BEFORE THE

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2011-0004

The Empire District Electric Company

Prepared Direct Testimony of

Thomas J. Sullivan

Issues:

Depreciation Rates

Before the Missouri Public Service Commission

Case No. ER-2011-004

Direct Testimony of Thomas J. Sullivan

Q. Please state your name and business address.

A. Thomas J. Sullivan, 11401 Lamar, Overland Park, Kansas 66211.

Q. What is your occupation?

A. I am a Managing Director in the Enterprise Management Solutions Division of Black & Veatch Corporation. I am assigned to the Ratemaking and Financial Planning solution set of that Division.

Q. How long have you been with Black & Veatch?

A. I have been employed with the firm since 1980.

Q. What is your educational background?

A. I received a Bachelor of Science Degree in Civil Engineering Summa Cum Laude from the University of Missouri - Rolla in 1980 and a Master of Business Administration Degree in Business Administration from the University of Missouri - Kansas City in 1985.

Q. Are you a registered professional engineer?

A. Yes, I am a Registered Professional Engineer in the State of Missouri.

Q. To what professional organizations do you belong?

A. I am a member of the American Society of Civil Engineers and the American Gas Association, and I am Black & Veatch's representative to the American Public Gas Association.

Q. What is your professional experience?

A. I have been responsible for the preparation and presentation of numerous studies for gas, electric, water, and wastewater utilities. My clients served include investor-owned utilities, publicly-owned utilities, and their customers. The professional studies that I have prepared involve valuation and depreciation, cost of service, cost allocation, rate design, cost of capital, supply analysis, load forecasting, economic and financial feasibility, cost recovery mechanisms, and other engineering and economic matters.

Prior to joining the Enterprise Management Solutions Division in 1982, I worked as a staff engineer in the Black & Veatch Power and Civil-Environmental Divisions.

Q. Please describe the firm of Black & Veatch.

A. Black & Veatch Corporation has provided comprehensive engineering and management services to utility, industrial, and governmental clients since 1915. The Corporation specializes in engineering and construction associated with utility services including electric, gas, water, wastewater, telecommunications, and waste disposal. Service engagements consist principally of investigations and reports, design and construction, feasibility analyses, rate and financial reports, appraisals, reports on operations, management studies, and general consulting services. Present engagements include work throughout the United States and numerous foreign countries. Including personnel assigned to affiliated companies, we have a staff of approximately 9,000 people.

Q. Have you previously appeared as an expert witness?

A. Yes, I have. In Schedule TJS-1, I list cases where I have filed expert witness testimony and appeared as an expert witness. As noted on that schedule, I have appeared before the Missouri Public Service Commission ("Commission") as an expert witness on depreciation rates for Missouri Gas Energy in Case Nos. GR-2001-292, GR-2004-0209, GR-2006-0422, and GR-2009-0355 and The Empire District Gas Company in Case No. GR-2009-0434. I also served as an expert witness for Aquila, Inc. on class cost of service, rate design, and weather normalization in Case No. GR-2004-0072.

Q. For whom are you testifying in this matter?

A. I am testifying on behalf of The Empire District Electric Company ("Empire" or "Company").

Q. What is the purpose of your direct testimony?

A. I am sponsoring Empire's proposed depreciation rates. The Company asked me to review the existing depreciation rates and, where appropriate, recommend changes to those rates such that the rates will, as accurately as possible, match the useful life of the property and the Company's experience with net salvage. A complete depreciation study was performed for Empire's plant in service at December 31, 2009.

In addition, I sponsor the Company's proposed amortization of the depreciation reserve deficiency associated with its Riverton coal-fired generating facilities.

Q. Do you sponsor any schedules with your testimony?

A. Yes. I sponsor the following schedules:

Schedule TJS-1 Expert Witness Testimony of Thomas J. Sullivan

Schedule TJS-2 Report on Depreciation Accrual Rates – Electric utility property through December 31, 2009.

Q. What are your recommendations regarding the Company's depreciation accrual rates?

A. In my report, Schedule TJS-2, I recommend that Empire implement the depreciation expense rates shown in column H of Table 7-1, which are based on the whole life technique.

Q. What is the impact of the whole life depreciation rates you are recommending for Empire?

A. As seen in Schedule TJS-2, Table 7-1, the depreciation rates I am recommending for this case result in an increase in annual depreciation expense of $2.9 million based on plant in service at December 31, 2009. The change in depreciation expense is primarily driven by two factors: 1) an increase due to a change from mass property treatment of production plants to the appropriate lifespan treatment; and 2) a decrease in mass property depreciation expense due to longer average service lives and decreased negative net salvage requirements.

Q. Why do you recommend using lifespan treatment for Empire's production plants?

A. Empire's production plants are considered to be unit property, or a heterogeneous property group that by the nature of their interconnected or

integrated operation tends to be retired simultaneously, as a group. The appropriate depreciation of unit property is the lifespan technique where all units of property at a production plant retire at the time the plant is retired. The whole life depreciation rates for Empre's production plants were developed based on final retirement dates provided by Empire that are consistent with the Company's integrated resource plan ("IRP").

Q. Is there a recent Commission decision supporting the use of lifespan treatment?

A. Yes. In Case No. ER-2010-0036, the Commission found that "The problem with treating power plant equipment as mass property is that retirements of large electric power plants are rare events."[1] The Commission concluded "that it is appropriate to use a life span approach to determine depreciation rate..."[2]. The depreciation recommendation for Empire in this case is consistent with the Commission findings and conclusions in Case No. ER-2010-0036.

Q. Can you summarize the impact of your recommended changes for production plant depreciation rates?

A. Yes. My recommended depreciation rates for production accounts results in an increase to annual depreciation expense of $5.7 million based on December 31, 2009 plant in service. This is a 39% increase over current rates. Additionally, I recommend an initial depreciation rate of 2.1% for Iatan 2 and Plum Point. A

[1] Case No. ER-2010-0036, In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase Its Annual Revenues for Electric Service, Report and Order, Page 29.
[2] Case No. ER-2010-0036, In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase Its Annual Revenues for Electric Service, Report and Order, Page 35.

detailed discussion of the power plant depreciation recommendation is provided in Section 5 of Schedule TJS-2 appended to this testimony.

Q. Have any estimates relied upon in your study changed subsequent to the completion of your production plant study?

A. Yes. The final IRP estimate for mercury emission equipment at Empire's Asbury plant is approximately $157 million compared to the preliminary estimate or $114 million that was used in our study. This updated estimate would change the depreciation rate for Asbury from 4.57% to 4.76%. However, to be conservative, I do not recommend adjusting the recommended rate of 4.57% at this time.

Q. Are there any other proposed changes to depreciation expense accruals as a result of your study?

A. Yes, in addition to the increase in depreciation expense for production plant, there is a recommended decrease to transmission, distribution and general plant accounts. The primary reasons for the decrease in depreciation expense for mass property accounts are a general trend of longer average service lives and a reduction of negative net salvage requirement (decreased cost of removal). All recommended changes to depreciation rates are detailed in Schedule TJS-2.

Q. Can you summarize the impact of your recommended changes for mass property depreciation rates?

A. Yes. My recommended depreciation rates for transmission, distribution and general plant accounts results in a decrease to Empire's annual depreciation expense of $2.8 million based on December 31, 2009 plant in service. This is a 9% decrease compared to current rates. A detailed discussion of the

transmission, distribution and general plant depreciation recommendation is provided in Section 6 of Schedule TJS-2 appended to this testimony.

Q. Are there any additional recommendations you are making?

A. Yes, I am recommending that the Company amortize the depreciation reserve deficiency for its Riverton coal-fired generating facility over the facilities expected 8-year remaining life.

Q. What is the amount of the amortization that you recommend?

A. Based on the depreciation reserve deficiency of $10,744,830 shown in Table 6-2 of Schedule TJS-2, I recommend that the Company amortize $1,343,104 per year for each year during the 2011 through 2018 period. This amount is in addition to the annual depreciation expense based on the recommended depreciation rate of 3.18 percent for the Riverton coal-fired generating facility.

Q. What is the basis for the eight-year period?

A. According to the Company's IRP, Empire is planning for the retirement of the coal-fired generating facilities at the Riverton Plant in 2018 due to environmental compliance issues and the age of the facilities.

Q. Why is there a reserve deficiency for the Riverton coal-fired generating facility?

A. In Missouri, the accepted depreciation method is the whole life method. The basic premise of the whole life method is that one straight-line depreciation rate is used over the entire life of the asset. If the life characteristics of an asset change over the life of that asset or if additions are made to an asset that have a lifespan less than the whole life of the plant, depreciation rates based on the

whole life method tend to have a bias towards under collecting depreciation expense especially for unit type properties such as power plants.

The accumulated reserve for depreciation for the Riverton coal-fired facilities as of December 31, 2009 was $28,774,554 compared to a gross plant of $46,083,525. This means that there is approximately $17.3 million of gross plant remaining to be depreciated at December 31, 2009. The existing whole life depreciation rate of 1.62 percent is only accumulating about $750,000 per year. Over an additional nine years (2010-2108), this rate would only accumulate about $6 million in accumulated depreciation. This is clearly not enough. When you add in the normal additions and retirements that the plant will need in order to operate to 2018, the deficiency becomes even greater. The Company's proposed whole life rate for this plant is 3.18 percent. But as stated above, the whole life method assumes that this rate has been used over the whole life of the plant. Since the existing rate is only 1.62 percent, this assumption is not correct. Further, whole life rates are not explicitly designed to make up for the fact that the historical rate (at least in the recent history) for the plant has been too low.

Q. How can this bias in the whole life methodology be corrected?

A. There are two generally accepted ways to correct it. The more straightforward way is to use remaining life depreciation rates. Under the remaining life method, the amount of an asset that is not yet depreciated is depreciated over the remaining life of the asset. Therefore, there is no reserve deficiency when using the remaining life method. The remaining life depreciation rate for the Riverton coal-plant is 6.01 percent is shown in Table 5-1 of Schedule TJS-2.

The second way to correct the whole life rate is to amortize the depreciation reserve deficiency (or excess if that is the case) over the remaining life of the asset. This is the method the Company is recommending in this case.

Q. Why is the amortization of the depreciation reserve deficiency appropriate for the Riverton coal plant and not other Company assets?

A. Reserve variance amortization is appropriate for all of the Company's assets and I believe that remaining life rates are the most appropriate way to handle any depreciation reserve variances. That said, amortizing the reserve deficiency for the Riverton coal units is absolutely necessary because the reserve deficiency for the Riverton is both quantifiably significant and immediate. The Company can forecast the retirement of this facility with a high degree of certainty due to the environmental compliance issues forthcoming in the very near future and the age of the Riverton coal fired facilities. Also, the reserve deficiency is not only quantifiable, but significant.

Q. Are there other reasons to begin amortizing the Riverton depreciation reserve deficiency now?

A. Yes. There are two primary reasons. First, there is sufficient time until the expected retirement date such that the annual amortization is not unduly disruptive. Second, it makes sense to begin amortizing the deficiency now so that the investment in the plant can be recovered from the current ratepayers who are getting the benefits from the use of this facility.

Q. Does this complete your prepared direct testimony?

A. Yes, it does.

AFFIDAVIT OF THOMAS J. SULLIVAN

STATE OF WYOMING)
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COUNTY OF LARAMIE)

On the 21st day of September, 2010, before me appeared Thomas J. Sullivan, to me personally known, who, being by me first duly sworn, states that he is a Director in the Enterprise Management Solutions Division of Black & Veatch Corporation and acknowledged that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Thomas J. Sullivan

Subscribed and sworn to before me this 21st day of September, 2010, by Thomas J. Sullivan.

BONNIE HAYWARD - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
MY COMMISSION EXPIRES MAY 17, 2011

Notary Public

My commission expires: May 17, 2011