

RELIANT ENERGY INC.'S RESPONSE TO:

ARIZONA CORPORATION COMMISSION
UTILITIES DIVISION STAFF'S

April 15, 2003 NOTICE OF INQUIRY

ON THE ISSUE OF:

ARIZONA CORPORATION COMMISSION POLICY AND ACTION ON NATURAL GAS
INFRASTRUCTURE MATTERS IN ARIZONA

A. INTRODUCTION

1. REI has significant interest in this NOI.

Reliant Energy Inc. (REI) is the owner of the 500 MW Desert Basin Generating facility located near Casa Grande Arizona. The output of this facility is under long-term contract to the Salt River Project. REI also owns over 3,000 MWs of generation in California and southern Nevada that is capable of deliveries into the Arizona market. These facilities rely on gas as their exclusive fuel. REI, therefore, has significant interest in this Notice of Inquiry (NOI) and desires to participate in the process as the Arizona Corporation Commission (ACC) solicits input from a wide audience of industry participants. REI has significant experience with gas storage and delivery issues in the West and welcomes the opportunity to participate in this matter under consideration by the ACC.

2. Strategically located Storage will benefit Arizona.

Gas consumers can derive benefits from market area storage that include peak demand supply, price stabilization, supply portfolio optimization, and pipeline imbalance penalty avoidance. Gas-fired power generation in Arizona is no different in this respect and will very likely see benefits if market area gas storage becomes available. Indeed, the entire state benefits if power can be generated more reliably at lower costs.

The development of strategically located underground natural gas storage could have a significant impact upon gas price stability and supply security for Arizona. It would also contribute to a more reliable and low cost power supply in Arizona.

3. Funding issues must be addressed.

The primary barrier to its development – the cost, substantially challenges the inherent benefit of natural gas storage within Arizona. Natural gas storage can be costly to develop particularly when it involves the application of mining techniques such as salt cavern leeching. Natural gas storage development in Arizona is no exception and certainly represents a significant commitment on the part of all that choose to be involved. Storage has not yet been developed in Arizona largely due to a lack of funding.

As gas deregulation evolved, the private sector embraced the opportunity to compete with traditional pipeline services and some private storage development projects began to emerge. Energy companies that emerged and flourished during deregulation pioneered many of these private projects. Unfortunately, many marketing and trading companies are no longer able to pursue storage development projects today for a variety of reasons, including credit concerns and market liquidity. Some of the tools upon which they would rely, such as forward financial markets and market indices, are insufficient in size or too illiquid to adequately hedge the risk.

REI supports market solutions for projects such as storage development. The goals of security of gas supply and power generation stability are vital to the welfare of Arizona. However, in order for the barrier of development cost to be overcome, investor confidence in the market must be re-established. There must be clear and transparent market rules established whereby investors can be assured of returns commensurate with the risks they are undertaking. REI respectfully submits these comments in response to the ACC's questions contained in its NOI.

4. Invite FERC to participate in the process.

REI encourages the ACC to invite representatives from the Federal Energy Regulatory Commission to participate in this process. As a key stakeholder in all things involving the interstate transportation of natural gas, the FERC may provide valuable insights and its participation may minimize, if not eliminate, jurisdictional battles in the future.

B. RESPONSES TO QUESTIONS:

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

Arizona generally relies upon interstate pipelines for natural gas transmission and supply to the state. The Federal Energy Regulatory Commission (FERC) policies govern such interstate pipelines. The ACC has a direct and substantial interest in the oversight of intrastate issues. If power generation within and surrounding the State continues to be predominately fueled by natural gas and if that demand for gas continues to rise, then the ACC should adopt policies that promote the development and use of natural gas storage within the State. Power generators are typically large volume users of gas with highly volatile demand profiles that have a material impact on gas availability. Strategic storage facilities can materially dampen the effects of power generators on the other gas customers. Clear ACC policies that encourage development of storage facilities would be highly constructive. Formality is less important than the content, clarity and consistency in implementation of the policies.

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.

A local distribution company (LDC) tends to have a predictable daily load profile with manageable demand variability that can usually be handled through upstream supply arrangements or on-system balancing capabilities. However, due to the large seasonal and possibly daily variations in electric demand of almost 50% in Arizona, electric generation facilities place huge demands on natural gas delivery systems on a daily basis. Due to the lack of storage for electric generation this variability creates a need for the generators to either (1) buy or sell large volumes of intraday gas (which can contribute to gas and power price volatility) or (2) to arrange some type of hourly (or time-of-use) gas balancing with the pipeline or LDC (which adds to the cost of generation). This basic difference of intra-day load behavior between gas-fired power generation and LDCs requires the ACC to establish storage policies that reflect this difference.

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

- 1) The method(s) of funding project development.
- 2) The method(s) of funding operations after development.
- 3) The requirements for its usage to reflect the types of customers and end-use priority.
- 4) The lack of investor confidence in energy market infrastructure.
- 5) The method of cost allocation and rate design.

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?

If a utility regulated by the ACC pursues the development, construction, operation and ownership of storage in order to mitigate the fuel risks inherent in this market and the associated capital costs are deemed prudent by the ACC, then such costs should be added to the rate base of the utility and an appropriate rate of return on their investment should be allowed. Alternatively, if the utility chooses to contract with a third party for the use of storage then that portion of the annual storage fee that is deemed prudent should be allowed as a cost of service item in the rates of the utility.

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.

Natural gas storage, if properly positioned and adequately sized, can serve as a buffer against gas price volatility and supply reliability. This improves power supply and reduces power price volatility. This should be one of the primary goals of the ACC is developing policies. Additionally, it is important for ACC policies to facilitate restoring investor confidence in the markets so that entities, whether regulated or non-regulated, seeking to construct natural gas storage facilities can secure financing to complete the project.

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?

Customer benefits can be maximized when the customer can obtain the services it needs the most. This can be done by developing terms and conditions for services that reflect these needs. For example, a utility might need seasonal peaking supply, while a power generator likely requires daily high-volume high-injection and deliverability service. Other services, such as reverse storage (where the customer is withdrawing first, then injecting later) should be considered. Of course, the rates must be structured such that these services are useful and practical. Further customer interaction with the ACC would provide valuable insight into the types of storage services that may be needed in Arizona.

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?

Long-term supply contracts, financial hedging, and physical gas storage all serve to reduce volatility. Each of these items has limitations to their usefulness.

Long-term supply contracts frequently have attractive features, such as a known and fixed price or a steady volume. However, the downside to these supplies is that they are captive to a particular upstream pipeline and are therefore subject to the operating conditions of that pipeline. The pipeline performance is also subject to the performance of the upstream gas supplier, which can be a far distance from the point of demand.

Financial hedging usually applies strictly to the price of the gas volume instead of securing access to the physical supply. While hedging can secure a fixed or banded price, it is merely an agreed upon exchange of money and is often disassociated from the physical supply. The counterparty to a hedge may be a financial institution with no physical rights to gas flow but is highly preferred for its superior credit ratings and low

risk of nonperformance. Thus, while a physical supply may suffer an interruption the financial obligations will continue unabated. The customer still needs the gas.

Market area storage, on the other hand, tends to be “already delivered” and located within a strategic distance of the point of demand. This insulates the stored gas from many adverse upstream pipeline conditions that often times contributes to unforeseen volatility and tight supply. Additionally, the demands within a market area may surpass the delivery potential of the upstream pipelines. Storage, located in a market area gives the utility a ready physical supply and is often used to “peak shave” – to fill in the gap between peak demand and peak pipeline delivery. So, during non-peak conditions, storage withdrawals and long-term supply can fulfill identical needs but during peak demand or abnormally low upstream supply conditions their inherent differences are profound.

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?

It is possible that an LDC that has operated in an area that never had market area gas storage available to it would have an excess amount of upstream pipeline capacity rights if compared to an LDC that operates in an area that does have market area storage available. The storage-poor LDC would use mainline pipeline capacity as a surrogate, albeit an inefficient one, for market area storage. Once market area storage is developed and available, the LDC would likely factor this storage availability into its gas supply portfolio mix. It is likely that some of the mainline capacity is no longer needed and released by the LDC. The possibility exists that an LDC could have a long-term contract for upstream capacity that the LDC can terminate by paying an exit fee. In this case, the ACC should consider allowing pass through of the exit fee only if the cost savings associated with the use of local area storage exceed the costs of continuing to hold upstream capacity and the fee (a “benefits” test). The ACC should encourage the utility to optimize his supply alternatives in the most cost effective manner possible.

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

A storage project in Arizona may obtain NGPA Section 311 authorization or a Hinshaw exemption to Federal oversight and regulation. As such, rates and operating conditions would be set by the state. In any event, the ACC should monitor the level of gas in storage – in terms of a minimum level and a maximum level for given times of the year. Utilities should be given some discretion in the refill injection and withdrawal rates but periodic targets (such as month-end targets or seasonal targets) should be developed.

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?

All utility activities involving storage should be monitored by the ACC to evaluate their conformance to established policy. Utilities should be required to permanently or temporarily release pipeline capacity and storage capacity when it is not needed to mitigate the associated costs from ratepayer rates. During times of tight supply or demand peaks the ACC should require the utilities to consider the end-use status as a priority determinant for curtailment. Gas-fired power generators should be given a high priority end-use status.

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?

The best way to lower costs and enhance reliability is to encourage competition to maintain an environment in which Arizona business is as competitive as it can possibly be. Utility rates that reflect service to industrials and generators should be stripped of any customer class cross-subsidization. Gas-fired power generation should be given a status that reflects its importance for a healthy economy and human needs.

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?

As mentioned in these comments in regards to storage, the state must weigh the benefits of portfolio diversity versus the cost of providing additional pipeline facilities. Perhaps the best way to answer the question of “how” to balance key concerns is to do exactly what the ACC is doing here – that is, by asking for the involvement of the various players and probing for answers.

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?

The Commission should encourage Arizona utilities to diversify their sources of interstate pipeline capacity. Without a doubt, a diversified portfolio of supply sources is inherently beneficial by promoting competition and reducing risk. Competition between pipelines that serve Arizona should result in lower rates, enhanced services, reduced risks of supply interruption and improved supply reliability.

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

No comment.

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?

The ACC should develop or update 5 and 10 year future demand estimates. It is likely that growth in demand is expected for Arizona. This demand growth will have regional features (high growth in some parts of the state, lower growth in others) that are distinguishable and pipeline projects (including storage) will need to reflect these differences. Growth in gas-fired power generation can derive benefit from new and expanded pipelines as well as from market area storage development. General demand growth would likely reflect a greater need for mainline pipeline capacity than storage facilities. Once determined, these future demand projections should be provided to pipeline and storage developers for project design and routing to and through Arizona.

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

An investigation into the reliability of power generation within the State under various sensitivity scenario analyses (such as spontaneous pipeline disruptions, declining wellhead deliverability, a worsening credit environment, spot gas price "blow-up", excessive California gas demand, excessive California power demand, etc) would help the ACC identify additional issues regarding natural gas infrastructure and could assist Arizona in answering the question: How would, and how should, Arizona react if an energy crisis occurs within Arizona?

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

Yes. Workshops allow for the diversity of opinions, needs, benefits and challenges to be identified and the exploration of various approaches to addressing the issues/problems identified.

The foregoing was provided by email addressed to bgray@cc.state.az.us on May 30, 2003. REI requests that any questions be directed to:

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REI further requests that the foregoing be persons be maintained on any service list used in this matter.

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