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Witness: Scott A. Glaeser
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2008-0318
Date Testimony Prepared: April 1, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2008-0318

DIRECT TESTIMONY

OF

SCOTT A. GLAESER

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

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

St. Louis, Missouri
April, 2008

AmerenUE Exhibit No. 34 NP
Case No(s). ER-2008-0318
Date 12-11-08 Rptr KF

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DIRECT TESTIMONY

OF

SCOTT A. GLAESER

CASE NO. ER-2008-____

I. INTRODUCTION

Q. Please state your name and business address.

A. Scott A. Glaeser, AmerenEnergy Fuels and Services Company ("AFS"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with AmerenEnergy Fuels and Services Company?

A. I am the Vice President of Gas Supply and System Control.

Q. What is the function of AmerenEnergy Fuels and Services Company?

A. AFS is an affiliate of Union Electric Company d/b/a AmerenUE ("Company" or "AmerenUE"). AFS is charged with acquiring and managing natural gas and generation fuel resources for Ameren Corporation ("Ameren") subsidiaries, including its gas distribution utilities and power generation companies.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science Degree in Mechanical Engineering from the University of Missouri at Rolla in December of 1986. From 1987 to January 1991, I was a Combustion Engineer for the Granite City Steel Division of National Steel Corporation (now U.S. Steel Corporation). In February 1991, I accepted the position of Fuel Buyer for Union Electric Company ("UE"), where I was responsible for the purchase of natural gas for UE's gas distribution systems and gas-fired generation. In 1994, I was named Engineer, Gas

Supply and Planning, with continuing responsibilities for obtaining reliable and economic gas supply, transportation, and storage services for UE's gas distribution systems and gas-fired generation. During 1997 and 1998, in addition to my duties related to the natural gas business, I also worked as a short-term power trader for UE. In March of 1998, after the merger of the parent company of Central Illinois Public Service Company with UE (which led to the formation of Ameren Corporation and Ameren Services Company ("Ameren Services")), I was promoted to the position of Supervising Engineer of Gas Supply and Transportation in Ameren Services. At that time, Ameren Services provided gas supply and transportation management services for AmerenUE and other Ameren subsidiaries. In July of that year I was promoted to Manager of the Gas Supply and Transportation Department for Ameren Services. In November of 2000 I was involved with the formation of AFS, into which the Gas Supply and Transportation Department of Ameren Services was consolidated with the Ameren Services Fossil Fuels Department. After AFS was formed, I continued to have management responsibilities over business activities including gas supply acquisition, price hedging, transportation and storage capacity acquisition, system operations, and state and federal regulatory affairs for Ameren natural gas distribution and power generation subsidiaries, including AmerenUE.

In October of 2004, I was promoted to my current position of Vice President, Gas Supply and System Control for AFS. My current responsibilities include all of the duties I performed in my previous position, plus the management and oversight of the Gas Control and End-User Transportation functions located in Springfield, Illinois.

II. PURPOSE AND SUMMARY OF TESTIMONY

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

A. My testimony addresses three principal subjects as they relate to the procurement of gas supply to fuel the Company's gas-fired generation plants: 1) future price volatility and uncertainty in the natural gas markets; 2) volatility of gas generation demand causing significant uncertainty in fuel demand; and 3) the expected range of fuel costs for gas generation.

An Executive Summary of my testimony is attached hereto as Attachment A.

III. NATURAL GAS MARKET VOLATILITY AND UNCERTAINTY

Q. Mr. Glaeser, why are natural gas prices in the U.S. volatile and unpredictable, and what factors are driving price volatility in the natural gas markets?

A. Since the winter of 2000/2001, when natural gas prices first spiked to over $10 per million British thermal units ("MMBtu"), natural gas prices in the U.S. have remained volatile with wellhead prices nearly reaching $14 per MMBtu after hurricane Katrina devastated the Gulf Coast region in the fall of 2005. Prior to the winter of 2000/2001, gas prices had been stable in the $2 to $3 per MMBtu range due to the "gas bubble" period of the 1990s when gas production exceeded demand causing gas-on-gas competition. The price spikes of 2000/2001 revealed the end of the "gas bubble" and a new era when declining gas production and growing demand created a precarious balance and any upset in market conditions such as a hurricane or record crude oil prices resulted in extreme volatility and price spikes (see Schedule – SAG-E1 "Price of Natural Gas from 1990 to 2008").

Q. What factors have led to the decline in U.S. gas production?

A. During the 1990s when natural gas was inexpensive, producers focused their exploration and development capital oversees, primarily in oil. At the same time, many of the major gas production reservoirs in the U.S. were maturing and new, unproven gas reserves were located in difficult and complex geologic formations, making exploration and development uneconomic. In addition, both federal and state governments placed environmental and regulatory restrictions on access to significant areas of public lands to explore for new gas reserves. For example, the Gulf of Mexico ("GOM") has tremendous probable gas and oil reserves off the coast of Florida, yet federal and state laws prevent any exploration activity. These factors led to the decline of domestic gas production. Finally, although the U.S. produces the vast majority of its natural gas domestically, it has historically imported approximately 15% of its natural gas supply from Canada. However, the growth of Canadian exports to the U.S. has diminished due to increased use of gas in Alberta for the oil sands project (driven by high crude oil prices) and decreasing overall production from a maturing reserve base.

Q. Are there any new sources of natural gas to replace declining production from mature U.S. production basins and declining growth in Canadian imports?

A. There are several new sources of natural gas including non-conventional gas reserves, deepwater GOM reserves, and Liquefied Natural Gas ("LNG") from foreign countries. Non-conventional gas reserves represent natural gas produced from geologic formations such as shale formations, tight sands, and coal bed methane, which traditionally have not been produced because of high cost and immature drilling and completion technology. LNG is natural gas produced overseas in countries with massive gas reserves including Algeria, Qatar, Egypt, Trinidad, and Nigeria, many of which have unstable political environments. These gas reserves are produced and then converted into liquid form by cryogenic liquefaction trains, shipped oversees in specialized LNG tankers, and revaporized in LNG terminals such as Trunkline Gas Company's Lake Charles LNG terminal in Louisiana. While the foreign gas reserves are inexpensive to produce, the liquefaction, shipping, and regasification process creates significant costs. Both of these new sources represent the fastest growing supply sources for the U.S.

Q. Are the new sources of gas supply leading to lower and more stable prices?

A. Traditional economics would indicate that new supply would create lower prices but, in reality, these new supply sources are simply replacing, but only in part, the decline of the maturing gas production basins and the decline in growth of Canadian imports. In addition, the non-conventional and deepwater GOM gas reserves are significantly more expensive to drill and produce. For example, the estimated cost to drill and produce natural gas from the Fayetteville shale formations in Arkansas is approximately $4.50 per MMBtu, which effectively creates a new long-term price floor for gas markets. LNG represents a new influence on gas markets in which global markets are now driving the delivery and pricing of LNG to U.S. terminals. In other words, if LNG prices bid by Japan or Spain are higher than bids from the U.S., which lately is often the case, the LNG will be diverted to those countries because this obviously produces a higher net profit for the producing country. Likewise, if the U.S. is to ensure LNG deliveries, then it must match global LNG prices which have recently exceeded $18 per MMBtu for LNG delivered to Japan. LNG provides more gas supplies to the U.S., but it does so by placing the U.S. in the global LNG market, similar to the global crude oil market. This introduces a new level of uncertainty and volatility to U.S. gas prices that is likely to be seen for many years into the future or, similar to the crude oil market, may be a permanent factor.

Q. Are there other influences on natural gas prices that create volatility?

A. Yes, global crude oil prices influence natural gas prices in the U.S. and directly influence global LNG prices since many LNG importers such as Japan and South Korea purchase LNG based upon oil price indices. We are currently witnessing record prices for crude oil, which have recently hit $110 per barrel creating significant upward pressure on natural gas prices, which have been recently trading over $10 per MMBtu for summer 2008 deliveries. Even with the elevated price, natural gas is considered the "cheaper" fuel since the MMBtu equivalent of oil at $110 per barrel is $18.90 per MMBtu. This means that natural gas demand will likely continue to increase, thus putting even more upward pressure on prices. In addition to the influence of crude oil on natural gas prices, the financial markets have exerted a dramatic influence on natural gas prices, primarily on the New York Mercantile Exchange ("NYMEX") futures market and Over-the-Counter ("OTC") derivatives markets.

Q. Please explain how the financial markets influence natural gas prices.

A. The financial markets, which include participants such as hedge funds, private equity funds and speculators, invest capital in commodity markets such as natural gas or crude oil with the goal of creating significant profits from the volatility or exceptional price movements of the underlying commodity. These investments are primarily financial instruments such as NYMEX futures contracts or financial derivative "swap" and "option" contracts offered by major banks. The financial players have no physical need for natural gas, yet they move billions of dollars into and out of natural gas financial positions with the goal of generating profit. The massive amount of money managed by the financial funds chasing a constrained commodity such as natural gas or crude oil definitely impacts price volatility. The most spectacular example of a hedge fund investing in natural gas financial positions is the recent meltdown of the Amaranth hedge fund, which lost $6.5 billion in natural gas financial trades. Reports after the meltdown revealed that a single trader inside Amaranth had amassed gas financial positions of 100,000 futures contracts, which is equivalent to 1 Tcf or *Trillion cubic feet,* which is equal to 5% of the annual demand for natural gas in the entire U.S.

Q. Mr. Glaeser, can you address the changes that have occurred to the demand side of the natural gas markets?

A. Although industrial demand for natural gas has declined over the past few years due to industrial production moving out of the U.S. or shutting down, consumption of natural gas for electric generation continues to grow rapidly. Since 1997, over 334,000 megawatts ("MW") of gas-fired generation has been built in the U.S. It has become the new generation resource of choice for the nation due to significantly lower emissions compared to coal generation, lower capital cost for construction, shorter construction times (under two years) and the relative ease of obtaining required government permits compared to nuclear or coal generation. To meet growing U.S. power demand, the U.S. Energy Information Administration is forecasting an additional 50,000 MW of gas generation capacity will be constructed by 2011. Gas generation accounts for nearly 6 Tcf of the total annual demand in the U.S. of 22 Tcf. Even more significant is that the percentage of energy produced from gas generation is expected to grow considerably if carbon dioxide ("CO_2") legislation forces the shutdown of coal generation plants. It has been forecasted that gas generation demand may increase 50% -- to nearly 10 Tcf -- by 2020.

Q. Mr. Glaeser, can the management of a Midwestern utility such as AmerenUE control natural gas market prices for its gas generation?

A. No. The market prices for natural gas in the U.S are driven not only by external conditions in North America such as hurricanes in the Gulf of Mexico or gas imports from Canada, but by global influences such as crude oil prices driven by crisis in the Middle East or nuclear outages in Japan causing a demand spike for LNG. None of these major influences can be controlled by any company, nor can such events be easily forecasted.

Q. Historically, have energy industry experts been able to predict and accurately forecast natural gas prices?

A. No. Highly respected energy industry consulting experts such as Wood Mackenzie or PIRA Energy Group continually revise their forecasts for natural gas prices as global market conditions change. The graph in Schedule SAG-E2 ("Wood Mackenzie Long Term Market View") describes Wood Mackenzie's view of forward gas prices for the year of 2008 has varied from as low as $4.50/MMBtu back in 2004 to as high as $8.24/MMBtu from their 2007 forward gas price curve. In addition to the consultants, the physical market participants buying and selling natural gas also face great uncertainty in future gas prices. This is exhibited on the NYMEX futures market, where buyers and sellers transact for futures contracts to hedge future gas purchases or sales. The graph in Schedule SAG-E3 ("2007 NYMEX Actual vs. Forwards") describes the price of NYMEX futures contracts for a selected month such as July 2007 trading at $5.50/MMBtu on January 3, 2005 and trading at $9.50/MMBtu on January 3, 2006 while the contract actually settled at $7.00 upon expiration. The final settlement was over 25% higher than predicted by trading in 2005 and was 35% lower than predicted by 2006 trading activity for that particular contract. This illustrates that the collective forecasting and futures trading activities of industry experts, traders, and physical market participants has been unable to forecast future natural gas prices with any degree of accuracy or certainty, and in this one example, the range of expected prices was extremely wide, varying by 60%.

Q. What is AmerenUE's view of the natural gas prices over the next few years?

A. Schedule SAG-E4 ("AmerenUE Annual Average Gas Price Forecast for 2008 - 2012") provides our forecast of future natural gas prices and probabilities for 2008 through 2012. In 2009, our forecast's expected average price of natural gas is $**[redacted]** per MMBtu, with an expected range of $**[redacted]** per MMBtu to $**[redacted]** per MMBtu. This forward view of prices considers a number of factors including the NYMEX futures market, industry expert forecasts, and fundamental factors such as non-conventional gas production growth, drilling activities, pipeline expansion projects, planned LNG re-gasification facilities, future demand for gas generation and many other factors. Overall, the forecast shows natural gas prices declining slightly over the next few years from current levels as more non-conventional production and LNG is brought to the market.

IV. <u>GAS GENERATION DEMAND IS VOLATILE CAUSING SIGNIFICANT UNCERTAINTY IN FUEL DEMAND</u>

Q. Mr. Glaeser, please describe the market for natural gas generation.

A. In general, the U.S. relies on gas generation to serve unpredictable peaks in the demand for power, future growth in the demand for power, and as a generation capacity backstop for coal and nuclear plant outages -- both scheduled and forced. Gas generation is

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typically the generation resource dispatched after available baseload coal, nuclear, and hydro resources are fully utilized. Gas generation's function as the peaking generation resource creates great uncertainty for future gas generation demand and even for short-term or next day gas generation demand.

Q. What function does AmerenUE's gas generation capacity perform to serve its electric customers?

A. AmerenUE owns and operates 2,653 MW of gas-fired generation capacity comprised of simple cycle combustion turbines to serve unpredictable weather based peak demand from its native load customers. This capacity represents 27% of AmerenUE's total generation capacity and is comprised of both aero-derivative turbines and heavy frame turbines. Schedule SAG-E5 "AmerenUE Gas Generating Facilities" provides information regarding the fleet of gas generating plants owned and operated by AmerenUE. In addition to serving demand during peak periods, AmerenUE's gas generation also provides a generation capacity backstop for forced outages of coal and nuclear plants, supports off-system sales when power market conditions are favorable (which both historically and under AmerenUE's proposed FAC lowers net fuel costs for customers), and is increasingly being dispatched by the Midwest Independent Transmission System Operator, Inc. for control area reliability and transmission congestion relief.

Q. Can future gas generation demand for AmerenUE be quantified?

A. The primary risk with gas generation is that future generation demand is very uncertain and difficult to forecast. Since gas generation is utilized to meet peak demand during extreme weather conditions, performs several "backstop" reliability functions, and supports opportunity sales in the volatile daily power markets, it is nearly impossible to accurately forecast since these events basically occur in real time (i.e. intraday forced outage of coal plant due to boiler tube leaks or a hot summer day missed by weather forecasts). In addition, computer simulation models that forecast future gas generation are notoriously inaccurate and typically low in forecasting demand for gas generation resources. Please refer to the testimony of Company witness Timothy D. Finnell for a discussion of computer modeling problems for gas generation.

Q. Mr. Glaeser, can you provide historical evidence of the uncertainty and volatility of AmerenUE's gas generation demand?

A. Yes, this evidence is provided by an examination of the actual fuel demand for AmerenUE's gas generation plants from 2004 through 2007 compared to forecast and by comparing year to year actual demand. The graph on Schedule SAG-E6 ("AmerenUE Gas Generation Demand vs. Forecast for 2004 through 2007") describes the forecasted fuel demand for gas generation compared to actual burns. As the graph depicts, actual fuel demand has varied significantly from a low of 758,000 MMBtu in 2004 to 5,798,000 MMBtu the very next year for a nearly 800% increase. For 2007, actual gas generation demand was 10,494,000 MMBtu for another 100% increase from prior year. Importantly, the forecast for gas-fired generation demand has been consistently low since 2005. In 2004, actual gas fired generation was 50% under forecast while in 2005 and 2006 actual generation was 190% and 145% of the forecasted volume, respectively. The unpredictability of gas generation was illustrated again in 2007 when the actual usage was 207% of the forecast. It quickly becomes evident that fuel demand for gas generation is very volatile and is driven by the critical real time functions gas generation provides for AmerenUE.

Q. Based upon the actual volatility in historic demand for gas generation what would be the expected range of future gas generation demand compared to forecast?

A. Based upon actual gas generation performance for the period of 2004 through 2007, it can be assumed that future gas generation can vary by as much as 50% below forecast for a low demand scenario and as high as 181% of forecast for the high demand scenario. The 181% high scenario is simply the arithmetic average of the actual forecast errors for 2005 through 2007 (average of 190%, 145%, and 207% = 181%). The low demand scenario represents an environment of low power and natural gas prices due to reduced power demand from mild weather and depressed economic conditions. The high demand scenario represents an environment of high gas prices and power prices due to robust economic conditions and extreme weather.

Q. What is the Company's gas generation demand forecast for 2009 through 2012?

A. The Company's current forecast or normalized budget demand for gas generation is:

Forecast Year	Gas Generation Fuel Demand Forecast (MMBtu)
2009	**[redacted]**
2010	**[redacted]**
2011	**[redacted]**
2012	**[redacted]**

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Q. If the historical range of uncertainty is applied to the forecast for gas generation, what range of gas generation fuel demand is derived?

A. Applying the low scenario of 50% of forecast and the high scenario of 181% of forecast generates the following expected range of gas generation demand for the next four years:

Forecast Year	Low Demand Scenario (MMBtu)	High Demand Scenario (MMBtu)
2009	**[redacted]**	**[redacted]**
2010	**[redacted]**	**[redacted]**
2011	**[redacted]**	**[redacted]**
2012	**[redacted]**	**[redacted]**

V. <u>EXPECTED RANGE OF FUEL COSTS FOR GAS GENERATION</u>

Q. Mr. Glaeser, what has been AmerenUE's historical fuel cost for gas generation?

A. AmerenUE's total fuel cost for gas generation has varied significantly over the past few years due to the unpredictable nature of the demand and volatile natural gas prices. Gas generation fuel cost was only $5.2 million in 2004 and then greatly increased to $51.2 million in 2005 due to an eightfold increase in fuel demand. The costs dropped in 2006 to $44.2 million and then made another jump to $79.0 million in 2007. Although the total energy produced from gas generation compared to total system generation has been relatively modest at 1 to 2%, the *cost* represents 13% of the Company's total fossil fuel costs in 2007. The Company's current expectations for gas generation fuel costs for the next four years changes from its current level of $79.0 million in 2007 to $**[redacted]** million in 2009 and then jumps to over $**[redacted]** million by 2012. This forecast is based on normal

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weather conditions and the normalized forecast for market conditions including future gas prices.

Q. What are the different components of the total fuel costs for gas generation?

A. Total fuel costs include firm and interruptible transportation capacity on interstate pipelines used to transport natural gas from receipt points in the various gas production basins of the U.S. where the Company acquires natural gas from its suppliers to various delivery points at the interconnection between the interstate pipelines and the Company's gas generation plants located in Missouri and Illinois. The transportation costs include reservation charges for the firm capacity along with volumetric charges per MMBtu of natural gas actually moved through the transportation capacity and various surcharges. Another component of transportation cost is the fuel losses in which a certain amount of transported natural gas is actually consumed as compressor fuel and lost during cross-country transportation by the interstate pipeline. Other fuel costs include storage services leased from interstate pipelines and various balancing and parking services utilized to match volatile gas generation demand with flowing gas supplies in real time. All interstate pipeline services and rates are regulated by the Federal Energy Regulatory Commission. Finally, the actual natural gas commodity represents the largest component of fuel costs and includes any demand charges for firm gas supply and any positive or negative cash flows associated with price hedging activity. All of these components added together create total fuel costs for gas generation.

Q. Mr. Glaeser, you testified earlier the Company's forecast for gas generation fuel costs for 2009 through 2012 is based on a normalized planning scenario.

What is the expected range for fuel costs assuming a low scenario environment with low gas prices and reduced demand and a high scenario environment with high gas prices and greater demand for gas generation?

A. Our range of fuel cost expectations can be derived by taking our expected range of gas generation demand and applying our expected range of natural gas prices to determine total fuel costs. Please keep in mind that this approximation is for natural gas commodity costs only and does not include the costs for transportation capacity, storage capacity, balancing and so forth, but is meant to derive an expected maximum and minimum range of fuel costs. Schedule SAG-E7 ("Expected Range of AmerenUE Gas Generation Fuel Cost") details the calculations determining the range of expected total fuel costs. As the worksheet describes, for 2009 our expected range of fuel costs can vary from $**[redacted]** up to $**[redacted]** while in 2012 the expected range can vary from $**[redacted]** up to $**[redacted]**. Schedule SAG-E8 ("Graph of Expected Range of AmerenUE Gas Generation Fuel Costs") illustrates the great uncertainty in gas generation fuel costs for 2009 through 2012.

Q. Mr. Glaeser, these forecasts of expected ranges of fuel costs vary significantly with differences well in excess of $150,000,000. Are these expected ranges of total fuel costs for gas generation realistic?

A. Yes, since the high case scenario is based on the past three years of actual gas generation compared to forecast and since we are operating with the same combustion turbine fleet of 2,653 MW, which is easily capable of such generation burns, I can affirm that these ranges are realistic and may actually occur sometime over the next four years. Further support for these ranges comes from current market prices for natural gas which is trading at

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$10.19 per MMBtu for the July 2008 contract on the NYMEX futures market (at 10:45 am CCT on March 12, 2008). The $10.19 per MMBtu gas price is approximately **[redacted]**% of our probability distribution for future natural gas prices in 2008 (i.e. the high scenario environment). In summary, we are already in the high price environment for natural gas prices and just last year our gas generation fleet set a new record burn of 10,494,000 MMBtu, which was 207% of the Company's normalized forecast.

Q. Does this conclude your direct testimony?

A. Yes, it does.

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

AFFIDAVIT OF SCOTT A. GLAESER

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

Scott A. Glaeser, being first duly sworn on his oath, states:

1. My name is Scott A. Glaeser. I work in the City of St. Louis, Missouri, and I am employed by AmerenEnergy Fuels and Services Company as Vice President of Gas Supply and System Control.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 16 pages, Attachment A and Schedules SAG-E1 through SAG-E8, 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.

Scott A. Glaeser (signature)
Scott A. Glaeser

Subscribed and sworn to before me this 1st day of April, 2008.

(signature)
Notary Public

My commission expires:

DEBRA K. PATTERSON
NOTARY PUBLIC NOTARY SEAL
State of Missouri
St Louis County
My Commission Expires Oct. 31, 2008
Commission # 04482292

EXECUTIVE SUMMARY

Scott A. Glaeser

Vice President Gas Supply and System Control for AmerenEnergy Fuels and Services Company

* * * * * * * * * *

The purpose of my testimony is to address three areas regarding the procurement of gas supply to fuel the Company's gas generation plants: 1) price volatility and uncertainty of the natural gas market, 2) volatility of gas generation demand, and 3) the expected range of future gas generation fuel costs.

My testimony describes the volatility of the natural gas markets in the U.S. and the factors driving that volatility. The fundamental factor is the decline of domestic gas production from maturing basins while demand has continued to grow, primarily from gas-fired electric generation, creating a precarious balance between supply and demand. When this precarious balance is upset due to events such as hurricanes in the Gulf of Mexico ("GOM") or high crude oil prices, the gas market can react violently with price spikes and daily volatility. New sources of gas supply such as non-conventional production, deepwater GOM, and Liquefied Natural Gas are coming on-line, but these new resources are more expensive, volatile, and subject to global influences. I testify that the volatility and uncertainty of gas prices are well beyond the control of AmerenUE management. Finally, I describe the Company's gas price forecast for 2008 through 2012 including our range of probable gas prices, which spans from a low scenario of $**[redacted]** per MMBtu in 2012 to a high scenario of $**[redacted]** per MMBtu in 2008.

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I then describe the volatility and uncertainty of gas generation demand due to the functions gas generation provides for AmerenUE including serving peak load periods, as a generation capacity backstop for coal and nuclear outages, and for off-system power sales and MISO dispatches for control area reliability. I developed a range of expected gas generation demand for 2009 through 2012 based upon historical data with a low scenario demand of **[redacted]** MMBtu in 2009 and a high scenario demand of **[redacted]** MMBtu in 2012.

In summary, I develop an expected range of total fuel costs for 2009 through 2012 from our expected range of gas generation demand and future gas prices. The range of fuel costs can vary from a low of $**[redacted]** in 2009 to a high of $**[redacted]** in 2012. This illustrates that gas generation fuel costs are volatile, highly uncertain, and beyond the control of management, with potential swings in excess of $150,000,000 from year to year.

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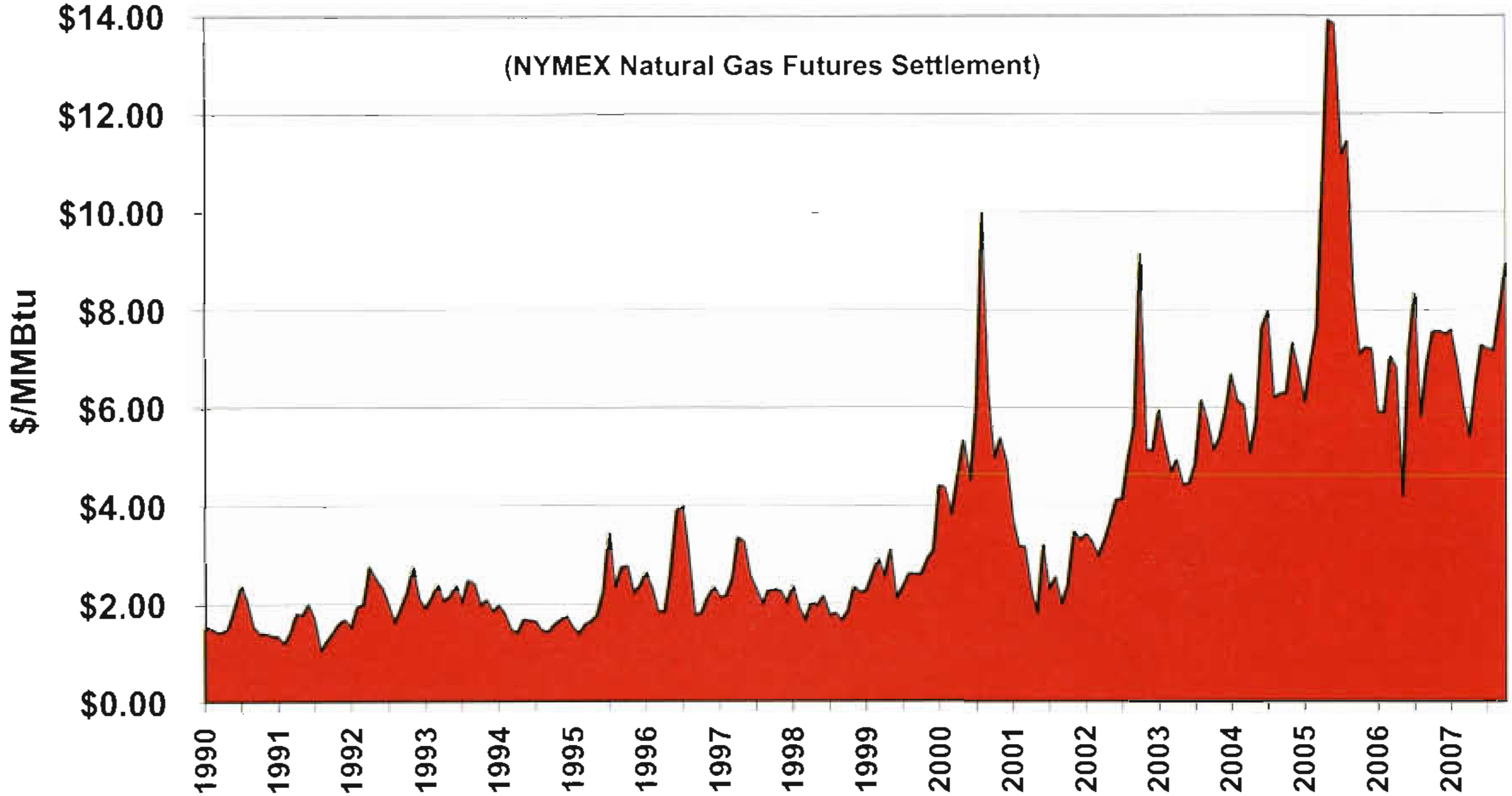
Schedule SAG-E1
Price of Natural Gas from 1990 to 2008

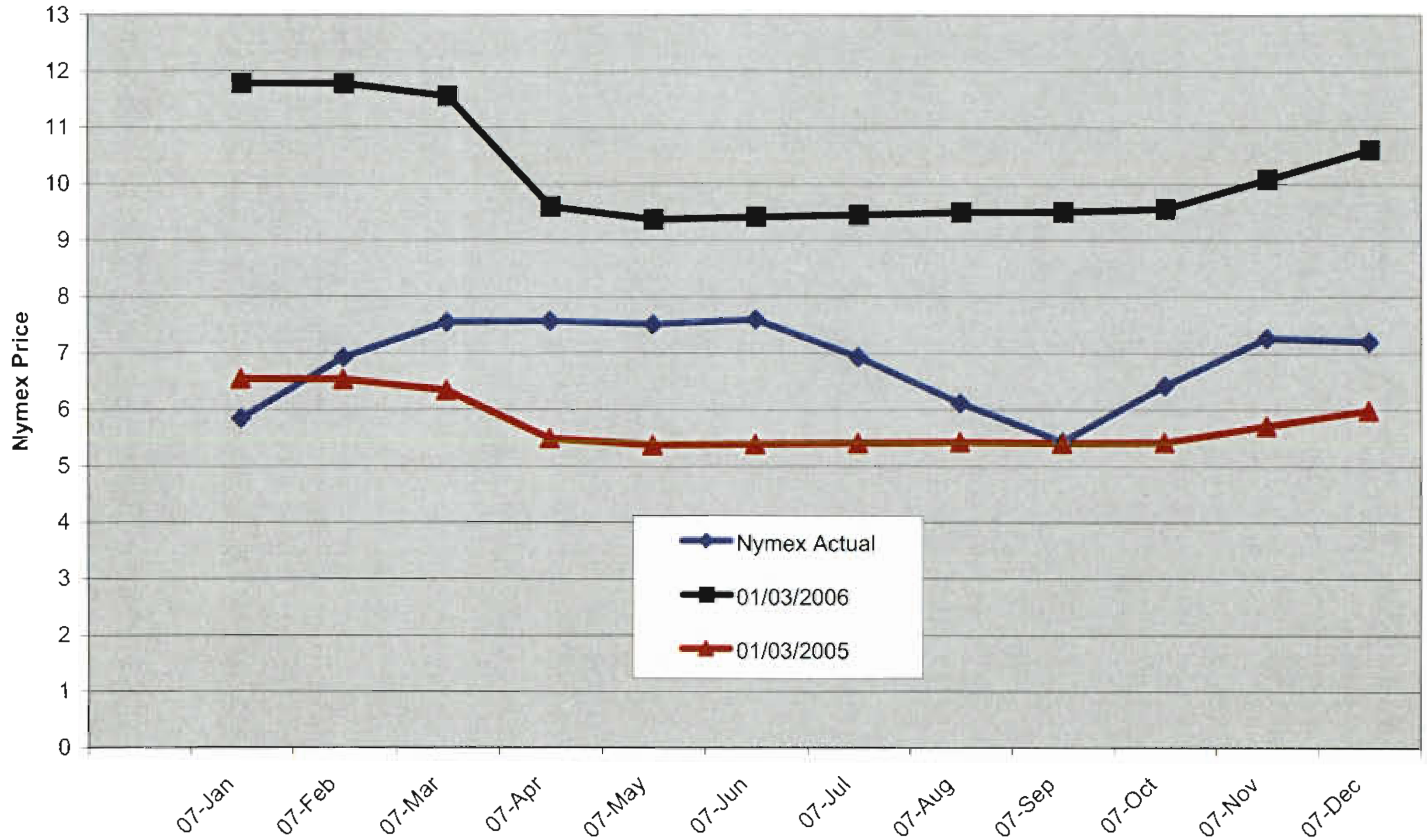


Schedule SAG-E2

is

HIGHLY CONFIDENTIAL

Schedule SAG-E3
2007 NYMEX Actuals vs. Forwards



Schedule SAG-E4 is HIGHLY CONFIDENTIAL

AmerenUE Annual Average Gas Price Forecast
2008 - 2012

	Annual Average Prices				
Percentile	2008	2009	2010	2011	2012
10%	$ -	$ -	$ -	$ -	$ -
20%	$ -	$ -	$ -	$ -	$ -
50%	$ -	$ -	$ -	$ -	$ -
75%	$ -	$ -	$ -	$ -	$ -
90%	$ -	$ -	$ -	$ -	$ -

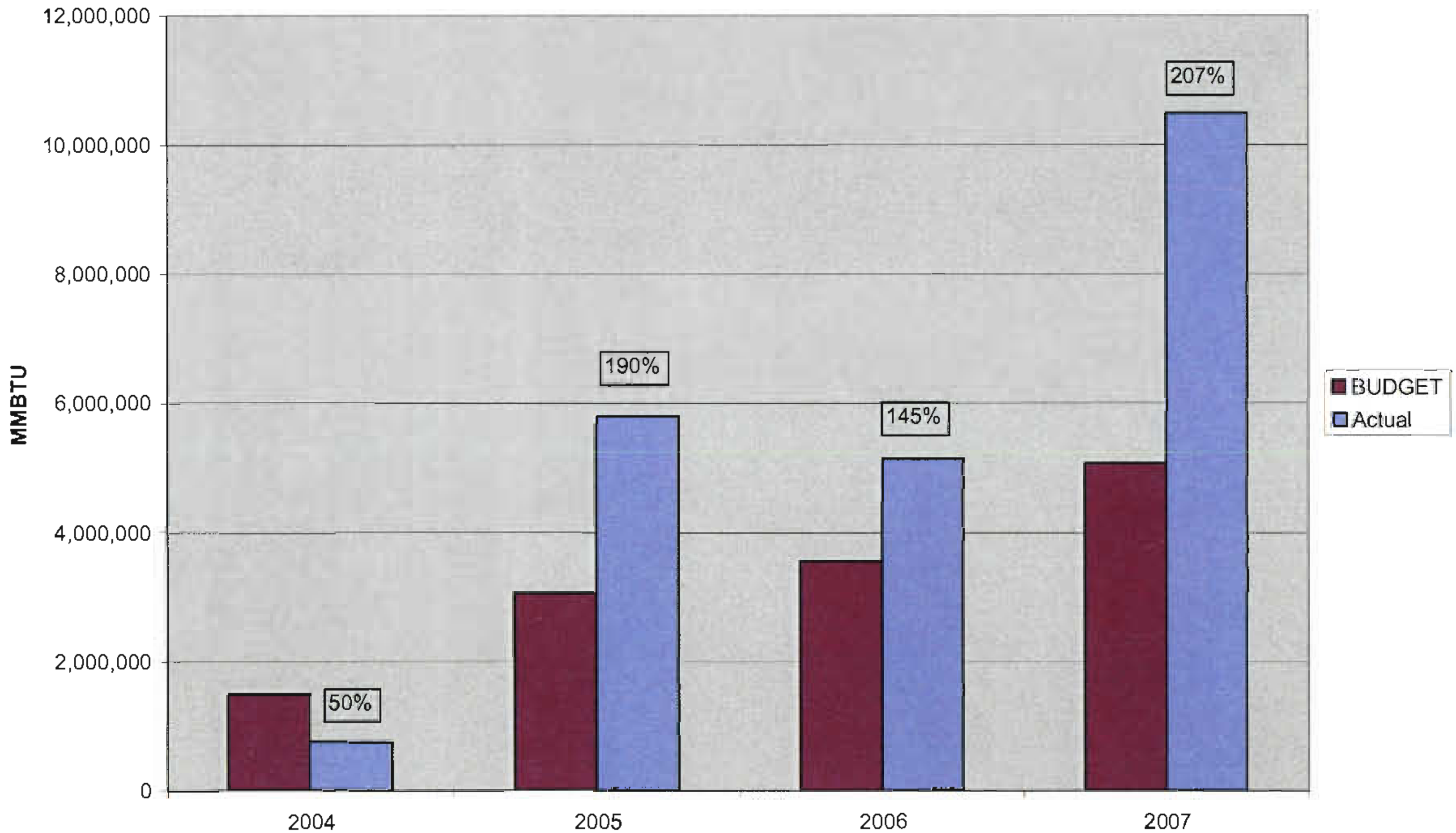
Schedule SAG-E5

AmerenUE Gas Generating Facilities

PLANT	Generator Mfg/Model	PLANT TOTAL MW RATING	# UNITS	DUAL FUEL	PIPELINE	PRODUCTION BASIN	12 HOUR BURN RATE MMBtu/day	UE ONLINE DATE
Pinckneyville	GE / LM6000	172	4	N	NGPL	GULF COAST/TexOk	20,227	2005
Pinckneyville	GE / Frame 6	144	4	N	NGPL	GULF COAST/TexOk	21,600	2005
Kinmundy	Siemens / 501D5A	216	2	Y	NGPL	GULF COAST/TexOk	32,400	2005
Goose Creek	GE / Frame 7	438	6	N	NGPL	GULF COAST/TexOk	68,328	2006
Racoon Creek	GE / Frame 7	304	4	N	MRT	GULF COAST	47,424	2006
Peno Creek	P&W / FT-8 Twin Pack	188	4	Y	PEPL	MID-CONTINENT	22,560	2002
Audrain	GE / Frame 7	608	8	N	PEPL	GULF COAST	94,848	2006
Venice	P&W / FT-8 Twin Pack	46	1	N	MRT	GULF COAST	5,520	2002
Venice	Siemens / 501F	338	2	N	MRT	GULF COAST	40,966	2005
Venice	Siemens / 501D5A	108	1	N	MRT	GULF COAST	16,200	2005
Meramec	P&W / FT-4 Twin Pack	53	1	Y	MRT	GULF COAST	8,268	2000
Viaduct	Westinghouse	25	1	N	Texas Eastern	GULF COAST	4,000	1967
Kirksville	Westinghouse	13	1	N	Atmos	MID-CONTINENT	2,000	1967
Totals		**2,653**					**384,341**	

Schedule SAG-E6

AmerenUE Gas Generation Demand vs. Forecast for 2004 through 2007



Schedule SAG-E7 is HIGHLY CONFIDENTIAL

Expected Range of AmerenUE Gas Generation Fuel Cost

	Low Scenario			Expected			High Scenario		
Forecast Year	Demand	Price	Total Cost	Demand	Price	Total Cost	Demand	Price	Total Cost
2009									
2010									
2011									
2012									

Schedule SAG-E8

is

HIGHLY CONFIDENTIAL