

**752**

Exhibit No.:	Cost of Service, Revenue
Issues:	Allocation, Rate Design
Witness:	Steve W. Chriss
Type of Exhibit:	Rebuttal Testimony
Sponsoring Party:	Wal-Mart Stores East, LP, and Sam's East, Inc.
Case No.:	ER-2014-0258
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**MISSOURI PUBLIC SERVICE COMMISSION**

In the Matter of Union Electric Company, d/b/a	)	
Ameren Missouri's Tariff to Increase Its Revenues	)	Case No. ER-2014-0258
For Electric Service	)	

**REBUTTAL TESTIMONY AND SCHEDULES OF STEVE W. CHRISS**

**ON BEHALF OF**

**WAL-MART STORES EAST, LP AND SAM'S EAST, INC.**

Dated: January 16, 2015

WM Exhibit No. 752  
 Date 3-04-15 Reporter KF  
 File No. ER-2014-0258

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8

1 **Introduction**

2 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

3 A. My name is Steve W. Chriss. My business address is 2001 SE 10th St., Bentonville,  
4 AR 72716-0550. I am employed by Wal-Mart Stores, Inc. as Senior Manager,  
5 Energy Regulatory Analysis.

6 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?

7 A. I am testifying on behalf of Wal-Mart Stores East, LP, and Sam's East, Inc. (collectively  
8 "Walmart").

9 Q. ARE YOU THE SAME STEVE W. CHRISS WHO TESTIFIED EARLIER IN THIS CASE?

10 A. Yes.

11 Q. ARE YOU SPONSORING ANY ADDITIONAL SCHEDULES WITH YOUR TESTIMONY?

12 A. Yes. I am sponsoring the following schedules:

13 Schedule SWC-15: Calculation of Revenue Neutral Changes for Large  
14 General Service ("LGS") and Small Primary Service ("SP");

15 Schedule SWC-16: Large Transmission Service ("LTS") Sales, 2004 to 2013;

16 and

17 Schedule SWC-17: AEP Ohio's Economic Development Cost Recovery  
18 Rider.

19 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

20 A. The purpose of my testimony is to respond to cost of service, revenue allocation, and  
21 rate design issues related to the rate case filing of Union Electric Company d/b/a  
22 Ameren Missouri ("Ameren" or "the Company").

1 **Summary of Recommendations**

2 **Q. HAVE YOUR RECOMMENDATIONS CHANGED FROM YOUR DIRECT TESTIMONY?**

3 **A. No.**

4 **Q. DO YOU HAVE ANY ADDITIONAL RECOMMENDATIONS?**

5 **A. Yes.** Based on the testimony of other intervenors, I have the following additional  
6 recommendations:

7 1) Walmart does not oppose the Commission granting some rate relief for  
8 Noranda, subject to the conditions regarding the structure of the requested  
9 relief outlined in this testimony.

10 2) If the Commission approves rate relief for Noranda, the Commission should  
11 reject Noranda's proposed Service Classification No. 10(M) ("10(M)", "Service  
12 to Aluminum Smelters," and instead implement the rate relief using an  
13 economic development rider as described in my testimony.

14 3) For the purposes of this docket, Walmart does not oppose the application of  
15 a percentage base rate multiplier to all but the energy efficiency and low  
16 income rates for each customer class.

17 The fact that an issue is not addressed herein or in related filings should  
18 not be construed as an endorsement of any filed position.

1 **Cost of Service and Revenue Allocation**

2 **Q. GENERALLY, WHAT IS WALMART'S POSITION ON SETTING RATES BASED ON THE**  
3 **UTILITY'S COST OF SERVICE?**

4 **A.** As I stated in my direct testimony, Walmart advocates that rates be set based on the  
5 utility's cost of service. This produces equitable rates that reflect cost causation, sends  
6 proper price signals, and minimizes price distortions.

7 **Q. DID WALMART TAKE A POSITION ON THE COMPANY'S PROPOSED COST OF SERVICE**  
8 **MODEL IN DIRECT TESTIMONY?**

9 **A.** No. However, Walmart did reserve the right to address any proposed changes to the  
10 Company's model or alternative cost of service models proposed by other parties.

11 **Q. WHAT IS YOUR UNDERSTANDING OF THE VARIOUS GENERATION PLANT**  
12 **ALLOCATION RECOMMENDATIONS OF THE OTHER INTERVENORS IN THIS CASE?**

13 **A.** My understanding is that the other intervenors have put forth the following  
14 recommendations regarding the allocation of generation plant:

15 • **MIEC:** Accepts Ameren's proposed average and excess generation  
16 allocator using four non-coincident peaks ("4NCP-A&E"). See Direct Testimony of  
17 Maurice Brubaker, page 3, line 13 to line 17.

18 • **OPC:** Recommends a peak and average generation allocator using four  
19 coincident peaks ("P&A-4CP"). If the Commission rejects the use of the peak and  
20 average allocator, recommends a 4NCP-A&E generation allocator in the  
21 alternative. See Direct Testimony of Geoff Marke, page 26, line 8 to line 13.

1           •       **Staff:** Recommends their Detailed BIP generation allocator, with a BIP  
2           production energy allocator. See Missouri Public Service Commission Staff's Rate  
3           Design and Class Cost of Service Report ("Staff Report"), page 14, line 2, to page  
4           20, line 7. Staff also derived a "market-based" cost of service study to replicate  
5           the cost of serving load under a retail-choice regulatory system, and a modified-  
6           BIP that resembles their study performed in Case No. ER-2012-0166. *Id.*, page 31,  
7           line 3, to page 34, line 9.

8       **Q.    DOES THE AMEREN SUPPORTED COST OF SERVICE MODEL SHOW THAT LGS AND SP**  
9       **ARE PAYING RATES ABOVE COST OF SERVICE AND REQUIRE A REVENUE NEUTRAL**  
10       **REVENUE REQUIREMENT REDUCTION?**

11       **A.**    Yes. As I indicated in my Direct Testimony, for LGS and SP, the revenue neutral  
12       revenue change required per the Company's cost of service model is a reduction of  
13       approximately \$59.8 million, or 7.44 percent. See Workpapers of William M. Warwick,  
14       SCH 1.

15       **Q.    DO THE MIEC, OPC, AND STAFF COST OF SERVICE STUDY RESULTS ALSO INDICATE**  
16       **THAT LGS AND SP ARE PAYING RATES ABOVE COST OF SERVICE AND REQUIRE A**  
17       **REVENUE NEUTRAL REVENUE REQUIREMENT REDUCTION?**

18       **A.**    Yes. As Illustrated in Table 1R, all of the cost of service studies filed in this case indicate  
19       that LGS and SP are paying rates above cost of service and require a revenue neutral  
20       revenue requirement reduction. The amount of revenue neutral revenue change  
21       ranges from a reduction of \$38.3 million to a reduction of \$62.9 million.

**Table 1R. Summary of Revenue Neutral Changes, Per Filed Cost of Service Study Results, Required to Move LGS and SP to Cost of Service.**

Party	Revenue Change Required to Move LGS/SP to Cost of Service	
	(\$)	(%)
MIEC	(\$62,974,484)	-7.83%
Ameren	(\$59,886,000)	-7.44%
OPC ANCP-A&E	(\$48,159,067)	-6.05%
Staff Modified BIP	(\$47,343,389)	-5.95%
Staff Market	(\$45,300,854)	-5.70%
Staff Detailed BIP	(\$39,128,707)	-4.92%
OPC P&A-4GP	(\$38,338,040)	-4.82%

Source: Schedule SWC-15

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In addition, when considered as a whole, Staff's filed case in this docket indicates that, at cost of service-based rate levels, LGS and SP should receive an overall revenue requirement *decrease*, not an increase. See Staff Report, Table 2.

3

4

5

**Q. DO THESE ALTERNATIVE COST OF SERVICE STUDIES SUPPORT YOUR REVENUE ALLOCATION RECOMMENDATION IN YOUR DIRECT TESTIMONY?**

6

7

**A.** Yes, as all of the filed cost of service studies in this case show that LGS and SP are paying rates significantly in excess of the cost to serve those classes.

8

9

10 **Large Transmission Service and Noranda Aluminum**

11

**Q. WHAT IS YOUR UNDERSTANDING OF NORANDA'S PROPOSAL IN THIS DOCKET?**

12

**A.** My understanding is that Noranda is proposing a seven year rate plan in which Noranda would move from its current tariff, Service Classification No. 12(M), "Large Transmission Service," and create Service Classification No. 10(M), "Service to Aluminum Smelters." See Direct Testimony of Maurice Brubaker, page 39, line 3 to line 16. The key difference between 12(M) and the proposed 10(M), as it relates to

13

14

15

16

1 other Ameren customers, is that the 10(M) energy charge would be set at  
2 \$32.50/MWh with an annual escalator of one percent of the energy charge. The  
3 exemplar tariff does not indicate the seven year term of Noranda's proposal. *See*  
4 Schedule MEB-COS-5.

5 Q. IS IT YOUR UNDERSTANDING THAT 10(M) AS PROPOSED IS NOT A COST BASED  
6 RATE?

7 A. Yes.

8 Q. IS IT YOUR UNDERSTANDING THAT AMEREN WILL EXPERIENCE REVENUE  
9 SHORTFALLS PER 10(M) AS PROPOSED?

10 A. Yes: At the proposed rate of \$32.50/MWh, within the context of Noranda's proposal,  
11 which uses data representative of current rates from Case No. ER-2012-0166,  
12 Noranda estimates that Ameren will experience a base rate revenue shortfall of  
13 approximately \$22.9 million versus the currently approved revenue requirement for  
14 12(M) recovered through base rates. *See* Schedule MEB-COS-6. Additionally, 10(M) as  
15 proposed would result in a reduction in Fuel Adjustment Clause ("FAC") revenues of  
16 approximately \$18.5 million. *See* Schedule MEB-COS-9, page 2. In all, the total  
17 estimated revenue requirement impact of Noranda's requested rate relief, per  
18 Noranda's filing, is approximately \$41.4 million.



1 Q. YOU NOTED THAT NORANDA'S FILING USES DATA FROM CASE NO. ER-2012-0166.  
2 DOES THE INSTANT CASE IMPLICATE THE POTENTIAL BASE REVENUE IMPACTS OF  
3 NORANDA'S PROPOSAL?

4 A. Yes. Assuming Ameren's initial filing in this case is the maximum possible base revenue  
5 increase that LTS could receive, the maximum base revenue shortfall from Noranda's  
6 proposal is approximately \$38.3 million, which is the sum of \$22.9 million from the  
7 shift in current rate revenues and Ameren's proposed \$15.36 million increase to LTS  
8 revenue requirement. See Direct Testimony of William R. Davis, Table 4. Assuming  
9 Noranda's estimated \$18.5 million of FAC impact is correct, it appears the total  
10 maximum potential impact to other customers is \$56.8 million.

11 Q. HOW DOES NORANDA PROPOSE TO ALLOCATE THE BASE REVENUE SHORTFALL TO  
12 THE OTHER RATE CLASSES?

13 A. Noranda proposes to allocate the revenue shortfall to the other rate classes based on  
14 an equal percentage basis. See Direct Testimony of Maurice Brubaker, page 41, line  
15 16 to line 22.

16 Q. WHAT IS YOUR UNDERSTANDING OF HOW NORANDA PROPOSES TO MODIFY  
17 AMEREN'S RATES TO COLLECT THE ALLOCATED SHORTFALL FROM EACH RATE  
18 CLASS?

19 A. Noranda proposes to directly modify the base rate tariff charges other than energy  
20 efficiency and low income revenues surcharges of each rate class by an equal  
21 percentage. *Id.*, page 42, line 1 to line 5.

1 Q. DOES NORANDA PROVIDE A RECOMMENDATION OF HOW TO IMPLEMENT THE  
2 PROPOSED ONE PERCENT ESCALATOR?

3 A. No.

4 Q. HAS NORANDA INDICATED WHAT ACTIONS IT WILL TAKE ABSENT THE RELIEF  
5 REQUESTED IN THIS DOCKET?

6 A. Yes. Noranda has indicated that without the requested relief there is a "substantial  
7 risk" that the smelter will close. See Direct Testimony of Dale Boyles, page 2, line 11  
8 to line 13.

9 Q. HAS NORANDA PROVIDED DATA REGARDING THE IMPACTS OF THE CLOSURE OF THE  
10 SMELTER?

11 A. Yes.

12 Q. HAS NORANDA CALCULATED THE IMPACT TO ALL OTHER RATE CLASSES IF THE  
13 SMELTER CLOSED?

14 A. Yes. If the smelter were to close, Noranda calculates that the impact to all other rate  
15 classes would be between approximately \$44.5 million and \$60 million per year. See  
16 Schedule MEB-COS-8.

17 Q. HAS NORANDA PRESENTED EVIDENCE REGARDING THE IMPACT ON THE ECONOMY  
18 IN SOUTHEAST MISSOURI WERE THE SMELTER TO CLOSE?

19 A. Yes. Of note is the potential loss of the smelter's annual payroll of \$95 million. See  
20 Direct Testimony of Dale Boyles, page 12, line 21.

1 Q. DOES WALMART ALSO HAVE FACILITIES THAT COULD BE IMPACTED BY THE  
2 OUTCOME OF THIS DOCKET?

3 A. Yes. There are 10 Walmart stores and one Sam's Club within 50 miles of Noranda's  
4 smelter in New Madrid, MO, that could be impacted by the outcome of this docket:  
5 Ameren only serves a portion of these facilities, while others receive electrical service  
6 from other utilities.

7 Q. WHAT ASPECTS OF NORANDA'S PROPOSAL WILL YOU ADDRESS?

8 A. The proposal essentially has four primary components that I will address. The first  
9 component is whether Noranda's requested rate relief is appropriate. The second  
10 component is whether Noranda's proposed revenue requirement shortfall allocation  
11 methodology is appropriate. The third component is whether Noranda's proposed  
12 rate design methodology is appropriate. Finally, the fourth component is the  
13 appropriate tariff structure for any approved relief.

14

15 *Noranda's Requested Rate Relief*

16 Q. GENERALLY, WHAT IS WALMART'S POSITION ON SETTING RATES BASED ON THE  
17 UTILITY'S COST OF SERVICE?

18 A. As I stated earlier in my testimony, Walmart advocates that rates be set based on the  
19 utility's cost of service. This produces equitable rates that reflect cost causation, sends  
20 proper price signals, and minimizes price distortions. Under normal circumstances,  
21 Noranda's requested rate relief would be both out of the ordinary and inappropriate.  
22 However, the specific and extraordinary circumstances of this docket warrant the

1 Commission's consideration of whether movement away from cost-based rates for  
2 Noranda is in the public interest.

3 **Q. WHAT SPECIFIC AND EXTRAORDINARY CIRCUMSTANCES ARE OF PARTICULAR**  
4 **CONCERN?**

5 **A.** As a large commercial customer of Ameren's, the first specific and extraordinary  
6 circumstance is the impact to all customers if Noranda shuts down the smelter or  
7 otherwise leaves Ameren's system. Noranda has provided a range of estimates of the  
8 annual revenue requirement impact of the lost smelter load. All of the values in the  
9 range exceed Noranda's stated impact of their proposed relief. However, when the  
10 potential impacts of Ameren's base rate revenue requirement increase in the instant  
11 case are considered, it is unclear whether the lost load impact exceeds the cost of  
12 Noranda's proposed relief.

13 **Q. IS THERE ANOTHER FACTOR THAT SHOULD BE CONSIDERED?**

14 **A.** Yes. Noranda's load constitutes approximately 11.3 percent of Ameren's load on an  
15 energy basis, so the smelter closing or otherwise leaving Ameren's system will  
16 constitute a significant reduction to Ameren's load. Additionally, usage by all other  
17 customers on Ameren's system declined by 0.68 percent a year on average from 2004  
18 to 2013. As the result, there appears to be little to no new load to "pick up the slack"  
19 for cost recovery if the smelter is shut down. See Schedule SWC-16.

1 Q. ARE THE LOCAL ECONOMIC IMPACTS DETAILED IN NORANDA'S FILING A CONCERN  
2 AS WELL?

3 A. Yes. As I state above, there are 10 Walmart stores and a Sam's Club within 50 miles of  
4 the smelter. While it is not possible to estimate the specific impact to these stores,  
5 the potential loss of \$95 million of annual payroll from the local economy due to the  
6 shutdown of the smelter is a significant general concern.

7 Q. DO YOU HAVE CONCERNS ABOUT THE LACK OF CLARITY AROUND THE COST  
8 IMPACTS TO OTHER CUSTOMERS OF THE PROPOSED RELIEF?

9 A. Yes. As such, the Commission should ensure that the economics justify the amount of  
10 relief granted to Noranda.

11 Q. GIVEN THE SPECIFIC AND EXTRAORDINARY CIRCUMSTANCES DISCUSSED ABOVE,  
12 DOES WALMART OPPOSE THE COMMISSION GRANTING SOME RATE RELIEF FOR  
13 NORANDA?

14 A. No, subject to the conditions below regarding the structure of the requested relief.  
15

16 *Revenue Requirement Shortfall Allocation Methodology, Rate Design, and Tariff Structure*

17 Q. HOW DOES NORANDA PROPOSE TO ALLOCATE THE REVENUE REQUIREMENT  
18 SHORTFALL TO OTHER RATE CLASSES?

19 A. As I state above, Noranda proposes to allocate the revenue shortfall to the other rate  
20 classes based on an equal percentage basis. See Direct Testimony of Maurice  
21 Brubaker, page 41, line 16 to line 22.

1 Q. DOES WALMART OPPOSE NORANDA'S PROPOSED REVENUE REQUIREMENT  
2 SHORTFALL ALLOCATION METHODOLOGY?

3 A. No. It should be noted as stated in my cost of service direct testimony, the  
4 Commission's consideration of Noranda's proposal should not impact the  
5 consideration of base rate issues such as revenue allocation or rate design.

6 Q. HOW DOES NORANDA PROPOSE TO MODIFY AMEREN'S RATES TO COLLECT THE  
7 ALLOCATED SHORTFALL FROM EACH RATE CLASS?

8 A. As I state above, Noranda proposes to directly modify the base rate tariff charges  
9 other than energy efficiency and low income revenues surcharges of each rate class  
10 by an equal percentage. *Id.*, page 42, line 1 to line 5.

11 Q. DOES NORANDA PROVIDE A RECOMMENDATION OF HOW TO IMPLEMENT THE  
12 PROPOSED ONE PERCENT ESCALATOR?

13 A. As I state above, no.

14 Q. DO YOU HAVE CONCERNS ABOUT THE PROPOSED METHODOLOGY?

15 A. Yes.

16 Q. WHAT IS YOUR FIRST CONCERN?

17 A. My first concern is the proposal to directly modify the base rate tariffs. Optimally,  
18 base rate tariffs should transparently reflect Ameren's cost of service for each  
19 customer class. Additionally, base rates are essentially permanent until new rates are  
20 approved by the Commission as the result of a general rate case. If no general rate  
21 case occurs, the base rate tariffs should not change. Noranda's proposal is for a period

1 of seven years and is not a permanent modification of base rates. As such, the base  
2 rate tariffs should not be directly modified to accommodate Noranda's proposal.

3 **Q. ARE THERE ADDITIONAL FACTORS THAT MAKE MODIFICATION OF THE BASE RATE**  
4 **TARIFFS A CONCERN?**

5 **A.** Yes. First, the base rates established by the Commission in this case will remain in  
6 place until Ameren's next general rate case. If base rates are modified to  
7 accommodate rate relief for Noranda, but the smelter nevertheless shuts down,  
8 customers will continue to pay for the associated revenue requirement, and those  
9 additional revenues will benefit Ameren's shareholders instead of Noranda, until a full  
10 general rate case is completed. Customers should not be required to continue paying  
11 for Noranda's rate relief if Noranda is no longer on the system.

12 Second, Noranda has proposed a one percent annual escalator, which will  
13 require two things to happen: (1) the rate in 10(M) will have to be increased by one  
14 percent each year and (2) the reduction in revenue requirement to fund the rate relief  
15 will need to be passed on to customers. Using modification of base rates to implement  
16 Noranda's rate relief will essentially require Ameren to file annual general rate cases  
17 during the term of the relief.

1 Q. IN CASE NO. EC-2014-0224 YOU DISCUSSED CONCERNS REGARDING THE  
2 IMPLEMENTATION OF NORANDA'S PROPOSAL AND ITS IMPACT ON THE RATE  
3 DESIGN OF DEMAND METERED CLASSES. IS THAT A SPECIFIC CONCERN IN THIS  
4 INSTANCE?

5 A. No, because of the opportunity for the Commission to fully review all rate design  
6 issues in this case. My recommendations regarding rate design for LGS and SP are  
7 contained in my cost of service direct testimony and have not changed, and the  
8 Commission's consideration of this proposal should not impact the consideration of  
9 base rate issues such as revenue allocation or rate design. For the purposes of this  
10 docket, if the Commission chooses to grant additional rate relieve to Noranda,  
11 Walmart does not oppose the use of a percentage base rate multiplier applied to all  
12 but the energy efficiency and low income rates for each customer class.

13 Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION ON THIS ISSUE?

14 A. If the Commission approves rate relief for Noranda, the Commission should reject  
15 Noranda's proposed 10(M) schedule and instead implement the rate relief using an  
16 economic development rider. The rider should be applied to all rate classes, with  
17 either a \$/MWH relief rate or some form of surcredit, as approved by the Commission,  
18 for Noranda, and surcharge rates or base rate multipliers for the other classes.

19 This ratemaking method is in the public interest because it (1) directly  
20 addresses the concerns outlined above regarding implementing any granted relief  
21 through modification of base rates and (2) implements any granted relief through a  
22 transparent and identifiable mechanism.



1 Q. HOW SHOULD THIS RIDER BE STRUCTURED?

2 A. The rider should be structured as follows:

- 3 1) Terms and conditions governing the application of the rider should be made explicit,  
4 including a description of when and how the rider is calculated, reconciled from  
5 period to period, updated with new rates, and the expiration date of the rider;
- 6 2) If the Commission chooses to set a \$/MWH rate for Noranda, a calculation should be  
7 made of the rate to be charged to Noranda in any given year, as well as a calculation  
8 of the base rate revenue requirement shortfall for that year to be allocated to the  
9 other rate classes;
- 10 3) If the Commission instead chooses to set a \$/year of revenue requirement relief for  
11 Noranda, that revenue requirement should be used as the revenue requirement for a  
12 surcredit to be applied to Noranda's bills and for the surcharge revenue requirement  
13 to be allocated to the other rate classes;
- 14 4) A calculation should be made of the allocation of the revenue requirement shortfall  
15 by rate class;
- 16 5) A determination should be made of the surcharge base rate multipliers, as approved  
17 by the Commission, for each customer class;
- 18 6) Any low-income provisions as determined by the Commission to be appropriate  
19 should be taken into account;
- 20 7) A provision should be included terminating the rider if Noranda's smelter closes, and  
21 delineating the process for Ameren to seek recovery of any uncollected amounts that  
22 have been credited to Noranda, but not collected from customers at that time; and

1           8) Any other necessary provisions.

2           **Q.    ARE YOU AWARE OF ANY ECONOMIC DEVELOPMENT RIDERS THAT USE A BASE RATE**  
3           **MULTIPLIER AS A SURCHARGE FOR THE CUSTOMERS THAT PAY FOR THE RATE**  
4           **RELIEF?**

5           **A.    Yes. AEP Ohio's Economic Development Cost Recovery Rider, which recovers AEP**  
6           **Ohio's costs for the subsidies paid to Ormet Primary Aluminum Corporation, Eramet**  
7           **Marietta, Inc., Globe Metallurgical, Inc., and the Timken Company, uses a base rate**  
8           **multiplier as a surcharge. The surcharge is set periodically by the Public Utilities**  
9           **Commission of Ohio, most recently in Case No. 14-1329-EL-RDR. See Schedule SWC-**  
10          **17:**

11          **Q.    DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

12          **A.    Yes.**

Party	Revenue Neutral Revenue Change	
	Required	
	(\$)	(%)
	(1)	(2)
MIEC	\$ (62,974,484)	-7.83%
Ameren	\$ (59,886,000)	-7.44%
OPC 4NCP-A&E	\$ (48,159,067)	-6.05%
Staff Modified BIP	\$ (47,343,389)	-5.95%
Staff Market	\$ (45,300,854)	-5.70%
Staff Detailed BIP	\$ (39,128,707)	-4.92%
OPC P&A-4CP	\$ (38,338,040)	-4.82%

	Staff				
	Required Increase to Match Cost of Service		Proposed System	Revenue Neutral Increase	
	(\$)	(%)	Average Increase	(%)	(\$)
	(1)	(2)	(3)	(4)	(5)
				(2) - (3)	(4) x \$795,379,758
Staff Modified BIP	\$ (14,279,143)	-1.80%	4.16%	-5.95%	\$ (47,343,389)
Staff Market	\$ (12,236,815)	-1.54%	4.16%	-5.70%	\$ (45,300,854)
Staff Detailed BIP	\$ (6,064,754)	-0.76%	4.16%	-4.92%	\$ (39,128,707)

MIEC					
LGS/SP Rate of Return	Missouri Total Rate of Return	Difference	LGS/SP Rate Base	Difference in Net Operating Income	Revenue Neutral Change
(%)	(%)	(%)	(\$000)	(\$)	(%)
(1)	(2)	(3)	(4)	(5)	(6)
		(2) - (1)		(3) x (4) / 0.6083	(5) / \$804,460,000
7.818%	5.812%	-2.006%	\$ 1,909,640	\$ (62,974,484)	-7.83%

Sources:  
 Workpapers of William M. Warwick, SCH 1  
 OPC Attachment GM-3 and GM-4  
 Staff Rate Design and Cost of Service Report, Table 2 and Table 6  
 Schedule MEB-COS-4  
 Schedule SWC-6

Year	Sales			Year Over Year Change	Contract Rate Portion of Load
	Ameren Total	Contract Rate	Ameren exc. Contract Rate		
(1)	(MWH) (2)	(MWH) (3)	(MWH) (4) (2) - (3)	(%) (5)	(%) (6) (3) / (2)
2004	35,649,754	526,856	35,122,898		1.5%
2005	37,362,021	2,191,808	35,170,213	0.13%	5.9%
2006	36,864,186	4,086,126	32,778,060	-6.80%	11.1%
2007	38,827,452	4,378,013	34,449,439	5.10%	11.3%
2008	37,980,626	4,130,422	33,850,204	-1.74%	10.9%
2009	35,098,274	2,217,306	32,880,968	-2.86%	6.3%
2010	38,427,458	3,952,400	34,475,058	4.85%	10.3%
2011	37,428,457	4,168,775	33,259,682	-3.53%	11.1%
2012	36,753,391	4,150,230	32,603,161	-1.97%	11.3%
2013	37,030,285	4,190,713	32,839,572	0.73%	11.3%
<b>Average</b>				<b>-0.68%</b>	

Sources:

Union Electric Company, 2004 FERC Form 1 through 2013 FERC Form 1, page 304.

OHIO POWER COMPANY

7<sup>th</sup> Revised Sheet No. 482-1  
Cancels 6<sup>th</sup> Revised Sheet No. 482-1

P.U.C.O. NO. 20

ECONOMIC DEVELOPMENT COST RECOVERY RIDER

Effective Cycle 1 October 2014, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the Economic Development Cost Recovery charge of 11.44664% of the customer's distribution charges under the Company's Schedules, excluding charges under any applicable Riders. This Rider shall be adjusted periodically to recover amounts authorized by the Commission.

Filed pursuant to Order dated September 17, 2014 in Case No. 14-1329-EL-RDR

Issued: September 29, 2014

Effective: Cycle 1 October 2014

Issued by  
Pablo Vegas, President  
AEP Ohio

Schedule SWC-17