Exhibit No.: Issue(s): Off-System Sales; Capacity Revenues; Asset Management and Trading Incentives; Entergy Litigation Shawn E. Schukar Witness: Union Electric Company Sponsoring Party: Type of Exhibit: Rebuttal Testimony Case No.: ER-2008-0318 Date Testimony Prepared: October 14, 2008

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2008-0318

REBUTTAL TESTIMONY

OF

SHAWN E. SCHUKAR

ON

BEHALF OF

UNION ELECTRIC COMPANY d/b/a AmerenUE

****DENOTES HIGHLY CONFIDENTIAL INFORMATION****

St. Louis, Missouri October, 2008



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1		REBUTTAL TESTIMONY
2		OF
3		SHAWN E. SCHUKAR
4		CASE NO. ER-2008-0318
5	Q.	Please state your name and business address.
6	А.	My name is Shawn E. Schukar. My business address is One Ameren Plaza,
7		1901 Chouteau Avenue, St. Louis, MO 63166-6149.
8	Q.	By whom and in what capacity are you employed?
9	А.	I am employed by Ameren Services Company as the Vice President Strategic
10		Initiatives.
11	Q.	Are you the same Shawn E. Schukar who filed direct testimony in this
12		case?
13	А.	Yes, I am.
14	Q.	What is the purpose of your rebuttal testimony?
15	А.	The purpose of my rebuttal testimony is to respond to various parties' direct
16		testimonies, ¹ as follows: (a) the Staff's (Erin Maloney) and Missouri
17		Industrial Energy Consumers' ("MIEC") (James R. Dauphinais) pricing for
18		off-system sales, which is highly uncertain due to, among other things,
19		uncertainty in energy prices, generation performance, and rate-regulated load;
20		(b) Office of the Public Counsel's ("OPC") (Ryan Kind) suggested
21		adjustments to the Company's calculation of a normalized level of off-system

¹ In referring to "direct testimonies," I am also including Staff's August 28, 2008 Cost of Service Report.

1		sales determined using production cost modeling; (c) Staff's (Jeremy
2		Hagemeyer) suggested adjustment associated with Revenue Sufficiency
3		Guarantee "make-whole" payments from the Midwest Independent
4		Transmission System Operator, Inc. ("MISO"), associated with the MISO's
5		dispatch of AmerenUE's gas-fired generation for non-economic reasons; (d)
6		OPC's (Mr. Kind) additional proposed adjustment associated with the Taum
7		Sauk generation facility; and (e) Staff's (John Cassidy) proposed treatment of
8		sums that might at some point be recovered via litigation involving Entergy
9		Corporation ("Entergy").
10	I.	Normalized Off-System Sales
11	Q.	Before you address the items you identify above, can you summarize
12		AmerenUE's proposal for the determination of a normalized level of off-
13		system sales for utilization in the setting of AmerenUE's rates?
14	А.	Yes. As outlined in my direct testimony, AmerenUE proposed a normalized
15		level of off-system sales for use in setting AmerenUE's base rates, which
16		included normalized levels of energy, capacity and ancillary services sales.
17		PROSYM, a production cost model described in detail in the April 4, 2008
18		direct testimony of AmerenUE witness Timothy Finnell, was utilized to
19		determine the energy sales component of off-system sales using normalized
20		inputs associated with loads, fuel costs, generation performance, and energy
21		market prices. The use of the PROSYM model and these normalized inputs
22		also enabled AmerenUE to determine the level of energy sales as if the Taum
23		Sauk generation facility was actually available. This has the effect of giving

customers the energy benefit of Taum Sauk, even though the facility is not currently in operation.

3 In addition, AmerenUE included in its off-system sales revenues for 4 ratemaking purposes the amount of capacity sales, adjusted for known and 5 measurable capacity sales through September 2008 (the true-up date in this 6 case) and an additional amount of capacity sales that AmerenUE expects 7 could have been made had the Taum Sauk generation facility been available. 8 The inclusion of the Taum Sauk-related capacity sales was done, again, to 9 give customers the benefit of such sales. Finally, AmerenUE determined and 10 included in its off-system sales revenues for this rate case an historic level of 11 ancillary service sales. The sum of the normalized energy, capacity, and 12 ancillary services sales described above was then included as off-system sales 13 revenue to reduce AmerenUE's revenue requirement.

14 A. Response to Staff's Off-System Sales Testimony.

1

2

Q. Please summarize Staff's method for determining off-system sales
revenues.

17 A. With just two exceptions, the Staff utilized essentially the same method I 18 employed but using its own production cost model, the RealTime model. The 19 two exceptions both deal with different inputs used by the Staff as opposed to 20 the Company; otherwise, the Company's and the Staff's models essentially 21 agree on AmerenUE's overall production costs, as discussed in Mr. Finnell's 22 rebuttal testimony. The two exceptions are, first, Staff uses a different time 23 period, only a single year, from which to derive a recommended energy price 24 for inclusion in its model to determine its recommended level of off-system

1		sales. Second, Staff added 75% of the Revenue Sufficiency Guarantee
2		"make-whole" payments ("RSG Payments") that AmerenUE received during
3		the test year. Staff's theory in adding a sum for RSG Payments is that Staff
4		believes AmerenUE has received additional margins as part of the RSG
5		Payments, and those margins were not included in AmerenUE's
6		recommended level of off-system sales. It is important to note, however, that
7		the Staff indicated that it is simply assuming that the margins are equal to 75%
8		of the RSG Payment because of the complexity of determining the actual level
9		of any margins that may exist. Staff indicated that it was waiting on
10		additional information from the Company on this issue, which was requested
11		just six days before the Staff filed its Cost of Service Report. The Company
12		has now been able to complete the data collection and analysis necessary to
13		provide that information, and has recently provided it to the Staff.
14	Q.	Do you agree that some level of margin associated with RSG Payments
15		should be included as a component of AmerenUE's off-system sales
16		revenues?
17	А.	Yes. I address that level in more detail below.
18	Q.	Do you agree with Staff's utilization of a single year of market prices as
19		an input to determine the level of off-system sales and fuel costs to be
20		utilized in the determination of AmerenUE's rates?
21	А.	No.
22	Q.	Why not?
23	А.	As Staff explains in its Cost of Service Report, the inputs to the production
24		costs models utilized to determine the level of off-system sales from energy

included normalized, annualized hourly loads (Staff Cost of Service Report,
 p. 38), normalized planned outages for the AmerenUE generating units (*Id.*, p.
 39), and normalized unplanned outages (*Id.*). The use of a single year's
 market price data is inconsistent and inappropriate given the models' use of
 normalized inputs for these other variables.

6 As I explained on pages 12-14 of my direct testimony, utilization of 7 only one year of price data that are impacted by weather, by unit outages, by 8 system topology changes, and by system congestion will not likely result in a 9 determination of off-system sales that is properly reflective of a normal year. 10 This creates a mismatch between (1) the normalized revenues and expenses 11 upon which rates are set, and (2) the non-normalized actual prices taken from 12 just one year.

13 Since load is normalized for average temperatures and generation 14 planned and unplanned outages are also normalized, it is more appropriate to 15 utilize market prices over a period of time that, on average, is more reflective 16 of normalized weather. The utilization of average prices across longer periods 17 of time also reduces distortions that may be caused by temporary transmission 18 and generation outages and associated congestion impacts that are more likely 19 to be reflected and disproportionately magnified when only a single year's 20 prices are used. In addition, the use of more than one year's data helps to 21 remove any distortions that may occur from short-term impacts such as coal 22 supply disruptions, weather, and other market factors, as discussed below. 23 Thus, unless there is some significant change in the market dynamics, such as 24 the introduction of a new market design, or some other step-change in the

1		underlying fundamentals of the market, it is appropriate to utilize market
2		prices from at least two years.
3	Q.	Have there been any significant changes in the market design or
4		significant changes in the fundamentals of the market which would result
5		in the need to use prices from a period of less than two years?
6	А.	No. AmerenUE has been operating in the MISO Day 2 Energy Market since
7		April 2005. The market design has not changed significantly since the start of
8		the market, which means the fundamental market design does not require use
9		of a period less than the two years of data, as I have recommended. Figure
10		SES-R1 demonstrates this.



Figure SES-R1



Figure SES-R1 shows the locational market prices (LMP) at the AmerenUE generator nodes, weighted by the proportion of AmerenUE energy sales from each node. As can be seen, the market prices do not exhibit any fundamental shift that would suggest that one cannot rely on a full two-year period. In fact, outside of isolated and temporary price impacts from

1 hurricanes and coal supply disruptions in mid-2005 to early 2006, the market 2 prices have been relatively stable with only short-term market price increases in mid-2006 and mid-2008. The existence of these short-term price 3 4 movements in 2006 and 2008 highlight the reason why it is important to rely 5 on more than one year's data in order to prevent abnormal results associated 6 with a variety of possible short-term market phenomena, such as weather, 7 variations in hydroelectric generation due to abnormally high rainfall, plant 8 outages, market speculation, unusual run-ups in oil prices, fuel supply 9 interruptions, and emission market conditions (such as the unusual conditions seen when the Federal Clean Air Interstate Rule ("CAIR") was vacated by the 10 11 courts). As can be clearly seen from Figure SES-R1, average prices for the 12 12 months ending April 2008 would differ significantly from the average for the 13 12 months ending July 2008 due to a Summer 2008 price spike that did not 14 exist in 2007. But by August 2008, prices had again declined to levels in line 15 with average seasonal price levels that existed prior to this temporary increase. 16 Q. You referenced short-term market phenomena that can distort the results 17 if just one year's data is used. Please elaborate on some of these short-18 term market phenomena that have been recently observed. 19 A. As with any individual year in the wholesale energy market, there have been 20 several factors which impacted short-term energy market prices. These have 21 included market speculation affecting oil and gas prices, vacation of the CAIR 22 rule, international coal production disruptions, and significant, abnormal 23 rainfall in the Midwest affecting hydroelectric production. These kinds of

1		market phenomena created abnormal short-term price levels in energy market
2		prices in early to mid-2008.
3		This again demonstrates the need to rely upon more than one year's
4		data when determining a normalized level of off-system sales revenues to
5		include in rates.
6	Q.	You earlier noted that an adjustment relating to RSG Payments, as
7		conceptually recommended by Staff, was appropriate. Please explain.
8	A.	I agree that it is appropriate to recognize additional margin that AmerenUE
9		receives from the RSG Payments. However, the level of this margin is much
10		different than the assumed or "placeholder" margin (75% of the gross
11		payments) the Staff included in its Cost of Service Report. After the Staff
12		raised this issue, the Company conducted an analysis to determine the portion
13		of the RSG Payments that was in fact in excess of the costs that AmerenUE
14		incurred when a gas-fired unit was placed in service or dispatched at the
15		MISO's direction. As I will discuss, dispatch of a unit under these
16		circumstances is uneconomic when the MISO orders the unit on for reliability
17		reasons and market prices are not sufficient to cover the unit's cost.
18	Q.	Given that the dispatch is uneconomic, wouldn't it necessarily follow that
19		it would be inappropriate to include all of the revenue received from the
20		RSG Payments in the Company's revenue requirement?
21	A.	Yes. By definition the units that are made whole under the Revenue
22		Sufficiency Guarantee provisions of the MISO Energy and Market Tariff
23		("EMT") are not economic since the MISO has to provide revenue over and
24		above the revenue received from the market to cover the unit's operational

1		costs. Since the production cost models that are used to determine
2		AmerenUE's fuel costs and off-system sales revenues only dispatch units
3		economically, the units that are dispatched by the MISO under the Reliability
4		Assessment Commitment ("RAC") process contained in its EMT tariff that
5		are not dispatched economically would not have been committed and
6		dispatched by the PROSYM model. As a consequence, the model does not
7		include the revenues or the costs associated with the units that receive RSG
8		Payments. Thus, while the off-system sales determined by the model do need
9		to be supplemented with RSG Payment margins, it is only appropriate to
10		recognize the historical margin (i.e., revenue less cost), rather than the gross
11		RSG Payments in calculating the Company's revenue requirement.
12	Q.	Have you determined the historical margin associated with RSG make-
13		whole payments?
13 14	А.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between
13 14 15	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the
13 14 15 16	A.	whole payments?Yes. AmerenUE conducted an analysis to determine the difference betweenthe revenues that were received from the MISO for the units that received theRSG Payments and the costs required to start-up and operate the units for the
13 14 15 16 17	A.	 whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total
13 14 15 16 17 18	A.	 whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy
13 14 15 16 17 18 19	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy payments and the RSG Payments. The costs were based on the fuel and
 13 14 15 16 17 18 19 20 	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy payments and the RSG Payments. The costs were based on the fuel and incremental operating and maintenance costs associated with the units. The
 13 14 15 16 17 18 19 20 21 	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy payments and the RSG Payments. The costs were based on the fuel and incremental operating and maintenance costs associated with the units. The fuel costs were determined by multiplying the actual fuel used during the
 13 14 15 16 17 18 19 20 21 22 	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy payments and the RSG Payments. The costs were based on the fuel and incremental operating and maintenance costs associated with the units. The fuel costs were determined by multiplying the actual fuel used during the period associated with the make-whole payment by the cost of the fuel. The
 13 14 15 16 17 18 19 20 21 22 23 	A.	whole payments? Yes. AmerenUE conducted an analysis to determine the difference between the revenues that were received from the MISO for the units that received the RSG Payments and the costs required to start-up and operate the units for the period covered by the RSG Payments. The revenues were based on the total revenues that the Company received from the unit including both the energy payments and the RSG Payments. The costs were based on the fuel and incremental operating and maintenance costs associated with the units. The fuel costs were determined by multiplying the actual fuel used during the period associated with the make-whole payment by the cost of the fuel. The

1		margins associated with the RSG Payments for the period April 2007 through
2		March 2008 was \$4.7 million, or approximately one-third of the gross RSG
3		Payments for this period, not the 75% placeholder number used by the Staff in
4		its direct testimony revenue requirement analysis. This means that Staff's
5		proposed downward adjustment to AmerenUE's revenue requirement is
6		overstated by \$7.4 million. The actual margins will be trued up through
7		September 30, 2008, as part of the true-up process in this case.
8	В.	Response to MIEC and OPC Relating to Off-System Energy Sales.
9	Q.	You noted that Mr. Dauphinais had provided testimony on behalf of
10		MIEC and Mr. Kind had provided testimony on behalf of OPC regarding
11		off-system energy sales. Please elaborate.
12	А.	Mr. Dauphinais suggests that the AmerenUE's fuel budget projection for 2008
13		that was estimated on January 18, 2008, be utilized in determining the level of
14		off-system sales revenues used in calculating AmerenUE's rates. He suggests
15		that, in the alternative, adopting the method utilized by AmerenUE
16		(determining a normalized level of production costs using the PROSYM
17		model), but with an updated market energy price set equal to the most recent
18		12-month spot energy prices. Mr. Kind suggests that an updated projection
19		(estimated on April 15, 2008) of AmerenUE's off-system sales for 2008 be
20		utilized. Mr. Kind also argues that other miscellaneous components be added
21		to total off-system sales for ratemaking purposes. I will address the energy
22		sales recommendations of Mr. Dauphinais and Mr. Kind, now, and will
23		address Mr. Kind's proposed miscellaneous additions later in my rebuttal
24		testimony.

2

Q. Is the use of budgeted off-system sales revenues for a single year appropriate for the determination of AmerenUE's rates?

3 A. Absolutely not. First and foremost, it is my understanding that rates in this case will be set based upon an historical test year with a true-up period, not on 4 5 a forecasted basis. All of the cost and revenue items in the case and key 6 variables - weather normalized loads, normalized generation outages, retail 7 sales, fuel costs, to name a few – are based on an historical period. Mr. Kind 8 and Mr. Dauphinais try to reach beyond the true-up date in this case based 9 upon an uncertain projection of this one item – off-system sales – without 10 consideration of projections of changes to any other costs or revenues. This is 11 highly inappropriate when an historic period is used to set rates. In addition 12 the Commission has previously noted: "Since the Commission uses historical 13 expenses and revenues to set rates, it would be fundamentally unfair to reach 14 forward to grab a single budget item to reduce AmerenUE's cost of service, 15 while ignoring other anticipated costs that might increase that cost of service."² 16

Even if projections of off-system sales in the future were allowed to be utilized, the use of sales projections that have not been normalized while utilizing load and costs that have been normalized would result in distortions of the rates to which customers are exposed. Mr. Kind suggests on page 5 of his direct testimony that this is appropriate since the revised budget reflects AmerenUE's best estimate of off-system sales. Mr. Kind does not seem to understand the nature and uncertainty of this budgeted value. The projection

² *Report and Order,* Case No. ER-2007-0002, p. 32.

1		is based on then (as of the time the projection was made) current market price
2		information that fluctuates significantly. Indeed, when AmerenUE adopts its
3		yearly budget, it simply uses the forward energy price for the budget year
4		from one trading day as the basis for the off-system sales revenues contained
5		in the budget. For example, the 2008 budget that was adopted was based on
6		the market's forward projection of the price of power for 2008 as of
7		November 29, 2007. If a forward price for 2008 from a different date had
8		been used, the budget could have been significantly different, given the
9		substantial variation that is often seen in forward prices.
10	Q.	Are AmerenUE's future power sales significantly exposed to these
11		uncertain market prices?
12	A.	Yes. AmerenUE generally bases the estimated off-system sales on existing
13		sales transactions and publicly available forward market prices, as I noted
13 14		sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales
13 14 15		sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to
13 14 15 16		sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10
13 14 15 16 17		sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10 million MWh of sales (roughly the level of sales predicted by both the
13 14 15 16 17 18		 sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10 million MWh of sales (roughly the level of sales predicted by both the Company's and the Staff's production cost models), AmerenUE still has about
13 14 15 16 17 18 19		 sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10 million MWh of sales (roughly the level of sales predicted by both the Company's and the Staff's production cost models), AmerenUE still has about 6.7 million MWh of sales exposed to highly uncertain market power prices.
 13 14 15 16 17 18 19 20 		 sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10 million MWh of sales (roughly the level of sales predicted by both the Company's and the Staff's production cost models), AmerenUE still has about 6.7 million MWh of sales exposed to highly uncertain market power prices. Figure SES-R2 shows the forward market prices for a 2008 around the clock
 13 14 15 16 17 18 19 20 21 		 sales transactions and publicly available forward market prices, as I noted above. Assuming AmerenUE hedges about 33% of the expected energy sales (this is the amount that AmerenUE normally hedges forward up to approximately one year in advance), and considering approximately 10 million MWh of sales (roughly the level of sales predicted by both the Company's and the Staff's production cost models), AmerenUE still has about 6.7 million MWh of sales exposed to highly uncertain market power prices. Figure SES-R2 shows the forward market prices for a 2008 around the clock ("ATC") product at the Cinergy Hub as traded between March and December

Figure SES-R2



1		that level of off-system sales revenues with normalized historic loads and
2		operating costs). Also telling is the fact that AmerenUE's budget forecasting
3		has not necessarily been as accurate as may be implied by Mr. Kind's
4		statements. For example, AmerenUE's budgeted OSS margin for 2006 and
5		2007 was \$211.0 million and \$276.4 million, respectively. However,
6		AmerenUE's actual OSS for those periods was \$189.0 million and \$224.8
7		million, or 10% (\$22 million) and 18% (\$51.6 million) lower than budgeted.
8		While AmerenUE attempts to be as accurate as it can in projecting its
9		expected future levels of off-system sales (given the uncertainties inherent in
10		any such projection), impacts from weather, generation performance, and
11		market activities have a significant effect on the level of off-system sales.
12		This will often cause actual outcomes to differ significantly from
13		AmerenUE's projections.
14	Q.	Mr. Dauphinais suggests that his approach is "conservatively low since
15		for the first six months of 2008 the fuel forecast's predicted off-system
16		sales margin is \$3.4 million lower than actual off-system sales margins."
17		Do you agree with his assessment?
18	А.	No. As I have already pointed out, the use of projections to determine one
19		input to the rates while normalizing other inputs based on actual, historical
20		data is neither appropriate nor conservative. In addition, the amount of off-
21		system sales that occurred for the short six-month period of time that Mr.
22		Dauphinais outlined does not account for the short-term fluctuation in loads,
23		generation performance and market prices. These short-term, non-normalized
24		values are not consistent with the normalized amounts that are used in setting

1		rates. Mr. Dauphinais' suggestion that this would be conservative because the
2		projected off-system sales margin over this six-month period is only \$3.4
3		million lower than actual off-system sales margins ignores the fact that one of
4		the main reasons that actual off-system sales margins are close to the
5		projection for this period is the fact that native load was approximately
6		100,000 MWh below normalized levels for the first six months of 2008,
7		primarily as a result of weather. Moreover, generation from the Company's
8		hydroelectric plants was 219,000 MWhs higher as a result of the significant
9		rainfall, freeing up additional MWhs for off-system sales. If conditions were
10		closer to normal, higher native load and lower levels of hydroelectric
11		generation would have resulted in 319,000 MWhs less of energy that would
12		have been available for off-system sales. As a result, the off-system margins
13		actually achieved over this period would have been approximately \$9.5
14		million lower than the figure cited by Mr. Dauphinais. It should be also noted
15		that, through August 2008, native load has been over 300,000 MWh below
16		normalized load and hydroelectric generation has been 350,000 MWh above
17		normal, resulting in additional off-system sales margins of approximately \$18
18		million. This variation, due to factors such as weather affecting native load
19		and hydroelectric generation, shows why it is important to use normalized
20		market prices along with normalized loads and generation availability in
21		determining off-system sales revenues and setting rates.
22	Q.	Do you expect the level of off-system sales revenues and margins that

AmerenUE has experienced in the past will continue in the future?

1	А.	I really don't know. One certainly cannot count on it, particularly as load
2		growth continues to consume generation available to make off-system sales.
3		If one was to look only at the initial 2008 budget and then compared it to the
4		updated projections for the 4 th quarter of 2008, the estimated amount of off-
5		system sales and associated margin for that quarter has varied from \$67.8
6		million to \$92.0 million, a variation of \$24.2 million in quarterly margins.
7		Future off-system sales are even more unpredictable given the large exposure
8		associated with the non-hedged portion of AmerenUE's future energy sales.
9		The fact of the matter is that, given the large variability in loads and
10		generation availability, AmerenUE is only able to hedge a portion of its
11		energy sales, typically only about 33%. As a result, the expected amount of
12		off-system sales that are exposed to spot pricing is approximately
13		** ** unhedged in 2009 and ** **
14		unhedged in 2010. Given the amount of variability that has been experienced
15		in the 12-month rolling average LMPs at the AmerenUE generator nodes
16		historically (see Schedule SES-E4 in my direct testimony), the potential
17		variation in off-system sales revenues would be ** ** in 2009
18		and **** in 2010. This reflects a very large uncertainty range.
19	Q.	Do you agree with Mr. Dauphinais' alternative suggestion to rerun
20		AmerenUE's production cost model with updated spot market prices?
21	А.	I agree that it is appropriate to rerun AmerenUE's production cost model with
22		updated information, including market price data for a two-year period ending
23		September 30, 2008. However, as I have indicated above and in my direct

1		testimony, it is not appropriate to only utilize one year of market price data. I
2		provide the results of the updated simulations below.
3	Q.	Mr. Dauphinais states that the AmerenUE approach of using more than
4		one year's data is unreasonable because there is a clear, known and
5		measurable upward price trend in the 12-month averages of historic spot
6		market prices for electricity. Do you agree?
7	А.	No. Mr Dauphinais' depiction of the "clear, known and upward" price trend
8		is based on just four data points during a relatively short period of time that
9		provided a misleading and distorted picture of market energy prices in the
10		MISO. The analysis does not attempt to determine if there are other issues
11		affecting the price. Thus, while Mr. Dauphinais' four selective data points
12		may appear to show an upward price trend, Mr. Dauphinais provided no
13		evidence that whatever may have caused this "trend" (that incorporates the
14		abnormal short-term price spike in 2008) would actually continue in the
15		future. Indeed, Figure SES-R1 (above) shows that, since the start of the
16		MISO Day 2 Energy market, there is not the type of trend that Mr. Dauphinais
17		appears so certain exists. What this chart does show is that there have been
18		several periods of elevated spot prices related to events such as hurricanes,
19		coal supply disruptions, weather impacts, and other market events that caused
20		a temporary change in market prices. Depending on the period of time
21		selected to determine a trend, the evaluation could determine increasing
22		prices, decreasing prices, or no trend at all. It is curious that, on page 6
23		lines 7-8 of Mr. Dauphinais' direct testimony, he seems to be referencing the

1		very type of events that can and do affect spot prices. However, he makes no
2		attempt to adjust or normalize for the occurrence of such events.
3	Q.	Mr. Dauphinais argues that there is no need to remove a risk premium or
4		discount from the forward prices. Do you agree?
5	А.	No. First of all it is inappropriate to only utilize forward prices for one aspect
6		of the determination of rates as I have indicated previously. However, even if
7		it was appropriate to utilize forward prices (e.g., if other forecasted items, like
8		increased costs, were also utilized), Mr. Dauphinais seems to suggest that
9		regardless of the amount of premium or discount associated with risk that is
10		included in forward prices, the forward price is an appropriate indication of
11		the actual price the Company would experience in the market. The risk
12		premiums or discounts included in forward prices can be based on actual
13		historical events, such as the risk of a hurricane occurring in the gas supply
14		regions, or can be based on anticipated events, such as the potential for
15		legislation which limits emissions from power plants. As has been seen in the
16		past, right after an event, the premium or discount associated with the specific
17		risk can be magnified. It is simply wrong to ignore the amount of the risk
18		premium or discount, especially when it is associated with actions such as
19		legislation that could have a large impact on other costs utilized to set rates,
20		such as fuel or operational costs.
21	Q.	You noted earlier that you agreed that the PROSYM model should be re-
22		run using a normalized power price from the 24-month period ending
23		September 30, 2008? Did you ask Mr. Finnell to re-run PROSYM using
24		data from that period?

1 A. Yes.

2	Q.	What were the results of that model run?
3	А.	As outlined in Mr. Finnell's rebuttal testimony, this updated model run
4		utilized a normalized power price of \$43.57 based on the two years ending
5		September 30, 2008, which is an increase of \$3.10 over the normalized power
6		price determined using calendar year 2006 and 2007 data, as discussed in my
7		direct testimony. In addition, Mr. Finnell also updated the load forecast which
8		resulted in a decrease in native load requirements of 148,337 MWhs while
9		off-system sales levels remained essentially flat. This changes the level of
10		off-system sales revenues associated with energy included in the Company's
11		revenue requirement from \$434.9 million (as set forth in my supplemental
12		direct testimony) to \$452 million. This change results in total off-system sales
13		revenues of \$471.5 million, which consists of \$452 million related to energy
14		(including the updated energy value of Taum Sauk identified in Mr. Finnell's
15		rebuttal testimony), \$11.3 million related to capacity (including Taum Sauk),
16		\$3.5 million related to ancillary services, and \$4.7 million related to the RSG
17		Payments discussed earlier. This will also change the net base fuel costs ³
18		determined by Mr. Weiss for use in setting the base level from which
19		adjustments would be made in the Company's proposed fuel adjustment
20		clause, which will be trued-up as part of the true-up process in this case.
21	С.	Response to Mr. Kind's Miscellaneous Items.

³ "Net base fuel costs" ("NBFC") includes costs that are not the product of Mr. Finnell's production cost modeling but which are part of total fuel and purchased power expense included in Mr. Weiss' revenue requirement, principally as follows: fixed gas supply costs, credits against the cost of nuclear fuel from Westinghouse arising from a prior settlement of a nuclear fuel contract dispute, Day 2 energy market expenses from the Midwest Independent Transmission System Operator, Inc. ("MISO"), excluding administrative fees,

1	Q.	You noted earlier that Mr. Kind argues that certain miscellaneous
2		additional components must be included in off-system sales. He first
3		suggests that if production cost modeling is utilized to determine the level
4		of off-system sales, the level of off-system sales must include an
5		adjustment for capacity relating to the Taum Sauk Plant. Do you agree?
6	А.	Yes. I have included capacity sales related to the Taum Sauk Plant in my
7		recommended level of off-system sales.
8	Q.	Do you agree with Mr. Kind's determination of the value of the potential
9		capacity sales that may have been made had the Taum Sauk generation
10		facility been available?
11	А.	No. Mr. Kind imputes the value of potential capacity sales from the Taum
12		Sauk facility by assuming that had the generating facilities been available,
13		AmerenUE would have sold the full level of capacity from the Taum Sauk
14		generation facilities for the entire year. However, as shown in Figure SES-
15		R3, AmerenUE has not even been able to sell the full capacity that it actually

MISO Day 2 congestion charges, MISO Day 2 revenues, and capacity sales revenues.

Figure SES-R3



More specifically, this is shown by the fact that the black part of the bars – reflecting annual sales of capacity – are shorter than the bars in their entirety, which demonstrates that many capacity sales could only be made for a day, a month or in some cases, a quarter. Moreover, if AmerenUE could not even sell all of its available capacity for the entire year (i.e., from generating units that were in fact in operation), it is obviously unreasonable to assume that the Company could sell additional capacity if the Taum Sauk Plant had been available.

11The approach that I used in my direct testimony recognizes that12AmerenUE was not able to sell all of the available capacity on an annual

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1		basis, but gives full value to the Taum Sauk capacity for the periods during
2		which AmerenUE was able to sell all of the capacity that was actually
3		available during the test period. This approach is conservative given the risk
4		that AmerenUE may not have been able to sell all of the additional capacity
5		during those periods or, if it had been able to sell the additional capacity, that
6		it might have had to sell that capacity at a lower price. That this estimate is
7		conservative simply reflects practical reality. If AmerenUE had 440
8		megawatts of additional supply to offer to the market, it follows that it might
9		not be able to sell it as much as it was able to sell its actually available
10		capacity (i.e., without that additional 440 megawatts) and that selling the
11		additional supply might drive down the market price of capacity.
12	Q.	Mr. Kind also suggests that if the production modeling approach is
13		utilized that an additional amount related to specific AmerenUE Asset
14		Management and Trading ("AM&T") goals included in the
15		AmerenEnergy Performance Scorecards be added to the off-system sales
15 16		AmerenEnergy Performance Scorecards be added to the off-system sales since the goal will not be included in the production cost models. Would
15 16 17		AmerenEnergy Performance Scorecards be added to the off-system sales since the goal will not be included in the production cost models. Would that be appropriate?
15 16 17 18	А.	AmerenEnergy Performance Scorecards be added to the off-system sales since the goal will not be included in the production cost models. Would that be appropriate? No, not at all. Mr. Kind has totally misstated and apparently totally
15 16 17 18 19	A.	AmerenEnergy Performance Scorecards be added to the off-system salessince the goal will not be included in the production cost models. Wouldthat be appropriate?No, not at all. Mr. Kind has totally misstated and apparently totallymisunderstands the AM&T goals. The AM&T group is a division within
15 16 17 18 19 20	A.	AmerenEnergy Performance Scorecards be added to the off-system salessince the goal will not be included in the production cost models. Wouldthat be appropriate?No, not at all. Mr. Kind has totally misstated and apparently totallymisunderstands the AM&T goals. The AM&T group is a division withinAmerenUE charged with maximizing energy and capacity sales from
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 15 16 17 18 19 20 21 22 23 	A.	AmerenEnergy Performance Scorecards be added to the off-system salessince the goal will not be included in the production cost models. Wouldthat be appropriate?No, not at all. Mr. Kind has totally misstated and apparently totallymisunderstands the AM&T goals. The AM&T group is a division withinAmerenUE charged with maximizing energy and capacity sales fromAmerenUE's generating units, while also maintaining reliable and safeoperations. When AmerenUE runs its production cost model for budgeting orforecasting purposes, the model assumes a flawless economic dispatch of the

1 forecasts and dispatch match perfectly, that the fuel blends at the plant are 2 perfectly matched to offered parameters, and that the bids of energy into the MISO market are perfectly timed. In fact, no enterprise, even with close 3 4 monitoring, perfect management and a very high level of market expertise 5 could achieve the performance the model predicts, even if the conditions in 6 the market end up being as assumed in the modeling, because of the day-to-7 day uncertainties associated with loads, weather, unit operations, and other 8 external factors which can affect operations. 9 The AM&T goals simply reflect a quantification of the dollar value 10 AmerenUE believes the AM&T group brings to AmerenUE operations. As Mr. Kind points out, in 2006 the dollar value of this goal was \$22.3 million 11 and in 2007 it was \$25.3 million.⁴ Mr. Kind also refers to the budgeted dollar 12 13 value for the first six months of 2008 (on his Attachment A), which was 14 \$13,824,819. However, when Mr. Kind refers to these "value added" 15 numbers (i.e., this goal) versus the budgeted "UE Margin" (e.g., the 16 \$186,105,240 off-system sales projected for the first six months of 2008 as of 17 the time the page in Mr. Kind's Attachment A was prepared), he is 18 misrepresenting the budgeted "value added" number. He is misrepresenting 19 that number because it is not an additional budgeted item over and above the 20 off-system sales that were already budgeted. Rather, it is simply a 21 management goal expressed as a Key Performance Indicator ("KPI") which

Margin. It represents the portion of the UE Margin that without the AM&T

measures the AM&T group's effectiveness in achieving the budgeted UE

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⁴ Kind Direct, p. 9, l. 18-19.

1		group likely would not have been achieved at all. As noted previously,
2		flawless operations with perfect knowledge are assumed in the PROSYM run
3		so the \$13,824,819 of "value added" in the 2008 projection represents the
4		portion of the real world imperfections in operations and markets that
5		AmerenUE believes it can overcome through the AM&T group activities. As
6		such, this goal is already reflected in AmerenUE's budget through the
7		PROSYM run and the expected capacity and ancillary services sales that
8		produced the projection. This financial margin is value achieved by AM&T
9		for activities such as capacity sales, forward hedging, load forecasting,
10		ancillary sales, and optimization of unit operations. This value is already
11		reflected in the normalized test-year values I have presented.
12	Q.	So are you saying that Mr. Kind's adjustment of \$23.8 million would
13		effectively double-count revenues?
14	A.	Yes, that is correct. This financial margin – the value added by AM&T
15		reflected on the 2006 and 2007 scorecards Mr. Kind references (Mr. Kind just
16		averages the value added for those two years) - has already been included in
17		my recommended level of off-system sales. The energy component is already
18		included in the PROSYM modeling that produced the budgeted off-system
19		sales. The capacity and ancillary services components were also already
20		included in the total off-system sales recommendation I previously testified to.
21		Mr. Kind's proposed adjustment would add – double-count – these same
22		dollars to off-system sales revenues a second time.
23	Q.	Please elaborate further on the purpose and scope of AM&T's activities.

1	А.	The AM&T group hedges a portion of AmerenUE's off-system sales by
2		entering into forward contracts. Those known hedges for 2008 were already
3		included in the production cost modeling that was utilized to determine the
4		level of off-system sales AmerenUE included in its revenue requirement.
5		Other measures in the AM&T scorecards include load forecasting and unit
6		optimization, which focus on operating in a manner that achieves actual
7		operation as close as possible to the perfect dispatch that the production cost
8		model assumes. A perfect example of this is that the production cost model
9		always dispatches the Sioux Plant according to the particular fuel mix that is
10		included in the model. ⁵ However, in real life, the actual fuel blend that is
11		used at the plant will vary some from the unit's expected blend that is offered
12		into the MISO market. Thus, the actual fuel blend at Sioux does not
13		necessarily match the fuel blend assumed when unit is dispatched, resulting in
14		inefficiencies that would never be identified in the model. The purpose of the
15		unit optimization goal is to ensure that the actual blend matches the expected
16		blend that was included in the offer to the market so that actual performance
17		matches as closely as possible the perfect dispatch assumed in the production
18		cost model. AM&T personnel work to achieve that perfect dispatch as closely
19		as possible. It is the same with the forecasting portion of the goals. The
20		model assumes load forecasting is perfect (i.e., by assuming the load is
21		actually known before the fact). In reality, there are known forecast
22		imperfections associated with day-to-day weather and load uncertainties.
23		Thus, AM&T has a goal to ensure that the load forecast comes as close as

⁵ The Sioux plant burns a combination of Illinois and Power River Basin (Wyoming) coal, which can vary

1		possible to the perfect load forecasts that are included in the model. If you
2		were to utilize Mr. Kind's thought process, it would in fact be more
3		appropriate to make a reduction to the level of off-system sales predicted by
4		the model based on the fact that actual performance would not be expected to
5		meet the perfect dispatch and operations assumed by the production cost
6		model
7	Q.	Are there any additional comments that you would make in reference to
8		the financial margin goals?
9	А.	Yes. The purpose of the financial margin goals and the gross margin goals is
10		to ensure that the AM&T group has the appropriate incentives to maximize
11		the amount of margin that can reliably be achieved from the AmerenUE assets
12		- i.e., to maximize off-system sales. As noted above, these goals include the
13		incentive to improve capacity and ancillary services sales, reduce costs from
14		forecasting errors, and optimize generating fleet operations. These financial
15		incentives are the bulk of the incentive compensation available to the dispatch,
16		marketing and trading personnel working in the AM&T group, and, as
17		AmerenUE witness Krista Bauer discusses in her rebuttal testimony, incentive
18		compensation is an important component of these employees' pay. As Mr.
19		Lyons notes in his rebuttal testimony, these financial incentives drive the
20		employees most responsible for maximizing off-system sales revenues to do
21		the best job they possibly can in doing so, with or without a fuel adjustment
22		clause for AmerenUE.

somewhat depending on coal economics at a given point in time.

1	Q.	Mr. Kind also suggests that there should be a prior-period hold harmless
2		adjustment associated with Taum Sauk. Do you agree?
3	А.	No. AmerenUE already held ratepayers harmless from the unavailability of
4		the Taum Sauk Plant in the last rate case. At the time AmerenUE made the
5		final calculation of rates on January 1, 2007, AmerenUE had not sold all of
6		the capacity that was available for sale in any month. Thus, had Taum Sauk
7		been available at the time of the last rate case, there would not have been any
8		additional capacity sales made, and the rates set in the last rate case would
9		have been exactly the same as the rates that were actually set in that case.
10		This is Staff's view as well. ⁶ Mr. Kind's attempt to impute revenues in a
11		manner that is inconsistent with the determination of rates is inappropriate.
12		What Mr. Kind proposes is, in effect, to isolate one item of potential revenue
13		between rate cases without considering any other cost or revenue changes
14		between rate cases. I am sure that Mr. Kind would not desire to increase rates
15		to reflect increased costs that also became known only after the January 1 cut-
16		off date in the last case.
17	II.	Entergy Litigation
18	Q.	Staff proposed that AmerenUE include any refunds associated with an
19		ongoing dispute with Entergy in the SO2 tracker established in the last
20		rate case, which both Staff and the Company propose to continue after
21		this case is over. Do you agree with this treatment?
22	А.	No. AmerenUE's dispute with Entergy involves ongoing litigation at FERC,
23		which addresses charges under AmerenUE's purchased power agreement

⁶ Direct Testimony of Stephen M. Rackers.

10	Q.	Does this conclude your rebuttal testimony?
9		consideration in this case.
8		litigation, such a debate is premature, and this issue is not ripe for
7		In any event, unless and until AmerenUE receives any refunds from this
6		where purchased power costs were not covered by a fuel adjustment clause.
5		refunded, (c) whether retroactive adjustment of costs is appropriate for periods
4		whether and to what extent ratepayers actually paid the costs that are being
3		to customers may depend on (a) what periods are covered by the refund, (b)
2		extent any potential refunds stemming from this litigation should be refunded
1		covering an historical period going back as far as 2001. Whether and to what

11 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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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-2008-0318

AFFIDAVIT OF SHAWN E. SCHUKAR

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

Shawn E. Schukar, being first duly sworn on his oath, states:

1. My name is Shawn E. Schukar. I am employed by Ameren Services

Company as Vice President, Strategic Initiatives.

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 28 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.

Shawn E. Schukar

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

Notary Public

My commission expires: