

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Request of Interstate
Power Company for Authority to Change
its Rates for Electric Service in Minnesota

FINDINGS OF FACT,

CONCLUSIONS

AND

RECOMMENDATION

The above-entitled matter came on for hearing before Administrative Law Judge Richard C. Luis on December 14 and 15, 1995 in St. Paul, Minnesota. The record in this matter closed on February 7, 1996.

Christopher B. Clark, Staff Counsel, Interstate Power Company, P.O. Box 769, 100 Main Street, Dubuque, Iowa 52004-0769, appeared on behalf of Interstate Power Company ("Company", "IPW", "Interstate").

Dennis Ahlers, Katherine McGill and Brent Vanderlinden, Assistant Attorneys General, 1200 NCL Tower, 445 Minnesota Street, St. Paul, MN 55101, appeared on behalf of the Minnesota Department of Public Service ("Department", "DPS").

The other Intervenor, the Office of Attorney General, ("OAG"), did not appear at the hearing or file briefs, but remains a party to the proceeding.

The Staff of the Minnesota Public Utilities Commission ("PUC", "Staff") was represented by Susan Mackenzie and Stuart Mitchell, Jr., Rate Analysts, John Lindell, Financial Analyst and David Jacobson, Statistical Analyst.

NOTICE

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 15 days of the mailing date hereof with the Executive Secretary, Minnesota Public Utilities Commission, 350 Metro Square, 121 7th Place East, 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 15 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 ISSUE

Should Interstate be allowed to increase its rates for electric utility service in Minnesota by \$3,537,053 and to collect revenues in accordance with its proposed rate design?

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

FINDINGS OF FACT

The Company

1. Interstate Power Company is an investor-owned combination electric and gas utility engaged principally in the generation, transmission and distribution of electric energy and the transmission and distribution of natural gas in a 10,000 square mile service area in northeast and north central Iowa, southern Minnesota, and northwestern Illinois. IPW serves over 161,900 retail electric customers, of which over 39,000 are located in Minnesota. The largest community served in Minnesota is Albert Lea, with a population in excess of 19,000. For the year ending December 31, 1994, IPW derived approximately 18 percent of its total electric revenues from electric sales in Minnesota.

Procedural History

2. On June 9, 1995, Interstate Power Company filed a petition, pursuant to Minn. Stat. § 216B.16 (1994) with the Minnesota Public Utilities Commission ("Commission") requesting authority to increase Interstate's rates for electric service in the State of Minnesota. The petition sought an increase in electric rates of \$4.6 million or 10.3 percent over existing rates.

3. On July 31, 1995, the Commission issued its Order Accepting Filing and Suspending Rates; Notice and Order for Hearing referring the case to the Office of Administrative Hearings; and an Order authorizing Interstate to collect interim rates at the Company's current rate level.

4. A prehearing conference was held on August 4, 1995, before Administrative Law Judge (ALJ) Richard C. Luis. The intervenors are the Department of Public Service and the Office of Attorney General-Residential Utilities Division ("OAG"). Public hearings were held on October 4, 1995 in Albert Lea, Minnesota; October 5, 1995 in Stewartville, Minnesota; and November 2, 1995 in Fulda, Minnesota. Evidentiary hearings were conducted on December 14 and 15, 1995. Subsequent to the hearing, the parties filed Late-filed Exhibits 41-47, in response to various requests and inquiries from the Staff and the Administrative Law Judge. Those exhibits are all admitted to the record.

5. As required by the Notice and Order for Hearing of July 31, 1995, IPW gave written notice, first approved by the MPUC, to each of the municipalities and counties in its service area. Likewise, the Company, as required by the MPUC, furnished to each customer, including contract customers, written notice of the proposed increase as a bill insert in form and substance approved by the MPUC. On November 14 & 15, 1995, IPW mailed to the Administrative Law Judge affidavits of publication for newspaper display ads printed in newspapers of general circulation in the Company's service territory, giving notice of the rate increase and of the public hearing schedule. On August 15, 1995, IPW filed copies of the bill inserts giving notice of the hearings.

Burden of Proof

6. Minn. Stat. § 216B.16, subd. 4 (1994) places the burden of demonstrating the reasonableness of a proposed rate increase on the utility. The Minnesota Supreme Court has held that, in a rate proceeding before the Commission, the burden is on the utility to prove the facts by a fair preponderance of the evidence. In Re Northern States Power Co, 416 N.W.2d 719, 722 (Minn. 1987). If the evidence is insufficient to permit

determination on a particular component of the proposed increase, the Company has failed to meet its burden of proof. Petition of Continental Telephone Co., 389 N.W.2d 910 (Minn. 1986). The Judge's function in this regard is to determine whether the proponent of a given position has established facts sufficient to support the reasonableness of that position by a fair preponderance of the evidence. The question of whether the evidence thus established results in "just and reasonable" rates is left to the Commission.

7. In this case, the Department has recommended disallowance of some costs on the basis that the costs should not be paid by ratepayers. Interstate bears the burden of not only proving that the costs were incurred but of proving the reasonableness of its position on these issues. As the Court stated it . . . "by merely showing that it has incurred, or may hypothetically incur, expenses, the utility does not necessarily meet its burden of demonstrating that it is just and reasonable that the ratepayers bear the costs of those expenses." Id. at 722, 723. Based on the findings and conclusions set forth below, the ALJ has concluded that the evidence in this case supports a rate increase for Interstate of no more than \$2,642,089.

Test Year

8. Interstate has selected January 1, 1994 to December 31, 1994, adjusted for known and measurable changes, as the test year to be used for determining its revenue requirement. No party objected to the Company's test year. The Company's proposed test year is found to be reasonable.

SETTLEMENT AGREEMENT

9. On December 4, 1995, the parties submitted a Settlement Agreement in this case which resolves all but four of the disputed issues: Purchased Power Contracts, Return on Equity, Interruptible Discount, and Declining Block Rates. Joint Ex. 1. As is noted in the Settlement Agreement, the parties believe the Settlement Agreement is fully supported by the evidence in this case. The Settlement Agreement references the relevant supporting evidence. The parties also believe that the Settlement Agreement, along with the Commission's separate determination on the remaining contested issues, will result in a revenue requirement for Interstate that is just and reasonable, and will result in Interstate providing adequate service to its customers at the lowest possible rates, consistent with the need of Interstate's investors to earn a fair and reasonable return on their investment.

10. The ALJ has reviewed the Settlement Agreement along with the record evidence filed in support of the Settlement Agreement. The ALJ concurs with the parties' view that the Settlement Agreement is fully supported by the record evidence and is in the public interest. The ALJ also finds nothing contrary to law or Commission precedent in the Settlement Agreement. Therefore, the ALJ will adopt the Settlement Agreement in its entirety.

11. The parties also agreed on numerous issues not specified in the Settlement Agreement. Those issues, and the agreements regarding them, are specified in late-filed Exhibits 44 and 45. The Administrative Law Judge adopts these agreements in their entirety.

Contested Issues

12. The four remaining contested issues in this case are:

1. Purchased Power Contracts
2. Return on Equity
3. Interruptible Discount, and
4. Declining Block Rates.

13. Prior to the hearing, the parties agreed to waive cross examination on the issues of purchased power and return on equity. Cross examination was not waived on the interruptible discount or declining block rates. The parties made all witnesses available for questions from the Administrative Law Judge and Commission staff. The Intervenor is the Department of Public Service ("DPS"), and the Office of Attorney General-Residential Utilities Division ("OAG"). However, the OAG indicated its participation had been limited due to resource constraints. It did not appear at the evidentiary hearing or file briefs.

Findings Regarding Settlement Agreement and Non-Contested Issues

14. The parties settled most of the issues in this case. This is clearly seen by a review of Joint Ex. 1. The DPS and the Company agreed and stated that ample support exists for the settlement. *Id.* Interstate and the DPS provided evidentiary support in Joint Ex. 1. The parties provided further support for the settlement in Exs. 44 and 45 and at the evidentiary hearing. Further, the DPS took steps to assure the underlying numbers were accurate as pointed out by IPW witness Lassance:

21 The Department of Public Service spent a considerable amount of time investigating this through field audits, data requests and the like, to make sure that these amounts and levels of expenses and investment rate base were appropriate. (Tr. Vol. II, pp. 62-63.)

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15. A review of the Settlement Agreement follows, based on the format set forth beginning on page 3 of Joint Exhibit 1^[1]:

16. The parties agreed in the settlement that the precise calculation of the cash working capital cannot be determined until all other financial issues have been resolved. DPS witness Lusti discusses this at pp. 21-22 of his direct testimony, DPS Ex. 29. Interstate witness Lassance and DPS witness Lusti offer explanation for the cash working capital in response to questions from Administrative Law Judge Luis. See Transcript, Vol. II, p. 130:

By Judge Luis: (partial quote of the question):

12 . . . what's the basic formula, what's the basic thing you're trying to do to calculate cash working capital and how does that move or change?

MR. LASSANCE: Your Honor, Paul Lassance. And basically what happens with cash working capital is that we take the total expense, divide it by 365 days, and then calculate the cash requirement per day. And there's a lag time difference between the time that is actually paid, in the case of income taxes to the government, and the time the revenue is actually collected from the customer. So we take that timing difference times expense per day to get the cash working capital requirement.

25
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THE JUDGE: Something you want to add, Mr. Lusti?

MR. LUSTI: Probably most simplistically would be if one were to look at my Appendix in DPS 30, which is my surrebuttal testimony, Appendix A, page 4, the adjustment column, which is B --

THE JUDGE: Okay.

MR. LUSTI: -- those contain all of the adjustments that the Department has made to its O&M expenses in this case. If those adjustments change, then we'll have to make -- then you can just substitute into there whatever appropriate adjustments were made in this case. If you just follow the footnotes that I have, you'll be able to recalculate.

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17. In Interstate's Ex. 38, showing the results if the contested issues are resolved in its favor, Cash Working Capital appears on the rate base summary, schedule B-1, page 1, and can be followed working backward in the various pages of schedule B-1 and B-2.

18. DPS witness Lusti likewise calculates the cash working capital, assuming contested issues are resolved in favor of the DPS, in DPS Ex. 30, App. A.

19. Late-filed Ex. 45, p.4, discussing line 16 of the schedule attached to that exhibit explains where the cash working capital result fits into the final determination in this case.

20. The parties' settlement of the cash working capital issue is reasonable and well supported. This merely requires a simple calculation to be made once the contested issues are decided.

Rate Base

21. Interstate proposed that its unamortized rate case expense should be included in rate base, and therefore, earn a return. This is outlined by Interstate witness Lassance in Ex. 18, p. 13, and Ex. 21, pp. 4-5. The DPS's original testimony did not

include any unamortized rate case expense in IPW's rate base. This is clear from DPS witness Lusti's direct testimony, Ex. 29, pp. 19-20. For purposes of settlement, the parties agreed that IPW's unamortized rate case expenses in the amount of \$156,498 should be included in the Company's rate base in the determination of the revenue requirement in this case.

22. In Late Filed Ex. 45, p. 3, referencing line 11 of the schedule attached to that exhibit, the parties explained that they reached a stipulated agreement to include \$156,498 in rate base. Schedule B-3 of Ex. 19 shows how the figure was calculated.

23. Interstate proposed a continued rate base recovery of conservation expense from its last rate case. This is explained by Interstate witness Reisdorf, Ex. 3, p.32. The Department proposed that the expense from the last rate case be disallowed. This is explained by DPS witness Litzau, Ex. 32, pp. 3-4. The parties agree that for settlement purposes the old conservation expense of \$30,021 should be excluded from the Company's rate base in the determination of the revenue requirement in this case.

24. Interstate proposed to include in rate base half of its unrecovered CIP tracker balance. This is explained by Interstate witness Reisdorf, Ex. 3, p.31. The Department recommended that Interstate's proposal be disallowed. This is explained by DPS witness Litzau, Ex. 32, p.12. The parties agreed for settlement purposes that the unrecovered tracker balance of \$234,699 should be excluded from the Company's rate base in the determination of the revenue requirement in this case.

25. The Department proposed (in DPS witness Lusti's direct, Ex. 29, pp. 19-20) that the Company's test-year plant be reduced by \$31,894 to reflect a full year of depreciation expense in its reserve, related to the Interstate pro forma plant additions included in Interstate witness Lassance's direct, Ex. 18, pp. 25-28. In Rebuttal testimony, Ex. 21, p. 2, the Company accepted the Department's proposal. Accordingly, the parties agree \$31,894 should be excluded from the Company's rate base in the determination of the revenue requirement in this case.

Income Statement (Expenses)

26. Interstate originally proposed to recover its rate case expense over three years. Interstate witness Lassance explains this in Ex. 18, pp. 19-20. The Department proposed that the rate case expenses be recovered over five years. Ex. 29, pp. 25-28. The parties agreed for settlement purposes that Interstate should recover rate case expenses over four years. This results in a decrease of \$26,083 to the Company's revenue requirement.

27. The adjustment for the four year amortization of rate case expense can be seen on line 32 of page 2 of 2 of the schedule attached to Late Filed Ex. 45.

28. The DPS proposed a reduction in Interstate's revenue requirement in the amount of \$81,170 associated with Interstate's economic development activities. DPS witness Litzau explained this adjustment. Ex. 32, pp. 9-10. Interstate provided supporting testimony that economic development expenses provide benefits to its ratepayers by Interstate witness Peterson, Ex. 28, pp. 1-3. The parties agree, for settlement purposes, to include 50 percent of Interstate's economic development costs in cost of service. This adjustment decreases the Company's revenue requirement by \$40,585.

29. The DPS's direct case allocated a small portion (\$8,617) of IPW's administrative and general expense to non-regulated activities. DPS witness Lusti explains this adjustment in Ex. 29, pp. 6-15, 24-25. Interstate witness Lassance explained the Company's opposition to this adjustment in Ex. 21, pp. 2-4. The parties agreed, for the purposes of settlement, that Interstate's administrative and general expense will be reduced by \$8,617 in the determination of the revenue requirement in this case.

30. The DPS proposed that the Company expense its CIP tracker balance over five years and continue to track and accrue carrying charges on that amount. (Ex. 32, p.12) The parties reached an agreement for settlement purposes. During the evidentiary hearing, the parties, for purposes of clarification, modified the language. The modification was noted on Ex. 1 in the record. The parties' modified agreement for settlement purposes is that "the Company's October 30, 1995, CIP tracker balance of \$791,565, should be expensed over five years and will be tracked." The language of Joint Ex. 1 was changed to reflect the above quoted language in response to questions from staff. Tr. Vol. II, p.79 (19)-p.82 (4). This results in a Company revenue requirement of \$213,606 for this item using DPS returns as proposed for calculation of the carrying charges.

31. The revenue requirement for CIP was extensively discussed at the evidentiary hearing by DPS witness Litzau. The revenue requirement will be slightly affected by the final return on equity allowed by the MPUC as DPS witness Litzau indicates. See Tr. Vol. II, p.73 (5)- p.79 (18).

32. The DPS proposed that the Company's test year conservation expense of \$602,582 be replaced with Interstate's approved 1995 conservation budget of \$588,142. DPS Ex. 32, p.12. The parties agreed for settlement purposes that the Company's most recently approved (October 13, 1995) conservation budget of \$933,187 should be included in this proceeding. This determination was made by the DPS Commissioner subsequent to the filing of the rate case, and is at a level substantially higher than either earlier recommendation. DPS Ex. 47.

33. The DPS and the Company agreed that the Conservation Cost Recovery Charge (CCRC) should be calculated by dividing Interstate's approved 1995 CIP budget (\$933,187 discussed in the section above), plus 1/5 of the tracker balance plus a carrying charge, by Interstate's test-year sales. DPS witness Litzau explains this in Ex. 32, p. 12 and in the testimonial record. Based on the DPS proposed cost of capital, the CCRC is \$0.00179/kwh. See Ex. 39. Based on the Interstate proposed cost of capital, the CCRC is \$0.00180. See Late-Filed Ex. 46.

34. The Department proposed that the Company's test-year property tax expense be adjusted to reflect all 1994 true-up adjustments, and not only the ones the Company was aware of at the time of its filing. DPS Ex. 29, pp. 28-29. Interstate witness Lassance accepted the Department's adjustment in rebuttal testimony, IPW Ex. 21, pp. 6-7. This adjustment reduces the Company's revenue requirement by \$193,720.

35. Interstate proposed originally that it be allowed to allocate Manufactured Gas Plant (MGP) costs to both the electric and gas utilities. The proposal assigned \$847,168 to the electric proceeding. Interstate witness Reisdorf explained this in Ex. 3, pp. 32-37. The Department proposed that these costs should be excluded from this proceeding because of the Commission's Order (issued after Interstate filed the electric

rate case) of August 21, 1995, in Docket No. G-001/M-94-633. DPS Ex. 29, p.23. Interstate withdrew its position on this issue. (IPW Ex. 21, pp. 1-2) The Company and the DPS agreed to reduce the Company's revenue requirement by \$847,168.

36. The DPS and Interstate agree the precise calculation of the interest synchronization adjustment cannot be determined until all other financial issues have been resolved. DPS Ex. 29, p. 30.

37. Interstate witness Lassance explains the calculation of interest synchronization at the evidentiary hearing:
Tr. Vol II, p.66:

By Mr. Lassance

...

6 . . . And then the last item is interest,
and that's interest synchronization.

THE JUDGE: Yes.

THE WITNESS: And we really can't get that issue done until we decide the other contested issues, because what's involved in there is the interest synchronization principle. To quickly review that, you take the cost of long-term debt and apply it to the rate base, and that develops how much actual interest expense you use for tax purposes as a deduction from income taxes. And then you adjust what I have used for the income tax adjustment in Schedule C-3, page 1, adjust that up or down, as the case may be. The thing is, these other adjustments, such as excess capacity and rate of return, have an effect on income taxes.

THE JUDGE: Okay.

25 THE WITNESS: And those income taxes
Tr. Vol II, p. 67:

1 rate-base item. So there's somewhat of a circular
reference here. We both admit -- or emphasize, I
should say, Mr. Lusti and myself, that we can't
5 decide what this amount is until we get the other
issues settled.

38. If the DPS's position on the contested issues is accepted, the interest synchronization would be determined as indicated by DPS witness Lusti in Ex. 30, Schedule A, p.8. See Tr. Vol. I, p.126 (7). See also his further explanation at Tr. Vol. I, p.165 (21).

39. Interstate indicates how the interest synchronization would be determined if its position on the contested issues is accepted in IPW Ex. 38, Schedule, C-4, p.21.

40. The DPS and Interstate agree that Interstate's determination of test-year sales and revenues should be accepted in this proceeding. DPS Ex. 31, p. 2. Witnesses Lusti, Lassance and Reisdorf explain this in the testimonial record, Tr. Vol II, p.137 (4) - p.143 (15).

41. Interstate proposed using the following capital structure:

1)	Short term debt	7.593%
2)	Long term debt	43.972%
3)	Preferred and preference stock	7.389%
4)	Common equity	<u>41.057%</u>
5)	Total	100%

42. The Department recommended using the same capital structure. DPS Ex. 35, pp. 22-23.

43. On December 29, 1995, the parties filed Late-filed Exhibit 45, which lists the settled financial items. The document "codes" such items to differentiate (1) Data filed originally by the Company and accepted by the DPS, (2) DPS adjustments accepted by the Company in Rebuttal testimony, (3) Items in the Settlement Agreement and (4) Regarding IPW's proposal for recognition of Manufactured Gas Plant cleanup costs in the electric case, a notation that the Company withdrew that proposal and adjusted its revenue request accordingly because of the Commission's Order in Docket No. G-001/M-94-623 (8/29/95) restricting examination of that issue to the gas case. Items adjusted by the DPS, to which adjustments the Company agrees, include pro forma net plant adjustments in the rate base and tax expense other than income. The Department agrees with IPW's originally-filed figures for:

- Test Year Utility Plant in Service
- Test Year Unadjusted Accumulated Depreciation
- Unadjusted Test Year Net Plant
- Customer Advances for Construction
- Retirement Work in Progress
- Acquisition Adjustment
- Accumulated Deferred Income Taxes

- Customer Security Deposits
- Working Capital (except Cash Working Capital)

(All of the above are rate base items).

The DPS agrees with IPW's originally filed figures for the following revenue and expense items:

- Test Year Electric Sales (\$43,046,671)
- Other Operating Revenue
- Transmission Expense
- Distribution Expense
- Customer Accounts
- Customer Services
- Depreciation and Amortization
- Federal and State Income Taxes, as filed

Rate Design

44. Interstate's Class-Cost-of-Service Study (CCOSS) is found in IPW Ex. 25. The Department's CCOSS is in the testimony of witness Donati, DPS EX. 37.

45. The DPS and Interstate agree for settlement purposes that, except as set forth expressly in the Settlement Agreement, it is not necessary for the Commission to make a determination regarding which parties' CCOSS is to be adopted in this case. Joint Ex. 1, p. 7.

46. Counsel for the parties provided an explanation for the agreement to adopt neither CCOSS at the evidentiary hearing, in response to the Administrative Law Judge's inquiry, at Tr. Vol. II, p.152 - p.155 (5).

47. Interstate proposed that each class pay its embedded cost of service as long as the requested revenues do not exceed 1.5 times the overall percentage increase of the final revenue requirement. Joint Ex. 1, citing DPS Ex. 7, p.13, schedule JMH-4, p.3, and IPW Ex. 4, p.1. This cap applies to increases in four classes: Single-Phase Farm, Stored-Heat Space Heating, Controlled Water Heating, and Street Lighting. The Company proposes to recover the revenue shortfall from these four classes by increasing the revenue responsibilities of its three largest classes: Residential, General Service, and Large Power and Light. DPS Ex. 7, pp. 13-14.

48. For settlement purposes, the DPS accepts Interstate's proposed apportionment. The parties, however, agree that these increases would be scaled back so that the class revenue responsibility would reflect its relative contribution to total cost based on Interstate's proposed revenue apportionment. This formula is explained in the evidentiary hearings at Tr. Vol II, p.155 (6)- p.161 (3). Especially helpful in the explanation

is the reference explaining that the effect of that capping procedure is already taken into account in Column B of Exhibit 12. Tr. Vol II, p.157 (22). In other words, the three classes which pick up this revenue responsibility will pick it up according to their relative proportion to each other. Tr. Vol II, p.159 (1).

49. This agreement is also explained in Late Filed Ex. 44, p.1, section A.2.a, which references the Settlement Agreement (Joint Ex. 1) and DPS Ex. 12, column F.

50. In its initial filing, Interstate proposed to change the rates for its Street Lighting and Security Lighting schedules to more closely reflect the cost data. IPW Ex. 3, p.24. The Interstate rates would apply to both mercury vapor and sodium vapor light sources. For Settlement purposes, the Department agrees to the changes proposed by Interstate. Joint Ex. 1, p. 8. See also Late Filed Ex. 44, p.1, section A.2.b.

51. Interstate proposed to introduce mandatory seasonal and optional time-of-day rates for all classes except stored-heat space heating, controlled water-heating, and lighting classes. IPW Ex. 3, p.21. While a previous Interstate analysis showed that time-of-use rates would be counterproductive, data submitted in this filing contains evidence of changed conditions in duration and in customer loads that support the introduction of time-of-use rates at this time. IPW Ex. 3, pp. 18-21. Based on this analysis, the Company proposed, and the DPS agrees, that Interstate should implement seasonal and time-of-day rates as proposed by Interstate so that it might send appropriate price signals regarding costs to end-users. The DPS, however, asserts that more cost support data is needed to refine Interstate's proposed time-of-use rates. For settlement purposes, the parties agree that the Company will submit a time-differentiated marginal-cost study in its next rate case. Joint Ex. 1.

52. Late Filed Ex. 44 further explains the settlement. For seasonal rates the results of Interstate's proposed seasonal energy and demand charges for the following rates will be used:

- General Service Rate (Schedules 260 & 261)
- Large Power & Light Rate (including transmission & primary distribution service discounts and reactive power charges and adjusted for the error stated on page 33, lines 3-15 of Mr. Holliman's Direct testimony, DPS Ex. 7).
- Competitive Discount Rate 450
- Municipal Pumping Rates 612 and 622.
- Three-Phase Farm Rate 818
- Large Power and Light - Interruptible Rate 444, including the administration charges proposed by IPW (the size of the demand credit remains contested.)

These rates can be found in IPW Ex. 6B.

53. Late-filed Ex. 44 also indicates that it is agreed to use IPW's corrected Residential Rate 163 demand and energy charges which are attached to Ex. 44. The rates listed in the attachment should be scaled back according to Joint Ex. 1, p.7, section 2.b.1, taking into account the use of the Department's proposed Customer Charges and the class revenue apportionments approved by the Commission.

54. Late-filed Ex. 44 explains that the parties agree to use time-of-day rates proposed by Interstate for Rate Schedules:

- Residential Rates 164 & 165
- General Service Rates 270, 271, 280 and 281
- Large Power and Light Rates 448 and 449 (adjusted for the error stated on DPS Ex. 7, p.33 (3-15), described above).
- Municipal Pumping Rates 602, 603, 632, and 633
- Single-Phase Farm Rates 818 and 819
- Three-Phase Farm Rates 848 and 849

55. The rates noted above can be found in IPW's proposed tariff sheets. The rates listed in IPW's proposed tariff sheets should also be scaled back according to Joint Ex. 1, p.7, section 2.b(1), taking into account the use of the DPS's proposed Customer Charges plus \$2, and the class revenue apportionments approved by the Commission. Late Filed Ex. 44, p.2.

56. Customer costs and basic service charges as proposed by the Company and the Department are summarized and compared in DPS Ex. 8, schedule JMH-6. For settlement purposes, the parties agree to accept the Department's recommendation regarding customer (basic service) charges, raising the current monthly residential customer charge from \$5.00 to \$7.25. Both the DPS and Interstate believe that the basic

service charges should be set as close to cost as possible to minimize intra-class subsidies. DPS Ex. 7, p.30. However, the DPS's recommendation caps any increase in basic service charges to all classes at 50% in order to temper the rate shock that such an increase in the charges would produce. DPS Ex. 7, p.31. Joint Ex. 1, p.9.

57. At the hearing the parties agreed to strike the last sentence (regarding controlled water-heating service) of their agreement on the customer charge issue, following questions from staff (Ms. Mackenzie). Tr. Vol II, p.102 (18)-p.106 (25), specifically, p.106 (20). See Joint Ex. 1, p.9. The Administrative Law Judge finds that the strike is appropriate, because the sentence was redundant.

58. The PUC Staff also raised a concern about rate shock in relation to the settlement on this issue. The settlement adequately addresses this concern, however, as was clarified at the hearing:

Tr. Vol. II, p.112, partial response of Mr. Reisdorf upon question from staff (Ms. Mackenzie) regarding customer charge:

...

9 the proposals made by both the Company and the
DPS, both parties recognize that the customer
charges actually proposed are roughly 50 percent
of what the customer cost really is. And we've
stuck with that, that was -- the 50 percent cap
figure was used by the Commission in our last rate
case and was alluded to by Mr. Holliman in his
testimony, and we settled on about that.

So, in a sense, we have recognized the
fact that these are far below cost yet. Even
though perhaps there's a significant increase over
the existing customer charge, they're still far
21 below cost.

DPS witness Holliman essentially agrees with Interstate witness Reisdorf's response above, regarding the settlement. See Tr. Vol II, p.119 (5) and additional explanation at Tr. Vol II, p.119 (16).

59. A Staff concern about support for the reconnection charge was also addressed by Interstate witness Reisdorf who indicated the factual support for these costs is found in Ex. 3A. See Tr. Vol II, p.113 (1).

60. Regarding the revenue apportionment among classes, once the PUC approves a revenue requirement for Interstate, the allocation of class revenue responsibilities should be scaled back to match that approved revenue requirement. See Conclusion 23.

61. The parties set forth certain other areas of agreement in the settlement and agreed to the following items, which are found to be reasonable:

- IPW will submit a cost-benefit study in its next rate case to determine the optimal level of monthly energy consumption at which a Residential customer should be required to switch to demand-metered service. The Department's interest in IPW performing this study does not require IPW to propose such rates or tariff language that would require specific energy consumption levels at which Residential customers would be required to take service under three-part rates.
- IPW will submit a cost-benefit study to determine the cost-effectiveness of adding a three-part demand metered rate to IPW's current two-part Single-Phase Farm tariff. This analysis should include a determination of the optimal monthly energy consumption level at which a Single-Phase Farm customer would be required to switch to a demand-metered tariff. The Department's interest in IPW performing this study does not require IPW to propose such rates or tariff language that would require specific energy consumption levels at which Single-Phase Farm customers would be required to take service under three-part rates.
- IPW will compute and file in its next rate case basic service charges that reflect differences in metering costs by type of rate structure (e.g. two and three-part rate structures).
- Regarding computation of the Competitive Discount for Farmstead Foods, Inc., the parties agree to use IPW's method to compute this discount. IPW should provide work papers in its compliance filing to show that the discount equals 25% of the annual revenues that would be collected from Farmstead Foods under the scenario that Farmstead would not have received the discount and would have been billed for services as a standard Large Power and Light Rate 447 customer. IPW should also show that the relationships between demand and energy charges as well as summer and non-summer demand and energy charges remain constant following the computation of the competitive discount.
- IPW will compute the energy charges for stored heat, space heating and controlled water services based on the basic service charges discussed above.

62. The parties provided in Late Filed Ex. 44 a list of "other issues" and "Department Recommendations that are Satisfied by the Settlement Agreement", in sections C and D of that exhibit. The Administrative Law Judge hereby incorporates those sections of Late Filed Ex. 44, as if fully set forth herein, and finds that ample support exists in the record for the contentions made in these two sections as cited and outlined in that exhibit. The areas covered include:

- Interstate has complied with the Commission's orders in its last rate case, and its filing of a discussion of low-income rate designs, its space heating compliance filing and its discussion of reactive power charges should all be accepted.
- Interstate's changes to its electric service tariff, as filed in the Direct Testimony of Mr. Reisdorf, are unopposed and should be adopted. These include availability provisions for the Large Power and Lighting Rate, Conservation credits for Residential Rate 161 and the changes in electric service standards and reconnection charges.
- Issues and recommendations of Mr. Holliman, the Department's rate design witness, which will become moot if the Settlement Agreement is adopted (see Section D of Ex. 44).

63. A major area of concern regarding the Settlement Agreement raised by Staff was the customer charge. However, the concern over rate shock is somewhat overstated as this increase will be only a part of the overall monthly charges a customer is billed. Therefore the increase from the past customer charge, when considered in the context of the overall monthly bill, will be less than the stated percentages, on an overall basis. Rate shock from these amounts is unlikely. Additionally, as the witnesses for both the DPS and the Company indicated, these charges are still far below actual cost. The increase in these charges will move them closer to costs without raising the concerns noted by the Commission in the Orders quoted by staff.

64. The Administrative Law Judge, based on the above Findings of Fact regarding the Settlement Agreement, and after consideration and opportunity for Staff, the Administrative Law Judge and parties to inquire into the support for the Settlement Agreement, finds that the Settlement Agreement is supported by ample evidence in this record, is reasonable, and is in the public interest.

65. Accordingly, the Administrative Law Judge will recommend to the Commission that it order acceptance of the Settlement Agreement and the agreements embodied in Exhibits 44 and 45.

Discussion

The Administrative Law Judge supports the efforts of IPW and the DPS to settle the majority of the issues in this case, and recommends their efforts be recognized by adoption of all they have agreed to. The Settlement Agreement (Joint Exhibit 1) did not cover in complete detail all that the parties actually agreed on, nor was it accompanied by the array of tables and other explanatory detail traditionally appended to and incorporated into such Stipulations or Settlements so that the PUC staff could analyze the ramifications of the agreement as thoroughly as necessary.

The staff and the Administrative Law Judge recognized the problem noted above, and raised concerns about it at the hearing. The parties responded with Late-filed exhibits (44 and 45) which, coupled with the explanations placed on the record orally at

the evidentiary hearing, provide record support for all elements of the Settlement and for the agreed-upon items or non-contested items in the record. If an item is not specified in the Settlement, it is appropriate to adopt the parties' agreement on it as it appears elsewhere in the record. If no agreement is stated in the Settlement or elsewhere, but IPW or DPS (whichever applies) has not opposed the final position of the party advancing the proposal, it is appropriate to adopt that final position. Sufficient support exists in the record on all such issues. The ALJ is persuaded that the only issues not agreed upon are the four discussed below - Return on Equity, Excess Capacity (Purchased Power Contract Costs), Declining Block Rates and the appropriate level of Interruptible Credit.

CONTESTED ISSUES

Capital Structure and Rate of Return

66. The Commission must determine an overall rate of return on capital for Interstate, based on the Company's capital structure and its costs of debt and equity. The Department does not dispute Interstate's proposed capital structure nor the costs of short- and long-term debt and preferred stock. The Department does dispute Interstate's cost of common equity.

67. Interstate proposed the following capital structure, cost of short and long-term debt, cost of preferred stock and cost of common equity:

Capital Structure - Year Ending 1994 (IPW Ex. 23, Sched. 8)

		(000s)		
Amount	Cost	Percent	Rate	Weighted Average
Long-term debt	206,175	43.972%	7.752%	3.409%
Short-term debt	35,600	7.593%	6.070%	0.461%
Preferred and Preference Stock	34,597	7.379%	7.225%	0.553%
Common Equity	<u>192,505</u>	<u>41.057%</u>	<u>11.750%</u>	<u>4.824%</u>
TOTAL	468,877	100%		9.227%

68. DPS witness Dr. Thompson recommended approval of Interstate's capital structure. DPS Ex. 35, p. 22. The Department also accepted Interstate's proposed cost of short-term debt and long-term debt of 7.752% and preferred and preference stock cost of 7.225% as reasonable. DPS Ex. 35, pp. 23-24.

69. Interstate's proposed capital structure is reasonable and balances the competing interests of investors and consumers. Interstate's capital structure falls within the range of comparable companies in 1994. DPS Ex. 35, p. 22. Interstate's

proposed capital structure, cost of debt and cost of preferred and preference stock should be adopted for this case.

70. In its original filing, Interstate requested a return on common equity ("ROE") of 12.25 percent, based on testimony filed by its rate of return witness, Robert Jackson. IPW Ex. 22, p. 6. On rebuttal, Interstate revised its request downward, based on more recent data, to 11.75 percent. IPW Ex. 23, p. 2. This revision changes Interstate's requested overall rate of return to 9.227 percent.

71. The Department filed rate of return testimony by Dr. Luther Thompson disputing Interstate's proposed ROE. Dr. Thompson used the Discounted Case Flow ("DCF") method to develop his recommended rate of return on equity. Dr. Thompson recommended a return on equity of 11 percent and an overall rate of return of 8.919 percent. DPS Ex. 35, p. 2.

72. The Commission is obligated to set rates which are just and reasonable. Minn. Stat. § 216B.03 (1994). The determination of reasonableness involves a balancing of consumer and utility interests - the Commission must insure that Interstate's authorized rate of return is set at a level which balances investor interests and consumer interests to the extent that Interstate will not earn excess profits. DPS Ex. 35, pp. 4-7.

73. The United States Supreme Court has defined the proper regulatory balance between the interests of investors and ratepayers, in the Bluefield and Hope cases. It held in Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), that a utility's return must be reasonably sufficient to assure financial soundness and provide the utility adequate means to raise capital. The Court concluded that a utility had no right to large profits similar to those realized in speculative ventures, but that the utility's return:

"[s]hould be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties."

Bluefield, 262 U.S. at 693.

74. In Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1940), the Court reaffirmed and refined the Bluefield principles. The Hope Court

reiterated the investor requirement for a return sufficient to cover operating expenses, including services on debt and dividends on stock and to assure confidence in the utility's ability to maintain credit and attract capital. The Court added that a just and reasonable return should be similar to returns on investments in other businesses having corresponding risk. Federal Power Commission v. Hope, 320 U.S. at 603.

75. In addition, the Court has acknowledged that regulation must attempt to strike an equitable balance between investors and ratepayers. In Covington and Lexington Turnpike Road Co. v. Sanford, 164 U.S. 578 (1896), the Supreme Court recognized:

"[S]tockholders are not the only persons whose rights or interests are to be considered. The rights of the public are not to be ignored The public cannot properly be subjected to unreasonable rates in order simply that stockholders may earn dividends."

Covington, 164 U.S. at 596. In Federal Power Commission v. Natural Gas Pipeline Company of America, 315 U.S. 575, 62 S.Ct. 736 (1942), this point was reemphasized:

"The consumer interest cannot be disregarded in determining what is a 'just and reasonable' rate. Conceivably, a return to the company of the cost of service might not be 'just and reasonable' to the public."

Id., S.Ct. at 753 (Black, Concurring).

76. The Commission must balance the competing interests of Interstate's investors and ratepayers in assessing the reasonableness of Interstate's proposed rates. The goal of regulation is met when rates are set at the lowest level that allows the utility to earn a return sufficient to meet the Bluefield and Hope standards. DPS Ex. 35, p. 6.

77. The authorized rate of return must be commensurate with the risks of the enterprise. No purpose is served by allowing a return which is higher than required by Interstate's investors. An excessive return would merely confer windfall gains on investors, while imposing unnecessary burdens on ratepayers.

78. A fair rate of return is the best estimate of the required rate of return to the average investor. The required rate of return is that which is necessary for investors to buy or hold a security. An investor's rate of return should reflect the total evaluation of risks the investor is willing to assume for an expected return on investment. DPS Ex. 35, pp. 10-12.

79. The relationship between risk and return is fundamental to investment behavior. DPS Ex. 35, p. 12. The greater the risk in any investment, the greater is the expected return to compensate for the risk. If an investor could obtain a higher rate of return with no increase in risk, it would be rational behavior to do so.

80. Because the required rate of return is that necessary to attract investors to buy or hold a security, it represents the utility's cost of capital. Thus, a fair rate of return for a utility should be no greater nor less than its weighted average cost of capital. DPS Ex. 35, p. 14.

81. Using the DCF technique, the cost of equity is derived by calculating the current dividend yield and the expected growth in dividends. The cost of equity equals the sum of the current dividend yield and the expected growth in dividends. DPS Ex. 35, p. 17; IPW Ex. 22, p. 12.

82. The dividend yield must reflect current market conditions as well as investor expectations for the future regulatory period, which is at least one year and probably no longer than two years. The growth rate is the rate at which investors expect dividends to grow through their investment time horizon. DPS Ex. 35, pp. 18-19.

83. With regard to the dividend yield, a short-term period more fully reflects the expectation of investors in the current regulatory period. Although a spot estimate (*i.e.*, one day) may be theoretically defensible in terms of reflecting all current information available to current investors, it is only relevant as an estimate of investors' expectations on that day. DPS Ex. 35, p. 19.

84. To estimate the current dividend yield, DPS witness Dr. Thompson used the most recent quarterly data available from Compustat's financial base. For his 20-day yield, Dr. Thompson used the most recent price data available from the Dow Jones data base as of September 13, 1995. DPS Ex. 35, p. 24. He then computed the average of the two-year annual yield (8.296%), the one-year annual yield (8.886%), the most recent quarterly data (8.620%), and the 20-day yield (8.486%). DPS Ex. 35, p. 25, Table 3. The resulting average was 8.572 percent. *Id.* at 25.

85. Based upon a review of the different yields as well as trends in the dividend yield, Dr. Thompson's range of 8.50 percent to 8.70 percent is a reasonable estimate of the current dividend yield for the current regulatory period. *Id.* at 25. This estimated range captures the current dividend yield for the expected regulatory period. Thus, the mid-point of 8.60 percent is a reasonable estimate of the current dividend yield for the combined gas and electric operations of Interstate. *Id.* at 25.

86. The period selected for the growth-rate estimate should be consistent with the current regulatory period. Dr. Thompson used an average of five-year and ten-year growth rates along with forecasted rates to determine a reasonable estimate of the growth rate in dividends per share. He used these figures because five- and ten-year growth rates are published regularly within the financial community and are accepted for use among investors. DPS Ex. 35, p. 21.

87. Use of five- and ten-year growth rates strike a balance between reflecting recent expectations and long-term stability. Growth rates beyond ten years become increasingly less important to investors, and growth rates less than five years are less reliable statistically due to normal cyclical highs and lows. While averaging the two growth rates necessarily emphasizes the more recent period, this period is also the most relevant with respect to investor expectations. DPS Ex. 35, p. 21.

88. Generally, growth in book value per share tends to be the most reasonable estimate of expected growth in dividends for an indefinite future period. Growth in book value per share is preferable to the growth rate in dividends per share and earnings per share because when earnings increase or decrease management usually prefers to adjust the dividend payout ratio to minimize the impact of earnings

fluctuations on dividends. Consequently, growth in dividends per share may not be the best measure of a long-term growth rate due to management manipulation of the dividend growth rate through its changing dividend policies. In short, the historical growth rate in dividends per share may not reflect current market conditions. DPS Ex. 35, p. 20.

89. Growth in earnings alone may also be a poor estimate of a utility's expected long-run growth, since earnings may also fluctuate widely during the regulatory period because of general economic changes. However, historical growth in earnings and dividends can be adjusted to reflect recent trends in the rate of return and the dividend-payout ratio and balanced with analysts' forecasted growth rates to achieve a reasonable result. DPS Ex. 35, p. 20.

90. Dr. Thompson examined Interstate's five- and ten-year growth rates in book value, dividends, and earnings per share, as well as log linear growth rates. DPS Ex. 35, p. 27, Table 4. He determined that a fair and reasonable estimate for the expected growth rate for Interstate is in the range of 2 percent. *Id.* at 29. In addition to Interstate's historical trends, he based this estimate on estimates and analysts' projections of future growth by Value Line and Zacks that indicate that growth in earnings will be lower. *Id.*

91. Dr. Thompson also looked at the internal growth rate and determined that the five and ten-year internal growth rates are 3.408 percent and 2.186 percent, respectively, when negative interest growth rates are excluded. DPS Ex. 35, p. 27; LCT-3, pp. 44.

92. Dr. Thompson reviewed Interstate's dividend-payout ratio and earnings on common equity for the past ten years for trends. He also looked at growth rates for book value, dividends per share and earnings per share and calculated the coefficients of variation. DPS Ex. 35, p. 28, Table 5.

93. Dr. Thompson concluded that 2 percent appeared to be an appropriate growth estimate, based on investors' reasonable expectations for long-term growth, using the historical growth rate and analysts' forecasted growth rates. DPS Ex. 35, p. 28.

94. Based on a current dividend yield of 8.60 percent and a two percent growth rate, Dr. Thompson estimated that DCF analysis of Interstate produces a cost of common equity for Interstate's combined gas and electric operations of 10.6 percent. DPS Ex. 35, p. 29.

95. To confirm the reasonableness of his rate of return estimate, Dr. Thompson performed a DCF analysis on a comparable group of electric utilities. DPS Ex. 35, p. 29-30. He used several criteria to establish risk comparability: industry classification, total risk and systematic risk. DPS Ex. 35, pp. 29-30. Using the most recent data available, Dr. Thompson determined the range of the comparable groups' dividend yields as 6.8 percent to 7.2 percent. He chose 7 percent, the midpoint, as a reasonable estimate of the current dividend yield. DPS Ex. 35, pp. 30-31. He then determined a growth rate of 4 percent for the comparable group by examining the growth in book value per share, dividends per share and earnings per share for five and

ten year periods and picking the midpoint of the range of 2.5 percent to 5.5 percent. DPS Ex. 35, p. 31; Table 7. Using 7 percent for the current dividend yield and 4 percent expected growth rate, he determined a cost of equity of 11 percent for the electric group. DPS Ex. 35, p. 32.

96. Dr. Thompson recommended 11 percent for this case rather than the 10.60 percent cost of equity that he determined for the combined gas and electric operation of Interstate Power, based on his opinion that the return for the comparable group of electric companies is the best estimate for Interstate's electric operations. DPS Ex. 35, p. 33.

97. Thompson argues that since Interstate's electric operation is more risk comparable to other electric utilities than to the combined Interstate Power, the market required rate of return for the comparable group of electric utilities is the best estimate for Interstate Electric's cost of common equity.

98. Based upon the information contained in his DCF analyses, his comparable groups and taking into consideration the outlook for the financial markets and general economy in the near future, Dr. Thompson confirmed that 11 percent is the reasonable upper limit for Interstate's current cost of common equity. DPS Ex. 35, p. 33. Based on this conclusion, he recommended an overall rate of return for Interstate Electric of 8.919 percent. DPS Ex. 35, p. 34, p. 38, Table 13.

99. Mr. Jackson also performed a DCF analysis, along with several other methods. IPW Ex. 23, pp. 12-20. He used quarterly data to derive what he refers to as the "DCFQM." *Id.* at 13. His comparison group averaged a rate of 10.31 percent. The study for IPW produced a DCF cost rate of 10.87 percent, very similar to that derived by Dr. Thompson. IPW Ex. 23, p. 16.

100. However, Mr. Jackson then makes a series of adjustments to reflect what he refers to as "market parity rather than book parity." IPW Ex. 22, pp. 18-19. To do this, he applies the DCF cost rate to the average market price and relates it to the book value per share to derive a required rate of return on book value DCFQM of 12.69 percent. IPW Ex. 22, Sched. 3, p. 3.

101. Mr. Jackson's DCF analysis assumes ratepayers are responsible for paying a return on the quarterly dividends paid to investors. The DPS argues that Jackson's adjustment of the DCF result to account for a market-to-book ratio greater than one is inappropriate because, for regulatory purposes, when the market-to-book ratio is above one, this indicates that the realized rate of return has been higher than the cost of equity capital. DPS Ex. 35, p. 35; (LCT-3).

102. Mr. Jackson maintains that if regulators set the allowed ROE based on the DCF method, the stock price will be driven down until the market-to-book ratio equals 1.0, because the DCF method assumes a market-to-book ratio of 1.0. The DPS replies that the stock price is set by the market not by regulators. It contends that such an approach is at odds with basic economic theory because it assumes that shareholders who invest in utilities with market-to-book ratios in excess of 1.0 do so with the knowledge that the price will be driven down to book value.

103. The Department argues that Mr. Jackson's method produces totally unrealistic results. His DCF approach produces ROE estimates ranging from 12.14 percent to 16.17 percent with an average ROE for his group companies of 14.80 percent. IPW Ex. 23, Sched. 3, p. 3, and that such an estimate is well outside the realm of reasonableness and reflects the unreliability of his method.

104. In its last rate case, the Commission stated that "an appropriate determination of the cost of equity capital for a company should not be based on book returns but should be based on a market oriented analysis that reflects investors' required return." Late-filed Ex. 41, p. 34. The Commission rejected Mr. Jackson's DCF analysis in that case, stating it was not market-based and did not reflect current market conditions. Late -filed Ex. 41, p. 36.

105. The payout ratio study used by Mr. Jackson assumes that the 1990-1994 mean historical payout ratios, excluding payout ratios greater than 1.00, represent the expected payout ratios for the group. The DPS argues that this assumption has not been shown to be correct. Since all payout ratios greater than 1.00 were excluded, the historical rates were not based on actual numbers and therefore may not represent a current market rate of return. DPS Ex. 35, p. 36; DPS Ex. 36, p. 3.

106. Mr. Jackson also applied a CAPM risk premium analysis. He employed the following variables: (1) risk free rate using a recent three-month average rate on 30-year Treasury bonds; (2) beta using the comparable groups' mean Value Line beta; (3) for the risk premium, he used the difference between the arithmetic mean of return on common stock and long-term U.S. Government bonds for the years 1926-1994. IPW Ex. 22, pp. 22-24.

107. The Department notes that, historically, the risk premium has shown great variability. For ratemaking purposes, the DPS maintains the Commission should determine the expected risk premium, which depends on current economic environment and current financial market conditions. It contends that the current expected risk premium cannot be estimated by simply taking an average of historical risk premiums over 69 years (1926-1994) as is done by Mr. Jackson. DPS Ex. 35, p. 37.

108. The Department argues that Mr. Jackson mismatched the risk-free yields he used in his analysis. He used the current yield on long-term U.S. Government bonds as a proxy for the risk-free rate, while using the 1926-1994 yield on long-term U.S. Government bonds to estimate the risk premium. Dr. Thompson testified that this is an inconsistent application of yields which is unlikely to produce representative results. DPS Ex. 35, p. 37. Mr. Jackson's reliance on the Ibbotson and Sinquefeld study, which is a study on the S&P 500 and selected small company stocks -- not utility stocks and therefore not likely to be representative of utilities, was also criticized by Thompson. DPS Ex. 35, p. 37.

109. Translating Interstate's risk into a just and reasonable return on equity requires an analysis which incorporates both its current yield and expected growth as well as an analysis of companies whose risk is comparable to that of Interstate. While no one method of analysis is necessarily required, the discounted cash flow ("DCF") method is generally considered to be the most basic and fair approach for regulatory purposes. It produces reasonable, consistent and fair estimates of the cost of common

equity. The DCF model is basic to modern financial theory and provides objective information concerning the cost of common equity capital in the expected regulatory period. DPS Exs. 35, pp. 15-16 and 36, pp. 2-3.

110. The Minnesota Commission has consistently utilized the DCF method in making its determinations of the appropriate rates of return for Minnesota utilities. "The DCF method is firmly grounded in modern financial theory, and has been recommended by the Department and the RUD-OAG in this proceeding and by this Commission in nearly every case decided since 1978." Findings of Fact, Conclusions of Law and Order, Interstate Power Co., Docket No. E001/GR-91-605 (1992), pp. 34-35. See also Interstate Power, MPUC Docket No. E001/GR-86-384 (1987), Findings of Fact, Conclusions of Law and Order p. 32; and Northern States Power Co., Docket No. E002/GR-91-1 (1991) Findings of Fact, Conclusions of Law and Order p. 68.

111. The Administrative Law Judge finds Mr. Jackson's approaches to be too questionable to use confidently as a basis for setting rates and therefore declines to adopt his recommended return on equity.

112. The Administrative Law Judge finds that Department witness Thompson's DCF analysis is sound and complete, based on valid regulatory principles, consistent with Commission precedent and results in a fair rate of return for Interstate. Therefore, Dr. Thompson's recommended return on equity of 11 percent should be used in this case.

113. The appropriate rate of return and capital structure for Interstate is summarized below:

COST OF CAPITAL			
	Capital Structure	Cost Of Capital	Weighted
Average			
Short Term Debt	7.593%	6.070%	0.461%
Long Term Debt	43.972%	7.752%	3.409%
Preferred and Preference Stock	7.379%	7.225%	0.5336%
Common Equity	<u>41.057%</u>	<u>11.000%</u>	<u>4.516%</u>
	100%		

8.919%
DPS Ex. 35, p. 39.

114. An upper limit of 11 percent is consistent with the corresponding risk/rate-of-return guideline -- it permits Interstate to attract capital and maintain financial integrity, and is consistent with investor expectations. In addition, the 11 percent upper limit is fair to consumers and investors. DPS Ex. 35, p. 33-34.

115. The Department's recommendation meets the Bluefield and Hope standards by properly reflecting Interstate's cost of capital while allowing a return no higher than required by Interstate's investors.

116. The appropriate required overall rate of return for Interstate is 8.919 percent, based upon the Department's proposed return on equity of 11 percent,

as well as the Company's proposed costs of long and short-term debt and preferred stock and capital structure. This will enable Interstate to maintain its financial integrity while resulting in just and reasonable rates for ratepayers and should be adopted for this case.

Discussion

The Administrative Law Judge is persuaded that the return on equity analysis and recommendation of Dr. Luther Thompson of the Department of Public Service is appropriate for adoption in this proceeding.

At the behest of the Administrative Law Judge, Dr. Thompson appeared as a witness in the evidentiary hearing. The Judge was concerned that Dr. Thompson used a "comparable" group of electric-only utilities as the proxy on which he had based his recommendation, whereas IPW is a "combination" gas and electric utility. The testimony of Dr. Thompson, particularly with reference to his not performing a Discounted Cash Flow analysis on a "comparison" group of "combination" utilities, has persuaded the Administrative Law Judge that such an analysis would be inappropriate in this case. In particular, the fact that the "combination" utilities all have a different mix of gas and electric service such that a DCF analysis of their returns would be less helpful than an analysis of the returns for electric utilities comparable to IPW's electric utility, standing alone, persuades the Administrative Law Judge that Thompson's choice of a proxy is appropriate.

Regarding whether the proxy group is better as a model for setting rates than the results of a DCF analysis of Interstate itself, Thompson has persuaded the Judge that it is appropriate to use the electric utility proxy group because it represents better the risks to be funded by the electric ratepayers of the Utility, as compared to funding the risks of the combined utility.

While no one method of analysis is necessarily required to determine return on equity, the DCF method is generally considered to be the most basic and fair approach for regulatory purposes and this approach was applied by Dr. Thompson. It produces reasonable, consistent and fair estimates of the cost of common equity. DPS Exhibits 35, pp. 15-16 and 36, pp. 2-3. The DCF model is basic to modern financial theory and provides objective information concerning the cost of common equity capital in the expected regulatory period, *Id.* The Minnesota Commission has consistently utilized the DCF method in making its determinations of the appropriate rates of return for Minnesota utilities. "The DCF method is firmly grounded in modern financial theory, and has been recommended by the Department . . . in this proceeding and by this Commission in nearly every case since 1978." Findings of Fact, Conclusions of Law and Order, Interstate Power Company, Docket No. E001/GR-91-605 (1992), DPS Exhibit 41, pp. 34-35.

The Administrative Law Judge is persuaded that Interstate's requested rate of return on equity should be rejected. It is based on questionable methodologies. Its expert witness in the area, Mr. Jackson, relies on five analyses: (1) comparable earnings; (2) quarterly DCFs; (3) linear regression analysis; (4) a payout ratio study; and (5) the Capital Asset Pricing Model (CAPM) risk premium approach. He calculates average and median values of return on equity using these five approaches for a group

of comparable companies and Interstate Power. Based on his analysis, he adopted a range of 11.45 to 11.88% and recommended a return on equity of 11.75%. IPW Exhibit 23, p. 2.

Jackson's DCF analysis is questionable for regulatory purposes. His adjustment of the DCF result to account for a market-to-book ratio greater than one is inappropriate. DPS Exhibit 35, p. 35. His contention that if regulators set the allowed return on equity based on the DCF method, the stock price will be driven down until the market-to-book ratio equals 1.0, because the DCF method assumes a market-to-book ratio of 1.0, ignores the fact that stock price is set by the market and not by regulators. The Administrative Law Judge agrees with the Department --Jackson's approach is at odds with economic theory because it assumes that shareholders who invest in utilities with market-to-book ratios in excess of 1.0 do so with the knowledge that the price will be driven down to book value.

In addition, Jackson's method produces unrealistic results. The average return on equity for his group of comparison companies is 16.43% an estimate outside the realm of reasonableness in this case.

Jackson's payout ratio study is also questionable, because the study assumes the 1990-1994 mean historical payout ratios, excluding payout ratios greater than 1.00, represent the expected payout ratios for the group, an assumption that has not been shown to be correct. Also his analysis excludes all payout ratios greater than 1.00. As a result, the historical rates used by Jackson are not based on actual numbers and therefore may not represent a current market rate of return. DPS Exhibit 35, p. 36; DPS Exhibit 36, p. 3.

Mr. Jackson's application of risk premium data raises concerns as well. Historic risk premiums show great variability. For rate making purposes, it is appropriate to determine the expected risk premium, which depends on current economic environment and current financial conditions. Estimating the current expected risk premium by simply taking an average of historical risk premiums over 69 years may be unreliable. DPS Exhibit 35, p. 37. Also, Mr. Jackson's use of the current yield on long-term on U.S. Government bonds as a proxy for a risk-free rate, while using the 1926 - 1994 yield on long-term on U.S. Government bonds to estimate the risk premium is an inconsistent application of yields that may not produce representative results. DPS Exhibit 35, p. 37. Jackson also used the Ibbotson and Sinquefeld study of the Standard & Poor's 500 and selected small company stocks - not utility stocks, and therefore not likely to be representative of utilities. DPS Exhibit 35, p. 37.

The Administrative Law Judge is unable to rely on Mr. Jackson's conclusions because of the noted flaws in his methodologies. In the past, the Commission has found Jackson's methodologies to have flaws, stating "they are not market oriented and do not reflect current market conditions". See DPS Exhibit 41, p. 36. As a result, it is appropriate to reject Interstate's risk premium analysis.

Purchased Power Contract Costs (Excess Capacity)

117. The Department analyzed Interstate's purchased power costs to determine whether any portion of these costs should be disallowed as excess capacity.

The impetus for this analysis was the Commission's Order in Interstate's last rate case. The Commission disallowed \$1,958,117 of Interstate's test-year purchased power contract costs as a representative cost for 100 MW of capacity in excess of a reasonable projection of Interstate's future demand. Interstate Power Company, Docket No. E001/GR-91-605, Findings of Fact, Conclusions of Law, and Order [DPS Ex. 41], dated June 12, 1992, pp. 17-24. In the current case, the Department analyzed Interstate's total capacity and projected demand to determine whether a similar excess capacity adjustment is warranted now. The Department determined that Interstate currently has at least 100 MW of excess capacity, with a corresponding representative cost of \$933,397. DPS Ex. 31, p. 12. Therefore, the Department proposed a \$933,397 reduction in Interstate's test-year production expenses. DPS Ex. 29, pp. 23-24. The Department also proposed a related decrease of \$125,487 in Interstate's test-year other operating revenues to account for the below-cost sale of this capacity back to one of the Company's power suppliers. Id.; DPS Ex. 31, p. 13.

118. In Interstate's 1991 rate case, the Commission analyzed the Company's purchased power contracts under two tests: the prudence test and the used and useful test. The Commission stated:

"The Company must show (1) that at the time it relied on its demand forecasts as the basis for entering the three long-term contracts it acted prudently and (2) that the electricity purchased will be "reasonably necessary to the efficient and reliable provision of utility service." The first test examines the Company's prudence, i.e. whether the Company exercised the care that a reasonable person would exercise under the same circumstances at the time the decision was made. The second test examines whether the Company has contracted for excess capacity." Late-filed Ex. 41, p. 18.

In applying the prudence test, the DPS argues the Commission concluded that Interstate acted imprudently when it entered into three long-term contracts in 1991. Id., pp. 23-24.

119. Interstate claims the DPS prudence argument confuses the issue by suggesting that these contracts remain "imprudent." Interstate points out that the Commission in the last rate case did not find the purchased power contracts to be imprudent. The Commission found that Interstate was imprudent in purchasing the amount of capacity at the particular time it was purchased. Interstate argues that if the Commission had found the purchased power contracts to be imprudent, then the cost of those contracts would not have been included in the cost of service. Interstate points out, however, that the cost of all of the contracts was included in the cost of service. As the Commission stated in its Order on Rehearing:

"Interstate argued that the IPS contract supplied the Company's ratepayers with a cheap source of energy. Petition at p.14. In this argument and recurring throughout its Petition, the Company erred in focusing on the specific IPS contract as if that contract had been disallowed. The Commission was quite clear that it was not disallowing the IPS contract as such, but merely using the price of the IPS contract's 100 MW as a proxy for the value of the 100 MW excess capacity it found." Late-filed Ex. 42, p. 5.

Interstate argues the Commission only found the level of capacity purchases imprudent.

As capacity requirements change, a reasonable person would expect the level of that capacity disallowance to change. Interstate notes that lacking a change in the level of disallowance, a utility could find itself in a deficit capacity position, yet still be assessed an excess capacity disallowance.

120. The Department did not recommend a disallowance larger than the 100 MW approved by the Commission in the last case. The prudence issue is not being re-litigated in this case. The question now is whether increases in Interstate's system loads and other changes that have occurred since the 1991 rate case have been sufficient to absorb all of the capacity additions made by the Company, including the purchased power contracts. DPS Ex. 31, p. 5.

121. The Department did not challenge Interstate's load forecast in this case. Department witness Brian Parsons noted that while Interstate's forecasting model tends to overstate the Company's peak load (as happened in the years 1992 through 1994), the Company's model under-forecasted peak load for the summer of 1995, which included very hot weather. DPS Ex. 31, p. 6. Consequently, the Department did not submit a forecast of its own in this case. The Department accepted the Company's actual peak load from the summer of 1995 but still determined that Interstate currently has more than 100 MW of excess available capacity. *Id.*, pp. 9-10 and (BP-5); DPS Ex. 30, p. 2. In fact, even when giving Interstate the benefit of a 1995 actual peak demand that was 65 MW higher than Interstate's forecast (DPS Ex. 31, p. 6), the Department found that Interstate has 120 MW of excess capacity. *Id.*, p. 10 and (BP-5).

122. The Department's analysis of estimated peak load and available capacity information provided by the Company through the year 2004 concludes that Interstate currently has excess capacity of 120 MW and will maintain an excess capacity of greater than 100 MW through the year 2000. DPS Ex. 31, pp. 7-8 and (BP-3). The DPS advocates that an adjustment for costs associated with 100 MW of excess capacity is warranted in this case.

123. In Interstate's last electric rate case, Docket No. E-001/GR-91-605, the Commission disallowed recovery for 100 MW using the Iowa Public Service Purchase Power Contract as a proxy for the disallowance. At the time the MPUC issued its Order in Docket E-001/GR-91-605, Interstate's historical peak usage was 919 MW which occurred in 1988. As noted in DPS witness Parsons' Direct Testimony, Exhibit 31, the system peak has grown to 1,011 MW. This is 92 MW of load growth. The capacity purchase from Minnesota Power has increased by 25 MW since the last rate case decision.

124. Interstate claims the 92 MW growth suggests that continued growth is likely. Interstate argues the capacity purchase is needed and should not be disallowed. IPW Ex. 14.

125. The Department arrived at a \$933,397 cost of Interstate's 100 MW of excess capacity by calculating the cost of three components: (1) a demand component; (2) a wheeling component; and (3) an energy cost saving component. DPS Ex. 31, pp. 10-12. The demand component was calculated as the proportion of the total demand costs that 100 MW bears to the total demand in MW for each of Interstate's three power suppliers for each month of the test year. *Id.*, pp. 10-11 and (BP-6, p. 2

of 4). The twelve month Minnesota jurisdiction total is \$1,580,754. *Id.* The wheeling component was calculated in a similar manner, substituting wheeling costs for demand costs, for a twelve month Minnesota jurisdiction total of \$126,334. DPS Ex. 31, pp. 11-12 and (BP-6, p. 3 of 4).

126. The energy cost saving component was calculated as the excess capacity share (100 MW) of the total energy cost savings associated with the 200 MW of year-round purchases. DPS Ex. 31, pp. 11-12 and (BP-6, p. 4 of 4). The Minnesota jurisdiction energy cost savings associated with the excess capacity is \$773,691. *Id.* The total cost of Interstate's 100 MW of excess capacity was calculated by adding the demand component (\$1,580,754) and the wheeling component (\$126,334), for a total demand-related cost of \$1,707,088. DPS Ex. 31, p. 12. Then the energy cost savings (\$773,691) was subtracted from the total demand-related cost to arrive at a test-year cost of excess capacity of \$933,397. *Id.* Thus, \$933,397 was the Department's recommended disallowance from Interstate's test-year production expenses for 100 MW of excess capacity. *Id.*; DPS Ex. 29, pp. 23-24.

127. There are two aspects of the Department's cost of excess capacity calculation which should be noted. First, it is not based on the use of the Iowa Public Service (IPS) contract as a proxy for excess capacity costs, as the Commission did in Interstate's last rate case. DPS Ex. 41, pp. 22-23. Rather, the Department's calculation is based on costs associated with all three of Interstate's long-term purchase power contracts, and incorporates costs of energy for Interstate's system capacity as well. However, the Department's total demand-related cost for excess capacity (\$1,707,088) is very close to Interstate's current Minnesota jurisdiction costs for IPS capacity charges (\$1,721,424). IPW Ex. 14, p. 5. Therefore, the Department's cost of excess capacity calculation results in an adjustment that is very similar to the cost of using the IPS contract as a proxy for excess capacity costs.

128. A second difference between the Department's calculation and the method employed by the Commission in the last case is the inclusion of an offset for energy cost savings. The Commission rejected Interstate's claim of energy cost savings in the last case based on a lack of record evidence:

"Interstate alleged that the Commission erred in not crediting Interstate's shareholders with the vast energy savings (avoided fuel costs) due to the IPS purchase power contract. Petition, page 8. The Commission finds that the Company did not document such savings in the record, thereby failing to meet its burden of proving the value of the alleged energy cost savings. In these circumstances, no offset is possible." Late-filed DPS Ex. 41, p. 6.

In this case, the Department has received data from the Company from which it has calculated the energy cost savings associated with Interstate's long-term purchase power contracts. In addition, Department witness Parsons noted that the purpose of an energy cost savings offset "is to credit Interstate with a measure of the energy cost savings it achieved by entering into the purchased power contracts (which have relatively low energy costs), even if they resulted in excess capacity." DPS Ex. 31,

p. 11. Therefore, an energy costs savings offset to the excess capacity disallowance is justifiable and supported by the evidence in this case.

129. In calculating the amount of Interstate's excess capacity, the Department excluded 75 MW from the peak load that the Company is required to meet. DPS Ex. 31, p. 13. This 75 MW is capacity that the Company is selling back to United Power Association (UPA) at a contract rate that is roughly 16.5 percent of the rate that the Company is paying UPA for the capacity in the first place. *Id.* Because the Department recommended that the costs of this capacity be excluded from the Company's test-year expenses, the Department also recommended that revenues earned by the Company from the sale of this excess capacity be excluded from test-year revenues. *Id.* This is another adjustment to the excess capacity disallowance which the Commission did not accept in Interstate's last rate case. *See* DPS Ex. 41, p. 22. However, while the basis for rejection in the last case was the fact that Interstate had no test-year sales of excess capacity (*see id.*), Interstate does have sales of excess capacity to UPA in the current test-year. Therefore, a revenue adjustment for the sale of excess capacity back to UPA by Interstate is warranted.

130. The Department calculated this adjustment by applying the jurisdictional allocator to the Company's 1994 demand-related revenue associated with the 75 MW sale of capacity to UPA. DPS Ex. 31, p. 13 ($14.6769\% \times \$855,000 = \$125,487$). Thus, the Department recommended a \$125,487 reduction in Interstate's other operating revenues to account for the below-cost sale of excess capacity to UPA.

131. The Company agrees the Department's excess capacity (if any exists) calculation of \$933,397 for 100 MW of excess capacity is more accurate than its own determination of the cost of the 100 MW, although disagrees that this amount is excess capacity.

132. The Department's position that IPW's below cost sale of excess capacity warrants a \$125,487 reduction in test-year other operating revenues is consistent with its recommendation to exclude the expenses of these purchase power contracts.

133. Interstate argues that the DPS disallowance recommendation is not a logical extension of the Commission's previous decision. Interstate argues the system growth since the last Commission decision suggests any disallowance recommendation should be lower than in the previous case. IPW argues that if any amount is disallowed, such amount should be no greater than 33 MW. IPW Ex. 17, pp. 2-3. Interstate reaches such a figure by taking the 100 MW disallowance in the previous case, subtracting the 92 MW load growth, then adding the 25 MW increase in capacity purchase from Minnesota Power to the 8 MW difference. Interstate argues disallowing any amount greater than 33 MW would have the effect of disallowing capacity previously allowed in its last rate case.

134. The Department replies that Interstate's analysis, concluding that 33 MW is the maximum excess capacity, is flawed. The DPS notes that the Company failed to acknowledge the fact that the Department's finding of excess capacity in this case is based on a comparison of Interstate's available capacity with its most recent, highest peak usage established in July 1995. DPS Ex. 30, p. 2. Interstate's argument also assumes that the Company had no excess capacity at the time of the 1991 rate case other than the 100 MW disallowed by the Commission. However, the Department's

forecast of Interstate's excess capacity in the last case, which the Commission accepted, showed that Interstate would have at least 166 MW of excess capacity in the years 1992 through 1994. DPS Ex. 41, p. 21. This is 66 MW higher than the 100 MW excess capacity disallowance from the last case and 74 MW higher than the excess capacity that Interstate's argument assumes has been absorbed by changes in its peak demand. When the 25 MW additional capacity purchase is added to the latter figure, the resulting excess capacity is 99 MW, a figure practically identical to the Department's recommended disallowance in this case. DPS Ex. 30, p. 5. Therefore, the Department believes Interstate's critique of the Department's excess capacity disallowance should be rejected.

135. Interstate points out that it has been very active in Demand Side Management ("DSM") since Interstate entered the purchased power contracts. DPS Exhibit 31, (Schedule BP-2), attached to DPS witness Parsons' Direct Testimony, shows DSM to be 2 MW (off the summer peak) in 1992, when the MPUC made its decision in

Docket E-001/GR-91-605. The comparable estimate for DSM in 1995 is 70 MW. Interstate argues any disallowance for excess capacity is equivalent to penalizing Interstate for actively pursuing DSM.

136. DPS Exhibit No. 31, (Schedule BP-5), shows how DPS witness Parsons arrives at a 100 MW excess capacity figure. Parsons determines required capacity by applying a 15% reserve margin to a previously experienced capacity requirement. Interstate points out that the 15% reserve margin is the minimum reserve requirement of the MAPP to avoid a severe penalty. DPS witness Parsons then determines excess capacity is 120 MW and concludes the disallowance should be 100 MW. Interstate notes this is only allows 20 MW for future growth despite the acknowledgment of the 92 MW of growth Interstate just experienced. Interstate argues the DPS is taking luxuries in reaching his recommendation which Interstate and its customers cannot afford. Interstate argues it cannot satisfy its obligation to serve future requirements, whatever these requirements may be, by having only a level of capacity in place to satisfy an historic peak. Accordingly, Interstate concludes that the maximum disallowance should be 33 MW.

137. Interstate believes that no disallowance is the appropriate choice because this allows for future load growth which the record indicates is likely and does not penalize Interstate for aggressive pursuit of DSM.

138. DPS witness Parsons, at page 6, line 23 of Exhibit 31, indicates a new peak of 1011 MW was achieved in 1995. Although outside the test year of 1994, this is relevant because it is a known and measurable change. As such, its consideration is relevant to determining whether any purchased power should be disallowed. (See Tr. pp. 142-143, Vol. I.)

139. Interstate maintains that regulatory consistency suggests that the appropriate starting point for the analysis of whether Interstate has excess capacity is the Commission's previous order. Interstate alleges that the 100 MW disallowed in the last rate case are now used and useful to Interstate because of the significant load growth Interstate has experienced (92 MW). Although Interstate now has an additional 25 MW of purchased power, it asserts that the record indicates that future load growth makes the additional capacity necessary. It points out that the new 1995 peak illustrates the continued growth in load and, therefore, the need for the purchased power. (See Vol. II, Tr. pp. 143-144.)

The ALJ finds that the DPS analysis does not adequately consider Interstate's obligation to serve. The DPS analysis overstates Interstate's excess capacity because it does not allow sufficiently for future growth and "caps" the reserve at the level MAPP requires to avoid a penalty. A higher reserve allowance, within reasonable boundaries, is appropriate.

140. The ALJ accepts the Department's determination that Interstate currently has excess capacity, and that the excess, if the proper level is 100 MW, has a corresponding representative cost of \$933,397. The ALJ accepts also the Department's recommendation to decrease Interstate's test-year other operating revenues by \$125,487 to account for the below-cost sale of capacity back to UPA, one of the Company's power suppliers. *Id.*

141. Weighing all of the above, it is found that the appropriate level of excess capacity for IPW during the test year is 50 MW. It is appropriate to reduce Interstate's test year production expenses by half the \$933,397 recommended by the Department, or by \$466,699, as a result.

Discussion

While the Administrative Law Judge is persuaded that IPW has excess capacity during the test year, he believes the level of such excess recommended by the DPS 100 MW, is too high. The Judge has found appropriate a disallowance of 50 MW, which computes to an 18.8% reserve margin.

It is appropriate to start with the known and measurable peak demand of 1,011 MW in 1995. Given that the Company's capacity is 1,306 MW, a 22.5% reserve, excess capacity is demonstrated. The Administrative Law Judge is persuaded that a level of reserve 50% greater than the 15% required by the Midwest Area Power Pool (MAPP) is too high for ratepayers to absorb appropriately. IPW's argument that a disallowance penalizes its Demand Side Management achievements is immaterial -- the Company is required to pursue those efforts in any case.

A 50 MW disallowance would leave a reserve of 245 MW (18.8%). The Judge believes it is appropriate to ask ratepayers to fund that level of reserve, to account for the MAPP requirement at a reasonable level above that which IPW may not fall without incurring a penalty for having too little in reserve, and absorb any potential growth in demand during the regulatory horizon.

RATE DESIGN

142. With two exceptions, all rate design issues are either undisputed or resolved. Joint Exhibit 44 sets forth the portions of IPW's proposal that the Department did not dispute. The Settlement Agreement, Joint Ex. 1, resolves all disputed rate design issues except the two that remain in controversy.

143. The issues still in dispute are use of declining block rates for Residential and Single-Phase Farm customer classes and the credit used in IPW's proposed Interruptible Rates.

144. A Class Cost of Service Study (CCOSS) was performed by each of the parties. However, as noted in the Settlement Agreement, acceptance of a CCOSS is not required to resolve the remaining disputed issues. See Settlement Agreement, Joint Ex. 1, p. 7.

Principles of Rate Design

145. The Company bears the burden of proof that the proposed rate design is just and reasonable and not unreasonably prejudicial, preferential or discriminatory. Minn. Stat. §§ 216B.03, 216B.16, subd. 4.

146. 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. Hibbing Taconite Co. v. Minnesota Public Service Commission, 32 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).

147. The Minnesota Supreme Court has stated expressly that both cost and non-cost factors must be considered in designing rates. Reserve Mining v. Minn. Public Utilities Commission, 334 N.W.2d 389, 393 (Minn. 1983).

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

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

In Reserve Mining v. Minn. Public Utilities Commission, *supra*, 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.

149. The Department established the following regulatory goals to guide its rate design recommendations:

- 1) Rates should be designed to provide the utility a reasonable opportunity to recover all prudently incurred costs. . . .
- 2) Rates should be designed to promote an efficient use of resources. Accordingly, rates should reflect the costs that customer classes impose on the utility's system. . . .
- 3) Rates and conditions of service should maintain a reasonable continuity with the past. . . .
- 4) Rates and conditions of service should be logical, understandable, and easy to administer.

DPS Exhibit 7, pp. 5-6.

Declining Block Rates

150. IPW proposed declining-block rates for high usage Residential (Residential Rate 161-162) and Single Phase Farm (Single-Phase Farm Rate 808) customer classes during the non-peak (winter) season. IPW Exhibit 3, pp. 22-23.

151. The Department opposed use of declining block rates arguing that energy and demand costs can vary by season and time of day but not by cumulative consumption, as declining block rates suggest, and such rates do not promote efficient use of energy resources in that they are not cost based. DPS Exhibit 7, p. 6.

152. The rate design proposed by IPW contains a lower tail-block rate for monthly energy consumption exceeding 1,000 kwh for the Residential class and 2,000 kwh for the Single-Phase Farm class.

153. IPW did not include generation and transmission demand costs in the tail-block of the winter season rates; these costs are allocated between the summer and winter seasons but included in only the summer and initial-block rates.

154. IPW argued that fixed costs associated with IPW's electric service are recovered in summer rates and in the non-summer initial-block rates and, therefore, those charges should not be included in the tail-block. Under the IPW analysis, including those charges in the non-summer tail-block would result in over-recovery of those costs.

155. The Department contends that, by allowing high use customers in the non-peak season to obtain electricity at a rate that excludes transmission and generation demand costs, that is priced below cost, IPW was offering a discount to those customers. DPS Ex. 7, p. 27. This discount would insulate them from having to pay the full cost of the electricity they use and therefore reduce their incentive to conserve. Tr. Vol. 2, p. 93.

156. IPW states that by reducing the tail-block rate, IPW intended to increase its load factor and benefit all system customers. IPW Exhibit 3, pp. 22-23. The Company denies that its declining-block prices are below cost. IPW Exhibit 3, p. 24.

157. The Department argued that there is no data showing when generation and transmission demand costs are occurred and thus they cannot legitimately be removed from any segment of the rates. IPW's application of the probability of the contribution to peak (PCP) method of allocating fixed (demand) costs to seasons indicates there are peaking conditions in both the summer and non-summer seasons.

158. DPS contended that setting rates based on cost sends consumers accurate price signals about the costs of their use of electricity, guides them in making efficient energy choices, and encourages conservation.

159.

160. The Department's central premise is that demand costs can vary by season and time of day but not with a customer's cumulative consumption. DPS Ex. 11, p. 3. Under the Department's analysis, generation and transmission demand costs may be incurred and thus assignable throughout the year. Consequently, these charges ought to be included in the tail-block rates as well as the initial block of the non-peak season.

161. IPW's pricing proposal for the residential class is described in the following table. While the numbers pertain to the residential class only, IPW does exclude generation and transmission demand costs from both the Residential and Single-Phase Farm customer classes.

INTERSTATE PROPOSED
Residential Class Rate 161-162
Development of Energy Charges
(\$/Kwh)

<u>CHARGE</u>	<u>SUMMER</u>	<u>NON-SUMMER</u>	
		<u>INITIAL BLOCK</u>	<u>TAIL BLOCK</u>
Energy	.02418	.02217	.02217
Generation and Trans. Demand.03999	.02668		
Distribution Demand	.01674	.01143	.01143
Adjustments	<u>.01091</u>	<u>.01185</u>	_____
First Pass Charge	.09182	.07213	.03360

162. IPW argued that use of declining block rates will increase intra-class equity. IPW Exhibit 3, p. 23; IPW Exhibit 4, p. 11.

163. DPS presented analysis that showed that flat rates more accurately track costs. It maintains that under a declining-block rate, the variance between price and cost increases as the use increases and the difference in fact exceeds the amount by which flat rates over-recover costs. To the DPS, this demonstrates that flat rates recover costs more accurately than the use of declining-block rates. DPS Exhibit 11, pp. 9-11, and Schedule JMH - 5.

164. Interstate claims the declining block rate will not interfere with conservation efforts because the summer rate does not include the declining block rate. (Tr. Vol. I., p.37 (14)). Interstate points out that in the summer each unit will result in additional cost to the consumer. Interstate argues that this is the appropriate price signal when conservation is the overriding, priority goal - that is during peak conditions. Interstate advances that at other times of the year, when peak conditions are absent, conservation is still important; but that the declining block provides the necessary recognition that high load factor usage, and therefore efficient system usage, is also an important goal. (Tr. Vol. I, p. 38 (2)) Interstate argues that conservation is still recognized because the energy is not sold below cost even in the non-peak season.

165. Interstate also points out that the DPS uses the term "high-use" but never really addresses the relationship between usage and load factor. Interstate argues the declining block does not seek to encourage high usage, but rather, the rate seeks to keep high load factor usage closer to actual cost.

166. By reducing the unit price for higher use levels, IPW conveys a message that the unit cost of electricity decreases with increased volume of consumption and sends the wrong price signal to consumers. The ALJ finds, therefore, that use of declining-block rates reduces the incentive to conserve energy and may increase actual use of electricity.

167. The ALJ finds that IPW proposes to provide a discount to large volume customers by failing to include generation and transmission demand costs in the tail block rates. DPS Ex. 7, p. 27.

168. The ALJ finds that by allocating all non-summer generation and transmission demand costs to the initial block of the winter seasonal rates (see DPS Exhibit 8, JMH 4, pp. 9-10), IPW can offer a lower rate to high use customers, and, thus, allow those customers to pay less than the full cost of electricity consumed.

169. The ALJ finds it is appropriate to reject use of declining-block rates and will recommend adoption of the Department's proposed flat rate.

Discussion

Interstate argues its proposed declining block rate is appropriate where no separate demand charge is utilized. (Ex. 3, p. 22 (line 25)) This rate features an initial winter block of 1000 kwh which is the same as the existing breakpoint for IPW's major residential rate groups in other states. Interstate indicates, for the winter season, its residential load research strata indicate the load factor increases with increased usage. According to Interstate, this justifies the use of a winter declining block rate structure. (Ex. 3, pp. 22-23) Interstate has proposed a declining block for the single phase farm rate on the same basis. (Ex. 3, p. 23) In each case the block has been set at about one and one-half times the average bill usage. (Id.) Interstate claims this will assist in the rate more accurately tracking costs. Interstate points out that energy cost components of the rates, however, are not decreased as consumption increases. (Id.) Interstate also argues that because the declining block rate is seasonal, and because energy is never priced below cost, this rate design will not interfere with the goal of conservation.

Interstate argues that this is done to reduce over-collection of fixed costs from certain high load factor customers. Under Interstate's proposed seasonal declining block rate, high load factor customers will still pay more than the average share of fixed costs, and may pay more than actual costs at certain load factors. (Tr. Vol. I, p.39(3)) Interstate points out that the average generation and transmission costs are more than covered by any customer that uses more than 562 kwhs (which is the average consumption for the class). (Id.) Interstate claims this is appropriate because high load factor customers are good for the electric system because they contribute to a greater portion of the costs for the system by using the system more efficiently. (Tr. Vol. I, pp. 48-50)

Since electricity cannot be stored, and since a utility must provide instantaneous and uninterrupted service, the size of a utility plant is determined by the amount of service taken by its customers at any particular time (peak period). The peak, it should be noted, may occur only for a short period of time once a year. Utilities attempt to keep their load factor as high as possible, for the higher the average output relative to the peak load, the more units over which to spread the large amount of fixed costs typical of electric utilities. Customers, too, have load factors: the average consumption expressed as a percentage of the maximum consumption. A customer whose average load is high relative to his maximum demand is a more desirable customer than one whose load factor is low.

Interstate claims a declining block rate encourages this high load factor type of usage. (Tr. Vol. I, p.37 (22)-p.38 (12)). Interstate argues that the rate does not jeopardize the contribution to appropriate costs by the high load factor customer but rather, the declining block rate design produces a more accurate reflection of actual costs for such a customer. (Id.) Interstate has provided a graph of the declining block rate to compare actual cost to serve and the price charged, in which the price line will more closely follow the cost line with a declining block rate design than it would if a flat-line rate was used, in Appendix A of its Initial Brief. Interstate argues that comparison of the declining block rate against the flat-line rate without reference to cost, as DPS witness Holliman has done in Exhibit 11, Schedule JMH-8, is not useful. However, see Exhibit 11, Schedule JMH - 5.

Interstate argues that the declining block rate's seasonal feature will place the goal of conservation foremost in the peak season. This will place the goal of conservation above efficiency in the peak season, but this is reasonable, as conservation should be the overriding goal under peak conditions. During the non-summer season, the pricing of energy will never be below cost. This will assure that no discount below cost for high usage occurs and that proper pricing signals are sent. This will adequately encourage conservation while also recognizing the importance of efficiency.

IPW maintains that the Department's characterization of conservation ignores the difference between conservation and efficiency. The Company says the DPS seems to presume that all use of electricity is inherently bad and should be discouraged, and IPW says this goes too far. Because the declining block rate recognizes efficiency without sacrificing conservation, according to the Company, the declining block rate best achieves the desired goals.

While IPW has presented an impressive array of data indicating that more customers will stay on its system longer if unit prices are down, thereby increasing the load factor (the benefits of which are not denied), its evidence does nothing to impeach

the DPS' point that lower rates encourage consumption, which is a disincentive to conservation. Since conservation is a major goal of the PUC, and the declining block rate proposal discourages pursuit of that goal, IPW's proposal should be rejected. The Administrative Law Judge cannot accept the Company's argument that increased consumption does not discourage conservation.

The Judge is persuaded also that the DPS is correct in its argument that generation and transmission charges have to be accounted for at all levels of consumption - that it is inappropriate for Interstate's "tail block" not to include them. This is another reason not to adopt IPW's proposal for declining block rates in the non-summer season for the residential and farm classes.

Declining block rates have not been shown to be cost-based and the record indicates they reduce the incentive to conserve. Efficiency is encouraged by basing price on costs and conveying accurately those prices to consumers. Ideally, rates should reflect the costs that the customer class imposes on the system, tempered by additional goals of maintaining a reasonable continuity with the past so as to avoid drastic impact on customers. Setting rates based on costs sends customers accurate price signals about the costs of their electric use, guides them in making efficient energy choices and encourages conservation.

Declining block rates work against these goals by allowing high use customers in the non-peak season to obtain electricity priced below cost. Such a discount encourages consumers to use more electricity than they might otherwise use, reducing the incentive to conserve.

The Company's denial that its declining-block prices are below cost is rebutted effectively by DPS witness Holliman, who notes that the Company does not include generation and transmission demand costs in the tail-block of the winter season rates, suggesting that monthly consumption above a certain level imposes no generation or transmission capacity costs on the system. The Administrative Law Judge is not persuaded that such costs are not a part of all the energy consumed at whatever level by this utility's ratepayers. Also persuasive is Holliman's showing that, as usage increases under IPW's proposal, the difference between price and cost grows to a level exceeding the amount by which flat rates over-recover costs at those levels. See Finding 163.

As noted by the Department, "energy costs per unit can vary by season and time-of-day, but not with a customer's cumulative consumption". DPS Exhibit 11, p. 3. The Administrative Law Judge agrees with that argument. By reducing the unit price for higher use levels, the Utility conveys a message that the unit cost of electricity decreases with increased volumes of consumption and sends the wrong price signals to the customers, resulting in the removal of the incentive to conserve energy. Declining block rates may actually increase use by reducing the cost of increased consumption. While improving the load factor is a laudable goal, the increase in the load factor is outweighed here because it means, in reality, encouraging an increase in the use of electricity during the non-peak season. Encouraging more use of electricity does not foster conservation. It is appropriate to adopt the flat rates, which better reflect cost of service and send accurate price signals to consumers, as advanced by the DPS.

Interruptible Credit

170. IPW proposes to implement a separate interruptible service rate that includes a credit per kW of interruptible load based on the generation costs associated with its gas turbine units located near Lime Creek, Iowa (Lime Creek plant). IPW Exhibit 3, p. 27.

171. Interstate proposes the credit be based on generation costs related to its latest gas turbine units located near Lime Creek, Iowa. (IPW Ex. 3, pp. 27-28) Interstate determined that such a credit is \$4.68 per month per kW. (Id.) The credit is then seasonally matched to the Rate 447 seasonal demand charges. (Id.)

172. The Department agrees with the Company that use of an interruptible rate is beneficial to all ratepayers. DPS Exhibit 7, p. 44.

173. The Department opposes the IPW proposed credit, believing that the value of interruption and thus the interruptible credit can best be set by determining the market value of interruptibility held by interruptible customers. DPS Exhibit 7, p. 44.

174. Because the information needed to set a market-based credit is not available, the Department strongly recommends that IPW be required to perform an analysis that would determine the optimal credit based on market forces and submit it in IPW's next rate case. DPS Exhibit 7, pp. 46-47; DPS Exhibit 11, p. 15.

175. The Department opposes use of the Lime Creek data because the costs associated with that plant are sunk and thus non-avoidable. DPS Exhibit 11, p. 16.

176. The Department proposed to use the rate contained in MAPP Pool Schedule H as a proxy for the generation costs that IPW would avoid in the short term. DPS Exhibit 7, p. 47. DPS witness Holliman computes the resultant discount at \$1.94/kw. Id.

177. DPS argued that Schedule H was a better proxy because without the capacity provided by interruptible customers, IPW would need to obtain power from another source and that source is most likely MAPP Schedule H. Id. In the event that IPW's interruptible customers refuse to interrupt or cancel their interruptible contracts and IPW therefore may lack capacity to meet demand for electricity caused by that refusal, the company will again most likely draw on MAPP to meet customer demand. Id. The Department believes that its proposed proxy in MAPP Schedule H more closely represents the short term costs IPW would avoid than do the costs associated with the Lime Creek plant.

178. Interstate believes no basis exists to justify use of Schedule H because Schedule H is used for the sale of short-term peaking capacity needs as opposed to installing additional peaking capacity as represented by Interstate's Lime Creek Station. Interstate argues that as the goal of the CIP/interruptible rate program is to avoid having to install additional capacity by encouraging customers to use the interruptible rate, not the avoidance of short-term peaking capacity purchases, the cost of installing additional peaking capacity (the Lime Creek Station) is the appropriate proxy.

179. Interstate argues the cost-based adjustment proposed by Interstate is contextually supported and consistent with the method by which the DPS Commissioner

evaluated and accepted Interstate's CIP Program. (Ex. 4, p.14). The Commissioner accepted program used the Lime Creek Station costs. (Ex. 4, p.14 (17)). Interstate claims that because these costs are used to determine the likely effectiveness of DSM and the CIP Program, variance from these costs would be inconsistent and risks jeopardizing the goals and projections of the CIP Program. (Ex. 4, p.14) Interstate points out that the DPS did not consider the effect its proposal would have on the CIP Program. Tr. Vol. I. p.86.

180. Interruptible customers represent a source of capacity that allows IPW to avoid or defer new construction or purchasing power from MAPP; therefore Lime Creek costs are not an adequate proxy for acquiring additional power when Lime Creek is generating electricity at full capacity. Id.

181. The ALJ finds it appropriate to adopt the DPS's modification to IPW's proposed interruptible rate.

Discussion

The Administrative Law Judge is persuaded it is inappropriate to use the Lime Creek plant, a peaking unit already in use by the Company, as a proxy to determine the interruptible discount. The key concept is to decide what energy cost is being avoided when customers are interrupted. The Administrative Law Judge is not persuaded that such energy is that produced at Lime Creek. Rather, he is persuaded that the proxy proposed by the DPS - the rate in MAPP Pool Schedule H - is the appropriate measure.

The DPS recommends that IPW be required to perform an analysis determining the optimal credit based on market forces, to be submitted in IPW's next rate case. While that analysis would provide, arguably, a good basis to establish the interruptible credit, that information is not in this record. The Administrative Law Judge believes the next best step is to determine what data will provide the most accurate proxy for an interruptible credit in this proceeding. The Lime Creek data is inappropriate because the costs associated with that plant, which is already in use, are sunk and thus non-avoidable. Interruptible customers represent a source of capacity that allows the Company to avoid new construction or purchasing power from MAPP - therefore, Lime Creek costs are not an adequate proxy for acquiring additional power when Lime Creek is already generating electricity.

The Administrative Law Judge agrees with the Department's proposal to use the rate contained in MAPP Pool Schedule H as a proxy for generation costs that IPW would avoid during the regulatory horizon of this case. Logic supports that recommendation for two reasons. First, without the capacity provided by interruptible customers, the Company would need to obtain power from another source and that source is not Lime Creek but, most likely, the Midwest Area Power Pool, at the rates published in Schedule H. Second, if the Company's interruptible customers refuse to interrupt or cancel their interruptible contracts and the Company therefore lacks the capacity to meet the demand for electricity caused by the refusal, the Company again will most likely draw on MAPP to meet customer demand.

The Company cautions that, if the discount is too low, which may result from using MAPP Schedule H as the proxy to determine such a discount, then customers will simply quit the system or, in the alternative, not agree to be interrupted, which will

create greater system demand and cause the possible premature construction of a base-load plant. This argument ignores the analysis of what electricity is actually being replaced, and the Administrative Law Judge is persuaded that the electricity available from MAPP is what the agreements on the part of customers to have their service interrupted is avoiding. In addition, the Company's argument about losing customers is speculative, and the best way to test such speculation is to conduct the study recommended by the Department.

Public Hearings and Comment

182. Of the three public hearings (Albert Lea October 4, Stewartville October 5 and Fulda on November 2, 1995), the only one attended by members of the public was that convened in Albert Lea. Approximately 40 persons attended, mostly members of the Minnesota Utility Investors (MUI) group, and few spoke directly to issues involving electric rates. At that time, the increase proposed for electricity was 10.2% overall, and that proposed for gas service was 29%. The 29% proposal drew most of the specific commentary on proposed rates.

183. At the Albert Lea hearing, Lester Ericsson of Albert Lea, representing MUI, proposed a return on equity of 11.99%. The proposal is an estimate of what level of return must be awarded in order to attract investors' money to Interstate, when competing with other utilities for investor attention. MUI contends that 11.99% represents the average of returns on equity allowed by state regulators to other utilities in recent proceedings (11.59%) plus a flotation adjustment of 0.15 and a "risk premium" of 0.25 percent. MUI cautions that Interstate must be awarded returns at that level or it will not be able to compete in attracting investors.

184. Mr. Ericsson's proposal, although compelling and logical on its face, has been given little weight by the Administrative Law Judge. Rate of return testimony is presented properly through experts who are qualified to analyze complex financial issues related to utility regulation. These experts study specific facts in the record and apply sophisticated analysis, such as the DCF model, to estimate returns on equity. Such witnesses prefile their testimony and make themselves available for cross-examination as witnesses for parties that have intervened properly. MUI has not so intervened and is not a party to the case. Mr. Ericsson's testimony was not prefiled, and the other parties were unable to test it by cross-examination.

185. Since MUI's proposed return on equity is not based on an analysis accepted in the past by the Commission or that can be shown to be conceptually sound, the Administrative Law Judge has not considered it in arriving at his Return on Equity recommendation.

186. One commentator at the public hearing suggested IPW "phase in" its rate increases, rather than ask for so much at one time. Another suggested the Company merge with a larger utility whose rates are lower, such as NSP. Comments regarding the strain put on the budgets of persons on fixed incomes by any rate increase were also heard.

187. The ALJ has received a moderate number of letters from ratepayers commenting on Interstate's electric rate proposal. The letters are mostly from elderly

people on fixed incomes and all complain that a 10.2% increase in electric rates is too much for their budgets to bear. Several allege IPW's present rates are too high from the start. The most intriguing proposal is from a visually impaired customer who believes a discount should be offered to customers with a credit history of paying on time, and that the Company should be more aggressive, including requiring higher rates, for those who do not pay on time.

Revenue Deficiency

188. In its original filing, Interstate proposed an overall rate increase of \$4,568,983 (10.2%). In its final proposal, Interstate requests an overall rate increase of \$3,537,053 (7.9%). The DPS proposes an overall rate increase of \$2,376,074 (5.3%).

189. The test year revenue deficiency for Interstate Power Company (electric) in Minnesota is \$2,642,089, calculated as shown below. Recovering that amount raises overall rates 5.66%.

Revenue Deficiency Calculation

Rate Base (Company's Last Calculation)	\$73,097,024
Overall Rate of Return (11% Cost of Equity)	8.919%
Required Operating Income	\$6,519,524
Operating Income*	\$4,970,457
Income Deficiency	\$1,549,067
Revenue Conversion Factor	<u>1,7056</u>
Revenue Deficiency	\$2,642,089

*IPW's final figure, plus half of DPS recommended after-tax disallowance for Excess Capacity.

Based upon the above Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. The Minnesota Public Utilities Commission and the Administrative Law Judge have jurisdiction over the subject matter of this hearing pursuant to Minn. Stat. Ch. 216 B, Minn. Stat. §§14.57-14.62 and Minn. Rules 1400.5100 - .8300.
2. Any of the above Findings of Fact more properly considered Conclusions are hereby adopted as such.
3. The Public Utilities Commission (PUC) gave proper notice of the hearing in this matter, has fulfilled all relevant, substantive and procedural requirements of law or rule and has the authority to take the action proposed. The Company gave proper notice of the public and evidentiary hearings in this matter.
4. The appropriate burden of proof in this proceeding is to establish facts by a fair preponderance of the evidence.
5. The appropriate test year for determination of the revenue requirement in this case is January 1, 1994 to December 31, 1994, adjusted for known and measurable changes.
6. The appropriate cost of long-term debt for the Company for use in this proceeding is 7.752%.
7. The appropriate cost of short-term debt to be used in determining the Company's cost of capital is 6.070%.
8. The appropriate cost of preferred & preference stock to be used in determining the Company's cost of capital is 7.225%.
9. Discounted Cash Flow (DCF) analysis indicates that IPW's dividend yield is between 8.50 and 8.70%.
10. DCF analysis indicates that the Company's growth rate estimate for the current regulatory period is 2.0%.
11. It is appropriate, in analyzing the risk for IPW's electric operations, to apply DCF analysis to a comparable group of electric utilities.
12. DCF analysis of the dividend yield for the appropriate comparison group of electrical utility companies is a yield of 7%.
13. The growth rate for the comparable group noted in the preceding Conclusion is 4%.
14. The appropriate cost of common equity for Interstate Power Company in this proceeding is 11%, based on a 7% yield and a 4% growth rate.
15. The appropriate overall rate of return to be allowed the Company in this proceeding 8.919%.
16. Interstate currently has 50 MW of excess capacity. It is appropriate to reduce Interstate's test year production expenses by \$466,699.

17. The appropriate rate base for IPW in this proceeding is \$73,970,024.
18. It is appropriate to set Interstate's required operating income in this proceeding at \$6,519,524.
19. It is appropriate to grant an increase in retail electric revenues for IPW in the amount of \$2,642,089.
20. It is appropriate to adopt the Settlement Agreement arrived at by Interstate Power Company and the Department of Public Service in its entirety. It is appropriate also to adopt the agreements of the parties as laid out in late-filed Exhibits 44 and 45, to the extent such agreements are not noted specifically in the Settlement Agreement. The Settlement Agreement, and the agreements noted in Exhibits 44 and 45, are reasonable, supported by evidence in the record and are in the public interest.
21. The Commission, in determining an appropriate rate design, should consider both cost and non-cost factors in the proper exercise of its quasi-legislative function.
22. Because of the parties' agreement on revenue apportionment, it is not necessary for the Commission to adopt a Class Cost of Service Study (CCOSS) in this proceeding. IPW's proposed Class Revenue Allocations are just and reasonable with respect to the relative revenue responsibility assigned to its major classes of ratepayers. It is appropriate to adopt those general class revenue proportional allocations.
23. It is appropriate to adjust the allocation of the revenue responsibility among the Company's major classes of ratepayers in accordance with the reduced revenue deficiency determined in this Report. That adjustment results in revenue increases of 6.5% for the Residential class, 2.0% for the General Service class, 6.9% for Large Power and Light, 8.9% for Municipal Street Lighting and 8.7% for the Farm Rate.
24. It is appropriate to adopt the parties' agreement to increase the customer charge for basic residential service from \$5.00 to \$7.25 per month.
25. It is appropriate to reject Interstate's proposal for Declining Block Rates for high usage residential (Residential Rate 161-162) and single phase farm (Single-Phase Farm Rate 808) customer classes during the non-peak (winter) season.
26. It is appropriate to adopt the Department's proposed flat rate for the classes noted in the preceding Conclusion.
27. It is appropriate to adopt the Department's modification to IPW's proposed interruptible rate, rejecting the cost of the Lime Creek plant as the proxy for acquiring additional power.
28. It is appropriate to adopt the rates contained in MAPP Pool Schedule H as a proxy for the generation costs that Interstate avoids through the interruptible rate.

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.

Based upon the forgoing Conclusions, it is the RECOMMENDATION of the Administrative Law Judge to the Public Utilities Commission that it issue the following:

ORDER

1. Interstate Power Company is entitled to increased gross annual revenues of \$2,642,089 from Minnesota retail companies.
2. Within 30 days from the service date of this Order, IPW shall file with the Commission for its review and approval, and serve on all parties in this proceeding, revised schedules of rates and charges reflecting the annual revenue requirement and the rate design decisions contained herein. IPW shall include proposed customer notices explaining the final rates. Parties shall have 15 days to comment.
3. The Stipulation Agreement between the parties and the agreements noted in Exhibits 44 and 45 are adopted.
4. At the time of filing its next rate case, the Company will file a market study determining optimal interruptible credits.

Dated this 22nd day of February, 1996

RICHARD C. LUIS
Administrative Law Judge

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Notice

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

Reported: Shaddix & Associates, Janet Shaddix Elling and Julie A. Colin, Court Reporters.

Transcripts Prepared

^[1]In this review of the settlement, various discussions and exhibits pertaining to the settled issues which exist in the evidentiary record are referenced. The Administrative Law Judge has endeavored not to contradict the Settlement Agreement, nor to indicate that either of the parties accepted any particular position on these issues for any purpose other than the settlement. Therefore, any inconsistencies should be resolved by

reference to the Settlement Agreement, Joint Ex. 1. See Tr. Vol. I, p.68 (7).