

Exhibit No.:
Issue: Depreciation
Witness: Paul W. Adam
Sponsoring Party: MoPSC Staff
Type of Exhibit: Surrebuttal Testimony
Case No.: ER-2001-299
Date Testimony Prepared: May 17, 2001

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

FILED³

MAY 17 2001

Missouri Public
Service Commission

SURREBUTTAL TESTIMONY

OF

PAUL W. ADAM

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Jefferson City, Missouri
May 2001

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Q. Are you the same Paul W. Adam who has submitted direct and rebuttal testimony in this case?

A. Yes.

Q. Do you have a response to The Empire District Electric Company's (Company) witness Mr. L.W. Loos' rebuttal on page 21, lines 7 through 9 where he criticizes Staff for failing to distinguish between mass and unit property?

A. Staff did distinguish between mass and unit property. Shortly after I filed my direct testimony in this case, Staff provided Empire a copy of Staff's depreciation workpapers consisting of 383 pages of survivor curves and other data. These workpapers, along with data requests responses provided to Empire, show that Staff did distinguish between mass and unit property. The months of work that went into Staff's study of each of the Company's five (5) Transmission accounts, eleven (11) Distribution accounts, ten (10) General Accounts plus the research to study each operated generating plant are obvious in these papers. Additionally, it is obvious that all plant is addressed individually. There are survivor curves and the associated tables of exposures for each Transmission, Distribution and Generation account. Further, because the Company could not submit mortality data on the generating plants at this time, Staff researched our files for information on the generating plants to develop an Average Service Life (ASL) for

1 each account. Added to this work is engineering judgment as a result of tours of the
2 Company's plant and visits with Company employees.

3 Q. Does Staff distinguish between mass and unit property?

4 A. Yes. Staff met with Company employees and toured the generating plants
5 that the Company operates specifically for Staff's study in this rate case. During these
6 meetings and tours Staff asked about retirement dates for each of the Company's
7 generating plants (unit property). Staff were told that the Company has no plans to retire
8 any of these plants. The consultant's retirement dates are in direct conflict with the
9 Company's employees' explanations of major investments to keep generating plants on
10 line. There are no foreseeable retirement dates for generating (unit) plant as projected by
11 the Company's consultant in his study. Therefore Staff did not include a retirement date
12 for each generating plant in our study. But this does not imply that Staff views unit plant
13 the same as mass plant, and the consultant's statement on page 21, lines 8 and 9 that:
14 "Mr. Adam proposes to develop service lives and depreciation rates for Empire's power
15 production facilities (unit property) in the same manner as mass property accounts." is
16 wrong.

17 Q. The Company's depreciation consultant states, on page 2, lines 15
18 through 17 of his rebuttal testimony that you fail to consider interim investment and on
19 page 4, lines 1 and 2 refers to your proposal as backward looking. Are his statements
20 correct?

21 A. No. Staff did use historical mortality data to develop survivor curves for
22 each Company account for which mortality data was submitted. From these survivor
23 curves an ASL is calculated by integrating the area under the best fitting type curve

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1 (commonly called Iowa curves). The fitting of type curves is done with engineering
2 judgment of the Company's statements about how they use and maintain their plant. This
3 is forward looking in application. Also, as stated in other testimony that I submitted, the
4 Company has \$10 million budgeted for capital maintenance work at the Asbury coal fired
5 power plant this fall. Staff considered this interim investment in their analysis of the life
6 of the Asbury plant. This is forward looking in application.

7 Staff does not accept or believe the consultant's projections for
8 \$212 million of Capital expenditures over the next 27 years at the State Line location. In
9 Staff's meetings with Company employees, nobody mentioned the need for the
10 consultant's proposal of these estimated future capital expenditures. Staff considers the
11 consultant's expenditures, that are proposed to occur years in the future, as unknown and
12 unmeasurable. To Staff's knowledge, the consultant's proposed capital expenditures are
13 not in Empire's budget.

14 Q. What is your response to Mr. Loos' claim in his rebuttal testimony on
15 page 1, line 21 that you have proposed a radical change in depreciation methodology?

16 A. The Staff's proposed depreciation rates are not based on a radical change
17 in depreciation methodology. Rather Staff's methodology has been written about and
18 discussed in depreciation text copyrighted in 1953 as discussed in my direct testimony on
19 pages 5 and 6. Staff's proposal will allow the Company to recover the original
20 investment in plant over the used and useful life of that plant. Also, net salvage costs are
21 included in Staff's revenue requirement. The amount has been determined by Staff
22 auditors and included in their determination of cost.

23 Q. Is there a specific understanding of ASL that you can point out?

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1 A. Yes. On page 23 of Mr. Loos' rebuttal he suggests that structures
2 associated with a steam plant cannot have an ASL of 95 years while other property at the
3 same plant has an ASL of 54 to 63 (page 23, lines 11 through 13). This is a
4 misunderstanding of the determination of ASL. To explain, if the structures at a power
5 plant were built and stood for 95 years with no additional investments being made then
6 each dollar in the structure account would be on the books for 95 years and therefore
7 structures would have a 95 year ASL. At the same plant steam production accounts may
8 have an original investment made at the same time the structures' original investment was
9 made. Also, at later dates, if additional dollars were invested in the steam production
10 accounts the average life of all dollars on the books would be 54 to 63 years. The
11 54 years or 63 years is the ASL for the respective steam production accounts.

12 Study of actuarial activity of each account is the basis for determination of
13 ASLs. This is the method used by Staff engineers.

14 Q. Does the Staff consider net salvage cost as part of the determination of
15 revenue requirement?

16 A. Yes. The net salvage cost determined by Staff comes from the Company's
17 data. It is the same information regardless of whether a depreciation engineer or an
18 auditor uses it to determine net salvage costs. Staff auditors, in this case, have included
19 the net salvage cost with other expenses.

20 Q. Are the determinations of depreciation rates, made by Staff depreciation
21 engineers, consistent with similar determinations made in prior cases?

22 A. Yes. The methods and procedures used in this case are the same methods
23 and procedures used by Staff in previous cases. Although the Company and Company's

1 consultant uses a different method, the difference is basically simple to explain. The
2 Staff's determinations of ASLs are based on the used and useful life of plant. The
3 Company's consultant uses shorter ASLs principally by using early plant retirement dates
4 that are not expected to occur. The Company's employees fail to support the early plant
5 retirement dates that the consultant used in his calculations. Concerning net salvage cost,
6 the Staff determined net salvage cost on a current expense basis whereas the Company's
7 consultant estimates a future net salvage cost. The future cost is unknown and in cases
8 where plant is sold before retirement, the future net salvage cost never occurs for the
9 Company although customers would have paid for the future net salvage cost if the
10 Company's consultant's depreciation rates are ordered.

11 Q. On page 26 and forward of Mr. Loos' rebuttal testimony, he discusses the
12 need for his estimated future investments (also called Maintenance Capital) to the State
13 Line Combined Cycle (SLCC) unit to achieve his proposed ASL for that unit. Is this
14 consistent with other plant that he addresses in his depreciation work?

15 A. No. To be consistent, Mr. Loos would be making estimates of plant
16 additions (his future interim Maintenance Capital) to all other plant. Although he does
17 include State Line Unit #1, the simple combustion turbine used for peaking, in his future
18 interim Maintenance Capital projections, he has no such projections for Iatan, Asbury,
19 Riverton, Ozark Beach and Power Center generating plants. He fails to explain why he
20 projects future interim Maintenance Capital of over \$212 million at the State Line
21 location and zero future interim Maintenance Capital at all other generating locations.

22 Q. What is your conclusion?

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1 A. That Staff's depreciation rates are reasonable and will allow the Company
2 full recovery of the original cost of plant over the plant's ASL. Also, that the net salvage
3 cost determined by Staff auditors is designed to allow the Company full recovery of the
4 current net salvage costs.

5 Q. Does this conclude your surrebuttal testimony?

6 A. Yes.

