

EXHIBIT NO. _____ (WAG-3)
DOCKET NO. _____
2001 PSE RATE CASE
WITNESS: WILLIAM A. GAINES

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.

Respondent.

EXHIBIT TO DIRECT TESTIMONY OF WILLIAM A. GAINES
ON BEHALF OF PUGET SOUND ENERGY, INC.

PSE'S POWER SUPPLY PORTFOLIO

At December 31, 2000, PSE's peak electric power resources were approximately 4,916,807 KW. PSE's historical peak load of approximately 4,847,000 KW occurred on December 21, 1998.

During 2000, PSE's total electric energy production was supplied 24.7% by its own resources, 17.2% through long-term contracts with several of the Washington Public Utility Districts ("PUDs") that own hydro-electric projects on the Columbia River, 21.0% from other firm purchases and 37.1% from non-firm purchases.

The following table shows PSE's electric energy supply resources at December 31, 2000, and energy production during the year:

	Peak Power Resources at December 31, 2000		2000 Energy Production	
	Kilowatts	%	Kilowatt-Hours (Thousands)	%
Purchased resources:				
Columbia River				
PUD Contracts (Hydro)	1,393,000	28.3%	6,624,109	17.2%
Other Hydro ¹	542,882	11.1%	3,875,640	10.0%
Other Producers ¹	1,244,675	25.3%	18,526,154	48.1%
Total purchased	3,180,557	64.7%	29,025,903	75.3%
Company-owned resources:				
Hydro	310,700	6.3%	1,298,405	3.4%
Coal	680,000	13.8%	4,932,699	12.8%
Natural gas/oil	745,550	15.2%	3,271,282	8.5%
Total Company-owned	1,736,250	35.3%	9,502,386	24.7%
Total	4,916,807	100.0%	38,528,289	100.0%

¹ Power received from other utilities is classified between hydro and other producers based on the character of the utility system used to supply the power or, if the power is supplied from a particular resource, the character of that resource.

1 **COMPANY-OWNED ELECTRIC GENERATION RESOURCES**

2 PSE and other utilities are joint owners of four mine-mouth, coal-fired, steam-
3 electric generating units at Colstrip, Montana, approximately 100 miles east of Billings,
4 Montana. PSE owns a 50% interest (330,000 KW) in Units 1 and 2 and a 25% interest
5 (350,000 KW) in Units 3 and 4. The owners of the Colstrip Units purchase coal for the
6 Units from Western Energy Company ("Western Energy"), under the terms of long-term
7 coal supply agreements.

8 PSE owns a (160,000 KW) natural-gas fired cogeneration facility located near
9 Bellingham, Washington, which was purchased from Encogen Northwest L.P.
10 ("Encogen") on November 1, 1999. PSE also has the following plants with an aggregate
11 net generating capability of 896,250 KW: Upper Baker River hydro project (103,000
12 KW) constructed in 1959; Lower Baker River hydro project (71,400 KW) reconstructed
13 in 1960; White River hydro plant (63,400 KW) constructed in 1911; Snoqualmie Falls
14 hydro plant (45,500 KW), half the capability of which was installed during the period
15 1898 to 1910 and half in 1957; and one smaller hydro plant, Electron (27,400 KW),
16 constructed during the period 1904 to 1929; a standby internal combustion unit (2,750
17 KW) installed in 1969; four dual-fuel combustion turbine units (89,100 KW each)
18 installed during 1981; and two dual-fuel combustion turbine units (113,200 KW each)
19 installed during 1984. During 2001, PSE installed two additional dual-fuel combustion
20 turbines (53,000 KW each). All of these generating facilities, except the Colstrip,
21 Montana plants, are located in PSE's service territory.

22 **COLUMBIA RIVER ELECTRIC ENERGY SUPPLY CONTRACTS**

23 During 2000, approximately 17.2% of PSE's energy output was obtained at an
24 average cost of approximately 11.4 mills per KWH through long-term contracts with
25 several of the Washington PUDs owning hydro-electric projects on the Columbia River.
26

1 PSE's purchases of power from the Columbia River projects is generally on a
2 "cost of service" basis under which PSE pays a proportionate share of the annual debt
3 service and operating and maintenance costs of each project in proportion to the amount
4 of power annually purchased by PSE from such project. Such payments are not
5 contingent upon the projects being operable. These projects are financed through
6 substantially level debt service payments, and their annual costs may vary over the term
7 of the contracts as additional financing is required to meet the costs of major
8 maintenance, repairs or replacements or license requirements.

9 PSE has contracted to purchase from Chelan County PUD ("Chelan") a share of
10 the output of the original units of the Rock Island Project which equaled 50% as of July 1,
11 1999 and remains unchanged thereafter for the duration of the contract which expires in
12 2012. PSE has also contracted to purchase the entire output of the additional Rock Island
13 units for the duration of the contract, except that PSE's share of output of the additional
14 units may be reduced up to 10% per year beginning July 1, 2000, subject to a maximum
15 aggregate reduction of 50%, upon the exercise of rights of withdrawal by Chelan for use
16 in its local service area. Chelan began withdrawing 5% of the additional units on July 1,
17 2000. As of December 31, 2000, PSE's aggregate annual capacity from all units of the
18 Rock Island Project was 457,000 KW. PSE has contracted to purchase from Chelan
19 38.9% (505,000 KW as of December 31, 2000) of the annual output of the Rocky Reach
20 Project, which percentage remains unchanged for the remainder of the contract which
21 expires in 2011. PSE has contracted to purchase from Douglas County PUD 31.3%
22 (261,000 KW as of December 31, 2000) of the annual output of the Wells Project, the
23 percentage of which remains unchanged for the remainder of the contract which expires
24 in 2018. PSE has contracted to purchase from Grant County PUD 8.0% (72,000 KW as
25 of December 31, 2000) of the annual output of the Priest Rapids Project and 10.8%
26 (98,000 KW as of December 31, 2000) of the annual output of the Wanapum Project,

1 which percentages remain unchanged for the remainder of the contracts which expire in
2 2005 and 2009, respectively.

3 **ELECTRIC ENERGY SUPPLY CONTRACTS AND AGREEMENTS WITH**
4 **OTHER UTILITIES**

5 Under a 1985 settlement agreement relating to Washington Public Power Supply
6 System ("WPPSS") Nuclear Project No. 3, in which PSE had a 5% interest, PSE is
7 entitled to receive from BPA beginning January 1, 1987, electric power during the
8 months of November through April. Under the contract, PSE is guaranteed to receive not
9 less than 191,667 MWH in each contract year until PSE has received total deliveries of
10 5,833,333 MWH. PSE expects the contract to be in effect until at least June 2008. Also
11 pursuant to the 1985 settlement agreement, BPA has an option to request that PSE deliver
12 up to 67 MW of exchange energy to BPA in all months except May, July and August
13 through the remaining term of the agreement which is no earlier than June 2008.

14 On April 4, 1988, PSE executed a 15-year contract, with provisions for early
15 termination by PSE, for the purchase of firm energy supply from Avista Corporation
16 (formerly Washington Water Power Company). This agreement calls for the delivery of
17 100 MW of capacity and 657,000 MWH of energy from the Avista system annually
18 (75 annual average MW). Minimum and maximum delivery rates are prescribed. Under
19 this agreement, the energy is to be priced at Avista's average generation and transmission
20 cost, subject to certain price ceilings. This contract expires on December 31, 2002.

21 On October 27, 1988, PSE executed a 15-year contract for the purchase of firm
22 power and energy from PacifiCorp. Under the terms of the agreement, PSE receives
23 120 average MW of energy and 200 MW of peak capacity. This contract expires on
24 October 31, 2003.

25 On October 1, 1989, PSE signed a contract with The Montana Power Company
26 under which Montana Power provides PSE, from its share of Colstrip Unit 4, 71 average

1 MW of energy (94 MW of peak capacity) over a 21-year period. This contract expires
2 December 2010.

3 In February 1977, PSE and the Montana Power Company (Montana) settled a
4 dispute over delivery provisions in the 94 MW long-term purchase of power from
5 Montana. The settlement resulted in PSE receiving 97 MW of capacity (3 additional
6 MW), at a significant reduction in fixed contract costs, elimination of an annual capacity
7 factor restriction and reductions in Colstrip coal costs.

8 PSE executed an exchange agreement with Pacific Gas & Electric Company
9 ("PG&E") which became effective on January 1, 1992. Under the agreement, 300 MW of
10 capacity together with 413,000 MWH of energy are exchanged seasonally every year on a
11 unit for unit basis. No payments are made under this agreement. PG&E is a summer
12 peaking utility and will provide power during the months of November through February.
13 PSE is a winter peaking utility and will provide power during the months of June through
14 September. Each party may terminate the contract for various reasons. In January 2001,
15 PG&E did not meet all of its exchange delivery obligations to PSE due to resource
16 shortfalls on the PG&E electrical system.

17 In October 1997, a 10-year power exchange agreement between PSE and Powerex
18 (a subsidiary of a British Columbia utility) became effective. Under this agreement
19 Powerex pays PSE for the right to deliver power to PSE at the Canadian border in
20 exchange for PSE delivering power to Powerex at various locations in the United States.

21 **ELECTRIC ENERGY SUPPLY CONTRACTS AND AGREEMENTS WITH** 22 **NON-UTILITIES**

23 As required by the federal Public Utility Regulatory Policies Act ("PURPA"), PSE
24 entered into long-term firm purchased power contracts with non-utility generators. The
25 most significant of these are the contracts described below which PSE entered into in
26 1989, 1990 and 1991 with operators of natural gas-fired cogeneration projects. PSE

1 purchases the net electrical output of these three projects at fixed and annually escalating
2 prices which were intended to approximate PSE's avoided cost of new generation
3 projected at the time these agreements were made. On June 29, 1989, PSE executed a
4 20-year contract to purchase 70 average MW of energy and 80 MW of capacity,
5 beginning October 11, 1991, from the March Point Cogeneration Company ("March
6 Point"), which owns and operates a natural gas-fired cogeneration facility known as
7 March Point Phase I, located at the Equilon refinery in Anacortes, Washington. On
8 December 27, 1990, PSE executed a second contract (having a term coextensive with the
9 first contract) to purchase an additional 53 average MW of energy and 60 MW of
10 capacity, beginning in January 1993, from another natural gas-fired cogeneration facility
11 owned and operated by March Point, which facility is known as March Point Phase II and
12 is located at the Equilon refinery in Anacortes, Washington. On February 24, 1989, PSE
13 executed a 20-year contract to purchase 108 average MW of energy and 123 MW of
14 capacity, beginning in April 1993, from Sumas Cogeneration Company, L.P., which owns
15 and operates a natural gas-fired cogeneration project located in Sumas, Washington.

16 On March 20, 1991, PSE executed a 20-year contract to purchase 216 average
17 MW of energy and 245 MW of capacity, beginning in April 1994, from Tenaska
18 Washington Partners, L.P., which owns and operates a natural gas-fired cogeneration
19 project located near Ferndale, Washington. In December 1997 and January 1998, PSE
20 and Tenaska Washington Partners entered into revised agreements in which PSE became
21 the principal natural gas supplier to the project and power purchase prices under the
22 Tenaska contract were revised to reflect market-based prices for the natural gas supply.
23 PSE obtained an order from the Washington Commission creating a regulatory asset
24 related to the \$215 million restructuring payment. Under terms of the order, PSE is
25 allowed to accrue as an additional regulatory asset one-half the carrying costs of the
26 deferred balance over the first five years.

PSE'S GAS SUPPLY PORTFOLIO

PSE purchases a blended portfolio of long-term firm, short-term firm, and non-firm gas supplies from a diverse group of major and independent producers and gas marketers in the United States and Canada. All of PSE's gas supply is ultimately transported through Northwest Pipeline Corporation ("NPC"), the sole interstate pipeline delivering directly into the Western Washington area.

	Peak Firm Gas Supply at December 31, 2000	
	Dth per Day	%
Purchased gas supply:		
British Columbia	129,800	16.7
Alberta	76,200	9.8
United States	74,300	9.6
Total purchased gas supply	280,300	36.1
Purchased storage capacity:		
Clay Basin	80,900	10.4
Jackson Prairie	47,800	6.2
LNG	71,100	9.1
Total purchased storage capacity	199,800	25.7
Owned storage capacity:		
Jackson Prairie	266,400	34.3
Propane-Air Injection	30,000	3.9
Total owned storage capacity	296,400	38.2
Total peak firm gas supply	776,500	100.0

For baseload and peak-shaving purposes, PSE supplements its firm gas supply portfolio by purchasing natural gas at generally lower prices in summer, injecting it into underground storage facilities and withdrawing it during the winter heating season. Storage facilities at Jackson Prairie in Western Washington and at Clay Basin in Utah are used for this purpose. Peaking needs are also met by using PSE owned gas held in NPC's

1 liquefied natural gas ("LNG") facility at Plymouth, Washington, and by producing
2 propane-air gas at a plant owned by PSE and located on its distribution system.

3 In 1998, PSE took assignment from Cascade Natural Gas of a Peaking Gas Supply
4 Service contract whereby PSE can divert up to 48,000 Dekatherms per day (one
5 Dekatherm, or "Dth", is equal to one million British thermal units or "MMBtu" per day)
6 of gas supply away from the Tenaska Cogeneration Facility and toward the core gas load
7 by causing Tenaska to operate its facility on distillate fuel and paying any additional costs
8 of such operation.

9 PSE expects to meet its firm peak-day requirements for residential, commercial
10 and industrial markets through its firm gas purchase contracts, firm transportation
11 capacity, firm storage capacity and other firm peaking resources. PSE believes it will be
12 able to acquire incremental firm gas supply resources that are reliable and reasonably
13 priced, to meet anticipated growth in the requirements of its firm customers for the
14 foreseeable future.

15 **GAS SUPPLY PORTFOLIO**

16 For the 2000-2001 winter heating season, PSE has contracted for approximately
17 16.7% of its expected peak-day gas supply requirements from sources originating in
18 British Columbia under a combination of long-term and winter-peaking purchase
19 agreements. Long-term gas supplies from Alberta represent approximately 9.8% of the
20 peak-day requirements. Long-term and winter peaking arrangements with U.S. suppliers
21 and gas stored at Clay Basin make up approximately 20.0% of the peak-day portfolio.
22 The balance of the peak-day requirements is expected to be met with gas stored at
23 Jackson Prairie, LNG held at NPC's Plymouth facility and propane-air resources, which
24 represent approximately 40.5%, 9.1% and 3.9%, respectively, of expected peak-day
25 requirements.

1 During 2000, approximately 50% of gas supplies purchased by PSE originated
2 from British Columbia while 19% originated in Alberta and 31% originated in the United
3 States.

4 The current firm, long-term gas supply portfolio consists of arrangements with 16
5 producers and gas marketers, with no single supplier representing more than 16% of
6 expected peak-day requirements. Contracts have remaining terms ranging from less than
7 one-year to 11 years, with an average term of two-years. All gas supply contracts contain
8 market-sensitive pricing provisions based on several published indices.

9 PSE's firm gas supply portfolio is structured to capitalize on regional price
10 differentials when they arise. Gas and services are marketed outside PSE's service
11 territory ("off-system sales") whenever on-system customer demand requirements permit.
12 The geographic mix of suppliers and daily, monthly and annual take requirements permit
13 a high degree of flexibility in selecting gas supplies during off-peak periods to minimize
14 costs.

15 **GAS TRANSPORTATION CAPACITY**

16 PSE currently holds firm transportation capacity on pipelines owned by NPC and
17 PG&E Gas Transmission-Northwest ("PGT"). Accordingly, PSE pays fixed monthly
18 demand charges for the right, but not the obligation, to transport specified quantities of
19 gas from receipt points to delivery points on such pipelines each day for the term or terms
20 of the applicable agreements.

21 PSE holds firm capacity on NPC's pipeline totaling 454,533 Dth per day, acquired
22 under several agreements at various times. PSE has exchanged certain segments of its
23 firm capacity with third parties to effectively lower transportation costs. PSE's firm
24 transportation capacity contracts with NPC have remaining terms ranging from 4 to
25 15.5 years. However, PSE has either the unilateral right to extend the contracts under
26 their current terms or the right of first refusal to extend such contracts under current

1 FERC orders. PSE's firm transportation capacity on PGT's pipeline, totaling 90,392 Dth
2 per day, has a remaining term of 23 years.

3 **GAS STORAGE CAPACITY**

4 PSE holds storage capacity in the Jackson Prairie and Clay Basin underground gas
5 storage facilities adjacent to NPC's pipeline. The Jackson Prairie facility, operated and
6 one-third owned by PSE, is used primarily for intermediate peaking purposes, able to
7 deliver a large volume of gas over a relatively short time period. Combined with capacity
8 contracted from NPC's one-third stake in Jackson Prairie, PSE has peak, firm delivery
9 capacity of over 340,000 Dth per day and total firm storage capacity exceeding 7,500,000
10 Dth at the facility. The location of the Jackson Prairie facility in PSE's market area
11 provides significant cost savings by reducing the amount of annual pipeline capacity
12 required to meet peak-day gas requirements.

13 The Clay Basin storage facility is supply area storage and is withdrawn over the
14 entire winter, capturing savings due to injecting lower cost gas supplies during the
15 summer. PSE has maximum firm withdrawal capacity of over 100,000 Dth per day from
16 the facility with total storage capacity exceeding 13,000,000 Dth. The capacity is held
17 under two contracts with remaining terms of 13 and 19 years.

18 **LNG AND PROPANE-AIR RESOURCES**

19 LNG and propane-air resources provide gas supply on short notice for short
20 periods of time. Due to their typically high cost, these resources are normally utilized as
21 the supply of last resort in extreme peak-demand periods typically lasting a few hours or
22 days. PSE has long-term contracts for storage of approximately 250,000 Dth of PSE
23 owned gas as LNG at NPC's Plymouth facility, which equates to approximately three and
24 one-half days' supply at maximum daily deliverability of 72,000 Dth. PSE owns storage
25 capacity for approximately 1.4 million gallons of propane. The propane-air injection
26

1 facilities are capable of delivering the equivalent of 30,000 Dth of gas per day for up to
2 four days directly into PSE's distribution system.

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