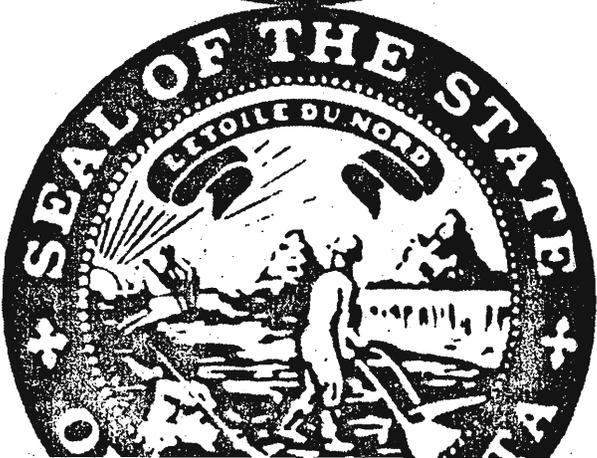




EVALUATION REPORT
ON
THE DEPARTMENT OF
PUBLIC SERVICE



PROGRAM EVALUATION DIVISION
OFFICE OF THE LEGISLATIVE AUDITOR
April 13, 1979



EVALUATION REPORT

THE DEPARTMENT OF
PUBLIC SERVICE

PROGRAM EVALUATION DIVISION
OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

APRIL 13, 1979

TABLE OF CONTENTS

PREFACE		i
SUMMARY OF FINDINGS		ii
CHAPTER I:	OVERVIEW OF THE DEPARTMENT OF PUBLIC SERVICE	1
	A. Structure and Staffing	1
	B. Organizational and Managerial Problems	3
	C. Organizational Alternatives	6
CHAPTER II:	RATES UNDER BOND	9
	A. Refund Orders	11
	B. Refund Monitoring and Auditing	14
	C. Impact of Rates Under Bond	14
	D. Interest Rate	19
	E. Size of Refunds	19
	F. Alternatives	22
CHAPTER III:	RULE AND POLICY DEVELOPMENT	23
	A. Automatic Adjustment Clauses	23
	B. Construction Work in Progress	28
	C. Miscellaneous Tariff Processing	31
	D. Jurisdictional Separation Methods	32
	E. Working Capital Allowances	33
	F. Tax Normalization	34
	G. Charitable Contributions	34
	H. Summary	35
LIST OF STAFF PAPERS		36

LIST OF TABLES AND FIGURES

Table 1:	Minnesota Rate Cases with Rates Under Bond	10
Table 2:	Refund Dates	13
Table 3:	States with Rates Under Bond	15
Table 4:	States with Time Limits	17
Table 5:	Sources of Refunds: 1976-1979	21
Figure 1:	Organizational Structure of the Department of Public Service	2
Figure 2:	Gas Supply System	26

PREFACE

In June 1978, the Legislative Audit Commission (LAC) directed the Program Evaluation Division to analyze the organizational structure of the Public Service Department and review various utility regulation issues. This report presents the staff's findings and recommendations. It is being submitted to the Legislative Audit Commission for review.

In some instances the findings stated in this report are critical of the Public Service Department's performance. However, we hope that the criticisms will be viewed as constructive and will help facilitate further consideration of the issues that are raised. Moreover, we wish to note that Department personnel and members of the Public Service Commission provided valuable assistance and cooperated fully with the Program Evaluation Division staff.

The report has been reviewed by the Department and the Public Service Commission. A copy of their detailed response is available from the Public Service Department or the Program Evaluation Division.

The evaluation was under the direction of John Yunker, senior economist in the Program Evaluation Division. He was assisted by Ed Burek, Dan Jacobson, Kathryn Buxton and Kim Border. Mr. Yunker is the author of this report.

James Nobles, Deputy Legislative
Auditor for Program Evaluation

April 13, 1979

DEPARTMENT OF PUBLIC SERVICE EVALUATION

SUMMARY OF FINDINGS

As directed by the Legislative Audit Commission, the Program Evaluation Division conducted a study of public utility regulation in Minnesota. The three major objectives of the study are:

1. To analyze the organizational structure of the Department of Public Service (DPS)
2. To review the operation of rates under bond
3. To evaluate the development of rules or policy by the Public Service Commission (PSC) in establishing automatic adjustment clauses, processing miscellaneous rate changes, and applying statutory guidelines on construction work in progress

I. DEPARTMENT OF PUBLIC SERVICE STRUCTURE AND STAFFING

There has been considerable controversy between PSC and DPS management and staff regarding organizational structure, staffing and budgetary matters, and regulatory priorities. We have observed that:

- Department staff in the Utilities Division has two major functions: (1) reviewing company rate and service changes and recommending to PSC which petitions should be contested, and (2) acting as a public intervenor before PSC in contested cases.
- Department management is responsible for allocating department resources to those functions and to the enforcement of state laws and PSC rules and orders.

- Department staff controls the flow of information to PSC and is thus able to influence regulatory policy.
- Prior to March 1978, PSC had little or no staff resources permanently assigned to assist it in contested cases, the promulgation of rules, and the development of consistent decision-making. Since that date, PSC has had difficulty hiring and retaining staff.
- PSC does not have the statutory authority to hire and manage its own staff. Nearly all other state utility commissions have such authority.

We have identified three major problems within DPS:

1. Department staff has a number of conflicting roles to perform. Staff represents its own view of the public interest in general rate cases, yet serves PSC by executing and enforcing PSC rules and orders. Because of its independence from PSC, department management is able to allocate its resources according to its own priorities. When department management and PSC have differed on the relative importance of various regulatory functions, friction within DPS has resulted.
2. There have been managerial problems within the Utilities Division of the department. This has constrained the department's ability to be responsive to PSC.
3. Rate case issues have been subjected to numerous rehearings and amended orders following the "final" rate order. Basic issues are often not resolved in the final order. Orders have lacked consistency at times.

There are several major alternatives for legislative consideration:

- Appropriate funds to provide support staff to PSC and retain the current organizational structure.
- Change the statutes to provide PSC with a separate budget and authority to hire its own support staff. The department director's office would provide administrative services to both PSC and the department's staff.

- Reorganize the agency so that staff reports to an executive director of PSC. The executive director would be unclassified and serve at the pleasure of PSC or its chairman. The Governor could be permitted to select a chairman.

Discussion

We believe providing adequate support staff to PSC would improve the quality of PSC orders and also enable PSC to oversee some of the department's enforcement and investigatory activities. It would also enable PSC to research those issues to which PSC feels the department is not allocating sufficient resources.

A number of problems would still remain. If the department director exercises his/her final authority on personnel matters or in managing support staff activities, the support staff could become another independent staff unresponsive to PSC. The Legislature may wish to consider providing PSC with its own separate budget and hiring authority to eliminate this possibility. The Legislature could clarify whether the department staff should be permitted to sue PSC under the current or a revised organizational structure.

Some of the support staff's efforts would duplicate the department staff's efforts in rate cases and in the oversight of other department activities. We recommend the Legislature examine whether such duplication is desired and whether a major reorganization is required to eliminate that duplication and managerial problems in the Utilities Division.

II. RATES UNDER BOND

PSC has ordered refunds in seventeen of the eighteen cases in which rates under bond was used. Some basic facts about those refunds are:

- In the eighteen cases completed with rates under bond, PSC ordered refunds totaling \$148.7 million. Of this total, \$89.3 million occurred in ten electric cases, \$9.8 million in seven gas cases, and \$49.6 million in one telephone case.
- Overall, PSC refunded 48 percent of the total dollars placed under bond. This weighted average results from refunds of 39 percent in electric cases, 36 percent in gas cases, and 100 percent in one telephone case.
- The percentage refunded varied between 2 and 100 percent.

Refund Orders

- PSC required some companies to pay interest on the excess state sales taxes and city taxes collected under bond. Other companies did not pay interest on these taxes.
- Additional interest has not been paid when the utility does not return the full refund during the first month refunds are issued.
- In the last five major electric cases, the time from the PSC rate case order to the refund has ranged from six and a half to twelve and a half months. The average time was approximately nine months. In three of the four largest gas cases, the time equaled or exceeded six months.
- In several cases, PSC ordered a utility to make refunds to customers due a refund without fully surcharging other customers who paid lower rates than those finally approved by PSC. As a result, one utility lost about \$200,000.

Discussion. Future refund orders should be consistent in requiring all utilities to pay some interest on excess sales

taxes collected. PSC should investigate whether all utilities should be required to pay interest on excess city fees collected. The Legislature may wish to consider whether PSC should have the discretion to reduce a company's revenue requirement in a refund order.

Impact of Rates Under Bond

- Rates under bond does not affect the rate of return which a utility must earn to attract and maintain investors. Rates under bond enables a utility to earn a rate of return closer to the commission's allowed rate and thus permits the commission to allow a lower rate of return. Customer rates are unaffected.
- Rates under bond permits a commission to avoid the issue of attrition allowances and/or the task of setting temporary rates.
- Large refunds often result from a utility asking for: (1) a higher rate of return for its stockholders than PSC granted in its last case, and (2) changes in PSC rate-making methods used in its previous cases or those of other companies.

In 1978, PSC decided four rate cases for utilities that had previous cases. In those cases, we found:

- Refunds totaling \$24.7 million, or 27 percent of the total refunds, due to the utility requesting a higher rate of return for stockholders than allowed in its previous case.
- Refunds totaling \$14.5 million, or about 15 percent of the total refunds, due to the utility requesting a change in the PSC rate-making methods used in its previous case.

Alternatives

We suggest the Legislature consider the possibility of:

- Permitting PSC to limit the amount placed under bond by applying precedents set in previous cases.
- Permitting PSC to impose an additional interest penalty on that amount placed under bond which is contrary to PSC precedents set in earlier cases or which represents a new rate-making procedure. The extra interest would only be applied to the extent that PSC upholds these precedents.

III. RULE AND POLICY DEVELOPMENT

We examined PSC rule and policy development in a number of areas. Some of the findings are summarized below.

Automatic Adjustment Clauses

Minnesota Statutes (M.S. 216B.16, subd. 7) permit PSC to establish automatic adjustments of rates "in direct relation to changes in federally regulated wholesale rates for energy delivered through interstate facilities or fuel used in generation of electricity or the manufacture of gas."

- Under the current design of the purchased gas adjustment (PGA), it is possible for rates paid by customers to increase by more than the increase in the average cost of gas. When the commodity price of pipeline gas paid to the utility increases, the PGA increases by the same amount. The PGA is then applied to all gas sold, regardless of whether the gas was obtained from the pipeline.

We recommend that PSC examine those alternative designs for PGA clauses which more closely adjust rates in direct relation to changes in gas costs.

Construction Work in Progress

- PSC should evaluate the Federal Energy Regulatory Commission (FERC) formula now used to calculate an offset to construction work in progress. Use of the FERC formula generally results in present customers paying for some of the financing costs of construction work from which future customers will benefit. This offset has been used regardless of the size of a utility's construction program.

Jurisdictional Separation Methods

- PSC Rule 351D has not been fully enforced by department staff. Separation methods were not submitted by petition to PSC and did not receive PSC approval.
- Contrary to the rule, separation methods have been changed under bond from case to case without PSC approval.
- Methods for separating Minnesota retail customer costs from other utility expenses have not been adequately detailed in some cases.

PSC has been critical of the separation methods used by some companies. PSC should have support staff or department staff review all the methods now used for their reasonableness and consistency across companies where appropriate. Staff should also examine the methods used by Minnesota utilities filing for rate cases in other states.

I. OVERVIEW OF THE DEPARTMENT OF PUBLIC SERVICE

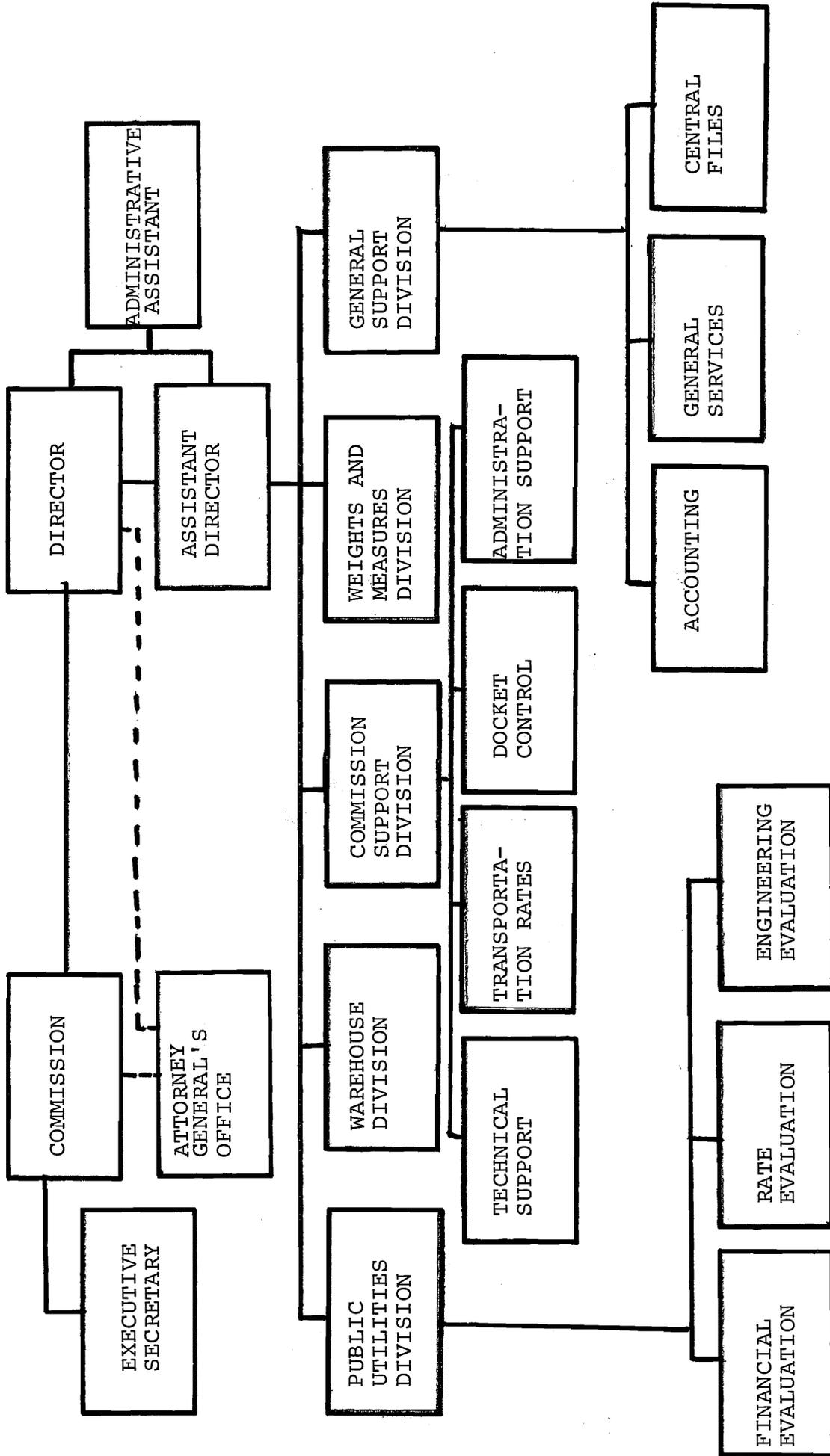
A. STRUCTURE AND STAFFING

The Department of Public Service is divided into two branches, the Public Service Commission (PSC) and the Administrative Division. PSC is the decision-making body and has both legislative and quasi-judicial functions. PSC may establish rules and make orders governing the conduct of businesses it regulates. The Administrative Division, headed by the Director of DPS, is responsible for executing and enforcing PSC rules and orders and the laws governing regulated businesses. The Director of DPS has implicit statutory authority to hire employees and to manage the entire DPS budget. Figure 1 shows DPS's organizational structure.

There has been considerable controversy between the Administrative Division of DPS and PSC regarding this organizational structure, staffing and budgetary matters, and regulatory priorities. A number of observations are relevant to an analysis of this controversy:

FIGURE 1

ORGANIZATIONAL STRUCTURE OF THE DEPARTMENT OF PUBLIC SERVICE



- Department staff in the Utilities Division has two major functions: (1) reviewing company rate and service changes and recommending to PSC which petitions should be contested, and (2) acting as a public intervenor before PSC in contested cases.
- Department management is responsible for allocating department resources to those functions and to the enforcement of state laws and PSC rules and orders.
- Department staff controls the flow of information to PSC and is thus able to influence regulatory policy.
- Prior to March 1978, PSC had little or no staff resources permanently assigned to assist it in contested cases, the promulgation of rules, and the development of consistent decision-making. Since that date, PSC has had difficulty hiring and retaining staff.
- PSC does not have the statutory authority to hire and manage its own staff. Nearly all other state utility commissions have such authority.
- Over the last two years, PSC has become increasingly interested in determining regulatory priorities.

B. ORGANIZATIONAL AND MANAGERIAL PROBLEMS

We have identified three major problems within DPS.

They are:

1. Department staff has a number of conflicting roles to perform. Staff represents its own view of the public interest in general rate cases, yet serves PSC by executing and enforcing PSC rules and orders. Because of its independence from PSC, department management is able to allocate its resources according to its own priorities. When department management and PSC have differed on the relative importance of various regulatory functions, friction within DPS has resulted.
2. There have been managerial problems within the Utilities Division of the department. This has constrained the department's ability to be responsive to PSC.
3. Rate case issues have been subjected to numerous rehearings and amended orders following the "final" rate order. Basic issues are often not resolved in the final order. Orders have lacked consistency at times.

Discussion

Staff Roles. Department staff's role is an adversary one in contested cases. However, staff determines which issues it will contest and what level of analysis it will provide. On some issues, it will challenge a utility. On others, it may agree with or simply choose not to challenge the utility's position. Since PSC and the department staff have disagreed over basic financial and rate design issues, the record in rate cases is often insufficient for PSC's deliberation. On some issues, PSC does not have a position and would like a thorough examination of the alternatives available to it. The adversary process often does not elicit such an examination. PSC is then faced with a choice between two contrasting positions without information about alternatives.

In rate cases, department staff frequently petitions PSC for a rehearing. Utilities Division management has consulted counsel regarding the staff's legal standing to appeal a PSC decision in court. Staff believes it does have the right of appeal but has not yet exercised it.

Besides rate case matters, PSC and department staff differ over the relative importance of other regulatory functions such as law and rule enforcement. Since staff controls the flow of information to PSC, it can resist efforts by PSC to change priorities and/or add new functions to the staff's workload. Our review of regulatory policy suggests that this has been a significant problem in the past.

Utilities Division Management. Until recently, rate case testimony was not reviewed by section supervisors in the Utilities Division. Staff developed issues and testimony independent of department management, as well as of PSC. There have been a number of problems with staff management in both general rate cases and other activities. They include:

1. Priority of issues in general rate cases has not been established by Division management. Sometimes, staff has spent time developing detailed testimony which would raise rather than lower rates.
2. In some cases, staff was not aware of PSC precedents set in previous cases and did not present information which was necessary for applying those precedents.
3. Staff has not consulted with counsel from the Attorney General's office on some matters requiring a legal opinion. Once, the staff advocated a position on rate of return which was clearly contrary to Minnesota law. In processing miscellaneous rate changes, staff cited a statute repealed almost a year earlier.
4. Staff has enforced proposed rules while failing to enforce adopted rules which have legal effect.
5. In cases involving Minnesota communities served by out-of-state telephone exchanges, staff has not investigated whether state law was violated in implementing rate increases. In a recent case, staff did not recommend legal action when a violation occurred. Staff has not investigated whether rates set in those communities are reasonable.

Management is now aware of these problems and is taking some steps to improve the quality of staff performance.

Rate Case Orders. A number of reasons for the various problems with rate case orders have been suggested. They include: (1) lack of adequate staff to represent PSC concerns during the

rate case and to advise PSC during deliberation, (2) insufficient time provided for PSC deliberation, and (3) the relative inexperience of Public Service Commissioners. We believe the major sources of these problems are lack of staff and time. As long as department staff remains independent of PSC, there will be a need for technical support staff which is responsive to PSC needs. Because PSC does not control the hearings process, there often has been less than a month for PSC deliberation in major rate cases. Lacking staff to monitor the proceedings, PSC has faced a monumental task in preparing orders. If PSC can be criticized for these problems, it is largely for attempting to accomplish too much with too few resources. We have recommended to the Senate Finance and House Appropriations Committees that the PSC support staff be funded, although not at the level requested by PSC.* In addition, there currently is a need for an administrator to supervise the support staff's activities.

C. ORGANIZATIONAL ALTERNATIVES

There are several major alternatives for legislative consideration. They are:

- Appropriate funds to provide support staff to PSC and retain the current organizational structure.

*For greater detail, see staff paper entitled "Budget Analysis".

- Change the statutes to provide PSC with a separate budget and authority to hire its own support staff. The department director's office would provide administrative services to both PSC and the department's staff.
- Reorganize the agency so that staff reports to an executive director of PSC. The executive director would be unclassified and serve at the pleasure of PSC or its chairman. The Governor could be permitted to select a chairman.

Discussion

There is some question about what changes are necessary to eliminate the agency's problems. We believe providing adequate support staff to PSC would improve the quality of PSC orders and also enable PSC to oversee some of the department's enforcement and investigatory activities. It would also enable PSC to research those issues to which PSC feels the department is not allocating sufficient resources.

A number of problems would still remain. Personnel decisions on PSC support would still be ultimately made by the department director. If the department director exercises his/her final authority on personnel matters or in managing support staff activities, the support staff could become another independent staff unresponsive to PSC. The Legislature may wish to consider providing PSC with its own separate budget and hiring authority to eliminate this possibility.

Some of the support staff's efforts will duplicate the department staff's efforts in rate cases and in oversight of other department activities. We recommend the Legislature examine whether such duplication is desired and whether a major reorgani-

zation is required to eliminate that duplication and managerial problems in the Utilities Division. Reorganizing the department by placing department staff under PSC supervision would eliminate the independent advocacy role now performed by the department staff. We note that an independent advocacy role is performed by the Consumer Services Division of the Department of Commerce, although its current role is to represent only residential customers. In any case, the Legislature may wish to clarify whether the department staff should be permitted to sue PSC under the current organizational structure.

II. RATES UNDER BOND

State law permits electric, gas, and telephone utilities to increase rates after providing ninety days notice. PSC cannot limit the increase in rates until it reaches a final rate decision. Any excess revenues collected during the "rates under bond" period must be refunded to customers with interest. PSC is required to reach a final decision within one year of the rate case filing.

PSC has ordered refunds in seventeen of the eighteen cases in which rates under bond was used. Table 1 presents a detailed breakdown of the refunds. Some basic facts about those refunds are:

- In eighteen cases completed with rates under bond, PSC ordered refunds totaling \$148.7 million. Of this total, \$89.3 million occurred in ten electric rate cases, \$9.8 million in seven gas cases, and \$49.6 million in one telephone case.
- Overall, PSC refunded 48 percent of the total dollars placed under bond. This weighted average results from refunds of 39 percent in electric cases, 36 percent in gas cases, and 100 percent in one telephone case.
- The percentage refunded varied between 2 percent and 100 percent.

TABLE 1

MINNESOTA RATE CASES WITH RATES UNDER BOND

<u>Company</u>	<u>Amount Requested Under Bond</u>	<u>Amounted Granted</u>	<u>Percent Granted</u>	<u>Percent Refunded</u>
<u>Electric</u>				
Northern States Power #1	\$ 59,951,000	\$ 38,640,000	64.5%	35.5%
Interstate Power #1	237,821	139,454*	58.6	41.4
Ottertail Power #1	4,124,000	4,124,000	100.0	0.0
MN Power & Light #1	9,134,000	0*	0.0	100.0
Northern States Power #2	48,333,000	32,696,000	67.6	32.4
Interstate Power #2	2,203,000	1,239,000	56.2	43.8
MN Power & Light #2	36,372,000**	25,230,000	69.4	30.6
Northern States Power #3	67,965,000	37,896,000	55.8	44.2
Ottertail Power #2	3,625,000	2,695,000	74.3	25.7
Rainy River #1	274,000	221,469	80.8	19.2
<u>Gas</u>				
Interstate Power	273,040	239,142	87.6	12.4
Great Plains	625,344	330,734	52.9	47.1
NSP (EF System)	7,201,000	5,481,000	76.1	23.9
North Central	1,105,726	732,487	66.2	33.8
Montana-Dakota	283,815	278,882	98.3	1.7
NSP (MW System)	289,000	238,000	82.4	17.6
Minnegasco	16,860,000	9,528,000	56.5	43.5
<u>Telephone</u>				
Northwestern Bell	49,550,000***	0	0.0	100.0
TOTAL	\$308,406,746	\$159,709,168	51.8%	48.2%

*In the first Interstate and Minnesota Power and Light electric cases, PSC also reduced the general level of rates below that existing prior to the rate case.

**This figure includes an adjustment of \$4,872,000 from the generally cited figure of \$31,500,000. The adjustment treats fuel adjustment clause revenues consistently with figures from the other electric rate cases.

***Northwestern Bell requested \$63.2 million, but placed only \$49.6 million under bond. The company originally requested to place \$54.5 million under bond. A company error caused the rates to raise only \$49.6 million.

A. REFUND ORDERS

Before a refund is made PSC must issue a refund order. The order approves a method of calculating a customer's refund and a method for computing interest to add to the refund. For gas and electric utilities, PSC rules specify that interest on refunds be calculated at the average daily prime rate during the period the utility's rates are suspended. We find that:

- PSC required some companies to pay interest on the excess state sales taxes and city taxes collected under bond. Other companies did not pay interest on these taxes.
- Additional interest has not been paid when the utility does not return the full refund during the first month refunds are issued.
- In the last five major electric cases, the time from the PSC rate case order to the refund has ranged from six and a half to twelve and a half months. The average time was approximately nine months. In three of the four largest gas cases, the time equaled or exceeded six months.
- In several cases, PSC ordered a utility to make refunds to customers due a refund without fully surcharging other customers who paid lower rates than those finally approved by PSC. As a result, one utility lost approximately \$200,000.

Discussion

Future PSC orders should be consistent in requiring all utilities to pay some interest on excess sales taxes collected. Since the state will pay a utility interest on excess taxes collected, a utility could collect interest from the state without returning it to its customers. If PSC had calculated such interest in one recent case, we estimate customers would have received an

additional \$100,000 in interest. PSC should also investigate whether all utilities should be required to pay interest on excess city fees collected.

When a refund is large, a utility refunding by bill credit may not return each customer's full refund at once. A credit would carry over to the next month. PSC should require that additional interest be paid on the credit until it is finally refunded.

The time from a rate case order to a refund has been excessive and can be reduced. The delays have been caused by: (1) numerous petitions for rehearings on both revenue and rate design issues, (2) failure to resolve basic rate design issues in rate case orders, (3) rehearings on refund orders, and (4) a PSC stay of its refund order pending court appeal of its decision on rate design. The delays caused by the first and second items can be reduced if PSC can fill and retain its complement of technical support staff. Involvement of experienced staff during the rate case would improve the quality of PSC decisions and limit the need to issue amended orders. Table 2 lists the length of time from order to refund for the eighteen cases with rates under bond.

Rehearings on refund orders have resulted in three cases when PSC ordered that companies could not surcharge customers undercharged during the refund period. Upon rehearing, PSC ordered that each company could surcharge undercharged customers for one-half of the undercharge. However, even the amended refund orders reduced the revenue these companies could raise below that approved in the rate case. One company lost about \$200,000. A court appeal is pending. In that case, PSC

TABLE 2
REFUND DATES

<u>Company</u>	<u>Filing Date</u>	<u>Order Date</u>	<u>Date Refund Began*</u>	<u>Time From Order to Refund (in Months)**</u>
<u>Electric</u>				
NSP #1	1-02-75	10-31-75	2-09-76	3.5
IPC #1	1-29-75	11-25-75	5-01-76	5
OTP #1	4-30-75	2-26-76	None	None
MP&L #1	2-18-76	12-18-76	2-28-77	2.5
NSP #2	5-03-76	3-02-77	3-10-78	12.5
IPC #2	8-31-76	6-30-77	4-01-78	9
MP&L #2	4-05-77	2-03-78	8-17-78 & 12-21-78	6.5 & 10.5
NSP #3	5-14-77	3-20-78	12-04-78	8.5
OTP #2	7-29-77	8-01-78	Pending	7.5***
RRIC	1-13-78	1-13-79	Pending	2 ***
<u>GAS</u>				
IPC	4-08-75	1-05-76	5-01-76	4
Great Plains	9-24-75	7-23-76	1-19-77	6
NSP (EF System)	11-19-76	9-19-77	1-24-78	4
North Central	3-01-77	12-30-77	7-15-78	6.5
Montana-Dakota	6-06-77	5-25-78	7-17-78	2
NSP (MW System)	8-19-77	5-31-78	9-11-78	3.5
Minnegasco	10-03-77	10-02-78	Pending	5.5***
<u>Telephone</u>				
Northwestern Bell	12-02-77	11-22-78	Pending	4 ***

*The refund dates were taken from DPS and PSC documents. In a number of cases, there was no record of the refund date. In those instances, we made a conservative estimate of the time from order to refund.

**The number of months is rounded to the nearest half of a month.

***Refunds for these cases have not yet been made. The time listed is the number of months from order date to March 15, 1979.

found that the problem was due in part to the company's "good faith effort" to file rates based on the cost of service approach ordered by PSC in its previous case. Depending on the judicial decision in that case, the Legislature may wish to consider whether PSC should have this discretion in ordering refunds.

B. REFUND MONITORING AND AUDITING

Department management has not considered refund monitoring and auditing a priority activity. We note that:

- In a few cases, the date refunds began and the interest rate finally used are not available from DPS records.
- Department staff has never conducted even a limited compliance audit of any refund.

Discussion

Department management should consider doing an unannounced spot check of a large refund. The audit should be conducted during a period in which general rate case activity is low.

C. IMPACT OF RATES UNDER BOND

Currently, twenty-five state legislatures have lessened the impact of regulatory lag by permitting rates under bond. Table 3 lists those states and the time from a rate case filing to rates under bond. Only two states, including Minnesota, provide for rates under bond within three months of a rate case

TABLE 3
STATES WITH RATES UNDER BOND

<u>State</u>	<u>Time to Rates Under Bond*</u> <u>(in months)</u>	<u>Statutory Time Limit*</u> <u>(in months)</u>
South Carolina	1	12
Minnesota	3	12
Texas	4	6
Iowa	4	None
West Virginia	4	None
Arkansas	5	None
Connecticut	5	None
Tennessee	6	9
Colorado	6	None
Georgia	6	None
Kentucky	6	None
Mississippi	6	None
South Dakota	6	None
North Carolina	7	10
New Hampshire	7	13
Delaware	7	None
Maryland	7	None
Florida	8	None
Ohio	9	18
Montana	9	None
Pennsylvania	9	None
New Mexico	10	None
Vermont	10	None
Louisiana	12	None
Virginia	13	None

* Time from date of filing.

filing. Another sixteen states have time limits ranging from six to twelve months without rates under bond. Table 4 lists those states and their time limits. The remaining nine states have neither rates under bond nor time limits.

From a utility viewpoint, rates under bond is necessary to prevent the company's earned rate of return from falling below its previously allowed rate while awaiting a rate case decision. To some customers, excess revenues collected under bond represent "forced loans" resulting from higher prices never approved by PSC. We have identified the following issues regarding rates under bond:

- Does rates under bond permit a lower rate of return to be paid to the utility's investors and thus result in lower customer rates, as claimed by some utilities?*
- Does the interest rate paid on refunds provide companies with a windfall? Can the utilities earn more on excess revenues than the interest paid to customers?
- Do utilities collect revenues far in excess of what is justified?

We find that:

- Rates under bond does not affect the rate of return which a utility must earn to attract and maintain investors. Rates under bond enables a utility to earn a rate of return closer to the commission's allowed rate and thus permits the commission to allow a lower rate of return.
- Rates under bond does not appear to affect a utility's bond rating and cost of borrowing in the long run.

* Discussion memorandum on "Rates Under Bond," prepared by Northern States Power Company, page 4.

TABLE 4
STATES WITH TIME LIMITS*

<u>STATE</u>	<u>STATUTORY TIME LIMIT (IN MONTHS)**</u>
Alaska	6
Massachusetts	6
Nevada	6
Utah	6
Alabama	7
Idaho	8
New Jersey	9
Rhode Island	9
Maine	10
Oregon	10
Wyoming	10
Illinois	11
Missouri	11
New York	11
Washington	11
North Dakota	12

*None of these states has rates under bond.

**Time from date of filing.

- There is no evidence available that customer rates are lower in states with rates under bond.
- Rates under bond permits a commission to avoid the issue of attrition allowances and/or the task of setting temporary rates.

Discussion. In inflationary periods, utilities without the benefit of rates under bond within several months of filing may find it difficult to earn the rate of return allowed by a commission. For example, a commission may allow a 12 percent rate of return in order for the utility to earn a 10 percent return. With rates under bond, the same utility may be able to earn the 10 percent return with an allowed rate also equal to 10 percent. In either case, the utility's investors earn the same rate of return. Furthermore, if the earned rate of return is unaffected by rates under bond, then customer rates are also likely to be unaffected.*

However, without rates under bond, a commission will generally find it necessary to: (1) allow a higher rate of return, (2) increase a utility's revenue requirement by granting an attrition allowance, and/or (3) set temporary rates several months after a rate case filing. Regulatory expense will be somewhat higher because of the addition of new rate case issues.

*For greater detail, see staff paper entitled "Rates Under Bond and the Cost of Capital."

D. INTEREST RATE

- The evidence is inconclusive regarding the ability of utilities to earn more on excess revenues than the interest paid to customers.

Discussion. PSC Rule 400B requires each gas and electric utility to pay interest at the average daily prime rate. No rule exists for telephone companies. Some utilities claim they deposit excess revenues collected in banks and are paid less than the prime rate they pay to customers. Since we cannot trace the flow of funds collected under bond to their ultimate use, we are not able to examine this point in any detail. PSC could address this question in promulgating a similar rule for telephone companies.

E. SIZE OF REFUNDS

The percentage refunded is high in some cases. Almost half of the dollars placed under bond have been refunded. Further, large refunds often result from a utility asking for: (1) a higher rate of return for its stockholders than PSC granted in its last case, and (2) changes in PSC rate-making methods used in its previous cases or those of other companies.

For example, in 1978 PSC decided four rate cases for utilities that have also had previous rate cases. In those cases, we found:

- Refunds totaling \$24.7 million, or 27 percent of the total refunds, due to the utility requesting a higher rate of return for stockholders than allowed in its previous case.
- Refunds totaling \$14.5 million, or about 15 percent of the total refunds, due to the utility requesting a change in the PSC rate-making methods used in its previous case.

For all fourteen cases decided since January 1976:

- About 48 percent of the refunds resulted from PSC ordering lower rates of return than proposed by utilities.
- Another 24 percent resulted from differences over proper rate-setting methods.
- An additional 28 percent was the direct result of the audit of utility figures.

Table 5 presents a detailed breakdown of the sources of refunds in those cases.

Discussion. The purpose of rates under bond is to permit a utility to set temporary rates based on test year expenses and plant in service. If rates continue to be based on lower historical figures, then the company will not be able to earn its previously allowed rate of return. Although rates under bond is being used for those purposes, the procedure is also used to request regulatory treatments not previously granted.

TABLE 5
SOURCES OF REFUNDS: 1976-1979

<u>Source</u>	<u>Electric</u>	<u>Gas</u>	<u>Telephone</u>	<u>Average</u>
<u>Overall Rate of Return</u>				
Rate of Return to Stockholders	44%	44%	43%	44%
Capital Structure and Costs of Debt and Preferred Stock	3	(1)	7	4
<u>Rate-Making Methods</u>				
Working Capital Methods	15	14	0	9
CWIP/AFC Methods	9	0	4	6
Miscellaneous Rate Increase Already Approved	0	0	6	2
Accounting Changes	*	21	0	2
Non-Investor Supplied Capital	*	2	4	2
Contributions, Dues, and Advertising	1	6	*	1
Attrition Allowance	2	0	0	1
Fuel Clause Methodology	2	0	0	1
<u>Audit of Rate Base and Operating Income</u>	24	14	36	28
Total	100%	100%	100%	100%

* = Less than 0.5 percent.

F. ALTERNATIVES

A number of alternatives to rates under bond have been proposed in the Legislature. They include:

- Providing interim rate-setting authority for PSC
- Reducing the time limit for a rate case
- Limiting the amount under bond to a fixed percentage of a utility's request

We have identified two other alternatives:

1. Permit PSC to limit the amount placed under bond by applying precedents set in previous cases.
2. Permit PSC to impose an additional interest penalty on that amount placed under bond which is contrary to PSC precedents set in earlier cases or which represents a new rate-making procedure. The extra interest would only be applied to the extent that PSC upholds these precedents.

Discussion

We have found no evidence that rates under bond permits utilities to earn excessive profits. There is evidence, however, that applying precedents set in previous cases could reduce the size of the refunds considerably. The second alternative listed above would retain rates under bond, have little effect on regulatory expense, but provide utilities with the incentive to limit the amount under bond. The utility's request could exceed the amount under bond. We suggest the Legislature consider the feasibility of either permitting PSC to limit the amount under bond or providing for additional interest as outlined above.

III. RULE AND POLICY DEVELOPMENT

The lack of support staff to advise the PSC has slowed the development of policy through both rules and rate case orders. We examined rule and policy development in a number of areas including:

- Automatic adjustment clauses
- Construction work in progress
- Miscellaneous tariff processing
- Jurisdictional separation methods
- Working capital allowances
- Tax normalization
- Charitable contributions

A. AUTOMATIC ADJUSTMENT CLAUSES

Automatic adjustment clauses allow gas and electric utilities to directly pass through changes in their cost of energy to consumers without a formal rate hearing. When regulation of

gas and electric utilities began in 1975, PSC allowed utilities to use automatic adjustment clauses. Until 1978, these clauses lacked consistency for the following reasons:

- PSC held no hearings to review each clause individually.
- Department staff did not systematically review each clause.
- Rules on automatic adjustments did not become effective until January 1978.

Since the adoption of rules, staff has more actively reviewed clauses to bring them in compliance with the rules.

Monitoring and Auditing

The department initially gave low priority to the monitoring of automatic adjustments. We found that:

- Department staff frequently did not review adjustments until after they had been implemented. Delays of several months were common.
- Not until 1978 did the staff systematically track the wholesale gas rates of the utilities' suppliers in order to check purchased gas adjustments.

Beginning in mid-1978, staff has reviewed adjustments on a more timely basis and the monitoring process has become more standardized.

Monitoring of individual fuel adjustments does not include verifying costs reported in the adjustments. These costs are audited in a general rate case audit. How thoroughly fuel adjustments are audited depends on the relative importance of other audit issues. Fuel adjustments reported more than a year

before the filing of a rate case are usually not examined.*

Clause Design

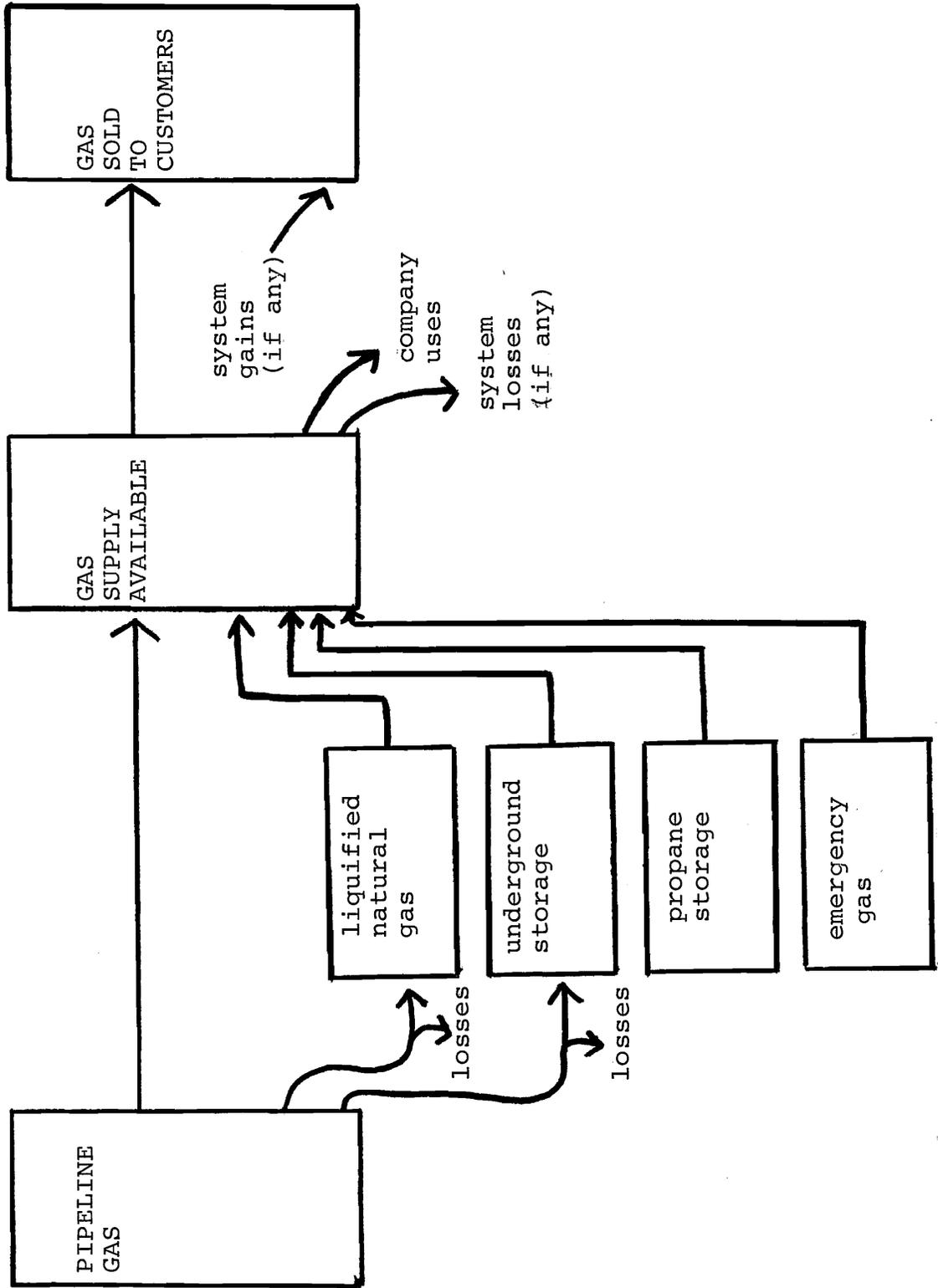
Minnesota Statutes (M.S. 216B.16, subd. 7) permit PSC to establish automatic adjustment of rates "in direct relation to changes in federally regulated wholesale rates for energy delivered through interstate facilities or fuel used in generation of electricity or the manufacture of gas." We reviewed purchased gas adjustment clauses and electric fuel adjustment clauses to determine whether they complied with the intent of the law.

Purchased Gas Adjustment Clauses. The purchased gas adjustment (PGA) does not change rates in direct relation to changes in the cost of gas. Under the current design of the PGA, it is possible for rates paid by customers to increase by more than the increase in the average cost of gas. When the commodity price of pipeline gas paid by the utility increases, the PGA increases by the same amount. The PGA is then applied to all gas sold, regardless of whether the gas was obtained from the pipeline. Figure 2 shows the sources of gas supply, including pipeline gas. This occurs in the following instances:

- When the price of pipeline gas paid by the utility increases, the price increase is applied to propane gas as well as pipeline gas. There is an additional adjustment that already compensates the utility for increases in the cost of propane.

*For greater detail, see staff paper entitled "Automatic Adjustment Clauses."

FIGURE 2
GAS SUPPLY SYSTEM



- The PGA does not take into account differences in the amounts of gas purchased and sold that result from measurement problems with meters or from gas leakage. Since it appears more gas is gained because of measurement problems than is lost, the overall effect is that customers pay the price increase for pipeline gas on gas that the utility does not purchase.
- Two utilities have filed revised PGA clauses which would include liquified natural gas (LNG) in the manufactured gas adjustment, as suggested in the department's guidelines for the PGA. However, the PSC rules appear to exclude LNG from the manufactured gas adjustment. Moreover, including LNG in the manufactured gas adjustment may lead to excess recovery because price increases for pipeline gas are also applied to LNG.

These problems with PGA clauses do not require that the PGA be discontinued. We recommend that PSC examine those alternative designs for PGA clauses which avoid these problems and which more closely adjust rates in direct relation to changes in gas costs.*

Electric Fuel Adjustment Clauses. Increases in the cost of power purchased by electric utilities are included in fuel adjustment clauses. State law permits their inclusion "in direct relation to changes in federally regulated wholesale rates." The Federal Energy Regulatory Commission regulates changes in most wholesale rates. However, we note one instance in which there appears to be no federal regulation of rate changes passed through a clause:

* For greater detail, see staff paper entitled "Automatic Adjustment Clauses."

- A major electric utility in Minnesota purchases all of the power generated by a single plant owned by an out-of-state electric cooperative. The only federal regulation of rates involved was approval by the Rural Electrification Administration (REA) of the initial contract between the utility and the cooperative, specifying that rates should be cost based. Rates can be changed without REA approval. Apparently, no state or federal agency audits the costs of the cooperative to see whether reported costs are actually incurred.

The Legislature may wish to consider whether inclusion of this type of transaction in automatic adjustments is consistent with the intent of state law.

B. CONSTRUCTION WORK IN PROGRESS

Construction work in progress (CWIP) includes expenditures for plant and equipment which are not yet providing utility services to customers. Ratepayers compensate a utility's investors for their investment in the plant during the time that the plant is in service. Compensation must also be provided for the financing costs of money invested during construction. The major issues regarding CWIP are when and by whom should the utility be compensated for the financing or carrying costs of construction investments.

There are three methods for providing compensation for financing costs. One method attempts to charge only those customers who obtain benefits from the utility plant. CWIP is excluded from the rate base. Financing costs are capitalized and included in customer rates only when the plant is in service. A second approach includes CWIP in the rate base during the construc-

tion period but offsets some or all of the effect of CWIP by including an allowance for funds used during construction (AFC) in income. Financing costs are also capitalized and included in rates when the plant goes in service. A third approach includes CWIP in the rate base during the construction period so that investors receive a current return on CWIP and recover financing costs before the plant is in service.

Statutes

Minnesota law restricts PSC to using either the first or second method for telephone companies. To the extent CWIP is in the rate base, PSC must include AFC in income.

For gas and electric utilities, PSC may choose any of the three methods. The statutes (M.S. 216B.16, subd. 6a) direct that PSC consider the following five factors in making a decision:

1. The magnitude of the CWIP as a percentage of the net investment rate base
2. The impact on cash flow and the utility's capital costs
3. The effect on consumer rates
4. Whether it confers a present benefit upon an identifiable class or classes of customers
5. Whether it is of a short-term nature or will be imminently useful in the provision of utility service

PSC Policy

In telephone cases, PSC has consistently excluded CWIP from the rate base, using the first method. For gas and electric utilities, PSC has used the second method. In early cases, PSC computed

an AFC offset which attempted to approximate the incremental after-tax costs of financing CWIP. Since mid-1977, PSC has used an AFC offset based on the method used by the Federal Energy Regulatory Commission (FERC). PSC has directed the department staff to present an analysis of the effects of removing CWIP from the rate base in the next Northern States Power electric rate case.

One electric utility has requested in three cases that PSC grant it a full current return on CWIP by including CWIP for one or more facilities in the rate base without an AFC offset. In the two completed cases, PSC continued to use an offset method after consideration of the statutory criteria.

Findings

- The FERC formula used by PSC to compute an AFC offset under the second method was not designed for this purpose. FERC uses its formula to capitalize financing costs and generally excludes CWIP from the rate base.
- Use of the FERC method to offset CWIP has resulted in present customers paying for some of the financing costs of CWIP from which future customers will benefit.
- The choice of an offset method does not appear to be based on an explicit consideration of the statutory criteria. PSC has used the criteria in rejecting two requests for a full current return on CWIP.
- It has been suggested that PSC might continue to use the offset method but increase a utility's rate of return in cases of large construction programs. If present customers should pay for part of CWIP, it would be less expensive to permit a current return on a portion of current CWIP than to permit both a higher rate of return and reimbursement through the offset method and capitalization.

Discussion

The statutory criteria should be used in determining a proper offset for CWIP in the rate base. Currently, the FERC for-

mula is used to calculate an offset regardless of the size of a utility's construction program and its impact on cash flow, capital costs, consumer rates, and current customers. An offset based on incremental after-tax costs of financing appears to be proper when no current return on CWIP should be paid.*

C. MISCELLANEOUS TARIFF PROCESSING

Between general rate cases, utilities file for miscellaneous rate increases. The amount of additional revenue raised is small except for some telephone companies. We found:

- In one case, department staff recommended approval of an installation and service charge increase totaling \$3.8 million. Using the prior PSC general rate decision and unaudited company figures, staff determined that the increase would not exceed the company's revenue requirements. However, staff was aware that the company would file a general rate case shortly. The company filed a rate case the day after the miscellaneous rate increase became effective. Because of the staff's actions, the miscellaneous rate increase was not contested.

The National Regulatory Research Institute recommended that each company be required to report a cumulative summary of miscellaneous rate increases since the company's last general rate case. A maximum cumulative increase percentage could be established. No additional revenues would be permitted pending a more thorough review of the company's overall revenue requirements. We support that recommendation and urge PSC and the department to implement it by rule.

*For greater detail, see staff paper entitled "Construction Work in Progress."

D. JURISDICTIONAL SEPARATION METHODS

Since utilities often serve non-retail customers and retail customers in other states, an important regulatory function for PSC is to separate the costs of serving Minnesota retail customers from other utility expenses. PSC Rule 351D required that every gas and electric utility with operations outside Minnesota submit proposed accounting separation methods by petition to PSC by March 21, 1977 for PSC review and approval. Subsequent changes in procedures must be approved by PSC. Several problems have occurred:

- Rule 351D has not been fully enforced by department staff. Separation methods were not submitted by petition to PSC and did not receive PSC approval. Some utilities may have believed methods submitted in rate cases before the adoption of the rules had been approved.
- In some instances, separation methods have been changed under bond from case to case without PSC approval.
- Methods have not been adequately detailed in some cases.

PSC has been critical of separation methods used by some companies. PSC should require that these methods be filed by petition by all companies including any appropriate companies which have not yet filed a general rate case. PSC should have support staff or department staff review these methods for their reasonableness and consistency across companies where appropriate. Staff should also examine the methods used by Minnesota utilities filing for rate cases in other states.

We note that in 1975 PSC asserted that it had jurisdiction over all Minnesota gas and electric retail customers regardless of whether they were served by an out-of-state office of a Minnesota company. Until recently, PSC did not claim jurisdiction over Minnesota telephone customers served by out-of-state exchanges.

We find that:

- In some instances, rates were increased before the Minnesota PSC was even notified of the rate change. Rate changes had been approved by the commission in a neighboring state.
- Department staff has not always investigated whether state law was violated in implementing the rate increase. Staff did not recommend legal action when a violation occurred. However, PSC counsel discovered the violation during a PSC meeting and filed suit in district court. The case is pending.
- Department staff has not investigated the reasonableness of rates set in those communities. Those customers may not be receiving the benefit of PSC decisions for similar customers elsewhere in Minnesota.

PSC has now asserted jurisdiction over rate changes for Minnesota customers in such telephone exchanges. PSC should order an investigation of future rate increases where the number of customers and revenue increase justifies the regulatory expense.

E. WORKING CAPITAL

PSC has ordered companies on a case-by-case basis to file lead-lag studies. These studies provide a more accurate statement of a company's working capital requirements than the conventional Federal Power Commission approach. PSC has not adopted a rule

requiring utilities of a certain size to file such studies. We find that a number of problems have resulted from this case-by-case approach. They are:

- PSC decisions on working capital have not been consistent across companies.
- At the end of a rate case, PSC usually orders a company to file a lead-lag study in its next rate case. Case-by-case decision-making does not protect the customers served by companies filing for the first time.
- At times, department staff has not provided PSC with sufficient alternatives to a lead-lag study in a company's first case.

PSC should examine whether several companies which have not yet filed a case should be required to file a lead-lag study.

F. TAX NORMALIZATION

PSC has permitted companies to normalize federal taxes. There is evidence that the rate of return paid to the utility would have to increase if PSC ordered complete flow through accounting. PSC has indicated a willingness to examine the issue more thoroughly in future rate cases.

G. CHARITABLE CONTRIBUTIONS

Minnesota Statutes (M.S. 216B.16, subd. 9) provides that:

"The commission shall allow as operating expenses only those charitable contributions which the commission deems prudent and which qualify under section 290.21, subdivision 3, clause (b). Only 50 percent of the qualified contributions shall be allowed as operating expenses."

We note that:

- PSC precedent on charitable contributions has changed from time to time.
- The current PSC position is that even upon a finding of prudence (and a finding that the contributions qualify), PSC can and has disallowed all contributions as operating expenses.
- If ratepayers did pay for 50 percent of a utility's contributions, the utility would pay only about 23 percent with federal and state taxpayers paying the remainder.

The Legislature may wish to consider whether PSC's policy is consistent with statutory intent.

H. SUMMARY

These policy issues are among the many facing PSC. The questions raised about automatic adjustment clauses, CWIP, and jurisdictional separation factors deserve staff investigation and PSC consideration in the near future.

LIST OF STAFF PAPERS

- Staff Paper 1: Budget Analysis
- Staff Paper 2: Rates Under Bond and the Cost of Capital
- Staff Paper 3: Automatic Adjustment Clauses
- Staff Paper 4: Construction Work in Progress