Exhibit No.:
Witness: Henry Fayne
Type of Exhibit: Direct Testimony
Issues: Rate Design
Sponsoring Party: Noranda Aluminum, Inc.
Case No.: ER-2014-0258

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 Revenue for Electric Service	)	**Case No. ER-2014-0258**

Direct Testimony of Henry Fayne

On behalf of

Noranda Aluminum, Inc.

December 19, 2014

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 Revenues for Electric Service	)	**Case No. ER-2014-0258**

STATE OF NEW YORK)
) **SS**
COUNTY OF NEW YORK)

Affidavit of Henry Fayne

Henry Fayne, being first duly sworn, on his oath states:

1. My name is Henry Fayne. I am a consultant. My address is 140 East 83rd Street, New York, New York 10028

2. Attached hereto, and made a part hereof for all purposes, is my direct testimony, which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2014-0258.

3. I hereby swear and affirm that the testimony is true and correct.

Henry Fayne

Subscribed and sworn to before me this 18 day of December, 2014.

NICHOLAS D PETRONIO
Notary Public - State of New York
NO. 01PE6277181
Qualified in Bronx County
My Commission Expires Mar 4, 2017

Notary Public

DIRECT TESTIMONY OF HENRY W. FAYNE

Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A: My name is Henry W. Fayne. My business address is 140 East 83rd Street, New York, New York 10028.

Q: PLEASE BRIEFLY DESCRIBE YOUR BUSINESS AND EDUCATIONAL BACKGROUND.

A: Following my retirement from American Electric Power (AEP) at the end of 2004, I have been a consultant in the electric energy sector primarily negotiating electric energy contracts for various aluminum smelters in the United States. I was employed by AEP in various positions for thirty years from 1974 through 2004, including as Executive Vice President and Chief Financial Officer from 1998 until 2001, and as Executive Vice President Energy Delivery from 2001 until I retired in 2004. I have a bachelors degree in economics from Columbia College and an MBA in finance from Columbia Graduate School of Business.

Q: HAVE YOU TESTIFIED PREVIOUSLY?

A: Yes. During my tenure at AEP, I testified before the regulatory commissions in the states of Indiana, Kentucky, Michigan, Ohio, Oklahoma, Texas, Virginia and West Virginia on behalf of various operating companies of AEP. I have also testified before the Federal Energy Regulatory Commission. Since I retired from AEP, I have testified before regulatory commissions in the states of Kentucky, Ohio and West Virginia. I have also testified before this Commission in Case No.

ER-2010-0036, Case No. EO-2010-0255, Case No. ER-2011-0028, and EC-2014-0224.

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A: The purpose of my testimony is to show that Noranda's request for a rate reduction is consistent with both domestic and global electricity rates provided to other aluminum smelters and consistent with treatment provided by other regulatory commissions in the U.S.

Q WHY IS THE COST OF ELECTRICITY OF SUCH IMPORTANCE FOR ALUMINUM SMELTERS?

A: Aluminum is a global commodity. It is sold at a price that is based on global supply and demand and established by trading activity on the London Metal Exchange, or LME. An individual smelter is, in effect, a price taker and cannot set the selling price of the base product; therefore, the success or viability of a specific smelting operation is determined primarily by its cost of production.

The cost of production will vary among smelters based on the cost of goods and services as well as the configuration of the plant. However, it is the cost of electricity, which accounts for approximately one-third of its cost of production, that most significantly determines whether or not an aluminum smelter is sustainable.

As I have testified in previous proceedings, that outcome is most dramatically shown by the shifts in production. In the U.S. in 1980, there were 32 smelters, producing more than 5 million metric tons. Today, there are only 8 smelters operating in the U.S., producing about 1.8 million metric tons annually. In every instance, the smelter shut down because of high power costs (HWF Exhibit-1 shows the U.S. smelters currently in operation).

Q: PLEASE EXPLAIN WHAT HWF EXHIBIT-1 SHOWS.

A: Exhibit HWF-1 shows the electricity rates for each of the U.S. smelters currently operating, as well as the rates for smelters outside the United States. As noted on that exhibit, the source of the data is CRU, an independent business analysis and consultancy group that is generally used in the industry as a source of such data. As shown on that exhibit, the electricity rate for the New Madrid Smelter is $42.5/MWh, which represents the second highest electricity rate among U.S. smelters for 2014, and a rate that is more than 39% higher than the average rate paid by non-U.S. smelters, excluding China. At the rate requested in this proceeding, the rate for New Madrid would be higher than the rate charged to the Massena smelter and would continue to be above the global average.

Q: WHY DO YOU EXCLUDE CHINA?

A: China must be excluded because China heavily subsidizes its industry. In simple terms, the high cost of electricity is offset by the low cost of labor. But it is

noteworthy that China has recently begun to discount energy costs as well to support its aluminum production.

Q: WHY IS IT A CONCERN THAT THE NEW MADRID SMELTER HAS A HIGH COST RELATIVE TO OTHER U.S. SMELTERS AND TO SMELTERS IN THE REST OF THE WORLD?

A: As I explained earlier and in previous proceedings, aluminum is a commodity, sold at a price that is based on global supply and demand established by trading activity on the London Metal Exchange, or LME. The price is set by the marginal producer, which means that if other producers have a lower cost of production, which is driven primarily by the cost of electricity, then the selling price will reflect such costs, and the higher cost producer will not be able to compete since the price will not cover the higher cost of production. The New Madrid smelter competes with all other smelters, regardless of location. If its costs are high relative to other producers, its continued viability is at risk, particularly when the LME price is at the low end of the cycle. As Noranda witness Colin Pratt explains, the price of aluminum is extremely volatile.

Q: WHAT IS THE BASIS FOR YOUR CONCLUSION THAT THE RATE TREATMENT REQUESTED BY NORANDA IN THIS PROCEEDING IS CONSISTENT WITH RATE TREATMENT PROVIDED BY REGJULATORY COMMISSIONS IN OTHER STATES?

A: Aluminum smelters are uniquely energy intensive and sensitive to the price of electricity. As a result, the number of smelters remaining in the U.S. has declined dramatically. Therefore, although not always successful, several states have taken steps to support the continued operations of the smelters in their state and to protect the high paying jobs. I have been directly involved in the negotiation of rates in Kentucky, Ohio and West Virginia, but I am familiar with terms of the power arrangements for most of the smelters operating in the United States. In broad terms, the regulatory treatment has included long term special contracts that provide discounted rates in return for a commitment from the smelter to make capital investments and retain a certain employment level. In some cases, the treatment has tied the discount to the price of aluminum on the London Metal Exchange.

Q: WOULD YOU PLEASE PROVIDE SOME SPECIFIC EXAMPLES?

A: Alcoa's Massena smelters in New York State have the lowest electricity rate in the U.S. as a result of a special contract between Alcoa and the New York Power Authority (NYPA). The NYPA approved a 30-year contract (July 1, 2013 – June 30, 2043) with an initial rate about $21.00/MWh. The rate is subject to annual escalation based on various published indices and is also subject to adjustment based on the LME price of aluminum, although such adjustments are capped. In return, Alcoa agreed to invest $600 million in its plant and to maintain a minimum employment of about 1000. In January, however, Alcoa announced

that it would permanently shut down the lines at Massena East, but would continue operations at Massena West.

In 2009, the Kentucky PSC approved a 25-year contract between Big Rivers Electric Corporation and two aluminum smelters currently owned by Century Aluminum, Hawesville and Sebree. In response to rapidly rising power costs, however, the Kentucky PSC approved Century Aluminum's request to terminate the Hawesville contract with Big Rivers before the end of its contractual term, allowing Century Aluminum to purchase power from the market instead. The market price of electricity is expected to be in the range of $36-$37/MWh, compared to the $49/MWh price the Hawesville Smelter had been paying to Big Rivers. As a consequence of the Hawesville contract cancellation, Big Rivers requested a $74.5 million rate increase primarily to cover the fixed costs that the smelter had been paying. The Kentucky PSC approved a $54 million increase. Century Aluminum has also given Big Rivers a notice of early termination for the Sebree smelter, which resulted in a contract termination in January 2014. Big Rivers requested a $70 million rate increase to cover the loss of the Sebree smelter. In April 2014, the Commission approved a $36.2 million rate increase on top of the $54 million increase associated with the loss of the Hawesville smelter.

In 2009, the Ohio PUC approved a Special Arrangement for Ormet's Hannibal Smelter, which provided discounted rates tied to the LME and employment levels at the smelter. To the extent that the rate paid by the smelter was less than the

tariff, the shortfall was allocated to other customers. Through 2013, more than $200 million was allocated to and paid by other customers. In 2013, Ormet requested a modification of the agreement to provide additional relief. The request was not approved; as a result, the Ormet smelter shut down in October.

In West Virginia, the Public Service Commission approved a Special Contract for the Ravenswood smelter which indexed the price paid for electricity to the LME. To the extent there was a shortfall between the price paid by the smelter and the tariff rate, other customers were required to make up the difference. Nonetheless, because of the limits of the discount and the consequent shortfall in cash flow, the smelter was shut down in 2009. In 2012, in an effort to support a restart of the smelter, the legislature passed a bill (Senate Bill 256) that provided a mandate for the Commission to approve special contracts for energy intensive industry to attract and retain jobs; the legislation authorizes the commission to allocate to other customers any shortfall created. In addition, in 2012, the legislature passed additional legislation that provided tax credits to energy intensive businesses. In 2013, the West Virginia PSC approved a new special contract for the Ravenswood Plant that would provide an annual discount up to $40 million. Century Aluminum concluded that the $40 million annual discount was not sufficient to justify a restart of the smelter.

Q: DO YOU BELIEVE THAT NORANDA'S REQUEST IS COMPARABLE TO THE TREATMENT OTHER SMELTERS HAVE OBTAINED IN OTHER STATES?

A: Yes. As is true for the other special rates with which I am familiar, Noranda's proposal establishes a price for electricity that is designed to cover all of the variable costs and some of the fixed costs of electricity that would normally be allocated to the smelter. On that basis, other customers are better off than they would be if the smelter were forced to shut down. And of course, more than 900 jobs will be maintained in the state.

Q: DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?

A: Yes, it does.