

Exhibit No.:
Issue(s): Terms of Refined Coal
Transaction
Witness: Robert K. Neff
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: EA-2012-_____
Date Testimony Prepared: November 9, 2011

MISSOURI PUBLIC SERVICE COMMISSION

Case No. EA-2012-_____

DIRECT TESTIMONY

OF

ROBERT K. NEFF

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AMEREN MISSOURI**

****DENOTES HIGHLY CONFIDENTIAL INFORMATION****

**St. Louis, Missouri
November, 2011**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **ROBERT K. NEFF**

4 **CASE NO. EA-2012-_____**

5 **I. INTRODUCTION**

6 **Q. Please state your name and business address.**

7 A. Robert K. Neff, Union Electric Company d/b/a Ameren Missouri (“Ameren
8 Missouri” or “Company”), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri
9 63103.

10 **Q. What is your position with Ameren Missouri?**

11 A. I am the Director of Coal Supply.

12 **Q. What are your duties?**

13 A. My primary responsibilities are to obtain adequate coal supplies and related
14 transportation, and manage the emissions allowance banks for the four coal-fired power plants
15 operated by Ameren Missouri.

16 **Q. Please describe your educational background and employment experience.**

17 A. I received a Bachelors Degree in Mechanical Engineering from Washington
18 University in St. Louis and a Masters in Business Administration from Southern Illinois
19 University. I am a registered Professional Engineer in the State of Missouri and I am a Certified
20 Energy Manager. Prior to joining Union Electric Company in 1982, I worked at the Missouri
21 Pacific Railroad in various engineering and operating positions. I also worked as a Product
22 Engineer at the railcar manufacturing firm of American Car and Foundry. At Ameren, my work

1 experience includes 23 years in positions relating to coal procurement and coal transportation,
2 and 6 years in natural gas procurement and retail electric marketing.

3 **II. PURPOSE AND SUMMARY OF TESTIMONY**

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

5 A. The purpose of my direct testimony is to explain Ameren Missouri's proposed use
6 of refined coal at the Rush Island Power Plant starting January 1, 2012.

7 **Q. Could you please summarize your testimony?**

8 A. If the Commission provides Ameren Missouri with the necessary approvals as
9 requested herein, and if the facilities for refining the coal are placed in service at the plant by
10 December 31, 2011, subsequent burning of refined coal will allow Ameren Missouri to lower
11 power plant emissions and reduce costs to its customers. Unless the applicable tax law is
12 changed, these benefits could continue for a period of ten years from the initial in-service date of
13 the refined coal facility.

14 **III. DEFINITION OF REFINED COAL**

15 **Q. How is refined coal defined in IRS regulations?**

16 A. Refined coal is defined in Section 45 of the Internal Revenue Code as coal that is
17 treated with an additive, which, when burned to produce steam, generates at least a 20%
18 reduction in nitrogen oxide ("NOx") emissions and at least a 40% reduction in mercury or sulfur
19 dioxide ("SO₂") emissions as compared to burning unrefined coal. Refined coal must be owned,
20 processed and sold by a third party not related to the end user of the coal (the buyer of the coal
21 cannot own more than 50% of the seller of refined coal). Qualified Emissions Reductions can be
22 demonstrated through actual on-site testing or in a pilot scale combustion facility and such
23 reductions are the sole responsibility of the refined coal supplier.

1 **Q. What are the requirements for placing refined coal operations into service?**

2 A. In order to qualify for the tax credit, the facility that produces the refined coal
3 must be placed in service by December 31, 2011.

4 **Q. What is the tax benefit of burning refined coal?**

5 A. Independent of the benefits of the lower emissions of refined coal, the Internal
6 Revenue Code provides for federal income tax credits for the production and sale of coal from a
7 qualified refined coal facility. The current tax credit rate is \$6.33 per ton of refined coal,
8 adjusted annually by the relative change in the Gross Domestic Product Implicit Price Deflator.

9 **Q. How long are benefits received?**

10 A. The tax benefits are available to qualified owners of refined coal facilities for up
11 to 10 years beginning on the date that the facility was originally placed in service. It is the
12 responsibility of the owners of refined coal facilities to periodically test the refined coal and
13 demonstrate to the Internal Revenue Service ("IRS") that the refined coal is still meeting the IRS
14 criteria to qualify for continued tax credits.

15 **IV. STRUCTURE OF REFINED COAL CONTRACTS**

16 **Q. What agreements are necessary for Ameren Missouri to utilize refined coal**
17 **at the Rush Island Plant?**

18 A. Rush Island will burn refined coal produced by Buffington Partners, LLC ("BP"),
19 an affiliate of Coal Emissions Reduction Technologies, LLC ("CERT"), utilizing the Chem-Mod
20 refinement process. To utilize refined coal, the Rush Island Plant will require a Feedstock
21 Supply Agreement ** _____
22 _____ **, a Refined Coal Sales
23 Agreement, a Lease and License Agreement, and a Removal of Facility Agreement. The parties

1 to these agreements are BP or CERT and Ameren Missouri. The terms of these contracts are 10
2 years. These contracts have been executed subject to receiving authority to proceed with the
3 project from the Missouri Public Service Commission. Copies of these contracts are attached as
4 Schedules RKN-1 through RKN-5.

5 **Q. Please describe the Feedstock Supply Agreement for the Rush Island Plant.**

6 A. The Feedstock Supply Agreement with BP allows Ameren Missouri to sell coal to
7 BP for use as feedstock in the production of refined coal. Ameren Missouri will sell coal at the
8 monthly weighted average delivered cost from Rush Island's coal inventory as needed for the
9 production of refined coal.

10 **Q. Please describe the Refined Coal Sales Agreement for the Rush Island Plant.**

11 A. The Refined Coal Sales Agreement allows BP to sell the refined coal back to
12 Ameren Missouri at the same total cost as the unrefined coal was sold to BP by Ameren Missouri
13 pursuant to the terms of the previously mentioned Feedstock Supply Agreement. ** _____

14 _____
15 _____
16 _____
17 _____

18 _____** This cost, which is applied to the coal inventory cost, and charged to customers as it
19 is burned through the Fuel Adjustment Clause, is exactly the same as it would have been without
20 BP's refinement of the coal.

21 **Q. Please describe the Lease and License Agreement at the Rush Island Plant.**

22 A. BP will lease a small area of land at Rush Island Plant (approximately .1% of the
23 plant site) for locating its refined coal facility. A monthly lease fee of ** _____** will be paid to

Ameren Missouri, and a per ton handling and license fee of **____** will be charged to BP based on the quantity of refined coal that BP produces and sells to Ameren Missouri. These amounts will be adjusted annually by an escalation factor based on the Gross Domestic Product Implicit Price Deflator. All coal will be refined at the plant site.

Q. Please describe the Secured Promissory Note, Security Agreement, and Removal of Facility Agreement.

A. To qualify for Section 45 tax credits, BP must own coal feedstock inventory. In order to satisfy this requirement, a small portion of the coal pile inventory at Rush Island Plant will be sold to BP and held by BP as an undivided interest in such coal. **_____

_____ ** Ameren Missouri has agreed to sell BP this coal feedstock inventory at the fully loaded weighted average cost of delivered coal. **_____

_____ **

Q. Under what circumstances can Ameren Missouri suspend or terminate the agreements? What liabilities does Ameren Missouri incur in terminating the agreements?

A. Under the terms of the agreements, the Company can suspend or terminate for the following reasons:

1 1. If any time in Ameren Missouri's sole judgment it is determined that the
2 refined coal causes operational problems.

3 2. If any time in Ameren Missouri's sole judgment it is determined that the
4 burning of refined coal will cause a violation of any law or environmental
5 permit.

6 3. If there is a risk of imminent danger to persons or property from use of
7 refined coal.

8 4. If there is a failure by BP to correct a default in performance of any material
9 term, covenant or obligation in the agreements after Ameren Missouri
10 provides 30 days notice.

11 In the event of a legitimate termination by Ameren Missouri for any reason, the Company will
12 have no further obligation to BP.

13 V. FINANCIAL BENEFITS

14 **Q. What financial benefits will be derived from the use of refined coal at the**
15 **Rush Island Plant?**

16 A. Ameren Missouri will lease plant property to BP for the Refined Coal Facility
17 equipment for a monthly lease payment of **____**. This lease payment, in combination with
18 a fee for coal handling and licensing of **____** per ton, will reimburse Ameren Missouri for
19 hosting the refined coal facility. **_____

20 _____** For rate treatment, the lease payment will be treated as an expense offset at the
21 applicable plant.

Q. Please explain the reasons for the benefits.

A. Section 45 of the Internal Revenue Tax Code provides for federal income tax credits for the production and sale of refined coal from a qualified facility. These credits are available to the third party owners of the refined coal facility. Ameren Missouri will receive a payment from the third party owner for providing property and handling of the coal through the lease and a fee for coal handling and licensing. Ameren Missouri will not receive any tax credits directly from these agreements.

Q. What are Ameren Missouri's projected savings over the ten-year expected life of the project?

A. ** _____
_____ **

Q. Why is Ameren Missouri requesting expedited treatment of its application in this case?

A. If the necessary approvals are not received in time for the coal refining facility to begin commercial operation by December 31, 2011, the tax benefits will not apply and Ameren Missouri and its customers will not get the benefits of this transaction.

VI. COMMERCIAL RISKS

Q. What are Ameren Missouri's liabilities if the process fails to meet the requirements of the tax code?

A. ** _____

_____ **

1 **Q. What are Ameren Missouri's liabilities if the tax code changes?**

2 A. ** _____

3 _____

4 _____**

5 **Q. What are Ameren Missouri's liabilities if the refined coal facility operator**
6 **declares bankruptcy?**

7 A. ** _____

8 _____

9 _____

10 _____**

11 **Q. What are Ameren Missouri's liabilities if the refined coal facility does not**
12 **operate properly?**

13 A. ** _____

14 _____**

15 **VII. ACCOUNTING AND RATE TREATMENT**

16 **Q. How will Ameren Missouri customers receive financial benefits associated**
17 **with burning the refined coal?**

18 A. Ameren Missouri customers will receive the financial benefits associated with
19 burning refined coal through lower plant expenses, which will be reflected in the Company's
20 next rate case. In addition to lower base rates, Ameren Missouri customers will also enjoy the
21 expected benefit of lower emissions associated with burning refined coal. Please see the direct
22 testimony of Mr. Birk for a discussion of the potential operating benefits with refined coal.

1 **Q. Why are the financial benefits from refined coal treated as reduction of plant**
2 **expense rather than a reduction in fuel costs?**

3 A. Treating the financial benefits of refined coal as a reduction in fuel costs would
4 require that **_____

5 _____

6 _____

7 _____ **

8 **Q. Does this conclude your direct testimony?**

9 A. Yes, it does.

In the Matter of the Application of)
Union Electric Company d/b/a Ameren)
Missouri for Authority to Sell and) Case No. EA-2012-_____
Repurchase Coal and Lease Property.)

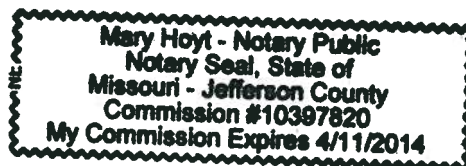
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1. My name is Robert K. Neff. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as Director of Coal Supply.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Subscribed and sworn to before me this 9th day of November, 2011.

My commission expires: 4-11-2014



Schedules RKN-1 through RKN-5 are

Highly Confidential

in their entirety