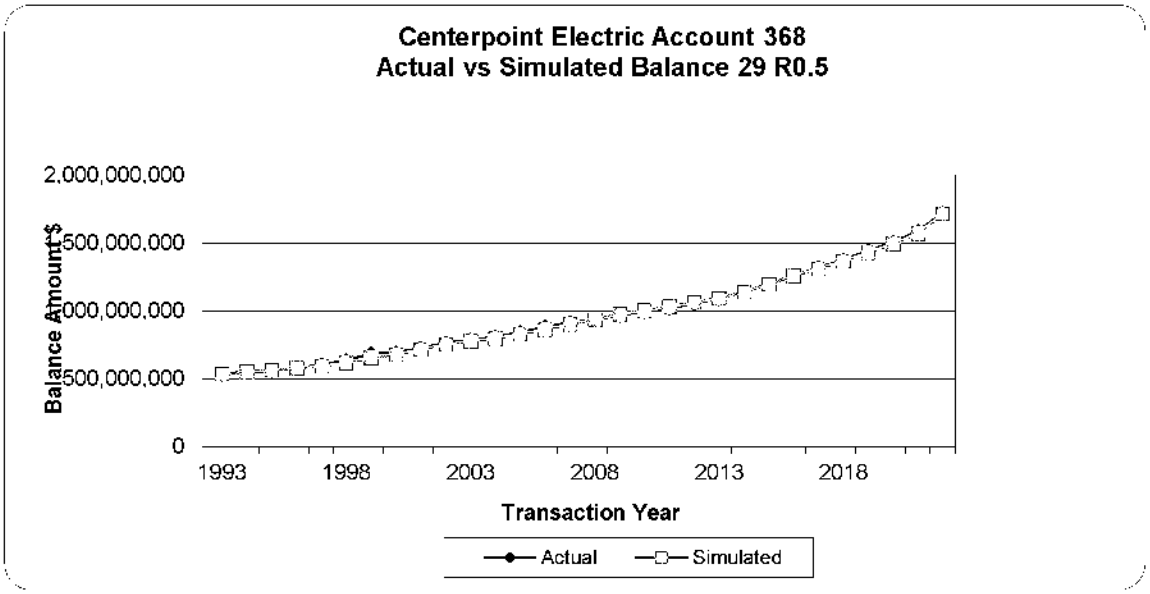
15-20 years as more stainless is in service. Company SMEs agree that a 29 year life on average seems reasonable operationally.

Based on the analysis, discussions with Company engineers, and the type of assets in this account, this study recommends moving to a 29-year life with the R0.5 dispersion for this account. A graph of the plot of the actual versus observed balances for the chosen life and dispersion is shown below.



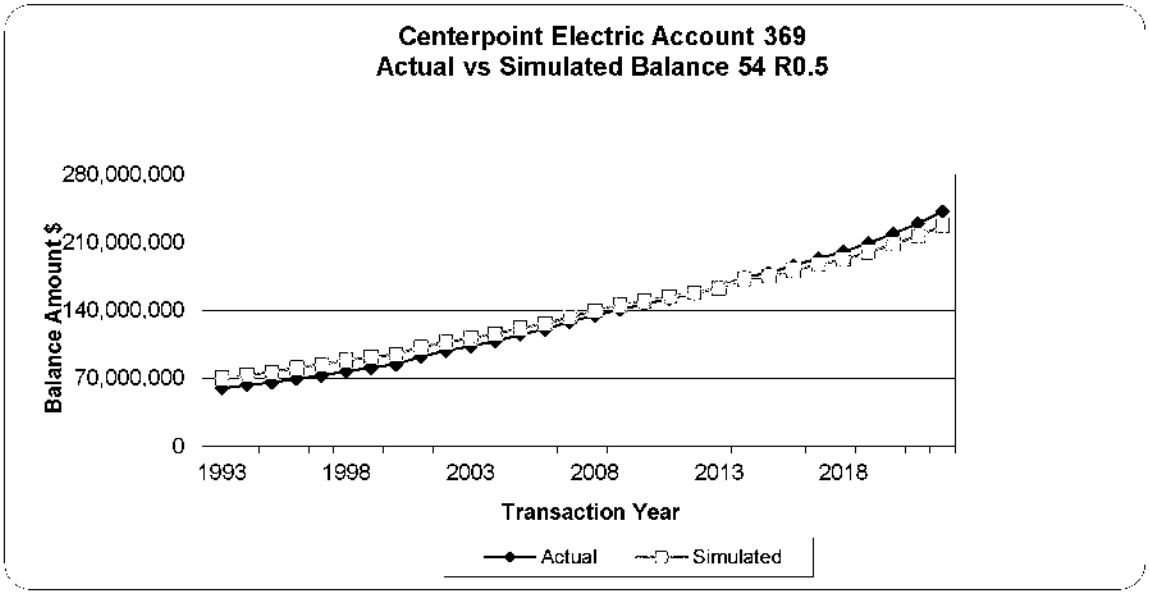
Account 369 Distribution Services (54 R0.5)

This account includes all distribution services, both overhead and underground. The balance in this account is $241.9 million. The approved life for this account is 46 years with the R0.5 dispersion.

The SPR analysis indicated the R0.5 curve to be the top ranked curve with excellent REIs. None of the CIs were in the excellent range. In the 40 year through overall bands, the life indication for an R0.5 curve is 54 years. The 30 year and under bands produced longer lives, but were not given weight in the analysis given that authoritative guidance recommends a band width similar to the average life of the account.

Discussions with Company engineers indicated UG services from a secondary pedestal to the meter are generally owned by the customer. Current Polyethylene coatings for OH drops are better than older service material. The wire has not changed type over the years. Company SMEs report that the only wire owned by the company is the overhead drops, and the Company does not own the UG services (except for a few special situations). The primary reason for replacement of services is the need for more capacity at houses (replacing #4 drops with 1/0). Company SMEs state the indications from the analysis of an upward movement in life is operationally reasonable.

The 54 R0.5 curve is considered the best choice based on statistical results and is consistent with Company expectations for a longer life. Additionally, the newer standard of polyethylene insulation is expected to last longer than the materials used in the past. Based on all these factors, this study recommends a 54 year life with the R0.5 dispersion. A graph of the plot of the actual versus observed balances for the chosen life and dispersion is shown below.

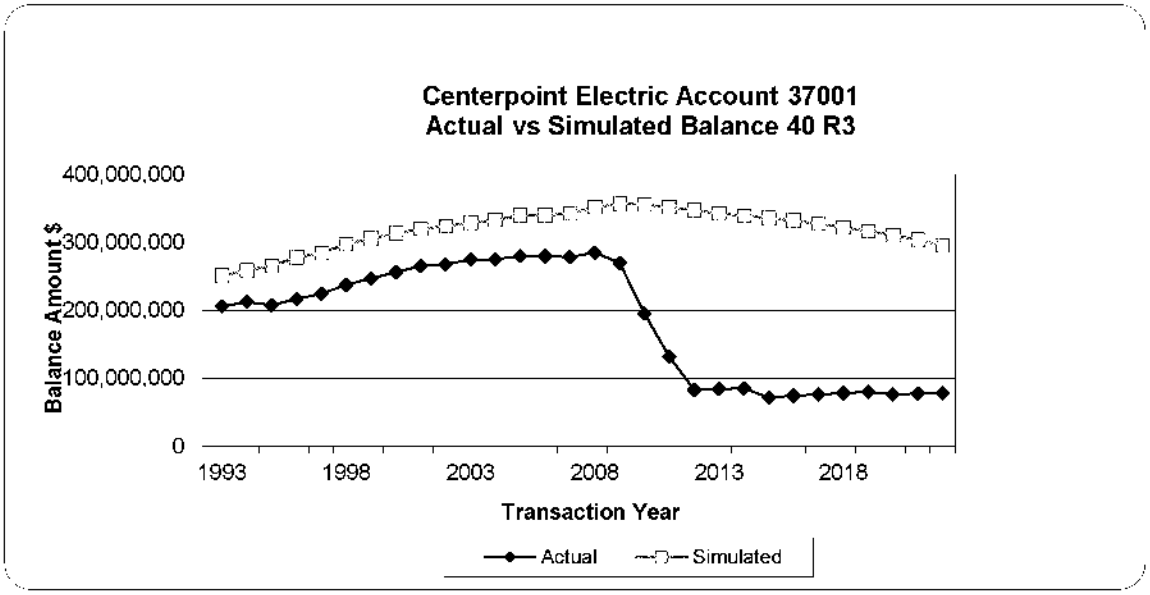

Centerpoint Electric Account 369
Actual vs Simulated Balance 54 R0.5
280,000,000
210,000,000
140,000,000
70,000,000
0
Balance Amount $
1993
1998
2003
2008
2013
2018
Transaction Year
Actual
Simulated

Account 370.01 Meters (40 R3)

This account includes primarily equipment related to distribution meters. The balance in this account is $78.4 million. The approved life for this account is 21 years with the R3 dispersion. Due the AMS deployment, this account was not studied in the last depreciation study.

Discussions with Company engineers indicated that all electromechanical meters, except for the "opt out" customers, have been replaced and new meters are in a different account. This program was completed in 2020. The interval data recorder-type (IDR) meters and instruments transformers (such as potential transformers (PTs) and current transformers (CTs)) are all that is left in this account. Industrial meters use instrument transformers, which can have a different life than the meters themselves. Company personnel believe an increase in life is appropriate given the shift in the type of assets in the account. SPR analysis of history that includes the older equipment was not meaningful in determining life characteristics of this account given the change in investment mix. The SPR analysis indicated a life in the low 20 year range, and the CIs were in the poor range.

Company SMEs believe that a longer life closer to 40 years is reasonable from an operations perspective. Given the type of asset and input from Company SMEs, this study recommends a 40 year life with a R3 dispersion for this account. A graph of the plot of the actual versus observed balances for the chosen life and dispersion is shown below.

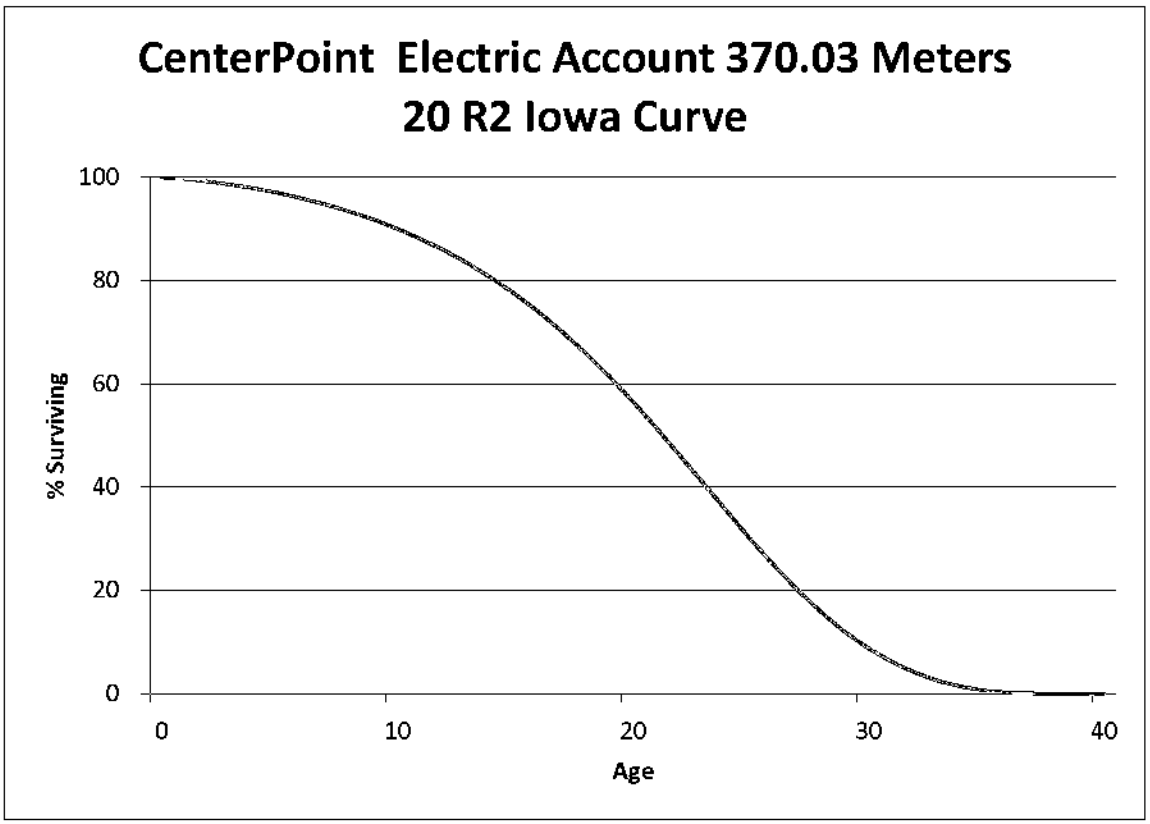

Centerpoint Electric Account 37001
Actual vs Simulated Balance 40 R3
400,000,000
300,000,000
200,000,000
100,000,000
0
Balance Amount $
1993
1998
2003
2008
2013
2018
Transaction Year
Actual
Simulated

Account 370.03 AMS Meters (20 R2)

This account includes AMS distribution meters. The balance in this account is $215.8 million (assets installed during the surcharge period are not included in the amount above). The approved life for this account is 20 years with an R2 dispersion. During the AMS surcharge period, assets in this account were depreciated using a 7-year life. Since these assets have only been installed since 2020, there is insufficient data for life analysis on this account.

The meters in this account are electronic. All meters are digital. Residential Meters were originally sold to the Company as a 20 year product based on manufacturer expectations. Company SMEs would expect around that life for most (with the exception of a few with bad power supplies, etc.). The Company is planning a new deployment in the next few years but that is still in the early planning stage. Substation meters (around 1,000) are expensive meters and have a warranty of 10 years. Commercial meters (around 5,000) are AMS (from older digital to AMS Itron). The Company would expect around a 15 year life. Around the 10 year mark, technology changes (so firmware upgrade would be less likely to work) and they start seeing electronic failures. SMEs feel that achieving a life of the approved 20 years is operationally reasonable.

Based on industry expectations, my experience, and feedback from SMEs, life between 15 and 20 years is reasonable for this account. Based on these expectations, a 20-year life with an R2 dispersion is recommended for this account. As more data is accumulated, the life of this account will be reviewed in the next depreciation study. A representative curve shape is shown below.


CenterPoint Electric Account 370.03 Meters
20 R2 Iowa Curve
100
80
60
40
20
0
% Surviving
0
10
20
30
40
Age

Account 373 and 374 Street Light/Signal Sys & Security Lighting (39 R1.5)

These accounts include all distribution streetlights, conductor, conduit, luminaire, standards, and security lighting. The balance in these accounts is $762.3 million. The approved life for these accounts is 39 years with the R1 dispersion.

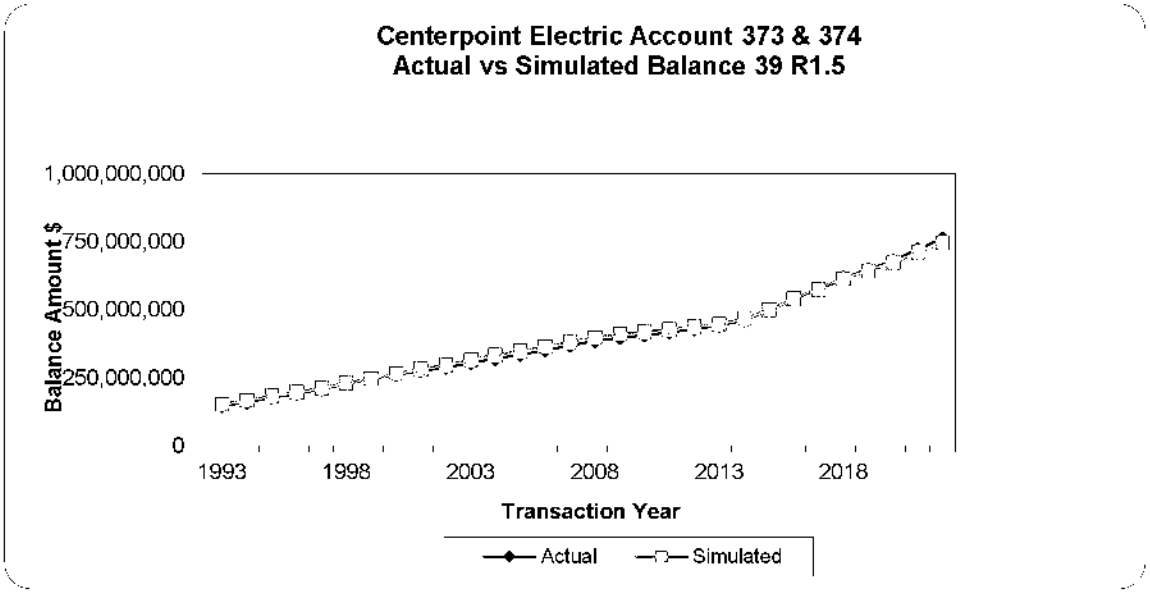
Discussions with Company engineers indicated that the majority of lights (about 60 to 65%), which were primarily High Pressure Sodium ("HPS"), have been replaced by Light Emitting Diode ("LED") fixtures. With LED, the entire fixture must be replaced and the fixtures are expected to last only 15-20 years. There is a 10 year warranty on the LED equipment. In 2014, the policy was changed to include the luminaire as a capital item; the arm pole and cable were always capital items. The Company expects the LED lights themselves to last longer than the older luminaires, but the LED heads will be replaced sooner than the older style heads. This creates forces both lengthening the life of some assets and shortening the life of other assets. Relocation and cars hitting the standards are factors of retirements. Security lighting is still HPS but is also moving to LED and replacements will be capitalized. Although the data is not yet exhibiting the shorter life that this will create, Company personnel would expect at least some shortening of the life due to this change. The bulk of the assets are underground conductor, standards, arms, etc. At this point, not moving the life from the approved is reasonable until more is known about the changing life of the new technology. A great deal of investment has been added to this account in the last few years based on the conversion and the growth in the area. The oldest LEDs they have installed are only 9 years old. In conversion, the old luminaire would not be a retirement unit, but the new LED head is.

Security lighting is strongly moving to LED but there is no official program to remove HPS. Company personnel would expect around the same life for security lighting as street lighting. They will maintain existing security lighting but will not install new company installations. There are perhaps around 100k that they still maintain (stopped

installing new company owned in 2002). Replacements will be capitalized but the original assets will not be retired so the current life may still be reasonable.

SPR analysis was used for this account. In nearly every band, an R0.5, R1, or R1.5 curve was among the top ranked choices. The R1 curve and R0.5 produced life results of more than 40 years, but do not meet the expectations of Company SMEs. The CIs were in the fair range.

With the uncertainty of how the movement to LED will affect the life, retention of the 39 year life in the analysis seems reasonable until more is known about the changing life of the new technology. Given these factors, this study recommends moving from the approved 39 R1 to 39 R1.5 for these accounts. A graph of the plot of the actual versus observed balances for the chosen life and dispersion is shown below.

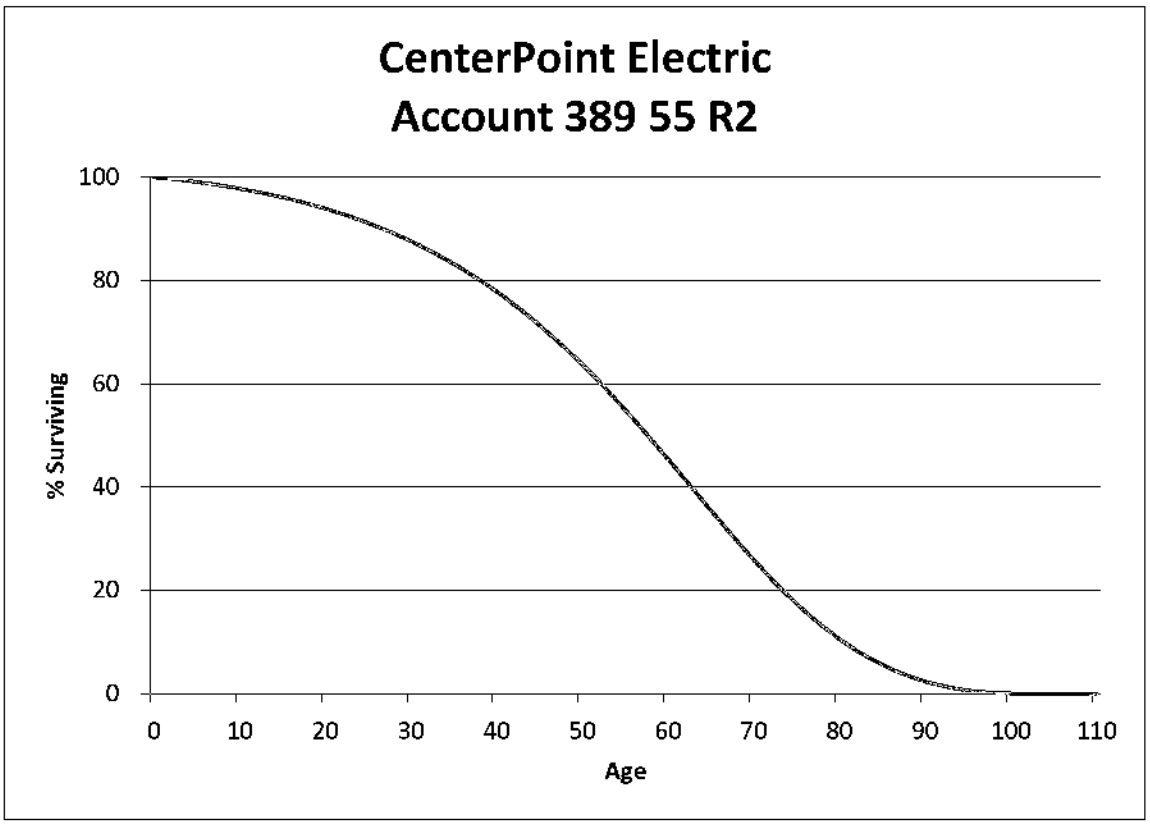


GENERAL PROPERTY, FERC ACCOUNT 389-398 (DEPRECIATED AND AMORTIZED)

Accounts in this function were analyzed using the actuarial method of life analysis. As previously noted, this function has been split into two groups, depreciated and amortized. For amortized accounts, this study recommends the continued use of vintage group amortization for certain General plant accounts.

Account 389 Land Rights – Depreciated (55 R2)

This account consists of land rights and easements associated with general property or general structures and improvements. The account balance is approximately $1.0 million. Minimal retirement activity is seen in this account. The existing life is 55 years with the R2 dispersion. This study recommends retention of the current 55-year life and R2 dispersion for this account. A representative graph of the curve shape is shown below.



Account 390 Structures and Improvements – Depreciated (53 R3)

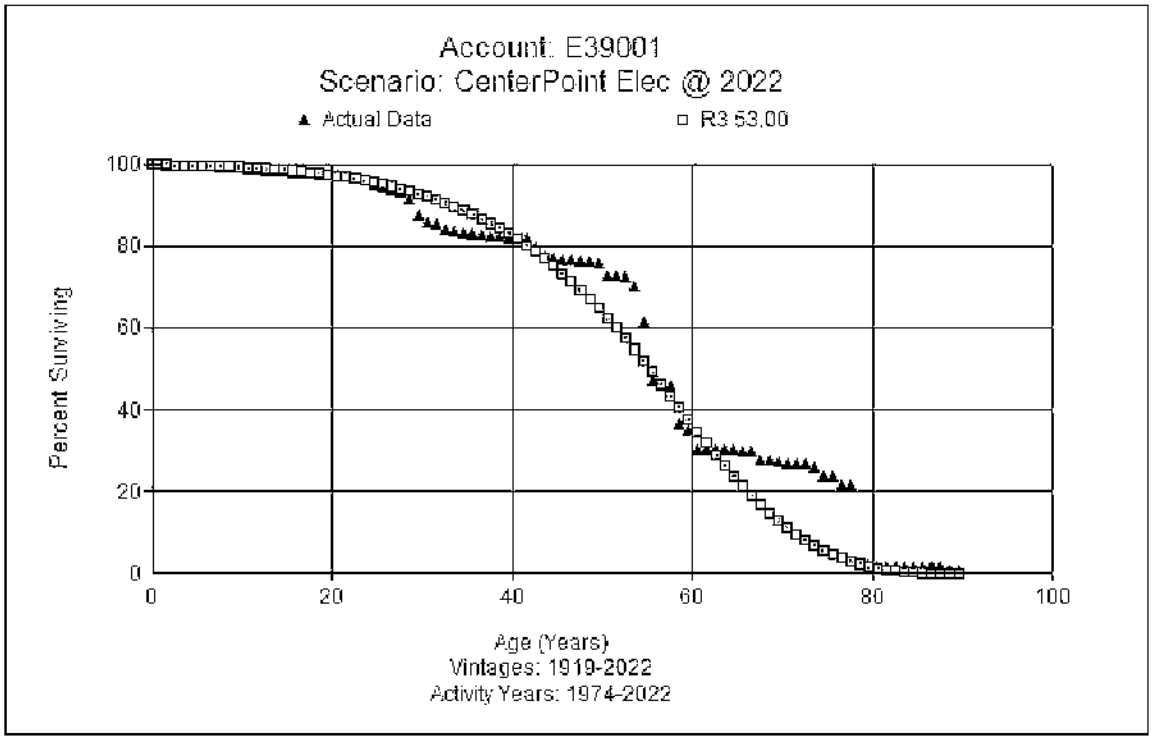
This account consists of general structures and improvements for buildings, including roofing, plumbing, and air conditioning systems. The current balance is $264.1 million. The approved life for this account is 50 years with the R4 dispersion.

Actuarial analysis indicated that a 53-year life with the R3 dispersion was the best fit in the widest placement and experience band available. In examining those and more recent placement and experience bands, the best-fitting dispersion is higher with a longer average service life than the existing 40 years.

Discussions with Company personnel indicated the average age of the buildings, absent replacement activity, is over 40 years old. They have "reskinned" a couple service centers. Roofs may last 20-25 years. Over the last several years, they have

replaced all underground tanks in this account (this happens every 20-25 years). All vehicle lifts were replaced in the last several years also. Some code changes have required replacement of fire sprinkler systems. They have been replacing some of the building generators in the last several years (in the 30-35 year old range). The Company has a has focused to a higher level on adding/replacing assets. There are 3 new service centers (that retired 2 old service centers). They were older than 50 years old when retired. They have done a number of roof/AC replacements in recent years (as well as replaced UG fuel tanks mentioned above). Most of the buildings are aging so moving slightly above 50 years is reasonable operationally.

Focusing more on the results of the more recent activity with a full placement band, a 53 R3 is recommended for this account, which is consistent with indications across all bands and Company discussions. A graph of the observed life table for the selected account is shown below.



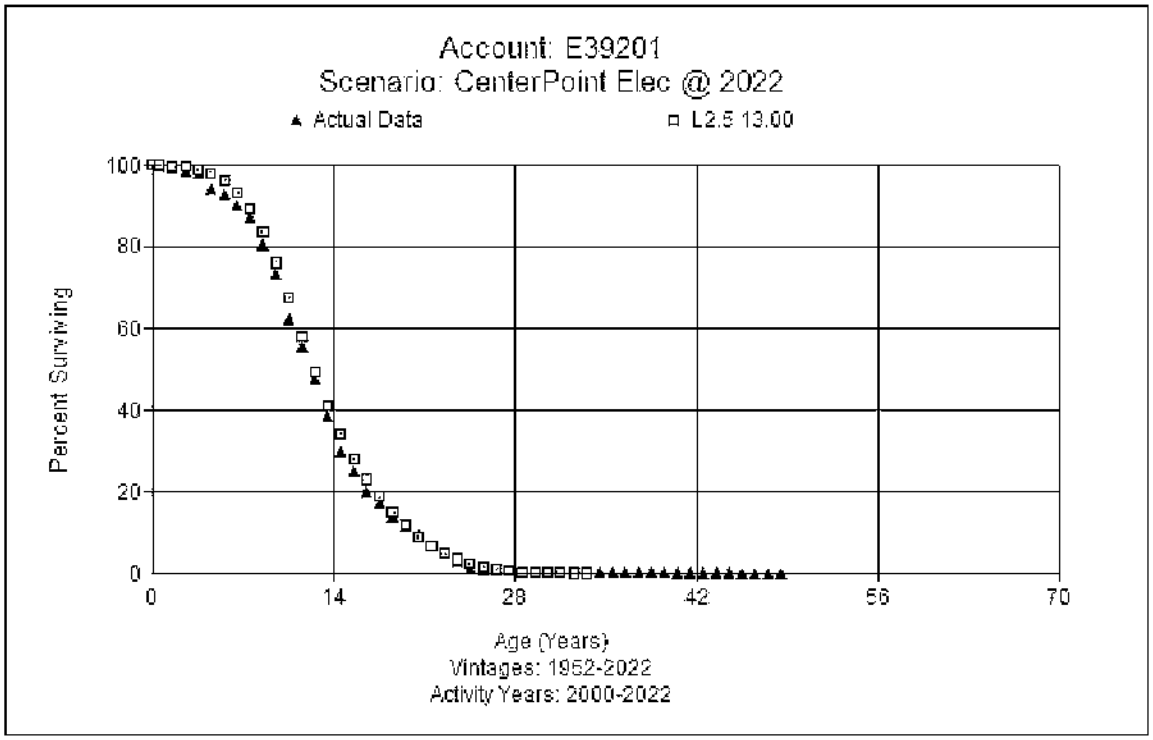
Account 392 Transportation Equipment – Depreciated (13 L2.5)

This account consists of automobiles, trucks, trailers, and other transportation equipment that might be a licensed vehicle. There is approximately $170.5 million in this account. The approved life for this account is 13 years with the L2 dispersion.

In examining the widest placement and experience band, a life of 12 to 13 years is indicated with the L type dispersion. When examining more recent placement and experience bands, a 13 L2.5 curve is a good choice based on visual matching.

Discussions with Company personnel indicated they have a vehicle replacement guideline they follow. The Company also utilizes a ranking system based on years, mileage, and overall condition. They own vehicles, but there were a few leases in the past. A target retirement list is sent out every year to identify vehicles to retire. A third party holds the auction for vehicles. Some assets, such as heavy vehicles, should retire at 12 years but have been stretched in some cases to 16 years due to budgetary reasons. In the last few years, the transportation budget has increased to nearly $25 million per year (increasing to $31 million in 2024) in order to accelerate the replacement of outdated equipment. Given increased capital funding, the Company is starting to catch up on the delayed replacements. Their goal is to replace heavy vehicles at the 10 year mark but they are still trying to catch up. The supply chain issues are still ongoing and a higher than 10 year life is currently still happening. The Company believes the existing 12 year life is reasonable given the variety of assets within this account.

Based on the analysis, type of assets, and discussions with Company personnel, a 13-year life with the L2.5 dispersion is the recommendation of this study. A graph of the observed life table for the selected account is shown below.


Account: E39201
Scenario: CenterPoint Elec @ 2022
Actual Data
L2.5 13.00
Percent Surviving
100
80
60
40
20
0
0
14
28
42
56
70
Age (Years)
Vintages: 1952-2022
Activity Years: 2000-2022

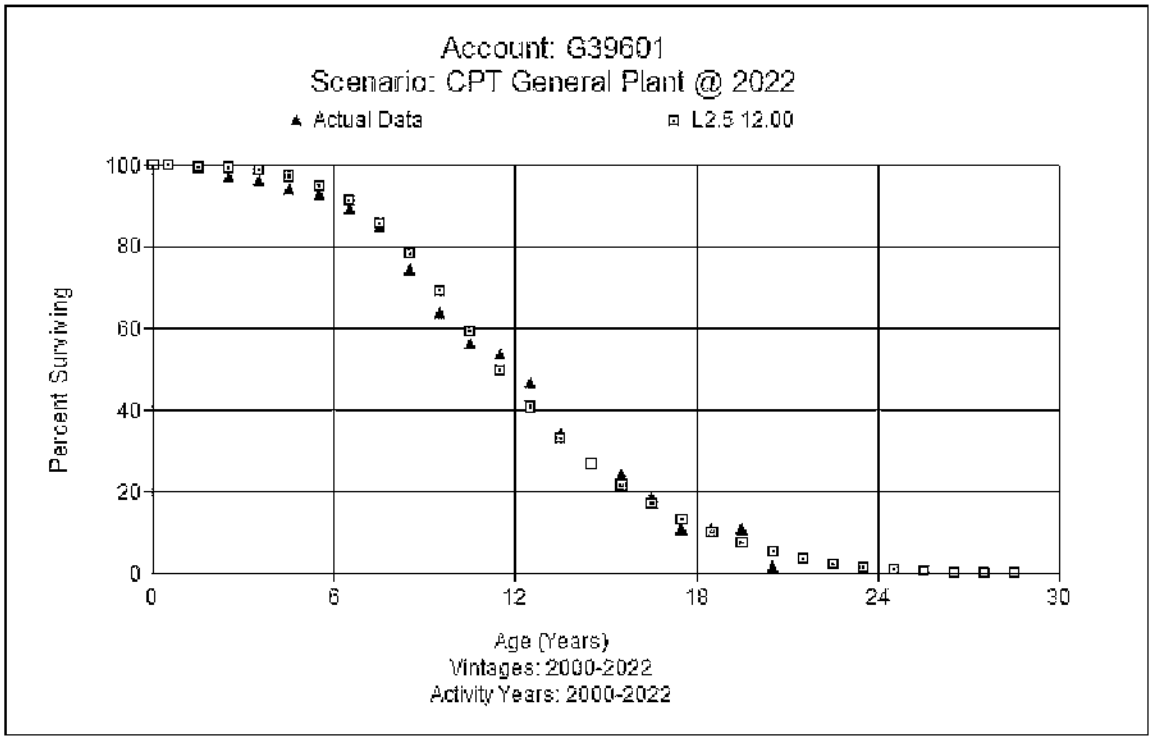
Account 396 Power Operated Equipment – Depreciated (12 L2.5)

This account consists of power operated equipment such as bulldozers, forklifts, pile drivers, and tractors. The current balance is $29.4 million. The approved life for this account is 18 years with the L2 dispersion.

In examining the widest placement and experience band, the life of this account has dropped to 12 or 13 years with the L1.5 or L2. When examining more recent placement and experience bands, the L2.5 12 is an excellent fit.

Discussions with Company personnel indicated that EZ Haulers would only have a 10-12 year life. Trenchers and backhoes would be expected to have around a 10-12 year life as well. Company SMEs believe that a life around 12 years is reasonable given the mix of assets now in the account. The Company's replacement guidelines would suggest a shorter life than is seen in the analysis, but the field makes the ultimate decision when to replace a piece of equipment.

From the analysis and type of assets, an 12-year life with the L2.5 dispersion is the recommendation in this study. A graph of the observed life table for the selected account is shown below.

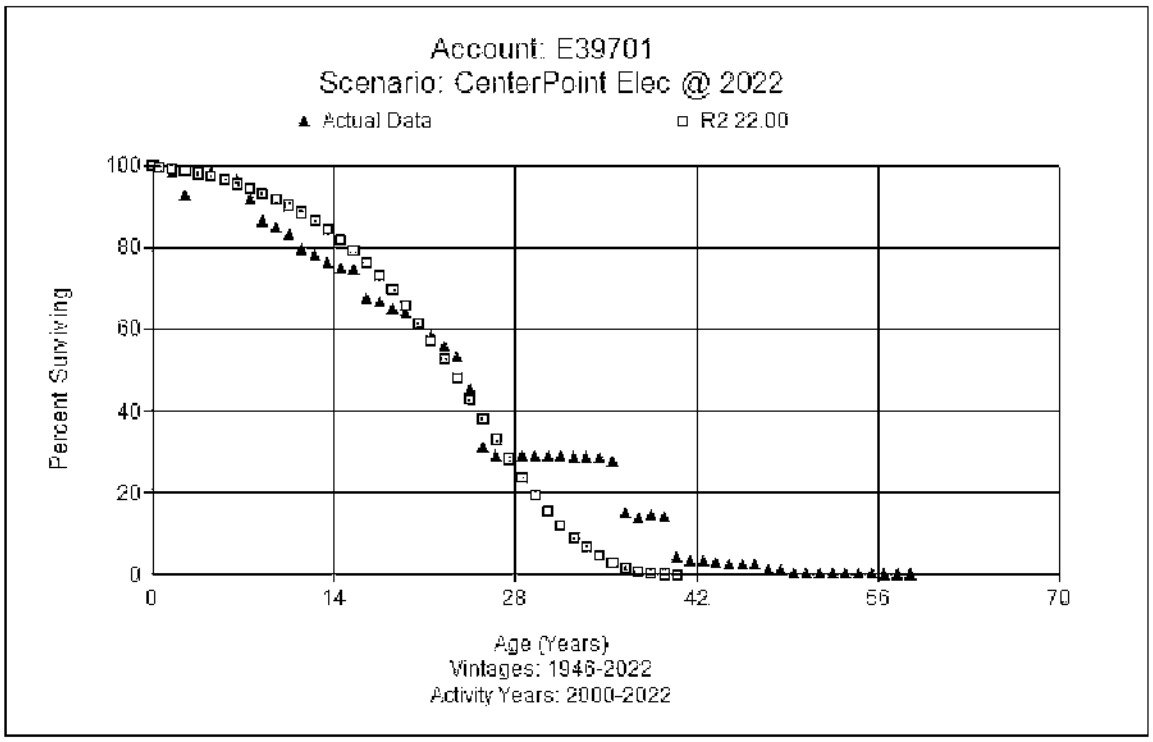

Account: G39601
Scenario: CPT General Plant @ 2022
Actual Data
L2.5 12.00
Percent Surviving
100
80
60
40
20
0
0
6
12
18
24
30
Age (Years)
Vintages: 2000-2022
Activity Years: 2000-2022

Account 397.01 Communication Equipment – Depreciated (22 R2)

This account consists of assorted microwave communication equipment. The current balance in this account is $337.8 million. At the Company's request, this account will return to being depreciated rather than amortized. The approved life for this account is 22 years with the R2 dispersion.

In examining the widest placement and experience band, a life in the mid-20 year range is indicated with the R and L dispersion. When examining more recent placement and experience bands, a 22 R1 curve is an excellent fit. There are some very short-lived assets in this account. Shorter lived assets are going to be transferred to Account 397.01.0130. Some electronics have only lasted 10 years before needing to be replaced. Routers are replaced at around 7-10 years. Microwave receivers would be around 10 years as well. Some microwave radios have been in service for up to 15-20 years. Fiber life may be 40-50 years (when protected). In the last 12-13 years, the Company has rehabbed most of its fiber (90% of what was in place at the time -24 bundle replaced with 166 bundle). Antennas would have a 15-20 year life. Towers and fiber will have a much longer life. Smart grid began in 2008-2009 and was completed by 2012. In 2019, the Company began another replacement cycle (in part due to radio sunset) which finished in 2022. The sunset of 4G is projected by 2030. Much of the equipment would have to be replaced in total (there is limited ability to intermix different technology). Electronic equipment that is not in air-conditioned space is not expected to last 20 years. Company SMEs state that anything related to cellular or electronics would have a 10 year life expectation. Towers could last 40 years or longer. Older shelters would only last 20 years but newer designs would last more than 20 years. Since there is still a majority of the account with shorter-lived electronics (that have not all been through a life cycle to see the effects in the analysis), Company SMEs recommend leaving the main account at the existing 22 years as a reasonable position compatible with the Company's operations.

Based on the analysis and the increasing level of electronic assets in the account, a 22-year life with the R2 dispersion is the recommendation in this study. A graph of the observed life table for the selected account is shown below.

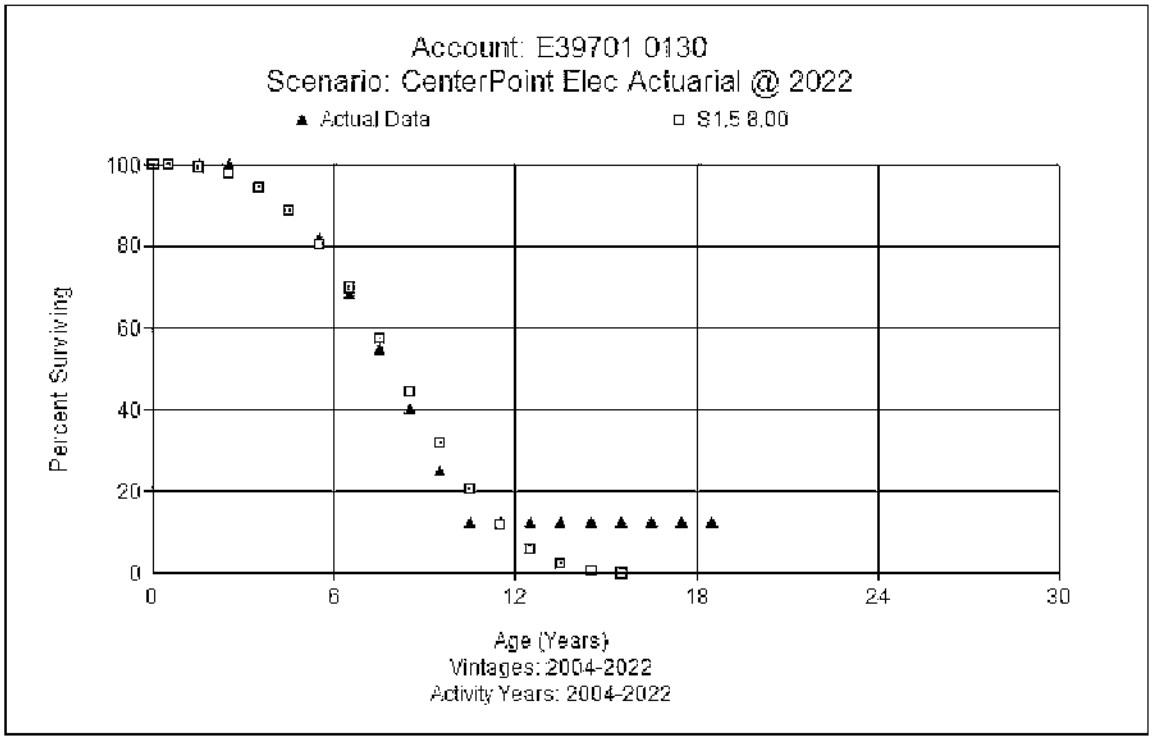


Account 397.01.0130 Other Communication Equipment – Depreciated (8 S1.5)

This account consists of assorted communication equipment, such as cell relays, radios, and items related to smart grid. The current balance in this account is $119.7 million. Given the number of assets that were in Account 39701 with a short life, the Company is creating this new account to contain electronic equipment. The approved life for this account is 22 years with the R2 dispersion.

Given the new account's mixture of electronics items with a shorter life, the operational expectation is that these assets will have a much shorter operational life. After performing actuarial analysis, the life indicated is in the eight year range.

Based on the analysis and the increasing level of electronic assets in the account, an 8-year life with the S1.5 dispersion is the recommendation in this study. A graph of the observed life table for the selected account is shown below.



Account 391 Office Furniture and Fixtures – Amortized (24 SQ)

This account consists of furniture and fixtures such as desks, tables, chairs, and cabinets. The account balance is $10.5 million. The approved life for this account is 24 years with the SQ dispersion and is retained in this study. This account is included in the General Amortized function. The capitalization threshold for this account is $500. Company SMEs state that a 24 year life is reasonable operationally.

Account 393 Stores Equipment – Amortized (19 SQ)

This account consists of general property related to stores such as cabinets, shelving materials, ramps, and material storage units. There is $459 thousand in this account. The approved life for this account is 19 years with the SQ dispersion and is retained in this study. This account is included in the General Amortized function. Company SMEs state that a 19 year life is reasonable operationally for assets in this account such as shelving and pallet racks.

Account 394 Tools, Shop, and Garage Equipment – Amortized (18 SQ)

This account consists of various items or tools used in shops and garages such as air compressors, grinders, mixers, hoists, and cranes. The account balance is $19.0 million. The approved life for this account is 18 years with the SQ dispersion and is retained in this study. This account is included in the General Amortized function.

Account 395 Laboratory Equipment – Amortized (20 SQ)

This account consists of laboratory equipment such as centrifuges, testing equipment, and other laboratory devices. The current account balance is $24.3 million. After the retirement of fully accrued assets, the account balance will be $20.8 million. The approved life for this account is 25 years with the SQ dispersion. Company SMEs state the life of this account is driven by technology changes and should be lowered.

Based on their recommendations, a 20 year life is proposed for this account. This account is included in the General Amortized function.

Account 397.02 Computer Equipment – Amortized (8 SQ)

This account consists of assorted computer equipment. The current balance in this account is $186.2 million. The approved life for this account is 8 years with the SQ dispersion. After the retirement of fully accrued assets, the account balance will be $183.1 million. The types of assets in this account include printers, laptops, servers, and printers. Considering the assets in this account, this study recommends retaining the current life of 8 years with an SQ dispersion. No graph is shown.

Account 398 Miscellaneous Equipment – Amortized (20 SQ)

This account consists of miscellaneous equipment such as photographic equipment, projectors, and yard maintenance equipment. The current balance in this account is $14.8 million. The approved life for this account is 20 years with the SQ dispersion and is retained in this study. This account is included in the General Amortized function.

NET SALVAGE ANALYSIS

When a capital asset is retired, physically retired 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 (NS) is the difference between the gross salvage (the scrap value of the asset) and the removal cost (which represents either the cost to abandon in place or the 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 Transmission asset in FERC Account 356 with a current installed cost of $500 (2022) would have had an installed cost of $56.92[5] in 1962. A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a -10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a -88 percent removal cost for that asset ($50/$56.92). 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.

All net salvage percentages represent an estimate of the future, determined by dividing the net of gross salvage and removal cost by retirements for each plant account. All authoritative utility depreciation sources agree that projecting the cost to remove assets at the end of their lives is a necessary factor in establishing net salvage rates.

[5] Using the Handy-Whitman Bulletin No. 198, E-5, line 37, $56.92 = $500 x 65/571.

This is necessary to ensure that the current generation of customers pays their fair share of the removal cost that will be incurred in the future to retire assets currently in service. Moving averages, which smooth out yearly fluctuations between retirements and net salvage, are used to examine data over the 1974 to 2022 period and determine net salvage estimates for each account. Detailed analysis and results by account are given discussed below.

Account 303 Computer Software (0 percent NS)

This account consists of gross salvage and cost of removal for computer software. Currently, all software uses 0 percent net salvage. There is no expectation, either from the company or from Alliance's experience, that software systems would incur removal cost or receive any salvage at retirement. Based on Company experience and judgment, this study recommends 0 percent net salvage for all software accounts.

Net Salvage - Transmission Property, FERC Accounts 350-358

Transmission gross salvage has been low with scrap metal proceeds being the only gross salvage received. Transmission removal costs have grown. The long lead time of transmission projects may result in two-year to four-year gaps between cost of removal expenditures and closure of the project with the accompanying retirements.

Account 350 Land Rights (0 percent NS)

This account consists of the salvage and removal costs related to land rights and easements associated with Transmission lines or Transmission substations. There has been no salvage or cost of removal recorded and none is expected. This study recommends a zero percent net salvage for this account.

Account 352 Structures and Improvements (negative 5 percent NS)

This account consists of the salvage and removal cost related to Transmission structures and substations. The approved net salvage is negative 5 percent. No salvage has been recorded since the early 1990s. Some cost of removal has been recorded between the years 2011-2022. The adjusted net salvage indications are erratic, but overall cost of removal has exceeded and is expected to exceed any salvage in the future. The 3-year, 5-year, and 10-year moving averages are negative 11, negative 97, and negative 120 percent respectively in the most recent transaction year. This study recommends retaining the currently approved negative five percent net salvage factor for this account.

Account 353 Station Equipment (negative 15 percent NS)

This account consists of the salvage and removal cost related to a wide variety of transmission substation equipment, from transformers to circuit breakers to switchgear. The approved net salvage is negative ten percent. Salvage was being recorded fairly

consistently until 2008, and then it began to decline. In recent years, cost of removal exceeds gross salvage, and this trend is expected to continue. The 3-year, 5-year, and 10-year moving averages are negative 25, negative 25, and negative 21 percent respectively in the most recent transaction year. Both recent and the overall 10-year moving average indicate that a negative net salvage rate continues to be appropriate and is more negative than currently approved. This study recommends, based on recent and long-term trends, moving to a negative 15 percent net salvage rate.

Account 354 Towers and Fixtures (negative 40 percent NS)

This account consists of the salvage and removal cost related to transmission towers, which are used to transmit electricity at a voltage of 69 kV and above. The approved net salvage is negative 30 percent. From 2008-2021, little salvage had been recorded. However, cost of removal has been consistently recorded in this account for the full history analyzed. Overall gross salvage has declined considerably in the past 10-15 years and cost of removal continues to increase. The 3-year, 5-year, and 10-year moving averages are negative 181, negative 175, and negative 165 percent, respectively, for the most recent transaction year. Noting that the net salvage analysis indicated a more negative value, this study makes a conservative recommendation of moving to a negative 40 percent net salvage at this time.

Account 355 Poles and Fixtures (negative 60 percent NS)

This account consists of the salvage and removal cost related to transmission poles and fixtures which are used to transmit electricity at a voltage of 69 kV and above. The approved net salvage is negative 50 percent. Salvage has decreased and no salvage has been recorded between the years 2010-2016. However, cost of removal has been consistently recorded in this account throughout time and is expected to continue. The 3-year, 5-year, and 10-year moving averages are negative 200, negative

189, and negative 170 percent, respectively, for the most recent transaction year. Noting that the net salvage analysis indicated a more negative value, this study makes a conservative recommendation of moving to a negative 60 percent net salvage at this time.

Account 356 Overhead Conductor/Devices (negative 100 percent NS)

This account consists of the salvage and removal cost related to transmission overhead conductors, which are used to transmit electricity at voltages of 69 kV and above. The approved net salvage is negative 100 percent. Cost of removal has significantly exceeded gross salvage since the early 1980s and is expected to continue. Timing differences in recording retirements and removal costs can create extreme variations in net salvage indications.

Replacing conductor is a labor-intensive process and the removal process is nearly as time-intensive as installing conductor. It is not as simple as cutting the conductor and letting it fall. Some of the major activities related to removing the conductor include using cranes to place pulleys on poles or towers (which require moving and resetting for each pole or tower), disconnecting the conductor from the insulator individually on every pole or tower using cranes, placing the conductor on the pulleys, removing the insulators, cutting the cable, and pulling the cable back onto a reel. Given the level of activity that is required for removing conductor, it is not surprising that removal cost as a percent of the original cost (which was expended 50 years before) has increased to the current levels.

Due to the timing differences, it is extremely important to look at multiple-year bands. The 3-year, 5-year, and 10-year moving averages are negative 129, negative 135 percent, and negative 136 percent, respectively, for the most recent transaction year. Although the net salvage analysis indicated a more negative value, this study makes a conservative recommendation of retaining the currently approved negative 100

percent net salvage, which is reflective of expectations for this account.

Account 357 Underground Conduit (negative 5 percent NS)

This account consists of the salvage and removal cost related to underground conduit. The approved net salvage is negative five percent. Only two retirements have been recorded, 1993 and 2012. A small level of cost of removal was experienced in this account. Even with the small level of activity in this account, some removal cost has been experienced and is expected to occur in the future. Based on this expectation, the study recommends retention of the existing negative 5 percent net salvage for this account.

Account 358 Underground Conductor and Devices (negative 5 percent NS)

This account consists of the salvage and removal cost related to underground conductor. The approved net salvage is negative five percent. Only a few retirements have been seen in recent years. As underground conductor and associated devices are retired, the removal activities will include removing terminations from the structure and removing cable from the structure to manhole. Removal cost is commonly estimated (based on specifics for project) at 10% to 20% of current labor for the project. The most recent (2022) 10-year moving average is negative 2209 percent for the most recent 3-year, 5-year moving averages. Based on discussions with Company engineers and judgment, this study recommends retention of the currently approved negative five percent net salvage for this account.

Account 359 Roads & Trails (0 percent NS)

This account consists of the salvage and removal cost related to roads and trails. The approved net salvage is zero percent. Removal cost was large in 2018 and 2020-2022. While this was a large change, this study recommends continued monitoring of

net salvage for this account in future studies. This study recommends retaining the zero percent net salvage for this account.

Net Salvage - Distribution Property, FERC Accounts 360-373

Distribution gross salvage has been low with scrap metal proceeds being the only gross salvage received. Distribution removal costs have grown. There may be some lag between removal cost expenditures and closure of the project with the accompanying retirements. Therefore, examining multiple-year bands is important for the proper understanding of the historical activity.

Account 360 Land Rights (zero percent NS)

This account consists of the salvage and removal cost related to land rights and easements associated with distribution property or distribution substations. No salvage or cost of removal is recorded or expected. This study recommends a zero percent net salvage for this account.

Account 361 Structures and Improvements (negative 15 percent NS)

This account consists of the salvage and removal cost related to distribution substation structures. The approved net salvage is negative 10 percent. Some salvage was recorded through the 1990s, but minimal amounts have been recorded since 1997. Cost of removal has and is expected to continue to exceed salvage in the future. The 3-year, 5-year, and 10-year moving averages are negative 48, negative 57, and negative 52 percent respectively in the most recent transaction year. Considering Company history with consistent negative net salvage over time, this study recommends moving to negative 15 percent net salvage.

Account 362 Station Equipment (negative 15 percent NS)

This account consists of the salvage and removal cost related to a wide variety of distribution substation equipment, from transformers to circuit breakers to switchgear. The approved net salvage is negative ten percent. Salvage has been recorded

consistently since 2002, but generally cost of removal has and is expected to continue to exceed salvage. The 3-year, 5-year, and 10-year moving averages are negative 23, negative 25, and negative 23 percent, respectively, for the most recent transaction year. Considering Company history with consistent negative net salvage over time, this study recommends moving to negative 15 percent net salvage for this account..

Account 363 Battery Storage Equipment (0 percent NS)

This account includes the gross salvage and removal cost associated with battery storage equipment used to store energy for load management purposes. Currently there is no plant in this account, and the Company is planning to add assets to this group. Without historic data or site-specific estimates the study recommends a zero percent net salvage for this account. After assets are added to this account and Company experience is accumulated, net salvage experience for this account will be reexamined.

Account 364 Poles, Towers, and Fixtures (negative 60 percent NS)

This account consists of the salvage and removal cost related to various types and sizes of distribution poles, towers, and other related equipment. The approved net salvage is negative 45 percent. While gross salvage has been recorded and is expected to continue, the cost of removal has and is expected to continue to exceed salvage proceeds. The 3-year, 5-year, and 10-year moving averages are negative 78, negative 87, and negative 90 percent, respectively, for the most recent transaction year. This trend is supported by the fact that the three or five year moving averages show that net salvage percentages have been around or more negative than negative 60 percent in the last nine years. Based on the consistent band indications, this study recommends moving to negative 60 percent net salvage for this account.

Account 365 Overhead Conductor and Devices (negative 40 percent NS)

This account consists of the salvage and removal cost related to overhead conductor of various diameter, as well as various switches and reclosers. The approved net salvage is negative 30 percent. The 3-year, 5-year, and 10-year moving averages are negative 64, negative 66, and negative 65 percent, respectively, for the most recent transaction year. Based on these indications and judgment, this study recommends moving to a negative 40 percent net salvage.

Account 366 Underground Conduit (negative 35 percent NS)

This account consists of the salvage and removal cost related to distribution conduit, duct banks, vaults, manholes, and ventilating system equipment. The approved net salvage is negative 30 percent. While gross salvage is recorded in most years, it has declined significantly since the 1980s and there have only been a few years where gross salvage has exceeded removal cost since 1987. Further, salvage is not expected to exceed cost of removal in the future. Even though conduit may be retired in place, Company engineers indicate that the first four feet of manhole is often removed and filled with sand at retirement. The 5-year and 10-year moving averages are negative 38 and negative 50 percent, respectively, for the most recent transaction year. Using the recent 10-year average results, which show a negative 50 or greater percent net salvage, discussions with Company engineering, and judgment, this study recommends moving to a negative 35 percent net salvage for this account.

Account 367 Underground Conductor/Devices (negative 45 percent NS)

This account consists of the salvage and removal cost related to distribution conductor, circuit breakers, insulators, and switches. The approved net salvage is negative 35 percent. Salvage is recorded in nearly every year of analysis, but has not exceeded cost of removal since 1984. Cost of removal is expected to exceed salvage in the future. Where possible, conductor is removed when it is in conduit creating some

salvage, but even in these instances, the Company's removal cost exceeds the gross salvage proceeds. The 3-year, 5-year, and 10-year moving averages are negative 49, negative 50, and negative 53 percent, respectively, for the most recent transaction year. Based on the most recent adjusted indications and consistent with fuller band moving averages that exceed negative 45 percent or more, as well as discussions with Company engineers, this study recommends moving to negative 45 percent net salvage at this time.

Account 368 Line Transformers (negative 25 percent NS)

This account consists of the salvage and removal cost related to pad-mount and line transformers, regulators, and capacitors. The approved net salvage is negative 15 percent. Positive net salvage stopped occurring around 1987. While salvage is still recorded, it is not expected to exceed cost of removal. Quantities of residential transformers far outweigh commercial transformers in this account. Based on discussions with Company engineers, removal costs related to commercial transformers would be more negative (closer to 20 or 30 percent negative) than negative 15 percent seen for residential transformers. Generally, a crane is needed to switch out commercial transformers and the process is much more labor intensive. The 3-year, 5-year, and 10-year moving averages are negative 44, negative 44, and negative 42 percent, respectively, for the most recent transaction year. Based on the longer analysis range of negative 42 percent to negative 44 percent, Company input, and judgment, this study recommends a negative 25 percent net salvage for this account.

Account 369 Distribution Services (negative 60 percent NS)

This account consists of the salvage and removal cost related to all distribution services, both overhead and underground. The approved net salvage is negative 60 percent. Very little salvage, if any, has been recorded since 1999. Cost of removal has

always exceeded any salvage proceeds for assets in this account and this is expected to continue in the future. The 3-year, 5-year, and 10-year moving averages are negative 103, negative 106, and negative 192 percent respectively in the most recent transaction year. Negative net salvage ranges from negative 88 percent to negative 245 percent for the past 10 years. Based on the variability of the moving averages and judgment, this study recommends to retain negative 60 percent net salvage for this account.

Account 370.01 Meters (0 percent NS)

This account consists of the salvage and removal cost related to distribution meters. The approved net salvage is zero percent. The 3-year, 5-year, and 10-year moving averages are all zero percent in the most recent transaction year. This study recommends retaining the zero percent net salvage for this account.

Account 370.03 AMS Meters (0 percent NS)

This account consists of the salvage and removal cost related to distribution AMS meters. The approved net salvage is zero percent. The 3-year, 5-year, and 10-year moving averages all show 0 percent in the most recent transaction year. This study recommends retaining the zero percent net salvage for this account.

Account 373 & 374 Street Light/Signal Sys & Security Lighting (negative 40 percent NS)

These accounts consist of the salvage and removal cost related to all distribution streetlights, conductor, conduit, luminaire, and standards. The approved net salvage for these accounts is negative 30 percent. The 3-year, 5-year, and 10-year moving averages are negative 44, negative 59, and negative 64 percent, respectively, for the most recent transaction year. Based on these indications and judgment, this study recommends moving to a negative 40 percent net salvage factor for these accounts.

Net Salvage - General Property, FERC Accounts 389-398 (Depreciated & Amortized)

The individual account recommendations are shown below. As previously noted, this function has been split into two groups, depreciated and amortized.

Account 389 Land Rights – Depreciated (0 percent NS)

The approved net salvage for this account is zero percent. Land rights generally have no salvage or cost of removal at retirement and none is shown in the analysis. A zero percent net salvage is recommended for retention for this account.

Account 390 Structures and Improvements – Depreciated (negative five percent NS)

This account consists of all general plant structures, which may range from buildings to building components, such as HVAC systems or roofs. The approved net salvage estimate for this account is negative five percent. The 5-year and 10-year moving averages are negative 23 and negative 25 net salvage percent respectively in the most recent transaction year. There was no retirement or net salvage activity in 2021-2022. At this time, this study recommends retention of the existing negative five percent net salvage.

Account 392 Transportation Equipment – Depreciated (positive 10 percent NS)

This account consists of automobiles, trucks, trailers, and other transportation equipment that are licensed for use on roads. The approved net salvage for this account is positive ten percent. Little cost of removal is typically incurred for these assets at retirement. The 5-year and 10-year moving averages are positive 17 and positive 13 percent respectively in the most recent transaction year. During the pandemic and due to supply chain issues, the Company received more proceeds than at other times in the

past. In order to give effect to the recent disruptions and model longer-term historical data, as well as the Company's current policy and resulting gross salvage, this study recommends retaining a positive 10 percent net salvage for this account.

Account 396 Power Operated Equipment – Depreciated (positive ten percent NS)

This account consists of power operated equipment, such as bulldozers, forklifts, pile drivers, and tractors. The approved net salvage is positive six percent. Very minimal cost of removal has been recorded in the past and none is expected in the future. The 5-year and 10-year moving averages are positive 12 and positive 9 percent respectively in the most recent transaction year. The historical data reflects that gross salvage has been realized at time of retirement and is expected to continue in the future. Based on the recent experience, this study recommends moving to positive ten percent net salvage for this account.

Account 397.01 Microwave Equipment – Depreciated (zero percent NS)

This account consists of assorted microwave equipment. The approved net salvage for this account is positive two percent. Some salvage and cost of removal has been recorded between 2013 and 2022. The 3-year and 5-year moving averages are negative 2 and 0 percent respectively in the most recent transaction year. However, overall neither salvage nor cost of removal has been significant over the years. With the pace of technology change these assets have little value when retirement. The indications from the net salvage analysis suggest zero percent net salvage, which is the recommendation in this study.

Account 397.01.0130 Other Communication Equipment – Depreciated (0 percent NS)

This account consists of assorted communication equipment such as cell relays,

radios, and items related to smart grid. The approved net salvage for this account is positive two percent. Previously this account was combined with 397.01. The 3-year and 5-year moving averages are 0 and positive 1 percent respectively in the most recent transaction year. Overall neither salvage nor cost of removal has been significant over the years. Indications from the net salvage analysis suggest zero percent net salvage, which is the recommendation in this study.

GENERAL PLANT – AMORTIZED ACCOUNTS

Account 391 Office Furniture and Fixtures – Amortized (0 percent NS)

This account consists of furniture and fixtures such as desks, tables, chairs, and cabinets. The current net salvage estimate for this account is zero percent. Some salvage can be realized, but has declined over recent years. The 3-year, 5-year, and 10-year moving averages all show 0 percent in the most recent transaction year. Some cost of removal has also been recorded, but it is not expected to occur on a regular basis. Based on recent indications, type of assets, and judgment, a zero percent net salvage is recommended for this account.

Account 393 Stores Equipment – Amortized (0 percent NS)

This account consists of general property related to stores such as cabinets, shelving materials, ramps, and material storage units. The approved net salvage for this account is zero percent. No cost of removal has been recorded for this account and none is expected in the future. Similarly, while gross salvage was recorded in earlier years, no gross salvage had been recorded since 1998. The 5-year and 10-year moving averages are 0 and negative 0.01 percent respectively in the most recent transaction year. Some salvage may be recorded from time to time, but it is not expected in the future. Given these facts, this study recommends retention of zero percent net salvage

for this account.

Account 394 Tools, Shop, and Garage Equipment – Amortized (0 percent NS)

This account consists of various items or tools used in shops and garages such as air compressors, grinders, mixers, hoists, and cranes. The approved net salvage for this account is zero percent. Recently, cost of removal was recorded but is not expected in the future. Some salvage may be recorded from time to time, but it is not expected in the future. This study recommends retention of zero percent net salvage for this account.

Account 395 Laboratory Equipment – Amortized (0 percent NS)

This account consists of laboratory equipment such as centrifuges, testing equipment, and other laboratory devices. The approved net salvage for this account is zero percent. No cost of removal has been recorded and none is expected in the future. Some salvage was recorded in the past, but none since 1998. The 3-year, 5-year, and 10-year moving averages all show 0 percent. Based on Company history and judgment, this study recommends a zero percent net salvage for this account.

Account 397.02 Computer Equipment – Amortized (0 percent NS)

This account consists of assorted computer equipment. The approved net salvage for this account is zero percent. Only two years in the analysis have salvage recorded and overall indications are less than one percent. The 3-year shows 0 percent. The 5-year and 10-year moving averages show 0.01 percent net salvage. Based on Company history and judgment, this study recommends a zero percent net salvage for this account.

Account 398 Miscellaneous Equipment – Amortized (0 percent NS)

This account consists of miscellaneous equipment, such as photographic

equipment, projectors, and yard maintenance equipment. The approved net salvage for this account is zero percent. No gross salvage or cost of removal is expected. Some salvage was recorded in the past, but none since 1998. The 3-year, 5-year, and 10-year moving averages all show 0 percent. Based on Company history and judgment, this study recommends a zero percent net salvage for this account.

APPENDIX A

Computation of Depreciation Accrual Rates and Computation of Amortization Amounts

APPENDIX B

Comparison of Proposed verses Existing Accrual Rates

APPENDIX C

Proposed Depreciation Parameters

APPENDIX D

Net Salvage History Analysis

APPENDIX E

Depreciation Reserve Reallocation and Remaining Life Computations

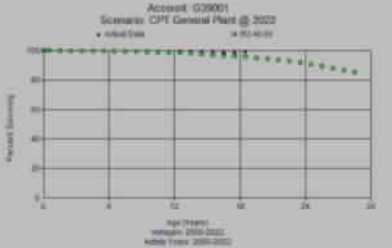
The following files are not convertible:

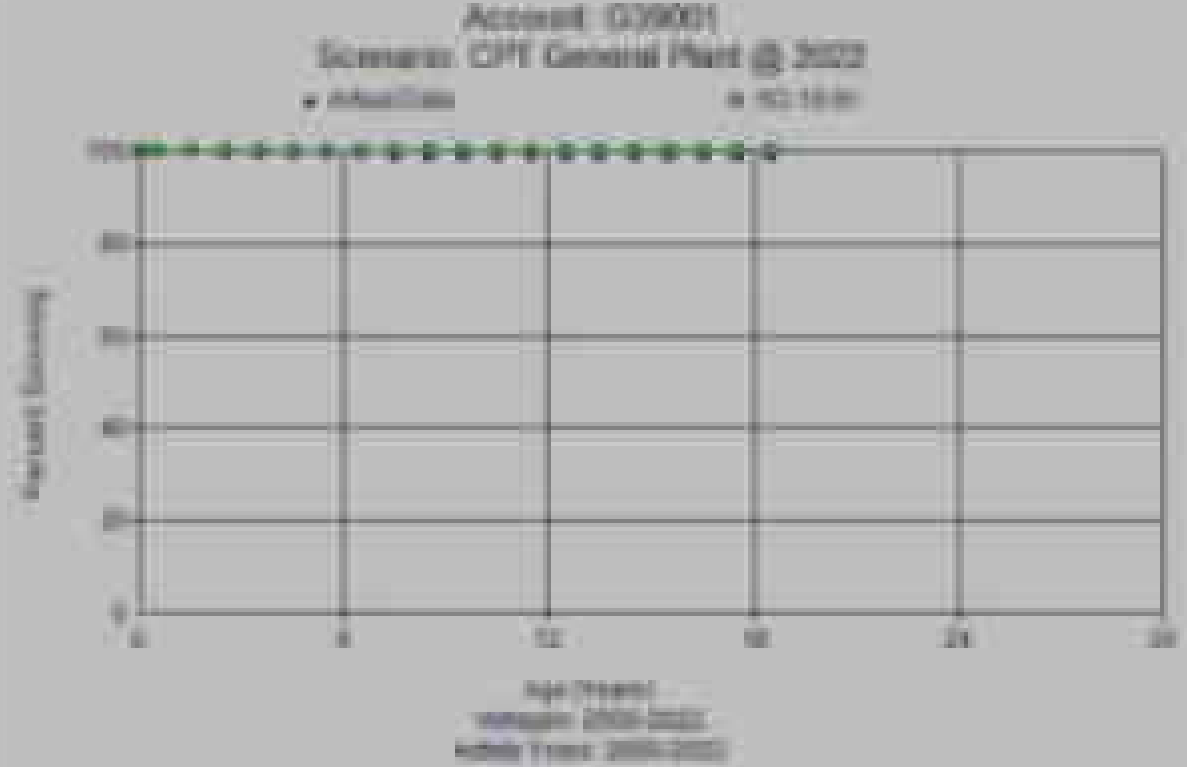
Accrual Rate CenterPoint Electric @ 2022.xls

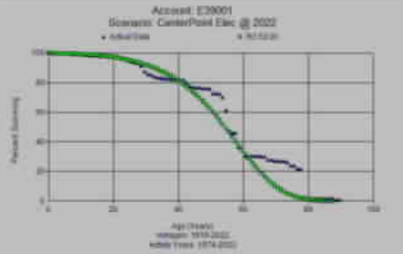
CPT General Plant @ 2022.xls

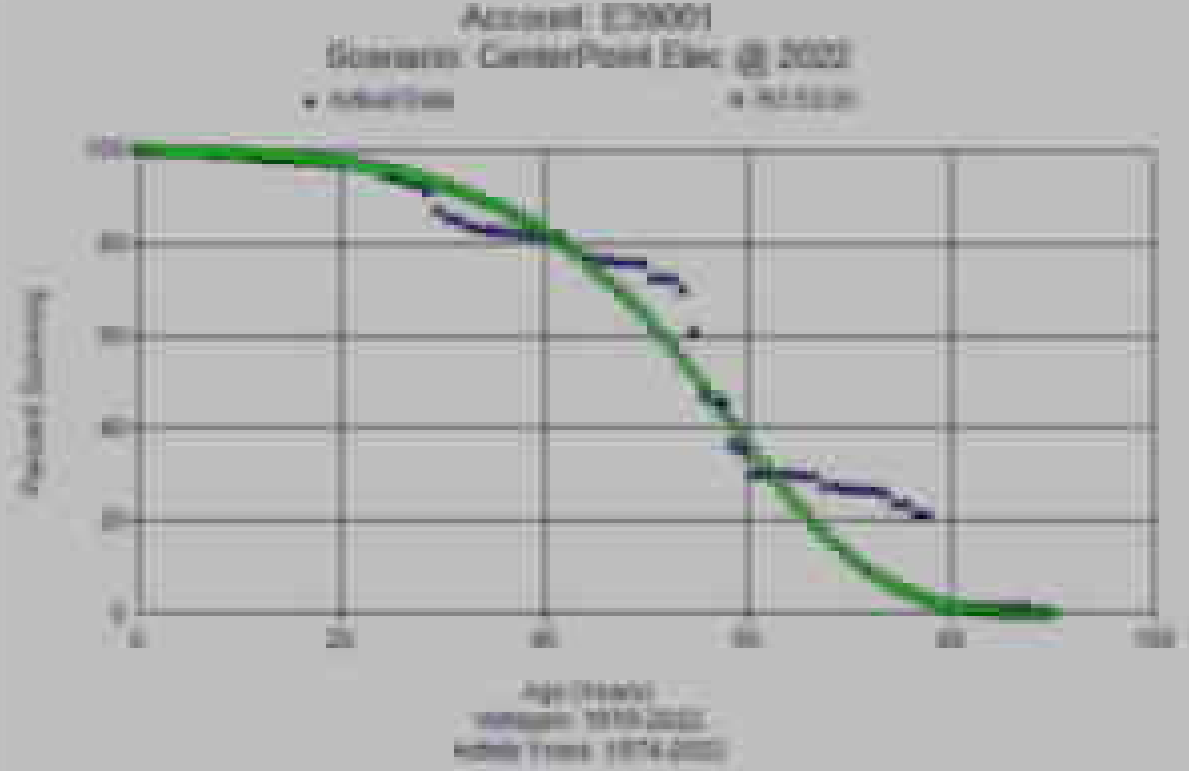
Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

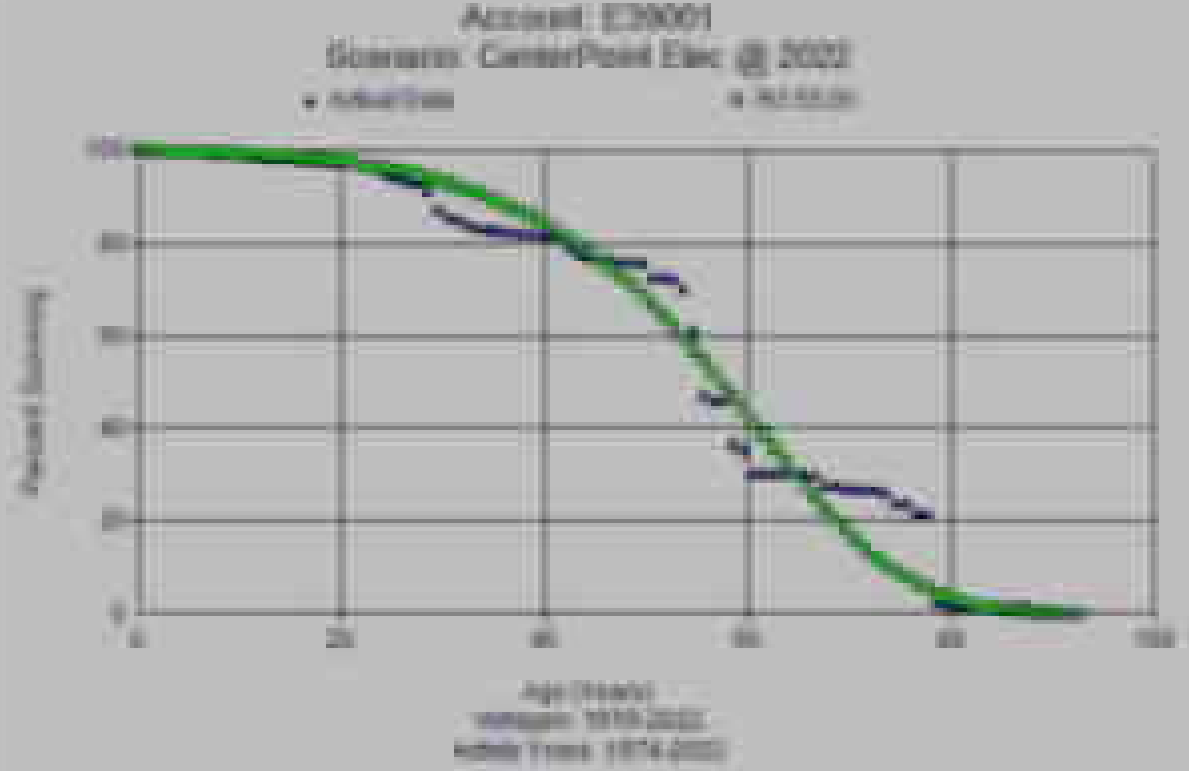
Contact centralrecords@puc.texas.gov if you have any questions.

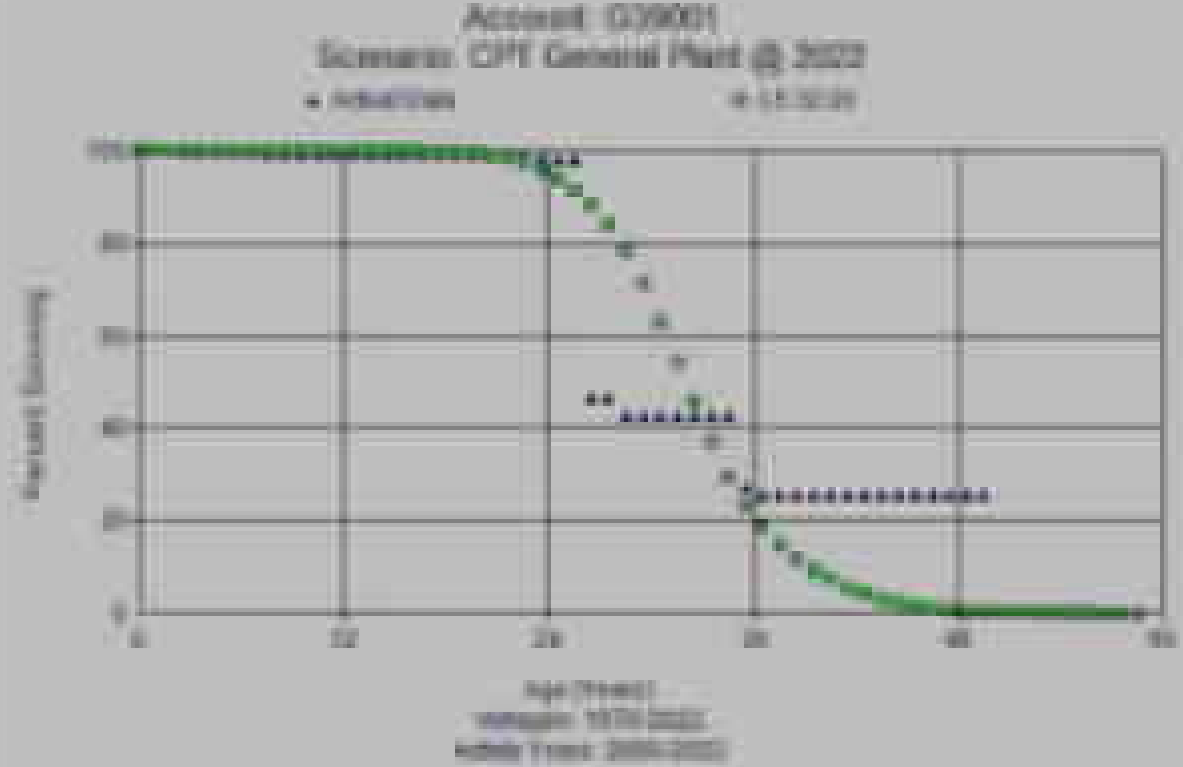

Account: G39001
Scenario: CPT General Plant @ 2022
100
80
60
40
20
0
0
6
12
18
24
30

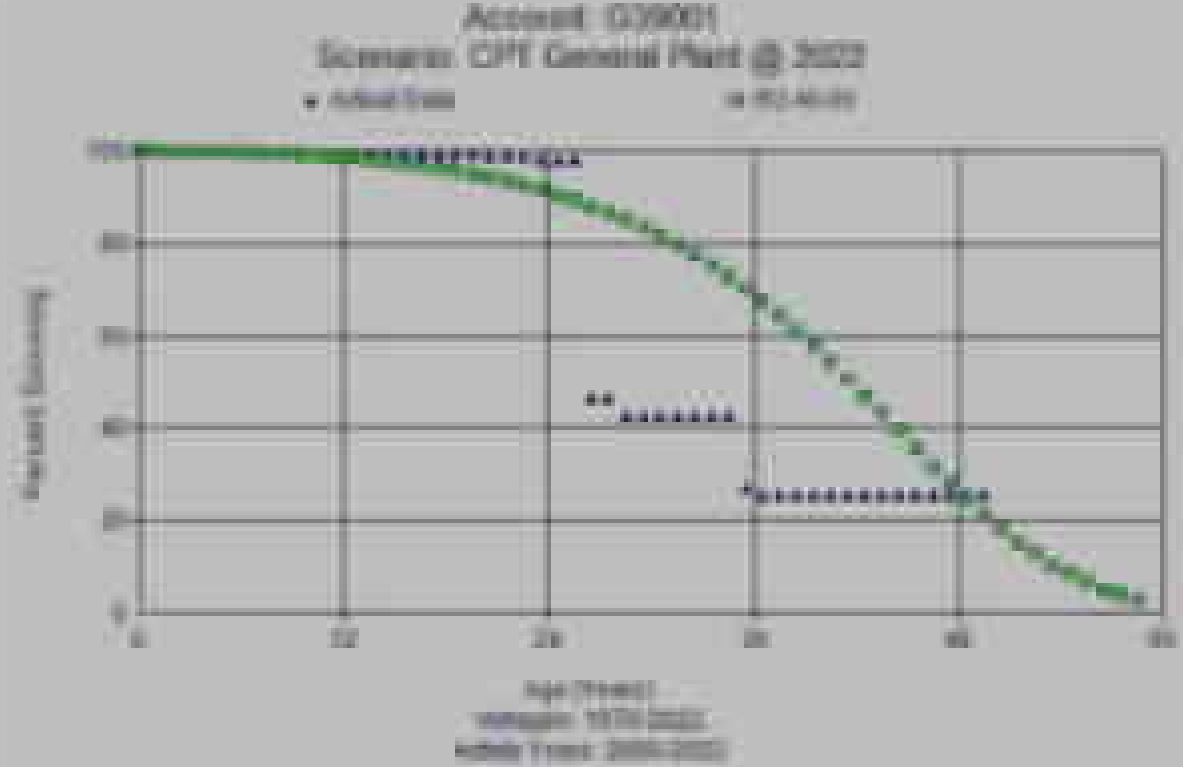

Account: 039001
Scenario: CPT General Plant @ 3/22

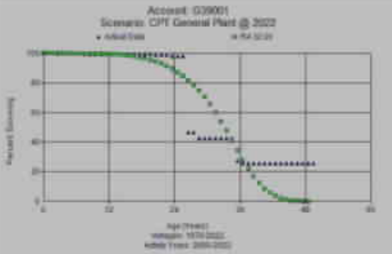

Account: E39001
Scenario: CenterPoint Elec @ 2022
0
20
40
60
80
100
Age (Years)


Account: E39001
Scenario: CenterPoint Elec @ 2022
Percent Surviving
Age (Years)

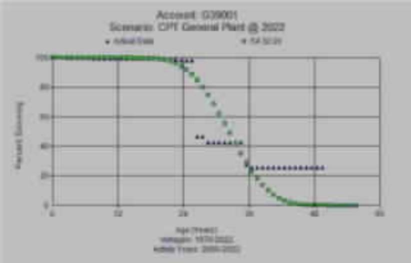

Account: E39001
Scenario: CenterPoint Elec @ 2022
Actual Data
Percent Surviving
Age (Years)


Account: G39001
Scenario: CPT General Plant @ 3023





Account: G39001
Scenario: CPT General Plant @ 2022
Percent Surviving
Age (Years)


Account: G39001
Scenario: CPT General Plant @ 2022
100
80
60
40
20
0
0
12
24
36
48
60

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39001
Placement Band: 2000 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	42,737,411.47	0.00	0.00000	1.00000	100.00
0.5	41,566,095.94	0.00	0.00000	1.00000	100.00
1.5	35,205,589.76	29,224.59	0.00083	0.99917	100.00
2.5	30,860,504.15	20,386.27	0.00066	0.99934	99.92
3.5	30,385,111.33	-12,168.74	-0.00040	1.00040	99.85
4.5	30,279,659.05	3,052.38	0.00010	0.99990	99.89
5.5	30,220,313.91	85,172.97	0.00282	0.99718	99.88
6.5	29,935,218.30	29,129.98	0.00097	0.99903	99.60
7.5	21,118,467.72	0.00	0.00000	1.00000	99.50
8.5	16,416,412.88	267.94	0.00002	0.99998	99.50
9.5	15,390,390.80	10,169.22	0.00066	0.99934	99.50
10.5	763,262.77	0.00	0.00000	1.00000	99.43
11.5	549,155.46	0.00	0.00000	1.00000	99.43
12.5	430,977.57	0.00	0.00000	1.00000	99.43
13.5	345,455.26	0.00	0.00000	1.00000	99.43
14.5	339,038.39	0.00	0.00000	1.00000	99.43
15.5	48,459.35	0.00	0.00000	1.00000	99.43
16.5	48,459.35	0.00	0.00000	1.00000	99.43
17.5	48,459.35	0.00	0.00000	1.00000	99.43
18.5	0.00	0.00	0.00000	0.00000	99.43

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39001
Placement Band: 1970 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	42,737,411.47	0.00	0.00000	1.00000	100.00
0.5	41,683,203.47	0.00	0.00000	1.00000	100.00
1.5	35,325,647.29	29,224.59	0.00083	0.99917	100.00
2.5	31,011,431.51	20,386.27	0.00066	0.99934	99.92
3.5	30,545,684.44	-12,168.74	-0.00040	1.00040	99.85
4.5	30,586,756.11	3,052.38	0.00010	0.99990	99.89
5.5	30,527,410.97	85,172.97	0.00279	0.99721	99.88
6.5	30,242,315.36	29,129.98	0.00096	0.99904	99.60
7.5	21,425,564.78	0.00	0.00000	1.00000	99.51
8.5	16,728,288.82	267.94	0.00002	0.99998	99.51
9.5	15,719,605.48	10,169.22	0.00065	0.99935	99.50
10.5	1,092,477.45	0.00	0.00000	1.00000	99.44
11.5	878,370.14	0.00	0.00000	1.00000	99.44
12.5	760,192.25	0.00	0.00000	1.00000	99.44
13.5	674,669.94	0.00	0.00000	1.00000	99.44
14.5	668,253.07	0.00	0.00000	1.00000	99.44
15.5	377,674.03	0.00	0.00000	1.00000	99.44
16.5	378,372.88	0.00	0.00000	1.00000	99.44
17.5	378,372.88	0.00	0.00000	1.00000	99.44
18.5	329,913.53	0.00	0.00000	1.00000	99.44
19.5	329,913.53	1,390.23	0.00421	0.99579	99.44
20.5	328,523.30	0.00	0.00000	1.00000	99.02
21.5	328,523.30	0.00	0.00000	1.00000	99.02
22.5	344,598.28	2,950.00	0.00856	0.99144	99.02
23.5	312,402.74	0.00	0.00000	1.00000	98.17
24.5	326,940.46	0.00	0.00000	1.00000	98.17
25.5	296,070.63	156,169.70	0.52747	0.47253	98.17
26.5	173,554.60	0.00	0.00000	1.00000	46.39
27.5	173,554.60	14,537.72	0.08376	0.91624	46.39
28.5	241,027.42	0.00	0.00000	1.00000	42.50
29.5	250,527.42	0.00	0.00000	1.00000	42.50
30.5	250,527.42	0.00	0.00000	1.00000	42.50
31.5	245,748.54	0.00	0.00000	1.00000	42.50
32.5	228,409.80	0.00	0.00000	1.00000	42.50
33.5	228,409.80	0.00	0.00000	1.00000	42.50
34.5	228,409.80	82,047.21	0.35921	0.64079	42.50
35.5	146,362.59	9,500.00	0.06491	0.93509	27.24
36.5	136,862.59	0.00	0.00000	1.00000	25.47
37.5	136,862.59	0.00	0.00000	1.00000	25.47
38.5	136,862.59	0.00	0.00000	1.00000	25.47
39.5	136,163.74	0.00	0.00000	1.00000	25.47
40.5	136,163.74	0.00	0.00000	1.00000	25.47
41.5	136,163.74	0.00	0.00000	1.00000	25.47
42.5	136,163.74	0.00	0.00000	1.00000	25.47
43.5	136,163.74	0.00	0.00000	1.00000	25.47
44.5	136,163.74	0.00	0.00000	1.00000	25.47
45.5	120,088.76	0.00	0.00000	1.00000	25.47
46.5	33,653.67	0.00	0.00000	1.00000	25.47
47.5	33,653.67	0.00	0.00000	1.00000	25.47
48.5	33,653.67	0.00	0.00000	1.00000	25.47
49.5	0.00	0.00	0.00000	1.00000	25.47

Actuarial Life Analysis

Account: G39001
Scenario: CPT General Plant @ 2022
Placement Band: 1970 - 1974
Function: Survivorship Annual Rate Method
Weighting: Unweighted
T-Cut: None

Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1970 -1974		1.00			
1971 -1975		1.00			
1972 -1976		1.00			
1973 -1977		1.00			
1974 -1978		1.00			
1975 -1979		1.00			
1976 -1980		1.00			
1977 -1981		1.00			
1978 -1982		1.00			
1979 -1983		1.00			
1980 -1984		1.00			
1981 -1985		1.00			
1982 -1986		1.00			
1983 -1987		1.00			
1984 -1988		1.00			
1985 -1989		1.00			
1986 -1990		1.00			
1987 -1991		1.00			
1988 -1992		1.00			
1989 -1993		1.00			
1990 -1994		1.00			
1991 -1995		1.00			
1992 -1996		1.00			
1993 -1997		1.00			
1994 -1998		1.00			
1995 -1999		1.00			
1996 -2000		1.00			
1997 -2001		1.00			
1998 -2002		1.00			
1999 -2003	30.5	88.83	0.01195348	L4	40.09
2000 -2004	31.5	89.20	0.01285279	S3	43.15
2001 -2005	32.5	90.36	0.01211836	S2.5	49.31
2002 -2006	33.5	0.00	0.32915424	S6	31.47
2003 -2007	34.5	0.00	0.34615354	S6	31.37
2004 -2008	35.5	0.00	0.10681405	SQ	32.39
2005 -2009	36.5	19.29	0.86719252	R0.5	26.83
2006 -2010	37.5	20.47	0.67387249	R4	30.54
2007 -2011	38.5	85.30	0.19138645	R0.5	60.07
2008 -2012	39.5	91.14	0.07637570	R0.5	96.95
2009 -2013	40.5	93.05	0.04719829	R0.5	125.25
2010 -2014	41.5	99.06	0.00090705	R2.5	190.43
2011 -2015	42.5	98.81	0.00100809	R2	242.04
2012 -2016	43.5	99.92	0.00001637	R4	149.38
2013 -2017	44.5	99.92	0.00001704	R4	152.53

Actuarial Life Analysis

Account: G39001

Scenario: CPT General Plant @ 2022

Placement Band: 1970 - 2018

Function: Survivorship Annual Rate Method

Weighting: Unweighted

T-Cut: None

Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
2014 -2018	45.5	99.93	0.00001295	R4	163.20
2015 -2019	46.5	98.81	0.00072842	R2.5	196.71
2016 -2020	47.5	98.57	0.00074711	R2.5	186.33
2017 -2021	48.5	3.02	0.09056482	SQ	26.31
2018 -2022	49.5	0.00	0.00358861	SQ	25.83

Actuarial Life Analysis

Account: G39001

Scenario: CPT General Plant @ 2022

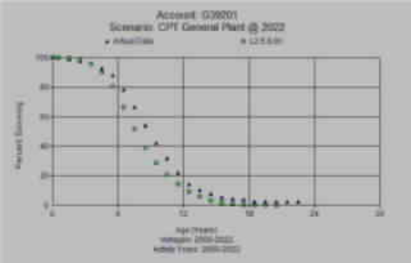
Placement Band: 1970 - 2022

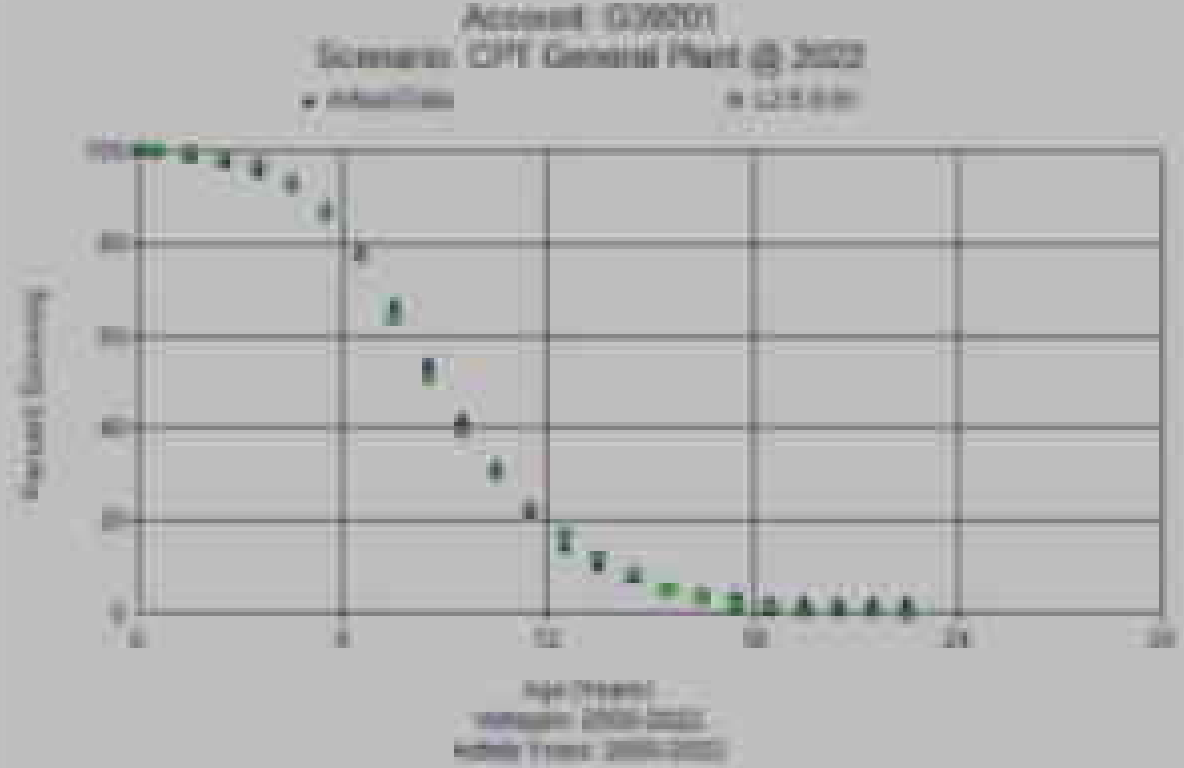
Function: Survivorship Annual Rate Method

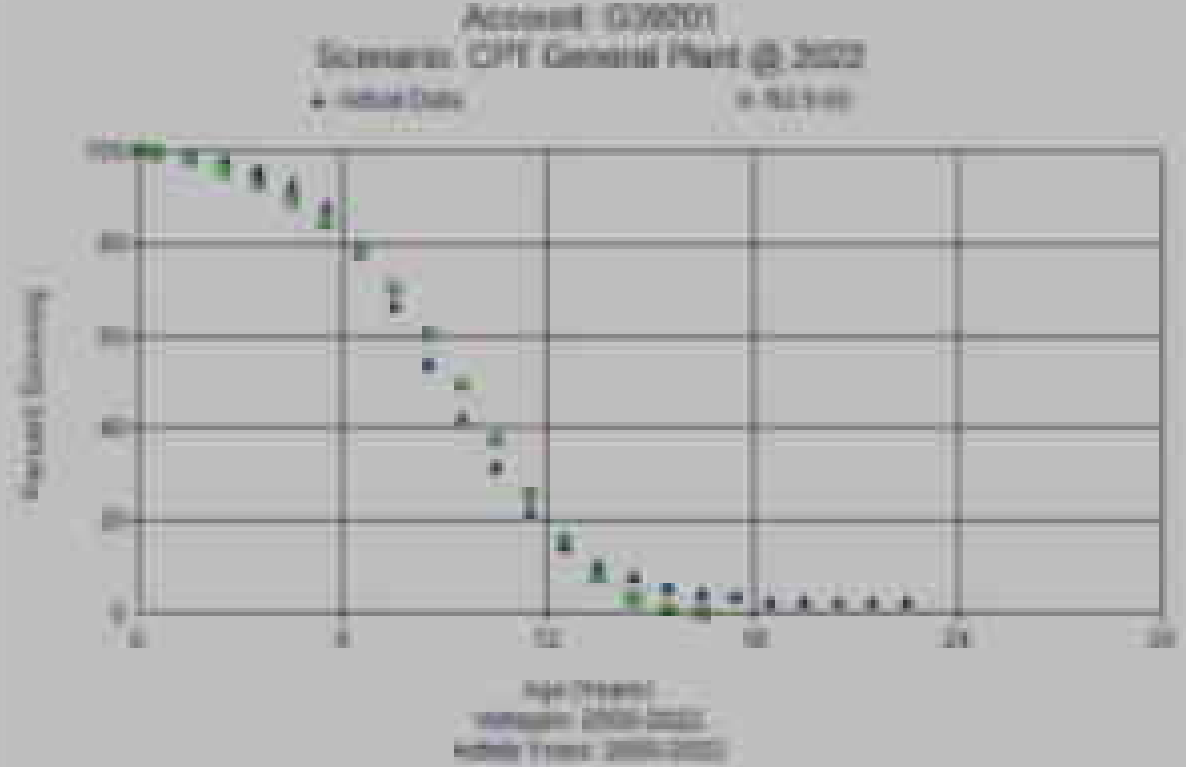
Weighting: Unweighted

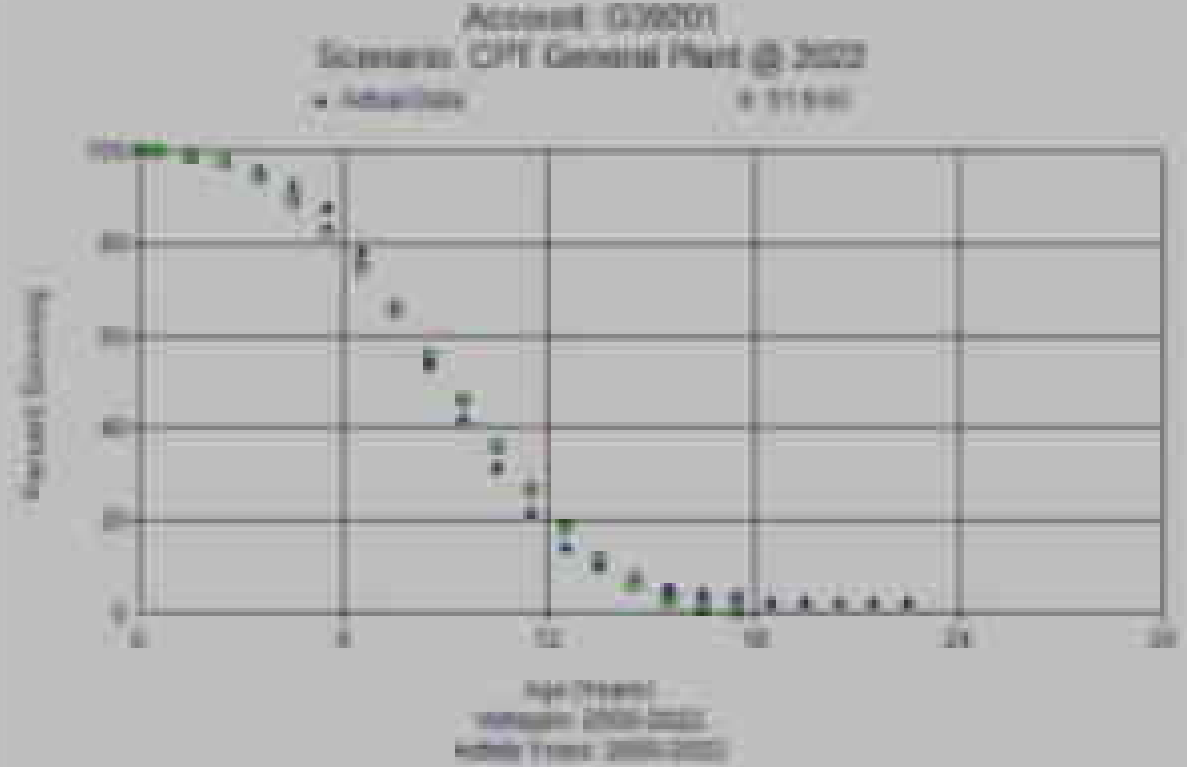
T-Cut: None

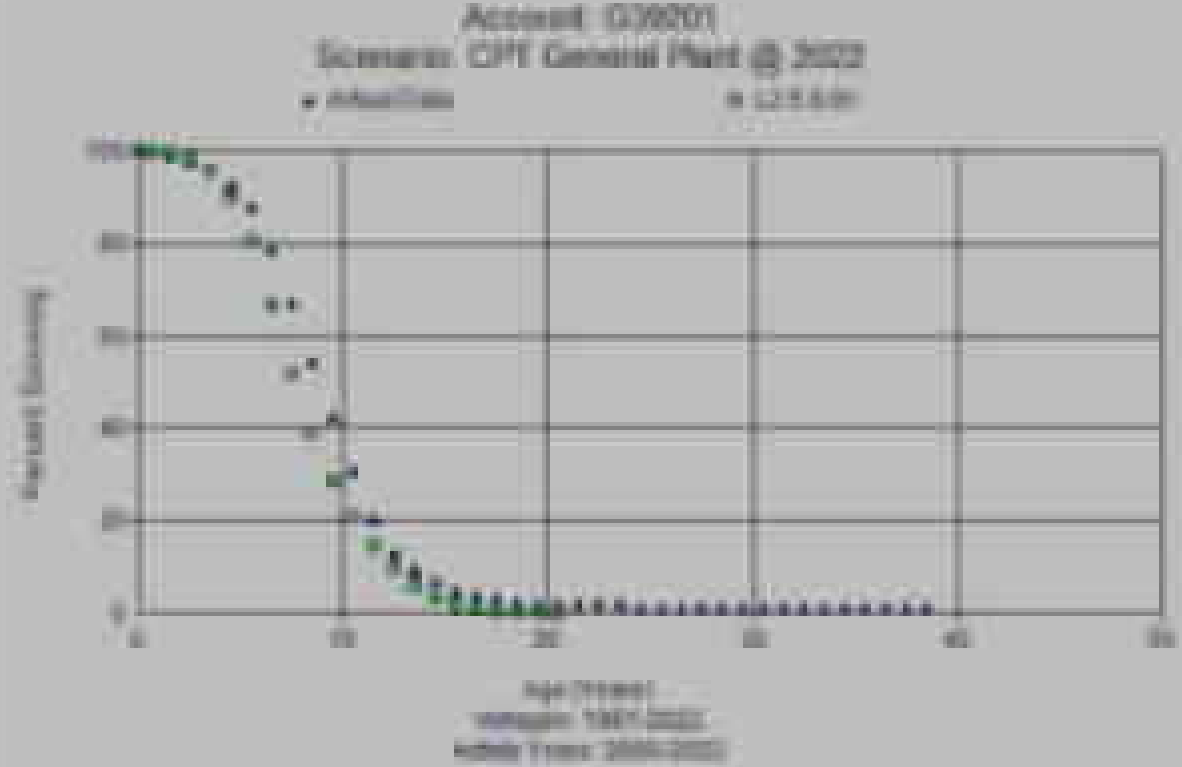
Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1970 -2022	52.5	35.17	0.41409910	L2	40.37
1975 -2022	52.5	35.17	0.41409910	L2	40.37
1980 -2022	52.5	35.17	0.41406322	L2	40.37
1985 -2022	52.5	35.17	0.41406322	L2	40.37
1990 -2022	52.5	35.17	0.41406322	L2	40.37
1995 -2022	52.5	35.11	0.41318832	L2	40.34
2000 -2022	52.5	25.47	0.63177218	L2.5	35.24
2005 -2022	52.5	7.50	0.84125057	L5	28.33
2010 -2022	52.5	12.18	1.19449018	L4	29.13
2015 -2022	52.5	12.17	1.19394194	L4	29.13
2020 -2022	52.5	0.00	0.53312459	S6	24.63

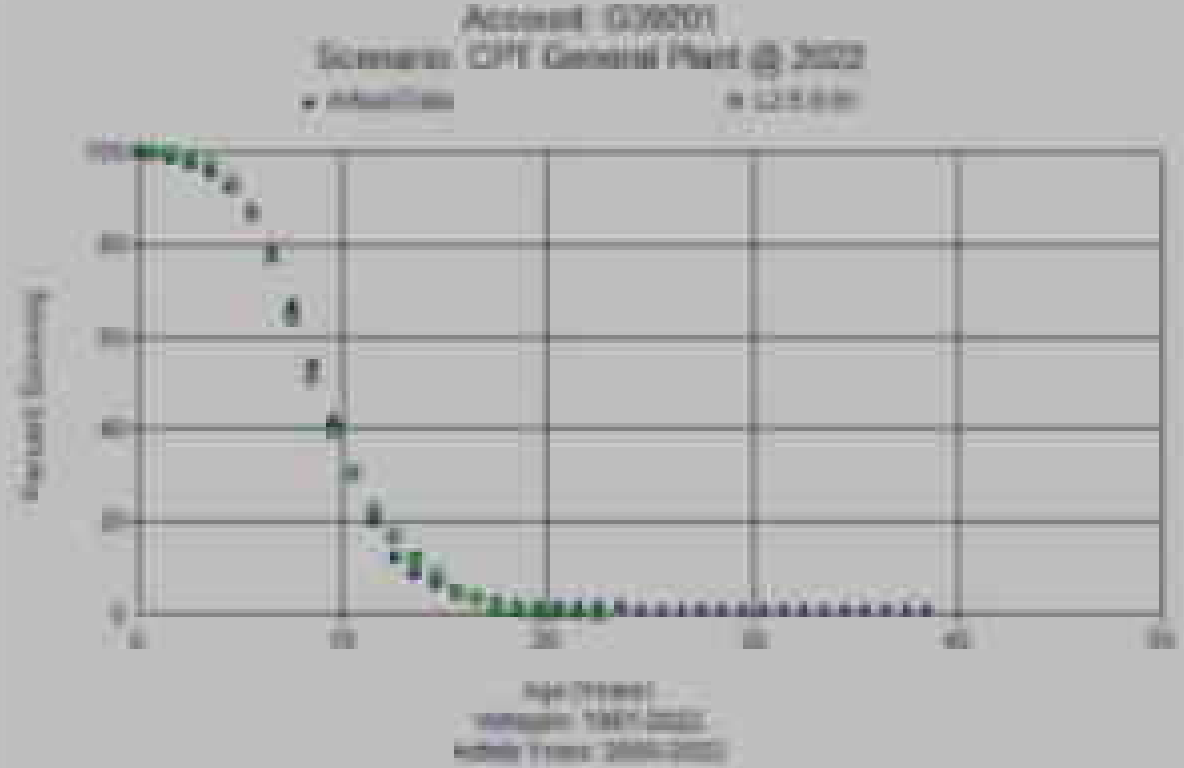

Account: G39201
Scenario: CPT General Plant @ 2022
Percent Surviving
100
80
60
40
20
0
0
6
12
18
24
30
Age (Years)

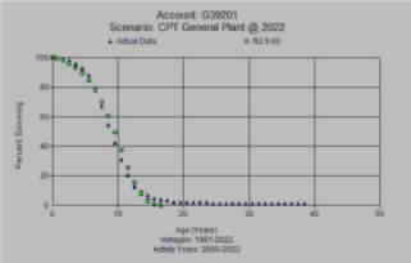

Account: G39201
Scenario: CPT General Plant @ 2022

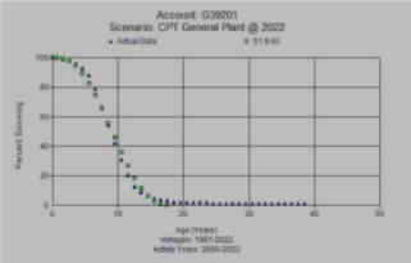

Account: G39201
Scenario: CPT General Plant @ 3022




Account: G39201
Scenario: CPT General Plant @ 2022


Account: G39201
Scenario: CPT General Plant @ 2022


Account: G39201
Scenario: CPT General Plant @ 2022
100
80
60
40
20
0
0
10
20
30
40
50


Account: G39201
Scenario: CPT General Plant @ 2022
Percent Surviving
100
80
60
40
20
0
0
10
20
30
40
50
Age (Years)

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39201
Placement Band: 2000 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	111,850,789.61	338,380.62	0.00303	0.99697	100.00
0.5	91,448,390.75	887,740.44	0.00971	0.99029	99.70
1.5	86,940,861.95	830,116.45	0.00955	0.99045	98.73
2.5	75,286,083.00	1,568,022.68	0.02083	0.97917	97.79
3.5	67,069,732.06	2,124,876.02	0.03168	0.96832	95.75
4.5	61,484,116.65	3,171,517.85	0.05158	0.94842	92.72
5.5	56,725,066.04	6,079,437.94	0.10717	0.89283	87.93
6.5	48,531,857.78	7,360,661.68	0.15167	0.84833	78.51
7.5	35,791,563.31	6,587,152.60	0.18404	0.81596	66.60
8.5	26,695,815.38	5,985,230.54	0.22420	0.77580	54.35
9.5	18,918,345.65	4,672,981.54	0.24701	0.75299	42.16
10.5	12,156,775.42	3,694,402.72	0.30390	0.69610	31.75
11.5	7,126,215.17	2,592,121.33	0.36374	0.63626	22.10
12.5	4,027,534.69	1,042,922.32	0.25895	0.74105	14.06
13.5	2,487,276.38	681,236.81	0.27389	0.72611	10.42
14.5	1,572,079.75	444,816.16	0.28295	0.71705	7.57
15.5	929,195.74	212,194.26	0.22836	0.77164	5.43
16.5	638,094.88	41,471.43	0.06499	0.93501	4.19
17.5	408,951.07	144,519.01	0.35339	0.64661	3.91
18.5	231,783.80	9,196.15	0.03968	0.96032	2.53
19.5	159,323.87	0.00	0.00000	1.00000	2.43
20.5	76,942.23	0.00	0.00000	1.00000	2.43
21.5	38,101.04	0.00	0.00000	1.00000	2.43
22.5	0.00	0.00	0.00000	0.00000	2.43

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39201
Placement Band: 1981 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	111,850,789.61	338,380.62	0.00303	0.99697	100.00
0.5	92,950,504.67	893,136.30	0.00961	0.99039	99.70
1.5	89,595,115.34	845,385.67	0.00944	0.99056	98.74
2.5	79,185,254.35	1,627,928.95	0.02056	0.97944	97.81
3.5	71,863,281.09	2,304,165.35	0.03206	0.96794	95.80
4.5	66,574,113.86	3,318,788.39	0.04985	0.95015	92.73
5.5	62,115,455.60	6,478,951.04	0.10430	0.89570	88.10
6.5	53,849,488.14	8,023,941.07	0.14901	0.85099	78.91
7.5	40,708,641.20	7,594,670.58	0.18656	0.81344	67.16
8.5	30,723,371.05	7,170,071.70	0.23338	0.76662	54.63
9.5	21,836,384.27	5,840,245.05	0.26745	0.73255	41.88
10.5	13,924,848.78	4,621,089.86	0.33186	0.66814	30.68
11.5	7,991,169.02	3,055,789.85	0.38240	0.61760	20.50
12.5	4,428,820.02	1,222,949.01	0.27613	0.72387	12.66
13.5	2,708,535.02	702,062.80	0.25920	0.74080	9.16
14.5	1,772,512.40	528,773.06	0.29832	0.70168	6.79
15.5	1,045,703.48	245,707.83	0.23497	0.76503	4.76
16.5	721,089.05	41,471.43	0.05751	0.94249	3.64
17.5	491,945.24	190,009.04	0.38624	0.61376	3.43
18.5	269,288.10	9,196.15	0.03415	0.96585	2.11
19.5	196,828.17	10,350.00	0.05258	0.94742	2.04
20.5	104,096.53	0.00	0.00000	1.00000	1.93
21.5	65,255.34	0.00	0.00000	1.00000	1.93
22.5	27,154.30	0.00	0.00000	1.00000	1.93
23.5	16,045.01	5,022.00	0.31299	0.68701	1.93
24.5	11,023.01	720.32	0.06535	0.93465	1.33
25.5	10,302.69	0.00	0.00000	1.00000	1.24
26.5	10,302.69	1,350.00	0.13103	0.86897	1.24
27.5	8,592.53	0.00	0.00000	1.00000	1.08
28.5	996.73	0.00	0.00000	1.00000	1.08
29.5	32.15	0.00	0.00000	1.00000	1.08
30.5	32.15	0.00	0.00000	1.00000	1.08
31.5	32.15	0.00	0.00000	1.00000	1.08
32.5	32.15	0.00	0.00000	1.00000	1.08
33.5	32.15	0.00	0.00000	1.00000	1.08
34.5	32.15	0.16	0.00498	0.99502	1.08
35.5	31.99	0.00	0.00000	1.00000	1.07
36.5	31.99	0.00	0.00000	1.00000	1.07
37.5	31.99	0.00	0.00000	1.00000	1.07
38.5	0.00	0.00	0.00000	1.00000	1.07

Actuarial Life Analysis

Account: G39201
Scenario: CPT General Plant @ 2022
Placement Band: 1981 - 1985
Function: Survivorship Annual Rate Method
Weighting: Unweighted
T-Cut: None

Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1981 -1985		1.00			
1982 -1986		1.00			
1983 -1987		1.00			
1984 -1988		1.00			
1985 -1989		1.00			
1986 -1990		1.00			
1987 -1991		1.00			
1988 -1992		1.00			
1989 -1993		1.00			
1990 -1994		1.00			
1991 -1995		1.00			
1992 -1996		1.00			
1993 -1997		1.00			
1994 -1998		1.00			
1995 -1999		1.00			
1996 -2000	19.5	0.07	0.09376014	R3	10.07
1997 -2001	20.5	12.97	0.10264039	L3	11.17
1998 -2002	21.5	0.00	0.00934124	R3	9.36
1999 -2003	22.5	0.00	0.00801917	R3	9.06
2000 -2004	23.5	0.00	0.00573856	R3	9.24
2001 -2005	24.5	0.00	0.00366902	R3	9.22
2002 -2006	25.5	0.04	0.00250305	R3	8.88
2003 -2007	26.5	0.31	0.00443096	R3	8.60
2004 -2008	27.5	0.74	0.00300402	S2	8.02
2005 -2009	28.5	0.71	0.00508405	S1.5	7.69
2006 -2010	29.5	2.13	0.01998462	L3	7.93
2007 -2011	30.5	2.45	0.02518185	L2.5	7.94
2008 -2012	31.5	0.53	0.00551353	L2.5	7.83
2009 -2013	32.5	0.38	0.00668757	L3	7.98
2010 -2014	33.5	0.66	0.00767231	L2.5	8.40
2011 -2015	34.5	1.97	0.01923782	L2.5	8.63
2012 -2016	35.5	0.00	0.07205544	L2.5	9.54
2013 -2017	36.5	0.00	0.04100738	L2.5	9.73
2014 -2018	37.5	0.00	0.28360523	L1.5	12.25
2015 -2019	38.5	4.11	0.08198019	L2	11.90
2016 -2020	39.5	3.22	0.06256315	L3	11.35
2017 -2021	40.5	2.43	0.04646309	L3	11.40
2018 -2022	41.5	1.29	0.02360271	L3	10.56

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      dispersion_2     average_life_3   conformance_index_3
      dispersion_3     trial_id    analysis_account_id    description
      analysis_version_id    conformance_index_2    flag_1      flag_2
      flag_3     censoring   function    hazard_rate_option     weighting
      error_sum_squaresbest_fit_curve    best_fit_asl     age
      placement_start_year   placement_end_year     t_cut method_option
1981  1985                                                  84988062    54888
      G39201      1662                          1     2     1     4
                  1981  1985  0     1
1982  1986                                                  84988063    54888
      G39201      1662                          1     2     1     4
                  1981  1986  0     1
1983  1987                                                  84988064    54888
      G39201      1662                          1     2     1     4
                  1981  1987  0     1
1984  1988                                                  84988065    54888
      G39201      1662                          1     2     1     4
                  1981  1988  0     1
1985  1989                                                  84988066    54888
      G39201      1662                          1     2     1     4
                  1981  1989  0     1
1986  1990                                                  84988067    54888
      G39201      1662                          1     2     1     4
                  1981  1990  0     1
1987  1991                                                  84988068    54888
      G39201      1662                          1     2     1     4
                  1981  1991  0     1
1988  1992                                                  84988069    54888
      G39201      1662                          1     2     1     4
                  1981  1992  0     1
1989  1993                                                  84988070    54888
      G39201      1662                          1     2     1     4
                  1981  1993  0     1
1990  1994                                                  84988071    54888
      G39201      1662                          1     2     1     4
                  1981  1994  0     1
1991  1995                                                  84988072    54888
      G39201      1662                          1     2     1     4
                  1981  1995  0     1
1992  1996                                                  84988073    54888
      G39201      1662                          1     2     1     4
                  1981  1996  0     1
1993  1997                                                  84988074    54888
      G39201      1662                          1     2     1     4
                  1981  1997  0     1
1994  1998                                                  84988075    54888
      G39201      1662                          1     2     1     4
                  1981  1998  0     1
1995  1999                                                  84988076    54888
      G39201      1662                          1     2     1     4
                  1981  1999  0     1
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1996	2000									84988077	54888
	G39201	1662					0.07	2	1	4	
	0.09376014	17	10.07	19.5	1981	2000	0	1			
1997	2001									84988078	54888
	G39201	1662					12.97	2	1	4	
	0.10264039	6	11.17	20.5	1981	2001	0	1			
1998	2002									84988079	54888
	G39201	1662					0	2	1	4	
	0.00934124	17	9.36	21.5	1981	2002	0	1			
1999	2003									84988080	54888
	G39201	1662					0	2	1	4	
	0.00801917	17	9.06	22.5	1981	2003	0	1			
2000	2004									84988081	54888
	G39201	1662					0	2	1	4	
	0.00573856	17	9.24	23.5	1981	2004	0	1			
2001	2005									84988082	54888
	G39201	1662					0	2	1	4	
	0.00366902	17	9.22	24.5	1981	2005	0	1			
2002	2006									84988083	54888
	G39201	1662					0.04	2	1	4	
	0.00250305	17	8.88	25.5	1981	2006	0	1			
2003	2007									84988084	54888
	G39201	1662					0.31	2	1	4	
	0.00443096	17	8.6	26.5	1981	2007	0	1			
2004	2008									84988085	54888
	G39201	1662					0.74	2	1	4	
	0.00300402	25	8.02	27.5	1981	2008	0	1			
2005	2009									84988086	54888
	G39201	1662					0.71	2	1	4	
	0.00508405	24	7.69	28.5	1981	2009	0	1			
2006	2010									84988087	54888
	G39201	1662					2.13	2	1	4	
	0.01998462	6	7.93	29.5	1981	2010	0	1			
2007	2011									84988088	54888
	G39201	1662					2.45	2	1	4	
	0.02518185	35	7.94	30.5	1981	2011	0	1			
2008	2012									84988089	54888
	G39201	1662					0.53	2	1	4	
	0.00551353	35	7.83	31.5	1981	2012	0	1			
2009	2013									84988090	54888
	G39201	1662					0.38	2	1	4	
	0.00668757	6	7.98	32.5	1981	2013	0	1			
2010	2014									84988091	54888
	G39201	1662					0.66	2	1	4	
	0.00767231	35	8.4	33.5	1981	2014	0	1			
2011	2015									84988092	54888
	G39201	1662					1.97	2	1	4	
	0.01923782	35	8.63	34.5	1981	2015	0	1			
2012	2016									84988093	54888
	G39201	1662					0	2	1	4	
	0.07205544	35	9.54	35.5	1981	2016	0	1			
2013	2017									84988094	54888
	G39201	1662					0	2	1	4	
	0.04100738	35	9.73	36.5	1981	2017	0	1			

2014	2018									84988095		54888
	G39201	1662					0	2	1	4		
	0.28360523	4	12.25	37.5	1981	2018	0	1				
2015	2019									84988096		54888
	G39201	1662					4.11	2	1	4		
	0.08198019	5	11.9	38.5	1981	2019	0	1				
2016	2020									84988097		54888
	G39201	1662					3.22	2	1	4		
	0.06256315	6	11.35	39.5	1981	2020	0	1				
2017	2021									84988098		54888
	G39201	1662					2.43	2	1	4		
	0.04646309	6	11.4	40.5	1981	2021	0	1				
2018	2022									84988099		54888
	G39201	1662					1.29	2	1	4		
	0.02360271	6	10.56	41.5	1981	2022	0	1				

Actuarial Life Analysis

Account: G39201

Scenario: CPT General Plant @ 2022

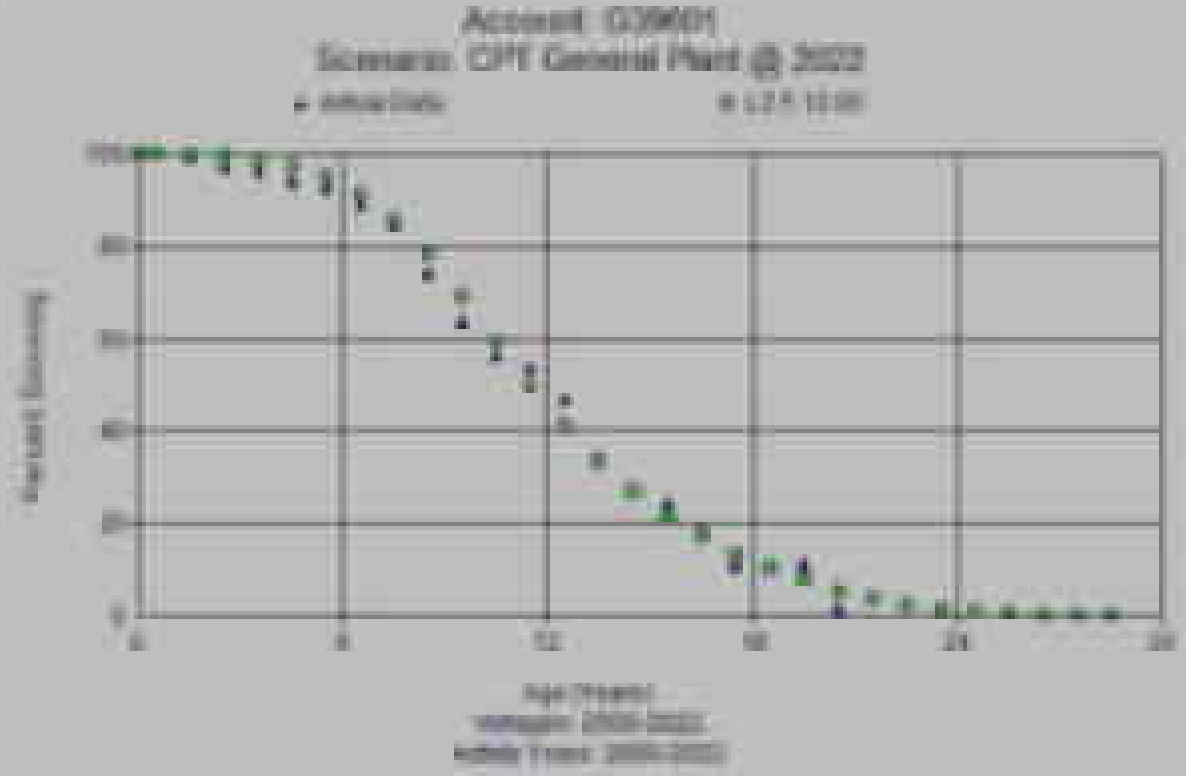
Placement Band: 1981 - 2022

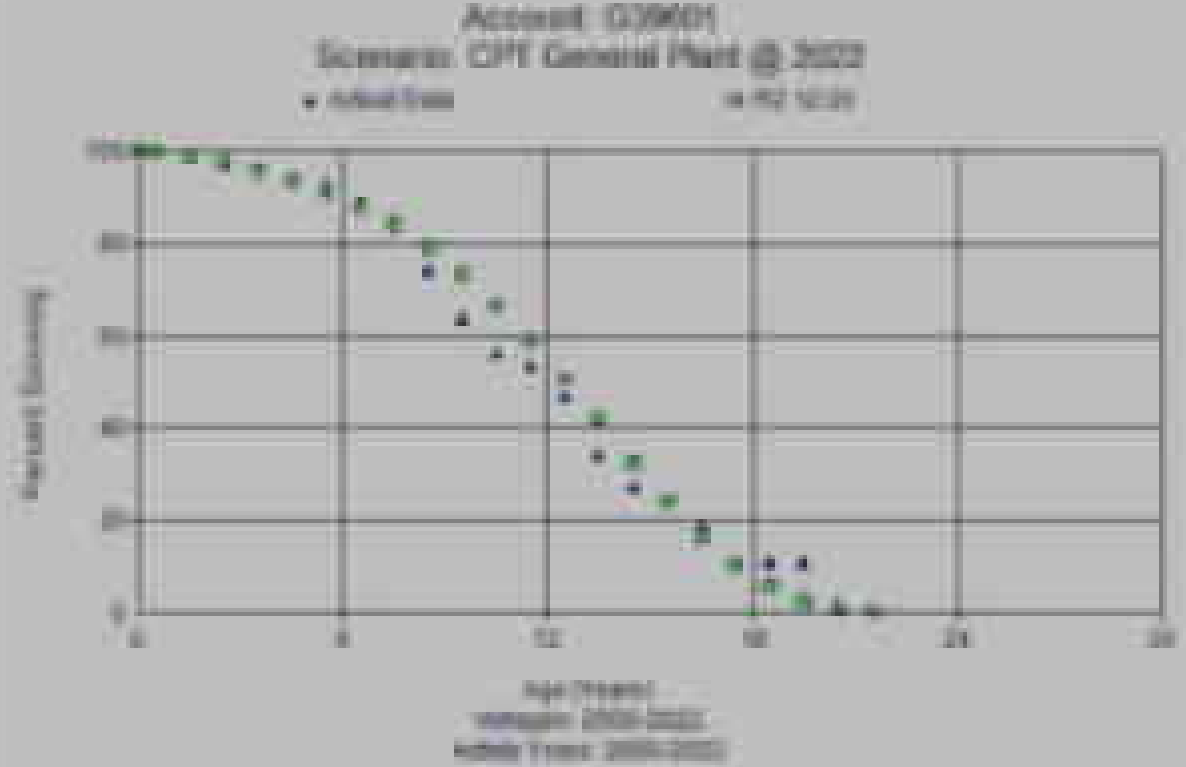
Function: Survivorship Annual Rate Method

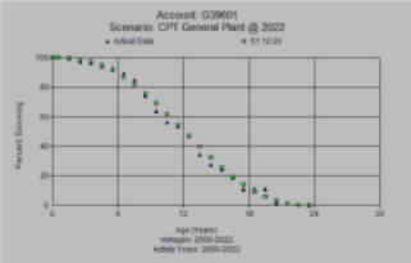
Weighting: Unweighted

T-Cut: None

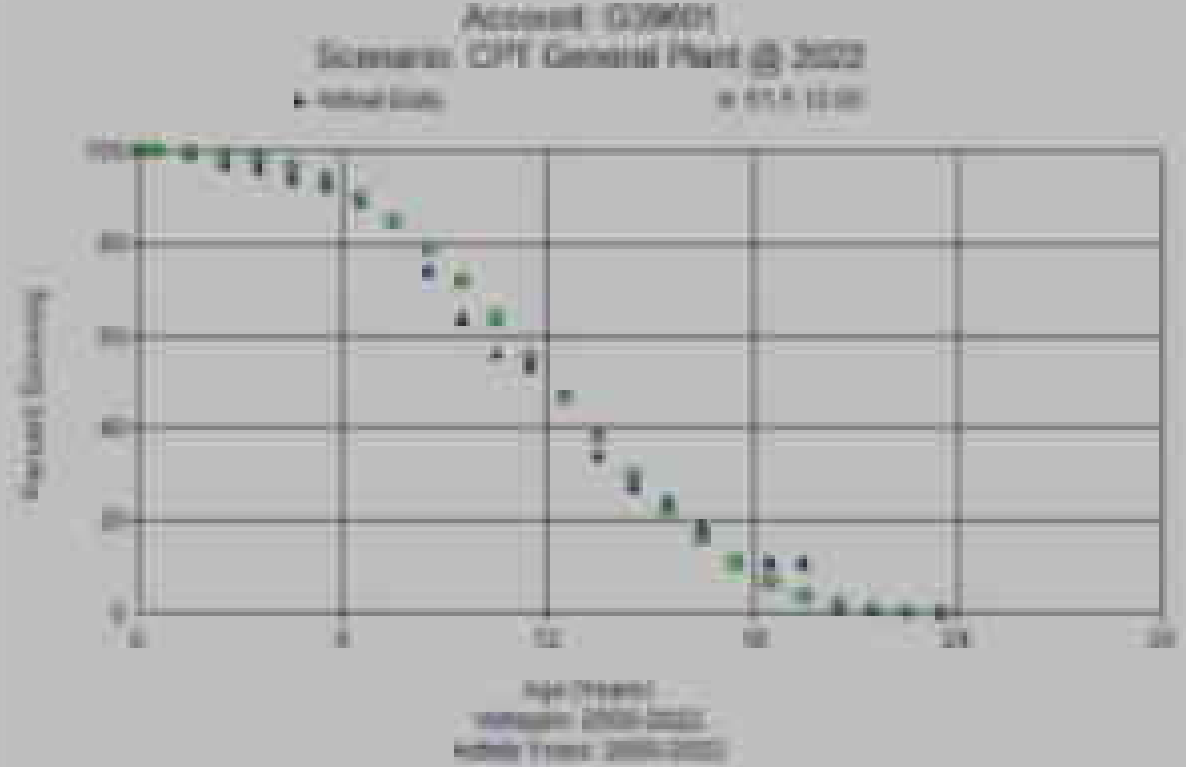
Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1981 -2022	41.5	1.08	0.01780303	L2.5	9.47
1986 -2022	41.5	1.08	0.01780303	L2.5	9.47
1991 -2022	41.5	1.08	0.01780303	L2.5	9.47
1996 -2022	41.5	1.08	0.01772969	L2.5	9.47
2001 -2022	41.5	1.08	0.01738582	L2.5	9.44
2006 -2022	41.5	1.09	0.01655581	L2.5	9.40
2011 -2022	41.5	1.32	0.02096026	L3	9.90
2016 -2022	41.5	1.63	0.02915438	L3	10.68
2021 -2022	41.5	0.00	0.01353419	L3	9.87

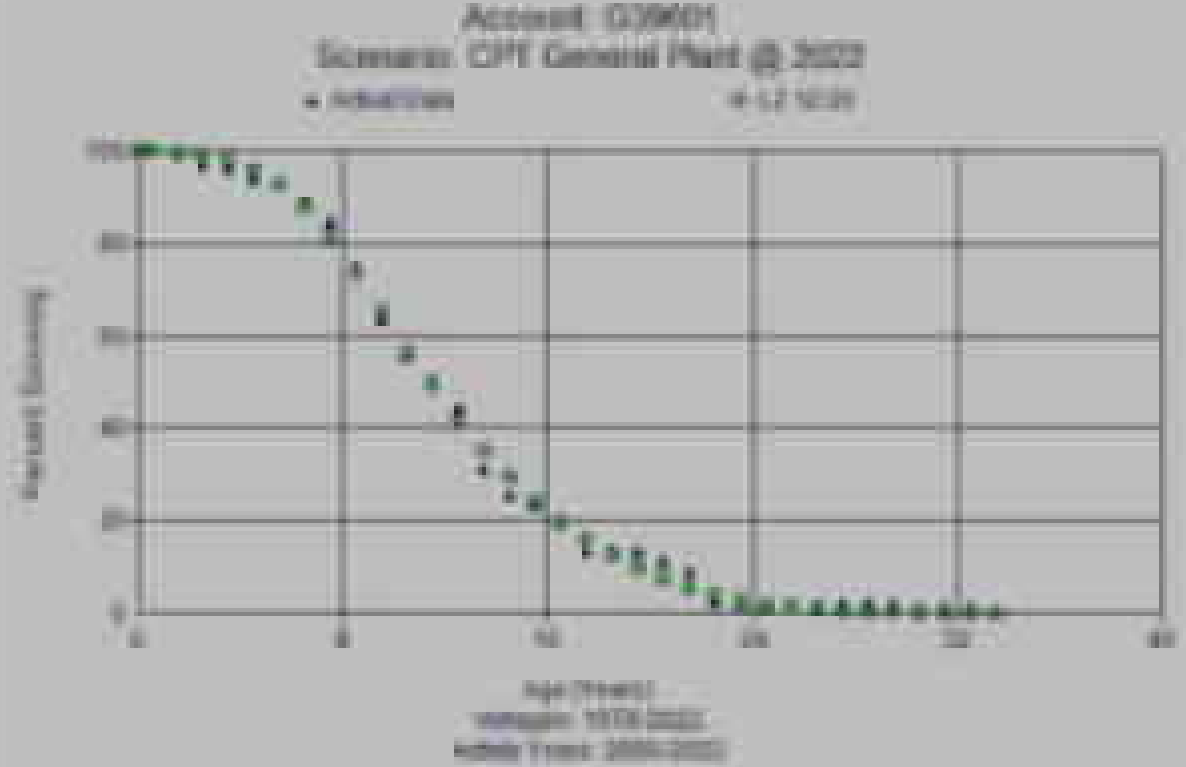


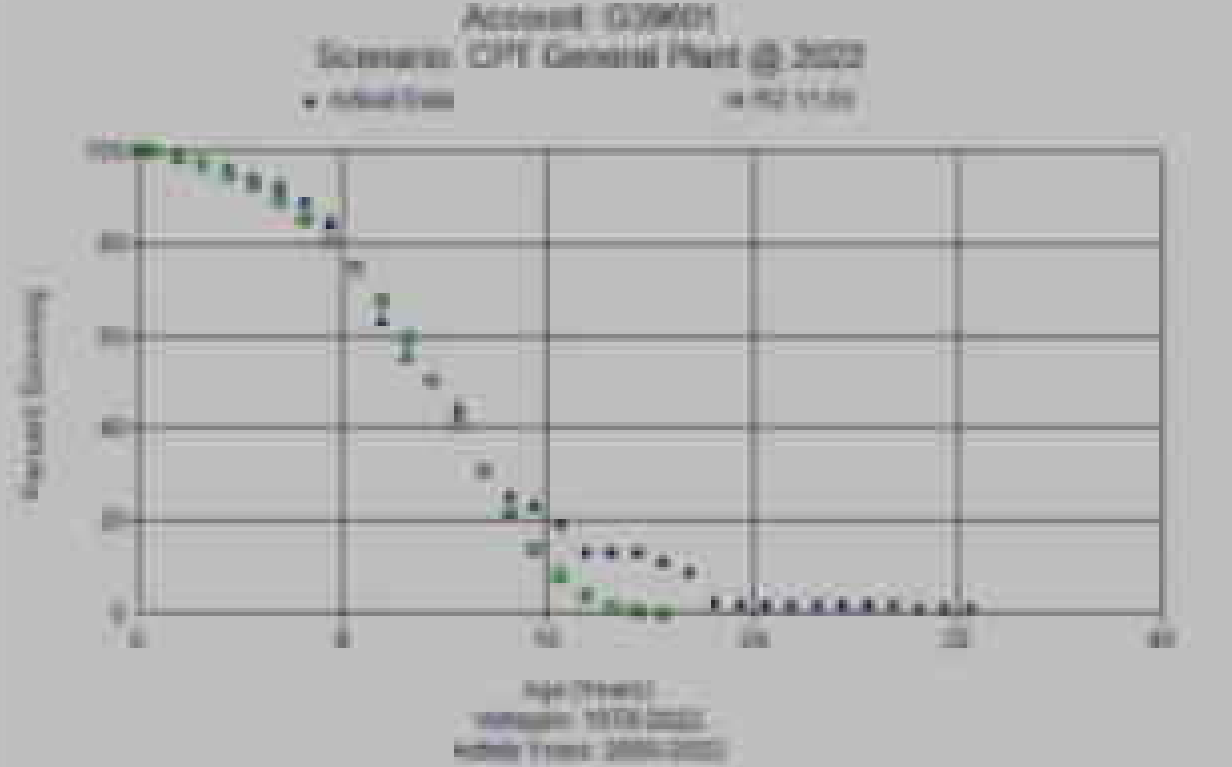


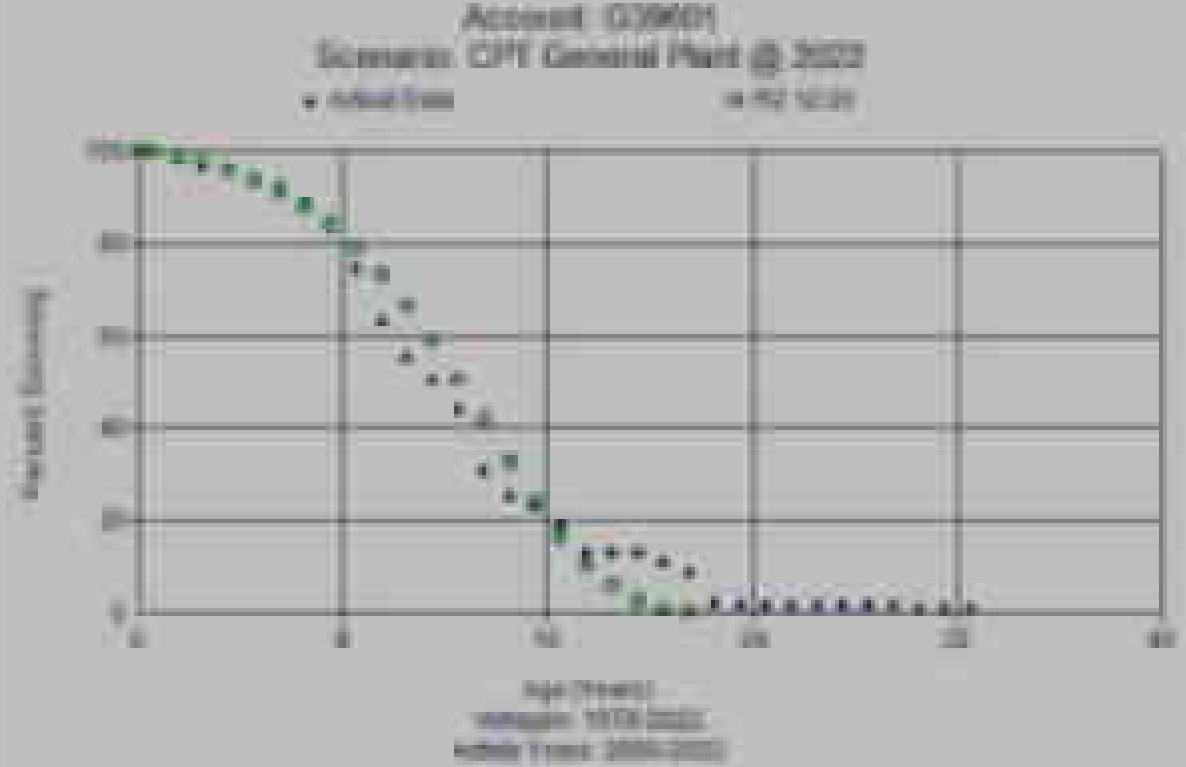


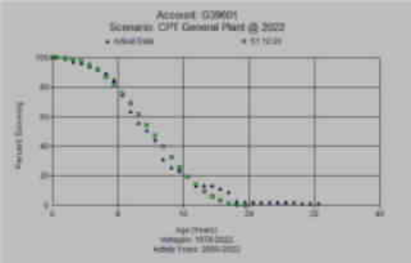
Scenario: CPF General Plant @ 2022
Percent Surviving
Age (Years)
0
6
12
18
24
30
20
40
60
80
100










Account: G39601
Scenario: CPT General Plant @ 2022
Percent Surviving
Age (Years)

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39601
Placement Band: 2000 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	14,723,467.44	0.00	0.00000	1.00000	100.00
0.5	12,490,639.10	91,835.32	0.00735	0.99265	100.00
1.5	10,763,011.48	227,528.16	0.02114	0.97886	99.27
2.5	10,198,160.10	95,139.43	0.00933	0.99067	97.17
3.5	9,498,326.80	217,043.09	0.02285	0.97715	96.26
4.5	8,691,416.12	126,913.70	0.01460	0.98540	94.06
5.5	8,456,113.41	301,642.58	0.03567	0.96433	92.69
6.5	8,092,613.45	410,138.82	0.05068	0.94932	89.38
7.5	7,173,815.49	886,021.50	0.12351	0.87649	84.85
8.5	5,696,718.23	798,637.52	0.14019	0.85981	74.37
9.5	4,233,219.33	495,309.01	0.11701	0.88299	63.95
10.5	3,389,174.85	168,949.56	0.04985	0.95015	56.46
11.5	2,804,474.43	357,697.75	0.12755	0.87245	53.65
12.5	2,193,091.47	599,498.06	0.27336	0.72664	46.81
13.5	1,295,188.76	260,643.71	0.20124	0.79876	34.01
14.5	707,709.82	80,794.08	0.11416	0.88584	27.17
15.5	626,915.74	144,141.74	0.22992	0.77008	24.07
16.5	418,438.67	171,312.23	0.40941	0.59059	18.53
17.5	66,818.28	0.00	0.00000	1.00000	10.95
18.5	39,142.52	0.00	0.00000	1.00000	10.95
19.5	39,142.52	32,851.39	0.83928	0.16072	10.95
20.5	0.00	0.00	0.00000	1.00000	1.76

Observed Life Table

Scenario: CPT General Plant @ 2022
Account: G39601
Placement Band: 1978 - 2022 **Observation Band:** 2000 - 2022

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	14,723,467.44	0.00	0.00000	1.00000	100.00
0.5	12,655,401.68	91,835.32	0.00726	0.99274	100.00
1.5	11,138,274.88	227,528.16	0.02043	0.97957	99.27
2.5	10,656,950.76	108,299.09	0.01016	0.98984	97.25
3.5	10,094,951.38	218,038.06	0.02160	0.97840	96.26
4.5	9,384,953.49	131,771.02	0.01404	0.98596	94.18
5.5	9,216,662.17	353,005.87	0.03830	0.96170	92.86
6.5	8,828,394.56	452,591.94	0.05127	0.94873	89.30
7.5	7,942,840.39	912,009.17	0.11482	0.88518	84.72
8.5	6,490,675.23	972,279.77	0.14980	0.85020	75.00
9.5	4,862,645.20	596,388.60	0.12265	0.87735	63.76
10.5	3,948,655.87	370,290.46	0.09378	0.90622	55.94
11.5	3,170,630.15	417,904.67	0.13180	0.86820	50.70
12.5	2,499,040.27	721,429.11	0.28868	0.71132	44.01
13.5	1,510,036.64	275,149.85	0.18221	0.81779	31.31
14.5	908,051.56	80,794.08	0.08898	0.91102	25.60
15.5	827,257.48	144,141.74	0.17424	0.82576	23.33
16.5	618,780.41	195,597.86	0.31610	0.68390	19.26
17.5	242,874.39	0.00	0.00000	1.00000	13.17
18.5	215,198.63	0.00	0.00000	1.00000	13.17
19.5	215,198.63	32,851.39	0.15266	0.84734	13.17
20.5	176,056.11	36,500.50	0.20732	0.79268	11.16
21.5	146,616.51	103,521.84	0.70607	0.29393	8.85
22.5	43,094.67	7,561.18	0.17546	0.82454	2.60
23.5	26,113.49	0.00	0.00000	1.00000	2.15
24.5	26,113.49	0.00	0.00000	1.00000	2.15
25.5	26,113.49	0.00	0.00000	1.00000	2.15
26.5	14,548.06	0.00	0.00000	1.00000	2.15
27.5	14,548.06	0.00	0.00000	1.00000	2.15
28.5	14,548.06	0.00	0.00000	1.00000	2.15
29.5	14,548.06	7,060.90	0.48535	0.51465	2.15
30.5	7,487.16	0.00	0.00000	1.00000	1.10
31.5	7,487.16	0.00	0.00000	1.00000	1.10
32.5	0.00	0.00	0.00000	1.00000	1.10

Actuarial Life Analysis

Account: G39601
Scenario: CPT General Plant @ 2022
Placement Band: 1978 - 1982
Function: Survivorship Annual Rate Method
Weighting: Unweighted
T-Cut: None

Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1978 -1982		1.00			
1979 -1983		1.00			
1980 -1984		1.00			
1981 -1985		1.00			
1982 -1986		1.00			
1983 -1987		1.00			
1984 -1988		1.00			
1985 -1989		1.00			
1986 -1990		1.00			
1987 -1991		1.00			
1988 -1992		1.00			
1989 -1993		1.00			
1990 -1994		1.00			
1991 -1995		1.00			
1992 -1996		1.00			
1993 -1997		1.00			
1994 -1998		1.00			
1995 -1999		1.00			
1996 -2000	19.5	79.57	0.03978779	S0	31.06
1997 -2001	20.5	69.92	0.05212530	L0.5	28.08
1998 -2002	21.5	27.58	0.17600939	L2	13.53
1999 -2003	22.5	15.08	0.14821672	L2.5	11.49
2000 -2004	23.5	16.32	0.19664644	L2.5	12.05
2001 -2005	24.5	10.29	0.21430353	L3	11.63
2002 -2006	25.5	18.36	0.28841240	L2	12.92
2003 -2007	26.5	36.06	0.33335675	L0	17.01
2004 -2008	27.5	0.00	0.05533571	L3	10.46
2005 -2009	28.5	0.00	0.03233188	S1.5	8.89
2006 -2010	29.5	0.00	0.02772096	R2.5	8.77
2007 -2011	30.5	0.00	0.02688583	R2.5	8.30
2008 -2012	31.5	0.00	0.04222138	L3	8.75
2009 -2013	32.5	2.32	0.07421051	L2.5	10.01
2010 -2014	33.5	4.93	0.16248039	L2	11.45
2011 -2015	34.5	11.84	0.40105199	L2	12.43
2012 -2016	35.5	15.98	0.60018714	L1.5	14.32
2013 -2017	36.5	6.59	0.16756069	L2	13.40
2014 -2018	37.5	10.30	0.21942615	L1.5	15.37
2015 -2019	38.5	23.00	0.27477366	L0	20.38
2016 -2020	39.5	40.51	0.45566362	L0	26.07
2017 -2021	40.5	3.42	0.05140826	L2.5	15.35
2018 -2022	41.5	2.47	0.02939465	L3	14.47

Actuarial Life Analysis

Account: G39601

Scenario: CPT General Plant @ 2022

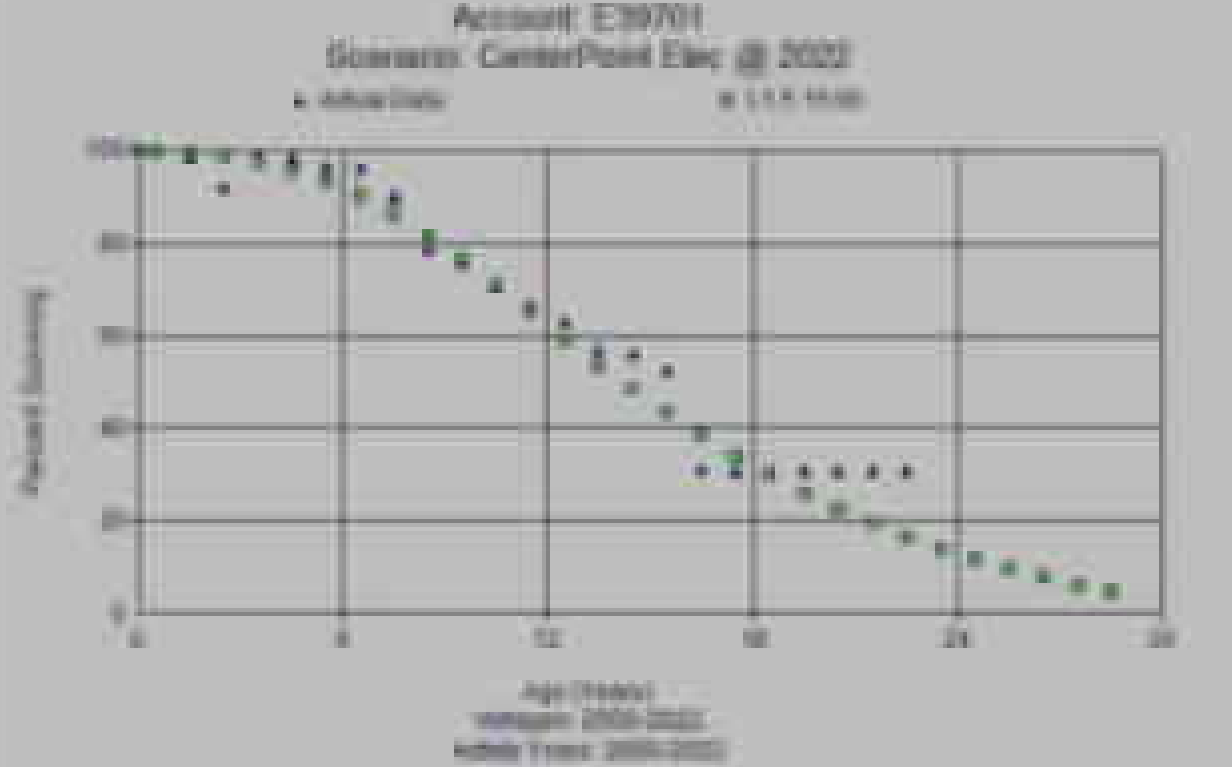
Placement Band: 1978 - 2022

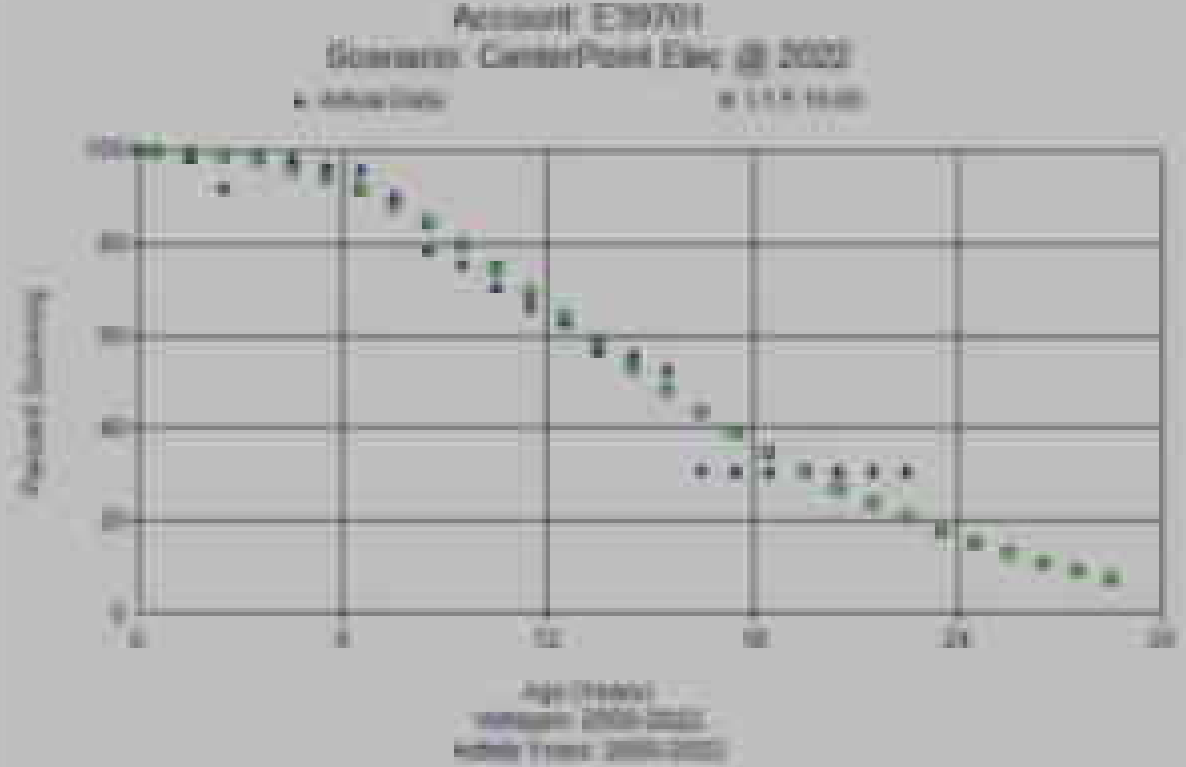
Function: Survivorship Annual Rate Method

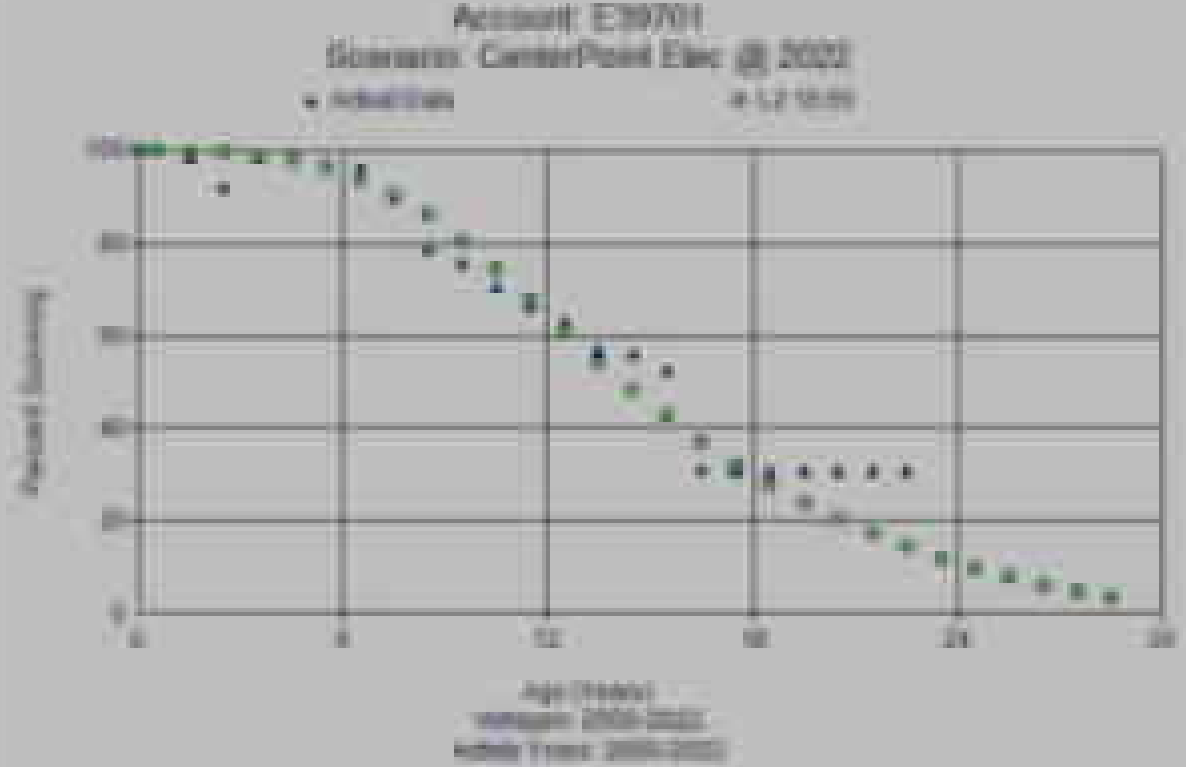
Weighting: Unweighted

T-Cut: None

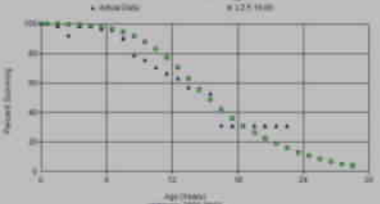
Observation Band	Censoring Age	Censoring Percent	Error Sum of Squares	Best Fit Disp	Best Fit ASL
1978 -2022	44.5	1.16	0.02085761	L2	12.52
1983 -2022	44.5	1.16	0.02085420	L2	12.52
1988 -2022	44.5	1.15	0.02078780	L2	12.52
1993 -2022	44.5	1.15	0.02080884	L2	12.51
1998 -2022	44.5	1.13	0.02031799	L2	12.46
2003 -2022	44.5	0.92	0.01744103	L2	12.35
2008 -2022	44.5	0.79	0.01576024	L2	12.14
2013 -2022	44.5	2.34	0.03082816	L2.5	13.72
2018 -2022	44.5	2.47	0.03339193	L3	14.55

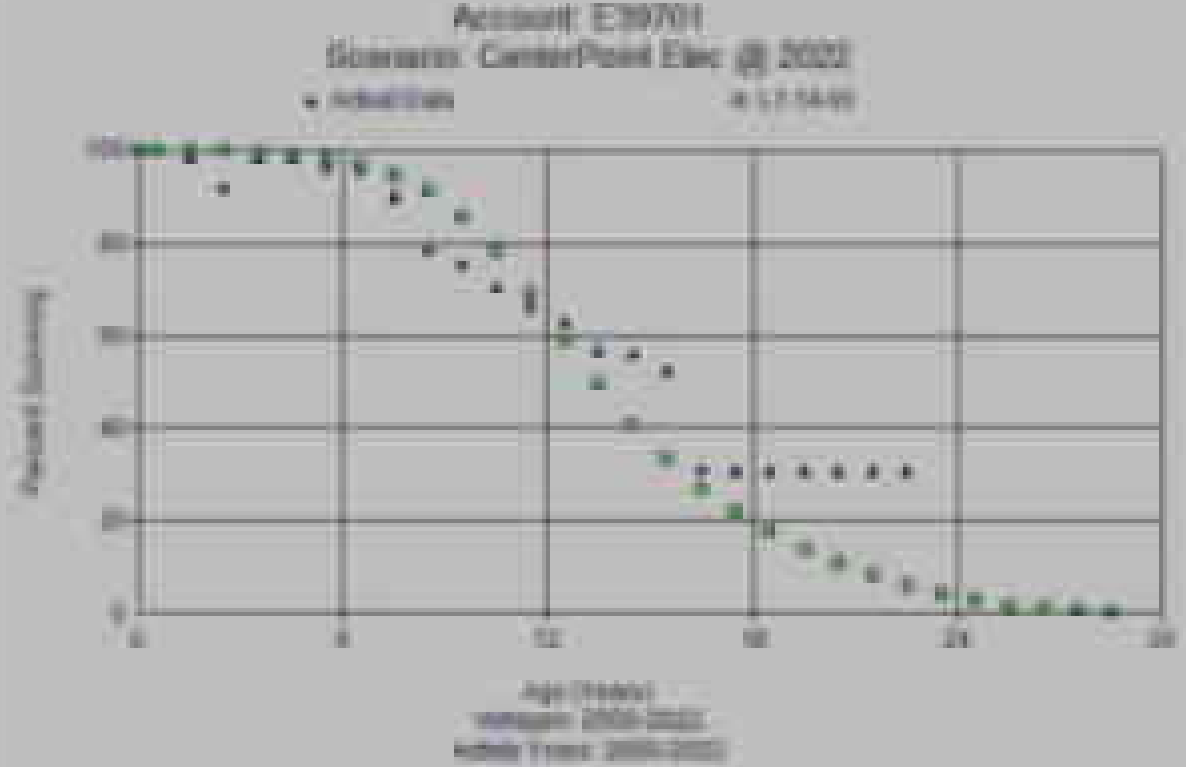

Account: E39701
Scenario: CenterPoint Elec @ 2023
Actual Data
Percent Surviving
Age (Years)

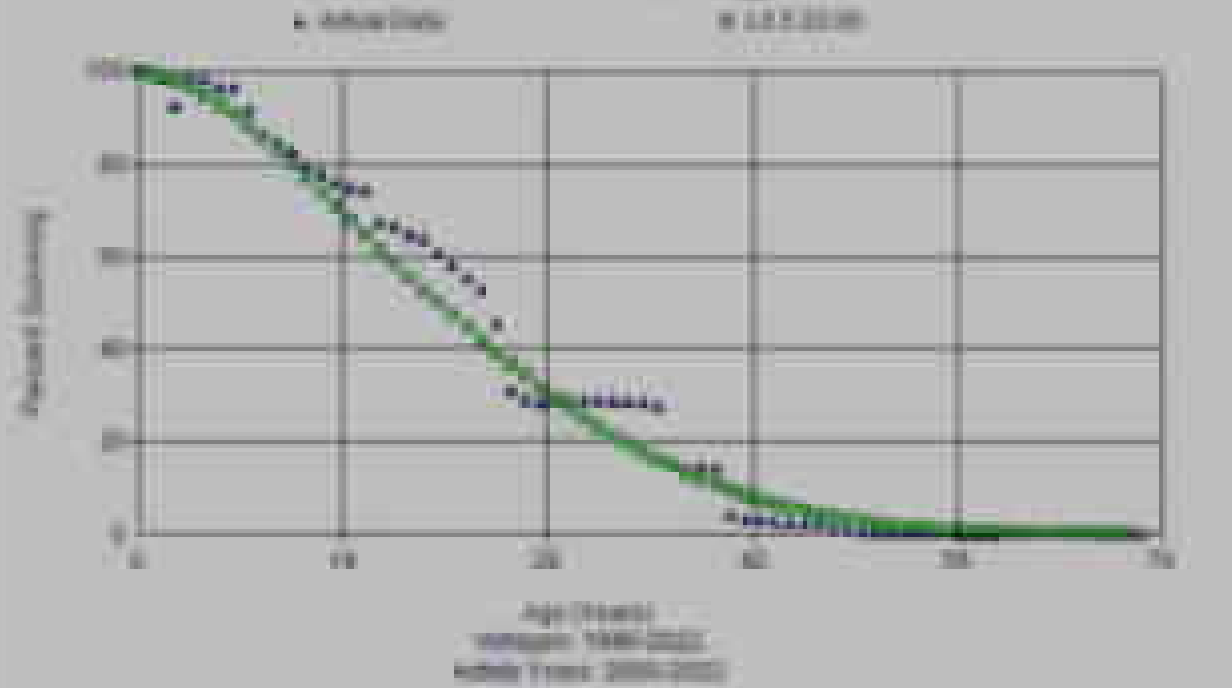

Account: E39701
Scenario: CenterPoint Elec @ 2022
Actual Data
Percent Surviving
Age (Years)

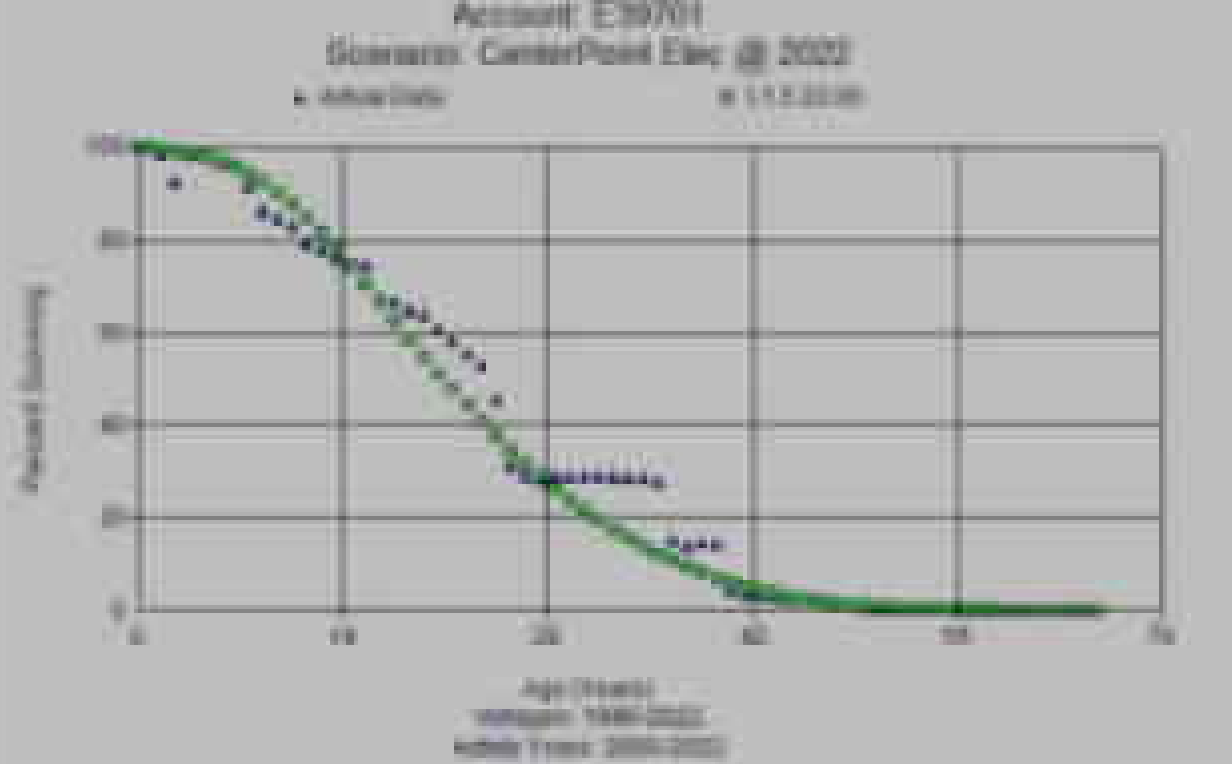

Account: E39701
Scenario: CenterPoint Elec @ 2022

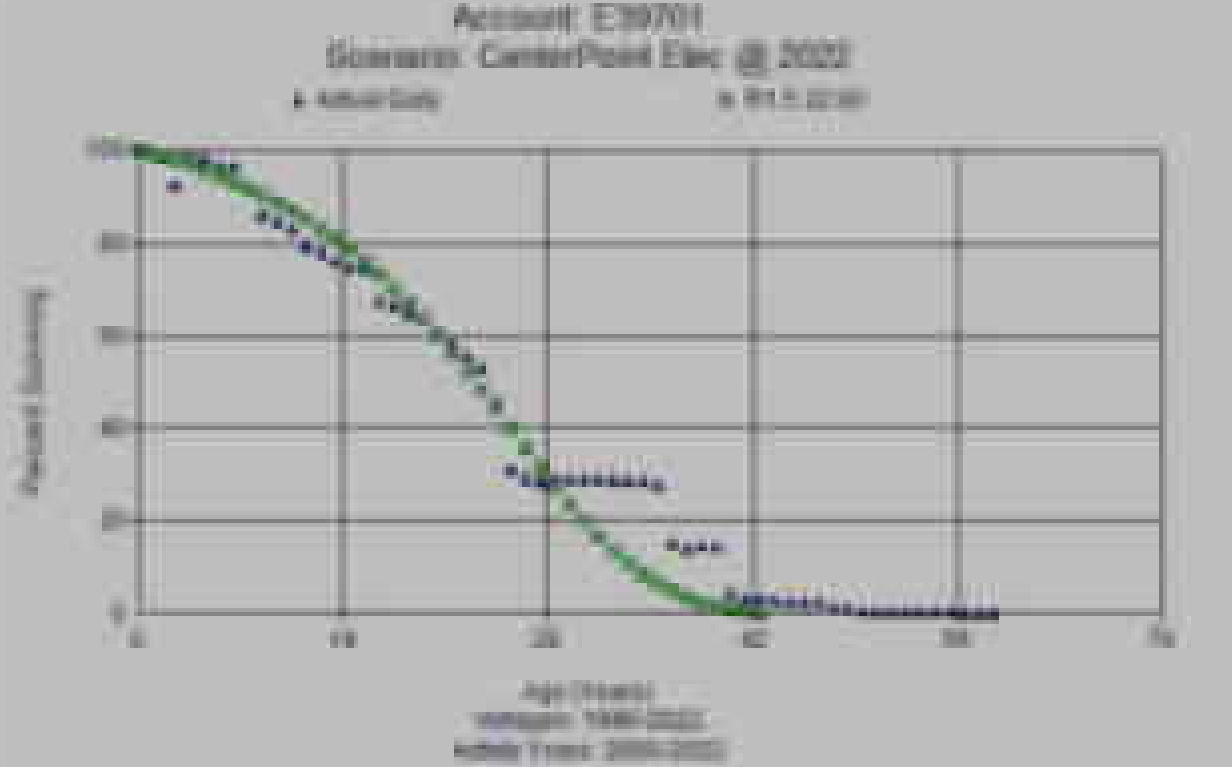
Account: E39701
Scenario: CenterPoint Elec @ 2022




Account: E39701
Scenario: CenterPoint Elec @ 2022
Actual Data
Percent Surviving
Age (Years)


Account: E39701
Scenario: CenterPoint Elec @ 2022


Account: E39701
Scenario: CenterPoint Elec @ 2022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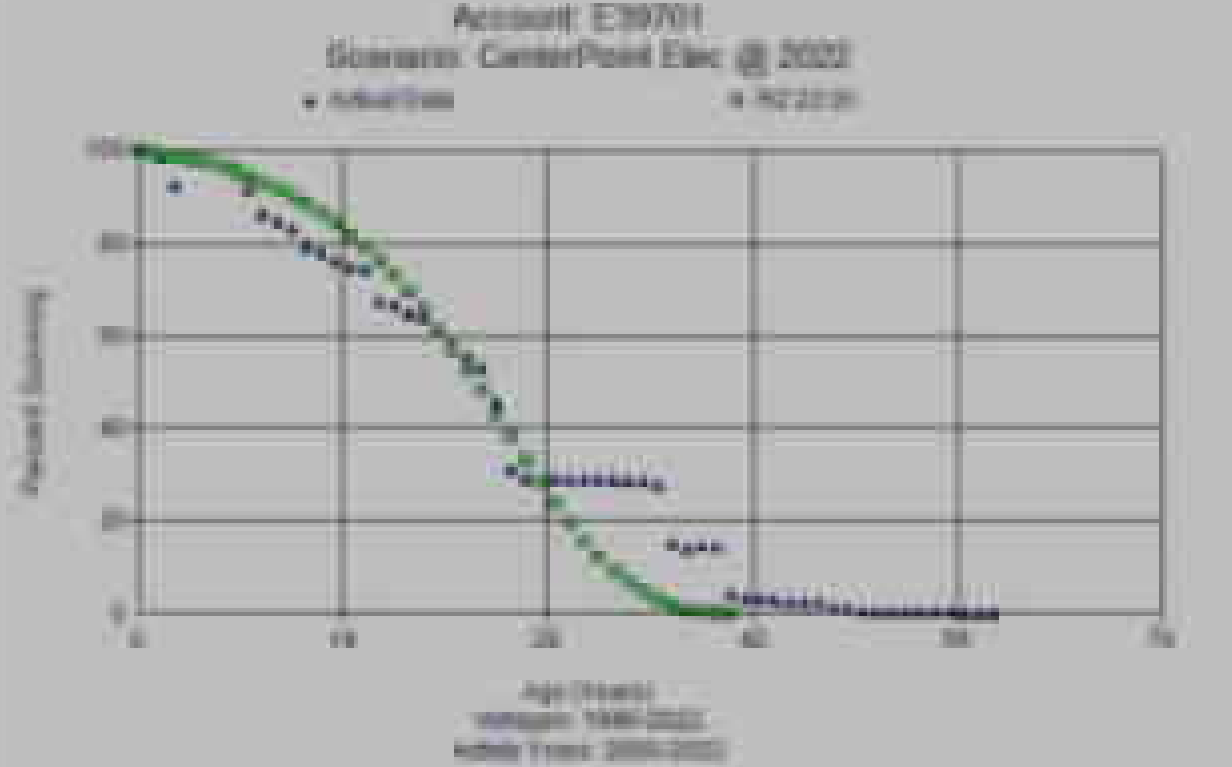
Scenario: CenterPoint Elec @ 2023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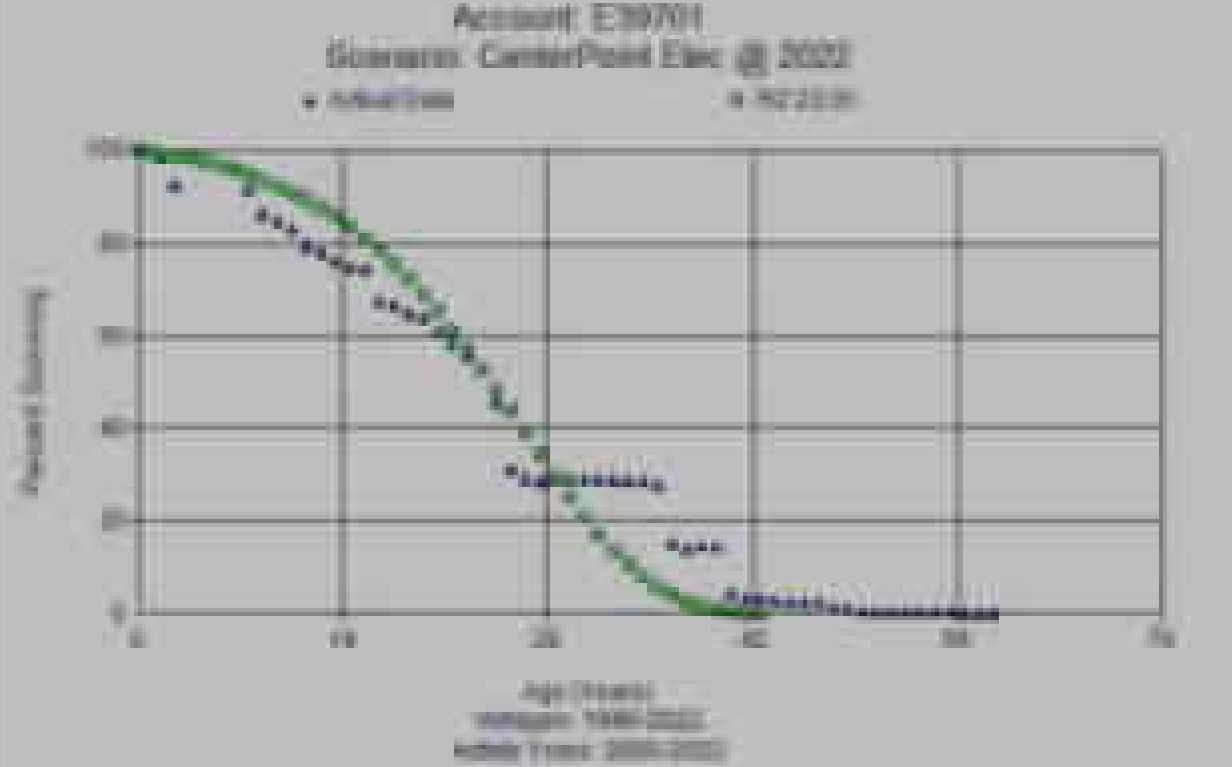
Scenario: CenterPoint Elec @ 2023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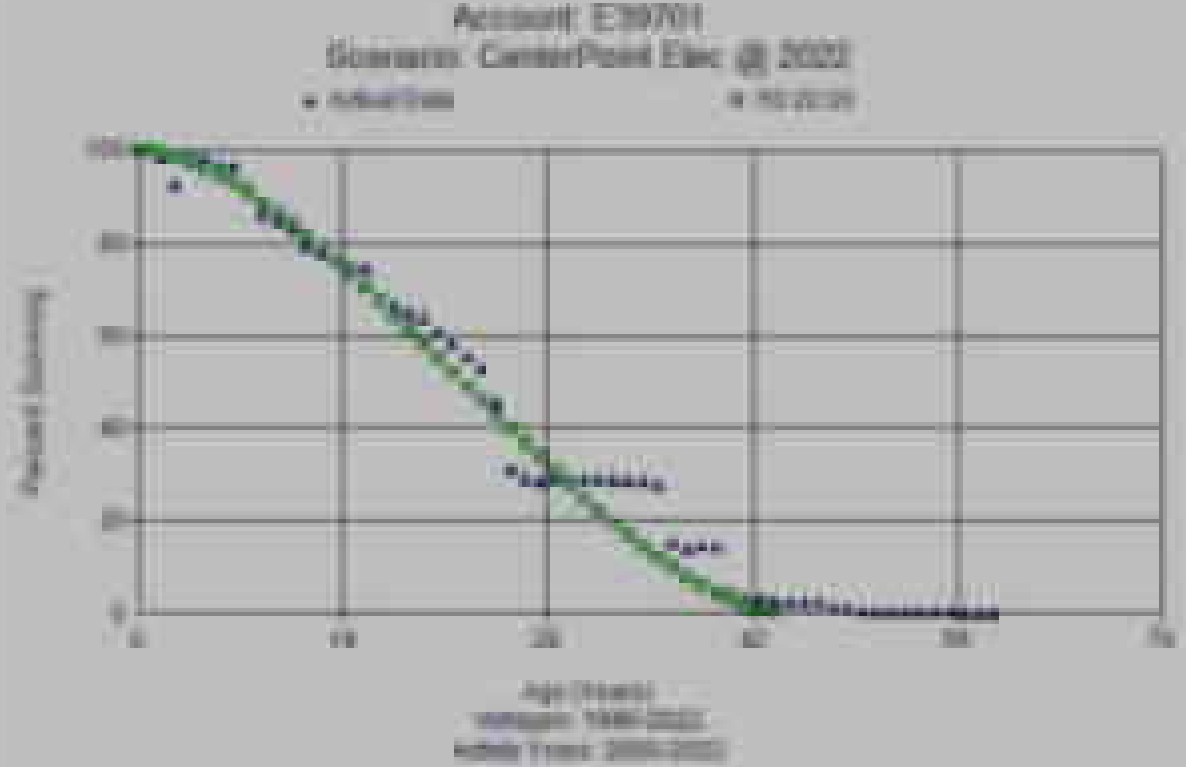
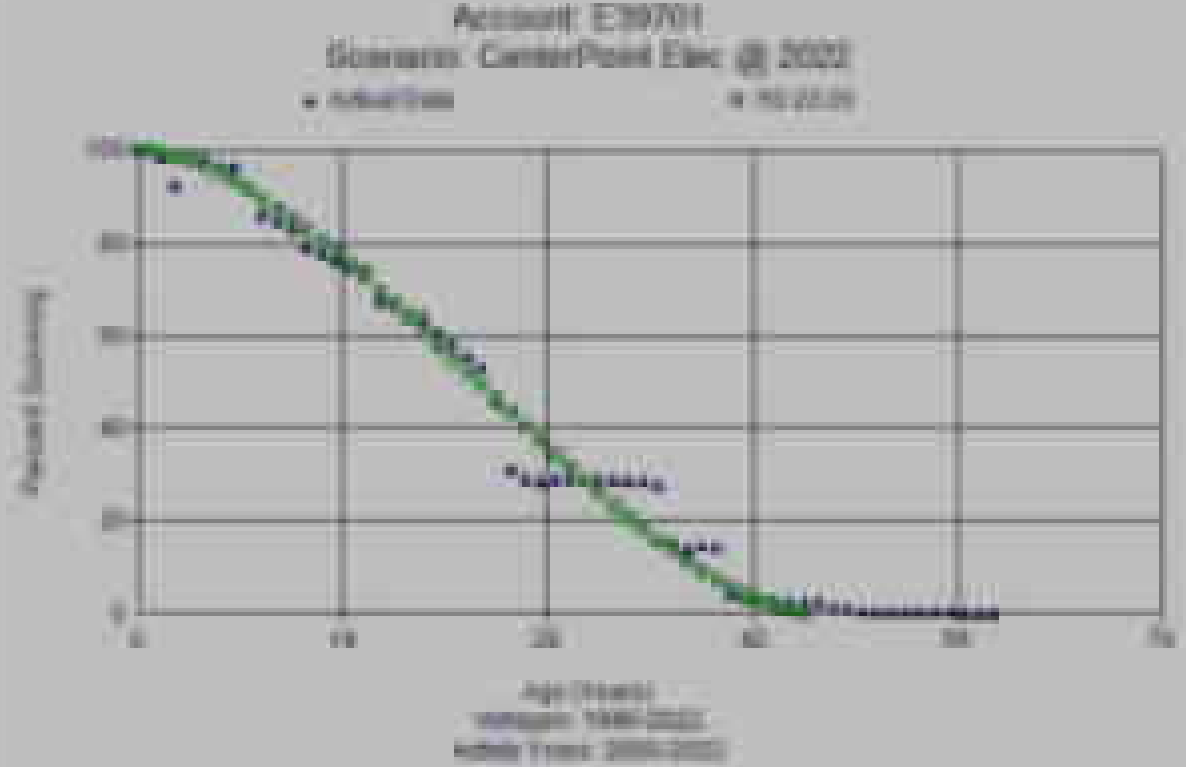
Scenario: CenterPoint Elec @ 2023


Account: E39701
Scenario: CenterPoint Elec @ 2023


Account: E39701
Scenario: CenterPoint Elec @ 2022