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Missouri Public
Service Commission

Exhibit No.:

601

Issues:

Rate LTS

Class Cost Of Service

Fuel Adjustment Clause

Witness: Donald Johnstone

Type of Exhibit: Direct Testimony

Sponsoring Party: Noranda

Case Number: ER-2007-0002

Date Testimony Prepared: December 29, 2007

AmerenUE

Case No. ER-2007-0002

Prepared Direct Testimony of

Donald Johnstone

On behalf of

Noranda Aluminum, Inc.

December 2006

Noranda
~~000000~~ Exhibit No. 601
Case No(s) ER-2007-0002
Date 3-28-07 Rptr PF

BEFORE THE
PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

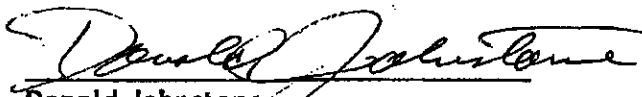
In the Matter of Union Electric Company d/b/a)
AmerenUE for Authority to File Tariffs Increasing)
Rates for Electric Service Provided to Customers)
in the Company's Missouri Service Area.)

Case No. ER-2007-0002

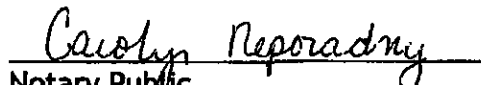
Affidavit of Donald Johnstone

State of Missouri)
County of Camden) ss

Donald Johnstone, of lawful age, on his oath states: that he has reviewed the attached written testimony in question and answer form, all to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; that such matters are true to the best of his knowledge, information and belief.

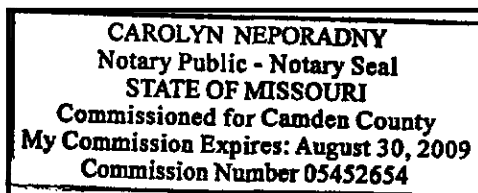

Donald Johnstone

Subscribed and sworn before me this 19th day of December, 2006


Notary Public

[SEAL]

My Commission expires: _____



Before the
Missouri Public Service Commission

AmerenUE

Case No. ER-2007-0002

Prepared Direct Testimony of Donald Johnstone

1 Q PLEASE STATE YOUR NAME AND ADDRESS.

2 A My name is Donald Johnstone and my address is 384 Black Hawk Drive, Lake
3 Ozark, Missouri, 65049.

4 Q BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

5 A I am employed as President of Competitive Energy Dynamics, L. L. C.

6 Q PLEASE SUMMARIZE YOUR EDUCATION AND EXPERIENCE.

7 A My qualifications and experience are set forth in Appendix A.

8 Q WHAT ARE THE PURPOSES OF YOUR TESTIMONY?

9 A One purpose is to support the cost of service as the appropriate basis for
10 charges to Noranda under the Large Transmission Service (LTS) rate schedule.

1 While all aspects of a class cost-of-service study are important, I will address in
2 particular several of the more important aspects. I will also make
3 recommendations for the design of rates in the event that a fuel adjustment
4 clause is approved in this case.

5 Q WHAT SERVICE DOES AMERENUE PROVIDE TO NORANDA?

6 A The Noranda facility that receives service from AmerenUE is described in the
7 testimony of Mr. George Swogger. Like Mr. Swogger, I will refer to the facility
8 as the "Smelter." In addition Mr. McPheeters, Mr. Harvey Cooper, and Mr.
9 Mark Baker, Commissioner of New Madrid County, explain some of the
10 economic impacts of the Smelter. There are economic impacts in the local
11 communities, in southeast Missouri, and for the State as a whole.

12 AmerenUE provides service to Noranda under the Large Transmission
13 Service rate schedule. The service provided to the Smelter is firm and Noranda
14 consumes approximately 475MW around the clock - seven days a week. A
15 measure of Noranda's consistent use of the AmerenUE facilities is the ratio of
16 the average use of electricity as compared to the peak use. In Noranda's case
17 the comparison is captured in a load factor of 98%. This leads to the full use of
18 the Ameren facilities and a lower average cost per kWh delivered to Noranda.

1 Q DO THE SIZE AND LOCATION OF THE SMELTER LOAD INFLUENCE THE
2 FACILITIES THAT ARE USED TO PROVIDE THE SERVICE?

3 A Yes. As a consequence of the size of the load and the proximity of the Smelter
4 to a transmission substation it is efficient for Noranda to receive its service at
5 the transmission substation. Noranda owns and operates the distribution
6 facilities that bring the electricity to the Smelter from the transmission
7 substation. The only delivery equipment of any kind that is not owned and
8 operated by Noranda is the metering. Another distinguishing feature of the
9 service to Noranda is the delivery of the power over the transmission facilities
10 of the Associated Electric Cooperative, Inc. Noranda separately pays
11 Associated for this service. These several circumstances together make the
12 Noranda load unique on the AmerenUE system and result in a cost per kWh for
13 the Ameren service that is much lower than average. An appropriate rate will
14 comprehend this lower than average cost.

15 Q WHAT IS AN APPROPRIATE BASIS FOR THE LARGE TRANSMISSION SERVICE
16 (LTS) RATE UNDER WHICH NORANDA RECEIVES SERVICE?

17 A While factors such as understandability and ease of administration are
18 appropriately considered, the rate should be set primarily based on the cost of
19 the service provided. When a rate is based on cost, it is equitable in that each
20 customer will pay the costs that are incurred by Ameren to provide the service
21 that is consumed, no more and no less. As such, Noranda does not expect

1 other customers to pay costs incurred on its behalf and Noranda likewise does
2 not expect to pay costs associated with service provided to other customers.

3 Q HOW SHOULD THE COST OF THE SERVICE BE DETERMINED FOR CUSTOMERS
4 THAT RECEIVE SERVICE REGULATED BY THIS COMMISSION?

5 A In the context of regulated service the cost should be defined by a class cost-
6 of-service study which will allocate the Ameren costs (as approved by the
7 Commission) among customer classes based on the principle of cost causation.

8 Q WHAT IS THE COST TO SERVE NORANDA?

9 A A fundamental problem in the circumstances of this case is the wide disparity
10 among the parties on the level of the AmerenUE total revenue requirement.
11 Many of the large issues will substantially influence the result of any class cost-
12 of-service study. In these circumstances it is impossible to determine a
13 specific cost for Noranda at this time. Furthermore, an estimate at this time
14 would require judgments and assumptions about the overall revenue
15 requirement and I am not comfortable with that approach. Instead, I plan to
16 review and respond to any class cost-of-service study that may be submitted to
17 ensure that any proposals for the LTS rate are based on the cost of service, as I
18 recommend.

1 Q ARE THERE ESTABLISHED PROCEDURES FOR CLASS COST-OF-SERVICE
2 STUDIES?

3 A Yes. Ameren in the testimonies of Mr. Warwick and Mr. Cooper describe the
4 process. Costs are "functionalized" according to the service function provided,
5 "classified" as fixed or variable, and then "allocated" among the classes
6 according the principle of cost causation. To the extent that I have reviewed it
7 and on the information presently available, the Ameren class cost-of-service
8 study uses a framework that is reasonable for the purpose.

9 Q WHAT ARE SOME OF THE IMPORTANT CLASS COST-OF-SERVICE ISSUES THAT
10 MUST BE PROPERLY ADDRESSED IN THIS CASE AND THAT MAY BE
11 CONTROVERSIAL?

12 A The issues, among others, include:

- 13 • The allocation of demand-related production costs
- 14 • The allocation of off-system sales costs and revenues
- 15 • The allocation of distribution costs.

16 While there are many important details in a class cost-of-service study, these
17 issues are particularly important for Noranda because of the large impact each
18 has on the Noranda cost of service.

19 Q WHY ARE THE ALLOCATIONS OF PRODUCTION COSTS IMPORTANT?

20 A Production costs are a large part of the costs of the system. In Noranda's
21 situation, the absence of distribution costs means that production costs

1 constitute a relatively larger portion of the cost to serve Noranda.

2 Q IS THERE MORE THAN ONE WAY TO ALLOCATE PRODUCTION COSTS?

3 A Yes, there are many. But first both variable and fixed production costs must
4 be defined.

5 The variable costs incurred to provide service to customers are energy
6 related and are appropriately allocated among the classes according to the
7 kWh of energy that must be generated to supply the energy for each customer
8 class. The variable costs consist primarily of fuel for the generation needed to
9 serve the load and the energy component of purchased power for the same
10 purpose. As a consequence of the delivery to Noranda at a transmission
11 substation, less energy is consumed in delivering the energy as compared to
12 other retail customer classes where there is typically extensive use of the
13 AmerenUE distribution system. Energy consumed in delivery is defined as
14 energy "losses." These "losses" are low for Noranda because of the particular
15 transmission service received and this fact must be properly reflected in the
16 energy allocation factor.

17 The remaining (non-energy related) production costs are the fixed costs
18 of ownership and operation of production facilities.¹ These costs are demand
19 related and depend on the capacity needs of the system. In turn, it is primarily
20 the contributions of customers to the peak loads of the system that create

¹ In the case of purchased power the fixed production costs may be reflected in a demand charge.

1 these costs. Demand related production costs should be allocated in
2 proportion to the respective contributions of the customer classes to the peak
3 loads. In the consideration of the load patterns on the AmerenUE system, the
4 contributions of customers to the four highest monthly peaks would provide an
5 appropriate measure of the contribution to demand related production costs.

6 Q WHY ARE THE ALLOCATIONS OF THE COSTS AND REVENUES OF OFF-SYSTEM
7 SALES IMPORTANT TO NORANDA?

8 A The Staff has \$533 million of off-system sales revenues in its case. This is
9 roughly equal to 25% of the Missouri retail jurisdictional revenues. The
10 allocation of a line item of this magnitude will have a large influence on the
customer classes in any class cost-of-service study.

12 An important consideration is to align the allocations of the costs and
13 revenues. In the case of the Large Transmission Service ("LTS") rate class
14 (Noranda) the energy allocation factor proposed by Ameren is 10.20% while the
15 proposed production demand allocation factor is 5.78%. (The large variation
16 between the two is a consequence of Noranda's 98% load factor.) In this
17 circumstance, if the costs are allocated on energy while the revenues are
18 allocated on demand there would be a mismatch that would unfairly harm the
19 LTS class, i.e., Noranda. For example, assume Ameren generates energy for an
20 off-system sale and Ameren's cost of the energy (fuel) is \$10,000. An energy
21 allocation of this cost would allocate 10.2%, \$1,020 of the cost to rate LTS. For

1 illustration, assume the profitable sale of this energy at a price of \$15,000. If
2 this \$15,000 of revenue were assumed to be entirely demand related the LTS
3 class would be allocated a credit equal to 5.78% of the \$15,000. the amount is
4 \$867 based on the 5.78% Ameren production demand allocation factor.

5 But the result would be unreasonable. While the system as whole
6 enjoyed a \$5,000 profit, the combined effect of the cost and revenue
7 allocation approaches would increase the net cost to Noranda by \$153 because
8 the allocated costs, \$1,020, exceed the \$867 of allocated revenue (a credit in
9 the class cost-of-service study). Thus, care must be taken to ensure that all
10 customer classes appropriately share in the costs and benefits of off-system
11 sales. Off-system sales revenues in their entirety should not be allocated in a
12 manner that is different from the allocation of the cost of the sales or there
13 will be unreasonable burdens on some customers and unwarranted benefits for
14 others.

15 Q WHY IS THE ALLOCATION OF DISTRIBUTION COSTS IMPORTANT TO NORANDA?

16 A Noranda, not AmerenUE owns, operates and maintains the distribution facilities
17 used for service to Noranda. Therefore, it is important to exclude Noranda
18 from the allocations of the AmerenUE distribution costs in any class cost-of-
19 service study. Ameren has largely reflected this, except for a procedure
20 related to the elimination of lighting as a class in its class cost-of-service study.
21 Ironically, the costs and credits related to lighting, while intended to remove

1 lighting as a class in the study, result in the appearance of distribution costs for
2 Noranda. But there are no such distribution costs for Noranda. Any class cost-
3 of-service study must reflect the absence of distribution costs for Noranda.

4 Q WILL YOU HAVE REBUTTAL THAT IS SPECIFIC TO THE CLASS COST-OF-
5 SERVICE STUDY SUBMITTED BY AMERENUE?

6 A Yes. At the appropriate time I will provide rebuttal to Ameren and others.

7 Q WHAT COMMENTS DO YOU HAVE ON THE FUEL ADJUSTMENT CLAUSE THAT
8 HAS BEEN PROPOSED BY AMEREN?

9 A I will not be offering comments on the need for a fuel adjustment mechanism,
10 if any, or the costs and revenues, if any, that might appropriately be made a
11 part of the mechanism. This silence, however, should not be construed as
12 support by Noranda for any such mechanism.

13 If there is to be a mechanism it is important that the costs and revenues
14 be clearly defined and allocated based on the principles of cost causation, i.e.,
15 the same principles and procedures that are appropriate for the design of base
16 rates. A particular concern of Noranda would be the inclusion of any demand
17 related costs or revenues. Also, if off-system sales costs and revenues are
18 included, the concerns for an appropriate treatment of the revenues and costs
19 exists. The extraordinarily high load factor of Noranda creates a large impact
20 on Noranda if the demand related costs or revenues are allocated on energy.

1 The impact may be either beneficial or harmful to Noranda, depending on the
2 circumstance. Of course any benefit to Noranda would come at the expense of
3 other customers while any benefit to other customers would come at the
4 expense of Noranda. Consequently, if there is to be a mechanism, it is
5 important that all included costs and revenues flow to rates following the
6 principles of cost causation.

7 Another concern of Noranda is rate stability. Any fuel adjustment
8 mechanism should include provisions that will limit the exposure of customers
9 to sharp or extraordinary increases. This concern may be accommodated by a
10 design that inherently limits volatility or by a fixed cap on rate increases, or
11 some combination of the two. Absent another effective approach, Noranda
12 supports the adoption of a cap on the upward rate volatility pursuant to any
13 fuel adjustment mechanism.

14 Q DOES THIS CONCLUDE YOUR TESTIMONY?

15 A Yes it does.

Appendix A

Qualifications of Donald E. Johnstone

1 Q PLEASE STATE YOUR NAME AND ADDRESS.

2 A Donald E. Johnstone. My address is 384 Black Hawk Drive, Lake Ozark, MO
3 65049.

4 Q PLEASE STATE YOUR OCCUPATION.

5 A I am President of Competitive Energy Dynamics, L. L. C. and a consultant in the
6 field of public utility regulation.

7 Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

8 A In 1968, I received a Bachelor of Science Degree in Electrical Engineering from
9 the University of Missouri at Rolla. After graduation, I worked in the customer
10 engineering division of a computer manufacturer. From 1969 to 1973, I was an
11 officer in the Air Force, where most of my work was related to the Aircraft
12 Structural Integrity Program in the areas of data processing, data base design
13 and economic cost analysis. Also in 1973, I received a Master of Business
14 Administration Degree from Oklahoma City University.

15 From 1973 through 1981, I was employed by a large Midwestern utility
16 and worked in the Power Operations and Corporate Planning Functions. While
17 in the Power Operations Function, I had assignments relating to the peak

1 demand and net output forecasts and load behavior studies which included such
2 factors as weather, conservation and seasonality. I also analyzed the cost of
3 replacement energy associated with forced outages of generation facilities. In
4 the Corporate Planning Function, my assignments included developmental work
5 on a generation expansion planning program and work on the peak demand and
6 sales forecasts. From 1977 through 1981, I was Supervisor of the Load
7 Forecasting Group where my responsibilities included the Company's sales and
8 peak demand forecasts and the weather normalization of sales.

9 In 1981, I began consulting, and in 2000, I created the firm Competitive
10 Energy Dynamics, L.L.C. As a part of my twenty-four years of consulting
11 practice, I have participated in the analysis of various electric, gas, water, and
12 sewer utility matters, including the analysis and preparation of cost-of-service
13 studies and rate analyses. In addition to general rate cases, I have participated
14 in electric fuel and gas cost reviews and planning proceedings, policy
15 proceedings, market price surveys, generation capacity evaluations, and
16 assorted matters related to the restructuring of the electric and gas industries.
17 I have also assisted companies in the negotiation of power contracts
18 representing over \$1 billion of electricity.

19 I have testified before the state regulatory commissions of Delaware,
20 Hawaii, Illinois, Iowa, Kansas, Massachusetts, Missouri, Montana, New
21 Hampshire, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia, and the
22 Rate Commission of the Metropolitan St. Louis Sewer District.