

Staff Report on Southwest Gas Corporation Filing for Pre-  
Approval of Cost Recovery for Participation in the Kinder  
Morgan Silver Canyon Pipeline Project

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## **Introduction**

On March 12, 2004, Southwest Gas Corporation (Southwest or Company) filed for Commission pre-approval of cost recovery for participation in the Silver Canyon natural gas pipeline project. The Silver Canyon pipeline project is a proposed new pipeline which Kinder Morgan Energy Partners (Kinder Morgan) would build from the San Juan supply basin in northwest New Mexico to Phoenix and then to the California border at Ehrenburg. Southwest's filing is pursuant to the Commission's on-going Notice of Inquiry on Natural Gas Infrastructure, which the Commission initiated in April, 2003, to consider issues related to natural gas infrastructure and their impact on natural gas service in Arizona. This Staff Report represents Staff's evaluation and recommendations regarding this Southwest filing.



## **Description of Silver Canyon Pipeline Project**

The proposed Silver Canyon pipeline project runs southwest from the Blanco hub in the San Juan supply basin in northwest New Mexico to the Window Rock area and then west, roughly paralleling the northern pipeline system of El Paso Natural Gas Company (El Paso) to a point east of Flagstaff. The pipeline then runs south to Phoenix, skirting the Phoenix metro area on the north and west sides. The pipeline would then run west to Ehrenburg, roughly paralleling El Paso's southern system. The pipeline would provide additional direct access to San Juan gas as well as indirect access to gas in the central Rockies area, including possibly the Piceance, Paradox, Green River, Uinta, and Powder River production areas in Utah, Colorado, and Wyoming. The pipeline would have a capacity of 750,000 dth/day or more and would likely interconnect with the El Paso, North Baja, and Southern California Gas pipeline systems. The proposed timeline for the pipeline project is for Kinder Morgan to file with the Federal Energy Regulatory Commission (FERC) in the fourth quarter of 2004, construction to begin in the fourth quarter of 2005, and to commence operation in the third quarter of 2006. Kinder Morgan held a binding open season on the Silver Canyon project from January 21, 2003 to April 30, 2003.

## Background

Natural gas is a vital fuel for a wide variety of important activities in Arizona, including power generation by electric utilities and others, residential consumption for a number of uses including home heating, and a wide variety of commercial and industrial uses. Virtually all of Arizona's natural gas supplies have been provided through the El Paso pipeline system which accesses the San Juan, Permian, and Anadarko production areas which are primarily in Texas and New Mexico. Until the restructuring of the natural gas industry in the 1980s and early 1990s, El Paso both sold the natural gas commodity to Arizona buyers, and provided the means to transport the natural gas supplies to their destinations in Arizona. Natural gas industry restructuring resulted in El Paso no longer selling the natural gas commodity, but rather consumers such as electric utilities and local distribution companies directly purchasing natural gas supplies from producers and marketers in the supply basins, with El Paso still providing the interstate transportation service. The El Paso pipeline system provides natural gas transportation service to Arizona, New Mexico, western Texas, and much of California. Traditionally natural gas prices in the San Juan supply basin have been lower than prices in the Permian supply basin. And given that most El Paso shippers had system-wide receipt rights, most shippers accessed as much San Juan gas as possible, with Permian gas meeting the rest of the shippers' needs. For many years Arizona shippers, including Southwest Gas, were full requirements customers of El Paso. Full requirements shippers were able to access the full amount of pipeline capacity needed to meet their usage requirements, with their cost responsibility determined in El Paso rate proceedings, such as those that led to the 1996 El Paso rate proceeding settlement (FERC Docket No. RP95-363, March 15, 1996). Full requirements customers were generally required to take all their natural gas transportation service from El Paso. Under such circumstances it would be difficult for other pipelines to successfully enter the Arizona natural gas market.

The southwestern natural gas market has seen drastic swings in the availability of pipeline capacity in the last decade. In the mid 1990s major California shippers, particularly Pacific Gas and Electric, turned back a large amount of pipeline capacity to El Paso, creating a sizable glut of excess pipeline capacity. The 1996 El Paso settlement addressed this pipeline capacity glut through a variety of conditions. However, within 4-5 years, certain shippers were complaining that El Paso was not providing the amount of firm service contracted for in their transportation service agreements with El Paso. These claims, in combination with the California energy crisis and other factors have led to a great deal of controversy regarding pipeline capacity rights and service on the El Paso pipeline system in the Southwest. Driving factors in the controversy included:

- Significant growth in the demand for natural gas in the Southwest, particularly for electric generation
- Bad Northwestern hydro conditions resulting in much greater natural gas demand in California, particularly in 2000-2001
- The lack of construction of additional infrastructure by El Paso or other entities in the Southwest

## **Current Uncertainties Related to Natural Gas Service in Arizona**

Despite a great deal of opposition from Arizona, New Mexico, and Texas parties, FERC forcibly converted the full requirements customers, including Southwest, to limited contract demand capacity rights, effective beginning in September 2003. This conversion has led to a great deal of uncertainty regarding the cost, nature, and availability of current and future natural gas transportation service on the El Paso pipeline system for Arizona shippers, including Southwest Gas. Sources of concern include:

- **Reduced Access to San Juan Gas** – As a result of recent FERC actions, Arizona’s natural gas supply has seen a significant shift away from the San Juan supply basin to the Permian supply basin, with a similarly situated California shipper having greater San Juan access than an Arizona shipper. Traditionally San Juan gas has been cheaper than Permian gas, so a shift away from San Juan gas results in a higher overall gas cost for Arizona. Reduced access to San Juan gas also reduces Arizona’s ability to access Rockies gas, which is the only on-shore supply basin in North America which is projected to grow in production volume in the near future. Further, the El Paso system contains significant constraints on moving gas from the northern El Paso system to the southern El Paso system. This is particularly true for Arizona and other East of California shippers who were put at a disadvantage in acquiring such north-south capacity in recent FERC proceedings, as they were not allowed to move delivery points to the southern system for north system capacity which was assigned to them.
- **Questionable Firmness and Accessibility of Some El Paso Capacity Serving Arizona** – When FERC reallocated pipeline capacity on the El Paso system in the recent RP00-336 docket, Arizona shippers were given a number of different types of capacity. Some capacity was existing firm capacity which can reasonably be relied on for firm service, absent force majeure circumstances. However, other capacity which was allocated to Arizona shippers is of questionable reliability. First is capacity resulting from El Paso’s Line 2000 power up project. This capacity will be firm capacity as it becomes available, but at the time FERC’s reallocation of pipeline capacity took effect, the Line 2000 power up capacity was not in operation and FERC’s capacity pool provision only partially filled the gap until Line 2000 capacity becomes available. Second, approximately 30 percent of Arizona shippers’ capacity is Block 2 capacity, which through the end of 2005 is recallable by California shippers. If this Block 2 capacity is recalled by California, Arizona shippers may have a difficult time meeting all their service needs, particularly during peak periods. Lastly, some capacity allocated to Arizona Shippers is San Juan to Topock capacity on El Paso’s northern system. Given that the vast majority of Arizona’s natural gas use is in the vicinity of El Paso’s southern system, such San Juan – Topock rights do not provide firm deliverability to Arizona shippers’ southern system delivery points. Arizona shippers have to accept using this capacity on a less than firm basis, trade the capacity for other capacity (likely less attractive Permian capacity), or find a way to somehow bring the gas from Topock to El Paso’s southern system.
- **Reduced Operational Flexibility at Higher Cost** – Through a variety of actions by El Paso and FERC, Arizona shippers have seen their operational flexibility on the El Paso system significantly reduced in recent years. Examples of such restrictions include the imposition of D-Code deliveries, loss of full requirements service, loss of system-wide receipt point rights, and the looming threat of more strict imbalance requirements (with

associated penalties, possibly substantial) on the El Paso system. Attempts to recover such operational flexibility will likely carry additional costs for Arizona shippers.

- The Failure of Natural Gas Infrastructure in the Southwest to Grow in Proportion to Natural Gas Demand – While there have been some pipeline capacity additions in the Southwest in recent years, the growth in demand for natural gas, particularly in the case of new natural gas-fired electric generation, has outstripped the existing natural gas infrastructure in the Southwest. According to Energy Information Administration statistics, natural gas delivered to consumers in Arizona grew by 57 percent from 1999 to 2002, including deliveries to the electric power sector growing 166 percent during the same period. Further, a large number of gas-fired electric generation units have been constructed in Arizona in recent years, with the majority located in the proximity of El Paso’s southern system. As these generating units gradually come on-line, it is highly questionable that the existing natural gas infrastructure is robust enough to provide the service needed by both these new generating units and other existing natural gas consumers. Additionally, Arizona has no natural gas storage facilities and no such facilities are currently under construction, though there is a developing awareness of the need for natural gas storage. The construction of natural gas storage, particularly in market areas, would likely enhance the ability of all market participants to manage natural gas supplies in Arizona. Recent legislative action provides added uncertainty regarding the development of natural gas storage facilities in Arizona.
- The California Settlement With El Paso Regarding Market Manipulation Allegations – This settlement makes it easier for California shippers to recall Block 2 capacity from Arizona shippers. This settlement also provides for the appointment of a California special master to rule on disputes related to the terms and conditions of the settlement. This development seems likely to add to the complexity and uncertainty of service on the El Paso system in the future.
- Current and Future El Paso Pipeline Proceedings – El Paso currently has a number of matters before FERC which impact service to Arizona shippers, including the Order 637 proceeding, the imbalance services filing, outstanding transportation agreements with converted full requirement shippers, and various tariff and other filings. Additionally, El Paso, under terms of the 1996 settlement agreement, is required to file a rate case with FERC, such that rates would go into effect beginning January 1, 2006. The cost and service implications of this rate proceeding are unclear, but potentially significant. In combination, all these proceedings create a great deal of uncertainty regarding the cost and nature of service which Arizona shippers will have in both the short term and long term on the El Paso proceeding.
- Current Concentration of Arizona Regulatory Risk at FERC on Natural Gas Matters – Given the dominant position El Paso currently holds in Arizona’s interstate pipeline market, an adverse regulatory ruling at FERC can have an enormous impact on the Arizona natural gas market, as shown in several recent proceedings. To the extent Arizona’s interstate natural gas service is provided by two or more different interstate pipeline operators, rather than a single operator, the impact of an adverse FERC ruling regarding any one pipeline would be much smaller on the aggregate Arizona natural gas market.
- Uncertainty Regarding Future Regional Natural Gas Market Dynamics – There is a sizable amount of uncertainty regarding numerous factors in the Southwestern natural gas

markets, including shifts in supply and demand, the construction or lack of construction of other natural gas infrastructure in the region, the extent to which natural gas continues to be the fuel of choice for newly constructed electric generation units, the impact of national energy policy decisions, and the potential for sizable step downs in service on the El Paso system by California shippers and/or others.

- The National Concern Over Natural Gas Supplies and Prices – Most natural gas production basins in North America are mature and reflect declining production volumes, with only the Rockies, Arctic, deep Gulf, and other offshore areas presenting opportunities for enhanced natural gas production. Drilling for natural gas has increased to some extent in response to higher natural gas prices, but even with increased drilling, it appears the exploration and production sector is having a difficult time maintaining current production levels, let alone increasing production. Drilling concerns are increased when it is recognized that most drilling now is secondary drilling in existing fields, rather than new field development, and that decline rates for existing wells have increased. Additionally, there is environmental and other opposition to development of many of the remaining new potential sources of natural gas in North America.

Liquid natural gas (LNG) imports are increasingly being looked at as a sizable source of natural gas supplies in the future, though siting issues remain for LNG facilities. At the same time, natural gas demand has increased (though this trend has been stunted by recent high prices). The end result is a disappearance of the “gas bubble” of the 1980s and early 1990s, and a very tight natural gas supply/demand balance. This has resulted in both much higher natural gas prices and unprecedented natural gas price volatility. There is widespread concern nationally regarding the availability and price of natural gas supplies in the future. This concern is exacerbated by doubts as to whether national energy policies reflect the realities of the natural gas marketplace, given that such policies generally encourage additional natural gas consumption, particularly in the electric generation sector, while it is not clear where sufficient future supplies will come from, whether domestic or imported.

The confluence of all these circumstances raises significant questions for Arizona regarding the extent to which its current natural gas infrastructure is sufficient to meet the natural gas needs of Arizona consumers in the near and long term future. Given the importance of reliable natural gas supplies to the health, safety, and economic well-being of Arizona residents, actions which can enhance Arizona’s natural gas infrastructure must be given careful and thorough consideration.

## **The Commission Notice of Inquiry on Natural Gas Infrastructure**

On April 15, 2003, the Commission initiated its Notice of Inquiry (NOI) on natural gas infrastructure, issuing a list of questions to solicit input from interested parties. A total of 20 parties provided responses to the NOI questions. On September 10, 2003, the Commission held a workshop regarding the NOI on natural gas infrastructure. Prior to the workshop, Commission Staff had circulated a strawman proposal for discussion at the workshop. Following the September 10, 2003 workshop, the Commission solicited an additional round of comments from interested parties regarding the strawman proposal and other issues discussed at the workshop. Comments were received from 17 parties following the September 10, 2003 workshop.

On December 18, 2003, the Commission issued its Policy Statement Regarding New Natural Gas Pipeline and Storage Costs. In this document, the Commission made specific policy statements about supply/infrastructure diversity, supply/infrastructure planning, the Commission approach to new infrastructure projects, the general Commission approach, individual utility circumstances, and reporting.

The policy statements included in the December 18, 2003 document are as follows:

### ***I. Supply/Infrastructure Diversity***

- 1. Diversity in Arizona's natural gas infrastructure, including interstate pipeline facilities, natural gas storage facilities, and related aspects of natural gas service, is beneficial and should be actively pursued by Arizona utilities as a way of providing greater supply reliability and flexibility and possible lower costs.*
- 2. Arizona utilities as a general principle should pursue a diverse natural gas supply portfolio which takes into account relevant factors including cost, reliability, flexibility, safety, and price stability.*
- 3. Arizona utilities should consider natural gas storage as an integral component of their efforts to develop a diverse natural gas supply portfolio, recognizing the variety of potential benefits of natural gas storage, including enhanced reliability, operational flexibility, more efficient use of pipeline capacity assets, and reduced natural gas price volatility.*
- 4. The current monopoly on interstate pipeline service in central and southern Arizona is not beneficial to the state of Arizona. The Commission encourages development of alternative natural gas supply options, including one or more new interstate pipelines and natural gas storage facilities. Reduction over time of Arizona's reliance on a single pipeline system reduces the risk to Arizona of operational, regulatory, or other problems which may occur in regard to any given pipeline system.*

### ***II. Supply/Infrastructure Planning***

- 1. Arizona utilities should plan for natural gas infrastructure needs on a long term basis, recognizing that some decisions may not necessarily lead to the lowest cost in*

*the short term. Such planning should take into account the lead time necessary to construct and put in service natural gas infrastructure in Arizona.*

- 2. The Commission endorses voluntary efforts to analyze and plan for the present and future natural gas supply needs of Arizona and encourages Arizona utilities and others to actively participate in such activities.*

### **III. Commission Approach to New Infrastructure Projects**

- 1. The Commission, as a general proposition chooses not to endorse specific infrastructure projects. The Commission believes that the region's natural gas consumers and infrastructure developers play a fundamental role in determining how to best address the region's infrastructure needs. The Commission anticipates continued active involvement in FERC proceedings related to Arizona's natural gas infrastructure, as the Commission deems appropriate.*

### **IV. General Commission Approach**

- 1. The Commission NOI on natural gas infrastructure activities recognizes the jurisdiction and central role of FERC in developing new natural gas infrastructure in the Southwest and anticipates the Commission's NOI initiative as being complementary to FERC's activities, recognizing that both state and federal regulators can play a role in Arizona's natural gas infrastructure development.*
- 2. The Commission encourages open, on-going and substantive communication between Arizona utilities and the Commission as Arizona's natural gas infrastructure is developed in the coming years.*
- 3. At this time the Commission believes that the best method for the Commission to address natural gas infrastructure matters is to encourage utilities to file applications, including requests for alternate cost treatment, in order that the Commission can consider specific requests for cost recovery proposals appropriate to the circumstances for each individual application.*

### **V. Individual Utility Circumstances**

- 1. As individual Arizona utilities consider their participation in the development of natural gas infrastructure, the Commission recognizes that each utility's circumstances and needs are unique and participation in natural gas infrastructure projects will vary accordingly.*

## **VI. Reporting**

- 1. Reporting for any additional pipeline services should be consistent with the method and content of current reporting by utilities for their current pipeline services.*
- 2. Reporting requirements for natural gas storage activities will need to be developed, given the lack of current natural gas storage availability in Arizona. Utilities should work with Staff to develop the proper reporting format and content to be included in reports to the Commission, including possibly through existing monthly adjustor reports or other reporting methods as deemed appropriate.*

The document also discusses the Commission's consideration of alternate cost recovery methods, such as pre-approval, as well as the way such costs have traditionally been considered and that the traditional method is the preferred way.

On February 13, 2004, the Commission held another workshop regarding the NOI on natural gas infrastructure. Topics of discussion at the workshop included Arizona natural gas infrastructure issues, updates on pending pipeline and gas storage projects, and the National Petroleum Council study, *Balancing Natural Gas Policy: Fueling Demands of a Growing Economy*, which was issued in September 2003.

## Southwest Gas – Kinder Morgan Precedent Agreement

On January 9, 2004, Southwest Gas entered into a precedent agreement with Silver Canyon Pipeline LLC (Silver Canyon), which in effect, and subject to various terms and conditions, commits Southwest to taking pipeline service from the Silver Canyon project. Exhibit A of the precedent agreement lists the contemplated volume of service to be taken under each of the two service requests comprising the precedent agreement. The term of the initial agreement with Silver Canyon would be ten years, beginning with the first November after the pipeline begins service. [REDACTED]

[REDACTED] The reservation charge is much larger than the other pipeline charges, which include the volumetric rate, the fuel rate, and the applicable surcharges. The volumetric rate is a rate per dth which applies to all natural gas shipped on the Silver Canyon system. The actual volumetric rate has not been determined, but Southwest estimates that it will be less than [REDACTED] per dth. The fuel rate is a percentage which reflects the amount of gas which the shipper provides to the pipeline for service on the pipeline. The actual fuel rate has not been determined, but Southwest estimates that it will be 1.12 percent. Because the fuel rate provides the pipeline with a volume of natural gas purchased by and provided by the shipper, the fuel rate becomes more important as natural gas prices increase. Lastly, the applicable surcharges include the Gas Technology Institute (GTI) surcharge (which is being phased out and was formerly known as the Gas Research Institute surcharge) and the annual charge assessment (ACA), which is the FERC regulatory assessment. The applicable surcharges have not been determined, but it appears that they will likely be generally similar to such charges on the El Paso system and quite small in comparison to the overall Silver Canyon costs.

The precedent agreement contemplates two “service requests”, [REDACTED]

[REDACTED]

[REDACTED] The capacity would originate at the Blanco Hub in the San Juan basin and terminate at the Glendale city gate for Service Request One and at El Paso’s north Phoenix lateral (and Southwest’s Grand Avenue lateral) for Service Request Two. The precedent agreement contains termination rights for both Southwest and Silver Canyon, such that either party can terminate the project at certain points if various conditions or events occur or do not occur. If the Silver Canyon project moves forward as contemplated in the precedent agreement, Southwest would at some future date enter into a transportation service agreement with Silver Canyon.



## **What Does Pre-approval Mean and Why Pre-approve?**

Southwest's application in this matter specifically requests Commission pre-approval of the costs identified in the application for recovery through Southwest's purchased gas adjustor (PGA) mechanism. As stated in the December 18, 2003 Commission Policy Statement Regarding New Natural Gas Pipeline and Storage Costs:

“Traditionally Arizona entities have not sought and the Commission has not granted pre-approval of cost recovery from participation in infrastructure projects or other projects. Rather utilities made their own business decisions on those projects. At a later time the Commission addressed cost recovery in proceedings such as rate cases and adjustor mechanisms. One important reason for this traditional approach has been to ensure that the Commission has a full opportunity to evaluate the actions taken and costs incurred by the utility for prudence and in the best interest of Arizona's utility consumers. This approach provided incentive to utilities to pick the most cost-effective project. This traditional approach to utility participation in infrastructure projects, including natural gas pipeline and storage projects, is still available to utilities that wish to continue using this method.”

While the traditional method should still be the standard way to address participation in such infrastructure or other projects, the unique and extraordinary circumstances present in Arizona's natural gas infrastructure at this time support Commission consideration of new methods which may enhance the state's ability to address natural gas infrastructure concerns in a more timely manner.

One concern that is expressed at times regarding the traditional method is that a utility will have a strong inclination to always pick the least cost option because it is often considered the easiest to justify in the future when the Commission scrutinizes its actions, even if there are strong considerations which indicate that an option other than the least cost option may be a reasonable and viable course of action. Recognizing that each case must be measured on its own merits, there certainly are cases where less tangible benefits may be substantial and outweigh a higher cost, at least in the short term. One can argue that such a case currently exists in considering the development of Arizona's natural gas infrastructure.

For example, it is widely recognized in the natural gas industry that having competition between multiple pipelines to serve a given area is a positive benefit. This harks back to basic economics as a seller of a good in a market with no competitors is not likely to have the same motivation to reduce the price of the good as that seller would have if there was one or more other competing sellers of the same good in the same market. Applying this reasoning to the Southwestern natural gas market, one could make the argument that El Paso does not have the same motivation to reduce the cost of service to its Arizona shippers (with no pipeline competition in Arizona) as it does to reduce the cost of service to its California shippers (who have multiple pipeline options, including the recently concluded expansion of the Kern River pipeline). The introduction of another pipeline to central and southern Arizona, such as the

Silver Canyon pipeline, would introduce at least some level of pipeline competition to the major Arizona markets.

Certainly utilities may choose to pursue other pipeline options absent pre-approval of such actions, but taking such action is likely more difficult in the current market with so much uncertainty. Also, it would appear that the financial difficulties being experienced by many entities in the energy business would lessen the industry's appetite as a whole to participate in new infrastructure projects, even if they are needed and beneficial. Given the unique circumstances and needs of the Arizona natural gas market at this time, providing properly conditioned pre-approval in the current circumstance could provide an additional incentive for Arizona utilities to participate in infrastructure projects which at least on an up front cost basis may appear more costly than the existing infrastructure option.

Southwest's application specifically requests pre-approval to pass through the reservation charges, volumetric rate, fuel rate, and applicable surcharges associated with the Silver Canyon project. In the case of Southwest, the company has an existing PGA mechanism, through which it currently passes through its El Paso pipeline capacity costs, which are the same type of costs contemplated in the Silver Canyon precedent agreement. Pre-approval in this case would reflect Commission approval to pass through those previously identified specific costs through the PGA mechanism for the ten year period of the initial contract with Silver Canyon. Such costs would not begin to pass through the PGA until such time as the pipeline project is built and Southwest begins taking service through the pipeline, currently projected to be late 2006. If for some reason Silver Canyon capacity costs were not passed through Southwest's PGA mechanism, while El Paso capacity costs continued to be passed through the PGA mechanism, an artificial incentive could be created for Southwest to favor El Paso capacity over other capacity such as Silver Canyon capacity.

However, while pre-approval would provide for the pass through of these costs to ratepayers, it would not in any way reduce the Commission's ability to determine the prudence of the operation and use of Southwest's pipeline capacity rights, whether on the Silver Canyon pipeline or other pipelines. Southwest still has a standing obligation to maximize the value of all its pipeline capacity assets for the benefit of the Southwest ratepayers who pay for the capacity. So if the Commission in the future determined that Southwest had not prudently managed its Silver Canyon or other pipeline capacity, it could take action to disallow such costs, just as the Commission can do with Southwest's present pipeline capacity.

It should be noted that even if the Commission provides pre-approval of Southwest's participation in the Silver Canyon project, the project, for a variety of reasons, could still not end up being constructed. However, it does appear that Commission pre-approval would positively impact the Silver Canyon project's likelihood of moving forward.



Despite lower fuel and volumetric rates, the higher reservation rate, which is by far the largest rate element, results in a higher cost when directly comparing the proposed Silver Canyon project's rates with the current El Paso rates. However, a number of factors complicate this comparison. First, El Paso has a pending rate proceeding before FERC, the first since 1995, such that new rates will go into effect beginning January 1, 2006. There are a variety of uncertainties regarding what the outcome of the upcoming El Paso rate case will be, but it appears likely that the rates paid by Arizona shippers will increase from those currently shown in the above table. In Southwest's filing the company created a number of scenarios regarding what new incremental pipeline capacity on the El Paso system would cost Southwest to provide service to its Arizona customers. The five scenarios varied in estimated cost from [REDACTED] per dth.

Second, given the age of the El Paso pipeline system and therefore its high level of depreciation, it is highly unlikely that any new pipeline project, lacking such a level of depreciation, would be able to have directly competitive rates. But at the same time, a new pipeline would be less likely to have the amount of maintenance and other issues associated with a much older pipeline and would effectively reduce the overall age of the region's infrastructure as a whole. Third, [REDACTED]

[REDACTED] In the current circumstances, with the number of uncertainties facing Arizona shippers, a comparison of relative costs, while still important, should not be relied on too heavily in decision-making, as a variety of factors, many of which are difficult or impossible to accurately quantify, will have a large impact on the nature, quality, and cost of service which Southwest will end up incurring on the Silver Canyon pipeline or other pipeline.

[REDACTED] Charges related to the volumetric rate and fuel rate are dependent on the volume of throughput. [REDACTED]

[REDACTED] again, applying the hypothetical assumptions previously identified. Southwest would likely incur some additional cost of taking short haul service on El Paso lines.

In an era of much higher natural gas prices, the cost of pipeline capacity becomes a much smaller piece of the overall cost of acquiring natural gas supplies for a company like Southwest. While higher natural gas commodity prices unfortunately lead to a higher overall cost of natural gas to Arizona consumers, the higher commodity prices overwhelm small changes in pipeline capacity costs and also provide more incentive to develop natural gas infrastructure which may help reduce the high commodity costs. For example, when natural gas used to cost roughly \$2.00 per dth, a [REDACTED] per dth reservation charge is roughly [REDACTED] percent of the overall gas cost. Conversely, if natural gas now costs \$5.00 per dth, a [REDACTED] per dth reservation charge represents less than [REDACTED] percent of the overall cost of gas. Southwest's states in its application that its total

cost of gas supplies and capacity for its Arizona service territory was approximately \$243 million. In comparison, the annual cost of the Silver Canyon capacity of somewhere in the [REDACTED] million range is quite small. Further, if Southwest did not acquire the Silver Canyon capacity, it would have to acquire a similar amount of capacity from some other source, which would likely at least approach the cost of the Silver Canyon capacity.

### *San Juan/Rockies Versus Permian Gas*

One long-held principal in Southwestern natural gas markets is that San Juan gas is cheaper than Permian gas, so gas buyers generally pursue San Juan gas when possible. This principal has generally held true, though the basin differential has fluctuated to some extent over time. It has also been generally true that when there are price spikes, Permian spot market prices rise much more quickly and much higher than San Juan prices, which is not surprising, given the greater eastern market access of Permian gas. A number of factors impact the basin differential between San Juan and Permian gas, including pipeline operational circumstances, regional demand fluctuations, growth or decline in supply development in each basin, access to other markets including the eastern and Midwestern markets, and the development of additional pipeline capacity in the region. Some market participants believe that the basin differential between San Juan and Permian gas will largely disappear in the long term, while others believe that there will continue to be a price premium paid for Permian gas in comparison to San Juan gas. Whether a basin differential will be maintained and what size the differential will be are hard to ascertain and given the many variables, reasoned arguments can be made both ways. Given historic pricing patterns, it does seem likely that at least under certain circumstances San Juan supplies would continue to have at least a small price advantage over Permian supplies, at least in the short term.

Similar to San Juan gas is gas from the Rockies supply basin, which is the main domestic production basin where natural gas supplies have grown significantly in recent years. Rockies gas at times in the past has shown a significant discount in price to natural gas supplies from other production basins. The basic reason for this is that there has been more production available in the basin than there was takeaway capacity on pipelines. Then when additional takeaway pipeline capacity was built into the supply basin, such as the Kern River pipeline expansion in May 2003, the differential between that basin and other basins is reduced. A good example of this is when the Kern River pipeline expansion began service in May 2003, increasing takeaway capacity out of the Rockies supply basin. When the Kern River pipeline expansion went into service, the price of Rockies gas immediately shifted upward to be much closer to other western supply basins. It would then be expected that absent additional takeaway capacity, the basin differentials would begin to grow again as more supplies come online in the Rockies area.

It is important to illustrate the impact basin differentials can have when comparing the cost effectiveness of various pipeline options. A simple sensitivity analysis can be done comparing the savings from purchasing San Juan gas instead of Permian gas with the costs of taking service on a given pipeline, varying the San Juan/Permian differential. Using estimated total cost numbers contained in the previous section, which indicate Southwest's service on the

Silver Canyon pipeline will be approximately [REDACTED] million annually when the Southwest’s participation is fully phased in, the following estimated savings under different basin differential scenarios can be compared.

Estimated Silver Canyon Pipeline Annual Service Cost	Hypothetical Annual Volume (dth)	San Juan – Permian Basin Differential (\$/dth)	Annual Savings From Basin Differential
[REDACTED]	14,194,000	\$0.02	\$283,880
[REDACTED]	14,194,000	\$0.05	\$709,700
[REDACTED]	14,194,000	\$0.10	\$1,419,400
[REDACTED]	14,194,000	\$0.20	\$2,838,800
[REDACTED]	14,194,000	\$0.50	\$7,097,000

As shown in the table above, even a relatively small basin differential of \$0.10/dth (which equals just \$0.01 per therm) can have a major influence over the actual total cost of gas to Southwest of taking service over one pipeline in comparison to another.

Acquisition of the Silver Canyon capacity will increase the percentage of Southwest’s capacity with San Juan access, after the capacity is fully phased in, from approximately 43 percent to approximately [REDACTED] percent in a peak winter month, while recognizing that approximately one third of the current San Juan capacity held by Southwest is the San Juan to Topock northern system capacity which FERC did not allow converting full requirements shippers to move to southern system delivery points.

Given the increased reliance on Permian gas as a result of recent FERC actions, a case can be made for acquiring additional San Juan and/or Rockies capacity from a diversity standpoint. And to the extent San Juan and/or Rockies gas prices do maintain a price advantage over Permian gas, this provides additional motivation to access non-Permian gas supplies.

*Impact on a Southwest Gas Customer Bill*

In Southwest’s filing the Company estimated that a residential customer using an average of 330 therms annually would pay an additional \$2.75 annually for the cost of the Silver Canyon pipeline capacity when Southwest first would take service from Silver Canyon. Adding in estimated volumetric rate and fuel rate costs, the annual cost to an average residential customer would be approximately \$3.10. However, this cost should be kept in the context that if Southwest were not acquiring Silver Canyon capacity, it would likely need to acquire additional capacity elsewhere to meet its growing demand. For example, if Southwest were able to acquire the same amount of capacity on the existing El Paso system for San Juan service (which is highly unlikely), the annual cost of such El Paso capacity, even at pre-rate case rates and not taking into account the greater flexibility of the Silver Canyon capacity, would be approximately \$2.33 annually for an average Southwest residential customer. And to the extent there are savings through greater San Juan access compared to buying more Permian gas, the costs of the Silver Canyon capacity to a typical residential customer would be reduced. In summary, while there may be a small additional incremental cost to Southwest customers for the Silver Canyon

capacity, this amount of cost appears to be outweighed by the long term benefits of this additional natural gas infrastructure in Arizona.

*Southwest's Participation in the Silver Canyon Project in Light of the Commission's December 18, 2003 Policy Statement*

The Commission's December 18, 2003 policy statement addressed a number of policy issues related to new natural gas infrastructure in Arizona. This section of the Staff Report considers how Southwest's application conforms to the Commission's December 18, 2003 policy statement.

Section one of the policy statement addresses supply/infrastructure diversity. Southwest's Silver Canyon capacity would provide additional natural gas infrastructure diversity, would enhance Arizona's access to San Juan and Rockies gas, and would help reduce the current monopoly pipeline service situation existing in central and southern Arizona.

Section two of the policy statement addresses supply/infrastructure planning. Southwest's participation in the Silver Canyon project does represent an effort to undertake long term planning for Southwest's natural gas needs, recognizing that a great deal of uncertainty exists regarding pipeline service in the Southwest in the coming years.

Section three of the policy statement addresses the Commission's approach to new infrastructure projects. As previously noted, the Commission in this proceeding is in no way providing a specific endorsement of the Silver Canyon pipeline project in comparison to other projects, but is rather assessing the individual circumstances represented in Southwest's filing.

Section four of the policy statement addresses the general Commission approach. Southwest's application is consistent with the Commission's indication that it would consider specific requests by utilities for cost treatment of new infrastructure costs.

Section five of the policy statement addresses individual utility circumstances. Southwest's application is reflective of the individual pipeline capacity and service needs of Southwest and its customers through such features as [REDACTED].

Section six of the policy statement addresses reporting requirements. Southwest has indicated a willingness to provide information to the Commission regarding its Silver Canyon capacity including reporting Silver Canyon capacity cost information in its monthly PGA reports in a form consistent with how Southwest currently reports pipeline capacity related costs.

In summary, Southwest's filing addresses a number of the policy issues which the Commission's December 18, 2003 Policy Statement identifies for Arizona natural gas consumers.

*The Silver Canyon Capacity as Part of Southwest's Overall Pipeline Capacity Portfolio*

Southwest's current pipeline capacity portfolio on the El Paso system contains pipeline capacity with a variety of features, including differing supply basin receipt rights, differing firmness, differing delivery points, and other terms and conditions. The capacity on the El Paso system is also seasonally sculpted, with the majority of Southwest's capacity concentrated during the winter heating months when Southwest's demand is the greatest.

The table below summarizes Southwest's current pipeline capacity on the El Paso system. Volumes for January are shown, as Southwest's capacity volumes vary by month.

Description of Capacity <sup>5</sup>	Volume of Capacity (mcf/day) <sup>6</sup>
Block 1 – Permian to PG&E Topock	2,713
Block 2 - Permian to PG&E Topock (recallable to California)	86,405
Block 2 – San Juan to PG&E Topock (recallable to California)	100,337
Block 3 – Permian to Ehrenburg	4,112
Current Agreements – San Juan to Arizona Delivery Points	154,926
Current Agreements – Permian to Arizona Delivery Points	133,438
Line 2000 Conversion - San Juan to Arizona Delivery Points	51,974
Line 2000 Conversion – Permian to Arizona Delivery Points	44,781
Line 2000 Power Up – Permian to Arizona Delivery Points (3 phased construction)	134,622
Total (including Anadarko)	713,338

The Silver Canyon capacity would represent roughly [REDACTED] percent of Southwest's total pipeline capacity over the life of the initial 10 year agreement with Silver Canyon, based on current projections. Adding this portion of pipeline capacity which has San Juan basin receipt rights will help replace the San Juan pipeline capacity which was lost in the recent FERC proceedings.

Southwest projects that its total Arizona natural gas design peak demand will grow from 647,934 dth in 2006/2007 to 748,794 dth in 2012/2013, not including any demand resulting from special gas procurement agreements. [REDACTED]

It is possible that Southwest will either need to acquire additional capacity if demand growth is quicker than expected, or Southwest could have more capacity than it needs if demand growth is less than projected. Southwest has a variety of options which can help it align the amount of pipeline capacity it holds with its expected demand, including purchasing and selling capacity on the release market, turning back capacity (consistent with the terms of any given contract), and acquiring additional capacity on a pipeline.

<sup>5</sup> Southwest also holds a very small amount of Anadarko supply basin capacity, approximately 30 mcf/day.

<sup>6</sup> Note that for purposes of discussing capacity in this report, 1 mcf = 1.023 dth. One mcf is a thousand cubic feet of natural gas. In contrast, dth (as well as Btus) is a measurement of heat content.

### *Impact of Pre-approval on Southwest's Level of Risk*

Southwest, as a corporation providing natural gas service in Arizona, is subject to a variety of risks as it conducts its business. As a general principal, utilities such as Southwest attempt to reduce the level of risk they face, as a reduced risk level is looked upon favorably for a variety of reasons. Southwest's risk is typically one factor which is considered in certain Commission proceedings, including general rate proceedings. Pre-approval of the cost of acquiring a given asset, would seem to shift some level of risk from the company to the ratepayers. In this case, if the Commission grants pre-approval of Southwest's acquisition of Silver Canyon capacity, it would seem to reduce Southwest's risk in relation to this particular asset. The question of what this apparent reduction of risk means to Southwest's overall level of risk is a more difficult question, as Southwest faces a variety of different risks, both in its gas supply acquisition activities, and in various other segments of its business. Southwest has indicated that it does not believe that Commission pre-approval of the acquisition of Silver Canyon capacity has a discernable impact on Southwest's level of risk. Whether there is a discernable impact on Southwest's risk and if so, what the proper treatment of the shift in risk would be are issues which are more properly considered in future Southwest rate proceedings, when risk and other matters are considered in setting Southwest's rates. In such future rate proceedings, all parties can review this issue and make recommendations as to the proper treatment of any shift of risk resulting from Commission pre-approval in this proceeding would be. Therefore Staff recommends that any effect pre-approval of this project may have on Southwest's risk be determined in a future rate proceeding.

## Conclusions and Recommendations

It appears likely that a good deal of uncertainty will continue to exist regarding natural gas supply issues in Arizona and the southwest, given current circumstances in the region. However, there is little doubt that given the burgeoning natural gas demand in Arizona and elsewhere in the southwest that additional natural gas infrastructure will be needed to ensure continued reliable natural gas service. While the Commission traditionally has not pre-approved recovery of costs related to the acquisition of pipeline capacity, the present, serious conditions existing in regard to Arizona's natural gas infrastructure argue for action beyond the normal course of business at the Commission. Southwest's acquisition of Silver Canyon capacity can play a role in moving toward a more robust natural gas infrastructure in Arizona and reducing the possibility of natural gas service disruptions in the future. Further, Southwest's acquisition of Silver Canyon capacity will likely only have a very minimal upward impact on Southwest's customers and could, under certain circumstances, actually reduce the overall cost of gas either short and/or long term.

Given the many variables currently at play, it is difficult if not impossible to make a definitive statement regarding whether a specific course of action will in fact be the best course of action. However, a reasonable assessment of the information available can at least enable decision makers to reach an informed conclusion for assessing possible courses of action.

Southwest's participation in the Silver Canyon project addresses many of the policy statements contained in the Commission's December 18, 2003 policy statement. Staff believes that Southwest's participation in the Silver Canyon project is reasonable given the information available at this time. Staff recommends that the Commission pre-approve Southwest's specific costs (reservation charges, volumetric rate, fuel rate, and applicable surcharges) discussed herein related to the proposed Silver Canyon pipeline project.

### Proposed Conditions to Pre-approval:

1. The Commission retains full authority to review Southwest's gas procurement activities, including its management of all pipeline capacity and related activities, recognizing that the Commission is pre-approving the underlying acquisition of the Silver Canyon capacity during the initial ten year term of the agreement with Silver Canyon. The pre-approval being granted in this proceeding would expire upon completion of the initial 10 year term.
2. Any impact on Southwest's risk profile resulting from pre-approval of costs related to Silver Canyon pipeline capacity would be considered within the context of future Southwest rate proceedings.
3. Southwest shall file a status report on the Silver Canyon project and Southwest's participation in the project with the Commission every six months until either Southwest begins taking service from Silver Canyon or Southwest's participation in the project is terminated.

4. Southwest shall notify the Commission when the exact volumetric and fuel rates are set for the Silver Canyon pipeline, within ten days of such rates being set.
5. Southwest shall notify the Commission within ten days of when the Company knows with certainty that it will participate in the pipeline capacity volumes identified in the application.
6. Southwest shall notify the Commission within ten days of each of the following events regarding the Silver Canyon project: Silver Canyon filing with FERC for approval of the pipeline, FERC granting approval of the pipeline, Silver Canyon beginning construction of the pipeline, Silver Canyon completing construction of the pipeline, and Southwest beginning to take service from the Silver Canyon pipeline.
7. Southwest shall notify to the Commission if at any time either Southwest or Silver Canyon exercise termination rights pursuant to the precedent agreement or any other events significantly impact Southwest's participation in the Silver Canyon project, within ten days of any such action.
8. Pre-approval of the specific costs related to Southwest's acquisition of capacity on the Silver Canyon pipeline is granted based upon the specific and unique conditions considered in this application and will in no way commit or predispose the Commission regarding any future considerations of pre-approval of costs. Rather, the standing presumption would be that the Commission would not grant pre-approval in future proceedings, absent a careful consideration of unique, serious, and important circumstances which would require such action.
9. None of the pre-approved costs will be passed on to Southwest's ratepayers until all of the following occur:
  - The Silver Canyon pipeline is built and operational.
  - Southwest is receiving service on the Silver Canyon project consistent with the precedent agreement and this order.
  - Southwest shall submit for Staff approval the format and content of Silver Canyon related information to be reported in Southwest's monthly PGA report

Staff, Southwest, and the Residential Utility Consumer Office (RUCO) have met a number of times to discuss this matter. It is Staff's understanding that both RUCO and Southwest generally support the Staff Report and the accompanying proposed order, based on discussions with those parties. Staff has sent an e-mail to all parties on the e-mail distribution list for the Commission's Notice of Inquiry on Natural Gas Infrastructure, indicating that Southwest has made the filing in this proceeding. Staff has placed the Southwest application on the Commission's website to facilitate public access and contemplates placing further documents related to this proceeding on the Commission's website. Staff will also notify parties on the NOI e-mail distribution list as matters develop further in this proceeding.