

605

PUC Docket No. E-001/GR-91-

2

OAH Docket No. 3-2500-5877-

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of
Interstate Power Company for Authority
to Increase its Rates for Electric
Service in the State of Minnesota.

FINDINGS OF FACT,
CONCLUSIONS,
RECOMMENDATIONS AND
ORDER

The above-entitled matter came on before Administrative Law Judge Allen E. Giles for public hearings on January 13 and 14, 1992, in Stewartville, Albert Lea, Fulda and LeCenter, Minnesota and for evidentiary hearings on January 22-24 and 29, 1992 in St. Paul, Minnesota. The record closed on March 26, 1992.

Parties to this proceeding include the following: Interstate Power Company (hereinafter also referred to as "Interstate", "IPW" or "the Company"); Minnesota Department of Public Service (hereinafter also referred to as "the Department" or "DPS"); Office of the Attorney General, Hubert H. Humphrey, III, (hereinafter also referred to as "Office of Attorney General" or "OAG").

Appearances were made by the following: Clement F. Springer, Jr., Attorney at Law, Defrees & Fiske, 200 South Michigan Avenue, Suite 1100, Chicago, Illinois 60604, and Kent M. Ragsdale, Attorney at Law, Staff Counsel, Interstate Power Company, 1000 Main Street, P.O. Box 769 Debuque, Iowa 52004-0769, appeared on behalf of Interstate Power Company.

Scott Wilensky and Susan Dreschel, Special Assistant Attorneys General, 1100 Bremer Tower, Seventh Place and Minnesota Street, St. Paul, Minnesota 55101, appeared on behalf of the Minnesota Department of Public Service.

Gary R. Cunningham, Special Assistant Attorney General, 340 Bremer Tower, Seventh Place and Minnesota Street, St. Paul, Minnesota 55101, appeared on behalf of the Office of the Minnesota Attorney General.

Betsy Engelking, Carl Kaml, Susan MacKenzie and John Lindell, Minnesota Public Utilities Commission staff members, 780 American Center Building, 150 East Kellogg Boulevard, St. Paul, Minnesota 55101, appeared on behalf of the

Minnesota Public Utilities Commission.

Notice is hereby given that, pursuant to Minn. Stat. 14.61, and the Rules of Practice of the Public Utilities Commission and the Office of Administrative Hearings, exceptions to this Report, if any, by any party adversely affected must be filed within 20 days of the mailing date hereof with the Executive Secretary, Minnesota Public Utilities Commission, 160 East

Kellogg Boulevard, St. Paul, Minnesota 55101. Exceptions must be specific and stated and numbered separately. Proposed Findings of Fact, Conclusions and Order should be included, and copies thereof shall be served upon all parties. If desired, a reply to exceptions may be filed and served within ten days after the service of the exceptions to which reply is made. Oral argument before a majority of the Commission will be permitted to all parties adversely affected by the Administrative Law Judge's recommendation who request such argument. Such request must accompany the filed exceptions or reply, and an original and 11 copies of each document should be filed with the Commission.

The Minnesota Public Utilities Commission will make the final determination of the matter after the expiration of the period for filing exceptions as set forth above, or after oral argument, if such is requested and had in the matter.

Further notice is hereby given that the Commission may, at its own discretion, accept or reject the Administrative Law Judge's recommendation and that said recommendation has no legal effect unless expressly adopted by the Commission as its final order.

STATEMENT OF ISSUES

Whether Interstate Power Company should be permitted to increase its rates for retail sales of electricity in Minnesota by \$7,979,327.00 in annual revenues, which it requested, or by some lesser amount, or not at all? If so, what should the amount be and how should it be apportioned among various classes of ratepayers?

Based upon all of the proceedings herein, the Judge makes the following:

FINDINGS OF FACT

I. INTRODUCTION

A. Procedural Background

1. On August 15, 1991, Interstate Power Company filed with the Minnesota Public Utilities Commission (hereinafter also referred to as the "Commission") a Notice pursuant to Minn. Stat. 216B.16, Subd. 1 (1990), seeking authority to increase its Minnesota intrastate retail electric rates so as to provide an annual jurisdictional revenue increase of \$7,979,327.00 or 21.3%.

2. Interstate also filed with the Commission a Petition for Interim Rates to be made effective in two steps: \$3,716,195.00 or 9.9%, was to be effective on October 14, 1991, and \$7,459,053.00 or 19.9% was to be effective

on May 1, 1992.

3. By Order dated September 25, 1991, the Commission pursuant to Minn. Stat. 216B.16, Subd. 2 (1990) accepted Interstate's filing for a general rate increase, suspended the proposed rates, and initiated an investigation to determine the reasonableness of the proposed rates.

4. On September 25, 1991, the Commission issued a Notice of and Order for Hearing directing that a contested case proceeding pursuant to the

Administrative Procedure Act Minn. Stat. 14.57 - 15.62 (1990), be held on the reasonableness of the rate changes proposed by Interstate.

5. On October 11, 1991, the Commission issued an Order pursuant to Minn. Stat. 216B.16, Subd. 3 (1990), authorizing Interstate to collect \$4,234,000.00 or 11.31 in additional annual revenues as interim rates for service to be rendered on and after October 14, 1991. Interim rates are presently being collected subject to refund of any revenues collected in excess of the final rates determined by the Commission.

6. Petitions to intervene in this proceeding were filed pursuant to Minn. Rules Pt. 1400.6200 (1991). The following were made parties to this proceeding: The Minnesota Department of Public Service and the Office of the Minnesota Attorney General.

7. On October 25, 1991, a prehearing telephone conference was held before the undersigned Administrative Law Judge in which all parties participated.

8. On November 19, 1991, the undersigned issued a Prehearing Order establishing the hearing schedule and procedural guidelines governing the conduct of the case.

B. Public Hearings.

9. Public hearings designed for the purpose of receiving comments and questions from electric service customers of Interstate Power Company were held as follows:

| | | | | | |
|-------------|------|------|------|--------------|-------|
| January 13, | 1992 | 1:30 | p.m. | Stewartville | (3/3) |
| January 13, | 1992 | 7:00 | p.m. | Albert Lea | (3/1) |
| January 14, | 1992 | 1:30 | p.m. | Fulda | (211) |
| January 14, | 1992 | 7:00 | p.m. | LeCenter | (0/0) |

The numbers in parenthesis indicate the number of attendees/speakers in each locale.

10. Interstate customers who participated in the public hearings stated essentially the following comments to the proposed rate increase:

Interstate serves a predominately agricultural area in Minnesota and should not be allowed such a large increase in its rates to its customers, many of whom are suffering economically from the economic crisis in the farming industry and because of the current nation-wide recession. Annual increases would be preferable.

Many of Interstate's Minnesota customers are elderly and receive fixed retirement income and claim economic hardship and difficulty in or ability to pay large increases in rates.

11. The undersigned received 27 letters from electric service customers of Interstate expressing concerns substantially similar to the comments received at the public hearings, particularly that the amount of the increase 21.3% was far above inflation, and for that reason excessive.

12. Not all commentators were opposed to the increase in rates. One commentator at the Stewartville public hearing stated that Interstate was a "fine utility" company that "deserved" an increase in rates.

C. Interstate Power Company.

13. Interstate Power Company is an investor-owned combination electric and gas utility engaged in the generation, transmission and distribution of electric energy in a 10,000 square mile service area in northeast and north central Iowa, southern Minnesota, and northwestern Illinois. In these locations the Company serves over 234 communities and 155,000 retail electric customer. In the Minnesota service area, Interstate provides electric service to 38,000 customers. The largest community served in Minnesota is Albert Lea, with a population of about 19,000. For the year ending December 31, 1990, Interstate derived approximately 16.3% of its total revenue received from electric sales from Minnesota customers.

D. Revenue Requirements And_Burden of Proof

14. A major issue in this rate proceeding is what level of revenue is required by Interstate for the provision of electrical service in Minnesota. A utility's revenue requirement is the level of revenues necessary for delivery of efficient, adequate and economical service that at the same time maintains or preserves a utility's sources of capital. Whether a utility's revenues are adequate is determined by closely examining a utility's operating experience during a test period having representative levels of revenues, expenses, rate base and capital structure. As a utility seeking a rate change Interstate has the burden of establishing that its revenue collections during the test period are inadequate to maintain efficient delivery of service and inadequate to preserve Interstate's sources of capital. Minn. Stat. 216B.16, Subd. 4 (1990). The Minnesota Court of Appeals and Supreme Court have addressed the appropriate quantum of proof needed to establish the reasonableness of a proposed rate change. In the case of *In Re_Northern States Power Co.* 402 N.W.2d 135 (Minn. App. 1987), the Court of Appeals stated:

We find . . . that the appropriate quantum of proof needed to establish the reasonableness of a proposed rate change is the same as in any other civil case - a fair preponderance of the evidence.

On review by the Supreme Court, the determination on burden of proof by the Court of Appeals was affirmed. *In re: Northern States Power Co.*, 416 N.W.2d 719 (Minn. 1987).

E. Test Year.

15. Interstate has proposed January 1, 1990-December 31, 1990 as the Test Year to be used as the basis for determining its revenue requirements for providing retail electric distribution services within the state of Minnesota. The Company has used historical data for the Test Year and has

made adjustments for known and measurable changes. Minn. Rules Pt.
7825.3100,

Subp. 17, suggests that any 12-month period "selected by the utility" can be used. The Company's proposed Test Year is found to be reasonable.

16. The parties to this rate making proceeding are in agreement on most of the Test Year Rate Base, Capital Structure and Operating Income Statement

issues. The Findings and Conclusions herein primarily address issues that continue to be contested by the parties.

II. TEST YEAR OPERATING INCOME STATEMENT

A. Operating Revenues

17. The appropriate Test Year operating revenues for Interstate is \$37,395,751.00.

B. Operating Expenses

1. Long Term Capacity-Purchase;

18. Interstate proposes to increase rates by approximately \$8,000,000.00 or 21%. A major basis for this requested increase in rates are the costs associated with the purchase of three long-term capacity contracts. If Interstate had not entered into the three capacity contracts it is questionable as to whether this rate case would have been filed.

19. In August, 1991, the month that this rate case was filed, Interstate entered into three long-term purchase power contracts with Iowa Public Service ("IPS"), United Power Association ("UPA") and Minnesota Power ("MP") for the purchase of a total of 230 increasing to 255 megawatt of participation power. The contracts will be effective from May 1, 1992, until April 30, 2001. The total annual demand costs for the first 12 months of these contracts exceeds \$23,000,000.00. Interstate has allocated \$4,018,666.00 as the Minnesota jurisdictional portion of the annual contract costs and has included this amount as a Test Year operating expense for production of electricity.

20. The expenses associated with these purchase power contracts are included as pro forma adjustments to Interstate's 1990 Test Year as follows:

| Seller | Amount | Test Year Expense |
|--------|--------|-------------------|
| IPS | 100 mw | \$1,958,117.00 |
| UPA | 100 mw | \$1,833,394.00 |
| MP | 30 MW | \$ 227,155.00 |

a. interstate's Load Forecasts

21. The impetus for the long-term capacity purchases was Interstate's load forecast\$ is the summation of a Base Load forecast and a forecast for Large Industrial Load. The load forecast the Large Industrial Load is forecast by examining eight large industrial accounts which represent approximately 20% of Interstate's total system demand. The Company analyzes each of these eight customers separately in developing its Large Industrial forecast. In preparing its Base Load forecast, the Company separately models energy and peak demand using four principal variables: Service area economic activity (household income); the price of electricity; the number of residential customers; and weather.

22. Interstate used household income as a measure of service area economic activity and included this variable in its forecast of peak demand. However, it is found that household income does not have a stable predictable relationship with customer peak demand.

23. Interstate's long-term forecast of peak demand uses a model that contains more explanatory variables than Interstate's data base will support.

24. Interstate's air conditioning market penetration forecasts assumes that central and window air conditioning units will reach their level of highest utilization during the first year of the forecast period and will remain constant over time. Interstate's assumption regarding air conditioning market penetration is unreasonable.

25. The effect of Interstate's inappropriate assumption regarding market penetration of air conditioning units is to overestimate its peak demand in the near term.

26. As a result of Findings 21 through 27 Interstate's 1991 forecasts of customer peak demand (long term) is flawed and unreliable.

27. DPS witness, Dr. Plorin, prepared an independent forecast of Interstate's long-term peak demand which repairs or eliminates the problems contained in Interstate's forecast. Dr. Plorin's estimate of long-term peak demand has been subjected to a number of tests to determine its forecast accuracy. Various measures of predictability show that Dr. Plorin's model is more accurate than Interstate's for forecasting Interstate's peak demand for the subject period.

b. interstate's Need for Additional Capacity

28. The long-term capacity contracts will provide an additional 230 MW capacity beginning in 1992, increasing to 255 MW by 1994 and continuing through the summer of the year 2000. However, according to Interstate's own forecast of peak demand, the Company will not have a need for this total amount of capacity until the year 1996. Without the contracts, Interstate's forecast for 1992 indicates a deficit of 101 MW; in 1993 a deficit of 125 MW; in 1994 a deficit of 146 MW; in 1995 a deficit of 184 MW; and in 1996 a deficit of 223 MW. Interstate knew at the time it entered into the long-term purchase contracts that the additional power would place it in a surplus or excess capacity situation in the near term of the contract, including the years 1992, 1993, 1994, 1995 and 1996.

29. MAPP requires a 15% capacity reserved margin for its participating members. Fifteen percent is the appropriate capacity reserve margin for Interstate.

30. Using Dr. Plorin's forecast (which is found to be the most accurate in the record) the capacity contracts would provide sufficient capacity through the year 2000. The level of excess capacity from 1992-1994 will exceed 30%. According to Dr. Plorin's forecast, removal of 100 MW capacity

will not have an adverse impact on the capacity situation of Interstate until the year 1997.

31. The IPS contract providing 100 MW is not needed and should be excluded from the cost of service.

c. Prudence of the Capacity Purchases

32. An analysis of Interstate's load forecast from 1988 to 1991 shows that long-range forecasts decline from 1988 to 1989 and again from 1989 to 1990. The 1990 to 1992 forecast represents a sizable increase over the

previous years. The percent change in Interstate's load forecast is indicated on the following table prepared by DPS witness, Dr. Gordon G. Plorin, Jr.

TABLE 2: Percentage change in Interstate's Forecasts

| Forecast for '90 Forecast to the year '91 Forecast. | Percentage Change From: | |
|--|---------------------------------|---------------------------------|
| | '88 Forecast to '89 Forecast | '89 Forecast to '90 Forecast |
| 1989 | 4.36% | |
| 1990 | 3.79% | -0.78% |
| 1991 | 4.03% | - |
| 2.26% | 7.48% | |
| 1992 | 3.49% | - |
| 2.95% | 8.70% | |
| 1993 | 2.99% | - |
| 3.62% | 9.67% | |
| 1994 | 2.50% | - |
| 4.37% | 10.30% | |
| 1995 | 2.14% | - |
| 4.28% | 11.55% | |
| 1996 | 1.49% | - |
| 3.82% | 12.51% | |
| 1997 | 0.00% | - |
| 2.90% | 13.52% | |
| 1998 | -1.32% | - |
| 2.86% | 15.60% | |
| 1999 | -2.39% | - |
| 3.01% | 17.94% | |
| 2000 | -3.32% | - |
| 3.15% | 18.87% | |
| 2001 | -4.21% | -3.11% |
| 19.28% | | |
| 2002 | -4.82% | - |
| 3.07% | 19.57% | |
| 2003 | | - |
| 2.86% | 20.04% | |
| 2004 | | |
| | 20.95% | |

33. Comparing the 1989 forecast with the 1988 forecast, the Company's short-term (one year) capacity obligations increased by 4.36% while the long-term (ten year) forecast decreased by 1.32%. Comparing the 1990 forecast with the 1989 forecast the one-year forecast decreased by 0.78% and the ten-year forecast decreased by 3.01%.

PERCENT CHANGE FROM:

| 90 Forecast to '91 Forecast | 88 Forecast to)19 Forecast | 89 Forecast to '90 Forecast |
|--------------------------------|--------------------------------|--------------------------------|
| Short Term (1 year) 0.78% | 4.36% 7.48% | - |
| Long Term (10 years) 3.01% | - 1.32% 18.87% | - |

34. In early 1990, Interstate evaluated its capacity position and determined that it had a long-term capacity deficit in the year 2000 of 162 MW based on the 1990 forecast, the 1990 forecast which was lower than the 1989 forecast in both the short run (1991) and the long run (2000). However, the Company's 1991 load forecast showed a capacity deficit of 111 MW in 1992 growing to a deficit of 405 MW in the summer of 2000.

35. Interstate did not re-evaluate its forecasting techniques and therefore failed to reasonably assess the accuracy of its load forecast.

36. Interstate's 1991 forecast increased by nearly 20% in the long term after two years of declining long-term growth. Interstate was planning on

making large power purchases. Had the 1990 forecast been accurate, Interstate would have been considering a 162-181 MW deficit in the year 2000 instead of a 378 MW deficit. Under the circumstances a rerun of the 1990 forecast method based upon updated actual load data would have been appropriate. Interstate provided no evidence that it took any such precautions.

37. The very large increases contained in the Company's 1991 load forecast should have triggered a more careful re-examination of the 1991 load forecast, particularly since the Company had been put on notice in its previous rate case before the Commission that its load forecast would be "carefully scrutinized in future rate cases". In the Matter_of Interstate Power Company, PUC Docket No. E-001/GR-86-384 (May 1, 1987) at 8.

38. On or about the time that Interstate entered into the long-term capacity purchase contracts it knew, or should have known, that its 1991 forecast of long-term customer peak demand was flawed and unreliable.

39. Interstate has failed to prove by a preponderance of the evidence that it was necessary for it to make the one-time large capacity purchases beginning in 1992.

40. Interstate also failed to prove by a preponderance of the evidence that 1991 was the last year to make a deal purchasing as much power as would be needed according to its forecast through the summer of 1996.

DISCUSSION

A utility has the burden of proving that a rate change is just and reasonable. Interstate has failed to prove by a preponderance of the evidence that it acted reasonably on the basis of reliable forecasts.

Interstate has made no effort to respond to the criticisms of its peak demand forecast by DPS witness Dr. Plorin. The Company has taken the position that Dr. Plorin's criticisms are irrelevant to this proceeding in part because Dr. Plorin's forecasts have the benefit of hindsight. On the contrary, because Interstate has the burden of proof it must meet challenges to its affirmative evidence such as that presented by DPS witness Dr. Plorin. As the record now stands, Dr. Plorin's criticisms regarding air conditioner penetration, use of too many variables and use of a non-correlated variable stand uncontested. An accurate, reliable forecast is important because it is the first step in developing a "least cost" plan. The purchase power evaluation by Stone and Webster relied on by Interstate as further

confirmation that the three long-term purchase contracts are the "least cost" plan does not evaluate Interstate's peak demand forecast. As such the Stone and Webster report is irrelevant and unhelpful to Interstate as affirmative evidence on the forecast issue.

Excess Capacits

The purchase power contracts will result in excess capacity for Interstate during the near term. The Administrative Law Judge recognizes that utilities should not be expected to exactly match reserve margin requirements. However, that is not the issue in this proceeding. During the early years of the long-term contracts, Interstate will have capacity well in

excess of its capacity reserve margins. Ironically, Interstate will have capacity for sale as a result of the purchases.

Interstate asserts that the upper limit on capacity should be a 25% reserve margin instead of the 15% reserve margin required of MAPP members relying on Minnesota Power E-015/GR-87-223. However, the 25% reserve margin in that case arises from a very different fact situation. There the excess capacity existed not because the utility purchased more power than there was

a

forecast need for, but because of a down turn in the taconite industry which left previously useful plants idle. The Commission has stated that the 25% reserve margin used in the Minnesota Power decision is limited to that case. Id. at 17

Prudence of thy Company's Actions

Whether or not Interstate acted prudently when it entered into the three long-term purchase contracts must be ascertained from the information the Company had before it at the time of decision-making. A determination regarding the utility's "prudence" must be based on "contemporaneous documentation". Re: Gulf State Utilities Company, 87 PUR 4th 428 (1986); the

Pennsylvania Public Utility Commission has held that "prudence is that standard of care which a reasonable person would be expected to exercise under

the same circumstances encountered by utility management at the time the decision had to be made". Pennsylvania Public Utilities Commission v. Pennsylvania Power Company, 85 PUR 4th 323. At the time the long-term purchase contract decisions were made Interstate was aware of the following:

Interstate recognized that it must act on reliable forecasts, this point was emphasized to Interstate in its last rate case proceeding before the Minnesota Public Utilities Commission.

Interstate had before it a 1991 forecast that was enormously different from its previous two-years forecasts, the magnitude of the change should have alerted closer examination of the accuracy of its 1991 forecast.

Because Interstate must act on reliable forecasts the flaws in the forecasts must be imputed to Interstate's management. For example management knew or should have known about the air conditioner penetration error, the use of unreliable and uncorrelated variables in its model for predicting peak demand.

Under these circumstances the Administrative Law Judge does not believe that Interstate acted prudently in purchasing the long-term purchase power contracts. It is also useful to evaluate the reasonableness of management's decisionmaking by juxtaposing the care and detail the Company took to justify the purchase power contracts (Stone & Webster consultation for example) as compared to the care it took with respect to its load forecasts.

2. Administrative and General Operating Expenses

a. Local Organizational Dues

41. Interstate proposes to include \$7,786.00 in Test Year expenses for memberships and contributions to local civic promotional organizations that operate in the communities served by Interstate.

42. Under Minn. Stat. 216B.16, Subd. 13, the Commission has the discretion to allow these expenses if they are incurred for "economic and community development" regardless of whether the expenses are related to the provision of electrical services or provide an identifiable economic benefit to ratepayers.

43. The Commission's policy regarding these contributions and dues as expressed in Interstate's previous rate case is to exclude these expenses unless it is shown that the memberships and associations with the organizations are related to providing electrical service and/or provide benefits to ratepayers. Interstate Power Co., Docket No. E-1001/GR-86-384.

44. Because Interstate has failed to affirmatively show a relationship to providing electrical service the expenses will be excluded from Test Year Expenses.

DISCUSSION

Interstate has proposed to include \$7,786.00 in Test Year expenses for costs associated with contributions or dues for commercial, business, community, civic-booster and development organizations that operate within Minnesota cities and towns served by Interstate. The DPS has proposed that the Commission disallow \$6,402.00 from Test Year expenses for contributions/dues to these organizations because Interstate's association with these groups is unrelated to providing electrical service and will not benefit ratepayers. The Department has also recommended disallowance of \$1,384.00 in expenses for dues paid to organizations that lobby, which include the Minnesota Chamber of Commerce, Minnesota Tax Payers Association, National Association of Manufacturers, and the United States Chamber of Commerce.

In response, Interstate has asserted that local organizations are often a catalyst to economic development. Economic development would benefit ratepayers by increasing employment opportunities and opportunities for higher load factor customers. Higher load factor industrial and commercial customers would make the system more efficiently utilized and help hold down the costs of electric service.

Interstate also asserts that the main goal of lobbying organizations is to create a more favorable business climate and approval by the Commission will show the Commission's concern for the business community in Minnesota. The Department, on the other hand, asserts that these organizations are major lobbying organizations with activities focused on activities other than supplying energy and service to a customer.

In the past the Commission has required that membership dues or

contributions to commercial, civic, booster and business development organizations would be eligible for reimbursement if the utility demonstrated that the contribution or membership dues are related to the provision of electrical service and ultimately benefits ratepayers. For example, in Interstate's previous electric rate case, the Commission disallowed membership

dues because Interstate failed to demonstrate that "the disputed corporate and individual membership dues are necessary to provide or improve electrical service". Interstate Power Company, Docket No. E-001/GR-86-384. However, with the passage of Minn. Stat. 216B.16, Subd. 13, the Commission is authorized to allow recovery of expenses incurred for economic and community development regardless of any accompanying improvement or relationship to the provision of utility service. Minn. Stat. 216B.16 (13) (Supp. 1991), provides in part as follows:

The Commission may allow a public utility to recover from ratepayers the expenses incurred for economic and community development.

Thus, it is irrelevant whether any of these expenses are directly related to providing electrical service, or whether it can be shown that these expenses confer a benefit upon ratepayers. Rather, the question is whether the expense is related to community or economic development. If it is, then the Commission has the discretion to decide whether or not such expenses will be recovered in rates.

Because the Commission's past practice has been to exclude these expenses, they have been excluded by the Administrative Law Judge.

b. Nuclear-Related Research Expenses

45. Interstate seeks to recover in this rate case \$194,122.00 in Test Year expenses for its expenditures on research done by the Electric Power Research Institute (EPRI). For the year 1992, 18% of EPRI's program budget is related to its Nuclear Power Division.

46. Interstate has no nuclear power generating facilities and has no plans for utilizing nuclear power for generating electricity in the foreseeable future.

47. Interstate ratepayers will not directly benefit from EPRI's nuclear power research.

48. It is appropriate to exclude 18% of EPRI expenditures by Interstate or \$34,942.00 from Test Year expenditures.

DISCUSSION

Interstate has included \$194,122.00 as Test Year expenses for dues in the Electric Power Research Institute ("EPRI"). The DPS has proposed to disallow \$34,942.00 of the Test Year EPRI dues that are associated with nuclear power research. The Department asserts that Interstate's ratepayers receive no direct benefits from research on nuclear power because Interstate owns no nuclear generation facilities, has not considered and is not planning to construct any such nuclear generation facilities. The Department explained that this recommended disallowance was consistent with previous Commission decisions on this issue. In Interstate's last electric rate case the Commission stated as follows:

The Commission finds that any potential benefit to Interstate ratepayers of nuclear research is uncertain at best. Interstate's system does not include any nuclear generating units, and no such additions are planned. The

Commission concludes that Interstate has not shown that nuclear research conducted EPRI will benefit its ratepayers.

Interstate conceded that it does not own any nuclear generating facilities but asserted that it purchases low cost nuclear energy which has directly benefited ratepayers by cost savings. Interstate asserts that this policy (disallowance of percentage of EPRI dues associated with nuclear research) discourages utilities from funding research that could be beneficial to the industry.

The Administrative Law Judge concludes that Interstate has failed to show direct benefits to ratepayers and has failed to articulate other reasons that persuade the Judge that it is appropriate to include the EPRI dues related to nuclear research.

c . Conservation Improvement Plan Related Expenses

49. On March 9, 1992, the Commissioner of the Department of Public Service issued an Order establishing Interstate's Conservation Improvement Plan budget for 1992 at \$430,179.00.

50. Actual expenditures for CIP programs through October 31, 1991 total \$66,712.00. If there is no interim rate refund, one-third of the tracker balance should be included as Test Year expenses (\$22,237.00).

51. The parties have agreed that the appropriate level of Conservation Improvement Plan (CIP) related costs to include in Test Year Expenses is \$22,237.00 from the deferred tracker balance and \$430,179.00 for current conservation expenses.

d. Rate Case Expenses

52. A portion of the Test Year rate case expenses included by Interstate arise from the Company's unsuccessful court appeal of the Commission's Order in its last rate case. The Department has proposed an adjustment to rate case expenses that excludes \$35,796.00, the amount attributed to the court appeal. Interstate does not object to this exclusion.

53. It is appropriate to exclude \$35,796.00 from Test Year expenses so as to remove the costs of the court appeal.

54. Based upon the previous Findings of Fact regarding the Company's operating income and expenses, including those items not contested by the parties, the appropriate net operating income for the test year is \$4,301,232.00 calculated as follows:

INTERSTATE POWER COMPANY
 OPERATING INCOME SUMMARY - MINNESOTA ELECTRIC JURISDICTION
 TEST YEAR ENDING DECEMBER 31, 1990

| Line No. | Description | |
|--------------|-------------------------------------|----|
| | OPERATING REVENUES | |
| I | Sales of Electricity | |
| \$36,668,744 | | |
| 2 | Other Operating Revenues | |
| 727,007 | | |
| 3 | Total Operating Revenues | |
| \$37,395,751 | | |
| | OPERATING EXPENSES | |
| 4 | Production | |
| \$15,078,141 | | |
| 5 | Transmission | |
| 710,799 | | |
| 6 | Distribution | |
| 3,056,916 | | |
| 7 | Customer Accounts | |
| 1,106,066 | | |
| 8 | Customer Services | |
| 155,438 | | |
| 9 | Administrative & General | |
| 3,955,573 | | |
| 10 | Total Operating Expenses Before D&T | |
| \$24,062,933 | | |
| 11 | Depreciation and Amortization | |
| | \$4,871,480 | |
| 12 | Taxes Other Than Income | |
| \$3,309,873 | | |
| 13 | Federal and State Income Taxes | |
| 805,233 | | |
| 14 | Total Taxes | |
| \$4,160,106 | | |
| 15 | TOTAL Operating Expenses | |
| \$33,094,519 | | |
| 16 | NET OPERATING INCOME | \$ |
| 4,301,232 | | |

Ill. Rate Base

55. A utility's rate base is the measure of the capital of the utility which has been furnished by investors and is used to provide facilities for the delivery of utility service. Northwestern Bell Telephone Co, v. State, 253 N.W.2d 815, 818 (Minn. 1977).

56. The Company is entitled to an opportunity to earn the prescribed rate of return on its entire rate base.

57. The Company proposed a 1990 Test Year Jurisdictional electric rate base (average) of \$79,131,675.00. There are two rate base issues being contested by the parties: Whether unamortized rate case expenses and the unamortized balance of the CIP tracker account should be included in the rate base .

58. The Company proposes that the unamortized balance of rate case expenses of \$443,296.00 be added to the rate base.

59. Because ratepayers and shareholders equally benefit from rate change proceedings, shareholders should not also receive the benefit of rate base treatment of rate cases expenses.

60. It is inappropriate to include the unamortized rate case expenses as a part of the rate base.

61. Interstate proposes that the balance of the CIP expenditure in the CIP Tracker account as of October 31, 1991, \$66,712.00, be amortized over a three-year period at \$22,237.00 per year and that the unamortized average balance of \$33,356.00 be added to the rate base.

62. The CIP Tracker account is traditionally zeroed out at the time of a rate case using interim rate refunds. Because there will be no interim rate refunds in this rate proceeding, another method of zeroing out the CIP account must be implemented.

63. It is not appropriate to include the unamortized balance of the CIP Tracker account in the rate base.

DISCUSSION

Interstate proposes that its rate case expenses be recovered over a period of three years with the unamortized balance included in the rate base. Interstate asserts that the unamortized balance should be included in the rate base so that shareholders "do not lose the time value of money" and be placed on equal footing with ratepayers. Both ratepayers and shareholders obtain a benefit from rate case proceedings. The purpose of rate of return regulation is to determine a revenue requirement that both (a) preserves or maintains sources of capital for the utility and (b) provides adequate, reliable and efficient service at economic rates. Shareholders benefit because the company receives an opportunity to earn a return competitive with other investments with comparable risks. Because both shareholders and ratepayers share in the benefits, shareholders should not also receive rate base treatment of rate case expenses.

Because funds in the Tracker account have already accumulated and allowed return, the unamortized balance should not be put in rate base. A three-year amortization with no rate base treatment of the unamortized balance provides a reasonable estimate of cost recovery based on the probability of a rate case being filed in the future.

64. Based upon the previous findings relative to rate base, and based

upon the record regarding the remaining components that are uncontested, the appropriate average test year jurisdictional rate base for use in this proceeding is \$78,793.921.00 calculated as follows:

INTERSTATE POWER COMPANY
RATE BASE SUMMARY
MINNESOTA ELECTRIC JURISDICTION
TEST YEAR ENDING DECEMBER 31, 1990

| Line_No. | Rate Base Components | Test Year 1990 |
|----------|--|----------------|
| 1 | Utility Plant in Service | \$137,635,981 |
| 2 | Less: Accumulated Depreciation and Amortization | \$54,435,044 |
| 3 | Net Utility Plant in Service | \$84,200,937 |

| OTHER COMPONENTS | | |
|------------------|--|---|
| 4 | Customer Advances for Construction | 0 |
| 5 | Retirement Work in Progress | |
| 49,418 | | |
| 6 | Acquisition Adjustment (Net) | |
| 377,008 | | |
| 7 | Accumulated Deferred Income Taxes | |
| (7,161,321) | | |
| 8 | Unamortized Balance - Rate Case Expenses | 0 |
| 9 | Customer Security Deposits | |
| (103,872) | | |
| 10 | Working Capital | |
| 2,431,751 | | |
| 11 | TOTAL AVERAGE RATE BASE | |
| \$78,793,921 | | |

IV. Capital Structure-and Rate,of Return

A. Capital Structure

65. Capital structure is a financial concept which represents the sources of capital to a company. The major sources of capital are debt and equity. Conceptually, the inquiry is to determine what balance of these capital sources is appropriate for rate making purposes as being in the best interest of both the company and its ratepayers. United Telephone Co., P-430/GR-83-599, or after reconsideration, September 6, 1984; Northern States Power Co, Docket No. E-002/GR-87-670, August 23, 1988, pages 38-39.

66. The capital structure proposed by Interstate was not opposed by any party. The following arrangement of capital sources is the appropriate capital structure to be used for this proceeding.

INTERSTATE POWER COMPANY CAPITAL STRUCTURE

| Class of Capital | Amount | Percent of Total |
|------------------|------------------|------------------|
| Short-term debt | \$ 20,800,000.00 | 4.768% |
| Long-term debt | 190,876,030.00 | 43.756% |
| Preferred Stock | 38,603,900.00 | 8.849% |
| Common Equity | 185,952,978.00 | 42.627% |

5. Cost of long-term Debt-and-Preferred Stock

67. The cost of long-term debt is 7.907%. The cost of preferred stock is 8.849%. No parties disputes that these are the appropriate costs for long-term debt and preferred stock.

C. Cost of Common Equity

68. The only rate of return issue being contested by the parties is the cost of common equity. Interstate's rate of return witness, Mr. Robert S. Jackson, has recommended that the cost rate of common equity capital for Interstate is 12.9%. DPS witness, Dr. Eilon Amit, concluded based on his study that the cost of common equity capital to Interstate was 10.52%. OAG

witness, Dr. Richard M. McIntire, based on his studies, concluded that the cost of equity capital to Interstate is 10.9%.

69. The cost of common equity is the return investors require on an investment in the common stock in a company, not what return the company will probably earn or actually earn. Estimating the cost of common equity requires professional judgment and cannot be done mechanically. This estimating process requires applying acceptable financial evaluation methods and taking

into account the circumstances of the company, industry and capital market conditions.

70. The market price of a share of common stock depends on three factors: (a) the dividend per share, (b) the anticipated rate of future dividends granted, and (c) the investor's required rate of return on investment.

71. The cost of common equity for a company whose stock is actively traded is best estimated from available stock market data. The Discounted Cash Flow (DCF) method is a market-oriented opportunity cost approach which views the relationship between the cost of equity, investors' income expectations and market price in a theoretically sound and systematic manner. The DCF method is the appropriate method for estimating the cost of equity in this rate making proceeding. The DCF method is widely accepted in modern financial literature as an appropriate method for determining a utility's required return on equity. It has been accepted by the Minnesota Public Utilities Commission as the most reliable method of calculating return on equity. Northern Statea Power Company, Docket Nos. G-002/GR-86-160; G-002/M-86-165 (1987); Continental Telephone Co., Docket No. P-407/GR-83-294 (1984).

72. The theoretical foundation for the DCF method is that shareholders derive their required return from an investment in two forms: yearly dividend and growth in dividends. The DCF methods estimates the cost of common equity by combining an appropriate dividend yield with the future growth rate expected by investors.

73. Because Interstate has common equity stock which is actively traded on the public markets, the DCF method of analysis estimating the cost of common equity by combining an appropriate dividend yield with a future growth rate expected by investors is appropriate. Since Interstate's common equity stock is traded in the market, its price, dividends and past performance are directly observable. Primary weight must be given to a direct DCF analysis of Interstate.

74. It is also appropriate to apply the DCF analysis to comparable companies with similar risks. Dr. McIntire performed a DCF analysis directly on Interstate and upon comparable companies to check the suitability of his DCF findings for Interstate. Dr. Amit performed a DCF analysis on Interstate and on a group of combination gas-and-electric utilities, and a group of electric utilities. The comparable groups selected by Dr. McIntire and Dr. Amit have market risks similar to that of Interstate.

75. The dividend yield is the dividend rate divided by the stock price. The major inquiry in the dividend yield analysis is the selection of an appropriate yield period. The selection of the appropriate dividend yield period is one of judgment but should be sufficiently long to average out temporary market aberrations and reasonably reflect the period of time during which the new rates will be in effect.

76. The Commission has consistently found a 12-month period to be an appropriate time parameter for determining dividend yield. The use of a 12-month period is sufficiently long to average out temporary market aberrations. See for example Midwest Gas Co., Docket No. G-010/GR-90-678; Northern States Power Co., Docket No. E-002/GR-87-670; Central Telephone Co., Docket No. P-405/GR-83-300; United-Telephone CD., Docket No. P-430-/GR-83-599.

77. The appropriate test year dividend yield for Interstate is 7.4%.

78. The growth rate component of the DCF formula is the rate at which prospective investors expect dividends to grow at least through the period of their investment. In computing the growth rate component of the DCF formula, at least three growth rates have historically been considered relevant: (a) the growth rate of book value per share; (b) the growth rate of dividends per share; and (c) the growth rate of earnings per share. Because five and ten-year growth rates are used with regularity in the financial community, a consideration of historical five and ten-year growth rates and the growth factor selected for measurement is appropriate. Applying these measures it is found that the appropriate growth rate for estimating the cost of equity is 3.5%.

79. Combining the dividend yield of 7.4% with the investor expected growth rate of 3.5% produces a 10.9% cost of equity for Interstate. The appropriate estimation of the cost of equity for Interstate is 10.9%.

DISCUSSION

Determining the allowable rate of return on common equity for Interstate is the most judgmental portion of the entire rate making process. The Court in *Northwestern Bell Telephone Co., vs. State*, 229 Minn. 1, 216 N.W.2d 841, 857 (1974), recognized that:

the fixing of a fair rate of return cannot be determined with precision since it is not derived from a formula, but must be reached through the exercise of a reasonable judgment.

The witnesses who testified with respect to rate of return have also recognized that the determination of the cost of common equity is one calling for the exercise of reasonable judgment rather than the mechanical application of formulae.

The legal standards governing the exercise of such reasonable judgment have been the subject of two decision by the United States Supreme Court. *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944); *Bluefield Waterworks and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923). The standards enunciated by the United States Supreme Court in both *Hope Natural Gas Co.*, supra, and *Bluefield*, supra, have been adopted by the Minnesota Courts. See for example, *Hibbing Taconite Co. v. Minnesota Public Service Commission* 302 N.W.2d 5, 10 (Minn. 1980). The general principles governing the determination of a reasonable rate of return on equity for a public utility as derived from *Hope*, supra, and *Bluefield*, supra, include the concepts that the allowed rate of return must be comparable to that earned on investments in business undertakings which are unregulated but are attended by a similar risk; the return must be sufficient to enable the utility to maintain its financial integrity; and the return should be sufficient to attract new capital on reasonable terms.

The Commission in determining a fair rate of return in equity may balance

consumer and investor interests. Permian Basin Area Rate Cases , 390 U.S. 747, 791 (1968). The Commission may not, however, consistent with due process, allow less than a reasonable rate of return on common equity in order to accommodate consumer interests. Bluefield, *supra*, at 690; Hibbing Taconite,

supra, at 10. Moreover, finding a fair rate of return on common equity is a judicial, rather than a quasi-legislative determination. Minnesota Power_and Light Co. v. Public Service Commission, 310 N.W.2d 686 (Minn. 1981).

After careful review and study of the DCF analysis performed by the rate of return witnesses, the Administrative Law Judge has concluded that the DCF study done by Dr. McIntire more consistently reflects the Commission's policy regarding DCF analysis. Dr. McIntire confirms his DCF finding of 10.9% for Interstate by performing a DCF analysis upon his set of comparable companies.

The record contains substantial evidence in support of 10.9% as the appropriate estimate of the cost of equity for Interstate. In addition to the DCF analysis performed by Dr. McIntire, Dr. Amit performed a DCF analysis on two groups of comparable companies, recommending a 10.52% cost of common equity. This recommendation suggests that the 10.9% recommended by Dr. McIntire is not unreasonably low. Dr. Amit's DCF analysis is reasonable in all respects except for the upward adjustment for stock issuances regardless of whether they will occur. The two comparable groups, electric and gas-electric combination companies, were reasonably selected and the Administrative Law Judge has found that the comparable companies have risks similar to Interstate. Although the period selected by Dr. Amit for calculation of dividend yield is inconsistent with prior Commission policy, Dr. Amit demonstrated why the Commission should rethink that policy, particularly on the facts of this case. This record showed, among other things, numerous declines in the discount rate and a consistent annual decline in Interstate's dividend yield. On any given day an efficient market captures this historical information as a part of the current dividend yield. Dr. Amit's selected a growth rate component for the DCF method by making extrapolations from past trends in earnings per share, dividends per share and book value per share. This analysis is consistent with previous Commission decisions determining the growth rate component for the DCF method. Dr. Amit confirmed his DCF analysis on Interstate by using the Capital Asset Pricing Method (CAPM) as a check on his DCF analysis. Because the CAPM method indicated a required rate of return of 10.35%, the CAPM analysis supports Dr. Amit's DCF recommendation of 10.52%.

Mr. Jackson's recommendation of 12.9% as the cost of common equity for Interstate is based on a number of methods applied to estimate the cost of common equity. Those methods include the following: a comparable earnings analysis, a DCF analysis and a modified DCF analysis, an Internal Rate of Return Analysis, and a Payout Ratio Analysis. These analyses were applied to a group of 13 combination gas-electric utilities judged by Mr. Jackson to be risk comparable to Interstate. The Administrative Law Judge does not find that Mr. Jackson's recommendation as to the cost of common equity is credible because the methodology employed by Mr. Jackson appear to be flawed. For example, the comparable earnings analysis is inadequate because it is based upon historical realized rates of return. Because historical realized returns do not reflect current financial markets, using them to estimate prospective rate of return is without merit. Mr. Jackson's Payout Ratio Analysis is not a market oriented indicator of Interstate's required return on equity. The payout ratio test produces an indicated return on book value and not a market based return.

Mr. Jackson performed two DCF analyses to estimate the cost of common equity for Interstate. The Administrative Law Judge has determined that Mr. Jackson's DCF analyses are not credible for the following reasons. First, Mr. Jackson himself had problems with the DCF method. According to Mr. Jackson, the DCF method alone is inadequate for estimating the cost of common equity for Interstate because Interstates' market-to-book ratio is above one.

Therefore, according to Mr. Jackson an adjustment must be made to recognize this current market condition. Both Dr. Amit and McIntire expressed concern that this adjustment was not necessary because the standard DCF formula incorporates investors' perception regarding the market and book value in stock prices. Another weakness in Mr. Jackson's DCF analysis which also applies to the other methods that he used, is his selection of utilities judged to be comparable in risk to Interstate. As Dr. McIntire pointed out, Mr. Jackson failed to screen out combination companies (Utilicorp and Pacific Corp.) that are drastically different from Interstate.

D. Overall Rate of Return

80. The overall rate of return is calculated by multiplying the capitalization ratios by their appropriate costs. The sum of these weighted costs is the overall rate of return on capital. The overall rate of return for Interstate is found to be 9.197%, based on the following calculation.

| INTERSTATE POWER COMPANY OVERALL RATE OF RETURN | | | |
|--|------------|--------|-----------------|
| Component | % of Total | Cost % | Weighted Cost % |
| Short-Term Debt | 4.769 | 7,890 | 0.376 |
| Long-Term Debt | 43.756 | 7,907 | 3.460 |
| Preferred Stock | 8.849 | 8.079 | 0.714 |
| Common Equity | 42.627 | 10.9 | 4.646 |
| | 100.00 | | |
| Overall Rate of Return | 9.196% | | |

81. As a consequence of the Findings of Fact regarding rate base, Test Year operating income and costs of capital, the revenue deficiency of Interstate is \$4,943,785.00 as hereinafter calculated:

| INTERSTATE POWER COMPANY TEST YEAR REVENUE DEFICIENCY | | |
|--|--|-----------------|
| 1. Rate Base | | \$78,793,921.00 |
| 2. Overall Rate of Return | | 9.196% |
| 3. Required Operating Income | | 7,245,889.00 |
| 4. Test Year Operating Income | | 4,301,232.00 |
| 5. Income Deficiency | | 2,944,657.00 |
| 6. Gross Revenue Conversion Factor | | 1.6798 |
| 7. Revenue Deficiency | | 4,943,185.00 |

V. Rate Design

A. Principle\$ of Rate Design

82. Interstate has the burden of proving that the proposed rate design is just and reasonable and not unreasonably prejudicial, preferential or discriminatory. Minn. Stat. 216B.03, 216B.16, Subd. 4.

83. When the Commission allocates the revenue deficiency among classes of customers to provide for the recovery of a revenue requirement, it acts in a quasi-legislative capacity and may fix rates based on costs and non-cost

factors. *Hibbing Taconite Company v. Minnesota Public Service Commission*, 302 N.W.2d 5, 9, (Minn. 1980); *St. Paul Area Chamber of Commerce v. Minnesota Public Service Commission*, 312 Minn. 250, 262, 251 N.W.2d 350, 358 (1977).

84. Having established a revenue deficiency, if Interstate does not establish the reasonableness of its proposed rate design, then the Commission must determine just and reasonable rates to allow for the recovery of the revenue deficiency. Minn. Stat. 216B.16, Subd. 5.

85. The principles of rate design governing the exercise by the Commission of its quasi-legislative authority may be summarized as follows:

- a. Rates should be designed to provide the company with a reasonable opportunity to earn its revenue requirement as determined in the proceeding.
- b. Rates should provide a reasonable continuity with past and future rates to prevent inordinate and immediate impact on existing and future customers;
- c. Rates should be as simple, understandable and easy to administer as is practical.

In *Reserve Mining v. Minnesota Public Utilities Commission*, 334 N.W.2d 389, 393 (1983), the Minnesota Supreme Court listed the following relevant non-cost factors:

Whether the rates would be disruptive; revenue stability; affordability; the ability to pass costs on to others; and the ability to decrease the impact of a rate increase through tax deductions.

B. Class Cost of Service Study

86. A Class Cost of Service Study (hereinafter "CCSS") is designed and used for the purpose of quantifying the costs imposed upon a utility system by each class of customers on that system.

87. Both the DPS and Interstate have submitted Class Cost of Service Studies for this proceeding and each has asserted that its CCSS is superior to the other.

88. Interstate's CCSS uses an "average and excess" method to allocate costs among classes. The average and excess method is used by the Company in each of its retail operating jurisdictions, Illinois, Iowa and has been approved for use in Minnesota.

The average and excess allocation method is appropriate and should be adopted.

DISCUSSION

Interstate presented a Cost of Service Study which allocates production and transmission plant among rate classes on the Average and Excess (A&E)

method. Under this method KW demand values for each rate class are derived by apportioning the average of the two highest hourly KW peaks among rate classes based on the interclass relationship of average KW demand and maximum KW demand. Using this system, capacity costs will be allocated to all customers, including those who are not on the system during the time of the system peak.

The Department proposes that the Stratification Method be used to allocate class costs. The Department asserts that the Commission has approved the use of the Stratification Method in numerous other electric rate case proceedings, including all of Northern States Power electric rate case proceedings since 1977. The Commission has had no concern with the Stratification Method itself or the economic principles underlying the stratification methodology. In Interstate's last rate case the Commission rejected the use of the Stratification Method based on the Department's application of the stratification methodology to the facts of the 1986 rate case proceeding. The Department's application of the stratification methodology in this proceeding eliminates all the concerns expressed by the Commission in the 1986 rate case proceeding.

The Department acknowledges that a multiple coincident peak allocator or the lack thereof is a weakness in its application of its proposed stratification analysis. However, the Company's Average and Excess Method suffers from the same problem, Interstate's poor load research data. Because of Interstate's poor load research data any method of allocating capacity-related plan could be faulty.

The Average & Excess Method has the benefit of allocating capacity costs to all customers, including those who are not on the system during the time of the system peak.

After consideration of these arguments by the Department the Administrative Law Judge is unpersuaded and recommends that the Commission again adopt the Average and Excess Method.

C. Declining Block Rates

89. Interstate proposes to eliminate its declining block rates for the following rate schedules. Rate 120, Total Electric Multiple Dwelling; General Service Rate 260; Municipal Pumping Rate 622, and three-phase Farm Rate 838.

The Company has proposed to retain a two-part declining block energy rate for Resident Rate 161 and retain its declining block demand charge for its Large Power and Light Rate 447. The Commission's long-standing policy is to decrease and eventually eliminate all declining block rates. The Commission has generally replaced declining block energy rates with flat rates because flat rates better reflect costs, are nondiscriminatory and promote conservation. Interstate Power CompAny, E-001/GR-86-384 (May 1, 1987) pages 43-44.

90. Interstate believes that the declining block energy rate should be retained for rate 161 to avoid rate shock for large energy users. However, the Company has not demonstrated that the potential increase in rates for high energy users in this class would make the transition from declining block energy rates unfeasible at this time.

91. It is appropriate to eliminate the declining block energy rate for Residential Rate 161.

92. Interstate has offered no justification for continuing the declining block demand rate for Large Power and Light Rate Schedule 447. It is also appropriate to eliminate the declining block demand rate in this customer class.

D. Basic Service Charges

93. At the present time, all fixed monthly basic service charges are substantially below costs in all classes. Interstate, OAG and DPS have proposed increases in basic service charges in an effort to bring these charges closer to actual cost. None of the proposed increases would bring the fixed monthly basic service charges to actual cost.

94. Customer service charges constitute one of the rate components least understood by customers.

95. The basic service charges proposed by Interstate should move toward costs in a manner consistent with applicable rate design principles.

E. Combining Residential Rate Classes

96. Interstate provides residential service through two residential rate schedules, Residential Rate, 120 and 161. Rate 120 is the Total Electric Multiple Dwelling Rate. In a previous rate case the Commission ordered that a study be conducted to determine whether or not the cost differences between the 120 rate and the 161 rate (basic residential rate) are justified.

97. The OAG has proposed that the Rate 120 class be eliminated and merged with the basic residential rate, 161 class. The OAG asserts that the differences between the classes are so insignificant that a separation cannot be justified. The 120 rate was designed for customers who use space heating in multiple dwellings. There is no study which shows that the usage profile of space-heating customers vary depending on the type of dwelling. There is no basis for the continuation of the separation between these two rates.

98. It is appropriate that the two residential rate classes be merged.

VI. Concepts to Govern

It is the intent of the Administrative Law Judge that the concepts set forth in the Findings herein should govern the mathematical and computational aspects of the Findings and Conclusions. Any mathematical or computational errors are unintentional and should be corrected to conform to the concepts expressed in the Findings and Conclusions.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the follows:

CONCLUSIONS

1. The Minnesota Public Utilities Commission and the Administrative Law

Judge have jurisdiction over the subject matter of the hearing pursuant to Minn. Stat. 216B. and Sections 14.57-14.62 (1990), and Minn. Rules Pts. 1400.5100 - 1400.8300.

2. The Commission gave proper Notice of Hearing in this matter, has fulfilled all relevant substantive and procedural requirements of law or rule and has the authority to take the proposed action.

3. The proposed Test Year for determining Interstate's revenue deficiency is the 12-month period between January 1, 1990 and December 31, 1990 and is appropriate.

4. The operating revenues of Interstate for the Test Year under present rates is \$37,395,751.00.

5. Test Year expenses should be reduced by \$1,958,117.00 to reflect the exclusion of the IPS purchase power contract.

6. Test Year expenses should be reduced by \$7,786.00 to reflect the exclusion of certain organizational dues; \$34,942.00 to reflect the exclusion of expenses associated with nuclear research done by the Electric Power Research Institute; \$35,796.00 to reflect the exclusion of rate case expenses associated with Interstate's court appeal.

7. Test Year expenses should be increased by \$430,179.00 for expenses associated with Interstate's conservation improvement plan, and increased by \$22,237.00 to allow Interstate to recover in rates the amount amortized from its conservation improvement plan tracker account.

8. Test Year expenses shall be reduced by \$6,306.00, the amount budgeted by Interstate for its conservation improvement plan and replaced by the amount budgeted by the Commissioner of the Department of Public Service.

9. The appropriate Test Year operating income for Interstate is \$4,301,232.00.

10. The appropriate cost of equity for Interstate is 10.9%.

11. The appropriate allowable overall rate of return to Interstate for the Test Year is 9.197%.

12. Interstate's revenue deficiency is \$4,943,785.00.

13. Interstate's load forecasting methodology is flawed and Interstate should have known that inclusion of certain components was inappropriate.

14. Interstate's class cost of service study allocating production and transmission costs on an average and excess method should be adopted.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER OF AUTHORITY WHICH MAY ADOPT OR DIFFER FROM THE FOLLOWING RECOMMENDATIONS.

It is the recommendation of the Administrative Law Judge to the Public

Utilities Commission that it issue the following:

ORDER

(1) Within thirty (30) days of this Order, Interstate Power Company shall file with the Commission for its approval, and provide to all parties to this proceeding, a revised schedule of rates and charges for the sale of electricity at retail in Minnesota so as to allow for increased annual revenues of \$4,943,785.00 providing for the recovery of those revenues in accordance with the rate design provided for herein.

(2) This Order shall become effective immediately.

Dated this 17th day of April , 1 992.

ALLEN E. GILES
Administrative Law Judge

NOTICE

Pursuant to Minn. Stat. 14.62, subd. 1, the agency is required to serve its final decision upon each party and the Administrative Law Judge by first class mail.

Reported: Court Reporter, Karen Toughill, Allan J. Thiry, Linda Thiry,
Summit
Court Reporters.