

Exhibit No.:
Issue: Rates
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Noranda Aluminum, Inc.
Case No.: GR-2014-0152
Date Testimony Prepared: July 30, 2014

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

_____)
In the Matter of Liberty Utilities)
(Midstates Natural Gas) Corp. d/b/a)
Liberty Utilities' Tariff Revisions)
Designed to Implement a General) **Case No. GR-2014-0152**
Rate Increase for Natural Gas)
Service in the Missouri Service)
Areas of the Company.)
_____)

Rebuttal Testimony and Schedule of

Maurice Brubaker

On behalf of

Noranda Aluminum, Inc.

REDACTED VERSION
****Highly Confidential Information Removed****

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Case No. GR-2014-0152

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Affidavit of Maurice Brubaker

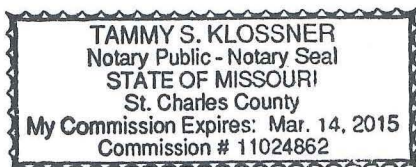
Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Noranda Aluminum, Inc. in this proceeding on its behalf.
2. Attached hereto and made a part hereof for all purposes are my rebuttal testimony and schedule which were prepared in written form for introduction into evidence in the Missouri Public Service Commission Case No. GR-2014-0152.
3. I hereby swear and affirm that the testimony and schedule are true and correct and that they show the matters and things that they purport to show.



Maurice Brubaker

Subscribed and sworn to before me this 29th day of July, 2014.





Notary Public

1 **Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

2 A The purpose of my testimony is to respond to the Missouri Public Service
3 Commission Staff ("Staff") with respect to the rate charged to Noranda for interruptible
4 transportation service to its New Madrid smelter.

5 **Q PLEASE SUMMARIZE YOUR TESTIMONY AND RECOMMENDATIONS.**

6 A My testimony and recommendations may be summarized as follows:

- 7 1. Noranda is the largest customer on Liberty's system, and purchases interruptible
8 transportation service from Liberty.
- 9 2. Noranda separately arranges for transportation on the interstate pipeline system,
10 and separately arranges for its own natural gas supply.
- 11 3. Noranda is served directly from Liberty's transmission network, and does not use
12 any part of Liberty's distribution system.
- 13 4. Because Noranda is interruptible, it does not cause Liberty to incur any costs on
14 the transmission system. Rather, as an interruptible customer it is allowed to take
15 service when system capacity is not needed to serve higher priority firm
16 customers.
- 17 5. The only fixed cost incurred to serve Noranda is a modest amount associated with
18 the tap from the Liberty transmission network to the smelter.
- 19 6. The actual cost to supply service to Noranda under its unique delivery conditions
20 is about \$0.03 per Mcf. Accordingly, the proposed ** _____ ** rate provides
21 a margin of ** _____ ** which is an annual contribution to fixed costs of
22 ** _____ **.
- 23 7. If I ignore the interruptible nature of the service and instead allocate a full share of
24 the cost of Liberty's transmission system to Noranda, the cost is \$0.11 per Mcf,
25 and the contribution to fixed costs would be ** _____ **, or a dollar
26 contribution of ** _____ **.
- 27 8. The proposed new Agreement between Liberty and Noranda is clearly cost
28 justified, provides a benefit to the other customers of Liberty, and should be
29 approved by the Commission.
- 30 9. Liberty does not need to have a tariff sheet which defines eligibility for special
31 contracts and outlines where they may differ from the standard tariff. Rather,
32 each agreement should stand on its own and should not be required to fit into an
33 inflexible mold.

1 **Q PLEASE BRIEFLY DESCRIBE THE CONTRACTUAL ARRANGEMENT BETWEEN**
2 **NORANDA AND LIBERTY UTILITIES (“LIBERTY”).**

3 A Effective January 1, 2003, Noranda and Atmos Energy Corporation (“Atmos”), the
4 predecessor to Liberty, entered into a 10-year Agreement. This Agreement remains
5 in place until new rates become effective as a result of the decision in this case. The
6 Agreement contains a number of provisions tailored to recognize Noranda’s unique
7 characteristics.

8 A major provision is that Noranda agreed not to bypass the Atmos (Liberty)
9 system during the 10-year term of the Agreement. As a result, other customers
10 benefit from the margin contribution that Noranda provides to the system, versus no
11 benefit had Noranda installed the bypass.

12 **Q WHAT WAS THE PRICING STRUCTURE IN THE 2003 AGREEMENT?**

13 A It has a \$25 per month meter charge, an Infrastructure System Replacement
14 Surcharge (“ISRS”), and a commodity charge that declines each year over the 10-
15 year term of the Agreement. The commodity charge in the 10th year of the
16 Agreement (which currently is being charged) is ** _____ **. This pattern of
17 declining charges year-to-year is consistent with the declining pattern of costs that
18 Noranda would have experienced had it invested in a pipeline to access the interstate
19 pipeline company (Texas Eastern Transmission Company) in order to bypass Atmos.

20 **Q PLEASE EXPLAIN.**

21 A Similar to how utility rate base declines as capital is recovered by depreciation
22 charges, had Noranda constructed a pipeline to bypass the local utility (now Liberty)



1 its return requirement on that capital would continue to diminish each year over the
2 life of the asset, a period of time in excess of 30 years.

3 **Q GIVEN THAT NORANDA AGREED NOT TO BUILD THIS PIPELINE, WOULD IT BE**
4 **REASONABLE TO EXPECT AN AGREEMENT THAT INCLUDED A “NO BYPASS”**
5 **PROVISION TO MIRROR THIS DECLINING PATTERN OF CHARGES PAST THE**
6 **INITIAL 10-YEAR PERIOD?**

7 A Yes. If the rates were to continue to follow the pattern that would have been
8 experienced had Noranda constructed its own bypass pipeline, the rates charged by
9 Liberty would continue to decline below this amount in order to reflect the decreasing
10 cost associated with supporting a declining net investment.

11 **Q HAVE NORANDA AND LIBERTY ENTERED INTO A NEW AGREEMENT THAT**
12 **WOULD SUPERSEDE THE EXPIRING 2003 AGREEMENT?**

13 A Yes. The parties engaged in negotiations that resulted in a new Agreement. This
14 new Agreement also contains a “no bypass” provision for the entire 10-year term. I
15 understand that an executed copy of this Agreement is being provided by Liberty in
16 its rebuttal testimony filing.

17 **Q WHAT IS THE PRICE IN THE NEW AGREEMENT?**

18 A The price in the new Agreement is ** _____ **. This is the same as the rate in
19 the final year of the original Agreement. As a result of the negotiations, under the
20 new Agreement Noranda forgoes further decreases in the rate and will pay this rate
21 of ** _____ ** through the entire term of the new Agreement.

1 Q STAFF HAS BEEN CRITICAL OF THIS **_____** RATE AND
2 PROPOSED TO IMPUTE A SIGNIFICANT AMOUNT OF REVENUE TO LIBERTY,
3 EQUAL TO THE DIFFERENCE BETWEEN THE STANDARD TARIFF RATE AND
4 THE NORANDA RATE. DID STAFF PROVIDE ANY EVIDENCE THAT THE
5 NORANDA RATE WAS NOT COST-JUSTIFIED?

6 A No, Staff did not provide any such evidence.

7 Q PLEASE PROVIDE A DESCRIPTION OF THE NATURE OF THE SERVICE THAT
8 NORANDA RECEIVES FROM LIBERTY.

9 A Noranda is an interruptible transportation customer, and is the largest customer on
10 the Liberty system. It is served with an 8" tap line from Liberty's transmission system.
11 It does not utilize any of Liberty's extensive distribution system that is required only to
12 provide service to other customers.

13 In addition, because it is interruptible, Noranda does not cause any fixed costs
14 to be incurred other than those associated with the specific tap to the smelter from
15 Liberty's transmission system. Noranda transports approximately 1,300,000 Mcf per
16 year, at a rate of approximately 3,700 Mcf per day. It arranges for and pays
17 separately for transportation service on Texas Eastern Transmission Company and
18 also arranges for and pays separately for its gas supply.

19 Q WHAT DOES IT MEAN TO BE AN INTERRUPTIBLE CUSTOMER?

20 A An interruptible customer, like Noranda, is a customer of the utility that is not
21 guaranteed the same quality of service as are other customers. To the extent that
22 there is any restriction in deliverability capability on Liberty's system, interruptible
23 customers, like Noranda, would be interrupted or would be restricted in the amount of

1 transmission system capability that would be available for them to transport their
2 natural gas supplies. Interruptible service may be thought of as an “insurance policy”
3 that is in place and available when needed. The benefit to firm customers of having
4 other customers take interruptible service is that the interruptible customer acts as a
5 buffer or a shock absorber and bears the brunt of any curtailment of service as a
6 result of Liberty's inability to serve all customers during a particular period of time.

7 The value of interruptible service is not in the fact of interruption, but in the
8 ability to interrupt under circumstances where failure to interrupt this load would
9 jeopardize the provision of firm service to residential, commercial and other firm
10 service customers. If service doesn't need to be interrupted in order to provide
11 reliable service to firm customers, then it is not interrupted; but could be interrupted if
12 system conditions called for it to be interrupted.

13 **Q HOW DOES NORANDA COMPARE IN SIZE TO OTHER CUSTOMERS?**

14 A According to the customer data filed by Liberty, the average residential customer in
15 the SEMO Division uses 62 Mcf per year. Accordingly, Noranda's consumption is
16 over 20,000 times that of the average residential customer. The average LGS
17 transportation customer in the SEMO Division uses approximately 44,000 Mcf per
18 year, so Noranda is approximately 30 times the size of the average LGS
19 transportation customer.

20 **Q PLEASE SUMMARIZE THE MAJOR FACTORS THAT DISTINGUISH NORANDA**
21 **FROM OTHER CUSTOMERS?**

22 A The major factors that distinguish Noranda from other customers are as follows:
23 (1) Liberty uses only its transmission system to provide service to Noranda, and does

1 not need to use its distribution system at all, (2) Noranda is an interruptible
2 transportation customer and does not cause any fixed costs to be incurred except for
3 the specific tap to the smelter, and (3) Noranda is significantly larger in size than any
4 other customer.

5 **Q WHY DO YOU SAY THAT, AS AN INTERRUPTIBLE CUSTOMER, NORANDA**
6 **CAUSES FIXED COSTS ONLY FOR THE TAP TO THE SMELTER?**

7 A It is generally accepted that interruptible customers do not cause the utility to incur
8 fixed costs because service to them may be withdrawn or restricted at times when
9 system capacity is needed to serve firm customers.

10 **Q WHY DO YOU INCLUDE THE COSTS OF THE TAP TO THE SMELTER?**

11 A It is included because it serves only Noranda, and is not necessary to provide service
12 to other customers.

13 **Q HAVE YOU DEVELOPED AN ESTIMATE OF THE COST TO SERVE NORANDA**
14 **BASED ON THE FINANCIAL AND OPERATING DATA IN THE CURRENT RATE**
15 **CASE?**

16 A Yes, I have. This is summarized in Schedule MEB-1.

17 **Q PLEASE EXPLAIN SCHEDULE MEB-1.**

18 A Schedule MEB-1 is a summary of the principal elements of the cost to serve Noranda.
19 I have shown the results using both Staff's proposed rate of return, and Liberty's
20 proposed rate of return, as well as the average.

1 **Q PLEASE DESCRIBE GENERALLY HOW YOU CALCULATED THE COST TO**
2 **SERVE NORANDA.**

3 A The first step was to identify any investment directly attributable to the service
4 provided to Noranda. As shown in the workpapers that detail the development of my
5 cost of service analysis, the only direct investment consists of the tap from Liberty's
6 transmission network to the Noranda smelter, and the connection/metering
7 equipment. I have used the original cost for this investment rather than attempt to
8 develop the current net plant in service by accounting for accumulated depreciation.
9 Had I estimated the net plant value, the total cost to serve Noranda that I calculate
10 would be lower.

11 After having determined the direct costs, amounts of general plant investment
12 were allocated in proportion to the direct investment to serve Noranda. No other part
13 of the Liberty transmission system was allocated to Noranda because it is an
14 interruptible customer. No part of the Liberty distribution system was allocated to
15 Noranda because Liberty does not use its distribution system to provide delivery
16 service to Noranda.

17 Similarly, O&M expenses, depreciation expense, other taxes, return and
18 income taxes were allocated to Noranda based on the previously assigned and
19 allocated plant investment.

20 **Q WHAT IS THE RESULT OF YOUR COST OF SERVICE STUDY?**

21 A As shown on Schedule MEB-1, the cost to serve Noranda is approximately \$0.03 per
22 Mcf.

1 Q WHAT MARGIN CONTRIBUTION IS PROVIDED BY NORANDA AT A RATE OF
2 ** _____ **?

3 A The margin contribution that Noranda provides at ** _____ ** is approximately
4 ** _____ **.

5 Q I UNDERSTAND THAT YOU HAVE NOT ALLOCATED ANY PORTION OF
6 LIBERTY'S TRANSMISSION NETWORK COST OF SERVICE IN THE SEMO
7 DIVISION TO NORANDA BECAUSE NORANDA IS AN INTERRUPTIBLE
8 CUSTOMER. AS A SENSITIVITY ANALYSIS, HAVE YOU DETERMINED HOW
9 MUCH ADDITIONAL COST WOULD BE ATTRIBUTED TO NORANDA IF THE
10 FACT THAT NORANDA IS INTERRUPTIBLE WERE NOT CONSIDERED, AND
11 INSTEAD NORANDA WERE ALLOCATED A FULL PROPORTIONATE SHARE OF
12 THE SEMO DIVISION'S TRANSMISSION REVENUE REQUIREMENT?

13 A Yes, I have made that calculation. I disagree that any portion of the transmission
14 network in the SEMO division should be allocated to Noranda since it is an
15 interruptible customer. However, if the interruptible feature were ignored and instead
16 the SEMO transmission network costs were allocated to Noranda based on
17 Noranda's contribution to the three-day peak load, the additional fixed costs allocated
18 to Noranda would be approximately \$101,000 per year, or \$0.08 per Mcf. (These
19 calculations are shown in my workpapers.)

1 Q WITH THAT ALLOCATION OF TRANSMISSION COSTS, WHICH IGNORES THE
2 INTERRUPTIBLE NATURE OF NORANDA'S LOAD, WHAT WOULD THE TOTAL
3 COST TO SERVE NORANDA BE?

4 A The total cost, if I ignore the interruptible nature of the load, would be approximately
5 \$0.11 per Mcf.

6 Q AT THAT LEVEL OF COST OF SERVICE, WHAT MARGIN CONTRIBUTION
7 WOULD NORANDA PROVIDE AT AN ** _____ ** RATE?

8 A At that level, Noranda would be providing a contribution of approximately ** _____
9 _____ **.

10 Q DO YOU HAVE ANY OTHER EVIDENCE THAT WOULD SUPPORT THE
11 REASONABLENESS OF THE ** _____ ** CHARGE TO NORANDA?

12 A Yes. As another point of reference, Texas Eastern Transmission Company's monthly
13 firm transportation reservation charge in market area "M1" (where Liberty is served)
14 for the right to transport 1 Mcf per day is \$4.15. Dividing this by 30.4 days per month
15 produces an equivalent throughput charge of about 14¢ per Mcf of volume at 100%
16 load factor. Interruptible transportation on Liberty is priced higher than firm interstate
17 pipeline transportation service – illustrating that the ** _____ ** charge to
18 Noranda is more than adequate.

1 Q DO YOU AGREE WITH STAFF WITNESSES THAT LIBERTY NEEDS TO HAVE IN
2 PLACE A TARIFF SHEET THAT DEFINES ELIGIBILITY FOR SPECIAL
3 CONTRACTS AND OUTLINES THE AREAS IN WHICH THE SPECIAL CONTRACT
4 MAY DIFFER FROM THE STANDARD TARIFF?

5 A No. I do not think it is necessary to have such a tariff. Each separate agreement or
6 special contract should stand on its own and be evaluated based on the entirety of
7 the provisions in the agreement. Trying to fit all agreements into an inflexible mold,
8 when in fact the service characteristics and other considerations in an agreement are
9 unique to individual customers, constrains the ability of the utility and its customers to
10 enter into arrangements that are mutually beneficial to the contract customer, to the
11 utility, and to the other customers on the utility system.

12 Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

13 A Yes, it does.

Qualifications of Maurice Brubaker

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and President of the firm of
6 Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
8 **EXPERIENCE.**

9 A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in
10 Electrical Engineering. Subsequent to graduation I was employed by the Utilities
11 Section of the Engineering and Technology Division of Esso Research and
12 Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of
13 New Jersey.

14 In the Fall of 1965, I enrolled in the Graduate School of Business at
15 Washington University in St. Louis, Missouri. I was graduated in June of 1967 with
16 the Degree of Master of Business Administration. My major field was finance.

17 From March of 1966 until March of 1970, I was employed by Emerson Electric
18 Company in St. Louis. During this time I pursued the Degree of Master of Science in
19 Engineering at Washington University, which I received in June, 1970.

20 In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
21 Missouri. Since that time I have been engaged in the preparation of numerous

1 studies relating to electric, gas, and water utilities. These studies have included
2 analyses of the cost to serve various types of customers, the design of rates for utility
3 services, cost forecasts, cogeneration rates and determinations of rate base and
4 operating income. I have also addressed utility resource planning principles and
5 plans, reviewed capacity additions to determine whether or not they were used and
6 useful, addressed demand-side management issues independently and as part of
7 least cost planning, and have reviewed utility determinations of the need for capacity
8 additions and/or purchased power to determine the consistency of such plans with
9 least cost planning principles. I have also testified about the prudence of the actions
10 undertaken by utilities to meet the needs of their customers in the wholesale power
11 markets and have recommended disallowances of costs where such actions were
12 deemed imprudent.

13 I have testified before the Federal Energy Regulatory Commission ("FERC"),
14 various courts and legislatures, and the state regulatory commissions of Alabama,
15 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,
16 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri,
17 Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania,
18 Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia,
19 Wisconsin and Wyoming.

20 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and
21 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,
22 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It
23 includes most of the former DBA principals and staff. Our staff includes consultants
24 with backgrounds in accounting, engineering, economics, mathematics, computer
25 science and business.

1 Brubaker & Associates, Inc. and its predecessor firm has participated in over
2 700 major utility rate and other cases and statewide generic investigations before
3 utility regulatory commissions in 40 states, involving electric, gas, water, and steam
4 rates and other issues. Cases in which the firm has been involved have included
5 more than 80 of the 100 largest electric utilities and over 30 gas distribution
6 companies and pipelines.

7 An increasing portion of the firm's activities is concentrated in the areas of
8 competitive procurement. While the firm has always assisted its clients in negotiating
9 contracts for utility services in the regulated environment, increasingly there are
10 opportunities for certain customers to acquire power on a competitive basis from a
11 supplier other than its traditional electric utility. The firm assists clients in identifying
12 and evaluating purchased power options, conducts RFPs and negotiates with
13 suppliers for the acquisition and delivery of supplies. We have prepared option
14 studies and/or conducted RFPs for competitive acquisition of power supply for
15 industrial and other end-use customers throughout the United States and in Canada,
16 involving total needs in excess of 3,000 megawatts. The firm is also an associate
17 member of the Electric Reliability Council of Texas and a licensed electricity
18 aggregator in the State of Texas.

19 In addition to our main office in St. Louis, the firm has branch offices in
20 Phoenix, Arizona and Corpus Christi, Texas.

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Liberty Utilities (Midstates Natural Gas) Corp.
d/b/a Liberty Utilities
Case No. GR-2014-0152
SEMO Division
Test Year Ending 9/30/13 with Updates to 3/31/2014

Summary of Cost to Serve Noranda
(Dollars in Thousands)

<u>Line</u>	<u>Description</u>	<u>Liberty ROR</u> (1)	<u>Staff ROR</u> (2)	<u>Average</u> (3)
1	O&M Expenses	\$ 12.0	\$ 12.0	
2	Depreciation Expense	4.0	4.0	
3	Other Taxes	1.4	1.4	
4	Return & Income Tax	<u>16.0</u>	<u>13.0</u>	
5	Total	\$ 33.4	\$ 30.4	\$ 32

Note:

Cost to serve Noranda is approximately 3¢ per Mcf based on an annual volume of 1,300,000 Mcf.