

Exhibit No.: *015*
Issue(s): Heat Rate/Efficiency
Testing: Generation-related
Incentives; Union
Testimony
Witness: Mark C. Birk
Sponsoring Party: Union Electric Company
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2008-0318
Date Testimony Prepared: October 14, 2008

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2008-0318

**REBUTTAL TESTIMONY
OF
MARK C. BIRK
ON
BEHALF OF
UNION ELECTRIC COMPANY
d/b/a AmerenUE**

St. Louis, Missouri
October, 2008

Company
Exhibit No. *15*
Case No(s). *ER-2008-0318*
Date *12-3-08* Rptr *pr*

TABLE OF CONTENTS

I. INTRODUCTION..... 1

II. HEAT RATE TESTIMONY..... 2

III. KEY PERFORMANCE INDICATORS..... 3

IV. RESPONSE TO NORANDA TESTIMONY..... 5

V. RESPONSE TO UNION TESTIMONY..... 5

1 in this case. Fourth, I will address certain allegations contained in the testimony submitted
2 by unions representing some of AmerenUE's employees.

3 **II. HEAT RATE TESTIMONY**

4 **Q. Please explain the agreement that the Company and Staff have reached**
5 **regarding heat rate/efficiency testing.**

6 A. On September 16, 2008, the Company and Staff engineers met to discuss heat
7 rate/efficiency testing for the Company's generating units in light of the plan outlined in my
8 direct testimony. At that meeting, Staff engineers reviewed various documents related to the
9 Company's heat rate/efficiency testing plans for all of its generating units. With regard to the
10 Callaway Nuclear Plant, the Company's coal-fired plants, and certain of the Company's gas-
11 fired combustion turbine generators ("CTGs") that provide nearly all of the energy generated
12 by the Company, Staff accepted the Company's proposed heat rate/efficiency testing plan,
13 which uses performance monitoring systems. With regard to a handful of very seldom-used
14 CTGs without performance monitoring systems,¹ Staff requested that the Company conduct
15 a separate heat rate test for each unit, and the Company has agreed to conduct those tests.

16 **Q. Which specific CTG units are to be tested pursuant to the agreement?**

17 A. The Howard Bend, Meramec 1, Meramec 2, Viaduct, Kirksville, Mexico,
18 Moberly, Moreau, Fairgrounds and the Venice 1 unit will all be tested under the agreement.

19 **Q. How will the tests of these units be conducted?**

20 A. Each CTG test run will be, at a minimum, two hours in duration and will be
21 conducted using the primary fuel only for dual fuel units. The tests will be based on a test
22 template which has been agreed to by Staff and the Company. The specific test plans and

¹ As noted in my direct testimony, these seldom-run CTGs produced just 0.01% of the energy produced by the Company in 2007.

1 schedules will be submitted to and approved by Staff, before the tests are conducted.
2 Following approval of an FAC, the Company will conduct an initial test to establish the
3 baseline performance for each unit, and it will conduct additional periodic tests, so that unit
4 efficiency can be monitored. While we believe the heat rate/efficiency testing plan that I
5 proposed in my direct testimony met the requirements of the Commission's FAC rules, the
6 Company is willing to perform the additional testing requested by Staff.

7 **III. KEY PERFORMANCE INDICATORS**

8 **Q. What are AmerenUE's Key Performance Indicators?**

9 A. KPIs are measurable standards that help determine each employee's incentive
10 compensation award each year. As explained in the rebuttal testimony of AmerenUE witness
11 Krista Bauer, incentive compensation comprises a meaningful portion of the compensation
12 paid to AmerenUE management employees, and to a lesser extent, it impacts the
13 compensation paid to contract employees.

14 **Q. What types of KPIs apply to AmerenUE employees that work at
15 AmerenUE's generating facilities?**

16 A. The KPIs for employees who work with generating facilities address such
17 topics as the generating plants' availability, safety of workers, compliance with budget
18 metrics and compliance with applicable environmental standards.

19 **Q. Which specific KPIs address plant availability?**

20 A. For AmerenUE employees who work at the Company's fossil plants and
21 hydroelectric plants, as well as AmerenUE's Power Operation Services employees,
22 equivalent availability of the generating plants is a significant measurement which helps
23 determine their incentive compensation each year. Specifically, 20% of these employees'

1 incentive compensation is determined by the equivalent availability of the generating plants
2 they are responsible for.

3 **Q. What exactly is equivalent availability, and how can employees impact it?**

4 A. Equivalent availability is the total actual megawatt hours a unit is available
5 after all outages and derates have been subtracted, divided by the total maximum megawatt
6 hours at full unit capability. Employees can impact equivalent availability by making sure
7 that generating units are properly maintained and operated, so that outages and/or derates are
8 minimized.

9 **Q. Why is this KPI relevant to this rate case?**

10 A. Several parties that oppose AmerenUE's proposed FAC argue that an FAC
11 will remove the Company's incentive to minimize net fuel costs. As explained in the rebuttal
12 testimony of AmerenUE witness Martin Lyons, AmerenUE has several incentives to keep its
13 fuel costs low that will remain even if an FAC is approved. KPI incentives contribute to
14 compensation for employees whose work impacts fuel acquisition, generation availability
15 and off-system sales. My testimony addresses KPIs for generation availability, and other
16 witnesses are addressing KPIs for employees in the other areas. The KPIs that measure
17 generation availability are relevant because additional generation lowers AmerenUE's cost of
18 serving its native load, and will provide AmerenUE with the opportunity to make additional
19 off-system sales, which will also ultimately keep net fuel costs low for customers. This is
20 one part of the incentives discussed in Mr. Lyons' testimony.

1 unqualified employees hired from other industries to do work on power plants. He argues
2 that the Company should hire more workers into starting positions and train them internally
3 so they will be more knowledgeable, committed and adapted to workplace hazards. He also
4 alleges that reliance on outside contractors makes AmerenUE's service less reliable than it
5 should be.

6 **Q. Do you agree with Mr. Giljum's criticisms?**

7 A. Absolutely not. In fact, AmerenUE's management of its workforce to achieve
8 very reliable, low cost performance from its generating plants has been exemplary in recent
9 years. AmerenUE relies on both internal workers and outside contractors to operate its
10 power plants because use of both types of workers provides us with the greatest flexibility to
11 operate our plants efficiently and cost effectively. We hire workers from other industries that
12 already have skills and knowledge that are transferable to power plant operations because it
13 is far more efficient in many cases than hiring completely unskilled workers and training
14 them from the ground up at our ratepayers' expense. We don't apologize for those practices;
15 they are perfectly appropriate, provide us with a more diverse workforce and are even
16 necessary in order to provide our customers with reliable power generation at a reasonable
17 cost.

18 **Q. Do AmerenUE's power plant reliability statistics support your position**
19 **that your workforce is successful in operating these facilities?**

20 A. Yes. For example, the chart below shows the significant improvements in
21 equivalent availability and net capacity factor that AmerenUE's coal plants have made over
22 the past 10 years. As I previously mentioned, equivalent availability is the total actual
23 megawatt hours a unit is available after all outages and derates have been subtracted, divided

1 by the total maximum megawatt hours at full unit capability. This percentage has increased
2 more than 10% over the past decade. Capacity factor is a ratio of how much power was
3 actually produced by the plants, divided by the capacity of the plants. Again, this metric has
4 increased substantially over the past ten years.

AmerenUE Coal Plants

YR	Equivalent Availability	Net Capacity Factor
1998	79.91%	61.92%
1999	76.96%	61.53%
2000	79.76%	66.85%
2001	80.70%	67.28%
2002	79.61%	69.12%
2003	84.45%	75.90%
2004	84.48%	77.65%
2005	90.98%	82.80%
2006	89.47%	81.99%
2007	89.44%	80.10%
2008	90.73%	79.26%

5
6 These improvements are particularly noteworthy given the fact that AmerenUE's coal plants
7 were built decades ago, and they have aged over the ten years covered by the chart. This
8 chart depicts plants that are well-run, notwithstanding Mr. Giljum's assertions to the
9 contrary.

10 **Q. Is safety being compromised at AmerenUE's generating plants as**
11 **Mr. Giljum implies?**

12 **A.** No. Employee safety and the safety of the public are of paramount
13 importance to the Company. As the chart below shows, the Company's OSHA incident rate
14 for its generation employees has declined dramatically over the last ten years.

1

Year	OSHA Incident Rate
1998	9.0
1999	9.6
2000	7.1
2001	6.6
2002	3.4
2003	3.1
2004	7.6
2005	6.3
2006	5.3
2007	4.7
2008	
YTD	1.9

2

3

4

In summary, the facts show that Mr. Giljum's depiction of AmerenUE's generation as inefficient, unreliable and unsafe are simply not accurate.

5

Q. Does this conclude your rebuttal testimony?

6

A. Yes, it does.

