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SOUTHWEST GAS CORPORATION

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Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007-2996

Subject: <u>Docket No. G-01551A-07-0504</u>

Southwest Gas Corporation (Southwest) hereby submits for filing an original and thirteen (13) copies of its Testimony Summaries in the above-referenced docket. In accordance with the Procedural Order, copies of the summaries are being served upon the Administrative Law Judge, the Commissioners, and the Commissioners' aides as well as the parties of record.

Respectfully submitted,

Debra S. Gallo

Debra S. Gallo, Director
Government & State Regulatory Affairs

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5241 Spring Mountain Road / Las Vegas, Nevada 89150-0002
P.O. Box 98510 / Las Vegas, Nevada 89193-8510 / (702) 876-7011
www.swgas.com

SOUTHWEST GAS CORPORATION

Docket No. G-01551A-07-0504

2007
ARIZONA
GENERAL RATE CASE

Testimony Summaries

June 12, 2008

SOUTHWEST GAS CORPORATION

ARIZONA GENERAL RATE CASE

DOCKET NO. G-01551A-07-0504

LIST OF WITNESSES

Roger C. Montgomery

William N. Moody

Laura Lopez Hobbs

Randi L. Aldridge

Jerome T. Schmitz

Robert A. Mashas

Frank J. Maglietti, Jr.

James L. Cattanach

A. Brooks Congdon

Ralph E. Miller

Theodore K. Wood

Frank J. Hanley

ROGER C. MONTGOMERY

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT AND REBUTTAL TESTIMONIES OF
ROGER C. MONTGOMERY

Direct Testimony

Roger C. Montgomery, Vice President/Pricing of Southwest Gas Corporation (Southwest or the Company), provides a brief overview of Southwest's current and prior rate case applications, identifies the major challenges facing Southwest, and discusses the Company's proposals to address these challenges and why these proposals should be approved by the Commission.

Mr. Montgomery testifies that the major challenges Southwest faces in Arizona are: (1) an inability to earn the Commission-authorized rate of return; and (2) an authorized rate of return below its peers and other energy utilities in Arizona.

Mr. Montgomery further testifies that the primary reasons Southwest has not earned its authorized rate of return are: (1) declining average residential usage; (2) weather volatility; and (3) disallowance of reasonable and necessary expenses on the basis that both customers and shareholders benefit from these expenditures. Residential usage continues to decline every year, as it has been doing for the past two decades. With traditional rate design, the recovery of fixed costs is largely dependent upon the utility being able to sell the volumes of natural gas that rates were based upon in the prior rate case. Weather volatility also affects the Company's ability to recover its fixed costs from year to year.

Finally, Mr. Montgomery testifies that Southwest's currently authorized return on equity is significantly below what the Commission has authorized for other Arizona energy utilities and represents one of the lowest rates of return authorized by any state regulatory commission in the nation. With a credit rating barely above junk bond status and the need to raise significant amounts of capital to fund growth and improve its natural gas system infrastructure, Southwest's authorized return on equity needs to be comparable to its peers to be competitive in the financial marketplace.

Rebuttal Testimony

In his rebuttal testimony, Mr. Montgomery responds to Staff's and RUCO's rejection of Southwest's proposals related to rate design and fixed cost recovery. Mr. Montgomery points out that in its decision in Southwest's last general rate case, the Commission stated, "We recognize that Southwest is facing increased financial pressure due to declining usage on a per customer basis . . ." Southwest proposes a variety of new rate design and regulatory mechanisms designed to decouple revenues from sales volumes, including: (1) the RDAP to address declining average usage; (2) the WNAP to address adverse effects of weather volatility; and (3) a volumetric rate design that includes a flat commodity rate, but which, for accounting purposes, has a declining block rate for non-gas charges and an inverted block rate for purchased gas cost. Although rejecting Southwest's proposals, Staff and RUCO failed to present any proposals of their own to address the increased financial pressure caused by declining average usage.

Mr. Montgomery further testifies that, if the Commission accepts Staff's and RUCO's recommendations to reject the Company's proposals, there are other ways the Commission could mitigate the increased financial pressure Southwest faces. One way would be for the Commission could use updated sales volumes to calculate the revenue deficiency and to design residential rates in this proceeding. Average annual residential usage declined from 332 therms based on the test year ended April 30, 2007 to 319 therms based on the 12 months ended March 31, 2008. The drop in average usage since the test year equates to reduction in Southwest's annual revenues, at present rates, of approximately $6.3 million. Another way for the Commission to mitigate the increased financial pressure on Southwest would be for the Commission to make an upward adjustment to the rate of return on common equity that the Commission authorizes in this proceeding.

Finally, Mr. Montgomery implores the Commission to carefully weigh and consider the evidence and approve the RDAP, WNAP, or volumetric rate design, or any combination of these proposals so that Southwest will be put on the path to improved financial stability, and have a reasonable opportunity to earn the rate of return authorized by the Commission.

WILLIAM N. MOODY

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF REBUTTAL AND REJOINDER TESTIMONIES OF WILLIAM N. MOODY

Rebuttal Testimony

William N. Moody, Vice President/Gas Resources of Southwest Gas Corporation (Southwest or the Company), provides rebuttal testimony in response to the direct testimony of Stephen L. Thumb and Rita R. Beale, witnesses for the Arizona Corporation Commission Utilities Division Staff (Staff). Mr. Moody's testimony focuses on the 15 recommendations made by Staff regarding gas procurement for the period of September 2004 through April 2007.

Mr. Moody expresses agreement with 10 of the recommendations made by Staff witnesses. These recommendations generally include procedural changes for gas procurement activities and encompass macro issues, such as market area gas storage. Mr. Moody proposes that, if approved by the Commission, Southwest would implement the subject recommendations as soon as practicable within 60 days of an order in this case.

Mr. Moody also provides information on the remaining recommendations pertaining to documentation requirements for its transportation-only (T-1) customers, accessing LNG supplies, documentation of the policies and procedures used when purchasing gas for the customer portfolio, and liquidated damages in supply contracts.

Rejoinder Testimony

Mr. Moody provides rejoinder testimony in response to the surrebuttal testimony of Staff witnesses Mr. Thumb and Ms. Beale. His testimony focuses on the two Staff recommendations that remain in disagreement.

Mr. Moody expresses agreement with Mr. Thumb's surrebuttal assertions on recommendation #2 and #5. Mr. Moody continues to reject two of Ms. Beale's recommendations regarding best practices as they pertain to policies, procedures, and limits that Mr. Moody believes are already in place, are not applicable to Southwest, or that the recommendation does not add value to Southwest and its customers.

LAURA LOPEZ HOBBS

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF LAURA LOPEZ HOBBS

Laura Lopez Hobbs, the Vice President/Human Resources of Southwest Gas Corporation (Southwest or the Company), provides direct testimony regarding the reasonableness of Southwest's total executive compensation, which includes the Company's Management Incentive Program (MIP) and Supplemental Executive Retirement Plan (SERP) as essential components and proposes 100% recovery of such expenses in rate base. Ms. Hobbs also provides rebuttal and rejoinder testimony in response to the direct and surrebuttal testimonies of Arizona Corporation Commission's Utilities Division Staff (Staff) witness Ralph C. Smith and Residential Utility Consumer Office (RUCO) witness Rodney L. Moore.

Ms. Hobbs presents evidence that the Company's total executive compensation is prudent and reasonable. Ms. Hobbs provides a comparison of Southwest's total executive compensation with that of the proxy group, demonstrating that not only are management/executive employees at the Company compensated within a reasonable range, they are well below a majority of their peers. In addition, Ms. Hobbs provides evidence that virtually all other utilities in the proxy group have MIP and SERP plans. Therefore, it is critical that Southwest remain competitive with its peers.

Furthermore, Ms. Hobbs demonstrates that Southwest should not summarily be treated similar to other Arizona utilities with respect to prior commission decisions to disallow MIP and SERP. As a multi-jurisdictional utility, Arizona customers benefit by already having a reduced (nearly 50 percent) amount of these expenses allocated to Arizona customers. Accordingly, Southwest should not be subject to the same 50/50 sharing that has been applied to other Arizona utilities in recent commission decisions.

RANDI L. ALDRIDGE

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL, AND REJOINDER TESTIMONIES OF RANDI L. ALDRIDGE

Direct Testimony

The purpose of the direct testimony of Southwest Gas Corporation (Southwest or the Company) witness Randi L. Aldridge is to provide a description of the Company's natural gas operations, and to address both direct jurisdictional and system allocable operating expenses and rate base items associated with Southwest's natural gas systems, including describing the various allocation methods. In addition, Ms. Aldridge sponsors twelve of the Company's seventeen adjustments to operating income and rate base including normal ratemaking adjustments such as the annualization of labor costs, customer billing expense, subsidiary allocations, depreciation and amortization, and property taxes; the normalization of interest on customer deposits; recovery of rate case expenses; and any necessary adjustments to be in compliance with previous Commission orders. Ms. Aldridge also provides information regarding Southwest's sales, marketing, and promotional activities and AGA activities in compliance with the Commission's order in Southwest's last rate case.

Rebuttal Testimony

In her rebuttal testimony, Ms. Aldridge addresses the following issues: (1) Labor Annualization; (2) Uncollectibles; (3) AGA Dues; (4) Employee Recognition; (5) Miscellaneous Expenses; (6) Intangible Plant; and (7) A&G Error Correction.

Ms. Aldridge testifies that the labor annualization was based on a known and measurable expense incurred by the Company on a going-forward basis and applied only to employees who were employed during the test year. Further, Ms. Aldridge testifies that the Company's labor annualization adjustment was calculated consistent with the Company's prior general rate cases in Arizona. As such, RUCO's recommendation to remove the 2008 general wage increase should be rejected by the Commission.

Ms. Aldridge testifies that RUCO's proposal to base uncollectibles expense on a three-year average would result in a clear under-recovery of uncollectibles expense. Ms. Aldridge provides a graph, which includes recorded uncollectibles expense for 2007 and the twelve months ended March 31, 2008, to show that uncollectibles expense continued to trend upward subsequent to the test year.

Regarding Southwest's AGA Dues adjustment, Ms. Aldridge points out that Staff relied on outdated information for its proposed adjustment to AGA dues and failed to specifically identify a single activity that the Company had not already removed that would be subject to regulatory disallowance if Southwest had conducted the activity directly. As such, Ms. Aldridge demonstrated Southwest's proposal to remove 3.39 percent of AGA dues is appropriate. Additionally, the adjustment is not challenged by RUCO.

Ms. Aldridge briefly describes the employee recognition programs that RUCO proposes to disallow, and explains that the goal of these programs is to reduce the overall cost of service by motivating employees to perform in a manner that exceeds expectations and to improve safety and productivity. As such, these costs should be permitted to be recovered in rates.

Ms. Aldridge responds to RUCO's proposal to remove certain "miscellaneous expenses". She provides additional testimony to support the appropriateness of the cost categories specifically identified by RUCO in its direct testimony, identifies the amount that Southwest agreed to remove as a result of RUCO's audit, and points out that RUCO did not raise a reasonable doubt regarding whether the remaining items are appropriate for cost recovery.

Ms. Aldridge agrees with RUCO's adjustment to miscellaneous intangible plant, and disagrees with Staff's adjustment since it did not include all intangible plant projects closed prior to December 31, 2007 in its adjustment, resulting in a mismatch of ratemaking elements.

Finally, Ms. Aldridge addresses an error correction that was a conforming adjustment by RUCO. She clarifies that the credit was erroneously booked to Account 923 instead of Account 925, and the correction had a large impact on the account since Account 923 was based on test year expenses, while Account 925 was normalized based on a 10-year total Company average and a portion was allocated to Arizona.

Rejoinder Testimony

In her rejoinder testimony, Ms. Aldridge addresses the following issues: (1) 2008 Wage Increase; (2) AGA Dues; (3) Employee Recognition Expenses; (4) Miscellaneous Expenses; (5) Uncollectibles, Customer Advances and Customer Deposits; and (6) Management Incentive Plan Expenses.

Ms. Aldridge provides an exhibit which shows that the Company's proposed 2008 wage increase is known and measurable, and is the same percentage that Southwest used in its filing.

Regarding AGA Dues, Ms. Aldridge points out that the evidence Staff relies upon does not support Staff's proposed disallowance of Public Affairs, Corporate Affairs, and General Counsel functions, that Staff's 40 percent disallowance is arbitrary and unsupported by evidence or analysis, and that Staff did not discuss the activities performed by these AGA functional groups that would be subject to disallowance had Southwest conducted the activities directly. Ms. Aldridge also agrees with Staff that it is reasonable to update the percentages to reflect the 2008 budget and to allocate a portion of the G&A function to the advertising function.

Ms. Aldridge rebuts RUCO's assertion that the work functions that are eligible for awards through the Company's various employee recognition programs should be considered a condition of employment. Ms. Aldridge argues that the benefits of these employee recognition programs outweigh the costs and should be allowed in rates.

Regarding the miscellaneous expenses still disputed by RUCO, Ms. Aldridge recognizes that while RUCO may have philosophical differences with Southwest, philosophical differences alone are insufficient to deem these expenses inappropriate to be recovered in rates. While Ms. Aldridge provides additional testimony to support the appropriateness of these expenses in rebuttal, RUCO did not provide any evidence or analysis to support its position that the costs should be disallowed.

Ms. Aldridge notes that since RUCO withdrew its proposed adjustment to uncollectibles expense, Southwest supports Staff's adjustment to customer advances and customer deposits. As such, end of test year amounts will be used for uncollectibles, customer advances, and customer deposits.

Finally, Ms. Aldridge provides historical Management Incentive Plan (MIP) expense amounts since 2001, to show that Staff's assertion that MIP expense is 76 percent higher in this rate case than in the prior case is incorrect. MIP expense is actually approximately 11 percent lower in this case than in the last case.

JEROME T. SCHMITZ

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF REBUTTAL AND REJOINDER TESTIMONIES OF
JEROME T. SCHMITZ

Rebuttal Testimony

The Prepared Rebuttal Testimony of Southwest Gas Corporation (Southwest or the Company) witness Mr. Schmitz highlights the vague and misleading statements made by Arizona Corporation Commission Utilities Staff (Staff) witness Mr. Hanson regarding corrosion leaks on steel pipe, in general, and puts Mr. Hanson's statements into proper context.

With regard to Southwest's Yuma Manors distribution system, Mr. Schmitz provides specific information about the system, and the history of, and reasons for, the replacement of the ground bed that is part of the cathodic protection of the steel pipe within the distribution system. In addition, Mr. Schmitz identifies and discusses the numerous factors that one should consider when making conclusions regarding pipe failures and replacements, demonstrates that Mr. Hanson makes too many unsupported assumptions to support his conclusion - specifically that it is speculative to ascertain the remaining life of the pipe that was replaced in the Yuma Manors. He concludes that the Yuma Manors replacement was necessary to address an immediate public safety concern, and prudent, based on the information known by the Company at the time the decision was made. Mr. Schmitz also notes that the replacement results in a betterment value. Mr. Schmitz also expresses his concern that a total disallowance of replacement costs may result in less than optimum decisions when maintenance versus replacement decisions are made.

Rejoinder Testimony

The Prepared Rejoinder Testimony of Mr. Schmitz takes issue with Mr. Hanson's new claim of "Company negligence" as another example of Mr. Hanson's vague and misleading statements regarding the Yuma Manors pipe replacement project. He further states that Mr. Hanson has provided no evidence for his claims. Mr. Schmitz provides a simple example of how pipe is cathodically protected and why pipe coating and the environment in which the pipe is installed are critical to the overall protection of the pipe. He then describes, in more detail, the gas distribution system for the Yuma Manors and discusses some of the issues related to that system and why the facts and circumstances surrounding the pipe suggest that the reversal of the polarity on the rectifier simply highlighted a system that needed to be replaced in the near future. Mr. Schmitz concludes that the replacement pipe results in a betterment to the distribution system that should serve customers for 40 or more years.

ROBERT A. MASHAS

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF ROBERT A. MASHAS

Direct Testimony

The direct testimony of Robert A. Mashas in this rate application provides a broad overview of Southwest Gas Corporation's (Southwest or the Company) rate application, an explanation of the major reasons and underlying causes for the Company's current deficiency, and discusses the proposed adjustments to the test year that Mr. Mashas is supporting, among other items.

Mr. Mashas testifies regarding six major reasons and underlying causes for Southwest's present revenue deficiency: 1) decline in average residential use per customer ($6.5 million); 2) general service customers no longer taking service ($4.3 million); 3) increase in operation and maintenance expense ($6.3 million for labor, $7.8 million employee benefits, $7.8 million other expense); 4) the Company's proposal for an increase in the cost of capital above the levels previously authorized ($20.6 million); 5) management incentive plan (MIP) and supplemental executive retirement plan expense (SERP) ($3.6 million); 6) rate base and revenue offset (reduction of $4.6 million).

Mr. Mashas also supports the following Company adjustments: 1) Leak Survey and Repair; 2) Transmission Integrity Management Program (TRIMP); and 3) Injuries and Damages. Mr. Mashas explains that the Leak Survey and Repair adjustment is necessary to remove a portion of the costs related to the Aldyl A and Aldyl HD pipe types using the 40-year criteria adopted by the Commission in Decision No. 68487. The TRIMP adjustment is necessary to establish a reasonable level of expense based on the recorded test-year amounts. The Company proposes to recover 100 percent of the test-year recorded expense through base rates. Mr. Mashas proposes a level of self-insurance using a 10-year average of actual claims paid for incidents that occurred in all of the Company's rate jurisdictions. Arizona's portion of self-insured expense is determined using the 4-factor allocation that is used for all other System Allocable expense. The Company applied the same methodology used and adopted in Decision No. 68487 to determine the 10-year average. Mr. Mashas notes that since the last general rate case, Southwest has acquired insurance that will indemnify the Company for a portion of the self-insured aggregate claim

Rebuttal Testimony

In his rebuttal testimony, Mr. Mashas addresses the following issues: 1) Injuries and Damages; 2) Yuma Manors; 3) Deferred Taxes – MIP and SERP; 4)

Lead-Lag Study – Interest Lag; 5) Lead-Lag Study – Revenue Tax Lag; and 6) Line Extension Policy.

Mr. Mashas responds to the Arizona Corporation Commission Utilities Division Staff's (Staff) proposal to establish a going-forward level of self-insurance that is $871,000 less than the amount proposed by the Company. The methodology used by Southwest in this proceeding is prepared consistent with the methodology agreed to by Staff, RUCO and the Company in its last rate case and adopted by the Commission.

Prior to August 1, 2004 the Company was self-insured for up to the first $1 million of expense per claim, regardless of the number of claims. Beginning in August 1, 2004, in addition to the $1 million per claim, Southwest was also self-insured for claims expense greater than $1 million up to $10 million. Historically the cost of the first level of self-insurance has been recorded on the Company's books. The cost of the second level of self-insurance has been recorded on the Company's books only since its inception on August 1, 2004. Prior to its inception claims expense above $1 million was indemnified by Southwest's insurance carriers and, therefore, not recorded on the Company's books. In May 2005, a Tucson, Arizona incident was the first and only time that the aggregate level of self-insurance cost ($10 million) was recorded on the Company's books. Beginning August 1, 2005 and forward, the Company acquired an additional layer of insurance for the aggregate level of expense above $5 million up to the $10 million limit.

Staff's ten-year average of recorded expense, which includes the period prior to the inception of the aggregate level of self-insurance and its removal of only aggregate self-insurance cost recorded subsequent to its inception, is how Staff is able to calculate a level of self-insurance that is less than the adopted methodology used by Staff, RUCO and the Company in the last rate case. Staff's proposal includes only the cost of one of the current two components of self-insurance. Staff's proposal includes the up to $1 million per claim component, but does not include the cost related to the up to $5 million aggregate.

Mr. Mashas responds to Staff's proposal to disallow 100 percent of the cost of replacing the 50-year old steel pipe used to serve the Yuma Manors subdivision. Staff recommends a 100 percent disallowance based on its contention that the replacement of the system was the result of an error by a Southwest employee.

Mr. Mashas provides the regulatory history of previous Commission decisions related to similar pipe replacement programs where pipe was replaced due to defective material and/or improper installation practices. In the four examples provided, pipe was replaced after serving the customer between ten and twenty years. In all instances, however, the Commission provided 100 percent cost recovery for the portion of pipe replacement cost that extended the useful life of the existing system. Mr. Mashas testifies that Staff's proposal regarding the replacement of pipe that has served the customer for 50 years is unprecedented in previous Commission decisions. In fact, in the Company's last general rate case, the Commission accepted Southwest's proposal to establish a 40-year rule, whereafter the pipe types addressed in previous decisions has served ratepayers for at least 40 years that replacement cost would be afforded 100 percent rate base treatment. Finally, the Company has offered to remove the incremental replacement cost related to overtime and shift premiums resulting from the urgency of replacing the 50-year old pipe serving the Yuma Manors subdivision.

Mr. Mashas responds to the Residential Utility Consumer Office's (RUCO) proposal to adjust deferred taxes related to the MIP and the SERP. Mr. Mashas points out that deferred taxes related to MIP and SERP are included in Account 283, Accumulated Deferred Taxes-Other and that Account 283 is not used as a component of rate base; therefore, the adjustment to deferred taxes is not required.

Mr. Mashas responds to RUCO's proposal to modify the lead-lag study interest lag to include the lag impact of preferred equity and interest on customer deposits. The Company agrees with RUCO that the preferred equity lag impact should be included, but disagrees with the inclusion of interest on customer deposits. The basis for objecting to including interest on customer deposits is that the accrued balance of customer deposits is already included in rate base and to also include the lag in the lead-lag study would result in a reduction to rate base twice.

Mr. Mashas responds to RUCO's proposal to include a revenue-based tax lag of 51.75 days in the lead-lag study. The Company has not included revenue taxes and any related lag in previous Arizona lead-lag studies. RUCO's 51.75 lag days proposed in Southwest's rate case is identical to the lag days used in the recent Tucson Electric Power (TEP) rate case. Mr. Mashas points out that the lag days used in the recent Arizona Public Service (APS) rate case is 42.5 days. The Company has calculated a revenue tax lag of 45.24 days, which is closer to the lag used by APS, which serves customers throughout Arizona, much like Southwest.

Mr. Mashas responds to Staff's conclusion that conceptually the Company's Incremental Contribution Method (ICM) methodology is reasonable, assuming current cost figures and revenue estimates are used. Staff recommends that, in Southwest's next rate case, the Company provide examples and explanations as to how the ICM is applied.

In the Company's last rate case (G-01551A-04-0879), in compliance with a Commission directive resulting from the previous rate case, the Company included direct testimony detailing its line extension policies and procedures. In rebuttal testimony in this proceeding, Mr. Mashas describes the five primary drivers; of which four are updated annually and the fifth is updated after every rate case. Finally, the Company has extended an offer to Staff to meet and demonstrate how the model works with real examples of actual projects.

Rejoinder Testimony

Mr. Mashas notes that Staff concedes that Staff, RUCO and the Company agreed upon a methodology for establishing the level of self-insurance in the Company's last rate case. Mr. Mashas demonstrates that the Company has used the same methodology in the current proceeding, and in fact, its proposed level of self-insurance is nearly identical to the level agreed upon in the last rate case. As it was in the last rate case, there are two levels of self-insurance (up to $1 million per claim and up to $ 5 million aggregate). In order to determine the appropriate level for each, the ten years of actual expense needs to be considered. Staff's proposal is deficient since it fails to establish a reasonable level of aggregate self-insurance. In fact, Staff's methodology results in "zero dollars" for the aggregate level of self-insurance. The Staff's proposal should be rejected.

Staff continues to propose to disallow 100 percent of the cost of replacing the pipe that has served the Yuma Manors subdivision for 50 years. The penalty proposed by Staff related to replacing the 50-year old pipe is significantly harsher than any penalty levied on Southwest by the Commission in similar pipe replacement programs involving pipe requiring replacement after serving the customer 20 years or less. Unlike all other replacement programs, Staff fails to acknowledge the concept of betterment associated with the life extending value of the new pipe. The Commission has consistently acknowledged the life extending (betterment) value of pipe replacement and has never disallowed 100 percent of any pipe replacement. In fact, in Southwest's last rate case, the Commission adopted the Company's proposed 40-year rule, which provides for 100 percent cost recovery for the replacement cost of pipe that has served ratepayers for at least 40 years. RUCO accepted Southwest's proposal to remove the overtime and shift premium cost that the Company proposed in its rebuttal testimony. Staff continues to propose the write-off of 100 percent of the replacement cost. The Company believes its proposal to remove the overtime/shift premium cost is fair and including the remainder of the cost in rate base is fair and consistent with prior Commission decisions involving pipe replacement.

The Company agrees with Staff that gas plant used to serve the TEP Sundt electric power plant, which was sold to TEP, should be removed from rate base and that 50 percent of the gain on the sale should be amortized above-the-line over three years. However, the Company identified a slight error in Staff's calculation.

The Company agrees with RUCO's application of the blended interest and preferred equity expense applied to the blended interest and preferred equity expense lag. Southwest notes that Staff applies the interest and preferred equity expense to the interest expense lag and that application is in error. In addition, Staff uses the total Company preferred equity expense in its Arizona-only lead-lag study, and this error results in a duplication of the preferred equity lag noted above. The duplication needs to be removed and the blended rate used by RUCO should be applied to Staff's proposed interest and preferred equity expense.

Staff continues to recommend that the Company provide additional information on its line extension policy in its next rate case. Mr. Mashas notes that Southwest's line extension policy has been discussed in each of its last three rate cases, including the current proceeding. Mr. Mashas also agrees that to the extent applicable, any changes resulting from the Commission's ongoing hook-up fee investigation will be incorporated into its line extension policy. Finally, the Company continues to offer to meet on an informal basis with Staff to discuss its line extension policy.

FRANK J. MAGLIETTI, JR.

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF FRANK J. MAGLIETTI, JR.

Direct Testimony

Frank J. Maglietti, Senior Specialist in Southwest Gas Corporation's (Southwest or the Company) Pricing & Tariffs Department, submits direct testimony sponsoring: (1) Southwest 's Class Cost of Service Study (CCOSS) at present and proposed rates; (2) an amendment to Southwest's Purchase Gas Cost Adjustment (PGA) mechanism; and (3) a ministerial tariff change to remove title assignment service from the Interstate Pipeline Capacity Service provision.

Mr. Maglietti testifies that the purpose of the CCOSS is to determine the cost of providing service to each customer class, and that the results of the CCOSS are used in the development of the proposed rate design. Mr. Maglietti testifies that Southwest prepared the CCOSS using the same methodology used and adopted in the previous general rate case. However, Southwest has changed how certain accounts (or costs) are allocated to customer classes to more correctly match how they are incurred on the Company's system.

Mr. Maglietti testifies that the Commission should amend the current PGA bandwidth of thirteen cents ($0.13) per therm to twenty-four cents ($0.24) per therm. Increasing the bandwidth to $0.24 per therm will allow Southwest the same flexibility to adjust its gas cost rate in response to market changes as was provided by the Commission in its decision authorizing the monthly PGA adjustment mechanism. He testifies that not only will it allow for the same flexibility as originally provided by the Commission, but it would benefit customers by allowing the PGA rate to more closely follow the natural gas market, which will result in a more correct price signal to customers and reduce the need for, and the magnitude of, any surcharge rates in the future.

Finally, Mr. Maglietti testifies that a ministerial change should be made to Southwest's tariff to remove the references to Title Assignment Service in the Interstate Pipeline Capacity Services provision.

Rebuttal Testimony

Mr. Maglietti responds to Mr. Gray's direct testimony concerning the increase of the PGA bandwidth to only fifteen (15) cents per therm, and why Southwest's proposal is better for customers and superior to unnecessarily prolonging gas cost credit or debit balances into future periods.

Mr. Maglietti's Rebuttal Exhibit No.__ (FJM-1), illustrates the affect on customers of not allowing gas cost rates to more closely reflect the market cost of gas. This exhibit compares the actual deferral gas cost balances booked from December 2005 through March 2008, compared to the balances that would have been booked if the bandwidth would have been $0.24 per therm. The exhibit illustrates that if the bandwidth would have been $0.24 per therm, the $.11 surcharge in effect over the time period would have been removed in October 2007, instead of June 2008 which would have provided customers rate relief before the winter heating season.

Mr. Maglietti testifies that increasing the bandwidth is superior to Mr. Gray's proposal that Southwest file for a surcharge or surcredit to clear a bank balance, because the increase in the bandwidth will allow the gas cost rates to rise or lower gradually while sending a more correct price signal to customers. A more correct price signal will lead to a more efficient use of resources and may have a positive effect on conservation.

Rejoinder Testimony

Mr. Maglietti responds to Mr. Gray's surrebuttal testimony related to the PGA bandwidth in which Mr. Gray continues to recommend that the bandwidth be increased to $0.15 per therm instead of the $0.24 per therm as proposed by Southwest.

Mr. Maglietti testifies that the Company's proposed $0.24 per therm bandwidth does not alter the Commission's oversight of Southwest's gas cost rate.

Mr. Maglietti testifies that increasing the bandwidth is in the interest of customers since it smooths out the peaks and valleys of the PGA Bank Balancing Account deferrals, reduces price volatility for customers, and provides customers a more accurate price signal which may have a positive effect on conservation.

JAMES L. CATTANACH

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF JAMES L. CATTANACH

Direct Testimony

Mr. James L. Cattanach, Manager/Demand Planning of Southwest Gas Corporation (Southwest or the Company) describes the development of billing determinants for the test period and provides an analytical perspective on the historical declines in residential consumption per customer experienced in Arizona.

Mr. Cattanach describes the six-step process utilized by Southwest to ensure the test period bills and volumes accurately reflect a full twelve months of consumption under normal weather conditions for each active customer under the Company's rate schedules. Mr. Cattanach states that the test period actual billing cycle heating degree days were approximately 0.6 percent warmer than normal in Tucson, and approximately 2.5 percent colder than normal in Phoenix. Mr. Cattanach also notes that the Company used regression analysis to quantify the monthly consumption per heating degree day factors (regression coefficients) for each heat-sensitive customer class, and ten-year averages (120 months ended April 2007) of heating degree days were utilized to represent normal weather. Mr. Cattanach testifies that Southwest has consistently used ten-year average heating degree days to weather normalize test period volumes in every general rate case filed in Arizona since 1986. Southwest's billing determinants for the test period are set forth in Schedule H-2, Sheets 1 – 4 and are utilized in the development of revenues and proposed rates in the Company's application.

Mr. Cattanach describes the significant downward trend in residential consumption per customer that Southwest has experienced between 1986 and 2007. Mr. Cattanach states that weather normalized residential consumption per customer has declined from 556 therms in Southwest's 1986 rate case (Docket Nos. U-1551-86-300 and U-1551-86-301) to 332 therms in the current case; a decline of 224 therms or 40.2%. He also states that residential consumption per customer dropped 15 therms or 4.3% percent since the Company's last general rate case (Docket No. G-01551A-04-0876). Mr. Cattanach explains that the overall decline in residential consumption per customer is due primarily to continued improvements in appliance and dwelling efficiencies of Southwest's customer base. Mr. Cattanach also states an expectation of continued declines in residential consumption per customer for the foreseeable future.

Rebuttal Testimony

Mr. Cattanach, in his rebuttal testimony, addresses the assertion made by Residential Utility Consumer Office (RUCO) witness Mr. Rigsby, that the phenomenon of declining residential consumption per customer is abating and the assertion made by Arizona Corporation Commission Utilities Staff (Staff) witness Mr. Frank Radigan, that the consumption per customer losses due to conservation will be small. Mr. Cattanach provides quantitative evidence that residential consumption per customer continues to decline at a significant rate and has had a significant impact on the annualized volumes in the test year. Mr. Cattanch presents an update on residential consumption per customer that shows a decline from 332 therms for the test period to 319 therms at March 2008. Residential consumption per customer updates for the Single-Family Residential (G-5), Multi-Family Residential (G-6), Single-Family Low Income Residential (G-10) and Multi-Family Low Income Residential (G-11) rate schedules demonstrated a decrease of 11,930,476 therms in the annualized test period volumes over those utilized in the test year.

Rejoinder Testimony

Mr. Cattanach, in his rejoinder testimony, addresses the assertion made by Staff Witness Mr. Radigan that Southwest has not provided enough information for the Commission to make an informed decision related to declining residential consumption per customer. Mr. Cattanach provides analysis that supports Southwest's position that residential consumption per customer is expected to decline for the foreseeable future. Mr. Cattanach opines that it is plausible that residential consumption per customer could continue to decline by approximately 7 therms per year to a level below 310 therms within a few years. Mr. Cattnach states that Southwest has provided sufficient data and analysis to for the Commission to asses both the historical and near-term trends in residential consumption per customer.

A. BROOKS CONGDON

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL, AND REJOINDER TESTIMONIES OF A. BROOKS CONGDON

Direct Testimony

Mr. Congdon testifies regarding the development of Southwest Gas Corporation's (Southwest or the Company) proposed rate design changes and quantifies the revenue impact of the Company's proposed rate changes in the exhibits to his Direct Testimony.

Mr. Congdon explains that Southwest and its customers continue to face instability in revenue as a result of changes in consumption due to weather and the Company continues to suffer from declining use per customer. Mr. Congdon draws upon the decision in Southwest's last general rate case where the Commission encouraged Southwest, Staff, RUCO and SWEEP to seek rate design alternatives that would encourage conservation and provide benefits to all affected stakeholders. Accordingly, Mr. Congdon explains that the Company initiated several "rate design collaborative" meetings with Staff, RUCO and SWEEP, and describes how Southwest's residential rate design proposals listed below comply with the Commission's direction provided in Decision No. 68487:

1) The Revenue Decoupling Adjustment Provision (RDAP) to balance differences between actual and authorized non-gas revenue per customer.

2) The Weather Normalization Adjustment Provision (WNAP) to adjust the non-gas component of each customer's bill to reflect usage under the same "normal" weather conditions used to establish adjusted volumes used in the rate case.

3) Continuing to gradually increase the basic service charge.

4) Flattening the commodity sales rate for billing purposes while more accurately reflecting how non-gas and gas costs change, on average, with increases and decreases in customer usage by accounting for non-gas and gas costs utilizing an offsetting block rate design.

Mr. Congdon testifies that Southwest apportioned its requested increase to customer classes using a cost of service based approach that the Company refers to as the Proportional Cost Responsibility Method (PCRM) to narrow the difference between the proposed system average rate of return and the rate of return of the various customer classes. Southwest used this method in prior Arizona general rate cases and believes that a cost of service-based approach to determine customer class revenue is superior to more subjective methods. Mr. Congdon also explains Southwest's proposed rate design changes to its non-residential rate schedules.

Rebuttal Testimony

Mr. Congdon responds to Staff's and RUCO's failure to address the Company's and its customers' sensitivity to weather, and the financial pressure on the Company resulting from continued declining customer usage. Mr. Congdon also expands on Southwest's proposed residential Volumetric Rate Design (VRD) and addresses SWEEP's proposal to increase demand side management (DSM) program spending.

Mr. Congdon testifies that all parties to the case, except Staff, recognize, to varying degrees, the challenges Southwest faces due to declining customer usage and usage variability due to weather. Mr. Congdon explains how the Commission can use Southwest's four separate residential rate design proposals to achieve full revenue decoupling or, alternatively, to reduce variations in cost recovery. Mr. Congdon explains that Southwest, RUCO, SWEEP and AIC have all supported rate design options that are superior to Staff's in responding to the Commission's directive in Decision No. 68487 that parties seek rate design alternatives that encourage conservation and provide "benefits to all affected stakeholders."

Mr. Congdon takes exception with Staff witness Mr. Radigan's testimony, that Southwest has failed to provide evidence that declining customer usage has, in fact, continued, to what extent weather and conservation efforts are the cause, and to Mr. Radigan's contention that Southwest should not be permitted to ignore the outcome of the rate design collaborative. Mr. Congdon presents extensive evidence showing that Mr. Radigan's testimony is not only unfounded and misleading, but that it also fails to address the extensive record and the decision in Southwest's last Arizona general rate case.

Mr. Congdon testifies why the reasons presented by Mr. Radigan in support of his rejection of Southwest's proposed VRD, which flattens the residential commodity sales rate for billing purposes by utilizing an offsetting block rate design for accounting to more accurately reflect how non-gas and gas costs change, on average, with increases and decreases in customer usage, are flawed and should not be used as a basis to reject Southwest's proposal. Mr. Congdon also explains why most of its weather and conservation-related losses cannot be eliminated, "by just adopting simple rate design changes such as increasing the customer charge", as suggested by Mr. Radigan. In reality, Mr. Radigan's proposal is a call to do nothing to help the Company or its customers.

Mr. Congdon explains that two of the three reasons presented by Mr. Radigan to reject Southwest's PCRM class revenue allocation stem from how the

Commission has ordered Southwest to calculate rates for residential schedules (G-5, G-6 and G-15) versus having anything at all to do with how class revenues are established. Mr. Congdon describes that Staff's proposed revenue allocation is little more than an equal percentage increase to class revenue, which shifts too much of the proposed revenue increase to customer classes with the lowest average cost of service, and that mismatching cost of service and rates increases the risk that customers will make uneconomic energy decisions.

Mr. Congdon explains that Southwest considered Staff witness Mr. Gray's concern that Southwest's Purchased Gas Adjustment (PGA) mechanism must be changed prior to implementation of its proposed VRD for residential customers and concludes that no changes were necessary to the structure and operation of its PGA mechanism. Mr. Congdon provides information supporting the operation and the decoupling impact of the VRD.

Mr. Congdon testifies that it has not yet received authorization from the Commission to spend the entire amount of its current DSM program budget of approximately $4.3 million and, therefore, it would not be appropriate at this time to increase funding to $12.0 million as proposed by SWEEP. Mr. Congdon suggests that the subject of the proper level of DSM program spending be removed from Southwest's general rate case and addressed annually, or bi-annually in Southwest's previously-established DSM collaborative process. Mr. Congdon also proposes that the Commission implement the proposed RDAP and WNAP mechanisms on a pilot basis for either three years, or until Southwest's next general rate case, so the effectiveness of these mechanisms can be studied at the same time the Commission is considering a ramp up in DSM program spending.

Rejoinder Testimony

Mr. Congdon responds to Staff's surrebuttal testimony that revenue allocation should be done before rate design and that the Company has the process backwards. Mr. Congdon argues that the Company-proposed revenue allocation is cost of service based and results in larger percentage increases in revenue for customer classes earning the lowest rates of return. Staff, on the other hand, proposes an almost uniform percent increase in revenue, including the cost of gas, which gives little weight to the actual cost of providing service. Thus, Mr. Congdon concludes that it is Staff who actually has revenue allocation and rate design backwards.

Mr. Congdon responds to proposals by Staff and SWEEP to increase Southwest's DSM program spending by stating that while Southwest remains firmly committed to the goal of maximizing conservation and energy efficiency for its customers, it cannot support increases in its DSM spending without affirmative action by the Commission to remove or reduce the financial harm Southwest experiences when customer usage declines.

Mr. Congdon demonstrates that RUCO's statement in its surrebuttal testimony claiming that Southwest's proposed residential VRD is not revenue neutral and results in smaller residential customers paying more than they would under an average cost rate design is inaccurate and misleading. Mr. Congdon demonstrates in Rejoinder Exhibit No.__(ABC-1) that all residential customers pay exactly the same in total under Southwest's proposed VRD as they would under an average cost rate design. Mr. Congdon continues to explain that, in addition to being revenue neutral, the VRD more accurately reflects the recovery of both Southwest's non-gas and gas cost of providing service.

Mr. Congdon takes exception to Mr. Radigan's surrebuttal testimony that Southwest's tariff and rate design proposals in this case are virtually the same as the Company's proposals in its last Arizona rate case. Mr. Congdon presents clear evidence in his Rejoinder Exhibit No.__(ABC-2) demonstrating that Southwest's tariff and rate design proposals in this case are very different in key areas from the proposals the Company made in its last rate case and explains how those differences are responsive to the Commission's Decision No. 68487.

Mr. Congdon explains that Staff's and RUCO's rejection of Southwest's proposals must be premised on a belief there is nothing wrong with the status quo and, as a result, there is no need to strive for improved tariff mechanisms and rate design. Mr. Congdon explains that the status quo should not be acceptable to the Commission, there are potential adverse consequences to customers of doing nothing to address the challenges of weather-related volatility in bills and declining customer usage and that Mr. Radigan's suggestion that margin from customer growth provides a solution is a fantasy.

Mr. Congdon concludes by recommending the Commission consider the suggestions in Mr. Schlegel's Surrebuttal testimony for SWEEP where he states, "SWEEP suggests that the experience of pilot implementation will do more to resolve the differences among parties than continued debate in this or subsequent rate cases."

RALPH E. MILLER

SOUTHWEST GAS CORPORATION
Docket No. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF RALPH E. MILLER

I submitted direct testimony in August 2007, rebuttal testimony in May 2008, and rejoinder testimony in June 2008 on behalf of Southwest Gas Corporation (Southwest or the Company). This summary encompasses all three of these separately filed documents.

My testimony supports Southwest's revenue decoupling proposals. Revenue decoupling is a rate design that breaks or weakens the linkage between a utility's non-gas revenues and its volumetric sales or total throughput.

Southwest is proposing three complementary forms of revenue decoupling: a Weather Normalization Adjustment Provision (WNAP), a Revenue Decoupling Adjustment Provision (RDAP), and a Volumetric Rate Design (VRD) with offsetting block differentials for the purchased gas and non-gas components of a flat volumetric commodity charge rate. Southwest witness A. Brooks Congdon explains the details of each of these revenue decoupling provisions in his prepared testimony. My testimony focuses on the ratemaking and policy reasons that revenue decoupling is desirable, and I also explain the specific advantages of each of Southwest's three decoupling proposals.

The WNAP is a win-win arrangement for Southwest and its customers. It reduces the revenue risk on both sides. It provides higher revenues for the Company and higher bills for customers in warmer than normal weather, when customer bills (and Southwest's revenues) would otherwise be lower than usual. It provides lower bills for customers (and less revenue to Southwest) in colder than normal weather, when customer bills would otherwise be higher than usual. On average, over a period of several years, the WNAP would be expected to yield little or no net change in total revenues to Southwest or in total bills to customers; its advantage is that it smoothes out the fluctuations that benefit neither Southwest nor its customers, and that neither side likes.

The Residential Utility Consumer Office (RUCO) and the Arizona Corporation Commission Utilities Division Staff (Staff) witnesses oppose the WNAP, but they provide no coherent basis for their opposition. They assert that the WNAP would shift weather risk from Southwest to its customers, but they make no attempt to examine the way the WNAP would actually affect the customers. Their only "basis" for opposing the WNAP is that it would reduce the risk to the Company, and they ignore the fact that it would also benefit Southwest's customers.

The RDAP is a rate design change that brings Southwest's rates into closer alignment with the Company's costs. Southwest's non-gas costs vary very little with changes in use per customer, and certainly the Company's non-gas costs do not decrease when use per customer decreases. But under Southwest's present rate design, the Company's non-gas revenues decrease when use per customer declines. The RDAP would correct this deviation from cost-based rates. The RDAP would also remove the financial incentive for Southwest to promote increased sales of gas between rate cases, and thus, would eliminate this obstacle to gaining increased support for conservation activities.

The RDAP accomplishes this result by reducing the regulatory lag in the response of Southwest's rates to changes in use per customer. The RDAP has no effect on the existing regulatory lag in responding to changes in the Company's costs. The RDAP thus leaves intact the existing regulatory lag incentive for Southwest to control and minimize its costs.

Southwest's proposed Volumetric Rate Design (VRD) is an alternative rate design approach to revenue decoupling. It would achieve partial decoupling by establishing a sharply declining block structure for the Company's non-gas charges. However, it would avoid the rate design signal of a declining block rate, because it would integrate this declining block commodity charge with a pro-conservation increasing (or "inverted") block rate design for Southwest's purchased gas charges. Customers would, therefore, see a completely flat commodity charge rate design. The VRD achieves some of the benefit of the WNAP and RDAP, but without adding any new rate adjustment procedure beyond the existing purchased gas adjustment (PGA) procedure.

This package of three proposals addresses all of the concerns that the Commission expressed in its February 2006 order in Southwest's last general rate case. One of the Commission's concerns was that customers might have to pay for gas they did not use. My testimony shows that it is not a fair characterization of any of Southwest's past decoupling proposals. However, even if such a view is accepted, the proposals in the present proceeding avoid this problem. The VRD does not include any such payments, and the WNAP offsets the charges so characterized by providing free delivery of volumes that customers <u>do</u> use in colder than normal weather.

In short, the Company's three decoupling proposals offer the Commission a choice of ways that it can adopt full or partial revenue decoupling, and do so in a way that is beneficial to Southwest's customers and responsive to the concerns previously expressed by the Commission.

THEODORE K. WOOD

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF THEODORE K. WOOD

Direct Testimony

Mr. Wood's direct testimony supports the overall rate of return requested for Southwest Gas Corporation's (Southwest or the Company) Arizona jurisdiction. Specifically, his testimony provides evidence to support the requested ratemaking capital structure, the development of the embedded costs of long-term debt and preferred securities, and the resulting overall rate of return

Mr. Wood recommends the use of a target capital structure of 45 percent common equity, 4 percent preferred equity, and 51 percent long-term debt. In addition, the Company's embedded cost of long-term debt was calculated at 7.96 percent and the embedded cost of preferred equity was determined to be 8.20 percent. Southwest's cost of common equity witness, Mr. Frank Hanley, provides evidence to support a recommended return on common equity of 11.25 percent. The proposed capital structure, when combined with the corresponding, proposed capital cost rates, results in the Company's recommended overall rate of return of 9.45 percent.

Recommend Capital Structure

Southwest's actual capital structure at the end of the test period (April 30, 2007) is comprised of 42.9 percent common equity, 4.4 percent preferred equity, and 52.7 percent long-term debt. The Company is requesting the use of a target capital structure of 45 percent common equity, 4 percent preferred equity, and 51 percent long-term debt. The recommended capital structure is referred to as a target capital structure rather than a hypothetical, as the Company reasonably expects to achieve this capital structure near or shortly after the time when new rates will become effective. During the 32-month period between the end of the test period (April 30, 2007) and the end of the test period in Southwest's prior rate general rate case (August 31, 2004), the Company has significantly improved its capital structure, improving its common equity ratio by 8.8 percentage points, from 34.1 percent to 42.9 percent common equity. Based on the Company's demonstrated rate of improvement, it is reasonable to assume that Southwest will achieve 45 percent common equity ratio, which is only 2.1 percentage points higher than the test period actual common equity ratio of 42.9 percent.

Commission acceptance of the Company's proposed target capital structure would:

(1) Recognize Southwest's substantial improvement to its common equity ratio;

(2) Augment the Company's effort in sustaining that improvement by sending a positive signal of regulatory support to the capital markets and rating agencies; and

(3) Reflect the Company's common equity ratio expected to be achieved near or shortly after the time new rates will become effective.

Financial Profile

The Company's current bond ratings are "BBB-" by S&P and "Baa3" by Moody's. These ratings are the lowest that still afford Southwest an investment grade credit rating. Since its last general rate case, the Company made significant progress in improving its common equity ratio, primarily through the issuance of additional shares of common stock and secondarily, by additional retained earnings. Given the high-growth environment in which Southwest exists, the ability of the Company to sustain and continue to improve its financial profile is largely dependent on the regulatory support it receives in this proceeding.

First, the Commission must establish an adequate overall rate of return that fairly compensates investors for Southwest's higher level of business, financial, and regulatory risk. Mr. Wood demonstrates that the Company has a higher level of investment risk versus the average of the proxy group companies based on the following relative investment risk measures: (1) credit rating; (2) return on common equity; (3) interest coverage ratios; (4) S&P Business Position; (5) Value Line Safety Rank; and (6) the common stock book-to-market ratio. Southwest will continue to need frequent access to the capital markets. In order for the Company to attract additional capital at reasonable rates and maintain its financial integrity (which benefits its customers), it must earn a rate of return which adequately compensates its investors for the degree of risk they assume.

Second, the Company needs a realistic opportunity to earn its authorized rate of return. Investors do not make investment decisions based on authorized rates of return, but on actual and expected realized rates of return. The proposed overall rate of return assumes that the Commission will approve the Company's rate design proposals. If the rate design proposals are rejected, then the authorized rate of return should be adjusted upward. Both S&P and Moody's have stated the importance of improvements in rate design as a key consideration for rating upgrades. Additional rate relief without a significant change in rate design will only treat the symptoms of what has been a key cause of Southwest's chronic inability to earn its authorized rate of return and has hindered the Company's efforts to improve its credit rating. This was made clearly evident when Southwest's bond rating was downgraded by Moody's just three months after receiving $49.3 million of rate relief, but without a significant improvement in rate design.

With the regulatory support of the Commission in approving the Company's proposed rate design improvements, an overall rate of return of 9.45 percent, based on a common equity ratio of 45 percent and an 11.25 percent return on common equity, Southwest can continue to build on the substantial progress it has made in improving its financial profile. Obtaining a realistic opportunity to earn its authorized rate of return will give the Company the ability to finance a higher percentage of its significant annual capital expenditures from internally-generated funds, reduce its net debt balances, and improve its interest coverage ratios, all of which will facilitate achieving improved bond ratings. Such improvement benefits Southwest's customers by reducing the long-run average capital costs embedded in customers' rates.

Embedded Cost of Long-Term Debt

The cost of long-term debt is comprised of the cost of fixed-rate debentures, fixed-rate medium-term notes, and a variable-rate term facility. The embedded cost of long-term debt was calculated to be 7.96 percent.

Embedded Cost of Preferred Equity

The Company currently has outstanding one issue of trust originated preferred securities (TOPrS), which has an embedded cost calculated to be 8.20 percent.

Rebuttal Testimony

The purpose of Mr. Wood's rebuttal testimony is to respond to specific aspects of the direct testimony presented by David C. Parcell, witness for the Arizona Corporation Commission Utilities Division Staff (Staff) and William A. Rigsby, witness for the Residential Utility Consumer Office (RUCO), regarding their recommendations and comments concerning the ratemaking capital structure, Southwest's investment risk relative to other natural gas utilities, and the overall allowed rate of return.

Recommended Capital Structure

RUCO recommends using the Company's requested target capital structure for ratemaking purposes. Staff recommends using the Company's actual capital structure with a lower common equity component of 41.9 percent versus the 45 percent utilized by both the Company and RUCO.

Mr. Wood presents evidence of the recent precedent for the use of a target capital structure established in the UNS Gas general rate case, Docket No. G-042041-06-0463. In Decision No. 70011 (November 27, 2007), the Arizona Corporation Commission accepted the target capital structure requested by UNS Gas. The rationale for the approval was based on recognizing and encouraging UNS Gas's efforts to improve its equity ratio over the past several years and that UNS Gas anticipates achieving the target equity ratio by the end of 2008.
Similar to UNS Gas, Southwest has also achieved significant improvement in its common equity ratio. Mr. Wood describes Southwest's improvement in common equity ratio on pages 6-8 of his direct testimony. In addition, similar to UNS Gas, Southwest reasonably expects to achieve the requested target capital structure near or shortly after the time new rates become effective. Mr. Wood argues that Staff's recommended capital structure fails to recognize the Company's ongoing improvement, will impede the Company's effort in obtaining its long-term goal of an "A" credit rating, and most importantly, is not representative of the capital structure expected to be in place on a going-forward basis.

Relative Investment Risk

The Company has demonstrates that Southwest has higher relative investment risk versus the proxy group companies used to estimate the cost of common equity capital. Company witness Frank Hanley estimates the cost of common equity capital for a proxy group of eight natural gas utilities to be 11.0 percent, which he adjusted upward by 25 basis points to account for Southwest's higher investment risk. This adjustment is conservative because it does not fully take into account Southwest's higher investment risk, as a majority of the proxy group companies have revenue stabilizing rate designs, and Mr. Hanley's recommendation assumes that Southwest's rate design proposals will be approved by the Commission in this proceeding. RUCO made no adjustment to account for the higher investment risk, while Staff added 10 basis points to account for the higher investment risk. Mr. Wood provides evidence to support why the 25 basis point risk adjustment is both reasonable and conservative.

The Overall Rate of Return Recommendations of Staff, RUCO and Southwest

Mr. Wood explains that the key issues of concern about the recommendations by Staff and RUCO are how the recommended return on common equity capital and the resulting overall rate of return will impact the Company's ability to maintain its existing credit ratings and to continue to attract capital on a reasonable basis. The credit rating impact is an important consideration since the Company's current bond ratings are "BBB-" by S&P, "Baa3" by Moody's, and "BBB" by Fitch.

The Company must earn an adequate overall rate of return that fairly compensates investors for Southwest's higher level of business, financial, and regulatory risk. The Company will continue to need frequent access to the capital markets. For Southwest to attract additional capital at reasonable rates, and have the ability to maintain and improve its credit rating (which benefits its customers), it must have a realistic opportunity to earn a rate of return that adequately compensates its investors for the degree of risk they assume.

The overall rates of return proposed by Staff and RUCO based on their recommended returns on common equity capital are inadequate based on the following:

(1) Neither RUCO nor Staff gave adequate consideration to Southwest's relative higher investment risk relative to the proxy groups of natural gas distribution companies used to estimate the cost of common equity capital in this proceeding.

(2) Both RUCO and Staff's proposed rates of return on common equity capital are below the authorized rates of return on common equity capital for other natural gas utilities. The average authorized return on common equity capital for the twelve months ended March 31, 2008 is 10.33 percent with an average authorized common equity ratio of 52.42 percent. In comparison, Southwest's requested common equity ratio of 45 percent is significantly below the average authorized, and therefore, has higher relative financial risk.

(3) Both RUCO and Staff's proposed returns on common equity capital are significantly below the recently achieved and projected rates of return on common equity capital for other natural gas utilities. Value Line Investment Survey reports the proxy group companies, on average, have achieved returns on average common equity capital of 12.1-13.2 percent (2003-2007) and are projected to earn 11.9-12.4 percent (2008-2013).

In addition to the Commission's determined appropriate rate of return for Southwest, the Company needs to have a reasonable opportunity to actually earn its Commission-authorized rate of return. Investors do not make investment decisions based on authorized rates of return, but on actual and expected realized rates of return. The Company's requested overall rate of return assumes that the Commission will approve Southwest's rate design proposals. If the rate design proposals are rejected, as both Staff and RUCO are advocating, then the Commission-authorized rate of return should be adjusted upward to account for the higher variability in the Company's returns due to weather and the asymmetric downside risk associated with Southwest's declining average usage per customer.

Rejoinder Testimony

The purpose of Mr. Wood's rejoinder testimony is to respond to specific aspects of the surrebuttal testimony presented by Mr. Parcell and Mr. Rigsby, regarding their recommendations and comments concerning the ratemaking capital structure, Southwest's investment risk relative to other natural gas utilities, and the overall allowed rate of return.

Recommended Capital Structure

Mr. Parcell does not differentiate the use of a hypothetical capital structure in past proceedings and the Company's requested use of a target capital structure in the current proceeding, as Southwest is requesting a target capital structure that it expects to achieve. Mr. Wood reports that as of March 31, 2008, Southwest had achieved a 45.1 percent common equity ratio, which is slightly higher than the requested target 45 percent common equity ratio.

Mr. Parcell cites the following two differences between UNS Gas and Southwest to support his position that the precedent of using a target capital structure for UNS Gas is not appropriate for Southwest. Mr. Wood points out that the more relevant facts are that both UNS Gas and Southwest had common equity ratios in the mid 30 percent range in 2003 and have since achieved significant improvement in their respective common equity ratios. Moreover, both companies expect the improvement to continue and requested a target capital structure for ratemaking that reflects the capital structure expected to be in place on a going forward basis, which Southwest has now achieved.

Relative Investment Risk

Mr. Rigsby testifies that his support of Southwest's requested target capital structure provides adequate compensation for the additional financial risk. Mr. Wood explains that now that Southwest has achieved an actual common equity ratio slightly greater than the target common equity ratio, this argument no longer has any merit. Even though Southwest has now achieved the target common equity ratio, Southwest still has higher financial risk relative to the average of the proxy group companies, which Mr. Rigsby has not accounted for.
Mr. Rigsby does not directly respond or rebut the results of Mr. Wood's "Hamada" adjustment analysis, a method previously used by RUCO witness Steve Hill in the APS general rate case (Docket No. E-10345A-05-0816), but instead shifts his comments to the lower equity risk premiums used by Mr. Hill in his CAPM analysis for the APS case. Mr. Wood demonstrates that by employing both the Hamada adjustment analysis and the equity risk premiums used by RUCO in the APS case, the estimated financial risk adjustment is in the range of 44 to 66 basis points, which illustrates that RUCO has not adequately considered Southwest's higher financial risk.

Mr. Parcell states that Southwest is requesting an above-average cost of capital based on Mr. Wood's testimony of Southwest's above average risk. Mr. Wood explains that Southwest should be awarded an adequate overall rate of return that fairly compensates investors for Southwest's level of business, financial, and regulatory risk. Mr. Parcell agrees with the assessment that Southwest has higher relative investment risk as reflected by the 10 basis points adjustment relative to the Company's adjustment of 25 basis points to account for Southwest's higher investment risk.

Mr. Wood explains that Mr. Parcell places undue weight on the common equity ratio by directly linking it to the credit ratings. Credit rating agencies use other quantitative financial metrics, such as sustainable profitability, as well as qualitative information, such as regulatory support, in the process of developing a credit rating. In addition, evaluating the Company's past financial strategy based on its historical and current financial position would require a full examination of both the historical regulatory framework and the operating environment in which Southwest has existed. Mr. Parcell has not provided any such analysis.

Mr. Wood points out that nowhere in Mr. Parcell's testimony does he acknowledge that credit rating agencies not only look at the financial metrics of a utility, but also the regulatory environment in which it operates. Moody's has assigned the regulatory support for Southwest as "Ba" or below investment grade. No other company in the proxy groups used to estimate the cost of common equity capital in this proceeding received a regulatory support rating as low.

Mr. Wood responds to Mr. Parcell's claim the Mr. Wood has not provided any evidence that the Company's risk has increased since its last Arizona general rate case. Mr. Wood explains that the increased risk is reflected in the Company's lower credit rating. Credit ratings provide important information to investors and thereby act as a signal of a utility's quality. Moody's downgraded Southwest's bond rating from Baa2 to Baa3 just three months after being authorized a 9.5 percent return on common equity capital applicable to a 40 percent common ratio, but without any significant improvement in rate design.

Mr. Wood discusses the consequences of the downgrade by Moody's, which included an immediate estimated impact by increasing the Company's annual interest expense by $375,000. More importantly, the downgrade increases the incremental cost of new debt for Southwest. In addition, the downgrade impacts the cost of debt refinancing. Southwest has $575 million of long-term debt that will mature in the next five years (2008-2012), a large portion of which will require refinancing. When this debt is refinanced, it generally will be issued with a long-term maturity of 10 to 30 years. As a result, the cost of this debt will be embedded in the Company's cost of capital for ratemaking purposes for a relatively long period of time.

Mr. Wood also demonstrates that Southwest's beta and the book-to-market ratio have increased on both an absolute basis and relative basis versus the proxy group, reflecting an increase in risk since the decision in Southwest's last general rate case.

The Overall Rate of Return Recommendation

Mr. Wood responds to Mr. Parcell's statement that the average authorized return on common equity capital for other natural gas utilities is below the 11.25 percent requested by Southwest. Mr. Wood explains that the average authorized common equity ratio is an important factor when making comparisons to Southwest's requested return on common equity capital versus the average authorized rate of return for other natural gas companies. An accepted tenet of modern finance is that the required return on common equity capital is positively related to the debt-to-equity ratio of the firm. Based on the results of a number of empirical and theoretical studies of the effects on leverage on the cost of common equity capital, the cost of common equity capital is found to increase in the range of 7.6 to 13.8 basis points per one percentage point increase in the debt ratio. Using this information, Mr. Wood estimates the range of leverage adjusted authorized rates of returns based on the difference in the average authorized common equity ratio and Southwest's target common equity ratio. The results indicate that the average leverage adjusted authorized rates of return for 2007-2008 are in the range of 10.50 to 11.46 percent.

FRANK J. HANLEY

SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504

SUMMARY OF DIRECT, REBUTTAL AND REJOINDER TESTIMONIES OF FRANK J. HANLEY

Direct Testimony

Mr. Hanley's direct testimony provides evidence which supports Southwest Gas Corporation's (Southwest or the Company) requested cost of common equity capital of 11.25% relative to its requested common equity ratio of 45.00%, assuming that the requested tariff tools are approved by the Commission.

Mr. Hanley's recommended common equity capital cost rate is market-determined and based upon a review of a proxy group of eight comparable gas distribution companies (LDCs). Comparison of historical financial data between Southwest and the proxy group shows that the Company has earned returns well below those of the proxy LDCs. During the ten years ending 2006, Southwest achieved an average return on actual book common equity (ROE) of only 5.72% in the Arizona jurisdiction, less than half the 11.83% earned on average by the proxy group, as shown on Exhibit __ (FJH-1), Sheet 5 of 5. Mr. Hanley notes that the proxy group had an average common equity ratio during the period which was substantially greater than Southwest's, which exacerbates the disparity in the Company's earned returns on common equity capital because Southwest's lower average equity ratio should have earned a higher rate of return than the proxy LDCs due to Southwest's greater financial risk in addition to its greater level of business risk consistent with the basic tenets of finance.

Southwest is more investment-risky than the proxy group of LDCs because of its substantially lower Standard & Poor's (S&P) bond rating of BBB minus. One rating notch lower will put the Company into the BB bond rating category (i.e., below investment grade). If that were to occur, Southwest's bonds would be considered a speculative investment, i.e., they would be considered "junk" bonds. Southwest is also more business risky in comparison to the proxy group of LDCs as evidenced by a higher, more risky, S&P assigned business profile of 3.0 versus an average profile of 2.3 for the proxy group of LDCs, (Exhibit __ (FJH-10), Sheet 2 of 9. In addition, most of those LDCs enjoy the benefits of stabilized revenues and earnings attributable to weather normalization clauses or other innovative rate designs, and several also have performance-based ratemaking mechanisms as indicated on Exhibit __ (FJH-1), Sheet 4 of 5 in contrast to Southwest, which has had no such protection mechanisms in place in its Arizona jurisdiction. The requested tariff tools would greatly help to ameliorate Southwest's greater risk attributable to weather and declining per customer usage and go a long way toward improving the chance of actually earning its authorized returns on common equity capital and assist in strengthening its bond/credit ratings.

Mr. Hanley believes it essential that Southwest's greater risk be considered when determining an appropriate common equity capital cost rate and the common equity ratio to which it is applicable. Therefore, Mr. Hanley concludes that the common equity capital cost rate derived from the proxy group must be adjusted upward in order for it to be reflective of Southwest's greater investment risk.

In reaching his recommended common equity capital cost rate of 11.25%, Mr. Hanley relied upon multiple cost of common equity models; namely, the Discounted Cash Flow, Risk Premium, Capital Asset Pricing, and Comparable Earnings Models. The Efficient Market Hypothesis mandates that investors are aware of all publicly-available information. Accordingly, investors are aware of all of these various types of cost of common equity models so that, absent empirical evidence to the contrary, one must assume that they take them all into account in arriving at their buy-sell decisions.

Mr. Hanley's recommendation will afford Southwest the opportunity to earn a rate of return on common equity capital comparable to the rates actually earned by comparable LDCs consistent with the Hope and Bluefield benchmarks and over time will improve its bond rating so that it is not precipitously close to a downgrade to below investment grade (i.e., to BB from BBB minus). In Exhibit __ (FJH-14), Sheet 1 of 1, Mr. Hanley shows that in litigated cases during the twelve months ending March 31, 2007, the average awarded ROE to an LDC was 10.48% relative to a common equity ratio of 45.92%, indicating the need for a higher awarded ROE to Southwest, which is more risky as to both business and financial risks. Based upon the prospective cost rate of long-term debt to Southwest of 6.60% and an average awarded equity risk premium of 4.59% over A-rated utility bonds, a cost rate of 11.19% is indicated, meaning an even greater cost rate than 11.19% for the Company, which has bonds rated BBB-. Mr. Hanley believes that it is essential that Southwest be afforded an opportunity to earn an 11.25% ROE relative to its requested common equity ratio of 45% because investors, analysts, and the rating agencies require a positive signal from regulators that demonstrates acknowledgement of Southwest's inability to earn its authorized rates of return on common equity capital and provides the means to remedy the situation. Approval of the requested tariff tools will provide a positive signal to the financial community.

Rebuttal Testimony

Mr. Hanley's testimony rebuts certain aspects of the direct testimonies of Arizona Corporation Commission Utilities Division Staff (Staff) Witness David C. Parcell and Residential Utility Consumer Office (RUCO) Witness William A. Rigsby. Mr. Hanley also responds to certain aspects of the critique of his direct testimony by both witnesses.

Mr. Hanley explains why Mr. Parcell's significant reliance on the Discounted Cash Flow (DCF) Model is contrary to the financial literature, which supports the use of multiple cost of common equity models consistent with the Efficient Market Hypothesis (EMH), which confirms that current market prices reflect all publicly-available information, including investors' knowledge of all of the various cost of common equity models. In addition, Mr. Hanley explains at pages 23-28 of his direct testimony in responding to Questions 22 through 25, why the DCF model results in an understatement of the cost of common equity capital when market-to-book ratios are significantly greater than one.

Mr. Hanley shows the inadequacy of Mr. Parcell's recommended ROE and addresses the problems associated with his application of the Capital Asset Pricing Model (CAPM), which is flawed by virtue of his use of both the geometric and arithmetic mean market risk premiums. When estimating the cost of capital, only the use of the arithmetic mean is appropriate because it takes into account all of the individual values. As Mr. Hanley demonstrates in Exhibit __ (FJH-18), Sheet 4 and Exhibit __ (FJH-19), Sheets 1 and 2, only the arithmetic mean provides insight to investors as to the potential volatility associated with a prospective investment.

Mr. Hanley explains why Mr. Parcell's use of total returns on long-term government bonds is incorrect and results in a significant understatement of market equity risk premium and hence an understated CAPM cost rate. Moreover, Mr. Parcell failed to also utilize the empirical CAPM (ECAPM), which results in an even greater understatement of common equity capital cost rate. Mr. Hanley demonstrates that Mr. Parcell's CAPM cost rates are grossly understated by showing properly calculated cost rates on Sheet 1 of Exhibits __ (FJH-20 and 21).

Mr. Hanley also explains that Mr. Parcell's comparable earnings conclusion is incorrect and understated because of his erroneous presumption that a market price of common stock, which is substantially greater than its book value, is an indication that it is earning more than its cost of capital. Mr. Hanley demonstrates this error in his discussion of the trend in market-to-book ratios of non-price regulated firms as shown in Exhibit __ (FJH-22).

Mr. Hanley explains the problems with Mr. Rigsby's substantial reliance upon the DCF model, including use of the circular sustainable growth methodology.

Mr. Hanley explains why Mr. Rigsby's use of a 3-month U.S. Treasury Bill in the CAPM is incorrect as well as inconsistent with the long-term cost of equity capital. Also, both Messrs. Parcell and Rigsby fail to utilize the empirical CAPM (ECAPM). Mr. Hanley recalculates Mr. Rigsby's CAPM results for the traditional and the empirical forms of the model, respectively, to be 10.61% and 10.85% as shown on Exhibit __ (FJH-25).

Mr. Hanley refutes Mr. Parcell's claim that he "repriced" stock values in developing a DCF cost rate because he utilized informed expert judgment in confirming that the DCF cost rate alone understates the real cost of equity capital by comparison to the cost rates derived from application of the other cost of common equity methods. This Commission similarly acknowledged this reality in its Decision No. 69663 on June 28, 2007, as noted at pages 18-19 of Mr. Hanley's rebuttal testimony.

Mr. Hanley also demonstrates Mr. Parcell's contention that the ECAPM relies upon a "hypothetical beta." is incorrect through the information contained in Exhibit __ (FJH-21), Sheet 5 of 5 and Exhibit __ (FJH-23), in its entirety.

Mr. Hanley refutes Mr. Rigsby's contention that the use of an adjustment in the ECAPM is incorrect by demonstrating that it is not an upward adjustment for the risk-free rate. Mr. Hanley's discussion regarding Mr. Parcell's criticism applies to Mr. Rigsby, i.e., he confuses the SML with the slope of the beta line which both Morin (Exhibit __ (FJH-21), Sheet 5) and Brigham and Gapenski make clear (Exhibit __ (FJH-23)), in its entirety.

Mr. Hanley explains why Mr. Rigsby's contention that implementation of Southwest's requested decoupling adjustment provision (RDAP) would essentially provide the Company with a guaranteed return "...is totally incorrect. Mr. Hanley shows that similar mechanisms have been in effect for decades in California. That fact notwithstanding, California energy companies do not have betas remotely close to zero. Illustratively, Pacific Gas & Electric Company (PG&E) had a beta of 0.75 in 1996 and currently it is 0.80, many years after the implementation of its electric and gas decoupling mechanisms. Moreover, the data in Exhibit __ (FJH-26) shows that only 6% of PG&E's electric revenues and 4.2% of its natural gas revenues are at risk, i.e., not covered by the decoupling mechanisms. Further, Mr. Hanley shows in Exhibits (FJH-27 and 28), respectively, that despite the decoupling mechanisms in place for decades, PG&E bonds are rated BBB plus by S&P and the California Commission (CPUC) has made ROE awards to California energy companies for 2008 ranging from 11.1% to 11.5%, including 11.35% for PG&E.

Mr. Hanley's updated cost of capital analyses resulted in no change in his recommendation, namely 11.25%, which is within the range of the 2008 awards by the CPUC, which include awareness of the decoupling mechanisms.

Mr. Hanley explains why Mr. Parcell's conclusions in regard to fair value rate base cost of capital are incorrect and further why his alternate proposed weighted average cost of capital (WACC) is significantly understated. Mr. Parcell's conclusion of allowing only one-half of what he believes is the net of inflation risk-free rate is totally arbitrary and should be rejected. Mr. Hanley recommends a net of inflation risk-free rate to be applied to the FVRB increment, which he estimates to be 2.05%.

Rejoinder Testimony

Mr. Hanley's rejoinder testimony addresses a number of issues raised in the surrebuttal testimonies of Staff Witness Mr. Parcell and RUCO Witness Mr. Rigsby concerning his cost rate of common equity capital conclusions, including the implications of Southwest's requested tariff tools on common equity capital cost rate as well as Mr. Parcell's comments regarding Mr. Hanley's testimony on the fair value rate base cost of capital.

Mr. Hanley demonstrates that the common equity capital cost rate recommendations of Messrs. Parcell and Rigsby are grossly understated by reference to this Commission's Decision No. 69663 regarding Arizona Public Service (APS). He points out the similarities in bond ratings, business and financial profiles between APS and Southwest. He shows that the cost rate of long-term debt capital since Decision No. 69663 required by investors has increased for the more risky Baa rated debt of Southwest and APS, which points to a cost rate of 11.00% on common equity capital for Southwest.

Mr. Hanley points out a number of misperceptions of his testimony made by Messrs. Parcell and Rigsby. He discusses Mr. Parcell's belief that the need for Southwest's higher common equity capital cost rate is totally attributable to the Company's financial risk is incorrect by pointing out that a more important factor in the last several years has been Southwest's inability to earn its authorized rate of return on common equity capital. That inability has been attributable to its lack of tariff protection from the vagaries of weather and declining per customer usage. Mr. Hanley explains why, if the Company's requested rate design proposals are not approved, Southwest's cost rate for common equity capital should be increased in order to reflect its added risk vis-à-vis the proxy gas distribution companies because they have had protections in place.

Mr. Hanley explains, contrary to Mr. Parcell's misperception, that Southwest's risk has not increased dramatically over the last 11 months; rather the required rate of return by investors has increased for assuming the same level of risk.

Mr. Hanley explains that he did not adjust his DCF cost rate results. Moreover, he explains, contrary to Mr. Parcell's claim, why his "simple risk premium" methodology is superior to the CAPM, namely because <u>all</u> diversifiable business and financial risks are incorporated in the bond rating process in contrast to the risk premium portion of the CAPM, which reflects no company-specific risk and beta reflects only about 32% of diversifiable company-specific risk.

Mr. Hanley explains why it is inappropriate, as claimed by Mr. Parcell, to utilize the geometric mean in addition to the arithmetic mean when estimating equity risk premium. Investors, under the EMH are rational and recognize that the only way they can measure the degree of business risk is by gaining insight into the standard deviation of yearly returns which is reflected only by the arithmetic mean. Mr. Hanley points out that this Commission, for example, has not utilized the "simple risk premium method", the Empirical Capital Asset Pricing Model (ECAPM) or the Arbitrage Pricing Theory model; yet those models are available to investors. There is no reason to believe that investors would not do likewise, especially in view of the need to measure risk by analysis of the standard deviation of yearly returns.

Mr. Hanley points out that Mr. Parcell's alternate approach of assigning zero cost to the increment above original cost rate base (OCRB) results in an opportunity to earn less operating income than under the methodology used many times by this Commission and was remanded by the appellate court in the Chaparral City Water case. Mr. Hanley also points out that his recommended rate of return on the fair value increment of rate base of 2.05% is specific, not arbitrary, and well under the 2.50% ceiling found acceptable by Mr. Parcell.

Mr. Hanley points out that Mr. Rigsby's contention that the outlook for Southwest is "actually quite favorable" is incorrect and indeed is not favorable unless the Company's requested tariff tools are approved. Mr. Hanley cites from the Standard & Poor's (S&P) document relied upon by Mr. Rigsby, and contained in Attachment B to his surrebuttal testimony, to demonstrate that S&P views the requested rate design changes as very important and expresses concern about this Commission's regulatory oversight which it describes as "less supportive of credit than other jurisdictions".

Mr. Hanley explains that the low end of the range of equity risk premium relied upon by Mr. Rigsby is biased because it is based upon a geometric mean rather than an arithmetic mean which is the proper mean to use when estimating future cash flows as in the determination of the cost rate of common equity capital. Ibbotson and Chen upon whom Mr. Rigsby relies, specify that the arithmetic mean is the relevant mean to utilize. Mr. Hanley shows that utilizing the Ibbotson and Chen arithmetic mean equity risk premium through 2007 of 6.23%, a CAPM cost rate of 10.65% is indicated, which is a full 92 basis points higher than Mr. Rigsby's CAPM of 9.73%.

Mr. Hanley points out why Mr. Rigsby's claim that if regulators allow a rate of return equal to the cost of capital, the market-to-book ratio will trend toward 1.0 is as invalid as is his claim that year-to-year returns are correlated. Mr. Hanley points to Morningstar data that demonstrates empirically that stock returns are random and that the best estimate of a random distribution is the arithmetic mean. Mr. Hanley also points out that Morningstar discounts the notion of survivor bias in the U.S. equities market as a moot point.

Mr. Hanley provides a financial text explanation and illustration as to why Mr. Rigsby's contention that using adjusted Value Line betas results in a double-count in the ECAPM is incorrect. Finally, Mr. Hanley explains why Mr. Rigsby's suggestion that if revenues are stabilized by the Company's requested tariff tools, that common equity capital cost rate should be reduced is incorrect; namely, because the proxy LDCs relied upon by all witnesses in this proceeding enjoy such protections. Conversely, if the requested tariff tools are not approved by this Commission, the common equity capital cost rate should be increased to reflect Southwest's greater risk vis-à-vis those proxies.