Report on Various Results of Operations Issues in Pacific Gas and Electric Company's 2015-2017 Gas Transmission & Storage Case

Prepared Testimony of

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California Public Utilities Commission

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DIRECT TESTIMONY OF
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ACRONYMS AND DEFINED TERMS

AICPA	American Institute of Certified Public Accountants
ALG	Average Life Group
CFR	Code of Federal Regulations
CMM	Computed Mortality Method
Commission	California Public Utilities Commission
Company	Pacific Gas & Electric Company
CPUC	California Public Utilities Commission
DUCI	Diversified Utility Consultants, Inc.
ELG	Equal Life Group
FERC	Federal Energy Regulatory Commission
GTS	2015 Gas Transmission and Storage Rate Case
OLT	Observed Life Table
PG&E	Pacific Gas and Electric Company
PG&E STUDY	Gannett Fleming's Depreciation Study for PG&E
PSEP	Pipeline Safety Enhancement Program
TURN	The Utility Reform Network

SECTION I: INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jacob Pous and my business address is 1912 W Anderson Lane, Suite 202, Austin, Texas 78757.

Q. WHAT IS YOUR OCCUPATION?

A. I am a principal in the firm of Diversified Utility Consultants, Inc. ("DUCI"). A copy of my qualifications appears as Appendix A.

Q. PLEASE DESCRIBE DIVERSIFIED UTILITY CONSULTANTS, INC.

A. DUCI is a consulting firm located in Austin, Texas with an international client base. The personnel of DUCI provide engineering, accounting, economic, and fi nancial services to its clients. DUCI provides utility consulting services to municipal governments with utility systems, to end -users of utility services , and to regulatory bodie s such as state public service commissions. DUCI provides complete rate case analyses, expert testimony, negotiation services, and litigation support to clients in electric, gas, telephone, water, sewer, and cable utility matters.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN PUBLIC UTILITY PROCEEDINGS?

A. Yes. Appendix A also includes a li st of proceedings in which I have previously presented testimony. In addition, I have been involved in numerous utility rate proceedings that resulted in settlements before testimony was filed. In total, I have participated in well over 400 utility rate pr oceedings in the United States and Canada. Also worthy of note is that I have testified on behalf of the staff of six different state regulatory commissions and one Canadian regulatory commission . I have previously participated in six general rate case proceedings in California as an expert witness on depreciation-related issues.

Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?

A. I am a registered professional engineer. I am registered to practice as a Professional Engineer in the State of Texas, as well as numerous other states.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of The Utility Reform Network ("TURN").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address the several depreciation issues raised by Pacific Gas & Electric Company ("PG&E" or the "Company") in the 2015 Gas Transmission and Storage Rate Case ("GT&S") before the California Public Utilities Commission ("CPUC" or the "Commission").

SECTION II: SUMMARY

Q. PLEASE PROVIDE A BRIEF SUMMARY OF YOUR TESTIMONY.

A. PG&E seeks $97 million of annual depreciation expense based on plant as of December 31, 2012. The requested level of annual depreciation expense increases to more than $110 million based on projected plant additions into 2015.[1] The level of depreciation requested is based on life and salvage estimates developed by Company witness Mr. Clarke of Gannett Fleming. Gannett Fleming's results are presented in the Depreciation Study ("PG&E Study") set forth in Chapter 15A of the application. While the PG&E Study claims that it has determined the "best" service life and dispersion patterns for each account and has also estimated net salvage values consistent with methods prescribed in CPUC Standard Practices U-4, it in fact relies on unusual practices and procedures, and fails to reasonably or adequately support the proposals. For a variety of reasons, I limited my account-specific review to a relatively few accounts. Based on my independent review of life and salvage parameters, I recommend life adjustments to two accounts and a net salvage adjustment for one account. The accounts to which I am recommending adjustments represent the vast majority of investment at issue in this proceeding. The following is a brief summary of each issue, along with its corresponding impact.

[1] Based on plant additions set forth in Table 15-3 on page 15-9 of Chapter 15.

- **Mass Property Life** – PG&E's proposed average service life ("ASL") and corresponding dispersion curve for each account is based on unusual calculations that expand the limited aged data available to perform actuarial analyses through a synthetic aging process. Gannett Fleming takes the additional unusual step of predetermining a limited number of dispersion patterns that it believes are common in the industry as the basis for investigating acceptable Iowa Survivor curve patterns. PG&E's analyses further reflect inconsistencies and inappropriate assumptions that render its ASL proposals artificially short, which in turn results in unjustified higher depreciation expense. As discussed herein, longer ASLs for Account 367 – Transmission Mains and Account 369 – Transmission Measuring and Regulating Station Equipment result in a $5.1 million decrease in annual depreciation expense based on plant as of December 31, 2012.

- **Mass Property Net Salvage** – PG&E's proposed level of depreciation expense is driven significantly by its proposal to implement more negative levels of net salvage than currently exist. Given that Account 367 – Transmission Mains represents approximately 2/3 of the investment at issue, and that PG&E seeks a threefold increase in the level of negative net salvage for this account, my investigations and analyses are limited to determining the reasonableness of this particular request. Based on my review, PG&E's proposal lacks adequate support and justification and cannot be relied upon for ratemaking purposes. PG&E's net salvage proposal is an outlier based on its own industry comparative data. A -25% net salvage is recommended, rather than PG&E's proposal to increase negative net salvage to a -50% level. The standalone impact of this adjustment results in a $13.8 million reduction in annual depreciation expense based on plant as of December 31, 2012.

- **Combined Impact** – The total impact of the life and net salvage recommendations is not simply the sum of each component on a standalone basis when both factors are adjusted for an account. Since I recommend a change to both the life and net salvage parameters for Account 367, the interaction of such changes reduces the combined total standalone impacts. The combined impact of my various adjustments results in a $17,925,979 annual reduction in depreciation expense based on plant as of December 31, 2012. The resulting depreciation rates for the accounts and subaccounts adjusted are set forth on Exhibit (JP-1).

SECTION III: DEPRECIATION

Q. WHAT IS DEPRECIATION?

A. There are two commonly-cited definitions of depreciation. The first comes from the Federal Energy Regulatory Commission (FERC):[2]

> 'Depreciation,' as applied to depreciable plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirem ents of public authorities.

The second definition, from the American Institute of Certified Public Accountants ("AICPA"), is similar:

> Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible ca pital assets, less salvage (if any) over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is a portion of the total char ge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.

Q. WHAT ARE THE TWO GENERAL FORMULAS USED IN DETERMINING DEPRECIATION RATES?

A. The whole life and the remaining life technique are the most commonly used formulas. The whole life technique is as follows:[3]

[2] Title 18 of the Code of Federal Regulations (CFR) Part 201, Definition 12.

[3] A theoretical depreciation reserve calculation is developed and compared to the actual accumulated provision for depreciation in conjunction with the whole life technique. If the differential is significant, an amortization of the differential for some period of time may be recommended.

$$\text{Depreciation Rate (\%)} = \left[\frac{\frac{(\text{Original Cost} - \text{Net Salvage})}{\text{Average Service Life}}}{\text{Original Cost}}\right]$$

The remaining life technique is as follows:

$$\text{Depreciation Rate (\%)} = \left[\frac{\frac{\text{Original Cost} - \text{Accumulated Provision for Depreciation} - \text{Net Salvage}}{\text{Remaining Service Life}}}{\text{Original Cost}}\right]$$

The two formulas should equal each other when the difference between the theoretical reserve and the actual Accumulated Provision for Depreciation is recovered over the remaining life of the investment under the whole life technique.

Q. ARE THERE ADDITIONAL CONSIDERATIONS IN DEPRECIATION BEYOND THE DEFINITIONS?

A. Yes. The definitions provide only a general outline of the overall utility depreciation concept. In order to arrive at a depreciation-related revenue requirement in a rate proceeding, a depreciation system must be established.

Q. WHAT IS A DEPRECIATION SYSTEM?

A. A depreciation system constitutes the method, procedure, and technique employed in the development of depreciation rates.

Q. BRIEFLY DESCRIBE WHAT IS MEANT BY "METHOD."

A. "Method" identifies whether a straight-line, liberalized, compound interest, or other type of calculation is being performed. The straight-line method is normally employed for utility depreciation proceedings.

Q. BRIEFLY DESCRIBE WHAT IS MEANT BY "PROCEDURE."

A. "Procedure" identifies a calculation approach or grouping. For example, procedures can reflect the grouping of only a single item, items by vintage (year of addition), items by broad group or total grouping, or equal life groupings ("ELG"). The average life group ("ALG") procedure is used by the vast majority of utilities. Both the Company and I utilize the ALG procedure in this case.

Q. BRIEFLY DESCRIBE WHAT IS MEANT BY "TECHNIQUE."

A. There are two main categories of techniques with various sub-groupings: the whole life technique and the remaining life technique. The whole life technique simply reflects calculation of a depreciation rate based on the whole life (*e.g.*, a 10-year life would imply a 10% depreciation rate over the life of the plant). The remaining life technique recognizes that depreciation is a forecast or estimation process that is never precisely accurate and that requires true-ups in order to recover exactly 100% of what a utility is entitled to over the entire life of the investment. Therefore, as time passes, the remaining life technique attempts to recover the remaining unrecovered balance over the remaining life or other period of time. Most utilities rely on a remaining life technique in utility rate matters. Both the Company and I have utilized the remaining life technique.

Q. DO THE METHODS, PROCEDURES, AND TECHNIQUES INTERACT WITH ONE ANOTHER?

A. Yes. Different depreciation rates will result depending on what combination of method, procedure, and technique is employed. Differences will occur even when beginning with the same ASL and net salvage values.

Q. WHAT IS NET SALVAGE?

A. Net salvage is the value obtained from retired property (the gross salvage) less the cost of removal. Net salvage can be either positive, in cases where gross salvage exceeds cost of removal, or negative, in cases where cost of removal is greater than gross salvage.

Q. HOW DOES NET SALVAGE IMPACT THE CALCULATION OF DEPRECIATION?

A. The intent of the depreciation process is to allow the Company to recover 100% of investment less net salvage over the expected life of the plant. Therefore, if net salvage is a positive 10%, then the utility should only recover 90% of its investment through annual depreciation charges, under the theory that it will recover the remaining 10% through net salvage at the time the asset retires (90% + 10% = 100%). Alternatively, if net salvage is a negative 10%, then the utility should be allowed to recover 110% of its investment through annual depreciation charges so that the negative 10% net salvage that is expected to occur at the end of the property's life w ill still leave the utility whole (110% - 10% = 100%).

SECTION IV: LIFE ANALYSIS

A. General

Q. WHAT IS THE ISSUE IN THIS PORTION OF YOUR TESTIMONY?

A. This portion of my te stimony addresses mass property life analyses. The life analysis produces an ASL combined with a dispersion curve, a standardized Iowa Survivor curve. This information is used to calculate the remaining life of the investment, which is an integral component of the depreciation rate calculation.

Q. BASED ON YOUR REVIEW, ARE YOU RECOMMENDING SPECIFIC ADJUSTMENTS?

A. Yes. While a longer ASL may be warranted for other accounts, I recommend longer ASLs for only two mass property accounts compared to PG&E's proposals as set forth in the table below.

Summary of TURN's Recommended Mass Property Life Adjustments

Account	Existing	PG&E Proposed	TURN Proposed	TURN Adjustment	12/31/2012 Impact
367	65	62R2	65S0.5	3	$4,177,437
369	29	45R1	50R0.5	5	$907,811
Total					$5,085,248

The combined impact of these two adjustments is a $5.1 million reduction to depreciation expense based on plant as of December 31, 2012.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED ADJUSTMENTS?

A. I performed an independent review of the actuarially derived life indications. I then reviewed and analyzed all significant or meaningful items of information provided by PG&E's operation and maintenance personnel that PG&E provided to me through discovery. I further relied on additional information obtained either in discovery or from having performed hundreds of depreciation analyses relating to United States and Canadian based utilities to develop sound, realistic and representative ASLs and dispersion patterns that best reflect future expectations for the investment in numerous accounts.

Q. WHY DID YOU REVIEW INFORMATION OTHER THAN THE HISTORICAL INDICATIONS OBTAINED FROM ACTUARIAL ANALYSES?

A. Analysis of historical data might provide some insight to what can be expected in the future, but it must be tested to help determine its applicability to the current plant investment. For example, historical indications, based on review of actuarial results for Account 367 – Transmission Mains, would not necessarily provide the most accurate life expectancy of current investment. Utilities throughout the country have in the relatively recent past implemented pipeline inspection programs, which did not exist several decades ago. While pipeline inspection programs often result in an initial wave of early retirements when first implemented, such programs normally identify problems that can be corrected or addressed in a timely manner, thus lengthening the overall service life

experienced by the remaining pipes compared to that experienced in the past. The historical data will reflect the wave of early retirements as of the time of the analysis, but will not reflect the lengthening of service life for the remaining pipes for some years into the future. Without recognizing the operational change due to pipeline inspection programs, or other changes in operation or maintenance of the system that are not adequately reflected in the historical data can, and often does, result in less than accurate interpretation of actuarial results. It is this type of analys is that I have performed in the evaluation phase of my depreciation study. This type of more meaningful analysis ensures that the most appropriate life parameters are selected for the plant at issue.

Q. HOW DID PG&E DEVELOP ITS PROPOSED LIFE PARAMETERS FOR TRANSMISSION PLANT ACCOUNTS?

A. PG&E proposes a life-curve combination to define the life characteristics of the investment for each transmission plant account. The life portion of the combination establishes the ASL of the investment. The curve portion of the combination establishes an Iowa Survivor curve that identifies a pattern of retirements over a complete life cycle of assets. PG&E's Study identifies what an Iowa Survivor curve is and therefore I will not repeat a similar discussion.

Q. WHAT STATISTICAL LIFE ANALYSIS APPROACH DID PG&E EMPLOY FOR TRANSMISSION PLANT?

A. PG&E utilized an actuarial appr oach for life analysis since it maintains aged data for transmission plant, but only for the period 1999 through 2012. Aged data simply means that when plant is retired, the year in which it was placed into service is also known. However, it is important to recognize that PG&E also performed actu arial analyses on a longer period (experience band), but the data relied on was synthetically derived through a statistical aging program.

Q. WHAT IS SYNTHETICALLY DERIVED AGED DATA?

A. On very limited occasions, I have experienced instances where Gannett Fleming employs a statistical aging of retirement s through an approach entitled the Computed Mortality

Method ("CMM"). Having been involved in or having reviewed many hundred depreciation studies, I have not experienced any other depreciation analyst or firm that manufactures age data when it did not exist. The CMM requires the analyst to first assume a predetermined dispersion pattern, which is then employed to synthetically age historical retirements. This approach effectively guesses at what happened hi storically. The industry almost exclusively avoids this added layer of unnecessary guessing through reliance on the Simulated Plant Records method for life analyses when aged data is not available. The predetermined dispersion pattern required by the CMM also skews the results of the subsequent actuarial analyses towards the predetermined dispersion. This approach diminishes the credibility of the results.

Q. HOW DID PG&E DEVELOP ITS LIFE-CURVE COMBINATIONS BASED ON AN ACTUARIAL PROCESS?

A. Setting aside the CMM issue, PG&E performed two actuarial analyses. The different actuarial analyses rely on different experience band s, but the same placement band. Placement bands establish the years of data reflected in the database analyzed, while experience bands identify the period over which retirement transactions reflected in the database are reviewed.

Q. WHAT PLACEMENT-EXPERIENCE BAND COMBINATIONS DID PG&E PERFORM?

A. PG&E relies on 1923 -2012 and 1926 -2012 placement bands for Accounts 367 and 36 9, respectively.[4] PG&E developed actuarial analyses based on actual aged data for a 1999 through 2012 experience band, and on synthetically-aged data for a 1981 through 2012 experience band for both accounts.[5]

Q. WHAT RESULT IS OBTAINED FROM ACTUARIAL ANALYSES?

A. The results produced by actuarial analyses are presented in an observed life table ("OLT"). An OLT simply represents the pattern of actual retirement activity over history,

[4] PG&E workpaper WP 15A-143 and 170, respectively.
[5] *Id.*

and thus survivors by individual age groups or years. In other words, at the beginning of the zero (0) age interval, 100% of the investment survives, and as additional ages are examined and retirements occur, the OLT declines from 100% surviving towards 0% surviving. If the OLT fully declines to 0% surviving, it is called a com plete survivor curve. An OLT that does not decline to 0% surviving is identified as stub curve. If a stub curve is very short (*i.e.*, it does not decline very far from 100% surviving), then only limited useful information can be garnered from such analyses. The limited information in such circumstances is normally that a long ASL is indicative if a significant level of years has transpired without significant decline in the OLT.

Q. ONCE AN OLT IS OBTAINED, HOW IS IT UTILIZED TO DEVELOP A REPRESENTATIVE LIFE-CURVE COMBINATION?

A. The normal practice in the industry is to employ visual curve -fitting of the OLTs with standardized Iowa Survivor curves. Use of standardized Iowa Survivor curves provides smooth, complete survivor curves so that various calculat ions necessary to establish a remaining life and depreciation rate can be obtained. In particular, the area under a survivor curve yields the ASL of the assets being analyzed. Mathematical curve -fitting is seldom relied on for the ultimate proposal due to the different dollar levels of significance associated with different points of the OLT.

Q. IN THE PROCESS OF MATCHING AN OLT WITH IOWA SURVIVOR CURVES, ARE THERE DIFFERENT AREAS OF THE PROCESS THAT ARE PARTICULARLY SIGNIFICANT?

A. Yes. Generally, it is m ore important to match a standard Iowa Survivor curve with the middle and upper portions of an OLT than the tail portion, depending on the dollar level of exposures at issue. The middle and upper portions of an OLT often will include the surviving data poi nts between 80% and 30% to 40% surviving , sometimes less . If the lower portions of an OLT are matched but the middle or the upper portions of the survivor curve are not, then an inappropriate result will be obtained. Therefore, part of the judgmental process employed by a depreciation analyst is to determine what ASL and corresponding survivor curve constitutes the "best" fit of the meaningful portion of an

OLT.[6] As discussed herein, while I include all meaningful data points in my analyses, I also review a nd recognize the pattern of data points beyond those that are statistically stable. In doing so, I strive to avoid assigning inappropriate and excessive credence to the statistically unstable tail portion of the OLT.

Q. DO YOUR GRAPHICAL PRESENTATIONS CONTAINED HEREIN PLOT THE ENTIRE IOWA SURVIVOR CURVE IN YOUR CURVE-FITTING PROCESS?

A. No, because doing so would diminish the ability to adequately interpret the results of the curve fitting process. My graphical presentations magnify the meaningful portions of the curve fitting process so a better visual comparison of the various curves is possible. For example, PG&E presents a graph for Account 369 at Chapter 15A workpaper WP15A - 170 that extends out to 120 years of age. However, the last data point for the OLT ends more than 50 years before the end of the graph. Not a single point of the OLT resides in the last 40% of the graph. All that is accomplished by PG&E's presentation is that all the data points are crunched together and differences are more di fficult to distinguish. There is no quantitative benefit to enlarging the "picture frame" when the portion of the picture that is most relevant to the analysis is much smaller.

Q. WHY IS IT IMPORTANT TO SPECIFICALLY REVIEW THE DOLLAR LEVELS OF EXPOSURES AT DIFFERENT AGE INTERVALS IN THE CURVE-FITTING PROCESS?

A. The movement in the OLT from one age to the next is affected both by the dollar level of exposures in that age interval and the corresponding dollar level of retirement activity that has transpired during the same age interval. As time passes and as both existing investment and new investment age, it will change the pattern of the OLT. In other words, if plant is continuously added and there are no retirements during a five -year

[6] Published texts on the topic of depreciation refer to portions of an OLT that should be given more weight in the curve fitting process. Such texts suggest that "often the middle section of the curve (that section ranging from approximately 80% to 20% surviving) is given more weight than the first and last sections" as noted in Depreciation Systems authored by Frank Wolf and Chester Fitch. However, as noted in the same publication, the actual criterion reflected in the 80% to 20% example is the limited significance of the dollar level of exposures at older age brackets. Each analysis must stand on its own based on the actual underlying criteria, and not on the noted example. Indeed, the OLT for Account 369 does not decline below 40% surviving, and obviously cannot be relied upon down to 20% surviving.

period, then the OLT will elevate from the position it previously exhibited in a prior study, all else equal. A higher or elevated OLT normally translates into a longer ASL.

In addition, even if no new additions were to occur during the next five years and the existing plant aged for five additional years with no additional retirements, then the mid portion and tail portion of the OLT would also be expected to elevate, thus resulting in a longer ASL, all else equal . Indeed, these portions of the OLT may elevate significantly between studies due to limited dollar levels of exposures . Finally, if retirement activity occurs, but not to the same degree that is reflected historically in the various age brackets, then the OLT again is expected to elevate and results in a longer ASL . The key issue is the degree of potential movement between depreciation studies due to the limited dollar level of exposures or potential for significant levels of retirement activity in different age brackets. Simply put, the tail and lower portions of the mid section of the survivor curve that are often based on limited levels of exposures can move dramatically between one depreciation study and the next. Normally, the head or top portion of the OLT remains relatively stable, as do the upper portions of the mid range of the OLT if they are based on significant dollar levels of plant exposures.

Q. DID PG&E'S STUDY CONSISTENTLY FOLLOW GANNETT FLEMING CRITERIA ASSOCIATED WITH ESTABLISHING THE STATISTICALLY SIGNIFICANT PORTION OF THE OLT IN THE CURVE-FITTING PROCESS?

A. No. In other proceedings Gannett Fleming has identified and employed a 1% of original exposure criteria.[7] In other words, when the dollar level of exposures declines to 1% of the original dollar level of exposure at age zero (0), the data points in the OLTs subsequent to that age bracket are considered statistically insignificant and given limited, if any, weight in the curve -fitting process. Indeed, my understanding is that Gannett Fleming's mathematical curve-fitting computer model has a 1% of original dollar level of exposure cut-off criterion. Here, though, Mr. Clarke fails to identify a correct, logical or

[7] Exposures are the dollars of plant at the beginning of an age bracket that are exposed to retirement forces during that age bracket.

consistent basis or criterion for his proposed cut-off point where he believes the OLT data becomes statistically insignificant.

Q. FOR THE TWO ACCOUNTS YOU ARE RECOMMENDING ADJUSTMENTS TO, DID MR. CLARKE DEVIATE FROM HIS FIRM'S 1% RULE?

A. Yes. For Account 367, Mr. Clarke relied on a 0.0 06% level of s ignificance (1/170th of 1%), and for Account 369 Mr. Clarke relied on a 0.04% level of significance (1/24th of 1%).[8] While Mr. Clarke does reference remaining exposures under $100,000 or $200,000 as part of the criteria for deviating from the 1% rule, the criterion is not only unsupported, but it is applied inconsistently between accounts. For example, when Mr. Clarke identifies exposures under $100,000 for Account 369 and exposures under $200,000 for Account 367, he fails to note that the original dollar level of exposure for Account 367 is 10 times the level of that for Account 369.[9]

Moreover, Mr. Clarke's reference to minimum level of retirement activity in subsequent periods beyond his statistical significance cut -off point is also incorrect. For example, when Mr. Clarke claims that ret irement activity for Account 369 was minimal p ast his statistically significant cut-off point, he fails to note that there are numerous age brackets beyond his cut-off point that exhibit higher or similar levels of retirements compared to age brackets before his cut-off point.[10] Mr. Clarke also deviates from his firm's previously noted statistical cut -off criteria without any support or justification. Such deviations here tend to result in shorter ASL proposals than would be warranted otherwise.

Q. HAS PG&E SPECIFICALLY IDENTIFIED HOW IT OBTAINED ITS VARIOUS PROPOSED LIFE-CURVE COMBINATIONS?

A. No, not to an adequate or appropriate level. PG&E relies on Mr. Clarke's experience and judgment, which primarily includes the statistical analysis of data, expectations of field personnel and project engineers that are insufficiently supported or substantiated , and

[8] PG&E workpapers WP 15A-146 and 172, respectively.
[9] PG&E workpapers WP 15A-142, 145, 169, and 171.
[10] PG&E workpapers WP 15A-172 and 173.

inappropriate and misplaced reliance on claimed industry values.[11] PG&E typically performs two actuarial analyses, then selects a life-curve combination without any specific identified basis supporting the selection other than claims that its selection is "reasonable," or within the typical range expected by Mr. Clarke.[12] However, Mr. Clarke provides very limited specific evidence that can be reviewed, analyzed, or tested in support of his specific proposals. Indeed, PG&E and Mr. Clarke declined to provide requested specific information regarding the claimed industry values that played a significant role in the selection of life parameters.[13]

In this particular case, PG&E often ignores or heavily discounts the best or better fitting results that yield a higher ASL than it is willing to propose. This practice of ignoring or excessively discounting results derived from PG&E specific information is unwarranted absent meaningful information supporting an alternative. In this case, the only identified alternative information presented by PG&E is Mr. Clarke's unsubstantiated judgment, experience and unverifiable "industry" information.

Q. ARE TYPICAL INDUSTRY ESTIMATES AN APPROPRIATE OR ADEQUATE BASIS FOR IGNORING OR SIGNIFICANTLY DISCOUNTING STATISTICAL RESULTS DERIVED FROM PG&E-SPECIFIC INFORMATION?

A. No, not where there is adequate and reliability utility-specific data. Industry ranges should be used for conformational purposes when adequate and reliable utility-specific data is available. For the accounts at issue, PG&E admits that adequate PG&E specific data is available.[14] Absent other meaningful support, representative values based on PG&E-specific data that are reasonably within industry ranges should be given credence. Moreover, PG&E makes inconsistent statements regarding its reliance on industry data.

[11] Chapter 15A pages 15A-5, 15A-25 through 27, 15A-37, and workpaper WP 15A-142 for Account 367 for example.
[12] Chapter 15A workpapers WP 15A-144 through 150 for Account 367 for example. *Id.*
[13] PG&E response to TURN 28-10. The industry database provided failed to identify the jurisdiction, the docket number, the year of any study, or match the utility with its data, even though the Company was specifically requested to provide such information. Based on experience with Gannett Fleming, when the utility could be matched with its data, double reporting of utilities and superseded values were identified as was the situation in Application No. 1607159 before the Alberta Utilities Commission, a Fortis Alberta Inc. case.
[14] PGE workpaper WP 15A-169 for example.

In a discovery response PG&E states that "industry data was simply used as a review and comparison of the results of the depreciation study for net salvage and useful life parameters",[15] but the PG&E Study itself states that the utility relied on industry data and experience in order to select a mid-order R curve.[16] The disclaimer in discovery response should be given less weight than the citation in the PG&E Study to reliance on industry data.

Q. PLEASE SUMMARIZE THE CURVE-FITTING PROCESS EMPLOYED BY PG&E.

A. PG&E chose two placement-experience band combinations of historical data and performed actuarial analysis on the databases. PG&E then made a life-curve combination selection and presented the selected life-curve combination in the PG&E Study. PG&E provides no credible support for ignoring or significantly discounting the better or superior results that correspond to a longer ASL based on its utility-specific analyses for the life parameters proposed for Account 367 and 369.

B. Changes in Approaches/Calculations

Q. DOES GANNETT FLEMING'S APPROACH IN THIS PROCEEDING REFLECT CHANGES FROM GANNETT FLEMING'S NORMAL PRACTICE OR CALCULATIONS?

A. Yes. Mr. Clarke takes the unusual position that it is appropriate to create aged data in order to perform an additional actuarial analysis.[17] The CMM is rarely used by Gannett Fleming in my experience with the firm, and I am not familiar with other depreciation analysts using it. Another significant change from normal practices occurs when Mr. Clarke relies more heavily on his predetermined dispersion pattern expectation based on industry data above the actual life analysis results based on PG&E-specific data. To my knowledge, this election is not Mr. Clarke's or Gannett Fleming's typical approach.

[15] Response to TURN 28-10.
[16] PG&E workpaper WP 15A-142.
[17] Chapter 15A page 15A-11.

Q. ARE THE ABOVE-NOTED CHANGES BY MR. CLARKE MATERIAL IN ESTABLISHING APPROPRIATE AND NECESSARY DEPRECIATION RATES?

A. Yes. As previously discussed, creation of and reliance upon synthetically-aged data creates a problem, especially given Mr. Clarke's inconsistent reliance on the results of the actual aged data and the synthetic derived data. For some accounts, he purports to give them equal weight, while for other accounts he places greater or less weight on the results of such synthetic data. In addition, Mr. Clarke's predetermination of dispersion patterns based on claims of industry "common" values appear to significantly influence his selected results for life parameters.

C. Account Specific

Account 367 – Transmission Mains

Q. WHAT DOES PG&E PROPOSE FOR ACCOUNT 367 – TRANSMISSION MAINS?

A. PG&E proposes a 62R2 life-curve combination.[18] This proposal appears at first glance to be a substantial increase from what PG&E describes as the "estimate from the last rate case,"[19] as it claims a 45R1.5 as the existing life-curve combination.[20] However, PG&E also notes that the Commission adopted a 65-year life in D.12-12-030, the Pipeline Safety Implementation Plan decision, for mains installed as part of the current Pipeline Safety Enhancement Program ("PSEP") efforts.[21]

Q. WHAT IS PG&E'S BASIS FOR ITS PROPOSAL?

A. PG&E relies on Mr. Clarke's interpretation of (1) actuarial results, (2) the impact of the PSEP, and (3) the fact that many large pipelines were installed during the 1950s and

[18] PG&E Workpaper WP 15A-142.
[19] PG&E Testimony, Vol. 2, page 15A-5. In the previous GT&S rate case, PG&E proposed retaining the 45R1.5 life-curve already in effect from some prior rate case. It is not clear at this time when the 45R1.5 lifecurve was first requested or authorized for Account 367.
[20] *Id.*
[21] PG&E Testimony, Vol. 2, page 15A-5.

1960s. While Mr. Clarke acknowledges that his statistical analysis of PG&E-specific data indicates a longer ASL than the existing value (treating the older 45-year life as the existing value rather than the 65-year life adopted in D.12-12-030), he relies on experience and industry information to predetermine that a mid-order R curve is not only common, but should be relied upon for establishing a life proposal for this property.[22] Based on the predetermined mid-order R curve, Mr. Clarke then claims that a 63R1.5 and a 62R2 life-curve combination are the "best fitting R curves through the most representative data points."[23] Finally, Mr. Clarke concludes that an "R2 curve is more consistent with the industry and better represents the expectations for retirements based on the PSEP and other programs."[24]

Q. DO YOU AGREE WITH THE PG&E'S PROPOSAL?

A. No. PG&E's proposal understates the realistic life expectation for the investment in this account. I recommend a 65S0.5 life-curve combination.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation reflects, among other things, interpretation of actuarial results, recognition of problems with synthetically derived aged data, recognition of the meaningful or statistically significant levels of data associated with each OLT, my experience and judgment that reflects proper consideration of both statistical results and specific non-statistical items of information, and recognition of the life-extending impacts PG&E is likely to see going forward from recently-developed inspection programs, and better manufacturing and installation practices. All of these factors support a longer ASL than proposed by PG&E.

[22] PG&E Workpaper WP 15A-142.
[23] *Id.*
[24] *Id.*

Q. BEFORE DISCUSSING THE BASIS FOR YOUR RECOMMENDATION, ARE THERE PARTICULAR ITEMS OF INFORMATION THAT SHOULD BE HIGHLIGHTED?

A. Yes. First, this account represents approximately 6 5% of the entire investment in GT&S plant as of December 31, 2012.[25] This percentage is likely to be even higher in 2015 and for some years beyond, given the forecasted capital additions through 2015. [26] Given the magnitude of this account, one would expect PG&E to have provided a more substantive discussion and explanation for its selection of the proposed ASL and corresponding dispersion pattern.

Next, PG&E's workpapers identify a 63-R1.5 and a 62-R2 life-curve combinations as the "best fitting" proposals based on its analyses.[27] PG&E's choice between the two proposals it deemed "best fitting" illustrates important shortcomings in the utility's analysis. The difference in annual depreciation expense between these two life -curve combinations for plant as of December 31, 2012 is $2.5 million. PG&E chose the life - curve combination that results in a higher depreciation expense , based only on the claim that an R2 curve is more consistent with the industry and better represents "expectations for retirements." But the industry information PG&E claims it relied upon fails to support its proposed dispersion pattern or ASL proposal versus other dispersion patterns. PG&E's opaque reference to "expectations" does not adequately explain why one life-curve combination (the one that produces a higher depreciation expense) better meets those expectations than the other does.

Finally, the prior life-curve combination should be given little weight here. Based on an industry database provided in discovery , it is clear that the existing 45 -year ASL is an outlier.[28] Absent very unusual circumstances, ASL expectations in the 40 -year range are simply unrealistic.

[25] Chapter 15A page 15 A-6 and A-7.
[26] Chapter 15 Table 15-3.
[27] PG&E workpaper WP 15A-142.
[28] Response to ORA 049-01 Attachment 1.

Q. IS YOUR ACTUARIAL ANALYSIS CONSISTENT WITH INDUSTRY PRACTICES?

A. Yes. Unlike PG&E, my approach does not rely on the unusual process of predetermining the expected dispersion patterns when reviewing actuarial results.

Q. IS PG&E'S INDUSTRY-BASED OBSERVATION THAT THE MID-ORDER R CURVE IS COMMON FOR THIS PROPERTY OF ANY VALUE?

A. Little, if any. Review of the industry database provided clearly demonstrates that industry values often reflect low modal S curves.[29] Indeed, the reason there is a variance within the industry values, even as developed by Gannett Fleming, is the fact that a utility's historical policies, practices, materials, etc. interrelate with one another and result in different dispersion patterns for the same investment. That is precisely why reliable and credible PG&E-specific data should be relied upon unless shown to be an aberration.

Q. DOES YOUR ACTUARIAL CURVE-FITTING PROCESS APPROPRIATELY RECOGNIZE THE POTENTIAL PROBLEM ASSOCIATED WITH THE STATISTICALLY-AGED ACTUARIAL ANALYSES?

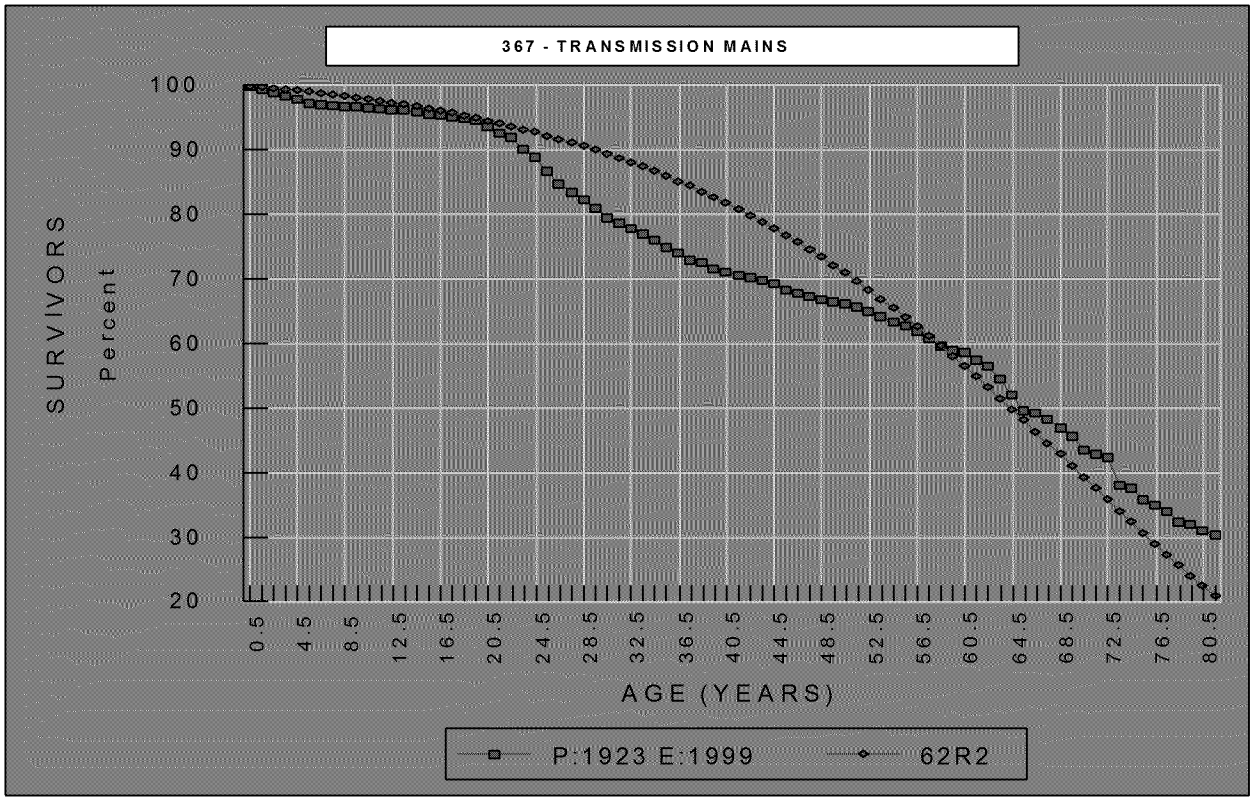
A. Yes. PG&E states it gave similar consideration to both OLT developed from the two different actuarial analyses.[30] However, the only real actuarial database consists of the data for the 14-year period 1999-2013.[31] PG&E's longer 1981 through 2012 experience band includes aged data developed using a statistical aging program.[32] In other words, PG&E chose to manufacture data based on a predetermined dispersion characteristic and presented such information as the basis for its second actuarial analysis. This distinction in the development and reliance on either actual aged data or synthetically created aged data is important given the equal consideration PG&E gave to both OLTs. Furthermore, PG&E gave equal consideration to the longer actuarial analysis simply because "it represents a longer period of time."[33] PG&E's statement regarding reliance on the longer actuarial analysis fails to recognize the fact that it is not actual aged data. Unlike PG&E,

[29] Response to ORA 049-01 Attachment 1.
[30] Response to TURN 28-26.
[31] PG&E Chapter 15A-5.
[32] *Id.*
[33] Response to TURN 28-26.

while I address both actuarial analyses, I recognize the problem that may exist with the synthetically-based analysis when determining the most appropriate life-curve recommendation.

Q. IS PG&E'S SELECTION OF A 62R2 LIFE-CURVE COMBINATION AN INAPPROPRIATE SELECTION NO MATTER WHICH ACTUARIAL EXPERIENCE BAND IS RELIED UPON?

A. Yes. As shown on the graph below, PG&E's proposed life-curve combination curve-fitting to the 1999-2012 experience band is poor.



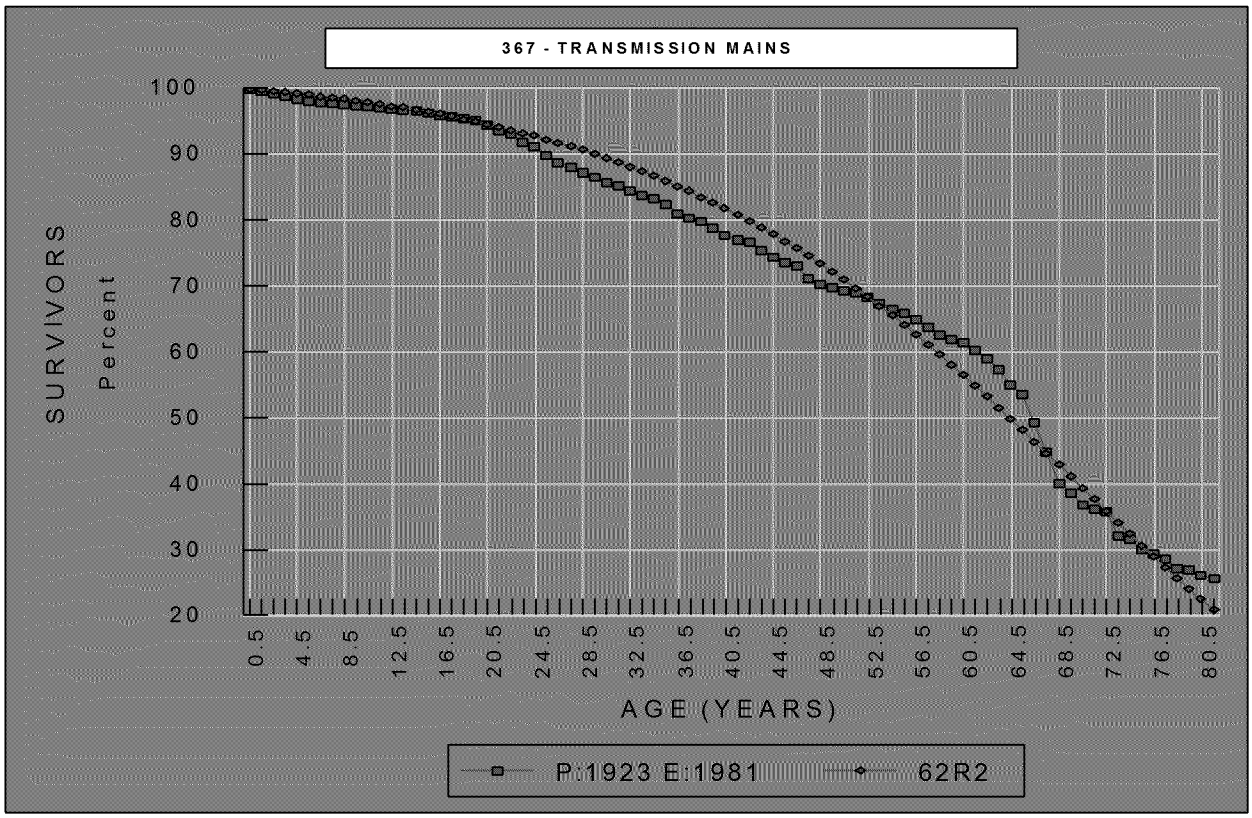
As can be seen in the above graph, PG&E's selection represents a good fit through the first 20 years of age. However, from 20-53 years of age, PG&E's proposal varies dramatically from the OLT. PG&E's proposed life-curve combination is again a reasonable fit to the OLT from approximately 55 years of age to about 65 years of age, where it again begins to deviate appreciably. Simply put, based on the actual PG&E aged

data reflected in the 1999 -2012 actua rial analysis , PG&E's curve-fitting proposal is a poor fit. It is certainly not the best fit, and is not even a reasonable fit of the Company-specific data.[34]

Q. IS PG&E'S SELECTION OF A 62R 2 LIFE-CURVE COMBINATION A GOOD FIT IF ONE RELIES ON THE SYNTHETICALLY-DERIVED ACTUARIAL ANALYSIS?

A. As shown in the graph below, PG&E's proposed life -curve combination fits the data produced by the statistical aging program better than it does the actuarial results based on the actual aged data. However, this is t he tautology in action -- the better curve fit is a function of the predetermined synthetic aging process. Even so, review of the closeness of fit indicates the PG&E-selected curve is not the best, or even a very good fit for the PG&E-created data. PG&E's proposal is again a good fit through the first approximate 20 years of age. The fit is not good from about 24 years through about 50 years of age. From that point through the next 6 years or so, PG&E's proposal is a very good fit as would be expected in a crossover situation with the OLT. PG&E's proposal once again begins to deviate from the OLT from about 57 years of age through the balance of the statistically significant data as determine by the one percent of original exposure rule that, in my experience, is the threshold often relied on by Gannett Fleming.

[34] Based on a 1% of original exposure as the point at which the data become statistically insignificant; that point is reached at approximately 62 years of age. Therefore, the curve fitting process should give limited to no weight to the data beyond 62 years of age.



Q. HOW DOES PG&E RECONCILE SUCH GENERALLY POOR CURVE-FITTING ANALYSES WITH ITS CLAIM THAT THE BEST -FITTING LIFE - CURVE COMBINATION IS A 62R2?[35]

A. If PG&E's point is that, if the choice is limited to an R1.5 curve or an R2 curve, the better fit is an R2 curve, that may be true but irrelevant. The choice is not between those two curves, or even between only R curves. The industry norm, and, in my experience, the norm for Mr. Clarke and his firm, is to select the best -fitting curve based on an analysis of utility specific data, rather than what seems to be a predetermined and limited pair of curves.

Q. WHAT ABOUT THE ROLE OF JUDGMENT IN SELECTING A LIFE-CURVE COMBINATION FOR THIS ACCOUNT?

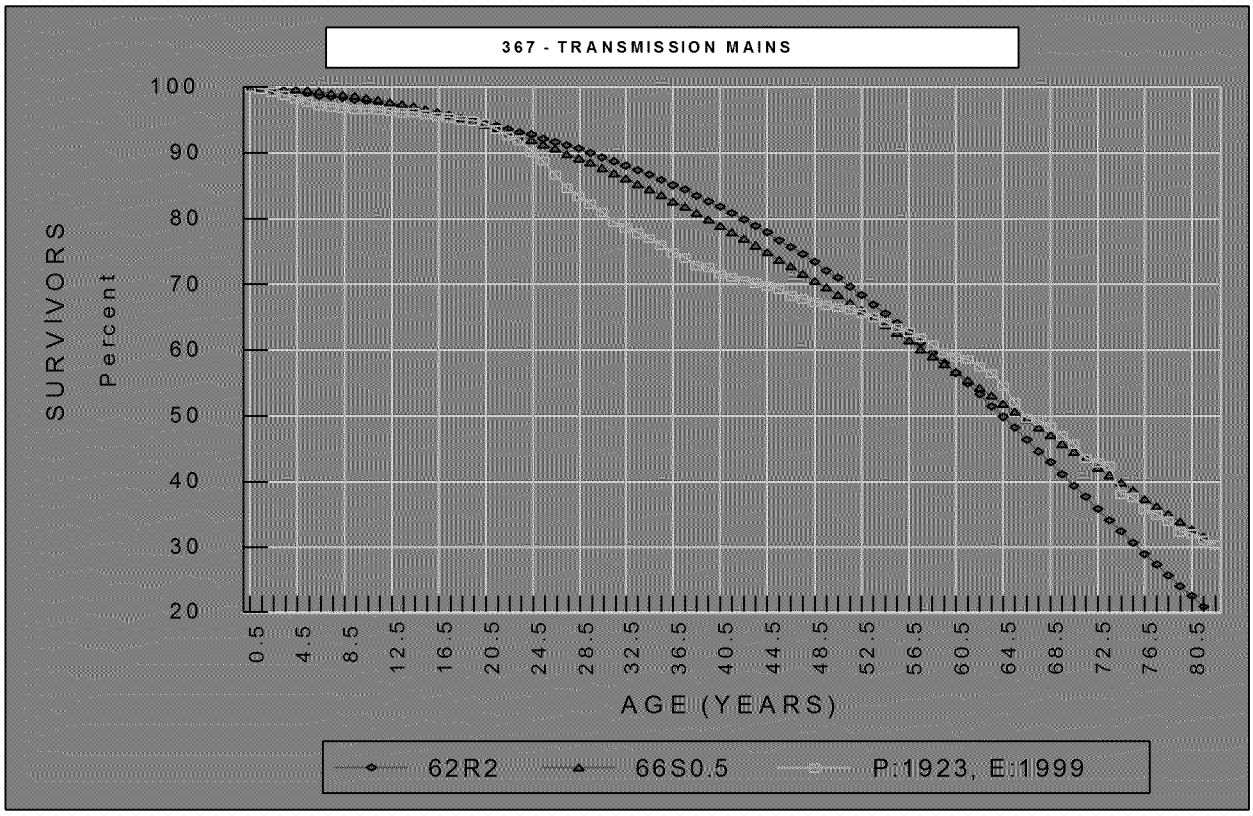
A. PG&E states that its proposed life -curve combination is based on judgment.[36] The word judgment does not support any particular life-curve combination absent adequate

[35] PG&E workpaper WP 15A-142.

presentation of the basis for such judgment. I ndeed, judgment is a process that must rely on various inputs. The only identifiable input PG&E provided is that its proposal "anticipates" different transactions in the future .[37] In other words, PG&E proposes to explain away its poor curve fitting by making a conclusory statement referencing its judgment.

Q. HOW DOES YOUR SELECTION OF A BETTER CURVE FIT COMPARE TO PG&E'S ACTUAL AGED EXPERIENCE?

A. As shown on the graph below, which reflects the PG&E experience band based on actual aged data, a 66S0.5 life -curve combination is a superior fit to PG&E's proposed 62R2 life-curve combination.[38]



[36] Response to TURN 28-27.
[37] *Id.*
[38] The recommended 65S0.5 life-curve combination is also a better fit than PG&E's proposal.

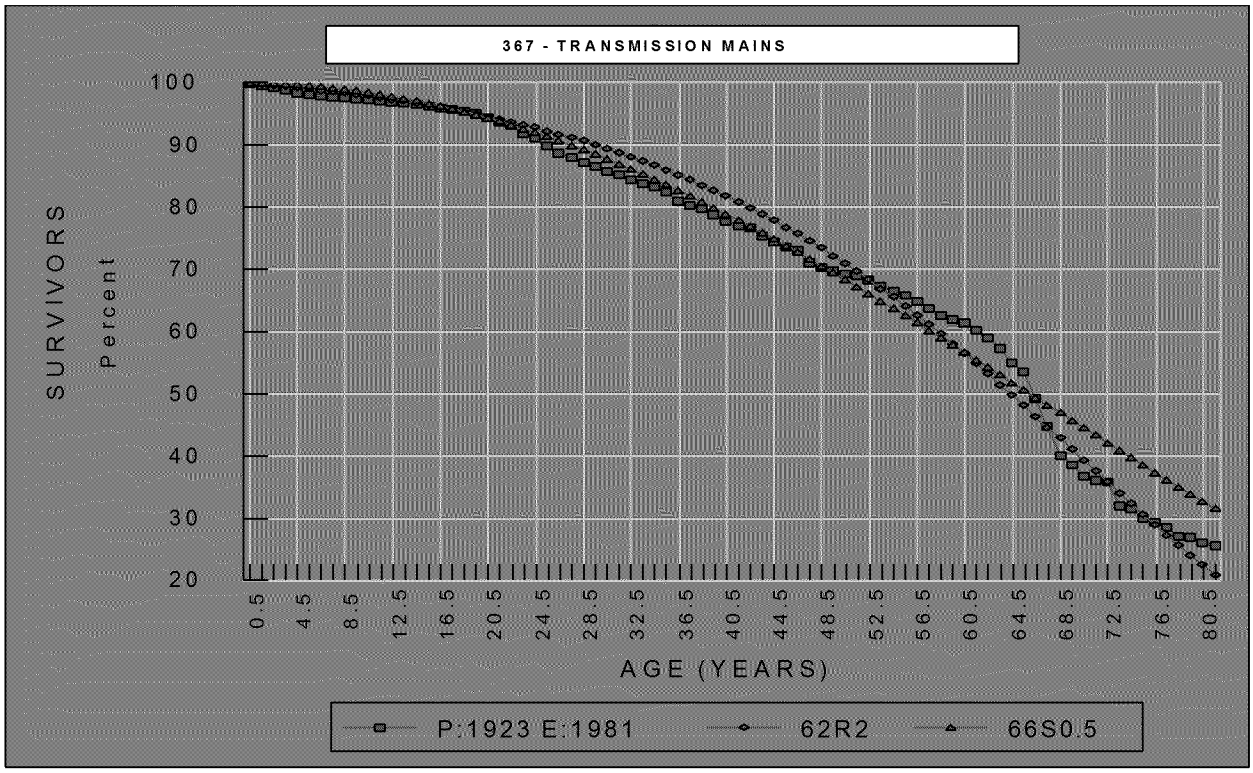
While both life-curve combinations equally match the OLT through the first 24 years of age, PG&E's proposal deviates from the actual data to a greater extent than does the 66S0.5 life-curve combination from that point through approximately 52 years of age. For the next approximately 10 years (53-63), both life-curve combinations again equally represent PG&E's actual experience. However, beginning at approximately 64 years of age through the balance of the data presented, a 66S0.5 life-curve combination is again a superior fit compared to that proposed by PG&E.[39]

Though I recommend a 65S0.5 as a conservative estimate, the presentation above demonstrates that a 66S0.5 life-curve combination is a better fit compared to PG&E's proposal. It should be noted that the curve fitting presented in the graph above reflects the same data points as presented by PG&E. However, relying only on the material or significant data points corresponding to Gannett Fleming's typical approach of deeming data representing less than 1% of the exposure at age zero (0) as insignificant would effectively cut off the curve-fitting process at approximately 63 years of age. Therefore, even though my recommendation is a superior fit to the data after 63 years of age compared to PG&E's presentation, arguably the focus should be on the data from prior to that period. As previously noted, my recommendation is a superior fit to the data through the majority of the significant portion of the OLT and below 90% surviving.

Q. HOW DOES YOUR RECOMMENDED CURVE FIT COMP ARE TO PG&E'S PROPOSAL WHEN RELYING ON THE LONGER ACTUARIAL ANALYSIS?

A. As shown in the graph below, when relying on the data PG&E derived from a statistical program rather than from actual retirements, my recommendation is also a superior fit through the meaningful portion of the OLT.

[39] The same would also be true for the recommended 65S0.5 life-curve combination.



As can be seen in the graph above, both PG&E's proposed 62R2 and the 66S0.5 life-curve combinations achieve approximately equal results through the first 20 years of age. Beginning at about 20 years of age through approximately 50 years of age, the 66S0.5 life-curve combination is a superior fit . From approximately 50 years of age through 60 years of age, PG&E's proposal is somewhat superior to the 66S0.5 life-curve combination. However, the 66S0.5 life -curve combination begins to be a superior fit to the actuarial results for the limited number of years before the data becomes statistically insignificant based on Gannett Fleming's 1% criterion (at approximately 62 years of age). PG&E's proposal is a superior fit to the data beginning at 67 years of age and continuing through the balance of the data presented. However, as previously noted, this portion of the data is considered statistically unstable and should be heavily discounted or not relied upon. Indeed, the data points declined to only $134,000 of plant exposures compared to the initial balance of $2.4 billion. The data at 78.5 years of age reflect retirement activity of as little as $25,000 occurring. The Commission should decline to assign equal statistical significance to those data as it does to data beginning at 80% surviving , which often reflects approximately $5 to $6 million of annual retirements. Rather than allow the

tail to wag the dog, my review and interpretation of the OLTs does not let statistical ly insignificant data points guide the final recommendation.

Q. DOES PG&E'S PROPOSAL APPROPRIATELY REFLECT THE LIFE-RELATED EXPECTATIONS ASSOCIATED WITH THE PSEP?

A. No. The overall result of the PSEP program on a going forward basis should be a lengthening of service life for PG&E's investment in transmission mains. While there may be an initial wave of retirement activity associated with the implementation of such inspection program, the long -term impact should be a lengthening of li fe due to the ability to identify potential problems long before they become major problems that can result in early retirements. Therefore, a longer life expectancy for current investment in the future should exist due to the PSEP program compared to the actuarial results that reflects limited impact of such program. As previously demonstrated , actuarial results indicate something greater than a 65 -year ASL is the best fit of historical events over a period that almost entirely preceded the PSEP. Therefore, the PSEP and other inspection programs are likely to result in an even longer ASL going forward.

Q. TURNING TO THE CONCEPT OF INDUSTRY DATA, IS PG&E'S PROPOSAL WELL SUPPORTED?

A. No. First, over 1/3 of the dispersion patterns identified in PG&E's industry database are from the S family of Iowa Survivor curves, not the mid-modal R curves PG&E characterized as being common for this property. When over 1/3 of the results of the industry reside in the S family of dispersion patterns, there is no basis for a predisposition to R curves as the likely choice.

Q. HOW DO PG&E'S 62-YEAR ASL AND YOUR 65 -YEAR ASL COMPARE TO INDUSTRY DATA?

A. When PG&E states that its recommendation is "in the range for the industry", its statement is basically meaningless giv en that the range is from 40 to 85 years. [40] PG&E's database for this account identifies a 64 -year mean value, a 65 -year median value, and a

[40] PG&E workpaper WP 15A-142.

70-year mode value for ASLs. Therefore, my recommended 65-year ASL seems more in line with industry expectations, as measured by PG&E's industry data.

Q. ARE THERE FURTHER CONSIDERATIONS THAT MUST BE REASONABLY CONSIDERED IN SELECTING THE MOST APPROPRIATE CURVE-LIFE?

A. Yes. PG&E states that since the 1970s there has been better quality of pipe installed with the majority being cathodically protected and coated. [41] However, in even more recent years, there have been further advances in coating of steel pipe and better installation practices. The depreciation rates being set in this proceeding will apply to current plant investment and is intended to predict how it will retire in the future. The majority of the investment in the account balance as of December 31, 2012 had been installed in just the preceding 10 years.[42] Thus, newer technology and better installation and maintenance practices should result in a longer ASL than that exhibited by the overall historical data.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION.

A. Whether viewed from an actuarial analyses basis, or an industry comparative basis, or in recognition of technological advancements, or in recognition of new installation and maintenance programs and policies established by PG&E, an ASL longer than 65 years is warranted. However, PG&E's historical data is predicated on only 14 years of actual aged data. Normally, a database greater than 14 years of aged data should be relied upon in order to capture a statistically stable result. Therefore, in recognition of the limits of PG&E's historical database and recognizing the concept of gradualism, limiting the ASL to 65 years with a corresponding S0.5 Iowa Survivor curve represents the most appropriate value to be relied upon in this proceeding.

[41] *Id.*

[42] *Id.*, at pages 154 and 155. PG&E's forecasts for 2013 -2017, even if approved only in part, will serve to further increase the portion of the investment that is of very recent vintage.

Q. IF ANALYSES OF HISTORICAL DATA AND CONSIDERATION OF OTHER FACTORS SUCH AS TECHNOLOGICAL ADVANCEMENTS INDICATE AN ASL LONGER THAN 65 YEARS, WHY DO YOU ONLY RECOMMEND A 65-YEAR ASL?

A. My recommendation is intended to be conservative. While the CPUC recognized a 65-year ASL was reasonable in D.12-12-030 for this type of investment, retaining an ASL of 65 years might be too conservative. I would certainly not object if the CPUC were to adopt an ASL of 66 years, in recognition of the factors indicating longer lives in the future and as a first step consistent with concerns for gradualism.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Relying on a 65S0.5 life-curve combination for the three different Account 367s (standard transmission, Line 401 and S TANPAC) results in a $ 4,177,437 reduction in annual depreciation expense based on plant as of December 31, 2012. The resulting depreciation rates for the standard, Line 401 and S TANPAC investments are 2.20%, 2.13%, and 2.19%, respectively.

Account 369 – Measuring and Regulating Station Equipment

Q. WHAT DOES PG&E PROPOSE FOR ACCOUNT 369 – MEASURING AND REGULATING STATION EQUIPMENT?

A. PG&E proposes a 45R1 life-curve combination.[43] This represents a significant increase from the exiting 29R0.5 life-curve combination.[44] However, a 29-year ASL was not and is not a realistic value.

Q. WHAT IS PG&E'S BASIS FOR ITS PROPOSAL?

A. PG&E relies on an actuarial analysis approach since considerable retirement activity exists for this account. PG&E's actuarial analyses rely on data points through 67.5 years

[43] PG&E Workpaper WP 15A-169.
[44] *Id.*

of age as being significant in the curve-fitting process. PG&E then relies on a predetermined expectation of a low- to mid-order R curve for its analyses based on a generalized reference to experience and industry expecta tions. PG&E concludes that the 45R1 life-curve combination is a "good" or "reasonable" fit, but also recognizes that ASLs exceeded 45 years based on actuarial analysis. Finally, PG&E limits the proposed ASL for this account to 45 years because it believes that level is at "the upper end of the lives that are typical in the industry."[45]

Q. DO YOU AGREE WITH THE PG&E'S PROPOSAL?

A. No. While PG&E's proposal is a step in the right direction, it still unreasonably understates realistic and appropriate life expe ctations for this account. I recommend a 50R0.5 life-curve combination.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation also relies on actuarial analyses. However, I have not limited my analysis with predetermined dispersion pattern expectations, or by inappropriate expectations based on perceived "typical" industry ranges. Moreover, my recommendation better represents PG&E's actual investment mix in the account.

Q. IS IT MR. CLARKE'S OR HIS FIRM'S NORMAL PRACTICE TO PREDETERMINE DISPERSION PATTERNS WHEN PERFORMING ACTUARIAL ANALYSIS?

A. No. As previously discussed, the predetermination of dispersion patterns downplays or discounts PG&E-specific data.

Q. DO YOUR ACTUARIAL ANALYSES YIELD A SUPERIOR RESULT TO THAT PROPOSED BY PG&E?

A. Yes. As the graph set forth in PG&E's Study illustrates, the Company's proposal is not a reasonable fit of Company-specific data.[46] PG&E's proposal begins to significantly

[45] *Id.*
[46] PG&E workpaper WP 15A-170.

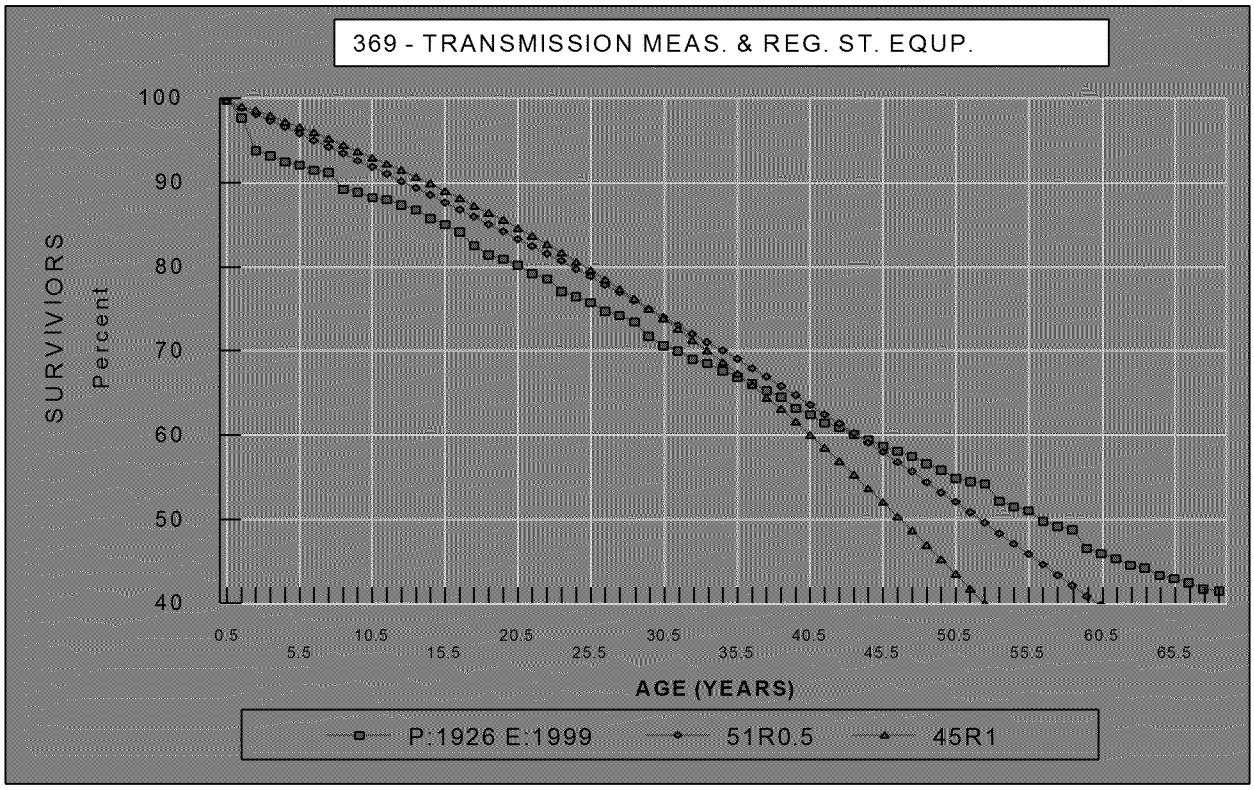
understate the ASL for the investment beginning at approximately 33 years of age for the longer experience band, and at approximately 40 years of age for the shorter experience band.[47] Indeed, PG&E notes in its workpapers that the ASL for this account "exceeded 45 years" based on statistical analysis.[48] Unfortunately, PG&E chose to not seriously consider better fitting curves because it claims that "45 years is the upper end of the lives that are typical in the industry and represents an increase of 16 years over the existing estimate."[49]

PG&E's claim of limiting the ASL to 45 years based on industry values is both incorrect and inconsistent. First, approximately 36% of the limited industry database provided by PG&E is equal to or greater than a 45-year ASL.[50] In addition, PG&E seeks to have it both ways with this account, as it proposes a net salvage value for this same account that is only exceeded by one industry value and is more than double the industry average.[51] My analyses of actuarial results yields much better curve fits with PG&E-specific data.

Q. WHAT IS THE BEST FITTING LIFE-CURVE COMBINATION BASED ON YOUR ACTUARIAL ANALYSIS?

A. As set forth on the graph below, it is easy to see that a 51R0.5 life -curve combination is a superior fit to the OLT based on the 1999 through 2012 experience band. That experience band reflects the only actual aged data available.

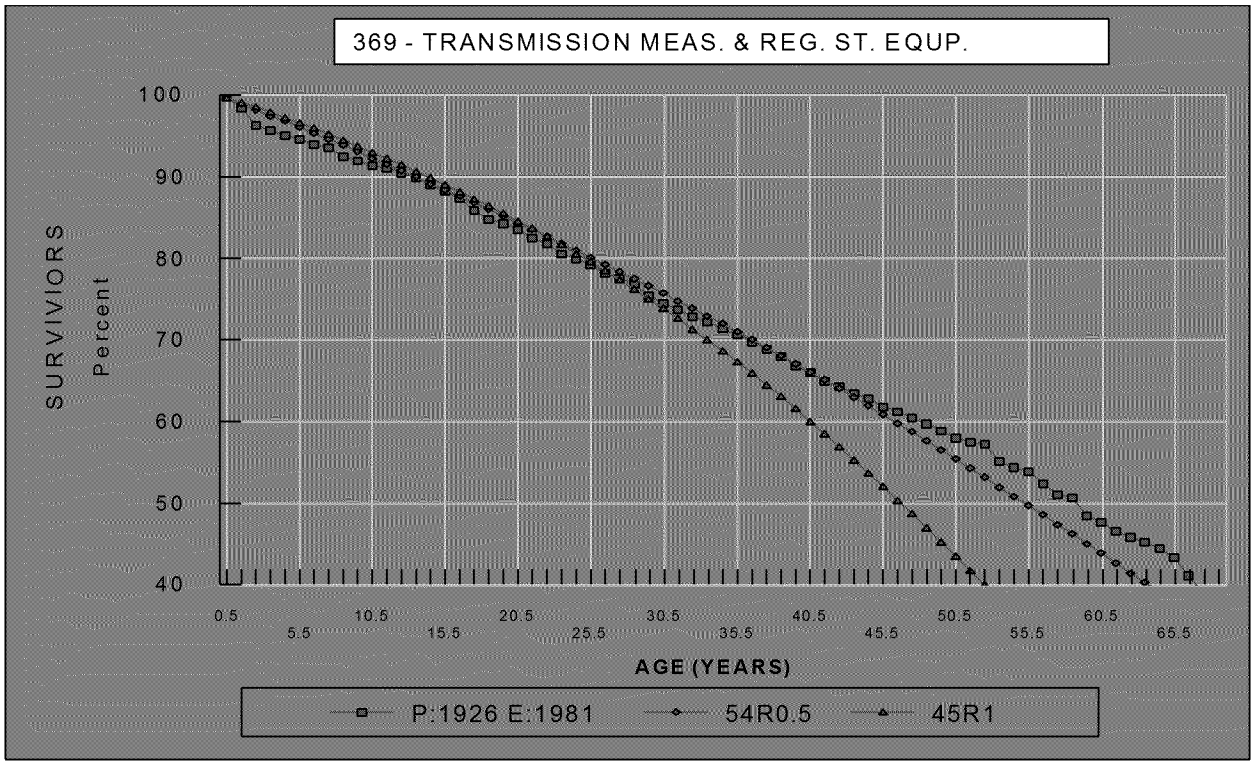
[47] *Id.*
[48] *Id.* at page 169.
[49] *Id.*
[50] PG&E response to ORA 049-01 Attachment 1.
[51] *Id.*



Indeed, the only limited area where PG&E's proposal is a superior fit to the OLT is between approximately 30 years of age and 40 years of age. That time period reflects the impact of a crossing over situation, rather than an overall good fit.

Q. WHAT ARE THE ACTUARIAL RESULTS ASSOCIATED WITH THE LONGER EXPERIENCE BAND RELIED UPON BY PG&E?

A. Again, the actuarial results based on the 1981 through 2012 experience band (which is based on synthetically -derived aged data) demonstrates that a much longer ASL is also warranted. As shown on the graph below, a 54R0.5 life-curve combination is a significantly superior fit to the OLT.



PG&E's proposed life-curve combination appears to be a superior fit as compared to a 54R0.5 life-curve combination only for the period from about 25 years of age through 30 years of age. This period corresponds to the crossover pattern of its proposal. PG&E's proposal dev iates significantly from age brackets beginning in the mid -30-year range through the balance of the OLT.

Q. IS THERE A PROBLEM WITH PG&E'S REFERENCE TO AND RELIANCE ON THE CONCEPT THAT ITS PROPOSED LIFE-CURVE COMBINATION "REPRESENTS A REASONABLE FIT OF EARLIER AGES" IN DETERMINING A PROPOSED LIFE-CURVE COMBINATION?

A. Yes. While PG&E claims it recognized and took into consideration unusual early retirements when establishing its proposal, f acts indicate otherwise. [52] For example, the Company retired $3.8 million of investment at 1.5 years of age. [53] This unusual level of early retirement activity yields a 0.0396 retirement ratio. This early age retirement ratio is

[52] PG&E workpaper WP 15A-169.
[53] *Id.* at page 174.

substantially higher than the second highest ratio, and far and away higher than any other retirement ratio until age bracket 52.5 years. In other words, unusual historical events depress the OLT, which results in a shorter ASL . Large retirements of new investment may occur, but are not normally expected to keep reoccurring. These large and unusual activities do not appear to be properly recognized or normalized by PG&E in its analysis. Instead, PG&E took the opposite approach of favoring a curve that matched the earliest age brackets corresponding to the unusual activity and discounted the significant deviation during the portion of the curve covering later years, the period that in my experience Gannett Fleming normally considers to warrant greater weight for life estimation purposes. PG&E made no mention of the unusual historical events underlying the "earlier ages" in either its Study or in its workpapers. Moreover, when specifically requested to identify what retired and what caused the unusual retirement activity, all PG&E could identify was that it "related to the replacement of metering and regulating equipment and odorization equipment at various M&R stations." [54] In other word, it appears PG&E does not know the real cause of the unusual activity, but it does know that "Mr. Clarke reviewed retirements recorded for these age brackets during the depreciation study and incorporated this review as a part of the informed judgment involved in the estimation of service life for this account." [55] As previously noted, PG&E's curve-fitting presentation appears to contradict this statement.

One would hope that PG&E does not expect in the future to experience its largest, or one of the largest, levels of retirement activity at 0.5 or 1.5 years of age, as reflected in its historical data. Large early-aged retirement activity is atypical and warrants discounting in a life analysis. Proper recognition of such unusual activity further supports a longer ASL than PG&E has proposed for its investment in this account.

[54] Response to TURN-028-43.
[55] *Id.*

Q. TURNING SPECIFICALLY TO THE INVESTMENT MIX FOR PG&E, DO YOU HAVE CONCERNS ABOUT HOW PG&E TREATED THIS FACTOR IN DEVELOPING ITS PROPOSED ASL?

A. Yes. Nowhere in the PG&E Study or related workpapers is there a discussion or evidence of an analysis of the investment mix for this account and its implications for an appropriate ASL. This is significant, especially when industry values are considered a limiting factor associated with PG&E's investment. The investment in this account can vary between very long-lived assets such as pipe in the ground to much shorter-lived assets associated with instruments and controls, such as SCADA assets.

Q. DOES YOUR RECOMMENDATION REFLECT SUCH ANALYSIS OF PG&E SPECIFIC INVESTMENT MIX IN THIS ACCOUNT?

A. Yes. For some utilities, the investment in this account may reflect larger proportions of investment in instrument and control assets. However, that is not the case for PG&E. Indeed, the vast majority of PG&E's investment in this account is associated with long-lived assets such as pipes, fittings, valves, and vaults, which include foundations and pipe supports.[56] In fact, more than two-thirds of the unitized investment in this account is associated with long-lived assets.[57] Even if one assumes a life expectation as short as 15 years for auxiliary equipment and instrumentation investment, 25 years for metering equipment, and 50 to 65 years for longer-lived investment, the overall ASL expectancy would be in excess of 50 years. Without the benefit of an analysis comparing PG&E specific investment mix as compared to the mix other utilities reflect in this account, reliance on industry data is of less value. Such is the case here. PG&E's reliance on general industry data as a reason to adopt a shorter life than indicated by its own data yields an artificially short ASL proposal.

Q. PLEASE SUMMARIZE THE BASIS FOR YOUR RECOMMENDATION.

A. Whether viewed from (1) an appropriate actuarial analysis standpoint, (2) an analysis based on PG&E specific investments, or (3) a proper and consistent weighting of industry

[56] Response to TURN-028-9.
[57] *Id.*

values given differences in investment mix , an ASL significantly longer than PG&E's proposal is warranted. Indeed, one could easily justify an ASL in excess of the 50 -year R0.5 life-curve combination that I recommend. However, in order to remain conservative and give recognition to the concept of gradualism , I recommend limiting the ASL to 50 years in this case.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Relying on a 50R0.5 life-curve combination for the three different Account 369s (standard transmission, Line 401, and STANPAC) results i n a $907,811 reduction in annual depreciation expense based on plant as of December 31, 2012. The resulting depreciation rates for the standard, Line 401, and STANPAC investments are 2.13%, 1.63%, and 1.54%, respectively.

SECTION V: NET SALVAGE

A. General

Q. WHAT ISSUE DO YOU ADDRESS IN THIS PORTION OF YOUR TESTIMONY?

A. I address PG&E's proposed negative net salvage for Account 367 – Transmission Mains.

Q. BY ADDRESSING ONLY THE NET SALVAGE FOR TRANSMISSION MAINS, ARE YOU AGREEING THAT PG&E'S PROPOSALS FOR OTHER ACCOUNTS ARE APPROPRIATE?

A. No. I have only investigated the net salvage for Account 367 – Transmission Mains. Therefore, the fact that I am not proposing adjustments to other accounts should not be interpreted as any level of agreement with PG&E's proposals for other accounts. TURN may well choose to take positions on other accounts in its briefs, based on the record evidence developed in other exhibits.

B. Account Specific

Account 367 – Transmission Mains

Q. WHAT DOES PG&E PROPOSE FOR ACCOUNT 367 – TRANSMISSION MAINS?

A. PG&E proposes a -50% net salvage figure, a value 3.3 times the existing -15% net salvage value.[58]

Q. WHAT IS PG&E'S BASIS FOR ITS PROPOSAL?

A. PG&E states that pipeline that was once retired in place is now being required to be removed. The cost of removal is also increasing due to a number of environmental issues and regulatory costs. PG&E next states that there is a requirement for "pipe pigging," part of which requires cleaning transmission mains to a certain level prior to being retired in place. In addition to these non -statistical items of information, PG&E performed an analysis of 22 years of historical data covering the perio d 1991 through 2012. This analysis yields a -49% net salvage over the entire 22 -year period, with the most recent years show ing negative net salvage becoming more negative and exceeding -100% in many years. PG&E also identifies the most recent five -year average as a -78%. PG&E concludes that a -50% value, which is equivalent to the overal l historical average , is appropriate. PG&E further notes that while it classifies its proposal as a "relatively large increase from the approved -15 percent, it is a conser vative estimate when compared to the recent activity in this account."[59]

Q. DO YOU AGREE WITH PG&E'S PROPOSAL?

A. No. While an increase in the level of negative net salvage may be warranted, I recommend limiting the increase to a -25% net salvage value.

[58] PG&E workpaper WP 15A-143.
[59] *Id.*

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation reflects the review of the historical data and the lack of information maintained by PG&E that might support a more negative level of net salvage.

Q. IN YOUR VIEW, WHAT IS THE PROPER PERSPECTIVE FOR PG&E'S PROPOSAL?

A. As previously noted under the life analysis portion of my testimony, this account represents approximately 65% of the entire investment at issue in this proceeding. Given that this account represents such a large portion of the plant at issue, PG&E's proposal to change net salvage from a -15% to a -50% increases GT&S depreciation expense by an amount equal to 20% of the entire level of estimated depreciation expense based on plant as of December 31, 2012 . Before such a significant level of increase is adopted, PG&E must be required to provide substantial and reasonably definitive support for its proposal.

Q. IN YOUR OPINION, DOES PG&E'S STUDY AND THE CORRESPONDING WORKPAPERS PROVIDE SUFFICIENT SUPPORT FOR ITS PROPOSED INCREASE?

A. To the contrary, what is striking is the lack of meaningful and specific support and discussion of the plant at issue, given that the proposal is for such a significant increase in terms of the net salvage percentage and, particularly, the associated depreciation expense impact.

Q. ARE THERE PROBLEMS WITH THE 22-YEAR HISTORICAL DATABASE PG&E RELIED UPON FOR ITS PROPOSAL?

A. Yes, there are several problems. First, PG&E lists numerous years where negative gross salvage is recorded.[60] In theory, negative gross salvage is impossible. While such events can occur due to corrections of prior period postings, that cannot be the total explanation in this instance. For example, PG&E records approximately $196,000 of negative gross salvage for 1995 and 1999.[61] Given that th e recorded positive levels of gross salvage

[60] PG&E workpaper WP 15A-151.
[61] *Id.*

reflected in the historical database prior to that period is approximately $2,000, it is impossible to have a $196,000 correction when only $2,000 was previously recorded. In other words, PG&E's historical database is suspect on its face, and PG&E should have explained this anomaly if it intended to rely thereon for its proposal.

Q. ARE THERE OTHER PROBLEMS WITH PG&E'S HISTORICAL NET SALVAGE DATABASE?

A. Yes. PG&E's historical database reflects unusual patterns and frequencies of transactions. For example, there is a significant change in the net salvage percentage recorded during the period 2009 through 2012 compared to the prior five years. The net salvage for the period 2009 through 2012 is -105%, while the net salvage for the five years prior to that period (2004-2008) is only a negative 21%. This fivefold increase in a very short period raises significant concerns regarding reliance on the database for predicting future expectations. This situation is even more troubling given that PG&E did not adequately explain the fivefold increase. All PG&E could produce in support of the significant change were generalized references to pipe now being removed where in the past it may have been abandoned, or new environmental rules. Indeed, PG&E failed to provide any analysis that demonstrates or supports that its generalized statements actually have had and will continue to have the same impact in the future.

Indeed, PG&E admits that one of the key drivers for the increased cost of removal is that in 2012 it entered the second year of its PSEP, of which a major component is replacement of 140 miles of gas transmission pipe .[62] In other words, the unusually high level of negative net salvage experienced during 2012, which is a key driver of PG&E's overall proposal, may be associated with a program that has incurred high capital cost. PG&E allocates total work order cost between the cost of the new installation and the cost of removal.[63] PG&E has not presented the underlying analysis that demonstrates the development and continued reasonableness of the allocation percentage employed between cost of removal and cost of a new installation. Indeed, such allocation can easily

[62] PG&E response to TURN 28-46.
[63] PG&E response to TURN 28-23.

be distorted when ma terial costs for a new pipe installation increase disproportionately, as has been the case in recent years, while the level of labor activity to remove pipe has most likely not changed. This high level of capital cost in conjunction with PG&E's process of allocating a percentage of total costs for a replacement project to removal costs has resulted in an artificially more negative net salvage level than should be the case in the future. Indeed, PG&E admits that it is "not sure the net salvage of negative 1 40 percent is indicative of the future but it is indicative of the net salvage increasing (more negative) in recent years." [64] Unfortunately, PG&E was unable to identify the dollar levels of pipe abandoned in place historically, which might provide further insight into the reasonableness of recent activity. In fact, while PG&E claims that it is removing some pipe that in the past was abandoned in place, it cannot identify the dollar level of retirement associated with pipe retired through abandonment or through removal.[65] Without more specific knowledge of the dollar level of pipe removed rather than abandoned, the ability to rely on the historical database as a valid predictor of the future is diminished. What is clear from the information PG&E provided is th at retirement of pipe in place is still a valid option, just as it was prior to the PSEP.[66]

Q. ARE THERE OTHER CONCERNS WITH PG&E'S RELIANCE ON ITS HISTORICAL DATABASE FOR ITS PROPOSAL?

A. Yes. PG&E cannot identify what portion of its retirements are associated with emergency situations. Normally, when plant is retired under emergency situations, the cost of removal is higher than would be expected during normal replacement activity.[67] In addition, PG&E cannot identify the specific dollar level of over time reflected on an annual basis in its historical cost of removal values. [68] While PG&E states that it relies on a blended rate of overtime and straight time for its field work, such situation still does not identify the annual level of overtime reflected in the blended rate, which could have a significant impact on the level of negative net salvage from year to year.

[64] PG&E response to TURN 28-46.
[65] PG&E response to TURN 28-45.
[66] PG&E response to TURN 28-44 confidential attachment.
[67] PG&E response to TURN 28-18.
[68] PG&E response to TURN 28-17.

Another factor PG&E did not take into account in its analysis is the level of cost of removal recorded annually associated with contractors performing activities versus in-house personnel, or for that matter, the cost differential between which entity performs the work.[69]

Given (1) the historical pattern of negative net salvage ranging from a -5% to a -140%, (2) the recent significant increase in negative net salvage, which has not been shown to be indicative of the levels of net salvage the utility will incur going forward, and (3) PG&E's failure to identify much less explain and justify the estimation process it uses to allocate a portion of overall work order cost to cost of removal, PG&E cannot rely on its historical analysis as a reasonable basis for its proposal. PG&E's analysis is in particular insufficient to warrant an approximate $20 million increase in annual depreciation expense based on plant ending December 31, 2012.

Q. WHAT DOES THE INDUSTRY DATA PG&E RELIED UPON INDICATE ABOUT THE NET SALVAGE VALUE FOR THIS ACCOUNT?

A. Based on a review of the industry data provided by PG&E, it is clear that PG&E can not identify a single utility with a net salvage value as negative as a -50% for this account.[70] Indeed, industry information yields a mean, median, and mode value all equal to a -20%. Therefore, from an industry comparative standpoint, PG&E's proposal is an outlier and significantly more negative than the industry data would lead one to expect.

Q. WHAT DO YOU RECOMMEND?

A. I recommend a -25% net salvage be adopted. This value reflects a negative net salvage more negative than the industry mean, median, and mode value of a -20%. Given the problems described above regarding PG&E's historical database and analysis, this recommendation is a more appropriate value to be utilized for ratemaking purposes than is PG&E's proposal.

[69] PG&E response to TURN 28-16.
[70] PG&E response to ORA 1-49 Attachment 1.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. My recommendation results in a $13,775,187 reduction in annual depreciation expense based on plant as of December 31, 2012. The resulting depreciation rates for the three different Account 367s (standard transmission, Line 401, and STANPAC) are 1.85%, 1.73%, and 1.82%, respectively.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. However, to the extent I have not addressed an issue, method, procedures, or other matter relevant to PG&E's proposals relating to the issue of depreciation, it should not be construed that I am in agreement with PG&E's proposed issue, method, procedures, or other matters.

EXHIBIT (JP-1)

RECOMMENDATIONS OF THE UTILITY REFORM NETWORK TO
PACIFIC GAS AND ELECTRIC COMPANY'S
GAS TRANSMISSSION AND STORAGE
DEPRECIATION REQUEST
BASED ON PLANT IN SERVICE AS OF DECEMBER 31, 2012

Account	Description	Original Cost 12/31/2012	Net Salvage %	Net Salvage $	Reserve 12/31/2012	Remaining Balance	Life	Annual Accrual	Annual Rate
AS FILED BY PG&E									
367	Mains	$1,952,417,021	-50%	-$976,208,511	$700,639,893	$2,227,985,639	48.18	$46,242,956	2.37%
367	Line 401	$639,540,812	-50%	-$319,770,406	$292,480,510	$666,830,708	45.88	$14,534,235	2.27%
367	Stanpac	$30,773,890	-50%	-$15,386,945	$11,465,536	$34,695,299	48.24	$719,223	2.34%
	Total	$2,622,731,723		-$1,311,365,862	$1,004,585,939	$2,929,511,646		$61,496,414	
369	Meas. & Reg. Stn Equp.	$225,230,079	-20%	-$45,046,016	$74,689,561	$195,586,534	34.52	$5,665,890	2.52%
369	Line 401	$5,936,008	-20%	-$1,187,202	$3,414,009	$3,709,201	31.61	$117,343	1.98%
369	Stanpac	$5,150,625	-20%	-$1,030,125	$3,284,754	$2,895,996	29.64	$97,706	1.90%
	Total	$236,316,712		-$47,263,342	$81,388,324	$202,191,730		$5,880,939	
	Total 367 & 369 PG&E	$2,859,048,435		-$1,358,629,204	$1,085,974,263	$3,131,703,376		$67,377,353	
AS ADJUSTED BY TURN									
367	Mains	$1,952,417,021	-25%	-$488,104,255	$700,639,893	$1,739,881,383	51.77	$33,607,908	1.72%
367	Line 401	$639,540,812	-25%	-$159,885,203	$292,480,510	$506,945,505	49.00	$10,345,827	1.62%
367	Stanpac	$30,773,890	-25%	-$7,693,473	$11,465,536	$27,001,827	51.48	$524,511	1.70%
	Total	$2,622,731,723		-$655,682,931	$1,004,585,939	$2,273,828,715		$44,478,245	
369	Meas. & Reg. Stn Equp.	$225,230,079	-20%	-$45,046,016	$74,689,561	$195,586,534	40.77	$4,797,315	2.13%
369	Line 401	$5,936,008	-20%	-$1,187,202	$3,414,009	$3,709,201	38.38	$96,644	1.63%
369	Stanpac	$5,150,625	-20%	-$1,030,125	$3,284,754	$2,895,996	36.58	$79,169	1.54%
	Total	$236,316,712		-$47,263,342	$81,388,324	$202,191,730		$4,973,128	
	Total 367 & 369 TURN	$2,859,048,435		-$702,946,273	$1,085,974,263	$2,476,020,445		$49,451,373	
	TURN Adjustment	$0		$655,682,931	$0	-$655,682,931		-$17,925,979	

JACOB POUS, P.E.

PRESIDENT, DIVERSIFIED UTILITY CONSULTANTS, INC.

B.S. INDUSTRIAL ENGINEERING, M.S. MANAGEMENT

I graduated from the University of Missouri in 1972, receiving a Bachelor of Science Degree in Engineering, and I graduated with a Master of Science in Management from Rollins College in 1980. I have also completed a series of depreciation programs sponsored by Western Michigan University, and have attended numerous other utility related seminars.

Since my graduation from college, I have been continuously employed in various aspects of the utility business. I started with Kansas City Power & Light Company, working in the Rate Department, Corporate Planning and Economic Controls Department, and for a short time in a power plant. My responsibilities included preparation of testimony and exhibits for retail and wholesale rate cases. I participated in cost of service studies, a loss of load probability study, fixed charge analysis, and economic comparison studies. I was also a principal member of project teams that wrote, installed, maintained, and operated both a computerized series of depreciation programs and a computerized financial corporate model.

I joined the firm of R. W. Beck and Associates, an international consulting engineering firm with over 500 employees performing predominantly utility related work, in 1976 as an Engineer in the Rate Department of its Southeastern Regional Office. While employed with that firm, I prepared and presented rate studies for various electric, gas, water, and sewer systems, prepared and assisted in the preparation of cost of service studies, prepared depreciation and decommissioning analyses for wholesale and retail rate proceedings, and assisted in the development of power supply studies for electric systems. I resigned from that firm in November 1986 in order to co-found Diversified Utility Consultants, Inc. At the time of my resignation, I held the titles of Executive Engineer, Associate and Supervisor of Rates in the Austin office of R. W. Beck and Associates.

As a principal of the firm of Diversified Utility Consultants, Inc., I have presented and prepared numerous electric, gas, and water analyses in both retail and wholesale proceedings. These analyses have been performed on behalf of clients, including public utility commissions, throughout the United States and Canada.

I have been involved in over 400 different utility rate proceedings, many of which have resulted in settlements prior to the presentation of testimony before regulatory bodies. I am registered to practice as a Professional Engineer in many states.

UTILITY RATE PROCEEDINGS IN WHICH TESTIMONY HAS BEEN PRESENTED BY JACOB POUS

ALASKA		
ALASKA REGULATORY COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Beluga Pipe Line Company	P-04-81	Refundable Rates
Beluga Pipe Line Company	U-07-141	Depreciation
Kenai Nikiski Pipeline	U-04-81	Rate Base
ARIZONA		
ARIZONA CORPORATION COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Citizens Utilities Company	E-1032-93-111	Depreciation
ARKANSAS		
ARKANSAS PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Reliant Energy ARKLA	01-0243-U	Depreciation
CALIFORNIA		
CALIFORNIA PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Pacific Gas & Electric Company	App. No. 97-12-020	Depreciation, Net Salvage, and Amortization of True-Up
Pacific Gas & Electric Company	App. No. 02-11-017	Mass Property Salvage, Net Salvage, Mass Property Life, Life Analysis, Remaining Life, Depreciation
Pacific Gas & Electric Company	App. No. 12-11-009	Depreciation, Mass Property Net Salvage, Mass Property Life, Hydroelectric
San Diego Gas & Electric Company		Value of Power Plants
Southern California Edison Company	App 02-05-004	Depreciation, Net Salvage
Southern California Edison Company	App 10-11-015	Mass Property Life and Net Salvage
Southern California Gas & San Diego Gas & Electric Company	Apps 10-12-005 & 10-12-006	Mass Property Life, Mass Property Net Salvage
CANADA		
ALBERTA ENERGY AND UTILITIES BOARD		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
AltaLink Management/ Transalta Utilities Corporation	App. Nos. 1279345 and 1279347	Depreciation
Epcor Distribution, Inc.	App. No. 1306821	Depreciation
Enmax Corporation	App. No. 1306818	Depreciation
Transalta Utilities Corporation	TFO Tariff App. 1287507	Depreciation
UtiliCorp Networks Canada (Alberta) Ltd.	App. No. 1250392	Depreciation
Atco Electric	App. No. 1275494	Depreciation

ALBERTA PUBLIC UTILITIES BOARD		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Alberta Power Limited	E 91095	Depreciation
Alberta Power Limited	E 97065	Depreciation
Canadian Western Natural Gas Company, Ltd.		Depreciation
Centra Gas Alberta, Inc.		Depreciation
Edmonton Power Company	E 97065	Depreciation
Edmonton Power Generation, Inc.	1999/2000	GUR Compliance, Depreciation
Northwestern Utilities, Ltd	E 91044	Depreciation
NOVA Gas Transmission, Ltd.	RE95006	Depreciation
TransAlta Utilities Corporation	E 91093	Depreciation
TransAlta Utilities Corporation	E 97065	Depreciation
TransAlta Utilities Corporation	App. No. 200051	Gain on Sale
ALBERTA UTILITIES COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
AltaGas Utilities	1606694	Life Analysis, Net Salvage
AltaLink Management, Ltd.	1606895	Life Analysis, Net Salvage
AltaLink Management, Ltd.	1608711	Life Analysis, Net Salvage
ATCO Gas	1606822	Life Analysis, Net Salvage
FortisAlberta	1607159	Life Analysis, Net Salvage
NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES		
Newfoundland & Labrador Hydro		Depreciation, Life Analysis
Newfoundland Power, Inc.	2013/2014 GRA	Depreciation, Life Analysis, Net Salvage, ELG vs. ALG
NORTHWEST TERRITORIES PUBLIC UTILITIES BOARD		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Northwest Territories Power Corporation	1995/96 and 1996-97	Depreciation
Northwest Territories Power Corporation	2001	Depreciation
NOVA SCOTIA UTILITY AND REVIEW BOARD		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Nova Scotia Power, Inc.	M03665	Production Plant Life and Net Salvage (Inflation), Interim Retirements, Mass Property Life and Net Salvage, ELG vs. ALG, Remaining Life, Fully Accrued
CONNECTICUT		
CONNECTICUT PUBLIC UTILITIES REGULATORY AUTHORITY		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Connecticut Natural Gas Co.	13-06-08	Depreciation, Life, Net Salvage
Connecticut Light & Power	14-05-06	Depreciation Life and Net Salvage
COURTS		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
7th Judicial Circuit Court of Florida	2008-30441-CICI	Depreciation Valuation
112th Judicial District Court of Texas	5093	Ratemaking Principles, Calculation of damages
253rd Judicial District Court of Texas	45,615	Ratemaking Principles, Level of Bond
126th Judicial District Court of Texas	91-1519	Ratemaking Principles, Level of Bond

172 Judicial District Court of Texas		Franchise Fees
United States Bankruptcy Court Eastern District of Texas	93-10408S	Level of Harm, Ratemaking, Equity for Creditors
3rd Judicial District Court of Texas		Adequacy of Notice
DISTRICT OF COLUMBIA		
PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Washington Gas Light Company	768	Depreciation
FLORIDA		
FLORIDA PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Progress Energy Florida, Inc.	090079-EI	Depreciation, Excess Reserve
Progress Energy Florida, Inc.	050078-EL	Depreciation, Excess Reserve
Florida Power & Light Company	790380-EU	Territorial Dispute
Florida Power & Light Company	080677-EI 090130-EI	Depreciation, Excess Reserve
Florida Power & Light Company	120015-EI	Excess Reserve
Florida Power & Light Company	120015-EI	Settlement Analysis
Tampa Electric Co.	13-0040-EI	Depreciation, Amortization
Gulf Power Co.	130140-EI	Depreciation
FEDERAL ENERGY REGULATORY COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Alabama Power Company	ER83-369	Depreciation
Connecticut Municipal Electric Energy Cooperative v. Connecticut Light & Power Company	EL83-14	Decommissioning
Florida Power & Light Company	ER84-379	Depreciation, Decommissioning
Florida Power & Light Company	ER93-327-000	Transmission Access
Georgia Power Company	ER76-587	Rate Base
Georgia Power Company	ER79-88	Depreciation
Georgia Power Company	ER81-730	Coal Fuel Stock Inventory, Depreciation
ISO New England, Inc.	ER07-166-000	Depreciation
Maine Yankee Atomic Power Company	ER84-344-001	Depreciation, Decommissioning
Maine Yankee Atomic Power Company	ER88-202	Decommissioning
Pacific Gas & Electric	ER80-214	Depreciation
Public Service of Indiana	ER95-625-000, ER95-626-000 & ER95-039-000	Depreciation, Dismantlement
Southern California Edison Company	ER81-177	Depreciation
Southern California Edison Company	ER82-427	Depreciation, Decommissioning
Southern California Edison Company	ER84-75	Depreciation, Decommissioning
Southwestern Public Service Company	EL 89-50	Depreciation, Decommissioning
System Energy Resource, Inc.	ER95-1042-000	Depreciation, Decommissioning
Vermont Electric Power Company	ER83 342000 & 343000	Decommissioning
Virginia Electric and Power Company	ER78-522	Depreciation, Rate Base

INDIANA		
INDIANA UTILITY REGULATORY COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Indianapolis Water Company	39128	Depreciation
Indiana Michigan Power Company	39314	Depreciation, Decommissioning
KANSAS		
KANSAS CORPORATION COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Arkansas Louisiana Gas Company	181,200-U	Depreciation
United Cities Gas Company	181,940-U	Depreciation
LOUISIANA		
LOUISIANA PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Louisiana Power & Light Company	U-16945	Nuclear Prudence, Depreciation
CITY OF NEW ORLEANS		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Entergy New Orleans, Inc.	UD-00-2	Rate Base, Depreciation
MASSACHUSETTS		
MASSACHUSETTS TELECOMMUNICATION AND ENERGY		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Bay State Gas	D.T.E.-0527	Depreciation
National Grid/KeySpan	07-30	Quality of Service
MISSISSIPPI		
MISSISSIPPI PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Mississippi Power Company	U-3739	Cost of Service, Rate Base, Depreciation
MONTANA		
MONTANA PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Montana Power Company (Gas)	90.6.39	Depreciation
Montana Power Company (Electric)	90.3.17	Depreciation, Decommissioning
Montana Power Company (Electric and Gas)	95.9.128	Depreciation
Montana-Dakota Utilities	D2007.7.79	Depreciation
Montana-Dakota Utilities	D2010.8.82	Depreciation, Interim Retirements, Production Plant Life and Net Salvage
Montana-Dakota Utilities	D2012.9.100	Depreciation
NEVADA		
PUBLIC UTILITIES COMMISSION OF NEVADA		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Nevada Power Company	81-602, 81-685 Cons.	Depreciation
Nevada Power Company	83-667, Consolidated	Depreciation
Nevada Power Company	91-5032	Depreciation, Decommissioning
Nevada Power Company	03-10002	Depreciation
Nevada Power Company	08-12002	Depreciation, CWC

Nevada Power Company	06-06051	Depreciation, Life Spans, Decommissioning Costs, Deferred Accounting
Nevada Power Company	06-11022	General Rate Case
Nevada Power Company	10-02009	Production Life Spans
Nevada Power Company	11-06007	Early Retirement, Production Plant Net Salvage, Mass Property Life, Mass Property Net Salvage, Excess APFD
Sierra Pacific Gas Company	06-07010	Depreciation, Generating Plant Life Spans, Decommissioning Costs, Carrying Costs
Sierra Pacific Power Company	83-955	Depreciation (Electric, Gas, Water, Common)
Sierra Pacific Power Company	86-557	Depreciation, Decommissioning
Sierra Pacific Power Company	89-516, 517, 518	Depreciation, Decommissioning (Electric, Gas, Water, Common)
Sierra Pacific Power Company	91-7079, 80, 81	Depreciation, Decommissioning (Electric, Gas, Water, Common)
Sierra Pacific Power Company	03-12002	Allowable Level of Plant in Service
Sierra Pacific Power Company	05-10004	Depreciation
Sierra Pacific Power Company	05-10006	Depreciation
Sierra Pacific Power Company	07-12001	Depreciation, CWC
Sierra Pacific Power Company	10-06003	Depreciation, Excess Reserve, Life Spans, Net Salvage
Sierra Pacific Power Company	10-06004	Depreciation, Net Salvage
Sierra Pacific Power Company	12-08009	IRP-Coal Plant Service Life
Sierra Pacific Power Company	13-06004	Depreciation, Life, Net Salvage
Southwest Gas Corporation	93-3025 & 93-3005	Depreciation
Southwest Gas Corporation	04-3011	Depreciation
Southwest Gas Corporation	07-09030	Depreciation
Southwest Gas Corporation	12-04005	Depreciation
NORTH CAROLINA		
NORTH CAROLINA UTILITIES COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
North Carolina Natural Gas	G-21, Sub 177	Cost of Service, Rate Design, Depreciation
OKLAHOMA		
OKLAHOMA CORPORATION COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Arkansas Oklahoma Gas Corporation	PUD 200300088	CWC, Legal Expenses, Factoring, Cost Allocation, Depreciation
Oklahoma Natural Gas Company	PUD 980000683	Depreciation, Calculation Procedure, Depreciation on CWIP
Reliant Energy ARKLA	PUD 200200166	Depreciation, Net Salvage, Software Amortization
Public Service Company of Oklahoma	PUD 960000214	Depreciation, Interim Activity, Net Salvage, Mass Property, Rate Calculation Technique
Public Service Company of Oklahoma	PUD 200600285	Depreciation

Public Service Company of Oklahoma	PUD 200800144	Depreciation
Public Service Company of Oklahoma	PUD 201000050	Depreciation, Evaluation vs. Measurement, Interim and Terminal Net Salvage, Economies of Scale
Public Service Company of Oklahoma	PUD 201300217	Depreciation, Interim Retirements, Life Analysis, Net Salvage
Oklahoma Gas & Electric	PUD 201100087	Depreciation
TEXAS		
PUBLIC UTILITY COMMISSION OF TEXAS		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
CenterPoint Energy Houston Electric, LLC	29526	Stranded Costs
CenterPoint Energy Houston Electric, LLC	36918	Hurricane Cost Recovery
CenterPoint Energy Houston Electric, LLC	38339	Depreciation, Net Salvage, Excess Reserve, Gain on Sale
Central Power & Light Company	6375	Depreciation, Rate Base, Cost of Service
Central Power & Light Company	8439	Fuel Factor
Central Power & Light Company	8646	Rate Base, Excess Capacity, Depreciation, Rate Design, Rate Case Expense
Central Power & Light Company	9561	Depreciation, Excess Capacity, Cost of Service, Rate Base, Taxes
Central Power & Light Company	11371	Economic Development Rate
Central Power & Light Company	12820	Nuclear Fuel and Process, OPEB, Pension, Factoring, Depreciation
Central Power & Light Company	14965	Depreciation, Cash Working Capital, Pension, OPEB, Factoring, Demonstration and Selling Expense, Non-Nuclear Decommissioning
Central Power & Light Company	22352	Depreciation
Central Telephone & United Telephone Company of Texas d/b/a Sprint	17809	Rate Case Expenses
City of Fredericksburg	7661	Territorial Dispute
El Paso Electric Company	9165	Depreciation
Entergy Gulf States, Inc.	16705	Depreciation, Prepayments, Payroll Expense, Pension Expense, OPEB, CWC, Transfer of T&D Depreciation
Entergy Gulf States, Inc.	21111	Reconcilable Fuel Costs
Entergy Gulf States, Inc.	21384	Fuel Surcharge
Entergy Gulf States, Inc.	23000	Fuel Surcharge
Entergy Gulf States, Inc.	22356	Unbundling, Competition, Cost of Service
Entergy Gulf States, Inc.	23550	Reconcilable Fuel Costs
Entergy Gulf States, Inc.	24336	Price to Beat
Entergy Gulf States, Inc.	24460	Implement PUC Subst.R.25.41(f)(3)(D)
Entergy Gulf States, Inc.	24469	Delay of Deregulation
Entergy Gulf States, Inc.	24953	Interim Fuel Surcharge
Entergy Gulf States, Inc.	26612	Fuel Surcharge
Entergy Gulf States, Inc.	28504	Interim Fuel Surcharge

Entergy Gulf States, Inc.	28818	Cert. for Independent Organization
Entergy Gulf States, Inc.	29408	Fuel Reconciliation
Entergy Gulf States, Inc.	30163	Interim Fuel Surcharge
Entergy Gulf States, Inc.	31315	Incremental Purchase Capacity Rider
Entergy Gulf States, Inc.	31544	Transition to Competition Cost
Entergy Gulf States, Inc.	32465	Interim Fuel Surcharge
Entergy Gulf States, Inc.	32710	River Bend 30%, Explicit Capacity, Imputed Capacity, IPCR, SGSF Operating Costs and Depreciation Recovery, Option Costs
Entergy Gulf States, Inc.	33687	Transition to Competition
Entergy Gulf States, Inc.	33966	Interim Fuel Surcharge
Entergy Gulf States, Inc.	32907	Hurricane Reconstruction
Entergy Gulf States, Inc.	34724	IPCR
Entergy Gulf States, Inc.	34800	JSP, Depreciation, Decommissioning, Amortization, CWC, Franchise Fees, Rate Case Exp.
Entergy Texas Inc.	37744	Depreciation, Property Insurance Reserve, Cash Working Capital, Decommissioning Funding, Gas Storage
Entergy Texas Inc.	39896	Depreciation, Amortization, Property Insurance Reserve, Cash Working Capital
Entergy Texas Inc.	41791	Nuclear License Extension, Fund After Tax Earnings, Nuclear Cost Escalation Factors
Gulf States Utilities Company	5560	Depreciation, Fuel Cost Factor
Gulf States Utilities Company	5820	Fuel Cost, Capacity Factors, Heat Rates
Gulf States Utilities Company	6525	Depreciation, Rate Case Expenses
Gulf States Utilities Company	7195 & 6755	Depreciation, Interim Cash Study, Excess Capacity, Rate Case Expense
Gulf States Utilities Company	8702	Rate Case Expenses, Depreciation
Gulf States Utilities Company	10,894	Fuel Reconciliation, Rate Case Expenses
Gulf States Utilities Company & Entergy Corporation	11292	Acquisition Adjustment Regulatory Plan, Base Rate, Rate Case Expenses
Gulf States Utilities Company & Entergy Corporation	12423	North Star Steel Agreement
Gulf States Utilities Company & Entergy Corporation	12852	Depreciation, OPEB, Pensions, Cash Working Capital, Other Cost of Service, and Rate Base Items
Houston Light & Power Company	6765	Depreciation, Production Plant, Early Retirement
Lower Colorado River Authority	8400	Rate Design
Magic Valley Electric Cooperative, Inc.	10820	Cost of Service, Financial Integrity, Rate Case Expenses
Oncor Electric Delivery, LLC	35717	Depreciation, Self-Insurance, Payroll, Automated Meters, Regulatory Assets, PHFU
Southwestern Bell Telephone Company	18513	Rate Case Expenses
Southwestern Electric Power Company	3716	Depreciation

Southwestern Electric Power Company	4628	Depreciation
Southwestern Electric Power Company	5301	Depreciation, Fuel Charges, Franchise Fees
Southwestern Electric Power Company	24449	Fuel Factor Component of Price to Beat Rates
Southwestern Electric Power Company	24468	Delay of Deregulation
Southwestern Electric Power Company	40443	Depreciation, Interim Retirements
Southwestern Public Service Company	11520	Depreciation, Cash Working Capital, Rate Case Expenses
Southwestern Public Service Company	32766	Depreciation Expense Revenue Requirements
Southwestern Public Service Company	35763	Depreciation
Southwestern Public Service Company	42004	Depreciation
Texas-New Mexico Power Company	9491	Avoided Cost, Rate Case Expenses
Texas-New Mexico Power Company	10200	Jurisdictional Separation, Cost Allocation, Rate Case Expenses
Texas-New Mexico Power Company	17751	Rate Case Expenses
Texas-New Mexico Power Company	36025	Depreciation
Texas-New Mexico Power Company	38480	Depreciation, Mass Property Life, Net Salvage
Texas Utilities Electric Company	5640	Franchise Fees
Texas Utilities Electric Company	9300	Depreciation, Rate Base, Cost of Service, Fuel Charges, Rate Case Expenses
Texas Utilities Electric Company	11735	Cost Allocation, Rate Design, Rate Case Expenses
Texas Utilities Electric Company	18490	Depreciation Reclassification
West Texas Utilities Company	7510	Depreciation, Decommissioning, Rate Base, Cost of Service, Rate Design, Rate Case Expenses
West Texas Utilities Company	10035	Fuel Reconciliation, Rate Case Expenses
West Texas Utilities Company	13369	Depreciation, Payroll, Pension, OPEB, Cash Working Capital, Fuel Inventory, Cost Allocation
West Texas Utilities Company	22354	Depreciation
RAILROAD COMMISSION OF TEXAS		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Atmos Energy Corporation	9530	Gas Cost, Gas Purchases, Price Mitigation, Rate Case Expense
Atmos Energy Corporation	9670	CWC, Depreciation, Expenses, Shared Services, Taxes Other Than FIT, Excess Return
Atmos Energy Corporation	9695	Rate Case Expense
Atmos Energy Corporation	9762	Depreciation, O&M Expense
Atmos Energy Corporation	9732	Rate Case Expense
Atmos Energy Corporation	9869	Revenue Requirements
Atmos Energy Corporation	10041	Mass Property Life, Net Salvage
Atmos Energy Corporation	10170	Depreciation, Mass Property Life, Net Salvage

Atmos Pipeline-Texas	10000	Rate Base, Depreciation Life and Net Salvage, Incentive Compensation, Merit Increase, Outside Director Retirement Costs, SEBP
CenterPoint Energy Entex – City of Tyler	9364	Capital Investment, Affiliates
CenterPoint Energy Entex – Gulf Coast Division	9791	Rate Base, Cost Allocation, Affiliate Expenses, Depreciation Net Salvage, Call Center, Litigation, Uncollectibles, Post Test Year Adjustments
CenterPoint Energy Entex – City of Houston	9902	CWC, Plant Adjustments, Depreciation, Payroll, Pensions, Cost Allocation
CenterPoint Energy Entex – South Texas Division	10038	CWC, Incentive Compensation, Payroll, Depreciation
CenterPoint Energy – Beaumont/East Texas	10182	Rate Base, Expense, Incentive Compensation, Pension, Payroll, Injuries & Damages
CenterPoint Energy – Texas Coast Division	10007	Cost of Service Adjustment, CWC, ADIT, Incentive Compensation, Pension, Meter Reading, Customer Records and Collection, Investor Relations/Investor Services
CenterPoint Energy – Texas Coast Division	10097	Pension, Severance Expense
Energas Company	5793	Depreciation
Energas Company v. Westar Transmissions Company	5168 & 4892 Cons.	Cost of Service, Refunds, Contracts, Depreciation
Energas Company	8205	Cost of Service, Rate Base, Depreciation, Affiliate Transactions, Sale/Leaseback, Losses, Income Taxes
Energas Company	9002-9135	Depreciation, Pension, Cash Working Capital, OPEB, Rate Design
Lone Star Gas Company	8664	Cash Working Capital, Depreciation Expense, Gain on Sale of Plant, OPEB, Rate Case Expenses
Rio Grande Valley Gas Company	7604	Depreciation
Southern Union Gas Company	2738, 2958, 3002, 3018, 3019 Cons.	Cost of Service, Rate Design, Depreciation
Southern Union Gas Company	6968 Interim & Cons.	Affiliate Transactions, Rate Base, Income Taxes, Revenues, Cost of Service, Conservation, Depreciation
Southern Union Gas Company	8033 Consolidated	Acquisition Adjustment, Depreciation, Excess Reserve, Distribution Plant, Cost of Gas Clause, Rate Case Expenses
Southern Union Gas Company	8878	Depreciation, Cash Working Capital, Gain on Sale of Building, Rate Case Expenses, Rate Design

Texas Gas Service Company	9988 & 9992 Cons.	Cash Working Capital, Post Test Year Plant, ADFIT, Excess Reserve, Depreciation Expense, Amortization of General Plant, Corporate and Division Expenses, Incentive Compensation, Hotel and Meals Expense, Pipeline Integrity Costs
TXU Gas Distribution	9145-9147	Depreciation, Cash Working Capital, Revenues, Gain on Sale of Assets, Clearing Accounts, Over-Recovery of Clearing Accounts, SFAS 106, Wages and Salaries, Merger Costs, Intra System Allocation, Zero Intercept, Customer Weighting Factor, Rate Design
TXU Gas Distribution	9400	Depreciation, Net Salvage, Cash Working Capital, Affiliate Transactions, Software Amortization, Securitization, O&M Expenses, Safety Compliance
TXU Lone Star Pipeline	8976	Depreciation, Net Salvage, Cash Working Capital, ALG vs. ELG
Westar Transmissions Company	5787	Depreciation, Rate Base, Cost of Service, Rate Design, Contract Issues, Revenues, Losses, Income Taxes
TEXAS WATER COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
City of Harlingen-Certificate for Convenience & Necessity	8480C/8485C/8512C	Rate Impact for CCN
City of Round Rock	8599/8600M	Rate Discrimination, Cost of Service
Devers Canal System	8388-M	Affiliate Transactions, O&M Expense, Return, Allocation, Acquisition Adjustment, Retroactive Ratemaking, Rate Case Expenses, Depreciation
Devers Canal System	30102-M	Cost of Service, Rate Base, Ratemaking Principles, Affiliate Transactions
Southern Utilities Company	7371-R	Affiliate Transactions, Cost of Service
Scenic Oaks Water Supply Corporation	8097-G	Affiliate Transactions, Cost of Service, Rate base, Cost of Capital, Rate Design, Depreciation
Sharyland Water Supply vs. United Irrigation District	8293-M	Rate Discrimination, Cost of Service, Rate Case Expenses
Southern Water Corporation	2008-1811-UCR	Cost of Service
Travis County Water Control & Improv. District No. 20		Cost of Service
EL PASO PUBLIC UTILITY REGULATION BOARD		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
Southern Union Gas Company	1991	Depreciation, Calculation Procedure
Southern Union Gas Company	1997	Depreciation, Calculation Procedure
Southern Union Gas Company	GUD 8878 – 1998	Depreciation, Cash Working Capital, Rate Design, Rate Case Expenses
Texas Gas Services Company	2007	Revenue Requirements
Texas Gas Services Company	2011	Revenue Requirements

UTAH		
UTAH PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
PacifiCorp	98-2035-03	Production Plant Net Salvage, Production Life Span, Interim Additions, Mass Property, Depreciation
Questar	05-057-T01	Conservation Enabling Tariff Adjustment Option and Accounting Orders
Rocky Mountain Power	07-035-13	Depreciation
Rocky Mountain Power	13-035-02	Depreciation, Interim Additions, Production Plant Life Spans, Interim Retirements, Net Salvage, Mass Property Life
WYOMING		
WYOMING PUBLIC SERVICE COMMISSION		
JURISDICTION / COMPANY	DOCKET NO.	TESTIMONY TOPIC
PacifiCorp	20000-ER-00-162	Rate Parity