Service Date: October 7, 1981

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

* * * * *

IN THE MATTER of the Application of MONTANA-DAKOTA UTILITIES, INC. for Authority to Implement the Gas Cost Tracking Procedure to Establish Increased Rates for Gas Service.	)	UTILITY DIVISION DOCKET NO. 81.4.45 ORDER NO. 4802a

APPEARANCES

FOR THE APPLICANT:

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FOR THE MONTANA CONSUMER COUNSEL:

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

FOR THE INTERVENORS:

C. W. Lepahart, Attorney at Law, 1 Last Chance Gulch, Helena, Montana 59601, appearing on behalf of Great Western Sugar

Jerome Anderson, Anderson, Brown, Gerbase, Cebull & Jones, P.C., Attorneys at Law, 100 Transwestern Building, Billings, Montana 59101, appearing on behalf of Pierce Packing Company, Midland Empire Packing Company, Midland Foods Distributing Company, and Midland Foods, Inc.

COMMISSION STAFF:

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

1. On April 27, 1981 Montana-Dakota Utilities Company (MDU or Company) filed an application to implement the Gas Cost Tracking Procedure as set forth in MDU tariff sheets 87-M and 88-M.

2. The procedure provides for increasing rates on the basis of a Current Gas Cost Tracking Adjustment and an Unreflected Gas Cost Adjustment amortized over six months. Amounts applied for are:

	Residential & Commercial	Industrial Customers
Current Gas Cost Adjustment	76.929¢	83.655¢
Unreflected Gas Cost Adjustment	165.699¢	165.699¢
Less: Unreflected Gas Cost Adjustment Currently Being Charged	(50.069¢)	(50.069¢)
TOTAL	192.559¢	199.285¢

3. As an alternative the Company seeks amortization of Unreflected Gas Cost amounts over 12 months provided interest on the outstanding balance is allowed. These amounts are:

	Residential & Commercial	Industrial Customers
Current Gas Cost Adjustment	76.929¢	83.655¢
Unreflected Gas Cost Adjustment	51.576¢	51.576¢
Add: Carrying Charges	2.78 ¢	2.78 ¢
Less: Unreflected Gas Cost Adjustment Currently Being Charged	(50.069¢)	(50.069¢)
TOTAL	81.216¢	87.942¢

4. On May 21, 1981 the Commission approved, on an interim basis, the proposal set forth in Finding No. 3 with the exception that carrying charges were not allowed.

5. On June 10, 1981 a procedural order was issued establishing a hearing date and location.

6. On July 14, 1981 a public hearing was held pursuant to notice, at the U.S. Court House in Billings, Montana.

7. In reviewing the proposed current gas cost adjustment and unreflected gas cost adjustment, the Commission finds that they comply with Findings No. 5 and 6 in Commission Order No. 4742a, Docket No. 80.10.87, which specify how tracking cases are to be filed:

> The Commission finds that until such time as persuasive evidence to the contrary is presented the appropriate gas mix on which to base a tracking procedure is that mix last approved within the confines of a general rate case. Furthermore, that mix should apply to both the current and unreflected portions of a tracking procedure.
>
> The purpose of requiring an approved mix of company produced to purchased gas is to provide the current rate payer the benefit of currently available low cost gas which acts as a buffer in times of rapidly rising gas costs. The application of the approved mix solely to the current gas cost portion of a tracking procedure could defeat this purpose in that the Company could conceivably operate beyond the bounds of the approved mix and recoup all additional cost in the unreflected gas cost portion of the tracking procedure. The application of the approved mix to both portions of the tracking adjustment prevents the inadvertent circumvention of the initial intent of an approved mix.
>
> As regards clarifying "known and measurable changes," the Commission's primary objection is to the use of new sources to be connected prior to the adjustment date but after production figures could be recorded and accounted for within the historical test year; that is, the Company should not annualize for new sources not having an actual production history within the test year. Use of decline curves to project declining well production is not explicitly objected to at this time.

8. Industrial intervenors in this case have raised the issue of whether or not the unreflected balance can be reflected in rates since these amounts were not allowed in previous orders as proposed current gas cost adjustments. In those orders the Commission expressed concern over changing gas mixes and projected volumes. The Commission did not, however, eliminate the possibility that amounts not allowed could be later reflected in rates:

> Applicant is protected on this gas supply cost issue by the deferred accounting mechanism to the extent it demonstrates on a substantial record the appropriateness of its gas supply mix. (Finding No. 8, Order No. 4588, Docket No. 6733)

In this proceeding MDU has complied with Commission directives as stated above. Because of this the Commission finds no merit in the contentions of the industrial intervenors.

9. Both the Montana Consumer Counsel (MCC) and MDU realize the need in this instance to amortize the existing deferred gas cost balance over a one year period rather than six months as specified in the tariff because of the larger balance. MDU agrees to the longer period only if interest is computed on the outstanding balance.

The Commission addressed the interest issue in Docket No. 6636 and finds reasoning stated there still compelling:

> The proposal advocates computation of interest on the deferred gas cost balance at the overall rate of return as authorized in MDU's last general rate proceeding. It is the Commission's opinion that the ratemaking formula (included in the tariff) is to reflect the changing cost of gas in prospective rates. The imputation of interest distorts the picture of actual gas costs. The Commission, therefore, finds the interest imputation inappropriate. (Finding No. 25)

The Commission also finds the buildup of the large deferred balance to be directly attributable to MDU's failure to meet its burden of proof. (See Order Nos. 4588, 4726 and 4742.)

In order to reduce the unusually harsh impact that would result if amortization were to occur over six months, the Commission finds deviation from the tariff in the form of amortization over 12 months as suggested by the parties to be in the best interests of the consumer in this case.

10. MDU has included in its proposed Current Gas Cost Adjustment carrying costs and monthly fees arising from transactions with Frontier Gas Storage Company in the amount of $9,724,000. This amount is reduced by sales of purchased gas to Frontier of $46,637,000 (20,033,000 Mcf's @ 14.73 psia X $2.328/Mcf).

MCC witness George F. Hess argues that carrying costs and monthly fees should be capitalized and passed onto the ratepayer when gas sold to Frontier is repurchased: "In Docket 80.7.52 I suggested that carrying charges on excess stored gas should be capitalized and included as a part of the cost of stored gas in the same way as an allowance for funds used during construction (AFUDC) is capitalized and included as part of construction costs." (Hess, Direct, pp. 8,9)

11. Mr. Hess' recommendation contains the caveat that were the AFUDC method used excess gas storage may cease:

> Q. If the Commission were to require MDU to capitalize the carrying charges on excess stored gas, will MDU stop storing such excess?
>
> A. Probably.

MDU witness Bill Glynn also indicates a likelihood of this on page 174 of the transcript:

> Q. What effect will this (capitalizing Frontier carrying costs) have on the Company?
>
> A. It will make it more costly for the Company to raise capital, more difficult to raise capital, and possibly cause Security Pacific to terminate the Frontier Project, because such action could result in what the bank believes is a material adverse change in the financial condition of MDU.

The Commission, therefore, finds, given economic and supply considerations favoring storage of gas, that current recovery of associated carrying costs is a prerequisite.

12. The Commission finds the advisability of storing gas rests, in an economic sense, upon the cost of purchasing gas today plus carrying charges versus the cost of purchasing gas in the future. As Mr. Hess points out, the difficulty in making such a comparison is great:

> Q. Mr. Hess, have you run down any costs as a comparison as to what would happen if the Commission took your suggestion to capitalize, or if the Company went out and traditionally borrowed the money, as to the way they proposed it originally?
>
> A. No, and as a matter of fact, I don't think anyone can do that. If you recall, I did not testify in the Frontier case, but in the last general case, I said that the Frontier transaction has many ramifications, some of which are subtle, one of which is increasing the risk of MDU. And I do not know how to evaluate that, certainly not at this time. (Tr. pp. 150, 151)

13. MDU has attempted to do cost comparisons indicating that Frontier is cheaper:

> Q. In your opinion, could Montana-Dakota Utilities Co. have borrowed the money necessary to finance acquisition of storage gas under traditional arrangements rather than through the Frontier Project?
>
> A. Possibly, but not as cheaply as with Frontier.
>
> Q. Why do you say that?

A. The Company could possibly have issued some type of debt, preferred and common stock to finance the storage gas. The debt, however, could not have been first-mortgage bonds since the Company's indenture does not consider gas stored as bondable property. Therefore, the debt would have been more costly than first-mortgage bonds. In our analysis of this alternative source of financing, we determined that it would cost the Company and, consequently, its ratepayers significantly more than if we used the Frontier Storage Project. The analysis in Docket 80.9.74 indicated that the cost savings would be over $13 million during the first three years and over $46 million during the estimated 15-year life of the project. (Tr. pp. 171, 172)

The Commission finds that the Company's comparison of conventional financing versus all debt financing to be correct on its face due to the tax deductibility of debt and higher risks associated with equity ownership in a traditional sense.

The Company's study, however, does not consider the added risk of imputing additional debt into the capital structure as referred to by Mr. Hess. It also does not consider the reduction in risk referred to in the Commission's most recent gas order:

> "Acting to reduce the Company's risk even further is the fact that the carrying costs associated with the financing of gas placed in storage via the Frontier transaction are flowed through immediately as part of the tracking procedure. (Docket No. 80.7.52, Order No. 4784, Finding No. 44)

Another study MDU performed is explained by Mr. Glynn on transcript pages 183 and 184. He uses the formula provided in the Natural Gas Policy ACT (NGPA) of 1978 to quantify the future cost of gas compared to the future cost of gas if presently purchased with Frontier financing (the NGPA formula escalates the price of gas by the inflation rate plus 4 percent annually until gas is deregulated in 1985):

> What would the price of 102 gas be if you assumed a 9 percent inflation rate and a 4 percent incentive rate? If you added that on to today's cost of 102 gas, the price would be in excess of $5. Now, you take the average system cost of gas which is what's going to storage under the Frontier tariff, and you can assume any interest rate you want to. I would suggest that it should be reasonable, but let's just take the high rates we're with today, 15 to 18 percent, and you can run that on a Texas Instrument calculator and see that that rate will never get close to $5 in 1985.

The study is more completely quantified in MDU's late filed Exhibit No. 7.

This study does not quantify, however, the effect that the higher proportion of new gas (Section 102 gas) to old gas has on the average cost of gas paid by present ratepayers. The higher proportion is due to MDU's aggressive purchase of new Section 102 gas over and above current system requirements and the storing of this excess gas at the average system cost. For example, Exhibit A, p. 10 shows purchased gas volumes in this case to be 61,917,447 Mcf at 14.73 psia. Itemized by category this is:

Type of NGPA Gas, Section	Volume	Percent Purchases
102	19,549	31.6%
103	9,185	14.8
104	30,515	49.3
108	817	1.3
109	1,851	3.0
Subtotal	61,917	100.0%
Produced	4,704	
TOTAL	66,621	

These are volumes available to meet a market of about 47 Bcf at 14.73 psia. In this instance, however, about 18.5 Bcf of the purchased gas is being placed in storage (See Kasper, Direct p. 2). It can readily be seen that 49.3 percent of the 18.5 Bcf is old, low cost Section 104 gas.

The excess gas supply purchased to meet this high level of storage injection has been primarily Section 102 gas -- even though for accounting and rate purposes injections have been accounted for at the average system cost. Current ratepayers then are losing the benefit of over 9 Bcf (49.3% X 18.5 Bcf) of low cost 104 gas and are paying for a like amount of high cost 102 gas.

The Commission intends to investigate accounting for all Frontier storage gas as if high priced Sections 102, 103 and 108 gas were injected into storage rather than the system average. Unless persuasive testimony is presented to the contrary, these adjustments may occur in orders for Docket No. 81.7.62 and MDU's next tracking case.

14. A more accurate comparison using MDU's study format would consider (1) Section 102 gas purchased currently with P-1 rated commercial paper and kept in storage until December 31, 1985 and (2) Section 102 gas purchased at the same date in 1985. A compound interest formula [$S = P(1 + R)^N$] can be used once the variables are quantified. In both instances P would be the July 1, 1981 price of Section 102 gas ($2.84/Mcf) as testified to by MDU witness Dave Price and N would be four years. In case #2 R would be the inflation rate plus the incentive rate of 4 percent. If one accepts the commonly acknowledged financial precept that debt costs equal the inflation rate plus 2-3 percent profit plus risk premium, then the difference between the two scenarios is 2-3 percent profit plus risk premium versus incentive rate of 4 percent. In columnar form this becomes:

Case 1

Section 102 gas purchased currently with P-1 rated commercial paper and kept in storage until 1985.

P = July 1, 1981 price ($2.84/Mcf)
N = 4 years
R = The inflation rate (9%) + incentive rate (4%)

Case 2

Section 102 gas purchased in 1985.

P = July 1, 1981 price ($2.84/Mcf)
N = 4 years
R = The inflation rate (9%) + profit (2-3%) + risk premium

The Commission acknowledges that the P-1 commercial paper rate of 14.355% included by MDU in this case includes a risk premium of about 3 percent. (Inflation rate of 9% + profit of 2-3% + risk premium of 3% = 14-15%.) The Commission anticipates, however, that over the long-term a 1-2% premium will persist for P-1 commercial paper. This conclusion renders the decision between the two cases a virtual toss up, if considered on an economic basis only.

15. The above economic analysis is premised upon three key points, which will be closely monitored by the Commission and may constitute future grounds for reevaluation of the Frontier project in an economic sense:

(1) The cost of Frontier's commercial paper compared to the inflation rate plus the incentive factor (as published pursuant to the NGPA). This is explained above.

(2) Financing excess storage gas with Frontier debt is cheaper than conventional financing. If a study is presented in the future showing the reverse, the Frontier project will be reevaluated.

(3) Deregulation. The above economic analysis is premised upon the formula stated in the NGPA (inflation plus incentive). If deregulation is accelerated as the Reagan Administration has considered

or when deregulation runs its current course, the Frontier transaction will be reevaluated. This may be a moot question if deregulation occurs at the end of 1985 as planned. MDU witness Price has stated repeatedly that the Company will be in a net withdrawal position by that date:

Q. Now, you indicated that if these two off-system sales go through, you will not realize a full-storage situation until 1985? Is that correct?

A. We will peak out in 1985, according to our projection, and I don't think we will -- From our projections, we will not be full at that time. As I recall, we peak out at about 192 -- or 169 Bcf.

Q. Will you start realizing a net withdrawal from storage at that point in time from then on?

A. Depending on our reserve acquisitions, if we do better than our extrapolations, we may not realize a net withdrawal for several years; but our present extrapolations do show a net withdrawal starting about then. (Tr., pp. 47,48)

16. The other area of concern to the Commission, and one that speaks for the current acquisition of storage reserves is long-term security of supply. On transcript pages 46 and 47 Price stated:

Q. So, in spite of a declining or about-the-same market in Montana, you are aggressively for the sake of long-range supply purchasing gas as new wells become available.

A. Yes, we are. It's a situation where the gas is here today and it may not be here tomorrow. It's not like a gasoline station where you can pull up to the station and say, "I want 10 Bcf this year and maybe 10 next year," and then go back to the producers again and say, "I want 10 the following year." We have to take it while it's there. Because in spite of this deliverability excess that exists at the present time, the plain fact is that the total discovered reserves in the U.S. are about 200 trillion cubic feet, and they're consuming about 19 trillion a year. And it's unfortunate in a way that we do have this excess deliverability, but we have to keep the long range in sight.

The Commission agrees with this philosophy within economic limits. Drilling activity, reserve and deliverability additions and demand must be closely watched however. A change in any of these variables may change Price's conclusions.

17. Competition also increases risks associated with future supply and, given supply and demand conditions existent after 1985, may result in scarcity or expensive supply:

> Q. You described your projected additions, reserve additions, earlier. As I understood it, you said 80 Bcf in '81 and '82 and 60 thereafter.
>
> A. Yes.
>
> Q. In your opinion, is that level of reserve addition basically taking all the gas available, or does that constitute some kind of a lower level of activity?
>
> A. It's taking all of the gas that I think will be available to us, because we are faced with getting more competition in North Dakota as a result of Northern Border Pipeline. In fact, right now, United Gas Pipeline Company and Northern Natural Gas Pipeline Company, Tenneco, and Natural Gas Pipeline Company of America are all out there trying to contract for reserves to be taken when Northern Border Pipeline is completed.
>
> So, our competition is going to increase, and that, in my opinion, is an optimistic estimate of what we will be able to contract for if we are aggressive. (Tr. p. 94, MDU witness Price)

18. The Commission finds that the above security of supply analysis hinges upon one primary factor: MDU's future supply of gas (starting in 1985) will be reliant upon net storage withdrawals. If MDU were any less certain of projected net withdrawals or the time frame in which they commence, the Commission would reevaluate the Frontier transaction. After all, if the gas bubble persists MDU may be able to acquire supplies in the future to meet its future demand.

19. The above considerations tip the balance found in the economic analysis in favor of currently acquiring storage gas and therefore the Frontier transaction. The Commission therefore finds amounts included in this filing to be reasonable.

20. The Company should be aware that the Commission is very concerned about optimum reserve life. The Company has presented no testimony on this subject:

> Q. Is there any study in the record that the Commission could examine and determine how much should be stored?
>
> A. No, there is nothing in the record to determine that. And I don't think it's up to the Commission to determine that. I think that it's a judgment factor, and as I said before, the more that we can store for the future, the better off our customers will be. (Tr. pp. 203, 204)

Accordingly, the Commission finds that, at the very most, the Frontier transaction applies only to existing storage fields and only to their capacity over and above gas volumes in storage at 12/31/1978. The Company should be put on notice that any expansion of storage facilities as explained by Mr. Glynn on transcript page 192 will not be allowed in rates unless the Commission finds good cause to do so in some future rate order. In the interim, the Commission requests that MDU address the optimum reserve life issue in its next filing. !

21. MDU has proposed changes in tariffs 87-M and 88-M to, in its opinion, provide a more workable format for gas tracking adjustments and applications:

> Please explain the changes you are proposing to each of the existing tariff schedules 87-M and 88-M.
>
> The only change made to Schedule 87-M and set forth in proposed Schedule 87-M-1 occurs in paragraph 2(a) where a provision that testimony will accompany the

exhibits supporting the adjustment is added and the words "and the name of a witness who will stand cross examination on the exhibit" is deleted since the testimony will state the witness(es) who sponsor(s) each exhibit. Other than these minor language changes, Schedule 87-M-1 is identical to Schedule 87-M.

With respect to Schedule 88-M-1 several revisions have been made. The first revision is to Section 1 where the reference to Section 154.38(d)(4) of the FERC Regulations under the Natural Gas Act has been eliminated. This elimination is necessary because adherence to the Commission's previous orders necessitates other changes to Schedule 88-M and modifies it to the extent that the procedure will no longer be compatible with the FERC Regulations concerning annualization and use of current volume data beyond the end of the actual historical 12-month period.

The next revision is to Subsection 3(c)(ii) where language is included to relate the recent transaction with Frontier Gas Storage Company (Frontier) concerning storage gas to the tracking procedure.

Subsection 3(c)(iii) is an entirely new subsection which states that the adjustment will be calculated using purchased, stored and produced gas volumes last approved by the Commission in MDU's last general rate proceeding.

The next change is to Subsection 3(d) where the scope of volume adjustments has been narrowed considerably so that it includes only annualization adjustments for those sources of gas which have historical data for the actual 12-month period involved. This new procedure allows adjustment of volumes only for sources, which were on line at the end of the historical period, but which were not on line for a full 12-month period, as in the case of new contracts or were terminated on or before the end of the 12-month period, in which case the adjustment would be to reduce the source to zero volume. The latter portion of this change states that changes in purchased volumes due to the adjustment process shall be considered to be either sales to or purchases from Frontier depending upon whether such changes are positive or negative. This preserves the actual relationship of purchased, storage and produced gas volumes to the total gas supply. If this is not done, then the relationship of each of these components will be distorted.

> The last set of changes occurs with the addition of new Subsections 5(a)(4), 5(c), and 5(d)(2). The original Subsection 5(c)(1) has been wholly incorporated as Subsection 5(d)(1). All of these additions pertain to the addition of provisions for carrying charges to be added to the unreflected account balances. The proposed carrying charges would be calculated at the latest allowed rate of return and would be applicable only prospectively (i.e., to balance after the adoption of the carrying charge provision). The intent of the unreflected account is to provide a balancing mechanism that should be of a minimal amount. However, since the inception of the original procedure the amount in the unreflected account has grown at a rapid pace due to the lack of current gas cost adjustments, has become very large, and has become very expensive for MDU to carry. In view of the large balance in the unreflected account it is imperative that MDU be allowed to add carrying charges to help offset the cost of carrying this amount. (Fox, Direct pp. 8-10)

The Commission finds acceptable those changes compatible with this order. The Company shall revise tariffs 87-M and 88-M to reflect them.

22. The Commission finds that amounts approved by it in Interim Order No. 4802 to be just and reasonable. It finds residential and commercial rates, therefore, should be increased on a permanent basis by 78.436¢/Mcf and industrial rates by 85.162¢/Mcf.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the parties and proceedings in this matter.

2. The rates and charges authorized herein are just, reasonable and not discriminatory.

ORDER

1. The Applicant shall file permanent rate schedules for natural gas service replacing temporary rates filed in June, 1981. Rate schedules shall increase rates to residential and commercial customers by 78.436¢/Mcf and 85.162¢/Mcf to industrial customers.

2. All motions and objections not ruled upon at the hearing are denied.

Done and Dated this 5th 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.