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Witness: Matt Michels
Sponsoring Party: Union Electric Company
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MISSOURI PUBLIC SERVICE COMMISSION

File No. EC-2014-0224

SURREBUTTAL TESTIMONY

OF

MATT MICHELS

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

St. Louis, Missouri
May, 2014

SURREBUTTAL TESTIMONY

OF

MATT MICHELS

FILE NO. EC-2014-0224

Q. Please state your name and business address.

A. Matt Michels, One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. Are you the same Matt Michels who sponsored rebuttal testimony in this case?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony of Missouri Public Service Commission ("Commission") Staff ("Staff") witness Sarah Kliethermes. I will address the assumptions and calculations she has made to determine Ameren Missouri's net market opportunity cost to serve Noranda Aluminum's ("Noranda") New Madrid smelter as well as the recommendations that she has made to the Commission.

Q. Please summarize the conclusions of your surrebuttal testimony.

A. I agree with Ms. Kliethermes that approval of Noranda's request would result in greater costs to Ameren Missouri's other customers than if the New Madrid smelter were to cease operations. No witness in this case has provided a rational justification for the relief requested by Noranda -- establishing a subsidized rate for its New Madrid smelter based on Noranda's purported economic situation with capped increases and *no* exposure to the market risks of serving its load for a period of ten years. Neither has any witness in this case adequately demonstrated that Ameren Missouri's other customers will realize anything but additional costs and risks if Noranda's request is approved. Both Ms. Kliethermes and I have demonstrated that other customers would, in fact, realize greater costs under Noranda's proposal than if the smelter ceased operations. I recommend that the Commission not establish *any* market-based rate for Noranda for any time period based on pre-determined estimates of market prices, including those based on historical prices like the prices Ms. Kliethermes has calculated.

Q. Please discuss your understanding of Ms. Kliethermes' testimony.

A. Ms. Kliethermes states that "[s]imilar to Mr. Dauphinais, [she] used Ameren Missouri's wholesale cost of energy through the Midcontinent Independent System Operator, Inc. ("MISO") to determine a reasonable estimate of Ameren Missouri's cost of energy for providing retail service to Noranda[1]." More specifically, she provided testimony regarding her calculation of Ameren Missouri's net market opportunity cost to serve Noranda's New Madrid smelter, which she has referred to as the "wholesale cost of energy for sale to Noranda."

She also identified estimates of dollars per megawatt-hour ("MWh") charges that would be required to (1) place Ameren Missouri's other customers in a neutral position relative to Noranda ceasing to take service from Ameren Missouri, and (2) provide the level of benefit to these other customers that Noranda witness Maurice Brubaker discussed in his direct testimony.

Finally, she refutes Mr. Brubaker's estimate of the variable cost of providing service to Noranda, which includes an offset for an allocation of Ameren Missouri's off-system sales margin ("OSSM") revenue.

Q. Please discuss the areas of agreement which you have with Ms. Kliethermes.

[1] Kliethermes Rebuttal, p. 4, l. 12-14.

A. I agree completely with her statement that, "it is not reasonable to set any rate for service below the variable cost of providing that service. To do so would mean that other customers are not only no better off than if Noranda ceased to be an Ameren Missouri customer, but they are worse off because other customers would be bearing a portion of costs incurred to provide service to Noranda, that would not be incurred if Noranda were not a customer[2]."

I also agree with her observation that some amount greater than the variable cost of providing service to the New Madrid smelter would be necessary to determine (from a rate impact basis) that Ameren Missouri's other customers are better off providing a subsidy to Noranda than they would be if the smelter were to cease operations. I also concur that, using Mr. Brubaker's own calculation, Noranda would have to pay a rate that is $2.95/MWh higher than the net market opportunity cost of serving the smelter to provide the same benefit to Ameren Missouri's customers that Mr. Brubaker claims exists with Noranda's proposal.

Finally, while there are several details in her calculation that I believe warrant adjustment, I agree in principle with her approach of identifying the charges and credits that would be affected by a change in Noranda's load and accounting for these in the calculation of the net market opportunity cost to serve Noranda's load.

Q. Do you have any areas of disagreement with Ms. Kliethermes' testimony?

A. Yes. From a technical standpoint, I have some disagreements with portions of Ms. Kliethermes' calculations of Ameren Missouri's market opportunity cost of serving Noranda's load. More importantly, and in spite of the fact that she does not recommend its adoption, I disagree with her suggestion that a discounted rate for Noranda based on historical

[2] Kliethermes Rebuttal, p. 13, l. 7-11.

market prices could ensure that Ameren Missouri's other customers would realize the benefits purported by Mr. Brubaker, even for a short period of time.

Q. Can you briefly describe the kinds of charges and credits that would be affected by a change in Noranda's load served by Ameren Missouri?

A. Yes. These charges and credits would include charges for capacity and energy (including amounts related to line losses on the AECI[3] transmission system), and a variety of other MISO market and transmission costs.

Q. Did Ms. Kliethermes' calculation account for all of these items?

A. No, it did not. Based on my review of her workpapers and data request responses she appears to have relied upon in developing her calculations, she has provided for capacity, energy, and MISO schedule 26A[4] charges. She also accounted for several MISO charges that neither Noranda's witness James Dauphinais nor I had accounted for in our calculations. Additionally, she accounted for transmission line losses on the AECI system and certain MISO charges, which I also accounted for but Mr. Dauphinais did not. However, there were certain other MISO charges that Ms. Kliethermes did not account for.

Q. Which MISO charges did Ms. Kliethermes identify that neither you nor Mr. Dauphinais accounted for in your calculations?

A. Ms. Kliethermes included in her calculation MISO Schedule 1, MISO Schedule 2, MISO Schedule 10, MISO Schedule 10 FERC, MISO Schedule 41, MISO Schedule 42-A and Revenue Neutrality Uplift. Neither I nor Mr. Dauphinais included any of those charges in our respective calculations.

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[3] Associated Electric Cooperative, Inc.

[4] MISO's FERC-approved tariff imposes charges and/or provides credits arising from participation in MISO's markets via various schedules to the tariff. I address several additional schedules, below.

Q. Is it proper to include those charges in the calculation of Ameren Missouri's net market opportunity cost to serve Noranda?

A. Yes. It is appropriate to include any charges or credits that would be affected by a change in Noranda's load on Ameren Missouri's system in the calculation of the net market opportunity cost to serve Noranda's load. Each of the charges I mentioned in my previous answer would be affected by a change in Noranda's load.

Q. Did Ms. Kliethermes' calculation account for all of the charges and credits that would be affected by a change in Noranda's load?

A. No. Ms. Kliethermes did not account for the RT Market Administration Amount, RT[5] Net Inadvertent Distribution Amount, RT Schedule 24 Allocation Amount, Schedule 26, DA[6] Revenue Sufficiency Guarantee Distribution Amount, RT Distribution of Losses Amount, RT Miscellaneous Amount, RT Demand Response Allocation Uplift Charge, MISO Schedules 37 & 38, MISO Schedule 33, MISO Schedule 45, RT Revenue Sufficiency Guarantee ("RSG") 1st Pass or any of the charges and credits associated with Financial Transmission Rights ("FTRs") and Auction Revenue Rights ("ARRs").

Q. Is it proper to include those charges in the calculation of Ameren Missouri's net market opportunity cost to serve Noranda?

A. Yes. As I stated previously, it is appropriate to account for any charges or credits that would be affected by a change in Noranda's load in the calculation of the net market opportunity cost to serve Noranda's load.

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[5] "RT" means "real-time", which is a reference to MISO's real-time energy market as compared to its day-ahead energy market.
[6] "DA" means "day-ahead."

Q. Is it important to understand the nature of each of these charges and credits to determine the effect of a change in Noranda's load on the cost to provide service to the smelter?

A. No. It is only important to understand <u>that</u> these charges and credits are affected by a change in Noranda's load served by Ameren Missouri.

Q. Did your initial analysis account for all of these charges and credits?

A. No. As I stated in my rebuttal testimony, the focus of my analysis of Mr. Dauphinais' direct testimony was to point out numerous errors that made his estimate of net market opportunity cost both unrealistic and unreliable. I did not individually identify each and every charge Mr. Dauphinais failed to account for in his calculation.

Q. Did your analysis include any charges or credits that should not have been included?

A. Yes. I erroneously included a credit for RT Schedule 24 Distribution amount in my calculation. This credit would not be affected by a change in Noranda's load and should be excluded from the calculation. Additionally, the amount that I included for MISO Schedule 26 charges was overstated. Upon further review of the methodology used by MISO to allocate charges for Schedule 26, I determined that the costs that Ameren Missouri incurs required a more complicated formula than simply taking the annual charge and dividing by Ameren Missouri's load. When I corrected for this error in calculation, the amount that would be affected by a change in Noranda's load dropped.

Q. Have you developed estimates for each of the various credits and charges that would be included in the calculation of Ameren Missouri's net market opportunity cost to serve Noranda for the full 10-year term of its proposal?

A. No. In the analysis provided in my rebuttal testimony, I had calculated the average $/MWh for the twelve months ending December 31, 2013, for a collection of MISO charges and credits, and held these values constant across the entire 10-year term of Noranda's proposal. I did this merely to illustrate the effect of items that Mr. Dauphinais had failed to account for in his calculation. Ameren Missouri has not attempted to develop estimates of the future value for any of those charges and credits listed above, whether I accounted for them in my rebuttal testimony or not.

Q. You previously indicated that Ms. Kliethermes identified certain charges that you had not accounted for, that there were other charges which neither you nor she had accounted for, and that your calculation included certain errors. In light of these items, if you were to recalculate the net total of the charges and credits that would be affected by a change in Noranda's load, how would this affect the amount included in your initial analysis?

A. In my analysis, the total amount that I used to illustrate the impact of charges and credits that Mr. Dauphinais failed to account for was $.3826/MWh. When I correct for the errors previously identified and include the additional charges and credits that would be affected by a change in Noranda's load which I had not previously accounted for, this total rises to $.4824/MWh. Neither the original value of $.3826 nor the updated value of $.4824 includes capacity, energy, or MISO schedule 26A. The updated value was calculated using the values for the various charges and credits that would be affected by a change in Noranda's load for the twelve months ending April 1, 2014.

Q. Did you calculate a value for the amount of FTR/ARR net credits that would be lost if Noranda's smelter were to cease operations in that data request response?

A. No. Ameren Missouri has not performed an analysis to determine what portion, if any, of those charges and revenues associated with FTRs and ARRs would be affected by a change in Noranda's load. Ameren Missouri believes that such an analysis would be complex in nature and require more time to complete than was available in the context of this proceeding.

Q. Why would such an analysis be complex in nature?

A. Given the myriad of factors impacting the charges and credits associated with FTRs and ARRs (including identification of exactly what portion of which particular ARR entitlement might be affected), trying to determine this amount is akin to pushing on a balloon – identifying one component leads to changes in many others. For example, MISO's methodology for granting ARRs includes a determination of feasibility. We have no means of determining how the loss of Noranda's load would impact the feasibility of other ARRs or other factors in MISO's methodology.

Q, If you did not specifically calculate a value for the amount of FTR/ARR net credits that would be lost if Noranda's smelter were to cease operations, does your analysis account for these net credits?

A. Yes. To understand how, we must first understand that net credits from ARRs and FTRs offset the cost of congestion between historical network resources and load. If Noranda were to cease operations at its smelter, some portion of our allocation may well be lost, but when that load goes away, so do any congestion costs associated with that load. The ARR/FTR net credits, therefore, are only one side of the equation – the congestion cost between our network resources and Noranda's load being the other. You cannot remove one without removing the other.

For my analysis of Ameren Missouri's cost to serve Noranda for the next 10 years, I utilized the market prices for energy that were developed for the 2014 Integrated Resource Plan ("IRP"). For the IRP, we assign the same market price to sales from generation as is assigned to purchases for load. Doing so emulates a complete offset of congestion costs with ARR/FTR net credits. Ameren Missouri has utilized this methodology for production cost modeling since the beginning of the MISO Day 2 market, including its modeling for rate cases, integrated resource planning and demand-side management potential studies.

In the context of my analysis, using the same prices for the next 10 years that were developed for the 2014 IRP necessarily means that I have accounted for both congestion and ARR/FTR net credits. It would constitute a double count, and be wholly inappropriate, to then separately calculate a net credit associated with FTRs/ARRs and apply that credit against the net market opportunity cost to serve Noranda's load.

Q. Returning to Ms. Kliethermes' calculation, you indicated that there are several details in her calculation that you believe warrant adjustment. Can you please list them?

A. Yes. First, Ms. Kliethermes did not use the appropriate MISO CpNode in her calculation of the historical energy cost, which is similar to the error made by Mr. Dauphinais. This error is easily corrected and Ameren Missouri has provided Staff with historical Locational Marginal Price ("LMP")[7] data for the proper AMMO.UE CpNode in response to Data Request MPSC 0018.

Second, Ms. Kliethermes also appears to have double-counted the costs that would be avoided for MISO Schedule 10 and MISO Schedule 10A charges. These are separately listed in

[7] The MISO energy market prices at various locations.

her workpapers, but they were not removed from the total transmission charges that were also included in her workpapers.

Third, as noted above, she did not include certain charges and credits that would properly be included in the calculation as they would be affected by a change in Noranda's load.

Finally, although Noranda's proposed rate subsidy included a 10-year term, Ms. Kliethermes' analysis has not addressed the various price risks faced by customers over that full 10-year period.

Q. Please expand on this latter point.

A. If the purpose of Ms. Kliethermes' analysis is to determine a reasonable estimate of Ameren Missouri's cost of energy for providing retail service to Noranda, it is very important for the Commission to recognize that Ms. Kliethermes' analysis does not include an estimate of costs that are applicable to the entire 10-year term of Noranda's proposal. Like Mr. Dauphinais, Ms. Kliethermes only utilized historical market data to develop her estimates. But unlike Mr. Dauphinais, Ms. Kliethermes did consider both expanded historical periods and more recent 12-month periods. In effect, what Ms. Kliethermes has done is to estimate what Ameren Missouri's net market opportunity cost to serve Noranda <u>was</u> for a specific historical period of time, just as Mr. Dauphinais did. But neither Ms. Kliethermes nor Mr. Dauphinais attempted to explicitly estimate what the future market opportunity costs might be during the period of time for which Noranda seeks the subsidy.

Q. It appears to have been a struggle for witnesses in this case to accurately identify all the different charges and credits that would be affected by a change in Noranda's load served by Ameren Missouri. Can you explain why that is?

A. One of the main challenges is that parties normally involved in the rate-setting process in Missouri are completely unaccustomed to attempting to establish rates on the basis of market costs. As Mr. Davis explains in his rebuttal and surrebuttal testimony, Missouri has a long-standing principle of setting rates on the basis of cost-of-service, and what Noranda has proposed represents a dramatic departure from this principle. Parties normally involved in the rate-setting process are accustomed to, and knowledgeable of, the intricacies of establishing cost-based rates. Attempting to make a sudden shift in how rates are set, even for a single customer, requires much more serious consideration than can be accomplished in the short span provided for by this case.

Q. Would it be appropriate to use the results of Ms. Kliethermes' analysis as the basis for judging the reasonableness of Noranda's proposal for the full 10-year term?

A. No. The calculated values in Ms. Kliethermes' testimony cannot reasonably be portrayed as an estimate of Ameren Missouri's net market opportunity cost to serve the smelter for the next 10 years, and it would be inappropriate to use the results of her analysis as the basis for judging the reasonableness of Noranda's proposal for the full time period it embraces. As I demonstrated in my rebuttal testimony, establishing an essentially fixed rate for Noranda for a period of 10 years based on pre-determined estimates of the market opportunity costs places an enormous amount of market risk on Ameren Missouri's other customers.

Q. Has Ms. Kliethermes asserted that her analysis provides an estimate of Ameren Missouri's net market opportunity cost to serve the smelter for the full 10 years of Noranda's proposal?

A. No.

Q. You provided analysis of Ameren Missouri's net market opportunity cost for the full 10-year period of Noranda's proposal in your rebuttal testimony. Has any other witness in this proceeding performed any analysis of Ameren Missouri's net market opportunity cost for the full 10-year period of Noranda's proposal?

A. No. Even Noranda's witnesses have not represented that the values for net market opportunity costs calculated by Mr. Dauphinais are applicable for the entire 10-year term that Noranda has proposed.

Q. Is some assessment of Ameren Missouri's net market opportunity cost for the entire 10-year term necessary to determine the reasonableness of Noranda's proposal?

A. Of course. Noranda has asserted that its proposal, which seeks to establish rates for the New Madrid smelter that are deeply discounted and subject to very low caps on increases and a complete avoidance of fuel adjustment clause charges, results in lower costs to customers than if the smelter were to cease operations. It is not possible to reach a rational conclusion about such a comparison without considering the true costs of each alternative for the entire proposed 10-year term. As I explained in my rebuttal testimony, doing so illuminates the enormous risk involved in establishing essentially fixed rates.

Q. You have stated that it is inappropriate to use the results of Ms. Kliethermes' analysis as the basis for establishing a market-based rate for Noranda for its requested 10-year term. Would it be appropriate to use her approach to establish a retail rate for Noranda for a shorter term?

A. No, for several important reasons. First, and most importantly, Ameren Missouri believes it is inappropriate to stray from cost-based rate making and establish rates based on market opportunity costs, as detailed in Mr. Davis' rebuttal testimony.

Second, notwithstanding the above, it is important to recognize that the same risks faced by Ameren Missouri's other customers, which I described in my rebuttal testimony, would still be present with *any* market-based rate, regardless of term. This is particularly true when the basis for establishing such a rate relies exclusively on historical values without a determination that those values are representative of Ameren Missouri's net market opportunity costs in the future for the full period for which that rate could be in effect. This situation is further compounded by the lack of a "true-up" mechanism, which would account for the difference between what Ms. Kliethermes described as the "reasonable estimate of Ameren Missouri's cost of energy for providing retail service to Noranda" and Ameren Missouri's actual cost of energy to provide that service between rate cases.

Finally, once we stray from cost-based ratemaking and establish rates based on market opportunity costs, it would be extremely difficult to revert back to a cost-based rate unless market prices had risen to a point where they are equal to or higher than the cost of service. At such a point, it would not be unreasonable to expect that Noranda would then seek to return to traditional cost-of-service rates, just as it did when it sought refuge in Ameren Missouri's cost-of-service based rates after being exposed to market rates subsequent to leaving AECI's cost-based service. The ratemaking process in Missouri should not be twisted into becoming a lower-of-cost-or-market proposition for any customer to the detriment of all others.

For these reasons, establishment of a market-based rate (especially one that represents a significant subsidy paid for by other customers) should be avoided.

Q. Has the analysis presented by Ms. Kliethermes caused you to change any of the key conclusions you stated in your rebuttal testimony?

A. No. Approval of Noranda's proposed rate shift would result in an enormous transfer of cost and risk to Ameren Missouri's other customers, a transfer that is in the hundreds of millions of dollars. Noranda's request should be rejected by the Commission.

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 Noranda Aluminum, Inc.'s Request	)	
For Revisions to Union Electric Company d/b/a	)	**File No. EC-2014-0224**
Ameren Missouri's Large Transmission Service	)	
Tariff to Decrease its Rate for Electric Service.	)	

AFFIDAVIT OF MATT MICHELS

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

Matt Michels, being first duly sworn on his oath, states:

1. My name is Matt Michels. I am employed by Ameren Missouri as a Sr. Manager, Corporate Analysis in the Commercial Transactions Department.

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 14 pages (and Schedules __ through ___ if any), 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.

Matt Michels

Subscribed and sworn to before me this 30th day of May, 2014.

Julie Irby
Notary Public

My commission expires: 1/15/2017

Julie Irby - Notary Public
Notary Seal, State of
Missouri - St. Louis County
Commission #13753418
My Commission Expires 1/15/2017