



Filing Receipt

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AEP Texas
400 W 15th St, Ste 1520
Austin, TX 78701
aeptexas.com

March 8, 2024

Central Records
Public Utility Commission of Texas
1701 N. Congress Avenue
P.O. Box 13326
Austin, TX 78711-3326

Re: SOAH Docket No. 473-24-12812, PUC Docket No. 56165 – Application of AEP Texas Inc. for Authority to Change Rates

To Whom it May Concern:

On February 29, 2024, AEP Texas Inc. filed its *Application of AEP Texas Inc. for Authority to Change Rates*. Additional Workpapers to the Direct Testimony of Jason A. Cash are being provided electronically on PUC Interchange.

Please feel free to call me at (512) 481-4562 if you have any questions.

Sincerely,

/s/ Grieg Gullickson
AEP Texas Inc.
Regulatory Consultant

Attachments

cc: All Parties of Record

AEP TEXAS INC.

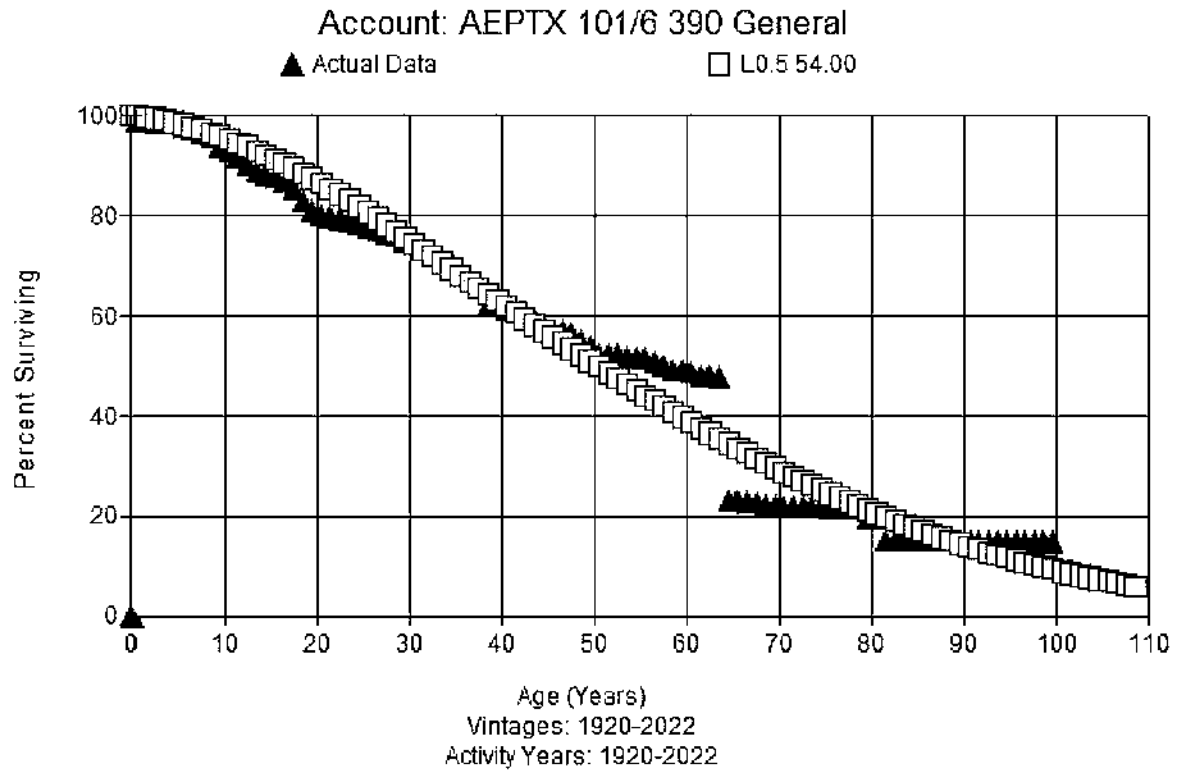
DEPRECIATION STUDY AS OF DECEMBER 31, 2022

GENERAL PLANT

ACTUARIAL ANALYSIS GRAPHS

**AEP TEXAS INC.
ACCOUNT 390 GRAPH
DEPRECIATION STUDY AS OF DECEMBER 31, 2022**

Account 390 Structures & Improvements



The above graph for account 390 includes activity years 1920 to 2022. As indicated above, I recommend updating to a L0.5 dispersion and a 54-year average service life for this study.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

AEP TEXAS CENTRAL DIVISION

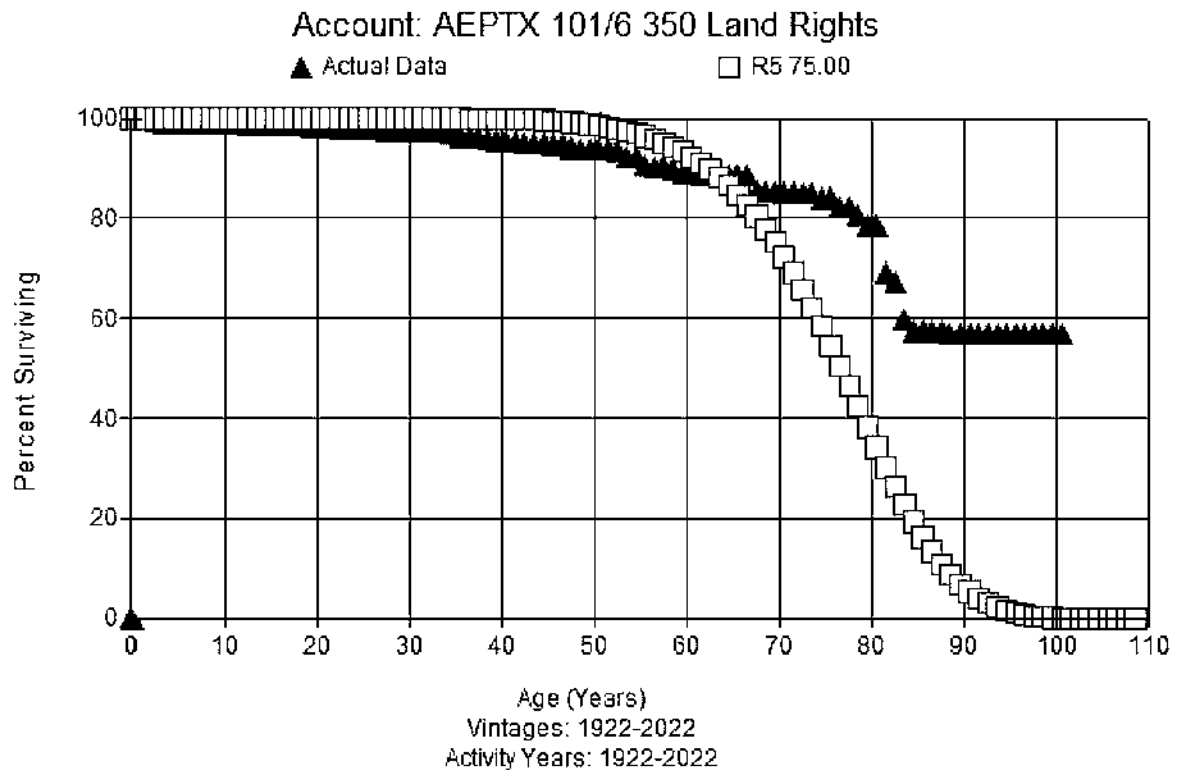
DEPRECIATION STUDY AS OF DECEMBER 31, 2022

TRANSMISSION PLANT

ACTUARIAL ANALYSIS GRAPHS

AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022

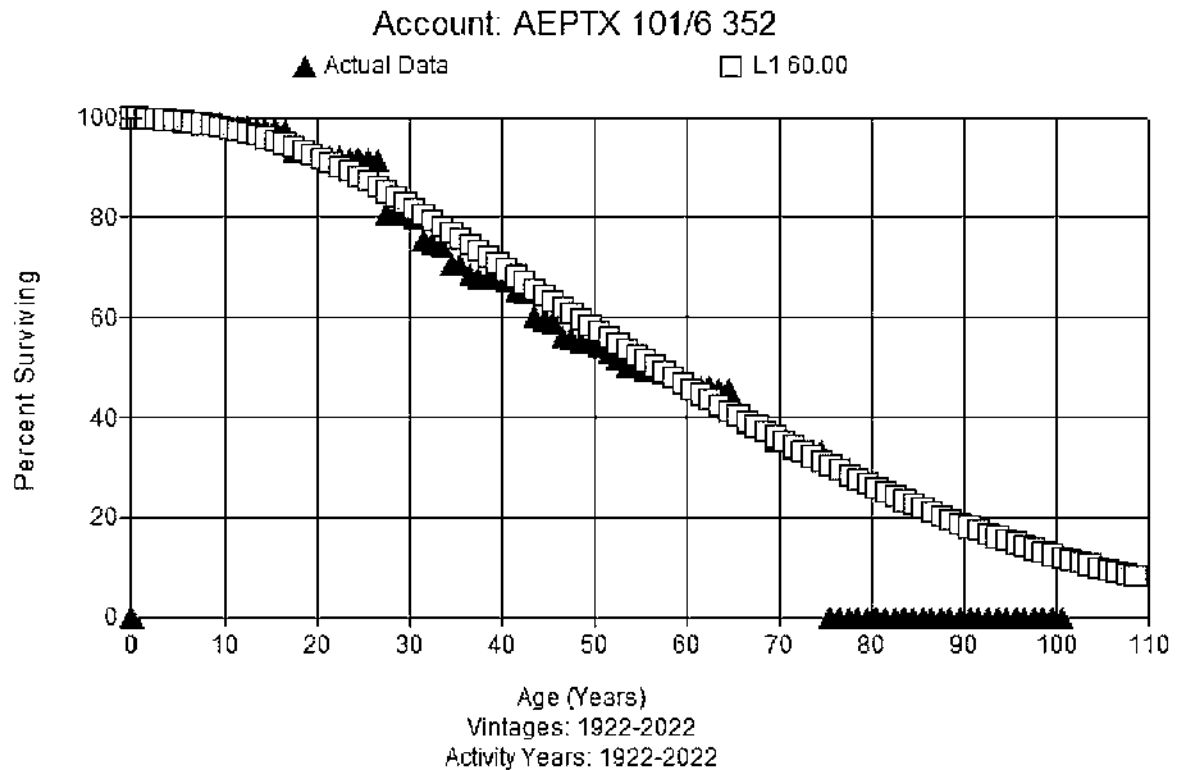
Account 350.1 Land Rights



A minimal number of retirements have occurred for Account 350.1, Land Rights. As a result, the actuarial analysis performed was not meaningful. For this reason, I recommend that we keep the 75-year life and R5.0 dispersion which was approved for the AEP Texas Central Division. The graph shown above is for illustrative purposes only.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

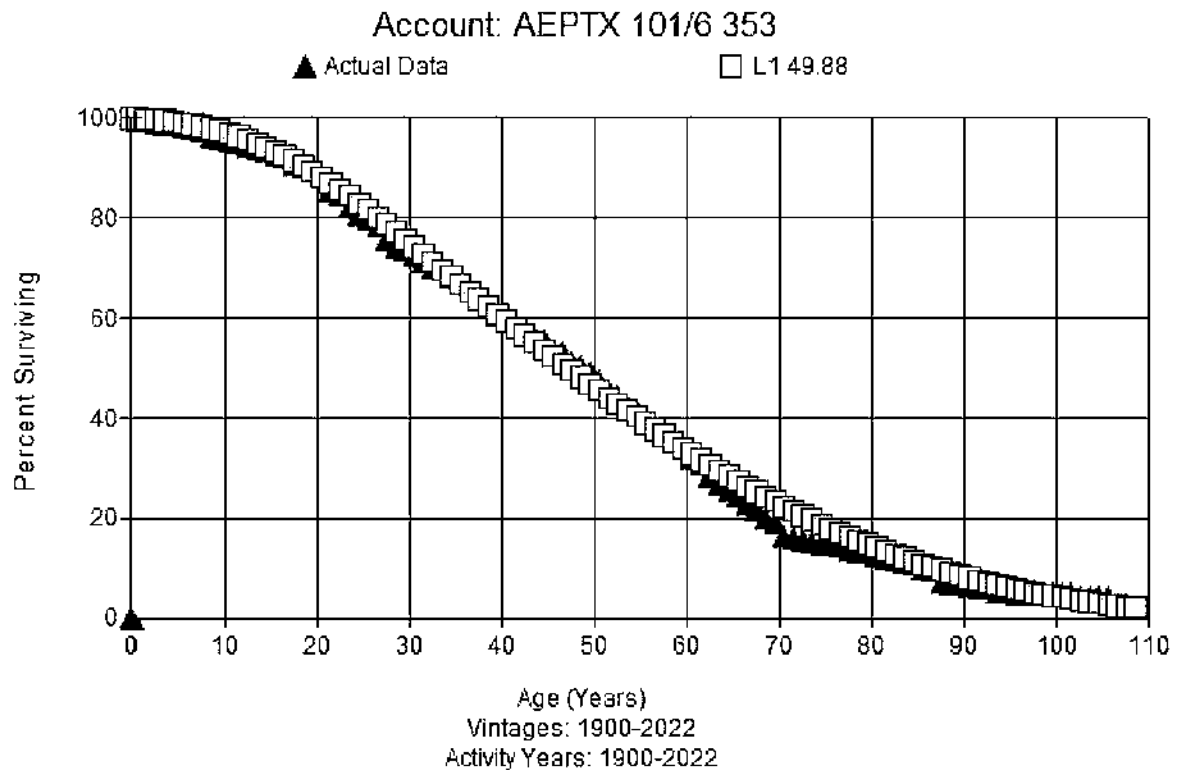
Account 352 Structures & Improvements



The above graph for account 352 indicates that there has been regular retirement activity in this account. The graph shows the survivors for the entire period with T cut at 75 years. The prior study recommended a 65-year life and a 55-year life for the AEP Texas Central and North Divisions, respectively. As shown above, the L1.0 curve with a 60-year life is a good fit for the surviving property and I recommend that we use this curve and life.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

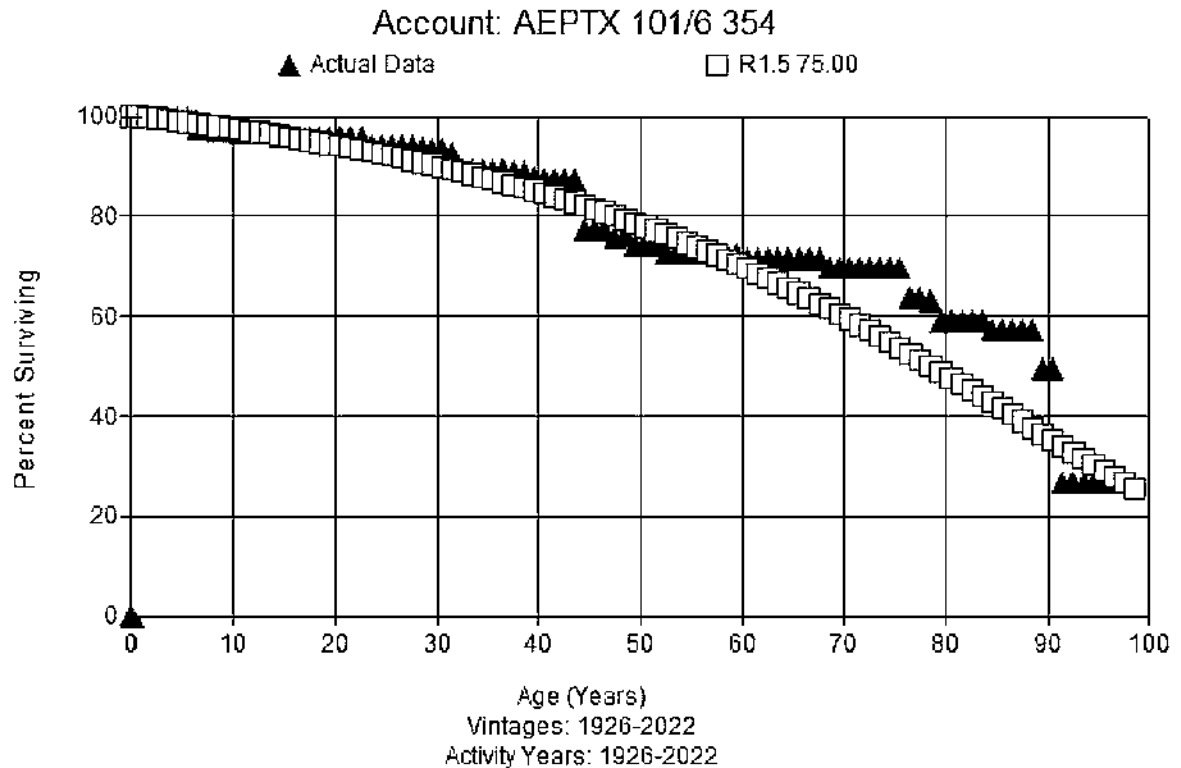
Account 353 Station Equipment



Account 353 was graphed for activity years 1900-2022. The graph indicates that the current average service life of 51 years using a L1.0 curve should be updated. The study recommends a small change to a 50-year average service life while using the same L1.0 dispersion.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

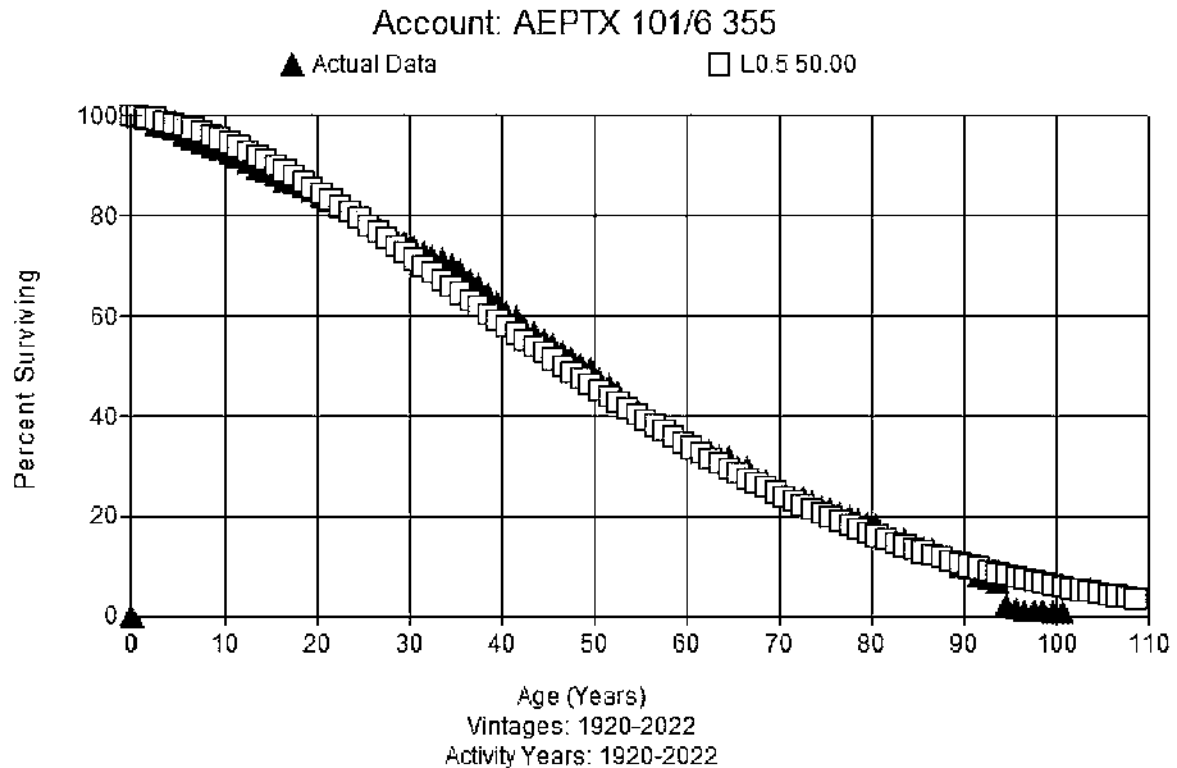
Account 354 Towers & Fixtures



Account 354 was graphed for activity years 1926-2022. The currently approved parameters use an R3.0 curve and a 70-year average service life. The analysis indicates that the property is continuing to age. Based on this, I recommend a conservative increase to a 75-year average service life using R1.5 type dispersion.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

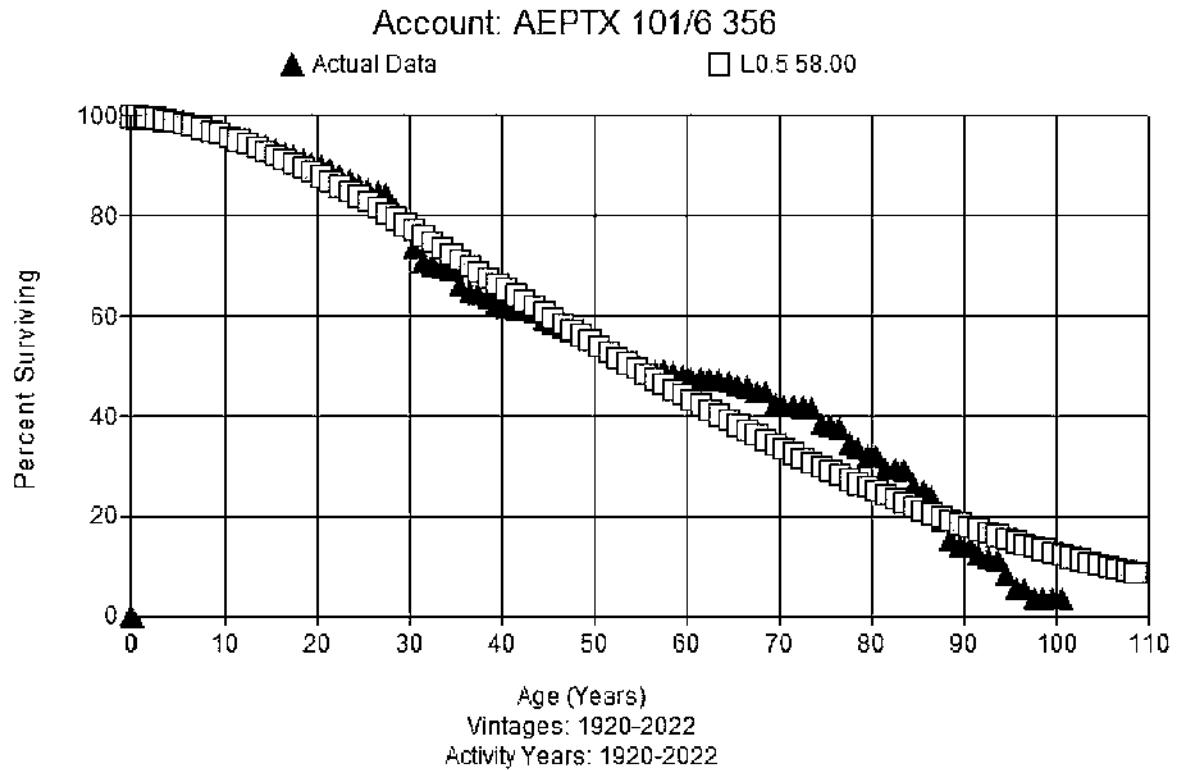
Account 355 Poles & Fixtures



Account 355 was graphed for activity years 1920-2022. The graph shown above indicates that the current average service life should be updated from those previously approved. As shown above, the L0.5 curve with a 50-year life is a good fit for the surviving property and I recommend that we use this curve and life.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

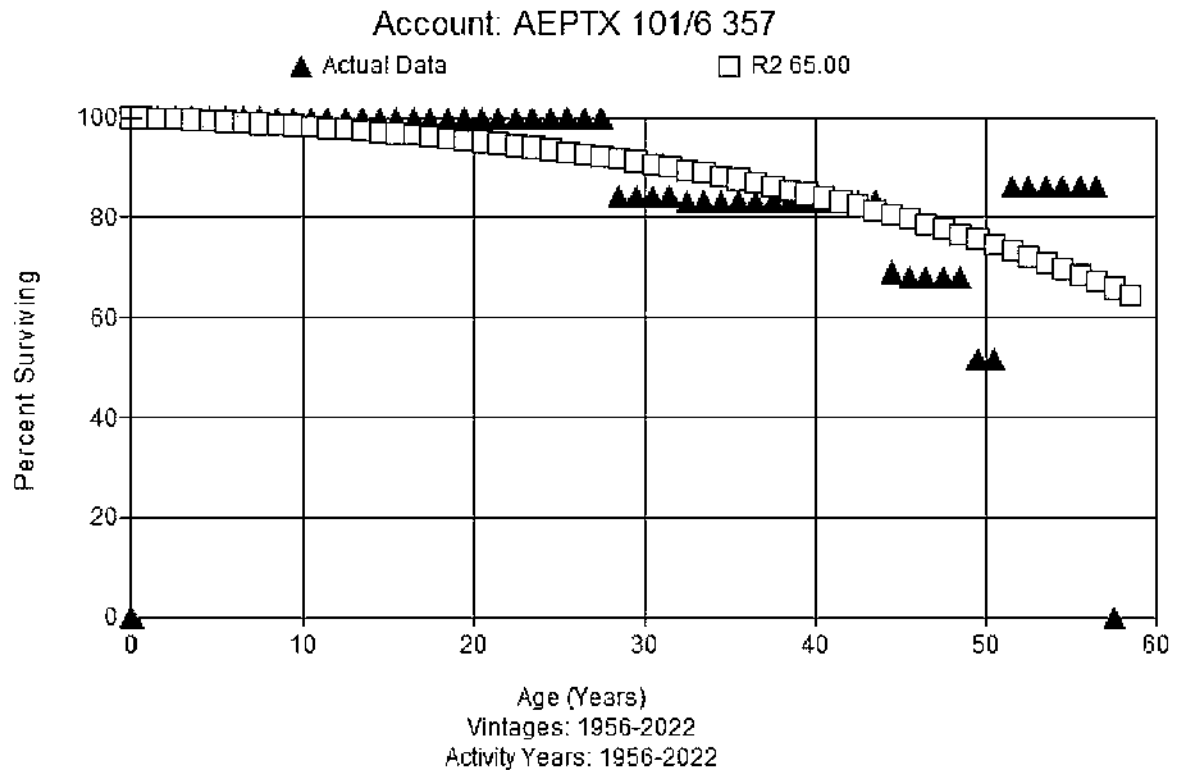
Account 356 Overhead Conductor & Devices



The graph shown above indicates that the current average service life should be updated from those previously approved. As shown above, the L0.5 curve with a 58-year life is a good fit for the surviving property and I recommend that we use this curve and life.

AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022

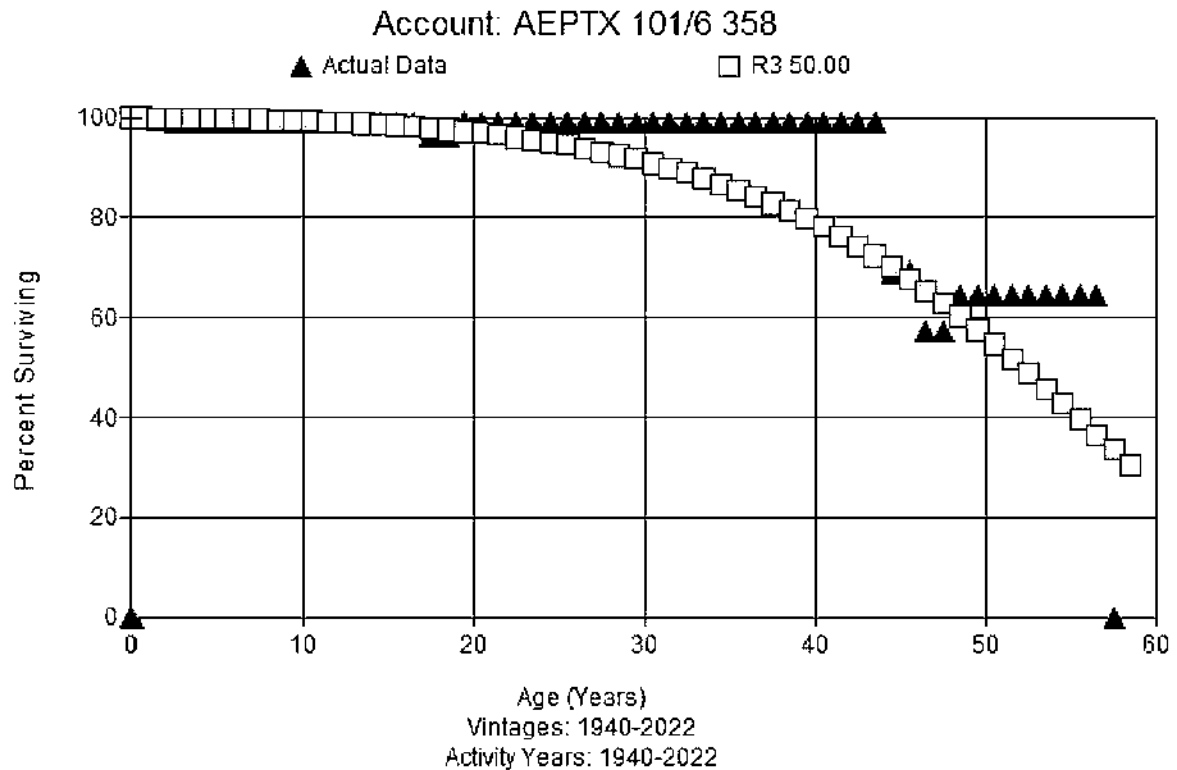
Account 357 Underground Conduit



Retirement data is sporadic and therefore not meaningful for Account 357, Underground Conduit. As a result, no actuarial analysis was performed. I recommend that we keep the 65-year life and R2.0 curve currently approved in rates. The graph shown above is for illustrative purposes only.

AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022

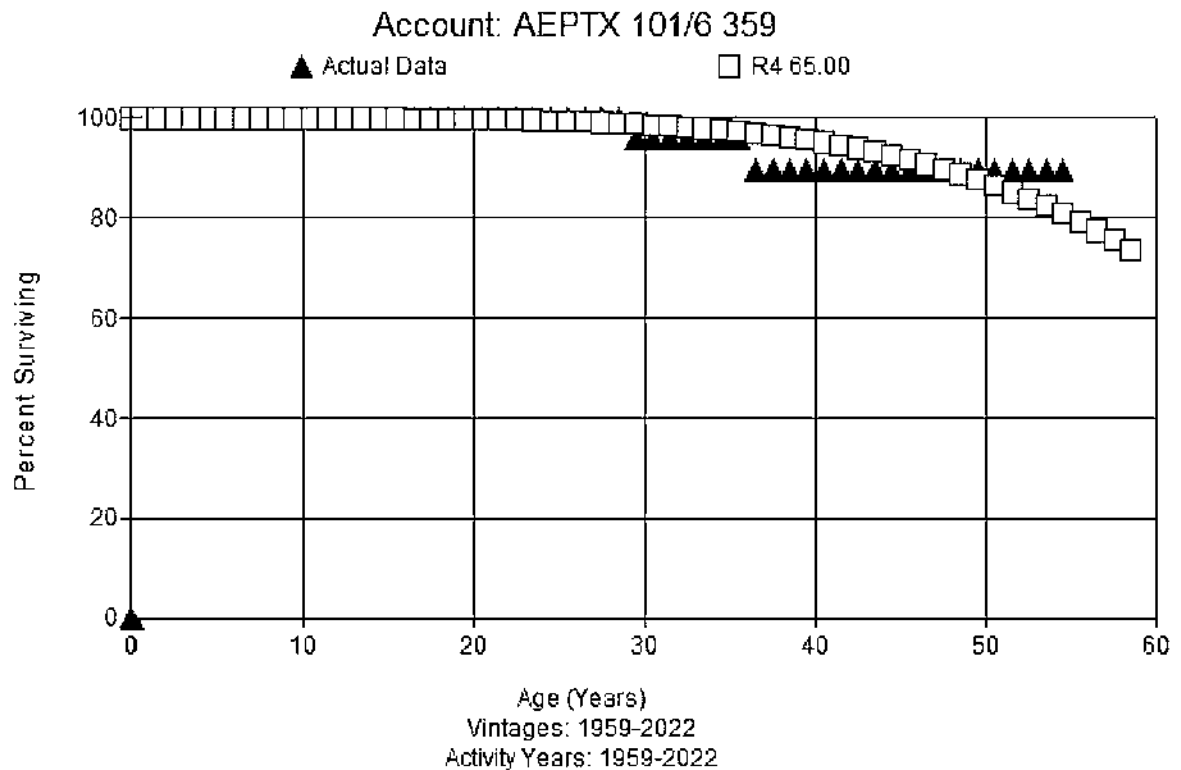
Account 358 Underground Conductor and Devices



Retirement data for Account 358, Underground Conductor & Devices, continues to be minimal. As a result, no actuarial analysis was performed. I recommend keeping the 50-year life and R3.0 curve currently approved in rates. The graph shown above is for illustrative purposes only.

AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022

Account 359 Roads & Trails



Retirement data is not meaningful for Account 359, Roads & Trails. As a result, no actuarial analysis was performed. I recommend that we keep the 65-year life with the R4.0 dispersion currently approved in rates. The graph shown above is for illustrative purposes only.

**AEP TEXAS INC.
DEPRECIATION STUDY – TRANSMISSION PLANT
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2022**

AEP TEXAS CENTRAL DIVISION

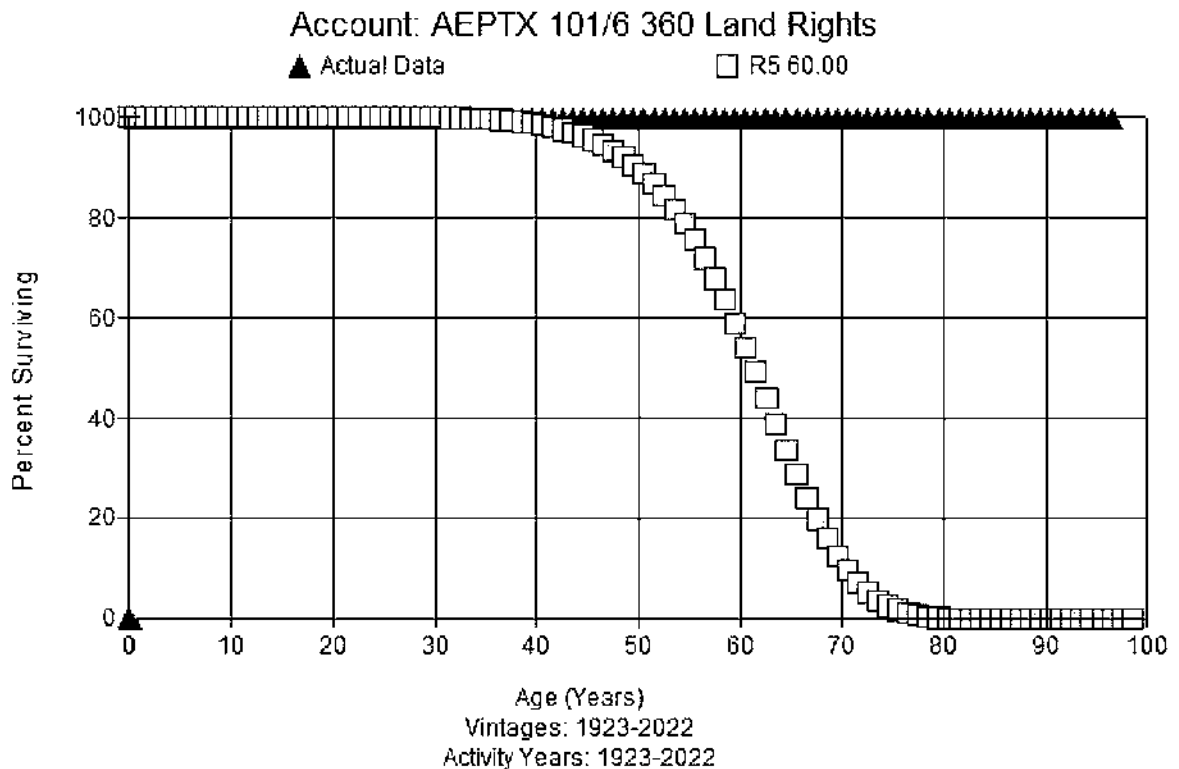
DEPRECIATION STUDY AS OF DECEMBER 31, 2022

DISTRIBUTION PLANT

ACTUARIAL ANALYSIS GRAPHS

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

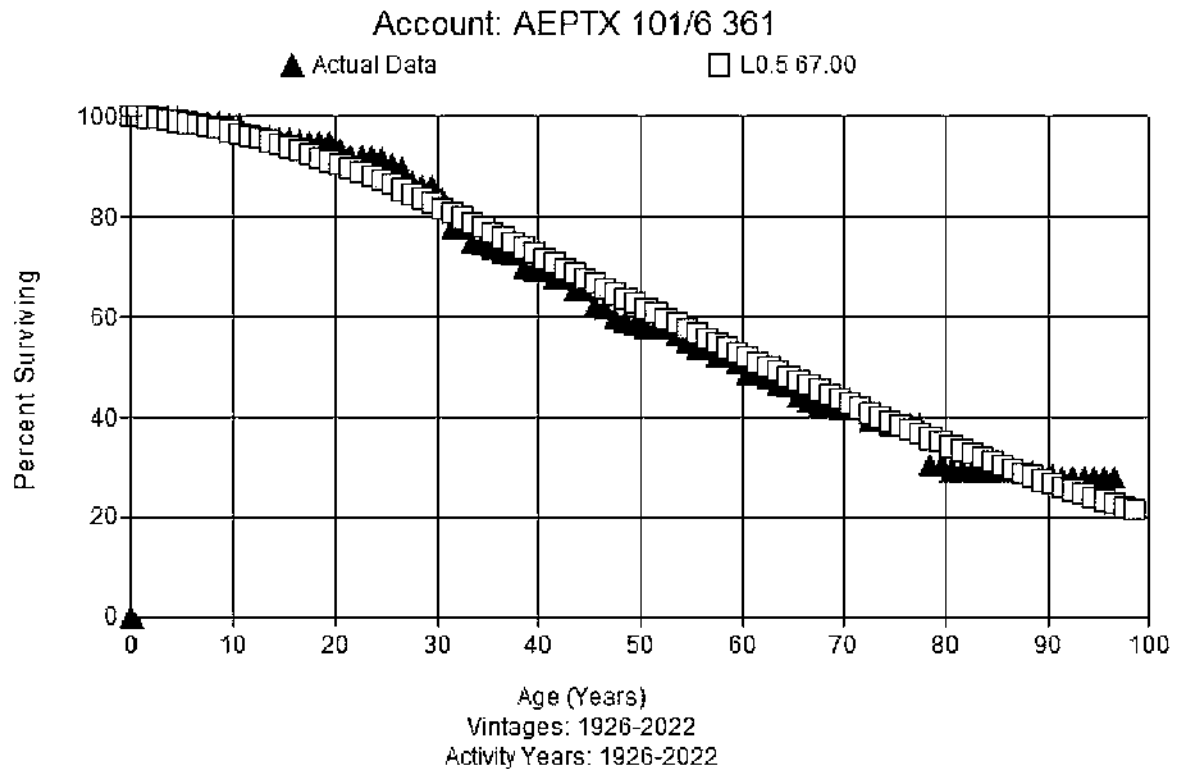
Account 360.1 Land Rights



Retirement data is not meaningful for Account 360.1, Land Rights. As a result, no actuarial analysis could be performed. I recommend that we keep the 60-year life and R5.0 dispersion currently approved in rates.

AEP TEXAS CENTRAL DIVISION DEPRECIATION STUDY AT DECEMBER 31, 2022 DISTRIBUTION GRAPHS

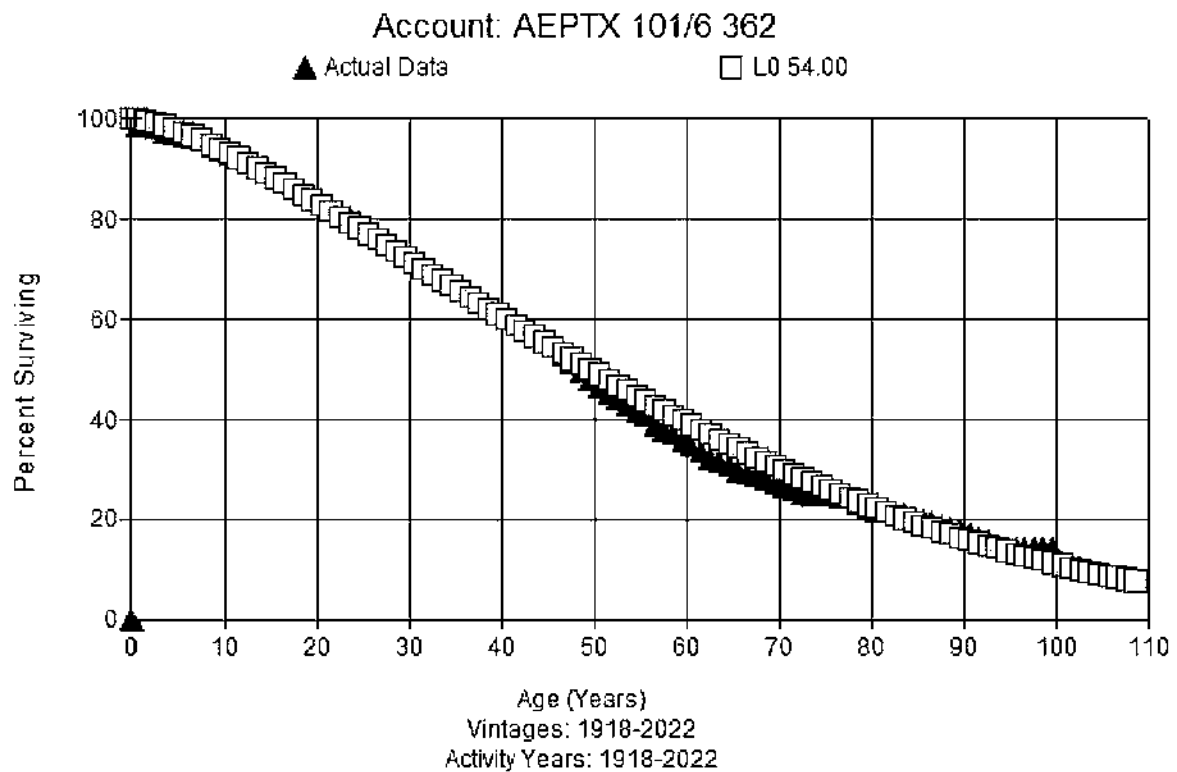
Account 361 Structures & Improvements



The above graph for account 361 includes activity years 1926 to 2022. As indicated above, an L0.5 dispersion and 67-year average service life is recommended for the current depreciation study.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

Account 362 Station Equipment

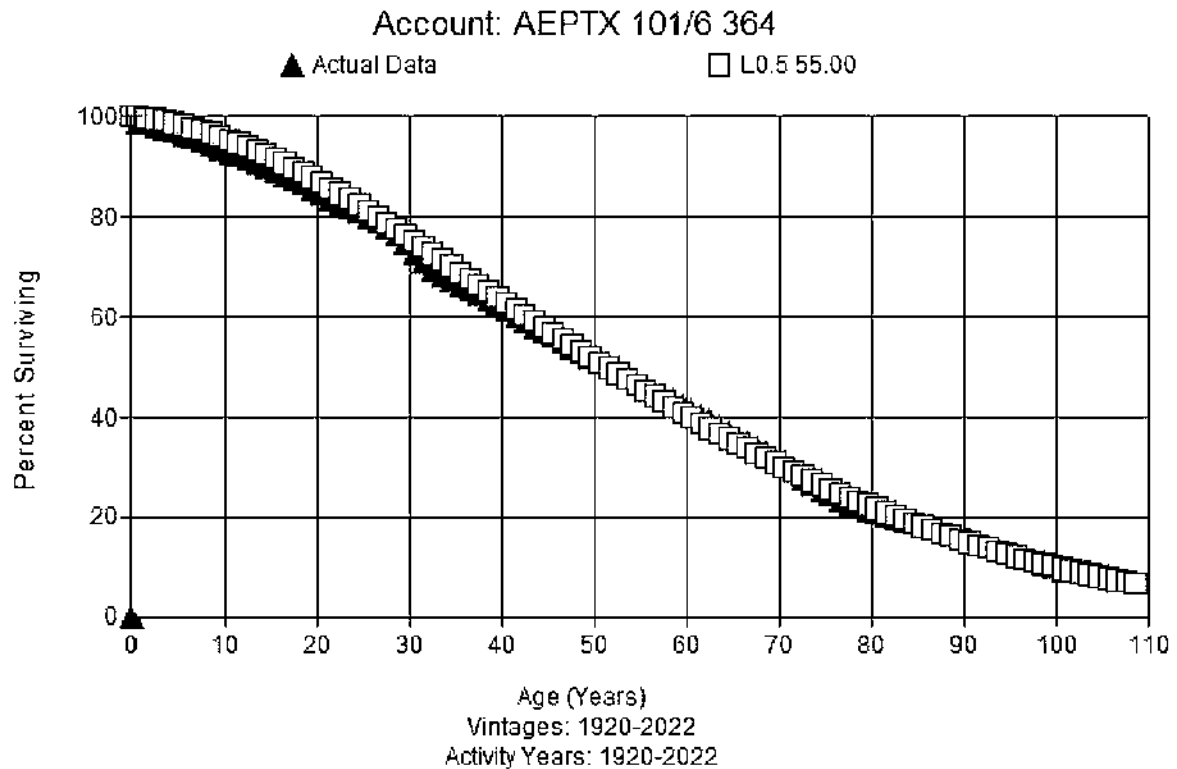


Account 362 was graphed for activity years 1918 to 2022. The graph indicates that the current average service life for this account should be updated to a 54-year average service life with an L0.0 curve.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

AEP TEXAS CENTRAL DIVISION DEPRECIATION STUDY AT DECEMBER 31, 2022 DISTRIBUTION GRAPHS

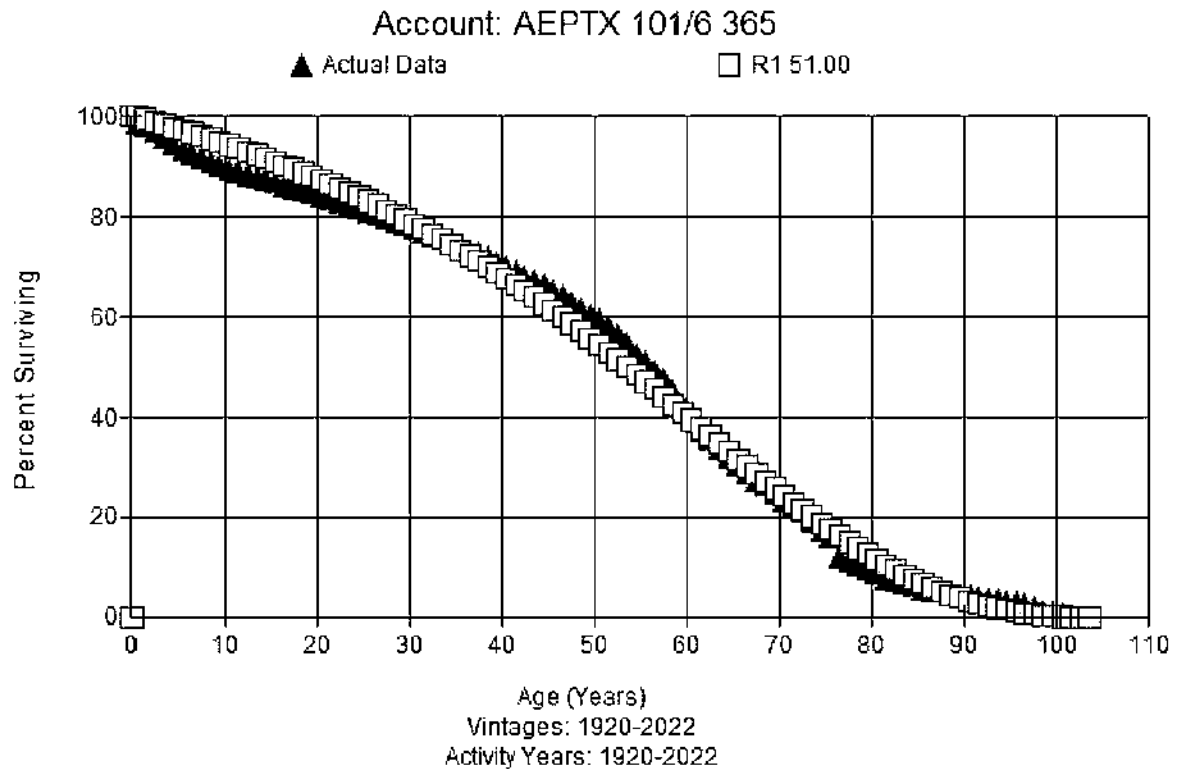
Account 364 Poles, Towers & Fixtures



Account 364 was graphed for activity years 1920 to 2022. The graph indicates that we should update the account to use a 55-year average service life with an L0.5 type curve.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

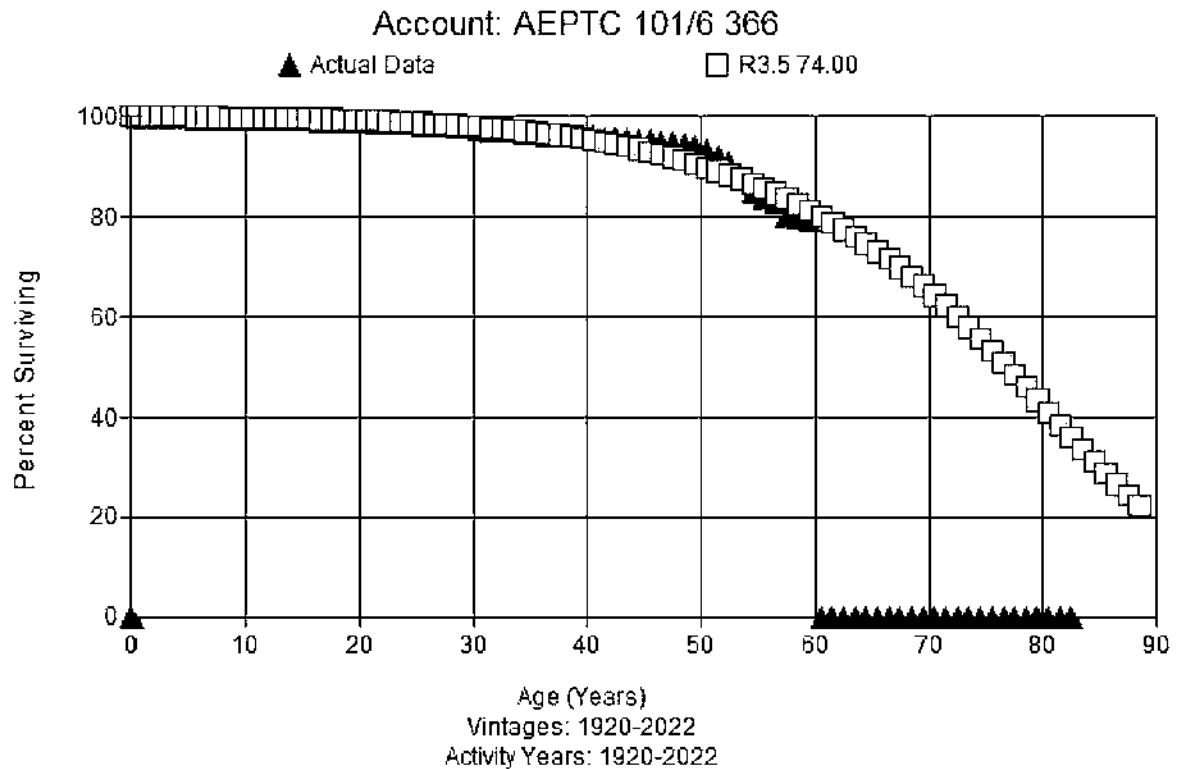
Account 365 Overhead Conductor & Devices



Account 365 was graphed for activity years 1920 to 2022. The graph indicates that we use a 51-year average service life with an R1.0 type curve for account 365.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

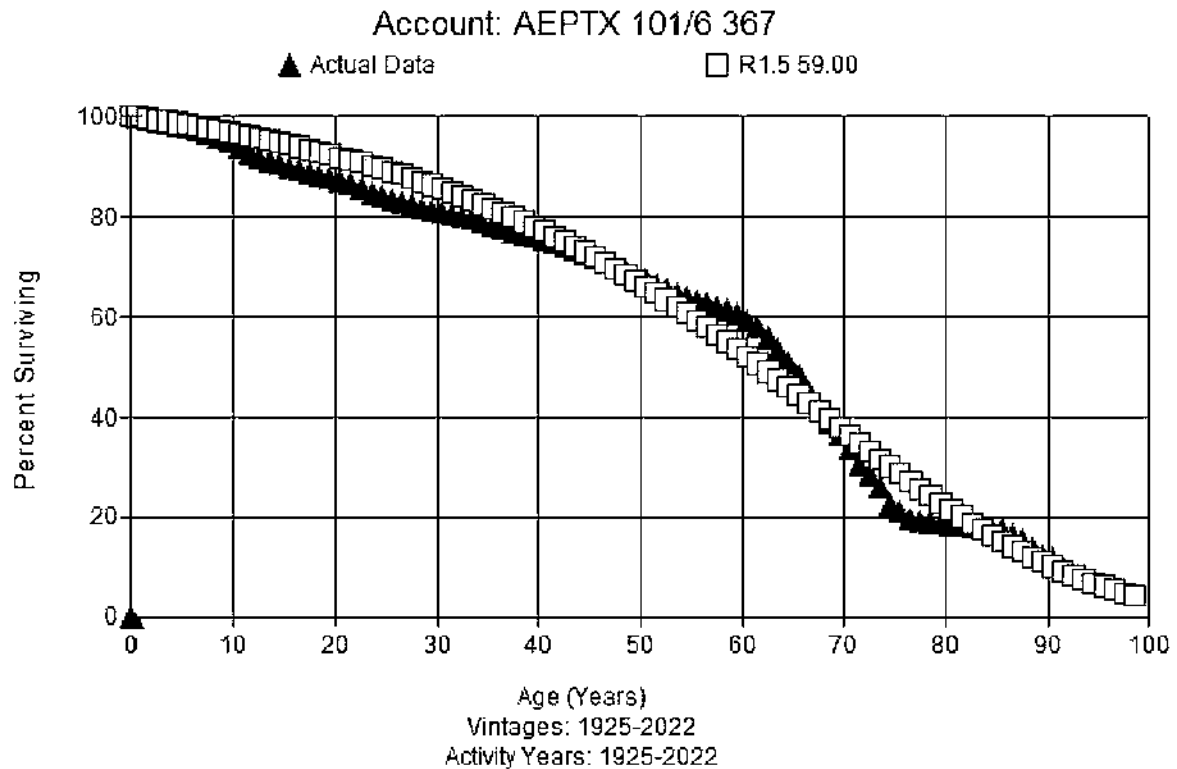
Account 366 Underground Conduit



Account 366 was graphed for activity years 1920 to 2022 with a T-Cut at 60 years. The graph indicates that the property in this account continues to age. I recommend that we the average service life to 74 years following an R3.5 curve.

AEP TEXAS CENTRAL DIVISION DEPRECIATION STUDY AT DECEMBER 31, 2022 DISTRIBUTION GRAPHS

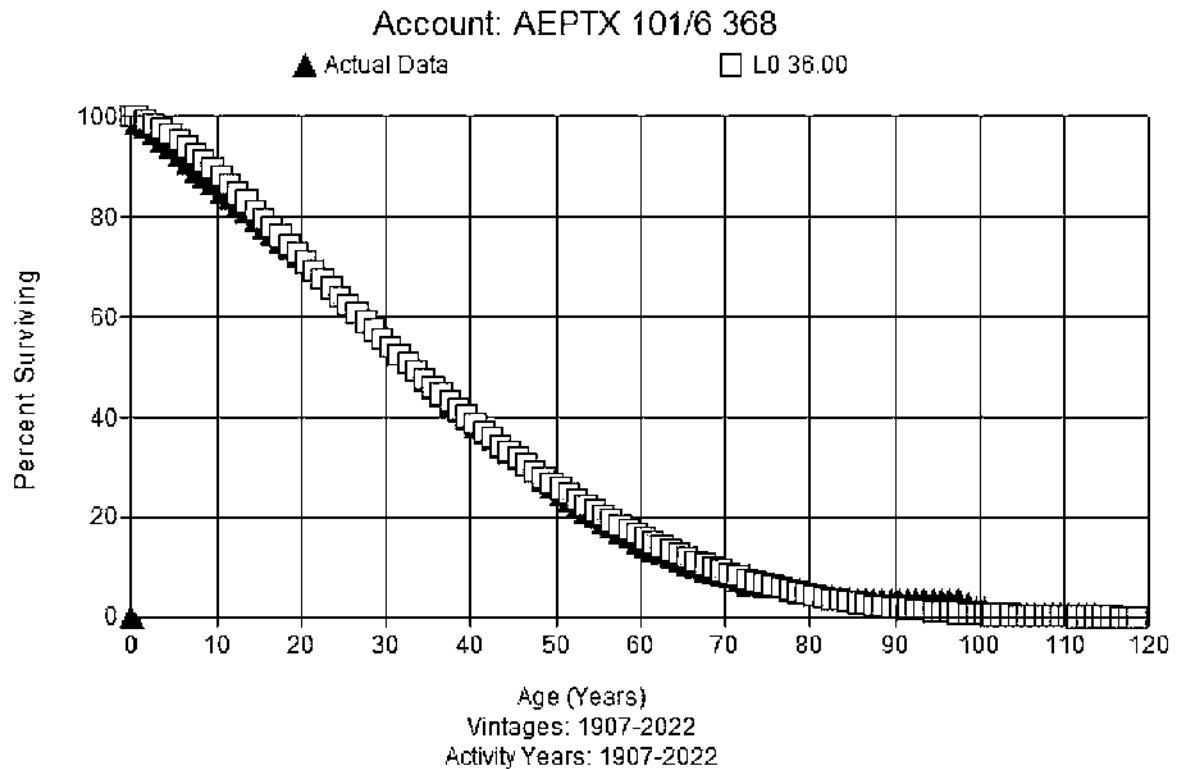
Account 367 Underground Conductor



Account 367 was graphed for activity years 1925 to 2022. The graph indicates that the property in this account continues to age. Based on the updated analysis, I recommend that we use an average service life of 59 years following a R1.5 curve for this account.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

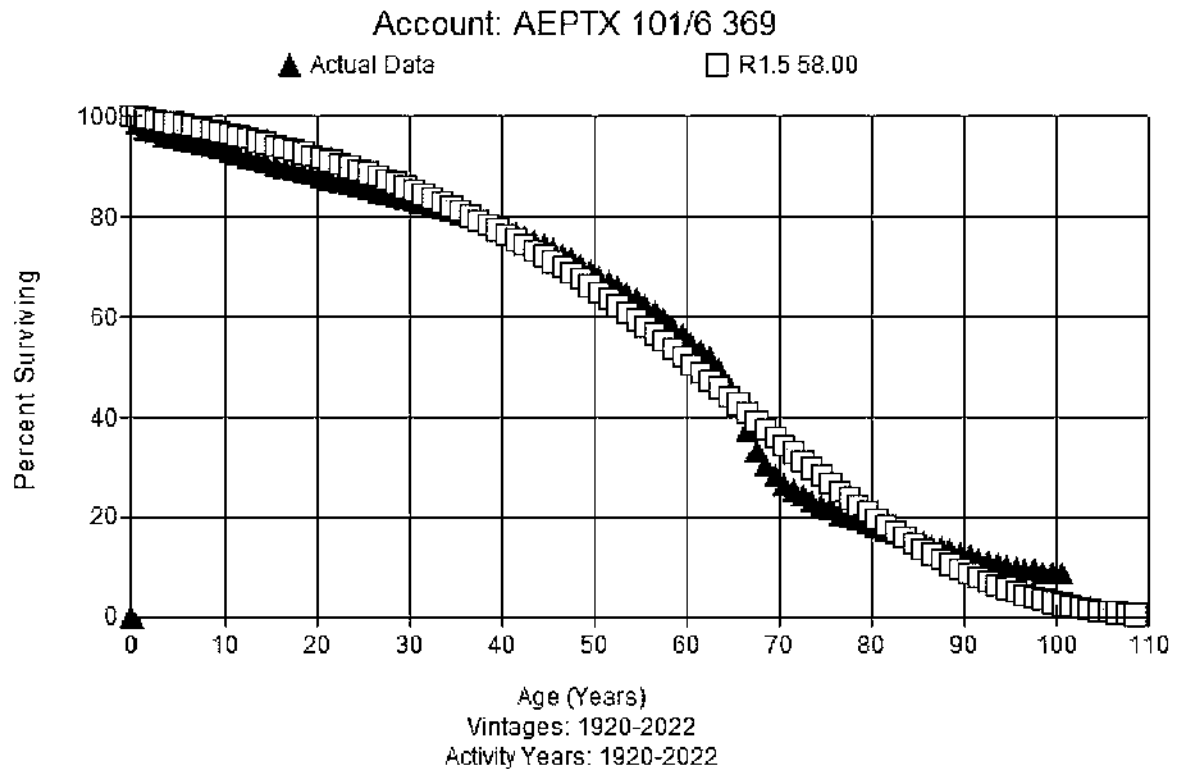
Account 368 Line Transformers



Account 368 was graphed for activity years 1907 to 2022. The graph indicates that an L0.0 dispersion continues to be applicable to this account and the average service life should be updated to 36 years.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

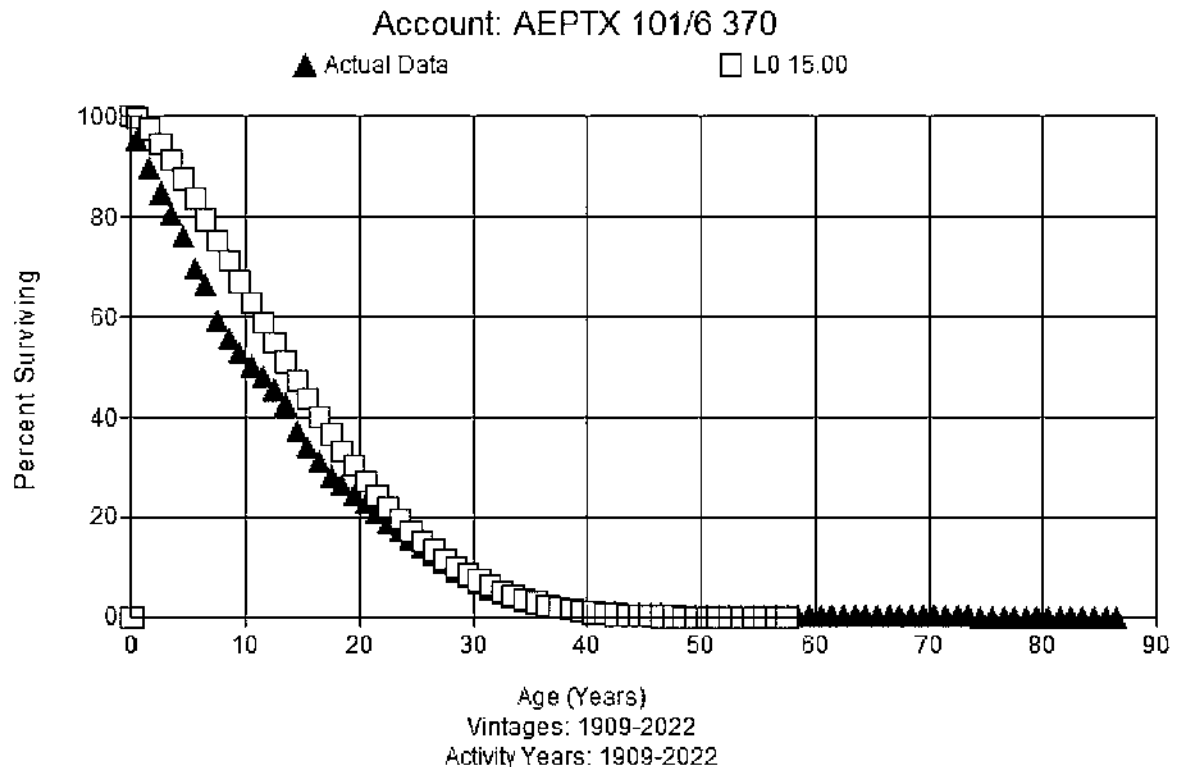
Account 369 Services



Account 369 was graphed for activity years 1920 to 2022. The graph indicates an R1.5 curve should be used for this account following an average service life of 58 years.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

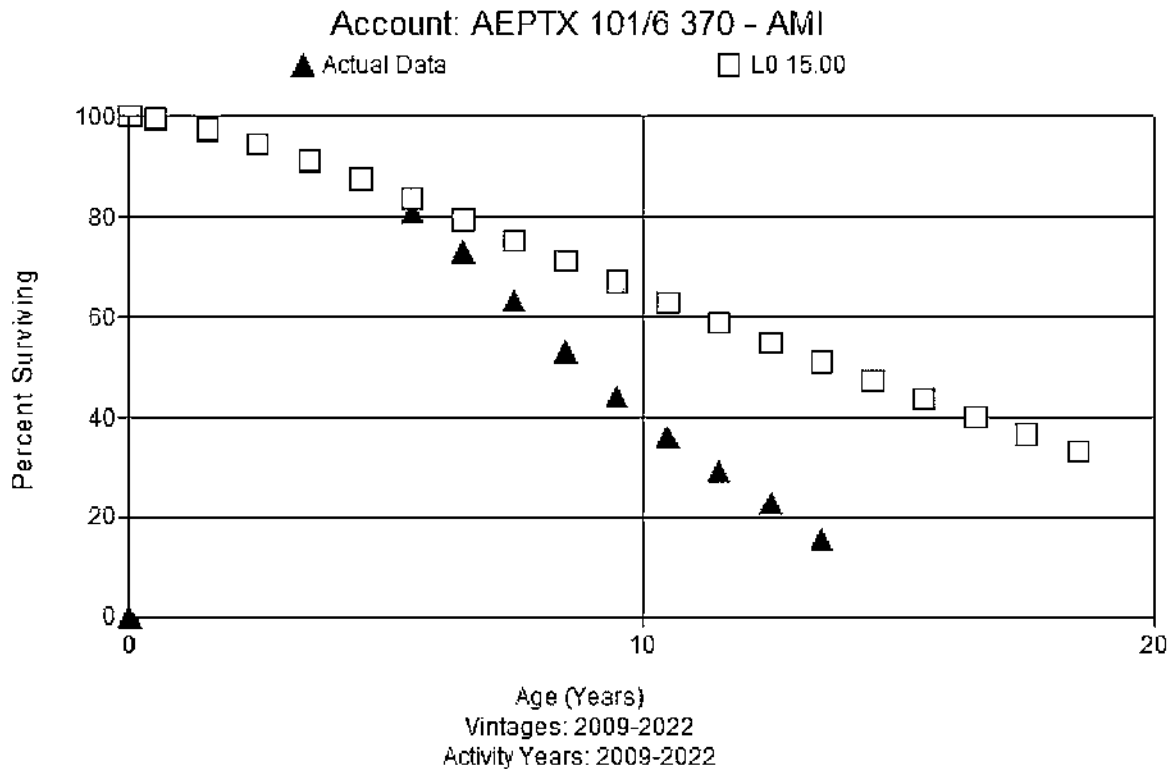
Account 370 Meters



Account 370 was graphed using the activity years 1909 to 2022. Account 370 mainly consists of AMR type meters while AMI meters are recorded to account 370.16. Both AMR and AMI meters have an expected useful life of 15 years as recommended by the manufacturer. The recommendation for this study is to use a 15-year average service life following an L0.0 Iowa type dispersion.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

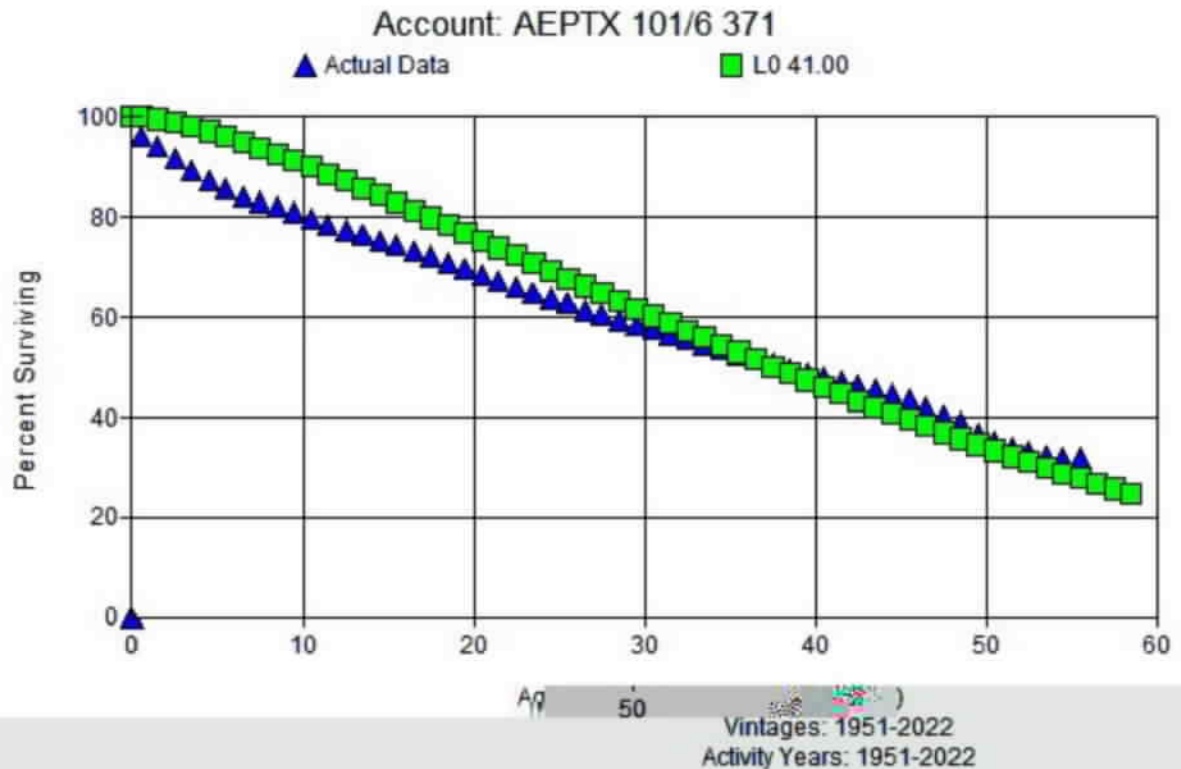
Account 370.16 AMI Meters



Account 370.16 was graphed using the activity years 2009 to 2022. Account 370.16 mainly consists of AMI type meters while AMR meters are recorded to account 370. Both AMR and AMI meters have an expected useful life of 15 years as recommended by the manufacturer. The recommendation for this study is to use a 15-year average service life following an L0.0 lowa type dispersion.

AEP TEXAS CENTRAL DIVISION DEPRECIATION STUDY AT DECEMBER 31, 2022 DISTRIBUTION GRAPHS

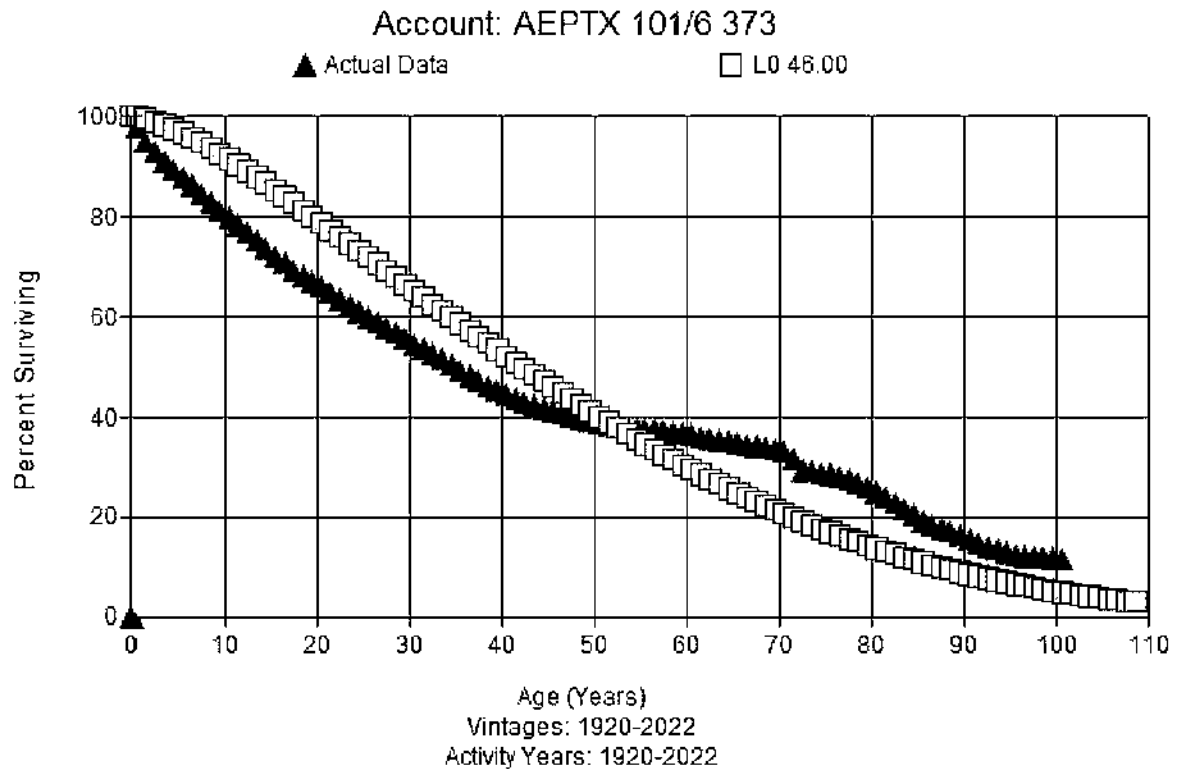
Account 371 Installations on Customers Premises



Account 371 was graphed for activity years 1951 to 2022. The graph indicates that the property in this account continues to age. I recommend that we update the parameters for this account to use an L0.0 curve with a 41-year average service life.

**AEP TEXAS CENTRAL DIVISION
DEPRECIATION STUDY AT DECEMBER 31, 2022
DISTRIBUTION GRAPHS**

Account 373 Street Lighting & Signal Systems



Account 373 was graphed for activity years 1920 to 2022. The graph indicates that the property in this account continues to age. I recommend that we update the parameters for this account to use an L0.0 curve with a 46-year average service life.

The following files are not convertible:

Salvg and Removal 2022.xlsx	(JAC Workpaper) AEP TX Acct 350 to 359
Salvg and Remove 2022.xlsx	(JAC Workpaper) AEP TX Acct 360 to 373
Analysis 2022.xlsx	(JAC Workpaper) AEP TX D Cover Sheet
to 373 Avg Age 2022.xlsx	(JAC Workpaper) AEP TX Dist Plant 360
390 to 398 Salvg and Remove 2022.xlsx	(JAC Workpaper) AEP TX General Plant
Cover Sheets 2022.xlsx	(JAC Workpaper) AEP TX General Property
Arrange 360 to 373 2022.xlsx	(JAC Workpaper) AEP TX Generation
to 398 Avg Age 2022.xlsx	(JAC Workpaper) AEP TX Genrl Plant 390
360 to 373 2022.xlsx	(JAC Workpaper) AEP TX Observed Life
Sheet Analysis 2022.xlsx	(JAC Workpaper) AEP TX Trans Cover
to 359 Avg Age 2022.xlsx	(JAC Workpaper) AEP TX Trans Plant 350
Generation Arrange 2022.xlsx	(JAC Workpaper) AEPTX Acct 390-398
Arrangement 350-359 2022.xlsx	(JAC Workpaper) AEPTX Generation
2022.xlsx	(JAC Workpaper) AEPTX Observed Life 390
Report Accts 350-359 2022.xlsx	(JAC Workpaper) AEPTX Observed Life
Calc AEP TX 2022.xlsx	(JAC Workpaper) Schedule I Depr Rates
Rates AEP TX 2022.xlsx	(JAC Workpaper) Schedule II Compare
Mortality 2022.xlsx	(JAC Workpaper) Schedule III AEP TX TDG

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.