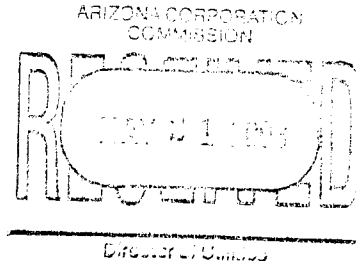




SOUTHWEST GAS CORPORATION

May 20, 2003

Mr. Robert G. Gray
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007-2996



Subject: Southwest Gas Corporation (U 905 G)
Notice of Inquiry into Gas Infrastructure Matters
Staff Data Request No.: ACC-NOI No. 1

Dear Mr. Gray:

Enclosed please find Southwest's responses to Staff's Data Request No. 1 in the above-entitled Notice of Inquiry. This completes this data request.

Should you have any questions, please do not hesitate to contact me at (702) 876-7163.

Very truly yours,

Debra Jacobson
Director/Government and
State Regulatory Affairs

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Enclosures

**SOUTHWEST GAS CORPORATION
NOTICE OF INQUIRY
INTO NATURAL GAS INFRASTRUCTURE MATTERS**

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**ARIZONA CORPORATION COMMISSION
UTILITIES DIVISION STAFF
DATA REQUEST NO. NOI-1
(NOI-1-1 THROUGH NOI-1-17)**

DOCKET NO.: NOTICE OF INQUIRY
COMMISSION: ARIZONA CORPORATION COMMISSION
DATE OF REQUEST: APRIL 15, 2003

Purpose:

The purpose of this Notice of Inquiry ("NOI") is to solicit comments and suggestions to assist the Commission as it addresses natural gas infrastructure issues in the future. The major areas of inquiry are natural gas storage facilities and interstate pipelines.

Request No. NOI-1-1:

Should the Commission develop formal or informal policies regarding the use of natural gas storage by Arizona utilities?

Respondent: Systems Planning

Response:

Southwest believes that there could potentially be value in the Commission establishing formal or informal policies regarding the use of natural gas storage by Arizona utilities. Southwest has historically examined the prospect of all available supply alternatives in establishing its Arizona supply portfolio. To date, due to both availability and economic considerations, natural gas storage facilities have not been incorporated in Southwest's portfolio. In the past few years there has been increased developmental interest in establishing market area storage facilities in Arizona. At approximately the same time, major LDC and electric transporters of natural gas on El Paso Natural Gas Pipeline are anticipating the realization of dramatic changes in the contractual arrangements under which they transport natural gas supplies to the State. As a result, there may be both increased availability and need for natural gas storage facilities in the very near future to serve the needs of Arizona natural gas customers. The establishment of Commission policies guiding the states utilities in their evaluation and potential pursuit of such storage services could be instrumental in ensuring that the Commissions policy goals related to storage services are realized for the benefit of Arizona utilities and consumers alike.

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Request No. NOI-1-2:

Should natural gas storage use by electric utilities be viewed and treated differently than natural gas storage used by natural gas local distribution companies? Please explain.

Respondent: Systems Planning

Response:

While the end uses of LDCs and electric utilities certainly differ significantly, both types of utilities face the same challenges related to substantial seasonal fluctuations in loads over the course of the year, uneven intra-day load profiles, and the need for a high degree of supply reliability. On the other hand, electric utilities frequently have alternative supply options including the use of alternate fuels and the purchase of wholesale power supplies which are not options for LDCs. Whether these similarities and differences translate into different approaches in the evaluation and acquisition of natural gas storage facilities could be a topic of further review if the Commission elects to pursue establishing formal or informal policies regarding the use of natural gas storage by Arizona utilities.

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Request No. NOI-1-3:

What issues should the Commission address in creating any Commission policy on natural gas storage?

Respondent: Systems Planning

Response:

In considering the establishment of formal or informal policies regarding the use of natural gas storage by Arizona utilities, the Commission may wish to consider issues relating to cost, market volatility, reliability, and safety. In addition, the extent to which the oversight might conflict with the FERC should be considered. Finally, the Commission should consider whether the policy would also apply to virtual storage (such as firm purchase arrangements with flexible volume provisions) resource service acquisition by the effected utilities.

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Request No. NOI-1-4:

If Arizona utilities utilize natural gas storage, how should the Commission address the recovery of costs for such storage and what costs should be considered?

Respondent: Pricing & Tariffs

Response:

The recovery of costs associated with natural gas storage should be addressed in the same manner cost for interstate pipeline transportation is recovered. All cost of interstate pipeline transportation, both demand related and commodity related, are recovered through the gas cost component of LDC rates, adjusted monthly to reflect the historical 12-month average of actual costs. All costs of storage, including reservation charges, injection charges and withdrawal charges should be recovered through the gas cost component of rates.

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Request No. NOI-1-5:

Should the Commission encourage the use of natural gas storage for addressing natural gas price volatility, reliability of natural gas supply and/or other possible goals of natural gas storage? Please indicate which goals should be pursued as well as the relative importance of each goal.

Respondent: Systems Planning

Response:

The Commission Decision in Docket No. G-00000C-98-0568 states "The Commission recognizes price stability as one of the goals of the natural gas procurement process". Southwest subsequently modified its established policy to endeavor "to acquire the best-cost portfolio considering price, price stability, reliability and flexibility". Southwest has acknowledged for years in its Annual Gas Procurement Plans that these factors must be balanced. Storage certainly can help achieve the goals of price stability, reliability, and flexibility, but at a cost. The cost of storage must be weighed against the alternative means of achieving acceptable performance against those same goals. As part of the Commission's potential establishment of natural gas storage policies, it should consider providing further direction to the states utilities as to the degree to which the contracting for natural gas storage facilities should be encouraged in consideration of competing portfolio goals, most noticeably cost minimization.

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Request No. NOI-1-6:

How should the Commission address the goal of maximizing customer benefits from natural gas storage while minimizing the cost to consumers of utilizing such storage?

Respondent: Systems Planning

Response:

Southwest currently structures its Arizona gas supply portfolio to accommodate the following, sometimes conflicting, goals: 1) reliability and flexibility of supply; 2) price stabilization through the contracting of fixed price supplies; and 3) cost minimization. Costs are minimized subject to the goals of reliability, flexibility and price stability being satisfied. To the extent that natural gas storage opportunities become available to Arizona utilities in the future, they will be evaluated by Southwest under the above analysis framework. If the Commission's policy goals seek to promote the use of natural gas storage facilities by Southwest beyond the degree to which they will be subscribed under this portfolio analysis methodology, such emphasis will need to be explicitly codified in any formal or informal policies that the Commission may establish as part of this NOI.

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Request No. NOI-1-7:

How does the use of natural gas storage relate to other methods of reducing price volatility, such as the use of longer term supply contracts and financial hedging?

Respondent: Systems Planning

Response:

Storage differs from long-term supply contracts and financial hedging in many ways. The table below provides a brief synopsis of some of the similarities and differences between the three general price volatility mitigation mechanisms.

	Storage	Longer Term Supply Contracts	Financial Hedging
General Unique Features	Provides the only real means to hedge price and volume risk associated with heat sensitive market demands from season to season	Provides the only real means to hedge far into the future	Provides the most flexible and diverse hedging as there are no constraints associated with the physical flow of gas, administrative burden is substantial
Long Term Cost Impact	Moderate to High	Moderate	Moderate - external costs can be minimized in return for increased other risks

Capital Requirements/ Impact	High capital cost or long-term fixed cost commitment	May encumber assets/credit	May encumber assets/capital if done in either over-the-counter or exchange based transactions
Credit Risk	Only on gas purchased for injection	Yes	Exists in over-the-counter transactions
Transaction Risk	Moderate	Moderate	High, even with significant systems, checks, and balances
Other Risks	Loss of opportunity if market turns	Loss of opportunity if market turns, only base load demand can be hedged	Increase as cost is minimized, only base load demand can be hedged

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Request No. NOI-1-8:

Is there a relationship between the use of natural gas storage and what interstate pipeline capacity rights a utility holds? And if so, how should the Commission address this relationship?

Respondent: Systems Planning

Response:

Yes. In order to make predictable and reliable use of physical natural gas storage facilities, some level of interstate transportation capacity rights (or the equivalent) is needed in order to effect gas transport to and from the storage facilities. Market area storage can, however, reduce the need for pipeline capacity during withdrawal periods from what it would have otherwise been. The appropriate mix of transportation and storage rights will be a function of the cost of each delivery mechanism, as well as the demands of the individual subscribing utility. If the Commission wishes to establish utility guidelines regarding the mix of transportation and storage rights for portfolio planning purposes, the issue should be the subject of further discussion and evaluation as part of Commission-sponsored workshops.

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Request No. NOI-1-9:

What monitoring, reporting, and evaluation should the Commission undertake in regard to Arizona utilities' use of natural gas storage?

Respondent: Pricing & Tariffs

Response:

The Commission's evaluation of natural gas storage activity should be integrated with the normal review and analysis of the utility's gas purchasing practices.

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Request No. NOI-1-10:

Should the Commission develop formal or informal policies regarding the use of interstate pipelines by Arizona utilities? If so, what areas should such policies address?

Respondent: Systems Planning

Response:

Arizona utilities have, for more than a decade, been active in the marketplace securing flexible gas supplies/services, including interstate capacity rights. These utility efforts have been successful in securing adequate interstate transportation to serve Arizona's natural gas demands. To the extent that the Commission has identified areas of concern with the utilities historic transportation acquisition efforts, those issues could be addressed as part of any workshops that result from this NOI.

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Request No. NOI-1-11:

Are there ways the Commission could encourage use of interstate pipelines in ways that would enhance the reliability and reduce the cost of natural gas service in Arizona?

Respondent: Gas Purchases & Transportation

Response:

Southwest has always had a goal of utilizing interstate pipeline transportation service in the most reliable and cost-effective manner for its Arizona customers. The Commission has supported and should continue to encourage development of competitive pipeline alternatives and provision of flexible services by pipelines to provide Arizona utilities with the most economic opportunities.

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Request No. NOI-1-12:

How should the Commission balance goals such as reliability, cost, portfolio diversity, and operational flexibility as it considers the use of interstate pipeline facilities by Arizona utilities?

Respondent: Systems Planning

Response:

See the response to NOI-1-5.

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Request No. NOI-1-13:

Previously the Commission has recognized the benefit of *having* Arizona local distribution companies have a diversified gas supply portfolio. Should the Commission encourage Arizona utilities to diversify their sources of interstate pipeline capacity, rather than relying on a single interstate pipeline for all pipeline capacity?

Respondent: Gas Purchases & Transportation

Response:

Southwest does consider diversity of interstate pipeline capacity as an integral part of a diversified gas supply portfolio (also, see the response to NOI-1-14). The fact that the Commission encourages diversity of gas supply is already inclusive of capacity. Diversity, taken alone, is basically a reliability and market risk issue, whether that diversity is in sources, sellers, types, or transporters of supply. As with all elements of a gas supply portfolio, the balance of costs for diversity versus the benefits is always key. Diversity may not, in and of itself, be justifiable in all cases. However, encouraging and supporting new, competitive alternatives that provide opportunity for more diversity may also lead to future cost-effective options that are not quantifiable at the outset.

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Request No. NOI-1-14:

Are there other areas where the concept of a diversified supply portfolio can and should be applied by the Commission?

Respondent: Systems Planning

Response:

Southwest has considered supply diversity to be an element of supply reliability, which has historically been a primary consideration in its acquisition policy. As a result, Southwest has balanced the desire for lower cost San Juan gas against the need to diversify and purchase more reliable Permian supplies. Also, Southwest has had to balance depending too heavily upon a small number of suppliers against the cost of spreading its purchases over a larger number of suppliers. The Commission could address such portfolio considerations as part of any potential policies it establishes in the instant NOI.

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Request No. NOI-1-15:

Should the Commission address proposals for new pipelines, expansions of existing pipeline, or new storage facilities? If so, how should the proposals be addressed by the Commission?

Respondent: Gas Purchases & Transportation

Response:

It would be logical and appropriate for the Commission to address such issues, to the extent of encouraging their construction and providing a receptive atmosphere in Arizona, that would support such construction. (Also, see the responses to NOI-1-1, 3, 5, 6 & 10).

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Request No. NOI-1-16:

Are there other natural gas infrastructure issues which the Commission should be addressing?

Respondent: Gas Purchases & Transportation

Response:

Natural gas infrastructure consists of the basic elements of producing facilities, transportation facilities, storage facilities, and distribution facilities. Since Arizona is not a producing state, and distribution facilities are already within the purview of the Commission, there are no other apparent infrastructure issues which could logically be addressed by the Commission that are not proposed to be addressed in this NOI.

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Request No. NOI-1-17:

Should the Commission hold one or more workshops to further investigate natural gas storage and interstate pipeline issues?

Respondent: Pricing & Tariffs

Response:

Southwest encourages the use of workshops to informally investigate and address issues related to natural gas storage and interstate transportation.