Exhibit No.:
Issues: Income Tax
Witness: Ronald E. White
Sponsoring Party: Missouri Public Service
Case No.: ER-2001-672

Before the Public Service Commission
of the State of Missouri

Surrebuttal Testimony

of

Ronald E. White

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
SURREBUTTAL TESTIMONY OF DR. RONALD E. WHITE
ON BEHALF OF MISSOURI PUBLIC SERVICE,
A DIVISION OF UTILICORP UNITED INC.
CASE NO. ER-2001-672

Q. Would you please state your name and business address?

A. My name is Ronald E. White. My business address is 17595 S. Tamiami Trail, Suite 212, Fort Myers, Florida 33908.

Q. What is your occupation?

A. I am an Executive Vice President and Senior Consultant of Foster Associates, Inc.

QUALIFICATIONS

Q. Would you briefly describe your educational training and professional background?

A. I received a B.S. degree (1965) in Engineering Operations and an M.S. degree (1968) and Ph.D. (1977) in Engineering Valuation from Iowa State University. I have taught graduate and undergraduate courses in industrial engineering, engineering economics, and engineering valuation at Iowa State University and previously served on the faculty for Depreciation Programs for public utility commissions, companies, and consultants, sponsored by Depreciation Programs, Inc., in cooperation with Western Michigan University. I also conduct courses in depreciation and public utility economics for clients of the firm.

I have prepared and presented a number of papers to professional organizations, committees, and conferences and have published several articles on matters relating to

depreciation, valuation and economics. I am a past member of the Board of Directors of the Iowa State Regulatory Conference and an affiliate member of the joint American Gas Association (A.G.A.) – Edison Electric Institute (EEI) Depreciation Accounting Committee, where I previously served as chairman of a standing committee on capital recovery and its effect on corporate economics. I am also a member of the American Economic Association, the Financial Management Association, the Midwest Finance Association, the Electric Cooperatives Accounting Association (ECAA), and a founding member of the Society of Depreciation Professionals.

A. What is your professional experience?

Q. I joined the firm of Foster Associates in 1979, as a specialist in depreciation, the economics of capital investment decisions, and cost of capital studies for ratemaking applications. Prior to joining Foster Associates, I was employed by Northern States Power Company (1968-1979) in various assignments related to finance and treasury activities. As Manager of the Corporate Economics Department, I was responsible for book depreciation studies, studies involving staff assistance from the Corporate Economics Department in evaluating the economics of capital investment decisions, and the development and execution of innovative forms of project financing. As Assistant Treasurer at Northern States, I was responsible for bank relations, cash requirements planning, and short-term borrowings and investments.

Q. Have you previously testified before a regulatory body?

A. Yes. I have testified in numerous proceedings before administrative and judicial bodies in Alabama, Arizona, California, Colorado, Delaware, Hawaii, Idaho, Illinois, Iowa,

Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Wisconsin, and the District of Columbia. I have also testified before the Federal Energy Regulatory Commission, the Federal Power Commission, the Alberta Energy Board, the Ontario Energy Board, and the Securities and Exchange Commission. I have sponsored position statements before the Federal Communication Commission and numerous local franchising authorities in matters relating to the regulation of telephone and cable television.

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. I have been asked by Missouri Public Service (MPS) to respond to the prepared rebuttal testimony of Staff witness Steve M. Traxler regarding Staff's computation of income tax expense using an annualized deduction for straight-line depreciation. It will be demonstrated in this testimony that the Staff computation of income tax expense is in error and will preclude MPS from ever fully recovering the capital invested in plant and equipment serving customers in Missouri.

RESPONDING TESTIMONY

Q. What is your understanding of Staff's computation of income tax expense with straight-line depreciation?

A. According to witness Traxler, "...every dollar of book depreciation included in cost of service with no corresponding straight line tax depreciation results in [a] cash outlay from ratepayers." (Traxler rebuttal testimony, p. 6). Presumably, "The additional revenue requirement resulting from including book depreciation expense in cost of service without a corresponding tax deduction can be eliminated by continuing to calculate straight line tax depreciation for all assets which are still in service consistent with the calculation of book depreciation under the mass asset method used under FERC rules." (Traxler rebuttal testimony, pp. 6-7). Following this reasoning, Staff has imputed a tax deduction using straight-line depreciation for plant remaining in service beyond the recovery period allowed under the Internal Revenue Code. This reduction in revenue requirements is claimed by witness Traxler to "eliminate the inequity" of including book depreciation in cost of service with no corresponding tax deduction.

Q. Are revenue requirements overstated (*i.e.*, customers overcharged) by including book depreciation expense in cost of service with no corresponding tax deduction?

A. No, they are not. Revenue collected to recover book depreciation expense is taxable and must be included in a revenue requirement calculation of current taxes. The $0.62 "inequity" claimed by witness Traxler in his example (Traxler rebuttal testimony, p. 6) is the revenue requirement for current taxes created by each dollar of book depreciation expense that is not deductible from taxable income. Stated differently, a tax of $0.62 ($1.62 % 0.3839 = $0.62) is payable on taxable income of $1.62 using a tax rate of 38.39 percent. The amount remaining after the payment of $0.62 in taxes (*i.e.*, $1.00) is the appropriate allowance for the recovery of book depreciation expense.

Q. What is the allowance for the recovery of book depreciation expense resulting from Staff's imputed straight-line tax depreciation deduction?

A. Staff would allow recovery of $0.62 ($1.00 % (1.0 - 0.3839) = $0.62) of each dollar charged to depreciation expense for plant remaining in service beyond the allowed recovery period. By way of analogy, it's a sure bet that Staff would be unwilling to accept a reimbursement of $1.00 from the State for each dollar of an out-of pocket business expense costing $1.62.

Q. Would you please illustrate the correct computation of revenue requirements for a vintage of plant in which the allowed recovery period is shorter than the service life used in the computation of book depreciation expense?

A. Attached Schedule REW-1 provides an example calculation of the revenue required to achieve full capital recovery of a $100,000 plant investment having a book life of 10 years and an allowed recovery period of 7 years. Assumptions regarding the debt ratio, cost of capital and income tax rate are displayed at the top of the Schedule.

Note in particular the computation of current taxes in Years 8-10, which are beyond the allowed recovery period. The ratemaking revenue requirement for current taxes shown in Table 1 (Column M) is given by

$$Current\ Tax = \frac{Tax\ Rate}{1.0 - Tax\ Rate}(Equity\ Return + Book\ Depreciation + Dererred\ Taxes - Tax\ Depreciation).$$

Current taxes in Year 8, for example, are

$$Current\ Tax = \frac{0.35}{1.0 - 0.35}(1{,}404 + 10{,}000 - 3{,}500 - 0.00) = 4{,}256.$$

Importantly, allowable tax depreciation (Column K) in Years 8-10 is $0.00. Any tax depreciation imputed beyond Year 7 would be disallowed under current tax rules.

Q. Why is a tax deduction for depreciation disallowed beyond Year 7 in this example?

A. The tax basis in this example is $100,000 and the allowed recovery period is 7 years. The sum of allowed tax depreciation over Years 1-7 (Column K) is equal to the unadjusted basis of $100,000. A taxpayer is not permitted to deduct an amount greater than the tax basis in computing taxable income.

Q. Can it be demonstrated that your calculation of revenue requirements is correct?

A. Yes, it can. Table 2 (shown in attached Schedule REW-1) provides a "top-down" calculation of the cash flow available for capital recovery if collected revenue is equal to the revenue requirements derived in Table 1. A proper level of net revenue for a regulated utility (after operating expenses and current income taxes) is annual amounts sufficient to achieve a present value of return *of* and return *on* investor supplied capital equal to the amount of capital originally devoted to public service. The source of return *of* capital is revenue covering book depreciation, deferred income taxes and deferred investment tax credits. The source of return *on* capital is revenue covering operating income before interest expense.

It can be observed from Table 2 that the present value of the cash flows available for capital recovery (Column J) is equal to the original investment of $100,000. Hence, the ratemaking calculation of revenue requirements shown in Table 1 correctly achieves the desired goal of providing investors an opportunity to realize full capital recovery.

Q. Would you please illustrate the Staff computation of revenue requirements using the above example?

A. Attached Schedule REW-2 provides the Staff computation of revenue requirements for the example illustrated in REW-1. Note, in particular, the Staff computation of current income taxes in Years 8-10, which are beyond the allowed recovery period. As noted earlier, the statutory tax deduction for this period is $0.00. Staff, however, has imputed a straight-line depreciation deduction for taxes equal to the book depreciation recorded for these years. The Staff calculation of current taxes in Year 8, for example, is

$$Current\ Tax = \frac{0.35}{1.0 - 0.35}(1{,}404 + 10{,}000 - 3{,}500 - 10{,}000) = -1{,}128.62.$$

The correct computation (shown in REW-1) yields a revenue requirement for current income taxes of $4,256.00.

Q. Can it be demonstrated that the Staff calculation of revenue requirements is deficient?

A. Yes, it can. As discussed earlier, Table 2 (shown in attached Schedule REW-2) provides a "top-down" calculation of the cash flow available for capital recovery if collected revenue is equal to the revenue requirements derived in Table 1. It can be observed from Table 2 that the present value of the cash flows available for capital recovery (Column J) is $95,533.48, which is $4,466.52 less than the original investment of $100,000. Clearly, the Staff calculation of revenue requirements fails to achieve the desired goal of providing investors an opportunity to realize full capital recovery.

Q. Would you please summarize your assessment of the Staff calculation of revenue requirements for current taxes?

A. The statutory allowance for tax depreciation does not permit the straight-line depreciation deduction imputed by Staff for plant remaining in service beyond the allowed recovery period. The Staff computation of revenue requirements is deficient, therefore, by an amount equal to the tax rate times the present value of book depreciation expense over the number of years in which the book life exceeds the allowed recovery period. Regulation that adopts the Staff calculation of revenue requirements will systematically deny investors an opportunity for full capital recovery. This is equivalent to removing unrecovered investments from the rate base with no provision for capital recovery.

Q. According to witness Traxler, "... as long as ratepayers are asked to provide additional depreciation recovery for assets which are outliving their 'estimated' book depreciation lives, a corresponding straight line tax deduction should also be reflected for ratemaking purposes." (Traxler rebuttal testimony, p. 9). Do you agree with this assertion?

A. No, I do not and for three related reasons. First, book depreciation is an entirely different concept than tax depreciation. Book depreciation is a cost allocation concept that constitutes an application of both the matching and expense recognition principles of accounting.[1] Accounting depreciation is a measurement of the service potential of an asset (or group of assets) that is consumed during an accounting interval. The service potential of an asset is the present value of future net revenue (*i.e.*, revenue less expenses

[1] The matching principle provides that, for any period in which income is recognized, the expenses incurred in generating the recognized revenue should be determined and reported for that period. The expense recognition principle provides that costs deferred as assets and subsequently written off as periodic expenses according to the matching principle should be based on cause and effect whenever a direct causal relationship between the expense and revenue can be identified.

exclusive of depreciation and other non-cash expenses) or cash inflows attributable to the use of that asset alone.

The goal or objective of depreciation accounting is cost allocation over economic life in proportion to the consumption of service potential. This goal is achieved under rate base/rate of return regulation by a) conducting periodic depreciation studies to estimate service life and net salvage statistics; and b) determining the amount of revenue a utility is authorized to collect from a revenue requirement equation that includes depreciation expense as one of the elements of recoverable costs. The present value of future net revenue for a regulated utility will, therefore, equal its unrecovered investment in plant and equipment provided regulation does not remove investments from the rate base, operating expenses are properly determined, and service markets remain protected from competition.

Tax depreciation, on the other hand, represents a "... reasonable allowance for the exhaustion, wear and tear (including a reasonable allowance for obsolescence) —(1) of property used in a trade or business, or (2) of property held for the production of income." (IRC §167(a)). Under the current tax code, equipment is generally assigned to one of seven recovery periods that range in length from three years to 25 years. The applicable method of depreciation (*e.g.*, straight-line or declining balance) depends on the recovery period assigned to the asset. Non-residential buildings generally are depreciated over a 39-year recovery period using the straight-line method. Methods of depreciation and recovery periods permitted under the tax code are not intended to achieve the goals of depreciation accounting. The primary goal of tax depreciation is to stimulate capital

investment by allowing rapid recovery of the costs of acquiring capital assets. It is wrong, therefore, to claim that book and tax depreciation should be aligned for ratemaking purposes.

Secondly, ratepayers are *not* being "... asked to provide additional depreciation recovery for assets which are outliving their 'estimated' book depreciation lives." Book depreciation is an application of group accounting principles in which service life statistics are estimated for the group. These statistics contemplate that some assets will be retired at relatively young ages while others will remain in service well beyond the average service life of the group. The average service life of a plant category represents the mean or expected service life of assets when they are first placed in service.[2] The estimated service life of any asset within the group is measured by a statistic called a *probable life,* which is equal to the age of the asset plus its estimated remaining life. Probable lives for a plant category can range between the average life and several multiples of the average life, depending upon the dispersion of retirements estimated from a survivor curve.

Depreciation rates derived from the estimated average service life of a rate category (*i.e.*, whole-life technique) are applied to the total plant in service from all surviving vintages. The depreciation reserve for a plant category is, therefore, the aggregate reserve associated with all vintages. No asset or vintage within an account has an identifiable

reserve. It is fundamental to group accounting that depreciation must continue to be accrued on plant remaining in service beyond an estimated average service life of a group to compensate for the under-accruals on earlier retirements. Contrary to the opinion of witness Traxler, ratepayers are *not* being "... asked to provide additional depreciation recovery for assets which are outliving their 'estimated' book depreciation lives." Finally, as demonstrated earlier, imputing a straight-line tax deduction for vintages remaining in service beyond the allowed recovery period will preclude MPS from ever fully recovering the capital invested in plant and equipment serving customers in Missouri. Witness Traxler simply cannot claim that "MPS will benefit from a significant windfall profit ... due to allowing the company to recover significant book depreciation expense with no corresponding tax deduction for ratemaking purposes."

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

[2] Technically, this statistic is the estimated *projection* life of the category. The average service life of a plant category is dependent upon the procedure (*e.g.*, broad group, vintage group, or equal-life group) used in the development of an accrual rate.

Revenue Requirements and Capital Recovery
Correct Calculation

Debt Ratio:	40.00%	Income Tax Rate (t):	35.00%
Debt Cost:	7.00%	Book Life:	10.00
Equity Cost:	12.00%	Tax Recovery Period:	7.00
Pre-Tax ROR:	10.00%	SYD:	28.00
Post-Tax ROR:	9.02%		

Table 1. Ratemaking

					Return on Capital				Tax Depreciation				
EOY	Plant	Depreciation Reserve	Deferred Taxes	Rate Base	Equity	Interest	Total	Book Depreciation	Straight-Line	Accelarated	Deferred Taxes	Current Taxes	Revenue Requirement
A	B	C	D	E=B-C-D	F	G	H=F+G	I	J	K	L=t*(K-J)	M	N=H+I+L+M
0	$100,000.00			$100,000.00									
1	100,000.00	10,000.00	5,250.00	84,750.00	7,200.00	2,800.00	10,000.00	10,000.00	10,000.00	25,000.00	5,250.00	(1,373.08)	23,876.92
2	100,000.00	20,000.00	9,250.00	70,750.00	6,102.00	2,373.00	8,475.00	10,000.00	10,000.00	21,428.57	4,000.00	(714.31)	21,760.69
3	100,000.00	30,000.00	12,000.00	58,000.00	5,094.00	1,981.00	7,075.00	10,000.00	10,000.00	17,857.14	2,750.00	(7.08)	19,817.92
4	100,000.00	40,000.00	13,500.00	46,500.00	4,176.00	1,624.00	5,800.00	10,000.00	10,000.00	14,285.71	1,500.00	748.62	18,048.62
5	100,000.00	50,000.00	13,750.00	36,250.00	3,348.00	1,302.00	4,650.00	10,000.00	10,000.00	10,714.29	250.00	1,552.77	16,452.77
6	100,000.00	60,000.00	12,750.00	27,250.00	2,610.00	1,015.00	3,625.00	10,000.00	10,000.00	7,142.86	(1,000.00)	2,405.38	15,030.38
7	100,000.00	70,000.00	10,500.00	19,500.00	1,962.00	763.00	2,725.00	10,000.00	10,000.00	3,571.43	(2,250.00)	3,306.46	13,781.46
8	100,000.00	80,000.00	7,000.00	13,000.00	1,404.00	546.00	1,950.00	10,000.00	10,000.00		(3,500.00)	4,256.00	12,706.00
9	100,000.00	90,000.00	3,500.00	6,500.00	936.00	364.00	1,300.00	10,000.00	10,000.00		(3,500.00)	4,004.00	11,804.00
10					468.00	182.00	650.00	10,000.00	10,000.00		(3,500.00)	3,752.00	10,902.00
Present Value													$111,836.45

Table 2. Financial Reporting

EOY	Revenue	Interest	Tax Depreciation	Taxable Income	Current Taxes	Deferred Taxes	Book Depreciation	Net Income	Capital Recovery
A	B	C	D	E=B-C-D	F=t*E	G	H	I=B-C-F-G-H	J=C+G+H+I
1	23,876.92	2,800.00	25,000.00	(3,923.08)	(1,373.08)	5,250.00	10,000.00	7,200.00	25,250.00
2	21,760.69	2,373.00	21,428.57	(2,040.88)	(714.31)	4,000.00	10,000.00	6,102.00	22,475.00
3	19,817.92	1,981.00	17,857.14	(20.22)	(7.08)	2,750.00	10,000.00	5,094.00	19,825.00
4	18,048.62	1,624.00	14,285.71	2,138.90	748.62	1,500.00	10,000.00	4,176.00	17,300.00
5	16,452.77	1,302.00	10,714.29	4,436.48	1,552.77	250.00	10,000.00	3,348.00	14,900.00
6	15,030.38	1,015.00	7,142.86	6,872.53	2,405.38	(1,000.00)	10,000.00	2,610.00	12,625.00
7	13,781.46	763.00	3,571.43	9,447.03	3,306.46	(2,250.00)	10,000.00	1,962.00	10,475.00
8	12,706.00	546.00		12,160.00	4,256.00	(3,500.00)	10,000.00	1,404.00	8,450.00
9	11,804.00	364.00		11,440.00	4,004.00	(3,500.00)	10,000.00	936.00	7,800.00
10	10,902.00	182.00		10,720.00	3,752.00	(3,500.00)	10,000.00	468.00	7,150.00
Present Value									$100,000.00

Schedule REW-1

Revenue Requirements and Capital Recovery
Staff Calculation

Debt Ratio:	40.00%	Income Tax Rate (t):	35.00%
Debt Cost:	7.00%	Book Life:	10.00
Equity Cost:	12.00%	Tax Recovery Period:	7.00
Pre-Tax ROR:	10.00%	SYD:	28.00
Post-Tax ROR:	9.02%		

Table 1. Ratemaking

EOY	Plant	Depreciation Reserve	Deferred Taxes	Rate Base	Return on Capital			Book Depreciation	Tax Depreciation		Deferred Taxes	Current Taxes	Revenue Requirement
					Equity	Interest	Total		Straight-Line	Accelarated			
A	B	C	D	E=B-C-D	F	G	H=F+G	I	J	K	L=t*(K-J)	M	N=H+I+L+M
0	$100,000.00			$100,000.00									
1	100,000.00	10,000.00	5,250.00	84,750.00	7,200.00	2,800.00	10,000.00	10,000.00	10,000.00	25,000.00	5,250.00	(1,373.08)	23,876.92
2	100,000.00	20,000.00	9,250.00	70,750.00	6,102.00	2,373.00	8,475.00	10,000.00	10,000.00	21,428.57	4,000.00	(714.31)	21,760.69
3	100,000.00	30,000.00	12,000.00	58,000.00	5,094.00	1,981.00	7,075.00	10,000.00	10,000.00	17,857.14	2,750.00	(7.08)	19,817.92
4	100,000.00	40,000.00	13,500.00	46,500.00	4,176.00	1,624.00	5,800.00	10,000.00	10,000.00	14,285.71	1,500.00	748.62	18,048.62
5	100,000.00	50,000.00	13,750.00	36,250.00	3,348.00	1,302.00	4,650.00	10,000.00	10,000.00	10,714.29	250.00	1,552.77	16,452.77
6	100,000.00	60,000.00	12,750.00	27,250.00	2,610.00	1,015.00	3,625.00	10,000.00	10,000.00	7,142.86	(1,000.00)	2,405.38	15,030.38
7	100,000.00	70,000.00	10,500.00	19,500.00	1,962.00	763.00	2,725.00	10,000.00	10,000.00	3,571.43	(2,250.00)	3,306.46	13,781.46
8	100,000.00	80,000.00	7,000.00	13,000.00	1,404.00	546.00	1,950.00	10,000.00	10,000.00	10,000.00	(3,500.00)	(1,128.62)	7,321.38
9	100,000.00	90,000.00	3,500.00	6,500.00	936.00	364.00	1,300.00	10,000.00	10,000.00	10,000.00	(3,500.00)	(1,380.62)	6,419.38
10					468.00	182.00	650.00	10,000.00	10,000.00	10,000.00	(3,500.00)	(1,632.62)	5,517.38
Present Value													$104,392.57

Table 2. Financial Reporting

EOY	Revenue	Interest	Tax Depreciation	Taxable Income	Current Taxes	Deferred Taxes	Book Depreciation	Net Income	Capital Recovery
A	B	C	D	E=B-C-D	F=t*E	G	H	I=B-C-F-G-H	J=C+G+H+I
1	23,876.92	2,800.00	25,000.00	(3,923.08)	(1,373.08)	5,250.00	10,000.00	7,200.00	25,250.00
2	21,760.69	2,373.00	21,428.57	(2,040.88)	(714.31)	4,000.00	10,000.00	6,102.00	22,475.00
3	19,817.92	1,981.00	17,857.14	(20.22)	(7.08)	2,750.00	10,000.00	5,094.00	19,825.00
4	18,048.62	1,624.00	14,285.71	2,138.90	748.62	1,500.00	10,000.00	4,176.00	17,300.00
5	16,452.77	1,302.00	10,714.29	4,436.48	1,552.77	250.00	10,000.00	3,348.00	14,900.00
6	15,030.38	1,015.00	7,142.86	6,872.53	2,405.38	(1,000.00)	10,000.00	2,610.00	12,625.00
7	13,781.46	763.00	3,571.43	9,447.03	3,306.46	(2,250.00)	10,000.00	1,962.00	10,475.00
8	7,321.38	546.00		6,775.38	2,371.38	(3,500.00)	10,000.00	(2,096.00)	4,950.00
9	6,419.38	364.00		6,055.38	2,119.38	(3,500.00)	10,000.00	(2,564.00)	4,300.00
10	5,517.38	182.00		5,335.38	1,867.38	(3,500.00)	10,000.00	(3,032.00)	3,650.00
Present Value									$95,533.48

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Missouri Public Service of Kansas City, Missouri, for authority to file tariffs increasing electric rates for service provided to customers in the Missouri Public Service area	)))))	Case No. ER-2001-672

County of Lee)
) ss
State of Florida)

AFFIDAVIT OF RONALD E. WHITE

Ronald E. White, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of Dr. Ronald E. White;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

Ronald E. White, Ph.D.

Subscribed and sworn to before me this 18th day of Jaunuary, 2002.

Notary Public

My Commission expires:

OFFICIAL NOTARY SEAL
MARGARET S LANGE
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. DD060866
MY COMMISSION EXP. OCT. 19,2005