Exhibit No.:
Issue(s): *Depreciation*
Witness: *Malachi Bowman*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Direct Testimony*
Case No.: *GR-2024-0369*
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MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

ENGINEERING DEPARTMENT

DIRECT TESTIMONY

OF

MALACHI BOWMAN

UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri

CASE NO. GR-2024-0369

Jefferson City, Missouri
February, 2025

DIRECT TESTIMONY

OF

MALACHI BOWMAN

UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri

CASE NO. GR-2024-0369

Q. Please state your name and business address.

A. My name is Malachi Bowman. My business address is 200 Madison Street, Jefferson City, Missouri 65101

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Public Service Commission ("Commission") as an Associate Engineer in the Engineering Analysis Department, Industry Analysis Division.

Q. Please describe your educational background and work experience.

A. Please refer to schedule MB-d1 attached to this Direct testimony for my credentials and list of cases in which I have filed testimony or recommendations.

EXECUTIVE SUMMARY

Q. What is the purpose of your direct testimony?

A. I am providing Staff's recommendations regarding depreciation rates for Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri") plant in service.

Q. Do you provide input or work product to another Staff witness for development of an issue?

A. Yes. I provided my recommended depreciation rates to Staff's Auditing Department to use in the development of Staff's Accounting Schedules.

Q. Through this testimony, do you provide any recommendations that should specifically be reflected in the Commission's Report and Order in this case?

A. Yes. In this testimony I recommend that the Commission order the depreciation rates included as Schedule MB-d2.

DEPRECIATION

Q. What is depreciation?

A. As defined by the Code of Federal Regulations, Depreciation as applied to depreciable plant is defined as "the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities."[1] In simple terms, depreciation is the loss of value associated with an asset due to factors which cannot be alleviated through normal maintenance. These factors such as "wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities" vary in severity based on the type of asset, the manufacturer, where the asset is located, and many other variables.

For example, when one goes to sell a car they bought several years before, they will most likely notice the decrease in their vehicles value regardless of how the car has been kept with annual maintenance, car washes, etc. This decrease in value is depreciation. In addition to

[1] 18 CFR Part 101 Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to Provision of the Federal Power Act Definition 12

this, the value can also vary based on what climate the car has been in the last few years. If it was located in a coastal area, there may be certain environmental effects that additionally reduce the vehicles value. Perhaps the car only has a cassette tape player and no other ability to play music which could also factor into the reduction of the cars value due to obsolescence.

Q. How does depreciation apply to a regulated utility?

A. In consumer goods such as the car example, the buyer may not have bought the car in expectation of receiving a return on investment, but for a regulated investor owned utility, assets are purchased in expectation that there will be a return on investment through the service provided to consumers. So, while the car depreciated in value and the seller had to deal with the disappointment of selling their depreciated vehicle at a lower price than they bought it for, the utility regulator seeks to keep the utility from experiencing the same disappointment so that the utility can make a reasonable return on their investment while also maintaining reasonable rates for the consumer.

This is where depreciation expense is used which is the return of investment to investors spread over the timespan of the assets useful life to ensure that the loss in value, due to depreciation, would be eventually recovered through the consumer rates.

Q. How is depreciation calculated?

A. Since there are many factors that attribute to how a particular asset will depreciate, it is necessary to track the survival rates of assets, salvage rates, and associated costs of assets over time to establish an understanding on how certain assets depreciate. This data along with expert judgement is used to determine the depreciation expense. At the end of an assets useful life when the asset is retired, often times there is still value associated with the asset which is called the net salvage value, which is the amount of money recovered from selling

the asset minus any losses from the removal of the asset. In Missouri, the depreciation expense will generally take into account the net salvage value.

Q. Did Ameren Missouri provide a depreciation study?

A. Yes. Ameren Missouri provided a depreciation study through December 31, 2023.

Q. Did Staff perform its own depreciation study?

A. Yes. Staff reviewed the depreciation study performed by Ameren Missouri witness John Spanos and performed a depreciation study using the data provided by Ameren Missouri. Staff did not conduct a net salvage analysis because Spanos's results were consistent with what is currently ordered.

Q. What are the differences between the results of the depreciation study performed by Ameren Missouri witness John Spanos and Staff?

A. Staff calculated different depreciation rates than Ameren Missouri witness John Spanos. For most accounts, this is primarily due to the depreciation technique used. Mr. Spanos used the straight line, remaining life technique for all accounts, but Staff used the straight line, whole life technique.

Q. What is the remaining life technique?

A. The remaining life technique uses the remaining service life of the asset to calculate the annual depreciation. Staff has recommended the limited use of the remaining life technique in previous cases when an electric utility has a planned retirement date for a particular generating facility.

Q. What is the whole life technique?

A. The whole life technique uses the total service life of an asset to calculate depreciation expense over its whole life.

Q. Why is the whole life method, chosen by Staff, a more reasonable method?

A. Both techniques will accomplish the goal of the utility recovering its full investment but the main difference that Staff is concerned with is the consistency of the rates at which the utility recovers its full investment. The remaining life technique will look at how much useful life is left in the account and adjust its rates based on that. But the whole life technique will seek to adjust rates evenly over the account's entire useful life.

For gas utilities such as this one, there are no accounts with a fixed[2] retirement date, so the remaining useful lives of the accounts used for this utility are constantly changing based on retirements and additions. The remaining life technique results in depreciation rates that will be higher or lower than the whole life rate depending on the direction of the reserve imbalance (i.e. accumulated depreciation is higher or lower than the theoretical reserve at a point in time). Depreciation rates based on the remaining life technique will fluctuate up and down because of this.

From the utility's perspective, these fluctuations are not a concern, as the company will receive their return on investment regardless. But from the consumer's perspective, these fluctuations can be seen as unfair. One customer might move into an apartment today and pay a lesser portion of the utility's assets through depreciation than another customer moving in five years later, who ends up paying more for the same assets.

[2]For example, an electric utility that plans to retire a generating facility in a particular year.

Further, if the Commission adopts the whole-life technique, it does not prevent Staff and other stakeholders the opportunity to review reserve imbalances in future rate cases and recommend adjustments.

This is why Staff prefers the whole life method for utilities such as this one because it reduces the magnitude of these fluctuations by calculating annual depreciation based on the whole life of the assets.

Q. Are there additional differences between Staff and Ameren Missouri's depreciation rates that can be attributed to other factors outside of the depreciation techniques used?

A. Yes. Other factors that attribute to the difference in depreciation rates between the two studies are the selections of service life. Staff chose the currently ordered service life for the following accounts because Staff did not find reasonable justification for changing them through its analysis.

367	Mains
369	Meas. & Reg Station Equip.
378	Meas. & Reg. Station Equip - General
379	Meas. & Reg. Station Equip – City Gate

Additionally, Staff noticed that Ameren Missouri has introduced a new account with the account number 381.02 under the name "Meters - AMI" for smart meters. Due to the short age of the account, there is not enough data to perform an accurate depreciation analysis.

Q. How have situations like this been dealt with in the past?

A. Spire encountered a similar issue in File No. GO-2020-0416 and the Commission authorized the use of a "5.0% depreciation rate, based on a 20-year service life and no net salvage value".[3] With limited data, Staff believes it is reasonable to apply the same service life and net salvage value to Ameren Missouri until further data is collected.

PLANT AND RESERVE BALANCES

Q. Is Staff recommending any adjustments to plant or reserve balances?

A. Yes. Staff noticed negative reserve balances in the following accounts:

- 305 – Structures and Improvements
- 311 – Liquid Petroleum Gas Equipment
- 387 – Other Distribution Systems

Staff is recommending reallocating negative reserve balances from accounts 305, 311, and 387. To offset these negative balances, Staff recommends adjustments be made to accounts 374 (Distribution Plant – Land & Land Rights), 376 (Distribution Plant – Gas Mains), and 380 (Distribution Plant – Services).

RECOMMENDATIONS

Q. What are Staff's recommendations for the Commission?

A. Staff recommends the Commission order Ameren Missouri to use the depreciation rates attached to this testimony in Schedule MB-d2.

Q. Does this conclude your direct testimony?

A. Yes, it does.

[3] GO-2020-0416 Item 13 Pg 4

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust Its Revenues for Natural Gas Service	)))	Case No. GR-2024-0369

AFFIDAVIT OF MALACHI BOWMAN

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW MALACHI BOWMAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Direct Testimony of Malachi Bowman*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

MALACHI BOWMAN

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 24th day of February 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

Notary Public

CREDENTIALS AND CASE PARTICIPATION OF MALACHI A. BOWMAN

PRESENT POSITION:

I am an Associate Engineer in the Engineering Analysis Department, Industry Analysis Division, of the Missouri Public Service Commission.

EDUCATIONAL BACKGROUND AND WORK EXPERIENCE:

I received my Bachelors of Science degree in Mechanical Engineering from the University of Kansas in 2020. I was employed as a Sales Engineer in the commercial heating, ventilation, & air conditioning (HVAC) industry from 2022-2024. I have been employed by the Commission since May of 2024 as an Associate Engineer.

TESTIMONY FILED:

Case Number	Utility	Testimony	Issue
ER-2021-0312	Empire District Electric Company	Staff Report	Renewable Energy Purchase Plan
EO-2024-0300	Evergy Missouri West	Staff Report	Renewable Energy Standard Compliance Report
EO-2024-0231	Union Electric Company	Staff Report	Renewable Energy Standard Compliance Plan
WR-2024-0343	Holtgrewe Farms Water Company	Staff Report	Rate Case
EA-2024-0237	Ameren Missouri	Staff Report	Application for Certificate
EO-2025-0019	Ameren Missouri and Co-Mo Electric Cooperative	Staff Report	Change of Supplier
WR-2024-0320	Missouri American Water	Rebuttal Testimony	Rate Case

Ameren Missouri (Gas)			
Schedule of Depreciation Rates			
GR-2024-0369			
Depreciable Plant		**Net Salvage**	**Depreciation Rate**
Transmission			
366	Structures and Improvements	-10%	1.77%
367	Mains	-10%	1.97%
369	Measuring and Regulating Station Equipment	-5%	2.42%
Distribution			
375	Structures and Improvements	-5%	2.31%
376	Mains	-5%	1.94%
378	Measuring and Regulating Station Equipment - General	-5%	2.49%
379	Measuring and Regulating Station Equipment - City Gate	-5%	2.62%
380	Services	-10%	2.27%
381	Meters	3%	3.94%
381.02	Meters - AMI	0%	5.76%
383	House Regulators	-25%	3.27%
385	Industrial Measuring and Regulating Station Equipment	0%	2.97%
General Plant			
390	Structures and Improvements	-5%	3.00%
391	Office Furniture and Equipment	0%	7.64%
391.2	Office Furniture and Equipment - Computers	0%	17.79%
392	Transportation Equipment	15%	7.22%
393[1]	Stores Equipment	0%	5.08%
394	Tools, Shop and Garage Equipment	0%	6.03%
395	Laboratory Equipment	0%	8.63%
396	Power Operated Equipment	20%	5.98%
387	Communication Equipment	0%	6.96%
398	Miscellaneous Equipment	0%	6.96%

[1] Ameren Missouri allocates general plant in account 393 to gas operations. Staff recommends aligning this depreciation rate to its recommendation in ER-2024-0319.