- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

In the Matter of the Analysis of an Integrated Resource Plan for MOUNTAIN FUEL SUPPLY COMPANY.	))))))	DOCKET NO. 91-057-09 ACKNOWLEDGEMENT OF MOUNTAIN FUEL SUPPLY COMPANY'S INTEGRATED RESOURCE PLAN DATED SEPTEMBER 27, 1993

ISSUED: December 2, 1994

BY THE COMMISSION:

SUMMARY

The Commission's Standards and Guidelines for Integrated Resource Planning for Mountain Fuel Supply Company (MFS or Company) require the Company to submit an Integrated Resource Plan (IRP) every two years, with an update in the intervening years. In conformance with these guidelines, Mountain Fuel Supply filed an IRP on September 27, 1993. The Commission requested comments from interested parties on the adequacy of the IRP and sought recommendations for future improvements. This order reviews the Company's IRP, the parties' comments on the plan's adequacy and recommendations for future improvements.

We herein acknowledge that the Company's Integrated Resource Plan meets the standards and guidelines for preparing such plans adopted by Order of September 26, 1994. Acknowledgement is not to be construed as pre-approval of any expenditures by the Company for gas supplies, capital equipment or to institute or alter a demand-side management program. The prudence of Company actions, whether or not undertaken in conformance with a Plan, will only be determined in appropriate ratemaking proceedings. In

addition, we make specific recommendations for improving future IRPs.

On June 8, 1994, the Company submitted an update to its 1993 IRP. Any party wishing to comment on the reasonableness of this update should do so in writing by December 22, 1994.

PROCEDURAL HISTORY

In Docket No. 89-057-15, MFS's gas planning and purchasing policies were examined and found to be inadequate. In response, the Commission ordered MFS to develop an IRP to document and improve its planning policies. On May 24, 1991, the Commission opened this current docket and the Company filed its first IRP on September 30, 1991. On December 16, 1991, the Commission issued Draft Standards and Guidelines for Integrated Resource Planning for MFS. Final Standards and Guidelines were issued on September 25, 1994. On October 14, 1992, the Company submitted an update to their first IRP, and on September 27, 1993, submitted its second IRP. This order addresses the adequacy of the September submission.

DESCRIPTION OF THE IRP

The Company uses a linear programming optimization model called SENDOUT, produced by Energy Management Associates (EMA) to evaluate gas supply alternatives. This model chooses new resource additions that minimize the cost of gas over a selected time horizon. EMA has revised this model several times and the Company is using the most current version available. The model cannot explicitly analyze the Company's own production of gas, so the storage module of the model was modified to emulate Company production.

The stated Company objective of this study is to develop a plan that provides customers with the lowest reasonable commodity cost over the long-term, consistent with reliable service. This requires an accurate projection of future customer requirements, an analysis of tradeoffs between system capacity and various gas supply sources, and the development of an understanding of demand-side management issues. The results of the model help derive planning guidelines that provide the basis for day-to-day decisions on gas supply.

The Company's study includes: a summary of the performance of the gas supply plan for calendar year 1992, the load forecast for the planning period, a review of system capabilities and constraints and plans for capacity expansion, a description of the Company's demand-side management pilot programs and a discussion of the assumptions used for supply-side resources as well as the results of the modeling.

Given the Company's load forecasts, the model chooses the optimal quantities of gas from its various alternative sources. These sources include existing gas purchase contracts, Company-owned production, storage, and six different assumed contact types that vary by price, load factor and availability. The existing contracts and the company-owned production were aggregated into 15 categories each based on a statistical cluster analysis.

The model was run using different assumptions regarding loads, temperatures and future contract prices. The Company drew several conclusions from their study. They include: the decision to secure up to 5.5 billion cubic feet of additional storage for the 1994-95 winter heating season; that the Company should produce approximately 42 million decatherms of its own gas assuming normal weather conditions (higher-cost D-24 gas produced at the maximum throughout the year while the lower-cost prior-company gas was produced at maximum only in the winter heating-months and not at all in the summer[1]; that low-load-factor contracts such as the "five-day" contract and the "January firm" as well as the nickel-waiver gas[2] are the best winter-peaking source of supplies. In addition, seasonal variations in spot-market prices were found to have a dramatic impact on the optimal mix of new market contracts,

[1]The Wexpro agreement provides different ratemaking treatment of Company-owned gas depending on when it was drilled. Gas drilled before the Wexpro agreement (prior Company gas) is ratebased at the Company's authorized rate of return. Gas produced in the Wexpro fields after the agreement (D-24 gas) is allowed a 24% rate of return.

[2] Five-day contract is firm gas contracted to meet MFS peak demand for a five day period. January firm is a contract for firm supplies during the month of January, historically the coldest month of the year. Nickel waiver, or the 5-cent exemption gas was established under tariff 3.17; it provides a 5-cent discount for gas that is eligible for interruption by MFS.

but prediction of such seasonal variations in price is problematic. Given the uncertainty of seasonal price variations in gas as well as uncertainty in long-term price projections, the Company concluded that a balanced portfolio of supply sources is the proper strategy for maintaining flexibility, reliability, and minimum gas costs in the long-term.

DISCUSSION AND FINDINGS BASED ON COMMENTS OF THE PARTIES

Four parties sent comments to the Commission. All were intervenors in the docket. They include: the Division of Public Utilities (Division), the Committee of Consumer Services (Committee), Utah Association of Industrial Energy Users (UIE) and Kern River Pipeline (Kern River).

1. The Division of Public Utilities

The Division's comments focused on four areas of the IRP process: (1) clarification of the rules and procedures by which MFS executes its IRP, (2) broadening the scope of the IRP to include consideration of new Company-owned production and demand-side resources (DSR), (3) the need for examples of computational method and (4) its recommendation regarding acknowledgement of the IRP.

MFS requested that its performance be judged by rules and procedures that come out of the IRP process rather than by specific numerical outcomes. The Division agreed with this request, however, it noted that the IRP fails to articulate such rules and procedures. The Division recommended that the Company's next IRP delineate such rules and decision-making procedures. In particular, the criteria used to create the fifteen groupings of both Company-owned gas and the gas contracts as well as the constraints used in treatment of these groupings should be quantified and made explicit where possible. The limitations on and reductions of field imbalances used in the model need to be explicit, as do the decision-making criteria used to achieve timely reductions. Imbalances occur when the actual take of gas from a particular field does not conform to the amount of gas specified in the contract.

The Division argued that even though several capacity expansion projects were evaluated to reinforce and expand the gas delivery system, the guidelines for choosing the best projects were not articulated in the IRP. For example, the Company concluded that storage should be expanded by 5.5 billion cubic feet by the 1995-96 heating season, yet optimal storage selected by the model varied considerably depending on weather and seasonal price variation assumptions. The Division contended that the decision-making criteria for determining optimal storage capacity should be made explicit. In another example, the Division asserted that the treatment of gathering costs should be unbundled where appropriate and made explicit. The analysis of new contracts should also consider longer-term contracts.

The Division also requested further clarification of Volume Two (the technical appendix) of the Company's IRP because computer printouts without explanation are not enlightening. Examples of computational method would help clarify modeling. The Division also commented that the IRP lacks a comprehensive analysis of demand-side resources, and as a result those resources are not adequately considered by the Company. The Division also suggested that the Company should consider the possibility of engaging in the exploration and production of natural gas.

Finally, the Division recommended that the Commission formally acknowledge the IRP, with the caveat that the next IRP incorporate the Division's recommendations for improvement. The Division stressed that acknowledgement of the IRP neither constitutes pre-approval nor precludes the investigation of specific Company gas acquisition actions.

The Commission finds that the Company's request that its actions be judged by rules and procedures rather than specific numerical results is reasonable. The least cost combination of Company-owned production, takes from existing contracts and future contracts, as well as the optimal amount of storage depends upon the assumptions used in the modeling. Reality will rarely, if ever, coincide with the particular set of assumptions used for a model run. To hold the Company responsible for duplicating the exact quantities of production and execution of contracts that coincide with the model's linear programmed optimization is not practical. However, we accept the Division's recommendation that rules and procedures should be derived directly from the IRP and that they should be explicitly stated and explained. Explicit decision-making rules and procedures are in the public interest. They will be included in future IRPs. The Company must state the criteria it uses to categorize Company-owned production. It must discuss the constraints within a production field imposed by partnerships, contractual restrictions and carrying charges. The Company must present the criteria used to manage field imbalances. Decisions regarding storage must be carefully rationalized. For example, is a risk mitigation strategy being used to justify the Company's decision to purchase 5.5 billion cubic feet of storage from Questar? If so, is the number determined by an average resulting from various scenarios or is it the highest expected value? Has the Company investigated the possibility of building or buying its own storage? The Company should make clear how gathering charges relate to total gas costs. Analysis of gas supply contracts must include assumptions about contract terms, and how such terms are expected to affect gas costs. Such rules, procedures and criteria must be made explicit in the IRP in order that regulators properly judge the reasonableness of the Company's strategies.

We direct the Company to investigate whether gaining more control over Wexpro production, by buying out the interests of its partners would benefit ratepayers. This is particularly true for partners whose production interests differ substantially from MFS. We direct the Company to analyze whether exploration and production (outside the Wexpro agreement) would be beneficial. A preliminary appraisal of this course of action is appropriate for the next IRP. We direct the Company to include adequate analysis of demand-side resources in its next IRP.

2. The Committee of Consumer Services

The Committee commented on the adequacy of the IRP and made suggestions for improvements. The Committee registered concern about the lack of input by parties during the development of the IRP, arguing that direct participation during the planning process itself is more valuable than after-the-fact comment. We agree. Our guidelines clearly state that the IRP process must be open to the public during all stages. We find that the Company must institute a more open process that allows for input during the early IRP stages. In particular, the assumptions and constraints guiding modeling, as well as scenarios to be analyzed, will benefit from early public involvement.

The Committee suggested a need for improvement in load forecasts and modeling assumptions. It recommended scenarios that include a much wider range of gas price increases and spot market escalation rates. The Committee called for a clearer analysis of price elasticity of demand and clarification of the assumptions regarding background conservation, e.g., (conservation due to increased prices, higher appliance standards and transformation of social values.)

The Committee questioned whether the SENDOUT model is a true optimization model. It requested a Company discussion the model's strengths and weaknesses relative to other models be included in future IRPs. According to the Committee, the use of storage to simulate Company-owned production must be explained and justified. To secure more confidence, the Committee recommended that the SENDOUT model be independently verified.

In our opinion, the Committee's questions illustrate why public involvement before the IRP is written is so important. Though technical conferences, held after the submission of the IRP, may have answered many of the Committee's questions regarding the model, such questions should have been asked and answered before the IRP was submitted. We will not at this time order an independent analysis of the model, but find that the need for it should be determined before the submission of the next IRP.

The Committee raised specific questions regarding the Company's supply-side portfolio; in particular, the production schedule of certain fields, the husbanding of prior-Company gas, November spot-market prices and the decline in Company-owned production. These are pertinent questions. They should have been resolved before the IRP was submitted. Many of them have been answered in the Company's June 8, 1994 IRP update; others were answered in technical conferences held later. In order to prevent such problems in the future, the Company will issue a draft of their IRP to regulators and the public so that input and questions can be addressed before the final IRP is submitted.

The Committee echoed the Division's recommendation that gathering charges must be unbundled as a separate gas supply cost component and that decision criteria used to determine a strategy for additional storage capacity must be documented. Concerning the IRP action plan, the Committee suggested that a separate section in the IRP be dedicated exclusively to the action plan in order to explain the planning and operational issues that the Company intends to address over the next one to two years. We accept these recommendations and direct the Company to address the unbundling and storage issues in its next IRP. The next IRP must also explain the action plan in a separate section.

3. The Utah Association of Industrial Users

The UIE's comments center on the modeling of the Company's Five-Cent-Exemption Program, (nickel-waiver gas). The IRP views this program as a source of peaking gas for the Company, the cost of which is determined by MFS's interruptible transportation service tariff (3.17).

Members of the UIE are the primary sources of supply for this peaking gas. The UIE claimed that there is no reservation charge for the gas and therefore it is undervalued. MFS is only required to pay for the gas that is called for in times of interruption.

The current MFS tariff on interruptible transportation service effectively sets the price for this resource. UIE maintained that the price paid for this source of gas is not cost-based and thus its value as a resource is underestimated. UIE requested that MFS be required to determine the replacement costs for this resource; perhaps by increasing its price until the model no longer selects nickel-waiver gas or by excluding the nickel-waiver gas from the existing resource stack and comparing the results of that model run with the model run that includes this gas.

In addition, the UIE requested that the Company be required to take this source of gas in the order of the quality of the supply commitments made by the transportation customers. They recommended that the Company call on gas under the Five-Cent-Exemption program in the following order: first, gas qualified under section 3.17(k); second, gas qualified under section 3.17(l); third gas qualified under section 3.17(m); and last gas not qualified. We interpret this to be a request that gas be nominated in an order that will have the least financial impact on those who refuse to deliver it; that is, in reverse order of the severity of the penalties.

The Company objected to the requested model runs on the grounds that they would compromise the Company's bargaining position when the nickel-waiver tariff is renegotiated, leading to higher prices for this source of peaking gas, to the detriment of ratepayers.

We agree. The IRP process should not compromise the Company's bargaining position. IRP information should not result in higher gas acquisition costs. This dichotomy between public input and protection of the ratepayer's interest will need to be constantly monitored by the Commission. With regard to the UIE's request that we require the Company to nominate nickel-waiver gas in reverse order of severity of the penalty, we believe that the order of nomination should be based on minimizing costs to ratepayers. Beyond that, however, we have insufficient information on the impacts of UIE's proposal to permit a well informed decision. Therefore, we direct the Company to evaluate this request in its next IRP.

4. Kern River Pipeline Company

Kern River maintained that the Company's IRP fails to meet the requirements of the Energy Policy Act of 1992 in that it lacks an in-depth analysis of system constraints, upstream pipeline constraints, and diversity of transportation options. Kern River asserted that the Commission should require an economic comparison of Questar Pipeline and Kern River transportation options to ensure reliable, low cost and diverse sources of natural gas to MFS's customers.

Kern River noted that the IRP discusses several projects which provide system reinforcement and expansion along the Wasatch Front. Kern River maintained that analyses in the IRP are insufficient to determine whether a tap into Kern River on the west side of the Salt Lake Valley would provide a viable alternative to system expansion. According to Kern River, MFS's high demand in the winter months coincides with the period when demand for Kern River capacity ebbs; thus expenditures for storage capacity might be avoided if MFS were to contract with Kern River for winter capacity.

Kern River asserted that the IRP should detail MFS's transportation rights on the Questar system. It should define the terms and duration of the contracts which MFS has with Questar, and other gatherers and transporters, by virtue of the assignment of contracts that resulted from FERC Order 636. Kern River stated that Company-owned gas is exclusively transported on Questar lines, yet the IRP does not analyze transporting this gas on Kern River facilities. Further, there is no analysis of the feasibility of carrying MFS's open-market purchases on the Kern River's facilities. Kern River maintained that MFS might enhance its bargaining position, to the benefit of ratepayers, by having access to both Questar and Kern River facilities.

We generally agree with Kern River's suggestions. The IRP should present an analysis of transportation alternatives including the potential benefits of tapping into Kern River transportation, in lieu of additional storage or other system capacity expansions, and transportation of either Company-owned gas or open-market purchases by Kern River. However, to permit such an analysis, Kern River must be willing to provide the information about the costs and terms of transportation on their system. We expect the IRP to present thorough analysis of all relevant supply options.

CONCLUSIONS

The Commission acknowledges that the Company's IRP satisfies the standards and guidelines of the Commission's

September 26, 1994, order. As stated previously, this acknowledgement does not confer any pre-approval of resource expenditures by the Company. Such approval can only occur in a rate proceeding.

We commend the Company for improvements in its IRP that have been made to date, though as set forth herein, further improvements are necessary. In general, the plan needs to explicitly specify the rules and procedures guiding the Company's resource acquisition decisions. In addition, the Company must endeavor to open up the planning process to the regulatory community and to the extent possible to the public as a whole. The Commission is cognizant of the tradeoff between full public disclosure in all phases of the IRP and the possible compromise of sensitive market information. The IRP process should not relinquish or compromise the Company's bargaining position when the consequence is higher costs for gas acquisition and higher rates to ratepayers. We believe a way can be found to protect both the Company's and the public's legitimate interests. Where early public disclosure might present problems, the Commission can be called upon for decisions on a case-by-case basis.

Finally, the following improvements in MFS's IRP are in the public interest and must be included in the Company's next IRP submission due April 1995:

1. An explicit statement of the criteria used to categorize Company-owned production as well as the constraints

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

STATE OF UTAH)
) ss.
County of Salt Lake)

I hereby certify that the foregoing consisting of 19 *pages numbered* 1 *to* 19 *inclusive, is a true and correct copy of the original.*

DOCKET NO. 91-057-09, ACKNOWLEDGEMENT OF MOUNTAIN FUEL SUPPLY COMPANY'S INTEGRATED RESOURCE PLAN DATED SEPTEMBER 27, 1993, In the Matter of the Analysis of an Integrated Resource Plan for MOUNTAIN FUEL SUPPLY COMPANY.

In the foregoing entitled matter or cause, now of record or on file in the office of the Public Service Commission of Utah.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Commission this 2nd *day of* December *19* 94

Julie Orchard
Secretary of said Commission

PSC-82009