

MEMORANDUM

TO: Missouri Public Service Commission Official Case File No. EO-2012-0146,
In the Matter of the Application of Union Electric Company d/b/a Ameren
Missouri for Authority to Sell and Repurchase Coal and Lease Property

FROM: Daniel I. Beck, Energy Department – Engineering Analysis

/s/ Lena M. Mantle 11/23/11
Energy Unit / Date

/s/ John Borgmeyer 11/23/11
Staff Counsel's Department / Date

Subject: Staff Recommendation to Grant Requested Authority Subject to Conditions.

Date: November 23, 2011

Staff Exhibit No. 4
Date 11-28-11 Reporter JL
File No. EO-2012-0146

OVERVIEW

On November 9, 2011, Union Electric Company d/b/a Ameren Missouri (Ameren Missouri or Company) filed an Application, Motion for Expedited Treatment and Request for Waiver with the Missouri Public Service Commission seeking authority to sell coal and lease a small portion of its property at the Rush Island Power Plant, as part of a program to utilize refined coal in order to lower costs and reduce emissions. With the Application, Ameren Missouri filed the Direct Testimony of two Company witnesses, Mark C. Birk and Robert K. Neff. The Commission granted intervention in this case to the Missouri Industrial Energy Consumers, Barnes-Jewish Hospital, Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company on November 21, 2011. The Commission also ordered the Staff of the Missouri Public Service Commission (Staff) to file a recommendation regarding its examination and analysis of Ameren Missouri's Application no later than November 22, 2011, and scheduled an on-the-record proceeding on Monday, November 28, 2011 in this case. On November 22,

2012, the Staff filed a Motion For Extension Of Time to November 23, 2011 to file its Staff Recommendation and the request was granted on November 23, 2011 by Commission Order Granting Extension Of Time.

BACKGROUND

The Application seeks Commission approval pursuant to Section 393.190.1 RSMo. for the sale of coal from Ameren Missouri's coal pile at Rush Island Power Plant to Buffington Partners, LLC (BP), an affiliate of Coal Emission Reduction Technologies, LLC (CERT). The sales would start in December 2011 and continue for 10 years. BP will refine the coal using a proprietary process (known as Chem-Mod) designed to reduce emissions from the coal and then sell the coal back to Ameren Missouri at the same price for use at the plant. In addition, Ameren Missouri seeks authority to lease a small portion of its plant site to BP so that BP can place its coal refinement facilities on the site. The Application also seeks Expedited Treatment of this case to take advantage of the tax benefits which require BP's refining process to be operational at the Rush Island Plant before January 1, 2012.

Company witness Mark C. Birk explains in his Direct Testimony the refined coal process and its impact on operations at the Rush Island Plant, which is a 1,204 megawatt, baseload, coal-fired generating facility located in Jefferson County, Missouri, south of St. Louis along the Mississippi River. Some of the information contained in his Direct Testimony includes:

- The Internal Revenue Service (IRS) requires a 20% reduction in nitrogen oxide emissions, and at least a 40% reduction in either sulfur

dioxide or mercury emissions. The tax benefits would continue for 10 years.

- BP will install and operate equipment on the Rush Island Plant site and the Company will provide power and water as well as emergency services.
- BP has successfully completed testing in a pilot scale facility coal feedstock to be used at Rush Island. Full scale testing of the Chem-Mod process was scheduled for late fall at the Rush Island facility and the Missouri Department of Natural Resources (MDNR) has given permission for this test. "Ameren Missouri will need to seek permission from the MDNR Air Pollution Control Program to continue use of the refined coal after the test period has concluded. However, since all the pollutants are expected to have emissions below *de minimis* levels, approval for continued use of refined coal is expected." [Birk, Direct, page 8, lines 3-6].
- BP believes that operational benefits could include improved performance of the fly ash as a cement replacement in concrete mixes, reduced scale formation on the boiler tubes, and improved heat rate, but Ameren Missouri has not yet confirmed these benefits at the Rush Island Plant.
- Refined coal could reduce nitrogen oxide and mercury emissions which could help the Company meet recently issued Cross-State Air Pollution

Rule (CSAPR) requirements and the anticipated Maximum Achievable Control Technology (MACT) rule requirements.

- Due to the use of mercury capture additives, fly ash will become unmarketable to the cement kilns, but the refinement process could improve the performance of the fly ash as a cement replacement in concrete mixes.

Company witness Robert K. Neff's Direct Testimony provides a description of the IRS Section 45 regulations and the four (4) contracts that the Company has entered into with BP to facilitate this process. The contracts are:

- Feedstock Supply Agreement
- Refined Coal Sales Agreement
- Lease and License Agreement
- Removal of Facility Agreement

In addition, Mr. Neff's Direct Testimony also describes a Secured Promissory Note and related Security Agreement. He also addresses (1) the circumstances under which Ameren Missouri can suspend or terminate the agreements, (2) the financial benefits to Ameren Missouri, and (3) the commercial risks to Ameren Missouri.

Staff would note that Mr. Neff's Direct Testimony does not discuss a highly confidential fifth contract, Option Agreement for the Purchase of Membership Interest, but this contract was an attachment to Mr. Neff's Direct Testimony as Schedule RKN-4 HC. As the name implies, this Option Agreement allows Ameren Missouri to exercise this option on future specified dates.

Mr. Neff's Direct Testimony includes a discussion of the accounting and rate treatment of the project and states at page 8, lines 18-20 that the financial benefits will be reflected in the Company's next rate case in lower base rates. At page 4 of his Direct Testimony, Mr. Neff also states that since the unrefined coal will be sold to BP at the same price at which Ameren Missouri will buy the refined coal, the net effect on the Fuel Adjustment Clause (FAC) will be zero. The testimony then goes on to discuss the monthly lease fee, and the handling and license fee. BP will pay the handling and license fee to Ameren Missouri on a dollar-per-ton basis that will not flow through the FAC. Ameren Missouri's Application and its witnesses Direct Testimony is not completely clear to Staff regarding the ratemaking treatment that Ameren Missouri is and will be proposing in an appropriate rate proceeding for the handling and license fee, but in discussions with the Company, the Company stated that the handling and license fee will not flow through the FAC.

**ADDITIONAL INFORMATION PROVIDED BY THE COMPANY SINCE THE
NOVEMBER 9TH FILINGS**

Since the November 9, 2011 filings, the Company and the Staff participated in several conference calls to discuss the project. The Company subsequently provided the Staff a copy of a Report from the Energy & Environmental Research Center, University of North Dakota, regarding the successfully completed testing of Rush Island coal feedstock in a pilot scale facility that is discussed in Company witness Mark C. Birk's Direct Testimony. This Report is dated November 16, 2011, and was not available at the time of the Company's Direct Testimony filing, but is attached to Staff's Recommendation as a Highly Confidential document. The Company also provided a

document titled "Key Metrics" which includes estimates of the total benefits of the refined coal process, which is derived principally from the per ton handling and license fee paid by BP. It is also a Highly Confidential document. Ameren Missouri provided these documents to Staff in an e-mail dated November 18, 2011. In an e-mail received on November 22, 2011 Ameren Missouri provided the Staff four exhibits to the Direct Testimony of Mr. Neff that Ameren Missouri inadvertently omitted from Schedule RKN-4 HC. Ameren Missouri included these four exhibits in its supplemental filing made on November 23, 2012.

It is Staff's understanding BP's equipment is at the Rush Island Plant and is in the process of being installed. The equipment is expected to be commissioned during the last week of this month, November 2011. Operational testing is expected to start at the Rush Island Plant on December 5, 2011, and is expected to last fifteen (15) days. The Company confirmed that while the coal refining process is expected to reduce operations and maintenance costs, the Company still expects that it will need to make capital investments at the Rush Island Plant to meet the CSAPR and MACT requirements.

DISCUSSION

Although applications seeking Commission approval for the sale or lease of company property pursuant to Section 393.190.1 RSMo. are not uncommon, Staff cannot recall a request to sell an asset that the company will then buy back in a modified form a few days later, especially when the transactions will take place over a ten-year period. Staff agrees with the Company that the proposed transaction must meet the "not detrimental to the public interest" standard and the information provided indicates that the project will result in benefits to ratepayers. The only negative impact that has been

identified at this time, in addition to the novelty of the project and its operation, is the inability to continue to market fly ash to cement kilns. However, the fly ash was expected to be unmarketable to cement kilns starting in 2015 or 2016 due to MACT mercury capture requirements, and the fly ash resulting from the refined coal process is expected to be more marketable as a cement replacement in concrete mixes. Since there is no operational experience at the Rush Island Plant with refined coal, the actual benefits and costs of Ameren Missouri's proposal are unknown at this time. However the technology is being used at other plants in the United States, which are identified in Mr. Birk's Direct Testimony.

Section 393.190.1 RSMo. requires that the applicant file a statement regarding tax impacts on the political subdivisions in which the facilities are located. Page 4, paragraph 11 of the Application addresses the statute as follows: "The proposed sale of the coal and lease of the property should have no impact upon the tax revenues of the political subdivision in which the assets are located."

Staff recommends the Commission approve the sale and lease contingent upon the following conditions:

- 1) The Commission include in its ordered section that no ratemaking determination is being made in this order relative to the sale of coal and the lease of a portion of the property of Ameren Missouri at the Rush Island Plant over a ten-year period.
- 2) The Commission include in its ordered section that no ratemaking determination is being made in this order regarding the exclusion of the per-ton handling and license fee in the Company's FAC.

- 3) Prior to the Company exercising the Option Agreement for Purchase of Membership Interest and as soon as practical once the Company makes the decision to take the action, the Company will make a presentation to the Commission and the parties to this case explaining their decision to exercise this Option.
- 4) If Ameren Missouri decides to suspend, terminate or otherwise modify the terms of the four (4) agreements contained in the Direct Testimony of Company witness Robert K. Neff, the Company will notify the Commission and the parties of the changes by filing a notice with the Commission as soon as practical, once the decision has been made to take the action.

STAFF RECOMMENDATION

Staff recommends that the Commission find, subject to the four conditions that Staff proposes above, granting the Application is not detrimental to the public interest per Section 393.190.1 RSMo.. Staff also recommends that the Commission grant the Company's request for expedited treatment pursuant to 4 CSR 240-2.080(14) and the motion for waiver of the 60-day Notice of Filing pursuant 4 CSR 240-4.020(2).

Staff has verified that Ameren Missouri has filed its annual report and is not delinquent on any assessment. The Company's Application discusses the appeal process related to Ameren Missouri's 2009 electric rate case, Case No. ER-2008-0318, but Staff finds this appeal has no effect on the Application.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Union)
Electric Company d/b/a Ameren Missouri)
for Authority to Sell and Repurchase Coal)
and Lease Property)

File No. EO-2012-0146

AFFIDAVIT OF DANIEL I. BECK

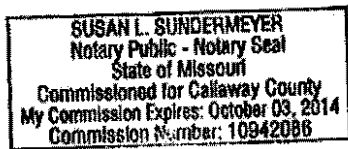
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Daniel I. Beck, of lawful age, on oath states: that he participated in the preparation of the foregoing Staff Recommendation in memorandum form, to be presented in the above case; that the information in the Staff Recommendation was provided to him; that he has knowledge of the matters set forth in such Staff Recommendation; and that such matters are true to the best of his knowledge and belief.



Daniel I. Beck

Subscribed and sworn to before me this 22nd day of November, 2011.





Notary Public