BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Union Electric Company's)	
Change to its 2011 Utility Resource Filing)	File No. EO-2012-0127
Pursuant to 4 CSR 240 – Chapter 22.	

STAFF'S NOTICE OF AMEREN MISSOURI'S NON-COMPLIANCE WITH RULE 4 CSR 240-22.080 AND DEFICIENCY WITH RULE 4 CSR 240-22.010, AND MOTION FOR ORDER DIRECTING AMEREN MISSOURI TO CURE NON-COMPLIANCE AND DEFICIENCY

COMES NOW the Staff of the Missouri Public Service Commission, and for its Notice of Ameren Missouri's Non-Compliance with Rule 4 CSR 240-22.080 and Deficiencies with Rule 4 CSR 240-22.010, and Motion for Order Directing Ameren Missouri to Cure Non-Compliance and Deficiency, states:

1. On October 25, 2011, Union Electric Company d/b/a Ameren Missouri, filed its *Notice of Change in Preferred Plan* which initiated this file. In the second paragraph of its filing Ameren Missouri states:

On or about 60 days ago, Ameren Missouri determined that its preferred resource plan, as set forth in its most recent Integrated Resource Plan (IRP) filing, was no longer appropriate. Accordingly, the Company makes this filing today to notify the Missouri Public Service Commission (Commission) as required by 4 CSR 240-22.080(12). The Company is not implementing any of the contingency resource plans contained in its February 2011 filing, but rather will implement a revised resource plan as set forth in 4 CSR 240-22.080(12)(B).

In the third paragraph of its filing Ameren Missouri states: "The attached report and supporting documentation explains (*sic*) this change, . . ."

- 2. In pertinent part rule 4 CSR 240-080(12) provides:
 - (12) If, between triennial compliance filings, the utility's business plan or acquisition strategy becomes materially inconsistent with the preferred resource plan, or if the utility determines that the preferred resource plan or acquisition strategy is no longer

appropriate, either due to the limits identified pursuant to 4 CSR 240-22.070(2) being exceeded or for other reasons, the utility, in writing, shall notify the commission within sixty (60) days of the utility's determination and shall serve notice on all parties to the most recent triennial compliance filing. The notification shall include a description of all changes to the preferred plan and acquisition strategy, the impact of each change on the present value of revenue requirement, and all other performance measures specified in the last filing pursuant to 4 CSR 240-22.080 and the rationale for each change.

* * * *

- (B) If the utility decides to implement a resource plan not identified pursuant to 4 CSR 240-22.070(4) or changes its acquisition strategy, it shall give a detailed description of the revised resource plan or acquisition strategy and why none of the contingency resource plans identified in 4 CSR 240-22.070(4) were chosen. In this filing, the utility shall specify the ranges or combinations of outcomes for the critical uncertain factors that define the limits within which the new alternative resource plan remains appropriate.
- 3. Staff has reviewed the entirety of Ameren Missouri's filing, including its report and supporting documentation. In the attached Memorandum, which is labeled Appendix A, Staff reports that Ameren Missouri's filing does not comply with requirements of rule 4 CSR 240-22.080(12), is deficient under Rule 4 CSR 240-22.010(2), and recommends the Commission order Ameren Missouri to cure both the non-compliance and the deficiency.
- 4. In its Memorandum, Staff explains that Ameren Missouri's filing does not comply with the minimum requirements of Rule 4 CSR 240-22.080(12) because the limited performance measures data in the filing do not include data for all of the performance measures Ameren Missouri included in its last Rule 4 CSR 240-22.080 filing—its February 23, 2011 filing made in File No. EO-2011-0271. Staff recommends the Commission order Ameren Missouri to cure this non-compliance.

- 5. In its Memorandum, Staff also explains that while Rule 4 CSR 240-22.080 does not explicitly require Ameren Missouri to satisfy the requirements Rule 4 CSR 240-22.010—the policy objectives—when selecting a new preferred resource plan, it is Staff's position that changing a preferred resource plan should, at a minimum, satisfy the fundamental policy objective stated in Rule 4 CSR 240-22.010(2):
 - (2) The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable, and efficient, at just and reasonable rates, in compliance with all legal mandates, and in a manner that serves the public interest and is consistent with state energy and environmental policies.

Ameren Missouri's filing shows that its electric utility resource planning process is deficient in meeting this fundamental objective because there are many years in its new preferred resource plan where Ameren Missouri will not have sufficient generating capacity over the twenty-year planning horizon to meet its expected capacity requirements. As a result, the present worth of long-run utility costs, as measured by the present value of revenue requirements that Ameren Missouri has provided for its new preferred plan is meaningless. Rule 4 CSR 240-22.101(2)(B) provides:

Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan, subject to the constraints in subsection (2)(C);

In addition to being meaningless, Ameren Missouri's present value of revenue requirements for its new preferred resource plan is higher than Ameren Missouri's present value of revenue requirements for the preferred resource plan it replaces. Further, it is higher than all of the comparable candidate resource plans under current environmental regulations that Ameren Missouri analyzed in its last triennial compliance filing. For all of these reasons Ameren Missouri's electric utility resource planning process that led to its choice of its new

preferred resource plan is deficient under Rule 4 CSR 240-22.010(2), and Staff recommends the Commission order Ameren Missouri to cure this deficiency.

6. Ameren Missouri supplying the missing performance measures data and curing the deficiency in its electric utility resource planning process Staff asserts would not mean that Staff would concur in the resource plan Ameren Missouri chooses as its new preferred resource plan after taking those actions. Staff would need to review Ameren Missouri's electric utility resource planning process that led to that selection before it could express an opinion on the appropriateness of that plan.

WHEREFORE, Staff moves the Commission to order Ameren Missouri to take the remedial actions Staff recommends above.

Respectfully submitted,

/s/ Nathan Williams

Nathan Williams Deputy Staff Counsel Missouri Bar No. 35512

Attorney for the Staff of the Missouri Public Service Commission P. O. Box 360
Jefferson City, MO 65102
(573) 751-8702 (Telephone)
(573) 751-9285 (Fax)
nathan.williams@psc.mo.gov (e-mail)

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 9th day of November, 2011.

/s/ Nathan Williams_

MEMORANDUM

TO: Missouri Public Service Commission Official Case File

File No. EO-2012-0127

Union Electric Company, d/b/a Ameren Missouri

FROM: John Rogers, Utility Regulatory Manager

/s/ Lena M. Mantle 11/9/2011
Energy Unit / Date

/s/ Nathan Williams 11/9/2011
Staff Counsel Department / Date

SUBJECT: Staff Review of and Recommendation Concerning Ameren Missouri's Notice of

Change in Preferred Plan

DATE: November 9, 2011

On October 25, 2011, Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri" and "Company") filed its Notice of Change in Preferred Plan ("Notice") pursuant to 4 CSR 240-22.080(12) creating File No. EO-2012-0127. In its Notice, Ameren Missouri states:

On or about 60 days ago, Ameren Missouri determined that its preferred resource plan, as set forth in its most recent Integrated Resource Plan (IRP) filing, was no longer appropriate. ... The Company is not implementing any of the contingency resource plans contained in its February 2011 filing, but rather will implement a revised resource plan as set forth in 4 CSR 240-22.080(12)(B).

The Notice includes a document titled *Notification of Change in Ameren Missouri's Preferred Resource Plan* in which Ameren Missouri provides additional information meant to comply with 4 CSR 240-22.080(12).

Summary

Staff, after its review of Ameren Missouri's Notice, finds that the Notice does not comply with the minimum requirements of 4 CSR 240-22.080(12), because it does not include a description of the impact of the change in preferred resource plan on all of the performance measures specified in the last filing pursuant to 4 CSR 240-22.080.

To address the lack of compliance with 4 CSR 240-22.080(12), Staff recommends the Commission order Ameren Missouri to remedy non-compliance issues in the Notice by providing the required information on all other performance measures specified in Ameren Missouri's prior 4 CSR 240-22.080 filing¹.

However, while 4 CSR 240-22.080(12) does not explicitly require the electric utility to meet the requirements of 4 CSR 240-22.010 Policy Objectives, it is Staff's position that any change in the

_

¹ File No. EO-2011-0271

File No. EO-2012-0127 Ameren Missouri's Change to its Preferred Resource Plan Page 2 of 4

preferred resource plan should, at a minimum, also meet the requirements of 4 CSR 240-22.010 Policy Objectives.

The Plan Update is deficient with respect to the requirement in rule 4 CSR 240-22.010(2) that Ameren Missouri's service be "reliable and efficient, at just and reasonable rates, in a manner that serves the public interest" during the entire planning horizon. There are many years in the twenty-year planning horizon of the Plan Update where Ameren Missouri will have insufficient capacity to meet its expected needs, i.e., the plan would not provide reliable service.

As a result of not meeting the reliability requirements, the present worth of long-run utility costs as measured through present value of revenue requirements ("PVRR") for Plan Update provided in Ameren Missouri's Notice, while technically correct, is meaningless, since the plan does not meet the capacity requirements for ten (10) of the twenty (20) years of the resource plan. Even without additional resources to meet the annual capacity requirements, the PVRR of Plan Update as filed, is higher than the preferred resource plan that it replaces (Plan B1) and all of the other comparable candidate resource plans that Ameren Missouri analyzed in its recent triennial compliance filing. Therefore, Plan Update is deficient with respect to the requirements in 4 CSR 240-22.010(2).

To address the deficiencies with 4 CSR 240-22.010(2), Staff recommends the Commission order Ameren Missouri to comply with the fundamental policy objective stated in Rule 4 CSR 240-22.010(2). Staff anticipates compliance will result in the need for Ameren Missouri to file a new notice of revised preferred resource plan with the Commission that complies with all of the requirements of 4 CSR 240-22.080(12)

Even if Ameren Missouri adopts the remedies Staff has suggested to cure non-compliance with 4 CSR 240-22.080(12) and the deficiencies with 4 CSR 240-22.010(2), it would not mean that Staff would then concur in Ameren Missouri's newly adopted preferred resource plan. Staff would need to evaluate the adequacy of the filing and determine whether or not the information provided shows that the newly adopted preferred resource plan meets the electric utility resource planning objective of using minimization of long-run utility costs as the primary selection criterion when selecting a preferred resource plan.

The rest of this Staff memorandum provides additional information to the Commission regarding Ameren Missouri's Notice filing.

Non-Compliance With 4 CSR 240-22.080(12)

Based on its review of Ameren Missouri's Notice, Staff finds that the limited performance measures data included in Table 1 and Attachment A of the Notice do not satisfy the requirements of rule 4 CSR 240-22.080(12) to include "all other performance measures specified in the last filing pursuant to 4 CSR 240-22.080 and the rationale for each change." In its 2011 compliance filing pursuant to 4 CSR 240-22.080, File No. EO-2011-0271, Ameren Missouri included the following performance measures:

4 CSR 240-22

File No. EO-2011-0271 File No. EO-2012-0127

Reference	Performance Measure	Compliance Filing	Notice of Change				
.060(6)(B)	PVRR	Table 9.A.2	Attachment A				
.060(6)(B)	Probable environmental cost	Table 9.A.2	Attachment A				
.060(6)(B)	Out-of-pocket cost to participants of DSM	Table 9.A.2	Attachment A				
.060(6)(B)	Levelized annual average rates	Table 9.A.2	Attachment A				
.060(6)(B)	Maximum single-year increase in annual average rates	Table 9.A.2	Attachment A				
.070(11)(B)	Cumulative probability of PVRR	Figure 9.A.14	Not included				
.070(11)(B)	Cumulative probability of emissions costs	Figure 9.A.15	Not included				
.060(6)(C)7.	Pretax interest coverage	Figure 9.A.10	Not included				
.060(6)(C)7.	Ratio of total debt to total capital	Figure 9.A.10	Not included				
.060(6)(C)7.	Ratio of net cash flow to capital expenditures	Figure 9.A.10	Not included				
.060(6)(C)8.	Annual Average Rates	Figure 9.A.11	Not included				
.060(6)(C)9.	CO2 emissions	Figure 9.A.12	Attachment A				
.060(6)(C)9.	Mercury emissions	Figure 9.A.12	Not included				
.060(6)(C)9.	Nox emissions	Figure 9.A.12	Not included				
.060(6)(C)9.	SO2 emissions	Figure 9.A.12	Not included				
.060(6)(C)10.	CO2 emissions costs	Figure 9.A.13	Not included				
.060(6)(C)10.	Nox emissions costs	Figure 9.A.13	Not included				
.060(6)(C)10.	SO2 emissions costs	Figure 9.A.13	Not included				

The above table identifies the location of the performance measures in Ameren Missouri's 2011 compliance filing and, whenever available, the location of the same performance measures in the Notice. In this table, Staff identifies twelve (12) performance measures which are required to be in Ameren Missouri's Notice, but are not included. The impact of the change in the preferred resource plan on all of these performance measures should be included in a revised notice filed by Ameren Missouri.

Deficiencies with 4 CSR 240-22.010(2)

Plan Update Does Not Meet Reliability Requirements

In its Notice Ameren Missouri states that in Plan Update its "Capacity purchases/sales were updated to reflect changes in capacity position associated with the change in the DSM portfolio. ... No other changes were made."

Attachment C of Ameren Missouri's Notice, which is also attached (as Schedule 1) to this Staff memorandum, contains Ameren Missouri's capacity balance sheets for its prior preferred resource plan (Plan B1) and Plan Update. Schedule 1 reflects changes in capacity reduction attributable to Demand Response² and Energy Efficiency³ programs consistent with the changes in funding for DSM programs Ameren Missouri describes in its Notice. These changes in capacity reduction result in a need for additional capacity in Plan Update. However, Ameren Missouri chose to not add any more supply-side resources in Plan Update to meet this increased need. Ameren Missouri's analysis of Plan Update (Schedule 1) shows that Ameren Missouri will have to make capacity purchases to meet its reliability requirements in ten (10) of the twenty

-

² Capacity reduction from Demand Response programs is zero across the planning horizon for Plan Update.

³ Capacity reduction from Energy Efficiency programs in Plan Update is mostly from past energy efficiency programs. "Bridge" energy efficiency only provides 3 MW of capacity reduction from 2012 through 2020. Then it falls to zero in 2024.

File No. EO-2012-0127 Ameren Missouri's Change to its Preferred Resource Plan Page 4 of 4

(20) years of the planning horizon. Plan Update has large negative capacity positions, i.e., shown as large capacity purchases in the Schedule 1 capacity balance sheet of the Plan Update (specifically: 407 MW in 2025, 522 MW in 2026, 630 MW in 2027 and 743 MW in 2028). Therefore, Plan Update is deficient in that it is not a resource plan that meets the fundamental objective⁴ found in rule 4 CSR 240-22.010(2).

Estimate of Plan Update PVRR and Other Performance Measures

From its review of Schedule 1, Staff concludes that the first year of operation for the 600 MW combined cycle generating plant to be added should probably be 2025 in Plan Update, not 2029. While moving the 600 MW combined cycle plant forward 4 years does not require any actual action for Ameren Missouri to take in the near future as it states in its notice, accurately modeling the timing of the 600 MW combined cycle generating plant is important for calculating the impact on PVRR of Plan Update. Staff expects that moving the first year of operation of the 600 MW combined cycle generating plant from 2029 to 2025 in Plan Update will have a material impact on the Plan Update PVRR and on the other performance measures required to be updated under 4 CSR 240-22.080(12).

The Notice indicates that Ameren Missouri used the Midas model setup when quantifying the PVRR and other performance measures for Plan Update. This same Midas model setup can be modified to include the proper timing of the 600 MW combined cycle generating plant addition and can be rerun to determine a more appropriate PVRR and other performance measures for the "Bridge" DSM Plan Update.

Plan Update Was Not Chosen Based on Minimization of PVRR

Plan Update reduces demand-side resources from the Low Risk DSM portfolio in Ameren Missouri's prior preferred resource plan (Plan B1) in Ameren Missouri's 2011 compliance filing to Ameren Missouri's newly defined "Bridge" DSM portfolio, which has DSM investment of \$5 million in 2012 and \$0 thereafter compared to approximately \$18 – 43 million per year for 2012 – 2030 in Plan B1. Plan Update reduces the lost revenue due to utility-offered energy efficiency programs and increases the cost to serve customers, i.e., PVRR.

⁴ 4 CSR 240-22.010(2) states: The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable, and efficient, at just and reasonable rates, in compliance with all legal mandates, and in a manner that serves the public interest and is consistent with state energy and environmental policies.

Capacity Position for Prior Preferred Plan and Updated Preferred Plan

Plan B1: Combined Cycle - No Secondary - Prop C Renewables - Low Risk DSM - Mer continues - Nor continues																				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing capacity position	-117	211	516	440	387	318	250	168	65	-22	-116	-212	-311	-412	-520	-626	-736	-852	-969	-1,08
+ Total plant upgrades	2	6	30	34	38	15	85	85	85	91	91	91	91	68	69	69	69	69	69	69
+ Meramec retirement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
+ Renewables	0	0	8	8	8	12	12	17	17	20	21	23	26	28	31	33	36	39	41	44
+ Noranda termination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
- Energy efficiency	-49	-69	-88	-111	-134	-154	-172	-189	-201	-206	-216	-223	-228	-232	-235	-235	-235	-236	-235	-232
- Demand response	0	0	0	0	0	-14	-49	-75	-93	-111	-121	-133	-145	-157	-167	-185	-202	-213	-229	-244
+ New primary supply side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	600
+ New secondary supply side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
= Capacity position after adjustments	-66	286	643	593	567	513	569	534	461	407	332	258	178	73	-17	-103	-194	-295	205	100
Purchases(+) or sales(-)	66	-286	-643	-593	-567	-513	-569	-534	-461	-407	-332	-258	-178	-73	17	103	194	295	-205	-100
Plan Update: Combined Cycle - No Secondary - Prop C Renewables - Bridge DSM - Mer continues - Nor continues																				
Plan Upda	te: Co	mbine	d Cycl	e - No S	Second	ary - P	rop C l	Renew	ables -	Bridg	e DSN	I - Mer	contin	iues - l	Nor cor	ntinues	3			
Plan Upda	te: Co 2011	<u>2012</u>	d Cyclo 2013	2014	Second 2015	ary - P 2016	2017	Renew 2018	ables - 2019	2020	e DSN 2021	I - Mer 2022	2023	ues - I 2024	Nor con 2025	2026	<u>2027</u>	2028	2029	2030
Plan Upda Existing capacity position			•			•	_											<u>2028</u> -852	<u>2029</u> -969	2030
	2011	2012	2013	2014	2015	2016	2017	2018	<u>2019</u>	2020	2021	2022	2023	2024	2025	2026	2027			_
Existing capacity position	2011	<u>2012</u> 211	<u>2013</u> 516	2014 440	2015 387	<u>2016</u> 318	2017 250	2018 168	<u>2019</u> 65	<u>2020</u> -22	<u>2021</u> -116	<u>2022</u> -212	<u>2023</u> -311	<u>2024</u> -412	<u>2025</u> -520	<u>2026</u> -626	<u>2027</u> -736	-852	-969	-1089 69
Existing capacity position + Total plant upgrades	2011	2012 211 6	2013 516 30	2014 440 34	2015 387 38	2016 318 15	2017 250 85	2018 168 85	2019 65 85	2020 -22 91	2021 -116 91	2022 -212 91	2023 -311 91	2024 -412 68	2025 -520 69	2026 -626 69	2027 -736 69	-852 69	-969 69	-1089
Existing capacity position + Total plant upgrades + Meramec retirement	2011 -117 2 0	2012 211 6 0	2013 516 30 0	2014 440 34 0	2015 387 38 0	2016 318 15 0	2017 250 85 0	2018 168 85 0	2019 65 85 0	2020 -22 91 0	2021 -116 91 0	2022 -212 91 0	2023 -311 91 0	2024 -412 68 0	2025 -520 69 0	2026 -626 69 0	2027 -736 69 0	-852 69 0	-969 69 0	-1089 69
Existing capacity position + Total plant upgrades + Meramec retirement + Renewables	2011 -117 2 0 0	2012 211 6 0 0	2013 516 30 0 8	2014 440 34 0 8	2015 387 38 0 8	2016 318 15 0 12	2017 250 85 0 12	2018 168 85 0 17	2019 65 85 0 17	2020 -22 91 0 20	2021 -116 91 0 21	2022 -212 91 0 23	2023 -311 91 0 26	2024 -412 68 0 28	2025 -520 69 0 31	2026 -626 69 0 33	2027 -736 69 0 36	-852 69 0 39	-969 69 0 41	-1089 69 (
Existing capacity position Total plant upgrades Meramec retirement Renewables Noranda termination	2011 -117 2 0 0 0	2012 211 6 0 0	2013 516 30 0 8 0	2014 440 34 0 8 0	2015 387 38 0 8 0	2016 318 15 0 12	2017 250 85 0 12 0	2018 168 85 0 17	2019 65 85 0 17 0	2020 -22 91 0 20 0	2021 -116 91 0 21 0	2022 -212 91 0 23 0	2023 -311 91 0 26 0	2024 -412 68 0 28 0	2025 -520 69 0 31 0	2026 -626 69 0 33 0	2027 -736 69 0 36 0	-852 69 0 39	-969 69 0 41	-1089 69 (44
Existing capacity position Total plant upgrades Meramec retirement Renewables Noranda termination Energy efficiency (Past programs)	2011 -117 2 0 0 0 -56	2012 211 6 0 0 0 -62	2013 516 30 0 8 0 -62	2014 440 34 0 8 0 -62	2015 387 38 0 8 0 -62	2016 318 15 0 12 0 -62	2017 250 85 0 12 0 -62	2018 168 85 0 17 0 -62	2019 65 85 0 17 0 -61	2020 -22 91 0 20 0 -42	2021 -116 91 0 21 0 -27	2022 -212 91 0 23 0 -27	2023 -311 91 0 26 0 -27	2024 -412 68 0 28 0 -24	2025 -520 69 0 31 0 -12	2026 -626 69 0 33 0 -1	2027 -736 69 0 36 0 -1	-852 69 0 39 0 -1	-969 69 0 41 0 -1	-1089 69 (44 (
Existing capacity position Total plant upgrades Meramec retirement Renewables Noranda termination Energy efficiency (Past programs) Energy efficiency (Bridge)	2011 -117 2 0 0 0 -56	2012 211 6 0 0 0 -62 -3	2013 516 30 0 8 0 -62 -3	2014 440 34 0 8 0 -62 -3	2015 387 38 0 8 0 -62 -3	2016 318 15 0 12 0 -62 -3	2017 250 85 0 12 0 -62 -3	2018 168 85 0 17 0 -62 -3	2019 65 85 0 17 0 -61 -3	2020 -22 91 0 20 0 -42 -3	2021 -116 91 0 21 0 -27 -2	2022 -212 91 0 23 0 -27 -2	2023 -311 91 0 26 0 -27 -1	2024 -412 68 0 28 0 -24	2025 -520 69 0 31 0 -12	2026 -626 69 0 33 0 -1	2027 -736 69 0 36 0 -1	-852 69 0 39 0 -1	-969 69 0 41 0 -1	-1089 69 (44 (
Existing capacity position Total plant upgrades Meramec retirement Renewables Noranda termination Energy efficiency (Past programs) Energy efficiency (Bridge) Demand response	2011 -117 2 0 0 0 -56	2012 211 6 0 0 0 -62 -3 0	2013 516 30 0 8 0 -62 -3 0	2014 440 34 0 8 0 -62 -3 0	2015 387 38 0 8 0 -62 -3 0	2016 318 15 0 12 0 -62 -3 0	2017 250 85 0 12 0 -62 -3	2018 168 85 0 17 0 -62 -3 0	2019 65 85 0 17 0 -61 -3	2020 -22 91 0 20 0 -42 -3 0	2021 -116 91 0 21 0 -27 -2 0	2022 -212 91 0 23 0 -27 -2 0	2023 -311 91 0 26 0 -27 -1	2024 -412 68 0 28 0 -24 0	2025 -520 69 0 31 0 -12 0	2026 -626 69 0 33 0 -1 0	2027 -736 69 0 36 0 -1 0	-852 69 0 39 0 -1 0	-969 69 0 41 0 -1 0	-1089 69 44 () () () ()
Existing capacity position Total plant upgrades Meramec retirement Renewables Noranda termination Energy efficiency (Past programs) Energy efficiency (Bridge) Demand response New primary supply side	2011 -117 2 0 0 0 -56 0 0	2012 211 6 0 0 0 -62 -3 0	2013 516 30 0 8 0 -62 -3 0	2014 440 34 0 8 0 -62 -3 0	2015 387 38 0 8 0 -62 -3 0	2016 318 15 0 12 0 -62 -3 0	2017 250 85 0 12 0 -62 -3 0	2018 168 85 0 17 0 -62 -3 0	2019 65 85 0 17 0 -61 -3 0	2020 -22 91 0 20 0 -42 -3 0 0	2021 -116 91 0 21 0 -27 -2 0 0	2022 -212 91 0 23 0 -27 -2 0 0	2023 -311 91 0 26 0 -27 -1 0	2024 -412 68 0 28 0 -24 0 0	2025 -520 69 0 31 0 -12 0 0	2026 -626 69 0 33 0 -1 0 0	2027 -736 69 0 36 0 -1 0 0	-852 69 0 39 0 -1 0 0	-969 69 0 41 0 -1 0 600	-1089 69 (44 ()

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Union Electric Company's Change to its 2011 Utility Resource Filing Pursuant to 4 CSR 240 - Chapter 22)))	File No. EO-2012-0127
AFFIDAVIT OF J	OHN A. R	ROGERS
STATE OF MISSOURI)) ss COUNTY OF COLE)		
John A. Rogers, of lawful age, on preparation of the foregoing Staff Recompresented in the above case; that the infor provided to him; that he has knowledge Recommendation; and that such matters are to	nmendatior mation in of the 1	n in memorandum form, to be the Staff Recommendation was matters set forth in such Staf
	-	John A. Rogers
Subscribed and sworn to before me this 8th	day of No	teaching v. or teach Control
SUSAN L. SUNDERMEYER Notary Public - Notary Seal State of Missouri Commissioned for Callaway County My Commission Expires: October 03, 2014 Commission Number: 10942086	Lus	Notary Public