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# Natural Gas & Electricity Procurement Program

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Status Report to the  
Board of Trustees

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September 23, 2010

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## **Natural Gas and Electricity Procurement Program**

### **OVERVIEW**

At the September 2008 meeting of the Board of Trustees, Walter Knorr, Vice President/Chief Financial Officer and Comptroller, presented and received approval of the Natural Gas Cost Management Policy. Among other things, the policy authorized natural gas purchases for fiscal years 2010 and 2011, with certain restrictions. At its March 2009 meeting, the Board approved the Energy Cost Management Policy to replace the Natural Gas Cost Management Policy. The new policy expanded purchasing authority to include other energy commodities (electricity and coal) and expanded the timeframe to a rolling three-year period.

A strategy for procuring natural gas and electricity within the policy framework was developed with assistance from our external advisors, Nicor Enerchange, Brubaker and Associates, Inc., and Larry Altenbaumer. The primary objectives of the strategy are to provide budget certainty and to stabilize the price of purchased fuel/energy to the University.

The strategy has three primary components - (i) a rolling 36-month series of regularly timed purchases, (ii) budget management for the 36 months, and (iii) an opportunistic purchase program based on aggressive pricing targets.

- i. The program is designed to even out over time the University's exposure to the spot market and the risk of price spikes; it functions similarly to a "dollar-cost averaging" investment strategy.
- ii. The 36 month term provides a high degree of budget certainty (financial risk management) for the fiscal budget periods affected by allowing purchases up to 95% for the first 12 months, 90% for the second 12 months, and 85% for the third 12 months of the natural gas required to meet the University's thermal load.
- iii. The opportunistic purchases program incorporates a capability to increase purchases for a particular period. Consideration is based on variances between currently available market pricing and the established budgeted target price coupled with consideration of levels of actual committed purchases relative to target purchase commitments levels for the specified period.

### **PROGRESS TO DATE**

The procurement activity under the Policy began in August 2008. Through July, 2010 significant progress continues to be made in securing natural gas at a fixed price for fiscal years 2010-2013. All transactions have been reviewed by the *Energy Management Committee* (“Committee”) and were executed using forward fixed-price purchase contracts with Nicor Enerchange. No futures contracts or other derivative products were employed.

During 2010 natural gas requirement forecasts were substantially decreased by campus operations to take into consideration recent conservation efforts and projected asset availability. This has resulted in less natural gas requirements causing an over-hedged position for FY11. A plan is being developed to address the additional hedge gas purchased for FY11.

Table 1 below summarizes the Natural Gas procurement activity through July 31, 2010.

<b>Through July 31, 2010</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>
Hedge Volume Requirement <sup>1</sup> (MMBTU)	5,174,946	4,346,166	5,182,533	5,182,533
Volumes Purchased/Committed To Date (MMBTU)	4,958,798	5,150,264	4,824,877	2,923,769
Percent Purchased/Committed Volumes <sup>1</sup>	96%	119%	93%	56%
Budgeted Landed Price <sup>2</sup> (\$/MMBTU)	\$7.43	\$6.86	\$7.21	\$7.51
Landed Price for Purchased/Committed Volumes <sup>2</sup> (\$/MMBTU)	\$7.91	\$7.44	\$6.80	\$6.70

**Table 1: Summary of Gas Procurement Program**

1. *Hedge Volume Requirement = Must Run Gas Requirements to produce thermal needs only. A plan is being constructed to handle the additional FY11 hedge gas.*
2. *Landed Price = field price + basis + Nicor Enerchange fee + NGPL fees.*

Fixed price block purchases of electricity have been contracted between American Electric Power Service Corporation and Prairieland Energy, Inc. for delivery during fiscal years 2010-2013 as outlined in Table 2 below. All transactions have been reviewed by the *Committee*.

<b>Through July 31, 2010</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>
Volumes Purchased/Committed to Date (mwh)	86,259 (UIUC) 30,524 (UIC)	114,854 (UIUC) 122,261 (UIC)	94,406 (UIUC) 98,147 (UIC)	78,581 (UIUC) 54,504 (UIC)
% of Forecasted Purchases	30.4% (UIUC) 43.3% (UIC)	61.7% (UIUC) 78.6% (UIC)	32.1% (UIUC) 63.1% (UIC)	25.5% (UIUC) 35.0% (UIC)
Block Price for Purchased/Committed Volumes (\$/mwh) <sup>1</sup>	\$33.05 (UIUC) \$34.10 (UIC)	\$30.15 (UIUC) \$32.50 (UIC)	\$30.15 (UIUC) \$32.50 (UIC)	\$30.15 (UIUC) \$32.50 (UIC)

**Table 2: Summary of Electricity Procurement Program**

1. Block price is the cost of the energy only.

## **BACKGROUND ON SUPPLIERS**

- **Natural Gas Supply** – The forward purchase contracts for natural gas are with Nicor Enerchange, who stands between the University and the originating field suppliers. Nicor Enerchange is contractually responsible for covering damages if it fails to deliver the nominated amount of gas to the University’s specified delivery points under an existing agreement with the University that runs through June 2016. Nicor Enerchange is owned by Nicor, Inc.
- **Natural Gas Transportation** – The natural gas referred to above is transported between the gas fields and the University by Natural Gas Pipeline Company of America (“NGPL”). NGPL owns in whole or in part over 10,000 miles of interstate pipelines and is a subsidiary of Kinder Morgan (one of the largest pipeline transportation and energy storage companies in North America with approximately 37,000 miles of pipelines). The two firm transportation agreements between the University and NGPL expire April 30, 2015 (MDQ of 5,000 MMBTU/day) and June 30, 2015 (MDQ of 10,000 MMBTU/day). The Peoples Gas Light and Coke Company, a regulated local gas distribution company, provides transportation from the Chicago City Gate to the UIC campus and storage services under a contract which expires June 30, 2015.
- **Power Supply** – Fixed price block purchases of electricity are transacted under a Master Power Purchase and Sale Agreement between American Electric Power Service Corp.

("AEP") for fiscal years 2010-2013. AEP, the parent, owns over 39,000 megawatts of generating capacity in the U.S. and a 39,000-mile transmission network that includes 2,116 miles of 765 kilovolt transmission lines.

- **Power Delivery** – Delivery of the contracted block purchases is provided by AmerenIP to the UIUC campus and by Commonwealth Edison to the UIC campus.

The creditworthiness of these suppliers is monitored regularly to review their financial positions and to ensure counterparties do not become a risk to the University. This monitoring is consistent with the requirements of the Derivatives Use Policy approved by the Board of Trustees in July 2010.

## **FEES**

Nicor Enerchange provides the University with market advice, transaction execution, analytical and other services. Nicor Enerchange charges the University 2.5¢/MMBTU for providing these services. Beginning with the fiscal year 2013 forward contracts, transactions are executed under an agreement with Prairieland Energy, Inc. expiring on June 20, 2016. The fee for these services decreased to 2.0¢/MMBTU with the fiscal year 2013 transactions. NGPL fees are typically in the range of 60¢ to 70¢/MMBTU.

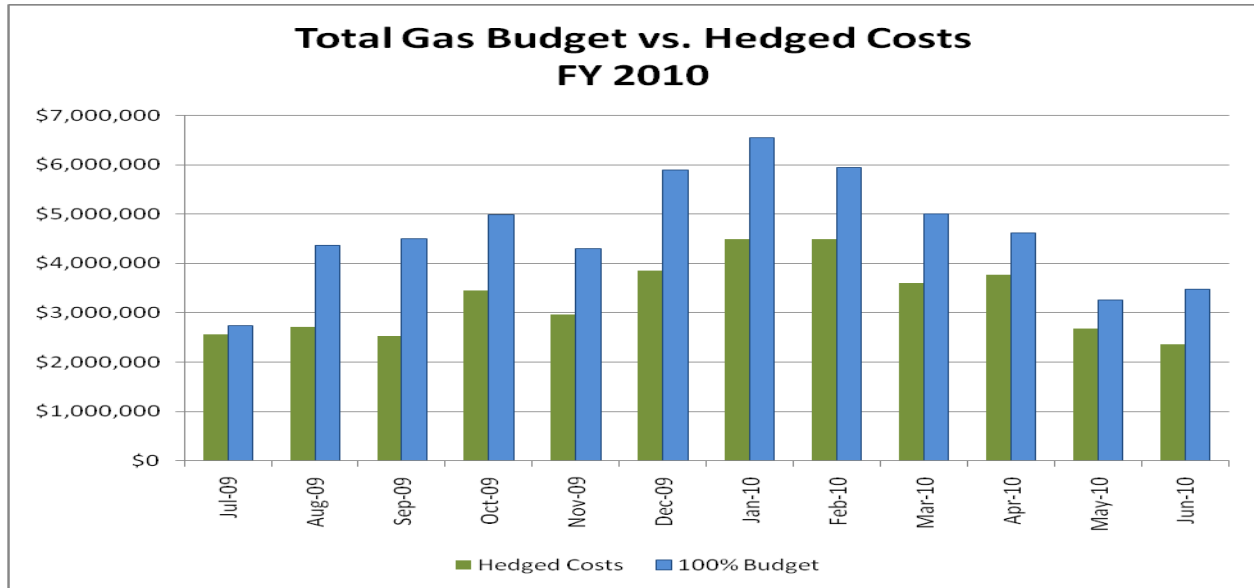
## **GRAPHICAL ANALYSIS**

A graphical analysis of FY10 natural gas cost and volume activity is attached. FY11-FY13 activity is reported in Table 1 on page 2 of this report.

- Graph 1 – Total Gas Budget vs. Hedged Costs presents a comparison of the delivered cost of total gas requirements for FY10 and the delivered cost of the FY10 hedge gas.
- Graph 2 – Total Gas Budget Volumes presents a comparison of the total gas requirement volumes for FY10 and the total gas volumes of the FY10 hedge gas.
- Graph 3 - Price Comparison \$/MMBTU presents a comparison of the per unit delivered cost of the FY10 hedge gas and the per unit delivered cost of total FY10 gas burned (hedge plus spot).
- Graph 4 - Volume Comparison presents a comparison of the total FY 10 hedge gas volumes and the total volumes of all FY10 gas burned (hedge plus spot).

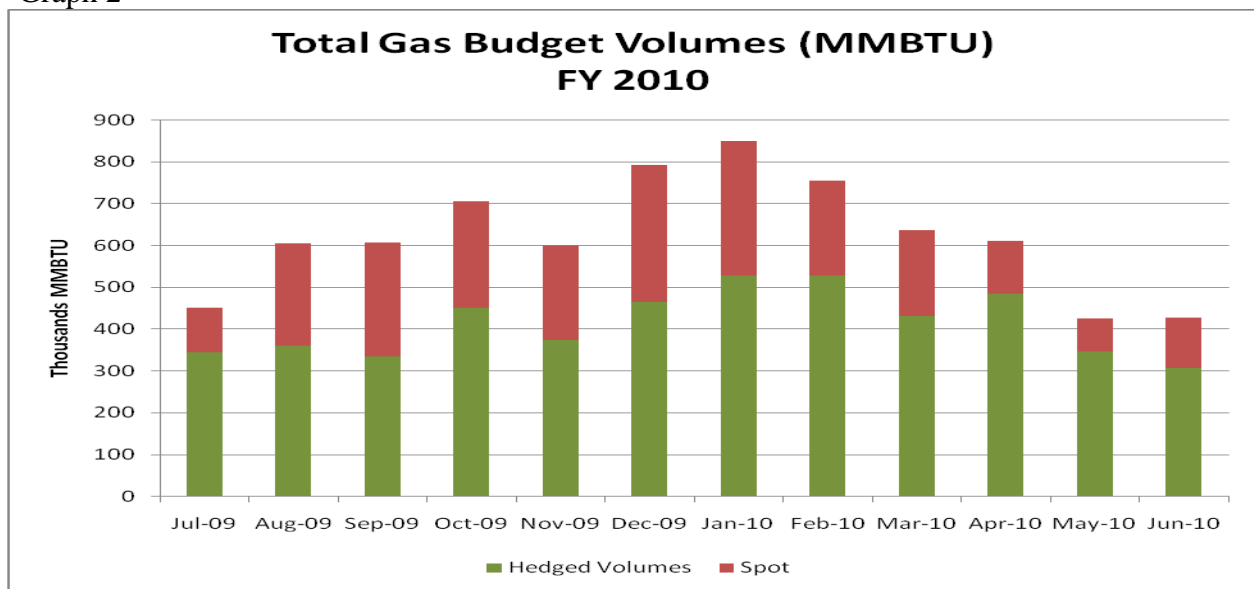
- Graph 5 – Cost Comparison presents a comparison of the net costs of FY10 hedge gas (forward contracts less any sell backs) and the total cost of all FY10 gas burned (hedge plus spot).
- Graph 6 – Cumulative Mark to Market provides a review as of 6/30/10 of the cumulative difference between the market price of natural gas and the forward contract prices paid by the University.

Graph 1



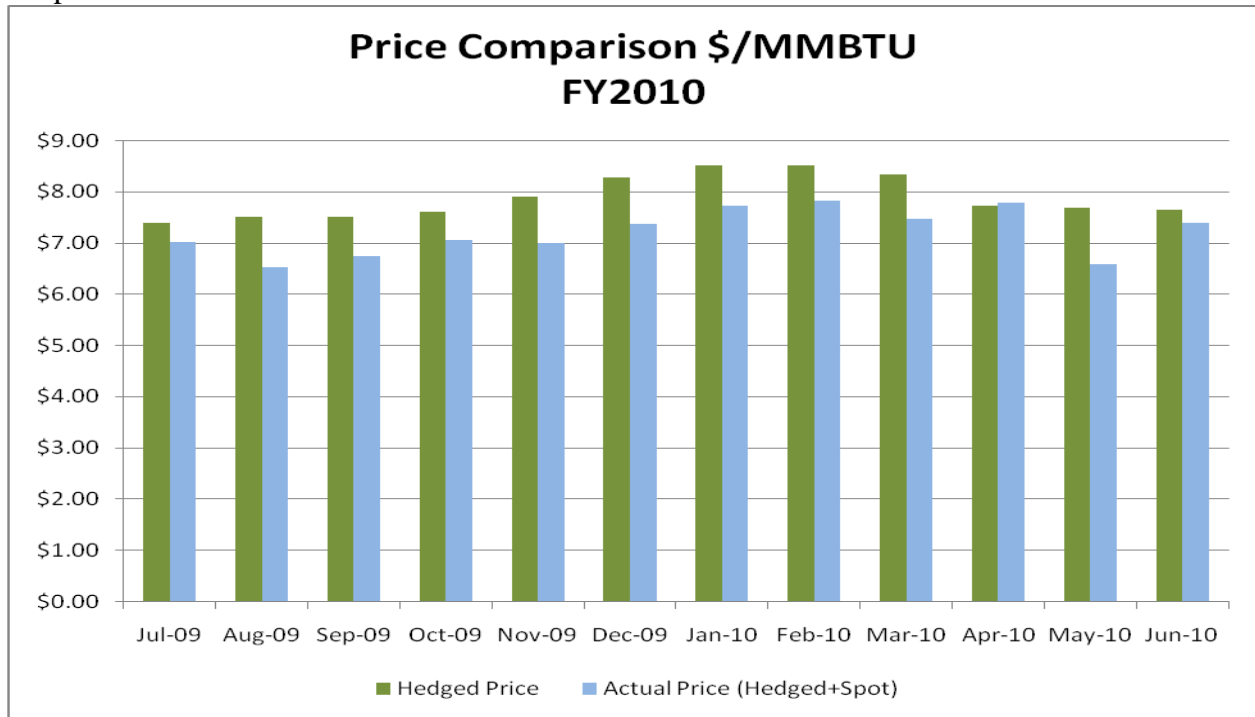
- 100% Budget is defined as all natural gas anticipated to be consumed during each month.
- Hedges for 2010 were executed during the time period September 2008 and April 2009 providing a high degree of budget certainty for fiscal year 2010.

Graph 2



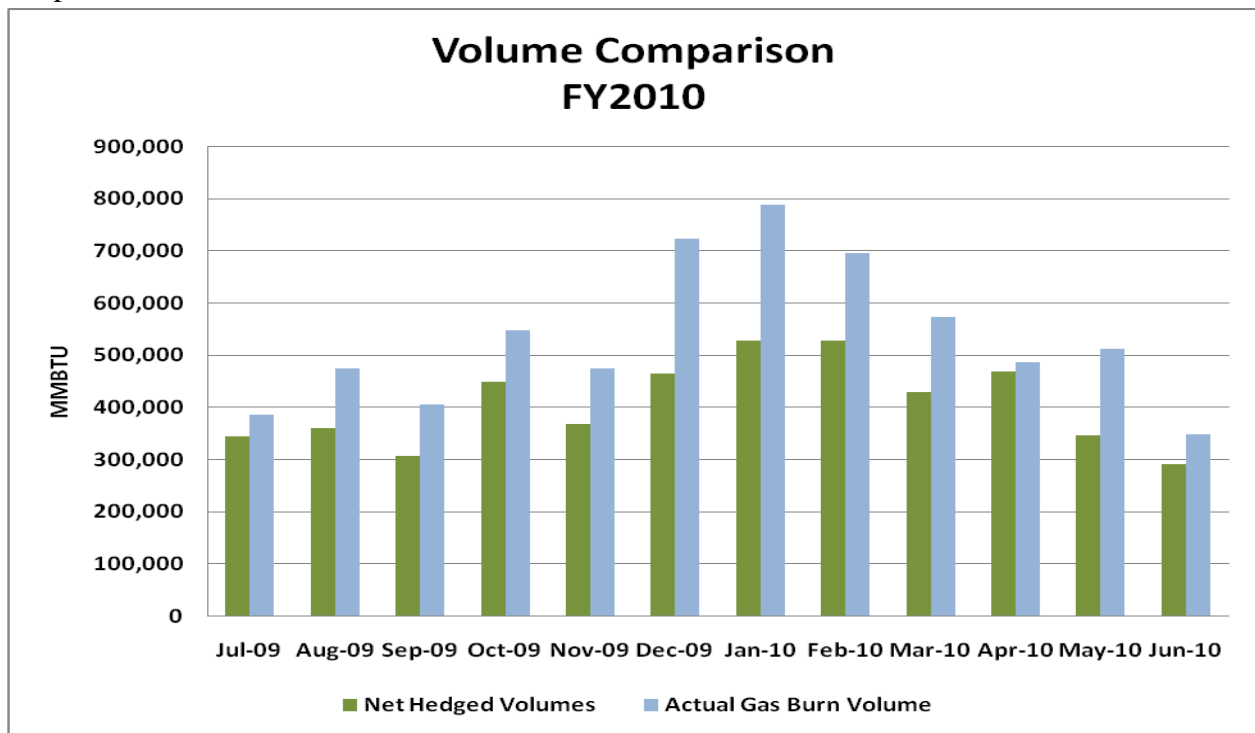
- Total Gas Budget is defined as all natural gas anticipated to be consumed during each month.
- Hedges for 2010 were executed during the time period September 2008 and April 2009 providing committed natural gas prices for the University in time for the development of the plant operating strategies.

Graph 3



- Actual price less than hedged price due to daily spot prices being less than hedged price.

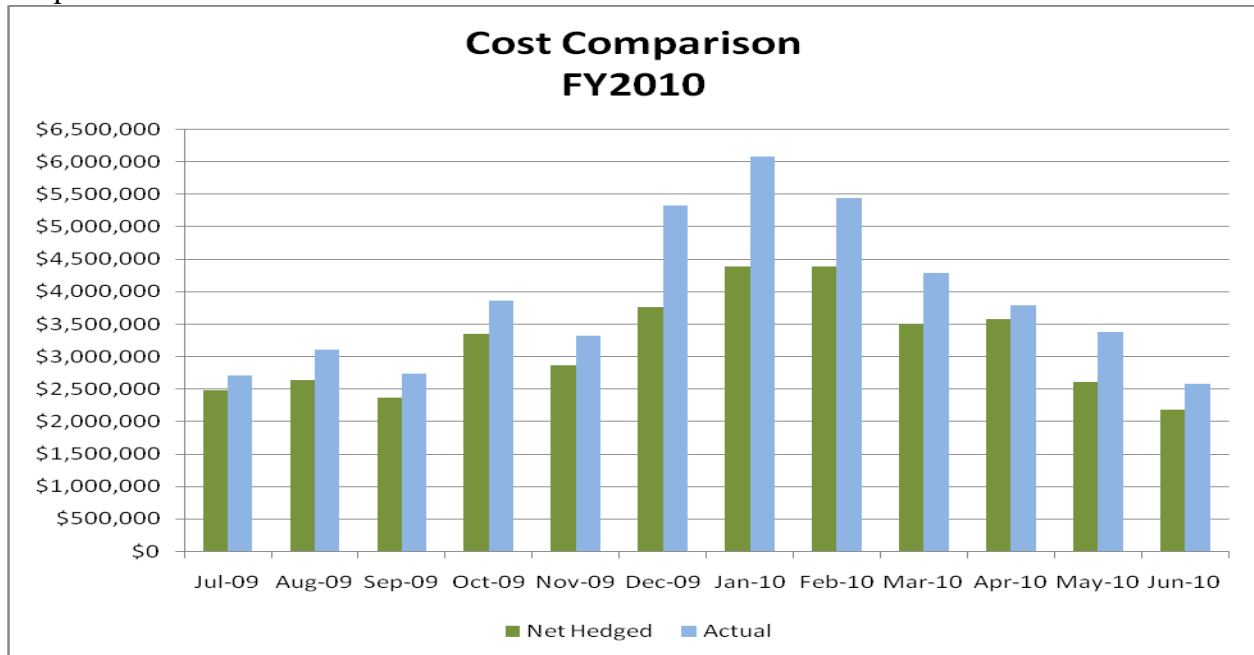
Graph 4



- Differences between Hedged Volumes and Actual Volumes is a result of purchases made in the spot market to satisfy the remaining natural gas requirements.

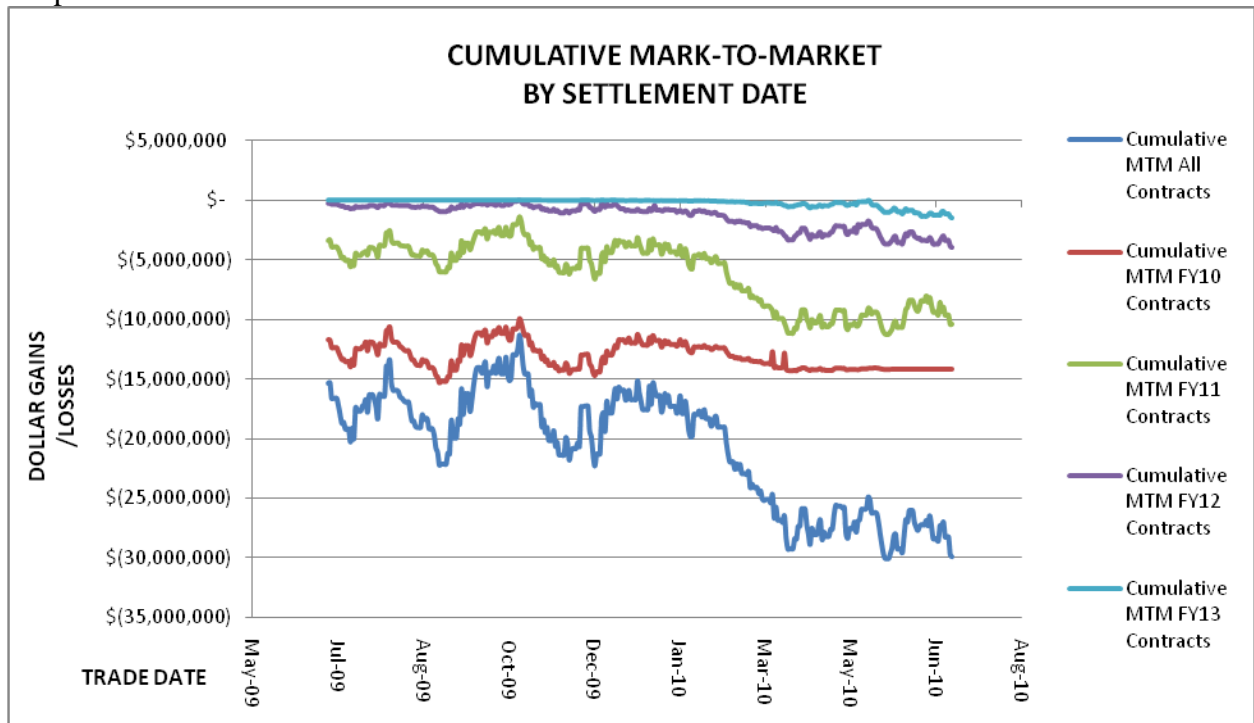


Graph 5



- Differences between Hedged costs and Actual costs is a result of purchases made in the spot market to satisfy the remaining natural gas requirements.

Graph 6



- Mark to Market depicts the unrealized cumulative difference between the market price and the hedge price. The university initiated its hedging program when prices were relatively high versus today's prices but as the program continues the difference is decreasing.