Company: Southern California Gas Company (U 904 G)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/008 (cons.)
Exhibit: SCG-236

SOCALGAS

REBUTTAL TESTIMONY OF FLORA NGAI

(DEPRECIATION)

JUNE 18, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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SOCALGAS REBUTTAL TESTIMONY OF FLORA NGAI (DEPRECIATION)

I. SUMMARY OF DIFFERENCES

Table FN-1: Summary of Differences

TOTAL DEPRECIATION EXPENSE - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SOCALGAS	**$463,398**	**$606,830**	**$143,432**
ORA	**$463,398**	**$606,830**	**$143,432**
TURN	**$463,398**	**$600,342**	**$136,944**[1]

II. INTRODUCTION

This rebuttal testimony regarding Southern California Gas Company's (SoCalGas) request for updated depreciation parameters and the resultant depreciation expense addresses the following testimony from other parties:

- The Office of Ratepayer Advocates (ORA) as submitted by Mr. Christian Lambert (Exhibit ORA-27), dated April 13, 2018.
- The Utility Reform Network (TURN), as submitted by Mr. Robert Finkelstein (Exhibit TURN-07), dated May 14, 2018.

As a preliminary matter, the absence of a response to any particular issue in this rebuttal testimony does not imply or constitute agreement by SoCalGas with the proposal or contention made by these or other parties. Depreciation parameters consist of forecasting an average service life, a survivor curve, and a future net salvage rate, for each account, based on a depreciation study. These parameters are used to calculate depreciation rates that result in determining the annual depreciation expense for test year 2019.

[1] December 2017, Revised Direct Testimony of Flora Ngai, Ex. SCG-36-R (Ex. 36-R (Ngai)) at 2:9-12. The change in depreciation expense of $136.9 million is attributed to capital additions forecasts, while $6.5 million pertain to changes in depreciation parameters ($136.9+$6.5=$143.4).

A. ORA

ORA issued its report on Depreciation on April 13, 2018.[2] ORA does not take issue with SoCalGas' proposed depreciation and amortization parameters.

B. TURN

TURN submitted testimony on May 14, 2018.[3] The following is a summary of TURN's position(s) regarding depreciation parameters:

- TURN recommends that the currently authorized depreciation parameters remain in place based on its assertion that the utility failed to adequately demonstrate reasonableness of its proposed new parameters and cites the following issues.
- SoCalGas' showings rely in substantial part on judgment, but how that judgment was applied or shaped is inadequate. As an example, TURN cites Account 376 (Distribution Mains).
- On net salvage, SoCalGas failed to address, much less adequately explain, anomalies that appear in its net salvage percentages. TURN cites three examples: Account 351 (Underground Storage Structures & Improvements), Account 366 (Transmission Structures & Improvements), and Account 367 (Transmission Mains).
- On average service lives, SoCalGas' testimony did not generally describe in sufficient detail the selection process of average service lives. TURN cites three examples: Account 368 (Compressor Station Equipment), Account 367 (Transmission Mains), and Account 376 (Distribution Mains).

[2] April 13, 2018, Direct Testimony of Christian Lambert, Ex. ORA-27 (Ex. ORA-27 (Lambert)), Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case, Depreciation.

[3] May 14, 2018, Prepared Testimony of Robert Finkelstein, Ex. TURN-07 (Ex. TURN-07 (Finkelstein)), Addressing the Proposals of San Diego Gas & Electric and Southern California Gas Company in Their Test Year 2019 General Rate Case Related to Depreciation, The Morongo Rights-of-Way Balancing and Memorandum Accounts, and SDG&E's Extraordinary Attempt to Re-Direct Federal Tax Savings.

III. REBUTTAL TO TURN'S DEPRECIATION PROPOSALS

A. SoCalGas' Proposed Depreciation Parameters are Reasonable and Adequately Supported by Testimony and Workpapers; TURN's Overarching Proposal to Retain Currently Authorized Parameters Should Not be Adopted

TURN claims that SoCalGas' testimony and workpapers fail to adequately demonstrate the reasonableness of its proposed depreciation parameters. SoCalGas disagrees with TURN. SoCalGas' proposed average service lives, survivor curves and future net salvage rates were developed in accordance with the California Public Utilities Commission (Commission) Standard Practice U-4, "Determination of Straight-Line Remaining Life Depreciation Accruals."[4] The proposals at each account level as discussed in SoCalGas' direct testimony[5] and supported by statistical data and analysis in related workpapers[6] are reasonable and conservative. ORA recognizes that, "[i]n general, these proposals include partially offsetting requests to extend certain average service lives and to increase certain net salvage rates."[7]

At an overall level, the change in depreciation parameters are reasonable and adequately supported. SoCalGas' proposed depreciation expense increase for test year 2019 is $143 million, of which $6.5 million (4.5%) is attributed to the change in depreciation parameters. ORA reported no issues with SoCalGas' proposed depreciation parameters and states "SoCalGas's proposed net salvage forecast would increase by $405 million (5%) over the life of the assets, excluding additional net salvage associated with plant additions."[8] The increase in net salvage is partially offset by lengthening of average service lives for some accounts, resulting in the net increase of 4.5%, noted above.

At the account level, TURN cites several issues, selectively discusses several accounts, and then makes the overarching recommendation to retain the currently authorized depreciation

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[4] The CPUC issued standard practice U-4 in 1961 as a guide for determining proper depreciation accruals. This practice was originally issued in 1952 with revisions in 1953 and 1954. This revision is prepared under Utilities Division Work Order S-1563.

[5] Ex. SCG 36-R (Ngai).

[6] December 20, 2017 Revised Workpapers of Flora Ngai, Depreciation, Ex. SCG 36-WP-R (Ex. SCG 36-R (Ngai)).

[7] Ex. ORA-27 (Lambert) at 2:7-9.

[8] *Id*. at 2:9-11.

parameters. SoCalGas' rebuttal on each of these issues and accounts that follows demonstrates the reasonableness of SoCalGas' proposed average service lives, Iowa curves and future net salvage rates. These proposals are adequately supported by testimony and workpapers, in comparison to TURN's generalized, overbroad recommendation.

B. SoCalGas Disagrees with TURN's Claim that Proposed Depreciation Parameters Relied Substantially on Judgment and That the Showing for Recommendations are Inadequate

TURN cites the Commission's (CPUC) Decision regarding Southern California Edison's (SCE) 2015 General Rate Case (GRC). It claims that "the supporting analysis or explanation the Commission called for in SCE's 2015 GRC decision is absent here," and criticizes the "pattern" of SoCalGas' testimony.[9] TURN claims that "the need for a showing that fully identifies and explains the basis of the utility's selected outcomes, particularly those that involve the witness' judgment, is especially important because in depreciation, small shifts can have substantial dollar impacts."[10] It refers to Account 376 (Distribution Mains) as an example.[11]

SoCalGas disagrees with TURN's criticism of the "pattern" of SoCalGas' testimony and that supporting analysis and explanations for proposed depreciation parameters are absent. In SCE's 2015 GRC, the Commission pointedly noted that it had already "warned" SCE about "over-reliance on judgment without" SCE providing further explanation.[12] Although the Commission concluded in SCE's 2015 GRC that "expert judgment can and should be used to complement, balance, and even override statistical results," the Commission warned that an "expert witness must be able to explain the quantitative or qualitative basis for such an application of judgment."[13] The Commission added that such a requirement is particularly true if "the recommended conclusion conflicts with statistical results and no countervailing evidence is identified."[14]

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[9] Ex. TURN-07 (Finkelstein) at 4:18-20 (citing Decision (D.) 15-11-021).

[10] *Id*., at 5:13-15.

[11] *Id.*, at 5:15-18.

[12] D. 15-11-021 at 396 (citing D.12-11-051).

[13] *Id.* at 397-98.

[14] *Id.* at 398.

Here, SoCalGas offers ample quantitative and qualitative analysis to support its conclusions. SoCalGas is using the same depreciation filing format as the 2016 GRC. It is now updating a study filed three years ago. SoCalGas adheres to the Uniform System of Account and continues to follow the methods and procedures in accordance with CPUC Standard Practice U-4. "The procedures and methods used in arriving at SoCalGas' proposed depreciation rates are consistent with those described in professional and technical depreciation manuals."[15] The depreciation study process, factors considered and proposed depreciation parameters for each account are detailed in SoCalGas' direct testimony and workpapers.

SoCalGas' proposed depreciation parameters are likewise adequately supported by testimony and workpapers. TURN notes that SoCalGas "describe[s] a number of factors that played a role in selecting the proposed depreciation parameters."[16] "The service life and curve dispersion selections and estimated net salvage rates for each account were derived from statistical analyses of historical data, visual matching to Iowa curves, informed judgment, discussions with field personnel, and expectations about the future projection of life and dispersion curve and net salvage."[17]

TURN refers to one account to support its claim that SoCalGas relied substantially on judgment without an adequate showing.

Table FN-2: Account 376 (Distribution Mains) Life and Survivor Curve

	Current	Proposed
SoCalGas	**68 R2.5**	**68 R3**
TURN	**68 R2.5**	**68 R2.5**

TURN disagrees with SoCalGas' proposed R3 curve over the R2.5. It cites that "the move from the current R2.5 curve to an R3 curve (which required passing over the R2.5 curve ranked seventh on the best fit curve results) would, on its own, increase SoCalGas' depreciation expense for this account by approximately $1.64 million."[18]

[15] Ex. SCG-36-R (Ngai) at 4:9-11.

[16] Ex. TURN-07 (Finkelstein) at 3:4-5.

[17] Ex. SCG-36-R (Ngai) at 12:10-13.

[18] Ex. TURN-07 (Finkelstein) at 5:18-21 (internal citation omitted).

Yet SoCalGas' proposal of the 68 R3 life/curve is reasonable, when compared to the higher ranked 89 R2.5, considering the currently authorized average service life is 68 years.[19] The best fit curve result is a combination of the average service life and Iowa curve. Retaining the R2.5 curve suggests an unreasonably significant increase in the average service life of this account by 21 years.[20] The R3 curve is a small modification to the current R2.5, as it is the next higher mode within the same family of R-type curves.[21]

SoCalGas recognizes that small shifts can have a large impact on depreciation expense. However, the results of the new study support the need to make this change, *i.e.* the data supports this judgment. Likewise, when the new study supports the need to make a change that decreases depreciation expense, SoCalGas made such proposals. For example, SoCalGas' proposal for Account 352 (Wells) modifies the current life/curve from 49 R2.5 to 53 R1.[22] This by itself decreases depreciation expense by $1.96 million, due both to the change in the Iowa curve and the change in the average service life. [23]

C. SoCalGas Disagrees with TURN's Claim That Anomalies Were Not Addressed in Net Salvage Percentages

TURN claims that SoCalGas failed to address, much less adequately explain anomalies that appear in its net salvage percentages. TURN recommends retaining the currently authorized future net salvage rates for all accounts and cites three examples: Account 351 (Underground Storage Structures & Improvements), Account 366 (Transmission Structures & Improvements), and Account 367 (Transmission Mains).

[19] Ex. SCG-36-WP-R (Ngai) at 173.

[20] Please refer to Item D below for discussion of average service life.

[21] Iowa curves are placed into L, R, or S families, depending upon whether the highest point (mode) of the retirement frequency curve is left of, right of, or symmetrical to the curve's average life. The curves in each family are ordered according to magnitude from the low mode (*e.g.*, R0.5) to high mode (*e.g.*, R5).

[22] Ex. SCG-36-R (Ngai) at 13:21-22.

[23] Ex. SCG-36-WP-R (Ngai) at 2, shows a current net plant balance of $499.928 million for Account 352 using current depreciation parameters, with an average remaining life of 37.2 years, yielding an annual depreciation expense of $13.450 million. The proposed life/curve produces an average remaining life of 43.5 years. *Id*. at 4. Dividing the current net plant balance by 43.5 years yields an annual depreciation expense of $11.492 million, which is a decrease of approximately $1.96 million.

Table FN-3: Net Salvage Percentages

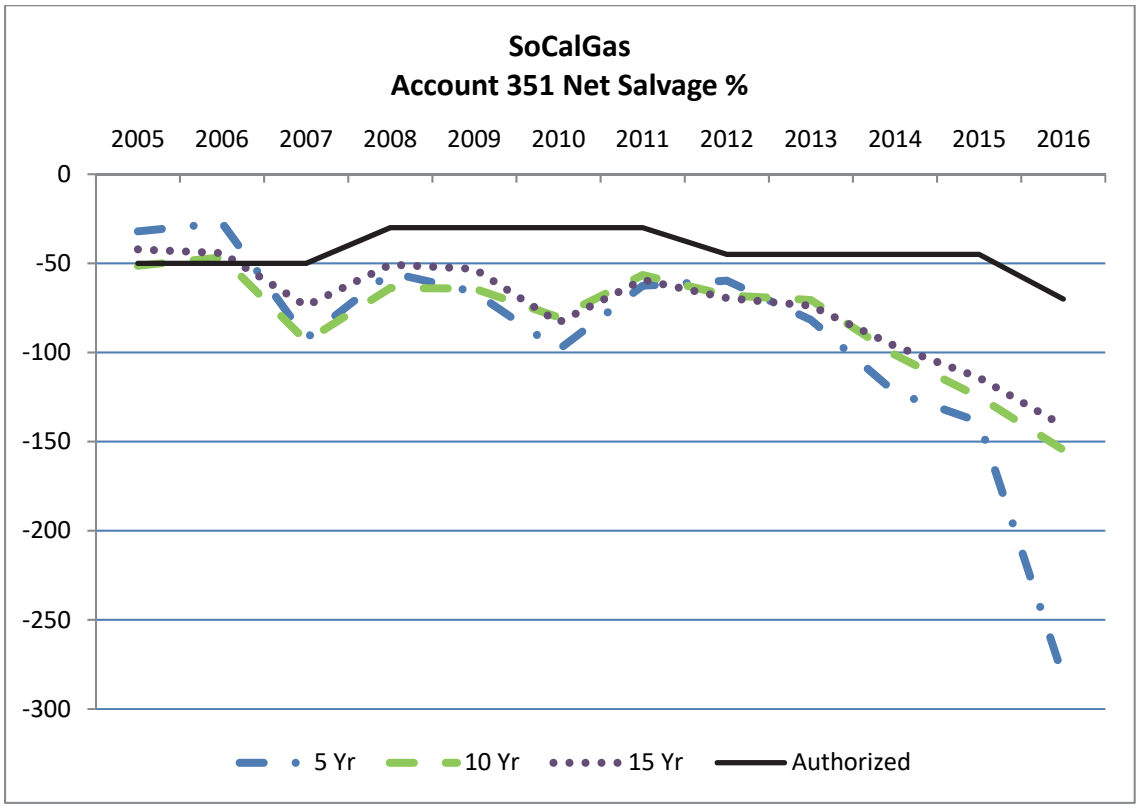
Account	Current	SoCalGas Proposed	TURN Proposed
Account 351	-70%	-80%	-70%
Account 366	-40%	-45%	-40%
Account 367	-60%	-65%	-60%

SoCalGas disagrees with TURN that there are anomalies in the data. The sharp escalation in negative net salvage in recent years for some accounts is not an anomaly. It results from various capital programs and accelerated activity. These include the Aliso Canyon turbine replacement project and pipeline enhancement and integrity management programs, as well as timing differences between the recognition of cost of removal and retirement. These recent escalations were confirmed by interviews with field personnel and limited work order review. Descriptive information pertaining to capital expenditures, plant growth, plant replacements, and significant changes (*e.g.*, procedures, maintenance, regulatory, etc.) are addressed in chapters sponsored by numerous individual GRC witnesses.

SoCalGas recognizes that the future net salvage rates will probably not be at the level represented by the current 15-year average for some accounts because of certain capital projects and the accelerated activity in recent years. SoCalGas has therefore proposed modifications to future net salvage rates that are reasonable, based on expectations of the future. SoCalGas has historically submitted a minimum of 15 years of salvage data, a rolling five-year average, and a shrinking band.[24] A graphical analysis of this data is presented below to include a rolling 10-year and 15-year average, and the authorized net salvage rates, along with the rolling 5-year average to demonstrate the reasonableness of SoCalGas' proposed future net salvage rates for the above accounts. Rolling bands are used for salvage studies – due to timing differences between recorded salvage, cost of removal, retirements, and other variations to dampen the effect of year-to-year fluctuations.

[24] Ex. SCG-36-WP-R (Ngai), Section VII.

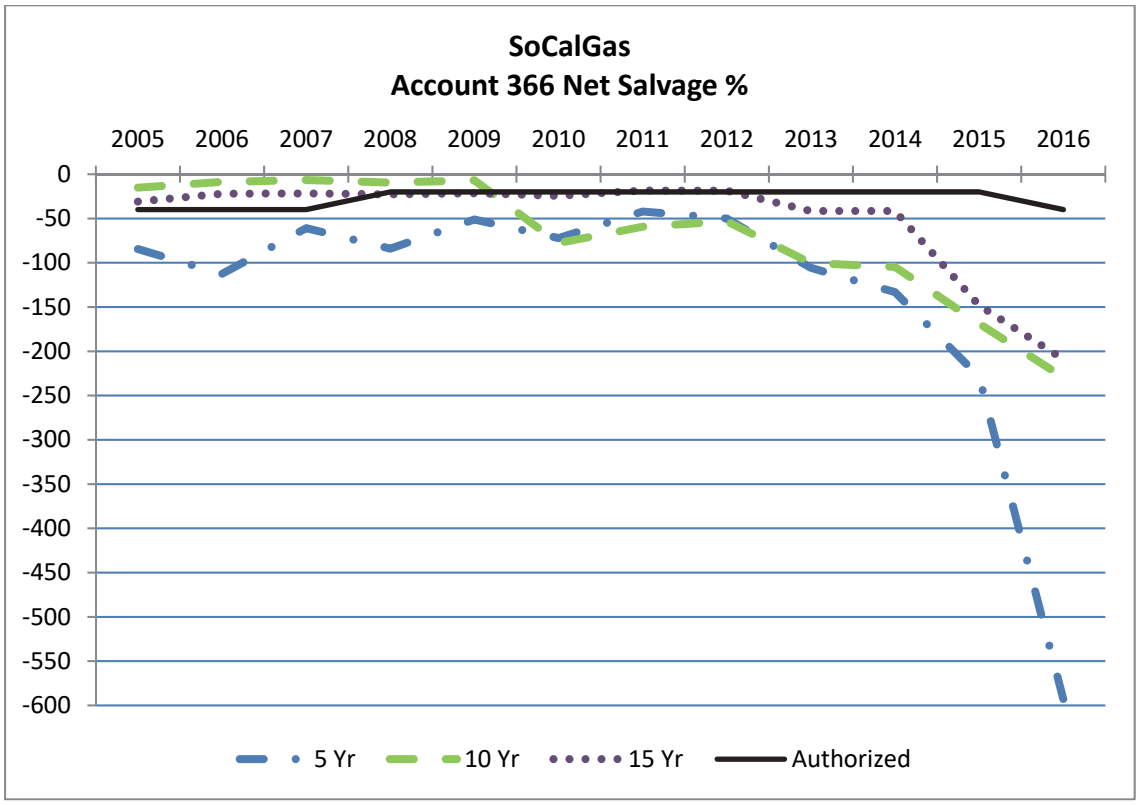
Figure FN-1: Account 351 Net Salvage



As shown above for Account 351, SoCalGas' actual net salvage experience, represented by the 5, 10 and 15-year averages, has been more negative than the authorized net salvage rates since 2007. In addition, SoCalGas has proposed lengthening the average service life by four years for this account. "Generally, a change in net salvage rates is related to the change in service lives (which are continuing to lengthen at SoCalGas) and has an offsetting impact on depreciation rates and expense. When asset lives are lengthened, reuse salvage values decline – because assets are older at retirement and cost of removal increases due to the increases in labor and non-labor costs over time.[25] SoCalGas' proposal to increase the future net salvage rate from -70% to -80% is reasonable and conservative based on historical analysis, the proposed longer average service life for this account, and recognizing that the recent sharp increase (more negative net salvage) is probably not representative of the future trend.

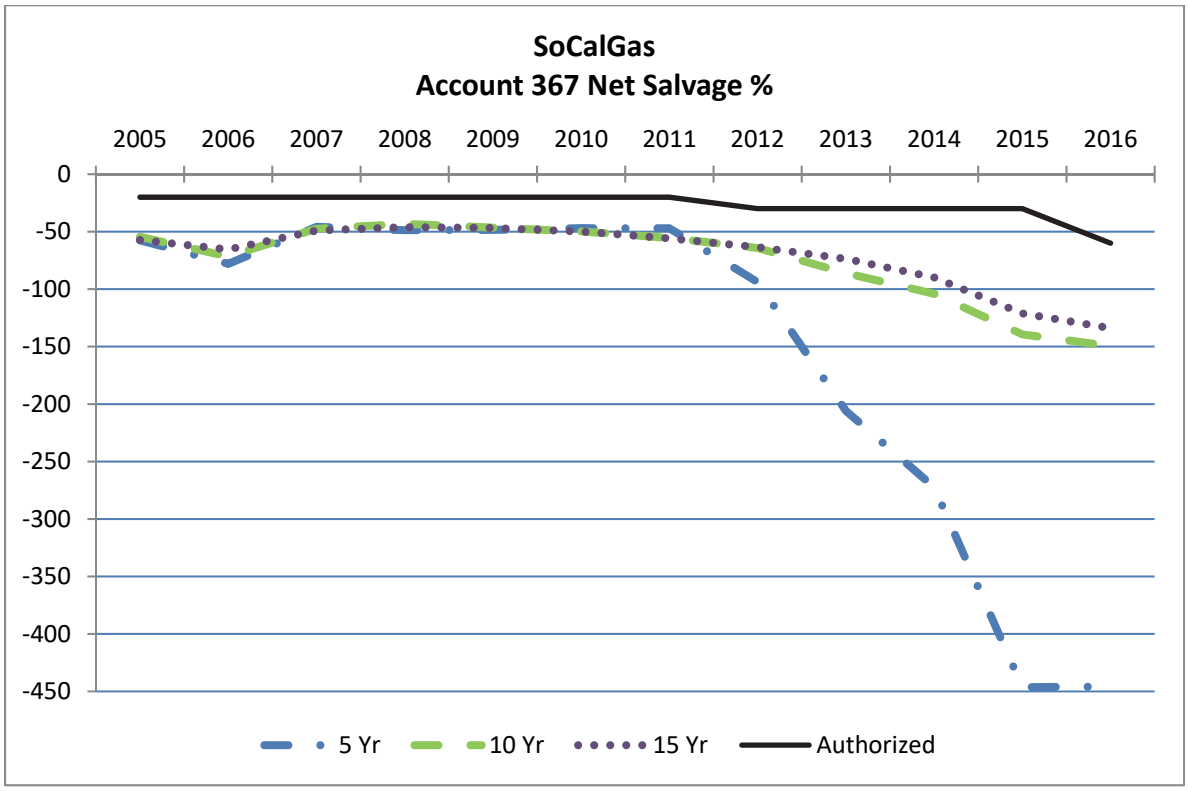
[25] Ex. SCG-36-R (Ngai) at 10:14-18.

Figure FN-2: Account 366 Net Salvage



As shown above for Account 366, SoCalGas' actual net salvage experience has mostly approximated the authorized net salvage rate of the 15-year average until 2012. As stated previously, future net salvage rates will tend to be more negative as service lives are lengthened. Historical data suggests a trend toward more negative net salvage based on the 15-year averages of 2013 and 2014, and with the proposed lengthening of the average service life by six years. SoCalGas' proposal to increase the future net salvage rate from -40% to -45% is reasonable and conservative, recognizing that the sharp increase (more negative net salvage) in recent years is probably not representative of the future trend.

Figure FN-3: Account 367 Net Salvage



As shown above for Account 367, SoCalGas' actual net salvage experience, represented by the 5, 10 and 15-year averages, has historically been more negative than the authorized net salvage rates. SoCalGas' proposal to increase the future net salvage rate from -60% to -65% is reasonable, conservative, and below the 15-year average of -75% showing in the 2016 GRC.

In summary, there are no anomalies in SoCalGas' net salvage data. Sharp increases in recent years are associated with various capital programs, including accelerated activity from pipeline enhancement and integrity management programs. Actual net salvage rates are trending more negative as service lives are lengthened. These factors are reflected in SoCalGas' proposed net salvage rates which are conservative, supported by analysis of historical data end expectations of future life, and future net salvage rates.

D. SoCalGas' Proposed Average Service Lives Are Reasonable and Supported by An Updated Depreciation Study; SoCalGas Disagrees with TURN's Claim that SoCalGas' Showing Is Not Sufficient

TURN claims that SoCalGas' testimony did not generally describe in sufficient detail the selection process of average service lives/curves. It cites three examples: Account 368

(Compressor Station Equipment), Account 367 (Transmission Mains), and Account 376 (Distribution Mains).

Table FN-4: Life and Survivor Curve

Account	Current	SoCalGas Proposed	TURN Proposed
Account 367	64 R3	64 R3	64 R3
Account 368	50 R1	49 R1.5	50 R1
Account 376	68 R2.5	68 R3	68 R2.5

For Account 368, TURN claims SoCalGas "offers nothing of substance of what came out of that discussion [with operations personnel] that might indicate how it impacted the selection of the recommended life-curve, or that might enable the Commission to assess whether the selected curve is reasonable."[26] SoCalGas disagrees with TURN. The input provided by operations personnel resulted in reducing the current average service life from 50 years to 49 years. SoCalGas' testimony notes that operations personnel observed that "[d]ue to high pressure used at compressor stations, replacement of engines, gas turbines and compressors may occur after 15 years . . . [t]he current average service life of 50 years seems high."[27] Operations personnel also indicated that compressor equipment is experiencing earlier retirements, due to advances in technology and requests for faster and more accurate data. Based on this input and the depreciation study, SoCalGas proposes the 49 R1.5 curve over the higher ranked curves, which have average service lives greater than 50 years. The proposed life/curve is a good visual fit through age 47 and does not significantly deviate from historical data.[28]

For Account 367, TURN mentions that SoCalGas offers "no explanation as to why in this instance the utility selected the 14th-ranked curve . . . [i]n terms of visual fit, the 64 R3 curve does not seem a strong candidate, at least when it is graphically compared to the utility's actual data (rather than the truncated subset SoCalGas presented in its workpapers . . . the 78 R2.5

[26] Ex. TURN-07 (Finkelstein) at 9:12-14.

[27] Ex. SCG-36-R (Ngai) at 16:26-30.

[28] Ex. SCG 36-WP-R (Ngai) at 164.

curve is a superior choice."[29] Truncation is generally used to mathematically perform automatic visual fitting of the standard Iowa curves to actual data. Although the 78 R2.5 life/curve is ranked higher, "[t]he intent is not to select the one *best* curve but to consider the indicated patterns."[30] The results of the study show that the 78 R2.5 and the 64 R3 life/curve are both good fits through age 44. However, the 64 R3 life/curve is a reasonable selection when compared to the higher ranked 78 R2.5 – considering the currently authorized life/curve of 64 R3, and the lack of any identified factors such as changes in technology, regulatory requirements, or other reasons to suggest a significant increase of the average service life by 14 years. Despite TURN's criticisms of SoCalGas' proposal for Account 367, TURN's recommendation to retain the 64 R3 curve is no different than that proposed by SoCalGas.

For Account 376, TURN raises similar issues as those for Account 367. TURN additionally claims that SoCalGas "relies in substantial part on the 50-year design life of plastic mains, even though the utility acknowledges that 'actual service life is expected to be longer'. . . the fit does not improve when it is broken out to specifically capture the historical data associated with plastic mains as compared to steel mains . . . [a]nd in terms of visual fit, the 89 R2.5 is a superior choice."[31]

The proposed 68 R3 life/curve is reasonable compared to the higher ranked 89 R2.5, considering the currently authorized life/curve of 68 R2. The higher ranked 89 R2.5 would suggest lengthening the average service life by 21 years – a significant and unreasonable increase absent any identified factors such as change in technology, regulation, or other reason to suggest such a change. Furthermore, SoCalGas would not expect an improvement in life analysis to treat plastic and steel mains separately, because assets in this account are long-lived. Steel mains have vintages beginning in the early 1900's and plastics have vintages beginning in the 1970's. Plant subaccounts with similar characteristics or operational functions may be combined to form a single account.[32] Input from gas engineering that the actual experience of plastic pipe may be

[29] Ex. TURN-07 (Finkelstein) at 10:2-6.

[30] Depreciation Subcommittee of the National Association of Regulatory Utility Commissioners, Public Utility Depreciation Practices, (August 1996) at 125.

[31] Ex. TURN-07 (Finkelstein), 10:9-15.

[32] Ex. SCG-36-R (Ngai) at 8:9-10.

greater than 50 years supports life analysis of steel and plastic as a single account. Despite TURN's criticisms of Account 376, TURN proposes the same average service life as SoCalGas. With regards to the Iowa curve for Account 376, please refer to the discussion in Item B above.

Overall, SoCalGas' average service life selections based on the showing of the best fit curve tables,[33] along with the direct testimony, are easily understood without lengthy or detailed explanations as to the reasonableness of its proposal. This is apparent, given that TURN's recommendation to retain the currently authorized life/curve and not proposing the higher ranked life/curve for the above accounts.

IV. CONCLUSION

SoCalGas' proposed depreciation parameters and the resultant depreciation expense are reasonable at the account level and at the overall level. The proposed parameters for each account are adequately supported by testimony and workpapers. ORA does not take issue with SoCalGas' proposed depreciation and amortization parameters. TURN's recommendation is not supported by a depreciation study, disregards SoCalGas' most recent data, and is contrary to TURN's own argument for sufficient showing. There is no basis for TURN's proposal other than the desire to reduce depreciation expense. For these reasons, TURN's recommendation should be rejected and SoCalGas' proposed average service lives, Iowa curves, future net salvage rates, and the resultant depreciation expense should be adopted.

This concludes my prepared rebuttal testimony.

[33] Ex. SCG-36-WP-R (Ngai), Section VI.

APPENDIX A
GLOSSARY OF TERMS

Commission/CPUC	California Public Utilities Commission
GRC	General Rate Case
ORA	Office of Ratepayer Advocates
SCE	Southern California Edison
SoCalGas/SCG	Southern California Gas Company
TURN	The Utility Reform Network