

EXHIBIT

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Depreciation

Michael Majoros

Rebuttal

Public Counsel

ER-2004-0570

November 4, 2004

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

FILED

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Missouri Public
Service Commission

REBUTTAL TESTIMONY

of

MICHAEL MAJOROS

November 4, 2004

Exhibit No. 90
Case No(s). ER-2004-0570
Date 12-06-04 Rptr KF

1 **Introduction**

2 **Q. Please state your name, position and business address.**

3 A. My name is Michael J. Majoros, Jr. I am Vice President of Snavely King Majoros
4 O'Connor & Lee, Inc. ("Snavely King"), an economic consulting firm located at
5 1220 L Street, N.W., Suite 410, Washington, D.C. 20005.

6 **Q. Did you previously submit testimony in this proceeding?**

7 A. Yes, I submitted Direct Testimony on September 20, 2004.

8 **Q. Did that testimony contain a summary of your qualifications and**
9 **experience?**

10 A. Yes. Schedule MJM-1 is a summary of my qualifications and experience. It also
11 contains a tabulation of my appearances as an expert witness before state and
12 Federal regulatory agencies.

13 **Q. For whom are you appearing in this proceeding?**

14 A. I am appearing on behalf of the Missouri Office of the Public Counsel ("OPC").

15 **Q. What is the subject of your testimony?**

16 A. This testimony addresses depreciation.

17 **Q. Did your direct testimony set-forth your recommendations?**

18 A. Yes, it did.

19 **Purpose of Rebuttal Testimony**

20 **Q. What is the purpose of your rebuttal testimony?**

21 A. This testimony is in rebuttal to the depreciation-related testimony and schedules
22 of both The Empire District Electric Company ("Empire" or "the Company") and
23 the Missouri Public Service Commission's Utility Services Division ("Staff"). I

1 note that my primary disagreements are with the Company's position in that, with
2 the exception of certain lives, my recommendations are virtually the same as
3 those of the Staff.

4 **Depreciation Positions**

5 **Q. Will you please summarize the various depreciation proposals?**

6 A. Yes. Schedule MJM-1 summarizes the positions of the parties. Mr. Donald S.
7 Roff sponsors Empire's depreciation study and the resulting depreciation claim.
8 Based on June 30, 2004 plant balances, Mr. Roff's study results in revised
9 depreciation rates which produce a \$24.2 million increase in annual depreciation
10 expense. Staff witness Staff witness Gregory E. Macias proposes a \$1.8 million
11 depreciation expense decrease which is offset by Staff witness Leasha S. Teel's
12 recommended \$1.6 million normalized net salvage expense. I propose a \$2.1
13 million depreciation expense decrease plus a \$1.8 million net salvage allowance.

14 **Summary and Conclusions**

15 **Q. What is your opinion regarding the Company's depreciation proposal?**

16 A. In my opinion, the Company's depreciation proposal is unreasonable because it
17 will produce excessive depreciation expense which will, in turn, be charged to
18 ratepayers. The effect of this excessive depreciation would be tantamount to
19 charging ratepayers for capital or equity contributions. Empire's filing, through
20 Mr. Roff's testimony, is proposing not only depreciation rate changes, but major
21 reversals of several of this Commission's decisions just three years ago, which
22 neither Staff nor I are proposing. In my opinion Empire has failed to make a
23 persuasive case for such reversals. There is nothing new in Empire's filing that

1 should cause this Commission to change its rulings. Indeed, new accounting
2 principles tend to support and corroborate those rulings.

3 **Q. Why do you disagree with the Company's depreciation proposals?**

4 A. It is important to understand how Empire's proposed depreciation rates differ
5 from my proposed depreciation rates. I have the following disagreements.

- 6 • Mr. Roff is proposing an unnecessary change from the whole-life
7 technique that Empire requested and the Commission approved three
8 years ago, to the remaining life depreciation technique. I am
9 recommending retention of the whole-life technique.
- 10 • Mr. Roff is also proposing an unjustified initiation of the life span method
11 for Production plant even though that method was found to be
12 inappropriate, and was specifically rejected by this Commission for this
13 Company just three years ago. I am recommending retention of the
14 existing average service life method.
- 15 • Mr. Roff has also bundled future decommissioning and future net salvage
16 values in his proposed depreciation rates, even though the Commission
17 specifically rejected this practice in Case No. ER-2001-299, and even
18 though Empire does not have any obligation or liability to incur these
19 costs. Mr. Roff's net salvage proposal is beyond unreasonable; it is
20 outlandish. I am recommending retention of the Commission's current net
21 salvage approach.
- 22 • In addition to these failings, Mr. Roff's proposals are, at a minimum,
23 inconsistent with the transparency provided by a "separation principle"

1 reflected in current GAAP and regulatory accounting rules. These rules
2 corroborate this Commission's Orders in Empire's last depreciation case.

3 • Current GAAP accounting rules (SFAS No. 143) require that Mr. Roff's
4 proposed decommissioning and future negative salvage amounts be
5 identified as Regulatory Liabilities ("amounts owed") to ratepayers.

6 • Current regulatory accounting rules (FERC Order No. 631) require that Mr.
7 Roff's proposed decommissioning and future negative net salvage
8 amounts, which have been identified as "non-legal asset retirement
9 obligations," be specifically identified in separate sub-accounts within
10 depreciation expense and accumulated depreciation. Mr. Roff did not
11 identify these amounts, even though these new accounting rules were
12 promulgated well before he filed testimony in this case.

13 **Current Rates**

14 **Q. Please summarize Empire's present depreciation rates.**

15 A. Empire's present depreciation rates were approved almost exactly three years
16 ago in the Report and Order issued September 20, 2001, in Case No. ER-2001-
17 299. They are straight-line whole-life depreciation rates, and notably they do not
18 include a net salvage factor in the calculations.¹ Instead, the Commission ruled
19 that "net salvage cost considered in setting [service] rates should be based on
20 historical net salvage cost that Empire has actually incurred in the recent past
21 and that it should be treated as an expense."²

22
¹ Response to Public Counsel Data Request No. 817.

² Report and Order, Case No. ER-2001-299, September 20, 2001, page 12.

1 **Q. Do you agree with the Commission's logic and decision in that case?**

2 A. Yes. As I explained in my Direct Testimony, I agree with this Commission's logic
3 and, as I demonstrated, this Commission's requirement for separate identification
4 of net salvage cost has been corroborated by both recent GAAP
5 pronouncements and regulatory accounting rules.

6 **Q. Why is the Commission's decision in Case No. ER-2001-299 so important in**
7 **this case?**

8 A. Mr. Roff is proposing a complete reversal of the Commission's decision, a
9 rejection of the Commission's and its Staff's logic, and an unreasonable and
10 unsubstantiated increase to depreciation expense which will, if approved, come
11 straight out of Empire's customers' pockets. Given the severity and magnitude of
12 Mr. Roff's proposal, it is important to understand the Commission's decision and
13 logic in that case. I agree with the Commission's decision and logic, and in my
14 direct testimony I attempt to put the issues in context with a discussion of
15 fundamental depreciation concepts and excessive depreciation.

16 **Excessive Depreciation**

17 **Q. What is an excessive depreciation rate?**

18 A. An excessive depreciation rate is one that produces depreciation expense which
19 is more than necessary to return a company's capital investment over the life of
20 the asset.

21 **Q. Did you also discuss excessive depreciation in your direct testimony?**

22 A. Yes. I explained that this issue has actually been addressed by the U.S.

Supreme Court, in Lindheimer v. Illinois Bell Telephone Company,³ which I discussed in my Direct Testimony at pp. 10-11.

Q. What is the effect of an excessive depreciation rate?

A. Excessive depreciation rates produce excessive depreciation expense. In other words, if an excessive depreciation rate is applied to the plant balance, it results in excessive depreciation expense. Since depreciation expense flows dollar-for-dollar into the revenue requirement, excessive depreciation expense results in an excessive revenue requirement.

Q. Who pays for excessive depreciation rates?

A. Ratepayers pay for excessive depreciation rates.

Q. What is the result?

A. As the U.S. Supreme Court said, the result was the extraction of capital contributions from ratepayers, which the Court decided was inappropriate.

Q. Why are Empire's proposed depreciation rates excessive?

A. First they are based on lives that are too short; and second, they have been increased to provide for an unsupportable allowance for future negative net salvage.

Empire's Depreciation Parameters

Q. What are the fundamental parameters underlying Empire's proposed depreciation rates?

A. Empire's proposed depreciation rates are founded upon three fundamental parameters: a service life, a dispersion pattern and a net salvage ratio. Mr. Roff

³ 292 U.S. 151 (1934).

1 has used the remaining life technique to compute his proposed rates. My direct
2 testimony addresses both whole life depreciation and remaining life depreciation
3 rates. Since a central issue in this case is negative net salvage I also explained
4 that the inclusion of a negative net salvage factor increases a depreciation rate.

5 **Q. Would you please relate these fundamentals to the issues in this**
6 **proceeding?**

7 A. Yes. In depreciation analysis it is axiomatic that the shorter the life, the higher
8 the resulting depreciation rate. Some of Empire's proposed depreciation rates
9 are too high because they are based on life spans in the case of Production
10 plant, which are too short: the shorter the life, the higher the rate. If the life is too
11 short, the resulting rate is obviously excessive.

12 **Q. Is there any other reason that Empire's proposed depreciation rates are**
13 **excessive?**

14 A. Yes, most of Empire's proposed depreciation rates contain negative net salvage
15 factors which would charge far too much for future cost of removal because they
16 are far too negative. They result in excessive depreciation rates. I would like to
17 point out that Mr. Roff is actually proposing cost of removal ratios which, even if
18 his methodological change were to be approved, are so astronomical as to defy
19 reason. For example, Mr. Roff proposes a negative 250 percent for account 365
20 – Overhead Conductors and Devices. This is the single biggest non-production
21 account on Empire's books.

22 Increasing a cost of removal ratio increases the depreciation rate. If the
23 estimated -250% cost of removal ratio is not supportable, the resulting

1 depreciation rate is excessive. The combination of these two factors, i.e.,
2 understated lives and overstated cost of removal ratios, compounds the
3 excessive depreciation rate problem.

4 **Q. Do either Staff or you include net salvage ratios in your recommended**
5 **depreciation rates?**

6 A. No, both Staff and I adhere to the established "expensing" approach.

7 **Q. Please explain why net salvage is a significant issue in this proceeding.**

8 A. As discussed above, the Company's existing depreciation rates do not include a
9 provision for net salvage.⁴ Mr. Roff is proposing a net salvage methodology that
10 was specifically disallowed by this Commission just three years ago, when the
11 Company's current depreciation rates were established. Mr. Roff's proposal to
12 include net salvage in depreciation rates causes the majority of his proposed
13 increase in depreciation expense. Mr. Roff's net salvage proposals will result in
14 cost of removal charges to ratepayers of at least \$20.8 million per year versus
15 Empire's actual average net cost of removal experience of only \$1.8 million per
16 year. Setting aside any debates concerning appropriate depreciation accounting,
17 this is an unreasonable and unjustified request.

18 **Q. Do you agree with Mr. Roff's inclusion of net salvage ratios in the**
19 **depreciation rates?**

20 A. No, I do not. This Commission has required the expensing of net salvage which
21 is perfectly acceptable and keeps the Company whole.

⁴ Report and Order, Case No. ER-2001-299, September 20, 2001.

1 **Q. What is the Commission's Staff's recommendation regarding net salvage in**
2 **this case?**

3 A. Staff witness Teel recommends the same treatment for net salvage as has been
4 proposed by Staff and adopted by the Commission in the previous two Empire
5 rate cases.⁵ Staff has calculated an annual normalized level of net salvage
6 based on Empire's average actual experience for the five year period 1999
7 through 2003.⁶

8 **Q. What is your opinion of the Staff's position and the Commission's decision**
9 **in the prior case?**

10 A. Staff was correct and continues to be correct in recommending that net salvage
11 be based on actual historical experience. The Commission was correct in
12 accepting that recommendation. Furthermore, in my opinion, the implementation
13 and consequences of the Financial Accounting Standards Board's ("FASB")
14 Statement of Financial Accounting Standard No. 143 ("SFAS No. 143") and the
15 Federal Energy Regulatory Commission's ("FERC") Order No. 631 both
16 corroborate this practice. Those general rules are consistent with this
17 Commission's decision in Empire's last case. At a minimum, these new
18 accounting requirements will highlight any excess cost of removal charges to
19 ratepayers both in rate cases as well as in financial statements to stockholders.

20 **Q. Did you fully address net salvage in your direct testimony?**
21

⁵ Direct Testimony of Leasha S. Teel, page 14.

⁶ Id., page 13.

1 A. Yes, in order to fully address the net salvage issue, I approached it in the
2 following manner. First I addressed SFAS No. 143 and asset retirement
3 obligations. This was followed by a discussion of FERC Order No. 631. Next, I
4 discussed Production plant dismantlement costs. Finally, I discussed the net
5 salvage ratios included in Mr. Roff's Transmission, Distribution and General plant
6 depreciation rates.

7 **SFAS No. 143 and FERC Order No. 631**

8 **Q. Will you please summarize SFAS No. 143 and asset retirement obligations?**

9 A. SFAS No. 143 is a recent FASB pronouncement concerning the appropriate
10 accounting for long-lived assets. Pursuant to SFAS No. 143 all companies, both
11 unregulated (e.g. General Motors) and regulated (e.g. Empire) must review all of
12 their long-lived assets to determine whether or not they have actual legal
13 obligations to remove retired assets. These legal obligations for future removal
14 are called asset retirement obligations ("AROs"). They are capitalized (added to)
15 plant in service. For other assets, no such obligation exists. If a company does
16 not have such legal obligations, the future cost of removal will not be capitalized
17 and will not be included in depreciation expense. SFAS No. 143, therefore,
18 unbundles net salvage from depreciation rates.

19 **Q. What is the accounting impact of SFAS No. 143 for electric utilities?**

20 A. Under Generally Accepted Accounting Principles ("GAAP"), electric utilities are
21 required to review all of their assets to determine if they have any AROs. If yes,
22 they will be capitalized accordingly. Paragraph B73 of SFAS No. 143 provides
23 an exception for regulated utilities, which allows them to continue to incorporate

1 net salvage factors in depreciation rates even if they do not have AROs.
2 However, the quid pro quo is that the utilities are also required to determine the
3 amount of any prior cost of removal collections relating to non-AROs that is now
4 included in their accumulated depreciation accounts, and record these and any
5 such future charges as a regulatory liability to ratepayers. In other words SFAS
6 No. 143 provides transparency through reporting disclosure requirements.

7 **Q. Does Empire have any asset retirement obligations (AROs) pursuant to**
8 **SFAS No. 143?**

9 A. Yes. Upon review, the Company "identified future asset retirement obligations
10 associated with the removal of certain river water intake structures and
11 equipment at the Iatan Power Plant in which we have a 12% ownership." Empire
12 also has "a liability for future containment of an ash landfill at the Riverton Power
13 Plant."⁷

14 **Q. Has Empire recorded any impacts related to SFAS No. 143 on its books?**

15 A. Yes. The Company's December 31, 2003 Form 10K Report states:

16 Upon adoption of this statement in the first quarter of 2003,
17 we recorded a non-recurring discounted liability and a
18 regulatory asset of approximately \$630,000 because we
19 expect to recover these costs of removal in electric rates.
20 This liability will be accreted over the period up to the
21 estimated settlement date. The balance at the end of 2003
22 was approximately \$656,000. **Also, we reclassified the**
23 **accrued cost of dismantling and removing plant from**
24 **service upon retirement, which is not considered an**
25 **asset retirement obligation under FAS 143, from**
26 **accumulated depreciation to a regulatory liability. This**
27 **balance sheet reclassification had no impact on results**
28 **of operations. As of December 31, 2003 and 2002, this**
29 **reclassification was \$3.8 million and \$4.9 million,**

⁷ The Empire District Electric Company, December 31, 2003 Form 10K Report, page 31.

1 **respectively.** This estimated liability may be subject to
2 further refinement pending further analysis, including the
3 results of our depreciation study expected to be completed in
4 the first quarter of 2004.⁸
5

6 **Q. Do you have any concerns about Empire's implementation of SFAS No.**
7 **143?**

8 A. Yes, I do. As stated in my Direct Testimony, I have some concerns about the
9 \$630,000 and \$656,000 regulatory asset that Empire expects to recover in
10 electric rates. I am not yet satisfied that such recovery should be allowed.

11 **Q. What is the impact of SFAS No. 143 on electric regulatory accounting?**

12 A. The impact on regulatory accounting for electric utilities is that SFAS No. 143
13 evolved into FERC Order No. 631 in Docket RM02-7-000. FERC Order No. 631
14 resulted in changes to the USOA to incorporate the principles of SFAS No. 143.

15 **Q. What is the thrust of Order No. 631?**

16 A. Order No. 631 essentially adopts SFAS No. 143 and then integrates it into the
17 Uniform System of Accounts. As with SFAS No. 143, FERC Order No. 631
18 requires electric utilities to review their long-lived assets to determine whether
19 they have any AROs.

20 **Q. What does Order No. 631 require in situations where electric utilities do not**
21 **have AROs?**

22 A. Any charges for such amounts must be separately identified. FERC Order No.
23 631 defines cost of removal allowances for which there is no legal asset
24

⁸ The Empire District Electric Company, December 31, 2003 Form 10K Report, page 31 (emphasis added).

1 retirement obligation, as "non-legal retirement obligations." Past and future "non-
2 legal AROs" must be specifically identified and accounted for separately in the
3 depreciation studies, depreciation expense and the accumulated depreciation
4 account. In Order No. 631, FERC maintains the transparency resulting from the
5 "separation principle" for non-legal AROs that was established in paragraph B73
6 of SFAS No. 143.

7 **Q. What is the most important aspect of Order No. 631?**

8 A. The most important aspect of Order No. 631 is its requirement to separate or
9 unbundle non-legal cost of removal allowances from depreciation rates, i.e., the
10 separation principle. This is entirely consistent with the concerns expressed by
11 this Commission in Case No. ER-2001-299.

12 **Q. How much prior collections are included in Empire's accumulated**
13 **depreciation account?**

14 A. As of December 2003, Empire had collected \$3.8 million in excess net salvage.
15 Empire calculates that from 1980 through 2003 it has collected \$25.9 million in
16 net salvage through depreciation rates. Its actual experienced net salvage
17 during that same period was only \$22.1 million, thus a \$3.8 million excess
18 collection is included in accumulated depreciation.

19 **Q. Do you draw any inferences from this?**

20 A. Yes. Prior to Case No. ER-2001-299 in which this Commission went to an
21 expensing approach, it apparently allowed some net salvage in depreciation. But
22 those amounts appear to have been held very close to actual annual experience,

1 otherwise the Regulatory Liability to ratepayers would be much greater than the
2 \$3.8 million identified in Empire's 2003 SEC Form 10-K.

3 **Q. Is Empire proposing to include any additional future removal costs in its**
4 **depreciation rates?**

5 A. Yes. Mr. Roff's proposed depreciation rates are designed to charge ratepayers
6 about \$20.8 million per year for future removal costs.⁹ He would do this by
7 bundling net salvage ratios in depreciation rates. This charge would continue to
8 increase with plant balances. The net increase to the Regulatory Liability to
9 ratepayers would increase from \$3.8 million to about \$23 million immediately,
10 and grow by at least \$20 million each year thereafter. Mr. Roff's proposal is
11 unreasonable.

12 **Q. Can you demonstrate that Mr. Roff's proposal is unreasonable?**

13 A. Yes. The unreasonableness of Mr. Roff's proposal can be demonstrated in many
14 ways. For example, Mr. Roff proposes to collect approximately \$20.8 million in
15 net salvage costs annually, but the Company has only experienced \$22.1 million
16 in total cost of removal over the past 24 years. In other words, Mr. Roff proposes
17 to charge ratepayers an annual amount comparable to the total amount the
18 Company has spent since 1980.

19 **Q. Does Mr. Roff's proposal comply with FERC Order No. 631?**

20 A. Mr. Roff's proposal does not comply with FERC Order No. 631. The removal
21 costs he proposes to recover through depreciation rates are "non-legal AROs".
22

⁹ Difference between Empire's proposed depreciation expense with and without Mr. Roff's net salvage proposals.

1 Order No. 631 requires that these be accounted for separately as specifically
2 identifiable allowances within depreciation. Although I have estimated these
3 amounts at the \$20.8 million level, Mr. Roff has not specifically identified his
4 proposed annual allowances. He bundled them into remaining life depreciation
5 rates which further obfuscates their true identity and level.

6 **Q. What is your reaction to Empire's filing?**

7 A. My reaction is that even though Empire has implemented SFAS No. 143 and
8 apparently Order No. 631, it is proposing to charge much more to its ratepayers
9 for "non-legal" AROs than it would if it actually had legal obligations to remove
10 these assets. Mr. Roff has not disclosed that these excess charges represent
11 liabilities to ratepayers and he has not explained that these amounts are to be
12 specifically identified in separate subaccounts of depreciation expense and
13 accumulated depreciation. Although Mr. Roff is a "Director" with the public
14 accounting firm of Deloitte & Touche LLP, he has not discussed or even
15 addressed any of these significant accounting pronouncements.

16 **Q. What is Mr. Roff's nomenclature for these non-legal AROs?**

17 A. Mr. Roff defines two types of removal costs for the Production plant functions.
18 The first is terminal net salvage, or alternatively dismantlement or
19 decommissioning costs. The second is a provision for interim net salvage, based
20 on analysis of historical retirement, salvage and cost of removal activity.¹⁰ Mr.
21 Roff defines estimated removal costs for the Transmission, Distribution and
22 General functions as net salvage factors or net salvage ratios.

¹⁰ Roff Testimony, page 20.

Production Plant Net Salvage Estimates

Q. Did Mr. Roff incorporate decommissioning costs into his proposed production plant depreciation rates?

A. Yes. Mr. Roff included decommissioning costs in the form of negative net salvage ratios in his Steam, Hydraulic and Other Production plant depreciation rates. A portion of these negative net salvage ratios is related to terminal net salvage, or Mr. Roff's estimates of the cost of removal necessary when the plant is retired. These decommissioning cost estimates, in the form of negative net salvage ratios, increased Mr. Roff's Production plant depreciation rates.

Q. Did Mr. Roff have any Company-specific plans to base his terminal net salvage estimates on?

A. No. According to his testimony, "the Company has limited experience with the dismantlement of power plants." Mr. Roff relied on "the dismantlement estimates of other utilities."¹¹

Q. Do you agree with Mr. Roff's inclusion of these decommissioning cost estimates in Empire's depreciation rates?

A. I disagree with Mr. Roff's production plant decommissioning proposals. The Company has already implemented SFAS No. 143 and recorded the impacts on its books. Any remaining decommissioning costs are related to non-legal AROs, in other words, Empire has no obligation to spend this money. At a minimum, they should not be hidden in depreciation rates.

¹¹ Id.

1 **Q. Did Mr. Roff include any other net salvage estimates in his Production plant**
2 **depreciation rates?**

3 A. Yes. Mr. Roff also included a provision for interim net salvage in his depreciation
4 rates. Again, these are non-legal AROs. He calculates his interim net salvage
5 ratios for Production plant the same way he calculates his net salvage ratios for
6 Transmission, Distribution and General plant. That methodology, and the
7 problems with its use, are discussed below.

8 **Non-Production Plant Net Salvage Estimates**

9 **Q. Does Empire propose to charge net salvage to ratepayers for its non-**
10 **production plant accounts?**

11 A. Yes. Mr. Roff has included negative net salvage ratios in most of his proposed
12 transmission and distribution plant depreciation rates, as well as the depreciation
13 rate for one of the general plant accounts.¹² As explained above, negative future
14 net salvage ratios increase depreciation rates.

15 **Q. How did Mr. Roff estimate his proposed future net salvage ratios for**
16 **Transmission, Distribution and General plant accounts?**

17 A. Mr. Roff prepared summaries of annual retirements and net salvage, which he
18 used as a basis for his future net salvage proposals. My direct testimony
19 contains a hypothetical net salvage study as an example. It demonstrates that
20 net salvage ratios as developed by Mr. Roff will result in inflated depreciation
21 rates. Net salvage ratios as developed by Mr. Roff depend on the relationship of
22 the cost of removal as a percentage of the original cost of the assets retired. The

¹² Mr. Roff has estimated positive net salvage for four of the General plant accounts.

1 timing mismatch within this relationship results in an inflated negative net salvage
2 ratio which is then bundled into the depreciation rate calculation.

3 **Q. Do Mr. Roff's net salvage studies suffer from this mismatch?**

4 A. Yes, Mr. Roff's net salvage studies suffer from a mismatch in the value of dollars
5 between the installation and removal dates of their retired assets. This mismatch
6 leads to his exorbitant current charges to current ratepayers for an inflated future
7 cost of removal.

8 **Q. Is there a simple explanation for the exorbitant current charges?**

9 A. Yes, Mr. Roff's future net salvage ratios are inflated, but not reduced to their fair
10 value. They result in excessive cost of removal charges because these inflated
11 net salvage ratios are applied to current plant balances. Thus, current
12 ratepayers would pay for inflated removal costs that are not expected to occur.

13 **Q. How much future net salvage is incorporated in the Company's**
14 **depreciation request?**

15 A. Because the amount varies with changes in plant balances, it is difficult to
16 determine the precise amount of net salvage. I estimate however, that there is a
17 minimum of \$20.8 million of annual **negative** net salvage charges included in
18 Empire's overall depreciation request. This amount includes the terminal net
19 salvage discussed above.

20 **Q. How much actual net salvage has the Company been experiencing?**

21 A. Over the five years ending 2003 the Company has experienced \$1.8 million in
22 positive net salvage on average. However, in 2001 Empire experienced a large
23 amount of salvage in the Other Production plant function, which represented the

1 sale of a portion of Unit 2 of the State Line Power Plant to Westar Generating
2 Inc.¹³ Due to the unique nature of this salvage experience, I have also calculated
3 the Company's five-year average net salvage experience leaving the 2001 Other
4 Production salvage out of the equation. Disregarding the 2001 salvage for Other
5 Production, the Company has experienced an average of \$1.8 million in
6 **negative** net salvage over the past five years. This calculation is shown in the
7 net salvage section of Schedule MJM-2, attached to my Direct Testimony.

8 **Q. What do you make of the level of cost of removal in Mr. Roff's proposal?**

9 A. As I explained earlier, the unreasonableness of Mr. Roff's proposal can be
10 demonstrated in many ways. Mr. Roff is proposing to charge ratepayers
11 approximately \$20.8 million per year for a cost that averages only \$1.8 million per
12 year. That is a substantial mismatch. It seems to me that common sense
13 supports continuation of this Commission's current practices and that Mr. Roff
14 and Empire have a special burden to attempt to support a \$19 million differential
15 (\$20.8 million less \$1.8 million) annually, based on a speculative future
16 expenditure that Empire has no legal obligation to incur. If this Commission were
17 to accept such an excess charge, GAAP and the SEC will require that it be
18 reported as a regulatory liability and if recent activity is indicative of any utility's
19 intent with respect to this money, they will try everything in their power to take it
20 into income and never return it to ratepayers. See Schedule MJM-4 to my Direct
21 Testimony, pages 21 and 24.

22 **Q. Are you familiar with Empire's approach?**

¹³ Response to Public Counsel Data Request No. 884.

1 A. Yes. In certain other jurisdictions, utilities have used this approach. It is
2 addressed in the NARUC's 1996 Public Utilities Depreciation Practices Manual.

3 On the other hand, the same NARUC Manual also states:

4 "Some commissions have abandoned the
5 above procedure [gross salvage and cost of
6 removal reflected in depreciation rates] and
7 moved to current-period accounting for gross
8 salvage and/or cost of removal. In some
9 jurisdictions gross salvage and cost of removal
10 are accounted for as income and expense,
11 respectively, when they are realized. Other
12 jurisdictions consider only gross salvage in
13 depreciation rates, with the cost of removal
14 being expensed in the year incurred."¹⁴

15
16 The NARUC depreciation manual further opines on the underlying rationale for
17 treating removal cost as a current-period expense, instead of incorporating it in
18 depreciation rates:

19 "It is frequently the case that net salvage for a
20 class of property is negative, that is, cost of
21 removal exceeds gross salvage. This
22 circumstance has increasingly become
23 dominant over the past 20 to 30 years; in some
24 cases negative net salvage even exceeds the
25 original cost of plant. Today few utility plant
26 categories experience positive net salvage; this
27 means that most depreciation rates must be
28 designed to recover more than the original cost
29 of plant. The predominance of this
30 circumstance is another reason why some
31 utility commissions have switched to current-
32 period accounting for gross salvage and,
33 particularly, cost of removal."¹⁵
34

¹⁴ NARUC Manual, page 157.

¹⁵ Id., page 158.

1 Setting aside ratemaking, one of the mechanical problems with this approach is
2 that it can result in a depreciation reserve actually exceeding the gross plant
3 balance. That is because, as I explained in the depreciation concepts section in
4 my Direct Testimony, the depreciation rate is excessive, that is it is more than
5 necessary to fully depreciate the plant. Therefore, at the end of its life, the
6 accumulated depreciation account exceeds the plant account balance. This is
7 one of the reasons I believe that Mr. Roff's approach is inconsistent with
8 fundamentals and principles of current practices regarding cost, capital recovery,
9 and cost of removal. The accumulated depreciation and depreciation expense
10 should be designed to recover the original costs, not something more.

11 **Q. Please summarize your net salvage recommendations.**

12 A. I recommend rejecting Empire's request to include \$20.8 million of cost of
13 removal in determining the depreciation rates for its plant accounts. Empire's
14 annual net salvage request is 10 times its actual annual experience and almost
15 equal to its total experience for the past 24 years. Empire's proposal is not
16 consistent with current GAAP regardless of the exception provided by paragraph
17 B73 of SFAS No. 143, and it is not consistent with current regulatory accounting
18 principles. The amount is not specifically identifiable; it can only be estimated,
19 since it is bundled into Mr. Roff's proposed depreciation rates, and it will change
20 each year as plant balances change. It has not been identified as a Regulatory
21 Liability in the Company's filing. At a minimum, Mr. Roff has been disingenuous
22 in not highlighting these amounts and the new accounting rules. Considering

these numbers in light of SFAS No. 143 and FERC's Order No. 631, it is impossible to even rationalize Empire's \$20.8 million request.

As an alternative, in my Direct Testimony I have recommended an unbundled specific identifiable net salvage allowance that can be included as a component of depreciation expense and recorded in accumulated depreciation. Based on the Company's actual average experience for the years 1999 through 2003, this amount is \$1.8 million. This approach will separately identify such information to facilitate external reporting, regulatory analysis, and for rate setting purposes. My recommendation is consistent with paragraphs 36 and 38 of the FERC's Order No. 631 in its Docket No. RM02-7-000, issued April 9, 2003, and it is consistent with this Commission's Decision in Case No. ER-2001-299, and Staff's recommendation in this case.

Q. What significant numbers are involved in the net salvage issue?

A. There are three significant numbers. The first is the \$3.8 million of net salvage that Empire has already charged to customers. The second is the amount of inflated estimated future cost of removal bundled in Mr. Roff's depreciation rates for all functions, i.e., including production. The third is its actual recent net salvage experience. These amounts are listed below:

Table 1

<u>Net Salvage Amounts</u>	<u>Annual Amount</u>
Regulatory Liability Included in Depreciation Reserve	\$ 3.8 million
Bundled in Roff Rates	\$ 20.8 million
Actual Recent Experience	\$ 1.8 million

1 The Commission can use these three numbers to judge the
2 reasonableness of any specific identifiable annual allowance it grants to the
3 Company. In my opinion, the allowance should be \$1.8. To grant the \$20.8
4 million would be tantamount to providing Empire with \$20.8 million of additional
5 before-tax income each year.

6 **Q. Do you have any empirical evidence that would suggest that amounts such**
7 **as these are tantamount to providing additional pre-tax income?**

8 A. Yes. While it was still regulated, the telephone industry collected substantial
9 amounts of future cost of removal through depreciation, just as Mr. Roff is
10 proposing here. Upon deregulation and the adoption of SFAS No. 143, the major
11 telephone companies took \$11.5 billion from accumulated depreciation into net
12 income. This is a monumental intergenerational inequity.¹⁶

13 **Q. How about the electric industry?**

14 A. At least one major electric utility, American Electric Power, which had several of
15 its Production plants deregulated, immediately took \$473 million from
16 accumulated depreciation and transferred it into income relating to those
17 deregulated plants, another monumental intergenerational inequity.¹⁷

18 **Q. Does the 5-year average allowance approach you are recommending result**
19 **in the abandonment of accrual accounting?**

20 A. No. Accrual accounting is the recognition of revenue when earned and expenses
21 when incurred. SFAS No. 143 and Order No. 631 preclude recording AROs for
22

¹⁶ See Schedule MJM-4, page 21.

¹⁷ *Id.*, page 24.

1 non-legal retirements because there is no legal obligation to incur such costs.
2 Mr. Roff is attempting to accrue an expense for which Empire has no liability.
3 Consider that GAAP is founded upon accrual accounting, and SFAS No. 143 is
4 GAAP.

5 **Q. Does this conclude your discussion of net salvage?**

6 A. Yes, I will now discuss life studies.

7 **Life Study Methods**

8 **Q. Please describe life analysis and life estimation.**

9 A. Life analysis is the process of estimating how long plant has lived in the past.
10 Life estimation is the process of estimating how long the existing plant will live in
11 the future. Mr. Roff used two basic methods: the life span method and the
12 retirement-rate actuarial method. Mr. Roff used the life span method for the
13 Production Plant functions and the retirement-rate method for the Transmission,
14 Distribution and General functions. My primary dispute is with Mr. Roff's use of
15 the life span method, which was rejected in the last case.

16 **Mr. Roff's Production Plant Life Span Depreciation Rate Calculations**

17 **Q. Please explain the life span method in more detail.**

18 A. The life span method is actually a procedure to estimate an average service life
19 and average remaining life for a property group. It is based on the assumption
20 that a property group is comprised of a small number of large units subject to
21 concurrent terminal (final) retirement. The period between the original installation
22 and the terminal retirement date is the life span. The period between the study
23 date and the terminal retirement date is the remaining life span. The life span

1 method also recognizes "interim" additions and retirements prior to the terminal
2 date. Importantly, however, future interim additions are not considered in the
3 depreciation base or depreciation rate until they occur.¹⁸ Given the ease of
4 visualizing a concurrent final retirement of major structures, the life span method
5 has obvious intuitive appeal. The method also has limitations and strenuous
6 rules for its application.

7 **Q. What terminal retirement years is Mr. Roff proposing for his production**
8 **plant investment?**

9 A. Mr. Roff's proposed life spans range from 28 to 58 years for Steam Production
10 units, 91 years for Hydraulic Production units and 26 to 44 years for Other
11 Production units.

12 **Q. Are these terminal retirement years and remaining life spans realistic?**

13 A. In my opinion, several of them are much too short.

14 **Q. Can the Company support these retirement years?**

15 A. No. As will be discussed below, with the possible exception of Riverton Units 7
16 and 8, the Company cannot support its proposed terminal retirement years.

17 **Q. Are these terminal retirement years important?**

18 A. Yes. The terminal (final) retirement year is the most important factor in the
19 determination of a life span depreciation rate.

20 **Q. What is the effect of these life spans and the life span method?**

¹⁸ Id., p. 142.

A. The adoption of the life span method using these life spans, to which neither Mr. Roff nor the Company planners will commit, appears to account for a majority of Mr. Roff's remaining increase after the \$20.8 million of negative net salvage.

Q. What is the viewpoint of NARUC on the subject of terminal retirement years?

A. Chapter X of the NARUC Manual addresses the life span method. It stresses that the final retirement date is the most important factor in the determination of a depreciation rate using the life span method.¹⁹ The NARUC Manual requires consideration of several specific factors in order to develop an informed estimate of the final retirement date.²⁰ The NARUC Manual elaborates on the need for the consideration of these factors as follows:

Economic Studies and Retirement Plans

Retirement plans for utility properties are supported by various kinds of studies, including economic analyses. It is critical that this vital information be considered; otherwise the [life span] study is analogous to a building which is structurally well built from the ground up but lacking a sound and proper foundation. Retirement decisions should be based on sound engineering and economic principles and practices so that management may be confident that the planned retirement of existing plant and approval of new investment are the most economical actions.²¹

The final retirement date is the most important factor in the determination of depreciation rate using the life span method. The NARUC Manual sets-forth

¹⁹ NARUC Manual, p. 146.

²⁰ Id.

²¹ Id. (Emphasis added).

1 limitations and strenuous rules for the application of the life span method. The
2 NARUC Manual elaborates on the need for the consideration of these factors as
3 follows:

4 **Selecting Retirement Dates**

5
6 As indicated in the above discussion, the final retirement
7 date is the most important factor in the determination of a
8 depreciation rate for life span properties. Therefore, an
9 informed estimate of the final retirement date is essential to
10 ensure adequate recognition of depreciation over the life of
11 the property. Several factors are considered in selecting
12 retirement dates, e.g. economic studies, retirement plans,
13 forecasts, technological obsolescence, adequacy of
14 capacity and competitive pressure.²²

15
16 **Q. What does Mr. Roff have to say about the life spans he is proposing?**

17 **A. Mr. Roff's study states:**

18 "...the service life span of each generating unit was
19 estimated based on unit retirement dates provided by
20 Company planning personnel. The dates were used
21 solely to establish a reasonable accounting period
22 over which to allocate costs as required by
23 depreciation accounting principles.

24
25 ...the units may continue to operate beyond the dates
26 shown, depending on their condition and the
27 economics of continuing to operate..."²³

28
29 **Q. Does the Company have any of the studies, plans, or forecasts specified in**
30 **the NARUC depreciation practices manual to support any of its terminal**
31 **retirement year and life span estimates?**

32 **A. No. Data Request No. 812, attached as Schedule MJM-5 to my Direct**
33 **Testimony addressed this issue. According to the Company, "Each of these**

²² Id. (Emphasis added.)

²³ Schedule DSR-3, pages 2-3.

1 factors was given implicit consideration when determining the retirement dates in
2 the depreciation study."²⁴ It appears that the Company does not have any
3 studies, plans or forecasts to support its terminal retirement year estimates. In
4 fact, Mr. Roff states in his depreciation study that "At this point in time, there is no
5 commitment on the part of Empire to retire units on the dates indicated."²⁵
6 Additionally, the **Highly Confidential** "Strategic Planning Assistance to Develop
7 a Generation Expansion Plan" referenced in the response to Data Request No.
8 854, generally does not correspond to these retirement dates.²⁶

9 **Q. Are there any other indications in the Company's responses to data**
10 **requests that at least some of Mr. Roff's proposed retirement dates are**
11 **suspect?**

12 **A.** Yes. Schedule MJM-5 consists of selected pages from the Company's response
13 to Data Request No. 804, which asked for all information provided to Mr. Roff
14 from Company management. Page 2 of the Schedule shows notes indicating
15 that the retirement date for Asbury could be 2030, instead of 2014 as Mr. Roff
16 proposes. Also, the response to Data Request No. 881, attached as Schedule
17 MJM-6 to my Direct Testimony shows some very large capital improvements
18 budgeted for Asbury, Iatan and Energy Center in 2005 through 2007.

²⁴ Response to Public Counsel Data Request No. 812.

²⁵ Depreciation Study, page 7.

²⁶ Strategic Planning Assistance to Develop a Generation Expansion Plan, Black & Veatch, September 2003, Table 2-3. **Document is marked Highly Confidential.**

Furthermore, in the prior case, both the Company and Staff agreed that the appropriate life span for the State Line Combined Cycle plant should be 35 years. In this case, Mr. Roff has reduced this to 30 years.

Q. Did the Company propose the use of the life span method in the last proceeding?

A. Yes, they did. Empire calculated Production plant depreciation rates in Case No. ER-2001-299 using the same estimated retirement dates they are proposing to use in this case.

Q. Did the Commission accept those retirement dates in Case No. ER-2001-299?

A. No. In fact, as discussed in my Direct Testimony, the Commission stated that the Company's proposed retirement dates in that case, which for the most part are the same as those proposed in this case, were not "credible".²⁷

Q. Has Mr. Roff added anything in his testimony or study or responses to data requests which enhances the credibility of the retirement dates?

A. No.

Q. Do you agree with Mr. Roff's proposed use of the life span method in this proceeding?

A. I do not agree with Mr. Roff's life span proposal in this proceeding. Not only has he not met the NARUC's stringent requirements for the use of the life span method, he has not even attempted to enhance the credibility of the retirement dates and method that the Commission rejected just three years ago:

²⁷ Report and Order, Case No. ER-2001-299, September 20, 2001, page 10.

1 **Q. What do you recommend?**

2 A. I recommend the continued use of the average service life method that this
3 Commission approved in the last study. This is the method recommended by
4 Staff in the prior case, and accepted by the Commission in that case. My Direct
5 Testimony sets forth my recommended average service lives for Production
6 Plant.

7 **Q. What has Staff recommended regarding Production Plant lives in this**
8 **case?**

9 A. Staff witness Macias has recommended that the existing lives and depreciation
10 rates continue to be used for Production Plant.²⁸ In other words, he has
11 recommended against the use of the life span method in calculating Empire's
12 Production Plant depreciation rates, just as the Staff did in the prior case.

13 **Q. How do your recommended average service lives compare with those the**
14 **Commission Staff recommended in the prior case and this case?**

15 A. The following table provides that comparison:
16

²⁸ Direct Testimony of Gregory E. Macias, page 3.

Production Plant Average Service Lives

	ASL	
	<u>Current/Staff</u>	<u>Majoros</u>
<u>Steam Production Plant</u>		
311.0 Structures & Improvements	95	93
312.0 Boiler Plant Equipt.	54	52
312.7 Unit Train	15	15
314.0 Turbogenerator Units	63	56
315.0 Accessory Electric Equipt.	56	58
316.0 Misc. Power Plant Equipt.	51	56
<u>Hydraulic Production Plant</u>		
331.0 Structures & Improvements	61	64
332.0 Reservoirs, Dams & Waterways	60	82
333.0 Waterwheels, Turbines & Generators	68	88
334.0 Accessory Electric Equipt.	70	70
335.0 Misc. Power Plant Equipt.	41	43
<u>Other Production Plant</u>		
341.0 Structures & Improvements	55	55
342.0 Fuel Holders, Producers & Accessories	26	26
343.0 Prime Movers	52	52
344.0 Generators	55	55
345.0 Accessory Electric Equipt.	28	28
346.0 Miscellaneous Power Plant Equipt.	25	25

Q. Do you disagree with Staff's recommendation to keep the existing Production Plant lives in this case?

A. I have no strong objections to retaining the existing lives, however, my recommendations are based on more recent studies, and from that perspective are more up-to-date.

Transmission, Distribution and General Functions

Q. Did you review Mr. Roff's estimated service lives for these functions?

A. Yes. As discussed in my Direct Testimony, I performed an extensive review of Mr. Roff's proposed lives in the Transmission, Distribution and General functions.

1 I also conducted my own independent analyses to verify the reasonableness of
2 Mr. Roff's proposals.

3 **Q. Did your analyses result in any changes to the service lives and curves**
4 **proposed by Mr. Roff?**

5 A. No. I have accepted all of Mr. Roff's proposals in these functions. While I did
6 have some disagreement, other issues in this case overwhelm the importance of
7 those disagreements.

8 **Q. Has the Staff recommended a change in the proposed average service lives**
9 **for these functions?**

10 A. Yes. Mr. Macias has recommended different service lives based on the results
11 of his analyses.

12 **Q. Do you agree with Mr. Macias's recommended lives?**

13 A. I have no disagreement with the use of Mr. Macias's recommended lives. As
14 with Production Plant, the Staff and I are very close in our recommendations.

15 **Whole-Life Depreciation Rate Calculations**

16 **Q. How did Mr. Roff calculate his proposed depreciation rates?**

17 A. As discussed earlier in my testimony, Mr. Roff has calculated remaining life
18 depreciation rates.

19 **Q. Does the Company currently use remaining life depreciation rates?**

20 A. No. The Company's existing rates are whole-life rates.

21 **Q. Do you object to Mr. Roff's use of remaining life depreciation rates?**

22 A. Yes, I do. There is no necessity to switch to the remaining life method. I
23 explained in the concepts section of my Direct Testimony that remaining life

1 depreciation is often used to account for depreciation reserve imbalances. The
2 resulting rates are correct and accurate for existing plant.

3 **Q. What do you recommend?**

4 A. I recommend the continued use of whole-life rates. In my opinion, there is no
5 need for Empire to switch to remaining life rates.

6 **Q. Does your recommendation comport with Staff's recommendation on this**
7 **issue?**

8 A. Yes.

9 **SUMMARY**

10 **Q. Please summarize your conclusions.**

11 A. In general:

- 12 • I disagree with Mr. Roff's inclusion of net salvage as a component of the
13 Company's proposed depreciation rates. This is inconsistent with the
14 current Commission Order regarding net salvage. It is also inconsistent
15 with the Staff's recommendation in this case. Staff and I have both
16 recommended the use of a five-year average normalized amount for net
17 salvage.
- 18 • I disagree with Mr. Roff's use of the life span method in his calculation of
19 the depreciation rates for Production Plant. As with net salvage, the use
20 of life span is inconsistent with the current Commission Order regarding
21 Empire's depreciation rates. I have calculated depreciation rates for
22 Production plant using the average service life method instead of the life

1 span method. My results are similar to those of the Staff, although Staff
2 recommends the continued use of the existing lives for these accounts.

3 • I disagree with Mr. Roff's proposed switch to remaining life depreciation
4 rates. As such, I have calculated whole life depreciation rates based on
5 my findings. Again, my recommendation in this area matches that of the
6 Staff witness.

7 **Q. Does this conclude your testimony?**

8 **A.** Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the tariff filing of The)
Empire District Electric Company)
to implement a general rate increase for)
retail electric service provided to customers)
in its Missouri service area.)

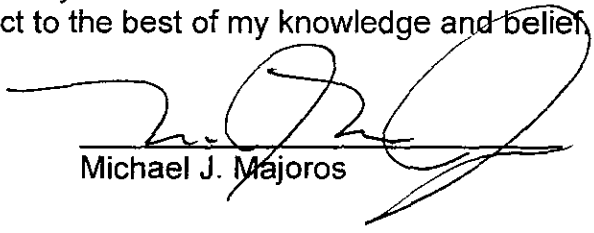
Case No. ER-2004-0570

AFFIDAVIT OF MICHAEL J. MAJOROS

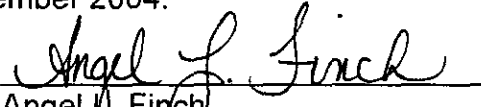
Washington,)
) SS
District of Columbia)

Michael J. Majoros, of lawful age and being first duly sworn, deposes and states:

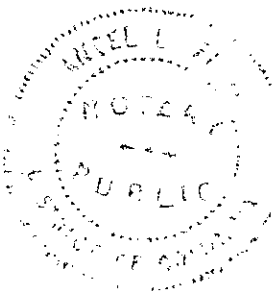
- 1) My name is Michael J. Majoros, Jr. I am Vice President of Snavelly King Majoros O'Connor & Lee, Inc. ("Snavelly King"), an economic consulting firm located at 1220 L Street, N.W., Suite 410, Washington, D.C. 20005.
- 2) Attached hereto and made a part hereof for all purposes is my rebuttal testimony consisting of pages 1 through 35 and Schedule MJM-1.
- 3) I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.


Michael J. Majoros

Subscribed and sworn to be this 4th day of November 2004.


Angel L. Finch
Notary Public

My commission expires March 14, 2006.



ER-2004-0570
THE EMPIRE DISTRICT ELECTRIC COMPANY
Comparison of Depreciation Rates and Annual Amounts

Account Number	Description	Original Cost 6/30/04 \$	Existing Ordered			Company Proposal				Majoros Recommendation				Staff Recommendation			
			ASL (Years)	Depreciation Rate %	Annual Accrual \$	ASL (Years)	Iowa Curve	Depreciation Rate %	Annual Accrual \$	ASL (Years)	Iowa Curve	Depreciation Rate %	Annual Accrual \$	ASL (Years)	Iowa Curve	Depreciation Rate %	Annual Accrual \$
STEAM PRODUCTION PLANT																	
RIVERTON																	
311.0	Structures and Improvements	8,467,460	95	1.05	88,908			14.37	1,216,774	93		1.08	91,048	95		1.05	88,908
312.0	Boiler Plant Equipment	21,727,092	54	1.85	401,951			7.22	1,568,696	52		1.92	417,829	54		1.85	401,951
314.0	Turbogenerator Units	6,514,048	63	1.59	103,573			4.57	297,692	56		1.79	116,322	63		1.59	103,573
315.0	Accessory Electric Equipment	1,299,877	56	1.79	23,268			0.79	10,269	58		1.72	22,412	56		-	0
316.0	Miscellaneous Power Plant Equipment	1,075,367	51	1.96	21,077			10.52	113,129	56		1.79	19,203	51		1.96	21,077
	Total Riverton	39,083,844		1.63	638,778			8.20	3,206,560				666,814			1.57	615,510
ASBURY																	
311.0	Structures and Improvements	9,169,966	95	1.05	96,285			6.91	633,645	93		1.08	98,602	95		1.05	96,285
312.0	Boiler Plant Equipment	66,841,958	54	1.85	1,236,576			7.71	5,153,515	52		1.92	1,285,422	54		1.85	1,236,576
312.7	Unit Train	5,580,296	15	6.67	372,206			1.34	74,776	15		6.67	372,020	15		6.67	372,206
314.0	Turbogenerator Units	20,730,452	63	1.59	329,614			6.36	1,318,457	56		1.79	370,187	63		1.59	329,614
315.0	Accessory Electric Equipment	6,348,259	56	1.79	113,634			7.74	491,355	58		1.72	109,453	56		1.79	113,634
316.0	Miscellaneous Power Plant Equipment	1,623,435	51	1.96	31,819			5.37	87,178	56		1.79	28,990	51		1.96	31,819
	Total Asbury	110,294,366		1.98	2,180,134			7.03	7,758,926				2,264,673			1.98	2,180,134
IATAN																	
311.0	Structures and Improvements	3,997,069	95	1.05	41,969			3.30	131,903	93		1.08	42,979	95		1.05	41,969
312.0	Boiler Plant Equipment	31,103,431	54	1.85	575,413			2.21	687,386	52		1.92	598,143	54		1.85	575,413
314.0	Turbogenerator Units	8,252,043	63	1.59	131,207			3.14	259,114	56		1.79	147,358	63		1.59	131,207
315.0	Accessory Electric Equipment	3,689,765	56	1.79	66,047			2.88	106,265	58		1.72	63,617	56		1.79	66,047
316.0	Miscellaneous Power Plant Equipment	872,216	51	1.96	17,095			4.16	36,284	56		1.79	15,575	51		1.96	17,095
	Total Iatan	47,914,524		1.74	831,732			2.55	1,220,953				867,672			1.74	831,732
	Total Steam Production	197,292,734		1.85	3,650,644			6.18	12,186,438				3,799,159			1.84	3,627,376
HYDRAULIC PRODUCTION PLANT																	
OZARK BEACH																	
331.0	Structures and Improvements	556,389	61	1.64	9,125			4.06	22,589	64		1.56	8,694	61		1.64	9,125
332.0	Reservoirs, Dams and Waterways	1,461,404	60	1.67	24,405			0.99	14,468	82		1.22	17,822	60		1.67	24,405
333.0	Waterwheels, Turbines and Generators	1,305,038	68	1.47	19,184			4.06	52,985	88		1.14	14,830	68		1.47	19,184
334.0	Accessory Electric Equipment	812,324	70	1.43	11,616			5.27	42,809	79		1.27	10,283	70		1.43	11,616
335.0	Miscellaneous Power Plant Equipment	348,853	41	2.44	8,512			3.67	12,803	43		2.33	8,113	41		2.44	8,512
	Total Hydraulic Production	4,484,008		1.62	72,843			3.25	145,654				59,741			1.62	72,843
OTHER PRODUCTION PLANT																	
RIVERTON CT																	
341.0	Structures and Improvements	193,357	55	1.82	3,519			4.97	9,610	55		1.82	3,516	55		1.82	3,519
342.0	Fuel Holders, Producers and Access.	87,123	26	3.85	3,354			4.78	4,164	26		3.85	3,351	26		3.85	3,354
343.0	Prime Movers	10,147,180	52	1.92	194,826			6.15	624,052	41		2.44	247,492	52		1.92	194,826
344.0	Generators	926,850	55	1.82	16,869			4.87	45,138	55		1.82	16,852	55		1.82	16,869
345.0	Accessory Electric Equipment	315,835	28	3.57	11,275			5.29	16,708	28		3.57	11,280	28		3.57	11,275
346.0	Miscellaneous Power Plant Equipment	83,907	25	4.00	3,356			3.65	3,063	25		4.00	3,356	25		4.00	3,356
	Total Riverton CT	11,754,252		1.98	233,199			5.98	702,734				285,847			1.98	233,199
ENERGY CENTER CT																	
341.0	Structures and Improvements	1,883,126	55	1.82	34,273			2.33	43,677	55		1.82	34,239	55		1.82	34,273
342.0	Fuel Holders, Producers and Access.	1,209,362	26	3.85	46,560			(1.77)	(21,406)	26		3.85	46,514	26		-	0
343.0	Prime Movers	25,638,096	52	1.92	492,251			4.69	1,202,427	41		2.44	625,319	52		1.92	492,251
344.0	Generators	4,160,383	55	1.82	75,719			2.57	106,922	55		1.82	75,643	55		1.82	75,719
345.0	Accessory Electric Equipment	339,416	28	3.57	12,117			(0.46)	(1,561)	28		3.57	12,122	28		3.57	12,117
346.0	Miscellaneous Power Plant Equipment	1,253,520	25	4.00	50,141			2.87	33,489	25		4.00	50,141	25		4.00	50,141
	Total Enervg Center CT	34,483,903		2.06	711,062			3.95	1,363,727				843,978			1.93	664,501

ER-2004-0570
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ENERGY CENTER JET ENGINES																	
341.0	Structures and Improvements	1,116,048	55	1.82	20,312			3.45	38,504	55		1.82	20,292	55		1.82	20,312
344.0	Generators	40,177,715	55	1.82	731,234			3.43	1,378,096	55		1.82	730,504	55		1.82	731,234
345.0	Accessory Electric Equipment	2,232,095	28	3.57	79,686			3.40	75,891	28		3.57	79,718	28		3.57	79,686
346.0	Miscellaneous Power Plant Equipment	12,276,524	25	4.00	491,061			3.40	417,402	25		4.00	491,061	25		4.00	491,061
	Total Energy Center Jet Engines	55,802,382		2.37	1,322,293			3.42	1,909,892				1,321,574			2.37	1,322,293
STATE LINE CT																	
341.0	Structures and Improvements	4,130,748	55	1.82	75,180			3.23	133,423	55		1.82	75,105	55		1.82	75,180
342.0	Fuel Holders, Producers and Access.	3,380,804	26	3.85	130,161			3.24	109,538	26		3.85	130,031	26		3.85	130,161
343.0	Prime Movers	42,664,185	52	1.92	819,152			3.39	1,446,316	41		2.44	1,040,590	52		1.92	819,152
344.0	Generators	11,268,284	55	1.82	205,083			3.18	358,331	55		1.82	204,878	55		1.82	205,083
345.0	Accessory Electric Equipment	3,710,093	28	3.57	132,450			3.54	131,337	28		3.57	132,503	28		3.57	132,450
346.0	Miscellaneous Power Plant Equipment	123,435	25	4.00	4,937			(0.80)	(987)	25		4.00	4,937	25		-	0
	Total State Line CT	65,277,549		2.09	1,366,963			3.34	2,177,958				1,568,044			2.09	1,362,026
STATE LINE CC																	
341.0	Structures and Improvements	7,045,752	35	2.86	201,509			3.54	249,420	55		1.82	128,105	35		2.86	201,509
342.0	Fuel Holders, Producers and Access.	7,971,750	35	2.86	227,992			3.49	278,214	26		3.85	306,606	35		2.86	227,992
343.0	Prime Movers	83,979,493	35	2.86	2,401,813			3.56	2,989,670	41		2.44	2,048,280	35		2.86	2,401,813
344.0	Generators	23,328,557	35	2.86	667,197			3.49	814,167	55		1.82	424,156	35		2.86	667,197
345.0	Accessory Electric Equipment	7,782,686	35	2.86	222,585			3.50	272,394	28		3.57	277,953	35		2.86	222,585
346.0	Miscellaneous Power Plant Equipment	64,665	35	2.86	1,849			3.61	2,334	25		4.00	2,587	35		2.86	1,849
	Total State Line CC	130,172,903		2.86	3,722,945			3.54	4,606,199				3,187,686			2.86	3,722,945
	Total Other Production	297,490,989		2.47	7,356,463			3.62	10,760,510				7,227,129			2.46	7,304,965
	TOTAL PRODUCTION PLANT	499,267,731		2.22	11,079,950			4.63	23,092,603				11,086,029			2.20	11,005,184
TRANSMISSION PLANT																	
352.0	Structures and Improvements	2,335,614	73	1.37	31,996	55	R1.5	1.95	45,544	55		1.82	42,466	73	R1	1.37	31,996
353.0	Station Equipment	81,102,639	46	2.19	1,776,148	50	R2.5	2.04	1,654,494	50		2.00	1,622,053	47	R2.5	2.13	1,727,486
354.0	Towers and Fixtures	777,080	77	1.30	10,102	65	R5	1.35	10,491	65		1.54	11,955	77	R4	1.30	10,102
355.0	Poles and Fixtures	26,709,864	54	1.85	494,132	60	R4	4.21	1,124,485	60		1.67	445,164	55	R2.5	1.82	486,120
356.0	Overhead Conductors and Devices	50,847,710	70	1.43	727,122	65	S1.5	2.19	1,113,565	65		1.54	782,272	63	R2.5	1.59	808,479
	Total Transmission	161,772,907		1.88	3,039,502			2.44	3,948,579				2,903,910				3,064,184
DISTRIBUTION PLANT																	
361.0	Structures and Improvements	8,415,331	51	1.98	166,624	60	R3	2.10	176,722	60		1.67	140,256	55	R2.5	1.82	153,159
362.0	Station Equipment	54,447,597	41	2.44	1,328,521	45	R2.5	1.53	833,048	45		2.22	1,209,947	41	R1.5	2.44	1,328,521
364.0	Poles, Towers and Fixtures	75,481,042	41	2.43	1,834,189	46	L5	8.15	6,151,705	46		2.17	1,640,892	43	R4	2.33	1,758,708
365.0	Overhead Conductors and Devices	94,509,876	48	2.10	1,984,707	53	R3	7.86	7,428,476	53		1.89	1,783,205	52	R3	1.92	1,814,590
366.0	Underground Conduit	16,005,260	34	2.97	475,356	37	R3	4.01	841,811	37		2.70	432,575	38	R3	2.63	420,938
367.0	Underground Conductors and Devices	33,575,290	28	3.61	1,212,068	32	S1	3.46	1,161,705	32		3.13	1,049,228	33	S1	3.03	1,017,331
368.0	Line Transformers	61,194,572	40	2.51	1,535,984	45	S1	2.76	1,688,970	45		2.22	1,359,879	43	S1	2.33	1,425,834
369.0	Services	42,710,443	33	3.03	1,294,126	40	S4	9.95	4,249,689	40		2.50	1,067,761	38	S3	2.63	1,123,285
370.0	Meters	14,177,845	39	2.58	365,788	44	S0	1.88	266,543	44		2.27	322,224	41	S0.5	2.44	345,939
371.0	I.O.C.P.	10,523,506	19	5.15	541,961	25	L1.5	5.50	578,793	25		4.00	420,940	24	L1.5	4.17	438,830
373.0	Street Lighting and Signal Systems	9,520,690	42	2.36	224,688	48	R2	3.09	294,189	48		2.08	198,348	47	R1.5	2.13	202,791
Various	Other Jurisdiction's Distribution Plant	48,280,120															
	Total Distribution	468,841,572		2.34	10,964,013			5.01	23,471,652				9,625,254				10,029,926

ER-2004-0570
THE EMPIRE DISTRICT ELECTRIC COMPANY
Comparison of Depreciation Rates and Annual Amounts

Account Number	Description	Original Cost 5/30/04 \$	Existing Ordered			Company Proposal				Majoros Recommendation				Staff Recommendation			
			ASL (Years)	Depreciation Rate %	Annual Accrual \$	ASL (Years)	lowa Curve	Depreciation Rate %	Annual Accrual \$	ASL (Years)	lowa Curve	Depreciation Rate %	Annual Accrual \$	ASL (Years)	lowa Curve	Depreciation Rate %	Annual Accrual \$
GENERAL PLANT																	
390.0	Structures and Improvements	9,234,589	23	4.27	394,317	40	R1.5	2.24	206,855	40		2.50	230,865	28	L1.5	3.57	329,675
391.1	Office Furniture and Equipment	3,271,691	21	4.81	157,368	20	L0	3.85	125,960	20		5.00	163,585	22	L1	4.55	148,862
391.2	Computer Equipment	8,804,676	7	14.29	1,258,188	10	L2	12.08	1,083,805	10		10.00	880,468	12	L2	8.62	758,963
392.0	Transportation Equipment	6,528,879	11	9.52	621,530	12	L2	0.26	16,975	12		8.33	544,057	13	L2	7.69	502,055
393.0	Stores Equipment	343,778	25	3.95	13,579	30	R2.5	1.77	6,085	30		3.33	11,459	28	R3	3.57	12,273
394.0	Tools, Shop and Garage Equipment	2,950,039	40	2.50	73,751	20	R5	3.99	117,707	20		5.00	147,502	30	S1.5	3.33	98,236
395.0	Laboratory Equipment	886,386	38	2.66	23,578	38	R2.5	1.63	14,448	38		2.63	23,326	41	R2.5	2.44	21,628
396.0	Power Operated Equipment	10,036,913	15	6.67	669,462	15	L3	5.46	548,015	15		6.67	669,128	16	L3	6.25	627,307
397.0	Communication Equipment	10,137,348	20	4.95	501,799	25	R2	3.31	335,546	25		4.00	405,494	23	R2.5	4.35	440,975
398.0	Miscellaneous Equipment	231,871	27	3.75	8,695	22	L1.5	4.36	10,110	22		4.55	10,540	27	S1	3.70	8,579
Total General		52,425,970		7.10	3,722,268			4.66	2,445,305				3,086,422				2,948,553
Total Depreciable Plant		1,182,308,180		2.44	28,805,733			4.48	52,958,139				26,701,815				27,047,848
Net Salvage Allowance													1,760,288				1,611,569
Total Depreciation and Net Salvage					28,805,733				52,958,139				28,461,903				28,659,417

Sources: Original Cost, Existing, Company and Staff from Macias Schedule 5. Majoros from Majoros Schedule MJM-2, Statement 1.
Staff Net Salvage Allowance from Staff Accounting Schedule 10.