

Exhibit No.:
Issues: AAO – Lost Fixed Cost
Calculation
Witness: Steven M. Wills
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: EU-2012-0027
Date Testimony Prepared: October 21, 2011

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EU-2012-0027

DIRECT TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a Ameren Missouri**

**St. Louis, Missouri
October, 2011**

**DIRECT TESTIMONY
OF
STEVEN M. WILLS**

CASE NO. EU-2012-0027

1 **Q. Please state your name and business address.**

2 A. Steven M. Wills, Ameren Services Company (“Ameren Services”), One
3 Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri.

4 **Q. What is your position with Ameren Services?**

5 A. I am the Managing Supervisor of Quantitative Analytics in the Corporate
6 Planning Department, which provides various types of support services to the operating
7 companies owned by Ameren Corporation, including Union Electric Company d/b/a
8 Ameren Missouri (“Ameren Missouri” or the “Company”).

9 **Q. Please describe your educational background and employment**
10 **experience.**

11 A. I received a Bachelor of Music degree from the University of Missouri-
12 Columbia in 1996. I subsequently earned a Master of Music degree from Rice University
13 in 1998, then a Master of Business Administration (“M.B.A.”) degree with an emphasis
14 in Economics from St. Louis University in 2002. While pursuing my M.B.A., I interned
15 at Ameren Energy in the Pricing and Analysis Group. Following completion of my
16 M.B.A. in May 2002, I was hired by Laclede Gas Company as a Senior Analyst in its
17 Financial Services Department. In this role I assisted the Manager of Financial Services
18 in coordinating all financial aspects of rate cases, regulatory filings, rating agency
19 studies, and numerous other projects.

1 In June 2004, I joined Ameren Services as a Forecasting Specialist. In this role, I
2 developed forecasting models and systems that supported the Ameren operating
3 companies' involvement in the Midwest Independent Transmission System Operator,
4 Inc.'s ("MISO") Day 2 Energy Markets.

5 In November 2005, I moved into the Corporate Analysis Department of Ameren
6 Services, where I was responsible for performing load research activities, electric and gas
7 sales forecasts, and assisting with weather normalization for rate cases. In January 2007, I
8 accepted a role I briefly held with Ameren Energy Marketing Company as an Asset and
9 Trading Optimization Specialist before returning to Ameren Services as a Senior
10 Commercial Transactions Analyst in July 2007. I was subsequently promoted to my
11 present position as the Managing Supervisor of the Quantitative Analytics group, where
12 among other things I supervise many of the same activities mentioned above that I
13 performed upon joining the Corporate Analysis Department.

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

15 A. The purpose of my testimony is to describe the calculation of the dollar
16 amount requested for the Accounting Authority Order ("AAO") requested in this
17 proceeding. I will provide a means for accurately establishing the amount of fixed costs
18 that went unrecovered specifically due to the substantial reduction in Noranda's load
19 starting in late January 2009 as a result of a devastating ice storm that struck southeast
20 Missouri at that time. A summary of this calculation is attached to my testimony as
21 Schedule SMW-1. Company witness Lynn M. Barnes describes these events in more
22 detail in her direct testimony.

1 **Q. Please explain your calculation.**

2 A. The calculation quite simply uses the retail rates applicable to the Noranda
3 load multiplied by the volumes¹ that were impacted by the outage to determine the
4 forgone fixed cost recovery. I also calculated the portion of the retail rate that is
5 attributable to net fuel costs, as 95% of the under-recovery of fuel costs was made up
6 through the operation of the fuel-adjustment clause ("FAC") beginning March 1, 2009.
7 Finally, I calculated the incremental off-system sales revenue retained by the Company
8 pursuant to the 5% sharing in the FAC² that resulted from the utilization of generating
9 capacity that had been planned to serve Noranda during the outage period. This revenue
10 contributed to the fixed cost recovery otherwise foregone due to the load impairment.
11 The result is a clear and accurate picture of the fixed costs that went unrecovered as a
12 result of the ice storm and ensuing outage.

13 **Q. Please explain how the calculation is laid out in Schedule SMW-1.**

14 A. Moving from left to right across the page, I show the actual and
15 normalized volumes of energy, demand and losses (on AECI's transmission system) and
16 calculate the difference as the impact of the outage on Noranda's energy consumption. I
17 also show the normalized level of energy at generation including losses on the Ameren

¹ The outage impact volumes include an energy component, a demand component, and a loss component. The loss component accounts for contractually required energy Ameren Missouri supplies to Associated Electric Cooperative, Inc. ("AECI") to compensate it for losses incurred on its transmission system. Losses are supplied to AECI (and paid for by Noranda) because Ameren Missouri delivers the energy Noranda consumes to a delivery point on AECI's system approximately 40 miles from the Noranda plant, with the energy then being transported to Noranda by AECI pursuant to a separate transmission arrangement between Noranda and AECI. All components are priced according to the Company's Large Transmission Service ("LTS") rate schedule, which applies only to Noranda since Noranda is (and has been since adoption of the LTS rate) the Company's only LTS customer.

² For the period from January 27th through February 28th, prior to the effective date of the implementation of Ameren Missouri's first FAC tariff, 100% of the revenue from power not taken by Noranda was used to offset forgone fixed cost recovery.

1 Missouri system for purposes of completing the FAC-related calculations. I then show
2 the applicable rates for each measure (energy/demand/losses) that were in effect at the
3 time the outage was ongoing. From there I calculate the foregone cost recovery (fixed
4 and variable) due to the outage by simply applying the appropriate rates to the load
5 reduction measures. Finally, I perform the FAC-related calculations which account for
6 the variable costs for which accounting authority is not being sought. In the FAC, the
7 Net Base Fuel Cost ("NBFC") rate, as defined in the tariff, is applied to the sales at
8 generation to determine the amount of fuel costs the Company recovered through actual
9 sales in its base rates. Because sales to Noranda were down during this time, fuel cost
10 recovery was also down. The operation of the FAC allows Ameren Missouri to recover
11 95% of that fuel cost recovery shortfall in future periods, so I show the calculation of that
12 future recovery. Next, I show the incremental amount of off-system sales revenue the
13 Company was able to retain in order to mitigate the lost fixed cost recovery. The final
14 column shows the total lost fixed cost recovery the Company incurred, calculated by
15 taking the total foregone cost recovery column and subtracting the NBFC and off-system
16 sales sharing recoveries.

17 **Q. How were the volumes impacted by the outage determined?**

18 A. Because Noranda has an extremely consistent load, both in terms of total
19 energy consumption and load shape (the pattern of energy consumption across time), I
20 used actual historical load data as a proxy for the load that would have been expected to
21 be present absent the outage. This is the same methodology used by both the Company
22 and the Missouri Public Service Commission Staff ("Staff") to annualize Noranda's load
23 for purposes of removing the impact of the outage from the test year in each of the

1 Company's recent electric rate cases that included such impacts, Case Nos. ER-2010-
2 0036 and ER-2011-0028.

3 **Q. How did you determine the dates that the outage started and ended?**

4 A. The start of the outage is quite easy to identify. We are all well aware of
5 the ice storm as a discreet event that occurred on January 27, 2009. It is easy to see the
6 Noranda load drop that evening around 10:00 p.m. when reviewing hourly consumption
7 data. The end of the outage is more difficult to pinpoint precisely. Necessitated by the
8 nature of the recovery work, Noranda's load came back in very small, incremental steps
9 over a period of time exceeding a year. I chose April 9, 2010 as the date that Noranda
10 returned to full load after careful inspection of the hourly load data. At this point,
11 Noranda's load clearly sustained its pre-outage level on a consistent basis going forward.

12 **Q. Please summarize your testimony and conclusions.**

13 A. The substantial and sustained drop in Noranda's load due to the ice storm
14 caused the Company to forgo recovery of \$36.19 million of fixed costs, which I was able
15 to calculate with a high degree of accuracy given in particular the fact that Noranda is the
16 only LTS customer and given Noranda's extremely consistent load, both in terms of total
17 energy consumption and load shape.

18 **Q. Does this conclude your direct testimony?**

19 A. Yes, it does.

In the Matter of the Application of)
Union Electric Company d/b/a Ameren)
Missouri for the Issuance of an)
Accounting Authority Order Relating to)
its Electrical Operations.)

[illegible]

1. My name is Steven M. Wills. I work in the City of St. Louis, Missouri, and I am employed by Ameren Services Company as Managing Supervisor Quantitative Analytics in Corporate Planning and Analysis.

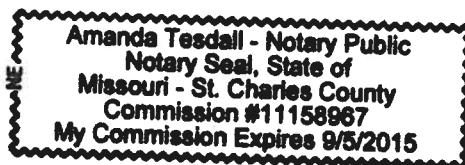
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 5 pages, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

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

Steven M. Wills

Subscribed and sworn to before me this 21st day of October, 2011.

Notary Public



Load Reduction Period: Noranda Outage start: Jan 27, 2009 at 2200 hours
Noranda Back to Full Load : April 9, 2010 at 2400 hours

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|