

Exhibit No.:
Issues: Certificate of Convenience
And Necessity
Witness: Claire M. Eubanks
Sponsoring Party: MO PSC Staff
Type of Exhibit: Rebuttal Testimony
File No.: EA-2012-0281
Date Testimony Prepared: May 31, 2013

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

CLAIRE M. EUBANKS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

CASE NO. EA-2012-0281

*Jefferson City, Missouri
May 2013*

**** Denotes Highly Confidential Information ****

NP

Exhibit No. 103 NP
Data 3-3-2014 Reporter Stewart
File No. EA-2012-0281

Staff Exhibit No. 103
HC and NP

**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 Permission and Approval and a)
Certificate of Public Convenience and)
Necessity Authorizing it to Construct,)
Install, Own, Operate, Maintain and)
Otherwise Control and Manage A Utility)
Waste Landfill and Related Facilities at its)
Labadie Energy Center)

Case No. EA-2012-0281

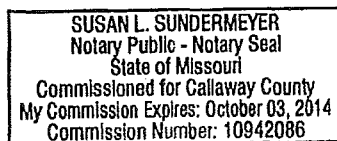
AFFIDAVIT OF CLAIRE M. EUBANKS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Claire M. Eubanks, of lawful age, on her oath states: that she has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 10 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Claire M Eubanks
Claire M. Eubanks

Subscribed and sworn to before me this 31st day of May, 2013.



Susan L Sundermeyer
Notary Public

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1 A. Yes, I am a member of the Missouri Society of Professional Engineers.

2 Q. Have you previously filed testimony before the Commission?

3 A. No.

4 **Executive Summary**

5 Q. What is the purpose of your rebuttal testimony?

6 A. The purpose of my testimony is to respond to Union Electric Company d/b/a
7 Ameren Missouri's ("Ameren Missouri") request for a Certificate of Convenience and
8 Necessity ("CCN") to expand the boundaries of its Labadie Energy Center plant site to
9 accommodate the proposed Utility Waste Landfill ("UWL") and other plant-related
10 operations. I address the engineering-related aspects of the request and Staff witness John
11 Cassidy addresses the financial-related aspects.

12 Q. What is Staff's ultimate recommendation to the Commission on Ameren
13 Missouri's request?

14 A. Staff recommends the Commission conditionally grant Ameren Missouri a
15 CCN to expand its Labadie Energy Center plant site to include 813 acres as shown in Exhibit
16 A of the CCN application for the purpose of constructing and operating the proposed UWL.

17 Q. What conditions does Staff recommend the Commission impose?

18 A. Staff recommends the Commission condition the CCN on Ameren Missouri
19 filing the following with the Commission in this case prior to construction of the UWL:

- 20 • Missouri Department of Natural Resources-Solid Waste Management Program
21 ("MDNR-SWMP") approved UWL design
- 22 • MDNR-SWMP Construction Permit
- 23 • Letter documenting Franklin County's approval of the UWL design
- 24 • Permits for road alterations from Missouri Department of Transportation and Franklin
25 County

- Floodplain Development Permit
- Land Disturbance Permit

Analysis

Q. What criteria has the Commission recently used in determining whether to grant CCNs?

A. In its Order approving Entergy Arkansas Incorporated's request for a CCN in File No. EA-2012-0321, the Commission listed five criteria that it used in determining whether the specific request for a CCN was "necessary or convenient for the public service":

- Is the service needed;
- Is the applicant qualified to provide the service;
- Does the applicant have the financial ability to provide the service;
- Is the applicant's proposal economically feasible; and
- Does the service promote the public interest?

Q. Do the boundaries of Ameren Missouri's Labadie Energy Center need to be expanded for a utility waste landfill?

A. Yes. Generation of electricity by coal-fired plants results in the production of waste, referred to as coal combustion residuals ("CCRs"), which must be managed; beneficial use reduces the disposal volume, but that volume is dependent on the potential end user. Ameren Missouri explains in the CCN application that the additional land is needed to replace the existing ash ponds which will reach capacity in approximately 2016. This is supported by calculations Ameren Missouri provided in response to Staff Data Request 13. Ameren Missouri began the permitting process in 2008, substantial field and design work has been completed since then to permit a UWL at the Labadie Energy Center. There is insufficient

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1 time to pursue a company-owned UWL at another site prior to the existing ash ponds reaching
2 capacity. The Ameren Missouri and Reitz and Jens Consulting Engineers ("R & J") studies
3 demonstrate that the Labadie site is a low cost option. Additionally, USEPA has proposed
4 draft regulations which would regulate the disposal of CCRs and may require the eventual
5 closure of the ash ponds located at the Labadie Energy Center.

6 Q. Do the boundaries of Ameren Missouri's Labadie Energy Center need to be
7 expanded for other plant-related operations?

8 A. No. Ameren Missouri has not demonstrated a need to use the 813 acres for
9 any other purpose than the construction and operation of the proposed UWL.

10 Q. Is Ameren Missouri qualified to operate a UWL?

11 A. Yes. Ameren Missouri currently owns a UWL at the Sioux Power Plant. The
12 Sioux Utility Waste Landfill began operation in late 2010. The first dry cell at the Sioux
13 Utility Waste Landfill is currently under construction.

14 Q. Does Ameren Missouri have the financial ability to construct and operate a
15 utility waste landfill?

16 A. Please see the Rebuttal Testimony of Staff witness John Cassidy.

17 Q. Is the proposed UWL economically feasible?

18 A. Please see the Rebuttal Testimony of Staff witness John Cassidy.

19 Q. Does the proposed UWL promote the public interest?

20 A. Yes, in Staff's opinion it does. The Labadie Energy Center provides
21 approximately 40 percent of the energy consumed by Ameren Missouri customers and is
22 Ameren Missouri's most economical coal-fired plant.¹ CCRs are a byproduct of generating
23 electricity from coal-fired plants and must be managed. Ameren Missouri has indicated that

¹ Direct Testimony of Craig J. Giesmann, Page 3, Lines 11-13.

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1 their contingency plan for ash disposal in the event that MDNR-SWMP or Franklin County
2 does not approve the UWL design is to dispose of CCRs at an independently-owned landfill.
3 This has been demonstrated by Ameren Missouri to be a more costly method of CCR
4 disposal. The Labadie UWL will provide approximately 24 years of low cost disposal of
5 CCRs.

6 Q. Has Ameren Missouri provided all the information required for approval under
7 Rule 4 CSR 240-3.105?

8 A. No. Ameren Missouri has not provided certified copies of the required
9 approval of other governmental agencies.² Approval from both the MDNR-SWMP and
10 Franklin County is required prior to construction of the proposed UWL. MDNR-SWMP will
11 issue a decision on the Construction Permit Application ("CPA") on February 7, 2014.³
12 Ameren Missouri has indicated that Franklin County will issue a decision concurrently with
13 MDNR-SWMP.⁴ Ameren Missouri has provided the CPA which Staff believes satisfies the
14 requirement for plans and specifications. However, MDNR-SWMP has issued a comment
15 letter on the CPA which will likely result in revisions or clarifications to the design.⁵

16 Q. Does Staff recommend any conditions to the CCN?

17 A. Yes. MDNR-SWMP has issued a comment letter on the CPA which will
18 likely result in revisions or clarifications to the design. Therefore, Staff recommends a
19 condition requiring the MDNR-SWMP approved design to be filed with the Commission
20 prior to construction.

² Rule 4 CSR 240-3.105(1)(D)2

³ MDNR-SWMP February 11, 2013 letter RE: Construction Permit Application for the Proposed Utility Waste Landfill, Ameren Missouri Labadie Energy Center, Franklin County Missouri

⁴ Giesmann Direct Page 7, Lines 1-3

⁵ MDNR-SWMP May 7, 2013 letter RE: Review and Comments on Construction Permit Application for a Proposed Utility Waste Landfill, Ameren Missouri Labadie Energy Center, Franklin County Missouri

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1 Q. Does Staff recommend any other conditions?

2 A. Yes. Ameren Missouri has identified the following applicable construction-
3 related permits:

- 4 • MDNR-SWMP Construction Permit
- 5 • Franklin County approval

6 MDNR-SWMP⁶ also noted the following related permits:

- 7 • Permits for road alterations from Missouri Department of Transportation and Franklin
8 County
- 9 • Floodplain Development Permit
- 10 • Land Disturbance Permit

11 The above list of permits may alter the design, delay construction, or if denied result in the
12 Company looking toward a contingency plan for CCR disposal. Therefore, Staff recommends
13 the Commission condition the CCN on the above-listed permits or approvals being filed with
14 the Commission in this case prior to construction of the UWL.

15 Q. Is the proposed UWL an improvement over the existing ash ponds?

16 A. Yes. UWL is a type of landfill specifically utilized for the disposal of CCRs.
17 In Missouri, UWLs are regulated disposal facilities permitted by the MDNR-SWMP. UWLs
18 are designed for dry operation, to have a liner system, and at closure be capped to prevent
19 water infiltration. The proposed design for the Labadie UWL is a composite liner system
20 (compacted clay overlain by a geomembrane), with a lower permeability than required by
21 Missouri's UWL regulations; this higher performing liner system is one of the design criteria
22 incorporated in the design from United States Environmental Protection Agency's
23 ("USEPA") June 2010 draft CCR rulemaking.

⁶ MDNR-SWMP May 7, 2013 letter RE: Review and Comments on Construction Permit Application for a Proposed Utility Waste Landfill, Ameren Missouri Labadie Energy Center, Franklin County Missouri

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1 Ash ponds are designed to hold CCRs containing free liquids, and may or may not be
2 lined. Future regulations will determine closure requirements of the ash ponds. Currently,
3 CCRs from the operation of the Labadie Energy Center are being managed by two existing
4 ash ponds. The bottom ash pond was constructed during the initial plant construction of the
5 Labadie Energy Center and is not lined by clay or geomembrane. Ameren Missouri later
6 received a permit to construct the fly ash pond through the MDNR – Water Pollution Control
7 Program; it is lined with a high density polyethylene (HDPE) geomembrane. Currently,
8 renewal of Ameren Missouri's operating permit for the existing ash ponds is pending review.

9 The composite liner system proposed for the UWL provides more protection from
10 leakage than the existing ash ponds and is based on future environmental regulations. The
11 UWL regulations allow for MDNR oversight throughout the design, construction, and
12 operation of the UWL. Additionally, Ameren Missouri proposed a groundwater monitoring
13 network with 30 years of post-closure groundwater monitoring.

14 Q. Did Ameren Missouri consider other alternatives for ash disposal?

15 A. Yes. Ameren Missouri has been researching options to dispose of CCRs
16 dating back to September 2003. Ameren Missouri engineers reviewed costs associated with
17 trucking CCRs to six independently owned landfills in the St. Louis area and surrounding
18 counties. Currently, four of the six independently operated landfills reviewed are still in
19 operation. Ameren Missouri hired Reitz and Jens Consulting Engineers ("R & J") to
20 complete a feasibility study.⁷ The feasibility study outlined the permitting process with
21 MDNR-SWMP, siting restrictions, other criteria developed for site selection, and the costs
22 associated with constructing a company-owned UWL. Between 2005 and 2008, R & J
23 reviewed 22 potential sites, ranging from 45 to 242 miles from the Labadie Energy Center.

⁷ *AmerenUE Utility Waste Landfill Feasibility Study*, Reitz & Jens, Revised June 8, 2004

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1 Refer to Schedule 1 for the site matrix developed by R&J which summarizes the 22 sites
2 evaluated. Although the selected Labadie site is not included on the site matrix, similar and
3 more detailed evaluations were made through the MDNR permitting process.

4 Q. What reasons did Ameren Missouri provide in support of siting the UWL on
5 the property adjacent to the Labadie Energy Center?

6 A. Craig J. Giesmann states in his Direct Testimony, "This alternative minimized
7 environmental and land use impacts, as well as costs associated with transportation.
8 Furthermore, use of this site minimizes operational and development costs, which in turn
9 minimizes the rate impact of handling CCBs generated by the plant."⁸

10 Q. Do the R&J studies support the siting of the UWL at the Labadie Energy
11 Center in comparison to the other sites evaluated?

12 A. Yes. R&J narrowed down a 22 site matrix to four potential sites⁹. Three sites
13 were eliminated due to environmental concerns, one was eliminated by Ameren Missouri, and
14 the remaining sites were eliminated due to transportation concerns such as truck traffic
15 through residential areas and cost. The remaining sites are located approximately 46 to 73
16 miles from the Labadie Energy Center. The R&J feasibility study estimated the transportation
17 costs of sites located greater than 10 miles away to be nearly equal or greater to the
18 construction costs of a UWL similar to the proposed design.¹⁰ The transportation costs to the
19 remainder of the sites would likely double the cost of the UWL.

20 Q. You mentioned that substantial field and design work has been completed to
21 permit a UWL at the Labadie Energy Center, please describe the permitting steps Ameren
22 Missouri has taken to date.

⁸ Direct Testimony of Craig J. Giesmann, Page 4, Lines 11-12

⁹ Attachment to Staff Data Request 2 - UWL matrix presentation

¹⁰ Reitz and Jens Feasibility Study, Page 7

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1 A. Ameren Missouri began the permitting process with MDNR on
2 December 3, 2008, with submittal of its request for a Preliminary Site Investigation to
3 MDNR's Division of Geology and Land Survey ("DGLS"), which was completed and
4 ultimately approved on February 2, 2009. A Detailed Site Investigation ("DSI") was then
5 completed and approved by DGLS on April 8, 2011. Finally Ameren Missouri submitted a
6 CPA to MDNR-SWMP on January 29, 2013. After submittal of additional information,
7 MDNR-SWMP notified Ameren Missouri that the CPA was considered complete and that
8 MDNR-SWMP will issue a final decision on February 7, 2014.¹¹ Franklin County's
9 Independent Registered Professional Engineer is reviewing the CPA and has indicated to
10 Ameren Missouri that final approval and review will occur concurrently with the MDNR-
11 SMWP review.¹²

12 Q. Is the Labadie site approved by MDNR?

13 A. In his Direct Testimony, Craig J. Giesmann states: "The appropriateness of the
14 site for a UWL is subject to and was approved by MDNR." MDNR-DGLS approved the DSI
15 which characterized the subsurface geologic and hydrologic conditions of the site.
16 Ultimately, MDNR-SWMP will consider whether the documentation regarding site selection
17 satisfies the UWL requirements during their review of the CPA.

18 Q. Craig Giesmann mentions in his Direct Testimony that Franklin County
19 requires an annual operating permit.¹³ Is the MDNR operating permit also annual?

20 A. No. After construction of the first cell of the UWL, a documentation report is
21 submitted to MDNR-SWMP by a registered professional engineer. If MDNR-SWMP finds

¹¹ MDNR-SWMP February 11, 2013 letter RE: Construction Permit Application for the Proposed Utility Waste Landfill, Ameren Missouri Labadie Energy Center, Franklin County Missouri

¹² Giesmann Direct Page 7, Lines 1-3

¹³ Giesmann Direct Page 7, Lines 3-4

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1 the report satisfactory, it will issue an operating permit for the first cell. Each subsequent
2 liner construction event will require documentation and approval from MDNR before
3 operating in that cell. The proposed Franklin County zoning amendment requires an annual
4 operating license renewal; Ameren Missouri has indicated that it is unclear what the approval
5 mechanism for the county annual zoning renewal will involve¹⁴.

6 Q. Does this conclude your rebuttal testimony?

7 A. Yes.

¹⁴ Response to Staff Data Request 15

Schedule 1

Is Deemed

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In Its Entirety