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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

ARTHUR W. RICE, PE

KCP&L GREATER MISSOURI OPERATIONS COMPANY

FILE NO. ER-2010-0356

Jefferson City, Missouri
December 2010

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ARTHUR W. RICE, PE
KCP&L GREATER MISSOURI OPERATIONS COMPANY
FILE NO. ER-2010-0356

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **ARTHUR W. RICE, PE**

4 **KCP&L GREATER MISSOURI OPERATIONS COMPANY**

5 **FILE NO. ER-2010-0356**

6 Q. Please state your name and business address?

7 A. My name is Arthur W. Rice and my business address is Missouri Public Service
8 Commission, P.O. Box 360, Jefferson City, MO 65102.

9 Q. What is your position with the Staff (“Staff”) of the Missouri Public Service
10 Commission (“Commission”)?

11 A. I am a Utility Regulatory Engineer I in the Engineering and Management Services
12 Department of the Utility Services Division.

13 Q. Are you the same Arthur W. Rice that previously filed testimony in
14 this proceeding?

15 A. Yes, I am. I filed testimony on November 17, 2010 contributing to Staff’s Cost of
16 Service (“COS”) Report. I also filed testimony in the Kansas City Power & Light Company rate
17 case, File No. ER-2010-0355. In File No. ER-2010-0355 I contributed to Staff’s COS Report
18 filed on November 10, 2010, and I filed rebuttal testimony on December 8, 2010.

19 **PURPOSE AND SUMMARY**

20 Q. What is the purpose of this testimony?

21 A. The purpose of this testimony is to address KCPL Greater Missouri Operations
22 Company’s (“GMO”) requested depreciation rates and requested depreciation expense found in
23 the direct testimonies of John P Weisensee and John S. Spanos. The depreciation rates requested

1 by the Company are described in John P. Weisensee's direct testimony at pages 48 and page 50.
2 Mr. Weisensee requests generally continuing the existing ordered depreciation rates, with the
3 exception of one addition and one change recommended in Mr. Spanos' depreciation study: the
4 adoption of Mr. Spanos' depreciation rates for Iatan 2, and the adoption of the plant accounting
5 practice generally referred to as "general plant amortization" for selected General Plant accounts.

6 The Company decided not to use the depreciation study submitted in Direct Testimony of
7 John S. Spanos as Schedules JJS2010-1 for MPS, JJS2010-2 for L&P, and JJS2010-3
8 for ECORP.

9 Q. Have you compared the depreciation rates proposals by the Company and Staff?

10 A. Yes. I present this comparison as attached schedules AR-MPS-1, AR-L&P-1, and
11 AR-ECORP-1.

12 Q. Does Staff have concerns with GMO's depreciation rates and the depreciation
13 expense it is requesting?

14 A. Yes. In this testimony I identify Staff's concerns with GMO's requested
15 depreciation expense. I also recommend changes to the depreciation rates proposed by GMO
16 that would mitigate Staff's concerns, to the extent possible.¹

17 Q. What are Staff's concerns regarding GMO's requested depreciation expense
18 and rates?

19 A. Staff's concerns are:

- 20 1. Mr. Weisensee's recommendation to generally keep the existing ordered
21 depreciation rates does not correct for a large over accrual of accumulated
22 depreciation reserves. Total GMO accumulated depreciation reserve is

¹ Staff continues to recommend the depreciation rates and depreciation expense described in Staff's Cost of Service Report.

1 estimated to have accrued \$166,000,000 more than the appropriate reserve
2 balance, \$92,000,000 for MPS and \$74,000,000 for L&P, as shown in
3 Schedules AR-MPS-2 and AR-L&P-2 attached to Staff's COS Report. Staff
4 addresses this over accrual by recommending a fixed depreciation reserve
5 amortization for each plant account.

6 2. GMO's request that a deprecation method independent of other GMO steam
7 plant be used for the new Iatan 2 steam production plant, and depreciate the
8 Iatan 2 plant in full in just 50 years. Staff's recommendation is to include
9 Iatan 2 as depreciable plant in aggregate with other GMO steam production
10 plant. Staff also recommends that if the Commission accepts GMOs
11 depreciation method for Iatan 2, that the Commission increase the depreciable
12 life for Iatan 2 from 50 to 60 years.

13 3. GMO's requested change in method for certain General Plant accounts to an
14 Amortization method is not supported by its direct filing. Staff's current
15 recommendation is to leave the depreciation rates for these accounts at the
16 current ordered rates until verification of plant in service is conducted to
17 verify the amortization periods proposed or a revised depreciation rate
18 assigned.

19 **CORRECTIONS TO DIRECT TESTIMONY OF ARTHUR RICE**

20 Q. Do you have corrections or omissions to your direct testimony included in
21 Staff Cost of Service Report filed November 17, 2010?

22 A. Yes. There are two corrections. These corrections do not result in changes to
23 Staff accounting schedules or Staff's depreciation recommendations.

1 1. In GMO Direct Schedule AR-L&P-1, at the bottom where it
2 shows the Composite Depreciation Rates, with amortizations and with
3 No Amortizations, the rates shown need to be corrected as follows: Replace
4 the 4.84% with 1.98%, and replace the 5.04% with 2.61%.

5 2. In GMO Direct Schedule AR-MPS-2, at the bottom line summary totals
6 include a double count of the transportation accounts. The correct sum for
7 Original Cost is \$2,050,063,446, for Book Reserves is \$732,653,663, for
8 Calculated Reserves is \$623,539,012 and for Excess Reserves is \$93,577,375.

9 **STAFF'S RESPONSE TO MR. SPANOS' DIRECT TESTIMONY AND DEPRECIATION**
10 **STUDY**

11 Q. With regard to depreciation, does Staff agree with GMO's requested treatment of
12 Iatan 2 steam production plant as 50 year life span property?

13 A. No. The treatment of Iatan 2 steam production accounts is better represented by
14 Staff's choice of using a living account mass property analysis which uses known retirement
15 history of steam plants removed from service than Mr. Spanos' choice of a dying account life
16 span method of analysis which ignores this historical data.

17 Q. What is inappropriate about GMO's request for all Iatan 2 accounts?

18 A. In addition to the general inappropriateness of treating individual units in GMO's
19 production fleet as dying accounts, GMO has based its request for Iatan 2 on an inappropriately
20 short projected life span. GMO's rationale in initially specifying this short life span is to increase
21 depreciation expense in the early years of the plant's life. Mr. Spanos' explanation is that a
22 shorter initial life estimate used for a new plant will increase the initial depreciation expense and
23 tend to smooth this expense over the total life of a plant that may suffer a requirement for a
24 major modification or early retirement. It is not the initial users that put additional demands and

1 requirements on the plant in future years that result in these major future plant modifications or
2 premature retirements. Current users already pay rates for expected future replacement of worn
3 components and routine modifications in the form of interim retirements and cost of removal.
4 A simple example follows to illustrate this point. A 50 year expected life yields a simple
5 2% depreciation rate. But we know worn parts and routine modifications occur causing interim
6 retirements, and the depreciation study takes these into account. For KCPL and GMO these
7 interim retirements for steam plant equipment would add approximately another 0.7% to this
8 rate. Collections for future cost of removal of steam plant adds another 0.3% for the major
9 accounts. Adding all three components of the depreciation rate results in the current rate payers
10 paying a 3% rate, this is 150% of the straight 2% simple rate. To ask the current rate payers to
11 pay even more by shortening the expected life span 10 years to cover additional demands that
12 might be made by future rate payers is not reasonable.

13 Q. Is GMO's depreciation request for Iatan 2 consistent with its request for Iatan 1?

14 A. No. It is inconsistent that the life span recommended by Mr. Spanos for Iatan 1 is
15 60 years and for the new Iatan 2 unit he recommends only 50 years.

16 Q. Why is it inappropriate to manipulate life span estimates to initially collect higher
17 depreciation expense?

18 A. Manipulating the depreciation rates in this manner results in excess accruals
19 collected from rate payers during the early years of a new production installation for all of the
20 Iatan 2 original equipment that lasts longer than the proposed retirement date, specifically when
21 evidence shows only portions of a facility are expected to be retired and/or replaced at the
22 retirement date. Examples for KCPL and GMO operations are as follows: The 81 year old
23 Grand Avenue Station facility still produces steam heat – albeit under different ownership, where

1 steam heat is provided using the structures, boilers, coal handling equipment, and miscellaneous
2 auxiliary equipment originally in service as a KCPL steam electrical production plant. For
3 Hawthorn 1, 2, 3, and 4, retired in 1984, the coal handling yards, ash handling and site general
4 infrastructure continue to be used. The original Hawthorn 4 steam turbine with associated
5 condensate, cooling water, steam piping, vacuum system, and other electrical auxiliaries are
6 incorporated into a combustion turbine combined cycle unit at its original location and continue
7 as plant in service. At Ralph Green, the original structure built around 1900 used by the
8 Company to house steam production equipment continues to be used as a warehouse and
9 lay-down area for maintenance and construction projects. For the Ralph Green steam production
10 units 1 and 2 and the Edmund Street Stations, these facilities are still in use as industrial facilities
11 by GMO with some of the original land improvements such as roads, parking, drainage
12 landscaping, concrete pads, and other improvements still used and useful.

13 Q. Has KCPL or GMO exhibited a history of “green fielding” sites that it no longer
14 uses to provide utility service?

15 A. No. Site remediation or “green fielding” for these facilities is minimal and the
16 historical record shows that estimates for future cost of removal should not include complete site
17 remediation costs estimates.

18 Q. If the Commission chooses to accept the use of the dying account life span
19 method of analysis proposed by Mr. Spanos for Iatan 2 steam production plant, does Staff
20 recommend modifications to Mr. Spanos’ study to provide a better estimated prediction of the
21 proper rate of return of shareholder capital?

22 A. Yes. If the Commission adopts Mr. Spanos’ recommended dying account life
23 span treatment for Iatan 2 for purposes of deriving depreciation rates, Staff recommends that the

1 Commission extend the life span used in the dying account life span method from 50 to 60 years.
2 This is consistent with my direct testimony, and as proposed in direct testimony of
3 Greg R. Meyer. Greg Meyer discusses the life spans ranging from 66 to 72 years for the
4 Union Electric Company, d/b/a AmerenUE steam production plants approved by the
5 Commission in Case No. ER-2010-0036. The 60 year proposal is also consistent with the recent
6 decision by the Kansas Corporation Commission (“the Kansas Commission”) for Iatan 2.

7 Q. Does Staff agree with Mr. Weisensee’s recommendation to keep the existing
8 ordered depreciation rates for all accounts other than Iatan 2 and selected general accounts?

9 A. No. Staff recommends general updating the depreciation rates for plant accounts
10 to reflect the depreciation study conducted by Staff, which used Company provided
11 historical retirement data through December 31, 2008. Attached tables AR-MPS-1, AR-L&P-1,
12 and AR-ECORP-1 compare the Company proposal to the Staff recommended depreciation.^{2,3}

13 Q. What justifies changing from the current ordered depreciation rates?

14 A. Staffs finds three discrepancies in the existing rates that warrant changing
15 the rates.

16 1. The overall plant depreciation reserve for MPS and L&P are over accrued.
17 Total accumulated depreciation reserve is estimated to have accrued
18 \$166,000,000 more than the appropriate reserve balance, \$92,000,000 for
19 MPS and \$74,000,000 for L&P, as shown in Schedules AR-MPS-2 and
20 AR-L&P-2 attached to direct testimony. As of December 31, 2008, MPS
21 and L&P combined book reserve was approximately \$908,000,000 with a
22 calculated theoretical reserve of \$742,000,000. This theoretical

² The Company recommendation for depreciation using life span for Iatan 2 of 50 years is not reflected in this table.

³ The Company recommendation to use an amortization method for some General Accounts is reflected in this table.

1 \$742,000,000 includes reserves for future retirements and future cost of
2 removal.

3 2. Recent retirement records of cost of removal have resulted in significant
4 changes in the net salvage (cost of removal) recommendations versus the
5 net salvage used to establish the current ordered depreciation rates.

6 3. Changes in plant operations have resulted in changes in retirement patterns
7 over time. Examples of this can be seen in the Schedule AR-L&P-1 to this
8 rebuttal testimony. Staff's current whole life depreciation rate
9 recommendations in this rate case for combustion turbine prime movers
10 and generators (accounts 343 and 344) are approximately 50% lower than
11 current ordered rates due to longer expected lives. And for account
12 312.02 (Boiler Plant AQC) the recommended rate has increased by
13 approximately 50% due to retirements of pollution control equipment that
14 no longer meets regulatory requirements.

15 Q. How does Staff recommend correction of the over-accrual problem?

16 A. Staff's recommendation for each account consists of two parts, a depreciation rate
17 and a reserve amortization. The depreciation rate shown is a whole life rate that represents the
18 current rate of capital consumption. The amortization is a fixed amount intended to correct for
19 over- or under-accrued reserves in each account over the remaining expected life of the current
20 investment in each account. The amortization period is not specified. It is intended that book
21 reserves versus theoretical reserves and the amortization amounts will be reviewed during the
22 next depreciation study and any changes to the amortization as well as any changes to the
23 depreciation rate would be recommended within a future rate case. In summary, combination of

1 the two parts produces an effective depreciation rate that is the equivalent of a remaining life
2 depreciation rate for the current plant balance and continues until the next rate case review
3 of depreciation.

4 Q. How does Staff recommend addressing the Cost of Removal discrepancies?

5 A. The recent depreciation study updated depreciation rates includes an updated net
6 salvage (cost of removal) component. These updates should be reflected in the ordered rates for
7 recording collections of future cost of removal. This is also relevant to GAAP accounting to
8 satisfy the Securities and Exchange Commission requirements to disclose non-legal regulatory
9 assets and liabilities.

10 Q. How does Staff recommend acknowledging changes in plant operations?

11 A. In general, the Staff recommended depreciation rates should be ordered to replace
12 the prior ordered rates due to changes in plant operations that have resulted in changes in
13 retirement patterns over time. It is best regulatory practice to update the depreciation expense
14 rate at the account level to reflect observed changes in retirement patterns.

15 **AMORTIZATION OF GENERAL PLANT**

16 Q. Please describe the Company's proposal regarding the amortization of certain
17 general plant accounts.

18 A. As described at pages 14 through 16 of Mr. Spanos' testimony, GMO seeks to
19 suspend depreciation of certain general plant accounts and, in lieu thereof, amortize the amounts
20 recorded in those accounts over a fixed amortization period. Specifically, GMO⁴ seeks
21 amortization treatment for the accounts shown in the table below. The change to a general plant
22 amortization method using Mr. Spanos' recommended amortization periods results in an

⁴ This amortization method is requested for all GMO, that is MPS, L&P, and ECORP.

1 unrecovered reserve adjustment of \$985,322 for MPS, \$1,976,740 for L&P and \$25,054,234 for
2 ECORP. Mr. Spanos recommends a 10-year amortization that results in additional expense
3 charged to depreciation. Mr. Spanos testimony using the December 31, 2008 balances shows in
4 his schedules an additional depreciation expense (amortization) of \$98,523 for MPS, \$196,774
5 for L&P, and \$2,505,423 for ECORP.⁵

6 Q. Is Staff aware of another amortization associated with these accounts?

7 A. Yes. As discussed in Staff witness Cary Featherstone's rebuttal testimony,
8 Mr. Weisensee's direct testimony shows unrecovered reserve amounts of \$14,076,020 for MPS
9 and \$4,744,481 for L&P. These amounts are being requested by GMO in this case. GMO is
10 asking for an initiation of a 20-year amortization of these amounts. The Company is requesting
11 the amortization treatment because it alleges there were different depreciation rates authorized in
12 the states Aquila Inc. operated in. GMO has two types of General Plant: 1) Plant relating to the
13 regulated GMO operations and 2) General Plant relating to its former corporate offices when it
14 was named Aquila.

15 Q. What is Staff's position regarding the amortization of general plant as proposed
16 by Mr. Spanos?

17 A. Staff opposes the general plant amortization at this time for two reasons. First,
18 the results of the Staff depreciation study for some of the accounts in question show
19 unrealistically long average service lives. This indicates retirements of plant which is no longer
20 used and useful have not been recorded and, therefore, plant balances are artificially inflated.
21 Staff recommends that the Company conduct a physical inventory, retire plant from the books
22 that are no longer in service, and subsequently conduct another depreciation study for these

⁵ These are the annual amortizations for un-recovered plant related to the Company proposed switch in depreciation method from current to the amortization (square curve) method in specific General accounts.

1 accounts. GMO currently provided no evidence to request new average service lives or
2 amortization periods other than that the existing rates look too low. Thus Staff has no method to
3 assess the reasonableness of the requested increased rates, or the requested additional
4 unrecovered reserve amortizations at this time. Second, the general plant amortization would
5 violate the requirements of rule 4 CSR 240-20.030 which directs electrical corporations to
6 “keep all accounts in conformity with the Uniform System of Accounts” and maintain records
7 for each plant account.

8 Q. How does GMO’s general plant amortization request violate Commission
9 Rule 4 CSR 240-20.030?

10 A. Commission Rule 4 CSR 240-20.030 states “keep all accounts in conformity with
11 the Uniform System of Accounts” as prescribed by the Federal Energy Regulatory
12 Commission (“FERC”). Section (3)(M) of the Commission rule states:

13 Keep mortality records of property and property retirements
14 as will reflect the average life of property which has been
15 retired and will aid in estimating probable service life by
16 actuarial analysis of annual additions and retirements...

17 As promulgated, the Commission’s rule and the FERC Uniform System of Accounts are
18 designed to ensure that necessary data is compiled to allow actuarial analyses to be performed,
19 which permits depreciation rates that better reflect actual experience. As described by GMO, if
20 allowed the general plant amortization, GMO would not separately account for these plant assets,
21 thereby precluding any party from conducting future depreciation studies. In effect, GMO
22 implicitly seeks a variance from the requirements of the Commission’s rule, though it does not
23 explicitly request one.

24 Q. What is the rationale underlying GMO’s general plant amortization request?

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Arthur W. Rice

1 A. As expressed on page 14, lines 17 to 19, of Mr. Spanos' Direct Testimony:

2 However, depreciation accounting is difficult for these assets
3 because periodic inventories are required to properly reflect plant
4 in service.

5 Q. Do you agree with GMO's stated rationale underlying its general plant
6 amortization request?

7 A. No. In adopting the rule obligating electric utilities to keep and maintain records
8 of property, the Commission recognized that there will be certain costs incurred and, so long as
9 prudently incurred, those costs of doing business will be recovered from regulated ratepayers.
10 While GMO maintains that cost savings will be experienced in the form of reduced workload
11 through the elimination of conducting inventory and record keeping burdens, this argument is not
12 compelling because GMO will continue to have a level of record-keeping burdens for tax and
13 insurance purposes.

14 Q. What would mitigate the need to track small-value units of property separately?

15 A. GMO may set a capitalization limit in its unit property catalog. Staff recommends
16 that GMO consider setting a capitalization limit for general plant assets from its current level ⁶ to
17 approximately \$2,000. Staff believes a new limit would be justified as a reasonable compromise
18 between accurate accounting for plant assets and administrative simplicity. GMO should
19 continue to maintain aged data reflecting the acquisition and retirement of items in the previously
20 listed accounts with a purchase price greater than the capitalization limit.

21 Q. What is a capitalization limit?

22 A. A capitalization limit is, in effect, a standard of materiality used to determine
23 whether an item of small value which benefits more than one accounting period should be

⁶ Response to Data Request No. 339 states "There is no minimum dollar amount used to define capital additions for plant accounts 341 through 346." Staff makes the assumption that General Plant accounts also have a low limit.

1 capitalized and have its cost charged to depreciation expense over its expected life or, instead, be
2 charged to expense in its entirety in the first period of its use. Use of a capitalization limit
3 recognizes that the theoretical appropriateness of charging the cost of an asset over the entire
4 period of its use can be outweighed by the administrative difficulties in tracking that cost, if the
5 item is of a relatively small value. The Commission has not adopted any rules impacting GMO
6 that specify a minimum dollar amount to capitalize.

7 Q. How would a raised capitalization limit function going forward?

8 A. GMO could set a capitalization limit for these accounts, sweep (transfer⁷) all
9 additions under this limit currently in these accounts to an expense account, and annualize or
10 amortize the un-depreciated⁸ portion in a rate case. Subsequently, GMO would conduct a
11 physical inventory of the fewer remaining larger value items to insure they are still in service and
12 conduct a depreciation study on the verified plant in service. The administrative requirements of
13 tracking and recording individual plant assets are largely dependent on the number of such
14 assets, not their individual dollar value.

15 Q. In the event the Company agreed to change its capitalization limit, would that
16 affect the Staff's current depreciation rate recommendation for this case?

17 A. Probably not. Insufficient time remains in this rate case to allow determination of
18 the impact of changing the capitalization limit, conducting an inventory and conducting a
19 depreciation study for these accounts. Staff currently recommends a continuation of the current
20 ordered rates for these accounts.

⁷ Transfer is defined herein as the removal of the total original cost from plant, and removal of only the depreciated portion from reserves.

⁸ The un-depreciated portion as defined herein as the difference between the original cost and the amount of depreciated reserves which were transferred.

1 Q. Through your direct testimony Staff recommended retaining the current
2 depreciation rates in these accounts due to imbalances in plant and reserve accounts found
3 between the historical records the Company used in the depreciation study and the Staff auditing
4 records. Have these imbalances been addressed?

5 A. Yes. For the historical records through the end of December 31, 2008, Staff used
6 in its depreciation study, these imbalances have been resolved. Staff was not originally aware
7 that the reserve balances provided by the Company had been modified by the removal of the
8 proposed un-depreciated plant from plant reserve balances. When Staff was made aware of these
9 actions and reversed them, account balances were found to be consistent between GMO and
10 Staff through the end of 2008.

11 Q. Does resolving this imbalance issue of historical data used in the deprecation
12 study between Staff and GMO resolve all of the concerns Staff has regarding plant balances for
13 these accounts?

14 A. No. Staff is still concerned with the question of the amount of plant and reserves
15 shown on the books which represent plant that was not retired from the books when it became no
16 longer used and useful. An estimate of this no longer used and useful plant that has not been
17 retired from the books is an indirect result of the Company's request to change to the
18 amortization method. There is also an approximate \$18 million in accounts referred to in
19 Mr. Weisensee's direct testimony as adjustment CS-122 that is related to the deprecation
20 reserves. These amounts are identified as \$14.1 million for MPS and \$4.7 million for L&P.
21 These reserves are associated with the same FERC account numbers that GMO is requesting a
22 change in depreciation treatment and subsequent amortization of un-recovered plant. Until these
23 issues are resolved, Staff continues to recommend no change in the depreciation rates for

1 accounts 391 (General Office Furniture, Office Machines, Computer Hardware and Software),
2 393 (Stores Equipment), 394 (Tools, Shop, and Garage Equipment), 395 (Laboratory
3 Equipment), 397 (Communications Equipment), 398 (Miscellaneous Equipment).

4 Q. Why is Staff recommending no change in the depreciation rates for these General
5 accounts that the Company has recommended be switched to the amortization method for
6 depreciation purposes even though Staff admits the current ordered rates are most likely not a
7 correct representation of the current consumption of plant actually in service, and Staff earlier
8 recommended that depreciation rates should be periodically updated?

9 A. The Staff depreciation study that used the retirement activity history and plant
10 balances shown for the current account balances does support the same depreciation rates as are
11 currently ordered for these General Plant accounts. These current rates reflect the failure to
12 record retirements and the resultant elevated plant balances remaining in the accounts. Until the
13 account balances are corrected for plant remaining on the books which is not used and useful, the
14 depreciation expense (annual accrual) represented by these current rates is correct in that it
15 represents the best reasonable estimated accrual. When retirement of “plant not really there” is
16 recorded, the original cost is removed from both plant and reserves thus there is no change in rate
17 base, but a change in depreciable plant balance occurs. The lower plant balance remaining on
18 the books subsequent to correcting the recorded retirements should get a revised (higher)
19 depreciation rate assigned which when applied to the lower plant balance will reflect the actual
20 consumption of plant.

21 Q. With respect to the General Plant accounts that Mr. Spanos proposes switching to
22 the Amortization Method (Square Curve method), did Staff attempt to verify the length of the
23 amortization period that GMO proposes?

1 A. Yes. For each MPS, L&P, and ECORP account the Staff used the retirement
2 history provided by the Company to conduct a depreciation study. The average service life
3 found for each account should correspond well with the amortization period proposed for each
4 account. Using the study results for MPS as an example, the accounts numbers and account
5 descriptions GMO requests be switched to the amortization method are shown in the table below.
6 The average service lives indicated from the Staff depreciation study for some accounts did not
7 correlate well as shown in the following table.

Staff Depreciation Analysis Results versus Company Proposed Square Curve Amortization Period For MPS					
Account	Account Title	Average Service Life	Staff SQ ASL Proposal	Company SQ ASL Proposal	
391.01	Office Furniture	25 - R4	20 years	20 years	
391.02	Computer Hardware	9 - L0	7	5	Assumption, Account includes Desk tops, Laptops, Printers Firewalls, Servers, etc.
391.04	Computer Software	13 - L1	9	7	
393	Stores Equip	30 - L0	25	25	
394	Tools & shop Equip	35 - L0	30	20	
395	Lab Equip	32 - R2.5	30	20	
397	Comm Equip	32 - R2	30	15	

8 Staff found longer average service lives (left column) for all accounts than the Company
9 proposed for the amortization period (Company SQ ASL Proposal column). This confirms the
10 Company position that there is property recorded on the books which is no longer used and
11 useful, and should have been retired.

12 Q. What are Staff's recommended deprecation rates for GMO?

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1 A. The Staff-recommended depreciation rates (a whole life rate coupled with
2 an amortization for each account) is shown on Schedules AR-MPS-1, AR-L&P-1 and
3 AR-ECORP-1 filed with this rebuttal testimony.

4 Q. Does Staff have any additional recommendation for the Commission
5 regarding depreciation?

6 A. Yes. For MPS, L&P and ECORP, Staff recommends the Commission order that
7 an inventory be conducted of the property in General account numbers 391, 393, 394, 395, 397,
8 and 398 and retire equipment from the books that is found to be not used and useful.

9 Q. Does this end your rebuttal testimony?

10 A. Yes.


BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L)
Greater Missouri Operations Company for)
Approval to Make Certain Changes in its) File No. ER-2010-0356
Charges for Electric Service)

AFFIDAVIT OF ARTHUR W. RICE, PE

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.


Arthur W. Rice, PE, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 17 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.



Arthur W. Rice, PE

Subscribed and sworn to before me this 15th day of December, 2010.

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



Notary Public

KCPL Greater Missouri Operations
File No. ER-2010-0356

COMPANY VERSUS STAFF DEPRECIATION PROPOSALS

USOA Account	Sub Account	MPS PROPOSAL		STAFF PROPOSAL			
		Assigned Net Salvage %	Proposed Depreciation Rate	Assigned Net Salvage %	Effective Depreciation Rate %	Proposed Reserve Amortization \$	Proposed Depreciation Rate %
STEAM PRODUCTION PLANT							
311	Structures and Improvements	(1)	1.87	(20)	0.96	(516,000)	1.85
312	Boiler Plant Equipment	(5)	2.17	(30)	2.40	(1,087,000)	2.89
312.02	Boiler Plant AQC	(5)	2.15	(30)	2.95	2,000	2.89
314	Turbogenerator Units	(2)	2.33	(15)	2.37	(362,000)	2.87
315	Accessory Electrical Equipment	(3)	2.39	(10)	1.19	(243,000)	2.20
316	Miscellaneous Power Plant Equipment	(3)	2.57	(10)	2.42	(6,000)	2.69
OTHER PRODUCTION PLANT (Combustion Turbines)							
341	Structures & Improvements	(5)	1.75	(5)	1.67	(18,000)	1.75
342	Fuel Holder & Accessories	(5)	3.49	(10)	2.16	(32,000)	2.44
343	Prime Movers	(6)	4.81	(10)	4.47	133,000	4.40
344	Generators	(6)	3.80	(5)	2.62	(212,000)	3.00
345	Accessory Electrical Equip	(5)	2.85	(10)	2.33	(46,000)	2.44
346	Misc Power Plant Equipment	0	3.57	0	3.18	2,000	3.13
TRANSMISSION PLANT							
352	Structures and Improvements	(10)	1.83	(5)	1.66	(6,000)	1.75
353	Station Equipment	(2)	1.70	(10)	1.70	(185,000)	1.89
354	Towers and Fixtures	0	1.85	(20)	0.93	(4,000)	2.18
355	Poles and Fixtures	(61)	2.93	(60)	3.09	45,000	3.02
356	Overhead Conductors	(44)	2.32	(50)	2.36	(26,000)	2.42
358	Underground Conductors	(22)	2.49	0	0.73	0	2.00
DISTRIBUTION PLANT							
361	Structures and Improvements	0	1.61	(5)	1.71	(3,000)	1.75
362	Station Equipment	0	2.08	(10)	1.97	(241,000)	2.20
364	Poles, Towers and Fixtures	(79)	3.89	(75)	4.24	693,000	3.73
365	Overhead Conductors	(31)	2.18	(35)	2.20	(110,000)	2.32
366	Underground Conduit	(12)	1.70	(20)	2.02	6,000	2.00
367	Underground Conductors	(22)	2.49	(15)	2.18	(119,000)	2.30
368	Line Transformers	(14)	3.45	(15)	3.16	(193,000)	3.29
369.01	Services - Overhead	(100)	3.64	(100)	3.27	(33,000)	3.50
369.02	Services - Underground	(16)	3.05	(25)	3.10	(93,000)	3.29
370	Meters	(6)	2.00	(5)	1.18	(134,000)	2.33
370.01	Meters - Load Research	0	7.14	0	0.00	(127,000)	6.25
371	Installations on Customer Prop	(33)	5.12	(20)	2.90	(178,000)	4.14
373	Street Lighting, Signal Systems	(8)	3.18	(5)	4.00	5,000	3.98
GENERAL PLANT							
390	Structures and Improvements	(23)	2.73	(10)	3.06	85,000	2.44
391.01	Office Furniture and Equipment (Note A)	0	5	0	4.17		4.17*
391.02	Computer Equipment (Note A)	0	20	0	12.50		12.50*
391.04	Software (Note A)	0	14.29	0	11.11		11.11*
Transportation Equipment							
392	Autos	10	11.25	10	6.35	(5,000)	10.00
392.01	Light Trucks	10	11.25	10	15.33	43,000	10.00
392.02	Heavy Trucks	10	11.25	10	12.56	247,000	7.50
392.04	Trailers	10	11.25	10	0.12	(32,500)	5.29
392.05	Medium Trucks	10	11.25	10	10.83	94,500	9.00
393	Stores Equipment (Note A)	0	4.00	0	3.70		3.70*
394	Tools, Shop & Garage Equip (Note A)	0	5.00	0	3.68		3.68*
395	Laboratory Equipment (Note A)	0	5.00	0	3.43		3.43*
396	Power Operated Equipment	2	4.45	10	2.18	(76,000)	4.07
397	Communications Equipment (Note A)	0	6.67	0	3.70		3.70*
398	Miscellaneous Equipment (Note A)	none	none	0	5.00		5.00*
*Current Ordered Rate Case ER-2005-0436							
TOTAL AMORTIZATION				98,532		(769,000)	
Effective Composite Depreciation Rate				3.31		2.82 %	
Composite Depreciation Rate With No Amortization							2.98

Note A: The Company recommendation to switch these accounts to an amortization method is reflected in this table.

**KCPL Greater Missouri Operations
File No. ER-2010-0356**

PROPOSED DEPRECIATION SCHEDULE

USOA Account	Sub Account	L&P PROPOSAL		STAFF PROPOSAL			Proposed Depreciation Rate %	
		Assigned Net Salvage %	Proposed Depreciation Rate	Assigned Net Salvage %	Effective Depreciation Rate %	Proposed Reserve Amortization \$		
STEAM PRODUCTION PLANT								
311	Structures and Improvements	(Note 1)	(3)	1.85	(30)	1.72	-52,000	2.00
312	Boiler Plant Equipment	(Note 1)	(4)	2.05	(20)	1.38	-936,000	2.40
312.02	Boiler Plant AQC	(Note 1)	(4)	2.16	(20)	2.55	-54,000	3.00
314	Turbogenerator Units	(Note 1)	(3)	2.31	(20)	2.06	-160,000	2.66
315	Accessory Electrical Equipment	(Note 1)	(2)	2.35	(10)	1.36	-127,000	2.44
316	Miscellaneous Power Plant Equipment	(Note 1)	(16)	2.07	(10)	3.29	-19,000	4.24
OTHER PRODUCTION PLANT (Combustion Turbines)								
341	Structures & Improvements		(5)	1.75	(5)	0.43	-25,000	2.10
342	Fuel Holder & Accessories		(5)	3.09	(10)	0.55	-14,000	2.75
343	Prime Movers		(5)	4.78	(10)	0.10	-208,000	2.00
344	Generators		(15)	4.11	(10)	0.15	-64,000	2.20
345	Accessory Electrical Equip		(5)	2.84	(5)	1.25	-12,000	2.33
TRANSMISSION PLANT								
352	Structures and Improvements		(10)	1.83	(5)	1.16	-2,250	1.75
353	Station Equipment		(2)	1.70	(5)	2.46	-70,500	2.92
355	Poles and Fixtures		(61)	2.93	(40)	1.24	-110,800	2.34
356	Overhead Conductors		(44)	2.32	(15)	0.82	-84,750	1.92
356	Underground Conduit		(12)	1.70	0	1.59	0	1.67
358	Underground Conductors		(22)	2.49	0	0.23	-600	2.00
DISTRIBUTION PLANT								
361	Structures and Improvements		0	1.61	(10)	2.24	1,250	2.18
362	Station Equipment		0	2.08	(10)	1.68	-200,750	2.20
364	Poles, Towers and Fixtures		(79)	3.89	(80)	3.77	89,800	3.46
365	Overhead Conductors		(31)	2.18	(25)	1.89	-90,700	2.27
366	Underground Conduit		(12)	1.70	(35)	2.14	4,600	2.08
367	Underground Conductors		(22)	2.49	(5)	1.78	-23,100	1.91
368	Line Transformers		(14)	3.45	(10)	1.49	-321,650	2.44
369.01	Services Overhead		(100)	3.64	(100)	4.05	25,500	3.50
369.02	Services Underground		(16)	3.05	(15)	2.57	-33,100	2.88
370	Meters		(6)	2.00	(5)	1.09	-75,650	2.10
371	Installations on Customer Prop		(33)	5.12	(10)	2.91	-57,000	4.20
373	Street Lighting, Signal Systems		(8)	3.18	(5)	2.07	-48,100	3.00
GENERAL PLANT								
390	Structures and Improvements		(13)	2.73	0	3.17	49,000	2.44
391.01	Office Furniture and Equipment	(Note 2)	0	5.00	0	4.17		4.17*
391.02	Computer Equipment	(Note 2)	0	20.00	0	12.50		12.50*
391.04	Software	(Note 2)	0	14.29	0	11.11		11.11*
391.06	Office Machines	(Note 2)	0	10.00	0	4.17		4.17*
392.00	Autos		10	11.25	15	13.52	0	12.15
392.01	Light Trucks		10	11.25	15	7.98	-2,000	8.50
392.02	Heavy Trucks		10	11.25	15	5.11	-39,000	6.93
392.04	Trailers		10	11.25	15	0.00	-10,500	3.39
392.05	Medium Trucks		10	11.25	15	13.65	75,800	7.59
393	Stores Equipment	(Note 2)	0	4.00	0	3.70		3.70*
394	Tools, Shop & Garage Equip	(Note 2)	0	5.00	0	3.68		3.68*
395	Laboratory Equipment	(Note 2)	0	5.00	0	3.43		3.43*
396	Power Operated Equipment		2	4.45	10	2.32	-32,000	4.73
397	Communications Equipment	(Note 2)	0	6.67	0	3.70		3.70*
398	Miscellaneous Equipment	(Note 2)	0	5.00	0	3.71		3.71*
*Current Ordered Rate Case ER-2005-0436								
TOTAL AMORTIZATION				196,744			-2,627,500	
Effective Composite Depreciation Rate				2.40			1.98 %	
Composite Depreciation Rate With No Amortization								2.61

Note 1 The Company recommendation to life span later 2 at 50 years is not reflected in this table.

Note 2 The Company recommendation to switch these accounts to an amortization method is reflected in this table.

**KCPL Greater Missouri Operations
File No. ER-2010-0356**

COMPANY VERSUS STAFF DEPRECIATION PROPOSALS

USOA Account	Sub Account	ECORP PROPOSAL		STAFF PROPOSAL			
		Assigned Net Salvage %	Proposed Depreciation Rate	Assigned Net Salvage %	Effective Depreciation Rate %	Proposed Reserve Amortization \$	Proposed Depreciation Rate %
GENERAL PLANT							
390	Structures and Improvements	0	3.02	0	NA	NA	2.22
391.01	Office Furniture and Equipment	0	5	0	NA	NA	4.17
391.02	Computer Equipment	0	20	0	NA	NA	12.50
391.04	Computer Software	0	14.29	0	NA	NA	11.11
393	Stores Equipment	0	10.6	0	NA	Note 1	0.00
394	Tools, Shop & Garage Equip	0	5	0	NA	NA	3.57
396	Laboratory Equipment	none	none	0	NA	Note 1	0.00
397	Communications Equipment	0	6.67	0	NA	NA	3.70
398	Miscellaneous Equipment	0	5	0	NA	NA	4.17
All Staff proposed Rates are the Current Ordered Rate Case ER-2005-0436							
TOTAL AMORTIZATION						NA	
Effective Composite Depreciation Rate			8.94			NA	9.07
Composite Depreciation Rate With No Amortization							9.07

Note 1 This account is fully depreciated and viewed by Staff as a Dying Account.
The Company recommendation to switch accounts to an amortization method is reflected in this table.
This table is for end of 2008 balances