

*Done*  
**5 file**

DISTRIBUTION:  
Docket Files (2)  
NRR Reading File  
FIN Reading File  
Subject File  
DJSkovholt, PM:ADQAO  
AHMeltz, PM:QAO:FIN  
JCPetersen, PM:QAO:FIN

MAY 10 1976

Docket Nos. STN 50-508  
and STN 50-509

Richard C. DeYoung, Assistant Director for Light Water Reactors, PM  
WASHINGTON PUBLIC POWER SUPPLY SYSTEM, ET AL: **WPPSS NUCLEAR PROJECT UNIT**  
**NOS. 3 AND 5**

Enclosed is an analysis prepared by Jim C. Petersen, of my staff,  
regarding the financial qualifications of Washington Public Power Supply  
System and its associated participants to design and construct the subject  
facility. The analysis is intended for inclusion in a Supplement to the  
Staff's Safety Evaluation Report.

Original Signed by:  
Donald J. Skovholt

Donald J. Skovholt  
Assistant Director for Quality  
Assurance and Operations  
Division of Project Management

Enclosure:  
As stated

cc: w/enclosure  
O. Farr  
A. Bournia  
E. Goulbourne

8409270267 840824  
PDR FOIA  
COHEN84-603 PDR

OFFICE	PM: QAO: FIN	PM: QAO: EIN	PM: ADQAO		
ext27331 SURNAME	JCPetersen:jl	AHMeltz:jl	DJSkovholt		
DATE	5/10/76	5/10/76	5/10/76		

## FINANCIAL QUALIFICATIONS

### I. INTRODUCTION

Section 50.33(f) and Appendix C of 10 CFR Part 50 are the Commission's regulations which relate to financial data and information required to establish financial qualifications for applicants for facility construction permits. In accordance with these regulations, the applicants, Washington Public Power Supply System (WPPSS), Pacific Power & Light Company, Portland General Electric Company, Puget Sound Power & Light Company and The Washington Water Power Company, submitted financial information with their application, as well as providing additional financial information in response to a request by the Staff. WPPSS and the four investor-owned utilities are the applicants for WPPSS Nuclear Project No. 3 (WNP-3). WPPSS and Pacific Power & Light Company are the applicants for WPPSS Nuclear Project No. 5 (WNP-5). Their respective percentages of undivided ownership interest in each unit are listed below.

	<u>Ownership Interests</u>	
	<u>Unit 3</u>	<u>Unit 5</u>
WPPSS	70%	90%
Pacific Power & Light Company	10%	10%
Portland General Electric Company	10%	--
Puget Sound Power & Light Company	5%	--
The Washington Water Power Company	5%	--
	<u>100%</u>	<u>100%</u>

The following analysis summarizes our review of the application and the additional information and addresses the qualifications of each applicant to finance its undivided interest in the costs of designing and constructing the unit(s) in which it is a participant.

II. CONSTRUCTION COST ESTIMATES

The applicants have submitted construction cost estimates for the facility as follows:

<u>WNP-3 and 5</u>	(dollars in millions)
Nuclear Production plant costs. . . . .	\$2,380.1
Transmission, distribution and general plant costs . . . . .	35.7
Nuclear fuel inventory cost for first core. . . . .	<u>134.8</u>
Total	<u><u>\$2,550.6</u></u>

The applicants' estimated cost for the nuclear production plant has been compared with costs estimated by the CONCEPT computer costing model. The Oak Ridge National Laboratory, which does the CONCEPT computer work for the Staff states that "estimates produced by the CONCEPT code are not intended as substitutes for detailed engineering cost estimates, but were prepared as a rough check on the applicants' estimate." The CONCEPT costing model projected the cost of the nuclear production plant to be \$1,942.0 million. Discussions with ORNL and WPPSS indicate that extraordinary structural requirements for the

units (which are not assumed by the CONCEPT model) account for a significant portion of the difference between the two estimates. In addition, the units will have a smaller proportion of common use facilities than is assumed by the CONCEPT model. The Staff has concluded that it is reasonable to use the applicants' estimate for purposes of this analysis because it represents the more detailed engineering cost study for this specific project.

### III. PARTICIPANTS AND FINANCING PLANS

#### A. Washington Public Power Supply System (WPPSS)

WPPSS is a municipal corporation and a joint operating agency of the State of Washington. It is composed of 18 operating public utility districts of the State of Washington and the cities of Richland, Seattle and Tacoma, Washington. WPPSS has statutory authority to acquire, construct and operate plants and facilities for the generation and transmission of electric power. It has completed two electric generating projects: the 27.5 megawatt Packwood Hydroelectric Project and the 860 megawatt Hanford Steam Electric Project. In addition to WNP-3 and 5, WPPSS has under construction or in advance planning, three additional nuclear units, namely WNP-1, 2, and 4. WPPSS does not engage in the distribution of power to retail customers, but is reimbursed for the cost of each project, including debt service, by the participants therein. Also, it is not under the jurisdiction of any regulatory agency having control over its rates and services of the existing and proposed projects.

The respective financial obligations between WPPSS and the above-named investor-owned companies are covered in the Ownership Agreement. Such agreement provides that each party shall be responsible for providing its ownership share of the costs of construction and operation, and will be entitled to its ownership share of the units' electrical capability. Under the Ownership Agreement, the investor-owned utilities have designated WPPSS to act as their agent to construct, operate and maintain the project.

WPPSS will finance its 70 percent ownership in WNP-3 and its 90 percent ownership in WNP-5 through the issuance of its revenue notes and its long-term revenue bonds. These securities are issued from time to time as construction funds are required. WPPSS engages in "project financing" and thus each of its security issues is related to a specific construction project. Its recent revenue bond offerings have been rated Aaa, the highest rating, by Moody's and by Standard and Poor's. WPPSS issued \$150 million of revenue bonds in December 1975 to finance construction of WNP-3 and an additional \$100 million in April 1976. It issued \$100 million of revenue bonds in July 1975 in partial support of preliminary work on WNP-5. An additional revenue bond issuance is planned during 1976 in support of WNP-5.

As noted above, WPPSS is not a retail distributor of electric power. Its 70 percent share in the capacity of WNP-3 and its 90 percent share in the capacity of WNP-5 will be sold to approximately 100 consumer-owned

utilities in the Pacific Northwest. The Net Billing Agreements provide the contractual arrangements whereby the participants are obligated to make payments to WPPSS for their pro-rata shares of project costs whether or not the project is completed, operable or operating, and notwithstanding interruption or curtailment of output. Thus, the satisfaction of project costs is not solely dependent on actual project revenues, but is insured on a broad base through other revenue-producing assets of the participants. Each participant has covenanted that it will establish, maintain and collect rates or charges for power, energy and other services furnished through its electric utility properties which shall be adequate to provide revenues sufficient to make the required payments to WPPSS. The aforementioned contractual arrangements and the underlying revenue-producing capability provide the security for the servicing of WPPSS revenue bonds and notes.

B. Pacific Power & Light Company (PP&L)

PP&L is an investor-owned electric utility operating in six states in the West and the Pacific Northwest. It serves approximately 540,000 residential, commercial, and industrial customers as well as selling power at wholesale to consumer-owned utilities. PP&L's operating revenues increased from \$254.2 million for the 12 months ended February 28, 1975, to \$309.4 million for the 12 months ended February 29, 1976, and net income increased from \$56.1 million to

\$72.7 million over the same period. Invested capital at December 31, 1975 amounted to \$1,542.6 million and consisted of 53.5% long-term debt, 10.2% preferred stock and 36.3% common equity. The company's first mortgage bonds are rated "Baa" by Moody's and "A-" by Standard and Poor's.

PP&L plans to finance its ten percent portion of the WNP-3 and WNP-5 design and construction costs as part of its overall construction program. The funds will be provided from a combination of internally-generated sources (including retained earnings, depreciation and deferred taxes) and from the issuance of securities including long-term debt, preferred stock and common stock. Interim funding requirements will be met with short-term borrowing. In response to a staff request, the company has submitted a sources of funds statement (or financing plan) with underlying assumptions for its system-wide construction expenditures for the period 1976 through 1982, the estimated earliest year for completion of WNP-5. The financing plan and assumptions are attached as Exhibits A-1 and A-2, respectively.

PP&L is subject to regulatory jurisdiction by state commissions in Oregon, Idaho, Washington, California, Montana and Wyoming. Since December 31, 1974, PP&L has been granted seven rate increases in five of the jurisdictions totalling \$55.9 million on an annualized basis. The allowed rates of return on common equity ranged from 11.25 percent

to 13.5 percent. The company has four rate increases pending which request an average 15.0 percent return on common equity and a total annual revenue increase of \$35.0 million.

C. Portland General Electric Company (PGE)

PGE is an investor-owned electric utility operating in northwest Oregon. It serves approximately 390,000 residential and industrial customers as well as selling power at wholesale to other utilities. PGE's operating revenues increased from \$146.8 million for the 12 months ended January 31, 1975, to \$184.8 million for the 12 months ended January 31, 1976, and net income increased from \$30.3 million to \$51.2 million over the same period. Invested capital at December 31, 1975 amounted to \$837.4 million and consisted of 53.1 percent long-term debt, 13.0 percent preferred stock and 33.9 percent common equity. The company's first mortgage bonds are rated "Baa" by Moody's and "BBB" by Standard and Poor's.

PGE plans to finance its ten percent portion of the WNP-3 design and construction costs as part of its overall construction program. The funds will be provided from a combination of internally-generated sources (including retained earnings, depreciation and deferred taxes) and from the issuance of securities including long-term debt, preferred stock and common stock. Interim funding requirements will be met with short-term borrowing. In response to a staff request, the company has submitted a sources of funds statement (or financing plan) with



underlying assumptions for its system-wide construction expenditures for the period 1976 through 1981, the estimated earliest year for completion of WNP-3. The financing plan and assumptions are attached as Exhibits B-1 and B-2, respectively.

PGE is subject to the regulatory jurisdiction of the Public Utility Commission of Oregon. The company's most recent retail rate action, effective September 26, 1975, was a 24.7 percent increase amounting to \$39.6 million on an annual basis. A 13.3 percent rate of return on common equity was allowed in the case. PGE has requested a further 20 percent increase amounting to \$42.2 million on an annual basis. A 13.3 percent rate of return on common equity has been requested.

D. Puget Sound Power & Light Company (PSP&L)

PSP&L is an investor-owned electric utility operating in northern and central Washington State. It serves approximately 410,000 residential, commercial and industrial customers. PSP&L's operating revenues increased from \$149.7 million for the 12 months ended March 31, 1975, to \$169.6 million for the 12 months ended March 31, 1976, and net income increased from \$19.6 million to \$24.7 million over the same period. Invested capital at December 31, 1975 amounted to \$622.9 million and consisted of 57.8 percent long-term debt, 10.7 percent preferred stock and 31.5 percent common equity. The company's first mortgage bonds are rated "Baa" by Moody's and "BBB" by Standard and Poor's.

PSP&L plans to finance its five percent portion of the WNP-3 design and construction costs as part of its overall construction program. The funds will be provided from a combination of internally-generated sources (including retained earnings, depreciation and deferred taxes) and from the issuance of securities including long-term debt, preferred stock and common stock. Interim funding requirements will be met with short-term borrowing. In response to a staff request, the company has submitted a sources of funds statement (or financing plan) with underlying assumptions for its system-wide construction expenditures for the period 1976 through 1981, the estimated earliest year for completion of WNP-3. The financing plan and assumptions are attached as Exhibits C-1 and C-2, respectively.

PSP&L is subject to regulatory jurisdiction by the Washington Utilities and Transportation Commission. Its most recent rate increase amounted to \$22.9 million or 19.9 percent on an annual basis and was effective November 1, 1974. The company has filed an additional \$36.5 million rate increase request which would allow a 13.0 percent rate of return on common equity.

E. The Washington Water Power Company (WWP)

WWP is an investor-owned electric and gas utility operating in the States of Washington and Idaho. It serves approximately 190,000 residential, commercial, and industrial customers as well as selling power at wholesale to consumer-owned utilities. WWP's operating revenues increased

from \$117.4 million for the 12 months ended March 31, 1975 to \$142.5 million for the 12 months ended March 31, 1976, and net income increased from \$14.6 million to \$19.1 million over the same period. Invested capital at December 31, 1975 amounted to \$409.7 million and consisted of 63.2 percent long-term debt and 36.8 percent common equity. The company's first mortgage bonds are rated "A" by Moody's and Standard and Poor's.

WWP plans to finance its five percent portion of the WNP-3 design and construction costs as part of its overall construction program. The funds will be provided from a combination of internally-generated sources (including retained earnings and depreciation) and from the issuance of securities including long-term debt, preferred stock and common stock. Interim funding requirements will be met with short-term borrowing. In response to a staff request, the company has submitted a sources of funds statement (or financing plan) with underlying assumptions for its system-wide construction expenditures for the period 1976 through 1981, the estimated earliest year for completion of WNP-3. The financing plan and assumptions are attached as Exhibits D-1 and D-2, respectively.

WWP is subject to regulatory jurisdiction by the Washington Utilities and Transportation Commission and the Idaho Public Utilities Commission. In August 1975, the Washington Commission authorized electric and gas

increases totalling \$3.6 million on an annual basis and allowed a 12.75 percent return on common equity. Also in August 1975, the Idaho Commission authorized electric and gas increases totalling \$1.2 million on an annual basis and allowed a 12.75 percent return on common equity. The company had no rate requests pending as of January 31, 1976.

IV. CONCLUSION

Based on the preceding analysis including our evaluation of the reasonableness of the financing plans and underlying assumptions, we have concluded that Washington Public Power Supply System, Pacific Power & Light Company, Portland General Electric Company, Puget Sound Power & Light Company, and The Washington Water Power Company are financially qualified to design and construct WPPSS Nuclear Project Unit Nos. 3 and 5 in proportion to their respective undivided ownership interests as indicated in Section I, above. Our conclusion is based on the determination that the applicants have reasonable assurance of obtaining the funds necessary to complete the design and construction activities including related fuel cycle costs. It is also based on the basic assumptions of rational regulatory environment and viable capital markets due to the lengthy future period involved and the expected heavy dependence on external financing.

Applicant PACIFIC POWER & LIGHT COMPANY Nuclear Plant WNP No. 3 & 5

Source of Funds for System-Wide Construction Expenditures During Period  
of Construction of Subject Nuclear Power Plant  
(millions of dollars)

	Construction Years of Subject Nuclear Power Plant						
	1976	1977	1978	1979	1980	1981	1982
<b>Security issues and other funds</b>							
Common stock	\$ -	\$ 120	\$ 140	\$ 80	\$ 70	\$ 100	\$ 140
Preferred stock	40	-	50	40	20	30	40
Long-term debt	95	140	200	180	160	155	207
Notes payable	(17)	17	(7)	-	(18)	-	-
Contributions from parent-net	-	-	-	-	-	-	-
Other funds	119	8	-	-	-	-	-
<b>Total</b>	<u>237</u>	<u>285</u>	<u>383</u>	<u>300</u>	<u>232</u>	<u>285</u>	<u>387</u>
<b>Internal funds</b>							
Net income	82	97	123	145	162	174	188
Less:							
Preferred dividends	13	16	19	23	26	29	32
Common dividends	51	57	68	80	89	95	110
Retained earnings	18	24	36	42	47	50	52
Deferred taxes	3	2	2	2	3	3	3
Invest. tax cred. (deferred)	2	9	1	3	10	12	15
Depreciation & amort.	40	46	48	52	62	70	85
Less: AFDC	23	22	43	55	53	65	80
<b>Total</b>	<u>40</u>	<u>59</u>	<u>44</u>	<u>44</u>	<u>69</u>	<u>70</u>	<u>75</u>
<b>TOTAL FUNDS</b>	<u>\$ 277</u>	<u>\$ 344</u>	<u>\$ 427</u>	<u>\$ 344</u>	<u>\$ 301</u>	<u>\$ 355</u>	<u>\$ 462</u>
<b>Construction Expenditures*</b>							
Nuclear power plants	\$ 54	\$ 166	\$ 171	\$ 178	\$ 185	\$ 175	\$ 190
Other	223	156	265	188	126	183	293
<b>Total Const. Exp's.</b>	<u>\$ 277</u>	<u>\$ 322</u>	<u>\$ 436</u>	<u>\$ 366</u>	<u>\$ 311</u>	<u>\$ 358</u>	<u>\$ 483</u>
Subject nuclear plant	\$ 11	\$ 18	\$ 31	\$ 26	\$ 18	\$ 12	\$ 3

\*Exclusive of AFDC (allowance for funds used during construction)

EXHIBIT A-2

PACIFIC POWER AND LIGHT COMPANY  
INPUT ASSUMPTIONS FOR SOURCES OF  
FUNDS STATEMENTS FOR  
WPPSS NUCLEAR PROJECT NO. 3 & 5

1. Capitalization goals of 52% Debt, 10% Preferred Stock and 38% Common Equity;
2. Rates of 9½% on long-term debt and preferred stock;
3. Short-term interest rates at 8½%;
4. Over-all rate of return up to 9.83%;
5. Price/earnings ratio of 10;
6. Dividend payout ratio of approximately 65%, and
7. Coverages sufficient to maintain current bond ratings.
8. Preferred Stock Coverage requirement and its method of calculation as contained in the "Restated Articles of Incorporation," Article III (17) (c) (Attached).

For the period 1976-1983, the coverage of total interest and preferred dividends combined would be:

1976	1.85X	1980	1.90X
1977	1.86X	1981	1.94X
1978	1.93X	1982	1.93X
1979	1.91X	1983	1.87X

Applicant Portland General Electric Co. Nuclear Plant WPPSS Nuclear Plant No. 3

Source of Funds for System-Wide Construction Expenditures During Period  
of Construction of Subject Nuclear Power Plant  
(millions of dollars)

	Construction Years of Subject Nuclear Power Plant								
	19 76	19 77	19 78	19 79	19 80	19 81	19 __	19 __	19 __
<b>Security issues and other funds</b>									
Common stock	\$ 54	\$ 79	\$ 104	\$ 60	\$ 60	\$ -			
Preferred stock	25	38	38	(2)	(2)	(2)			
Long-term debt	106	86	124	167	146	200			
Notes payable	(40)	(4)	1	48	27	(38)			
Contributions from parent-net	-	-	-	-	-	-			
Other funds	9	5	14	16	(15)	25			
<b>Total</b>	<u>154</u>	<u>204</u>	<u>281</u>	<u>309</u>	<u>216</u>	<u>185</u>			
<b>Internal funds</b>									
Net income	53	54	89	101	115	127			
Less:									
Preferred dividends	11	13	17	20	20	20			
Common dividends	27	33	41	47	52	57			
Retained earnings	15	8	31	34	43	50			
Deferred taxes	6	9	13	18	19	17			
Invest. tax cred. (deferred)	3	8	12	3	21	6			
Depreciation & amort.	26	37	40	42	46	59			
Less: AFDC	(15)	(22)	(36)	(57)	(56)	(51)			
<b>Total</b>	<u>35</u>	<u>40</u>	<u>67</u>	<u>40</u>	<u>73</u>	<u>81</u>			
<b>TOTAL FUNDS</b>	<u>\$ 189</u>	<u>\$ 244</u>	<u>\$ 348</u>	<u>\$ 349</u>	<u>\$ 289</u>	<u>\$ 266</u>			
<b>Construction Expenditures*</b>									
Nuclear power plants	\$ 44	\$ 60	\$ 112	\$ 172	\$ 155	\$ 177			
Other	145	184	236	177	134	89			
<b>Total Const. Exp's.</b>	<u>\$ 189</u>	<u>\$ 244</u>	<u>\$ 348</u>	<u>\$ 349</u>	<u>\$ 289</u>	<u>\$ 266</u>			
Subject nuclear plant	\$ 10	\$ 17	\$ 28	\$ 21	\$ 12	\$ 3			

\*Exclusive of AFDC (allowance for funds used during construction)

PORTLAND GENERAL ELECTRIC COMPANY  
 INPUT ASSUMPTIONS FOR SOURCES OF  
 FUNDS STATEMENTS FOR  
 WPPSS NUCLEAR PROJECT NO. 3

Item	Numerical Value										
Rate of return on average common stock equity	13.5%										
Preferred stock dividend rate <sup>[a]</sup>	10.0%										
Growth rates <sup>[b]</sup> :											
a. kWh sales	7.44%										
b. revenues	16.48% <sup>[c]</sup>										
c. expenses	13.03%										
d. interest charges	19.38%										
e. net income	14.54%										
Market/book ratio with respect to projected common stock offerings	1.00/1.00 on 2/29/76 <sup>[d]</sup> 1.21/1.00 on 12/31/85										
Common stock dividend payout ratio	62.7% (1976) to 44.1% (1985) <sup>[e]</sup>										
Target capital structure	55% debt 10% preferred stock 35% common stock										
Resultant SEC and indenture coverages over the period of construction <sup>[f]</sup>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1976 - 2.330</td> <td style="width: 50%;">1981 - 2.352</td> </tr> <tr> <td>1977 - 2.250</td> <td>1982 - 2.356</td> </tr> <tr> <td>1978 - 2.677</td> <td>1983 - 2.247</td> </tr> <tr> <td>1979 - 2.467</td> <td>1984 - 2.337</td> </tr> <tr> <td>1980 - 2.399</td> <td>1985 - 2.199</td> </tr> </table>	1976 - 2.330	1981 - 2.352	1977 - 2.250	1982 - 2.356	1978 - 2.677	1983 - 2.247	1979 - 2.467	1984 - 2.337	1980 - 2.399	1985 - 2.199
1976 - 2.330	1981 - 2.352										
1977 - 2.250	1982 - 2.356										
1978 - 2.677	1983 - 2.247										
1979 - 2.467	1984 - 2.337										
1980 - 2.399	1985 - 2.199										
Long-term debt interest rate	10%										
Short-term debt interest rate	8% (general) 8.5% (nuclear fuel)										

[a] Applies to new issues.

[b] Each element of revenue and expense is individually analyzed and forecasted so that no single growth rate is used in their development. The values given summarize the results of all of the detailed analyses for the period December 31, 1975 to December 31, 1985 on an annually compounded rate of growth basis.

[c] Includes forecasted rate of increase in average sales price of 9.60%. Remaining growth rate is caused by increased unit sales.

[d] The market/book ratio is not an independent input; it is the product of other forecasts and therefore varies over the range shown.

[e] Varies over the range shown due to assumed 6¢/year annual dividend increment.

[f] December 31 covering earnings divided by December 31 annualized fixed charges.



Applicant PUGET SOUND POWER & LIGHT COMPANYNuclear Plant WPPSS #3 - SATSOP

SOURCE OF FUNDS FOR SYSTEM-WIDE CONSTRUCTION EXPENDITURES DURING PERIOD  
OF CONSTRUCTION OF SUBJECT NUCLEAR POWER PLANT  
(Millions of dollars)

	Construction Years of Subject Nuclear Power Plant					
	1976	1977	1978	1979	1980	1981
<b>Security Issues and other funds</b>						
Common stock	\$ 24.7	\$ 28.7	\$ 25.9	\$ 47.9	\$ 71.4	\$ 87.2
Preferred stock	22.0	25.0	35.0	45.0	40.0	0.0
Long-term debt	40.0	40.0	105.0	155.0	115.0	140.0
Notes payable (short term)	(10.9)	12.0	18.5	15.4	12.7	12.1
Contributions from parent-net	-	-	-	-	-	-
Other funds (pollution control)	2.3	-	-	-	-	-
Total	<u>78.1</u>	<u>105.7</u>	<u>184.4</u>	<u>262.3</u>	<u>239.1</u>	<u>239.3</u>
<b>Internal funds</b>						
Net income (adjusted)	30.0	46.8	52.4	76.2	99.1	112.2
Less:						
Preferred dividends	(6.8)	(8.8)	(10.6)	(13.9)	(17.8)	(19.3)
Common dividends	(15.3)	(18.0)	(23.6)	(29.8)	(37.7)	(44.6)
Retained earnings	7.9	20.0	18.2	32.5	43.6	48.3
Deferred taxes	1.7	1.8	1.4	1.0	2.0	3.8
Investment tax credit (deferred)	7.3	6.0	6.4	10.3	8.5	8.3
Depreciation and amortization	19.0	21.1	22.6	24.6	28.7	35.2
Less: AFDC	(6.5)	(12.3)	(24.5)	(44.4)	(59.0)	(68.6)
Total	<u>29.4</u>	<u>36.6</u>	<u>24.1</u>	<u>24.0</u>	<u>23.8</u>	<u>27.0</u>
TOTAL FUNDS	<u>\$107.5</u>	<u>\$142.3</u>	<u>\$208.5</u>	<u>\$287.3</u>	<u>\$262.9</u>	<u>\$266.3</u>
<b>Construction Expenditures*</b>						
Nuclear power plants	\$ 34.3	\$ 67.5	\$ 87.6	\$156.2	\$150.5	\$170.0
Other	73.2	74.8	120.9	131.1	112.4	93.3
Total Const. Expenditures	<u>\$107.5</u>	<u>\$142.3</u>	<u>\$208.5</u>	<u>\$287.3</u>	<u>\$262.9</u>	<u>\$266.3</u>
Subject nuclear plant	<u>\$ 5.8</u>	<u>\$ 8.3</u>	<u>\$ 13.7</u>	<u>\$ 10.4</u>	<u>\$ 7.3</u>	<u>\$ 3.1</u>

\* Exclusive of AFDC (allowance for funds used during construction)

This source of funds statement is based upon and qualified by the assumptions described on the attached pages and has been prepared and furnished at the request of the Nuclear Regulatory Commission. It is not to be used in connection with the sale or purchase of the Company's securities.

## PUGET SOUND POWER &amp; LIGHT COMPANY

ASSUMPTIONS FOR SOURCE OF FUNDS  
 FOR SYSTEM WIDE CONSTRUCTION 1976-1982  
WPPSS #3 - SATSOP

- 1) Generally maintain a minimum of either a 13% return on average common equity or first mortgage bond indenture coverage of 2.2 times interest.
- 2) Preferred dividend rate on new issue of 10%.
- 3) Growth rate in KWH sales to consumers 6%.
- 4) Inflation factor of 7% compounded each year through 1982 for construction expenditures and certain operating and maintenance expenses, 5% inflation factor compounded each year used to forecast operation and maintenance of major generation plant.
- 5) Interest rates used in forecast:
 

Notes payable (short term):	
Bank loans	10%
Commercial paper	6%
Long term debt	10.25%
- 6) Target capital structure:
 

	<u>1976-1980</u>	<u>1981-1982</u>
Notes payable (short term)	5%	5%
Long term debt	50%	50%
Preferred stock	13%	10%
Common stock	32%	35%
- 7) Common stock price/earnings ratio of 7 times earnings.
- 8) Common dividend payout ratio averages 52%.
- 9) Maximum dilution of common stock does not exceed 15% in any given year.
- 10) In line with the 1975 Tax Reduction Act (Sec. 402 of P.L. 94-12) the following investment tax credit assumptions are incorporated in the projections.
  - a. Investment tax credit rate - 1976 at 10%; 1977 to 1982 at 4%.
  - b. Investment tax credit taken on progress payments on Colstrip 3 and 4, Skagit Units 1 and 2, and Pebble Springs Units 1 and 2. Applicable transition percentages for phasing in qualified progress payment are 1976, 40%; 1977, 60%; 1978, 80%; and 100% after 1978.
  - c. Limitation on use of investment tax credit as a percent of tax liability is 100% for 1976 and is scaled down 10% each year until it reaches the 50% level in 1981.
- 11) AFDC rate adjusted periodically to reflect composite cost of capital. AFDC accruing from construction of major production plant is normalized in 1977 and subsequent years.

EXHIBIT C-2 (page 2)  
PUGET SOUND POWER & LIGHT COMPANY

12) Schedule of Major Plant Construction

<u>Plant</u>	<u>Puget Power Ownership Share</u>	<u>Projected Completion Date</u>
Colstrip #2 - coal	50%	August 1976
Colstrip #3 - coal	25%	July 1980
Colstrip #4 - coal	25%	July 1981
WPPSS #3 - nuclear	5%	March 1982
Skagit #1 - nuclear	40%	July 1983
Pebble Springs #1 - nuclear	20%	July 1985
Skagit #2 - nuclear	40%	July 1986
Pebble Springs #2 - nuclear	20%	July 1988

13) Power Supply:

- a. System resources are based on an average of the 30 water years included in the 1975 west group forecast.
- b. Purchased hydro power costs debt service requirements are as prescribed in the project owners official statement.
- c. Secondary (non-firm) sales are made either within or outside the Northwest Power Pool, and are based on relative levels of surplus. Revenues derived from sales are primarily based on established BPA rates or other agreements as applicable.
- d. Wheeling charges are based on:
  - I) Required capacity to move purchased power to Puget's system.
  - II) BPA established rates

Other Information

1) S.E.C. Fixed charge coverage:

1976 = 1.95, 1977 = 2.68, 1978 = 2.30, 1979 = 2.39, 1980 = 2.36, 1981 = 2.37,  
1982 = 2.39.

2) Growth rate of revenue from sales of electricity 17%, expenses 15%, interest cost 21%, and net income 26%.

**THIS INFORMATION IS NOT TO BE CONSIDERED A FORECAST**

Applicant Washington Public Power Supply Nuclear Plant WNP No. 3  
 Participant The Washington Water Power Company (5%)  
 Source of Funds for System-Wide Construction Expenditures During Period  
of Construction of Subject Nuclear Power Plant  
 (millions of dollars)

**Construction Years of Subject Nuclear Power Plant (1)**

	19 76	19 77	19 78	19 79	19 80	19 81
<b>Security issues and other funds</b>						
Common stock	\$ 12.0	\$ -0-	\$ 23.0	\$ 24.0	\$ 15.0	\$ 15.0
Preferred stock	-0-	15.0	15.0	-0-	20.0	-0-
Long-term debt	30.0	30.0	62.1	40.0	60.0	30.0
Notes payable	(7.0)	9.0	(9.0)	29.0	(29.0)	-0-
Contributions from parent-net	-0-	-0-	-0-	-0-	-0-	-0-
Other funds	(4.4)	4.6	(4.8)	2.8	3.9	(.8)
<b>Total</b>	<b>30.6</b>	<b>58.6</b>	<b>86.3</b>	<b>95.8</b>	<b>69.9</b>	<b>44.2</b>
<b>Internal funds</b>						
Net income	18.0	20.4	24.0	26.7	34.0	38.1
Less:						
Preferred dividends	-0-	-0-	1.4	2.7	2.7	4.5
Common dividends	11.4	13.2	15.6	17.6	22.3	24.7
Retained earnings	6.6	7.2	7.0	6.4	9.0	8.9
Deferred taxes	-0-	-0-	-0-	-0-	-0-	-0-
Invest. tax cred. (deferred)	1.9	1.4	2.4	3.4	1.9	1.6
Depreciation & amort.	9.6	10.5	11.3	12.2	14.3	17.2
Less: AFDC	1.8	.6	.3	.4	.4	.5
<b>Total</b>	<b>16.3</b>	<b>19.7</b>	<b>20.4</b>	<b>21.6</b>	<b>24.8</b>	<b>27.2</b>
<b>TOTAL FUNDS</b>	<b>\$ 46.9</b>	<b>\$ 78.3</b>	<b>\$ 106.7</b>	<b>\$ 117.4</b>	<b>\$ 94.7</b>	<b>\$ 71.4</b>
<b>Construction Expenditures (2)</b>						
Nuclear power plants	\$ 9.8	\$ 20.5	\$ 34.1	\$ 37.2	\$ 35.7	\$ 31.6
Other	37.1	57.8	72.6	80.2	59.0	39.8
<b>Total Const. Exp's.</b>	<b>\$ 46.9</b>	<b>\$ 78.3</b>	<b>\$ 106.7</b>	<b>\$ 117.4</b>	<b>\$ 94.7</b>	<b>\$ 71.4</b>
Subject nuclear plant	\$ 5.7	\$ 8.2	\$ 13.6	\$ 10.3	\$ 7.2	\$ 1.8
Interest Coverage	2.1	2.2	2.2	2.2	2.4	2.4

EXHIBIT D-1

2) Exclusive of AFDC (allowance for funds used during construction)

1) First five years (1976-1980) based on five year financial model data. Last two years projected manually on a consistent basis

EXHIBIT D-2

THE WASHINGTON WATER POWER COMPANY

Assumptions for Source of Funds Statement

- (a) Rate of Return on Average Common Equity - 14.5-15.0%
- (b) Preferred Stock Dividend Rate - 9%
- (c) Growth Rates: Sales of general business kwhr are estimated to increase about 5% per year during the forecast period. As you know, kwhr sales to other utilities are subject to resource availability and market conditions and therefore are not trendable.

Electric and gas revenues included within the forecast are a result of the general business kwhr/therm sale trends and include elements of rate relief which were programmed throughout the forecast as needed. The basis of rate relief was the debt/equity ratios and composite debt cost prevailing at that point in time and the return on common equity as previously mentioned.

Operating expenses subject to inflation were escalated at 10% in 1976, decreasing to 7% in 1977 and finally to 6% for the balance of the forecast. Items such as power and gas purchased are generally regulated by contract and are not subject to escalation.

- (d) Common stock price/earnings ratio or market/book ratio with respect to the projected common stock offerings: This forecast assumes that market and book values of common stock are approximately equal, but on an increasing annual rate of about 5%. No price/earnings ratio was used for projected common offerings.
- (e) Common stock dividend payout ratio: a target of 65% was assumed.
- (f) Target capital structure: a target goal of 60% debt, 30% common equity and 10% preferred has been assumed.
- (g) Interest coverage requirements: Our most restrictive indenture requirement states that annual interest requirements must be at least twice any 12 consecutive months pre-tax gross earnings. Considering the rate relief programmed in the forecast, our results have allowed us to exceed the two times interest coverage test under the indenture. We have not made an SEC coverage test.
- (h) An interest rate of 9% was assumed on all projected mortgage bond issues. For short term bank loans, a rate of 7½% was utilized.