SUMMIT NATURAL GAS OF MISSOURI
Book Depreciation Accrual Rate Study
At December 31, 2023

SUMMIT NATURAL GAS OF MISSOURI, INC.

DEPRECIATION RATE STUDY
EXECUTIVE SUMMARY

Summit Natural Gas of Missouri, Inc. ("SNGMO" or "Company") engaged Alliance Consulting Group to conduct a depreciation study of the Company's Gas plant depreciable assets as of December 31, 2023.

The study proposes depreciation parameters, including Average Service Life, Iowa Curve, and Net Salvage percentages as set forth in Appendix C, which are a result of actuarial analysis, statistical analysis, and professional judgement after meeting with various Company experts. The Company has currently been using accrual rates adjudicated in Docket GR-2014-0086.

All annual accrual rates were determined using the straight-line method, average life group ("ALG") procedure, and remaining life technique. Depreciation and amortization rates reflect any imbalance between actual and theoretical reserves. Use of the remaining life depreciation system includes a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of each depreciable group.

Given the many changes in life and net salvage in this study, this study recommends a reallocation of book reserve by plant account within each function. This reallocation does not change the total reserve within each function. Rather, reallocating the reserve within a function realigns the depreciation reserve balances within each function using the proposed life and net salvage parameters. Reallocation occurred within each functional group, such as, transmission, distribution, and general property. All accounts were reallocated using the theoretical reserve model.

This study recommends an overall decrease of approximately $111 thousand in annual depreciation expense, compared to the depreciation rates currently in

effect. Appendix B demonstrates the change in depreciation expense for the various Gas Plant accounts. The overall change in depreciation expense is also driven by changes in life and net salvage as well as treatment of any book and theoretical reserve imbalance.

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PURPOSE

The purpose of this study is to develop depreciation rates for gas and thermal depreciable property as recorded on the books of Summit Natural Gas of Missouri ("SNGMO" or "Company") as of December 31, 2023.

The depreciation rates in this study were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of SNGMO's property on a straight-line basis. SNGMO is a regulated gas utility principally engaged in providing natural gas delivery services to customers in Missouri. SNGMO provides the essential service of procuring and delivering natural gas safely, reliably, and economically to end-use consumers through its transmission and distribution systems. The Company's service territory extends from the Iowa line to the Arkansas border. SNGMO also uses general plant to support its natural gas operations.

STUDY RESULTS

Recommended depreciation rates for SNGMO depreciable property are shown in Appendix A. Appendix A contains the following sections: A, Computation of depreciation accrual rates for SNGMO depreciable property, and A-1, Computation of amortization rates for SNGMO amortized accounts. The proposed rates translate into an annual depreciation accrual of approximately $7.6 million based on SNGMO's depreciable gas plant investment at December 31, 2023. A comparison between depreciation rates and annual accruals at current levels versus the proposed rates and resulting annual accruals is shown in Appendix B. As shown in Appendix B, the annual depreciation expense calculated by the same method using the existing approved depreciation rates is approximately $7.7 million for SNGMO's gas assets, resulting in a $111 thousand decrease in annual depreciation expense. The proposed lives and net salvage parameters on which these calculations are based is shown in Appendix C. Net Salvage analysis is shown in Appendix D. A summary of accumulated depreciation comparing book reserves to reallocated reserves is shown in Appendix E.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any single accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. At retirement, the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

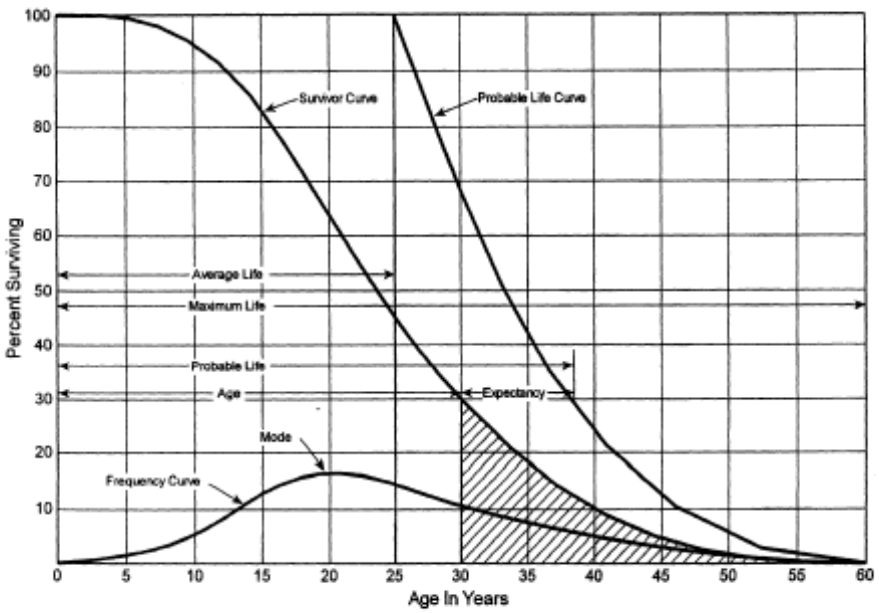
Annual and accrued depreciation were calculated in this study by the straight-line, vintage group, remaining-life depreciation system. In this system, the annual depreciation expense for each vintage is computed by dividing the original cost of the asset vintage (less allocated depreciation reserve less estimated net salvage) by its respective average remaining life. The resulting annual accrual amounts were divided by the original cost of the depreciable property in each account to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group and were computed in a direct weighting by multiplying each vintage or account balance times its remaining life and dividing by the plant investment in service at December 31, 2023. The computations of the annual depreciation rates are shown in Appendix A through A-1, and the comparison of proposed vs current depreciation rates is shown in Appendix B.

An actuarial analysis approach was incorporated into the analyses of

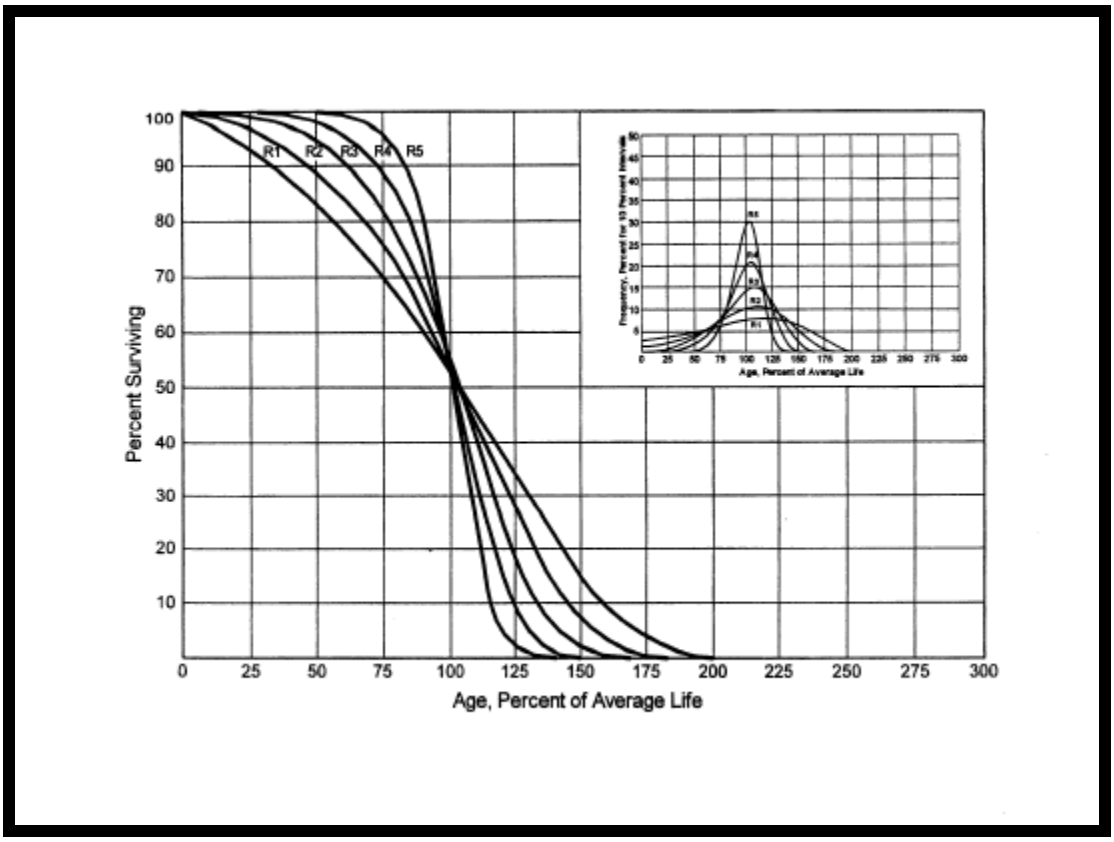
SNGMO data. This method has been used by utility companies across the regulated industry. Vintaged information was assembled in this study to allow actuarial analysis to be performed. Judgment was used to a greater or lesser degree on each account. This approach is more fully described in a later section.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of Survivor Curves. Individual assets within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by comparing actual experience against various Survivor Curves. A Survivor Curve represents the percentage of property remaining in service at various age intervals. The most widely used set of representative Survivor Curves are the Iowa Survivor Curves (Iowa Curves). The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at the Iowa State College Engineering Experiment Station in the first half of the twentieth century. Through common usage, revalidation, and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.



There are four families in the Iowa Curves which are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. The four families are designated as “R”— Right, “S” — Symmetric, “L” — Left, and “O” — Origin Modal. First, for distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of “R” moded curves is shown below.



Second, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. Third, an "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. Fourth, a special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, Survivor Curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

For all depreciable accounts, a Survivor Curve pattern was selected based on analyses of historical data, as well as other factors, such as general changes relevant to the Company's operations. The blending of professional judgment concerning current conditions and future trends, along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern. Iowa Curves were used to depict the estimated Survivor Curves for each account.

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In an actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Many accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. Matching data in observed life tables for each experience and placement band to an Iowa Curve requires visual examination. As stated in widely cited text, Depreciation Systems by Wolf and Fitch, “the analyst must decide which points or sections of the curve should be given the most weight. Points at the end of the curve are often based on fewer exposures and may be given less weight than those points based on larger samples” (page 46). Some analysts chose to use mathematical fitting as a tool to narrow the population

of curves using a least squares technique. Use of the least squares approach does not imply a statistical validity; however, because the underlying data does not meet the criteria for independence between vintages and the same average price for property units through time. Thus, Depreciation Systems cautions, "… the results of mathematical fitting should be checked visually and the final determination of best fit made by the analyst" (page 48). This study uses the visual matching approach to match Iowa Curves, since mathematical fitting produces theoretically possible curve matches. Visual examination and experienced judgment allow the depreciation professional to make the final determination as to the best curve type.

Detailed information for each account is shown later in this study and in workpapers.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. In this depreciation study, judgment was used in areas such as Survivor Curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, property mix in accounts or a multitude of other considerations that affect the analysis (potentially in various directions), judgment is used to take into account all of these considerations and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one consideration in these cases may have a substantial impact on the analysis, but overall, the collective effect of these considerations may shed light on the use and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent

the application of informed professional judgment and experience.

Average Life Group Depreciation

In recent cases, the Missouri Public Service Commission has authorized the use of the average life group ("ALG") depreciation procedure, broad group, remaining life depreciation system.[1] At the request of the Utility, this study continues to use the ALG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, these parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ALG groups are defined by their respective account dispersion, life, and salvage estimates. A straight-line rate for each ALG group is calculated by computing a composite remaining life for each group across all vintages within the group, dividing the remaining investment to be recovered by the remaining life to find the annual depreciation expense and dividing the annual depreciation expense by the surviving investment. The resultant rate for each ALG group is designed to recover all retirements less net salvage when the last unit retires. The ALG depreciation procedure recovers net book cost over the life of each account by averaging many components.

The Company's depreciation rates in Docket GR-2014-0086 were determined using the whole-life depreciation system, and no true-up was computed to align book reserves and theoretical depreciation reserves.

Theoretical Depreciation Reserve

The book depreciation reserve was derived from SNGMO records and was reallocated from a functional level to individual accounts level. As a point of comparison, a theoretical depreciation reserve model was computed for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and

[1] Empire Electric District, Docket ER-2023-0312.

salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The average life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the group is retired. Estimated average service lives and dispersion determine the amount within each average life group. The straight-line remaining-life theoretical reserve ratio at any given age (RR) is calculated as:

$$RR = 1 - \frac{(Average\ Remaining\ Life)}{(Average\ Service\ Life)} * (1 - Net\ Salvage\ Ratio)$$

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis were evaluated. After the first three stages were complete, the fourth phase began. This phase involved the calculation of deprecation rates and documenting the corresponding recommendations.

During the Phase 1 data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources: Projects System (construction ledger), Fixed Asset System (continuing property ledger), General Ledger, and interfaces from other operating systems. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively so that it could be put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Consideration section of this study. Also as part of the Phase 1 data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would be helpful in formulating life and salvage recommendations in this study. One of the most important elements in performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Understanding industry and geographical norms for mortality characteristics are important factors in selecting life and salvage recommendations; however, care must be used not to apply them rigorously to any particular company since no two companies would have the same exact forces of retirement acting upon their assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is helpful when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both

in the Detailed Discussion portions of the Life Analysis and Salvage Analysis sections and also in workpapers. In addition, Alliance personnel possess a significant understanding of the property and its forces of retirement due to years of day-to-day exposure to property and the operations of gas utility property.

Phase 2 is where the actuarial analysis was performed. Phase 2 and Phase 3 overlap to a significant degree. The detailed property records information was used in Phase 2 to develop observed life tables, graphs and statistics for analysis. Net salvage analysis consists of compiling historical salvage and removal data by account to determine values and trends in gross salvage and removal cost. This information was then carried forward into Phase 3 for the evaluation process.

Phase 3 is the evaluation process, which synthesized analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from Phase 2 was further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. The preliminary results were then reviewed and discussed with Company accounting and operations personnel. Phases 2 and 3 validated the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved calculating accrual rates, making recommendations, and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix A. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1[2] documents the steps used in conducting this study. Depreciation Systems[3], a well-respected scholarly treatise on the topic of depreciation, documents the same basic processes in performing a depreciation study, including statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, and document recommendations.

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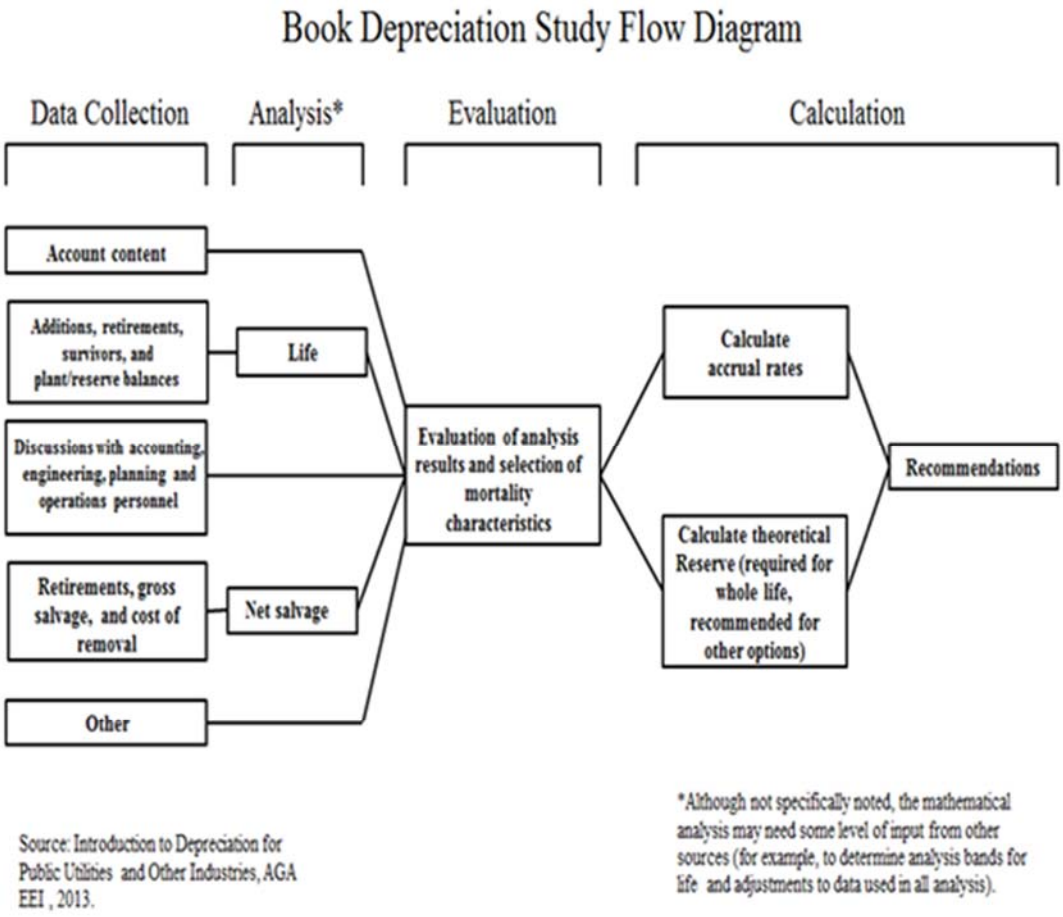
[2] Introduction to Depreciation for Public Utilities and Other Industries, AGA EEI, 2013
[3] Wolf, F. K. and Fitch, W. C. Depreciation Systems, Iowa State University Press, 1994, page 289.



SNGMO DEPRECIATION STUDY PROCESS

Depreciation Rate Calculation

Annual depreciation expense amounts for the depreciable accounts of SNGMO were calculated by the straight-line method, ALG procedure, and the remaining life technique. With this approach, remaining lives were calculated according to standard ALG group expectancy techniques, using the Iowa Curves noted in the calculation. For each account, the difference between the surviving investment, adjusted for estimated net salvage, and the book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix A and A-1.

Remaining Life Calculation

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the Retirement Rate actuarial methods. After establishment of appropriate average service lives and retirement dispersion, remaining life was computed for each account. Theoretical depreciation reserve with zero net salvage was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the General Discussion section. The difference between account balance and theoretical reserve was then spread over the ALG depreciation accruals. Remaining life computations are found for each account in the workpapers.

Depreciation Calculation Process

Annual depreciation expense amounts for all accounts were calculated by the straight-line, broad group (average life group) remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the following equation,

$$\text{Annual Accrual Rate} = \frac{(100\% - \text{Net Salvage Percent})}{\text{Average Service Life}}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$\text{Composite Remaining Life} = \frac{\sum \text{Original Cost} - \text{Theoretical Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation, where the net salvage percent represents future net salvage.

$$\textit{Annual Depreciation Expense} = \frac{\textit{Original Cost – Book Reserve – (Original Cost * Net Salvage \%)}}{\textit{Remaining Life}}$$

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$\text{Annual Depreciation Rate} = \frac{\sum \text{Annual Depreciation Expense}}{\sum \text{Original Cost}}$$

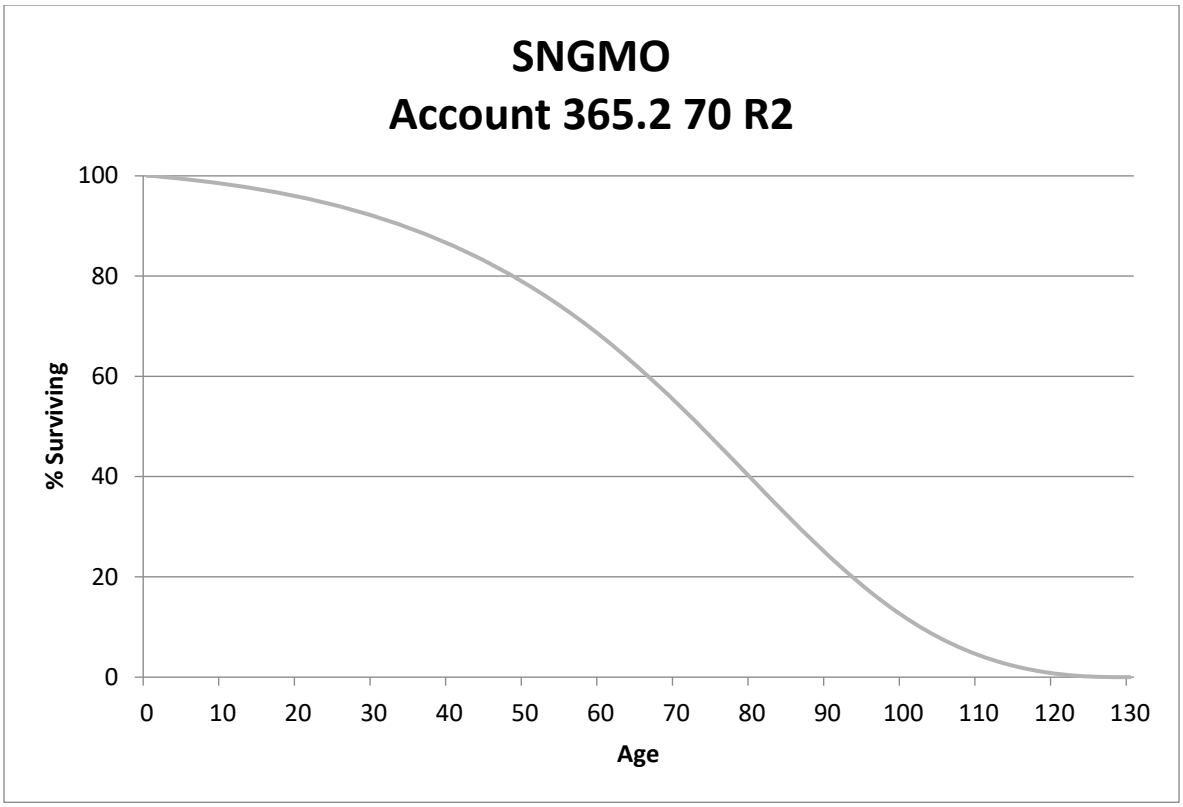
These calculations are shown in Appendix B. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in the study workpapers. Book depreciation reserves were reallocated within a functional group to individual accounts based on the theoretical reserve computation. These reserve reallocation computations are also shown in workpapers.

LIFE ANALYSIS

Gas Transmission Accounts, FERC Accounts 365.2-370.0

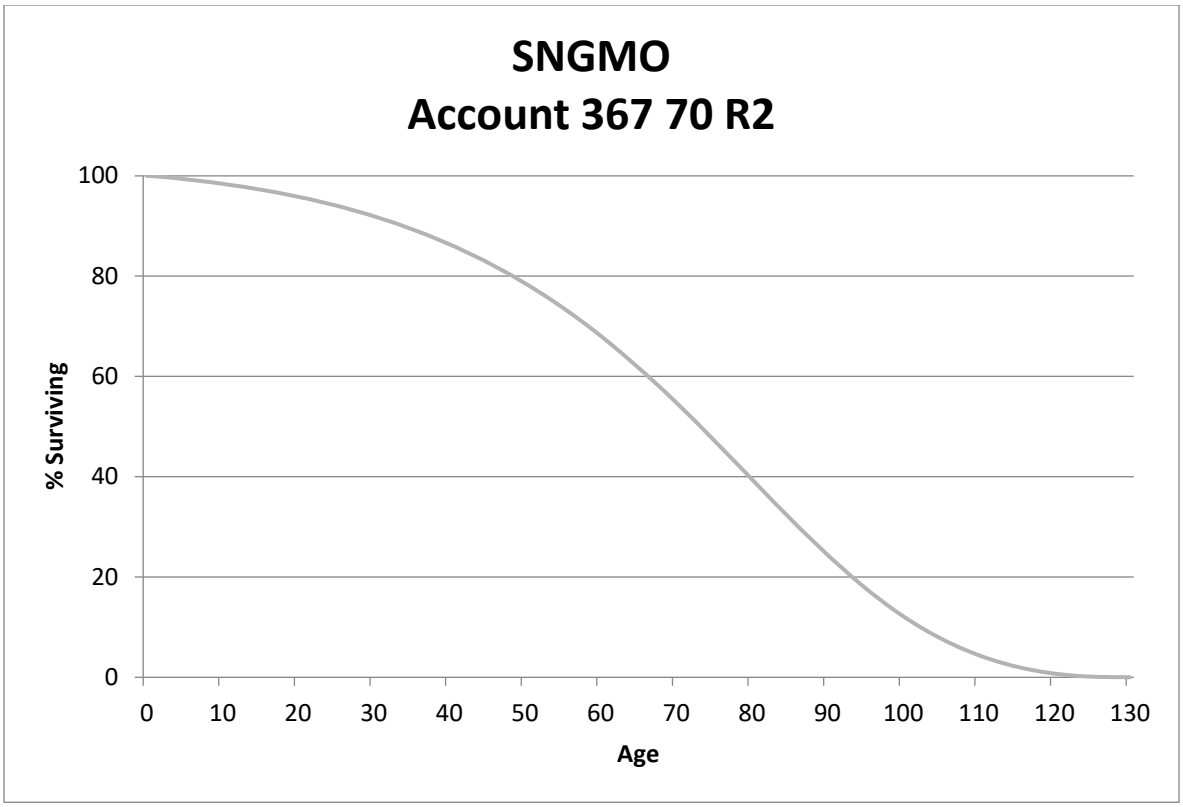
FERC Account 365.2 Transmission Land Rights (70 R2)

This account consists of land rights related to transmission operations. There is currently $36 thousand in total plant for SNGMO. There is no current life for this account specified in the order from GR-2014-00086. From an operations perspective, Company subject matter experts ("SMEs") have the expectation that land rights would be tied to the life of pipeline assets in Account 367. The assets in this account went in service in 2022, so there is no available history for actuarial analysis. Based on judgment and the recommendation for Account 367, this study recommends a 70-year life with an R2 dispersion for this account. A generic curve shape is shown below.



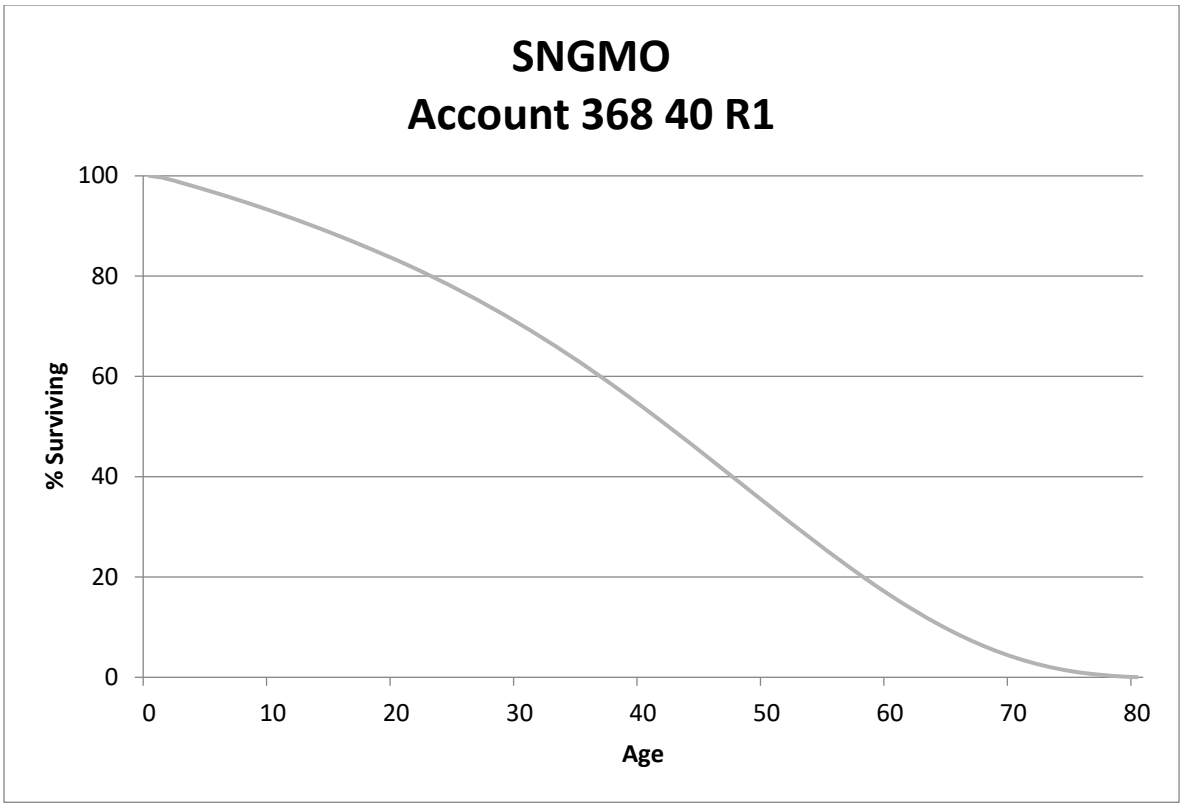
FERC Account 367 Transmission Mains (70 R2)

This account consists of steel transmission mains of various diameters and related assets such as clamps, odorant equipment, and vaults. There is currently $29.1 million in total plant for SNGMO. The current life is 50 years. The assets in this account went in service in 2020 and after, so there is no available history for actuarial analysis. Company SMEs expect that transmission mains in this account would last as long or longer than distribution mains in Account 376. Transmission mains are monitored more closely and are more likely to be sited on dedicated right of way than distribution mains. In the past, all pipe was classified as distribution on the accounting books. The Company has about 177 miles of transmission main in Missouri. The current transmission plant was added due to a relocation project. Transmission mains are normally constructed in dedicated rights of way and are usually shared and well maintained. Company SMEs believe that 70 years is an operationally reasonable life for this account. Based on knowledge of natural gas operations, geographic trends, and input from Company personnel, this study recommends moving to a 70-year curve with an R2 dispersion for this account. A generic curve shape is shown below.


SNGMO
Account 367 70 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
90
100
110
120
130
Age

FERC Account 368 Compressor Station (40 R1)

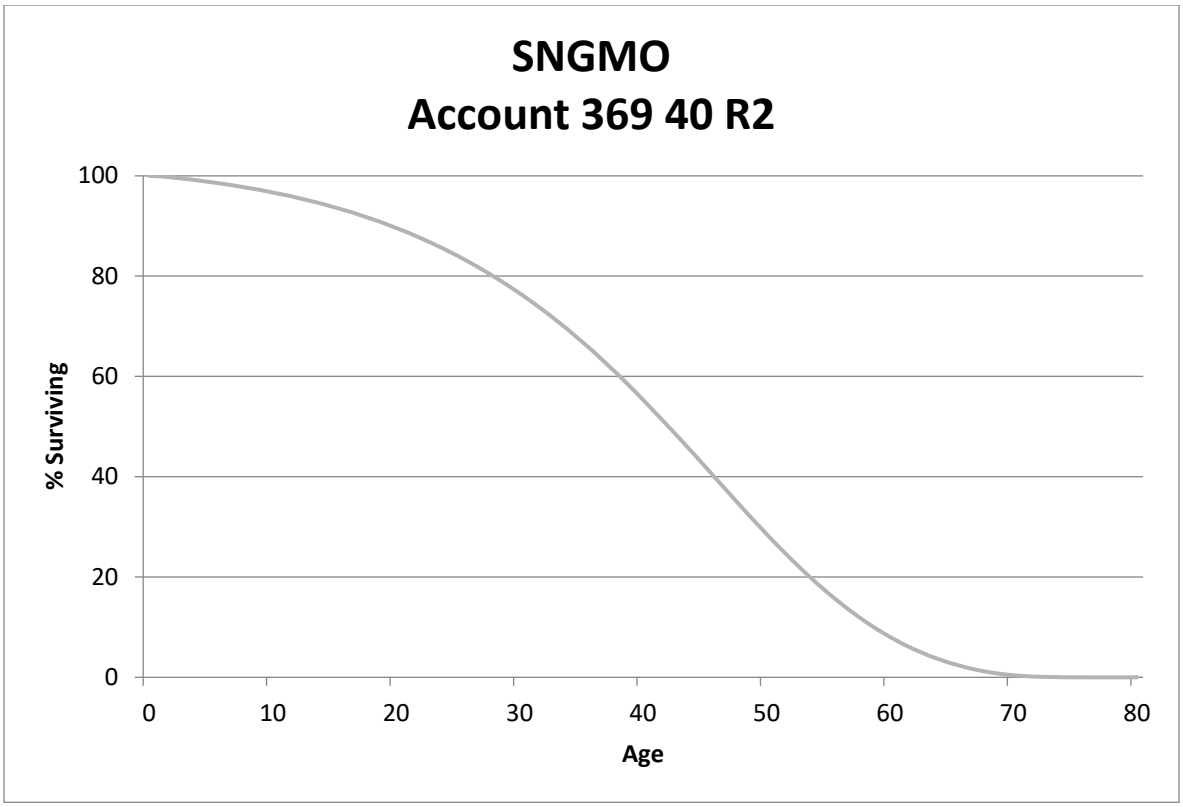
This account consists of gas and air compressors, electrical, odorizers, controls used in transmission compression, and related assets. There is currently $12.4 million in total plant for SNGMO. The current life is 50 years, and there are two compressors that have been installed in one location between Springfield and Rogersville. The compressors went online beginning in 2021. As in the case of Accounts 365.2 and 367, there has been no retirement history for this account, so it is not possible to perform actuarial analysis. Company SMEs report that the operational expectation is that the piping would last as long as mains, but the compressors would not be expected to last as long. The units cycle every two weeks, and were installed to provide sufficient pressure during the winter. The compressors are rated for 4,000 hours of service. Company SMEs state that the current 50 year life would be longer than operationally expected and suggest that a life in the 40 year range would be closer to operational expectations. Based on input from Company SMEs and judgment, this study recommends a 40-year life with an R1 dispersion. A generic curve shape is shown below.


SNGMO
Account 368 40 R1
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

FERC Account 369.0 M&R Station Equipment (40 R2)

This account consists of transmission metering and regulating station equipment such as odorizers, chart recorders, and regulators. There is currently $940 thousand in total plant for SNGMO. The current life is 50 years. As in the case of Accounts 365.2, 367, and 368, there has been no retirement history for this account, so it is not possible to perform actuarial analysis. The assets in this account were installed in 2019 and after. Company SMEs report that these assets are primarily take points/taps. Their operational expectation is that this account would have the same life as Account 378 Distribution Regulating and Measuring Equipment.

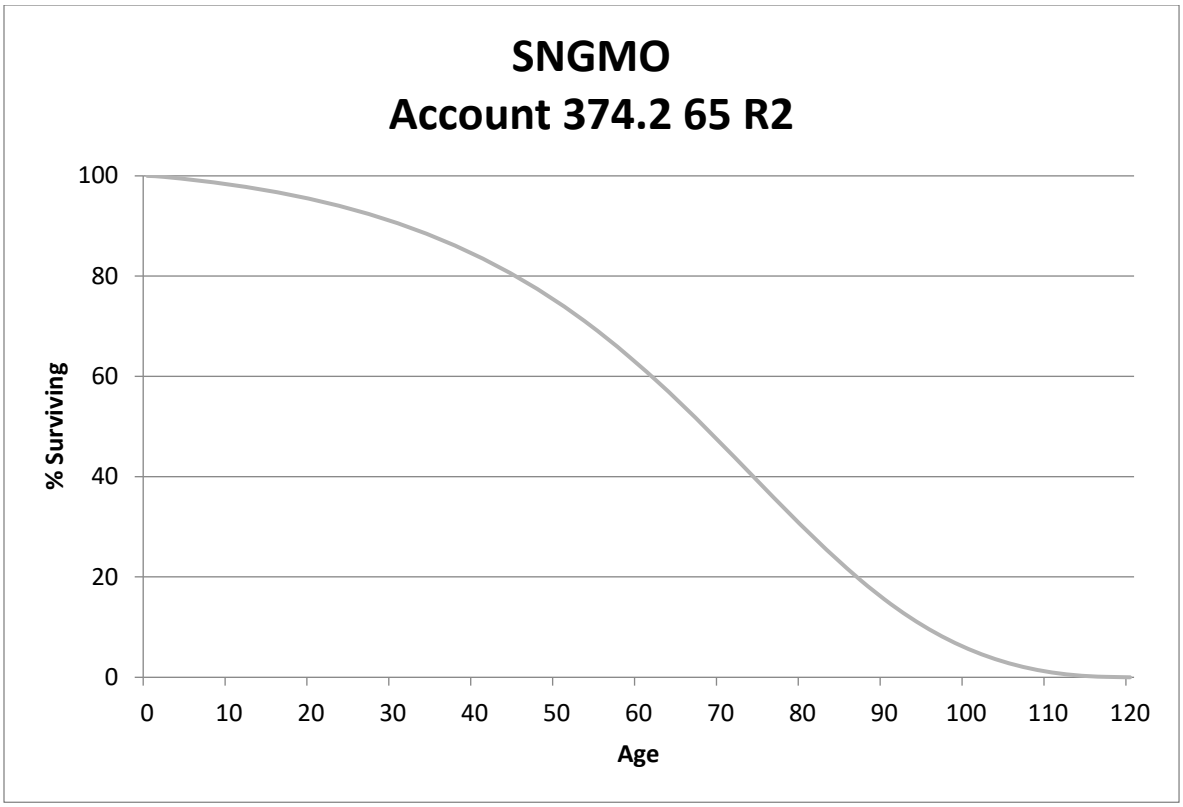
Based on input from Company SMEs and judgment, this study recommends a 40-year life with an R2 dispersion. A generic curve shape is shown below.


SNGMO
Account 369 40 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

Gas Distribution Accounts, FERC Accounts 374.2- 387.0

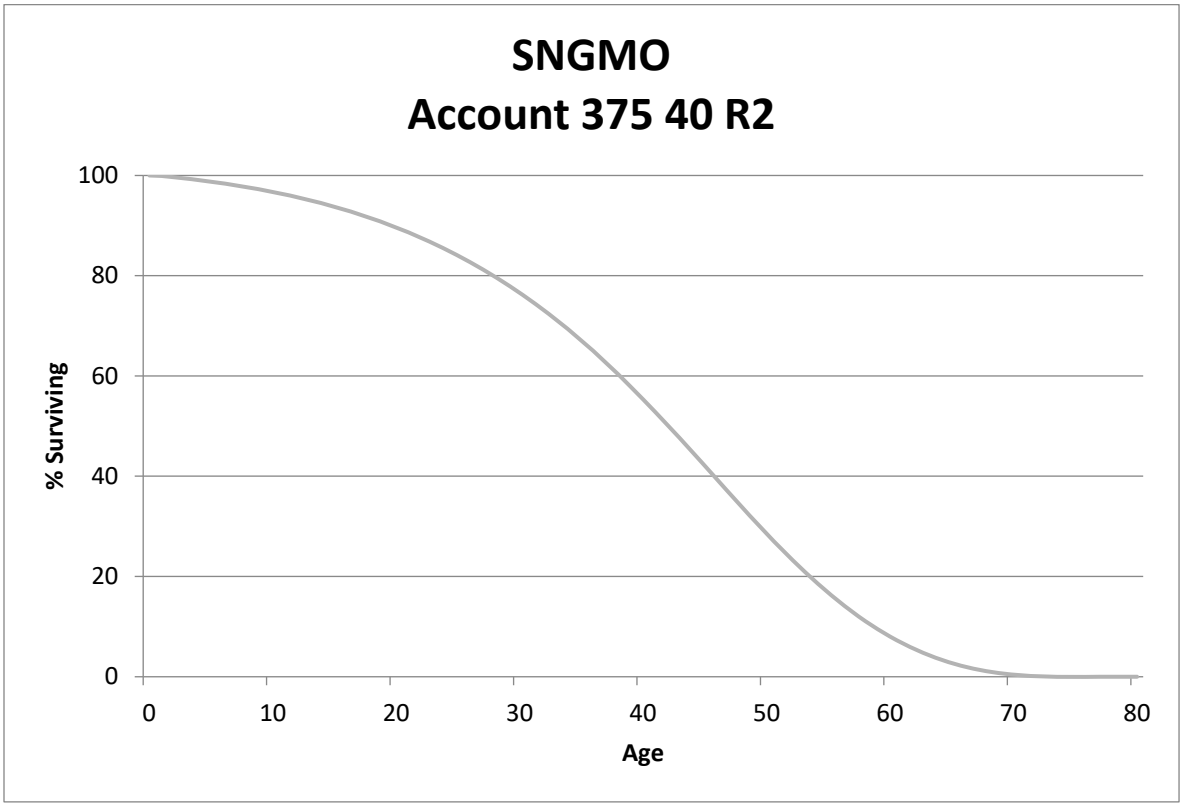
FERC Account 374.2 Distribution Land Rights (65 R2)

This account consists of land rights related to transmission operations. There are currently no land rights booked in this account for SNGMO. There is no current life for this account. From an operations perspective, SMEs have the expectation that land rights would be tied to the life of pipeline assets in Account 376. Based on judgment and the recommendation for Account 376, this study recommends a 65-year life with an R2 dispersion for this account. A generic curve shape is shown below.



FERC Account 375.0 Structures and Improvements (40 R2)

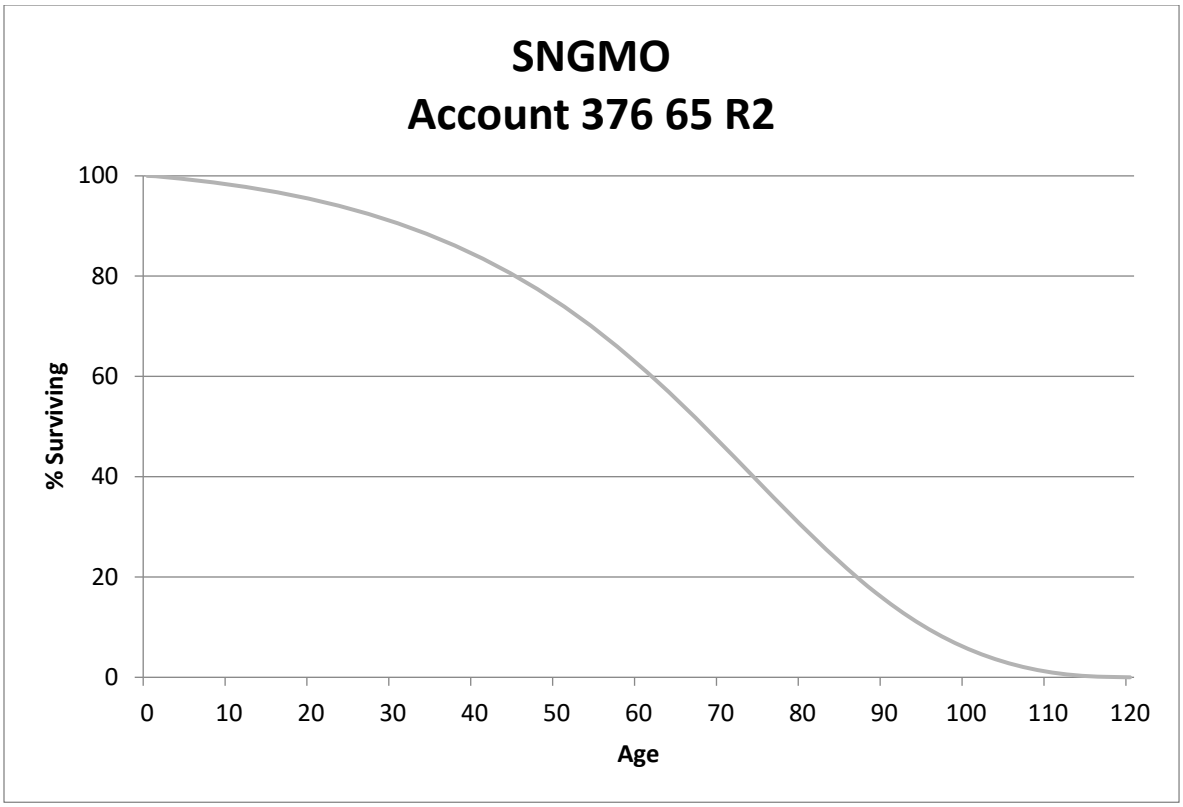
This account consists of structures and improvements, fences, and buildings related to distribution operations. There is currently $198 thousand in total plant for SNGMO. The current life of this account is 50 years. The only asset installed in this account was placed in service in 2010, and no retirements have occurred since that time. The assets in this account include fences, foundations, and any small structures at measuring and regulating stations in Account 378. Company SMEs state that since these facilities are related to Account 378, setting the life equal to the life in Account 378 makes sense operationally. They state that fences might not last quite long as 40 years, but the operational expectation is in that range. Based on judgment and the recommendation for Account 378, this study recommends a 40-year life with an R2 dispersion for this account. A generic curve shape is shown below.



FERC Account 376 Distribution Mains (65 R2)

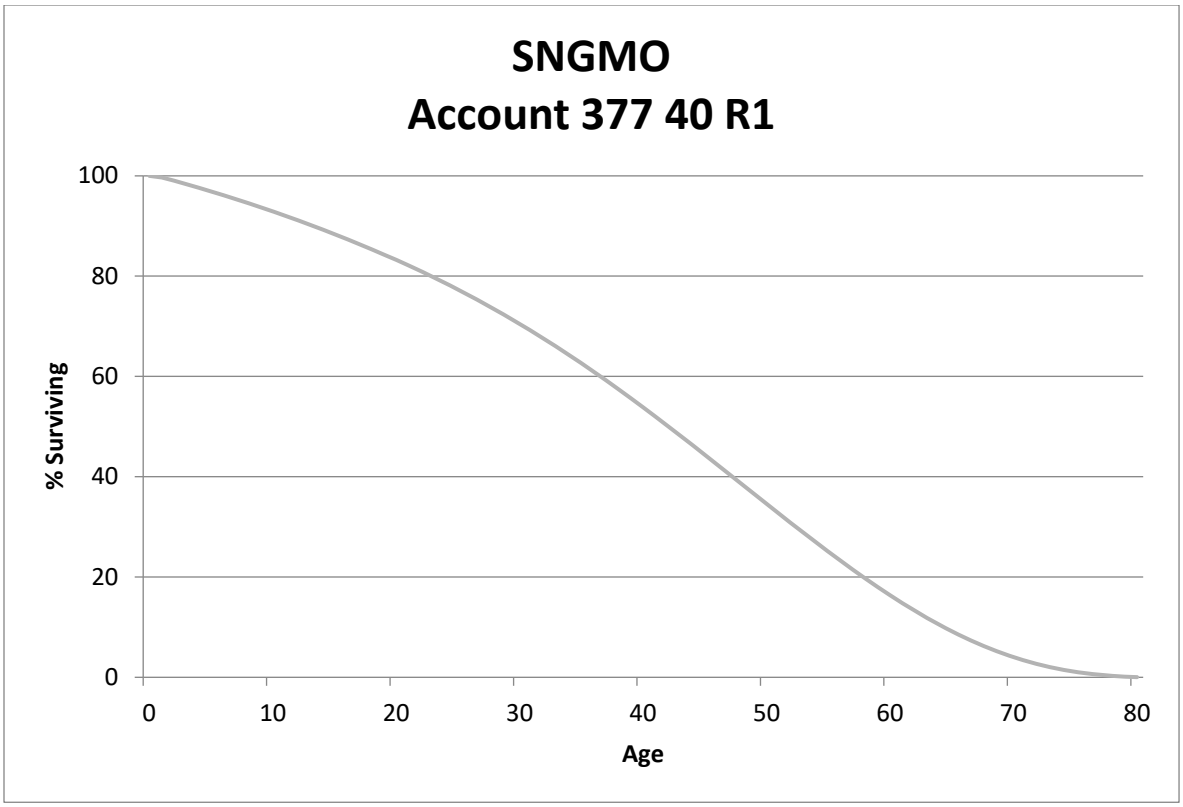
This account consists of distribution mains and associated equipment. There is currently $192.5 million in total plant for SNGMO. The material types in this account are cast iron, bare steel, bare unprotected steel, protected steel, and plastic. The current life of this account is 50 years. Company SMEs report that typically more distribution mains are disturbed by third parties than in transmission Account 367. The oldest assets in this account date from 1996. Relocation is another driver of retirement forces that act upon this account. Of the Company's total 1,283 miles of mains in this account, 1,082 miles is plastic pipe. Company SMEs believe the life of this account should be longer than 50 years. The retirement history of this account ends at 98.69 percent surviving; thus, it is not possible to perform actuarial analysis on this account. Summit Utilities Arkansas is proposing a life of 65 years in its current case before the Arkansas Public Service Commission.[4] Based on similarity of geographic region and similar assets, this study recommends a 65-year life with an R2 dispersion for this account. A generic curve shape is shown below.

[4] Arkansas Docket 23-079-,U, Direct testimony of Dane Watson.


SNGMO
Account 376 65 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
90
100
110
120
Age

FERC Account 377 Compressor Station Equipment – General (40 R1)

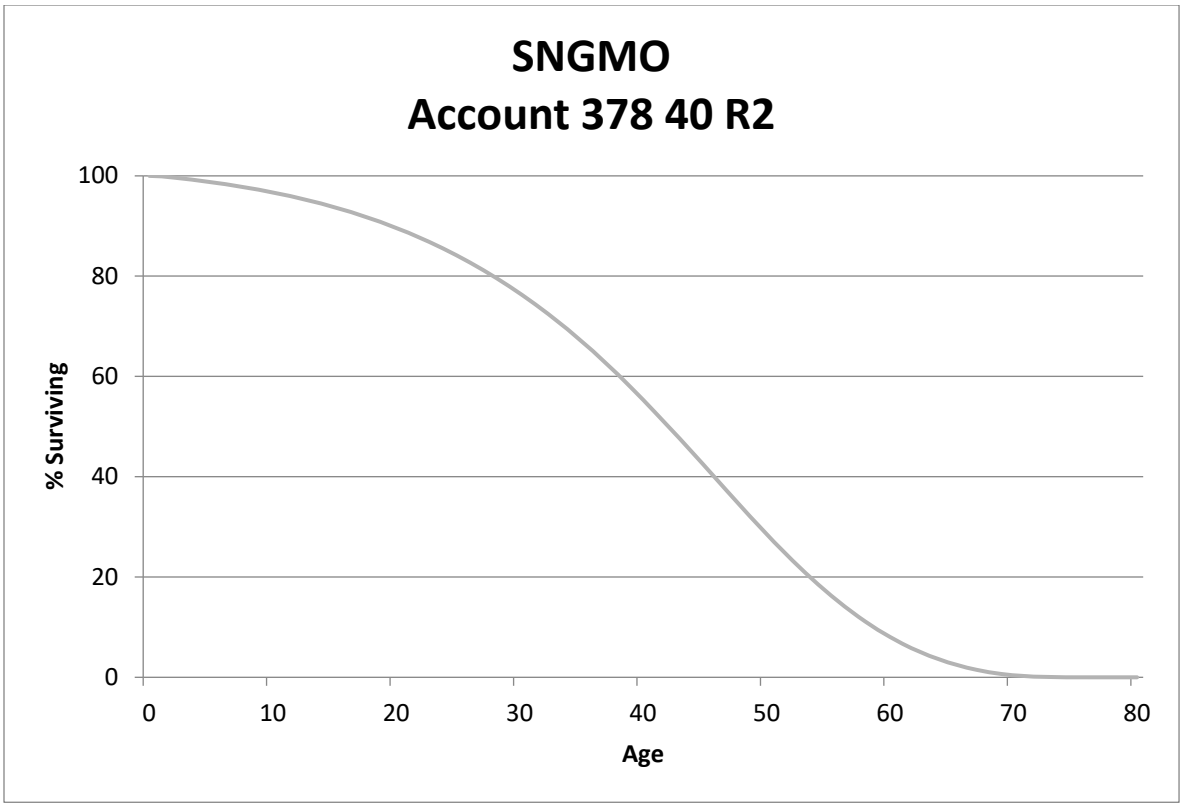
This account consists of M&R station piping, regulators, controls, odorizers, and other equipment used in distribution measuring and regulating stations. There is currently $282 thousand for SNGMO. The current life of this account is 50 years. These assets are located between Springfield and Rogersville. There have been few retirements of assets in this account over the available history. The observed life table stops at 99.89 percent surviving, so it is not possible to perform actuarial analysis. Similar to Account 368, Company SMEs report that the operational expectation is that the piping would last as long as mains, but the compressors would not be expected to last as long. The units cycle every two weeks. The compressors were installed to provide sufficient pressure during the winter. The compressors are rated for 4,000 hours of service. Company SMEs state that the current 50 year life would be longer than operationally expected and suggest that a life in the 40 year range is closer to operational expectations. Based on input from Company SMEs and judgment, this study recommends a 40-year life with an R1 dispersion. A generic curve shape is shown below.


SNGMO
Account 377 40 R1
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

FERC Account 378.0 M&R Station Equipment – General (40 R2)

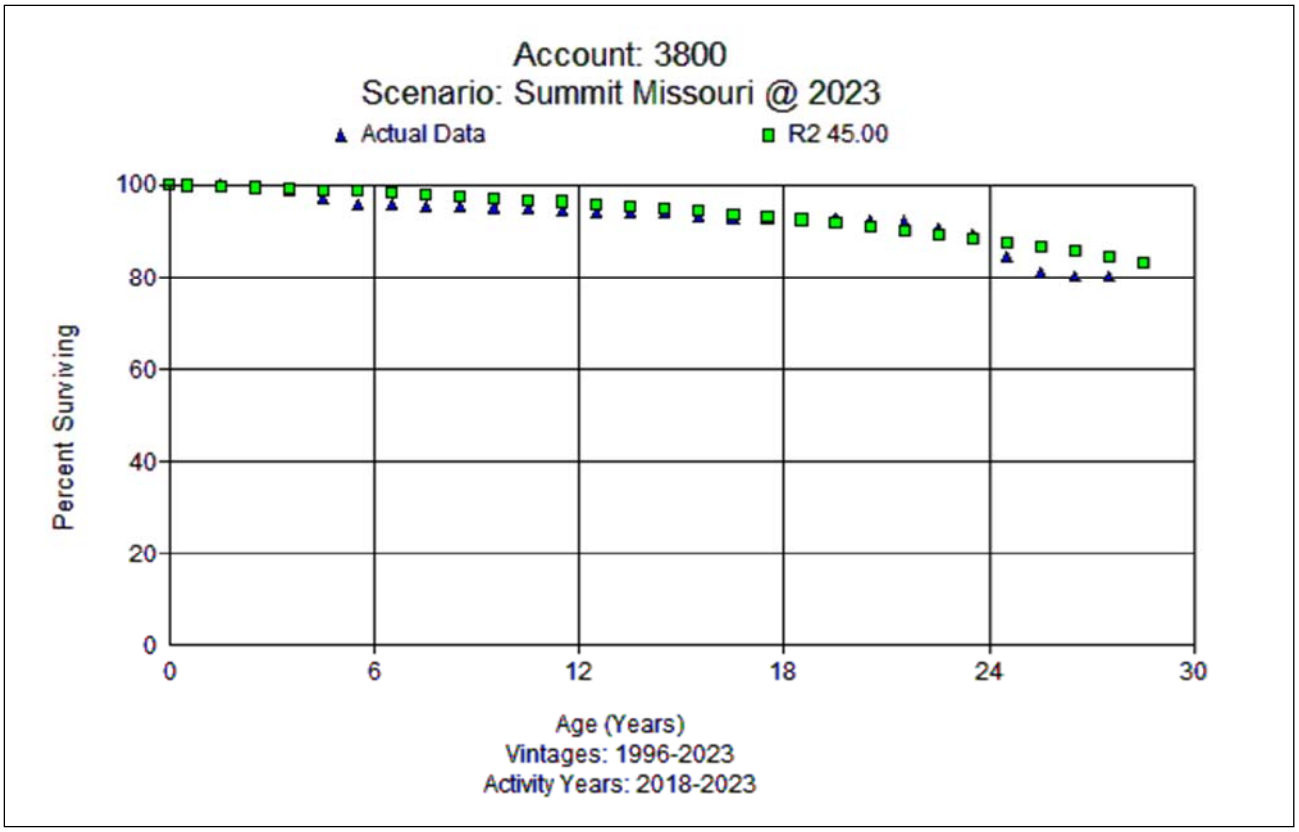
This account consists of M&R station piping, regulators, controls, odorizers, and other equipment used in distribution measuring and regulating stations. There is currently $7.3 million in total plant for SNGMO. The current life of this account is 50 years. There is a small amount of plant associated with electronics that contains telemetry equipment. Currently there is $61 thousand the current plant balance associated with electronics. These components are currently modeled together in this study. If there are changes in the proportion of electronics in future studies, we recommend separating the two categories into separate accounts for the computation of depreciation rates in subsequent depreciation studies.

Company SMEs report that this account includes both border stations and district regulator stations ("DRS"). The Company recently finished a project redesigning and replacing all farm taps (that were less than 30 years old). Going forward, Company SMEs report that they have redesigned their DRS and all will be replaced in the next two years. Short-term, the life will be much less as DRS are replaced, but over the long-term Company SMEs feel that a life of 40 years would be operationally reasonable. Actuarial analysis shows a very short life in the 15 year range, which is much shorter than the operational expectations of Company SMEs and experience of other gas utilities in the region. Based on input from Company SMEs and judgment, this study recommends a 40-year life with an R2 dispersion. A generic curve shape is shown below.

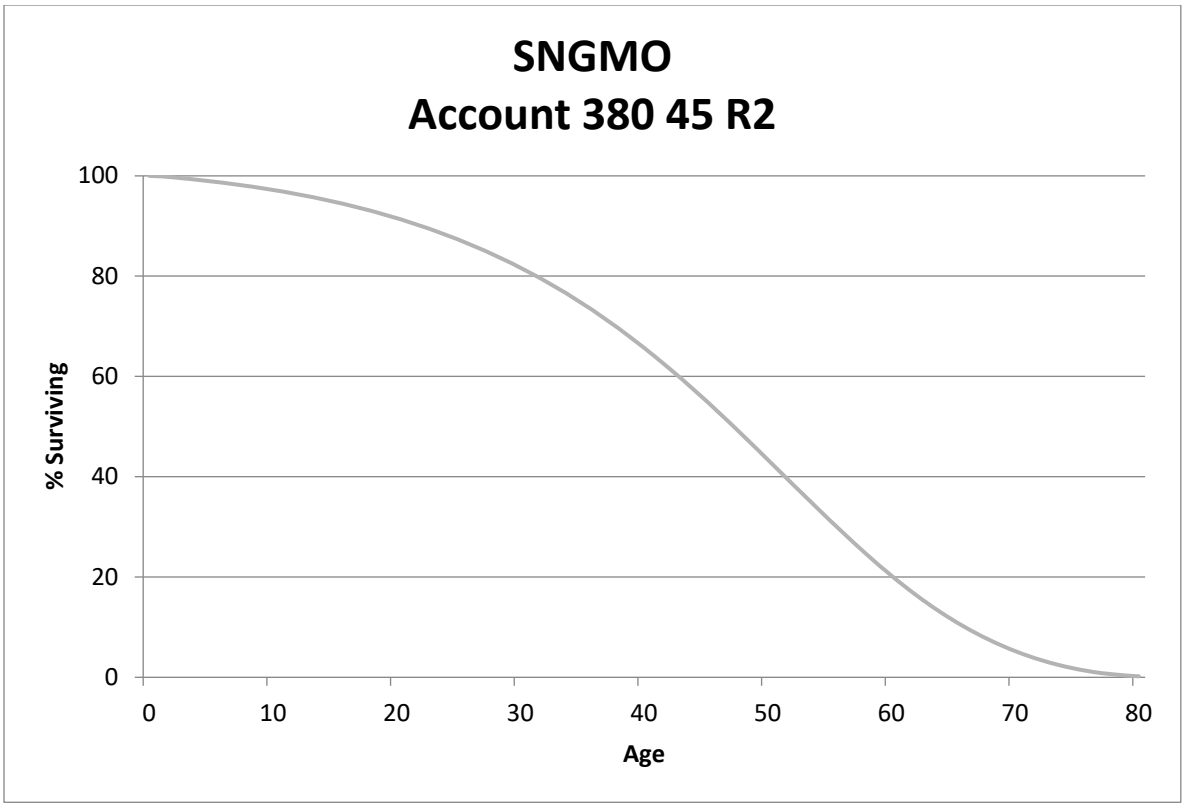

SNGMO
Account 378 40 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

FERC Account 380.0 Services (45 R2)

This account consists of assets related to distribution services. There is currently $55.4 million in total plant for SNGMO. The current life of this account is 50 years. Company experts report that there are only 5 steel services. and all the rest are plastic (25k total). Relocations occur more frequently in this account than in Account 376, Mains. A significant number of services are relocated each year. Services are more likely to be retired because they are more frequently damaged by a third-party and at times services are replaced when mains are replaced. The limited analytics would suggest around 45 years which is shown in the graph below.

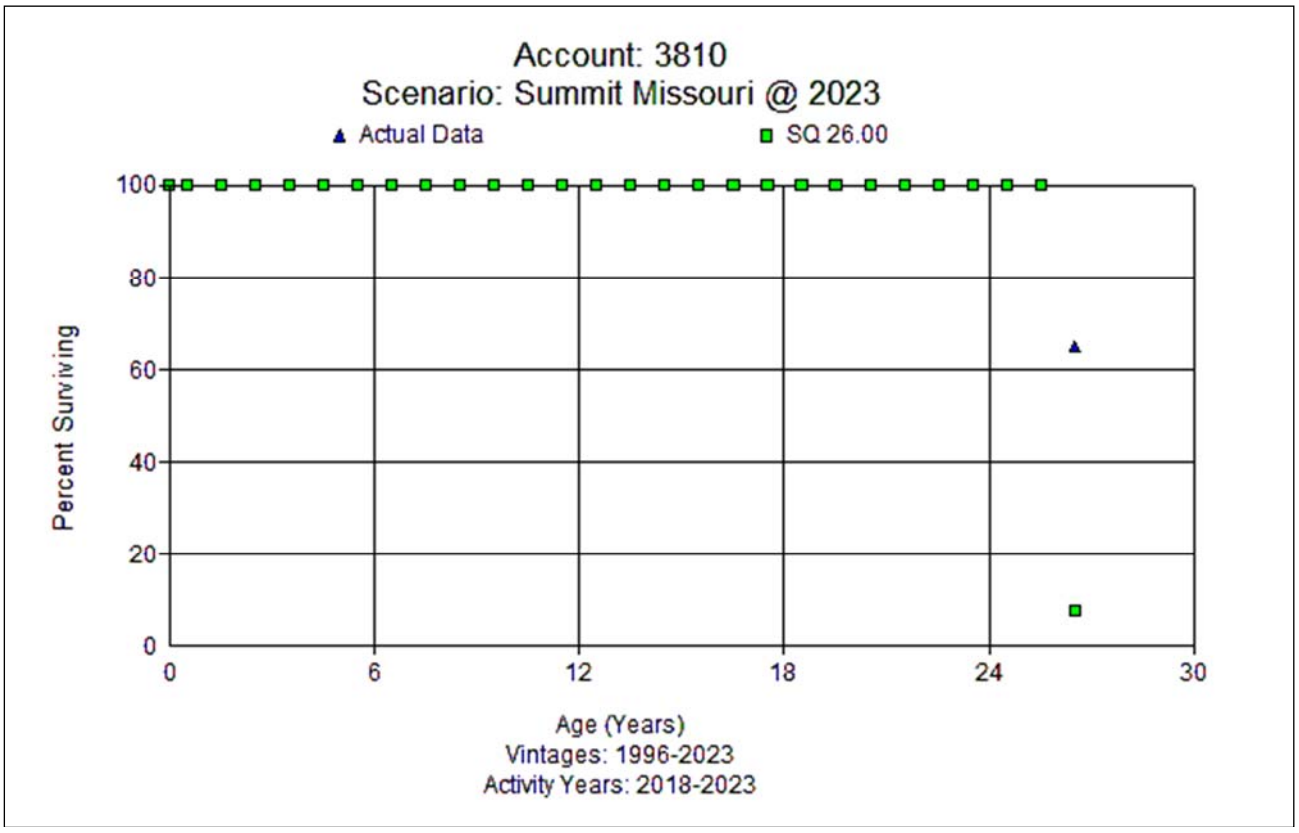


Company SMEs state that a life of 45 years is operationally reasonable. Based on input from Company SMEs and judgment, this study recommends a 45-year life with an R2 dispersion. A generic curve shape is shown below.


SNGMO
Account 380 45 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

FERC Account 381.0 Meters (26 SQ)

This account consists of meters and meter reading equipment. There is currently $12.3 million in total plant for SNGMO. The current life of this account is 50 years. 90% or 95% of meters are diaphragm meters. The limited actuarial analysis is showing a 26 year life. Based on information from Company SMEs and actuarial analysis, this study recommends a 26 year life and SQ dispersion for this account. A graph of the actual experience and the selected Iowa Curve is shown below.

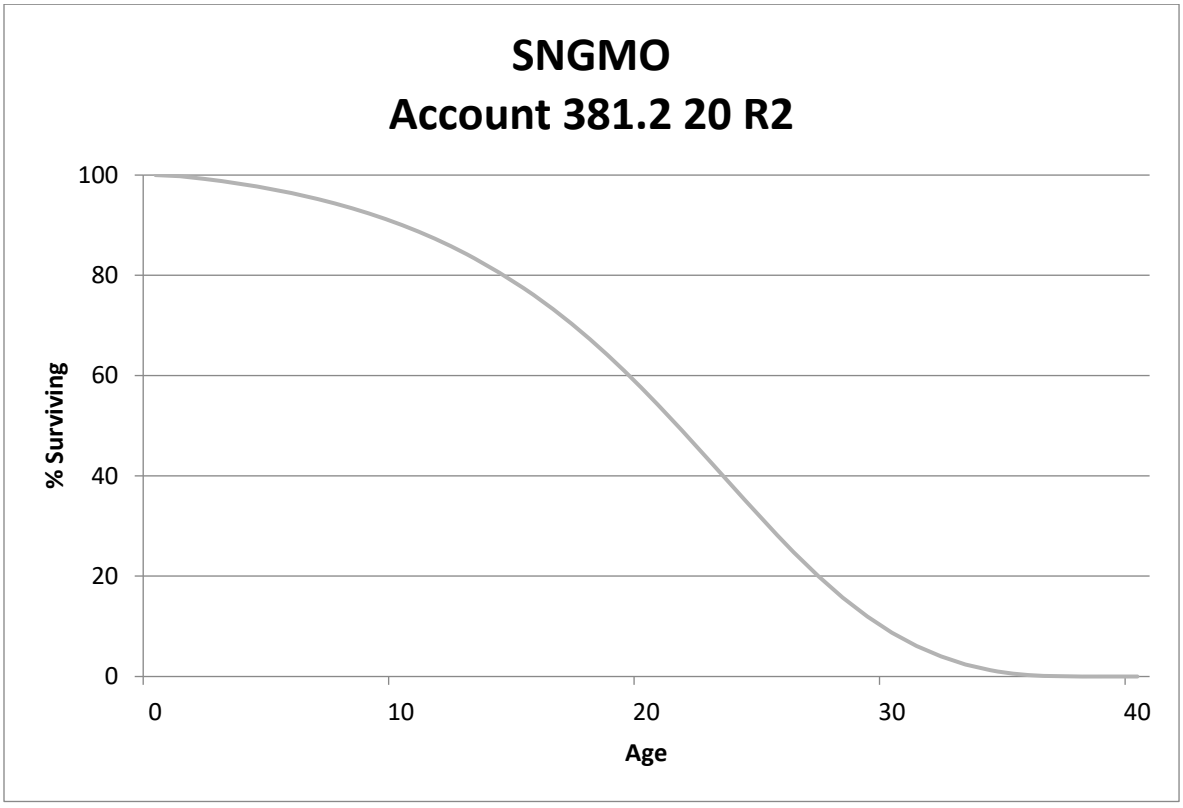


FERC Account 381.1 Meters Electronic (15 SQ)

This account consists of electronic devices associated with meters such as flow computers and RTUs. There is currently $400 thousand in total plant for SNGMO. The current life of this account is 50 years. The assets in this account are primarily correctors, pressure recorders. and RTUs. From an operational perspective, Company SMEs state that a life of 15 years would be reasonable. The assets in this account range from in service years of 2019-2023. There is insufficient data for actuarial analysis. Based on judgment and input from Company SMEs, this study recommends a 15 year life and SQ dispersion. No graph is shown.

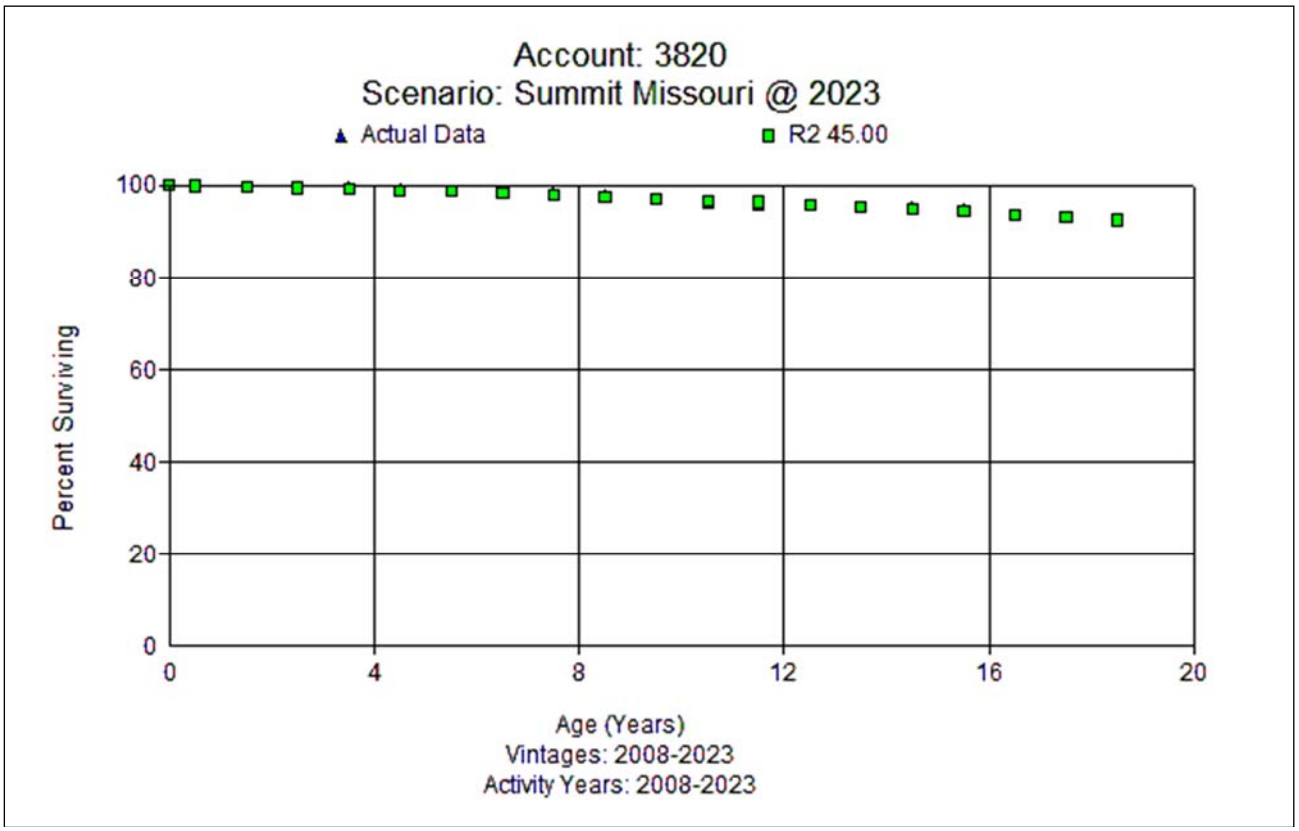
FERC Account 381.2 ERTs (20 R2)

This account consists of meters and meter reading equipment. There is currently $1.0 million in total plant for SNGMO. The current life of this account is 50 years. Company SMEs report that the life of this account is driven by the battery life. Information from the manufacturer is that the life expectation is 20 years, and that is backed up by operational experience. Company SMEs report that there will be some instances where the ERTs will be retired early if the meter is pulled and the ERT is more than 10 years old. The assets in this account range from in service years of 2019-2023. There is insufficient data for actuarial analysis. Based on operational expectations and judgment, a life of 20 years with an R2 dispersion is recommended for this account. A generic curve shape is shown below.

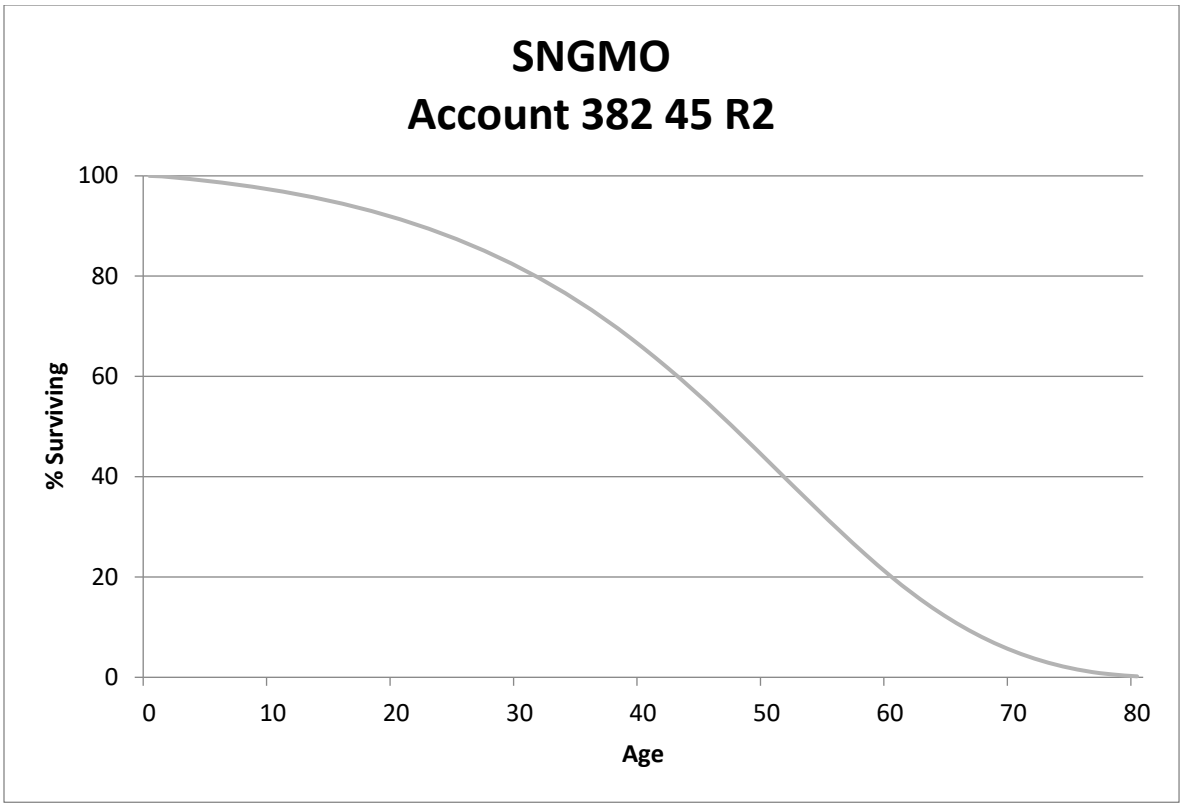


FERC Account 382.0 Meter Installations (45 R2)

This account consists of meter installation equipment. There is currently $2.8 million in total plant for SNGMO. The current life of this account is 50 years. The oldest in-service year in this account is 2008, showing little data for actuarial analysis. Company SMEs state that the meter loop would not be replaced when the meter is pulled. Some older meter installations are screwed together, but most are premanufactured. From an operations standpoint, Company SMEs report that the life of this account would be more parallel to that of services in Account 380. The limited actuarial analysis is shown below.

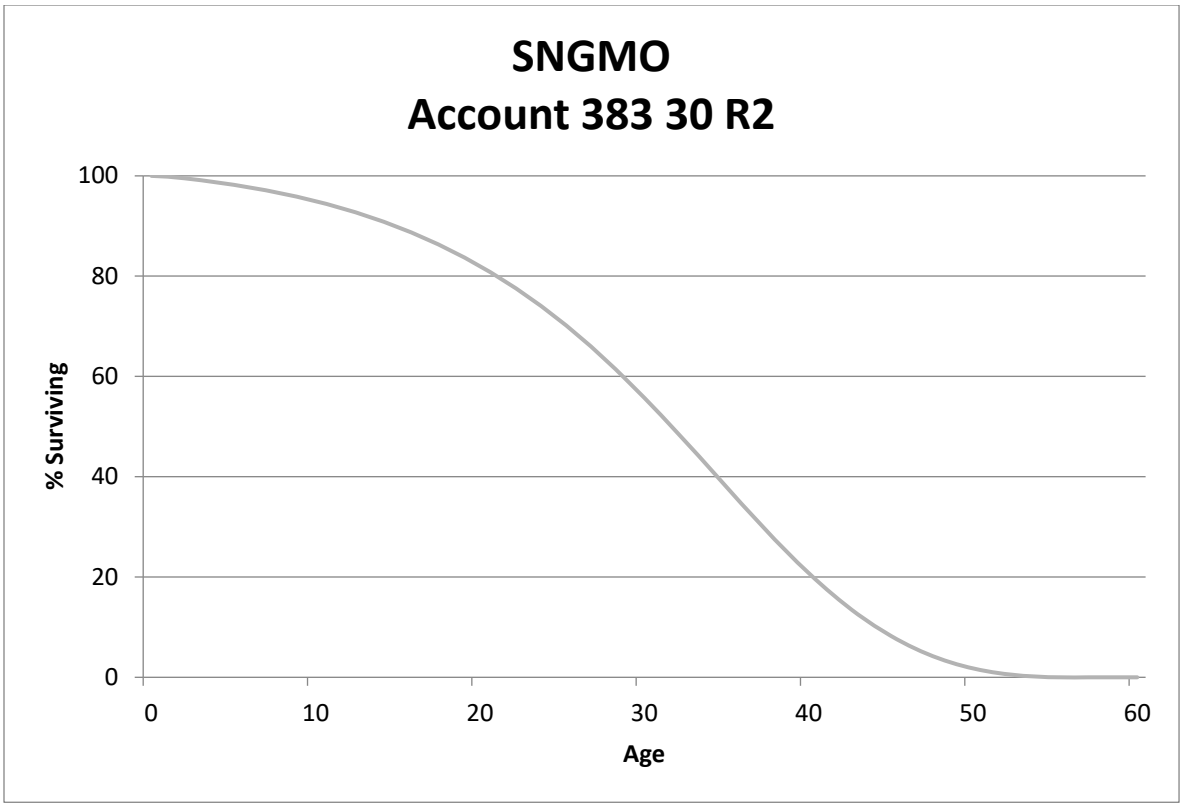


Based on the limited actuarial analysis and input from Company personnel, this study recommends a 45 R2 curve for this account. A generic curve shape is shown below.


SNGMO
Account 382 45 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
70
80
Age

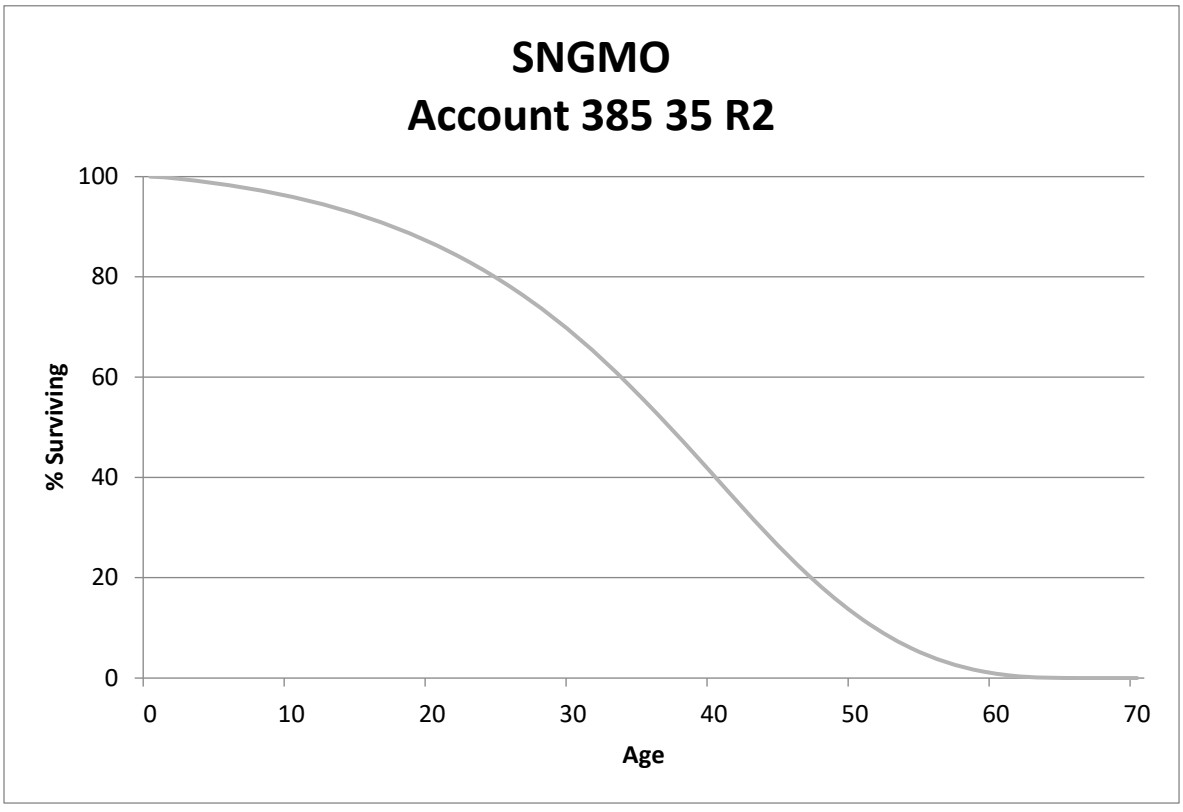
FERC Account 383.0 House Regulators (30 R2)

This account consists of house regulators and equipment. There is currently $720 thousand in total plant for SNGMO. The current life of this account is 50 years. The assets in this account range from in service years 1997-2023. Over the available history, actuarial analysis shows a high mode curve such as R4 or R5 with a life in the 20 year range. From an operational perspective as well as other studies Alliance has performed, the actuarial results shown are not a typical pattern for this account. Company SMEs state that there are moving parts in regulators and that they would not last as long as the loop. The Company is targeting a number of regulators for replacement to increase their maximum operating pressure (MAOP). Company SMEs state that leaks would be a primary reason for replacing these assets. In most cases, they replace meters and regulators at the same time. Company SMEs state that 30 years is an operationally reasonable life expectation. Based on input from Company SMEs, this study recommends a life of 30 years with an R2 dispersion, which aligns with the 26 year life proposed for Account 381. A generic curve shape is shown below.


SNGMO
Account 383 30 R2
100
80
60
40
20
0
% Surviving
0
10
20
30
40
50
60
Age

FERC Account 385.0 Industrial M&R Station Equipment (35 R2)

This account consists of industrial measuring and regulating station equipment. There is currently $747 thousand in total plant for SNGMO. The current life of this account is 50 years. Company SMEs report that these stations are more likely to change for capacity reasons (greater requirements from customers or change in business). Operationally, they believe this account should have a shorter life than distribution measuring and regulating station in Account 378 (40 years). Company SMEs feel that 35 years would be more reasonable for these assets from an operations perspective. Based on judgment and Company SME input, this study recommends a 35 year life with an R2 dispersion for this account. A generic curve shape is shown below.



FERC Account 386.0 Conversions (50 SQ)

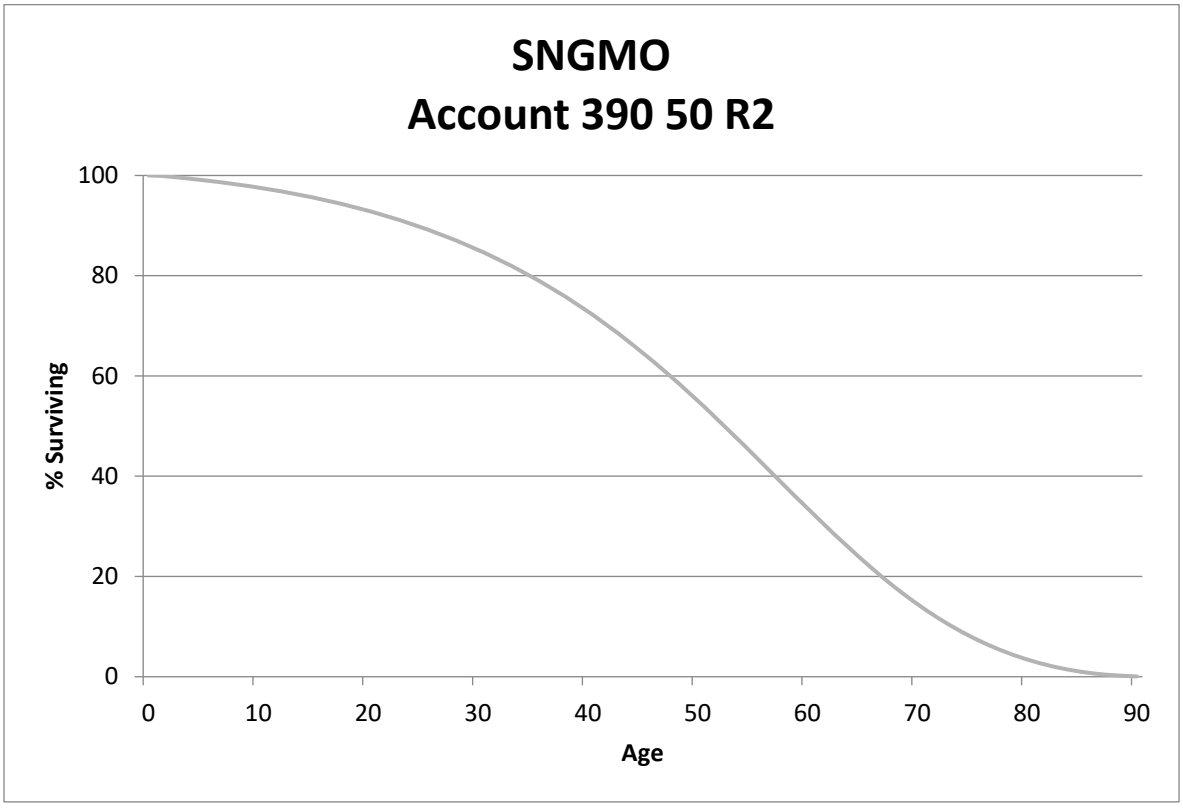
This account consists of payments made to customers to switch from propane to natural gas. There is currently $10.4 million in total plant for SNGMO. The current life of this account is 50 years. The assets in this account range from in service years 1996 to 2016. No retirements have occurred in this account. Based on judgment this study recommends retaining the current 50 year life with an SQ dispersion. No graph is shown.

Gas General Accounts, FERC Accounts 390.0-399.5

GENERAL PLANT DEPRECIATED ACCOUNTS

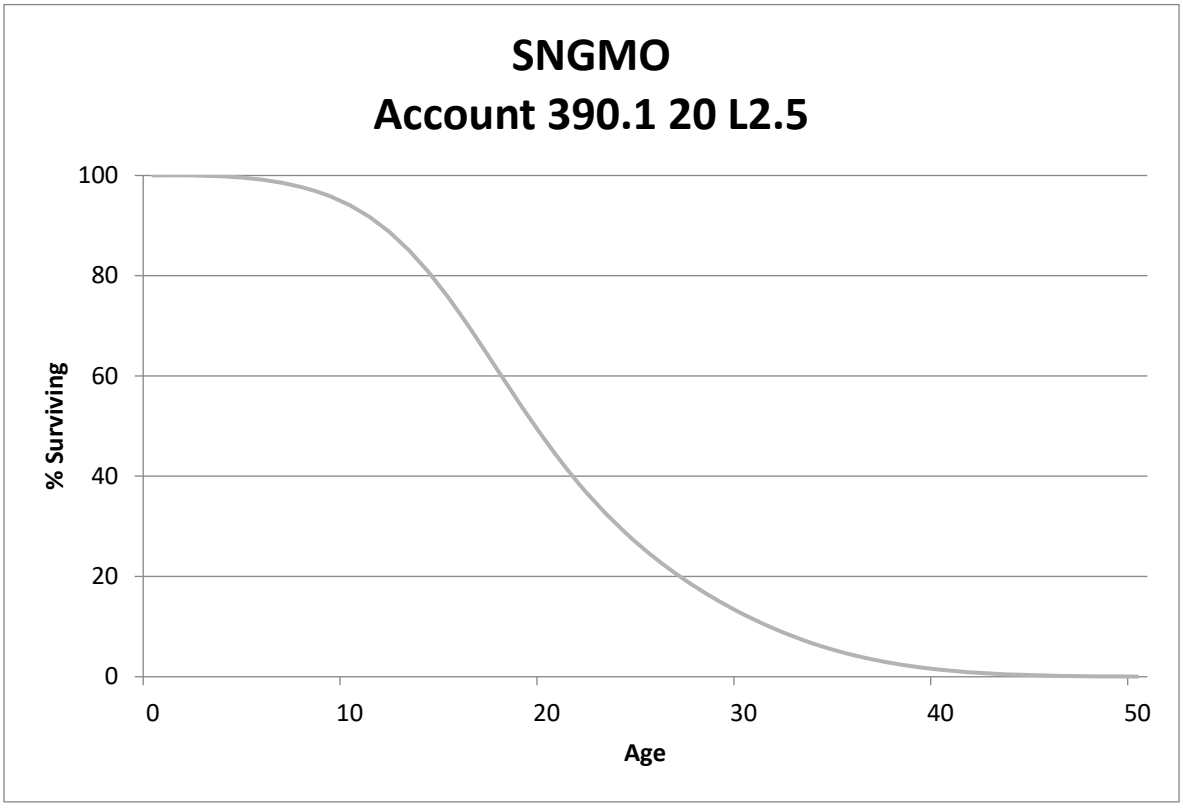
FERC Account 390 General Structures & Improvements (50 R2)

This account consists of general office structures and other components such as roofs, cabinets, HVAC equipment, yard improvements, and security systems. There is currently $434 thousand in total plant for SNGMO. The current life of this account is 50 years. The in-service years for this account range from 2007-2023. There have been no retirements in this account, so it is not possible to perform actuarial analysis. Company SMEs believe the substructures would likely last 50 years or longer but a number of components (e.g., AC, roof, parking lot, remodeling, and HVAC systems) would have a shorter life. Based on the variety of assets in this account, this study recommends retaining the 50 year life and using an R2 dispersion. A generic curve shape is shown below.



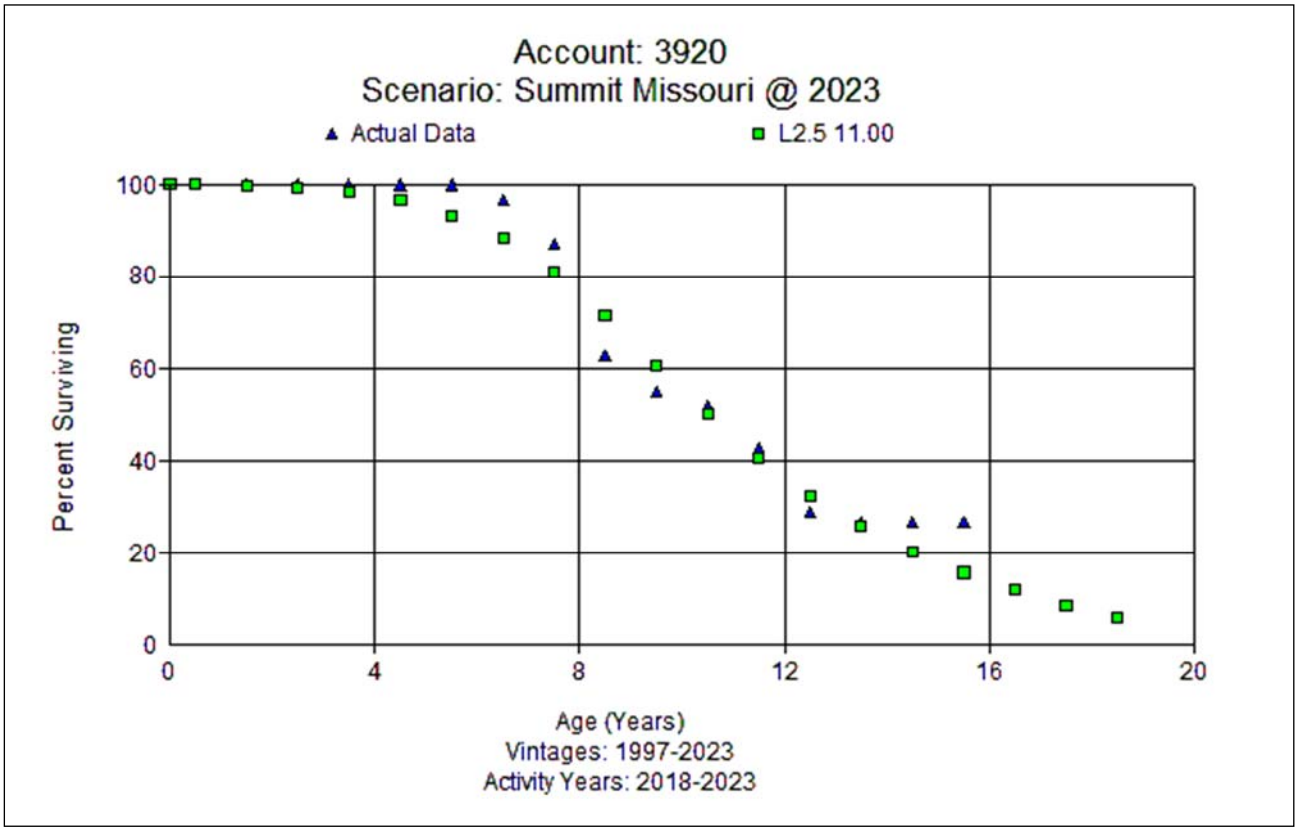
FERC Account 390.1 General Improvements – Leased Premise (20 L2.5)

This account consists of improvements such as cooling equipment related to leased buildings. There is currently $407 thousand in total plant for SNGMO. This account was not listed in the stipulation from GR-2014-00086. Currently the Company has been using a 20 year life for this account. Company SMEs report that some leased buildings would be moved as the area grows. Typical leases are for 10 years. Company SMEs state that operationally if one assumes one lease renewal (and remodeling occasionally), a 20 year life would be reasonable. There was sufficient data for actuarial analysis, but the life shown in the analysis is 12 or 13 years, below Company SMEs' expectations. Based on judgment and input from Company SMEs, this study recommends a 20 year life with an L2.5 dispersion. A generic curve shape is shown below.



FERC Account 392.0 Transportation Equipment (11 L2.5)

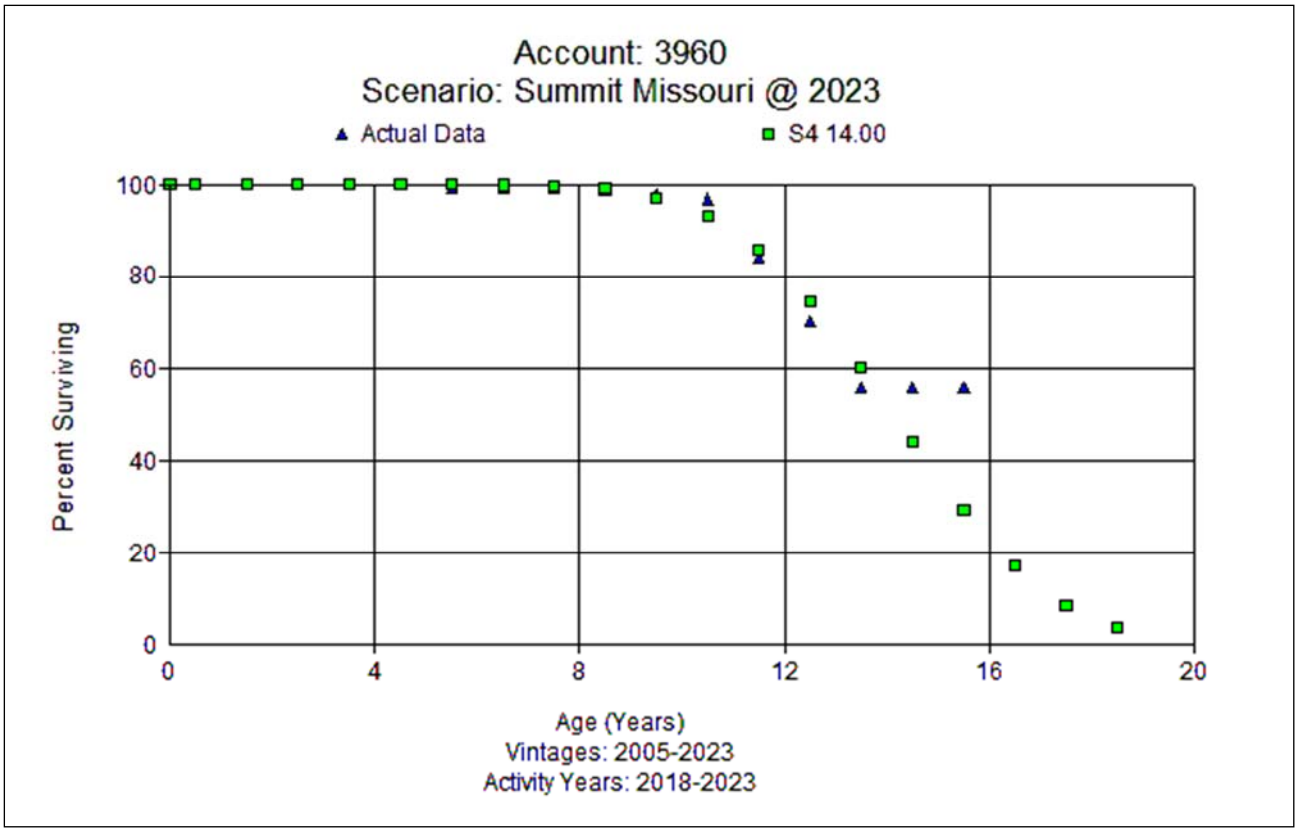
This account consists of gas transportation equipment. There is currently $4.6 million in total plant for SNGMO. The current life of this account is 7 years. Company SMEs report that all fleet is owned. The guideline for replacement is 150K miles or 10 years guidelines for vehicles. In some instances, retirement decisions will require analysis on an individual basis. The replacement criteria are: cars/trucks/medium vehicles– usually 10 years and crew truck and heavy trucks– 12-15 years. Supply chain issues have made it very difficult to get new vehicles. They may be holding some units longer than the guidelines would suggest. The actuarial analytics show an 11 year life. Based on historical analysis and judgment, this study recommends an 11 L2.5 curve for this account. A graph of the actual experience and the selected Iowa Curve is shown below.



FERC Account 396.0 Power Operated Equipment (14 S4)

This account consists of power operated equipment. There is currently $1.7 million in total plant for SNGMO. The current life of this account is 12 years. The assets in this account are backhoes, trenchers, excavators, compressors, and welders. Company SMEs report that retirements are generally based on maintenance issues. The Company changed specifications for welder purchases about six years ago. The newer equipment is not expected to have as long a life as previous generations of the same equipment. Company SMEs report that they target a life of 15 years for trenchers/excavators and 20 years for trailers. Compressors and welders will not last 15 years and will retire sooner than rolling equipment. They report that leak detection equipment has the shortest life of any equipment type in this account, most likely 5-10 years. Sufficient data exists to perform actuarial analysis for this account with an observed life table extending to 60 percent surviving.

Based on life analysis, input from Company SMEs, and judgment, this study recommends a 14 S4 curve for this account. A graph of the actual experience and the selected Iowa Curve is shown below.


Account: 3960
Scenario: Summit Missouri @ 2023
Actual Data
S4 14.00
Percent Surviving
100
80
60
40
20
0
0
4
8
12
16
20
Age (Years)
Vintages: 2005-2023
Activity Years: 2018-2023

GENERAL PLANT AMORTIZED ACCOUNTS

Adoption of Vintage Group Amortization

This study recommends continuing the use of vintage group amortization for certain General plant accounts. FERC adopted Accounting Release 15 in 1997 using the following criteria:

- The individual classes of assets for which vintage year accounting is followed are high volume, low value items;
- There is no change in existing retirement unit designations, for purposes of determining when expenditures are capital or expense;
- The cost of the vintage groups is amortized to depreciation expense over their useful lives and there is no change in depreciation rates resulting from the adoption of the vintage year accounting;
- Interim retirements are not recognized;
- Salvage and removal cost relative to items in the vintage categories are included in the accumulated depreciation account and assigned to the oldest vintage first; and
- Properties are retired from the affected accounts that, at the date of the adoption of vintage year accounting, meet or exceed the average service life of properties in that account.
- A vintage year method of accounting for the general plant accounts that meets all of the foregoing requirements may be implemented without obtaining specific authorization from the Commission to do so.

When AR-15 is implemented (or lives under this approach change), it is necessary to first retire the assets whose age is longer than the recommended service life for

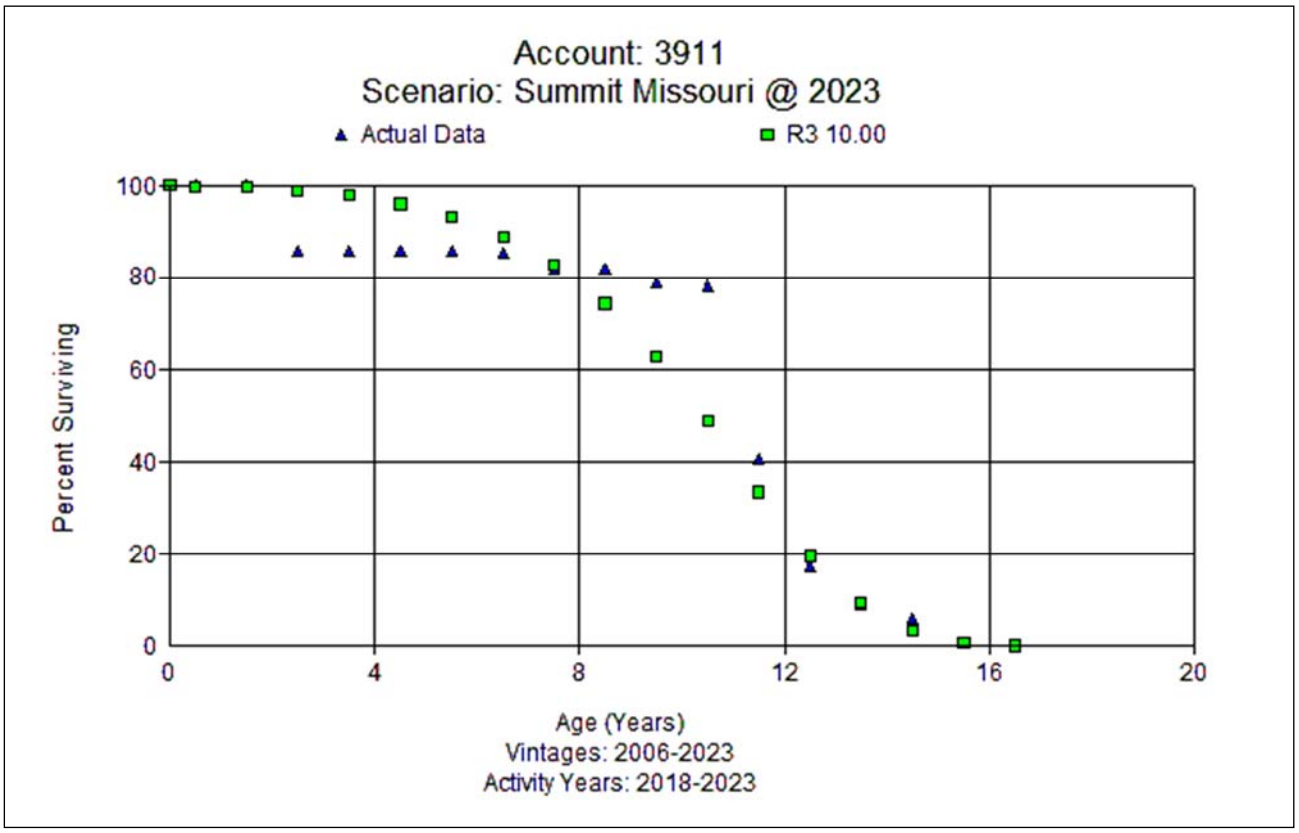
each group. It will no longer be necessary to track the location and retirement of those assets. Those amounts are shown for each account in Appendix A-1. After those assets are retired, the remaining plant in service for each account will be amortized using the amortization rates shown in Appendix A-1 and B. Annually, assets which reach the average service life of each account will be retired when the assets reach their average service life.

FERC Account 391.0 Office Furniture & Equipment (20 SQ)

This account consists of general office furniture and equipment. These assets are desks, chairs, and other miscellaneous office items. There is currently $214 thousand in plant for SNGMO. After retirement of fully accrued assets, the plant balance in Missouri will still be $214 thousand. The current life for this account is 20 years. There is sufficient data for actuarial analysis, but the results show a much shorter life (11-12 years) than is typically found for this account. Company SMEs believe a 20 year life is more reasonable from an operations perspective. Since this account will be recovered using general plant amortization, a SQ curve is recommended. Based on judgment and input from Company personnel, this study recommends a 20 year life with an SQ dispersion for this account.

FERC Account 391.1 Computer Software (10 SQ)

This account consists of various types of computer software. There is currently $2.9 million in this account. After retirement of fully accrued assets, the plant balance in Missouri will be $2.9 million. The current life for this account is 7 years. A large portion of the current plant is related to major systems: Oracle, Power Plan, and Cayenta. Other application related assets are booked into this account. Asset in service years range from 2014-2023. After performing actuarial analysis on this account, a 10 year life with an R3 dispersion curve is a good visual fit for this account. A graph of the actual experience is shown below.



Since this account will be recovered using general plant amortization, a SQ curve is recommended. Hence, this study recommends a 10 year life with an SQ dispersion.

FERC Account 391.2 Computer Equipment (5 SQ)

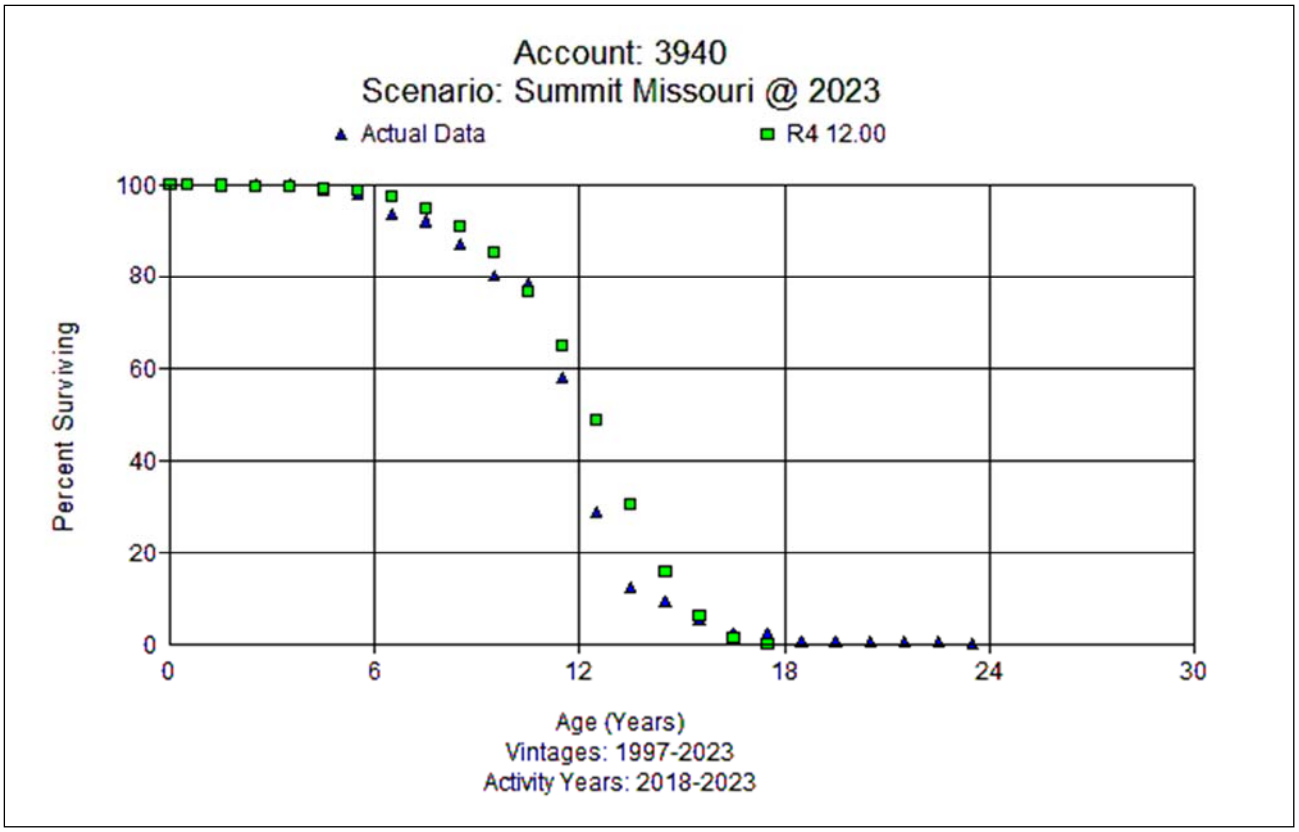
This account consists of various types of computer equipment. There is currently $216 thousand in plant for SNGMO. This equipment includes laptops, docking stations, projectors, and other small computer assets. After retirement of fully accrued assets, the plant balance in Missouri will be $216 thousand. The current life for this account is 7 years. Assets in this account range from in service years 2019-2023. These assets are so new that no retirements have occurred. Company SMEs state that PCs and laptops (standard business equipment) only last 4 years. iPads last about 3 years, and tough book computers are estimated to last 5 years. This account is recommended to have a 5 year life, since these assets are impacted by the pace of technology. Since this account will be recovered using general plant amortization, a SQ curve is recommended. Hence, a 5 year life with an SQ dispersion is recommended for this account.

FERC Account 393.0 Stores Equipment (25 SQ)

This account consists of stores equipment. These assets are usually shelving. containers, or other storage items. There is currently $33 thousand in total plant for SNGMO. The current life of this account is 25 years. There have been no retirements for this account, so it is not possible to perform actuarial analysis. Company SMEs feel that the current 25 year life is operationally reasonable. Since this account will be recovered using general plant amortization, a SQ curve is recommended. Hence, this study recommends retention of the 25 year life with an SQ curve for this account.

FERC Account 394.0 Tools, Shop, & Garage Equipment (12 SQ)

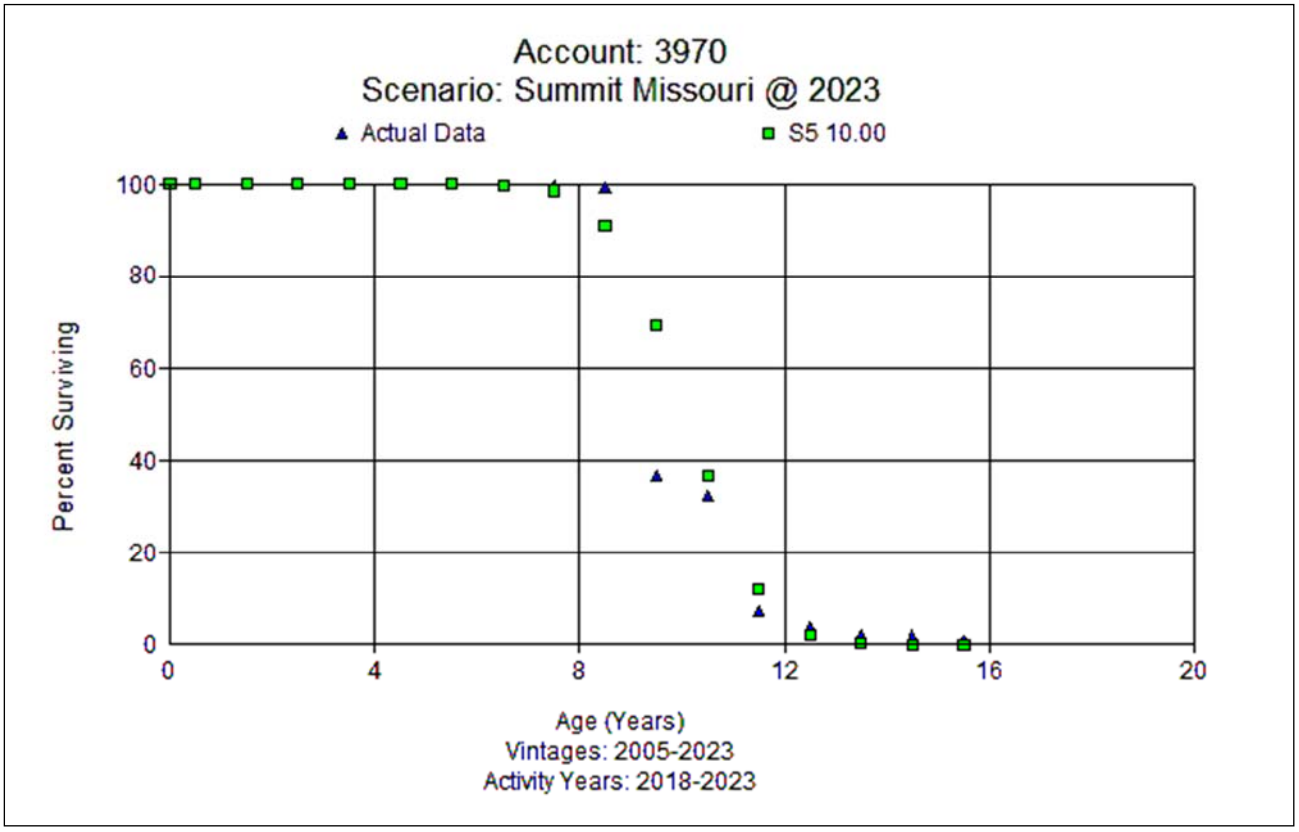
This account consists of various tools and shop equipment. There is currently $530 thousand in total plant for SNGMO. After the retirement of fully accrued plant, the balance in this account will be $503 thousand. The current life of this account is 20 years. The assets in this account are tapping equipment, stop-off equipment, jackhammers, rock drills, electro-fusion equipment, gauges, air compressors, and all tools required to work on pipe. By far, most of the assets in the account are air compressors. In reviewing actuarial analysis for this account, the 12 R4 is an excellent visual match. Company SMEs state that operationally a 15-20 year life is reasonable for air compressors. Other assets in this account such as leak detectors and other electronics should have a shorter life. Assets will be replaced when they cannot be repaired. The analytics are showing a 12 year life on average. Company SMEs state that operationally an average of 12 years is reasonable. A graph of the actual experience is shown below.



Since this account will be recovered using general plant amortization, a SQ curve is recommended. Hence, this study recommends a 12 SQ curve for this account.

FERC Account 397.0 Communications Equipment (10 SQ)

This account consists of general plant communications equipment. There is currently $230 thousand in total plant for SNGMO. After the retirement of fully accrued assets, the plant balance will be $204 thousand. The current life of this account is 15 years. The assets in this account range from 2012 in service year forward. In reviewing actuarial analysis for this account, the 10 S5 is an excellent visual match. Company SMEs state from an operations perspective that assets in this account would have a shorter life than the approved 15 years. The 10 years seen in the analytics is more reasonable for the primarily electronic equipment currently in the system. A graph of the actual experience is shown below.



Since this account will be recovered using general plant amortization, a SQ curve is recommended. Hence, this study recommends a 10 SQ curve for this account.

NET SALVAGE ANALYSIS

When a capital asset is retired, physically removed from service, and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

Gross salvage and cost of removal related to retirements are recorded to the general ledger in the accumulated provision for depreciation at the time retirements occur within the system.

Removal cost percentages are calculated by dividing the current cost of removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the addition versus the retirement. For example, a distribution asset in FERC Account 367 with a current installed cost of $500 (2023) would have had an installed cost of $22.87[5] in 1951 (which is the average life of the account). A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a negative 10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a negative 219 percent removal cost for that asset ($50/$22.87). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

Those results are shown in Appendix D.

[5] Using the Handy-Whitman Bulletin No. 196, G-3, line 27, $22.87 = $500 x 37/809.

Gas Transmission Accounts, FERC Accounts 365.2-369

FERC Account 365.2 Transmission Land Rights (0% net salvage)

This account consists of land rights related to transmission operations. This account was not included in the rates stipulated in GR-2014-00086. There has been no retirement or net salvage history recorded. Based on experience, land rights do not have value on retirement of the asset. This study recommends net salvage of 0 percent for this account.

FERC Account 367 Transmission Mains (-5% net salvage)

This account consists of any gross salvage and removal cost associated with transmission mains and related assets. The current net salvage percentage for this account is 0 percent. There have been no retirements or net salvage activity for this account. Normally the retirement of mains generates a removal cost such as the case for Distribution Mains, Account 376. Based on experience with Account 376, this study recommends moving to negative 5 percent net salvage to model net salvage in the future for this account.

FERC Account 368 Transmission Compressor Station (0% net salvage)

This account consists of any gross salvage and removal cost associated with gas and air compressors, electrical, odorizers, controls used in transmission compression, and related assets. The current net salvage percentage for this account is 0 percent. There have been no retirements or net salvage activity for this account. Based on experience with Account 377, this study recommends retention of 0 percent net salvage to model net salvage in the future for this account.

FERC Account 369.0 M & R Station Equipment (-10% net salvage)

This account consists of any gross salvage and removal cost associated with transmission metering and regulating station equipment. The current net salvage percentage for this account is 0 percent. There have been no retirements or net

salvage activity for this account. Based on experience with Account 378, this study recommends moving to negative 10 percent net salvage to model net salvage in the future for this account.

Gas Distribution Accounts, FERC Accounts 375.0- 386.0

FERC Account 375.0 Structures and Improvements (0% net salvage)

This account consists of any gross salvage and removal cost associated with structures and controls related to distribution operations. The current net salvage percentage for this account is 0 percent. To model net salvage in the future, this study recommends retaining 0 percent net salvage for this account.

FERC Account 376 Distribution Mains Steel (-12% net salvage)

This account consists of any gross salvage and removal cost associated with distribution mains and associated equipment. The current net salvage percentage for this account is 0 percent. The overall moving average varies from negative 13 percent to negative 23 percent as shown in Appendix D. Given the fluctuations in the data, this study recommends moving to negative 12 percent net salvage for this account.

FERC Account 377 Distribution Compressor Stations (0% net salvage)

This account consists of any gross salvage and removal cost associated with distribution compressor stations. The current net salvage percentage for this account is 0 percent. The overall moving averages shows an overall 0 percent as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 378.0 M & R Station Equipment – General (-5% net salvage)

This account consists of any gross salvage and removal cost associated with M&R station piping, regulators, controls, odorizers, and other equipment used in

distribution measuring and regulating stations. The current net salvage percentage for this account is 0 percent. The overall moving averages shows a negative 9 percent as shown in Appendix D. To model net salvage in the future, this study recommends negative 5 percent net salvage for this account.

FERC Account 380.0 Services (-35% net salvage)

This account consists of any gross salvage and removal cost associated with assets related to distribution services. The current net salvage percentage for this account is 0 percent. The overall moving averages show net salvage percentages of negative 59 percent or more for this account, as shown in Appendix D. In order to model net salvage in the future, this study recommends negative 35 percent net salvage for this account.

FERC Account 381.0 Meters (0% net salvage)

This account consists of any gross salvage and removal cost associated with electromechanical distribution meters. The current net salvage percentage for this account is 0 percent. The overall moving averages show 0 percent net salvage, as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 381.1 Meters Electronic (0% net salvage)

This account consists of gross salvage and cost of removal related to electronic devices associated with meters such as flow computers and RTUs. The current net salvage percentage for this account is 0 percent. There has been no retirement activity or net salvage received over the available history. Based on experience with Accounts 381, this study recommends retention of 0 percent net salvage for this account to model net salvage in the future.

FERC Account 381.2 ERTs (0% net salvage)

This account consists of gross salvage and removal cost associated with

ERTs that are attached to meters and meter reading equipment. The current net salvage percentage for this account is 0 percent. There has been no retirement activity or net salvage received over the available history. Based on experience with Accounts 381, this study recommends retention of 0 percent net salvage for this account to model net salvage in the future.

FERC Account 382.0 Meter Installations (-25% net salvage)

This account consists of any gross salvage and removal cost associated with equipment and installation costs related to meter installations. The current net salvage percentage for this account is 0 percent. The overall moving averages show net salvage percentages of negative 40 percent or more as shown in Appendix D. In order to model net salvage in the future, this study recommends negative 25 percent net salvage for this account.

FERC Account 383.0 House Regulators (-25% net salvage)

This account consists of any gross salvage and removal cost associated with house regulators. The current net salvage percentage for this account is 0 percent. The overall moving averages show net salvage percentages are in the negative 30 percent or more negative range. In order to model net salvage in the future, this study recommends negative 25 percent net salvage for this account.

FERC Account 385.0 Industrial M&R Station Equip (-5% net salvage)

This account consists of any gross salvage and removal cost associated with industrial measuring and regulating stations. The current net salvage percentage for this account is 0 percent. There have been no retirements or net salvage activity in this account. Normally there is a small amount of removal cost received when these assets are retired. In order to model net salvage in the future, this study recommends moving to negative 5 percent net salvage for this account.

FERC Account 386.0 Conversion (0% net salvage)

This account consists of any gross salvage and removal cost associated with payments made to encourage customers to switch from propane to natural gas. The current net salvage percentage for this account is 0 percent. There have been no retirements or net salvage activity in this account. Based on judgment, retention of 0 percent net salvage is recommended for this account.

Gas General Accounts, FERC Accounts 390.0-397.0

FERC Account 390.0 General Structures & Improvements (-5% net salvage)

This account consists of any gross salvage and removal cost associated with general office structures. The approved net salvage for this account is 0 percent. Normally there is a small amount of removal cost received when these assets are retired. In order to model net salvage in the future, this study recommends moving to negative 5 percent net salvage for this account.

FERC Account 390.1 General Improvements Leased Premise (-5% net salvage)

This account consists of any gross salvage and removal cost associated with general improvements on leased property. The approved net salvage for this account is 0 percent. Normally there is a small amount of removal cost received when these assets are retired. In order to model net salvage in the future, this study recommends moving to negative 5 percent net salvage for this account.

FERC Account 391.0 Office Furniture & Equipment (0% net salvage)

This account consists of any gross salvage and removal cost associated with general office furniture and equipment. The approved net salvage for this account is 0 percent. The overall moving average for this account is 0 percent net salvage as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 391.1 Computer Software (0% net salvage)

This account consists of any gross salvage and removal cost associated with computer software. The approved net salvage for this account is 10 percent. The overall moving average for this account is 0 percent net salvage as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 391.2 Computer Equipment (0% net salvage)

This account consists of any gross salvage and removal cost associated with computer equipment. The approved net salvage for this account is 10 percent. There have been no retirements or net salvage activity for this account. Normally old computer equipment has no value. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 392.0 Transportation Equipment (13% net salvage)

This account consists of any gross salvage and removal cost associated with transportation equipment. The approved net salvage for this account is 10 percent. The overall moving averages show net salvage percentages ranging from 12-15 percent. In order to model net salvage in the future, this study recommends moving to 13 percent net salvage for this account.

FERC Account 393.0 Stores Equipment (0% net salvage)

This account consists of any gross salvage and removal cost associated with stores equipment. The approved net salvage for this account is 0 percent. There have been no retirements and net salvage received over the available period. Normally, these assets do not produce any net salvage. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 394.0 Tools, Shop, & Garage Equipment (0% net salvage)

This account consists of any gross salvage and removal cost associated with various tools and shop equipment. The approved net salvage for this account is 0 percent. The overall moving average for this account is 0 percent net salvage for most of this account's history as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

FERC Account 396.0 Power Operated Equipment (13% net salvage)

This account consists of any gross salvage and removal cost associated with power operated equipment. The approved net salvage for this account is positive 20 percent. The overall moving average for this account is 0 percent. Normally gross salvage proceeds are received when assets are retired and later sold. Based on experience with Account 392, this study recommends 13 percent net salvage. In order to model net salvage in the future, this study recommends moving to 13 percent net salvage for this account.

FERC Account 397.0 Communication Equipment (0% net salvage)

This account consists of any gross salvage and removal cost associated with general plant communications equipment. The approved net salvage for this account is 0 percent. The overall moving average for this account is 0 percent net salvage as shown in Appendix D. In order to model net salvage in the future, this study recommends retention of 0 percent net salvage for this account.

APPENDIX A

Proposed Depreciation Rates

SUMMIT MISSOURI GAS

COMPUTATION OF ANNUAL DEPRECIATION ACCRUAL AMOUNTS AND RATES
RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2023

Acct	Description	Plant Balance	Allocated Reserve	Net Salvage %	Net Salvage Amount	Unaccrued Balance	Remaining Life	Accrual Amount	Annual Accrual Rate	Life Accrual Rate	COR Accrual Rate
	Transmission										
365	Right of Way	35,564.25	1,009.99	0%	-	34,554.26	68.64	503.38	1.42%	1.42%	0.00%
367	Transmission Mains	29,121,856.35	1,311,100.34	-5%	(1,456,092.82)	29,266,848.83	67.95	430,695.22	1.48%	1.41%	0.07%
368	Compressor Station Equipment	12,351,548.53	822,994.04	0%	-	11,528,554.49	38.18	301,937.69	2.44%	2.44%	0.00%
369	Measuring and Regulating Equip	939,588.30	83,947.65	-10%	(93,958.83)	949,599.48	37.78	25,132.49	2.67%	2.41%	0.26%
		42,448,557.43	2,219,052.02		(1,550,051.65)	41,779,557.06		758,268.78			
	Distribution										
375	Structures and Improvements	198,379.07	60,509.49	0%	-	137,869.58	28.41	4,853.58	2.45%	2.45%	0.00%
376	Distribution Mains	192,510,931.99	42,886,890.17	-12%	(23,101,311.84)	172,725,353.66	52.71	3,276,666.92	1.70%	1.47%	0.23%
377	Compressor Station Equipment	282,225.47	24,416.98	0%	-	257,808.49	36.71	7,022.57	2.49%	2.49%	0.00%
378	Measuring and Regulating Equip	7,285,896.43	772,437.94	-5%	(364,294.82)	6,877,753.31	36.16	190,192.91	2.61%	2.47%	0.14%
380	Services	55,369,204.30	15,657,178.97	-35%	(19,379,221.51)	59,091,246.83	36.04	1,639,481.00	2.96%	1.99%	0.97%
381	Meters	12,316,031.81	5,754,801.33	0%	-	6,561,230.48	14.38	456,142.69	3.70%	3.70%	0.00%
381.1	Meter Electronics	400,453.03	86,332.50	0%	-	314,120.53	11.93	26,337.03	6.58%	6.58%	0.00%
381.2	Meter ERTS	1,003,826.51	549,201.91	0%	-	454,624.60	17.32	26,246.18	2.61%	2.61%	0.00%
382	Meter Installations	2,811,809.67	588,217.60	-25%	(702,952.42)	2,926,544.49	37.84	77,333.13	2.75%	2.09%	0.66%
383	House Regulators	719,720.08	196,588.74	-25%	(179,930.02)	703,061.36	23.77	29,577.20	4.11%	3.06%	1.05%
385	Industrial Measuring & Regulating Equipment	747,463.59	378,740.95	-5%	(37,373.18)	406,095.82	18.95	21,430.33	2.87%	2.60%	0.26%
386.1	Conversions	10,376,444.86	2,532,634.38	0%	-	7,843,810.48	38.40	204,250.46	1.97%	1.97%	0.00%
	Total Distribution	284,022,386.81	69,487,950.98			258,299,519.61		5,959,534.02			
	General Plant Depreciated										
390	Structures and Improvements	434,165.86	142,037.22	-5%	(21,708.29)	313,836.93	38.69	8,111.67	1.87%	1.74%	0.13%
390.1	Leasehold Improvements	407,035.44	57,428.97	-5%	(20,351.77)	369,958.24	17.95	20,609.01	5.06%	4.78%	0.28%
392	Tranportation Equipment	4,564,172.16	1,622,908.39	13%	593,342.38	2,347,921.39	7.73	303,579.11	6.65%	6.65%	0.00%
396	Power Operated Equipment	1,661,578.50	554,378.88	13%	216,005.21	891,194.41	9.97	89,348.98	5.38%	5.38%	0.00%
	Total General Depreciable	7,066,951.96	2,376,753.46		767,287.52	3,922,910.98		421,648.77			

APPENDIX A-1

Proposed Amortization Rates

SUMMIT MISSOURI GAS

Computation of Proposed Depreciation Amortization Rates
Using Average Life Group Depreciation
As of December 31, 2023

Account	Description	Plant Balance Dec-23	Allocated Reserve Dec-23	Theoretical Reserve Dec-23	Reserve Difference (Deficit)/Surplus	Reserve Amortization Period	Reserve Amortization Amount	Assets to Retire > ASL
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
391	Office Furniture & Equipment	214,084.67	81,480.18	81,480.18	-	5	-	-
391.1	Computer Software	2,895,854.45	1,681,050.71	1,681,050.71	-	5	-	-
391.2	Computer Equipment	215,955.85	174,844.65	174,844.65	-	5	-	-
393	Stores Equipment	33,022.47	4,312.66	4,312.66	-	5	-	-
394	Tools, Shop, and Garage Equipment	529,936.79	368,949.81	368,949.81	-	5	-	26,910.54
397	Communication Equipment	229,579.22	78,330.22	78,330.22	-	5	-	25,102.87
		4,118,433.45	2,388,968.22	2,388,968.22	-		-	52,013.41

After Retirements of Assets With Age > Average Service Life

Account	Description	Plant Balance Dec-23	Allocated Reserve Dec-23	Proposed Life	Annual Amortization	Amortization Rate
391	Office Furniture & Equipment	214,084.67	81,480.18	20	10,704.23	5.00%
391.1	Computer Software	2,895,854.45	1,681,050.71	10	289,585.45	10.00%
391.2	Computer Equipment	215,955.85	174,844.65	5	43,191.17	20.00%
393	Stores Equipment	33,022.47	4,312.66	25	1,320.90	4.00%
394	Tools, Shop, and Garage Equipment	503,026.25	342,039.27	12	41,918.85	8.33%
397	Communication Equipment	204,476.35	53,227.35	10	20,447.64	10.00%
		4,066,420.04	2,336,954.81		407,168.24	

APPENDIX B

Comparison of Accrual Rates

SUMMIT MISSOURI GAS

COMPARISON OF ANNUAL DEPRECIATION ACCRUAL AMOUNTS AND RATES
OF DECEMBER 31, 2023
TRANSMISSION, DISTRIBUTION, AND GENERAL RESERVE REALLOCATED

ACCOUNT	Description	Plant Balance	Current Accrual Rate	Current Accrual Amount	Proposed Accrual Rate	Proposed Accrual Amount	Difference
365.00	Right of Way	35,564.25	1.70%	604.59	1.40%	497.90	(106.69)
367.00	Transmission Mains	29,121,856.35	2.00%	582,437.13	1.50%	436,827.85	(145,609.28)
368.00	Compressor Station Equipment	12,351,548.53	2.00%	247,030.97	2.40%	296,437.16	49,406.19
369.00	Measuring and Regulating Equip	939,588.30	2.00%	18,791.77	2.70%	25,368.88	6,577.12
	Total Transmission	42,448,557.43		848,864.46		759,131.79	(89,732.66)
	Distribution						
375.00	Structures and Improvements	198,379.07	2.00%	3,967.58	2.40%	4,761.10	793.52
376.00	Distribution Mains	192,510,931.99	2.00%	3,850,218.64	1.70%	3,272,685.84	(577,532.80)
377.00	Compressor Station Equipment	282,225.47	2.00%	5,644.51	2.50%	7,055.64	1,411.13
378.00	Measuring and Regulating Equip	7,285,896.43	2.00%	145,717.93	2.60%	189,433.31	43,715.38
380.00	Services	55,369,204.30	2.00%	1,107,384.09	3.00%	1,661,076.13	553,692.04
381.00	Meters	12,316,031.81	2.00%	246,320.64	3.70%	455,693.18	209,372.54
381.10	Meter Electronics	400,453.03	2.00%	8,009.06	6.60%	26,429.90	18,420.84
381.20	Meter ERTS	1,003,826.51	2.00%	20,076.53	2.60%	26,099.49	6,022.96
382.00	Meter Installations	2,811,809.67	2.00%	56,236.19	2.80%	78,730.67	22,494.48
383.00	House Regulators	719,720.08	2.00%	14,394.40	4.10%	29,508.52	15,114.12
385.00	Industrial Measuring & Regulating Eq	747,463.59	2.00%	14,949.27	2.90%	21,676.44	6,727.17
386.10	Conversions	10,376,444.86	2.00%	207,528.90	2.00%	207,528.90	0.00
	Total Distribution	284,022,386.81		5,680,447.74		5,980,679.12	300,231.38
	General Plant Depreciated	0.00					
390.00	Structures and Improvements	434,165.86	2.00%	8,683.32	1.90%	8,249.15	(434.17)
390.10	Leasehold Improvements	407,035.44	5.00%	20,351.77	5.10%	20,758.81	407.04
392.00	Tranportation Equipment	4,564,172.16	12.90%	588,778.21	6.70%	305,799.53	(282,978.67)
396.00	Power Operated Equipment	1,661,578.50	5.00%	83,078.93	5.40%	89,725.24	6,646.31
	Total General Depreciated	7,066,951.96		700,892.22		424,532.73	(276,359.49)

SUMMIT MISSOURI GAS

COMPARISON OF ANNUAL DEPRECIATION ACCRUAL AMOUNTS AND RATES
OF DECEMBER 31, 2023
TRANSMISSION, DISTRIBUTION, AND GENERAL RESERVE REALLOCATED

ACCOUNT	Description	Plant Balance	Current Accrual Rate	Current Accrual Amount	Proposed Accrual Rate	Proposed Accrual Amount	Difference
	Genearal Amortized						
391.00	Office Furniture & Equipment	214,084.67	5.00%	10,704.23	5.00%	10,704.23	0.00
391.10	Computer Software	2,895,854.45	12.90%	373,565.22	10.00%	289,585.45	(83,979.78)
391.20	Computer Equipment	215,955.85	12.90%	27,858.30	20.00%	43,191.17	15,332.87
393.00	Stores Equipment	33,022.47	4.00%	1,320.90	4.00%	1,320.90	0.00
394.00	Tools, Shop, and Garage Equipment	503,026.25	5.00%	25,151.31	8.30%	41,751.18	16,599.87
397.00	Communication Equipment	204,476.35	6.70%	13,699.92	10.00%	20,447.64	6,747.72
	Total Amortized Plant	4,066,420.04		452,299.89		407,000.56	(45,299.33)
	Reseve Amortization					0.00	0.00
	Fully Accrued Amortized Assets	52,013.41					
	Total Depreciable Plant	337,656,329.65		7,682,504.30		7,571,344.20	(111,160.10)
	Not Included						
3020.00	Franchises and Consents	1,064,696.84					
3651.00	Fee Land Transmision	329,026.16					
3740.00	Fee Land Distribution	16,217,320.38					
Total		355,267,373.03					
Check Total		355,267,373.03					
Difference		0.00					

NOTE: 3652 and 3901 are not specified in the MO Stipulation

APPENDIX C

Depreciation Parameters

SUMMIT MISSOURI GAS

Comparison of Proposed Depreciation Parameters
Using Average Life Group Depreciation
As of December 31, 2023

	2013 Study			Proposed		
	Life	Curve	Net Salvage %	Life	Curve	Net Salvage %
TRANSMISSION						
3651-Trans-Land						
3652-Trans-Rights of Way				70	R2	0%
3660 Stuctures and improvements	50		0%	No Plant		
3670-Trans-Mains	50		0%	70	R2	-5%
3680-Trans-Compressor Station	50		0%	40	R1	0%
3690-Trans-Meas & Reg station equip	50		0%	40	R2	-10%
3700-Communication Equipment	50		0%	No Plant		
3710-Other Equipment	50		0%	No Plant		
DISTRIBUTION						
3740-Dist Plant-Land / Land rights				65	R2	0%
3750-Dist Plant-Structures	50		0%	40	R2	0%
3760-Distribution Mains	50		0%	65	R2	-12%
3770-Compressor Station	50		0%	40	R1	0%
3780-Dist-Meas & Reg stat equip	50		0%	40	R2	-5%
3800-Services	50		0%	45	R2	-35%
3810-Meters	50		0%	26	SQ	0%
381 Electronics				15	SQ	0%
381 ERTS				20	R2	0%
3820-Meter Installs	50		0%	45	R2	-25%
3830-House regulators	50		0%	30	R2	-25%
3840-House Regulator Installations	50		0%	30	R2	-25%
3850-Indus Meas & Reg station equip	50		0%	35	R2	-5%
3860-Conversions	50		0%	50	SQ	0%
3870-Other Equipment	50		0%			0%

SUMMIT MISSOURI GAS

Comparison of Proposed Depreciation Parameters
Using Average Life Group Depreciation
As of December 31, 2023

	2013 Study			Proposed			
	Life	Curve	Net Salvage %	Life	Curve	Net Salvage %	
GENERAL							
3900-Gen Plant-Structures	50		0%	50	R2	-5%	
3901-Gen Plant-Strct/Leasehold Impr				20	L2.5	-5%	
3910-Office furniture & equipment	20		0%	20	L2	0%	VGA
3911-Software	7		10%	10	R3	0%	VGA
3912-Computer Equipment	7		10%	5		0%	
3920-Transportation Equipment	7		10%	11	L2.5	13%	
3930-Stores equipment	25		0%	25	R2	0%	VGA
3940-Tools, shop & garage equipmen	20		0%	12	R4	0%	VGA
3960-Power operated equipment	12		20%	14	S4	13%	
3970-Communication equipment	15		0%	10	S5	0%	VGA

VGA means Vintage Group Amortization

APPENDIX D

Net Salvage Analysis

SUMMIT MISSOURI GAS
RETIREMENTS, SALVAGE, AND COST OF REMOVAL
PER BOOK

Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3652-Transm - Rights of Way											
3652	2018	0	0	0	0	NA					
3652	2019	0	0	0	0	NA	NA				
3652	2020	0	0	0	0	NA	NA	NA			
3652	2021	0	0	0	0	NA	NA	NA	NA		
3652	2022	0	0	0	0	NA	NA	NA	NA	NA	
3652	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3670-Transm - Mains											
3670	2018	0	0	0	0	NA					
3670	2019	0	0	0	0	NA	NA				
3670	2020	0	0	0	0	NA	NA	NA			
3670	2021	0	0	0	0	NA	NA	NA	NA		
3670	2022	0	0	0	0	NA	NA	NA	NA	NA	
3670	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3680-Trans -Compressor Station											
3680	2018	0	0	0	0	NA					
3680	2019	0	0	0	0	NA	NA				
3680	2020	0	0	0	0	NA	NA	NA			
3680	2021	0	0	0	0	NA	NA	NA	NA		
3680	2022	0	0	0	0	NA	NA	NA	NA	NA	
3680	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3690-Transm - Meas & Reg Stat Equi											
3690	2018	0	0	0	0	NA					
3690	2019	0	0	0	0	NA	NA				
3690	2020	0	0	0	0	NA	NA	NA			
3690	2021	0	0	0	0	NA	NA	NA	NA		
3690	2022	0	0	0	0	NA	NA	NA	NA	NA	
3690	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3700-Transm - Comm Equip											
3700	2018	0	0	0	0	NA					
3700	2019	0	0	0	0	NA	NA				
3700	2020	0	0	0	0	NA	NA	NA			
3700	2021	0	0	0	0	NA	NA	NA	NA		
3700	2022	0	0	0	0	NA	NA	NA	NA	NA	
3700	2023	0	0	0	0	NA	NA	NA	NA	NA	NA

SUMMIT MISSOURI GAS
RETIREMENTS, SALVAGE, AND COST OF REMOVAL
PER BOOK

Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3701-Transm - Comm Equip-Electronic											
3701	2018	0	0	0	0	NA					
3701	2019	0	0	0	0	NA					
3701	2020	0	0	0	0	NA					
3701	2021	0	0	0	0	NA					
3701	2022	0	0	0	0	NA					
3701	2023	0	0	0	0	NA					
3740-Dist Plant - Land/Rights											
3740	2018	0	0	0	0	NA					
3740	2019	0	0	0	0	NA	NA				
3740	2020	0	0	0	0	NA	NA	NA			
3740	2021	0	0	0	0	NA	NA	NA	NA		
3740	2022	0	0	0	0	NA	NA	NA	NA	NA	
3740	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3750-Dist Plant - Structures											
3750	2018	0	0	0	0	NA					
3750	2019	0	0	0	0	NA	NA				
3750	2020	0	0	0	0	NA	NA	NA			
3750	2021	945	0	0	0	0.00%	0.00%	0.00%	0.00%		
3750	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3750	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%
3760-Distribution Mains											
3760	2018	0	0	0	0	NA					
3760	2019	26,117	1,795	19,276	(17,481)	-66.93%	-66.93%				
3760	2020	144,303	0	1,060	(1,060)	-0.73%	-10.88%	-10.88%			
3760	2021	20,207	0	0	0	0.00%	-0.64%	-9.73%	-9.73%		
3760	2022	73,085	0	42,660	(42,660)	-58.37%	-45.73%	-18.40%	-23.21%	-23.21%	
3760	2023	198,425	0	2,780	(2,780)	-1.40%	-16.74%	-15.58%	-10.66%	-13.84%	-13.84%
3770-Compressor Station											
3770	2018	0	0	0	0	NA					
3770	2019	0	0	0	0	NA	NA				
3770	2020	0	0	0	0	NA	NA	NA			
3770	2021	120,516	0	0	0	0.00%	0.00%	0.00%	0.00%		
3770	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3770	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%

SUMMIT MISSOURI GAS
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Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3780-Dist - Meas & Reg Stat Equi											
3780	2018	0	0	0	0	NA					
3780	2019	0	0	0	0	NA	NA				
3780	2020	0	0	0	0	NA	NA	NA			
3780	2021	43,000	0	0	0	0.00%	0.00%	0.00%	0.00%		
3780	2022	94,981	0	0	0	0.00%	0.00%	0.00%	0.00%	0.00%	
3780	2023	283,637	0	38,470	(38,470)	-13.56%	-10.16%	-9.12%	-9.12%	-9.12%	-9.12%
3800-Services											
3800	2018	69,872	(7,436)	23,634	(31,070)	-44.47%					
3800	2019	173,613	2,989	570,483	(567,494)	-326.87%	-245.83%				
3800	2020	255,631	(903)	32,073	(32,977)	-12.90%	-139.89%	-126.53%			
3800	2021	322,785	0	121,264	(121,264)	-37.57%	-26.67%	-95.97%	-91.59%		
3800	2022	516,404	0	150,939	(150,939)	-29.23%	-32.44%	-27.87%	-68.80%	-67.53%	
3800	2023	449,361	0	156,323	(156,323)	-34.79%	-31.82%	-33.26%	-29.89%	-59.90%	-59.30%
3810-Meters											
3810	2018	0	0	0	0	NA					
3810	2019	0	0	0	0	NA	NA				
3810	2020	0	0	0	0	NA	NA	NA			
3810	2021	0	0	0	0	NA	NA	NA	NA		
3810	2022	286,862	0	0	0	0.00%	0.00%	0.00%	0.00%	0.00%	
3810	2023	346,107	0	0	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3820-Meter installs											
3820	2018	3,312	(349)	1,153	(1,501)	-45.33%					
3820	2019	7,557	149	3,080	(2,931)	-38.79%	-40.78%				
3820	2020	10,526	0	1,282	(1,282)	-12.18%	-23.30%	-26.71%			
3820	2021	15,384	0	7,626	(7,626)	-49.57%	-34.38%	-35.38%	-36.27%		
3820	2022	17,727	0	8,388	(8,388)	-47.32%	-48.37%	-39.64%	-39.51%	-39.86%	
3820	2023	11,834	0	7,356	(7,356)	-62.16%	-53.26%	-52.00%	-44.44%	-43.76%	-43.84%
3830-House regulators											
3830	2018	2,235	(229)	579	(808)	-36.15%					
3830	2019	3,571	266	1,130	(864)	-24.20%	-28.80%				
3830	2020	3,603	0	587	(587)	-16.29%	-20.23%	-24.01%			
3830	2021	5,542	0	3,461	(3,461)	-62.45%	-44.26%	-38.63%	-38.26%		
3830	2022	8,437	0	3,200	(3,200)	-37.93%	-47.65%	-41.22%	-38.35%	-38.14%	
3830	2023	16,667	0	4,878	(4,878)	-29.26%	-32.18%	-37.65%	-35.40%	-34.35%	-34.45%

SUMMIT MISSOURI GAS
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Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3850-Ind Meas & Reg Station Equip											
3850	2018	0	0	0	0	NA					
3850	2019	0	0	0	0	NA	NA				
3850	2020	0	0	0	0	NA	NA	NA			
3850	2021	0	0	0	0	NA	NA	NA	NA		
3850	2022	0	0	0	0	NA	NA	NA	NA	NA	
3850	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3860-Conversions											
3860	2018	0	0	0	0	NA					
3860	2019	0	0	0	0	NA	NA				
3860	2020	0	0	0	0	NA	NA	NA			
3860	2021	0	0	0	0	NA	NA	NA	NA		
3860	2022	0	0	0	0	NA	NA	NA	NA	NA	
3860	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3890-Gen Plant - Land & Land Rights											
3890	2018	0	0	0	0	NA					
3890	2019	0	0	0	0	NA	NA				
3890	2020	0	0	0	0	NA	NA	NA			
3890	2021	0	0	0	0	NA	NA	NA	NA		
3890	2022	0	0	0	0	NA	NA	NA	NA	NA	
3890	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3900-Gen Plant - Structures											
3900	2018	0	0	0	0	NA					
3900	2019	0	0	0	0	NA	NA				
3900	2020	0	0	0	0	NA	NA	NA			
3900	2021	0	0	0	0	NA	NA	NA	NA		
3900	2022	0	0	0	0	NA	NA	NA	NA	NA	
3900	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3901-Gen Plant - Strctr/Lshold Imp											
3901	2018	0	0	0	0	NA					
3901	2019	0	0	0	0	NA	NA				
3901	2020	0	0	0	0	NA	NA	NA			
3901	2021	59,925	0	0	0	0.00%	0.00%	0.00%	0.00%		
3901	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3901	2023	3,822	0	0	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

SUMMIT MISSOURI GAS
RETIREMENTS, SALVAGE, AND COST OF REMOVAL
PER BOOK

Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3910-Office Furniture & Equipment											
3910	2018	0	0	0	0	NA					
3910	2019	0	0	0	0	NA	NA				
3910	2020	0	0	0	0	NA	NA	NA			
3910	2021	326,857	0	0	0	0.00%	0.00%	0.00%	0.00%		
3910	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3910	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%
3911-Software (purch/internal gen)											
3911	2018	463,192	0	0	0	0.00%					
3911	2019	0	0	0	0	NA	0.00%				
3911	2020	0	0	0	0	NA	NA	0.00%			
3911	2021	154,898	0	0	0	0.00%	0.00%	0.00%	0.00%		
3911	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3911	2023	46,282	0	0	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3912-Computer Equip											
3912	2018	0	0	0	0	NA					
3912	2019	0	0	0	0	NA	NA				
3912	2020	0	0	0	0	NA	NA	NA			
3912	2021	0	0	0	0	NA	NA	NA	NA		
3912	2022	0	0	0	0	NA	NA	NA	NA	NA	
3912	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3920-Transp Equip (vehicles)											
3920	2018	0	0	0	0	NA					
3920	2019	80,459	8,600	0	8,600	10.69%	10.69%				
3920	2020	312,240	54,415	0	54,415	17.43%	16.05%	16.05%			
3920	2021	200,259	26,592	0	26,592	13.28%	15.81%	15.11%	15.11%		
3920	2022	39,608	5,000	0	5,000	12.62%	13.17%	15.58%	14.96%	14.96%	
3920	2023	136,572	19,499	0	19,499	14.28%	13.91%	13.57%	15.32%	14.84%	14.84%

SUMMIT MISSOURI GAS
RETIREMENTS, SALVAGE, AND COST OF REMOVAL
PER BOOK

Account	Year	Retirements	Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %
3930-Stores Equip											
3930	2018	0	0	0	0	NA					
3930	2019	0	0	0	0	NA	NA				
3930	2020	0	0	0	0	NA	NA	NA			
3930	2021	0	0	0	0	NA	NA	NA	NA		
3930	2022	0	0	0	0	NA	NA	NA	NA	NA	
3930	2023	0	0	0	0	NA	NA	NA	NA	NA	NA
3940-Tools,Shop,Grg Equip(no labor)											
3940	2018	0	0	0	0	NA					
3940	2019	0	0	0	0	NA	NA				
3940	2020	0	0	0	0	NA	NA	NA			
3940	2021	771,242	0	0	0	0.00%	0.00%	0.00%	0.00%		
3940	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3940	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%
3960-Power oper equip(trencher,etc)											
3960	2018	0	0	0	0	NA					
3960	2019	0	0	0	0	NA	NA				
3960	2020	0	0	0	0	NA	NA	NA			
3960	2021	73,060	0	0	0	0.00%	0.00%	0.00%	0.00%		
3960	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3960	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%
3970-Comm Equipment											
3970	2018	0	0	0	0	NA					
3970	2019	0	0	0	0	NA	NA				
3970	2020	0	0	0	0	NA	NA	NA			
3970	2021	317,225	0	0	0	0.00%	0.00%	0.00%	0.00%		
3970	2022	0	0	0	0	NA	0.00%	0.00%	0.00%	0.00%	
3970	2023	0	0	0	0	NA	NA	0.00%	0.00%	0.00%	0.00%

APPENDIX E

Accumulated Depreciation Summary

SUMMIT MISSOURI GAS
Plant and Reserve Per Book
As of December 31, 2023

Acct	Plant	Book Reserve	Allocated Reserve
3652-Transm - Rights of Way	35,564.25	1,209.12	1,009.99
3670-Transm - Mains	29,121,856.35	1,490,292.06	1,311,100.34
3680-Trans -Compressor Station	12,351,548.53	687,780.11	822,994.04
3690-Transm - Meas & Reg Stat Equi	939,588.30	39,770.73	83,947.65
Total Transmission	42,448,557.43	2,219,052.02	2,219,052.02
3740-Dist Plant - Land/Rights	-	0.00	
3750-Dist Plant - Structures	198,379.07	54,874.43	60,509.49
3760-Distribution Mains	192,510,931.99	53,785,939.28	42,886,890.17
3770-Compressor Station	282,225.47	(71,472.42)	24,416.98
3780-Dist - Meas & Reg Stat Equi	7,224,886.18	266,349.10	772,437.94
3781-Dist - Meas & Reg-Electronic	61,010.25	4,744.27	Combined in Study
3800-Services - Residential units	45,254,049.49	7,640,299.22	15,657,178.97
3801-Services - Non-Res units	10,115,154.81	1,970,866.42	Combined in Study
3810-Meters	12,316,031.81	2,592,648.02	5,754,801.33
3811-Meters - Electronic	400,453.03	25,446.47	86,332.50
3812-Meters - ERTS	1,003,826.51	64,993.51	549,201.91
3820-Meter installs Residential	2,235,086.05	296,894.48	588,217.60
3821-Meter install Non-Residential	576,723.62	83,357.61	Combined in Study
3830-House regulators	719,720.08	57,289.04	196,588.74
3850-Ind Meas & Reg Station Equip	747,463.59	299,326.73	378,740.95
3860-Conversions	10,376,444.86	2,416,394.82	2,532,634.38
Total Distribution	284,022,386.81	69,487,950.98	69,487,950.98
3900-Gen Plant - Structures	434,165.86	98,188.93	142,037.22
3901-Gen Plant - Strctr/Lshold Imp	407,035.44	33,731.07	57,428.97

SUMMIT MISSOURI GAS
Plant and Reserve Per Book
As of December 31, 2023

Acct	Plant	Book Reserve	Allocated Reserve
3910-Office Furniture & Equipment	214,084.67	11,182.70	81,480.18
3911-Software (purch/internal gen)	2,895,854.45	1,947,867.85	1,681,050.71
3912-Computer Equip	215,955.85	119,732.25	174,844.65
3920-Transp Equip (vehicles)	4,564,172.16	2,227,839.92	1,622,908.39
3930-Stores Equip	33,022.47	4,350.04	4,312.66
3940-Tools,Shop,Grg Equip(no labor)	529,936.79	(75,583.55)	368,949.81
3960-Power oper equip(trencher,etc)	1,661,578.50	458,835.90	554,378.88
3970-Comm Equipment	229,579.22	(60,423.43)	78,330.22
Total General	11,185,385.41	4,765,721.68	4,765,721.68
Total Depreciable	337,656,329.65	76,472,724.68	76,472,724.68
Not included			
3020- Franchises and Consents	1,064,696.84	272,507.04	272,507.04
3651-Fee Land Trans	329,026.16	0.00	
3740- Fee Land Dist	16,217,320.38	0.00	
Total Plant	355,267,373.03	76,745,231.72	76,745,231.72