BEFORE THE NORTH DAKOTA PUBLIC SERVICE COMMISSION
STATE OF NORTH DAKOTA

In the Matter of the Application of the Otter Tail Power Company,
For Authority to Increase Rates for
Electric Service in North Dakota

Case No. PU-08-862

DIRECT TESTIMONY OF CHARLES W. KING

April 6, 2008

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Sept. 28 Hearing - Exhibit 10 - Direct Testimony of Charles W. King
Public Service Commission

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TESTIMONY OF CHARLES W. KING

INTRODUCTION / SUMMARY

Q. Please state your name, position and business address.

A. My name is Charles W. King. I am President of the economic consulting firm of Snavely King Majoros O'Connor & Bedell, Inc. (Snavely King). My business address is 1111 14th Street, N.W., Suite 300, Washington, D.C. 20005.

Q. Please describe Snavely King.

A. Snavely King, formerly Snavely, King, & Associates, Inc., was founded in 1970 to conduct research on a consulting basis into the rates, revenues, costs, and economic performance of regulated firms and industries. The firm has a professional staff of 12 economists, accountants, engineers, and cost analysts. Most of its work involves the development, preparation, and presentation of expert witness testimony before federal and state regulatory agencies. Over the course of its 39-year history, members of the firm have participated in over a thousand proceedings before almost all of the state commissions and all Federal commissions that regulate utilities or transportation industries.

Q. Have you prepared a summary of your qualifications and experience?

A. Yes. Exhibit_____(CWK-1) is a summary of my qualifications and experience.

Q. Have you previously submitted testimony in regulatory proceedings?

A. Yes. Exhibit _____(CWK-2) is a tabulation of my appearances as an expert witness before state and federal regulatory agencies.

Q. For whom are you appearing in this proceeding?

A. I am appearing on behalf of the Advocacy Staff of the North Dakota Public Service Commission.

Q. What is the objective of your testimony?

A. The objective of my testimony is to present the position of the Advocacy Staff with respect to the allocation of costs and revenues among the various classes of customers of the Otter Tail Power Company ("OTP" or "the Company") and with respect to the rate design proposals that the Company has made in this case.

Q. Please summarize your recommendations?

A. I generally agree with the approach that OTP has take to designing its rates, which is to allocate revenue among classes based on embedded costs, but to use marginal costs to structure the rate elements within rate schedules.

I have made several modifications to the class cost of service study proposed by the Company to reflect better the causation of costs for the distribution system and sales expense. Based on my revised cost of service study, I recommend that the residential class receive the average percentage rate increase, that the Company's proposed increases to the revenue-deficient classes be accepted, and that the excess revenue derived from those increases be applied to reduce the rates for the two revenue-sufficient classes in proportion to their excess earnings over the

Company average. The revenue sufficient classes are the large and small general service classes.

I recommend that the Company's rate design proposals be accepted subject to the limitation that no customer receive a rate increase greater than 50 percent over the average increase for the class, and for the classes not being significantly increased, no customer receive an increase greater than 10 percent. The Company has revised several of its rate designs to conform to these limitations.

Finally, I recommend that facilities-based wholesale margins be credited to the Energy Cost Adjustment and that the Company's proposal to include the full cost of the wholesale trading department in the revenue requirement in return for a 15 percent sharing of non-asset based wholesale margins be denied.

RATEMAKING APPROACH

Q. How has OTP designed the rates it proposes to charge the respective classes of customers?

A. OTP distributes its revenue requirement among classes based on an allocation of embedded costs, reconciled to the overall revenue requirement. The embedded Class Cost of Service ("CCOS") study is sponsored by OTP witness Peter Beithon, as is the Company's recommended distribution of revenue generation among the classes. Once Mr. Beithon has decided how much revenue each class should generate, witness David Prazak then structures the rate elements within each rate schedule based on a marginal cost study performed by National Economic Research Associates and sponsored by witness Hethie Parmesano.

Q. Should class revenue generation be based on an embedded CCOS study?

A. Yes. When the objective is to distribute the Company's overall revenue requirement among customer classes, necessarily the allocation must conform to the revenue requirement calculation. The revenue requirement is based on embedded costs, that is, the record of investments and expenses during the test year (in this case calendar 2007).

The CCOS study is not a prescription, however, and some judgment is required in translating class cost allocations into a distribution of revenue generation. First, the principle of rate continuity requires that abrupt rate changes be avoided. This issue is particularly relevant in this case, where the Company is restructuring its rates for the first time in 25 years. Second, the allocation of costs among customer classes is not always straightforward. As the record of this case will demonstrate, there are legitimate differences of opinion as to the appropriate assignment of costs that are shared among customer classes.

Q. Should the rate structures within customer classes be based on marginal costs, as OTP proposes?

A. In general, yes. In her testimony, Dr. Parmesano presents the conventional argument in favor of using marginal costs to design rates – that they will lead to economically efficient decisions by ratepayers seeking to minimize their energy costs.

The strength of this argument, however, is largely a function of the price elasticity of demand, that is, the extent to which customers adjust their energy consumption in response to price differences. For electricity, price elasticity varies by customer class and by rate element. For the most part, residential demand is price inelastic. Except when there are very large changes in rates, residential customers consume electricity according to their life styles, not the per-kWh price of electricity. Commercial and industrial customers are much more price-sensitive. Large industrial customers in particular will expend considerable effort to reduce electricity costs by only a few percentage points.

Within rate schedules, it is reasonable to assume that flat monthly charges are totally price-inelastic. No customer is going to abandon electric service because the customer charge is too high or subscribe to electric service because it is low. What price elasticity exists pertains to the energy and demand charges. Any customer response will be made in light of these charges.

This observation suggests that deviations from marginal costs should be concentrated in the flat monthly charges. All of OTP's rates are below marginal costs, so that they are arguably inefficient. To the extent that this inefficiency is unavoidable, it should be reflected more in the level of monthly charges and less in energy and demand charges. I will apply this principle in my recommendations concerning the reductions in class revenue recovery later in this testimony.

Marginal costs are most useful in designing the relative levels of energy and demand charges and of time and seasonally differentiated rates. This is the principal use that OTP has made of its marginal cost study. It has used marginal costs to determine the relative levels of demand and energy rates and of rates during peak and off-peak hours and seasons.

CLASS COST OF SERVICE STUDY

Q. Please describe OTP's Class Cost of Service Study.

A. OTP's 2006 Class Cost of Service (CCOS) study is presented in Schedule 10 to Exhibit ___(PJB-1) attached to the testimony of Company witness Peter Beithon. In response to a data request, the Company has submitted a 2007 CCOS Study reflecting its going forward rate base and expense adjustments. This study allocates all of the costs for calendar year 2007 among 10 customer classes. It then computes the rate of return for each class at present rates. To the extent that any class earns less than the jurisdictional average rate of return, it is deemed revenue-deficient. If it earns more than the overall return, it is revenue-sufficient. The Company's CCOS study suggests that the two general service classes are revenue sufficient, and that all other classes are revenue deficient. The irrigation, controlled service water heating and controlled service interruptible classes are particularly revenue deficient.

Q. Do you agree with the Company's CCOS study?

A. No. OTP's CCOS study is deficient in three respects. First, it allocates a portion of the primary distribution system on the basis of the number of customers on the system. This allocation is inconsistent with the marginal cost study sponsored by witness Hethie Parmeso. Dr. Parmesano finds that the cost driver for the primary distribution system is coincident peak demand.[1] She makes no reference to the number of customers.

Second, the Company's CCOS study allocates a portion of the secondary distribution system on the basis of the number of customers. It is appropriate to allocate Account 369, Customer Services, on the basis of the number of customers, but the Company's allocator does not recognize that the cost of services to large customers is considerably greater than to small customers, particularly residential customers.

Finally, the cost of the Sales Department is allocated based on the number of customer meters. There is no justification for this allocation, particularly as the Sales Department is principally focused on attracting industrial and commercial customers, not residential customers, to OTP's service territory.

Q. What adjustments have you made to OTP's CCOS Study?

A. First, I have allocated all of the primary distribution system on the basis of peak demand. Second, I have weighted the customer allocation of the secondary distribution system according to the respective customer service

[1] Marginal Cost Study, Response to ND PSC IR 01-039, Attachment 1, page 19.

costs as reported in Dr. Parmesano's marginal cost study.[2] Third, I have allocated the Sales Department expense based on class MWh sales.

Q. What are the results of your adjusted CCOS Study?

A. The results of the CCOS Study with the foregoing adjustments are presented in Schedule 2 of Exhibit____(CWK-3). The schedule shows the revenue adjustments that would be required in order for all customer classes to generate the 2007 system average rate of return . A summary of these rates of return and revenue adjustments is as follows:

	Current Revenues	Earned Return	Increase (Decrease) Revenue	Increase (Decrease) Percent
Residential	36,574,921	6.24%	641,106	1.75%
General Service	34,012,150	11.66%	(3,935,201)	-11.57%
Large General Service	36,231,788	9.90%	(2,430,542)	-6.71%
Farms	1,601,767	2.68%	222,250	13.88%
Irrigation	45,963	-4.18%	35,904	78.11%
Lighting	2,095,668	-1.09%	767,039	36.60%
Other Public Authorities	967,569	-0.08%	220,941	22.83%
Controlled Service Water Heating	1,185,332	-3.26%	652,305	55.03%
Controlled Service Interruptible	4,744,402	-10.07%	3,551,197	74.85%
Controlled Service Deferred	849,617	-1.74%	275,001	5.80%
	$118,309,177	6.91%	0	0.00%

CLASS REVENUE CHANGES

Q. How should any rate increase be distributed among the classes of customers?

A. The CCOS Study indicates that the residential class is earning slightly below the system average, that the two general service classes are earning more than the average, and that the remaining classes are

[2] Schedule 1 of Exhibit_____(CWK-3) is the worksheet on which I developed the alternative allocators.

earning substantially less than the system average. The deficiencies of these latter classes are so great that they cannot be resolved in one rate case. To eliminate the apparent disparities in earned returns would violate the principle of rate continuity.

I therefore recommend that the residential class be given the system average increase. In its initial filing, the Company has recommended a set of increases for the revenue-deficient classes that reduce, but do not eliminate the earnings deficiencies that they display. I recommend that these increases be accepted. The added revenue from these class rate increases should then be applied to reduce the rates to the two general service classes.

These revenue changes are fairly dramatic. To some extent they are the consequence of the absence of any comprehensive rate case for OTP since 1983. The rate levels and rate structures that seemed appropriate 25 years ago no longer apply. For this reason, significant rate adjustments now need to be made. In particular, it is appropriate to reduce the revenue-to-cost imbalances between rate schedules that effectively compete with each other. For example, the all controlled service customers have the option of subscribing to the general service rate schedules. If their rates are artificially low relative to the general service rates, then customers may make uneconomic choices in selecting among service options.

Q. Have you calculated the rate changes that you recommend under a hypothetical rate increase?

A Yes. For purposes of illustration I have assumed an overall 2 percent rate increase. In Schedule 3 of Exhibit_____(CWK-3) I have calculated the class rate increases that would be indicated using the guidelines I have described. A summary of the rate changes is as follows:

	Current	Increase (Decrease)	
	Revenues	Revenue	Percent
Residential	$ 36,574,921	$ 731,498	2.00%
General Service	34,012,150	(631,059)	-1.86%
Large General Service	36,231,788	(390,893)	-1.08%
Farms	1,601,767	120,133	7.50%
Irrigation	45,963	4,596	10.00%
Lighting	2,095,668	523,917	25.00%
Other Public Authorities	967,569	135,460	14.00%
Controlled Servce Water Heating	1,185,332	118,533	10.00%
Controlled Servce Interruptible	4,744,402	1,660,541	35.00%
Controlled Service Deferred	849,617	93,458	11.00%
	$118,309,177	$ 2,366,184	2.00%

RATE CHANGES WITHIN CLASSES

Q. Are there issues with respect to rate changes within the respective classes?

A. Yes. OTP is proposing to modify severely the structure of its rates within classes. First, it is changing the application of many of its rate schedules, eliminating some and adding others. Second, it is eliminating all declining block rates. Third, it is proposing to apply the Energy Adjustment Rider ("EAR")[3] to all rate schedules other than the fire sirens and the real time and marginal energy price schedules. Finally, it is structuring the

[3]Company witness Prazak refers to the "FCA," which stands for Fuel Cost Adjustment, but its actual name on Sheet 13.01 of the tariff is the "Energy Adjustment Rider."

individual energy and demand charges to reflect marginal costs, which requires the introduction of seasonally differentiated rates throughout the tariff.

These rate structure modifications can result in fairly dramatic changes in individual customer's bills, even when the overall change in the class revenue is relatively modest. These various effects can be seen in the bar charts in Mr. Prazak's testimony showing the varying impacts on the duo-deciles of bill size for each rate schedule. For this reason, it is appropriate to place some limits on the extent to which OTP's rate structure changes impose unreasonable increases in customer bills.

Q. Have you proposed such limitations to the Company?

A Yes. I have proposed limiting any one customer's rate increase to 50 percent over the class increase or, for those classes receiving less than a 6.7 percent increase, 10 percent on an annualized basis. Exceptions would be customers with average monthly bills of less than $10 and customers who are able to switch to other rate schedules that would result in increases below the cap limits.

Q. Has the Company responded to this proposal?

A. Yes. Exhibit_____(CWK-4) is my request and the Company's response, inclusive of attachments. In this response, the Company has restructured the Residential, Residential Demand Controlled and Farm Service rate schedules to conform to the rate increase limitations that I have recommended. It has listed a number of reasons why these limitations should not be applied to the other rate increases.

Q. Do you recommend that the Company's modifications be adopted?

A. OTP's response assumes the adoption of all of the Company's rate increase proposals including the 7.5 percent residential rate increase, and I have recommended that the residential increase be capped at the system average, 5.14 percent in the Company's filing. If the final rate increase is substantially below the Company-proposed 7.5 percent, then the modifications to the residential rate schedules may not necessary. In any case, the adjustments to the Farm Service rate schedule should be adopted.

I am not persuaded by the Company's disclaimers with respect to the other rate schedules. In particular, they relate to the duo-decile rate analyses that combine a number of customer bills into groups. Individual customers may still experience rate increases that exceed the limits I have recommended and the Company appears to have accepted. For this reason, I recommend that the Company notify each customer subject to a rate increase that there is a cap on the increase. If the customer's annual bill exceeds that cap, the Company should refund the excess. The caps would expire at the end of the second year of the effectiveness of the new rates.

Q. If the Commission approves rate increases less than the Company has requested, how should the Company's proposed rates be scaled back?

A. The Company has sought to reflect marginal costs in its seasonal rates for the residential class, and I recommend that these rates be retained. As discussed earlier in this testimony, the reduction from the Company's proposal should come out of the flat monthly charge. The Company proposes a separate customer charge of $3.00 plus a "facilities charge" of $5.00. I see no reason for these separate charges. The same is true for the proposed $9.38 customer charge and $9.00 facilities charge for residential demand control service. They should be combined and reduced from their proposed levels to match the revenue requirement for this class. This modification would reduce the very high increases otherwise imposed on customers with minimal usage.

My recommendation for the general service classes parallels that for the residential class. I recommend that the small general service customer and facilities charges be combined and reduced no lower than the current $7.90 level currently applicable to the zone 9 customers under this rate. Similarly, the $12 monthly charge for the large general service customers should be reduced to no lower than $7.95 rate currently applied to zone 9 customers. These modifications would reduce the very large percentage increases to customers at the low-usage end of these rate schedules.

Q. Are there any other rate structure recommendations you would like to make?

A. Yes. The energy rates proposed by the Company incorporate a fuel and purchased power cost of 3.0945¢ per kilowatt-hour. The Energy Adjustment Rider passes through any variations from this value on a month-to-month basis. It might be more straightforward to express all fuel and purchased power costs in a separate energy charge. In this manner, customers would be able to identify those costs they are paying that are pass-throughs from third-party providers from those that cover Company costs. This has become standard practice in much of the gas utility industry.

Additionally, there is a timing mismatch between the cost of energy and the energy charges. The EAR is based on the average cost of fuel and purchased power during the most recent four months. Given that it takes at least a month to record energy costs, that means that there is a average lag of three to four months in the application of the EAR. For example, the EAR applied in July when energy costs are high will likely reflect the actual cost of energy during the months February through March, when energy costs are lower. Then, the October EAR will reflect the high costs of fuel and purchased power during the summer months, even though October energy costs are likely to be low.

This mismatch was evident during the winter of 2007- 2008. In the autumn of 2007, the Big Stone base load plant was out of commission.

During those low-load months, the EAR was only 0.26 cents per kWh. Big Stone came back on line in December. Because of the lagging nature of the EAR, the effect of the high cost of replacement power during the outage was not felt until after the plant was back in service. As a result, the EAR jumped to 1.53 cents in January, and then spiked to 3.5 cents in February, just when space heating customers most needed electricity. It remained at approximately that level through April, declining only during the spring months of May and June. By July and August, peak-load months, the EAR was less than 0.8 cents per kWh.[4]

The Company witnesses stress the importance of "price signals" in proposing the use of marginal costs to develop seasonal rates. If price signals are important, then it is relevant that the EAR during the summer should reflect summer fuel and purchase power costs, and the EAR during the winter should reflect winter costs.

Based on the foregoing, I recommend that the Company explore the idea of an all-in fuel and purchased power energy charge that is calibrated to the season in which it applies. This will require some degree of forecasting prices and fuel mix, but such forecasting should be feasible in competitive fuel and purchased power markets where forward purchases are made. I request that the Company submit its comments on this proposal in its rebuttal testimony in this case.

WHOLESALE MARGINS

Q. What are "wholesale margins?"

[4] Attachment 1 to ND PSC IR 01-064.

A. Wholesale margins are the difference between the cost of power sold to wholesale customers – other utilities or power marketers -- and the revenue that the Company receives for that power. There are two types of wholesale margins, "asset-based" margins that result from the sale of power generated by OTP's own production plants, and "non-asset-based" margins that result from the resale of power or capacity that the Company acquires from other generators in the competitive power markets.

Q. How are wholesale margins currently treated?

A. Currently, asset-based margins are treated as a offset to the Company's base-rate revenue requirement. Non-asset-based margins are treated "below the line" and are excluded from the revenue requirement calculation. A portion of the wholesale sales department's expenses are also excluded based on the relative mix of asset-based and non-asset-based power.

Q. What are the Company's proposals regarding the treatment of wholesale margins?

A. OTP proposes to continue to include an allowance for asset-based margins as an adjustment to base rate revenue requirements. It is proposing that 15 percent of non-asset-based wholesale margins be credited to the EAR. In return, all of the wholesale sales department's expenses would be incorporated into the base rate revenue requirement.

Q. What is your response to these proposals.

A. Asset-based wholesale margins vary from year to year depending upon the market for power in the MISO transmission area. Given this variability, it is not appropriate to fix a level of wholesale margin into the revenue requirement calculation that will apply to base rates in effect for a number years. Additionally, there is a matter of symmetry. The EAR includes wholesale power purchases. It should include wholesale power sales as well. For these reasons, I recommend that asset-based margins be treated as offsets to the EAR.

It is clear from page 27 of Mr. Beithon's testimony that the Company's proposed sharing mechanism for non-asset-based margins is a losing proposition from the ratepayers' standpoint. Ratepayers' 15 percent share of these margins in 2007 would have been $293,667. In return, they would have been asked to absorb an additional $674,590 in wholesale trading department expenses, for a net loss of $380,923.

Presumably, this infirmity could be resolved by increasing the sharing percentage. But even then, the incorporation of non-asset margins into ratepayer's bills is a poor idea. These margins have nothing to do with the generation and distribution of electric power to OTP's North Dakota ratepayers. They are conducted totally outside of regulated operations, and they expose OTP and its customers to increased risk from which there is no regulatory protection.[5] I recommend that non-asset-based margins and the associated wholesale transaction department

[5] It should be noted that in September of 2008 Constellation Energy was forced to seek a merger partner to cover the collateral obligations associated with its energy trading activities.

expenses continue to be treated below the line. Indeed, it would be better for ratepayers if non-asset-based trading should be spun off into an unregulated subsidiary that is "ring-fenced" from the Company's regulated operations.

Q. Does this complete your testimony?

A. Yes. It does.

Experience

Snavely King Majoros O'Connor & Lee, Inc. Washington, DC

President (1989 to Present)
Vice President (1970 - 1989)

Mr. King, a founder of the firm and acknowledged authority on regulatory economics, brings over thirty years of experience in economic consulting to his direction of the firm's work in transportation, utility and telecommunications economics.

Mr. King has appeared as an expert witness on over 300 separate occasions before more than thirty state and nine U.S. and Canadian federal regulatory agencies, presenting testimony on rate base calculations, rate of return, rate design, costing methodology, depreciation market forecasting, and ratemaking principles. Mr. King has also testified before House and Senate Committees on energy and telecommunications legislation pending before the U.S. Congress.

In telecommunications, Mr. King has testified before the Federal Communications Commission on a number of policy issues, service authorization, competitive impacts, video dialtone, and prescription of interstate depreciation rates. Before state regulatory bodies, he has presented testimony in proceedings on intrastate rates, costs earnings and depreciation.

Mr. King has testified in electric, gas and water utility cases on virtually every aspect of regulation, including cost of capital, revenue requirements, depreciation, cost allocation and rate design. Mr. King is one of the nation's leading authorities on utility depreciation practices, having testified on this subject in several dozen cases before state regulatory bodies.

In addition to his appearances as a witness in judicial and administrative proceedings, Mr. King has negotiated settlements among private parties and between private parties and regulatory offices. Mr. King also has directed depreciation studies, investment cost benefit analyses, demand forecasts, cost allocation studies and antitrust damage calculations. Mr. King directed analyses of the prices of services under Federal Government's FTS2000 long distance system.

In Canada, Mr. King designed and directed an extended inquiry into the principles and procedures for regulating the telecommunication carriers subject to the jurisdiction of the Canadian Transport Commission. He also was the principal investigator in the Canadian Transport Commission's comprehensive review of rail costing procedures.

EBS Management Consultants, Inc., Washington, DC

Director, Economic Development Department (1968-1970)

Mr. King organized and directed a five-person staff of economists performing research, evaluation, and planning relating to economic development of depressed areas and communities within the U.S. Most of this work was on behalf of federal, state, and municipal agencies responsible for community or regional economic development.

Principal Consultant (1966-1968)

Mr. King conducted research on a broad range of economic topics, including transportation, regional economic development, communications, and physical distribution.

W.B. Saunders & Company, Inc., Washington, DC

Staff Economist (1962-1966)

For this economic consulting firm, which later merged with EBS Management Consultants, Inc., Mr. King engaged in numerous research efforts relating primarily to economic development and transportation.

U.S. Bureau of the Budget, Office of Statistical Standards

Analytical Statistician (1961-1962)

Mr. King was responsible for the review of all federal statistical and data-gathering programs relating to transportation.

Education

Washington & Lee University, B.A. in Economics

The George Washington University, M.A. in Government Economic Policy

Exhibit_____(CWK-2)

Appearances of Charles W. King before Regulatory Agencies

CHARLES W. KING
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Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
AK	Exxon USA	P-89-1,2	Trans Alaska Pipeline System	October 18, 1990
AZ	Arizona Corporation Commission	U-1345-I	Arizona Public Service Co.	December 16, 1980
	Arizona Retailers Association	U-1345-II	Arizona Public Service Co.	January 15, 1981
CA	California Retailers Association	57666	Pacific Gas & Electric Co.	March 6, 1978
	California Retailers Association	57602	Southern California Edison	April 25, 1978
	California Retailers Association	59351	Pacific Gas & Electric Co.	June 12, 1981
	California Retailers & California Manufacturers	59351	Southern California Edison	May 20, 1982
	California Retailers Association	61138	Southern California Edison	May 28, 1982
CO	U. S. Department of Defense	I&S 1100	Colorado Springs (Elec)	June 14, 1977
	J.C. Penney Company	5693	All Electric Utilities	March 8, 1978
	U.S. Department of Defense	I&S 1339	Colorado Springs DPU (Gas)	October 18, 1979
	U. S. Department of Defense	I&S 1540	Colorado Springs DPU (Gas)	February 9, 1982
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Gas)	September 30, 1984
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	June 6, 1985
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	May 19, 1986
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	June 30, 1987
CT	Retailers Merchants Association	72-0204	Various Electric Utilities	July 22, 1976
	Division of Consumer Counsel	76-0604,5	CL&P and HELCO	November 10, 1977
	Public Utilities Control Auto	78-0303	Bridgeport Hydraulic Co.	(none)
	Division of Consumer Counsel	80-0403,4	CL&P and HELCO	August 11, 1980
	Division of Consumer Counsel	81-0413	United Illuminating Company	July 20, 1981
	Division of Consumer Counsel	81-0602,4	CL&P and HELCO	October 5, 1981
	Division of Consumer Counsel	82-0701	CL&P	September 28, 1982
	Coalition of Hotels, Alloys & Retailers	85-10-22	CL&P	(none)
	Coalition of Hotels, Alloys & Retailers	87-07-01	CL&P	April 25, 1988

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
DC	D.C. People's Counsel	685	Potomac Electric Power Company	March 6, 1978
	D.C. People's Counsel	715	Potomac Electric Power Company	(none)
	D.C. People's Counsel	725	Potomac Electric Power Company	April 4, 1980
	D.C. People's Counsel	737	Potomac Electric Power Company	January 1, 1981
	Washington Metro Area Transit Authority	748	Potomac Electric Power Company	June 26, 1981
	Washington Metro Area Transit Authority	758	Potomac Electric Power Company	December 15, 1981
	D.C. People's Counsel	785	Potomac Electric Power Company	September 21, 1982
	Washington Metro Area Transit Authority	759	Potomac Electric Power Company	March 29, 1984
	D.C. People's Counsel	685 Remand	Potomac Electric Power Company	June 10, 1985
	D.C. People's Counsel	905	Potomac Electric Power Company	August 20, 1991
	D.C. People's Counsel	912	Potomac Electric Power Company	May 7, 1992
	D.C. People's Counsel	834, III	Potomac Electric Power Company	May 22, 1992
	D.C. People's Counsel	917	Potomac Electric Power Company	September 24, 1992
	D.C. People's Counsel	922	Washington Gas Light Company	June 15, 1993
	D.C. People's Counsel	929	Potomac Electric Power Company	December 16, 1993
	D.C. People's Counsel	934	Washington Gas Light Company	Filed April 22, 1994
	D.C. People's Counsel	939	Potomac Electric Power Company	March 16, 1995
	D.C. People's Counsel	917	Potomac Electric Power Company	April 16, 1995
	D.C. People's Counsel	951	Potomac Electric Power Company	February 20, 1997
	D.C. People's Counsel	945	Potomac Electric Power Company	September 29, 1999
	D.C. People's Counsel	847	Washington Gas Light Company	June 27, 2001
	D.C. People's Counsel	989	Washington Gas Light Company	May 22, 2002
	D.C. People's Counsel	1016	Washington Gas Light Company	September 23, 2003
	D.C. People's Counsel	1053	Potomac Electric Power Company	June 27, 2007
DE	Delaware PSC Staff	94-164	Artesian Water Company	Filed March 10, 1995
	Delaware PSC Staff	94-149	Wilmington Suburban Water Company	March 10, 1995
	Delaware PSC Staff	04-152	Tidewater Utilities Company	Filed July 26, 2004
FL	Florida Retail Federation	790593-EU	All Electric Utilities	March 5, 1981
	Florida Retail Federation	810002-EU	Florida Power and Light Company	July 23, 1981
	Florida Retail Federation	820097-EU	Florida Power and Light Company	September 22, 1982
	Florida Retail Federation	820097-EU	Florida Power and Light Company	April 11, 1983
	Florida Retail Federation	830012-EU	Tampa Electric Company	August 19, 1983
	Florida Retail Federation	830465-EI	Florida Power and Light Company	April 19, 1984
	Florida Retail Federation	830465-EI	Tampa Electric Company	(none)

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
GA	Georgia Retail Federation	3270-U	Georgia Power Company	September 3, 1981
	Georgia Public Service Commission	4007-U	Georgia Power Company	August 21, 1991
	Georgia Public Service Commission	4384-U	All Electric Utilities	August 1, 1993
	Georgia Public Service Commission	4755-U	Georgia Power Company	January 25, 1994
	Georgia Public Service Commission	4697-U	All Utilities	May 10, 1994
	Georgia Public Service Commission	9355-U	Georgia Power Company	November 4, 1998
	Georgia Public Service Commission	14000-U	Georgia Power Company	October 23, 2001
	Georgia Public Service Commission	14618-U	Savannah Electric & Power Company	March 27, 2002
	Georgia Public Service Commission	14311-U	Atlanta Gas Light Company	April 8, 2002
	Georgia Public Service Commission	17066-U	Georgia Power Company	July 31, 2003
	Georgia Public Service Commission	18300-U	Georgia Power Company	October 26, 2004
	Georgia Public Service Commission	18638-U	Atlanta Gas Light Company	March 14, 2005
	Georgia Public Service Commission	19758-U	Savannah Electric & Power Company	March 29, 2005
	Georgia Public Service Commission	20298-U	Atmos Energy Corp.	October 11, 2005
	Georgia Public Service Commission	25060-U	Georgia Power Company	Filed October 22, 2007
	Georgia Public Service Commission	27163	Atmos Energy Corp.	August 16, 2008
HI	Public Utilities Department	2793	All Electric Utilities	February 14, 1978
	Hawaii Consumer Advocate	4536	Hawaiian Electric Company	February 1, 1983
IL	Illinois Retail Merchants Association ("IRMA"/ Chicago Bldg. Mgrs. Association ("CBMA")	76-0698	Commonwealth Edison	June 22, 1977
	IRMA/CBMA	76-0568	All Electric Utilities	(none)
	IRMA/CBMA	80-0546	Commonwealth Edison	March 5, 1981
	IRMA/CBMA	82-0026	Commonwealth Edison	July 22, 1982
	IRMA/CBMA	83-0537	Commonwealth Edison	March 19, 1984
	IRMA/CBMA	87-0427	Commonwealth Edison	March/April 22, 1988
	IRMA/CBMA	90-0169	Commonwealth Edison	October 29, 1990
	City of O'Fallon, IL	02-0690	Illinois-American Water Company	Filed Feb.5, Apr.11,2003
IN	Indiana Retail Council	35780-S2	N. Ind. Public Service co.	June 1, 1980
	Indiana Retail Council	35780-S1	Public Service of Indiana	October 15, 1980
	Indiana Retail Council	36318	Public Service of Indiana	May 4, 1982
KS	J.C. Penney Company	115,379-U	All Kansas Utilities	January 22, 1981

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State	Electric, Gas, Water Utility Cases			Date
	Client	Case		
		Case Number	Utility	
KY	Seven Kentucky Retailers	7310	Louisville Gas & Electric Co.	April 25, 1979
	Attorney General of Kentucky	2002-145	Columbia Gas of Kentucky	Filed August 8, 2002
	Attorney General of Kentucky	2003-252	Union Heat Light & Power Co.	September 30, 2003
	Attorney General of Kentucky	2004-67	Delta Gas Company	August 18, 2004
	Attorney General of Kentucky	2006-00646	Atmos Energy Corp.	Filed April 27, 2007
	Attorney General of Kentucky	2007-00008	Columbia Gas of Kentucky	Filed June 12, 2007
	Attorney General of Kentucky	2007-00089	Delta Gas Company	Filed August 14, 2007
MA	Coalition of Municipalities	20279	Western Massachusetts Electric	March 19, 1980
	Coalition of Municipalities	557/558	Western Massachusetts Electric	May 14, 1981
	Coalition of Municipalities	957	Western Massachusetts Electric	March 9, 1982
	Coalition of Municipalities	1300	Western Massachusetts Electric	January 1, 1983
	Coalition of Municipalities	85-270	Western Massachusetts Electric	March 26, 1986
MD	Maryland People's Counsel	6977	Washington Gas & Light Company	September 17, 1976
	Maryland People's Counsel	6814	Potomac Electric Power Company	
	Maryland People's Counsel	6807	All Electric Utilities	September 1, 1977
	Maryland People's Counsel	6882	Baltimore Gas & Electric Company	(none)
	Maryland People's Counsel	6985	Baltimore Gas & Electric Company	September 28, 1976
	Maryland People's Counsel	7070	Baltimore Gas & Electric Company	December 20, 1976
	Maryland People's Counsel	7149	Potomac Electric Power Company	April 18, 1978
	Maryland People's Counsel	7163	All Electric Utilities	January 17, 1979
	Maryland People's Counsel	7236	Delmarva Power & Light Company	October 23, 1978
	Retail Merchants of Baltimore	7397	Baltimore Gas & Electric Company	June 20, 1980
	Maryland People's Counsel	7427	Delmarva Power & Light Company	September 8, 1980
	Maryland People's Counsel	7574	Baltimore Gas & Electric Company	December 2, 1981
	Maryland People's Counsel	7597	Potomac Electric Power Company	February 18, 1982
	Organization of Consumer Justice	7604	Potomac Electric Power Company	April 20, 1982
	Maryland People's Counsel	7588	Baltimore Gas & Electric Company	October 19, 1982
	Maryland People's Counsel	7663	Potomac Electric Power Company	November 22, 1982
	Retail Merchants of Baltimore	7685	Baltimore Gas & Electric Company	April 12, 1983
	Genstar Stone Products, et al.	7878	Potomac Electric Power Company	December 9, 1985
	Industrial Intervenors	7878	Potomac Electric Power Company	June 28/July 1986
	Maryland People's Counsel	7983	Baltimore Gas & Electric Company	March 4, 1987
	Giant Foods, Inc.	8855	Baltimore Gas & Electric Company	January 8, 2003
	Maryland People's Counsel	9036	Baltimore Gas & Electric Company	September 29, 2005
	Maryland People's Counsel	9092	Potomac Electric Power Company	April 16, 2007
	Maryland People's Counsel	9093	Delmarva Power & Light Company	April 9, 2007
	Maryland People's Counsel	9104	Washington Gas & Light Company	August 23, 2007
	Maryland People's Counsel	9096	Baltimore Gas & Electric Company	September 24, 2007
	Maryland People's Counsel	9103	Washington Gas & Light Company	filed December 21, 2007

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State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
MI	General Services Administration	U-10102	Detroit Edison Company	March 22, 1993
	Michigan Attorney General	U-11722	Detroit Edison Company	November 6, 1998
	Michigan Attorney General	U-11772	Consumers Energy/Detroit Edison	November 16, 1998
	Michigan Attorney General	U-11495	Detroit Edison Company	December 8, 1999
	Michigan Attorney General	U-11956	Consumer Energy/Detroit Edison	December 15, 1999
	Michigan Attorney General	U-12505	Consumers Energy Company	September 7, 2000
	Michigan Attorney General	U-12478	Detroit Edison Company	October 5, 2000
	Michigan Attorney General	U-12639	Consumers Energy/Detroit Edison	July 18, 2001
	Michigan Attorney General	U-13000	Consumers Energy Company	January 29,2002
	Michigan Attorney General	U-13380	Consumers Energy Company	September 9, 2002
	Michigan Attorney General	U-13715	Consumers Energy Company	April 24, 2003
	Michigan Attorney General	U-13808	Detroit Edison Company	Dec 12, 2003; Jan 30, Mar 5, 04
	Michigan Attorney General	U-12999	Consumers Energy Company	March 10, 2004
	Michigan Attorney General	U-13898,9	Michigan Consolidated Gas Co.	August 23, 2004
	Michigan Attorney General	U-14201	Detroit Edison Company	Filed December 5, 2004'
	Michigan Attorney General	U-14274	Consumers Energy Company	Filed February 15, 2005
	Michigan Attorney General	U-14148	Consumers Energy Company	Filed March 2, 25, 2005
	Michigan Attorney General	U-14399	Detroit Edison Company	July 29, 2005
	Michigan Attorney General	U-14428	Detroit Edison Company	September 7, 2005
	Michigan Attorney General	U-14292	All Michigan Utilities	September 27, 2005
	Michigan Attorney General	U-13808-R	Detroit Edison Company	November 7, 2005
	Michigan Attorney General	U-14547	Consumers Energy Company	Nov.7, 2005; Mar. 22, 2006
	Michigan Attorney General	U-14701	Consumers Energy Company	March 21, 2006
	Michigan Attorney General	U-14526	Consumers Energy Company	April 11.2006
	Michigan Attorney General	U-14561	All Gas Distribution Utilities	June 1, 2006
	Michigan Attorney General	U-15002	Detroit Edison Company	December 8, 2006
	Michigan Attorney General/ABATE	U-15245	Consumers Energy Company	December 11, 2007
	Michigan Attorney General	U-15417	Detroit Edison Company	April 2, 2008
	Michigan Attorney General/ABATE	U-15244	Detroit Edison Company	July 15, 2008
	Michigan Attorney General/ABATE	U-15506	Consumers Energy Company	September 12, 2008
	Michigan Attorney General	U-15002-R	Detroit Edison Company	October 16, 2008
MN	Minnesota Retail Federation	EOO2/6R-77-611	Northern States Power	1979
MO	Missouri Retailers Association	EO-78-161	Kansas City Power & Light Company	February 19, 1981
	Missouri Public Counsel	ER-2006-0315	Empire District Electric Company	September 14, 2006
	Missouri Public Counsel	GR-2007-0003	Ameren UE (Gas)	Filed December 15, 2006
	Missouri Public Counsel	ER-2007-0002	Ameren UE (Electric)	March 22, 2007
NC	North Carolina Merchants Association	E-100	All Electric Utilities	December 18, 1975

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State	Electric, Gas, Water Utility Cases			Date
	Client	Case		
		Case Number	Utility	
ND	North Dakota Public Service Commission	PU-400-00-521	Xcel Energy, Inc.	April 20, 2001
	North Dakota Public Service Commission	PU-399-01-186	Montana-Dakota Utilities (Electric)	February 25, 2002
	North Dakota Public Service Commission	PU-399-02-183	Montana-Dakota Utilities (Gas)	October 7, 2002
	North Dakota Public Service Commission	PU-399-02-183	Montana-Dakota Utilities (Gas Depr.)	Filed April 7, 2003
	North Dakota Public Service Commission	PU-399-03-296	Montana-Dakota Utilities (Electric)	Filed October 15, 2003
	North Dakota Public Service Commission	PU-04-97	Montana-Dakota Utilities (Gas)	Filed July 6, 2004
	North Dakota Public Service Commission	PU-06-525	Northern States Power (Gas)	Filed May 1, 2007
	North Dakota Public Service Commission	PU-07-776	Northern States Power (Electric)	June 25, 2008
NH	Business & Industry Association of N.H.	79-187-II	Public Service of N.H.	February 6, 1981
	Business & Industry Association of N.H.	80-260	Public Service of N.H.	February 5, 1981
	Business & Industry Association of N.H.	82-333	Public Service of N.H.	November 2, 1983
NJ	N.J. Retail Merchants Association	803-151	All New Jersey Utilities	March 31, 1981
	Department of Public Advocate	815-459	N.J. Natural Gas Company	(none)
	Resorts International Hotel, Inc.	8011-827	Atlantic City Sewerage Co.	(none)
	Dept. of Public Advocate	822-116	Atlantic City Electric Co.	August 11, 1982
	Dept. of Public Advocate	355-87	Elizabethtown Gas	June 9, 1987
	Dover Township Fire Chiefs	88-080967	Tom's River Water Company	February 22, 1989
NY	NY Council of Retail Merchants	26806	All Electric Utilities	February 3. 1976
	Metropolitan N.Y. Retail Council	27029	Consolidated Edison Company	(none)
	Metropolitan N.Y. Retail Council	27136	Long Island Lighting Company	July 1, 1977
	N.Y. Metro. Transit Authority	27353	Consolidated Edison Company	September 5, 1980
OH	Ohio Council of Retail Association	88-170-EL	Cleveland Elec. Illuminating	(none)
	Ohio Council of Retail Association	83-1529-EL	Cincinnati Gas & Electric	February 15, 1992
	Ohio Energy Group	08-936-EL-SSO	FirstEnergy Companies	Filed September 25, 2008

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State	Electric, Gas, Water Utility Cases			Date
	Client	Case		
		Case Number	Utility	
PA	Pennsylvania Retail Association Southeastern Pa. Transp. Authority Eastern Penn Energy Users Group Eastern Penn Energy Association Penn Business Utility User Group Pennsylvania Office of Consumer Advocate Pennsylvania Office of Public Advocate	76-PRMD-7 R-811626 R-822169 R-842651 R-850152 R-00016339 R-2008-203269	All Electric Utilities Philadelphia Electric Company Penn. Power & Light Company Penn. Power & Light Company Philadelphia Electric Company Pennsylvania-American Water Co. Pennsylvania-American Water Co.	September 7, 1977 December 11, 1981 March/April 1983 December 3, 1984 February 19, 1986 September 19, 2001 August 6, 2008; Sept.15, 2008
TN	Attorney General of Tennessee Attorney General of Tennessee	07-00105 08-00039	Atmos Energy Corp. Tennessee-American Water Co.	Filed August 21, 2007 August 26, 2007
TX	Houston Retailers Association Houston Retailers Association Cities for Fair Utility Rates	5779 6765 8425/8431	Houston Lighting Company Houston Lighting Company Houston Lighting Company	October 19, 1984 September 25, 1986 April 25, 1989
UT	Div. Of Public Utilities Dept of Commerce Div. Of Public Utilities Dept of Commerce Div. Of Public Utilities Dept of Commerce	98-2035-33 05-057-T01 07-035-13	Pacific Corp Questar Gas Company Rocky Mountain Power Co.	Filed August 16, Sept 22, 1999 May 17, 2006 Filed October 15, 2007
VA	Consumer Congress of Virginia Consumer Congress of Virginia Va. Business Committee on Energy Virginia Pipe Trades Council	19426 19960 PUE 7900012 PUE 8900051	Virginia Electric Power Company Virginia Electric Power Company Virginia Electric Power Company Old Dominion Electric Corp. &	July 1, 1975 September 19, 1978 February 25, 1981 October 31, 1989
WA	WA Attorney General - Public Counsel WA Attorney General - Public Counsel WA Attorney General - Public Counsel	UE-072300;UG-072301 UE-080220 UE-08416;UG-08417	Puget Sound Energy PacifiCorp Avista Utilities	Filed May 30, 2008 Filed August 15, 2008 September 19;October 10, 2008
WI	Wisconsin Merchants Federation	6630-ER-2	Wisconsin Electric Power Company	May 15, 1978

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State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
AL	U.S. Department of Defense	24472	All Telephone Companies	June 14, 1995
AK	GCI Communications, Inc.	U-97-82,U-97-143	Alaska Communications Systems	Filed Feb 25, April 5, 2004
	GCI Communications, Inc.	U-05-46	Matanuska Telephone Association	October 28, 2005
AZ	Arizona Burglar & Fire Alarm Association	9981-E-	Mountain State Telephone	(none)
	Arizona Burglar & Fire Alarm Association	1051-80-64	Mountain State Telephone	
	Federal Executive Agencies	E-1051-88-146	Mountain State Telephone	(none)
	U.S. Department of Defense	T-01051B-99-0105	US WEST Communications	Filed July 26, Sept 8, 2000
CA	Western Burglar & Fire Alarm Association	59849	Pacific Telephone & Telegraph	March 25, 1981
	Western Burglar & Fire Alarm Association	5984cont.	Pacific Telephone & Telegraph	June 23, 1982
	Western Burglar & Fire Alarm Association	A83-01-22	Pacific Telephone & Telegraph	June 29, 1983
	Western Burglar & Fire Alarm Association	A83-02-02	General Telephone of California	January 17, 1984
	Western Burglar & Fire Alarm Association	A82-11-07	Pacific Telephone & Telegraph	Jan. 18, Oct. 31, Nov 28, 1984
	Western Burglar & Fire Alarm Association	A85-01-034	Pacific Telephone & Telegraph	June 4, 1985, October 2, 1986
	Western Burglar & Fire Alarm Association	A87-01-02	General Telephone of California	October 22, 1987
	Western Burglar & Fire Alarm Association	A88-07-17019	Pac. Bell Tel. & GTE of CA.	January 23, 1989
	California Cellular Resellers	A.88-11-1040	All Cellular Carriers	August 11, 1989
	Federal Executive Agencies	1.87-11-033	All Telephone Companies	March 6-7, 1991
	California Cellular Resellers	1.88-11-040	All Cellular Carriers	August 19, 1991
	Cellular Services, Inc.	1.88-11-040	All Cellular Carriers	October 3, 1991
	Federal Executive Agencies	A92-05-004	Pacific Telephone & Telegraph	June 9, 1993
CO	U.S. Department of Defense	I&S 717	Mountain Bell Telephone Company	1972
	U.S. Department of Defense	I&S 1700	Mountain Bell Telephone Company	(none)
	U.S. Department of Defense	Appl.	Mountain Bell Telephone Company	September 18, 1986
	U.S. Department of Defense	I&S 1766	Mountain Bell Telephone Company	November 28, 1988
	Colorado Municipal League	Appl 36883	Mountain Bell Telephone Company	December 13, 1988
	U.S. Department of Defense	I&S 891-O82T	U.S. West Communications	February 21, 1990
	U.S. Department of Defense	905-544T	U.S. West Communications	July 17, 1991
	U.S. Department of Defense	90A-665T	U.S. West Communications	October 23, 1991
	U.S. Department of Defense	92M-039T	U.S. West Communications	February 24-24, 1992
	U.S. Department of Defense	92S-229T	U.S. West Communications	July 30-31, 1992
	U.S. Department of Defense	90A-665T	U.S. West Communications	November 6, 1996
	AT&T	96S-331T	U.S. West Communications	April 17, 1997

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State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
CT	Connecticut Consumer Counsel	770526	Southern New England Telephone Co.	November 10, 1977
	CT Cellular Resellers Assn.	89-12-05	Southern New England Telephone Co.	(none)
	CT Cellular Resellers Coalition	94-03-27	Springwich Cellular/Bell Atlantic	May 16, June, 1994
	AT&T	AT&T/SNET Arbitration	Southern New England Telephone Co.	Filed October 28, 1996
	Connecticut Consumer Counsel	96-04-07	Southern New England Telephone Co.	February 10,1998
	Connecticut Consumer Counsel	00-07-17	Southern New England Telephone Co.	December 5, 2000
DC	D.C. People's Counsel	729	Chesapeake & Potomac Tel. Co.	May 13, 1980
	D.C. People's Counsel	798	Chesapeake & Potomac Tel. Co.	July 18, 1983
	General Services Administration	827	Chesapeake & Potomac Tel. Co.	May 7, 1985
	General Services Administration	854	Chesapeake & Potomac Tel. Co.	April 16, 1987
	General Services Administration	850	Chesapeake & Potomac Tel. Co.	October 7, 1991
	General Services Administration	926	Chesapeake & Potomac Tel. Co.	October 7, 1993
DE	Public Service Commission	Depr.Repre	Diamond State Telephone Co.	April 1, 1985
	Federal Executive Agencies	86-20	Diamond State Telephone Co.	July 31, 1987
	Public Service Commission	Depr.Repre	Diamond State Telephone Co.	March 8, 1988
FL	GTE Sprint Communications Company	720536-TP	All Telephone Companies	September 12, 1983
	Office of Public Counsel	Depr.Repre	Southern Bell	July 30, 1986
	Federal Executive Agencies	880069-TL	Southern Bell	July 21, 1988
	Federal Executive Agencies	880069-TL	Southern Bell	November 30, 1990
	Federal Executive Agencies	880069-TL	Southern Bell	February 11, 1992
GA	Georgia Attorney General	3893-U	Southern Bell Telephone Co.	January 8, 1990
	Federal Executive Agencies	3905-U	Southern Bell Telephone Co.	June 12, 1990
	Federal Executive Agencies	3987-U	Southern Bell Telephone Co.	February 13, 1992
	Georgia Public Service Commission	4018-U	Southern Bell Telephone Co.	Jan 14, Feb 10, 1993
HI	Hawaii Public Utility Commission	1871	Hawaiian Telephone Company	July 8, 1971
	Four Hawaii Counties	4588	Hawaiian Telephone Company	December 15, 1983
	Department of Defense	7579	Hawaiian Telephone Company	April 26, 1994
	Department of Defense	94-0093	Oceanic Communications	March 13, 1995
	Department of Defense	7702	All Communications Carriers	June 2, 1995
	Department of Defense	94-0298	GTE Hawaiian Telephone Company	May 7, 1996
	Department of Defense	7720	Verizon-Hawaii	November 15, 2000

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Appearances before State Regulatory Agencies

State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
ID	U.S. Department of Energy	U-1000-63	Mountain Bell Telephone Co.	May 16, 1983
	U.S. Department of Energy	U-1000-70	Mountain Bell Telephone Co.	March 6, 1984
IL	Illinois Alarm Companies	79-0143	Illinois Bell Telephone	September 26, 1979
	Attorney General of Illinois	81-0478	Illinois Bell Telephone	December 28, 1981
	GTE Sprint Communications Co.	83-0142	All Telephone Companies	August 4, 1983
	Federal Executive Agencies	89-0033	Illinois Bell Telephone	June 12, 1989
KS	State Corporation Commission	Depr. Repr.	Southwestern Bell	May 12-14, 1986
	Federal Executive Agencies	166.856-U	Southwestern Bell	November 7, 1989
	Federal Executive Agencies	190, 492	All Telephone Companies	November 4, 1994
KY	Kentucky Cable Telecommunications Assn.	2000-414	Blue Grass Energy Cooperative	January 11, 2001
	Kentucky Cable Telecommunications Assn.	2000-39	Cumberland Valley Electric, Inc.	January 11, 2001
MD	Maryland People's Counsel	6813	C&P Telephone Company	1975
	Maryland People's Counsel	6881	C&P Telephone Company	December 17, 1975
	Maryland People's Counsel	7025	C&P Telephone Company	March 15, 1975
	Maryland People's Counsel	7467	C&P Telephone Company	October 20, 1981
	Federal Executive Agencies	7851	C&P Telephone Company	March 20, 1985
	Federal Executive Agencies	8106	C&P Telephone Company	May 9, 1988
	Federal Executive Agencies	8274	C&P Telephone Company	August 2, 1990
MI	Michigan Attorney General	U-8911	Michigan Bell Telephone Co.	November 7, 1988
	Michigan Attorney General	U-9553	AT&T Communications/MCI	December 4, 1990
MN	GTE Sprint Communications Co.	83-102-HC	All Telephone Companies	August 5, 1983
	U.S. Department of Defense	87-021-BC	Northwest Bell Telephone Co.	(none)

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State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
MO	GTE Sprint Communications Co.	TR83-253	Southwestern Bell Tel. Co.	September 5, 1983
	Federal Executive Agencies	TC-89-14	Southwestern Bell Tel. Co.	(none)
	Federal Executive Agencies	TO-89-56	Southwestern Bell Tel. Co.	November 7, 1990
MS	Federal Executive Agencies	U-5453	South Central Bell Tel. Co.	May 15, 1990
NJ	Department of Public Advocate	Depr.Repr.	N.J. Bell Telephone Company	Mar-79
	Department of Public Advocate	815-458	N.J. Bell Telephone Company	October 15, 1981
	Department of Public Advocate	Depr.Repr.	N.J. Bell Telephone Company	March 1, 1982
	Department of Public Advocate	Depr.Repr.	N.J. Bell Telephone Company	February 1, 1985
	Department of Public Advocate	T092030358	N.J. Bell Telephone Company	September 30, 1992
	Department of Public Advocate	TMO05080739	United Telephone Co. of New Jersey	January 5,2006
NM	New Mexico Corporation Commission	1032	Mountain Bell Telephone Co.	November 14, 1983
	New Mexico Corporation Commission	86-151-TC	General Telephone of Southwest	February 5, 1987
NV	Prime Cable of Las Vegas	95-8034/8035	Central Telephone - NV	Filed November 22, 1995
	Prime Cable of Las Vegas	96-9035	Sprint/Centel, Nevada Bell	June 2, 1997
NY	Holmes Protection, Inc.	27350	New York Telephone Company	October 17, 1978
	Holmes Protection, Inc.	27469	New York Telephone Company	May 17, 1979
	5 Alarm Companies	27710	New York Telephone Company	July 24, 1980
	GTE Sprint Communications Co.	28425	All Telephone Companies	July 8, 1983
PA	City of Philadelphia	R-832316	Pennsylvania Bell Telephone	September 20, 1983
SC	Office of Consumer Advocate	Depr.Repr.	Southern Bell	July 1, 1986
	Office of Consumer Advocate	86-511-C	Southern Bell	December 11, 1986
	Office of Consumer Advocate	86-541-C	General Telephone of South	April 8, 1987
	Office of Consumer Advocate	Depr.Repr.	Southern Bell	July 10, 1989
	Office of Consumer Advocate	89-180-C	ALLTEL of South Carolina	September 26, 1989

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Appearances before State Regulatory Agencies

State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
TX	U.S. Department of Defense	8585/8218	Southwestern Bell Telephone Co.	(none)
VA	U.S. Dept. Of Defense, GSA, et	19696	C&P Telephone Company	October 6, 1976
	Federal Executive Agencies	PUC 890014	All Telephone Companies	February 13, 1989
VI	V.I. Department of Commerce	205	Virgin Islands Telephone Co.	April 29, 1980
	V.I. Public Service Commission	341	Virgin Islands Telephone Co.	March 20, 1991
WA	U.S. Department of Defense	U-72-39	Pacific Northwest Bell	1973
	U.S. Department of Defense	U-87-796-T	Pacific Northwest Bell	December 20, 1983
	U.S. Department of Defense	U-88-20524	Pacific Northwest Bell	November 8, 1988
	U.S. Department of Defense	U-89-2698-F	US West Communications	November 28, 1989
	WA Attorney General/TRACER	UT-940641	US West Communications	Filed October 14, 1994
	U.S. Department of Defense	UT-941464	US West Communications	June 22, 1995
	U.S. Department of Defense		US West Communications	January 22, 1996
	WA Attorney General/TRACER	UT-951425	US West Communications	Filed June 23, 1997
	WA Attorney General/TRACER	UT-961632	GTE Northwest, Inc	July 29, 1997
	U.S. Department of Defense	UT-021120	Qwest Communications	May 22, 2003
	WA Attorney General/WeBTEC/AARP	UT-040788	Verizon Northwest, Inc.	August 12, 2004
	WA Attorney General	UT-040520	Verizon Northwest, Inc.	February 2, 2005
	WA Attorney General	UT-050814	Verizon - MCI Merger	November 2, 2005
WI	GTE Sprint	6720-TR-38	All Telephone Companies	October 20, 1983
	Wisconsin Consumers Utility Board	2055-TR-102	CenturyTel of Central Wisconsin	June 26, 2002
	Wisconsin Consumers Utility Board	5846-TR-102	Telephone USA, LCC	June 26, 2002

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Appearances before Federal Regulatory Agencies

Client	Docket	Subject	Date of Cross-Examination
Federal Communications Commission			
Department of Defense	16020	Consat Rate of Return	1973
Airline Parties	16258	Bell System Rates	July 22, 1968
Airline Parties	18128	TELPAK	3/22, 10/15 1971, Feb. 22, 1972
National Data Corporation	19989	WATS	(none)
Press Wire Services	19919	Private Line Rates	(none)
Aeronautical Radio	20814	Private Line Rates	October 5, 1978
Department of Defense	20690	1,544 Mbps Service	January 30, 1979
State of Hawaii	21263	Interstate Separation	February 7, 1979
International Record Carriers	CC78-97	Telex/TWX Rates	March 6, 1980
ITT World Communications	CC84-633	Rate of Return	(none)
Aeronautical Radio	CC78-72	Access Line Charges	(none)
MCI	CC84-800	Rate of Return	(none)
Ind. Data Com. Mfg. Assn.	CC85-26	AT&T Accounting Plan	(none)
Tymnet, Inc.	ENF84-22	Packet Switching Costs	(none)
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 7/29/94
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 8/23/94
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 2/21/95
Nuclear Regulatory Commission			
Fauquier League for Environment Protection	50-328 50-329	Va. Electric Power Co.	1976
Postal Rate Commission			
Association of Third Class Mail Users	R71-1	Rates	1970
Dow Jones & Company	R72-1	Rates	1972
Dow Jones & Company	R74-1	Rates	September 13, 1974
Dow Jones & Company	MC76-2	Rate Structure	January 6, 1979
Dow Jones & Company	MC79-3	Rate Structure	September 12, 1979
Dow Jones & Company	R80-1	Rates	November 25, 1980
Warshawsky & Company	C82-1	Rate Structure	(none)
Dow Jones & Company	R84-1	Postal Costs	June 14, 1984
Dow Jones & Company	R87-1	Rate Structure Costs	November 2, 1987
Dow Jones & Company	R90-1	Rate Structure Costs	Sept 12, Oct 10, 1990
Dow Jones & Company	MC91-1	Pre-barcoding Discounts	November 19, 1991
Dow Jones & Company	MC91-3	Palletization Discounts	March 2, 1992

CHARLES W. KING
Appearances before Federal Regulatory Agencies

Client	Docket	Subject	Date of Cross-Examination
U.S. Congress			
National Retail Merchants Association	House/Senate Hearings	Electric Rate Reform Legislation	1976, 1977 & 1979
National Wireless Resellers Association	House Commerce Committee	Interconnection & Resale of Wireless Services	October 12, 1995
Federal Maritime Commission			
State of Hawaii	71-18	Ocean Shipping Rates	October-71
Foss Alaska Line	79-54	Barge Rate Increase	July 1979
Palmetto Shipping and Stevadoring	85-20	Vessel Charge Liability	October 27, 1986
Interstate Commerce Commission - Surface Transportation Board			
Western Coal Traffic League	Ex Parte 349	R.R. Rate Increase	May-76
Western Coal Traffic League	Ex Parte 357	R.R. Rate Increase	Oct-78
Western Coal Traffic League	Ex Parte 375 (Sub1)	R.R. Rate Increase	June 1, 1980
Arkansas Power & Light Co.	37276	Cost of Capital	(none)
Central Illinois Light Co.	37450	Cost of Capital	March 10, 1981
Western Coal Traffic League	Ex Parte 347	Costing Methods	(none)
Snavely King Majoros O'Connor & Lee, Inc.	Ex Parte 664	Cost of Capital	December 8, 2006
Williams Energy Services, Inc	Ex Parte 582, Sub 1	Rail Merger Guidelines	April 5, 2001
Civil Aeronautics Board			
Thomas Cook, Inc.	36595	Air Fare Deregulation	(none)
Copyright Royalty Tribunal			
Public Broadcasting Service	88-2-86CD	Television Valuation	(none)

CHARLES W. KING
Appearances before Federal Regulatory Agencies

Client	Docket	Subject	Date
Federal Energy Regulatory Commission			
Exxon USA	OR89-2-000	Pipeline Quality Bank	October 18, 1990
Consumer Advocates of DE,DC,OH,MD,NJ,PA,WV,VA	ER08-386-000	Electric Transmission Cost of Equity	March 26, 2008
Consumer Advocates of DE,DC,OH,MD,NJ,PA,WV	ER08-23-000	Electric Transmission Cost of Equity	May 21, 2008
Maryland Office of People's Counsel	ER08-686-01	Electric Transmission Cost of Equity	April 7, 2008; July 8, 2008,
Maryland Office of People's Counsel	ER08-1329	Electric Transmission Cost of Equity	August, 2008

Canadian Transport Commission

Rail Costing Inquiry, 1967-1969
Telecommunications Costing Inquiry, 1972-1975

OTTER TAIL POWER COMPANY
REVISED SERVICE ALLCOCATORS

			TOTAL N. D.	RESIDENTIAL	FARMS	GENERAL SERVICE	LARGE GENERAL SERVICE	IRRIGATION	OUTDOOR LIGHTING	OPA	CONTROLLED WATER HEATING	CONTROLLED SERVICE INTERRUPT	CONTROLLED SERVICE DEFERRED
1	Investment per Service	Marginal Cost Study, Table 16		406.10	434.72	592.07	26,611.21	406.10		687.11		26,611.21	26,611.21
2	Secondary Service Locations	COSS, p 15-2, Factor C3	59,901	46,011	1,091	11,876	132	69	33	572	18	85	14
3	Total Service Investment	Ln 8 * Ln 9	32,759,007	18,685,067	474,280	7,031,423	3,512,680	28,021	-	393,027	-	2,261,953	372,557
4	Revised Service Allocator (C3)	Ln 10 Percentages	100.0000%	57.0380%	1.4478%	21.4641%	10.7228%	0.0855%	0.0000%	1.1998%	0.0000%	6.9048%	1.1373%

Marginal Cost Study: Attachment 1 to ND PSC IR 1-39

Exhibit CWK-3
Schedule 2

OTTER TAIL POWER COMPANY
ND PSC STAFF CLASS COST OF SERVICE STUDY
TEST YEAR - 2007 ACTUAL WITH KNOWN AND MEASURABLE CHANGES

LINE NO	ITEM	NORTH DAKOTA	RESIDENTIAL	GENERAL SERVICE	LARGE GENERAL SERVICE	FARMS	IRRIGATION	OUTDOOR LIGHTING	OPA	CONTROLLED WATER HEATING	CONTROLLED SERVICE INTERRUPT	CONTROLLED SERVICE DEFERRED
1	RATE BASE	187,173,203	57,573,505	50,431,292	49,499,960	3,190,190	196,644	5,826,169	1,918,709	3,897,899	12,706,764	1,932,070
2												
3	TOTAL AVAILABLE FOR RETURN	12,942,144	3,591,304	5,878,705	4,899,851	85,514	(8,223)	(63,316)	(1,607)	(126,917)	(1,279,628)	(33,539)
4												
5	RATE OF RETURN EARNED	6.91%	6.24%	11.66%	9.90%	2.68%	-4.18%	-1.09%	-0.08%	-3.26%	-10.07%	-1.74%
6												
7	RATE OF RETURN REQUESTED	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%
8												
9	OPERATING INCOME REQUIRED	12,942,144	3,980,936	3,487,086	3,422,689	220,587	13,597	402,852	132,670	269,521	878,613	133,594
10												
11	TOTAL AVAILABLE FOR RETURN	12,942,144	3,591,304	5,878,705	4,899,851	85,514	(8,223)	(63,316)	(1,607)	(126,917)	(1,279,628)	(33,539)
12												
13	OPERATING INCOME DEFECIENCY	-	389,632	(2,391,619)	(1,477,162)	135,073	21,820	466,168	134,277	396,438	2,158,240	167,132
14												
15	INCREMENTAL TAXES	0	251,474	(1,543,582)	(953,380)	87,178	14,083	300,871	86,664	255,867	1,392,956	107,869
16												
17	REVENUE CHANGE REQUIRED	0	641,106	(3,935,201)	(2,430,542)	222,250	35,904	767,039	220,941	652,305	3,551,197	275,001
	REVENUE AT PRESENT RATES	118,309,177	36,574,921	34,012,150	36,231,788	1,601,767	45,963	2,095,668	967,569	1,185,332	4,744,402	849,617
18												
19	PERCENTAGE CHANGE	0.00%	1.75%	-11.57%	-6.71%	13.88%	78.11%	36.60%	22.83%	55.03%	74.85%	32.37%

Source: Attachment 1 to ND PSC IR 1-36

OTTER TAIL POWER COMPANY
STAFF RECOMMENDED CLASS RATE ADJUSTMENTS
BASED ON CLASS COST OF SERVICE STUDY (CCOSS) TEST YEAR - 2007 ACTUAL WITH KNOWN AND MEASURABLE CHANGES

LINE NO	ITEM	SOURCE	A NORTH DAKOTA	B RESIDENTIAL	C GENERAL SERVICE	D LARGE GENERAL SERVICE	E FARMS	F IRRIGATION	G OUTDOOR LIGHTING	H OPA	I CONTROLLED WATER HEATING	J CONTROLLED SERVICE INTERRUPT	K CONTROLLED SERVICE DEFERRED
1	RATE BASE	2007 CCOSS, Excel Ln 15	187,173,203	57,324,168	50,593,875	49,539,005	3,199,920	197,178	5,826,067	1,926,610	3,897,780	12,732,425	1,936,176
2	TOTAL AVAILABLE FOR RETURN	2007 CCOSS, Excel Ln 17	12,942,144	3,591,304	5,878,705	4,899,851	85,514	(8,223)	(63,316)	(1,607)	(126,917)	(1,279,628)	(33,539)
3	RATE OF RETURN EARNED	Ln 2/ Ln 1	6.91%	6.26%	11.62%	9.89%	2.67%	-4.17%	-1.09%	-0.08%	-3.26%	-10.05%	-1.73%
4	REVENUE AT PRESENT RATES - CCOS	2007 CCOSS. Excel Ln 577	118,309,177	36,574,921	34,012,150	36,231,788	1,601,767	45,963	2,095,668	967,569	1,185,332	4,744,402	849,617
5	RATE INCREASE	Assumed	2.0%										
6	REVENUE INCREASE		2,366,184										
7	REVENUE REQUIREMENT	Ln 4 * Ln 5	120,675,361										
RESIDENTIAL CLASS													
8	RESIDENTIAL INCREASE AT CO. AVERAGE	Ln 4 * Ln 5	731,498	731,498									
REVENUE DEFICIENT CLASSES:													
9	COMPANY PROPOSED INCREASE %	Beithon Test. P. 61					7.50%	10.0%	25.0%	14.0%	10.0%	35.0%	11.0%
10	REVENUE INCREASE	Ln 4 * Ln 8	2,656,637				120,133	4,596	523,917	135,460	118,533	1,660,541	93,458
REVENUE SUFFICIENT CLASSES:													
11	REVENUE ADJUSTMENT	Ln 6 - Ln 8 - Ln 10	(1,021,952)										
12	ROE EXCESS	Ln 3, Class - Co. ROR			4.70%	2.98%							
13	RETURN EXCESS	Ln 1 * Ln 12	3,854,840		2,380,377	1,474,463							
14	ALLOCATION OF AVAILABLE REVENUE	Ln 11 by Ln 13	(1,021,952)		(631,059)	(390,893)							
15	RATE REDUCTION	Ln 14/Ln 4			-1.86%	-1.08%							
SUMMARY													
16	RATE ADJUSTMENT PERCENT	Lns 5, 9, 1516	2.00%	2.00%	-1.86%	-1.08%	7.50%	10.00%	25.00%	14.00%	10.00%	35.00%	11.00%
17	RATE ADJUSTMENT - REVENUE	Ln 17 * Ln 5	2,366,184	731,498	(631,059)	(390,893)	120,133	4,596	523,917	135,460	118,533	1,660,541	93,458

CCOSS: ATTACHMENT 1 TO ND PSC IR 01-036

Exhibit_____(CWK-4)

Otter Tail Power's response to ND PSC IR No. 03-002

Otter Tail Corporation d/b/a
OTTER TAIL POWER COMPANY
North Dakota Case No: PU-08-862

Response to:	North Dakota Public Service Commission
Analyst:	Diller_King_03
Date of Request:	2/27/2009
Date Received:	2/27/2009
Date Due:	3/27/2009

Information Request No. ND 03-002
Staff is concerned with the very large increases that some customers will experience under the revised rate structures proposed by OTP, quite regardless of the overall level of revenue increase. Staff is considering a recommendation of limiting any one customer's rate increase to 50% over the class increase or, for those classes receiving less than a 6.7% increase, 10 percent on an annualized basis in the first year. Subsequent annual increases would be capped at 5 percent until the proposed rates are fully implemented. Exceptions would be customers with average monthly bills of less than $10 and customers who are able to switch to other rate schedules that would result in increases below the cap limits. The revenue shortfall from the capped bills would be made up in the form of across-the-board increases on all other customers.

a. Would OTP oppose this plan and, if so, why?
b. What would be the obstacles to implementing this plan?
c. Can OTP recommend an implementation program for this plan?

RESPONSE:
OTP has reviewed its proposed rate design with the above parameters in mind. The following response discusses the results of that review and suggests rate design modifications that could meet the majority of the parameters suggested in this IR without the need for a "phasing-in" of rate design.

a. OTP does not oppose the majority of Staff's proposal, but, as explained in this response, OTP would prefer to establish a rate design in this case that does not require the design to be "phased-in." Therefore, OTP is providing an alternative rate design in this response that would not require a phasing-in, while both accommodating the majority of the Staff's recommended increase limitations and most of OTP's rate design objectives (including those that would make progress toward meeting the new Federal Economic Stimulus package's goals of efficient use of energy (Section 410)). See OTP's Attachment 1 to IR ND 03-002 for details on this alternative proposal.

Responding Witness:	David G. Prazak
Title:	Supervisor, Pricing
Department:	Regulatory Services
Telephone:	(218) 739-8595
Date of Response:	4/1/2009

b. There are a few obstacles to a "phase-in" approach to rate design. Such an approach would add significant additional administrative expense in developing and implementing each phase of such a plan, however designed. Additional customer notices would need to be provided in years subsequent to final rates in this case. Those notices and the frequency of rate adjustments during the phase-in period would likely be confusing to many customers. An obstacle might also be created by phasing-in rate design, as OTP expects that it may file another general rate case within three years. It would be an obstacle to implement any portion of the phase-in of rate design at the same time interim rates for the next case are being applied.

   If a current non-phase-in approach is taken to accommodate the request, as proposed in Attachment 1 to IR ND 03-002, there is an obstacle to meeting precisely each criteria identified in the Staff's request. However, because the proposal included in Attachment 1 to IR ND 03-002 comes so very near to meeting each criteria of the request and does not require a phasing-in, OTP believes it is preferable to a plan that would phase-in rate design changes.

c. Attachment 1 to IR ND 03-002 is OTP's matrix of rates, issues and explanations relating to OTP's recommended alternative to meeting Staff's request. As explained in that attachment, there are some rates (very few) that cannot be reasonably adjusted to meet the precise limitations recommended by Staff. OTP's footnotes in the attachment explain the logic of why these few rates should not be adjusted. There are four basic categories into which OTP's rates fall compared to the increase limitations suggested in Staff's request:

   i. Category 1. OTP's originally proposed rate meets the criteria without any change. These rates include: Large General Service, Large General Service Off-Peak Rider, Irrigation Option 1 and Controlled Service-Interruptible Load (CT Metering) Rider.

   ii. Category 2. The rate is being cancelled. When looking at the duo-decile chart for the rate, the impact shown is that of customers moving to other rates. The duo-decile is not for the cancelled rate. These rates include: Commercial Demand Control Customers Billed on Small General Service Less Than 20 kW, Electric Climate Control Customers Billed on Small General Service Less Than 20 kW, Commercial Demand Control Customers Billed on General Service Equal to and Greater Than 20 kW Electric Climate Control and Customers Billed on General Service Equal to and Greater Than 20 kW.

Responding Witness:	David G. Prazak
Title:	Supervisor, Pricing
Department:	Regulatory Services
Telephone:	(218) 739-8595
Date of Response:	4/1/2009

iii. Category 3. OTP has modified its originally proposed rate to accommodate Staff's increase limitations. OTP's modifications include moving revenue requirements to another rate in the class, adding a declining block component to the rate, or modifying the customer and/or facilities charge. These rates include: Residential Service, Residential Controlled Demand, and Farm Service.

iv. Category 4. OTP's originally proposed rate is very close to meeting Staff's increase limitation, but does not exactly meet all limitations. These rates include: Small General Service Less Than 20 kW, Small General Service 20 kW and Greater, Irrigation Option 2, Municipal Pumping, Civil Defense-Fire Siren, Water Heating – Controlled Service Rider, Controlled Service-Interruptible Load (Self-Contained) Rider, Deferred Load Rider Fixed Time of Delivery (Self-Contained Meter) Rider and Fixed Time of Delivery (CT Meter) Rider.

OTP determined the parameters of this IR as follows, based on its understanding of the request: Limit rate increases to 50% over the class increase <u>and</u>, for those classes receiving less than a 6.7% increase, limit the increase to 10%. OTP's plan limits the increase at the duo-decile level.

Attachment 1 to IR ND 03-002 lists the duo-decile figures, from Mr. Prazak's testimony, that prior to any modifications would have met or not met the limiting criteria recommended by Staff's request. Out of the 22 duo-decile figures, 17 duo-decile figures have one or more duo-deciles that would have exceeded the limitations.

For those duo-deciles that did not meet the limiting criteria, a different set of criteria (impacts from dollar and percent, usage predictability, and rates to be closed) were identified and catalogued for each of the 17 duo-decile figures. Based on these results, OTP selected three rate designs for adjustments based mainly on the criteria contained in B1 or B4 (i.e. percent impacts) listed at the bottom of Attachment 1 to IR ND 03-002.

Attachment 2 to IR ND 03-002 contains the three rate design adjustments identified in column H of Attachment 1 to IR ND 03-002, with one exception (Municipal Pumping, which is explained later). The adjustment techniques used included: (1) changing customer and/or facilities charge; (2) re-introducing declining blocks; and (3) shifting revenue requirements within a class (e.g., Residential Demand Control to Residential Service). Shifting revenue requirements across classes was not used.

Responding Witness:	David G. Prazak
Title:	Supervisor, Pricing
Department:	Regulatory Services
Telephone:	(218) 739-8595
Date of Response:	4/1/2009

As shown in Attachment 2 to IR ND 03-002, each of the three rate design adjustments shows two duo-decile bar graphs (on the left - per Mr. Prazak's testimony, and on the right – a revised duo-decile graph to meet the criteria recommended by Staff). Below the duo-decile graphs are the originally proposed and revised rate designs.

The Municipal Pumping duo-decile is included for discussion purposes. Even though it received a B4 criterion (i.e. only the last duo-decile exceeded the limit), the rate re-design was not performed as it only exceeded the limit by one (1) percent.

Responding Witness:	David G. Prazak
Title:	Supervisor, Pricing
Department:	Regulatory Services
Telephone:	(218) 739-8595
Date of Response:	4/1/2009

OTP's Overall Matrix of Results - Limiting Bill Impacts & Potential Rate Design Adjustments

A	B	C	D	E	F	G	H
Figure No.	Figure Name in Testimony (Prazak)	Customer Class	Otter Tail's Requested Class Increase	Upper-Limit Class Increase Per ND-03-002	Any Duo-Decile Above Upper Limit	Criteria to Determine Rate Design Adj.	Adj. Rate Design Proposal
Figure 1	Residential Service	Residential	7.50%	11.25%	Yes	A1, B5	Yes
Figure 2	Residential Controlled Demand	Residential	7.50%	11.25%	Yes	B1	Yes
Figure 3	Farm Service	Farm	7.50%	11.25%	Yes	A1, B4, B5	Yes
Figure 4	Small General Service Less Than 20 kW	General Service	0.95%	10.00%	Yes	A1, B5	-
Figure 5	Commercial Demand Control Customers Billed on Small General Service Less Than 20 kW	General Service	0.95%	10.00%	Yes	B2, D	-
Figure 6	Electric Climate Control Customers Billed on Small General Service Less Than 20 kW	General Service	0.95%	10.00%	Yes	A1, D	-
Figure 7	Small General Service 20 kW and greater	General Service	0.95%	10.00%	Yes	A1	-
Figure 8	Commercial Demand Control Customers Billed on General Service Equal to and Greater Than 20 kW	General Service	0.95%	10.00%	Yes	A1, B4, D	-
Figure 9	Electric Climate Control Customers Billed on General Service Equal to and Greater Than 20 kW	General Service	0.95%	10.00%	Yes	B2, D	-
Figure 10	Large General Service	Large General Service	1.00%	10.00%	-	-	-
Figure 11	Large General Service Off Peak Rider Customers billed on the Large General Service Rate	Large General Service	1.00%	10.00%	-	-	-
Figure 12	Irrigation Option 1	Irrigation	10.00%	15.00%	-	-	-
Figure 13	Irrigation Option 2	Irrigation	10.00%	15.00%	Yes	C	-
Figure 14	Municipal Pumping	Other Public Authority	14.00%	21.00%	Yes	A1, A2, B4, B5	-
Figure 15	Civil Defense-Fire Siren	Other Public Authority	14.00%	21.00%	Yes	A2, B2	-
Figure 16	Water Heating -Controlled Service Rider	Controlled Water Heating	10.00%	15.00%	Yes	A1, A2, B5	-
Figure 17	Controlled Service-Interruptible Load (CT Metering) Rider	Interruptible	35.00%	52.50%	-	-	-
Figure 18	Controlled Service-Interruptible Load (Self-Contained) Rider	Interruptible	35.00%	52.50%	Yes	B5	-
Figure 19	Standby Service	Interruptible	35.00%	52.50%	-	-	-
Figure 20	Deferred Load Rider	Deferred Load	11.00%	16.50%	Yes	B5	-
Figure 21	Fixed Time of Delivery (Self-Contained Meter) Rider	Deferred Load	11.00%	16.50%	Yes	A1, B4	-
Figure 22	Fixed Time of Delivery (CT Meter) Rider	Deferred Load	11.00%	16.50%	Yes	B1	-
					17		3

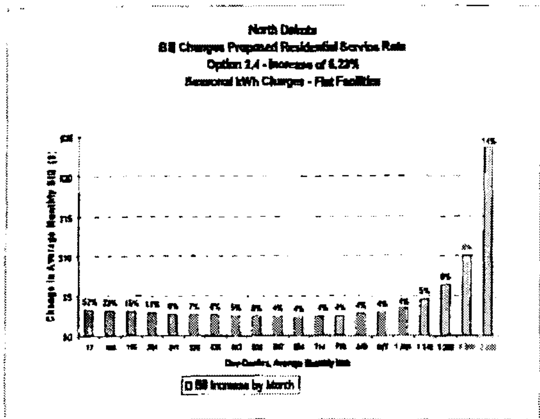
Legend

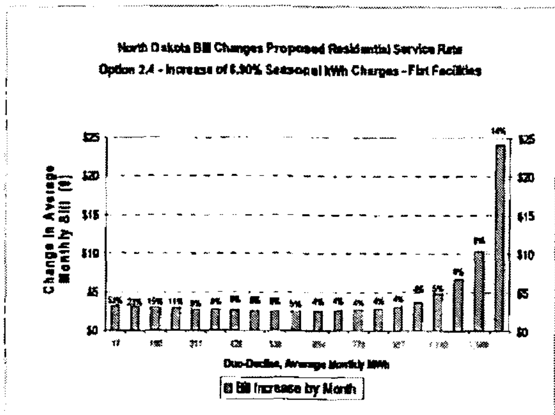
A Dollar ($) Bill impact levels/month
B Percent (%) Bill impact levels/month
C Usage - Small Class
D Rates Proposed to be Eliminated

A1	Some monthly bill impacts around or less than $5/month
A2	All or some duo-decile bill impacts less than $1/month
B1	All duo-deciles exceed limits
B2	Majority of duo-deciles exceed limits
B3	Only first duo-decile bill impact exceeds limit
B4	The last three or less duo-decile bill impacts exceeds limit
B5	Majority of duo-deciles do not exceed limits
C	Rate Design difficult to adjust for few customers with unpredictable usage
D	Rates Proposed to be eliminated
-	Not Applicable

Residential Service

41,638 customers, 2,082 per a decile

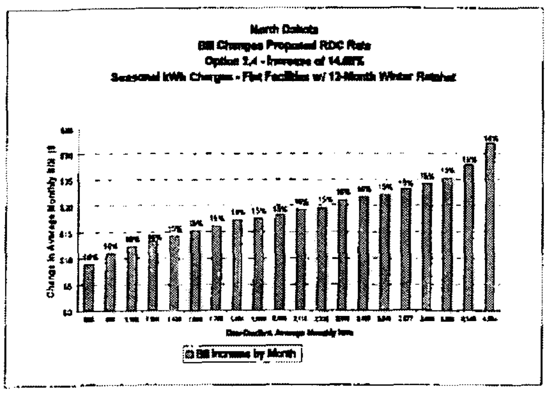


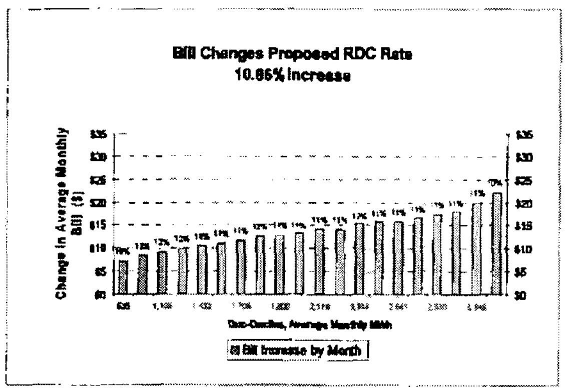


	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per month		All Year	Energy Charge per kWh Summer	Winter
4 Filed - Proposed Rate	$3.00	$3.00			All kWh	$0.08520	$0.07772
Customer Charge, Seasonal Energy, No Declining Block		+Facilities					
Flat Facilities Charge			$5.00				
				Water Heating Credit	-$4.00		
4 Adjusted - IR 3-2 Rate	$3.00	$3.00			All kWh	$0.08582	$0.07828
Customer Charge, Seasonal Energy, No Declining Block		+Facilities					
Flat Facilities Charge			$5.00				
				Water Heating Credit	-$4.00		

Residential Demand Control (RDC)

3,815 RDC customers, 191 per a decile

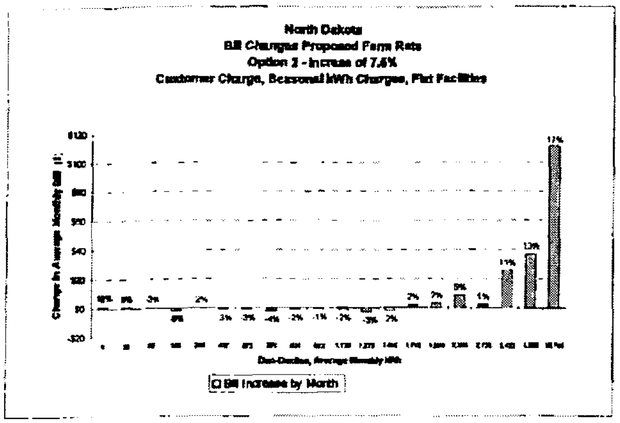


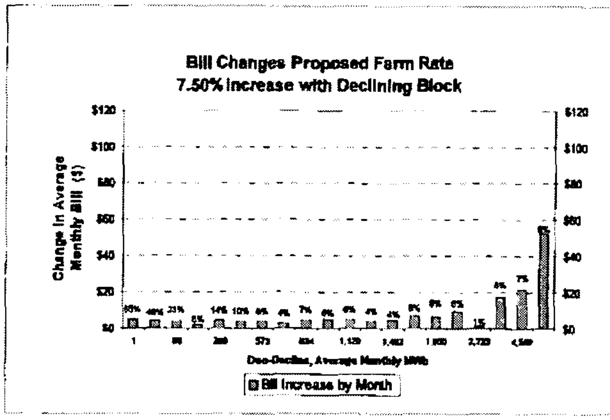


		Customer Charge per month	Minimum Bill per month		Facilities Charge per per KW month		Charge per kWh Summer	Winter	Demand Charge per kW per mo. Summer	Winter
Filed									Winter Ratchet	
Rate 4	Seasonal with Flat Facilities Charge, with 12-month Winter Ratchet	$9.38	Customer + Facilities Charge			All kWh	$0.04867	$0.04934	$6.86	$2.76
				Fixed Facilities	$9.00					
					$9.00					
									Winter Ratchet	
Rate 4	Seasonal with Flat Facilities Charge, with 12-month Winter Ratchet	$9.38	Customer + Facilities Charge			All kWh	$0.04700	$0.04745	$6.82	$2.68
				Fixed Facilities	$9.00					
					$9.00					

Farm Service

1,049 customers, 52 per a decile

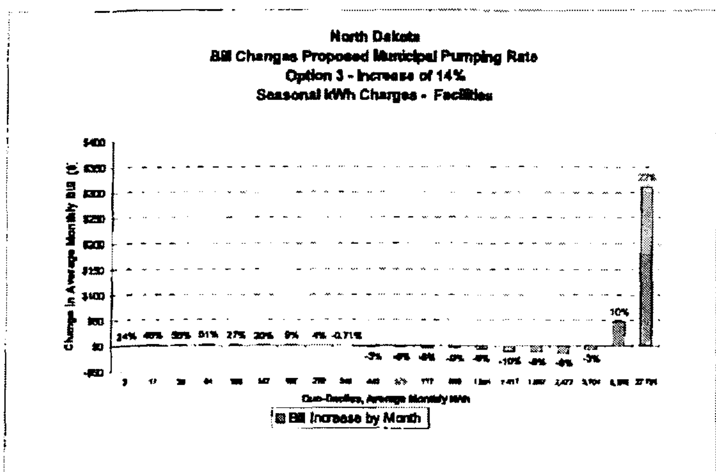




	Customer Charge per month	Monthly Minimum Bill per month		Facilities Charge per kVA of Transformer	Energy per kWh Summer	Energy per kWh Winter	All Year
2 Filed				3-Phase Surcharge per Mo.			
Proposed Rate	$8.00	Cust + Fac	Overhead		$0.07327	$0.06684	All Energy
No Declining Block			<25 kVA	$4.61			
Seasonal Energy			25 kVA or more	$5.61			
Customer Charge			Underground				
Facilities for 3ph			<25 kVA	$13.42			
			25 kVA or more	$21.56			
2				3-Phase Surcharge per Mo.			Energy
Adjusted Rate	$12.00	Cust + Fac	Overhead		$0.07762	$0.07080	first 1 600
Declining Block			<25 kVA	$3.37	$0.06597	$0.06018	Excess
Seasonal Energy			25 kVA or more	$3.93			
Customer Charge			Underground				
Facilities for 3ph			<25 kVA	$9.39			
			25 kVA or more	$10.78			

Municipal Pumping (OPA)

575 customers, 29 per duo-decile



Percent Bill Change	Annual Bill Change	Monthly kWh
23.86%	$0.70	1.73
48.35%	$1.57	17.36
55.21%	$2.27	36.49
51.20%	$2.67	63.62
26.51%	$2.13	109.36
20.27%	$2.15	147.14
9.41%	$1.38	195.88
4.48%	$0.88	270.29
-0.71%	-$0.18	347.88
-3.27%	-$1.04	439.67
-6.18%	-$2.57	575.28
-7.54%	-$3.80	717.21
-8.57%	-$5.48	896.01
-8.70%	-$6.70	1,081.22
-9.68%	-$9.91	1,416.55
-8.72%	-$11.77	1,856.60
-7.90%	-$13.36	2,477.25
-2.86%	-$6.82	3,703.58
10.40%	$47.99	8,196.30
22.26%	$309.70	27,791.24

		Customer $ per month	Minimum Bill $ per month	Facilities Charge $ per month	Summer $ per kWh per month	Winter $ per kWh per month	All Year $ per kWh per month
Current Rate		na	$3.30 per metering pt.	na		1st 2500:	$0.07152
						Next 1500:	$0.05832
						Excess:	$0.04768
Rate 3 Seasonal Energy, Facilities Charge							
Filed - Proposed Rate	Secondary	$4.00	Cust + Fac	$4.00	$0.06523	$0.05960	all Energy
	Primary	$4.00	Cust + Fac	$2.88	$0.06494	$0.05922	all Energy