Total Accumulated Depreciation Expense
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

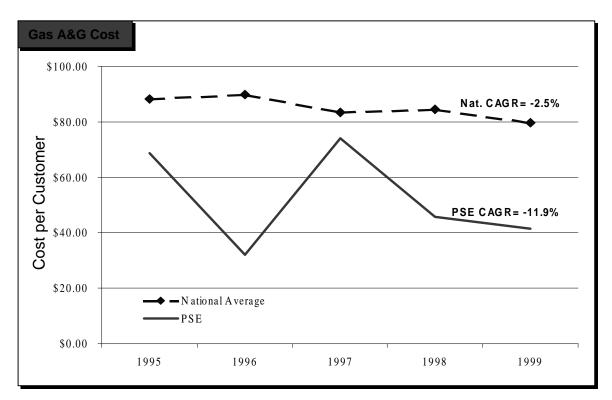
### Comparison of PSE Gas Customer Accounting and Customer Service Cost Per Customer to the National Panel



	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$34.76	\$32.64	\$25.20	\$25.08	\$28.15	
National	\$57.14	\$56.38	\$53.90	\$52.56	\$51.53	+83%

- 1. Source: State LDC filings (SNL Database)
- 2. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 3. CAGR is the Compound Annual Growth Rate

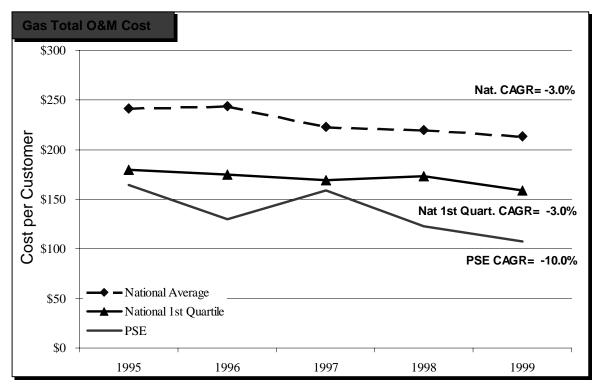
# Comparison of PSE Gas A&G Cost Per Customer to the National Panel



	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$68.63	\$31.96	\$74.13	\$45.80	\$41.41	
National	\$88.11	\$89.80	\$83.31	\$84.46	\$79.78	+93%

- 1. Source: State LDC filings (SNL Database)
- 2. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 3. CAGR is the Compound Annual Growth Rate

# Comparison of PSE Total Gas O&M Cost Per Customer to the National Panel



	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$164	\$130	\$159	\$123	\$108	
National	\$241	\$244	\$223	\$220	\$214	+98%
Nat. 1Q	\$180	\$175	\$169	\$173	\$159	+48%

- 1. Source: State LDC Filings (SNL Database)
- 2. Gas Total O&M is the sum of Distribution O&M, Transmission O&M, Customer Accounting and Customer Service O&M, and A&G O&M.
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate

### The National Panel of Combination Utility Companies (37 Utilities)

#### **National Combination Panel**

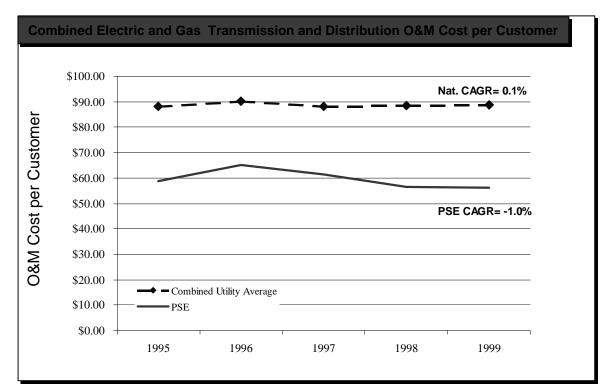
Avista Corporation Baltimore Gas and Electric Company Central Hudson Gas & Electric Corp Central Illinois Light Company Central Illinois Public Service Co. Cincinnati Gas & Electric Co. Consolidated Edison Company of N.Y. Consumers Energy Company Dayton Power and Light Company **IES** Utilities, Inc Illinois Power Company Interstate Power Company Louisville Gas and Electric Company Madison Gas and Electric Company MidAmerican Energy Company Montana Power Company New York State Electric and Gas Corp Niagara Mohawk Power Corporation

Northern Indian Public Service Co. Northern States Power - Minn. Northern States Power - Wisc Orange and Rockland Utilities, Inc. Pacific Gas and Electric Company PECO Energy Public Service Company - New Mexico Public Service Company of Colorado Public Service Electric and Gas Co. Rochester Gas and Electric Corp San Diego Gas & Electric Company St Joseph Light & Power Company TXU Electric Company Union Electric Company Union Light, Heat and Power Co. Wisconsin Electric Power Co. Wisconsin Power and Light Company Wisconsin Public Service Corp

- 1. Source: FERC Form 1 and State Gas LDC Filings (SNL Database)
- 2. Panel includes Investor Owned Utilities that provide both Electric and Gas Service

Exhibit No. \_\_\_\_ (JMS-41) 2001 PSE Rate Case Page 1 of 1

## Comparison of PSE Electric and Gas Transmission and Distribution O&M Cost <u>Per Customer</u> to the National Panel of Combination Utilities

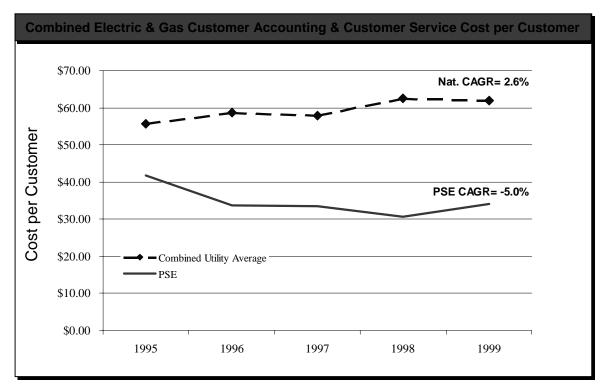


	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$58.70	\$65.16	\$61.47	\$56.61	\$56.31	
Combination	\$88.33	\$90.28	\$88.17	\$88.37	\$88.80	+58%

- 1. Source: FERC Form 1 and State LDC Filings (SNL Database)
- 2. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 3. CAGR is the Compound Annual Growth Rate
- 4. Excludes FERC Account 565: Transmission of Electricity by Others

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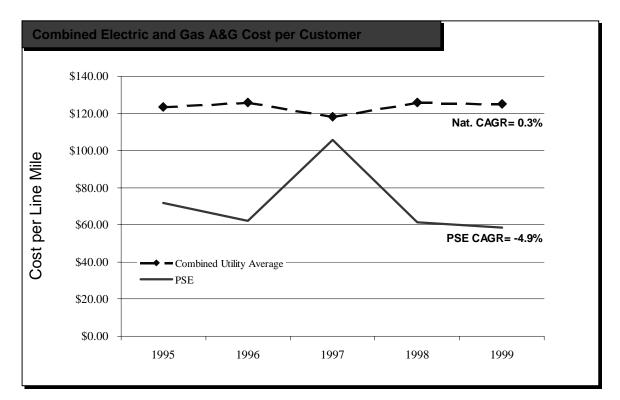
## Comparison of PSE Electric and Gas Customer Accounting and Customer Service Cost <u>Per Customer</u> to National Panel of Combination Utilities



	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$41.78	\$33.75	\$33.53	\$30.60	\$34.02	
Combination	\$55.78	\$58.62	\$57.86	\$62.53	\$61.83	+82%

- 1. Source: FERC Form 1 and State LDC Filings (SNL Database)
- 2. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 3. CAGR is the Compound Annual Growth Rate

### Comparison of PSE Electric and Gas A&G Cost <u>Per Customer</u> to the National Panel of Combination Utilities

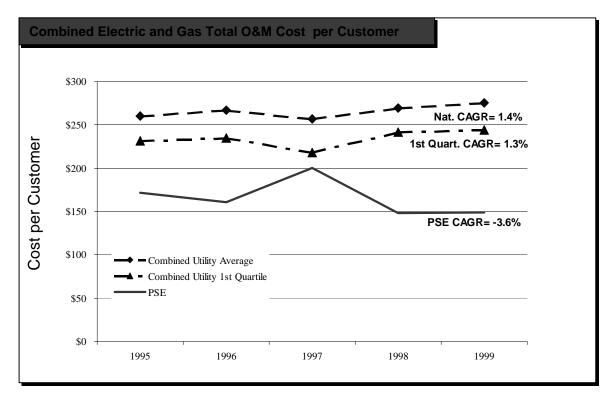


	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$71.73	\$62.00	\$105.79	\$61.20	\$58.61	
Combination	\$123.34	\$125.76	\$118.16	\$125.97	\$124.92	+113%

- 1. Source: FERC Form 1 and State LDC Filings (SNL Database)
- 2. No 2000 data available for Gas LDCs. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate

Exhibit No. \_\_\_\_ (JMS-44) 2001 PSE Rate Case Page 1 of 1

### Comparison of PSE Electric and Gas Total O&M Cost <u>Per</u> <u>Customer</u> to the National Panel of Combination Utilities

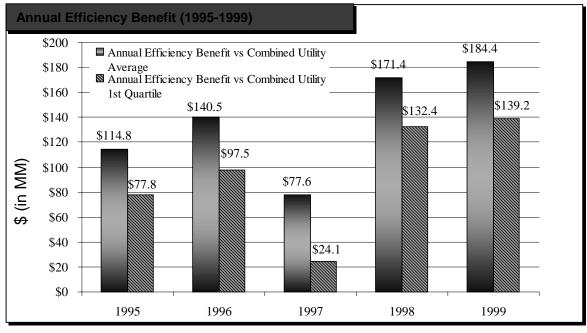


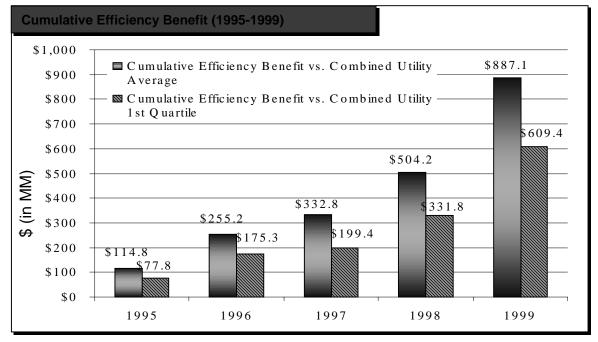
	1995	1996	1997	1998	1999	Comparison to PSE 1999 Performance
PSE	\$172	\$161	\$201	\$148	\$149	
Combination	\$260	\$267	\$257	\$270	\$276	+85%
Comb. 1st Quart	\$232	\$235	\$218	\$242	\$245	+64%

- 1. Source: FERC Form 1 and State LDC Filings (SNL Database)
- 2. No 2000 data available for Gas LDCs. Data extrapolated by applying average 4 year growth rate to 1999 data
- 3. Cost data inflated using Bureau of Labor Statistics Consumer Price Index
- 4. CAGR is the Compound Annual Growth Rate
- 5. Excludes FERC Account 565: Transmission of Electricity by Others

Exhibit No. \_\_\_\_\_ (JMS-45) 2001 PSE Rate Case Page 1 of 1

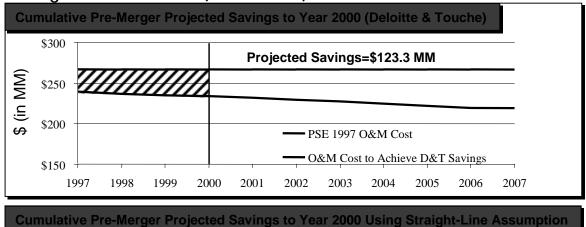
Value of PSE Efficiency Benefit to Customer vs. the National Combination Panel and National Combination First Quartile

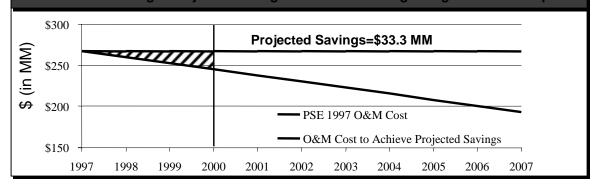




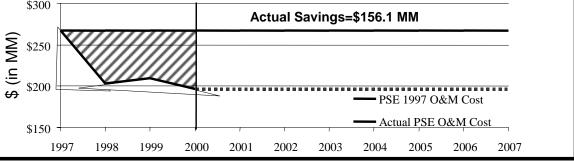
- 1. Source: FERC Form 1 and State LDC Filings (SNL Database)
- 2. All values in \$ MM
- 3. Excludes FERC Account 565: Transmission of Electricity by Others
- 4. Cost data inflated using Bureau of Labor Statistics Consumer Price Index

### Comparison of Pre-Merger Projections to Actual PSE Post-Merger Performance (1997-2000)





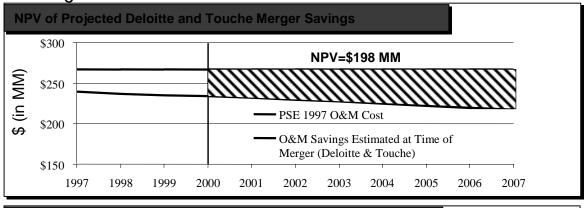
Cumulative Actual PSE Post-Merger Savings

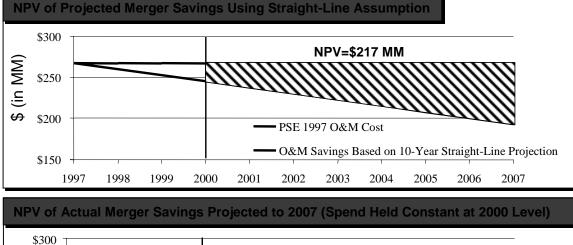


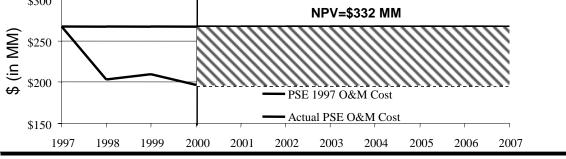
- 1. Source: FERC Form 1 and State LDC Filings (SNL Database) and Deloitte and Touche Project Largent Report
- 2. Deloitte and Touche \$370 MM Savings includes O&M and Fixed Charges
- 3. All values in \$ MM
- 4. Excludes FERC Account 565: Transmission of Electricity by Others
- 5. All values not inflated
- 6. 10.36% Cost of Capital

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Net Present Value (NPV) Comparison of Projected Future Savings

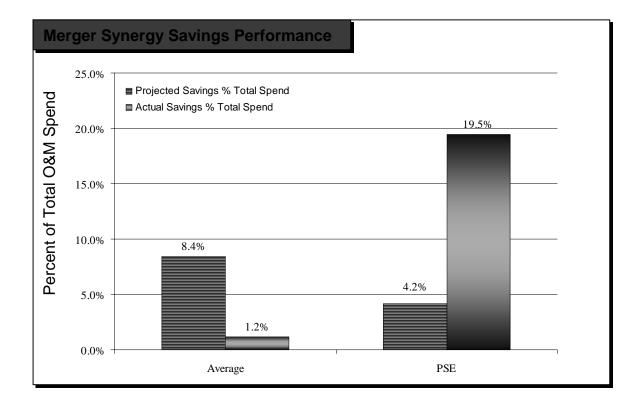






- 1. Source: FERC Form 1 and State LDC Filings (SNL Database) and Deloitte and Touche Project Largent Report
- 2. Deloitte and Touche \$370 MM Savings includes O&M and Fixed Charges
- 3. All values in \$ MM
- 4. Excludes FERC Account 565: Transmission of Electricity by Others
- 5. All values not inflated
- 6. 10.36% Cost of Capital

## Comparison of Projected and Actual Merger Synergy Savings Performance



- Source: Cost Data from FERC Form 1 and State LDC Filings (SNL Database). Merger data from FERC Merger Filings, State Utility Commission Merger Filings (Kentucky), and Scientech's <u>Mergers, Acquisitions and Convergence in the U.S. Electric Industry</u>
- 2. Analysis compares synergy savings projections to actual post-merger performance on a Total O&M basis
- Total O&M Cost is the sum of Distribution O&M Cost, Transmission O&M Cost, Customer Accounts and Customer Service O&M Cost, and A&G O&M Cost. It excludes Production O&M Cost and FERC Account 565 (Transmission of Electricity by Others).
- 4. Mergers considered occurred in 1997 and 1998.
- 5. Mergers for which publicly available data was not available for both the pre- and postmerger entities were excluded
- 6. Mergers for which Merger Filings did not contain synergy savings projections were excluded
- 7. All values not inflated