EXHIBIT NO. ___(EMM-5)
DOCKET NO. UE-04____/UG-04____
2004 PSE GENERAL RATE CASE
WITNESS: ERIC M. MARKELL

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**Docket No. UE-04____** **Docket No. UG-04____**

FOURTH EXHIBIT TO PREFILED DIRECT TESTIMONY OF ERIC M. MARKELL (NONCONFIDENTIAL) ON BEHALF OF PUGET SOUND ENERGY, INC.

APRIL 5, 2004

PUGET SOUND ENERGY, INC.

FOURTH EXHIBIT TO PREFILED DIRECT TESTIMONY OF ERIC M. MARKELL (NONCONFIDENTIAL)

PSE'S POWER SUPPLY PORTFOLIO

At December 31, 2003, PSE's peak electric power resources were approximately 4,537,495 KW. PSE's historical peak load of approximately 4,847,000 KW occurred on December 21, 1998. In order to meet an extreme winter peak load, PSE supplements its electric power resources with call options and other instruments that may include, but are not limited to, weather-related hedges and exchange agreements.

During 2003, PSE's total electric energy production was supplied 26.7% by its own resources, 19.9% through long-term contracts with several of the Washington Public Utility Districts (PUDs) that own hydroelectric projects on the Columbia River and 22.3% from other firm purchases. Short-term wholesale purchases accounted for 31.1%, net of resales to other utilities and marketers, accounted for 14.1% of energy purchases in 2003.

The following table shows PSE's electric energy supply resources at December 31, 2003 and energy production during the year:

	Peak Power Resources at December 31, 2003		2003 Energy Production	
	Kilowatts	**%**	**Kilowatt-Hours (Thousands)**	**%**
Purchased resources:				
Columbia River				
PUD Contracts (Hydro)	1,349,460	29.8%	5,191,346	19.9%
Other hydro	177,160	3.9%	622,900	2.4%
Other producers	1,209,675	26.7%	5,207,225	19.9%
Short-term wholesale energy purchases	N/A	N/A	8,121,009	31.1%
Total purchased	2,736,295	60.4%	19,142,480	73.3%
Company-controlled resources:				
Hydro	310,400	6.8%	1,238,900	4.7%
Coal	700,000	15.4%	4,950,734	19.0%
Natural gas/oil	790,800	17.4%	776,206	3.0%
Total Company-controlled	1,801,200	39.6%	6,965,840	26.7%
Total	4,537,495	100.0%	26,108,320	100.0%

COMPANY-CONTROLLED ELECTRIC GENERATION RESOURCES

PSE and other utilities are joint owners of four mine-mouth, coal-fired, steam-electric generating units at Colstrip, Montana, approximately 100 miles east of Billings, Montana. PSE owns a 50% interest (330,000 KW) in Units 1 and 2 and a 25% interest (370,000 KW) in Units 3 and 4. The owners of the Colstrip Units purchase coal for the Units from Western Energy Company ("Western Energy"), under the terms of long-term coal supply agreements.

PSE owns a (170,000 KW) natural-gas fired cogeneration facility located near Bellingham, Washington, which was purchased from Encogen Northwest L.P. ("Encogen") on November 1, 1999. PSE also has the following plants with an aggregate net generating capability of 931,200 KW: Upper Baker River hydro project (91,000 KW) constructed in 1959; Lower Baker River hydro project (79,000 KW) reconstructed in 1960 and upgraded in 2001; White River hydro plant (70,000 KW) constructed in 1911; Snoqualmie Falls hydro plant (44,400 KW), half the capability of which was installed during the period 1898 to 1910 and half in 1957; and one smaller hydro plant, Electron (26,000 KW), constructed during the period 1904 to 1929; a standby internal combustion unit (2,800 KW) installed in 1969; four dual-fuel combustion turbine units (300,000 KW total) installed during 1981; and two dual-fuel combustion turbine units (210,000 KW total) installed during 1984. During 2001, PSE installed two additional dual-fuel combustion turbines (108,000 KW total), known as Fredonia units 3 & 4. All of these generating facilities, except the Colstrip, Montana plants, are located in PSE's service territory.

At December 31, 2003, PSE has the following plants with an aggregate net generating capacity of 1,801,200 KW:

PLANT NAME	PLANT TYPE	TOTAL KW CAPACITY	YEAR INSTALLED
Colstrip 1 & 2 (50% interest)	Coal	330,000	1975 & 1976
Colstrip 3 & 4 (25% interest)	Coal	370,000	1984 & 1986
Upper Baker River	Hydro	91,000	1959
Lower Baker River	Hydro	79,000	Reconstructed 1960
			Upgraded 2001
White River	Hydro	70,000	1911
Snoqualmie Falls	Hydro	44,400	1898 to 1911 and 1957
Electron	Hydro	26,000	1904 to 1929
Fredonia Units 1 & 2	Dual-fuel combustion turbines	210,000	1984
Fredrickson Units 2 & 3	Dual-fuel combustion turbines	150,000	1981
Whitehorn Units 2 & 3	Dual-fuel combustion turbines	150,000	1981
Fredonia Units 3 & 4	Dual-fuel combustion turbines	108,000	2001
Encogen	Natural gas cogeneration	170,000	1993
Crystal Mountain	Internal combustion	2,800	1969

NEW GENERATION RESOURCES

In October 2003, PSE completed negotiations to purchase a 49.85% interest in a 275 MW (250 MW capacity with 25 MW planned capital improvements) gas-fired electric generating facility located within Western Washington. The purchase will add approximately 137 MW of electric generation capacity to serve PSE's retail customers.

PSE submitted a power cost only rate case in October 2003 to the Washington Commission to recover the approximately $80 million cost of the new generating facility and other power costs. In addition, the acquisition will require approval from FERC under the FPA. PSE filed its application in January 2004 with FERC and anticipates approval in the first part of 2004.

In addition, PSE has issued an RFP to acquire approximately 50 average MW of energy from wind power for its electric-resource portfolio and is currently evaluating responses to this request. PSE issued an RFP in February 2004 for an additional 305 MW of electric power resource generation with proposals due back in March 2004.

COLUMBIA RIVER ELECTRIC ENERGY SUPPLY CONTRACTS

During 2003, approximately 19.9% of PSE's energy output was obtained at an average cost of approximately $0.0164 per kWh through long-term contracts with several of the Washington PUDs that own and operate hydroelectric projects on the Columbia River.

PSE's purchases of power from the Columbia River projects are on a "cost of service" basis under which PSE pays a proportionate share of the annual debt service and operating and maintenance costs of each project in proportion to the contractual shares that PSE has rights to from such project. Such payments are not contingent upon the projects being operable, which means PSE is required to make the payments even if power is not being delivered. These projects are financed through substantially level debt service payments, and their annual costs may vary over the term of the contracts as

additional financing is required to meet the costs of major repairs or replacements or license requirements, or changes to annual operating and maintenance expenses are required.

PSE has contracted to purchase from Chelan County PUD (Chelan) a 50% share of the output of the original units of the Rock Island Project, which percentage will remain unchanged for the duration of the contract that expires in 2012. PSE has also contracted to purchase the output of the additional Rock Island units for the duration of the contract. As of December 31, 2003, PSE's aggregate capacity from all units of the Rock Island Project was 413,900 KW. PSE's share of output of the additional Rock Island units may be reduced by up to 10% per year. Chelan began withdrawing 5% of the power from the additional Rock Island units for use in meeting its local load on July 1, 2000. PSE's contracted output for the additional Rock Island units is 75% at December 31, 2003 and reduces to 65% on February 1, 2005, 55% on July 1, 2005 and to 50% on November 1, 2006.

PSE has contracted to purchase from Chelan 38.9% (505,000 KW of peak capacity as of December 31, 2003) of the annual output of the Rocky Reach Project, which percentage remains unchanged for the remainder of the contract which expires in 2011.

PSE has contracted to purchase from Douglas County PUD 31.3% (261,000 KW as of December 31, 2003) of the annual output of the Wells Project, the percentage of which remains unchanged for the remainder of the contract which expires in 2018.

PSE has contracted to purchase from Grant County PUD 8.0% (72,000 KW as of December 31, 2003) of the annual output of the Priest Rapids Development and 10.8% (98,000 KW of peak capacity as of December 31, 2003) of the annual output of the Wanapum Development, which percentages remain unchanged for the remainder of the original contract terms which expire in 2005 and 2009, respectively. In December 2001, PSE signed new contracts continuing its power purchases upon termination of the current contracts. The new arrangement includes three contracts under which PSE's share of power from the developments declines over time as Grant County PUD's load increases.

ELECTRIC ENERGY SUPPLY CONTRACTS AND AGREEMENTS WITH OTHER UTILITIES

PSE has entered into long-term firm purchased power contracts with other utilities in the West region. PSE is generally not obligated to make payments under these contracts unless power is delivered.

Under a 1985 settlement agreement relating to Washington Public Power Supply System Nuclear Project No. 3, in which PSE had a 5% interest, PSE is entitled to receive electric power from BPA, beginning January 1, 1987, during the months of November through April. Under the contract, PSE is guaranteed to receive not less than 191,667 MWh in each contract year until PSE has received total deliveries of 5,833,333 MWh. PSE expects the contract to be in effect until at least June 2008. Also pursuant to the 1985 settlement agreement, BPA has an option to request that PSE deliver up to 56 MW of exchange energy to BPA in all months except May, July and August for contract year 2003 — 2004.

On October 31, 2003, a 15-year contract for the purchase of firm power and energy between PacifiCorp and PSE expired under the terms of the agreement. The contract provided for 120 average MW of energy and 200 MW of peak capacity annually.

On October 1, 1989, PSE signed a contract with The Montana Power Company, which subsequently sold its utility assets to NorthWestern Corporation (NorthWestern) in 2002. Under the contract, NorthWestern provides PSE 71 average MW of energy (97 MW of peak capacity) over a 21-year period. This contract expires in December 2010.

PSE executed an exchange agreement with Pacific Gas & Electric Company (PG&E) which became effective on January 1, 1992. Under the agreement, 300 MW of capacity together with up to 413,000 MWh of energy are exchanged seasonally each year. No payments are made under this agreement. PG&E is a summer peaking utility and provides power during the months of November through February. PSE is a winter peaking utility and provides power during the months of June through September. Each party may terminate the contract upon notifying the other party at least five years in advance.

ELECTRIC ENERGY SUPPLY CONTRACTS AND AGREEMENTS WITH NON-UTILITY GENERATORS

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

the net electrical output of these three projects at fixed and annually escalating prices, which were intended to approximate PSE's avoided cost of new generation projected at the time these agreements were made.

On February 24, 1989, PSE executed a 20-year contract to purchase 108 average MW of energy and 123 MW of capacity, beginning in April 1993, from Sumas Cogeneration Company, L.P., which owns and operates a natural gas-fired cogeneration project located in Sumas, Washington.

On June 29, 1989, PSE executed a 20-year contract to purchase 70 average MW of energy and 80 MW of capacity, beginning October 11, 1991, from the March Point Cogeneration Company (March Point), which owns and operates a natural gas-fired cogeneration facility known as March Point Phase I located at the Equilon refinery in Anacortes, Washington. On December 27, 1990, PSE executed a second contract (having a term coextensive with the first contract) to purchase an additional 53 average MW of energy and 60 MW of capacity, beginning in January 1993, from another natural gas-fired cogeneration facility owned and operated by March Point, which facility is known as March Point Phase II and is located at the Equilon refinery in Anacortes, Washington.

On March 20, 1991, PSE executed a 20-year contract to purchase 216 average MW of energy and 245 MW of capacity, beginning in April 1994, from Tenaska Washington Partners, L.P., which owns and operates a natural gas-fired cogeneration project located near Ferndale, Washington. In December 1997 and January 1998, PSE and Tenaska Washington Partners entered into revised agreements in which PSE became the principal natural gas supplier to the project and power purchase prices under the

Tenaska contract were revised to reflect market-based prices for the natural gas supply. PSE obtained an order from the Washington Commission creating a regulatory asset related to the $215 million restructuring payment. Under terms of the order, PSE was allowed to accrue as an additional regulatory asset one-half the carrying costs of the deferred balance over the first five years, which ended December 2002.

In December 1999, PSE bought out the remaining 8.5 years of one of the natural gas supply contracts serving Encogen from Cabot Oil & Gas Corporation (Cabot) which provided approximately 60% of the plant's natural gas requirements. PSE became the replacement gas supplier to the project for 60% of the supply under the terms of the Cabot agreement.

ELECTRIC TRANSMISSION CONTRACTS WITH OTHER UTILITIES

PSE has entered into numerous transmission contracts with BPA to integrate electric generation resources and energy contracts into the PSE system. These transmission contracts specify that PSE will pay based on the contracted level of transmission service, regardless of actual use.

The general transmission agreement with BPA provides for the integration of PSE's share of the Colstrip Project and the PG&E exchange. The hourly demand limit is 1,161 MW. This contract is effective through July 31, 2014.

PSE has additional six transmission agreements with BPA to integrate PSE's share of the Mid-Columbia hydro projects. The hourly demand limit of all six contracts totals 1,136 MW. The contracts have remaining terms from 2 to 15 years.

The transmission rates used by BPA for these contracts are effective through September 30, 2005. BPA rates change from time to time based upon BPA's rate cases.

In October 1997, a 10-year power exchange agreement between PSE and Powerex (a subsidiary of a British Columbia utility) became effective. Under this agreement, Powerex pays PSE for the right to deliver up to 1,200,000 MWh annually to PSE at the Canadian border in exchange for PSE delivering power to Powerex at various locations in the United States. The agreement also allows Powerex to make up any exchange volumes not used up to two years after the end of the annual period.

GAS SUPPLY

PSE currently purchases a blended portfolio of gas supplies ranging from long-term firm to daily gas supplies from a diverse group of major and independent producers and gas marketers in the United States and Canada. PSE also enters into short-term physical and financial derivative instruments to hedge the cost of gas to serve its customers. All of PSE's gas supply is ultimately transported through the facilities of Williams Northwest Pipeline Corporation (NWP), the sole interstate pipeline delivering directly into the Western Washington area.

Peak Firm Gas Supply at December 31	2003 Dth per	%	2002 Dth per	%
Purchased gas supply:				
British Columbia	167,200	20.8%	145,500	18.2%
Alberta	76,700	9.6%	64,900	8.1%
United States	98,400	12.3%	113,800	14.2%
Total purchased gas supply	342,300	42.7%	324,200	40.5%
Purchased storage capacity:				
Clay Basin	54,900	6.8%	63,000	7.9%
Jackson Prairie	54,200	6.8%	47,600	5.9%
LNG	69,400	8.6%	70,800	8.8%
Total purchased storage capacity	178,500	22.2%	181,400	22.6%
Owned storage capacity:				
Jackson Prairie	251,600	31.4%	265,000	33.1%
Propane-air injection	30,000	3.7%	30,000	3.8%
Total owned storage capacity	281,600	35.1%	295,000	36.9%
Total peak firm gas supply	802,400	100.0%	800,600	100.0%

All peak firm gas supplies and storage are connected to PSE's market with firm transportation capacity.

For baseload and peak-shaving purposes, PSE supplements its firm gas supply portfolio by purchasing natural gas, 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. PSE has been in the process of expanding the storage capacity at Jackson Prairie since March 2003, and plans to continue doing so through 2008. At the end of this project, PSE will have added approximately 2,000,000 Dekatherms (one Dekatherm, or Dth, is equal to one million British thermal units or MMBtu) of additional working storage capacity. Peaking needs are also met by using PSE-owned gas held in NWP's liquefied natural gas (LNG) facility at Plymouth, Washington, by producing propane-air gas at a plant owned by PSE and located on its distribution system, and interrupting service to customers on interruptible service rates.

In 1998, PSE took assignment from a third party of a peaking gas supply service contract whereby PSE can divert up to 48,000 Dth per day of gas it supplies to Tenaska away from the Tenaska Cogeneration Facility and toward its core gas load by causing Tenaska to operate its facility on distillate fuel and paying the replacement costs of the distillate fuel for such operations.

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

GAS SUPPLY PORTFOLIO

For the 2003-2004 winter heating season, PSE contracted for approximately 20.8% of its expected peak-day gas supply requirements from sources originating in British Columbia under a combination of long-term, medium-term and seasonal purchase agreements. Long-term gas supplies from Alberta represent approximately 9.6% of the peak-day requirements. Long-term and winter peaking arrangements with U.S. suppliers and gas stored at Clay Basin make up approximately 19.1% of the peak-day portfolio. The balance of the peak-day requirements is expected to be met with gas stored at Jackson Prairie, LNG held at NWP's Plymouth facility and propane-air resources, which represent approximately 38.2%, 8.6% and 3.7%, respectively, of expected peak-day requirements. PSE also has the ability to curtail service to wholesale-level customers on interruptible service rates during a peak-day event.

During 2003, approximately 35% of gas supplies purchased by PSE originated in British Columbia while 22% originated in Alberta and 43% originated in the United States. The current firm, long-term gas supply portfolio consists of arrangements with 22 producers and gas marketers, with no single supplier representing more than 12% of expected peak-day requirements. Contracts have remaining terms ranging from less than one year to eight years.

PSE's firm gas supply portfolio is structured to capitalize on regional price differentials when they arise due to the nature of its transportation arrangements. Gas and services are marketed outside PSE's service territory (off-system sales) whenever on-system customer demand requirements permit. The geographic mix of suppliers and daily, monthly and annual take requirements permit some degree of flexibility in managing gas supplies during off-peak periods to minimize costs.

GAS TRANSPORTATION CAPACITY

PSE currently holds firm transportation capacity on pipelines owned by NWP, Gas Transmission Northwest and Duke Energy Gas Transmission. Accordingly, PSE pays fixed monthly demand charges for the right, but not the obligation, to transport specified quantities of gas from receipt points to delivery points on such pipelines each day for the term or terms of the applicable agreements.

PSE and WNG CAP I, a wholly-owned subsidiary of PSE, hold firm year-round capacity on NWP through various contracts. PSE and WNG CAP I participate in the secondary pipeline capacity market to achieve savings for PSE's customers. As a result,

PSE and WNG CAP I hold approximately 465,000 Dth per day of capacity due to capacity release and segmentation transactions on NWP which provides firm delivery to PSE's service territory. In addition, PSE holds approximately 413,000 Dth per day of seasonal firm capacity on NWP to provide for delivery of stored gas during the heating season. PSE has exchanged certain segments of its firm capacity with third parties to effectively lower transportation costs. PSE's firm transportation capacity contracts with NWP have remaining terms ranging from less than 1 year to 13 years. However, PSE has either the unilateral right to extend the contracts under their current terms or the right of first refusal to extend such contracts under current FERC orders. PSE's firm transportation capacity on Gas Transmission Northwest's pipeline, totaling approximately 90,000 Dth per day, has a remaining term of 20 years. PSE's firm transportation capacity on Duke Energy Gas Transmission's pipeline, totaling approximately 40,000 Dth per day, has a remaining term of 11 years for approximately 25,000 Dth per day and has a remaining term of 16 years for approximately 15,000 Dth per day.

During 2003, NWP took one of its two parallel pipelines that serve Western Washington out of service as a result of a second failure of the affected pipeline. Together, these two pipelines had the ability to flow approximately 1,300,000 Dth per day of gas from British Columbia. The loss of the affected pipeline reduced this ability to approximately 950,000 Dth per day. Prior to the second failure, the affected line had been operating at 80% of its maximum allowable operating pressure. If the affected pipeline is not returned to service, the loss could potentially decrease PSE's overall NWP capacity by 12%. NWP is exploring options to meet firm contract obligations to PSE, which may

include new pipeline construction or purchase of firm capacity from customers of NWP who have excess capacity. PSE does not expect the line to remain out of service indefinitely, and this event, to date, has not adversely impacted PSE's ability to serve its customers. PSE expects to continue meeting its customer needs throughout the pipeline repair or remediation period.

GAS STORAGE CAPACITY

PSE holds storage capacity in the Jackson Prairie and Clay Basin underground gas storage facilities adjacent to NWP's pipeline. The Jackson Prairie facility, operated and one-third owned by PSE, is used primarily for intermediate peaking purposes since it is able to deliver a large volume of gas over a relatively short time period. Combined with capacity contracted from NWP's one-third stake in Jackson Prairie, PSE has peak firm delivery capacity of over 349,000 Dth per day and total firm storage capacity exceeding 7,900,000 Dth at the facility. The location of the Jackson Prairie facility in PSE's market area ensures supply reliability and provides significant pipeline demand cost savings by reducing the amount of annual pipeline capacity required to meet peak-day gas requirements. The Clay Basin storage facility is a supply area storage facility that is used primarily to reduce portfolio costs through injections and withdrawals that take advantage of market price volatility and is also used for system reliability. After the release of capacity, PSE retains maximum firm withdrawal capacity of over 55,000 Dth per day from the Clay Basin facility with total storage capacity of almost 6,700,000 Dth. The capacity is held under two contracts with remaining terms of 10 and 16 years. The capacity release contracts PSE has with multiple parties at the Clay Basin storage facility

have remaining terms of three months. PSE's maximum firm withdrawal capacity and total storage capacity at Clay Basin is over 110,000 Dth per day and exceeds 13,000,000 Dth, respectively, when PSE has not released any of the capacity.

LNG AND PROPANE-AIR RESOURCES

LNG and propane-air resources provide gas supply on short notice for short periods of time. Due to their typically high cost, these resources are normally utilized as the supply of last resort in extreme peak-demand periods, typically lasting a few hours or days. PSE has a long-term contract for storage of 241,700 Dth of PSE-owned gas as LNG at NWP's Plymouth facility, which equates to approximately three and one-half days' supply at a maximum daily deliverability of 70,500 Dth. PSE owns storage capacity for approximately 1.5 million gallons of propane. The propane-air injection facilities are capable of delivering the equivalent of 30,000 Dth of gas per day for up to four days directly into PSE's distribution system.

CAPACITY RELEASE

FERC provided a capacity release mechanism as the means for holders of firm pipeline and storage entitlements to temporarily relinquish unutilized capacity to others in order to recoup all or a portion of the cost of such capacity. Capacity may be released through several methods including open bidding and by pre-arrangement. PSE continues to successfully mitigate a portion of the demand charges related to both storage and NWP pipeline capacity not utilized during off-peak periods through capacity release. WNG

CAP I was formed to provide additional flexibility and benefits from capacity release. Capacity release benefits are passed on to customers through the PGA.

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