BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION Complainant, vs. PUGET SOUND ENERGY, INC. Respondent.	))))))))))	Docket Nos. UG-040640 UE-040641

DIRECT TESTIMONY OF

DONALD W. SCHOENBECK

ON BEHALF OF

THE NORTHWEST INDUSTRIAL GAS USERS AND

COST MANAGEMENT SERVICES, INC.

September 23, 2004

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ON BEHALF OF THE NORTHWEST INDUSTRIAL GAS USERS

AND COST MANAGEMENT SERVICES, INC.

INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Donald W. Schoenbeck. I am a member of Regulatory & Cogeneration Services, Inc. ("RCS"), a utility rate and economic consulting firm. My business address is 900 Washington Street, Suite 780, Vancouver, WA 98660.

Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.

A. I've been involved in the electric and gas utility industries for over 30 years. For the majority of this time, I have provided consulting services for large industrial customers addressing regulatory and contractual matters. I have appeared before the Washington Utilities and Transportation Commission ("Commission") on many occasions, including several proceedings regarding the establishment of charges for customers of Puget Sound Energy ("PSE" or " the Company"). A further description of my educational background and work experience can be found in Exhibit ______ (DWS-2) in this proceeding.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am testifying on behalf of the Northwest Industrial Gas Users ("NWIGU") and Cost Management Services, Inc. ("CMS"). NWIGU is a trade association whose members are large industrial customers served by gas utilities throughout the Pacific Northwest, including Puget Sound Energy. CMS markets competitively priced natural gas to industrial and commercial customers, some of which are located within the Company's service territory.

Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?

A. In this testimony, I will discuss cost-of-service, rate spread and industrial rate design matters.

Q. PLEASE BRIEFLY SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS ADDRESSED IN THIS TESTIMONY.

A. The Company has developed a new cost-of-service model that allows the user to readily perform sensitivity analysis including presenting results with and without including gas-related costs. Further, the Company has made use of its improved accounting systems to more accurately assign the cost of serving various types of customers. These refinements coupled with finally having experienced recent peak-like weather conditions make the results of the Company's analysis superior than prior efforts. NWIGU and CMS support the use of the Company's model and believe the Company's cost study results excluding gas-related costs should be used as the benchmark in determining class revenue responsibility and rate design in this proceeding.

The Company's rate spread proposal attempts to move certain customer classes closer to a cost-based rate level by using class specific multipliers that result in above average or below average increases to certain customer classes. The Company's approach includes floor and ceiling limits on the factors relative to the average increase. The floor value—limiting the lowest increase a class can receive-- is 50% while the highest increase is capped at 150%. While NWIGU and CMS appreciate the Company's acknowledgement of the current rate disparities, the Company's proposal misses its mark given the significant misalignment in the Company's rate charges. The following table compares the factors used by the Company with those recommended by NWIGU and CMS. The NWIGU/CMS values were derived from targeting a one-third movement to a cost-based level but retaining the upper limit for a class increase at 150% of the relative increase required to achieve the Commission adopted revenue increase.

Rate Spread Comparison
Relative Percentages

Rate Schedule	PSE	NWIGU/CMS
16 & 23	100%	100%
31, 36, 51 & 61	75%	55%
41	75%	75%
85	125%	150%
86	100%	100%
87	150%	150%
57	50%	0%
50	100%	150%
Rentals	150%	150%

The Company's industrial rate design proposal increases the demand charge for Schedules 85, 86, 87 and 57 from $0.99 to $1.26 and proposes significant increases in the customer charges for Schedules 85, 86 and 87. The remaining increase required to obtain the targeted class revenue requirement is achieved by applying a class specific percentage increase to the volumetric charges. NWIGU and CMS recommend retaining the demand charge at its current level since it is already above a cost-based amount. NWIGU and CMS recommend imposing a cost-based charge for gas procurement and certain storage related costs applicable to sales schedules 85, 86 and 87 of $0.0035 per therm. After application of the procurement charge, NWIGU and CMS recommend achieving the targeted Schedule 87 revenue level by increasing the Schedule 57 and 87 customer charge, provided the impact on Schedule 57 is minimal given that the rates on Schedule 57 are already so far above their cost-of-service. This will allow the retention of the current volumetric charges for Schedules 57 and 87 even under the upper bound of the likely revenue relief PSE will be granted in this proceeding.

COST OF SERVICE

Q. PLEASE EXPLAIN THE METHODS USED BY THE COMPANY TO DETERMINE CLASS COST RESPONSIBILITY.

A. First of all, the Company has developed a new EXCEL based cost-of-service model to assign and allocate the costs of serving the various customer classes. The model allows the user to quickly perform sensitivity cases with regard to the requested rate relief and whether to include or exclude gas-related charges. This is certainly a more readily available and usable tool than in some prior proceedings where intervenors had to execute a confidentiality agreement with an outside consulting firm to gain access to a cumbersome costing model. NWIGU and CMS appreciate the Company's efforts in this regard.

Second, the Company has continued to refine the direct assignment of costs where possible instead of relying upon general allocation factors. This has resulted in the direct assignment of distribution mains and service lines to Schedules 85, 87, 57 and special contract customers. The Company also relied upon its accounting records to ascertain the class cost assignment of meters and regulators. All of these procedures have resulted in a more accurate assignment of costs to the customer classes than prior studies performed by the Company.

Finally, the Company's peak demand allocation factor in this case is based upon a peak-like weather experience. It was developed using the five highest peaks experienced during the most recent heating season. All five days are within the period of December 29, 2003 through January 6, 2004. The temperatures experienced during this period were much closer to the peak design temperature utilized by the Company in the design of the distribution delivery system than prior years. These earlier years had much warmer weather conditions which in my view should not be used for assigning peaking costs to the customer classes.

Q. WHY?

A. The following series of tables presents compelling evidence of the appropriateness of the Company's peak demand allocation factor in the Company's cost study. The first table indicates the heating degree days (HDDs) experienced on each of the five highest peak days for the last five winter seasons. Note that the lowest value in the '03-04 season of 32 HDDs was only exceeded twice in the twenty days of the remaining peaks. The five-day average for '03-04 of 38 HHDs is far above the average of all other years. The Company's peak day design value is 51 HDDs. Therefore, even though the HDDs associated with the '03-04 peaks are substantially above the prior years, the weather conditions still fell below the peak condition on which the Company has designed its system.

Heating Degree Days

	03-04	02-03	01-02	00-01	99-00
1	41	27	31	32	29
2	42	27	35	31	29
3	35	27	35	32	30
4	32	26	30	29	30
5	38	24	31	28	28
Average:	38	26	32	30	29
To '03-04:	100%	70%	86%	81%	78%

Total Sendout

	03-04	02-03	01-02	00-01	99-00
1	710,917	522,531	601,978	572,976	597,200
2	687,071	520,344	599,488	570,771	590,590
3	677,706	507,237	592,914	560,438	577,830
4	624,143	497,439	558,777	557,601	572,872
5	623,662	495,043	557,596	551,787	546,713
Average:	664,700	508,519	582,151	562,715	577,041
To '03-04:	100%	77%	88%	85%	87%

Firm Sendout

	03-04	02-03	01-02	00-01	99-00
1	663,620	417,941	492,298	464,320	468,954
2	665,045	413,962	496,105	485,182	468,155
3	597,220	402,417	490,574	521,852	444,364
4	521,050	391,402	455,122	446,124	448,297
5	573,388	384,774	462,962	457,108	428,883
Average:	604,065	402,099	479,412	474,917	451,731
To '03-04:	100%	67%	79%	79%	75%

With average daily temperatures in the range of 23-32 degrees, the peak day firm and total sendouts as presented in the next two tables were also substantially greater than the prior four seasons. In particular, the firm sendout table shows the next highest average sendout was only 79% ('01-02 winter season) as compared to the winter of '03-04. Since a main driver in the design of a distribution system to deliver firm gas supplies is peak demand, peaks such as those experienced in the '03-04 winter season should be used to determine class cost responsibility. Using any other peaks—or adding additional years of data would simply shift the cost responsibility away from the customers who cause the peak demand costs to be incurred. This would be inappropriate. NWIGU and CMS support the peak demand allocation factor as proposed by the Company in its cost-of-service study.

Q. WHAT COST-OF-SERVICE RESULTS HAS THE COMPANY PRESENTED IN ITS PREFILED TESTIMONY?

A. The Company has presented the results of four cost studies in Exhibit ______ (CEP-3). The studies differ with regard to the treatment of two variables: gas costs and the requested rate increase. In other words, two of the cost studies exclude $443.3 million of gas costs while the other two include these costs. Similarly, two of the studies include the requested revenue increase of $47.3 million while the other two studies show class revenue at current rates. This rate case is addressing the Company's delivery-related costs. Therefore, the most appropriate studies to use in this proceeding are those that exclude gas costs since these costs are reviewed in purchased gas adjustment filings. The summary results of these two studies are shown on pages 3 and 4 (excluding the proposed increase) and pages 8 and 9 (including the proposed increase) of Exhibit ______ (CEP-3).

Q. WHAT DO THE COST STUDIES SHOW?

A. Both the cost study under current rates and the cost study reflecting the Company's proposed rate spread show a large disparity between the rates certain classes are being charged versus their cost responsibility. The following table presents the revenue to cost ratio taken directly from the Company studies. The revenue to cost ratio is the most appropriate yardstick for determining whether the rate schedule charges are equitable to each customer class. A ratio less than 1.0 or 100% indicates a class is not paying its fair share of costs. Conversely, a ratio greater than 100% indicates the class is paying charges in excess of its cost responsibility. As can be seen by the following table, the Company has several classes (or rate schedules) paying charges well in excess of their costs under current and even proposed rates.

Revenue to Cost Ratio
Company Cost Study
Excluding Gas Costs

Rate Schedule	Present Rates	Proposed Rates
16 & 23	95%	96%
31, 36, 51 & 61	119%	118%
41	131%	130%
85	80%	81%
86	98%	98%
87	51%	52%
57	171%	168%
Contracts	77%	78%
50	9%	9%
Rentals	59%	50%
Total	100%	100%

RATE SPREAD

Q. HAS THE COMPANY ADDRESSED THE RATE INEQUITY IN ITS RATE SPREAD PROPOSAL?

A. The Company's gas rate spread approach is explained in the pre-filed testimony of Mr. Heidell (see JAH-1T, page 24). The testimony notes the results of the cost studies coupled with customer impact considerations that were used as a guide in determining the proposed method. The Company has proposed that the classes significantly below parity (revenue to cost ratio of 100%) are targeted for increases that are about 150% of the average margin increase while those classes significantly above parity are targeted for an increase that is about 50% of the average value. For classes "moderately" above or below parity, the Company targets are 125% and 75%. The following table shows the specific relative increase factors for each customer class along with the corresponding revenue to cost ratio.

Company Rate Spread
Relative Percentages

Rate Schedule	Current Revenue To Cost Ratio	Relative Rate Spread Factor
16 & 23	95%	100%
31, 36, 51 & 61	119%	75%
41	131%	75%
85	80%	125%
86	98%	100%
87	51%	150%
57	171%	50%
50	9%	100%
Rentals	59%	150%

Q. DOES THE COMPANY'S RATE SPREAD PROPOSAL RESULT IN A MEANINGFUL MOVEMENT TOWARD COST-BASED RATES?

A. No. As shown by the table presenting the revenue to cost ratios, the Company's relative percentages produce no real movement—particularly for those classes paying substantially above a cost-based level.

Q. SHOULD CUSTOMER IMPACTS BE CONSIDERED IN DETERMINING RATE SPREAD?

A. Yes. I agree that customer impacts should be considered to prevent too large of an increase to a customer class. Since the Company could receive a substantial margin-related increase in this proceeding, I support an upper cap of 150% applied to the relative percentage increase values required to achieve the overall system increase. However, there should be no lower limitation for those customers who are paying substantially above a cost-based level. As is shown by the movement in the revenue to cost ratio for Schedule 57, imposition of the Company's 50% factor simply does not allow for any appreciable movement to cost-based rates for this class.

Q. HOW SHOULD THE RATE SPREAD BE DETERMINED IN THIS PROCEEDING?

A. The Commission should adopt a rate spread that moves one-third of the way toward a cost-based rate for the classes paying rates that exceed the cost of serving these classes. The following table compares the NWIGU and CMS recommended factors—based upon an illustrative $35 million increase--with those proposed by the Company.

Rate Spread Comparison
Relative Percentages

Rate Schedule	PSE	NWIGU/CMS
16 & 23	100%	100%
31, 36, 51 & 61	75%	55%
41	75%	75%
85	125%	150%
86	100%	100%
87	150%	150%
57	50%	0%
50	100%	150%
Rentals	150%	150%

At this increase amount, the small commercial factor (Rate Schedules 31, 36, 51 and 61) should be lowered to 55% while the transportation class factor (Schedule 57) should be reduced to 0%. It should be noted that even with giving no portion of the increase to Schedule 57, the revenue to cost ratio for these customers is still 149%. In my view, this value is still far in excess of any reasonable range, meaning further corrections to this inequitable situation will need to be addressed in subsequent rate cases. In addition, I have increased the relative factors for Schedule 85 and 50 to the upper limit of 150% to move these classes closer to cost of service.

INDUSTRIAL RATE DESIGN

Q. HAVE YOU REVIEWED THE COMPANY'S PROPOSED INDUSTRIAL RATE DESIGN?

A. Yes, I have reviewed the Company's proposed rate designs for Schedules 85, 86, 87 and 57. The Company's rate design proposal increases the demand charge for Schedules 85, 86, 87 and 57 from $0.99 to $1.26. The Company is also proposing increases in the customer charges for Schedules 85, 86 and 87 as shown by the following table.

PSE's Customer Charge Comparison
($/Month)

Schedule	Current	Proposed
85	$300.00	$600.00
86	$50.00	$165.00
87	$300.00	$800.00
57	$800.00	$800.00

The remaining increase required to obtain the targeted class revenue requirement under the Company's full request is achieved by applying a class specific percentage increase to the volumetric charges. For Schedule 85, volumetric charges are increased by 19.53%. Schedule 86 charges are decreased by 0.22%--essentially staying at the current level. The Company is proposing to continue its policy of having the exact same volumetric charges for Schedules 87 and 57. The Company proposal applies a volumetric increase of 10.45% to the volumetric charges of these two tariffs. A consequence of this rate design step is that while the Company had targeted a $1.2 million increase for Schedule 57, in actuality, the proposed volumetric charges recover $1.4 million from this class or $200,400 above the target. Conversely, Schedule 87 customers receive a windfall from contributing only $231,300 towards a Company target of $431,600 from Schedule 87 customers.

Q. DO YOU SUPPORT THE COMPANY'S PROPOSED INCREASE IN THE DEMAND CHARGE?

A. No. The Company derived the proposed demand charge from increasing the existing value by 150% of the average overall margin increase. In other words, the Company multiplied $0.99 times 18.1% times 150% to derive the proposed increase amount. NWIGU and CMS believe the rate charge should be in proportion to or reflective of the peak costs assigned to each class in the cost study. The following table presents the monthly per unit cost--based demand charges under the Company's full increase. This table shows that even if the Company were to receive 100% of its request, the current charge of $0.99 is above a cost-based level for Schedules 86, 87 and 57.

Cost-Based Demand Charge Comparison
(At the Company's Full Request)

Schedule	Current Rate	Proposed Rate	Cost-Based Rate
85	$0.99	$1.26	$1.76
86	$0.99	$1.26	$0.93
87	$0.99	$1.26	$0.90
57	$0.99	$1.26	$0.95

Accordingly, NWIGU and CMS recommend the Commission retain the demand charge for all of these rate schedules at the current level of $0.99.

Q. DO YOU SUPPORT THE COMPANY'S PROPOSED INCREASES IN CUSTOMER CHARGES?

A. I would support equalizing the customer charges of Schedules 87 and 57, but more importantly, NWIGU and CMS recommend that a procurement charge be instituted. This volumetric charge would apply to sales Schedules 85, 86 and 87 to recover procurement and storage related costs associated with providing a gas supply to sales customers.

Q. WHY?

A. Including an unbundled procurement charge as part of providing sales service to these schedules will acknowledge a real cost of providing sales service and eliminate the existing subsidy that occurs between Schedules 87 and 57 due to having identical volumetric charges.

Q. WHAT ARE THE GAS SUPPLY COSTS YOU ARE REFERRING TO?

A. There are at least two direct costs being incurred by the Company on behalf of its sales customers. First, there is the administrative cost of procuring and managing an adequate gas supply for sales customers. This task undoubtedly requires the efforts of several in house staff for both the planning and daily operations of this activity. Second, the Company has storage facilities as part of its strategy to serve sales customers during peak demand periods of the winter season. Both of these cost categories fall outside the typical purchase gas adjustment proceeding and are included in base rates. Paying for these procurement-related charges through a separate, unbundled rate matches the cost of these services with the customers for whom the costs are incurred.

Q. HOW DOES A SUBSIDY OCCUR UNDER THE SCHEDULE 87 AND 57 RATE DESIGN?

A. By equating the volumetric charges under the two rate schedules, costs that should be borne by just one type of customer—such as the procurement-related costs I have discussed above--are recovered from both the sales and transportation volumes. Since transportation customers do not receive these services, they should not have to pay the associated cost.

Q. WHAT RATE LEVEL ARE YOU RECOMMENDING FOR THE PROCUREMENT CHARGE?

A. The per unit charge report--part of the Company's cost-of-service model—indicates these costs to be in the range of 0.36 to 0.65 cents/therm for Schedules 85, 86 and 87. The weighted average for these three schedules is 0.48 cents/therm. I recommend the unbundled procurement charge be set at 0.35 cents/therm, applicable to Schedules 85, 86 and 87 to recognize the incremental procurement costs assigned to sales customers.

Q. HOW DO YOU RECOMMEND ANY REMAINING REVENUE INCREASE BE COLLECTED FROM THESE CUSTOMER CLASSES?

A. For Schedule 85, after first deducting the revenue recovered through the procurement charge, the Company's approach can be followed whereby the customer charge is increased to $700 per month and any further revenue is collected through an equal percentage increase across the volumetric charges.

For Schedule 86, the targeted revenue can be recovered through the procurement rate and an increase in the monthly customer charge up to the level proposed by the Company. Under the likely revenue relief the Company will be granted, the volumetric charges can remain at the current values.

For Schedules 87 and 57, any revenue assigned to these classes beyond the amount collected through the procurement charge should be recovered from the same customer charge, provided the impact on 57 is minimal.

Q. PLEASE PROVIDE AN ILLUSTRATION OF YOUR INDUSTRIAL RATE DESIGN RECOMMENDATIONS.

A. Certainly. The following table summarizes the resulting rate schedule charges based upon my rate spread and rate design recommendations assuming an overall increase of $35 million.

NWIGU/CMS Rate Design Summary
(Assuming a $35 Million Increase)

Schedule	Demand Charge ($/Firm Demand)	Procurement Charge (Cents/therm)	Customer Charge ($/Month)	Percent Increase to Volumetric Charges
85	$0.99	0.35	$700.00	14.9%
86	$0.99	0.35	$137.00	0.0%
87	$0.99	0.35	$900.00	0.0%
57	$0.99	N/A	$900.00	0.0%

For Schedule 85, the targeted revenue increase is achieved through the procurement charge, increasing the customer charge to $700/month and increasing the volumetric charges by 14.9%. The revenue target for Schedule 86 is obtained through the procurement charge and increasing the customer charge to $137 per month. The revenue target for Schedules 87 and 57 is achieved through the Schedule 87 procurement charge and increasing the customer charge on those two schedules to $900/month.

Q. ARE THERE ANY OTHER CHANGES YOU RECOMMEND TO THE COMPANY'S INDUSTRIAL SALES AND TRANSPORTATION TARIFFS?

A. Yes. Current Schedule 57 provides that customers may elect to switch from sales service to transportation service upon giving "a minimum of sixty day's notice prior to the expiration of the agreement for renewal of the service agreement for a period of one year or more." Schedule No. 57, Sheet No. 157-B Section 4 Subparagraph (1)(a). Similarly, if a customer wants to switch from transportation service back to sales service, the customer must provide notice sixty days prior to the expiration of the customer's underlying agreement with PSE.

Q. WHAT IS YOUR CONCERN WITH THE CURRENT 60 DAY NOTICE PROVISION FOR SWITCHING FROM SALES TO TRANSPORTATION OR BACK?

A. My primary concern is that customers should be free to switch from sales to transportation by giving adequate notice to PSE. The timing of switching does not need to be tied to the anniversary date of the customer's underlying agreement with PSE. In addition, 30 days is adequate notice for PSE, 60 days notice is an unnecessary restriction.

When a customer switches from sales to transportation service, PSE has a legitimate concern that it be provided adequate notice and that the customer neither strands costs when leaving sales service for transportation, or when returning to sales service from transportation. A customer's election to change schedules is a legitimate option that should be available so long as the switching does not increase the price of gas for other sales customers. PSE's Schedule 57 has a detailed provision that ensures that customers that elect transportation service after having taken sales service will not strand any costs that must be collected from other customers. Schedule 57, Sheet 157-B Section 4, Paragraph 2. That provision provides PSE and its other customers with protection from a customer gaming the system by switching to transportation service to avoid gas costs that were incurred when the customer was taking sales service. The existence of those provisions means that PSE can, and should, give its customers the right to make annual elections between sales and transportation service whenever the customer so desires. The happenstance of when the customer first entered into a service agreement with PSE should not establish the one and only date in the year customers can plan around for making annual elections of sales versus transportation service.

Q. WHAT RULES DO YOU THINK SHOULD APPLY TO ELECTIONS BETWEEN SALES AND TRANSPORTATION SERVICE?

A. A customer should be allowed to switch from sales to transportation service any time during the year, upon giving PSE 30 days written notice. The service election should then last for one year. The customer should be free to determine when it wants to make the election, without regard for the anniversary date of the original agreement the customer entered into with PSE.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, at this time.

QUALIFICATIONS AND BACKGROUND OF DONALD W. SCHOENBECK

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Donald W. Schoenbeck, 900 Washington Street, Suite 780, Vancouver, Washington 98660.

Q. PLEASE STATE YOUR OCCUPATION.

A. I am a consultant in the field of public utility regulation and I am a member of Regulatory & Cogeneration Services, Inc. ("RCS").

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I have a Bachelor of Science Degree in Electrical Engineering from the University of Kansas and a Master of Science Degree in Engineering Management from the University of Missouri.

From June of 1972 until June of 1980, I was employed by Union Electric Company in the Transmission and Distribution, Rates, and Corporate Planning functions. In the Transmission and Distribution function, I had various areas of responsibility, including load management, budget proposals and special studies. While in the Rates function, I worked on rate design studies, filings and exhibits for several regulatory jurisdictions. In Corporate Planning, I was responsible for the development and maintenance of computer models used to simulate the Company's financial and economic operations.

In June of 1980, I joined the national consulting firm of Drazen-Brubaker & Associates, Inc. Since that time, I have participated in the analysis of various utilities for power cost forecasts, avoided cost pricing, contract negotiations for gas and electric services, siting and licensing proceedings, and rate case purposes including revenue requirement determination, class cost-of-service and rate design.

In April 1988, I formed RCS. RCS provides consulting services in the field of public utility regulation to many clients, including large industrial and institutional customers. We also assist in the negotiation of contracts for utility services for large users. In general, we are engaged in regulatory consulting, rate work, feasibility, economic and cost-of-service studies, design of rates for utility service and contract negotiations.

Q. IN WHICH JURISDICTIONS HAVE YOU TESTIFIED AS AN EXPERT WITNESS REGARDING UTILITY COST AND RATE MATTERS?

A. I have testified as an expert witness in rate proceedings before commissions in the states of Alaska, Arizona, California, Delaware, Idaho, Illinois, Montana, Nevada, North Carolina, Ohio, Oregon, Washington, Wisconsin and Wyoming. In addition, I have presented testimony before the Bonneville Power Administration, the National Energy Board of Canada, the Federal Energy Regulatory Commission, publicly-owned utility boards and in court proceedings in the states of Washington, Oregon and California.