Exhibit No.

Witness:

James T. Selecky Surrebuttal Testimony

Type of Exhibit: Sponsoring Party:

Missouri Industrial Energy Consumers

Case No. Subject: EC-2002-1 Depreciation Rates

Before the Missouri Public Service Commission

Staff of the Missouri Pu	blic Service)	
Commission)	
Con	nplainant) Case	No. EC-2002-1
v.)	
Union Electric Compan	y, d/b/a)	
AmerenUE)	
Res	pondent.)	

Surrebuttal Testimony and Schedules of

James T. Selecky

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002 Project 7651 Exhibit No. __//2

Date ____/_/ Case No. ____/_ Case No. ____/_/

Reporter _____ Kem



Brubaker & Associates, Inc. St. Louis, MO 63141-2000

Before the Public Service Commission of the State of Missouri

Staff of the Missouri Public Service)
Commission	j
Complainant)
v.) Case No. EC-2002-1
Union Electric Company, d/b/a)
AmerenUE)
Respondent.)
ATE OF MISSOURI)	
) SS OUNTY OF ST. LOUIS)	

Surrebuttal Affidavit of James T. Selecky

James T. Selecky, being first duly sworn, on his oath states:

- 1. My name is James T. Selecky. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
- 2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.
- 3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

James T. Selecky

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County

My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the **Missouri Public Service Commission**

	v. Union Electric Com AmerenUE	Complainant))) Case No. EC-2002-1))
	<u>Surrebu</u>	ttal Testimony of James	s T. Selecky
Q	PLEASE STATE YOUR	R NAME AND BUSINESS A	ADDRESS.
Α	James T. Selecky; 1215	5 Fern Ridge Parkway, Suit	e 208; St. Louis, MO 63141-2000.
Q		JAMES T. SELECKY WHO	O HAS PREVIOUSLY SUBMITTED
Α	Yes.		
Q	ON WHAT SUBJECTS	WILL YOU TESTIFY?	
Α	I will address Amerent	JE's (UE or Company) reb	uttal testimony on the treatment of
	net salvage as it relates	s to book depreciation rates	s. Primarily, I will be addressing the
	net salvage issues pres	sented by UE Witness Willia	am M. Stout.
Q	HOW IS UE PROPOS		T SALVAGE ASSOCIATED WITH
Α	UE wants to include	the net salvage ratios	in the development of the book
	depreciation rates. The	e MPSC Staff is proposing	to exclude the net salvage from the

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1	deprecation rates and include an expense provision for net salvage in UE's revenue
2	requirement or cost of service. I support the Staff approach.

Q HOW MUCH NET SALVAGE IS UE SEEKING IN THIS PROCEEDING?

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UE is seeking to include \$51.4 million of net salvage expense in its book depreciation rates. The proposed net salvage accrual of \$51.4 million is approximately \$25 million greater than the amount of net salvage currently included in UE's depreciation rates. Of the \$54.1 million of net salvage, \$29.8 million is attributable to the transmission, distribution and general plant functions. For these three plant functions, UE is essentially seeking a net salvage ratio of a negative 39% to include in its depreciation rates.

HOW DOES UE'S NET SALVAGE EXPENSE INCLUDED IN ITS PROPOSED DEPRECIATION RATES COMPARE WITH THE NET SALVAGE EXPENSE UE HAS ACTUALLY INCURRED?

Table 1 below shows UE's net salvage experience for the last 20 years. It should be noted that since 1986 data was not available, 1981 data was used to complete the 20-year history. Also, the data are shown as negative amounts because UE's removal cost exceeds the gross salvage. That is, UE incurs cost to retire plant investment.

As Table 1 shows, UE's net salvage history using a five-year rolling average has ranged from approximately \$5.9 million to \$10.5 million annually, and \$6.6 million to \$10.3 million using the ten-year rolling average. UE's actual net salvage history has been considerably less than what UE is seeking in this proceeding. Therefore, UE's request in this proceeding appears excessive and inconsistent with trends over the last 20 years.

TABLE 1							
<u>u</u>	JE's Actual Net	Salvage Experie	ence				
Year	Net Salvage (\$000)	5-Year Average (\$000)	10-Year Average (\$000)				
2001	\$ (21,426)	\$ (10,378)	\$ (10,252)				
2000	(12,502)	(8,137)	(9,043)				
1999	(7,701)	(8,024)	(8,609)				
1998	(576)	(8,820)	(8,465)				
1997	(9,686)	(10,521)	(8,977)				
1996	(10,221)	(10,125)	(8,722)				
1995	(11,938)	(9,950)	(8,522)				
1994	(11,679)	(9,194)	(7,933)				
1993	(9,081)	(8,109)	(7,303)				
1992	(7,708)	(7,434)	(6,989)				
1991	(9,342)	(7,320)	(6,609)				
1990	(8,159)	(7,094)					
1989	(6,256)	(6,672)					
1988	(5,706)	(6,497)					
1987	(7,135)	(6,544)					
1986	N/A	N/A					
1985	(8,215)	(5,899)					
1984	(6,050)						
1983	(5,379)	Processing to					
1982	(5,940)						
1981	(3,909)						
Average	\$ (8,430)	\$ (8,170)	\$ (8,311)				

DO ANY OTHER COMMISSIONS ACCOUNT FOR NET SALVAGE SIMILAR TO THE METHOD THAT STAFF HAS PROPOSED IN THIS CASE? Yes. Pages 157-158 of the <u>Public Utility Depreciation Practices</u> published in August 1996 by the National Association of Regulatory Utility Commissioners (NARUC)

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states:

"Some commissions have abandoned the above procedure and moved to current-period accounting for gross salvage and/or cost of removal. In some jurisdictions gross salvage and cost of removal are accounted for as income and expense, respectively, when they are realized. Other jurisdictions consider only gross salvage in depreciation rates, with the cost of removal being expensed in the year incurred.

Determining a reasonably accurate estimate of the average or future net salvage is not an easy task; estimates can be the subject of

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Determining a reasonably accurate estimate of the average or future net salvage is not an easy task; estimates can be the subject of considerable discussion and controversy between regulators and utility personnel. This is one of the reasons advanced in support of current-period accounting for these items. When estimating future net salvage, every effort should be made to ensure that the estimate is as accurate as possible. Normally, the process should start by analyzing past salvage and cost of removal data and by using the results of this analysis to project future gross salvage and cost of removal."

This quote indicates the method proposed by the Staff in this proceeding is consistent with the method used by other jurisdictions and is acceptable to NARUC.

IN YOUR REBUTTAL TESTIMONY FILED ON MAY 17, 2002 YOU INDICATED THAT THE DISPARITY BETWEEN THE NET SALVAGE EXPENSE INCLUDED IN DEPRECIATION RATES AND UE'S ACTUAL NET SALVAGE EXPERIENCE IS IN PART PRODUCED BY THE FACT THAT THE NET SALVAGE COMPONENT INCLUDED IN THE DEPRECIATION RATES INCLUDES THE IMPACT OF FUTURE INFLATION. PLEASE ELABORATE.

To develop the net salvage component of the depreciation rates, UE analyzes the net salvage cost it experiences when retiring plant investment. UE develops its net salvage percentage to be included in its depreciation rates by dividing the net salvage cost associated with retiring an asset by the original cost of the asset. In this instance, the net salvage cost is expressed in current dollars, while the original cost of the asset is stated in the dollars for the year the asset was originally placed in service. For example, UE's transmission and distribution plant accounts have an average service life in excess of 45 years. Therefore, if an asset is retired in 2000, UE compares the cost to remove the asset in year 2000 dollars with the cost to install

1		the asset in 1955 dollars in order to develop a net salvage ratio. This net salvage
2		ratio is used to develop the current depreciation rates. Therefore, UE's net salvage
3		percentages require today's ratepayers to pay the estimated costs of future inflation
4		based on historic trends.
5	Q	WHAT WOULD BE THE IMPACT ON NET SALVAGE ASSOCIATED WITH
6		INCLUDING FUTURE INFLATION IN THE DEVELOPMENT OF NET SALVAGE
7		RATIOS?
8	Α	Using Mr. Stout's example on Page 12 of his Rebuttal Testimony, let us assume that
9		the asset has a 45-year life and a cost to remove of \$4,050. If we simply discount the
10		\$4,050 at a 3% rate, the present-day cost to remove that asset is approximately
11		\$1,071. Under UE's proposal, today's ratepayers would see the 45-year amortization
12		of the \$4,050 in their depreciation rates. Therefore, by including future inflation in the
13		development of the net salvage ratio, UE is requiring today's ratepayers to pick up the
14		cost of inflation that it estimates will occur over the next 45 years. That is, the net
15		salvage that is built into the depreciation rates does not reflect a current cost, but an
16		estimate of a cost that it is expected to incur in 45 years.
17	Q	ON PAGES 11-13 OF MR. STOUT'S TESTIMONY, HE PROVIDES AN EXAMPLE
18		THAT INDICATES USING THE STAFF'S APPROACH IS NOT EQUITABLE AND
19		VIOLATES THE PRINCIPLE THAT CUSTOMERS SHOULD PAY THE COST OF
20		THE PLANT THAT PROVIDES SERVICE TO THEM. DO YOU AGREE WITH THAT
21		EXAMPLE?
22	Α	No. In his example, Mr. Stout has only reflected the cost of the net salvage. He has
23		not included the impact of the return on the investment and associated income taxes.
24		Therefore, Mr. Stout's example does not capture the true cost to Customers A and B.

1 Q PLEASE SUMMARIZE THE EXAMPLE MR. STOUT PRESENTS IN HIS 2 TESTIMONY.

Mr. Stout analyzes the net salvage costs associated with a customer taking service from a pole line that does not provide service to other customers. The pole line has an installed cost of \$4,500, an estimated service life of 45 years, and an estimated net salvage of negative 90%. Customer A takes service from this pole line for 30 years then moves out, and Customer B takes service for a like period. Because the pole line only has a 45-year life, at the end of year 45, a new pole line is installed at the same original cost. In Mr. Stout's example, Customer B, under the Staff's proposed treatment of net salvage, is incurring additional cost that, in his opinion, should be allocated to Customer A. Mr. Stout concludes that this approach is not equitable and violates the principle that customers should pay the cost of the plant that provides service to them.

14 Q DO YOU AGREE WITH MR. STOUT'S ANALYSIS?

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No. Mr. Stout's analysis is only partial. The analysis does not reflect the return on rate base and associated taxes that each customer will experience during this 60-year time period. The analysis does not reflect the <u>true cost</u> to the customer. Factoring in the return on rate base and associated taxes, the Staff's approach to net salvage is more equitable than UE's approach.

HAVE YOU PERFORMED AN ANALYSIS TO DEMONSTRATE THIS POINT?

Q

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Yes. Schedule 1 develops an annual revenue requirement using Mr. Stout's life and net salvage assumptions and UE's proposed treatment of net salvage. The annual revenue requirement applies a pre-tax rate of return to the undepreciated investment used to serve the customer. This represents the annual cost to serve the customer. Schedule 1 models UE's method of including the net salvage ratio in the deprecation rates and collecting net salvage over the life of the asset.

As the example shows, Customer A, for the first 30 years of the life of the asset, will have a total cost under UE's approach of including future net salvage costs in the depreciation rates of \$14,133 and on a present value basis a total cost of \$6,618. Over the next 30 years, Customer B has a total cost of \$9,751 and on a present value a total cost of \$2,378. It should be noted that the present value for each customer is determined when the customer commences service.

When Customer A leaves after 30 years, Customer B will have very low cost to serve during the remaining 15 years of the original asset's life because of the contributions to net salvage that Customer A has made during the first 30 years. The example assumes that in year 45, the pole line is replaced and a new pole line is installed at the same cost. Customer B remains taking service for an additional 15 years, so each customer has taken service for 30 years.

As the example shows, under UE's proposed treatment of net salvage, the revenue requirement or cost to serve Customer A is \$14,133 over the 30-year period, while the revenue requirement or cost to serve Customer B over the second 30-year period is \$9,751, or 69% of Customer A's costs. Comparing the present value costs, Customer B's cost of \$2,378 is 36% of Customer A's cost of \$6,618. This analysis shows that Customer B benefits substantially from Customer A as a result of treating net salvage as recommended by UE.

1	Q	HAVE	YOU	MODIFIED	THE	EXAMPLE	то	SHOW	CUSTOMER	Α	AND
2		CUSTO	MER I	B COSTS US	SING T	HE STAFF'S	S ME	THOD A	S PRESENTE) BY	MR.
3		STOUT	·.								

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Yes. Schedule 2 provides the same example except that Customer B incurs all the removal cost associated with removal of the pole line in year 45. Under this scenario, Customer A's total cost is \$14,417, and on a present value basis is \$6,325. Customer B's total cost is \$15,660 and on a present value basis is \$5,041. It should be noted that this is a hypothetical example. In reality, Customer A would incur an annual net salvage cost under the Staff method. This would increase costs to Customer A and decrease the costs to Customer B. Finally, although the total cost appears higher under the Staff's treatment, to get an accurate picture, costs need to be discounted to present value. Using the after-tax cost of capital as a discount rate, both net salvage treatments produce the same present value of revenue requirement over a life cycle.

WHAT IS UE'S POSITION FOR THE NET SALVAGE PERCENTAGE FOR ITS STEAM PRODUCTION PLANT?

UE is proposing significant negative net salvage percentages for its steam production plants. For all accounts, excluding the Boiler Plant Equipment – Aluminum Cars account, UE is proposing net salvage percentages that range from a negative 26% to a negative 52% for its steam production plants. The negative net salvage percentages are based on dismantling and demolition studies for UE's steam production power plants. The net salvage ratios that UE wants to include in its steam production depreciation rates produce significantly more negative net salvage expense than is currently in UE's steam production depreciation rates.

Q PLEASE COMMENT ON UE'S PROPOSED NET SALVAGE FACTORS FOR ITS STEAM PRODUCTION PLANTS.

Q

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UE is proposing net salvage ratios that are much more negative than those historically used by the Commission. More negative net salvage rates mean higher depreciation rates and expense, all other factors being equal.

UE based its recommendations on dismantling studies that do not recognize the value of the generating sites. A generating site should be valuable because the sites have access to the electric transmission system. Because of this access, these sites should be valuable to UE and/or an independent power producer for the next generation of power plants. This should provide a positive benefit that needs to be considered when the net salvage is developed.

Finally, these sites also have infrastructure in place that makes these sites valuable. For example, these sites have access to water, railroads and/or roads, and the transmission system, all of which provide value to the existing generating site. Also, costs associated with siting and permitting major electric generating plant at an alternative site could enhance the value of the current site. Therefore, if these types of positive salvage considerations are included in the estimate to determine net salvage, dismantling studies would have to be adjusted and the net salvage ratios would be less negative.

WHAT IS YOUR RECOMMENDATION IN THIS PROCEEDING REGARDING THE NET SALVAGE FOR STEAM PRODUCTION?

Because it is uncertain how these sites will be used, I recommend the Commission set the net salvage percentages at zero for the steam production plants, which is consistent with the net salvage ratios in UE's current depreciation rates. The Commission should not at this time impose higher costs on ratepayers when it is

- conceivable that sometime in the future, the sites can be used to develop the next generation of power plants.
- 3 Q WHAT IS YOUR RECOMMENDED TREATMENT OF UE'S NET SALVAGE?
- 4 A UE's net salvage percentage used to calculate its depreciation rates should be set
 5 equal to zero. The Commission could then either reflect a five-year average history,
 6 or a ten-year average history of UE's actual net salvage expense in UE's revenue
 7 requirement. This would be treated as an expense item. Table 1 clearly shows that
 8 there is not much volatility associated with using a five-year or ten-year average
 9 history. In my Rebuttal Testimony, I recommended using a five-year history.
- 10 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?
- 11 A Yes, it does.

AmerenUE Customer Revenue Requirement Analysis Net Salvage Ratio In Depreciation Rates

Part	Assumpti Life = 45 Net Salva Tax Rate	years ige = -90%		<u>Type</u> Debt Equity	<u>Amount</u> 48.0% <u>52.0%</u> 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% <u>5.46%</u> 9.06%	Pre Tax <u>Return</u> 3.600% <u>8.878%</u> 12.478%		
3	1	\$4,500	<u>Exp</u> \$190	Deferred <u>Tax</u> (\$35)	<u>Tax</u> \$562	<u>Req</u> \$752	Rev Req	30-Yr <u>Rev Reg</u>	45-Yr Life Rev Req	
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AmerenUE Customer Revenue Requirement Analysis Net Salvage Expense - Staff Recommendation

Assumpt Life = 45 Net Salva Tax Rate	years age = -90%		<u>Type</u> Debt Equity	Amount 48.0% 52.0% 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% <u>5.46%</u> 9.06%	Pre Tax <u>Return</u> 3.600% 8.878% 12.478%
<u>Year</u> 1 2	Rate Base \$4,500 4,400	Dep <u>Exp</u> \$100 100	Return & <u>Tax</u> \$562 \$549	Rev <u>Reg</u> \$662 649	30-Yr Sum <u>Rev Reg</u> \$14,417	PV @ 7.674% 30-Yr <u>Rev Req</u> \$6,325	PV @ 7.674% 45-Yr Life <u>Rev Req</u> \$6,676
3	4,300	100	\$537	637			
4	4,200	100	\$524	624			
5 6	4,100	100	\$512 \$400	612			
7	4,000 3,900	100 100	\$499 \$487	599 587			
8	3,800	100	\$474	574			
9	3,700	100	\$462	562			
10	3,600	100	\$449	549			
11 12	3,500	100	\$437	537			
13	3,400 3,300	100 100	\$424 \$412	524 512			
14	3,200	100	\$399	499			
15	3,100	100	\$387	487			
16	3,000	100	\$374	474			
17	2,900	100	\$362	462			
18 19	2,800 2,700	100 100	\$349 \$337	449 437			
20	2,600	100	\$324	424			
21	2,500	100	\$312	412			
22	2,400	100	\$299	399			
23	2,300	100	\$287	387			
24 25	2,200 2,100	100 100	\$275 \$262	375 362			
26	2,000	100	\$250	350			
27	1,900	100	\$237	337			
28	1,800	100	\$225	325			
29	1,700	100	\$212	312			
30 31	1,600 \$1,500	100 \$ 100	\$200 \$187	300 \$287	\$15,660	\$5,041	
32	1,400	100	\$175	275	\$13,000	\$5,041	
33	1,300	100	\$162	262			
34	1,200	100	\$150	250			
35	1,100	100	\$137	237			
36 3 7	1,000 900	100 100	\$125 \$112	225 212			
38	800	100	\$100	200			
39	700	100	\$87	187			
40	600	100	\$75	175			
41	500	100	\$62	162			
42 43	400 300	100 100	\$50 \$37	150 137			
44	200	100	\$25	125			
45	100	4,150	\$12	4,162			
46	4,500	100	\$562	662			
47	4,400	100	\$549	649			
48 49	4,300 4,200	100 100	\$537 \$524	637 624			
50	4,100	100	\$524 \$512	612			
51	4,000	100	\$499	599			
52	3,900	100	\$487	587			
53	3,800	100	\$474	574			
54 55	3,700 3,600	100	\$462 \$440	562 540			
56	3,500 3,500	100 100	\$449 \$437	549 537			
57	3,400	100	\$424	524			
58	3,300	100	\$412	512			
59	3,200	100	\$399	499			
60	3,100	100	\$387	487			•

Exhibit No.

Witness: Type of Exhibit: James T. Selecky Surrebuttal Testimony

Sponsoring Party:

Missouri Industrial Energy Consumers

Case No.

EC-2002-1

Subject:

Depreciation Rates

Before the Missouri Public Service Commission

Staff of the Missouri Public Service Commission))
Complainant) Case No. EC-2002-1
v. Union Electric Company, d/b/a)
AmerenUE)
Respondent.)

Surrebuttal Testimony and Schedules of

James T. Selecky

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002 Project 7651



Brubaker & Associates, Inc. St. Louis, MO 63141-2000

Before the Public Service Commission of the State of Missouri

Staff of the Miss Commission v. Union Electric C AmerenUE	Coi ompai	mplainant)	Case No. EC-2002-1
STATE OF MISSOURI) } }	SS	

Surrebuttal Affidavit of James T. Selecky

James T. Selecky, being first duly sworn, on his oath states:

- 1. My name is James T. Selecky. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
- 2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.
- 3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

James T. Selecky

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County

My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the Missouri Public Service Commission

Staff of the Missouri Public Commission Compla v. Union Electric Company, d AmerenUE Respon) inant)) /b/a)	Case No. EC-2002-1
Surrebuttal Tes	timony of James T. S	elecky
PLEASE STATE YOUR NAME	AND BUSINESS ADDRI	ESS.
James T. Selecky; 1215 Fern Ri	dge Parkway, Suite 208;	St. Louis, MO 63141-2000.
ARE YOU THE SAME JAMES	T. SELECKY WHO HAS	PREVIOUSLY SUBMITTED
REBUTTAL TESTIMONY IN TH	IIS PROCEEDING?	
Yes.		
ON WHAT SUBJECTS WILL Y	OU TESTIFY?	
I will address AmerenUE's (UE	or Company) rebuttal to	estimony on the treatment of
net salvage as it relates to book	depreciation rates. Prim	narily, I will be addressing the
net salvage issues presented by	UE Witness William M.	Stout.
HOW IS UE PROPOSING TO	TREAT THE NET SAL	VAGE ASSOCIATED WITH
BOOK DEPRECIATION?		
UE wants to include the ne	t salvage ratios in the	development of the book

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depreciation rates. The MPSC Staff is proposing to exclude the net salvage from the

1	deprecation rates and include an expense provision for net salvage in UE's revenue
2	requirement or cost of service. I support the Staff approach.

HOW MUCH NET SALVAGE IS UE SEEKING IN THIS PROCEEDING?

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Q

Α

UE is seeking to include \$51.4 million of net salvage expense in its book depreciation rates. The proposed net salvage accrual of \$51.4 million is approximately \$25 million greater than the amount of net salvage currently included in UE's depreciation rates. Of the \$54.1 million of net salvage, \$29.8 million is attributable to the transmission, distribution and general plant functions. For these three plant functions, UE is essentially seeking a net salvage ratio of a negative 39% to include in its depreciation rates.

HOW DOES UE'S NET SALVAGE EXPENSE INCLUDED IN ITS PROPOSED DEPRECIATION RATES COMPARE WITH THE NET SALVAGE EXPENSE UE HAS ACTUALLY INCURRED?

Table 1 below shows UE's net salvage experience for the last 20 years. It should be noted that since 1986 data was not available, 1981 data was used to complete the 20-year history. Also, the data are shown as negative amounts because UE's removal cost exceeds the gross salvage. That is, UE incurs cost to retire plant investment.

As Table 1 shows, UE's net salvage history using a five-year rolling average has ranged from approximately \$5.9 million to \$10.5 million annually, and \$6.6 million to \$10.3 million using the ten-year rolling average. UE's actual net salvage history has been considerably less than what UE is seeking in this proceeding. Therefore, UE's request in this proceeding appears excessive and inconsistent with trends over the last 20 years.

TABLE 1						
Ĩ	JE's Actual Net	Salvage Experie	ence			
<u>Year</u>	Net Salvage (\$000)	5-Year Average (\$000)	10-Year Average _(\$000)			
2001	\$ (21,426)	\$ (10,378)	\$ (10,252)			
2000	(12,502)	(8,137)	(9,043)			
1999	(7,701)	(8,024)	(8,609)			
1998	(576)	(8,820)	(8,465)			
1997	(9,686)	(10,521)	(8,977)			
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1988	(5,706)	(6,497)				
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1986	N/A	N/A				
1985	(8,215)	(5,899)	İ			
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1982	(5,940)	•				
1981	(3,909)					
Average	\$ (8,430)	\$ (8,170)	\$ (8,311)			

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IN YOUR REBUTTAL TESTIMONY FILED ON MAY 17, 2002 YOU INDICATED THAT THE DISPARITY BETWEEN THE NET SALVAGE EXPENSE INCLUDED IN DEPRECIATION RATES AND UE'S ACTUAL NET SALVAGE EXPERIENCE IS IN PART PRODUCED BY THE FACT THAT THE NET SALVAGE COMPONENT INCLUDED IN THE DEPRECIATION RATES INCLUDES THE IMPACT OF FUTURE INFLATION. PLEASE ELABORATE.

To develop the net salvage component of the depreciation rates, UE analyzes the net salvage cost it experiences when retiring plant investment. UE develops its net salvage percentage to be included in its depreciation rates by dividing the net salvage cost associated with retiring an asset by the original cost of the asset. In this instance, the net salvage cost is expressed in current dollars, while the original cost of the asset is stated in the dollars for the year the asset was originally placed in service. For example, UE's transmission and distribution plant accounts have an average service life in excess of 45 years. Therefore, if an asset is retired in 2000, UE compares the cost to remove the asset in year 2000 dollars with the cost to install

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2		ratio is used to develop the current depreciation rates. Therefore, UE's net salvage
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4		based on historic trends.
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6		INCLUDING FUTURE INFLATION IN THE DEVELOPMENT OF NET SALVAGE
7		RATIOS?
8	Α	Using Mr. Stout's example on Page 12 of his Rebuttal Testimony, let us assume that
9		the asset has a 45-year life and a cost to remove of \$4,050. If we simply discount the
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1		\$1,071. Under UE's proposal, today's ratepayers would see the 45-year amortization
2		of the \$4,050 in their depreciation rates. Therefore, by including future inflation in the
3		development of the net salvage ratio, UE is requiring today's ratepayers to pick up the
4		cost of inflation that it estimates will occur over the next 45 years. That is, the net
5		salvage that is built into the depreciation rates does not reflect a current cost, but an
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22	Α	No. In his example, Mr. Stout has only reflected the cost of the net salvage. He has
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Mr. Stout analyzes the net salvage costs associated with a customer taking service from a pole line that does not provide service to other customers. The pole line has an installed cost of \$4,500, an estimated service life of 45 years, and an estimated net salvage of negative 90%. Customer A takes service from this pole line for 30 years then moves out, and Customer B takes service for a like period. Because the pole line only has a 45-year life, at the end of year 45, a new pole line is installed at the same original cost. In Mr. Stout's example, Customer B, under the Staff's proposed treatment of net salvage, is incurring additional cost that, in his opinion, should be allocated to Customer A. Mr. Stout concludes that this approach is not equitable and violates the principle that customers should pay the cost of the plant that provides service to them.

14 Q DO YOU AGREE WITH MR. STOUT'S ANALYSIS?

Α

No. Mr. Stout's analysis is only partial. The analysis does not reflect the return on rate base and associated taxes that each customer will experience during this 60-year time period. The analysis does not reflect the <u>true cost</u> to the customer. Factoring in the return on rate base and associated taxes, the Staff's approach to net salvage is more equitable than UE's approach.

HAVE YOU PERFORMED AN ANALYSIS TO DEMONSTRATE THIS POINT?

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Yes. Schedule 1 develops an annual revenue requirement using Mr. Stout's life and net salvage assumptions and UE's proposed treatment of net salvage. The annual revenue requirement applies a pre-tax rate of return to the undepreciated investment used to serve the customer. This represents the annual cost to serve the customer. Schedule 1 models UE's method of including the net salvage ratio in the deprecation rates and collecting net salvage over the life of the asset.

As the example shows, Customer A, for the first 30 years of the life of the asset, will have a total cost under UE's approach of including future net salvage costs in the depreciation rates of \$14,133 and on a present value basis a total cost of \$6,618. Over the next 30 years, Customer B has a total cost of \$9,751 and on a present value a total cost of \$2,378. It should be noted that the present value for each customer is determined when the customer commences service.

When Customer A leaves after 30 years, Customer B will have very low cost to serve during the remaining 15 years of the original asset's life because of the contributions to net salvage that Customer A has made during the first 30 years. The example assumes that in year 45, the pole line is replaced and a new pole line is installed at the same cost. Customer B remains taking service for an additional 15 years, so each customer has taken service for 30 years.

As the example shows, under UE's proposed treatment of net salvage, the revenue requirement or cost to serve Customer A is \$14,133 over the 30-year period, while the revenue requirement or cost to serve Customer B over the second 30-year period is \$9,751, or 69% of Customer A's costs. Comparing the present value costs, Customer B's cost of \$2,378 is 36% of Customer A's cost of \$6,618. This analysis shows that Customer B benefits substantially from Customer A as a result of treating net salvage as recommended by UE.

1	Q	HAVE	YOU	MODIFIED	THE	EXAMPLE	ТО	SHOW	CUSTOMER	Α	AND
2		CUSTO	MER I	B COSTS U	SING T	THE STAFF'S	S ME	THOD AS	PRESENTED	BY	MR.
3		STOLL									

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Q

Α

Yes. Schedule 2 provides the same example except that Customer B incurs all the removal cost associated with removal of the pole line in year 45. Under this scenario, Customer A's total cost is \$14,417, and on a present value basis is \$6,325. Customer B's total cost is \$15,660 and on a present value basis is \$5,041. It should be noted that this is a hypothetical example. In reality, Customer A would incur an annual net salvage cost under the Staff method. This would increase costs to Customer A and decrease the costs to Customer B. Finally, although the total cost appears higher under the Staff's treatment, to get an accurate picture, costs need to be discounted to present value. Using the after-tax cost of capital as a discount rate, both net salvage treatments produce the same present value of revenue requirement over a life cycle.

WHAT IS UE'S POSITION FOR THE NET SALVAGE PERCENTAGE FOR ITS STEAM PRODUCTION PLANT?

UE is proposing significant negative net salvage percentages for its steam production plants. For all accounts, excluding the Boiler Plant Equipment – Aluminum Cars account, UE is proposing net salvage percentages that range from a negative 26% to a negative 52% for its steam production plants. The negative net salvage percentages are based on dismantling and demolition studies for UE's steam production power plants. The net salvage ratios that UE wants to include in its steam production depreciation rates produce significantly more negative net salvage expense than is currently in UE's steam production depreciation rates.

Q PLEASE COMMENT ON UE'S PROPOSED NET SALVAGE FACTORS FOR ITS STEAM PRODUCTION PLANTS.

Q

Α

Α

UE is proposing net salvage ratios that are much more negative than those historically used by the Commission. More negative net salvage rates mean higher depreciation rates and expense, all other factors being equal.

UE based its recommendations on dismantling studies that do not recognize the value of the generating sites. A generating site should be valuable because the sites have access to the electric transmission system. Because of this access, these sites should be valuable to UE and/or an independent power producer for the next generation of power plants. This should provide a positive benefit that needs to be considered when the net salvage is developed.

Finally, these sites also have infrastructure in place that makes these sites valuable. For example, these sites have access to water, railroads and/or roads, and the transmission system, all of which provide value to the existing generating site. Also, costs associated with siting and permitting major electric generating plant at an alternative site could enhance the value of the current site. Therefore, if these types of positive salvage considerations are included in the estimate to determine net salvage, dismantling studies would have to be adjusted and the net salvage ratios would be less negative.

WHAT IS YOUR RECOMMENDATION IN THIS PROCEEDING REGARDING THE NET SALVAGE FOR STEAM PRODUCTION?

Because it is uncertain how these sites will be used, I recommend the Commission set the net salvage percentages at zero for the steam production plants, which is consistent with the net salvage ratios in UE's current depreciation rates. The Commission should not at this time impose higher costs on ratepayers when it is

- 1 conceivable that sometime in the future, the sites can be used to develop the next 2 generation of power plants.
- 3 Q WHAT IS YOUR RECOMMENDED TREATMENT OF UE'S NET SALVAGE?
- 4 A UE's net salvage percentage used to calculate its depreciation rates should be set
 5 equal to zero. The Commission could then either reflect a five-year average history,
 6 or a ten-year average history of UE's actual net salvage expense in UE's revenue
 7 requirement. This would be treated as an expense item. Table 1 clearly shows that
 8 there is not much volatility associated with using a five-year or ten-year average
 9 history. In my Rebuttal Testimony, I recommended using a five-year history.
- 10 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?
- 11 A Yes, it does.

AmerenUE Customer Revenue Requirement Analysis Net Salvage Ratio In Depreciation Rates

Assumpti Life = 45 Net Salva Tax Rate	years ige = -90%		<u>Type</u> Debt Equity	Amount 48.0% 52.0% 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% 5.46% 9.06%	Pre Tax <u>Return</u> 3.600% <u>8.878%</u> 12.478%	
Net Salva	ge = -90%	Dep Exp \$190 190 190 190 190 190 190 190 190 190	Debt	48.0% 52.0%	7.5%	3.60% 5.46%	3.600% 8.878%	PV @ 7.674% 45-Yr Life Rev Req \$6,676
54 55 56 57	3,257 3,102 2,947 2,791	190 190 190 190	(35) (35) (35) (35)	406 387 368 348	596 577 558 538			
58 59 60	2,636 2,480 2,325	190 190 190	(35) (35) (35)	329 310 290	519 500 480			Schedule 1

AmerenUE Customer Revenue Requirement Analysis Net Salvage Expense - Staff Recommendation

Assumpti Life = 45 y Net Salva Tax Rate	years ge = -90%		<u>Type</u> Debt Equity	Amount 48.0% 52.0% 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% <u>5.46%</u> 9.06%	Pre Tax <u>Return</u> 3.600% <u>8.878%</u> 12.478%
<u>Year</u> 1 2 3	Rate Base \$4,500 4,400 4,300	Dep <u>Exp</u> \$100 100	Return & <u>Tax</u> \$562 \$549 \$537	Rev <u>Req</u> \$662 649 637	30-Yr Sum <u>Rev Req</u> \$14,417	PV @ 7.674% 30-Yr <u>Rev Req</u> \$6,325	PV @ 7.674% 45-Yr Life <u>Rev Req</u> \$6,676
4 5 6 7 8 9	4,200 4,100 4,000 3,900 3,800 3,700	100 100 100 100 100 100	\$524 \$512 \$499 \$487 \$474 \$462	624 612 599 587 574 562			
10 11 12 13 14 15	3,600 3,500 3,400 3,300 3,200 3,100	100 100 100 100 100 100	\$449 \$437 \$424 \$412 \$399 \$387	549 537 524 512 499 487			
16 17 18 19 20 21	3,000 2,900 2,800 2,700 2,600 2,500	100 100 100 100 100 100	\$374 \$362 \$349 \$337 \$324 \$312	474 462 449 437 424 412			
22 23 24 25 26 27 28	2,400 2,300 2,200 2,100 2,000 1,900	100 100 100 100 100 100	\$299 \$287 \$275 \$262 \$250 \$237	399 387 375 362 350 337			
29 30 31 32 33	1,800 1,700 1,600 \$1,500 1,400 1,300 1,200	100 100 100 \$100 100 100	\$225 \$212 \$200 \$187 \$175 \$162 \$150	325 312 300 \$287 275 262 250	\$15,660	\$5,041	
35 36 37 38 39 40	1,100 1,000 900 800 700 600	100 100 100 100 100 100	\$137 \$125 \$112 \$100 \$87 \$75	237 225 212 200 187 175			
41 42 43 44 45 46	500 400 300 200 100 4,500	100 100 100 100 4,150	\$62 \$50 \$37 \$25 \$12 \$562	162 150 137 125 4,162 662			
47 48 49 50 51 52	4,400 4,300 4,200 4,100 4,000 3,900	100 100 100 100 100 100	\$549 \$537 \$524 \$512 \$499 \$487	649 637 624 612 599 587			
53 54 55 56 57 58	3,800 3,700 3,600 3,500 3,400 3,300	100 100 100 100 100	\$474 \$462 \$449 \$437 \$424 \$412	574 562 549 537 524 512			
59 60	3,200 3,100	100 100	\$399 \$387	499 487		,	

Exhibit No.

Witness:

James T. Selecky Surrebuttal Testimony

Type of Exhibit: Sponsoring Party:

Missouri Industrial Energy Consumers

Case No.

EC-2002-1

Subject:

Depreciation Rates

Before the Missouri Public Service Commission

Staff of the Miss Commission	souri Public Service))	
	Complainant	j	Case No. EC-2002-1
٧.)	
Union Electric (Company, d/b/a)	
AmerenUE	• •)	
	Respondent.	j	

Surrebuttal Testimony and Schedules of

James T. Selecky

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002 Project 7651



Brubaker & Associates, Inc. St. Louis, MO 63141-2000

Before the Public Service Commission of the State of Missouri

Staff of the Miss	ouri P	ublic Service)	
Commission)	
	Co	mplainant)	
v.	Case No. EC-2002-1		
Union Electric C	ompa	ny, d/b/a)	
AmerenUE	-)	
	Re	spondent.)	
STATE OF MISSOURI)) SS		
COUNTY OF ST. LOUIS	<i>,</i>	55	

Surrebuttal Affidavit of James T. Selecky

James T. Selecky, being first duly sworn, on his oath states:

- 1. My name is James T. Selecky. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
- 2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.
- 3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

James T. Selecky

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County

My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the Missouri Public Service Commission

		Staff of the Missouri Public Service Commission Complainant v. Union Electric Company, d/b/a AmerenUE Respondent. Surrebuttal Testimony of James T.	Case No. EC-2002-1
1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADD	PRESS.
2	Α	James T. Selecky; 1215 Fern Ridge Parkway, Suite 20	08; St. Louis, MO 63141-2000.
3 4	Q	ARE YOU THE SAME JAMES T. SELECKY WHO HAREBUTTAL TESTIMONY IN THIS PROCEEDING? Yes.	AS PREVIOUSLY SUBMITTED
5	A	res.	•
6	Q	ON WHAT SUBJECTS WILL YOU TESTIFY?	
7	Α	I will address AmerenUE's (UE or Company) rebutta	I testimony on the treatment of
8		net salvage as it relates to book depreciation rates. P	rimarily, I will be addressing the
9		net salvage issues presented by UE Witness William I	M. Stout.
10	Q	HOW IS UE PROPOSING TO TREAT THE NET S	ALVAGE ASSOCIATED WITH
11		BOOK DEPRECIATION?	
12	Α	UE wants to include the net salvage ratios in	the development of the book
13		depreciation rates. The MPSC Staff is proposing to e	exclude the net salvage from the

1	deprecation rates and include an expense provision for net salvage in UE's revenue
2	requirement or cost of service. I support the Staff approach.

3 Q HOW MUCH NET SALVAGE IS UE SEEKING IN THIS PROCEEDING?

Q

Α

Α

UE is seeking to include \$51.4 million of net salvage expense in its book depreciation rates. The proposed net salvage accrual of \$51.4 million is approximately \$25 million greater than the amount of net salvage currently included in UE's depreciation rates. Of the \$54.1 million of net salvage, \$29.8 million is attributable to the transmission, distribution and general plant functions. For these three plant functions, UE is essentially seeking a net salvage ratio of a negative 39% to include in its depreciation rates.

HOW DOES UE'S NET SALVAGE EXPENSE INCLUDED IN ITS PROPOSED DEPRECIATION RATES COMPARE WITH THE NET SALVAGE EXPENSE UE HAS ACTUALLY INCURRED?

Table 1 below shows UE's net salvage experience for the last 20 years. It should be noted that since 1986 data was not available, 1981 data was used to complete the 20-year history. Also, the data are shown as negative amounts because UE's removal cost exceeds the gross salvage. That is, UE incurs cost to retire plant investment.

As Table 1 shows, UE's net salvage history using a five-year rolling average has ranged from approximately \$5.9 million to \$10.5 million annually, and \$6.6 million to \$10.3 million using the ten-year rolling average. UE's actual net salvage history has been considerably less than what UE is seeking in this proceeding. Therefore, UE's request in this proceeding appears excessive and inconsistent with trends over the last 20 years.

	TA	BLE 1	
<u>i</u>	JE's Actual Net	Salvage Experie	ence
<u>Year</u>	Net Salvage (\$000)	5-Year Average (\$000)	10-Year Average (\$000)
2001	\$ (21,426)	\$ (10,378)	\$ (10,252)
2000	(12,502)	(8,137)	(9,043)
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To develop the net salvage component of the depreciation rates, UE analyzes the net salvage cost it experiences when retiring plant investment. UE develops its net salvage percentage to be included in its depreciation rates by dividing the net salvage cost associated with retiring an asset by the original cost of the asset. In this instance, the net salvage cost is expressed in current dollars, while the original cost of the asset is stated in the dollars for the year the asset was originally placed in service. For example, UE's transmission and distribution plant accounts have an average service life in excess of 45 years. Therefore, if an asset is retired in 2000, UE compares the cost to remove the asset in year 2000 dollars with the cost to install

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Α

Α

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1	Q	HAVE Y	YOU	MODIFIED	THE	EXAMPLE	то	SHOW	CUSTOMER	Α	AND
2		CUSTON	IER E	s costs us	SING T	HE STAFF'S	ME	THOD AS	PRESENTE	BY	MR.
3		STOUT?	•								

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Yes. Schedule 2 provides the same example except that Customer B incurs all the removal cost associated with removal of the pole line in year 45. Under this scenario, Customer A's total cost is \$14,417, and on a present value basis is \$6,325. Customer B's total cost is \$15,660 and on a present value basis is \$5,041. It should be noted that this is a hypothetical example. In reality, Customer A would incur an annual net salvage cost under the Staff method. This would increase costs to Customer A and decrease the costs to Customer B. Finally, although the total cost appears higher under the Staff's treatment, to get an accurate picture, costs need to be discounted to present value. Using the after-tax cost of capital as a discount rate, both net salvage treatments produce the same present value of revenue requirement over a life cycle.

WHAT IS UE'S POSITION FOR THE NET SALVAGE PERCENTAGE FOR ITS STEAM PRODUCTION PLANT?

UE is proposing significant negative net salvage percentages for its steam production plants. For all accounts, excluding the Boiler Plant Equipment – Aluminum Cars account, UE is proposing net salvage percentages that range from a negative 26% to a negative 52% for its steam production plants. The negative net salvage percentages are based on dismantling and demolition studies for UE's steam production power plants. The net salvage ratios that UE wants to include in its steam production depreciation rates produce significantly more negative net salvage expense than is currently in UE's steam production depreciation rates.

1 Q PLEASE COMMENT ON UE'S PROPOSED NET SALVAGE FACTORS FOR ITS 2 STEAM PRODUCTION PLANTS.

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UE is proposing net salvage ratios that are much more negative than those historically used by the Commission. More negative net salvage rates mean higher depreciation rates and expense, all other factors being equal.

UE based its recommendations on dismantling studies that do not recognize the value of the generating sites. A generating site should be valuable because the sites have access to the electric transmission system. Because of this access, these sites should be valuable to UE and/or an independent power producer for the next generation of power plants. This should provide a positive benefit that needs to be considered when the net salvage is developed.

Finally, these sites also have infrastructure in place that makes these sites valuable. For example, these sites have access to water, railroads and/or roads, and the transmission system, all of which provide value to the existing generating site. Also, costs associated with siting and permitting major electric generating plant at an alternative site could enhance the value of the current site. Therefore, if these types of positive salvage considerations are included in the estimate to determine net salvage, dismantling studies would have to be adjusted and the net salvage ratios would be less negative.

WHAT IS YOUR RECOMMENDATION IN THIS PROCEEDING REGARDING THE NET SALVAGE FOR STEAM PRODUCTION?

Because it is uncertain how these sites will be used, I recommend the Commission set the net salvage percentages at zero for the steam production plants, which is consistent with the net salvage ratios in UE's current depreciation rates. The Commission should not at this time impose higher costs on ratepayers when it is

- conceivable that sometime in the future, the sites can be used to develop the next generation of power plants.
- 3 Q WHAT IS YOUR RECOMMENDED TREATMENT OF UE'S NET SALVAGE?
- 4 A UE's net salvage percentage used to calculate its depreciation rates should be set
 5 equal to zero. The Commission could then either reflect a five-year average history,
 6 or a ten-year average history of UE's actual net salvage expense in UE's revenue
 7 requirement. This would be treated as an expense item. Table 1 clearly shows that
 8 there is not much volatility associated with using a five-year or ten-year average
 9 history. In my Rebuttal Testimony, I recommended using a five-year history.
- 10 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?
- 11 A Yes, it does.

AmerenUE Customer Revenue Requirement Analysis Net Salvage Ratio In Depreciation Rates

Assumptions: Life = 45 years Net Salvage = -90% Tax Rate = 38.5%			<u>Type</u> Debt Equity	<u>Amount</u> 48.0% <u>52.0%</u> 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% <u>5.46%</u> 9.06%	Pre Tax <u>Return</u> 3.600% <u>8.878%</u> 12.478%	
Year 1 2 3 4 5 6 7 8 9 10	Rate Base \$4,500 4,345 4,189 4,034 3,879 3,723 3,568 3,413 3,257 3,102	Dep <u>Exp</u> \$190 190 190 190 190 190 190 190	Net Salvage Deferred Tax (\$35) (35) (35) (35) (35) (35) (35) (35) (Return & <u>Tax</u> \$562 542 523 503 484 465 445 426 406 387	Rev Req \$752 732 713 693 674 655 635 616 596 577	30-Yr Sum <u>Rev Reg</u> \$14,113	PV @ 7.674% 30-Yr <u>Rev Req</u> \$6,618	PV @ 7.674% 45-Yr Life <u>Rev Reg</u> \$6,676
11 12 13 14 15 16 17 18 19 20 21 22 23 24	2,947 2,791 2,636 2,480 2,325 2,170 2,014 1,859 1,704 1,548 1,393 1,238 1,082 927	190 190 190 190 190 190 190 190 190 190	(35) (35) (35) (35) (35) (35) (35) (35)	368 348 329 310 290 271 251 232 213 193 174 154 135	558 538 519 500 480 461 441 422 403 383 364 344 325 306			
25 26 27 28 29 30 31 32 33 34 35 36	772 616 461 306 150 (5) (160) (316) (471) (627) (782) (937) (1,093)	190 190 190 190 190 190 190 190 190 190	(35) (35) (35) (35) (35) (35) (35) (35)	96 77 58 38 19 (1) (\$20) (39) (59) (78) (98) (117) (136)	286 267 248 228 209 189 \$170 151 131 112 92 73 54	\$9,751	\$2,378	
38 39 40 41 42 43 44 45 46 47 48 49	(1,248) (1,403) (1,559) (1,714) (1,869) (2,025) (2,180) (2,335) 4,500 4,345 4,189 4,034	190 190 190 190 190 190 190 190 190 190	(35) (35) (35) (35) (35) (35) (35) (35)	(156) (175) (194) (214) (233) (253) (272) (291) 562 542 523 503	34 15 (4) (24) (43) (63) (82) (101) 752 732 713 693			
50 51 52 53 54 55 56 57 58 59	3,879 3,723 3,568 3,413 3,257 3,102 2,947 2,791 2,636 2,480 2,325	190 190 190 190 190 190 190 190 190 190	(35) (35) (35) (35) (35) (35) (35) (35)	484 465 445 426 406 387 368 348 329 310 290	674 655 635 616 596 577 558 538 519 500 480			Schedule 1

AmerenUE Customer Revenue Requirement Analysis Net Salvage Expense - Staff Recommendation

Assumptions: Life = 45 years Net Salvage = -90% Tax Rate = 38.5%			Type Debt Equity	Amount 48.0% 52.0% 100.0%	<u>Cost</u> 7.5% 10.5%	Wgt <u>Cost</u> 3.60% <u>5.46%</u> 9.06%	Pre Tax <u>Return</u> 3.600% <u>8.878%</u> 12.478%
<u>Year</u> 1 2	Rate Base \$4,500 4,400	Dep <u>Exp</u> \$100 100	Return & <u>Tax</u> \$562 \$549	Rev <u>Req</u> \$662	30-Yr Sum <u>Rev Reg</u> \$14,417	PV @ 7.674% 30-Yr <u>Rev Req</u> \$6,325	PV @ 7.674% 45-Yr Life <u>Rev Req</u> \$6,676
3	4,300	100	\$537	649 637			
4	4,200	100	\$524	624			
5	4,100	100	\$512	612			
6	4,000	100	\$499	599			
7 8	3,900	100	\$487 \$4374	587			
9	3,800 3,700	100 100	\$474 \$462	574 562			
10	3,600	100	\$449	549			
11	3,500	100	\$437	537			
12	3,400	100	\$424	524			
13	3,300	100	\$412	512			
14 15	3,200 3,100	100 100	\$399 \$387	499			
16	3,000	100	\$30 <i>1</i> \$374	487 474			
17	2,900	100	\$362	462			
18	2,800	100	\$349	449			
19	2,700	100	\$337	437			
20 21	2,600	100	\$324	424			
22	2,500 2,400	100 100	\$312 \$299	412 399			
23	2,300	100	\$287	387			
24	2,200	100	\$275	375			
25	2,100	100	\$262	362			
26	2,000	100	\$250	350			
27 28	1,900 1,800	100	\$237	337			
29	1,700	100 100	\$225 \$212	325 312			
30	1,600	100	\$200	300			
31	\$1,500	\$100	\$187	\$287	\$15,660	\$5,041	
32	1,400	100	\$175	275			
33 34	1,300	100	\$162	262			
35	1,200 1,100	100 100	\$150 \$137	250 237			
36	1,000	100	\$137 \$125	225			
37	900	100	\$112	212			
38	800	100	\$100	200			
39	700	100	\$87	187			
40 41	600 500	100 100	\$75 \$62	175 162			
42	400	100	\$50 \$50	162 150			
43	300	100	\$37	137			
44	200	100	\$25	125			
45	100	4,150	\$12	4,162			
46 47	4,500 4,400	100	\$562 \$540	662			
48	4,300	100 100	\$549 \$537	649 637			
49	4,200	100	\$524	624			
50	4,100	100	\$512	612			
51	4,000	100	\$499	599			
52	3,900	100	\$487	587			
53 54	3,800	100	\$474	574			
54 55	3,700 3,600	100 100	\$462 \$449	562 549			
56	3,500	100	\$449 \$437	549 537			
57	3,400	100	\$424	524			
58	3,300	100	\$412	512			
59 60	3,200	100	\$399	499			
60	3,100	100	\$387	487		,	