Service Date: October 28, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

IN THE MATTER of the Application of MONTANA-DAKOTA UTILITIES COMPANY to Adopt Increased Rates For Electric Service in the State of Montana.	)))))	UTILITY DIVISION DOCKET NO. 81.1.2 ORDER NO. 4799b Phase I

ERRATA SHEET

In the calculation of interest expense for current taxes the Commission made an error. Rather than determining the change in interest expense from all rate base adjustments (which is correct) only the Coyote excess capacity adjustment was used. After recalculating interest the total available for return decreased by $23,000 and the revenue deficiency increased by $46,000.

The following changes shall be made to Order No. 4799b:

P. 31 L. 22 $5,300,000 should be $5,346,000.

P. 32 under the column Accepted by Commission;

Current Federal and State Income Taxes ($1,522) should be ($1,499).

Total Operating Expenses $13,614 should be $13,637.

Operating Income $1,962 should be $1,939.

Total Available for Return $1,976 should be $1,953.

Rate of Return 4.35% should be 4.25%.

P. 33 L. 4 Adjusted Net Operating Income $1,976 should be $1,953.

L. 5 Income Deficiency $2,667 should be $2,690.

L. 7 Revenue Deficiency $5,300 should be $5,346.

Service Date: October 20, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION

MONTANA PUBLIC SERVICE COMMISSION

OF THE STATE OF MONTANA

IN THE MATTER of the Application of	)	UTILITY DIVISION
MONTANA-DAKOTA UTILITIES CO.	)	PHASE I
to Adopt Increased Rates for Electric	)	DOCKET NO. 81.1.2
Service in the State of Montana.	)	ORDER NO. 4799b

I N D E X

Service Date: October 20, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION
MONTANA PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER of the Application of	)	UTILITY DIVISION
MONTANA-DAKOTA UTILITIES CO.	)	PHASE I
to Adopt Increased Rates for Electric	)	DOCKET NO. 81.1.2
Service in the State of Montana.	)	ORDER NO. 4799b

APPEARANCES

FOR THE APPLICANT:

Joseph R. Maichel, Attorney at Law 400 North Fourth Street, Bismarck, North Dakota 58501

John Alke, Attorney at Law, Hughes, Bennett, Kellner & Sullivan, 406 Fuller Avenue, Helena, Montana 59601

INTERVENORS:

James C. Paine, Montana Consumer Counsel, 34 West Sixth Avenue, Helena, Montana 59620

FOR THE COMMISSION:

Eileen E. Shore, Chief Counsel, Montana Public Service Commission, 1227 11th Avenue. Helena. Montana 59620

BEFORE:

GORDON E. BOLLINGER, Chairman
JOHN B. DRISCOLL, Commissioner
HOWARD L. ELLIS, Commissioner
CLYDE JARVIS, Commissioner
THOMAS J. SCHNEIDER, Commissioner

FINDINGS OF FACT

PART A

General

1. Montana-Dakota Utilities Company (MDU or Applicant) is a public utility furnishing electric service to consumers in the state of Montana.

2. Applicant's petition, filed January 5, 1981, requests this Commission's approval of rates and charges for electric utility service which are annual gross operating revenues of designed to produce an increase in $8,824,065.

3. The hearing in Docket No. has been separated into two sections; Phase I is concerned with determination of the revenue requirement, Phase II will consider electric rate design. This order pertains only to Phase I.

4. The Montana Consumer Counsel (MCC) has participated in this utility customers since the inception of these Docket on behalf of utility customers since the inception of these proceedings.

5. On May 11, 1981 the Commission issued Interim Order No. 4799 which granted additional annual revenues in the amount of $4,352,000. That revenue figure represents the conceded revenue level of MCC witness George F. Hess.

6. On July 15th and 16th commencing at 10: 00 a . m . pursuant to the Notice of Public Hearing, a hearing was held at the Miles City Community College, Miles City, Montana.

7. On August 28, 1981 the Commission issued Interim Order No. 4799a which granted additional annual revenues in the amount of $265,000.

PART B

Capital Structure and Associated Costs

Capital Structure

8. Applicant proposed the following capital structure and associated costs:

Description	Amount	Percent of Capital Structure	Cost	Weighted Cost
Long-Term Debt	$ 88,183,000	47.00%	8.067%	3.791%
Preferred Stock	26,760,000	14.26	7.774	1.109
Common Stock	72,690,000	38.74	14.500	5.617
	$187,633,000	100.00 %		10.517%

9. Montana Consumer Counsel proposed the following capital structure and associated costs:

Description	Amount	Percent of Capital Structure	Cost	Weighted Cost
Long-Term Debt	$ 97,962,000	55.25%	8.03%	4.43%
Preferred Stock	25,414,000	14.33	7.77	1.11
Common Stock	53,941,000	30.42	13.75	4.18
	$177,317,000	100.00 %		9.72%

10. In the MCC capital structure, total company capitalization is distributed to electric, gas and nonutility operations according to these principles:

1. All of the Company's nonutility investment, other than Knife River, is assigned a capital structure consisting of common equity of MDU and deducted from MDU's common equity portion of the total company capital structure.

2. All of the REA mortgage notes and pollution control bonds included in MDU's total company long-term debt are directly assigned to the electric utility, and are deducted from long-term debt before the allocation between electric and gas operations.

3. The remaining capital is distributed between electric and gas operations on the basis of investment in net plant in service.

4. Investment in Knife River is deducted from the electric utility portion of the utility common equity capital. (MCC Initial Brief, pp . 4, 5)

11. Applicant's witness Mr. Renner presented a capital structure based upon gross or total plant investment. For the electric utility each component of capital was allocated on the percentage of gross electric plant (54.5%) to total gross plant. (Exh. 10, p. 5)

12. Dr. Smith allocated her capital structure based upon June 30, 1980 net plant amounts. This resulted in an allocation factor of 51.76 percent. As was the case in Order No. 4784, the Commission accepts an allocation factor of 51.76 percent because it is based on net plant in service.

13. Both MCC and MDU agree that the REA and pollution control debt should be assigned to electric operations. The Commission accepts the assignment of those debt instruments to the electric utility. Total debt excluding these two items totalled $130,778,000. After the allocation factor is computed electric debt is $67,691,000. Adding $30,271,000 of REA and pollution control bonds, total electric utility long-term debt accepted by the Commission is $97,962,000.

14. MCC and MDU are in agreement that total preferred stock for MDU equals- $49,100,000. Applying the allocation factor of 51.76 percent results in an accepted amount of electric utility preferred stock of $25,414,000.

15. Dr. Smith arrived at a common equity amount of $53,941,000. Both total common equity and the amount attributable to nonutility operations are different from figures provided by MDU. While Dr. Smith makes reference to the annual report and Form 1 to FERC, there is no explanation as to why the figures she used were different. The amounts of $158,620,000 for total equity and $25,243,000 for investment in nonutility subsidiaries are accepted as proper values.

16. Dr. Smith deducts investments in nonutility subsidiaries except for Knife River Coal Company, performs an electric versus gas allocation and Knife River Coal Company, finally removes Knife River from the electric equity. MDU argues that to take Knife River from electric equity allocates part of the coal subsidiary to the gas utility. The Commission agrees with the Applicant that Knife River should be deducted before the allocation of electric and gas equity. Knife River is a nonutility function and will be treated by this Commission as such. The amount of common equity accepted by the Commission is $69,036,000.

In Docket No. 80.7.52 the Commission accepted a capital structure proposed by Dr. Smith. In the current Docket (81.1.2) the Commission concluded that Knife River should be removed from equity as a nonutility operation prior to the electric and gas allocation. As a result of the new capital structure determined in this proceeding an adjustment to the capital structure in Order No. 4784 is required. The Applicant is directed to reduce the amount of common equity in the gas utility capital structure by $10,634,000 and file revised tariffs.

7. The appropriate capital structure is:

Description	Amount (000)	Ratio
Long-Term Debt	$ 97,962	50.91%
Preferred Stock	25,414	13.21
Common Stock	69,036	35.88
	$192,412	100.00%

Cost of Debt

18. MCC recommended a cost of debt which was three basis points lower than the 8.06 requested by MDU. The difference is a result of a different reflecting amortization of the gain or reacquired debt and a different allocation. The Commission agrees with MCC that the gain on reacquired debt should be reflected and finds 8.03 to be the appropriate cost of debt.

Cost of Preferred Stock

19. The cost of preferred stock is not a contested issue in this case. The cost of preferred stock is based on an adjusted embedded preferred stock amount through March 31, 1981, and has been determined to be 7.77 percent by the Applicant and MCC (Exh. 10 E-3 and Exh. C CMS-15). This cost is acceptable to the Commission.

Cost of Common Stock

Applicant

20. Dr. Dennis B. Fitzpatrick, an independent financial consultant presented testimony and exhibits showing the cost of equity he derived from his analysis performed for the Applicant. In his study Dr. Fitzpatrick examined trends in U. S. money and capital markets, recent performance of other regulated utilities with risk similar to MDU, and performed a discounted cash flow (DCF) study. The DCF analysis was based on data derived from MDU as well as four samples of companies that have risk characteristics similar to the risks associated with MDU's stock. (Exh. 8, p. 6)

21. The results of his analysis indicate that the cost of MDU's previously issued common equity lies in the range of 14.25 to 14.75 percent, when adjusted for underwriting and market pressure costs this range becomes 14.88 to 15.38 percent. MDU requested a return on equity of 14.50 percent.

22. Dr. Fitzpatrick evaluated the capital structure of MDU from 1970 to 1980. It is noted that common equity has varied from 38 to 42 percent while debt has had a ratio of 48 to 51 percent. Dr. Fitzpatrick indicated that this is a typical electric utility capital structure (Exh. 8, Schedules 3, 4, 5).

23. Dr. Fitzpatrick's comparable earnings study is based upon four samples of companies which exhibit risk characteristics which are similar to risks associated with MDU's gas and electric utility operations. The first sample is made

up of small electric/gas combination utilities. These companies are represented to be similar in risk to MDU.

24. The second sample is made up of all electric and gas distribution companies that have a Value Line Beta of .70, MDU's Value Line Beta. Beta Coefficients measure stock price volatility relative to the market as a whole. Companies whose stock prices tend to be more stable than the overall market averages have Betas of less than 1.0.

25. The third sample includes all electric utilities that have a Solomon Brothers' Earnings Quality Rating of B-, MDU's rating, and the fourth sample consists of all natural gas distribution utilities surveyed by the Value Line Investment Survey.

26. The average return on common equity for each of the samples for the years 1970-1979 is presented on Schedules D. B . F. -21, D. B . F. -27, D. B. F. -33, and D. B. F. -39 of Exhibit No. 8 Examination of the schedules indicates that rate of return performance for each of the samples has consistently ranged between 11 and 13 percent. MDU's return has also fallen in the 11 to 13 percent range over the last ten years.

27. Dr. Fitzpatrick's DCF analysis is based on the theory that for any company the cost of common equity capital is equal to that rate of return that equates the present value of the expected dividend stream with the actual market price of the stock. This methodology requires the analyst to estimate the Company's dividend yield and the dividend growth rate anticipated by investors.

28. Dr. Fitzpatrick provides the results of applying the DCF analysis to MDU alone and to each of the four samples of companies used in the comparable earnings analysis. These results are summarized on Schedules D. B. F. -44 through D. B . F. -48 of MDU Exhibit No. 8. The dividend yields utilized by Dr. Fitzpatrick are spot yields for October 30, 1980. Estimates of the dividend growth rates come from "implied dividend growth rates" and average tangible book value growth rates for the time periods 1970-1979, 1975-1979 and 1979. Dr. Fitzpatrick

testified that use of these different growth rate estimates produces a range of future dividend growth rates that investors can reasonably expect to be forthcoming.

29. Dr. Fitzpatrick's DCF analysis provides a range of values from 14.25 to 14.50 percent for Applicant's previously issued common equity. Dr. Fitzpatrick calculated a cost of issuing new equity capital which was 63 basis points higher than the cost of retained earnings and previously issued common equity (Exh. 8, p. 30). He concludes that the range of costs for MDU's equity is between 14.41 and 14.66 percent.

MCC

30. MCC, through the expert witness testimony of Dr. Caroline M. Smith, has recommended a rate of return on common equity of 13.75 percent for MDU's electric operations. The analysis she performed was done for the entire company and then modified to reflect the required return on electric operations. Dr. Smith presents the two studies often utilized to establish a fair rate of return, a discounted cash flow analysis and a comparable earnings study.

31. In her comparable earnings study Dr. Smith examined common equity returns on regulated electric and combination utilities as well as returns earned by firms in the unregulated sector of the economy.

32. Dr. Smith uses the 93 electric and combination utility companies traded on the New York Stock Exchange for one sample of comparable companies in her comparable earnings analysis. She notes that over the 1970-1979 period these companies have experienced average earnings on common equity in the 11 to 12.7 percent range. (Schedule CMS-9 of MCC Exhibit C)

33. Schedule CMS-10 of MCC Exhibit C shows that the average equity return for all industry groups for the 12 months ending December 31, 1980 was 15.3 percent. Dr. Smith notes that for several reasons utility stocks are less risky than the market as a whole.

34. Schedule CMS-12 of MCC Exhibit C demonstrates that of the 1,351 companies carried in the Value Line data base, those having Beta values similar to Beta values for utilities earned returns in the 11.89 to 12.01 percent range in 1978 and earned returns in the 13.99 to 14.26 percent range in 1979.

35. On the basis of her comparable earnings analysis Dr. Smith concludes that a return of 13.25-13.75 percent on common equity is reasonable when compared to earnings of companies whose risk is comparable to MDU's common stock.

36. Dr. Smith's DCF analysis is based upon the familiar formula which states that the cost of common equity is equal to the current dividend yield plus the expected rate of dividend growth. In determining future growth Dr. Smith performed studies of growth expectations for the electric utility industry as a whole and the gas utility industry as a whole.

37. The industry in Dr. Smith's model is represented by the 93 electric and combination utility companies traded on the New York Stock Exchange.

38. The DCF study using pre-Three Mile Island pricing data produced a cost of equity for MDU of 12.6 percent. A more recent version of the model produced an equity cost of 13 percent. Dr. Smith indicated in her testimony several factors which cause the cost of MDU's equity capital to be higher than her DCF results:

> The Company's dividend yield is well below the industry average, and that indicates that dividend growth expectations for the Company as a whole into the long-term future are higher than historical data for the electric utility industry would suggest. MDU relies primarily upon coal burning facilities for electric power generation, and both coal and a small portion of the gas supply are supplied to the company by its own subsidiaries. Moreover, unlike most companies in the electric power industry, MDU has no nuclear generation facilities and has not announced future nuclear construction. This means that MDU's cost of equity capital is somewhat

> higher than the DCF results of my statistical model. (MCC Exhibit B, pp . 18, 19)

39. The results of Dr. Smith's DCF analysis indicate a cost of equity for MDU's electric operations in the range of 13.25 to 13.75 percent.

Commission Analysis

40. Neither Dr. Smith nor Dr. Fitzpatrick relied upon their comparable earnings analyses to establish their equity return recommendations. While the Commission agrees that comparable earnings studies cannot be used to establish the cost of equity, the data contained in the comparable earnings studies is useful to evaluate the relative performance of both regulated and unregulated companies and serves to test the reasonableness of other analytical techniques.

41. Both witnesses in this case derived cost of equity recommendations based at least in part upon DCF studies. A review of cross-examination in this case reveals certain areas of concern with each presentation.

With respect to Dr. Smith's DCF analysis, the following examination is unsettling:

> Q. Isn't it true, Dr. Smith, that over the last three years, you have raised your recommended cost of equity capital over the same period of time that your DCF model has been showing a lower cost of equity capital?
>
> A. I know that both in this proceeding and the proceeding prior to this one my estimate was higher than the results of the model. Before that, I just -- I don't recall.
>
> Q. Will you accept that, subject to check, that your DCF model has shown declining cost and you have gone exactly the opposite direction and have shown an increasing cost?
>
> A. This is the third time that I've testified. The last two I know that I've gone above the model. It would not be -- I would not be surprised to see the number declining, and I will check.

Q. May we also disregard your DCF model in addition to your comparable-earnings analysis in evaluating your recommended cost of equity capital?

A. You may. I personally don't recommend that it be disregarded, but I don't think that the comparable earnings tells us what the cost of equity capital is.

Q. Are you contending now that since you've been going opposite directions from your model in the last three dockets, that you're not also disregarding it?

A. I don't understand what you're asking me.

Q. The DCF model the last three times has shown continually lowering cost of equity. You understand that.

A. For MDU --

Q. For MDU.

A. You have suggested, and I think that's probably right, that the numbers are getting lower. I think that's probably correct.

Q. Your recommended cost of MDU equity has gone the opposite direction, gone up the last three dockets.

A. That's correct as well.

Q. You have disregarded your own DCF analysis.

A. I don't think so. I think that when I'm doing my estimates, it's based upon the entire model and the data, and certainly you're correct in that as apparently the non-utility operations became more important, I was not willing to use the simple calculations that came from the models. (Tr. pp. 388, 389)

Dr. Smith has used a DCF model which has produced lower results in each of the last three dockets, while her return recommendations have increased. Dr. Smith generally attributed that result to the effect of MDU's nonutility operations and its resource mix relative to the industry. While the factors discussed by Dr. Smith probably effect MDU's equity costs relative to the electric industry, no quantitative analysis of such effect was presented. The Commission has consistently relied upon the quantitative results of DCF analysis to avoid undue reliance upon subjective judgment. While recognizing that adherence to quantitative analysis cannot be "blind " the results provided by Dr. Smith in this case do not adequately satisfy that policy.

42. Turning to the equity proposals of Dr. Fitzpatrick, the Commission finds two areas of concern, (1) the use of spot yields and (2) an allowance for market pressure and issuance costs. The use of a spot yield is questionable as the day selected is arbitrary and may produce a result which is far too low or much too high. Dividend yields over a period of time reduce the chance of reflecting an unusual or skewed result. With respect to market pressure and issuance costs the Commission does not find on the basis of the evidence presented in this case that any allowance for these items is merited. Based upon the foregoing discussion the Commission finds the appropriate cost of equity for MDU's electric utility operations to be 14.25 percent. This is the low end of the range of equity cost determined by Dr. Fitzpatrick's DCF analysis. The low end of the range is used to reflect the use of spot yields.

Rate of Return

43. Given a cost of common equity of 14.25 percent the Company's overall rate of return is 10.24 percent calculated as follows:

	Amount (000's)	Ratio	Cost	Weighted Cost
Long-Term Debt	$ 97,962	50.91%	8.03%	4.09%
Preferred Stock	24,414	13.21	7.77	1.03
Common Stock	69,036	35.88	14.25	5.11
	$192,412	100.00%		10.23%

PART C

Rate Base

44. The Commission finds that proper rate base in this Docket is $45,391,000 calculated as follows:

Applicant's Rate Base	$58,521
Excess Deferred Tax Adjustment	26
Investment Tax Credit Adjustment	(147)
Coyote Plant Adjustment	(980)
Excess Capacity Adjustment	(12,029)
Approved Rate Base	$45,391

PART D

Revenue, Expense and Rate Base

45. Mr. Ball sponsored testimony and exhibits which related to cost of service and rate base amounts for the Applicant. His direct testimony and accompanying exhibits have been marked "Exhibit 12" and his rebuttal testimony has been marked "Exhibit 13."

46. Mr. George F. Hess presented testimony and exhibits which concerned cost of service, and rate base amounts for MCC. His testimony was marked as "Exhibit D" and his exhibits were marked "Exhibit E."

Wages

47. The Company adjusted test year labor costs to reflect increased wage rates effective in 1980 and 1981. In addition, the Company adjusted the test year labor force to the number of employees at year end.

48. Mr. Hess recommended an adjustment which would limit the wage increase of the Applicant to the average number of employees during the test year rather than the employees at the end of the test year. In his testimony Mr. Hess indicates the reasons why year end levels of employees do not satisfy the test year concept:

> Since the actual test year work load was handled by the test year work force there is no reason to assume that additional employees are required to do the same work. (Exh. D, pp. 3, 4)

The expense associated with new employees will be matched with revenue from new business according to MCC. Further, other concerns exist if test year labor costs are adjusted for the annualized cost of new employees added during the year:

> If the year-end number of employees had been on hand during the entire test year would overtime requirements be reduced? Would the use of outside contractors be reduced? If the answer to either or both of these questions is yes, then some further adjustment should be made to the cost of overtime or the cost of outside contractors if the year-end number of employees is annualized. (Exh. D, pp. 4, 5)

49. In evaluating the wage adjustment proposed by MCC the Commission finds itself confronted with a matching question, what employee level best represents the test year work force? Past decisions by this Commission have adopted the test year average for wages and also for rate base. Based upon the evidence in the record the Commission finds the average number of employees in

the test year to be proper. The Commission accepts a reduction in wages in the amount of $105,000.

Fringe Benefits

50. MDU used a number of methods to estimate pro forma fringe benefits. Workmens compensation and pension costs were projected 1981 expenses. Group hospitalization and life insurance were estimated for calendar year 1980. Holiday, vacation, sick pay, and miscellaneous nonproductive time was increased in proportion to the annualized payroll increase.

51. MCC recommended a number of adjustments which have the effect of reducing fringe benefits expense. Rather than projected 1981 expenses for workmen's compensation and pensions, actual 1980 expenses were used. Mr. Hess also used actual rather than estimated 1980 expense for group hospitalization and life insurance. Additionally, holiday, vacation, sick pay, and miscellaneous nonproductive time were adjusted upward in proportion to the average payroll adjustment made by Mr. Hess.

52. In the attempt to provide the Commission with all possible information, MDU prepared a number of estimates in the fringe benefit area. Two serious concerns exist with the use of estimates and projections; (1) since these things have not yet happened they are not measurable with any accuracy and (2) use of projections results in an improper matching of test year revenues with some future expense. In contrast, known and measurable changes are accepted as proper adjustments to the test year. The MCC adjustments in fringe benefits are accepted as being accurate modifications of test year expenses. A reduction of fringe benefit expense in the amount of $59,000 is accepted by the Commission.

Payroll Taxes

53. Mr. Hess having made an adjustment for a test year average work force, also had to adjust social security taxes to that level. Mr. Hess reduced the

level of unemployment compensation tax. Rather than accept a projection, MCC used the actual 1980 tax. For the reasons previously mentioned in the wage and fringe benefit sections the Commission accepts the adjustment of MCC. The proper reduction in payroll tax expense is $11,000.

Postage

54. When the Applicant filed this case, a 33 percent increase in the postal rates was anticipated. MCC proposes to reduce this to the 20 percent which actually occurred. As this adjustment is agreed to by both parties in this Docket, it is accepted by the Commission. The accepted reduction in postage is $7,000.

E. E. I. Research

55. MDU has included research costs charged by E. E. I. (Edison Electric Institute) which were calculated by applying unit charges to the utility's revenues and KWH sales in the second preceding year. Mr. Hess reduces this expense for the following reason:

> Test year expenses should not be adjusted for increases associated with future growth in sales because such increases will be covered by an accompanying growth in future revenues. (Exh. D, - pp. 7, 8)

56. The Commission agrees that to base an adjustment on growth without giving effect to increased future revenues is improper. A reduction in expenses for research in the amount of $8, 000 is approved by the Commission.

Inflation

57. MDU in this case has requested that inflation adjustments based upon the consumer price index and future price changes be allowed. MCC witness Hess removed those adjustments as they were not based on specific, identified, known and measurable changes. Inflation adjustments have been consistently rejected by this Commission for the reasons that they are not subject to precise

measurement and they contribute to the inflationary spiral. It bears noting that utility customers are also faced with the corrosive effects of inflation. Due to the fact that these adjustments are not known and measurable, the reduction in operating expenses of $164,000 is found to be appropriate.

Excess Capacity Adjustment

58. With this application, MDU has asked that its full investment in the Coyote I Generating Station be added to its rate base. If this request were to be granted, Montana's allocated share of rate base would increase by approximately $25 million.

59. MDU owns approximately 20 percent of Coyote I, approximately 82 MW.

60. Consumer Counsel witness George Hess, in responding to the Company's proposal, suggested a downward adjustment. The adjustment was based on his conclusion that, if Coyote I had been in service during the test year ending June 30, 1980, as is assumed in this case, MDU would have surplus capacity totalling 57 MW, a little more than 14 percent of system capability. Hess further found that if Coyote I had been in service during the winter of 1979-80, MDU would have had a surplus over peak of approximately 20 percent. (Exh. D, pp. 21, 22)

61. In view of the excess capacity he found to exist with the addition of the Coyote I plant, Hess reduced the proposed production and integrated transmission costs by 10 percent (Exh. D, p. 24), an adjustment equivalent to approximately 40 MW (Tr. p. 397).

62. MDU did not challenge Hess' findings regarding excess capacity in its rebuttal testimony or on cross-examination. On cross-examination, MDU's witness Kroeber acknowledged that as of today there was "additional capacity to meet the requirements of our customers, the load growth, and it's also there for reliability; it's used and useful." (Tr. p. 141) On further cross-examination Kroeber stated

that, <u>after reserve requirements are met,</u> additional capacity equalled 46 MW for summer and 56 MW for winter. (Tr. p. 149)

63. The Commission, in assuring that rates are just and reasonable, must carefully and independently scrutinize major additions to a utility's rate base. As is made obvious by MDU's proposed addition of the Coyote I plant, such additions constitute a major element in the higher rates ratepayers are being asked to absorb. In recent years, as energy conservation techniques have been widely adopted by large numbers of consumers, public utility regulators have become more and more concerned with the dangers of overbuilding, thereby creating excess capacity which, without providing a benefit to ratepayers, burdens them with higher utility rates.

64. Based on both Hess' and Kroeber's testimony, the Commission finds that the addition of Coyote I creates substantial excess capacity on the MDU system.

65. Although the Commission accepts Hess' conclusion that there is substantial excess capacity, it cannot accent his method of adjusting the rate base to reflect that fact. The Hess adjustment results in a 10 percent reduction of the average investment of all generation owned by MDU. The adjustment ignores the fact that addition of Coyote I has caused the excess capacity and also ignores the fact that the issue of excess is raised by MDU's request that that particular investment be included in rate base.

66. A utility's rate base constitutes discreet investments a utility makes to serve its customers. Thus, in deciding what investments should be included in rate base, the Commission must examine whether particular investments result in services that benefit current ratepayers. Contrary to the approach used by Hess, the Commission, therefore, believes that its inquiry into the issue of excess capacity must focus on MDU's investment in Coyote I, rather than on MDU'S aggregate investment in electric generation since its addition to the MDU system is the reason that that system now has excess capacity.

67. Although, as previously discussed, MDU did not challenge Hess' finding of excess capacity, and in spite of the fact that its own witness found additional capacity in excess of that found by Hess, MDU vigorously contested that testimony in its brief. The Commission, therefore, finds that discussion of issues raised in the brief are worthy of some consideration.

68. As noted in MDU's brief, in order to establish reasonable rates, the Commission, under Montana law, must determine the value of MDU's electric property "used and useful for the convenience of the public." (69-3-109, MCA) Before reaching a legal conclusion that an investment is or is not "used and useful," the Commission must look at a number of facts, some of which are raised by MDU'S brief, to which we now turn.

69. MDU claims that, since it operates its electric system "in accordance with economic dispatch, " it will use Coyote I, the most efficient generating unit it has. (p. 5) Although its use of economic dispatch principles was established on the record before the Commission, MDU's claim of Coyote's efficiency (which in any case would not establish that its cost is lower than other units) and full utilization was not; therefore, extrapolation of those unsupported claims cannot be accepted as a basis for finding all of Coyote's generation "used and useful. " In any event, the Commission has allowed revenues necessary to displace the 40 MW of excess Coyote capacity with existing plant utilization.

70. MDU next claims that all of Coyote's generating capacity is "used and useful" because "it adds much needed reliability to MDU's system. " (Br., p. 5) The assertion rests on a suggestion that the Mid-Continent Area Power Pool's (MAPP's) 15 percent reserve requirement is somehow inadequate. In making this argument, MDU also notes that it had on one occasion been cut off from MAPP's resources. In view of the facts in this record, the Commission cannot accept MDU's argument and its underlying assumptions.

71. Contrary to MDU's argument, there is nothing on the record to indicate that a 15 percent reserve margin is "minimal " or in any way inadequate.

MDU's witness Kroeber testified that MDU's participation in MAPP "gives our customers a measure of reliability they wouldn't otherwise have in case of an emergency." (Exh. 2, p. 8) Kroeber further suggests that a 15 percent reserve margin is reasonable, given MDU's participation in MAPP :

> One of the other principal benefits of the MAPP pool is the sharing of reserve generation capacity. The individual system reserve requirement in the MAPP pool is 15 percent. Without being a member of a power pool and operating an independent system our system would require generation to carry reserves in the order of 25 to 35 percent. (Exh. 2, p. 8)

72. Thus, in contradiction of the evidence, MDU tries to argue that participation in MAPP creates a requirement for reserves in excess of 15 percent; its own witness testified that that same participation enabled MDU to limit its reserves to that amount. According to Kroeber's testimony, MDU's current reserves would be justified only if MDU did not participate in MAPP.

73. MDU argues that, because approximately 40 MW comes from older plants, "available capacity" (presumably, though not explicitly from Coyote) will be used for semiannual maintenance and unscheduled outages, and that those plants, "at some point will become prohibitively expensive to repair." (Br., p. 6) Again, MDU has taken some facts from the record and-has then extrapolated from them "facts" which are not in the record. For example, there is no evidence that Coyote's excess capacity is needed to replace plants which are not operating during scheduled maintenance periods. The 15 percent reserve margin is designed to accommodate the scheduled maintenance program. Furthermore, there is no evidence that MDU's older plants will be retired in the near future because their repair is "prohibitively expensive. " An examination of the testimony cited by MDU (Tr. pp. 141, 142) does not indicate that such a possibility is imminent; neither is there any indication in the record that the current 15 percent reserve margin, and/or available MAPP resources (which include an excess capacity of

approximately 4, 363 MW as of the summer of 1981) could not meet any unexpected emergencies.

74. MDU argues that Coyote's excess capacity should be allowed in rate base because "the availability of the Big Stone Plant is presently being seriously threatened because of the potential disruption of its fuel supply due to the impending abandonment of the Milwaukee Railroad line between Big Stone and the Gascoyne Mine. " (Br., p . 6,7) In making this argument, MDU relies on statements made by its President, John Schuchart. (Tr. p. 116) However, the Commission finds that the statements made by Schuchart were directly rebutted by MDU's witness Kroeber who is MDU's Vice President in charge of electrical operations. Mr. Kroeber stated that the Big Stone Plant could secure coal from Montana via the Burlington Northern Railroad (Tr. p. 184). Kroeber specifically disagreed with Schuchart's claim that the proposed abandonment of the Milwaukee Railroad would cut off the plant's only available coal supply. (Tr. p. 185)

75. All of MDU's arguments cited above rely on its claim that the Company wants and needs Coyote's excess capacity to serve its present customers. However, the record establishes that such is not the case. The following examination by Commissioner Driscoll establishes that MDU, in fact, does not want to hold its surplus capacity in reserve to serve its Montana customers:

> Q ... you've stated already that you can't sell your excess capability because nobody else wants it. A few figures that I've seen indicate that -- Well, have you been buying other people's capability, or are the other people involved in this power pool also in an excess position and unable to sell theirs as well?
>
> A. Yeah, the power pool is in an excess condition. What we did prior to -- Well, this was last fall. We wrote letters to every company in the pool indicating what our surpluses would be and tried to sell this capacity. And we didn't get anyone to take it. (Tr. pp . 169, 170)

76. On a somewhat different tack, MDU argues that in gaining approval for siting the Coyote Plant in North Dakota, "the need for the Coyote Station and a capacity expansion was firmly and independently established." (Br., p. 10) The Commission questions whether the assertion is valid. Although Kroeber testified that there is a need determination involved in the siting process (Tr. p. 135), in view of Kroeber's discussion of the process, the Commission has serious doubts as to how rigorous the examination of the need for energy is in the North Dakota siting process. These doubts are enhanced by MDU's late-filed Exhibit 2, which contains a summary of North Dakota's siting process. That summary states, "It is unclear if [review of the utility's forecasting and planning] involves a rigorous need for power evaluation." A review of relevant North Dakota law reveals no requirement that such an evaluation is to be made.

It is important to note that even if there were an independent evaluation of energy needs by North Dakota agencies, that evaluation could not be binding on this Commission, which has been charged by Montana law to determine whether utility investments are used and useful to Montana ratepayers.

77. The statutory term "used and useful, " is the criterion by which the Commission must judge whether an investment should be allowed in a utility's rate base. The term is used in the statutes of other states, whose regulatory commissions have had to interpret its meaning. Though a seemingly precise term, it has been interpreted in various ways, as discussed in MDU's brief. Commissions have variously interpreted the term to include plant to be used during the test year, at the time of the rate inquiry, at the end of the test year or during the time when rates will be in effect. In the related area of whether "plant held for future use" should be included in rate base, commissions have looked at whether ratepayers' use is imminent, needed in the reasonable future, whether the entire facility will be used during its lifetime, or whether its inclusion will alleviate the need for continuous rate increases.

78. It is obvious, in view of the wide variety of standards used by commissions elsewhere, that this Commission must use sound discretion in applying the used and useful standard to the facts presented by the case. In applying the standard to MDU's Coyote investment, the Commission adopts what it considers a liberal standard that allows more rate base treatment than might be allowed if only plant to be used during the test year were included in rate base. The 40 MW adjustment recommended by Hess does not exclude all excess capacity created by the Coyote plant, which, as noted above, is between 46 and 56 MW. This conservative estimate allows for some load growth during the time in which the rates are expected to be in effect if past experience of yearly rate increase requests is repeated in the future. According to Hess, "if Coyote had been in service during the winter of 1979-80 about 20 percent of MDU's capability would have been surplus. " (Exh. D, p. 22) According to studies made by Zinder Companies, Inc. for MDU, load growth is expected to be a little more than 10 percent over the period 1980 through 1982. (Exh. D, p. 24) The adjustment is especially modest in view of the fact that MDU has very substantial capacity available from MAPP.

79. he Commission, in all of its decisions, must balance the interest of the utility's ratepayers with those of its stockholders In doing so here, the Commission recognizes that, while at least 40 MW of the plant is excess capacity, nonetheless, stockholders have invested in that capacity. Therefore, the Commission will in this instance continue to allow an accounting treatment that recognizes allowance for funds used during construction (AFUDC) treatment for the investment representing excess capacity. This continuation of AFUDC will be reevaluated in subsequent proceedings.

80. Furthermore, the findings of excess capacity on the MDU system and the massive excess capacity in the Mid-American Power Pool (MAPP) raise serious questions regarding MDU's recently announced expansion plans. According to recent press reports, MDU is apparently committed to participation in three new

power plants. Costs for that participation approximate $500 million over a five year period or a virtual doubling of system investment. Given the substantial excess capacity in both the MDU and MAPP systems, at least two other developments suggest a cautious approach to additional generation: (1) the price elasticity effects flowing from the dramatic rate increase in this case and the rate design changes in Phase II; and (2) the potential for private development of small power production/cogeneration resulting from Docket No. 81.2.15. Therefore, the Commission by this order alerts MDU that such expansion and the associated financing issues will be subject to intense scrutiny. (Tr. pp. 51-54?

Coyote Plant Adjustments

81. MCC witness Hess reduced the depreciation expense associated with the Coyote plant by $79, 000. The Company requested a depreciation rate for this plant of 3.33 percent. The rate is based on an estimated average service life of 33 years and an estimated negative 10 percent net salvage. Mr. Hess requested studies supporting the salvage value and was informed that there were no studies. The Commission accepts the depreciation rate of 3.03 proposed by Mr. Hess, and notes that it is almost-identical to the 3.04 percent rate MDU has adopted for the Big Stone Station.

82. MCC witness Hess used a 3.55 percent composite rate to calculate the deferred taxes associated with the Coyote plant. According to Mr. Hess, in order to qualify for the use of accelerated depreciation:

> . . . only deferred taxes on the difference between liberalized depreciation and straight-line depreciation calculated using the applicable guideline life must be provided. The applicable guideline life for a steam production plant is 28 years which equates to a 3.57 percent straight line rate . (MCC Exh . D p . 20)

The Commission agrees with Mr. Hess that a 3.55 percent rate is appropriate to calculate deferred taxes. A reduction in deferred taxes in the amount of $52,000 is accepted.

83. Mr. Hess noted that the company assumed that if Coyote had been in service for the entire year, the beginning balance of unamortized investment tax credits would be zero. However, Mr. Hess indicates that in fact:

> . . . MDU has been taking and recording investment tax credits on progress payments for the plant. (MCC Exh. D p. 21)

The Commission finds a rate base reduction for unamortized investment tax credits in the amount of $980,000 appropriate.

84. Mr. Hess also made an adjustment on the normalization of deferred taxes associated with Coyote plant. This adjustment is rejected by the Commission for the reasons stated in the full normalization of deferred taxes section of this order.

Pro Forma Interest

85. MCC witness Hess calculated pro forma interest expense using a rate base smaller than that proposed by the Applicant and a higher weighted debt cost. In the past the Commission has accepted the methodology sponsored by Mr. Hess as being the preferred method of estimating test year interest expense. The excess capacity adjustment is so significant in this case that an independent interest calculation is required. While the Commission accepts the methodology proposed by Mr. Hess the adjustment is rejected in this Docket.

Knife River Coal

86. MCC witnesses Wilson and Hess recommend reducing coal expense by $265,000. This adjustment has been proposed in several previous cases and accepted by the Commission. On August 28, 1981 the Montana Supreme Court

issued an opinion in case 80-346. As a result of that decision the captive coal issue in this Docket is moot. No adjustment is made to reflect a rate of return methodology.

Capitalized Taxes and Pensions

87. The Applicant adjusted capitalized payroll taxes and pension costs to the average of the three years 1977 through 1979. Mr. Hess explains why he rejects this adjustment:

> First, the payroll taxes and pension costs for the years 1977 through 1979 were not adjusted to reflect the current levels for these costs. Second, there is not enough variation in the costs for the years shown on Exhibit G-28 to require the use of an average. (MCC Exh . D p . 9)

There is insufficient evidence that the use of an average is justified for these costs. The reduction in capitalized taxes and pensions in the amount of $4,000 is approved.

Excess Deferred Taxes

88. In 1979 the corporate federal income tax rate was reduced from 48 to 46 percent. The accumulated deferred taxes which were accrued at 48 percent do not reflect taxes which will have to be paid. Mr. Hess and Dr Wilson propose to amortize the excess deferred taxes over a two year period.

89. Mr. William Kolbe an expert witness in tax law presented testimony on several tax matters in this Docket for MDU. Mr. Kolbe indicates that in his opinion this adjustment appears to violate Treasury Regulations Section 1.167(L)-1(h)(2)(i), which

> . . . prohibits reduction of the aggregate amount allocable to deferred tax "except to reflect the amount in any taxable year by which federal income taxes are

> greater by reason of the prior use of different methods of depreciation. (Exh. 6, p. 18)

Consistent with past Commission decisions on this issue (Docket Nos. 6701, 80.4.2, and 80.7.52) the adjustment proposed by MCC witnesses Hess and Wilson is accepted. The fact that the applicable Treasury Regulations did not contemplate a change in the tax rate is not adequate support for the maintenance of an excessive accrual at the expense of the ratepayer. The amortization of the excess deferred taxes over two years is accepted as a reasonable time period. Deferred taxes are reduced by 52,000 in the test period.

<u>Full Normalization of Deferred Taxes</u>

90. MCC witnesses Wilson and Hess propose an adjustment which achieves "full normalization. " Dr. Wilson describes what he means by the term full normalization:

> Full normalization with respect to deferred taxes consists of adjustments to tax expenses for ratemaking purposes so that those deferred taxes which are not paid currently are reflected as if they were a current expense on the income statement and as an addition to the deferred tax reserve on the balance sheet. Also, taxes currently attributable to the taxable income from which the deferred tax reserve addition was obtained are deducted from current revenue on the income statement and a corresponding non-cash income allowance for taxes on deferred credits (AFTDC) is recorded as a deferred charge on the balance sheet. (MCC Exh. A, p. 10)

91. Mr. Kolbe evaluated the proposed adjustment and concluded that implementation of full normalization might threaten the utility's use of accelerated depreciation. When looking at the results of such an adjustment Mr. Kolbe noted:

> This proposed adjustment has the effect of reducing the deferred income tax credit account through the creation of a deferred debit account. (Exh. 6, p. 8)

Under this adjustment Mr. Kolbe is concerned that the taxpayer would no longer be treated as using a normalization method of accounting. He goes on to note:

> The ultimate result would be that accelerated depreciation could not be deducted for federal income tax purposes. (Exh. 6, p. 13)

92. There is a great deal of uncertainty surrounding the effect of full normalization in terms of Treasury Regulations. Until a revenue ruling which was requested in Docket No. 80.7.52 is received, this adjustment will not be implemented. For the purposes of this Docket the full normalization adjustment is rejected.

Unamortized Investment Tax Credits

93. MCC witness Mr. Hess testified that rather than amortizing post-1970 investment tax credits over the life of the property MDU is amortizing these credits over a shorter period of 20 years. As a result, according to Mr. Hess previous Dockets have had- rate base deductions which were too small. MCC requested that MDU provide restated post-1970 unamortized investment tax credit balances that would result if the credits were amortized over the life of the property. Mr. Hess did not adjust pre-1971 credits as those credits are reflected in the cost of service.

94. Mr. Kolbe testified on the adjustment to unamortized investment tax credits for MDU. In Mr. Kolbe's view adoption of the adjustment proposed by Mr. Hess could result in the disallowance of investment credits claimed by the company for all open years. The issue in this case is how long post-1970 investment tax credits should be amortized. Mr. Kolbe indicates that this Commission should accept a 20 year amortization as that is historically what has been used. The Commission believes that the Applicant has failed to meet its burden of proof with respect to why a 20 year amortization period is preferable to amortization over the life of the property. It is the view of this Commission that the

adjustment proposed by Mr. Hess is reasonable and does not threaten the Applicant's use of investment tax credits . A rate base reduction in the amount of $147,000 is found to be proper.

95. The Commission finds that MDU is entitled to $5,300,000 of additional annual gross operating revenue as follows:

SCHEDULE 1

Montana-Dakota Utilities Company
Twelve Months Ending June 30, 1980
(000's)

	Adjusted Per Company	MCC Adjustments	Accepted by Commission
Operating Revenue	$15,576		$15,576
Expenses			
Fuel & Purchased Power-Net	$ 4,614	$ (220)	$ 4,838
Operation and Maintenance	5,927	(528)	5,495
Total Operation & Maintenance	$10,541	$ (748)	$10,333
Depreciation	$ 2,759	$ (265)	$ 2,280
Taxes Other than Income Taxes	881	(39)	861
Federal & State Income Taxes			
Current	(2,352)	316	(1,522)
Deferred	988	(128)	669
Investment Tax Credits	1,059		1,059
Amortization of Investment Tax	(14)	1	(14)
Credits		49	(52)
Amortization of Excess Deferred Taxes		(393)	
Current Taxes on Deferred Income			
Total Operating Expenses	$13,682	$(1,305)	$13,614
Operating Income	$ 1,714	$ 1,305	$ 1,962
Amortization of Pre-1974 Profit on Debt Reacquired at Discount		14	14
Total Available for Return	$ 1,714	$ 1,319	$ 1,976
Rate Base	$58,521	$(5,006)	$45,391
Rate of Return	2.93%		4.35%

SCHEDULE 2
Montana-Dakota Utilities Company
REVENUE DEFICIENCY AT PRESENT RATES
Twelve Months Ending June 30, 1980
(000's)

1.	Rate Base	$45,391	
2.	Recommended Rate of Return	10.23%	
3.	Recommended Return		$ 4,643
4.	Adjusted Net Operating Income		1,976
5.	Income Deficiency		$ 2,667
6.	Tax Multiplier		50.32%
7.	Revenue Deficiency		$ 5,300

PART E

Further Issues

96. During the course of cross-examination Mr. Schuchart revealed that the cost of performing an energy audit for MDU is $68.83. (Tr. p. 97) The Commission is concerned that conservation is not receiving all of the emphasis that it should. As a means of encouraging more conservation, the Commission will allow any group or business to perform energy audits which meet the Montana RCS standards to be submitted to MDU for payment. The amount to be paid will be the cost of $69. These audits will be accepted by MDU only if they meet the RCS standards. MDU will determine if the standards have been met. The cost of these outside audits will be accounted for in the same way present audits are recorded. After the audits are approved by MDU and are paid, they should qualify for MDU's zero interest loan program.

97. In the prefiled testimony of Mr. Fox a request for a late charge of 1 percent per month on past due accounts was made. Reference is made to a Department of Energy guideline and a favorable decision in South Dakota. There is no study in evidence which proves that a system of late charges will reduce the

cost of service for all customers of the utility. Until the effects of late charges are quantified, the Commission rejects such an adjustment.

CONCLUSIONS OF LAW

1. Applicant, Montana-Dakota Utilities Company, is a corporation providing electric service within the state of Montana and as such is a "public utility" within the meaning of Section 69-3-101, MCA.

2. The Montana Public Service Commission properly exercises jurisdiction over the Applicant's operations pursuant to Title 69, Chapter 3, MCA.

3. The rate base adopted herein reflects original cost depreciated values and as such complies with the requirements of Section 69-3-109, MCA, that the value placed upon a utility's property for ratemaking purposes "...may not exceed the original cost of the property."

4. The rate of return allowed meets the constitutional requirement that a public utility's return must be "commensurate with returns on investments in other enterprises having corresponding risks and sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 603 (1944).

5. In making its determination of what portion of MDU's investment in Coyote is used and useful, the Commission rejects MDU's assertion that a prime consideration should be whether the Company's decision to invest in the plant was prudent. The Commission finds that Montana law does not support such an interpretation. (69-3-109, MCA)

6. MDU's investment representing approximately 40 MW in Coyote I Generating Plant is not used and useful for the convenience of the public. (69-3-109, MCA)

ORDER

1. The Montana-Dakota Utilities Company shall file rate schedules which reflect an increase in annual electric utility revenues of $5,300,000.

2. Rate schedules filed shall be in conformance with the rate design developed in Phase II of this Docket.

3. Applicant, pursuant to Finding of Fact No. 16 will file revised tariffs for the gas utility which reflect the removal of $10,634,000 from the equity portion of the capital structure. The tariffs are to be effective for natural gas service rendered on and after October 19, 1981.

4. All motions and objections not ruled upon are hereby denied.

5. This order is effective for services rendered on and after October 19, 1981.

Done and Dated this 19th day of October, 1981, by a vote of 5-0.

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION.

GORDON E. BOLLINGER, Chairman

JOHN B. DRISCOLL, Commissioner

HOWARD L. ELLIS, Commissioner

CLYDE JARVIS, Commissioner

THOMAS J. SCHNEIDER, Commissioner

ATTEST:

Madeline L. Cottrill
Secretary

(SEAL)

NOTE: You may be entitled to judicial review of the final decision in this matter. If no Motion for Reconsideration is filed, judicial review may be obtained by filing a petition for review within thirty (30) days from the service of this order. If a Motion for Reconsideration is filed, a Commission order is final for purpose of appeal upon the entry of a ruling on that motion, or upon the passage of ten (10) days following the filing of that motion. cf. the Montana Administrative Procedure Act, esp. Sec. 2-4-702, MCA; and Commission Rules of Practice and Procedure, esp. 38.2.4806, ARM.