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Issues:	Normalized Off-System Sales
Witness:	Jaime Haro
Sponsoring Party:	Union Electric Co.
Type of Exhibit:	Direct Testimony
Case No.:	ER-2010-_____
Date Testimony Prepared:	July 24, 2009

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2010-_____

DIRECT TESTIMONY

OF

JAIME HARO

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
July, 2009

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DIRECT TESTIMONY

OF

JAIME HARO

CASE NO. ER-2010-_____

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Jaime Haro. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri.

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

A. I am Director, Asset Management and Trading for Union Electric Company d/b/a AmerenUE ("AmerenUE" or "Company").

Q. Please describe your educational background and employment experience.

A. I received a Bachelor's degree in Electro-mechanical Engineering from Universidad Panamericana (Mexico City, Mexico) in 1995 and a Master of Business Administration degree from Tulane University in 1998. From 1992 to 1998, I held several positions with Grupo Bursatil Mexicano ("GBM"), a leading Mexican financial services and brokerage firm, dealing with money markets, currency exchange, debt placement, and risk management. In 1998, I joined AmerenEnergy Inc. ("AE") and worked as an energy trader of real time energy products before assuming an analytical support position in the long-term energy market trading area of AE. From 1999 to 2004, I led the group within AE that provided quantitative analysis for AE's trading operations. In 2004, I became responsible for trading operations, including managing the transition to trading AmerenUE's power (with AE acting as AmerenUE's agent) in the Day 2 energy

markets started by the Midwest Independent Transmission System Operator, Inc. ("Midwest ISO") on April 1, 2005. On December 31, 2006, the Joint Dispatch Agreement between AmerenUE and AmerenCIPS terminated and as a result, effective January 1, 2007, AE's activities were solely related to AmerenUE's generation asset management, including the trading and marketing operations. On January 1, 2008, AmerenUE terminated the agency relationship with AE related to generation asset management, including the trading and marketing operations. As a result, those AE employees formerly responsible for these activities, including me, became employees of AmerenUE. At that time, I assumed my current title, Director, Asset Management and Trading ("AM&T") and added the responsibilities of marketing and asset management to my existing duties.

Q. What are your responsibilities in your current position?

A. As Director of AM&T I manage three specific areas: (i) Real Time Operations, (ii) Trading, and (iii) Market Origination, providing guidance, oversight and coordination of activities in these areas. It is my responsibility to ensure a proper balance of activities between these groups, such that their operations are mutually supportive and reflect appropriate diversity within the portfolio. Further, I am responsible for staffing, budgeting, goal setting, management reporting and other administrative tasks associated with these functions.

Q. What is the role of each of these areas?

A. Real Time Operations is responsible for interactions between the Midwest ISO and AmerenUE's plant operators – including (but not limited to), maintenance of

asset operating limit data within the Midwest ISO systems, monitoring the AmerenUE assets and initiating a response to disturbance control standard events.

Trading is responsible for the optimization of the AmerenUE generation assets in the marketplace, consistent with established risk management policies, applicable laws and regulations, and the associated administrative activities. Trading activities encompass transactions with a duration of less than one year and that are generally for fixed quantities, with a wide variety of counterparties, including those typically characterized as "financial players" (in that they do not own generation resources and/or are not load serving entities)

Market Origination is primarily responsible for the development of long-term relationships with wholesale entities – primarily load serving entities, including municipalities, electric cooperatives and other electric utilities - intended to lead to wholesale transaction opportunities (i.e., purchases and sales for resale). These activities include the identification of and coordination of appropriate responses to long-term RFPs issued by various wholesale entities. They also include the proactive solicitation and presentation of wholesale opportunities to provide balance to AmerenUE's portfolio via physical sales of power to counterparties, resulting in long-term revenue stability over periods of up to five years (or more with senior management approval). The focus of Market Origination is on transactions which take the form of sales for resale that provide full or partial requirements service to other load serving entities. Such sales may include either fixed or variable amounts of energy, capacity, congestion management, and market administration services.

II. PURPOSE AND SUMMARY OF TESTIMONY

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

A. I am providing testimony in support of the level of off-system sales included in the cost of service utilized for the purpose of setting AmerenUE's rates. The level of off-system sales is also a component of the calculation of the net base fuel costs, or "NBFC," against which net fuel cost changes are tracked through the Company's fuel adjustment clause ("FAC"). The calculation of NBFC is discussed in the direct testimony of AmerenUE witness Gary S. Weiss.

Q. Please summarize your testimony and conclusions.

A. I have determined that at this time the appropriate level of normalized annual off-system sales revenues to use in determining the Company's revenue requirement and to set NBFC in the Company's FAC is $320.4 million.[1] It must be noted that the Company intends to true-up all of the components of NBFC, including off-system sales revenues, as of the end of the proposed true-up date in this case (February 28, 2010), which means this amount will change. A similar true-up was completed in each of the Company's last two rate cases. The focus of my direct testimony is on the methodology and source data for the calculation used to determine the appropriate level of normalized off-system sales revenues based on information available as of the date this case is being filed. AmerenUE's off-system sales are driven in large part by its load-serving obligations to its retail customers, the availability of its generation resources, and the cost of its generating resources relative to the market prices for energy

[1] This compares to $481.8 million included in the Company's base rates, set earlier this year after the conclusion of Case No. ER-2008-0318. Please note that the off-system sales revenues figures used in my testimony are on a "total company" (retail and wholesale) basis for AmerenUE. The Missouri retail share

and services (i.e., capacity and ancillary services). To the extent the level of off-system sales experienced during the test year is not the result of normal conditions or otherwise does not properly reflect known and measurable changes, adjustments are necessary, as outlined in more detail below. AmerenUE incorporated the necessary adjustments in its PROSYM production cost model (the operation of which is addressed in the direct testimony of AmerenUE witness Timothy D. Finnell) to determine the normalized level of the energy component of off-system sales to include in the determination of the Company's revenue requirement. Using the results obtained from the operation of this model, and further accounting for the remaining components of off-system sales, which are described in more detail later in my testimony, I determined the appropriate level of normalized off-system sales revenues to use in determining the Company's revenue requirement and to set NBFC in the Company's FAC**.**

Q. What elements are included in your off-system sales revenue recommendation?

A. In the context of this proceeding, I use the term "off-system sales" in reference to transactions resulting from AmerenUE's trading activities. The net revenue from these activities comes from four primary components, as follows: (i) energy sales; (ii) capacity sales; (iii) ancillary services revenues; (iv) margins associated with Midwest ISO Revenue Sufficiency Guarantee ("RSG") Make Whole payments; and miscellaneous Midwest ISO revenues.[2]

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of these figures is lower by approximately 5%, and is accounted for by Mr. Weiss when he applies the Missouri jurisdictional allocation factor in computing the revenue requirement and NBFC.

[2] For example, miscellaneous Midwest ISO revenues result from inadvertent payments received from the Midwest ISO.

Q. Please address your determination of the appropriate level of off-system sales revenue to include in AmerenUE's revenue requirement and that are used to set the NBFC in the FAC.

A. I have determined that the level of AmerenUE off-system sales revenues that should be included in AmerenUE's revenue requirement and used to set NBFC in the FAC is $320.4 million per year comprised of the following:

1) $299.6 million per year for energy sales (including $24.8 million associated with energy that could have been sold from the Taum Sauk Plant had it been available)[3];
2) $12.6 million of capacity sales (including $3.4 million that could have been sold from the Taum Sauk Plant had it been available);
3) $5.2 million of ancillary services revenue;
4) $2.4 million per year of margins associated with RSG make whole payments; and
5) $600,000 of miscellaneous Midwest ISO revenues.

III. ENERGY SALES REVENUES

Q. How did you determine the normalized energy sales revenue for the test year?

A. As previously noted, the normalized energy sales revenue for the test year was determined by utilizing the Company's PROSYM production cost model (discussed in detail in the direct testimony of Mr. Finnell) with inputs adjusted for (i) weather

[3] As addressed in the direct testimony of AmerenUE witness Lynn M. Barnes, including "as if available" Taum Sauk Plant energy and capacity sales in determining the off-system sales to include in the base revenue requirement and as a part of NBFC will become moot if, as expected, the Taum Sauk Plant returns to service by the time rates to be set in this case take effect.

normalization of load; (ii) normalization of generation outages; (iii) normalized fuel costs, (iv) normalized energy prices and (v) the impact associated with the unavailability of the Company's Taum Sauk facility

Q. Why was the normalized level of off-system sales of energy determined by modeling rather than utilizing actual test year off-system sales?

A. Modeling was used so that off-system sales reflect a normal year, and no particular 12-month period reflects a normal year. The test year is affected by its particular weather, generation outages, fuel costs, transmission constraints, and energy prices, among many other things. The amount of off-system sales of energy is determined from the amount of generation that is economically available to produce energy reduced by that portion of the generation that is utilized to serve load obligations. In any given year, weather, prices, unit availability and load characteristics vary greatly from normal. To utilize only actual data from a specific year would fail to account for this variability in setting the revenue requirement. In order to assure that off-system sales revenues utilized to determine the cost of service and NBFC are consistent with normalized conditions, it is necessary to determine the off-system sales based on production cost modeling using normalized loads and generation rather than relying on actual test year off-system sales data.

Additionally, in order to ensure ratepayers are not impacted by the failure of the Taum Sauk Plant, it is necessary to model the overall system including Taum Sauk generation that was unavailable during the test year. Inclusion of Taum Sauk generation with normalized generation outages, weather normalized loads, normalized fuel costs,

and normalized market prices provides the appropriate level of off-system sales for the test year.

Q. How are off-system sales of energy derived from the PROSYM model's output?

A. PROSYM has the ability to simulate AmerenUE's interactions with the market. The model utilizes the inputs described earlier in my testimony to simulate the dispatch of AmerenUE's system by utilizing the lowest cost resources to meet the hourly load and operating reserve requirements. As part of its hourly dispatch, the model identifies opportunities for off-system sales based on the generation that is not being utilized to serve native load that has dispatch costs below the hourly market price. The model also identifies opportunities to buy from the market to reduce the cost to serve native load and offset AmerenUE's generation costs. The simulated off-system sales revenues are determined based on the hourly market price achieved for the megawatt-hours ("MWh") that are sold to the market.

Q. What market prices for energy were utilized to determine the off-system sales and economic purchases?

A. Mr. Finnell included an energy price in his PROSYM modeling of $37.05 per MWh, which is an average based upon energy prices for the 36 month period ending with the anticipated true-up cutoff date in this case, February 28, 2010. The energy prices for the 36-month period are actual market energy prices received at AmerenUE's generating units (i.e., the locational marginal prices ("LMPs") in the Midwest ISO energy markets actually received by AmerenUE at each "node" applicable to each generating plant) during the 27-month period through May 2009, plus around-the-clock ("ATC")

basis-adjusted forward energy prices for the nine-month period June 2009 through February 2010.[4]

Q. Please explain why you chose to utilize three years of energy price data.

A. I believe that I achieve a better normalization of prices by extending the period for which historical prices were used to calculate the average price of $37.05 per MWh to three years. The Midwest ISO Day 2 energy markets started on April 1, 2005. During the start-up of the market (i.e., during the first several months of the market), we observed certain inefficiencies in the markets, as one might expect. These market start-up issues, coupled with the extremely severe hurricanes in 2005 (Katrina and Ivan) together with the major coal disruptions in 2005 created significant market distortions. This is why AmerenUE witness Shawn E. Schukar used just two years of price data to calculate off-system sales revenues in the Company's last rate case. However, as of the time of the filing of this case, we have available more than two years of data in a market unaffected by these distortions and, by the expected true-up cutoff date, 36 months of actual LMP data from AmerenUE's generators will be available. Using a longer 36-month period, now that it is possible to do so, helps mitigate some of the variation in prices and some of the market volatility inherent in energy markets so as to arrive at a more reliable normalized energy price. As Mr. Schukar explained in his testimony filed in AmerenUE's last rate case, utilizing more than one year of LMPs – in this case three

[4] These forward energy prices are taken from a combination of broker quotes and published data for trading activity at the Cinergy Hub, a well-recognized Midwest energy trading market. The forward energy prices were adjusted for the basis differential that exists between prices at the location of the Cinergy Hub and the prices that are actually realized at the AmerenUE generating units.

years – minimizes the impact of warmer than normal or cooler than normal conditions on energy prices within the Midwest ISO footprint.

It is also important that the averaging of the energy prices occur on a monthly basis because of the different effects that warmer (or cooler) weather can have on prices for different periods of the year. For example, everything else held constant, LMPs would be expected to be lower if January temperatures are warmer than normal, but higher if August temperatures are warmer than normal. See Schedule JH-E1 for a comparison of monthly energy prices at AmerenUE's generating units from 2007 to 2009, which demonstrates just how variable monthly energy prices for the same month in different years can be.

Finally, the use of multiple years provides an averaging effect associated with the impact of generation and transmission system outages. Transmission and generation outages can impact the congestion component of the LMPs at the AmerenUE generation nodes. By utilizing multiple years of price data, unusual effects of transmission and generation outages in any given year on the AmerenUE generator node LMPs (both positive and negative) can be limited.

Q. You noted the variability of monthly energy prices depicted on Schedule JH-E1. Please elaborate on what you've seen in recent periods regarding energy prices.

A. Looking further at Schedule JH-E1 and also at Schedule JH-E2**,** one obvious observation is that power prices are highly volatile. This volatility (which I earlier called variability) is an important reason we use normalized power prices when setting rates. But another striking observation that can be made from Schedule JH-E2 is

the precipitous drop in power prices we have seen since the end of the true-up cutoff date (September 30, 2008) in the Company's last rate case.

The 12-month average of around-the-clock power prices through May 2009 (the last month actual data used in calculating my three-year average of energy prices) has dropped approximately 25% since the 12-month period ending September 2008. Moreover, the 12-month average around-the-clock price (based on available actual data and forward prices through the end of the proposed true-up period in this case) is expected to be down approximately 40% from the 12-month period ending September 2008.

Q. How do these very substantial reductions in energy prices compare to the normalized energy price you are using in this case?

A. The energy price I am using is very conservative in the ratepayers' favor compared to current and currently expected market conditions. The energy price I am using reflects only an approximately 20% drop in power prices since the 12-month period ending with the true-up cutoff date in the last case, September, 2008 (versus, as noted, the 25% drop that has actually been experienced since that time). This is also shown in Schedule JH-E2, which charts the three-year average of monthly energy prices I am using (red line) to actual monthly averages from March 2007 through May 2009 and forward prices through February, 2010.

IV. CAPACITY SALES REVENUES

Q. What is the level of capacity sales revenues on an annual basis that you determined was appropriate to include in total off-system sales?

A. I determined that $12.6 million is the appropriate amount to include as capacity sales revenue in total off-system sales. The amount of capacity sales for the test year ending March 31, 2009 was $8.1 million (excluding estimated lost capacity sales from the Taum Sauk Plant). However, the test year level of capacity sales is not representative of normal conditions on a going-forward basis because of certain known and measurable changes that are occurring.

Q. What are those changes?

A. The main change is the August 31, 2009 expiration of the Company's longstanding purchased power contract with Arkansas Power & Light Company. This is a known and measurable change that will occur prior to the proposed true-up cutoff date in this case. When that contract expires, 145 megawatts ("MW") of capacity available during the test year will no longer exist, which will reduce capacity available for sale when rates from this case take effect. In addition, the load of AmerenUE's largest customer, Noranda Aluminum, Inc. ("Noranda") was down substantially for part of the test year due to the devastating ice storm that hit Southeast Missouri in January, 2009. The revenue requirement in this case is based upon Noranda's operations at full load, as discussed by AmerenUE witness Wilbon L. Cooper in his direct testimony. Under those circumstances, the additional capacity sales made during the test year as a result of Noranda's reduction in load will not be possible. Consequently, I have taken these two changes into account in developing my recommendation for a normalized level of capacity sales in this case.

Q. What level of capacity sales are you recommending?

A. Based upon the above-described adjustments to known capacity sales for delivery for the period March, 2009 – February, 2010, (as of June 2009), I recommend a non-Taum Sauk-related capacity sales level of $9.2 million be included in the revenue requirement and be used in calculating the NBFC against which changes in net fuel costs are tracked in the FAC. I also recommend an additional $3.4 million of Taum Sauk-related capacity sales be included.

Q. How were the capacity sales opportunities associated with the unavailability of the Taum Sauk Plant determined?

A. If the Taum Sauk Plant had not failed, the capacity associated with the facility would have been available for sale during the whole test year period – other than periods of normally scheduled maintenance. However, it must be recognized that the mere availability of such capacity for sale does not in and of itself indicate that such capacity could have been sold during all months of the test year. In fact, the only time when there would have been an opportunity for incremental capacity sales resulting from the availability of the Taum Sauk Plant during the test year was during those months when AmerenUE did not have remaining excess capacity after its capacity sales efforts.

The only periods for which AmerenUE essentially sold all of the available excess capacity was during the summer months of June, July, August and September. Based on the Ameren Illinois Utilities' RFP results published by the Illinois Commerce Commission, the price associated with this lost opportunity was an average of $2.00 per kilowatt ("kW")-month. The most additional capacity revenue that AmerenUE could have achieved from sales of Taum Sauk capacity was the capacity of the plant available for sale (429 MW) multiplied by the $2.00 per kW-month for the four month period.

This results in $3.4 million, which was added to the actual capacity sales to reach total capacity sales of $12.6 million.

Q. Please explain why you only utilize 429 MW of capacity for Taum Sauk in your calculation, rather than the 440 MW, which is the nominal capacity of the Taum Sauk Plant.

A. The Midwest ISO determined Taum Sauk's "unforced" capacity to be 429 MWs, and this is the only amount of capacity that AmerenUE is permitted to sell from the plant. Beginning June, 2009, the Midwest ISO implemented changes to Module E of its Energy Markets Tariff. Module E prescribes how capacity resources are accounted for in the reliability reporting process. As part of implementing these Module E changes, the Midwest ISO specified the unforced capacity ("UCAP") equivalent rating of the generation resources of each market participant. Those UCAP ratings are required by Module E to be utilized in the reliability reporting process. Accordingly, the Midwest ISO only provides and AmerenUE could only count the assigned UCAP value for the Taum Sauk Plant, had it been available. That amount, as determined by the Midwest ISO is 214.5 MW per individual unit, or a total of 429 MWs for the two combined Taum Sauk units. Consequently, the most capacity the Company can attempt to sell from the Taum Sauk Plant is 429 MWs.

V. ANCILLARY SERVICES REVENUES

Q. How did you determine the appropriate amount of ancillary services revenues?

A. I determined this amount by extrapolating the prices and volumes experienced since the new Midwest ISO Ancillary Services Market ("ASM") started.

Q. What level of annual ancillary services revenue did you determine was appropriate to include in total off-system sales?

A. The amount of annual ancillary services revenues that I recommend be included in the revenue requirement and in the NBFC is $5.2 million. This is based upon year-to-date (through May 31, 2009) ASM revenues received by AmerenUE, and forecasted data for June to December 2009.

Q. Please describe the new ASM market.

A. On January 6, 2009, the Midwest ISO started "Day-3" operations, which means that the Midwest ISO now has real time and day-ahead energy markets and an ASM. AmerenUE has participated in this market to acquire ancillary services for its retail load, and to sell the services from its generation. Since this is an entirely new market, I utilized the existing data for the period when the market has been in operation, and simply extrapolated that result through the end of 2009, to provide this initial estimate. As with other components of total off-system sales, AmerenUE expects to true-up these values as of February 28, 2010.

VI. REVENUE SUFFICIENCY GUARANTEE MAKE WHOLE PAYMENTS

Q. What level of Revenue Sufficiency Guarantee Make Whole Payment related margins did you determine appropriate to include in off-system sales?

A. I included $2.4 million per year of margins associated with RSG payments.

Q. Can you describe Revenue Sufficiency Guarantee Make Whole Payments ("RSG MWP")?

A. Yes. RSG MWP are payments that the Midwest ISO provides to generators when the revenues from LMPs are not enough to compensate a generator for the cost incurred to run its generating unit. For example, if the Midwest ISO requests a generator to run for reliability reasons, and the start-up, no-load, and fuel costs add up to more than what the generator will receive from the LMP, an RSG MWP will be required.

Q. Why shouldn't the Company include the totality of the RSG MWP received as an offset to the revenue requirement?

A. Because the RSG MWP is intended to offset costs incurred that are not otherwise recovered from LMPs. Consequently, the Company should only credit the margins on RSG MWP; i.e., the amount by which revenues from RSG MWP exceeds the incurred costs.

Q. Does this conclude your direct testimony?

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 to Customers In the Company's Missouri Service Area.	)))))	Case No. ER-2010-

AFFIDAVIT OF JAIME HARO

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

Jaime Haro, being first duly sworn on his oath, states:

1. My name is Jaime Haro. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a AmerenUE as Director, Asset Management and Trading.

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, and Schedule JH-E1 through JH-E2, 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.

Jaime Haro

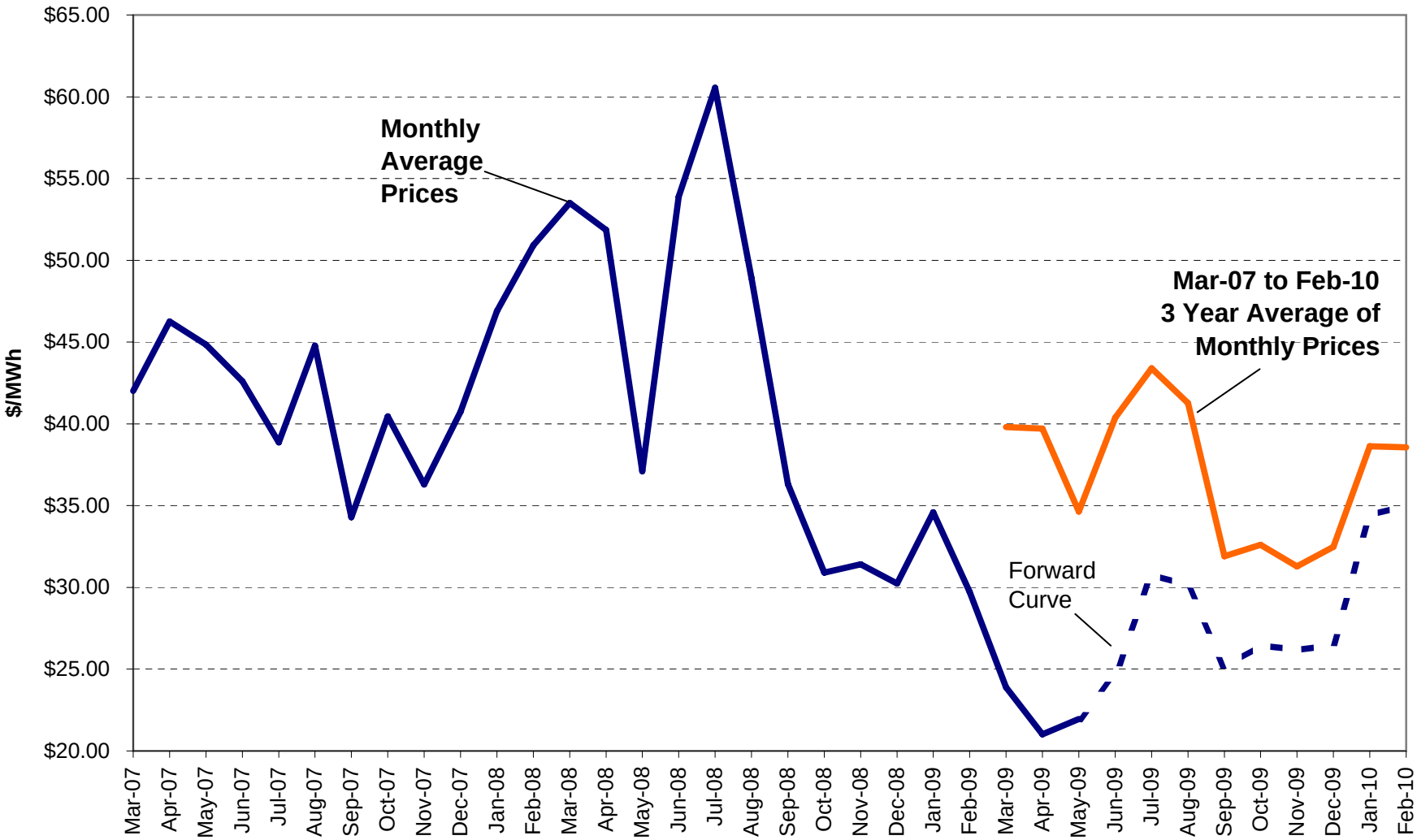
Subscribed and sworn to before me this 24th day of July, 2009.

Amanda Tesdall
Notary Public

My commission expires:

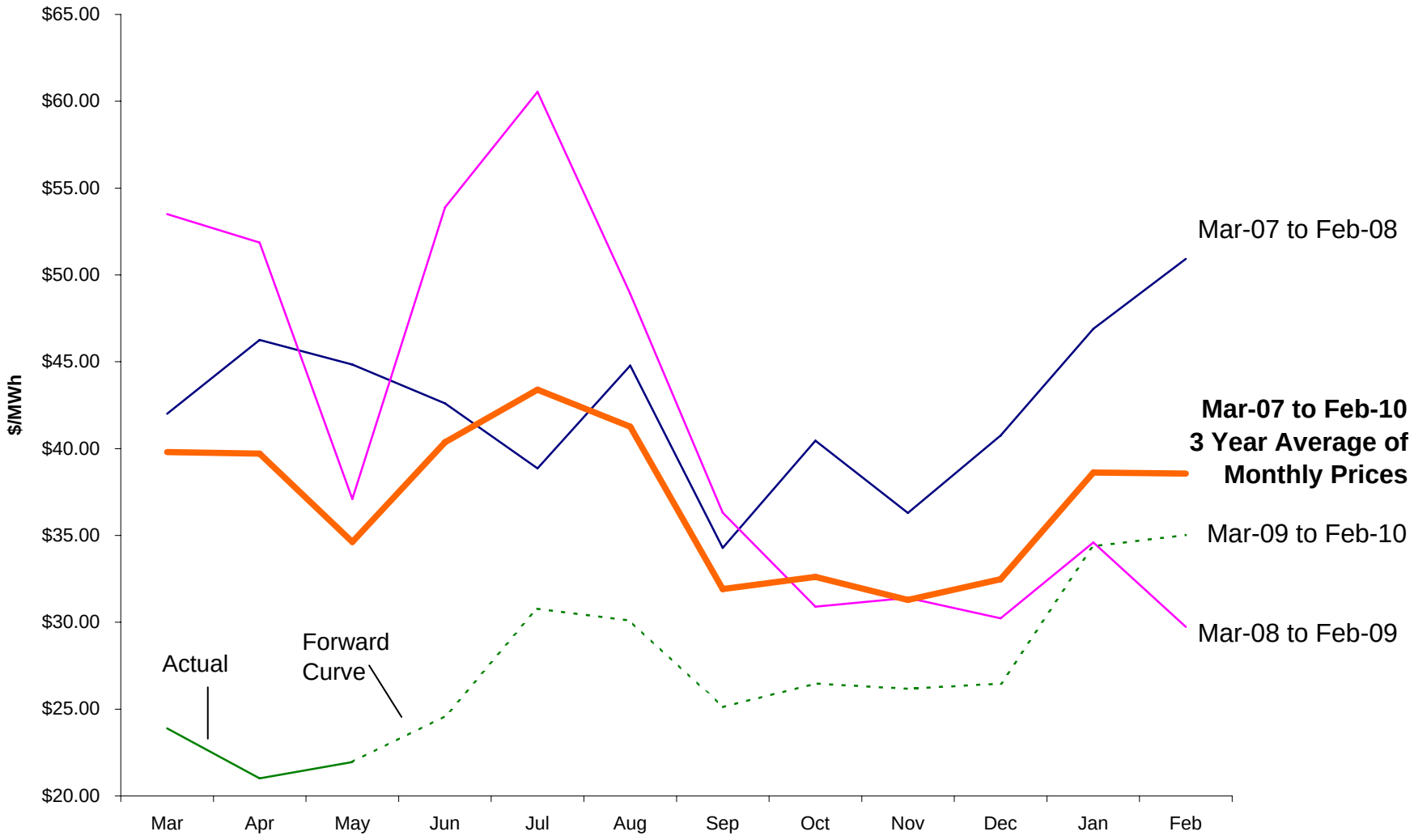
Amanda Tesdall - Notary Public
Notary Seal, State of
Missouri - St. Louis County
Commission #07158967
My Commission Expires 7/29/2011

Monthly Average Day-Ahead Prices for AmerenUE
(Around-the-Clock Averages for MOGEN)



Schedule JH-E1

Monthly Average Day-Ahead Prices for AmerenUE
(Around-the-Clock Averages for MOGEN)



Schedule JH-E2