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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

JOHN A. ROBINETT

THE EMPIRE DISTRICT ELECTRIC COMPANY

FILE NO. ER-2011-0004

Jefferson City, Missouri
April 2011

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Q. Please state your name and business address.

A. John A. Robinett, P.O. Box 360, Jefferson City, Missouri 65102.

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

A. I am a Utility Engineering Specialist in the Engineering and Management Services Department with the Missouri Public Service Commission (Commission or PSC).

Q. Are you the same John A. Robinett that contributed to the Staff Cost of Service Report filed in this proceeding?

A. Yes, I am.

PURPOSE AND SUMMARY

Q. What is the purpose of this testimony?

A. The purpose of this testimony is to address the 2009 Depreciation Study attached to the Direct Testimony of Thomas J. Sullivan as Schedule TJS-2. In this testimony, I will present a comparison of the depreciation rates requested by the The Empire District Electric Company ("Empire" or "Company") to the rates Staff recommends.

Q. What are Staff's concerns with Mr. Sullivan's depreciation study?

A. Staff's concerns are:

1) The Company's treatment of the Steam Production accounts and Other (Combustion Turbines) Production accounts as dying life span accounts.

2) The Company's effective use of the remaining life approach to recover estimated costs.

3) The Company's requested life of 50 years for the Iatan 2 and Plum Point generating units.

4) The alleged reserve deficiency for Riverton.

5) Inadequacies in the data that Empire used to perform its study.

6) Accrual for future speculative additions of mercury emissions equipment at the Asbury generating station that are not known and measurable.

BACKGROUND

Q. Did Empire file a depreciation study in this case?

A. Yes. It was conducted by Mr. Thomas J. Sullivan, of the consulting firm of Black & Veatch.

Q. Did Staff conduct a depreciation study for this case?

A. Yes.

Q. Are Empire's requested depreciation rates and annual depreciation expense greater than those currently ordered?

A. Yes. Empire's requested rates are approximately 12% higher than the existing rates, which results in $3,062,875 more annual depreciation expense, ignoring the impact on depreciation expense from the additions to rate base that are requested in

this case plus an additional $1,343,104 associated with the requested amortization of the Riverton "deficiency". Taking additions to rate base into account, the expense is significantly greater than that resulting from Empire's currently ordered depreciation rates.

Q. What is the basis for this increase in Empire's requested rates and expense?

A. Empire made an adjustment to effectuate the Remaining Life[1] method to collect for a projected under-accrual in the theoretical depreciation reserve[2] caused by inflated reserve requirements that result from the Company's estimated shorter lives. Empire is also seeking to recover currently the projected impact on depreciation expense of future additions and future retirements.

Q. Are the lives[3] used by Empire in its request consistent with the currently ordered lives?

A. No. In general, Mr. Sullivan estimated shorter lives than were used to calculate the existing depreciation rates. Staff's depreciation study results do not support these shorter lives requested by Empire. When such short lives are used to calculate the theoretical reserve for depreciation, the reserve appears to be under-accrued. Empire then

[1] **Remaining Life Technique**
A technique used to determine the annual depreciation accruals required to recover the undepreciated service value over its remaining life. The annual depreciation accruals amount is the original cost less accumulated depreciation and future net salvage divided by the remaining service life.

[2] **Theoretical Depreciation Reserve**
The calculated balance that would be in the accumulated depreciation account at a point in time using current depreciation parameters, such as average service and net salvage. Also known as "reserve requirement" or "calculated accumulated depreciation (CAD)."

[3] **Life**
A general term, used broadly to refer to the period of time during which depreciable plant is in service.

requests additional depreciation expense to make up for the shortfall in the theoretical reserve that only results from calculating the reserve balance using these unsupported assumed shortened lives.

Q. What is the Company requesting regarding the depreciation accrual rates?

A. While Mr. Sullivan claims his rates are based on the Whole Life[4] (WL) technique (refer to Sullivan direct, p. 4, l. 7-9), he has made an additional adjustment consistent with the Remaining Life (RL) technique and results in a depreciation rate nearly identical to the rate resulting from the RL technique. Therefore for purposes of clarity in this testimony, I will refer to Mr. Sullivan's methodology as RL. These adjustments of WL rates to defacto RL rates are best observed in Mr. Sullivan's Schedule TJS-2 wherein adjustments to the depreciation rates for lifespan, remaining life, interim net salvage, final net salvage, future additions and future project costs are articulated.

Q. Has the Commission historically set Empire's depreciation rates using a Remaining Life study on dying plant accounts as Empire as requested here?

A. No. The Commission has historically set depreciation rates using the Average Life[5] Group – Whole Life method of depreciation.

[4] **Whole Life Technique**
The whole life technique bases the depreciation rate on the estimated average service life of the plant.

[5] **Average Life**
The average expected life of all units of a group when new. It is determined as the arithmetic average of the lives of the units. It is equal to the area under the survivor curve divided by the original placements.

LIFESPAN[6]

Q. What are the results of Mr. Sullivan's estimated and shortened lifespan for the production plant accounts?

A. The shortening of plant life in conjunction with inaccurate estimations of future retirement costs result in an increase of approximately 5.5 million dollars of the annual accrual to the reserve for depreciation in production plant accounts.

Q. If longer lives were used to conduct a life span study of Empire's fleets, could the resulting depreciation expense be less than that generated by existing rates?

A. Yes. While Staff objects to the segregation of Empire's fleet into dying accounts as required to perform a life span study, a life span study does not necessarily result in more depreciation expense than a mass asset study.

TERMINAL NET SALVAGE

Q. Please describe and discuss the Company's use of terminal net salvage estimates in calculating its proposed depreciation rates.

A. As detailed in Mr. Sullivans's direct testimony and depreciation study, he maintains that there are two separate components of cost of removal[7] and salvage[8] for Production Plant: interim and terminal. Interim net salvage refers to the cost of removal net of salvage related to interim retirements. Terminal net salvage refers to the net demolition cost of a plant or unit at final retirement.

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[6] **Life Span**
The number of years between the year of installation of a major structure unit and its year of final retirement.

[7] **Cost of Removal**
The costs incurred in connection with the retirement from service and the disposition of depreciable plant. Cost of removal may be incurred for plant that is retired in place.

[8] **Gross Salvage**
The amount recorded for the property retired due to the sale, reimbursement, or reuse of the property.

Q. How does current depreciation practice account for both interim and final retirement cost of removal?

A. The current net salvage component of the depreciation rate includes gross salvage and cost of removal. This net salvage estimate is applied to the total plant in service. In effect the terminal cost of removal is assumed to be at the same rate as for interim coast of removal. These costs are collected in depreciation over the average service life of the equipment with no distinction between interim and final. Interim cost of removal is usually expected to be significantly greater then terminal cost of removal.

COST OF REMOVAL

Q. Mr. Sullivan discusses the effect of negative net salvage as an element of the increase in annual depreciation expense. Could you please define "negative net salvage?"

A. "Negative net salvage" occurs when the cost of removal exceeds gross salvage, net salvage being gross salvage less cost of removal. Gross salvage is the recovered marketable value of retired plant. Cost of removal is the cost associated with the retirement from service and disposition of plant. Negative net salvage is sometimes also referred to as net salvage expense; however, for clarity I will refer to negative net salvage as cost of removal net of salvage.

I DEPRECIATION FOR PRODUCTION PLANT ACCOUNTS

Q. How did Empire account for depreciation in its request?

A. The Company's accounting practice treats a given generation unit, such a a single combustion turbine generator, as a system with many small units of property. That is, when sections or parts are replaced, a retirement is recorded and the new section

or part is recorded as a plant addition. This produces the interim retirement curve[9][10] the Company used in its dying account[11] life span method of depreciation analysis. There is no prior history of a combustion turbine unit by itself, or with all auxiliary equipment, or a combustion turbine facility as a whole that has been shutdown and dismantled in the Empire fleet. Thus, the interim retirement curve proposed by the Company represents the current consumption of capital for this production equipment as a fleet.

The Company's depreciation study method of truncating the common fleet survivor curves at different points (dates) for each individual production unit is not appropriate. Retiring a whole unit account does not follow the Company's accounting practice of assigning many small units of property for retirement within each account.

Q. How does Staff recommend Empire's record depreciation for the combustion turbine and steam production fleets?

A. Staff recommends that Empire's combustion turbine fleet and steam production fleet should be treated as two living account[12] systems where all retirements continue to be recorded as interim retirements, including future replacement of a combustion turbine assemblies or steam production plants. These two production

[9] **Retirement Frequency Curve**
The retirement frequency curve shows the distribution of the percentage (or number) retired at each age.

[10] **Iowa Curves**
Several families of curve shapes derived empirically from analysis of the mortality data for many different types of industrial property

[11] **Dying Account**
An account or group of assets where retirements exceed additions over time.

[12] **Living Account**
An account or group of assets where additions exceed retirements over time.

systems are similar to a city, in that the city evolves and lives on with new people, buildings, and infrastructure with no planned terminal retirement date**.**

Q. Does Staff agree with Empire's requested treatment of the Steam Production accounts and the Other Production Accounts?

A. No. The treatment of the Steam Production accounts and Other (Combustion Turbines) Production accounts is better represented by Staff's choice of using a living account whole life property analysis than Mr. Sullivan's choice of dying accounts life span analysis which ignores historical data relevant to a depreciation study.

Q. Does Staff agree with Mr. Sullivan's disaggregation of the generation fleet accounts to discrete dying accounts for each unit?

A. No, with the exception of the Iatan 2 unit which is subject to accelerated depreciation as a means of recognizing Empire's prior collection of regulatory plan additional amortizations in customer rates. With that single exception, Staff does not recommend disaggregation of the generation fleet for dying account treatment. The life span method requires a degree of accuracy in forecasting generation unit retirement dates that is not realistically achievable. Unrealistically short forecasts, as requested by Empire, result in excess accruals collected from ratepayers during the early years of a new production installation for all equipment that lasts longer than the proposed retirement date, specifically when historical evidence shows only portions of a facility may be retired and/or replaced near the retirement date.

Q. In general, to what do you attribute the differences in results that are seen between the life span and whole life property methods?

A. In general, it is the variables used to represent the final retirement of plant. For the life span method, the variable is the dates chosen to truncate the survivor curves. For the whole life property method, the variable is the historical final retirement data from pre-existing plant.

Q. Why is it difficult to perform reliable analysis of the life of the production accounts by location?

A. The Company has proposed a life span approach for the entire group of generating facilities run by the Company, which requires a disaggregation of all the production accounts into that respective account at a given location. While this disaggregation of production plant will at some future time provide better data for actuarial analysis, it does not facilitate near term analysis of those disaggregated plant accounts. Nor is it representative of the long term prospects for continued electric production of the Company. There is insufficient data for this type of actuarial analysis. The data provided by the Company to Staff in this proceeding was actually totally aggregated by production facility type, which further makes it difficult to match the "study" provided by the Company. To make matters worse, the data provided to Staff actually did not even match the values claimed in the Company's study. Staff was able to match the Company's study values better when they used the data provided in Empire's previous rate proceeding, Case No. ER-2004-0570, which ended with transactions through 2003 and then added the new data set with transactions from 2004 forward.

Q. Would it be possible to conduct a depreciation study of the production plant accounts if the data were reaggregated?

A Yes. The currently ordered depreciation rates for the older production plant accounts are in fact a result of depreciation studies conducted before the data was disaggregated.

STEAM PRODUCTION FLEET

Q. Are there any apparent anomalies in Empire's request related to steam production equipment?

A. Yes, the requested rates for the Asbury, Iatan 1and Riverton generating facilities have different rates for the same plant accounts at one location versus the other location. The only exceptions to this within Mr. Sullivan's recommended rates is that his proposed rates for Iatan 2 and Plum Point are identical.

Q. Is it good regulatory practice to impose large differences in depreciation rates for the same types of equipment but at a different location within a utility?

A. No. Subsequent additions and modifications to an individual plant in the interim between depreciation studies will distort accruals and thus diminish the ability to maintain roughly constant depreciation rates over the life of the plant.

Q. Does Staff agree with the depreciation rates requested for production plant accounts by Mr. Sullivan?

A. No. Staff does not agree with depreciation rates that result from the life spans and study method Mr. Sullivan selected for determining depreciation rates for Empire's production plant accounts.

Q. Does Staff's method allow the Company to recover the costs associated with short lived equipment in steam production plants that have been shut down?

A. Yes. Existing depreciation rates for steam production equipment have been ordered using whole life property analysis. Different depreciation rates for different plant facilities have not been ordered in the past. The production equipment depreciation rates have been ordered from analysis which treated all steam production equipment as one large steam production facility. Staff makes no distinction between interim and final retirements in its whole life property analysis.

Q. What does Staff recommend at this time as the best available estimate of future retirements in the steam production plant accounts?

A. For steam production plant, Staff continues to recommend the inclusion within the depreciation analysis of information relating to final retirements from preexisting plant that has been completely retired and removed. Inclusion of information relating to final retirements under the whole life property retirement analysis method provides for an appropriate estimation of the whole live survivor curves for the fleet of production units.

Q. Does Empire have any final retirement history for steam production plant?

A. Yes. Empire has retired and removed 6 generating units at the Riverton facility and has also retired and removed approximately 40 boilers at the Riverton facility. As plants are taken out of service in the future, these retirement data bases will be updated with additional and more recent information.

Q. Did Empire use its own retirement history in its study?

A. No. It is Staff's understanding that the Company failed to use retirement records of preexisting steam plant in its depreciation study to estimate future steam unit final retirements.

It is also Staff's understanding that the Company destroyed, and or no longer possesses, retirement history for depreciation study purposes prior to 1999. Staff attempted to recreate this retirement data base by updating prior case depreciation study records with data from recent years. Staff's use of this data base in its depreciation study resulted in lower depreciation rates for steam plant accounts than are currently ordered. However in consideration of the effects of the regulatory amortizations and to maintain a conservative approach, Staff recommends for this rate case a continuation of the existing depreciation rates for steam plant accounts.

COMBUSTION TURBINE FLEET

Q. Does Staff recommend treatment of the combustion turbine production fleet as individual dying accounts?

A. No. Based on Staff's review of the combustion turbine usage and history, Staff recommends against treatment of the combustion turbine fleet as individual dying accounts. It is most appropriate to treat the combustion turbines as a fleet of production units using a living account whole life property depreciation analysis method. Treating Empire's fleet of combustion turbine units as living accounts is consistent with the methods used to determine Union Electric Company d/b/a Ameren Missouri's ("Ameren Missouri") requested depreciation rates that were adopted by the Commission in File No ER-2010-0036. Empire's request requires segregating the assets associated with each unit into a separately tracked dying account, assigning an individual retirement date to each combustion turbine unit, and using the life span method to compute a depreciation rate for each unit.

Q. Is the depreciation analysis method used by Mr. Sullivan the best regulatory practice for combustion turbine production fleets at a utility the size of Empire?

A. No. Mr. Sullivan used a life span method that just adds 50 years to the in service date for each unit and assumes each combustion turbine unit is a separate dying account, and then bases the projected retirement date of all the facility equipment for each unit on a proposed useful life of one unit. This assumption is not consistant with observed Empire fleet management practices.

HYDRAULIC PRODUCTION

Q. What does Staff recommend in this rebuttal testimony as the best available estimate of future retirements for the hydraulic production plant accounts?

A. For hydraulic production plant, for reasons stated below, Staff continues to recommend the use of the whole property method even though information concerning the final retirement of hydraulic production plant is not contained in the data base. For current depreciation purposes, these facilities should not be assumed to have a forecastable termination. That is, the Federal Energy Regulatory Commission (FERC) 40 year operating licenses, with license modifications, are expected to be repeatedly renewed into the future. The Company's use of the FERC license renewal dates as retirement dates is unlikely. We can only speculate when these facilities will be removed or replaced. For example, the Company has presented no evidence that Ozark hydro facility will actually be retired and removed in 2053, its forecasted retirement date within Mr. Sullivan's study. As an illustration of the problem with relying on such long range forecasts, the Lowell Dam that Empire has previously retired in 1969 was never

removed; that facility is still part of the Riverton power site, and for recreational purposes.

II EMPIRE'S USE OF REMAINING LIFE

Q. Please describe Empire's proposal regarding the amortization of production plant accounts.

A. Yes. As described on pages 4 through 6 of Mr. Sullivan's direct testimony, Empire effectively seeks to discontinue calculating the depreciation accrual for the depreciation reserve under the Average Service Life - Whole Life method of depreciation and instead adopt adjustments that replicate the Average Service Life - Remaining Life method of accrual. The annual effect of the change to the production plant depreciation amortization using Mr. Sullivan's recommended life and net salvage parameters is an increase of $3,196,859 before consideration of additions to plant and the $1,343,104 Riverton amortization.

Q. What is Staff's position regarding the amortization of production plant as requested by Empire through the use of Remaining Life?

A. The Company's proposed method of recovery for depreciation redistributes the reserves in a manner by accounts that causes older assets to appear under accrued as a result of inflation, although these assets have been accruing reserves for the longest time.

Q. Why is this treatment inappropriate?

A. Empire's production plant amortization is inappropriate for two reasons. This method of plant amortization will result in a return of estimated capitalized investment in a period that is typically less than the used and useful life of the asset.

This unfairly shifts costs from a later generation of ratepayers to the current generation of ratepayers or, as in the case of Riverton, from past ratepayers to current ratepayers.

Q. Does the disaggregation of the production plant data drive the depreciation study results put forth by Mr. Sullivan?

A. Yes. This is another problem with disaggregating these account.

Q. How do the existing depreciation rates compare to Empire's requested annual depreciation expense?

A. Mr. Sullivan uses the remaining life adjustments in part to develop his depreciation rates and inflated depreciation expense.

Q. Are there other ways that Remaining Life method causes imbalance in the determination of the depreciation rates by unit?

A. Yes. In addition to the recovery of the original cost of investment, the remaining life method of adjustment recognizes any depreciation reserve imbalance and adjusts the depreciation rate to eliminate that imbalance over the estimated remaining life of the account.

Q. What is a depreciation reserve imbalance?

A. A depreciation reserve imbalance is the difference between the booked deprecation reserve and the calculated theoretical reserve.

Q. How has Empire determined that it has a deficient level of accumulation for depreciation?

A. Mr. Sullivan has testified that the Company is experiencing a deficient level of accumulated reserve for depreciation due to his assertion that the existing

depreciation rates are too low and have been generating an insufficient amount of annual depreciation expense.

Q. Has Mr. Sullivan added additional amounts to the theoretical reserve that cause it to be much greater than the accumulated reserve?

A. Yes. Mr. Sullivan has included in his theoretical reserve calculation an excessive amount for estimated cost of removal, future additions, and for some units final retirements.

Q. How is Staff's determination of depreciation rates different from that of the Company?

A. Based on a theoretical reserve appropriately calculated using Staff's average service life whole life analysis, the accumulated reserve for depreciation for whole life property accounts has over-accrued $72 million.

Q. How else is Staff's determination of depreciation rates different from Empire's?

A. For production plant accounts, in addition to excessive cost of removal, the period over which depreciation expense is to be collected has been significantly shortened due to a shortening of service life. This life span treatment further escalates the theoretical reserve for production plant accounts and is an additional component of the reserve deficiency.

Q. Has the Company exaggerated the existence of reserve deficiencies?

A. Yes. The Company has exaggerated the existence of "deficient reserves" by splitting out each of the plants into its own set of accounts and arbitrarily assigning reserves to those newly created accounts. By leaving the generation plant accounts

aggregated, sufficient funds are present to cover the cost of the future facilities retirements that are predicted to retire in the next 10 years. It is only after the disaggregation of the plant in services and the reserves that this so called deficiency appears to exist.

III LIFE OF IATAN 2 & PLUM POINT

Q. How does Staff's recommended depreciation treatment differ from Empire's request for Plum Point?

A. Staff recommends that the Plum Point generating unit be included in the aggregated steam production generation fleet under the current Commission ordered depreciation rates, and not segregated out as requested by Empire.

Q. If disaggregated dying account treatment is ordered for Plum Point, is Empire's requested 50 year life span reasonable?

A. No. It is inconsistent that the life span recommended by Mr. Sullivan for Iatan 1 is 60 years and for the new Iatan 2 and Plum Point units he recommends only a 50 year life. While a shorter initial life estimate used for a new plant will increase the initial depreciation expense and tend to smooth this expense over the total life of the plant, it is not the initial users that put addition demands and requirements on the plant in future years requiring future plant additions or premature retirements.

Q. How does Staff's recommended depreciation treatment differ from Empire's request for Plum Point?

A. For purposes of reflecting Empire's prior recovery of the Regulatory Plan additional amortizations in the depreciation reserve, Staff recommends that Iatan 2 be segregated from the remainder of Empire's steam generation production fleet, similar in

concept to Empire's request. However, Staff recommends that the average service life for the Iatan 2 unit should be set to 60 years to be consistent with the treatment of Iatan 2 authorized in File No. ER-2010-0355, Kansas City Power & Light Company, as well as with a recent decision by the Kansas Corporation Commission ("the Kansas Commission").

Q. How should the Iatan 2 segregated accounts be booked?

A. Specifically, Staff recommends the Commission order Empire to assign the $29,478,539 collected by Empire through November 30, 2010 for regulatory plan amortizations to newly created accounts 311.5, 312.5, 314.5, 315.5, and 316.5 on a dollar-weighted Missouri jurisdictional cost basis of the prudently incurred additions to plant accounts resulting from the construction of Iatan 2, and assign to accounts 311.6, 312.6, 314.6, 315.6, and 316.6 the depreciation expense accruals resulting from applying the ordered depreciation rates to plant-in-service for Iatan 2. For each of the Iatan 2 accounts 311, 312, 314, 315, and 316, the subaccounts defined above are to be viewed as if the two subaccounts were a one account for depreciation analysis purposes. Retirement records for use in future depreciation studies shall be recorded and treated using the sum of the two subaccounts as one reserve account.

IV RIVERTON RESERVE DEFICIENCY ISSUE

Q. What is Empire's request regarding the future retirement of the Riverton production plant accounts?

A. As described on pages 7 through 9 of Mr. Sullivan's direct testimony, Empire seeks an amortization to accrue $1,343,104 per year for eight years for the "unrecovered" cost of the Riverton steam production units 7 & 8. The Company alleges

that the full investment in the plant and final retirement costs will not be recovered through depreciation expense if the Riverton Units 7 and 8 are retired in 2018. Mr. Sullivan also shows on Schedule TJS-2 that the accumulated provision for depreciation applicable to total plant-in-service is $558,896,532 as of December 31, 2009. It is from this amount that Staff states the Riverton retirements, when and if they occur, should be charged.

Q. What is Staff's position regarding the amortization of unrecovered investment by Empire?

A. Acceptance of Empire's requested recovery method results in double recovery. Empire's depreciation reserve for the steam production fleet is significantly over accrued and will continue to accrue. It is only by the Company's own bookkeeping that an under accrual for a specific plant could appear to exist, as the reserve should be accrued for the fleet and not by individual steam production plant.

Q. What is Staff's recommendation regarding the amortization of net salvage for the Riverton Power Plant?

A. The net salvage expense for the Riverton Power Plant should not be amortized. Staff recommends these amounts should be drawn from the existing depreciation retirement reserve and not recovered through an additional amortization expense.

V DATA SET CONCERNS

Q. What are Staff's issues with the data that was provided with the direct filing of the Company?

A. In the study performed by the Company, each individual generation plant was broken out by location and production type. When the plants are disaggregated there are insufficient retirements to perform an actuarial study of the data provided by the Company.

Q. What accounts and facilities were affected?

A. Riverton steam generation had accounts 311, 312, 314, 315, and 316 as did Asbury, Iatan 1, Iatan 2, and Plum Point; the other production facilities combined cycle (CC) and combustion turbine (CT) units (Riverton CTs, Stateline CC, Stateline CT, Energy Center CT Unit 1&2, and Energy Center CT Unit 3&4) all had accounts 341, 342, 343, 344, 345, and 346.

Q. How many accounts has the Company created by disaggregating the steam production and other production plant?

A. For steam production the Company's request involves setting rates for 25 accounts for those units, as opposed to the 5 aggregated accounts for which rates were last ordered. Likewise, for the CCs and CTs the accounts have gone in number from 6 accounts to 30 accounts. The major concern with the data Staff received from the Company is that there were no designations of what data belonged to which plant; all the data was in the original 11 accounts and had not been disaggregated as in the Company's study.

Q. Did the data that Staff received correlate to the plant values that were presented in the Company's study?

A. No. In the Company's study, two sub-accounts existed for 391.1 Office Equipment and 391.2 Computer Equipment; the data only had values in the

account 391 and there was no way to determine what was office equipment versus computer equipment. The data for these accounts and many accounts given to Staff had lesser values for plant in service than what was reported in the Company's study. Once Staff had correctly formatted the data so that it could be run in our actuarial analysis[13] depreciation software, results were not produced from the data provided for the generation facilities. The only items that could be curve fit from the initial data were the transmission, distribution and general plant accounts. Very few plant retirements are actually reflected in the data. A majority of transactions are positive additions of plant, negative additions to plant, or transfers of plant.

The Company has apparently stripped all of its retirement information out of the data. As previously mentioned, there have been 6 units retired and removed at the Riverton Facility and approximately 40 boilers at Riverton have also been retired from in-service. The Company's current database started with vintage plant balances in 1999 and then brought the data forward.

Q. Is Empire using the complete continuing property record as the source of data for the depreciation study?

A. No. The Company on page 8 of the Report on Depreciation Accrual Rates states "During the transition … only vintage balances were brought forward. As a result, aged data history (additions and retirements by vintage) was not retained…"

[13] **Actuarial Analysis**
The translation of mortality data into statistics or charts displaying the relationships among age, retirements, realized life, unrealized life, life expectancy, and indicated average life. It can also refer to the body of age-dependent statistical procedures used to study mortality data.

VI ACCRUAL OF FUTURE ADDITIONS TO PLANT

Q. Does Empire request accrual of depreciation for equipment not yet in service?

A. Yes. Mr. Sullivan states at page 6, l. 5-7 "The final IRP estimate for mercury emission equipment at Empire's Asbury plant is approximately $157 million compared to the preliminary estimate of $114 million that was used in our study." This means that a future projected addition in the amount of $114 million has been incorporated into its calculation of the depreciation rate for that plant. The Company's depreciation rates are apparently based, in part, on allowing for recovery of plant that is not even in construction but merely an Integrated Resource Plan (IRP) estimate. It is very speculative what equipment, if any, will be required for this facility related to mercury emissions, and when such investment might occur.

Q. What is Staff's recommendation on this issue?

A. Staff recommends that future additions to plant not be reflected in depreciation rates until the time that the future additions actually become used and useful. In a true retirement rate historical analysis, future additions do not become factored mathematically into depreciation rates until the future added plant results in future retirement entries, maybe 30 to 50 years from now. The Company correctly quotes the FERC definition of depreciation on page 6 of the depreciation study from FERC Title 18: Part 101- Uniform System of Accounts which states "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 that are **known to be in current operation** and against which the system is not protected by

insurance. . .” So by applying the approved definition of depreciation to the answer on page 6 line 5, the company is predicting a prospective retirement for a plant asset that is not currently plant in service, but is simply an IRP estimate of a future speculative additions and retirements.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company	)))))	File No. ER-2011-0004

AFFIDAVIT OF JOHN A. ROBINETT

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

John A. Robinett, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 23 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

John A. Robinett

Subscribed and sworn to before me this 18th day of April, 2011.

Notary Public

NIKKI SENN
Notary Public - Notary Seal
State of Missouri
Commissioned for Osage County
My Commission Expires: October 01, 2011
Commission Number: 07287016