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Sponsoring Party: Union Electric Company
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Case No.: ER-2008-0318
Date Testimony Prepared: October 14, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2008-0318

REBUTTAL TESTIMONY

OF

WILBON L. COOPER

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**St. Louis, Missouri
October, 2008**

UE Exhibit No. 40
Case No(s) ER-2008-0318
Date 12-01-08 Rptr KF

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **WILBON L. COOPER**

4 **CASE NO. ER-2008-0318**

5 **I. INTRODUCTION**

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

7 A. My name is Wilbon L. Cooper. My business address is One Ameren Plaza,
8 1901 Chouteau Avenue, St. Louis, Missouri 63103.

9 **Q. By whom and in what capacity are you employed?**

10 A. I am employed by Union Electric Company d/b/a AmerenUE ("AmerenUE"
11 or "Company") as Manager, Rate Engineering & Analysis.

12 **Q. Are you the same Wilbon L. Cooper that filed direct testimony in this**
13 **proceeding?**

14 A. Yes, I am.

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

16 A. The purpose of my testimony is to provide rebuttal comments and evidence
17 that addresses the direct testimonies on the allocation of production plant and/or class
18 revenue requirements filed by the Missouri Public Service Commission Staff ("Staff")
19 witnesses David C. Roos and James Watkins, Office of Public Counsel ("OPC") witness
20 Barbara A. Meisenheimer, Missouri Industrial Energy Consumers ("MIEC") witness Maurice
21 Brubaker, Noranda Aluminum, Inc ("Noranda") witness Donald Johnstone, and The
22 Commercial Group's ("TCG") witness Richard Baudino. Additionally, I will provide
23 rebuttal comments to Mr. Brubaker's testimony on the rate design of the Large Primary

1 Service Class. Lastly, I will provide rebuttal to certain Fuel Adjustment Clause (“FAC”)
2 testimony of Mr. Johnstone. Other Company witnesses will provide additional rebuttal
3 testimony to address certain issues raised by these witnesses. My failure to address a
4 particular witness’ position or argument should not be construed as endorsement of same.

5 **II. PRODUCTION PLANT ALLOCATION**

6 **Q. Please summarize the position stated by each of the parties in direct**
7 **testimony in this docket as it relates to the allocation of fixed production plant.**

8 A. The following provides a high level summary of each party’s recommendation
9 on the allocation of production plant:

- 10 • Company – The Company utilized a four non-coincident peak (“4 NCP”)
11 version of the Average and Excess Demand Allocation methodology (“A &
12 E”) that gives weight to both a) class peak demands and b) class energy
13 consumption.
- 14 • Staff – Staff utilized a twelve non-coincident peak (“12 NCP”) version of the
15 Peak and Average Demand Allocation methodology (“P & A”) that gives
16 weight to both a) adjusted class peak demands and b) class energy
17 consumption.
- 18 • OPC – OPC utilized two methodologies: 1) a four coincident peak (“4 CP”)
19 version of the P & A that gives weight to both a) adjusted class peak demands
20 and b) class energy consumption; and 2) a Time of Use (“TOU”) allocation
21 methodology which assigns demand related fixed production plant
22 investments and associated depreciation reserve to each hour.

- 1 • MIEC – MIEC utilized a single non-coincident peak (“1 NCP”) version of the
2 A & E that gives weight to both a) class peak demand and b) class energy
3 consumption.
- 4 • Noranda – Noranda did not perform a class cost of service study; rather,
5 Noranda’s witness Mr. Johnstone stated that at the appropriate time he would
6 provide rebuttal testimony.
- 7 • TCG – TCG accepts the Company’s use of the 4 NCP Average and Excess
8 method.

9 **Q. Have you prepared a table that summarizes the parties’ positions on**
10 **production plant allocation and the associated production plant allocation factors by**
11 **customer class?**

12 A. Yes, with the exception of Noranda, who did not submit their own Class Cost
13 of Service Study (“CCOS”) or endorse the CCOS study of any other party in the case,
14 Table 1 depicts this summary:

15 **Table 1**

Party	Method	RES	SGS	LGS/SPS	LPS	LTS
Company (UE) & TCG	4 NCP – A & E	45.4%	11.7%	29.3%	8.0%	5.6%
MPSC Staff	12 NCP – P & A	40%	11%	32%	10%	9%
OPC 1	4 CP – P & A	39.5%	10.7%	31.5%	9.8%	8.6%
OPC 2	TOU	37.6%	10.0%	31.7%	10.5%	10.2%
MIEC	1 NCP – A & E	47.1%	11.2%	28.3%	7.8%	5.6%

16 **Q. With the exception of the OPC TOU allocation methodology, is there a**
17 **common element in the remaining production plant allocation methods listed in**
18 **Table 1?**

1 A. Yes, the common element in all the methods is the use of class kilowatthours
2 in the allocation of a portion of production plant. The reference to "A" (Average) in Table 1
3 for each of the methods is representative of class average demands that are calculated by
4 dividing annual class energy consumption by 8,760 hours per year. Said class averages are
5 computed as a percent of the system average demand and then multiplied by the system's
6 annual load factor of approximately 53%. As a result, 53% of the Company's production
7 plant investment is allocated on an energy basis regardless of the method listed in Table 1
8 (excepting TOU). Differences among the parties lie with the allocation of the remaining one
9 minus system load factor (47%) portion of production plant investment. Such differences are
10 driven by: 1) the use of "Excess" demands associated with Non-Coincident Peaks vs. total
11 Non-Coincident or Coincident Peaks, and, 2) the number of peaks utilized.

12 **Q. The Company and MIEC have proposed the use of an A & E method for**
13 **the allocation of production plant investment, while Staff and one of OPC's allocation**
14 **methods proposes the use of the Average and Peak or Peak and Average method ("P &**
15 **A"). Please comment on the use of the A & E method vs. the P & A method for the**
16 **allocation of production plant investment.**

17 A. The use of the P & A method is inherently flawed as it double counts the
18 average demand of customer classes. This double counting results from the previously
19 described use of class average demand for a portion of production plant allocation (i.e., the
20 55% system load factor weighting piece) and the use of class peak or non-coincident peak
21 demands, which include an average demand component for the remaining allocation of
22 production plant (i.e., 47%). This double counting results in customers with higher load
23 factors being allocated an inequitable share of production plant investment. This result is

1 driven by the high load factor customers demonstrating a better correlation between average
2 demands and peak demands than do lower load factor customers; therefore, higher load
3 factor customers receive a disproportionate share of the non-average demand (i.e. 47%)
4 portion of production plant investment.

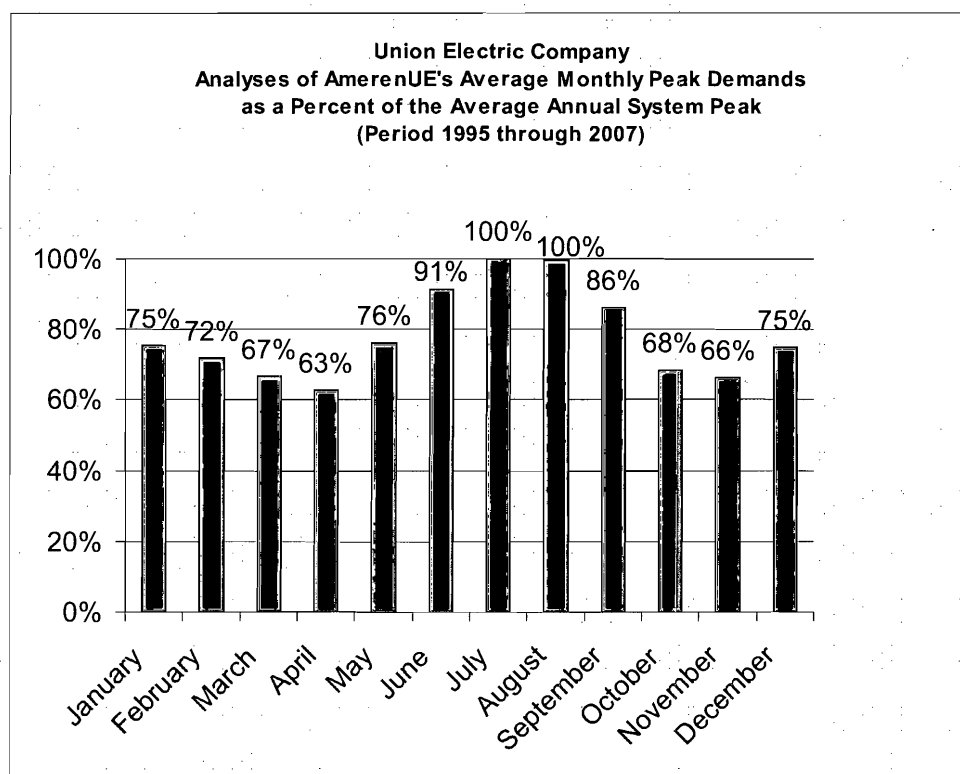
5 The use of the A & E method is more equitable than the P & A method, as it
6 does not suffer from the same flaw of double counting. Instead, the A & E method utilizes
7 "Excess" demands (i.e., the difference between class non-coincident or peak demands and
8 class average demands) for application of the remaining 47% of production plant investment,
9 thus avoiding any double counting of demands.

10 **Q. Moving now to the number of peaks to be utilized in the A & E**
11 **methodology proposed by the Company, have you developed a chart depicting the**
12 **Company's system peaks which significantly impact the Company's production plant**
13 **investment?**

14 **A.** Yes. Figure 1 below depicts an analysis of the Company's average monthly
15 peak demands as a percent of average annual system peak for the period 1995 through 2007.
16 Peak data were examined for a thirteen year period to smooth the effects on peaks due to any
17 unusual weather in any given year.

1

Figure 1



2 **Q. MIEC witness Brubaker proposes the use of only the month of August in**
3 **his 1 NCP A & E production allocation method. Please comment.**

4 **A. Figure 1 clearly shows that demands in the months of June through September**
5 **dominate annually. The month of September has an average value of 86% and the remaining**
6 **three summer months are 91%, 100%, and 100%. Therefore, Mr. Brubaker's exclusion of**
7 **the months of June, July, and September from his A & E method cannot be supported based**
8 **on the Company's history of peaks for the period 1995-2007. Also, Mr. Brubaker's proposal**
9 **to utilize a single summer non-coincident peak in this case rather than three summer non-**
10 **coincident peaks sponsored by him in the Company's most recently adjudicated rate case**
11 **(Case No. ER-2007-0002) conflicts with the statement at line 16 of his direct testimony**
12 **regarding the need for allocation methodologies to produce more stable results over time.**

1 That is, changing the number of non-coincident peaks utilized in the average and excess
2 allocation method can produce unstable results over time.

3 Figure 1 also demonstrates that Staff's use of 12 NCPs in its P & A
4 production allocation method is inequitable as it waters down the significant effect of
5 summer peak demands on the construction of the Company's production plant.

6 **Q. Table 1 also lists the TOU production plant allocation methodology**
7 **sponsored by OPC witness Meisenheimer. Please comment.**

8 A. The TOU allocation method allocates production plant costs to customer
9 classes over every hour of the year based upon class kWh use in each hour. A summation of
10 the results for each customer class produced the production allocations shown in Table 1.
11 For comparison purposes, the following Table 2 contains the results of Ms. Meisenheimer's
12 TOU analyses for both the class variable energy allocators and the production plant fixed
13 allocators.

14 **Table 2 - OPC Time of Production Allocation Results**

	RES	SGS	LGS/LPS	LPS	LTS
Fixed	37.6	10.0%	31.7%	10.5%	10.2%
Variable	36.4%	9.9%	32.6%	10.8%	10.3%

15 **Q. Based on Table 2, what observations can be made regarding the results of**
16 **the TOU allocation methodology for production plant investment?**

17 A. Comparing the percentage share of the variable or running costs and the fixed
18 or capacity costs illustrates how closely the allocation of capacity costs tracks the allocation
19 of variable running costs under the TOU method. In fact, the individual class results for all
20 but the residential class are virtually all the same. Arguably, the application of the TOU

1 method for the allocation of the Company's fixed production plant investment can be
2 replicated with a simple energy allocation methodology.

3 **Q. Does the TOU method promote the improvement of system load factor?**

4 A. No. This method shifts additional costs from on-peak periods to off-peak
5 periods, whenever off-peak usage is added. This will, in fact, have the effect of discouraging
6 any addition of off-peak use while encouraging additional on-peak use. This result is the
7 opposite of that which would produce an improvement in overall system load factor. In other
8 words, reduced demands during system peak periods will reduce or defer future production
9 plant additions, thereby reducing the Company's investment in production plant required to
10 serve its customers. Additionally, improving load factor through additional off-peak sales
11 will result in greater utilization of existing production plant capacity.

12 **Q. Please summarize the Company's position on the use of the TOU method**
13 **for the allocation of production plant.**

14 A. The TOU allocation method does not result in an equitable allocation of fixed
15 production investment, as there is little or no balance between the consideration of energy
16 and capacity associated with the Company's providing production capacity and this method
17 does not support the important goal of improving system load factor.

18 **Q. Please summarize the Company's overall position regarding the**
19 **allocation of production plant.**

20 A. The Company's net investment in fixed production assets represents
21 approximately 68% of net original cost rate base in this case. As a result, the variations in
22 allocation of these assets depicted in Table 1 above produce significant differences in class
23 cost of service requirements in this case.

1 I believe the Company's 4 NCP A & E allocation methodology to be superior
2 to other proposals offered by parties in this docket due to its more balanced consideration of
3 both the energy and excess demands requirements for serving each customer class. The
4 consideration of energy is important due to its relevance in the type of generation on the
5 Company's system, while the consideration of demand is also relevant due to its importance
6 in the magnitude of the capacity of the Company's generating facilities. The A & E method
7 assigns a weight of 53% to class energy requirements and 47% to class excess demands,
8 based on the Company's annual system load factor of 53% during the study period.
9 Additionally, the Company has utilized the 4 NCP A & E methodology for its most recent
10 cases before the Commission and the continued use of this allocation methodology will
11 promote cost of service stability. The Company is not suggesting that there is a single
12 methodology for the allocation of these costs which can be deemed as the absolute, correct
13 and only method for the allocation of production plant. However, it would be desirable to
14 either continue the use of the 4 NCP A & E or to have some reasonable resolution of this
15 particular issue in advance of future rate cases. Moreover, it would be highly advantageous
16 to all parties to have the ability to rely upon a standardized methodology whose results could
17 be reasonably predicted.

18 **III. CLASS REVENUE REQUIREMENTS**

19 **Q. Please summarize the Company's position on the allocation of the**
20 **revenue increase requested in this case.**

21 A. As stated in my direct testimony, the Company is proposing to allocate the
22 requested increase in this case on an across-the-board or equal percentage increase for all
23 customer classes.

1 **Q. What are the positions of the other parties on class revenue**
 2 **requirements?**

3 A. The following Table 2 depicts a summary of the positions of the other parties:

4 **Table 2**

<u>Party</u>	<u>Class Revenue Recommendation</u>
MPSC Staff	Equal Percentage – Across the Board
OPC	Equal Percentage – Across the Board
MIEC	MIEC's COSS results with revenue neutrality at present rates, any overall change applied on equal percentage across the board basis
TCG	Company's COSS results with proportional scaling if entire request is not granted
Noranda	Cost based with rate stability

5

6 **Q. Why should the Commission adopt the Company's across-the-board or**
 7 **equal percentage increase for all classes recommendation?**

8 A. The Commission should adopt the Company's recommendation for the
 9 following reasons:

- 10 • While cost based rates are an important starting point in developing class
 11 revenue targets and rate design, there are other factors (e.g., public
 12 acceptance, rate stability, and revenue stability from year to year) that should
 13 be considered when determining class revenue requirements and designing
 14 rates. Considering today's dire economic situation and its broad effect on
 15 every sector of the economy, these other factors are more important than ever.
- 16 • Despite varying class cost of service study results, Staff and OPC are
 17 recommending an equal percentage or across-the-board allocation of the
 18 increase granted in this case.

- 1 • Nether MIEC, TCG, nor Noranda has presented any compelling evidence to
2 vary from the across-the-board approach.
- 3 • The Company's proposal is fairly consistent with the Commission approved
4 Non-unanimous Stipulation and Agreement Concerning Class Cost of Service
5 and Certain Rate Design Issues in its most recently completed case (Case No.
6 ER-2007-0002).
- 7 • The varying results (i.e., class proportion of total revenue requirements at an
8 equal rate of return) of the class cost of service studies filed by parties in this
9 case are consistent with those filed in Case No. ER-2007-0002.
- 10 • All parties providing recommendations on class revenue requirements in this
11 case were signatories to the aforementioned Non-unanimous Stipulation and
12 Agreement.

13 **IV. LARGE PRIMARY SERVICE RATE DESIGN**

14 **Q. On page 36 of his testimony, Mr. Brubaker states that, "...the proposed**
15 **charges for all of the blocks are far too high. I would recommend that whatever**
16 **decrease or increase is found appropriate for the Large Primary Service rate be applied**
17 **as an equal percentage decrease or increase to all existing rate values." Please**
18 **comment.**

19 A. Mr. Brubaker's statement is a bit confusing as the Company's Large Primary
20 Service Rate has no rate blocks, rather it has a monthly customer charge, a KVar charge and
21 seasonally differentiated "flat" demand and energy charges. It should be noted that there is
22 an option for time-of-use energy billing. With regard to an equal percentage application of

1 any revenue requirement change to this customer class, the Company's proposed rates reflect
2 an application of the proposed uniform percentage increase to each rate element of this class.

3 **V. FUEL ADJUSTMENT CLAUSE**

4 **Q. Have you read the testimony of Noranda witness Johnstone concerning**
5 **the FAC?**

6 **A. Yes, I have.**

7 **Q. At page 10 of his September 11, 2008 direct testimony, Mr. Johnstone**
8 **indicates that Noranda is concerned with the allocation of any demand-related costs or**
9 **revenues in the Company's proposed FAC on an energy basis instead of allocating those**
10 **demand-related items on a cost causation average and excess basis. Please comment.**

11 **A. First, it should be noted that the net value of demand-related costs and**
12 **revenues included in the Company's test year Net Base Fuel Costs ("NBFC"), which is the**
13 **sum around which changes in net fuel costs will be tracked in the FAC, is only**
14 **approximately \$6.55 million of a total of approximately \$359.8 million in total NBFC, or just**
15 **1.8%. Expressed in cents per kWh, the NBFC are 0.8687¢. A simple calculation of the bill**
16 **impact of varying the aforementioned net value by +/-10% and flowing the variation through**
17 **the FAC (with the 95%/5% sharing built-into the FAC) produces a demand-related variation**
18 **in the FAC rate of just +/-0.0015¢/kWh.**

19 **Q. How would the demand-related costs or revenues included in a 10%**
20 **change in net fuel costs affect Noranda?**

21 **A. Applying Noranda's applicable line loss factor of 1.47% to this value and**
22 **multiplying by Noranda's annual test year energy usage of 4,027,995 MWh means that**
23 **Noranda's annual FAC adjustment due to demand-related items would vary just +/- \$61,000.**

1 Noranda's annual bill is approximately \$144 million. On the other hand, similar calculations
2 of the flow through of a +/-10% in demand related costs or revenues in the Company's
3 proposed FAC under the average and excess method would yield a change in Noranda's
4 annual bill so just +/-35,000. The annual difference in Noranda's bill of \$144,000,000
5 between these two methods is only \$26,000, or 0.02%. Similar calculations could be made
6 for the Company's other classes and the results would be consistent. This nominal or de
7 minimus annual Noranda bill difference of only 0.02% for every 10% change in demand
8 related costs or revenues associated with the use of the FAC energy method versus the
9 average and excess method demonstrates just how unreasonable it would be to complicate
10 the Company's proposed FAC to accommodate the use of the average and excess method.
11 Also, from a Commission Staff auditing perspective, the Company's proposed FAC method
12 would be simpler to audit without the necessity of splitting FAC costs into fixed and variable
13 components with differing allocation methods. As discussed above, the administrative
14 burden of adapting the FAC to accommodate Mr. Johnstone's recommendation outweighs
15 the benefit of FAC rates doing a better job of tracking de minimus costs.

16 **Q. Mr. Johnstone suggests that there could be volatile rates caused by the**
17 **FAC. Has the Company conducted analyses of the impact of its proposed FAC on**
18 **customer bills as if it were in place for the period of June 2007 through May 2008?**

19 **A.** Yes. There would have been three Accumulation Periods during this time
20 frame (i.e., June 2007 – Sept. 2007, Oct. 2007 – Jan. 2008, and Feb. 2008 – May 2008) with
21 adjustments to customers' bills prospectively during the corresponding three Recovery
22 Periods (i.e., Feb. 2008 – Jan. 2009, June 2008 – May 2009, and Oct. 2008 – Sept. 2009).
23 Utilizing these Accumulation and Recovery Periods, the Company conducted such an

1 analyses for both Noranda and the Residential Service Classification. Schedule WLC-RE9
2 shows the monthly bills for Noranda with and without the FAC for the aforementioned
3 Recovery Periods. The range of the FAC adjustments is -0.282 ¢/kWh to $+0.176 \text{ ¢/kWh}$ or
4 -9.8% to $+6.1\%$ of the monthly bill for the indicated period. While there is some variation,
5 as expected, the range of the variation is relatively minor. The main "volatility" in
6 Noranda's billings would have little to do with the FAC, and much more to do with Summer
7 versus Winter electric rate differentials.

8 **Q. Did the Company examine the same issue for residential customers?**

9 A. Yes. Schedule WLC-RE10 depicts the results of a similar analysis for the
10 Residential Service Classification utilizing billing units of an average residential customer.
11 The range of the FAC adjustments is -0.302 ¢/kWh to $+0.189 \text{ ¢/kWh}$ or -5.3% to $+3.3\%$ of the
12 monthly bill for the indicated period; different from Noranda's due to differing losses and
13 base rates. Again, while there is expected variation, the range of the variation is also quite
14 minor.

15 **Q. Does this conclude your rebuttal testimony?**

16 A. Yes, it does.

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

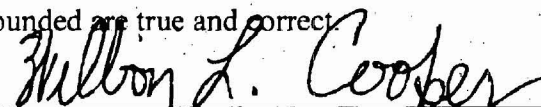
In the Matter of Union Electric)	
Company d/b/a AmerenUE for)	
Authority to File Tariffs Increasing)	
Rates for Electric Service Provided)	Case No. ER-2008-0318
To Customers in the Company's)	
Missouri Service Area.)	

AFFIDAVIT OF WILBON L. COOPER

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

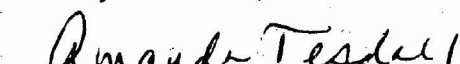
Wilbon L. Cooper, being first duly sworn on his oath, states:

1. My name is Wilbon L. Cooper. I am employed by Union Electric Company d/b/a AmerenUE as Manager – Rate Engineering and Analysis.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Union Electric Company, d/b/a AmerenUE, consisting of 14 pages and Schedules WLC-RE9 through WLC-RE10, 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.



Wilbon L. Cooper

Subscribed and sworn to before me this 14th day of October, 2008.

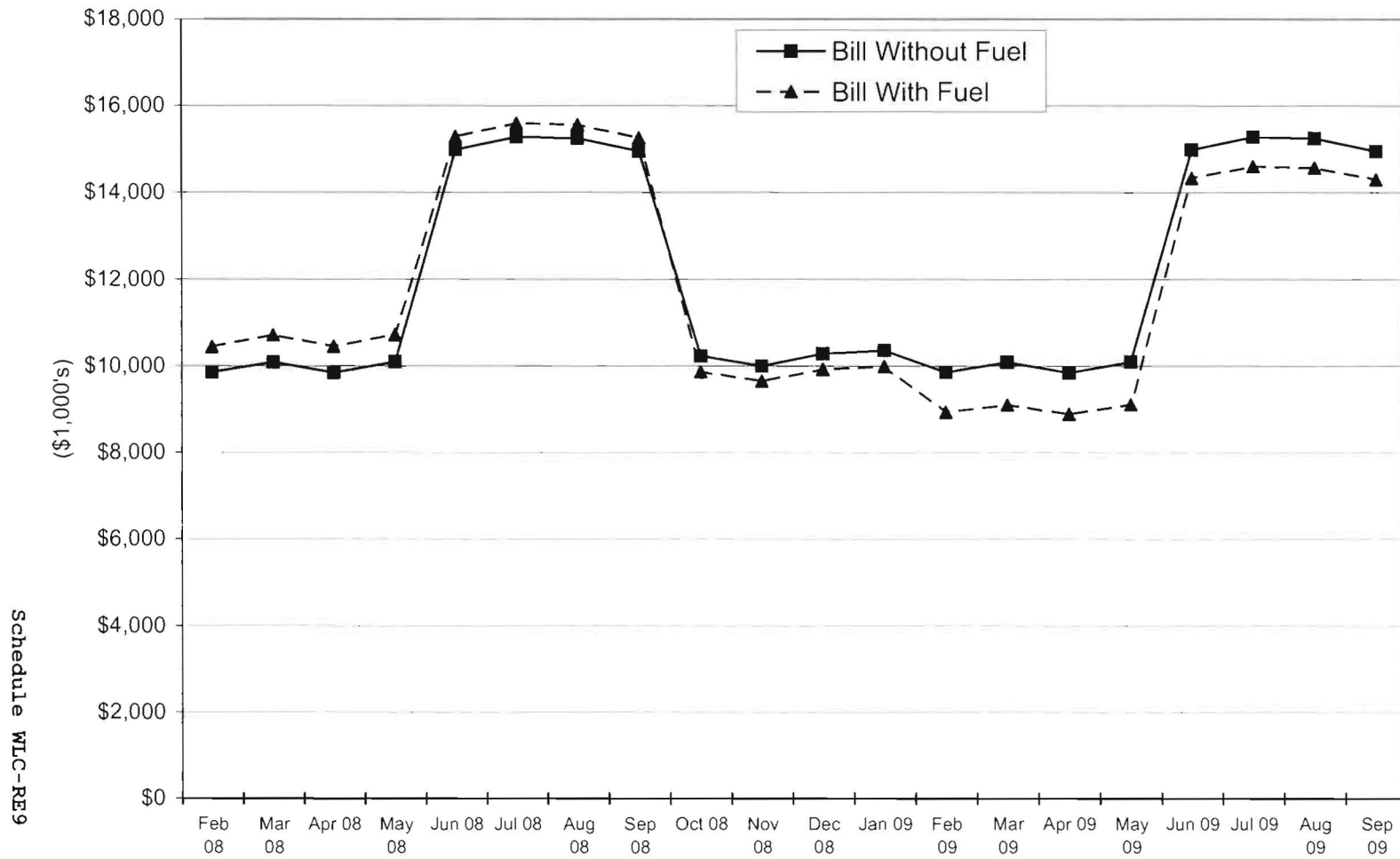


Notary Public

My commission expires: _____

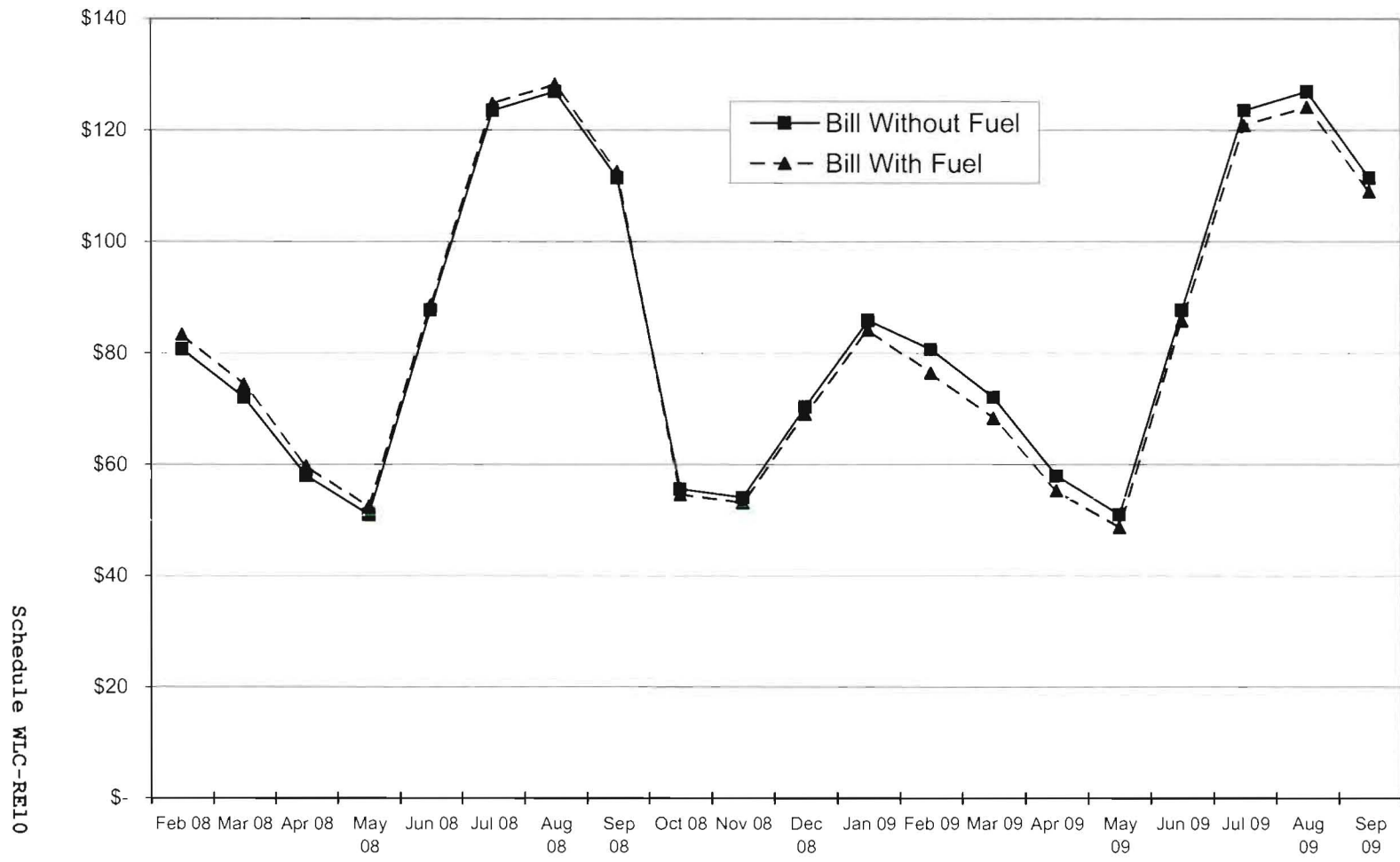


Noranda Monthly Bills



Schedule WLC-RE9

Residential Monthly Bills



Schedule WIC-RE10