Exhibit No.:	
Issue:	Rate Design
Witness:	James R. Dauphinais
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Missouri Industrial Energy Consumers
Case No.:	ER-2011-0028
Date Testimony Prepared:	February 10, 2011

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Annual Revenues for Electric Service	)	**Case No. ER-2011-0028** Tariff No. YE-2011-0166

Direct Testimony and Schedules of

James R. Dauphinais

on Rate Design

On behalf of

Missouri Industrial Energy Consumers

NON-PROPRIETARY VERSION

February 10, 2011

BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9371

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Annual Revenues for Electric Service	)	**Case No. ER-2011-0028** Tariff No. YE-2011-0166

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of James R. Dauphinais

James R. Dauphinais, being first duly sworn, on his oath states:

1. My name is James R. Dauphinais. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my direct testimony and schedules which were prepared in written form for introduction into evidence in the Missouri Public Service Commission Case No. ER-2011-0028.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

James R. Dauphinais

Subscribed and sworn to before me this 10th day of February, 2011.

Notary Public

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2013
Commission # 09706793

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Direct Testimony of James R. Dauphinais

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A James R. Dauphinais.

Q ARE YOU THE SAME JAMES R. DAUPHINAIS WHO HAS FILED DIRECT TESTIMONY ON REVENUE REQUIREMENT?

A Yes.

Q WHAT IS THE SUBJECT OF YOUR RATE DESIGN TESTIMONY?

A The performance trend of Ameren Missouri's baseload generation facilities.

Q PLEASE EXPLAIN WHY THAT PERFORMANCE IS RELEVANT TO THE SUBJECT OF AMEREN MISSOURI'S RATE DESIGN.

A As discussed in greater detail in Mr. Brubaker's testimony, the introduction of a fuel adjustment clause for Ameren Missouri changed the incentives driving Ameren Missouri's decision making especially when Ameren Missouri is weighing the incurrence of costs recoverable in base rates versus savings in net fuel cost that would result from the incurrence of those costs. In general, between base rate

proceedings, Ameren Missouri must absorb additional costs recoverable in base rates while it can recover 95% of its net fuel costs through its FAC between those proceedings. As a result, it is important for the Commission to carefully monitor the performance of Ameren Missouri's generation facilities, especially that of Ameren Missouri's baseload generation facilities, and consider on an ongoing basis whether the percentage of fuel cost increases and decreases assigned to Ameren Missouri through the FAC should be increased from 5% in order to better incentivize Ameren Missouri to keep its costs as low as reasonably possible.

Q WHAT MATERIAL HAVE YOU REVIEWED REGARDING THE PERFORMANCE TREND OF AMEREN MISSOURI'S BASELOAD GENERATION FACILITIES?

A I have reviewed Ameren Missouri's responses to data requests from MIEC and the Commission Staff regarding historical outage rate information for Ameren Missouri's generation facilities.

Q WHAT HAVE YOU FOUND?

A The forced outage rates of Ameren Missouri's baseload generation facilities, and its coal-fired generation facilities in particular, have been steadily trending upward since 2005. This upward trend has continued since Ameren Missouri's FAC went into effect in March of 2009. Higher forced outage rates reduce the availability of Ameren Missouri's baseload generation facilities reducing Ameren Missouri's off-system sales opportunities and potentially increasing its purchases of electricity from the wholesale market. These effects work to increase Ameren Missouri's net fuel cost. As noted above, Ameren Missouri can currently recover 95% of such net fuel cost increases from its retail customers between base rate proceedings through its FAC.

Q PLEASE PRESENT THE DATA UPON WHICH YOU ARE BASING YOUR FINDING.

A In response to Commission Staff Data Request MPSC 0059, Ameren Missouri has provided historical Equivalent Forced Outage Rate ("EFOR") and Equivalent Availability Factor ("EAF") data for its generation facilities from January 2007 through August 2010.

An EFOR is a measure of the percent of time that a generation unit is not in service because physical reasons prevent its operation. It is calculated as the ratio of: (i) the sum of forced outage hours and equivalent forced outage hours from forced deratings to (ii) the sum of service hours, forced outage hours and equivalent forced outage hours from forced derates. In effect, it is a measure of what percent of the time a generation facility will be out of service due to forced outages and forced derates to the time in which the generation facility was otherwise available for service (i.e., not out due to a planned outage or derate) assuming the facility is only either available at full capability or not available at all.

An EAF is a measure of the percent of time a unit is available to operate. It is calculated as the ratio of: (i) the sum of service hours and reserve shutdown hours less the sum of equivalent planned outage hours from planned derates, equivalent forced outage hours from forced derates, equivalent maintenance outage hours from maintenance derates and equivalent outage hours due to seasonal derates to (ii) the total hours in a period. It is a measure of the percentage of time a generator will be available assuming the facility is either available at full capability or not available at all.

In general, it is desirable for the EFOR to be low and the EAF to be high.

Q HAVE YOU ANALYZED THIS EFOR AND EAF DATA?

A Yes. In Schedule JRD-9, I have plotted the EFOR of Ameren Missouri's baseload generation facilities on a rolling 12-month basis from December 2007 through August 2010. This plot clearly shows a steady increase in the EFOR trend line for Ameren Missouri's baseload generation fleet from a little under *** *** in December 2007 to about *** *** in August 2010.

Q YOU INDICATED EARLIER THAT THE TREND IS IN PARTICULAR PRESENT FOR THE COAL-FIRED PORTION OF AMEREN MISSOURI'S BASELOAD GENERATION FLEET. PLEASE EXPLAIN HOW YOU KNOW THIS TO BE TRUE?

A In Schedule JRD-10, I have plotted just the EFOR for Ameren Missouri's coal fleet from December 2007 through August 2010. This plot shows that the rolling 12-month EFOR trend line for Ameren Missouri's coal fleet increased from just over *** *** in December 2007 to just over *** *** in August 2010.

Q HOW HAVE AMEREN MISSOURI'S BASELOAD AND COAL FLEET AVAILABILITY FACTORS TRENDED OVER THIS SAME PERIOD?

A In Schedule JRD-11 and Schedule JRD-12, respectively, I have plotted a 12-month rolling average of the EAF for Ameren Missouri's baseload and coal-fired generation. Schedule JRD-11 shows that the EAF trend line for baseload generation as a whole has fallen from approximately *** *** in December 2007 to approximately *** *** in August 2010. Schedule JRD-12 shows the EAF trend line for coal-fired portion of baseload generation has fallen from a little under *** *** in December 2007 to a little under *** *** in August 2010.

Q COULD YOU PROVIDE AN INDICATIVE EXAMPLE OF APPROXIMATELY WHAT A FALL OF AMEREN MISSOURI'S COAL-FIRED EAF BY 3% MIGHT MEAN IN TERMS OF ADDITIONAL NET FUEL COST?

A Yes. In 2009, Ameren Missouri had approximately 36 million MWh of coal-fired energy production (Direct Revenue Requirement Testimony of Dauphinais at Schedule 8). Assuming a fuel cost for coal-fired generation of approximately $20 per MWh and an average around-the-clock electric market price of $33 per MWh, a 3% reduction in Ameren Missouri's coal-fired energy production could potentially increase Ameren Missouri's net fuel cost by as much as $14 million.[1]

Q WHAT DO YOU RECOMMEND TO THE COMMISSION?

A I recommend the Commission carefully monitor the performance of Ameren Missouri's generation facilities, especially of Ameren Missouri's baseload generation facilities.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

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[1] 36,000,000 x 3% x ($33 - $20).

Schedule JRD-9

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Schedule JRD-10

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Schedule JRD-11

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Schedule JRD-12

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