

BEFORE THE PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

TRANSCRIPT OF PROCEEDINGS

HEARING

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Staff of the Missouri Public
Service Commission,

Complainant,

vs.

Union Electric Company, d/b/a
AmerenUE,

Respondent.

Missouri Public
Service Commission

) Case No.
) EC-2002-1
)
)
)
)

Exhibit No. 124
Case No(s) WK2003-0500
Date 12-22-03 Rptr JT

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spherion.

1 page 7 of Exhibit 1 beginning at line 16. Depreciation
2 refers to the loss in service value not restored by current
3 maintenance, incurred in connection with the consumption or
4 prospective retirement of utility plant in the course of
5 service from causes which can reasonably -- be reasonably
6 anticipated or contemplated against which the company is not
7 protected by insurance.

8 Among the causes to be given consideration are
9 wear and tear, decay, action of the elements, inadequacy,
10 obsolescence, changes in the art, changes in demand, and
11 requirements of public authorities.

12 Q. And how do you go about estimating or
13 prescribing depreciation rates?

14 A. Well, I only estimate depreciation rates. I
15 go about it by determining first the service value of plant,
16 because depreciation is the loss in service value. I
17 determine service value by estimating the net salvage at
18 retirement related to the plant currently in service in
19 order to be able to deduct that net salvage from original
20 cost in determining service value.

21 I determine the net salvage amounts by
22 analyzing historical indications of net salvage as a percent
23 of the property being retired, by considering the age at
24 which the property has been retired historically as compared
25 to the ages at which it will be retired in the future, and

1 by benchmarking the results of those analyses against
2 estimates of net salvage by other electric utilities.

3 Having determined the service value, I then
4 estimate the service life over which the service value is to
5 be allocated. I estimate the service life by analyzing
6 those same historical retirements for the ages at which they
7 were retired using the retirement rate method. This
8 provides me with indications both of average service life
9 and service life dispersion.

10 I have discussions with utility management
11 regarding their outlook for that property and the extent to
12 which they believe the future forces of retirement will be
13 the same or different from past causes of retirement. I
14 then, again, benchmark the results of those considerations
15 against the estimates made by other electric utilities in
16 arriving at my final estimate of service life.

17 Finally, in order to calculate the
18 depreciation rate based on those parameters, I determine the
19 group procedure and basis for use, typically using the
20 precedent of the jurisdiction in which I am making the
21 estimation for. And then calculate the annual accrual rate,
22 incorporating the parameters, the original costs and the
23 accumulated provision for depreciation for books in the
24 calculation.

25 Q. By way of shorthand or summary, you first

1 determine the -- from the historical records of the company
2 and your estimates of future net salvage, either positive or
3 negative, the amount or the value of the property that's to
4 be amortized over the depreciation period, if you will, the
5 average service life of the plant.

6 You then estimate the average service life
7 based on actuarial analysis of the history of placement of
8 properties and retirements of properties in individual plant
9 accounts and inform that actuarial analysis with your
10 judgment as a depreciation specialist and engineer. Is
11 that --

12 A. That's a reasonable shortcut. It leaves a few
13 things out, but that's a reasonable shortcut.

14 Q. (Indicating.)

15 A. Yes. I recognize it.

16 Q. Can you tell the Commission what it is?

17 A. The Statistical Analyses of Industrial
18 Property Retirements, Bulletin No. 125 of the Iowa State
19 University, written by Lobal Winfrey.

20 Q. And is this the basis or underpinning of the
21 retirement rate method of actuarial analysis?

22 A. I would not describe it as the underpinning.
23 It certainly describes in there the retirement rate method,
24 actually refers to it in there as the annual rate method.
25 That method goes back prior to that and is -- had been used

1 in the insurance industry for mortality studies of
2 individuals long before it was applied to industrial
3 property.

4 Q. For purposes of depreciation then, would you
5 say -- well, let me ask you this. Is this the source of
6 what is commonly referred to as the Iowa curves?

7 A. Yes, it is.

8 Q. And does it consist of both a mathematical
9 theoretical exposition of the procedures as well as
10 empirical studies that the engineering people at Iowa State
11 did to develop the Iowa curves?

12 A. Yes, it does.

13 Q. And does it discuss the development or
14 estimation of net salvage as part of the depreciation
15 calculation?

16 A. No, it does not. That's discussed in
17 Mr. Winfrey's textile Engineering Valuation and
18 Depreciation.

19 Q. Have you ever done a study of Union Electric
20 depreciation history to confirm that the actual cost to
21 remove a vintage of a particular plant account actually
22 matches amounts collected in rates from customers for that
23 purpose?

24 A. No. It -- it's not possible to take the
25 revenue received from a customer bill and determine what

1 portion of that revenue represents net salvage recovery.

2 Q. So that there is, to your knowledge, no
3 empirical study that shows that for a particular vintage
4 of -- say, a pole that was installed in 1950, that the
5 accrual for net salvage for that vintage matched what was
6 actually collected from customers?

7 A. As I indicated before, the company records
8 depreciation accruals on its books in accordance with
9 prescribed depreciation rates and the current balances in
10 plant. It is not possible to identify in its receipts from
11 customers the portion of those receipts attributable to each
12 operating expense account and each depreciation expense
13 account in vintage.

14 Q. Would you turn to page 16, lines 12 through 14
15 of your Rebuttal Testimony? There you say, and I quote, The
16 current net salvage cost should have been recovered during
17 the life of the plant to which it relates, end quote.

18 My understanding of your answer to my prior
19 line of questions, however, is that there is no empirical
20 study that affirms that that occurred?

21 A. That's correct. That's also correct with
22 respect to the original cost invested.

23 Q. On the next page, page 17, line 6 -- actually
24 on line 7 you talk about appropriate true-ups. What's your
25 understanding of a true-up?

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