Exhibit No.:	
Issue(s):	Load and Forecast Deviation Costs
Witness:	Timothy D. Finnell
Sponsoring Party:	Union Electric Company
Type of Exhibit:	Surrebuttal Testimony
Case No.:	ER-2011-0028
Date Testimony Prepared:	April 15, 2011

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2011-0028

SURREBUTTAL TESTIMONY

OF

TIMOTHY D. FINNELL

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

St. Louis, Missouri
April, 2011

SURREBUTTAL TESTIMONY

OF

TIMOTHY D. FINNELL

CASE NO. ER-2011-0028

Q. Please state your name and business address.

A. My name is Timothy D. Finnell. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. By whom and in what capacity are you employed?

A. I am employed by Ameren Services Company as Managing Supervisor, Operations Analysis.

Q. Are you the same Timothy D. Finnell who filed direct and rebuttal testimony in this case?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony?

A. One purpose of my surrebuttal testimony is to explain why the Commission should reject the position taken by Staff Witness Erin Maloney in her rebuttal testimony relating to load and generation forecasting deviation costs and to recommend that the Commission adopt the Company's position on this issue. As I explain further below, normalized load and generation forecast deviation costs must be included as a part of the net base fuel costs established in this case. Otherwise, we will fail to rebase net base fuel costs as accurately as possible. This testimony contains an update of the load and generation forecast deviation costs based upon data through the end of the true-up period. The second purpose of my surrebuttal testimony is to explain why the Commission should reject the use of Ms.

Maloney’s normalized power prices in the modeling that will be done to establish net base fuel costs. Those power prices are reflected in the workpapers that support Ms. Maloney’s rebuttal testimony, which demonstrate that the power prices contain errors and thus should not be used. Finally, my surrebuttal testimony addresses a concern I have with the Staff’s production cost modeling presented in Staff’s rebuttal testimony relating to the Company’s Osage and Keokuk hydroelectric plants. As discussed below, the production cost modeling for those plants should use monthly energy values based on six years of data from the period April 2004 through March 2010.

Q. What is the Staff’s position on load and generation forecast deviations?

A. Ms. Maloney stated in her rebuttal testimony that “load forecasting and generation planning is an inherent risk in the electric utility business that should not be passed to the rate payers.” I assume that Ms. Maloney is referring to load and generation forecasting deviations, which I described in my direct testimony as being part of “daily” operation of the Midwest Independent Transmission System Operator, Inc. (“MISO”) energy market and not long-term resource planning.   Ms. Maloney also stated in her rebuttal testimony that “these costs are not ‘additional costs’ as Mr. Finnell claims on line 14 of his testimony but rather the costs of meeting load, which the Company is being compensated for through rates.”

Q. Assuming Ms. Maloney was referring to the load and generation forecast deviations costs associated with participation in the MISO energy market, do you agree with her first statement regarding the inherent risk of load and generation forecast deviation costs that “should not be passed along to the customer”?

A. No, I strongly disagree with Ms. Maloney's assertion that these costs should not be passed along to the customer. I have explained in my direct testimony why the load and generation forecast deviation costs occur. That is, these costs are the *result* of participation in the MISO energy market. The MISO energy market consists of a Day Ahead (DA) market which is based on forecasted loads and forecasted generation and a Real Time (RT) market, which balances the differences between actual loads and forecasted loads and actual generation and forecasted generation. Later in this testimony I provide examples of actual load and generation deviations. Customers receive the benefit of the Company's participation in the MISO energy market through the substantial off-system sales that the Company is able to make, which offset net fuel costs in base rates. The load and generation forecast deviation costs are real, and they are caused by the Company's participation in the MISO market. There is no justification for excluding them from the Company's cost of service; indeed, the Company has a right to recover these prudently incurred costs, just like any other prudently incurred cost.

Q. Are the load and generation forecast deviations constant from year to year?

A. No, the load and generation forecasted deviation costs can vary significantly from year to year. The table below shows how the load and generation deviations have changed among calendar years 2008, 2009 and 2010.

	MWh of Load Forecast Deviation	$ Impact of Load Forecast Deviation	MWh of Generation Forecast Deviation	$ Impact of Generation Forecast Deviation	ATC Power Prices
2008	86,847	$13,3243,251	-591,012	$899,921	$44.61/MWh
2009	156,282	$4,257,151	-617,034	-$1,930,719	$24.64/MWh
2010	190,940	$5,115,466	-1,399,547	-$3,826,692	$30.79/Mwh
Average	144,691	$7,538,622	-869,198	-$1,619,163	$33.79/MWh

The positive values for the MWh of load and generation forecast deviations indicated that the actual values were greater than the forecasted values. The positive value for the dollar impact of load and generation deviations indicate that there was a net cost for the year and a negative value indicates that there were additional revenues received for the year.

Note that the load forecast deviation costs have declined in a manner similar to the decline in the around-the-clock (ATC) power prices that we have seen since the financial recession began in late 2008. I would also note that the Company is using the same three-year time period that is being used in this case for determining normalized power prices to arrive at a normalized level of forecast deviation costs.

Another observation from the data included in the table above is that annualized load forecast deviations tend to result in a cost increase, while annualized generation forecast deviations tend to result in additional revenues; however it is inappropriate to state that the cost of load forecast deviations and the extra revenues from generation deviations cancel each other out. This is because when those values are averaged and netted over this three-year period, it can be readily seen that the Company is experiencing a net cost of $5,919,459. This is because the cost associated with the load forecast deviations are generally substantially in excess of the revenues associated with the generation forecast deviations.

Q. **Why does the Company add the load and generation forecast deviation costs to the net base fuel costs calculated by the Company's production cost model instead of having the production cost model determine these costs?**

A. The Company has chosen this approach because the Company's production cost model, PROSYM, does not model the entire MISO energy market. PROSYM is a one pass model, similar to the MISO DA energy market. The model assumes *perfect knowledge* of both loads and generation. In other words, it assumes that on Monday, when day-ahead load and generation bids are made by the Company, the actual loads and generation that will occur on Tuesday, in real time, will always match. Of course this is obviously not true. If on Monday the weather was forecasted to be cloudy and 84 degrees, but it turned out to be sunny and 91 degrees, loads will be materially higher in real time, as will generation. Consequently, PROSYM does not calculate the impact of any deviations that occur between forecasted and actual loads and forecasted and actual generation – it assumes there is no such deviation. Therefore, to determine the net base fuel costs the Company adds the normalized load and generation forecast deviation costs to the results of the production cost model, together with other components of net base fuel costs, which were outlined in detail in Ameren Missouri witness Gary S. Weiss' direct testimony.

Q. Are the load and generation forecast deviation costs accounted for in any other place in the Company's filing?

A. No they are not.

Q. Please elaborate on the major cause of the load and generation forecast deviation costs?

A. The major reason for the load and generation forecast deviation costs is the difference between DA prices and the RT Prices and of course variances between load and generation, over which the Company has no control. In the ideal world there should be no difference between the DA prices and RT prices, however price variations occur because of changes in market conditions, including actual MISO loads, generation and even transmission conditions that vary from the forecast. Those variations are completely outside of the Company's control.

Q. What are some examples of load and generation forecast deviations?

A. I will first provide an example of load forecast deviation costs. The DA bids and offers must be submitted to MISO by 11:00 a.m. Eastern Standard Time for the next day load and generation. Consequently, many things can change during the time interval between the time of the forecast and the time of the actual conditions. Weather is the largest item that impacts load forecast deviations. Changes in weather such as storms or forecasted storms which do not materialize can result in increased costs associated with load forecasting deviations. For example, on August 1, 2009 hour ending 16 the DA load forecast was 5388 net MW which was based on a temperature forecast of 85 degrees and a DA price of $26.69/MWh. The actual load for the same hour came in much lower, at 4332 Net MW, and the actual temperature was just 71 degrees. As a result, the RT price in that hour was only $16.27/MWh. The load forecast deviation cost for this hour resulted in an additional cost of $11,000. This type of event, which occurred due to uncontrollable changes in weather is inherent in the operation of the MISO market, which as noted earlier benefits customers, and its costs should be normalized and included in rates just like any other prudently incurred cost that has a lot of variability over time.

Another example of costs associated with load forecast deviations is August 3. 2010 hour ending 17. The DA load forecast was 7915 new MW which was based on a temperature forecast of 98 degrees and a DA price of $89.62/MWh. The actual temperature was 100 degrees, and the actual generation for the same hour was much higher, at 8320 Net MW and the RT price was $121.48/MWh. The load forecast deviation for this hour resulted in an extra cost of $12,353. These two examples illustrate that both over-forecasting loads and under-forecasting loads can result in higher costs.

Q. Do you have an example of a generation forecast deviation?

A. Yes. An example of a generation deviation, which in this example produced revenues, is when the RT prices decline significantly from DA prices and a generating unit reduces its planned output. For example, on September 2, 2010 hour ending 1 a.m. Rush Island Unit #1 was scheduled to produce 485 Net MW (based upon its DA bid) at a DA price of $20.13/MWh. However, in real time the price dropped to negative $(78.15/MWh) and the unit reduced its output to 310 MW (near its minimum operating level), resulting in a net revenue increase of $17,206 from reducing the generation from Rush Island Unit #1.

Q. How have the load and generation forecasts been handled in previous rate cases?

A. In Case No. ER-2008-0318, Staff witness Dr. Michael Proctor calculated both the load and generation forecast deviation costs in a manner similar to the manner I am using in this case and, as I recommend in this case, Dr. Proctor added the load and generation forecast costs to the net fuel costs produced by the Staff's production cost model.

Q. Do you agree with Ms. Maloney's second statement "these costs are not 'additional costs' as Mr Finnell claims…but rather the cost of meeting load, which the Company is being compensated for through rates"?

A. Her statement is internally inconsistent. The first part of her statement that "these costs are not additional costs" is similar to her first assertion that the customers should not pay for the load and generation deviation costs. However, the last part of her statement contradicts the first, and supports the Company's position that load and generation forecast deviation costs are valid costs for which the Company should be compensated by including these costs when calculating rates. After all, if these are costs of meeting load – and they are – then why should the load (customers) not pay for them?

Q. Have you updated the load and generation forecast deviation costs to account for data through the end of the true-up period?

A. Yes, the load and generation forecast deviation costs have been updated from my original testimony using actual data through February 28, 2011. The updated load forecast deviations produced a cost of $7.2 million and the updated generation forecast deviation produced revenues of $2.1 million, which results in a net cost of $5.1 million.

Q. Do you have any concerns about the power prices reflected in the workpapers provided in Ms. Maloney rebuttal testimony?

A. Yes. Ms. Maloney's workpapers reflect a normalized around-the-clock power price of $33.25/MWh, which was higher than the $32.51/MWh price calculated by the Company using the exact same data. Through discussions with Ms. Maloney, she has recognized this problem and she has provided the Company with a corrected workpaper that now reflects a normalized around-the-clock power price of $32.48/MWh. The incorrect price in her rebuttal testimony workpapers also produced inaccurate results in the modeling that is presented in the rebuttal testimony of Staff witness David Elliot.

Q. Did you have any concerns with the Osage generation produced by the production model run from Mr. Elliot's rebuttal testimony?

A. Yes. I reviewed the monthly Osage energy forecast produced by the Staff's production model and found that it was unrealistic. For example, during the month of July, the Staff's production cost model workpapers indicated that 160,978 MWh were generated by

Osage plant, which is more than twice the actual six-year average July generation of 71,944 MWh.

Q. Is the Staff aware of the problem with the Osage monthly generation used in its model?

A. Yes, the Staff is aware of the problem and Mr. Elliot has agreed to use a six-year average for the monthly average Osage generation, as well as a six-year average of monthly generation for the Company's other hydroelectric plant, Keokuk.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company	)	
d/b/a AmerenUE for Authority to File	)	
Tariffs Increasing Rates for Electric	)	Case No. ER-2011-0028
Service Provided to Customers	)	
In the Company's Missouri Service Area.	)	

AFFIDAVIT OF TIMOTHY D. FINNELL

STATE OF MISSOURI)
) **ss**
CITY OF ST. LOUIS)

Timothy D. Finnell, being first duly sworn on his oath, states:

1. My name is Timothy D. Finnell. I work in the City of St. Louis, Missouri, and I am employed by Ameren Services Company as a Managing Supervisor, Operations Analysis in Corporate Planning.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 9 pages, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

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

Timothy D. Finnell
Timothy D. Finnell

Subscribed and sworn to before me this 15 day of April, 2011.

Amanda Tesdall
Notary Public

My commission expires:

Amanda Tesdall - Notary Public
Notary Seal, State of
Missouri - St. Louis County
Commission #07158967
My Commission Expires 7/29/2011