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Anita M. Schafer  
Sr. Paralegal

**VIA OVERNIGHT DELIVERY**

May 14, 2008

**RECEIVED**

**MAY 15 2008**

**PUBLIC SERVICE  
COMMISSION**

Ms. Stephanie Stumbo  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, Kentucky 40602-0615

Re: Case No. 2008-00 175  
In the Matter of the Application of DE-Kentucky, Inc. to  
Implement a Hedging Program to Mitigate Price Volatility  
In the Procurement of Natural Gas

Dear Ms. Stumbo:

Enclosed please find an original and twelve copies of:

1. Application;
2. Petition for Confidential Treatment
3. Final Report of Hedging Plan ( April 1, 2007 through March 31, 2008);
4. New Hedging Plan;

for Kentucky in the above captioned case. Items 3 and 4 are Attachments 1 and 2 to the Application.

Please date-stamp the extra two copies and return to me in the enclosed envelope.

Sincerely,

Anita M. Schafer  
Senior Paralegal

cc: Larry Cook

In the Matter of the:

**PUBLIC SERVICE  
COMMISSION**

APPLICATION OF DUKE ENERGY )  
KENTUCKY, INC. TO )  
IMPLEMENT A HEDGING PROGRAM )  
TO MITIGATE PRICE VOLATILITY IN )  
THE PROCUREMENT OF NATURAL GAS)

CASE NO. 2008-00175

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DUKE ENERGY KENTUCKY, INC.'S  
FINAL REPORT ON HEDGING PLAN  
FOR APRIL 1, 2007 THROUGH MARCH 31, 2008,  
REPORT ON HEDGING ACTIVITY FOR FUTURE GAS DELIVERIES,  
AND APPLICATION FOR APPROVAL OF NEW HEDGING PLAN

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Pursuant to 807 KAR 5:001, Section 8 and consistent with the Commission's Order dated August 15, 2005 in Case No. 2005-00191, Duke Energy Kentucky, Inc ("DE-Kentucky") respectfully states as follows:

1. DE-Kentucky is a Kentucky corporation with its principal office and principal place of business at 1697 A Monmouth Street, Newport Shopping Center, Newport, Kentucky 41071. Its mailing address is P.O. Box 960, Cincinnati, Ohio 45201.

2. DE-Kentucky is a utility engaged in the gas and electric business. DE-Kentucky purchases, sells, stores and transports natural gas in Boone, Campbell, Gallatin, Grant, Kenton and Pendleton Counties, Kentucky. DE-Kentucky also purchases electricity, which it distributes and sells in Northern Kentucky.

3. Pursuant to 807 KAR 5:001, Section 8(3), DE-Kentucky states that a certified

copy of its Articles of Incorporation, as amended, is on file with the Commission in Case No. 2006-00563.

4. In an Order dated August 15, 2005 in Case No. 2005-00191, the Commission approved DE-Kentucky's hedging program and required, among other things, periodic reports on the results of the hedging program. Attachment 1 is DE-Kentucky's annual report on the final results of its hedging plan for April 1, 2007 through March 31, 2008, and report on hedging activity for future gas deliveries ("Final Report"), as required by such order. DE-Kentucky respectfully requests that that Commission accept the filing of this Final Report in this docket as in compliance with the reporting requirements in Case No. 2005-00191. As demonstrated in DE-Kentucky's Final Report, the hedging plan successfully mitigated price volatility for DE-Kentucky's firm sales customers.

5. Ordering Paragraph 2 of the August 15, 2005 Order approved DE-Kentucky's natural gas hedging plan through March 31, 2008, and permitted DE-Kentucky to enter into contracts for gas purchases through October 31, 2010. Pursuant to such order, DE-Kentucky respectfully requests approval to institute a new three year hedging plan as a regular part of its gas supply planning. A copy of DE-Kentucky's proposed new hedging plan, in redacted form, is at Attachment 2.

6. DE-Kentucky proposes that the Commission approve the new hedging plan to cover hedging activity through March 31, 2011 and allow for hedging of natural gas deliveries through October 31, 2013. Although the range of allowable hedging in the new plan is expressed in relation to total system supply rather than base gas purchases, the resulting parameters for hedging purchases are similar to the parameters approved by the

Commission for DE-Kentucky's previous hedging programs. The new hedging plan utilizes the same types of hedging instruments used for DE-Kentucky's previous hedging programs and sets a limit so that there is not an over reliance on a single type. The new plan also incorporates the same procedural safeguards, consisting of periodic management meetings, written minutes and annual reports to the Commission on the results of the hedging plan. The plan continues to provide for hedging of a portion of DE-Kentucky's summer purchases and to allow DE-Kentucky to hedge a portion of its gas supply for up to 31 months following the time period covered by the hedging plan. This will provide DE-Kentucky with additional flexibility to stagger its hedging purchases, thus increasing the diversity of cyclical pricing influences. This should better enable DE-Kentucky to mitigate price volatility for its customers.

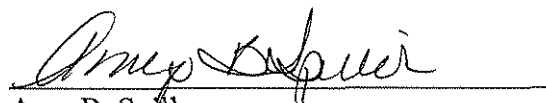
7. DE-Kentucky's experience with its previous hedging programs demonstrates that hedging has accomplished the goals that DE-Kentucky projected at the outset of its hedging program, that is, hedging would not always result in the lowest gas costs, but hedging does serve a valuable purpose in protecting customers against extreme high prices and hedging also mitigates price volatility. The new hedging plan incorporates the procedural safeguards, developed in response to the Commission's Orders in DE-Kentucky's previous hedging proceedings, to ensure that hedging decisions are made in a prudent manner. Finally, the parameters of the new hedging plan, the types of hedging instruments provided therein and the annual reports provided by DE-Kentucky give the Commission oversight of the new hedging plan. DE-Kentucky therefore requests that the Commission approve its new hedging plan so that DE-Kentucky can continue to provide

for its customers the benefits resulting from hedging of a portion of gas supply purchases, as described above.

WHEREFORE, DE-Kentucky respectfully requests that the Commission accept for filing DE-Kentucky's attached Final Report containing the final results of its hedging plan for April 1, 2007 through March 31, 2008, and report on hedging activity for future gas deliveries. DE-Kentucky also requests that the Commission approve DE-Kentucky's application for a new hedging plan as described herein and in the accompanying Attachments.

Respectfully submitted,

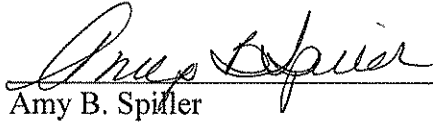
Duke Energy Kentucky, Inc.



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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing pleading was served of the parties listed below by regular United States mail, postage prepaid, this 14<sup>th</sup> day of May, 2008.

  
\_\_\_\_\_  
Amy B. Spiller

Hon. Larry Cook  
Assistant Attorney General  
Kentucky Office of the Attorney General  
Capital Center Drive, Suite 200  
Frankfort, Kentucky 40601-8204



**BEFORE THE  
KENTUCKY PUBLIC SERVICE COMMISSION**

**Annual Report on Hedging Activity  
For April 1, 2007 – March 31, 2008  
And Report on Hedging Activity  
For Future Gas Deliveries**

**By  
Duke Energy Kentucky**

May, 2008



The Senior Vice President of Gas Operations, General Manager of Gas Commercial Operations, Manager of Gas Resources, the Lead of Gas Procurement and Analysis and other personnel (Natural Gas Hedging Committee) met on a regular basis to review current market conditions for natural gas, short and long-term weather forecasts, gas industry trade publications, and price estimates to determine whether to enter into any hedging transactions. These meetings were scheduled at least monthly, but can occur more frequently depending on the season and market conditions. A brief summary of the decision made at each of these meetings during the 12 months ended March 2008 is attached, along with the information reviewed during each meeting (see Attachment A).

A summary of the amounts hedged during the 12 months ended March 31, 2008 is shown below, followed by details of the factors influencing Duke Energy Kentucky, Inc's ("DE-Kentucky") decision to enter into a hedging agreement each time.

Strike Date	Supplier	Type	Price Per Dth	Delivery Point	Volume Dth/day	Month(s)	Seasonal Volume
<b>Summer 2007</b>							
10/18/2005**		Fixed		CGT		Apr 06 – Mar 08	
2/15/2006**		Fixed		CGT		Nov 06 – Oct 08	
9/15/2006*		Fixed		CGT		Apr 06 – Mar 09	
11/22/2006*		Cost Avg		CGT		Apr 06 – Oct 07	
<b>Winter 2007/08</b>							
10/18/2005**		Fixed		CGT		Apr 06 – Mar 08	
2/15/2006**		Fixed		CGT		Nov 06 – Oct 08	
9/15/2006*		Fixed		CGT		Apr 06 – Mar 09	
3/6/2007*		Fixed		CGT-M		Nov 07 – Oct 09	
4/23/2007		Cost Avg		CGT-M		Dec 07 – Mar 08	
7/30/2007		Fixed		TGT		Dec 07 – Feb 08	
8/30/2007		Fixed		CGT		Nov 07 – Mar 08	
12/18/2007		Fixed		CGT		Jan 08 – Mar 08	
12/18/2007		Fixed		CGT		Jan 08 – Mar 08	
<b>Summer 2008</b>							
2/15/2006**		Fixed		CGT		Nov 06 – Oct 08	
9/15/2006*		Fixed		CGT		Apr 06 – Mar 09	
3/6/2007*		Fixed		CGT-M		Nov 07 – Oct 09	
1/17/2008		Cost Avg		CGT-M		Apr 08 – Mar 09	
<b>Winter 2008/09</b>							
9/15/2006*		Fixed		CGT		Apr 06 – Mar 09	
3/6/2007*		Fixed		CGT-M		Nov 07 – Oct 09	
10/16/2007		Fixed		CGT-M		Nov 08 – Mar 10	
1/17/2008		Cost Avg		CGT-M		Apr 08 – Mar 09	
<b>Summer 2009</b>							
3/6/2007*		Fixed		CGT-M		Nov 07 – Oct 09	
10/16/2007		Fixed		CGT-M		Nov 08 – Mar 10	
<b>Winter 2009/10</b>							

10/16/2007		Fixed		CGT-M		Nov 08 – Mar 10	
3/19/2008		Fixed		CGT		Nov 09 – Oct 10	
<b>Summer 2010</b>							
3/19/2008		Fixed		CGT		Nov 09 – Oct 10	

\* See Annual Report on Hedging Activity for April 1, 2005 – March 31, 2006  
 \*\*See Annual Report on Hedging Activity for April 1, 2006 – March 31, 2007  
 CGT = Columbia Gulf Transmission South Louisiana Onshore  
 CGT-M = Columbia Gulf Transmission Mainline  
 TGT = Texas Gas Transmission Zone SL

There were no transactional costs associated with any of these arrangements. When the natural gas is delivered, the suppliers simply invoice DE-Kentucky based on the hedged price. The portions of “base” gas hedged for each season are listed in the table below:

Season	Total Base Supply	Total Hedged	% Hedged
Summer 2007			
Winter 2007/08			
Summer 2008 (as of 3/31/08)			
Winter 2008/09 (as of 3/31/08)			
Summer 2009 (as of 3/31/08)			
Winter 2009/10 (as of 3/31/08)			
Summer 2010 (as of 3/31/08)			

**Winter 2007-08 Cost Averaging with [REDACTED] April 23, 2007**

During the hedging meeting on April 18, 2007, the Natural Gas Hedging Committee decided to begin the cost averaging to accumulate a price between May 1, 2007 and August 10, 2007. November 2007 was not included in the delivery period due to the relatively smaller amount of base supply and the amount already hedged for November. Bids would be sought for December 2007 through March 2008 for [REDACTED] dth per day.

[REDACTED] were each contacted by phone. [REDACTED], respectively for Onshore. [REDACTED] Mainline. At an \$ [REDACTED] price, it costs DE-Kentucky between \$ [REDACTED] and \$ [REDACTED] to transport gas from Onshore to Mainline, depending on whether the gas flows on [REDACTED]. Therefore, [REDACTED] bid is comparable to the others as -\$ [REDACTED] - [REDACTED]. Even at [REDACTED] rates, the bid from [REDACTED] was lower than either of the other two, so [REDACTED] bid was accepted. The price would be the average of the NYMEX closing price from May 1, 2007 through August 10, 2007 [REDACTED] dth/day delivered to Columbia Gulf Mainline. The final price was [REDACTED] dth (See Attachment B).

**Winter 2007-08 Fixed Price with [REDACTED] – July 30, 2007**

During the hedging meeting on July 25, 2007, the Natural Gas Hedging Committee decided to investigate locking in another [REDACTED] of base supply with a price cap to retain any potential decrease in prices due to fundamentals in the market while still protecting against weather induced increases. Caps were priced with [REDACTED]. Prices for the caps ranged from \$ [REDACTED], which was much higher than anticipated. Therefore, instead of a cap, a fixed price was locked in for [REDACTED] dth of base. Since firm winter supply has already been arranged, base gas on TGT Zone SL with [REDACTED] was converted to a price of \$ [REDACTED] for December 2007 through February 2008.

The EIA storage report released on July 26, 2007 indicated that as of July 20, 2007, total U.S. amount of gas in storage was 2,763 bcf (78% full), which was 6 bcf higher than the previous year and 384 bcf higher than the five-year average. DE-Kentucky's storage with Columbia Gas was approximately [REDACTED] full).

The table below compares the futures price data for July 30th with the most recently available forecasts from CERA and EIA and the locked in price that DE-Kentucky agreed to pay [REDACTED] for base gas to be delivered December 1, 2007 through February 29, 2008 at Texas Gas Zone SL.

	<b>Dec 07</b>	<b>Jan 08</b>	<b>Feb 08</b>	<b>Average</b>
<b>Price Forecasts</b>				
CERA (7/20/07)	\$7.370	\$7.280	\$7.230	<b>\$7.293</b>
EIA (7/10/07)	\$8.940	\$9.231	\$8.835	<b>\$9.002</b>
<b>NYMEX (7/30/07)</b>				
High	\$8.555	\$8.950	\$8.965	<b>\$8.823</b>
Low	\$8.460	\$8.900	\$8.957	<b>\$8.772</b>
Close	\$8.544	\$8.939	\$8.957	<b>\$8.813</b>
<b>Fixed Price (7/30/2007)</b>				
[REDACTED]				<b>\$ [REDACTED]</b>

**Winter 2007-08 Fixed Price with [REDACTED] – August 30, 2007**

During the hedging meeting on August 28, discussion focused on the fundamentals of the market. The lack of hurricanes and continued building of the storage inventory levels above 2006 record setting levels had driven prices downward. Although prices may drop more, they could also rise dramatically if a hurricane enters or forms in the Gulf. To date less than [REDACTED] of base had been hedged for the 07/08 Winter with the lowest price being [REDACTED]. Since the start of winter was only 2 months away, and prices were in the mid [REDACTED] range about [REDACTED] of base supply would be locked in at the then current prices. Since winter supply had already been arranged, supply from [REDACTED] at Columbia Gulf onshore would be converted from FOMI to a fixed price. Volumes varied by month.

	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08
Volumes—Dth/Day	████	████	████	████	████

The EIA storage report released on August 23, 2007 indicated that as of August 17, 2007, total U.S. amount of gas in storage was 2,926 bcf (83% full), which was 23 bcf higher than the previous year and 333 bcf higher than the 5-year average. DE-Kentucky’s storage with Columbia Gas was approximately █████ full).

The table below compares the futures price data for August 30th with the most recently available forecasts from CERA and EIA and the locked in price that DE-Kentucky agreed to pay █████

	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Average
<b>Price Forecasts</b>						
CERA (8/20/07)	\$7.280	\$7.370	\$7.280	\$7.230	\$7.200	\$7.272
EIA (8/07/07)	\$7.546	\$8.162	\$8.660	\$8.247	\$7.591	\$8.041
<b>NYMEX (8/30/07)</b>						
High	\$6.610	\$7.520	\$7.960	\$7.980	\$7.870	\$7.588
Low	\$6.530	\$7.480	\$7.885	\$7.925	\$7.750	\$7.514
Close	\$6.607	\$7.510	\$7.920	\$7.948	\$7.783	\$7.554
<b>Fixed Prices (8/30/07)</b>						
██						████

Winter 2008-09 Fixed Price with █████ – October 16, 2007

During the hedging meeting on September 26, 2007, the Natural Gas Hedging Committee decided hedging was necessary to meet the minimum hedged position as provided in the Hedging Plans as of October 31, 2007. Bids would be sought for November 2008 through March 2010 for █████ dth per day for delivery at Columbia Gulf Onshore or Columbia Gulf Mainline. █████

██ each contacted by phone on October 15, 2007 requesting a fixed price bid at 11:00 A.M. on October 16, 2007. █████ per dth Onshore or █████ Mainline equivalent. █████ per dth Onshore or \$████ Mainline equivalent. █████ per dth at Mainline. █████ bid was accepted.

The EIA storage report released on October 11, 2007 indicated that as of October 5, 2007, total U.S. amount of gas in storage was 3,336 bcf (94% full), which was 44 bcf less than the previous year and 237 bcf higher than the five-year average. DE-Kentucky’s storage with Columbia Gas was approximately █████ full).

The table below compares the futures price data for October 16th with the most recently available forecasts from CERA and EIA and the locked in price that DE-Kentucky agreed to pay █████ or base gas to be delivered November 1, 2008 through March 31, 2010 at Columbia Gulf Mainline. Please note that EIA’s forecast did not cover the term.

Month	Price Forecasts		NYMEX Futures Price			Fixed Price
	CERA	EIA	High	Low	Close	
Nov 08	\$6.960		\$8.473	\$8.440	\$8.473	
Dec 08	\$6.970		\$8.858	\$8.858	\$8.858	
Jan 09	\$6.850		\$9.123	\$9.085	\$9.123	
Feb 09	\$6.890		\$9.130	\$9.085	\$9.123	
Mar 09	\$6.820		\$8.868	\$8.825	\$8.868	
Apr 09	\$6.600		\$7.993	\$7.993	\$7.993	
May 09	\$6.490		\$7.930	\$7.870	\$7.930	
Jun 09	\$6.570		\$7.970	\$7.970	\$7.970	
Jul 09	\$6.600		\$8.030	\$8.030	\$8.030	
Aug 09	\$6.420		\$8.080	\$8.080	\$8.080	
Month	Price Forecasts		NYMEX Futures Price			Fixed Price
	CERA	EIA	High	Low	Close	
Sep 09	\$6.150		\$8.100	\$8.095	\$8.095	
Oct 09	\$6.430		\$8.155	\$8.155	\$8.155	
Nov 09	\$6.660		\$8.472	\$8.472	\$8.472	
Dec 09	\$6.650		\$8.802	\$8.802	\$8.802	
Jan 10	\$6.630		\$9.035	\$9.035	\$9.035	
Feb 10	\$6.290		\$9.035	\$9.035	\$9.035	
Mar 10	\$6.180		\$8.780	\$8.780	\$8.780	
<b>Average</b>	<b>\$6.598</b>		<b>\$8.520</b>	<b>\$8.506</b>	<b>\$8.519</b>	

**Winter 2007-08 Fixed Price with [REDACTED] and [REDACTED] – December 18, 2007**

Since prices had continued to fall into the low \$7.00 range, the Hedging Committee decided to convert additional supply for the remaining winter months to fixed prices. On December 18, 2007, [REDACTED] and [REDACTED] were contacted about converting a First of the Month Index price to a fixed price. Both agreed to convert from a First of the Month Index pricing to a fixed price deal. The terms of each deal were for [REDACTED] dth per day from January 1, 2008 to March 31, 2008 at a price of [REDACTED]

The EIA storage report released on December 13, 2007 indicated that as of December 7, 2007, total U.S. amount of gas in storage was 3,294 bcf (93% full), which was 32 bcf higher than the previous year and 259 bcf higher than the five-year average. DE-Kentucky's storage with Columbia Gas was approximately [REDACTED] full).

The table below compares the futures price data for December 18<sup>th</sup> with the most recently available forecasts from CERA and EIA and the locked in price that DE-Kentucky agreed to pay [REDACTED] and [REDACTED]

	Jan 08	Feb 08	Mar 08	Average
<b>Price Forecasts</b>				
CERA (11/20/07)	\$8.040	\$7.780	\$7.310	<b>\$7.710</b>
EIA (12/11/07)	\$7.990	\$7.860	\$7.550	<b>\$7.800</b>
<b>NYMEX (12/18/07)</b>				
High	\$7.170	\$7.278	\$7.320	<b>\$7.256</b>

Low	\$7.070	\$7.220	\$7.230	\$7.173
Close	\$7.141	\$7.278	\$7.320	\$7.246
<b>Fixed Price (12/18/07)</b>				

**April 2008-March 2009 Cost Averaging with [REDACTED] – January 17, 2008**

During the hedging meeting on December 17, 2007, the Natural Gas Hedging Committee decided to begin the cost averaging to accumulate a price between February 1, 2008 and March 27, 2008. While DE-Kentucky has used cost averaging before, this is DE-Kentucky’s first 12-month cost averaging hedging deal. Bids would be sought for April 2008 through March 2009 for [REDACTED] dth per day. [REDACTED] each contacted by phone on January 16, 2008 requesting a bid at 2:00 P.M. on January 17, 2008. [REDACTED] with delivery at Columbia Gulf Mainline. [REDACTED] decided not to bid. [REDACTED] bid was accepted based on qualitative factors. The price would be the average of the NYMEX closing price from February 1, 2008 through March 27, 2008 plus [REDACTED] dth/day delivered to Columbia Gulf Mainline. The final price was \$ [REDACTED] dth (See Attachment C).

**Winter 2009-2010 Fixed Price with [REDACTED] – March 19, 2008**

Minimum hedging requirements had already been met through October 2009. In order to meet the minimums required for the later months, bids would be sought for November 2009 through March 2010 for [REDACTED] dth per day for delivery at Columbia Gulf Onshore or Columbia Gulf Mainline. [REDACTED] each contacted by phone on March 18, 2008 requesting a fixed price bid at 11:00 A.M. on March 19, 2008. [REDACTED] per dth Onshore or \$ [REDACTED] Mainline equivalent. [REDACTED] per dth Onshore or \$ [REDACTED] Mainline equivalent. [REDACTED] bid \$ [REDACTED] per dth at Mainline. [REDACTED] bid was accepted.

The EIA storage report released on March 13, 2008 indicated that as of March 7, 2008, total U.S. amount of gas in storage was 1,398 bcf (39% full), which was 151 bcf lower than the previous year and 57 bcf higher than the five-year average. DE-Kentucky’s storage with Columbia Gas was approximately [REDACTED] % full).

The table below compares the futures price data for March 19<sup>th</sup> with the most recently available forecasts from CERA and EIA and the locked in price that DE-Kentucky agreed to pay [REDACTED]

Month	Price Forecasts		NYMEX Futures Price			Fixed Price
	CERA	EIA	High	Low	Close	
Nov 09	\$6.640	\$7.930	\$8.867	\$8.867	\$8.867	
Dec 09	\$6.630	\$8.220	\$9.227	\$9.227	\$9.227	
Jan 10	\$6.620		\$9.442	\$9.442	\$9.442	
Feb 10	\$6.660		\$9.437	\$9.437	\$9.437	
Mar 10	\$6.650		\$9.177	\$9.177	\$9.177	
Apr 10	\$6.620		\$8.132	\$8.132	\$8.132	
May 10	\$6.750		\$8.037	\$8.037	\$8.037	
Jun 10	\$6.590		\$8.092	\$8.092	\$8.092	
Jul 10	\$6.600		\$8.167	\$8.167	\$8.167	
Aug 10	\$6.510		\$8.227	\$8.227	\$8.227	
Sep 10	\$5.900		\$8.237	\$8.237	\$8.237	
Oct 10	\$6.280		\$8.322	\$8.322	\$8.322	
<b>Average</b>	<b>\$6.5375</b>		<b>\$8.614</b>	<b>\$8.614</b>	<b>\$8.614</b>	

**Effect of Hedging Program on Gas Costs**

The effect of the hedging activity on gas cost can be determined by comparing the price paid for any hedged gas with the published Inside FERC First of Month Index (FOMI) for the delivery point where physical delivery of the hedged gas was received (Columbia Gulf Onshore, Columbia Gulf Mainline or Texas Gas Zone SL). Inside FERC did not publish a FOMI for Columbia Gulf Mainline until August 2007. Prior to that time, DE-Kentucky estimated a Columbia Gulf Mainline price based on the Onshore price plus transportation. The hedged price includes the basis from Henry Hub to the point of delivery. This analysis shows that for the 12 months ended March 31, 2008 gas costs were about \$ [REDACTED] higher when comparing the hedged price with the FOMI at the time of physical delivery than they would have been if no hedging had taken place. The following tables list each package of hedged gas and the impact on the total gas cost resulting from that hedge.

**Summer Season 2007**

Supplier	Type	Dth/day	Total Dth	Receipt Point	Hedged Price \$/dth	IFERC FOMI \$/dth	Cost Increase/ (Savings)
<b>April</b>							
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.50	[REDACTED]
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.50	[REDACTED]
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.50	[REDACTED]
[REDACTED]	Fixed (Cost Avg.)	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.50	[REDACTED]
<b>May</b>							
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.44	[REDACTED]
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.44	[REDACTED]
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.44	[REDACTED]
[REDACTED]	Fixed (Cost Avg.)	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.44	[REDACTED]
<b>June</b>							
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.54	[REDACTED]
[REDACTED]	Fixed	[REDACTED]	[REDACTED]	CGT	[REDACTED]	\$7.54	[REDACTED]

	Fixed			CGT		\$7.54	
	Fixed (Cost Avg.)			CGT		\$7.54	
<b>July</b>							
	Fixed			CGT		\$6.87	
	Fixed			CGT		\$6.87	
	Fixed			CGT		\$6.87	
	Fixed (Cost Avg.)			CGT		\$6.87	
<b>August</b>							
	Fixed			CGT		\$6.01	
	Fixed			CGT		\$6.01	
	Fixed			CGT		\$6.01	
	Fixed (Cost Avg.)			CGT		\$6.01	

**Summer Season 2007 (Continued)**

Supplier	Type	Dth/day	Total Dth	Receipt Point	Hedged Price \$/dth	IFERC FOMI \$/dth	Cost Increase/ (Savings)
<b>September</b>							
	Fixed			CGT		\$5.34	
	Fixed			CGT		\$5.34	
	Fixed			CGT		\$5.34	
	Fixed (Cost Avg.)			CGT		\$5.34	
<b>October</b>							
	Fixed			CGT		\$6.33	
	Fixed			CGT		\$6.33	
	Fixed			CGT		\$6.33	
	Fixed (Cost Avg.)			CGT		\$6.33	
<b>Season Total</b>							

**Winter Season 2007-08**

Supplier	Type	Dth/day	Total Dth	Receipt Point	Hedged Price \$/dth	IFERC FOMI \$/dth	Cost Increase/ (Savings)
<b>November</b>							
	Fixed			CGT		\$7.19	
	Fixed			CGT		\$7.19	
	Fixed			CGT		\$7.19	
	Fixed			CGT-M		\$7.19	
	Fixed			CGT		\$7.19	
<b>December</b>							
	Fixed			CGT		\$7.16	
	Fixed			CGT		\$7.16	
	Fixed			CGT		\$7.16	
	Fixed			CGT-M		\$7.16	
	Fixed (Cost Avg.)			CGT		\$7.16	
	Fixed			TGT		\$7.19	
	Fixed			CGT		\$7.16	



January							
█	Fixed	█	█	CGT	█	\$7.15	█
█	Fixed	█	█	CGT	█	\$7.15	█
█	Fixed	█	█	CGT	█	\$7.15	█
█	Fixed	█	█	CGT-M	█	\$7.13	█
█	Fixed (Cost Avg.)	█	█	CGT-M	█	\$7.13	█
█	Fixed	█	█	TGT	█	\$7.14	█
█	Fixed	█	█	CGT	█	\$7.15	█
█	Fixed	█	█	CGT	█	\$7.15	█

**Winter Season 2007-08 (Continued)**

Supplier	Type	Dth/day	Total Dth	Receipt Point	Hedged Price \$/dth	IFERC FOMI \$/dth	Cost Increase/ (Savings)
February							
█	Fixed	█	█	CGT	█	\$7.98	█
█	Fixed	█	█	CGT	█	\$7.98	█
█	Fixed	█	█	CGT	█	\$7.98	█
█	Fixed	█	█	CGT-M	█	\$7.96	█
█	Fixed (Cost Avg.)	█	█	CGT-M	█	\$7.96	█
█	Fixed	█	█	TGT	█	\$7.98	█
█	Fixed	█	█	CGT	█	\$7.98	█
█	Fixed	█	█	CGT	█	\$7.98	█
█	Fixed	█	█	CGT	█	\$7.98	█
March							
█	Fixed	█	█	CGT	█	\$8.89	█
█	Fixed	█	█	CGT	█	\$8.89	█
█	Fixed	█	█	CGT	█	\$8.89	█
█	Fixed	█	█	CGT-M	█	\$8.89	█
█	Fixed (Cost Avg.)	█	█	CGT-M	█	\$8.89	█
█	Fixed	█	█	CGT	█	\$8.89	█
█	Fixed	█	█	CGT	█	\$8.89	█
█	Fixed	█	█	CGT	█	\$8.89	█
Season Total							

Due to the mechanics of the Gas Cost Adjustment (GCA) Clause, the effect of the hedging program on the gas cost portion of customer's bills will occur in stages. The Expected Gas Cost (EGC) component of each GCA included estimated gas costs based on a combination of hedged gas and gas at estimated market prices. Absent the hedging program, the EGC would have been calculated on market prices alone. The Actual Adjustment (AA) component of each GCA also includes the effect of the hedging program reflected in the actual gas costs, which are compared to GCA revenues to calculate the AA.

When the monthly EGCs were calculated, the forecasted natural gas requirements were priced out based on the weighted average of known hedged prices and the NYMEX

futures price on the day that the calculation was performed. To determine the impact of the hedging program on the EGC, the hedging transactions were removed from the original calculations to determine what EGC would have been filed if no hedging had taken place. This effect may differ from the ultimate impact on the GCA once actual costs are known and flow through the AA.

The following table shows the effect that hedging had on each separate GCA rate for the 12 months ending March 31, 2008. The prior year's hedging program continues to affect the AA portion of the GCA through August 31, 2007. Likewise, gas costs during the 12 months ended March 31, 2008 will continue to affect the AA portion of the GCA through August 31, 2008. A negative sign means that the rate was decreased due to the hedging program, and a positive indicates that the rate was increased. Rates are in dollars per mcf.

Month	Impact on EGC	Impact on AA *	Impact on GCA
April 2007			
May 2007			
June 2007			
July 2007			
August 2007			
September 2007			
October 2007			
November 2007			
December 2007			
January 2008			
February 2008			
March 2008			

\*Includes impact on AA from previous year's hedging activity.

To determine the ultimate effect on the price paid by customers subject to the GCA, the total difference in gas cost due to the hedging program was divided by the annual total Mcf used in the calculation of the EGC as part of the GCA filing effective March 1, 2008. Based on this calculation, GCA customers will pay approximately [REDACTED] than they would have paid absent the hedging program for natural gas purchased between April 1, 2007 and March 31, 2008, as shown below:

**Effect of Hedging Program on Volatility**

The hedging program increases costs when market prices are relatively low and decreases costs when market prices are high. This provides prima facie evidence that the hedging program meets its stated goal of reducing the volatility in gas prices and providing some protection against extremely high prices. Based on a more statistical definition of volatility, the hedging program reduced the standard deviation of the average commodity cost of gas by [REDACTED] over the 12 months ended March 31, 2008.

	Actual Average Commodity Cost of Gas (Includes Hedging)			Cost/ (Savings)	Estimated Average Commodity Cost of Gas Without Hedging		
	Commodity Cost	Dth	Wgt. Avg.		Commodity Cost	Dth	Wgt. Avg.
Apr-07							
May-07							
Jun-07							
Jul-07							
Aug-07							
Sep-07							
Oct-07							
Nov-07							
Dec-07							
Jan-08							
Feb-08							
Mar-08							
Standard Deviation							
Reduction in Standard Deviation							

**Weather Analysis**

The table below lists heating degree days for November 2007 through March 2008 compared to normal.

	Nov	Dec	Jan	Feb	Mar	Total
Normal Heating Degree Days*	621	907	1,069	881	662	4,140
<b>2007/2008</b>						
Heating Degree Days	629	881	1,081	942	731	4,264
%Colder (Warmer) than Normal	1%	(3%)	1%	7%	10%	3%

\* Based on 10-year average 1990-1999.

**Summary**

With few exceptions, spot prices during the 12 months ended March 2008 were lower than the various fixed prices that DE-Kentucky had locked in through its hedging strategy. This was mostly due to instability in the world markets, higher oil prices, and a cold winter keeping prices up in the futures market. Although the hedging plan increased gas costs overall, the hedging strategy was in place to provide protection against extreme prices and reduce volatility. The hedging program was successful in reducing the impact of volatility on the GCA by 30%. While no purchasing strategy or plan could guarantee savings every month, especially when weather, national storage levels, drilling activity and the economy are constantly applying pressure to natural gas prices, the hedging plan did achieve its stated goal of reducing volatility and insulating GCA customers from extreme price increases.

ATTACHMENT A

**NATURAL GAS HEDGING COMMITTEE**

**MEETING INFORMATION PACKETS**

**APRIL 1, 2007 – MARCH 31, 2008**

**Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 April 18, 2007**

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↑	Long	NOAA: Warmer than normal June-August in southern half of the US.
Mid Term Weather (30-60 days)	↔	Long	Small pockets of above normal temperatures in May and June.
6-10 day forecast	↓	Short	Above Normal temps, but not hot enough to create demand for electric generation.
Tropical Storm Activity	↑	Short	CSU (Dr. Gray) and AccuWeather both predicting an active hurricane season.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending April 6 were 23 BCF. Storage levels are 7% lower than last year at 1.6 TCF. (Still 28% higher than 5 year average)
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.712 Summer 2008: \$7.344	↑	Long	"The cold snap was a game-changing event for the natural gas market."
Paribas	↑	Short	"Tomorrow, we should see the market hold the \$7.50 support and a bounce back up tot eh \$7.75 level..."
Conoco Morning Briefing	↓	Short	"We continue to see pressure from non-fundamental sources keeping prices elevated."
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$8.439 Summer 2008: \$7.03	↔	Long	"Concerns about extreme weather conditions and rising prices in the oil market will keep upward pressure on the Henry Hub spot price..."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↔	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	CERA: "...slower economic growth in 2007 and a return to normal weather this summer support expected year-over-year declines in industrial and power generation gas demand..."
Supply	↑	Long	Gas Daily: April 10th: Lower Canadian imports to outpace LNG April 17th: Officials stress need for 'unconventional' gas
Oil Market	↑	Long	EIA: "As a result of tight oil markets and continued international uncertainty, the price of West Texas Intermediate (WTI) crude oil is expected to average over \$65 per barrel this summer..."

**Meeting Minutes: 10th Floor North Conference Room - 1:00 pm**  
 Attendees: [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]





Duke Energy Kentucky  
Hedging Program - Current Position  
November 2007 - October 2008  
As of 04/17/07

Nov-07 Dec-07 Jan-08 Feb-08 Mar-08 Apr-08 May-08 Jun-08 Jul-08 Aug-08 Sep-08 Oct-08

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

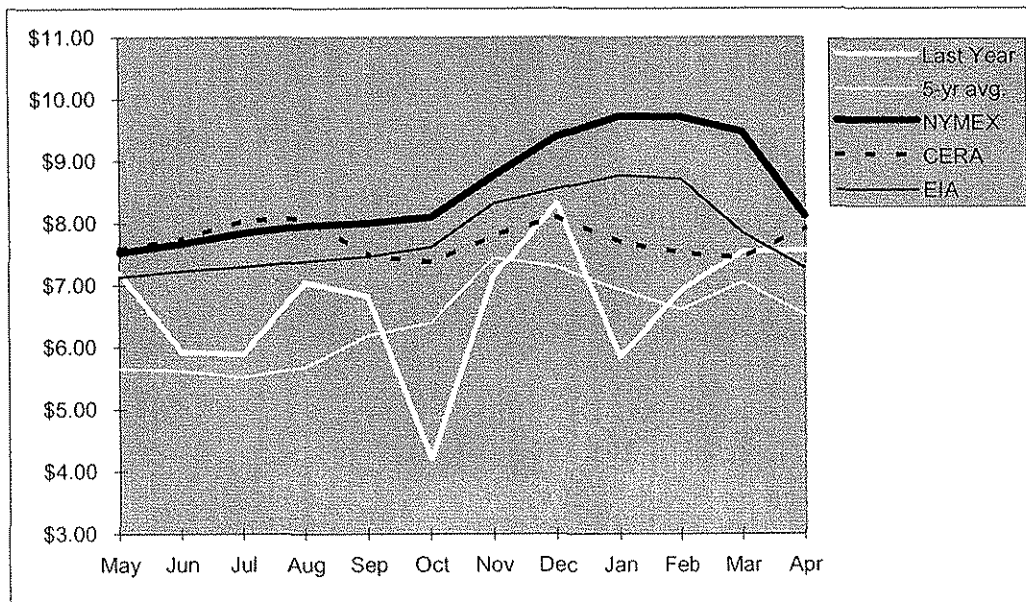
Seasonal %

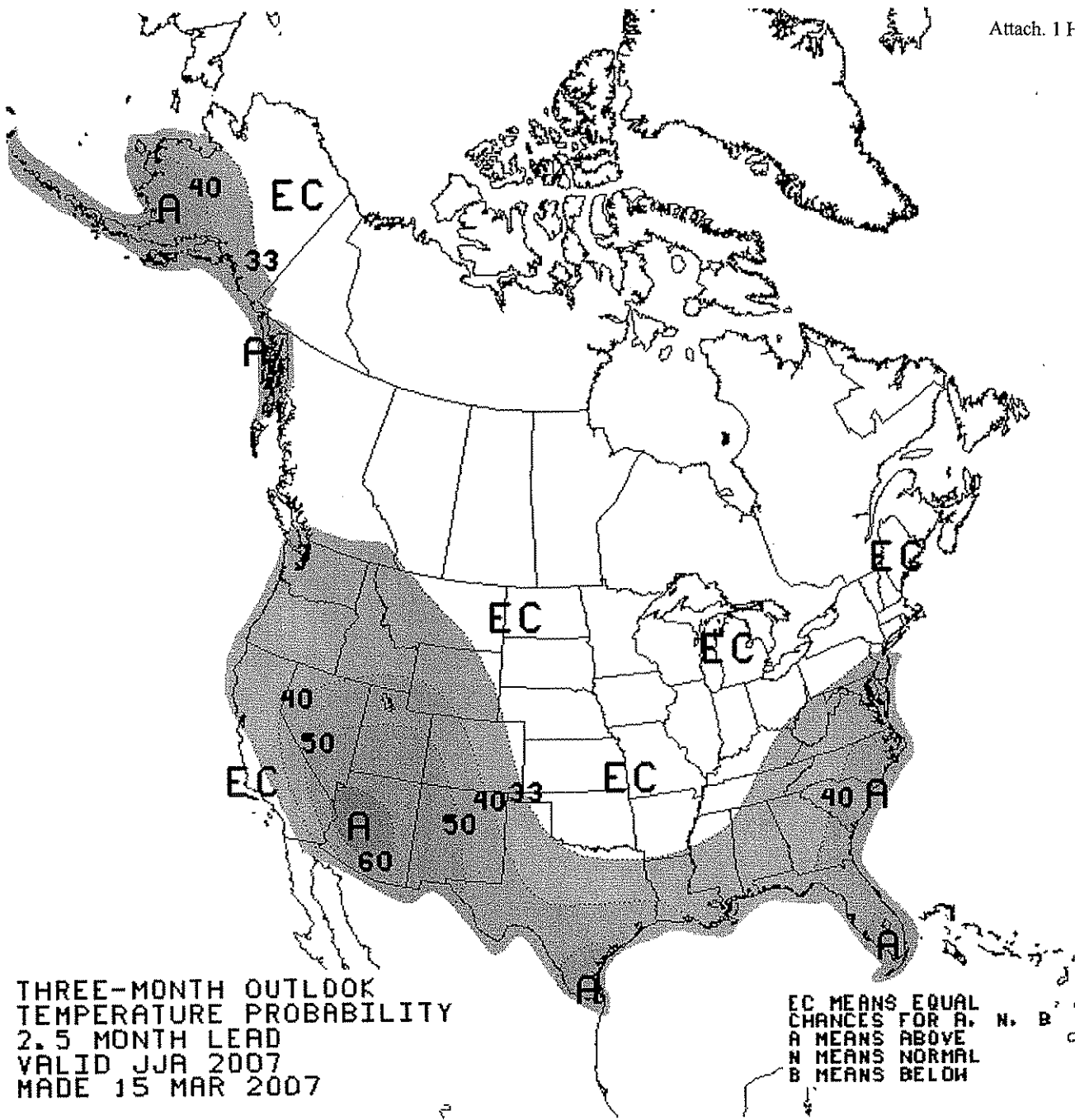




## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Mar-07	EIA 10-Apr-07	NYMEX 17-Apr-07
May	\$5.65	\$7.20		\$7.580	\$7.131	\$7.530
Jun	\$5.62	\$5.93		\$7.740	\$7.226	\$7.669
Jul	\$5.51	\$5.89		\$8.040	\$7.290	\$7.838
Aug	\$5.68	\$7.04		\$8.080	\$7.385	\$7.956
Sep	\$6.19	\$6.82		\$7.480	\$7.464	\$8.000
Oct	\$6.39	\$4.20		\$7.370	\$7.614	\$8.098
Nov	\$7.44	\$7.15		\$7.800	\$8.317	\$8.763
Dec	\$7.29	\$8.32		\$8.110	\$8.558	\$9.398
Jan	\$6.92	\$5.84		\$7.690	\$8.769	\$9.723
Feb	\$6.61	\$6.92		\$7.520	\$8.714	\$9.713
Mar	\$7.05	\$7.55		\$7.440	\$7.840	\$9.473
Apr	\$6.53	\$7.56		\$7.920	\$7.277	\$8.118
<b>12 Month Avg</b>	<b>\$6.41</b>	<b>\$6.70</b>		<b>\$7.731</b>	<b>\$7.799</b>	<b>\$8.523</b>
Summer Average				\$7.744	\$7.341	\$7.887
Winter Average				\$7.712	\$8.439	\$9.414



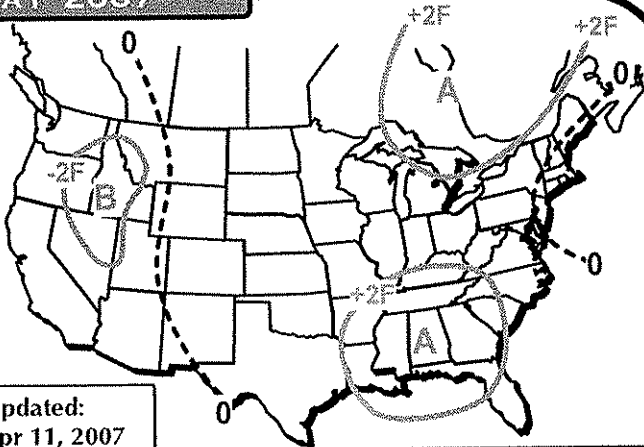




# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

Wednesday DAY 4/11/07 DATE 9:25 AM EDT TIME MR/SK FORECASTER

**MAY 2007**



Updated:  
 Apr 11, 2007



### No Changes To May

Lingering Cooling  
 at Times in NE Coast Continues

No changes are made to the month of May. A continued threat for cooling at times through the Northeast Coastal areas continues into the month of May and could linger into June as well (see image to the right). There appeared no reason to adjust the forecast composite based on the latest ENSO analogs from yesterday. Also, other key analog years still favor seasonal to cool temperatures on the West Coast.

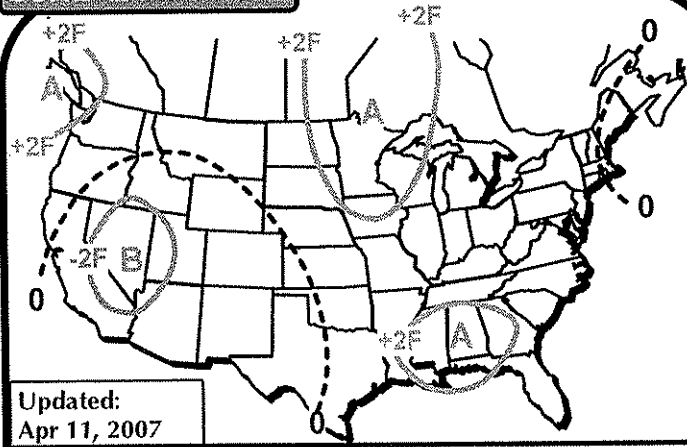
### May PWCCD\* Forecasts

May 2007 Fcst: **109.0**

10Y Normal: 109.3  
 30Y Normal: 92.0  
 May 2006: 119.7

\*National Population-Weighted CDDs

**JUNE 2007**



Updated:  
 Apr 11, 2007

### Slightly Warmer Trends In Northern Plains & Pac NW

Dryness in Southeast Concerning

June is introduced slightly warmer for the Northern Plains and the Pacific Northwest versus what was seen on the Seasonal Weather Seminars seen during the last month. ENSO analogs have trended warmer for these areas (especially in the Central U.S.) Dryness concerns are also showing up over the Southeast, though some of this could be resolved in the coming week. Backdoor cooling could continue to threaten the New England Coast.

### June PWCCD\* Forecasts

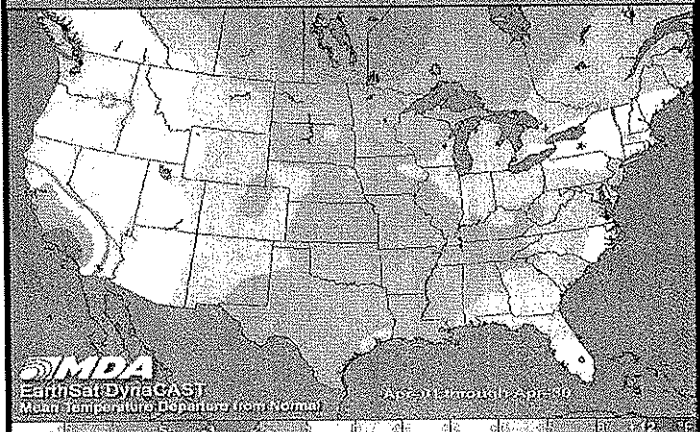
Coming Next Week....

### April 2007 Comparison



The first week and a half of the month quickly changed from very warm in the eastern Midwest and across the southern half of the nation, to very cold over the Central, East, and South. The big question remains how the second half of April will play out.

### APRIL 2006



Maps above depict deviations of average temperatures from normal in Fahrenheit.



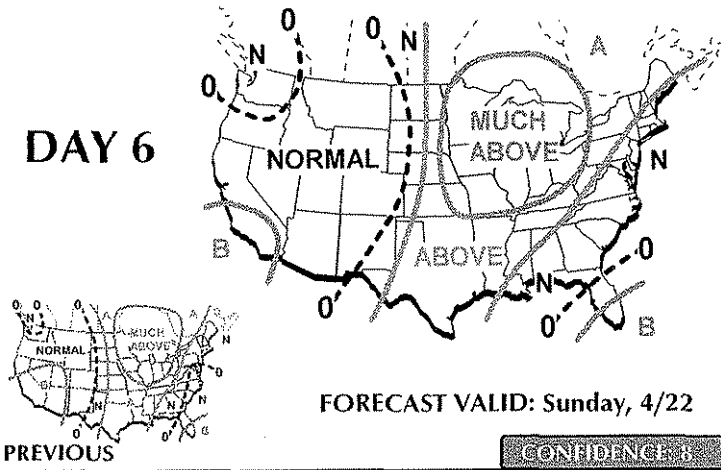
# MDA EarthSat's Energy Weather The 6 to 10 Day Forecast - Detailed Version

Tuesday **DAY** 4/17/2007 **DATE** 6:30 A.M. **TIME** MR/AC **FORECASTER**

## FORECAST TEMPERATURE DEVIATIONS

## DISCUSSION

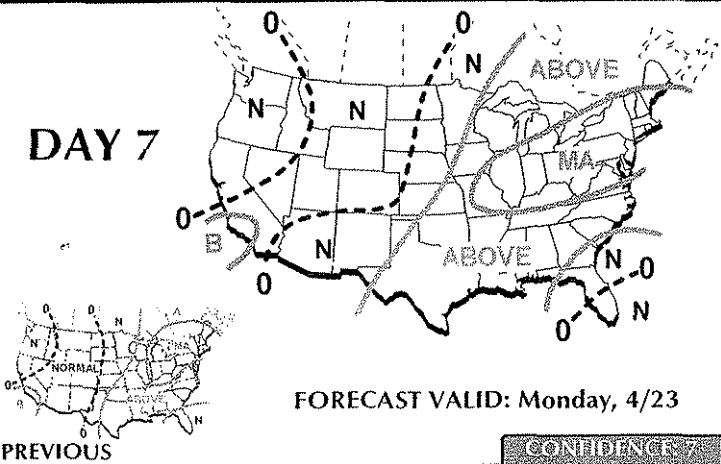
**DAY 6**



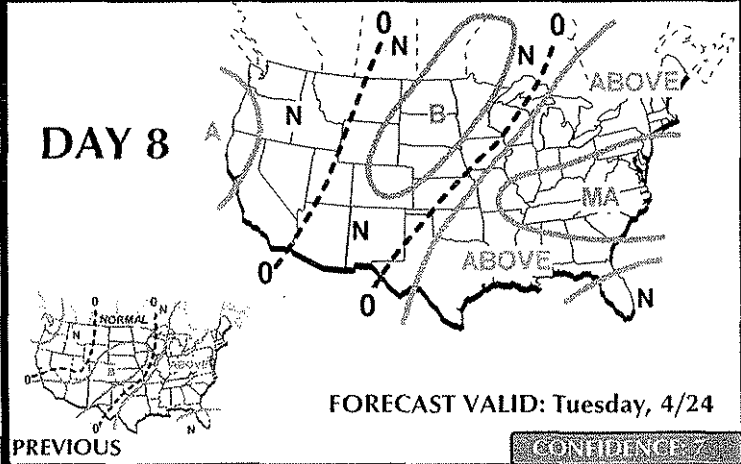
### Today's Forecast

**A Few Storms Remain Persistent During Period**  
 Storm systems are still being depicted in the models during the forecast period. One system should continue to develop in the Northern Plains on Day 6 and advance into eastern Canada by Day 7, stretching precipitation into these regions while warmth moves into the Midwest and East. Another storm in the Southern Plains is expected to gather some steam near Day 8 as a trough digs into the Rockies. This could help create a similar situation to the Great Lakes system where warmth is promoted ahead of the storm while cool air filters in behind the system.

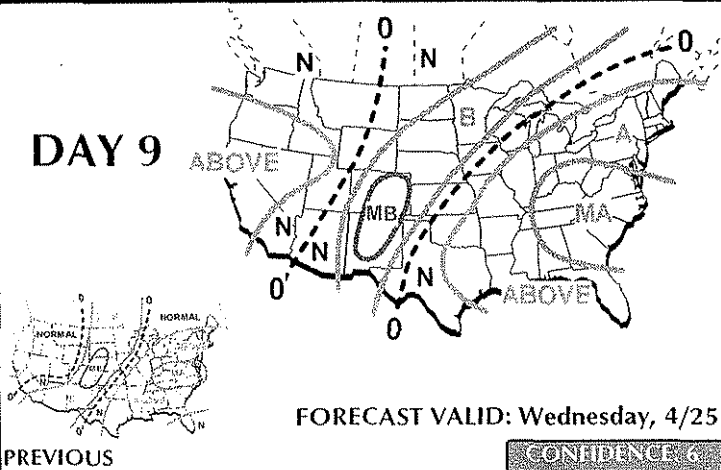
**DAY 7**



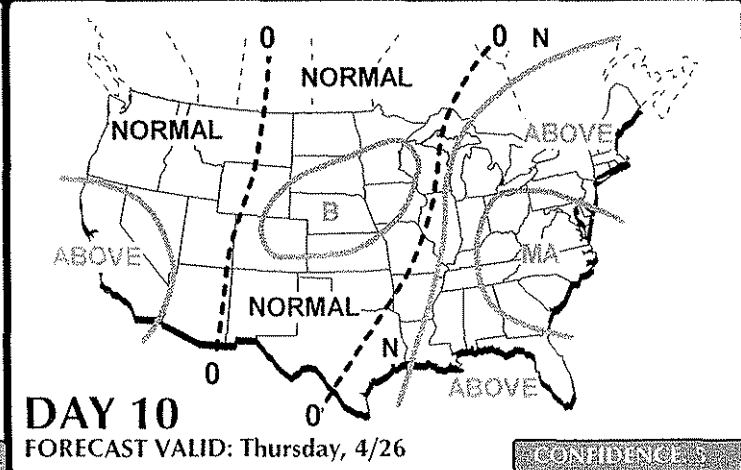
**DAY 8**



**DAY 9**



**DAY 10**



## LEGEND

STRONG ABOVE..... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

**NORMAL**  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

**Confidence Level Boxes: 1=Low, 5=Moderate, 10=High**

Most Northeast pricing points tacked on between a nickel and more than 15 cents despite generally tepid market interest. While temperatures in the New York area are expected to drift to the low to mid-60s today, several traders said that demand and utility loads seemed to creep up, which was likely attributable to end-of-month balancing.

Transcontinental Gas Pipe Line zone 6-New York and non-New York climbed 15 cents and a dime, respectively, and Appalachian prices followed a similar trend upward.

Along the Gulf Coast, Henry Hub averaged about flat to its previous midpoint, while Transco's zone 3 and Tennessee Gas Pipeline's 500 leg tacked on a few cents.

Tallahassee-area temperatures in the mid-80s were not enough to give Florida markets the boost that several traders anticipated, and prices at Florida Gas Transmission's zone 3 came in about a nickel under Monday. But some utility demand and interest in end-of-month balancing was enough to support Florida Gas' zone 2, which stayed close to Monday's average in the upper \$7.10s.

In Texas, demand continued to fall off as seasonal temperatures were expected to remain through the end of the week.

— Market Staff Reports

## Solengo staffed by ex-Amaranth traders ... from page 1

Power Relative value portfolio, according to the pitch to prospective investors.

The letter notes that Hunter was the co-head of energy trading at Greenwich-based Amaranth but makes no mention of the disastrous fall Amaranth had, when the \$2-plus spread between the April and May futures contract collapsed within days last September, taking Amaranth, previously a \$9.5 billion "multi-strategy" fund, with it and surprising some investors who were unaware so much of the fund was invested in gas futures (*GD 9/20*).

Solengo, named after an Italian wine, will use the Standard Portfolio Analysis of Risk mathematical model developed by the Chicago Mercantile Exchange to evaluate the risks of its funds in addition to "a state-of-the-art trade capture and reporting system" designed by Solengo to run its trading.

Running Solengo's risk management is former Amaranth Senior Quantitative Architect for Risk Management, Karl Koster, whom the offering notes is recognized for his success in building a high-quality risk management platform in a short time span.

Both Koster and Hunter are degreed mathematicians.

According to the prospectus, Amaranth plans to eventually trade all the commodities listed in the Goldman Sachs Commodities Index. (GSCI will soon be renamed the Standard & Poor's GSCI Commodity Index after S&P bought GSCI on February 6. S&P, like Platts, is a division of The McGraw-Hill Companies.)

Investors have to commit their funds for two years but can pull their cash out immediately if fund managers exceed a 10% margin requirement, the prospectus said.

Solengo will take a hedge fund's customary cut of 2% of the fund's value per year and 20% of all profits it earns from trading but will only pay out 10% of that monthly to traders. The rest will be paid at the end of the firm's fiscal year, deferring compensation for fund managers to better align their interests with investors, the offering said, because "deferred compensation that the portfolio manager accrues can be invested in any fund within Solengo," the solicitation said.

At Amaranth, Hunter took his first big hit at the end of May 2006, when he allegedly lost between \$500 million and \$700 million. He was still up over \$1 billion for the year, sources said at the time.

Hunter then restructured his position and was recouping losses until the market turned on him again after mid-September 2006. This time, the losses, mixed with the cost of meeting the margin calls of Amaranth's prime broker, JP Morgan, broke the hedge fund.

BH

## AccuWeather predicts hurricane risk 'much higher' this year than in 2005

A forecaster who correctly predicted last year's mild hurricane season in the Gulf of Mexico says tropical activity will be "much higher" this year, with some intense storms expected.

"Last year was just a breather," said Joe Bastardi, chief forecaster at AccuWeather.com's hurricane center. This year, "the Gulf and Florida face a renewed threat, and we will see more powerful storms across the board. We will not get anywhere near the amount of storms that we did in 2005, but it is the intensity of the storms we do get that will be of major concern."

Bastardi said the pattern of Atlantic Ocean water temperatures and the overall trend of more extreme weather across the US will be a leading factor in the upcoming season, which extends from June 1 through November 30.

Specifically, the recent hot, dry summers in the West and Plains regions are a precursor to increased Atlantic Basin hurricane intensity, one of the patterns Bastardi said he identified in his comparative research of previous seasons.

"We are living in a time of climatic hardship," Bastardi said. "We're in a cycle where weather extremes are more the norm and not the exception. One of the ways this manifests itself is in the intensity of hurricanes and tropical storms. Last year was just a breather, because the overall pattern shows no sign of reversing in the near term."

"We'll see storms on the prowl in the Gulf again," the forecaster continued. "The entire region — including New Orleans and other areas that are still rebuilding after Katrina — is susceptible to landfalling storms. Of concern to consumers everywhere is that there is so much oil and natural gas drilling and refining occurring in the Gulf. This year's stronger storms are likely to cause the kind of disruption that will be felt in wallets and pocketbooks."

Last year, while many forecasters predicted another above-average year for Gulf hurricane activity, Bastardi said he predicted that the East Coast was far more likely to see landfalling storms.

Most of the 10 named storms last year did track farther east than expected despite a majority of forecasts that called for another active year in the Gulf, following the especially destructive 2005 season (*GD 10/4*). Many meteorologists blamed the mild season on the early appearance of an El Niño weather phenomenon, which they said typically dampens hurricane activity.

Likewise, this year some forecasters, including the National Oceanic and Atmospheric Administration, are looking at the development of a La Niña as one reason why activity this year might be greater (*GD 3/1*). La Niña is marked by a cooling of sea surface temperatures in the equatorial Pacific Ocean, while an El Niño is signaled by warmer Pacific waters.

But Bastardi and another AccuWeather forecaster said the El Niño/La Niña trends have been "given too much emphasis when these events are weak."

"Last year's season wasn't truncated because of an El Niño," said Ken Reeves, director of forecast operations at AccuWeather. "After all, there was a much stronger El Niño in effect in 2004, and that was a significantly more active hurricane season than last year. Similarly, a La Niña won't be the main driver of this year's hurricane season." Reeves blamed the milder 2006 season instead on drier-than-normal air and higher-than-normal levels of dust in the atmosphere over the Atlantic.

AccuWeather said it would release its detailed forecast in early May.

SGS

Kern, Jeff L.

From: anthony.carroll@americas.bnpparibas.com  
Sent: Tuesday, April 03, 2007 10:43 AM  
To: anthony.carroll@americas.bnpparibas.com  
Subject: Hurricane Forecast Story

10:37 03Apr2007 RTRS-UPDATE 2-Forecasters predict 9 Atlantic hurricanes this year

(adds quotes, background, detail, byline)

By Jim Loney

MIAMI, April 3 (Reuters) - The 2007 Atlantic hurricane season will be far more active than usual with 17 tropical storms, of which nine will grow into hurricanes, a noted U.S. forecasting team founded by William Gray said on Tuesday.

If the prediction proves true, the June 1-Nov. 30 hurricane season could mark a return to the destructive seasons of 2004, when four strong hurricanes hit Florida, and 2005, the year of Katrina, after a mild 2006 season when only 10 storms formed.

The 2004 and 2005 seasons rattled oil and insurance markets as hurricanes rampaged through the oil and gas fields of the Gulf of Mexico. Hurricane Katrina was the costliest storm in U.S. history with more than \$80 billion in damage in New Orleans and along the Gulf Coast.

The 2005 season was a record-breaker with 28 storms and 15 hurricanes.

In its updated outlook for the 2007 season, the Colorado State University team led by hurricane forecast pioneer Gray and Philip Klotzbach raised the number of expected storms and hurricanes from the 14 and seven, respectively, that it had predicted in December.

The forecasters said the disappearance of the El Nino warm-water phenomenon in the eastern Pacific, which dampened Atlantic hurricane activity last year, and warm Atlantic sea surface temperatures lay behind their upgraded forecast.

"We've seen El Nino conditions dissipate quite rapidly late this winter so we do not think that's going to be an inhibiting factor this year," Klotzbach said in a statement. "Also, we have warm Atlantic sea surface temperatures this year which we've seen just about every year since 1995."

The CSU team predicted that five of the hurricanes will be the most destructive variety of Category 3 or higher, with sustained winds above 110 mph (177 kph).

Last season produced 10 tropical storms, of which five became hurricanes and two turned into intense hurricanes. The long-term averages are for just under 10 storms and six hurricanes per season.

All the leading forecasters, including Gray's group, erroneously predicted a busy season in 2006. The April 2006 forecast issued by Colorado State University was identical to Tuesday's forecast for 17 storms and nine hurricanes in the looming 2007 season.

Gray's 2007 forecast called for a 74 percent probability of a major hurricane hitting the U.S. coast, compared to an average of 52 percent over the last century.

Forecasters say the Atlantic basin is in a long-term cycle of increased hurricane activity that began around 1995 and could last 25 to 40 years.

Some researchers also have drawn a link between global warming and increasingly intense hurricanes, which draw energy from warm sea water.

London-based forecaster Tropical Storm Risk on March 21 also predicted there would be 17 tropical storms, of which nine will strengthen into hurricanes, while private forecaster AccuWeather predicted a busy season but gave no numbers. It said the Gulf Coast and the U.S. Northeast were at risk.

((Reporting by Jim Loney, editing by xxx; Reuters Messaging: michael.christie.reuters.com@reuters.net; +1 305 810 2688; E-mail: miami.newsroom@reuters.com)) Keywords: WEATHER STORMS/

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[RNP] [PGE] [US] [SUG] [ORJ] [NEWS] [GRA] [SHP] [LIV] [BIOF] [PROD] [NGS] [INS] [MOG]  
[JET] [ENR] [WEA] [LEN] [RTRS] Tuesday, 03 April 2007 10:37:12RTRS [nN03240569] {EN}ENDS

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# Gas Daily

Wednesday, April 4, 2007

(continued on page 6)

## CSU team predicts 'very active' hurricane season

While meteorologists at Colorado State University on Tuesday called for a "very active" Atlantic Basin hurricane season, offshore gas and oil producers say they've been working hard to prepare for whatever Mother Nature throws their way.

"We try to be ready for the worst at all times," said Kim Harb, a spokeswoman for the National Ocean Industries Association. "The fact that expectations of an active season were overemphasized last year and then it wasn't too bad was actually good for the industry. We still had a lot to do after Katrina and Rita hit in 2005."

(continued on page 4)

## CSU predicts active hurricane season ... from page 1

"It may be that some of the lessons learned that were not tested last year will finally be put to the test this summer," said Mark Stultz, a spokesman for the Natural Gas Supply Association. "We know how important it is to keep the energy flowing as much as possible. The industry has committees and panels that meet throughout the year to examine protocols as well as engineering standards that could be brought to bear to improve technology and processes" in the event of hurricanes or other natural disasters.

The CSU forecast team, led by William Gray and Philip Klotzbach, predicted that 17 named storms will form this year, with nine becoming hurricanes and five developing into intense storms of Category 3 or higher.

Klotzbach acknowledged that CSU's forecasts for a dynamic 2006 hurricane season were off the mark thanks to the unexpected development of an El Niño system that dampened storm activity. But he said the El Niño dissipated "quite rapidly late this winter, so we do not think that's going to be an inhibiting factor this year."

Also, "we have warm Atlantic sea surface temperatures this year, which we've seen just about every year since 1995," Klotzbach said.

The latest forecast also cited the appearance of neutral or weak El Niña conditions, typified by low Pacific Ocean temperatures, which the CSU team called "a recipe for greatly enhanced Atlantic Basin hurricane activity."

They predicted that storm activity during the season that runs from June 1 to November 30 will be 185% of normal. That compares with 275% in 2005, when the Gulf of Mexico producing region was hammered by Hurricanes Katrina and Rita.

Gray and Klotzbach said there is a 49% chance of a major hurricane making landfall somewhere on the Gulf Coast between Florida and Texas, while the long-term average is 30%. They cited a slightly higher chance that a major hurricane will strike the East Coast and a 74% chance that at least one major hurricane will make landfall somewhere along the US coastline this year.

The CSU team cautioned against "reading too much" into the hurricane seasons of 2004 and 2005, when Florida and the Gulf Coast suffered damage from four landfalling hurricanes each year. "The activity of these two years was unusual, but within the natural bounds of hurricane variation," Gray said. Following those very active seasons, 2006 had slightly below-normal storm activity with no

### Louisiana-Onshore South

ANR, La.	7.550	7.49-7.60	7.52-7.58	337	73
Columbia Gulf, La.	7.565	7.48-7.64	7.53-7.61	346	54
Columbia Gulf, mainline	7.620	7.54-7.69	7.58-7.66	265	52
Florida Gas, zone 1	7.520	7.22-7.58	7.43-7.58	74	9
Florida Gas, zone 2	7.595	7.55-7.64	7.57-7.62	30	3
Florida Gas, zone 3	7.690	7.64-7.75	7.66-7.72	121	10
Henry Hub	7.575	7.48-7.65	7.53-7.62	1460	169
NGPL, La.	7.140	7.14-7.14	7.14-7.14	10	1
Southern Natural, La.	7.590	7.48-7.62	7.56-7.62	339	41
Tennessee, La., 500 Leg	7.590	7.45-7.68	7.53-7.65	331	60
Tennessee, La., 800 Leg	7.535	7.40-7.59	7.49-7.58	335	57
Texas Eastern, WLA	7.550	7.48-7.60	7.52-7.58	173	38
Texas Eastern, ELA	7.620	7.50-7.68	7.58-7.67	191	30
Texas Gas, zone SL	7.550	7.50-7.58	7.53-7.57	103	28
Texas zone 2	7.550	7.52-7.62	7.53-7.58	76	19

last year — has paid all the royalties it owes, notwithstanding the jury's finding that company committed fraud in 1996 by selling oil from the Gulf of Mexico at below-market prices to a marketing affiliate in exchange for the affiliate's tacit agreement to pay more for oil and gas produced onshore at lower royalty rates.

Anadarko's lawyer in the case, Scott Barker of Denver, told Platts Tuesday that he "respectfully disagrees with jury's verdict in this case" and that his client and MMS believe Kerr-McGee to be fully paid up. "MMS scrutinized the books and concluded that Kerr-McGee had paid all the royalties due," he said.

Maxwell charged that from January 1999 through July 2003, Kerr-McGee knowingly underreported the royalty value of production from the leases and said the company maintained a contract with a firm called Texon to sell the oil at below-market price.

In his complaint, Maxwell said he was "dissuaded" by his superiors at MMS from pursuing any action against the company. BH

## platts 2nd Annual Calgary Energy Roundtable

The Oil & Gas Networking Event

Tuesday, April 10th, 2007  
Hyatt Regency, Calgary  
Alberta, Canada

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landfalling hurricanes.

"We've had an upturn of major storms since 1995," Gray said. "We think this upturn of major storms will continue for another 15 or 20 years."

The CSU forecast jibes with recent predictions from other forecasters for a busy tropical storm season. Last week, meteorologists at Accuweather.com called for "much higher" activity this year than last. The firm said that while the Atlantic will not get near the amount of storms in 2005, "it is the intensity of the storms we do get that will be of major concern," particularly for Gulf-area drilling and refining industries (GD 3/28).

Whatever happens, the exploration-and-production industry is more ready than ever before, according to NOIA's Karb. "We have now shored up our resources and have incorporated lessons learned from 2005. Safety is always our number one priority," she said.

The 2005 storms destroyed 113 offshore platforms, seriously damaged 52 more and shut in significant gas volumes, NOIA noted in its latest hurricane fact sheet. In addition, damage to undersea pipelines and onshore gathering and processing systems was extensive.

NOIA said it has spearheaded improvements to offshore infrastructure in advance of future storms. One such change is the installation of clamps capable of surviving Katrina-like wind conditions to hold major platform components in place.

In another initiative, a joint industry coalition is studying ways to improve platform anchors by adding mooring lines and by engineering the lines with fail-safe breaking points to ensure a dislodged platform won't drag anchors across the seafloor, thus damaging pipelines.

One company with a fleet of jack-up rigs plans to direct workers to take on extra ballast water to improve rig stability during storms, which would also enable the platforms to be raised to withstand bigger waves.

In another lesson learned from 2005, operators are more cognizant of the need to work around offshore pipelines that may be damaged by hurricanes, NOIA said. In some cases, "jumper" pipelines have been laid to link major pipeline arteries on the sea floor, which can allow gas to be redirected around broken sections.

Offshore platforms built since 1988 are designed to withstand "100-year storms," a designation that includes conditions up to Category 5 events, the association said. Most of the facilities damaged or destroyed in 2005 were built prior to 1988.

"Hopefully we won't ever have to test the things we have learned," NGSa's Stultz said. "But the reality is we will have hurricanes in the Gulf of Mexico and we need to be as prepared as we can be." SGS

**Gas Daily basis forwards assessments, Apr 3**

	May 2007	Jun 2007	Summer 2007*	Winter 2007-08	Summer 2008	Winter 2008-09
Transco Zone 6-NY	58.500	65.000	70.000	299.500	70.000	302.500
Texas Eastern, M-3	55.000	57.500	62.000	196.000	62.500	185.000
Columbia Gas, Appalachia	32.250	28.750	27.250	27.250	26.000	25.500
Transco, zone 3	9.000	15.000	15.250	15.000	8.500	7.500
Trunkline, LA	-7.000	-6.500	-6.500	-6.250	-6.500	-8.000
Houston Ship Channel	-20.000	-11.500	-20.000	-49.000	-17.500	-33.500
Chicago city-gates	-16.750	-12.500	-12.500	-22.500	-4.000	-6.000
MichCon city-gate	16.250	10.500	8.250	-20.500	17.000	-3.500
Panhandle, Tx.-Okla.	-90.000	-77.000	-77.500	-123.500	-94.500	-97.000
Waha	-63.000	-45.000	-48.500	-88.500	-45.500	-69.250
El Paso, Permian Basin	-85.000	-67.750	-67.000	-103.000	-64.500	-82.000
El Paso, San Juan Basin	93.750	83.750	85.250	116.500	-71.250	-88.500
SoCal Gas	57.500	-42.500	-45.000	-83.500	-33.000	-60.000
Northwest Pipe, Rockies	-272.000	-274.500	-292.000	-232.000	-131.000	-134.000

Prices in cents/MMBtu. Summer season is April-October. Winter is November-March.

\*balance-of-season

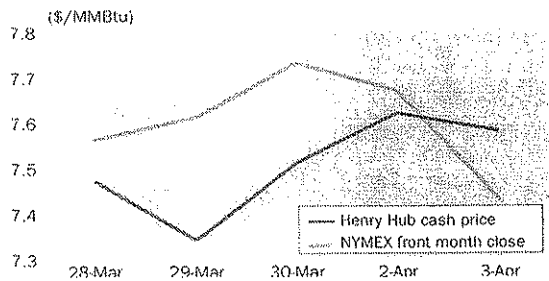
**NYMEX Henry Hub gas futures contract, Apr 3**

	Settlement	High	Low	+/-	Volume
May 2007	7.426	7.600	7.390	-24.5	45416
Jun 2007	7.564	7.730	7.550	-24.5	15816
Jul 2007	7.711	7.960	7.700	-24.0	7865
Aug 2007	7.811	7.965	7.795	-24.0	2601
Sep 2007	7.856	8.010	7.850	-24.0	1193
Oct 2007	7.966	8.120	7.960	-23.8	2341
Nov 2007	8.631	8.760	8.635	-21.8	917
Dec 2007	9.321	9.450	9.315	-18.8	733
Jan 2008	9.646	9.790	9.670	-18.8	785
Feb 2008	9.636	9.790	9.640	-18.3	62
Mar 2008	9.406	9.560	9.450	-18.3	163
Apr 2008	7.936	8.060	7.955	-12.3	331
May 2008	7.816	7.940	7.940	-12.3	116
Jun 2008	7.883	8.010	8.010	-12.1	157
Jul 2008	7.965	8.090	8.090	-11.9	47
Aug 2008	8.032	8.150	8.150	-11.7	198
Sep 2008	8.089	8.200	8.200	-11.5	33
Oct 2008	8.191	8.191	8.191	-11.3	4
Nov 2008	8.641	8.641	8.641	-11.3	1
Dec 2008	9.111	9.111	9.111	-10.8	1
Jan 2009	9.371	9.385	9.385	-10.3	190
Feb 2009	9.366	9.375	9.375	-9.8	0
Mar 2009	9.141	9.141	9.141	-9.8	10
Apr 2009	7.651	7.651	7.651	-8.8	10
May 2009	7.526	7.580	7.580	-9.3	0
Jun 2009	7.591	7.640	7.640	-9.3	0
Jul 2009	7.666	7.666	7.666	-9.3	0
Aug 2009	7.721	7.721	7.721	-9.3	0
Sep 2009	7.771	7.771	7.771	-9.3	0
Oct 2009	7.871	7.871	7.871	-9.3	0
Nov 2009	8.306	8.306	8.306	-9.3	0
Dec 2009	8.731	8.731	8.731	-9.8	0
Jan 2010	8.956	8.956	8.956	-9.8	0
Feb 2010	8.956	8.956	8.956	-9.8	0
Mar 2010	8.726	7.871	7.871	-9.8	0
Apr 2010	7.346	7.346	7.346	-7.8	3

**Contract data for Monday**

Volume of contracts traded: 79,145  
 Front-months open interest:  
 MAY, 124,054; JUN, 41,589; JUL, 30,021  
 Total open interest: 740,610

**Henry Hub/NYMEX spread**



**Platts oil prices, Apr 3**

	(\$/b)	(\$/MMBtu)
<b>Gulf Coast spot</b>		
1% Resid	44.60-44.80	7.11
3% Resid	43.10-43.30	6.87
<b>Crude spot</b>		
WTI (Apr)	64.50-64.52	10.26
<b>New York spot</b>		
No.2	76.99-77.07	13.22
0.3% Resid HP	52.05-52.25	8.29
0.3% Resid LP	55.55-55.75	8.85
0.7% Resid	48.35-48.55	7.71
1% Resid HP	45.30-45.50	7.22



## Commentary

The natural gas market continued the profit taking sell-off today despite the nor'easter that dumped more than 9" of rain in New York's Central Park. We opened lower and traded in the low \$7.70's for the first 45 minutes while the market decided what to do. Then, in a matter of less than an hour, the market dropped to a low of 7.495 and rebounded slightly above 7.50 and traded right there for the rest of the day. The front month spreads were mostly unaffected by the move and there was some significant paper buying in June '07. Tomorrow, we should see the market hold the \$7.50 support and a bounce back up to the \$7.75 level if the Far East does not push us down through the support overnight.



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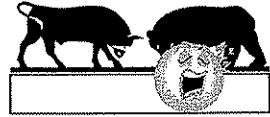
## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

**Jim Duncan, Market Analyst**

(281) 293-1649

Email: James.W.Duncan@conocophillips.com



(1-Day Indicator)

**Tuesday, April 17, 2007**

# Bearish Weather Forecast Triggers Sell-Off



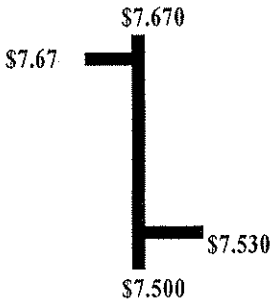
**Today: Bearish**      **May Natural Gas Closed**      **Down 0.271¢**      **30-Day: Bearish**  
 Bottom Line – Look for more downside today as weather continues to move to the Bearish side of exogenous factors on price.

Yesterday's Market

- The May contract fell precipitously on the first day of the week in response to a longer-term bearish weather forecast and despite the continuing Nor'Easter affecting temperatures in the Northeast...and a weakening crude oil complex. As it was, May tested technical support while holding in a hover by the end of trading. The front month settled at \$7.53, down 27.1¢ and just above the day's low of \$7.50, another key support point; if the contract breaks down below that in Tuesday's session, the next point of support would be \$7.42. However, with an abundance of short positions remaining, the market could also face short covering if crude rebounds. May crude oil, which is slated to expire at the end of open outcry this Friday, slowed on the milder weather outlook and settled at \$63.61, down 2¢ after trading between \$62.58 and \$63.90.

Today's Market

- I'm still on the road, but I'm watching this market with marked confusion...if not amazement. We continue to see pressure from non-fundamental sources keeping prices elevated. If we don't go down soon, we may not have time for a good fall. I'm looking at summer right now, and I'm seeing a whole lot of upside pressure. Closer in, the storms system that moved across the country last week is waning. Behind it came very nice...and low demand...weather. If you weren't out Sunday...it was a pretty bad day to play golf. What, with 30 mph winds in my...er...your face.



Access Trading	4/17/2007	7:42 AM	Natural Gas	\$7.457	(7.8¢)
WTI Crude	\$64.080		IPE Brent	\$65.370	

<p>10 Day Temperature Outlook...</p>	<p>Today's High Temperatures...</p>	<p>Tonight's Low Temperatures...</p>
--------------------------------------	-------------------------------------	--------------------------------------

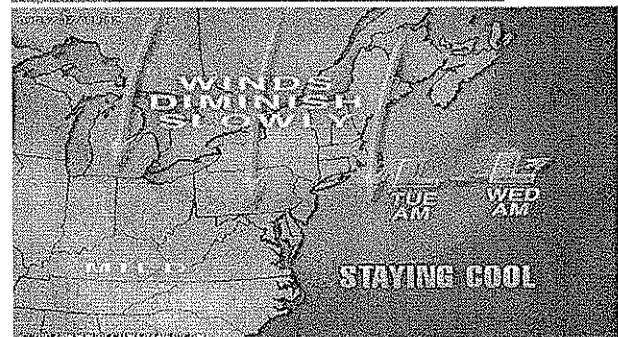
Weather Briefs – More Rain Expected For Northeast – Upper-Midwest Will Be Quiet – More Storms For South – Snow In PacNW

**Storage...**

We expect to see 57 Bcf withdrawal from storage next week.

The EIA reported a 23 Bcf storage build last week, increasing the nationwide stocks to 1.569 Tcf. The build was within the industry's expectation of 15 to 40 Bcf. In the same week last year the stock level was 1.714 Tcf, which sends the year on year deficit to 122 Bcf. Early indication for this week is a 57 Bcf withdrawal compared to a 57 Bcf build last year and a 9 Bcf build for the 5yr. average.

Signets: Cold In Northeast Through Weekend



Unseasonably cool weather is expected to continue over most of the East this week. Daytime highs in the 40s to lower 50s are anticipated on the coolest days from the Great Lakes to the Northeast, with even some 30s in the typically colder locales away from the big cities. This includes the Boston-Washington corridor as well as Detroit and Chicago.

## *Natural Gas Markets*

**Prices.** Concerns about extreme weather conditions and rising prices in the oil market will keep upward pressure on the Henry Hub spot price during much of the forecast period. Prices are expected to rise, albeit slowly, over the next several months, as crude oil prices rise and electric power demand for natural gas increases during the summer cooling season. The trend will accelerate in the third quarter during the height of the cooling season and again when spot prices begin their climb toward a winter peak. On an annual basis, the Henry Hub spot price is expected to average about \$7.83 per mcf in 2007, an 89-cent increase from the 2006 average, and \$8.11 per mcf in 2008.

**Production and Imports.** Total U.S. dry natural gas production is projected to increase by 1.4 percent in 2007 and 1.3 percent in 2008. Year-over-year production growth in the Gulf of Mexico expected in 2007 is largely attributable to continued recovery from the hurricane disruptions of 2005 that carried over into the first half of 2006. In addition to expanding Gulf of Mexico production, continued high rig counts are expected to lead to moderate production increases by onshore facilities in the lower 48 States.

First quarter 2007 imports of liquefied natural gas (LNG) are estimated to have risen 47 percent above the corresponding period last year. LNG imports in 2007 are projected to rise to 750 billion cubic feet (bcf), or about 170 bcf above the 2006 total. If LNG demand outside U.S. markets is lower than expected this year, it could push U.S. imports above current projections and dampen domestic natural gas prices. LNG imports are expected to remain strong in 2008, surpassing 1 trillion cubic feet.

**Inventories.** On March 30, 2007, working natural gas in storage stood at 1,569 bcf (U.S. Working Natural Gas in Storage). Stocks are 127 bcf below the level for the corresponding week last year, but are 337 bcf above the previous 5-year average (2002 – 2006). Though inventories dropped below year-ago levels in February, this year's end-of-March storage volume is the second-highest since end-of-March 1991. Working natural gas in storage is expected to remain above the previous 5-year average throughout 2007 and 2008.

**Consumption.** A colder-than-normal first quarter has set the stage for an increase in total natural gas consumption in 2007, which is projected to rise above 2006 levels by about 540 billion cubic feet (bcf), or 2.5 percent (Total U.S. Natural Gas Consumption Growth). The projections for heating and cooling degree days from the National Oceanic and Atmospheric Administration over the forecast period imply higher residential consumption but lower consumption in the electric power sector in 2007.

Gas-weighted heating degree-days in 2007 are projected to be 11 percent higher than in 2006, and residential natural gas consumption is expected to show growth of 8.4 percent over last year. However, after a warmer-than-normal summer in 2006 (cooling degree-days were 19 and 14 percent above normal last July and August, respectively), an assumed return to near-normal temperatures during the summer of 2007 is expected to reduce consumption of natural gas by 1.0 percent in the electric power sector. Total natural gas consumption in 2008 is expected to increase by less than 2 percent, with growth of 2.3 and 1.6 percent in the residential and electric power sectors, respectively.

### *Electricity Markets*

*Prices.* After large increases in residential electricity prices during 2006, prices are projected to grow at a slower rate of 3.0 percent during 2007 (U.S. Residential Electricity Prices and Consumption). Electricity prices are expected to continue to grow by 3.1 percent during 2008 as higher fuel costs are passed through to retail customers. Some regions with States in the midst of electric power sector restructuring, such as New England and the West South Central, could face highly volatile prices later this year or next year.

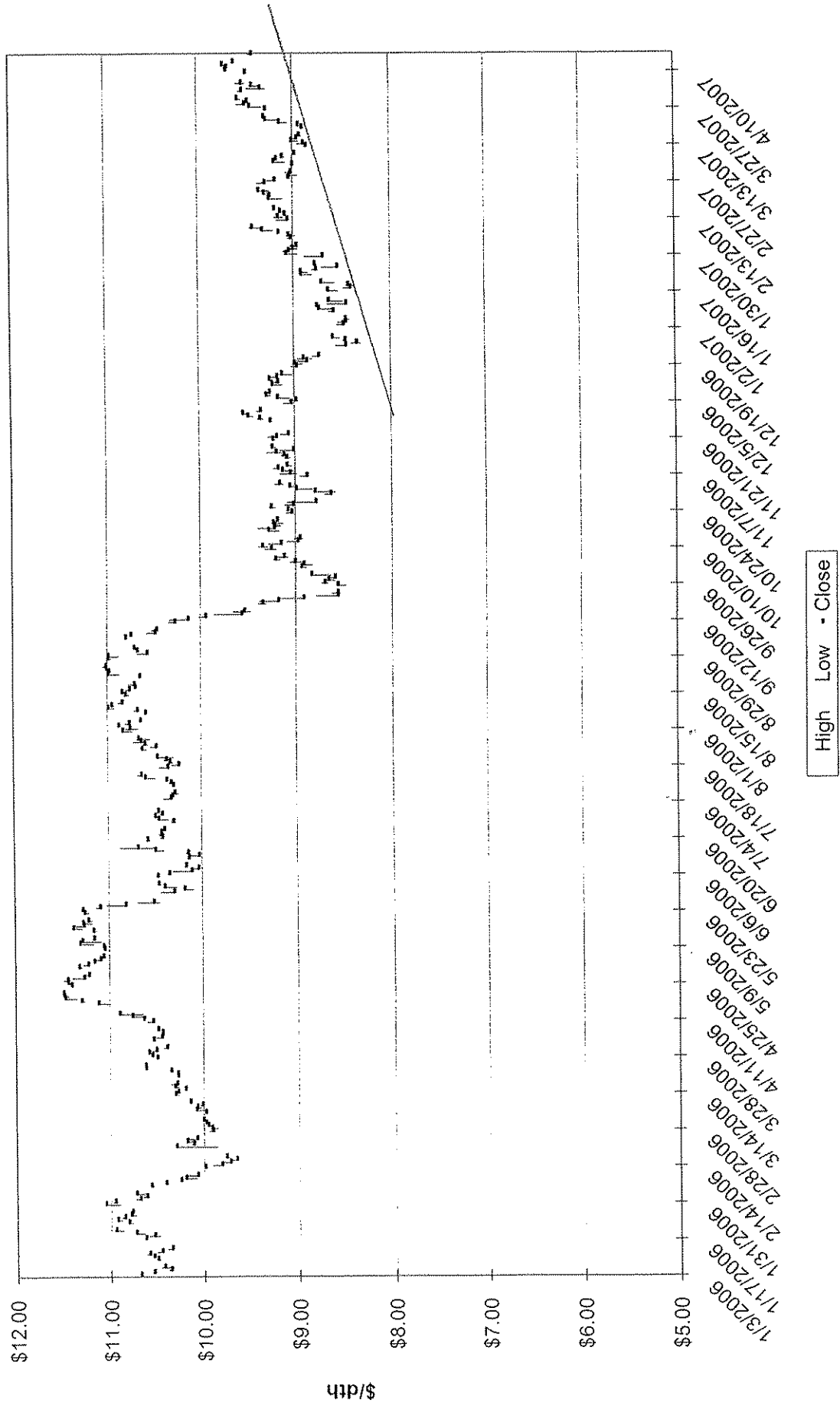
*Consumption.* After a relatively mild January, the colder-than-normal February caused a spike in residential electricity consumption. However, the growth in first quarter residential electricity consumption will be offset by a year-over-year decline in consumption this summer because of the return to normal weather, with cooling degree days projected to be 10 percent lower than last year. Total retail electricity sales is expected to grow 0.8 percent this year and 1.9 percent in 2008 (Total U.S. Electricity Consumption Growth).

### *Coal Markets*

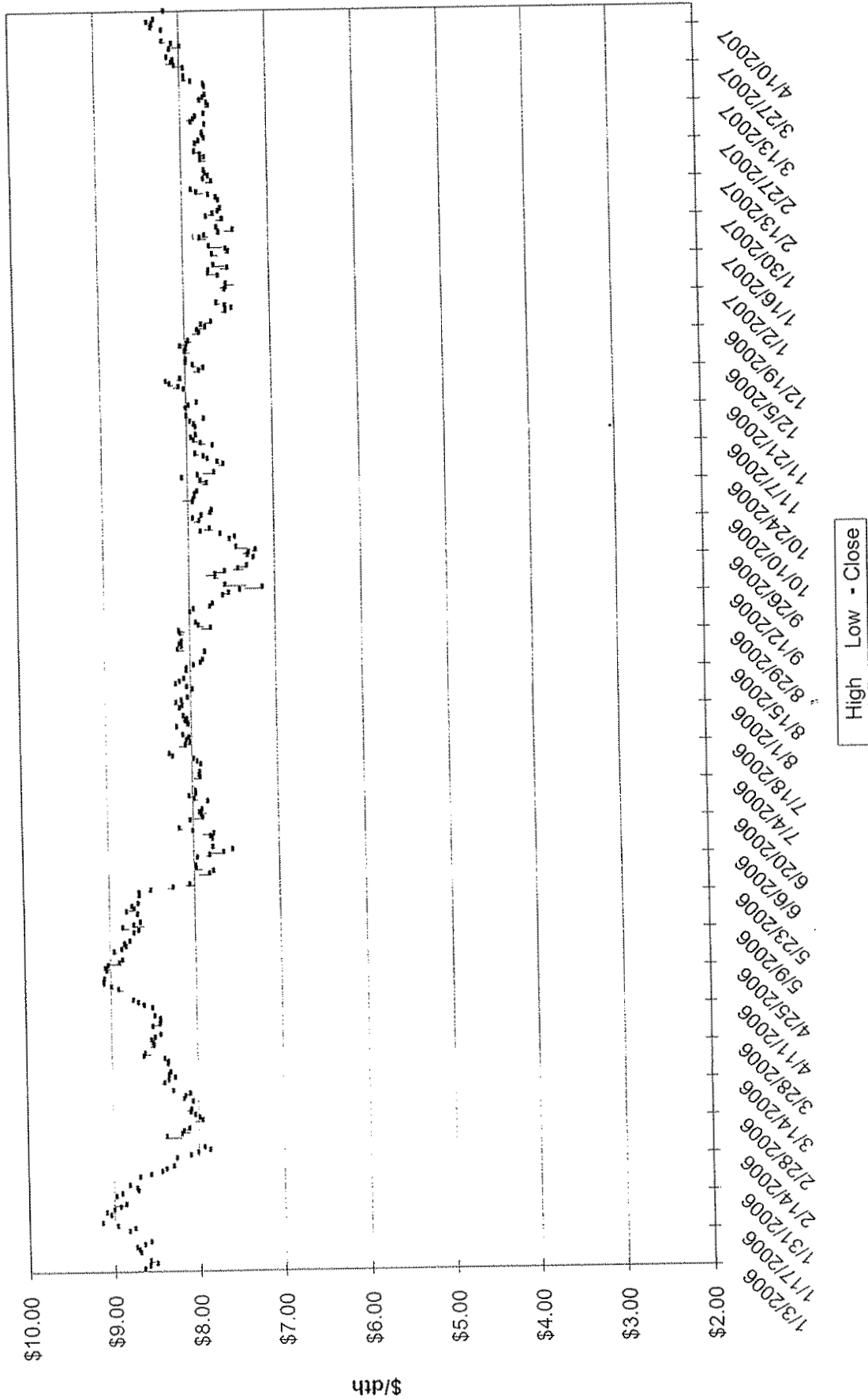
*Consumption.* Coal consumption by the electric power sector, which makes up about 92 percent of total coal consumption, fell by 1.1 percent in 2006, the first decrease in demand since 2001 (U.S. Coal Consumption Growth). Electric power sector coal consumption is expected to grow by 0.5 percent in 2007 and 2.1 percent in 2008.

*Supply.* U.S. coal production, (U.S. Coal Production) which increased by 2.6 percent in 2006 while total coal consumption declined by 1.0 percent, is expected to fall by 3.6 percent in 2007 but recover in 2008 (up 1.2 percent). U.S. coal imports, which account for about 3 percent of the total coal supply, are expected to grow by 5.9

Winter Strip Nov07 - Mar08



### Summer Strip 2008



at \$7.546/MMBtu Monday as a sharp downturn in the petroleum complex late in the session offset the influence of near-term weather, sources said. Rockies cash fell another \$1 or so on continued storage maintenance, while the cold stimulated demand and prices in other regions.

"Even though it's cold, we're not using up all that much gas," a NYMEX trader said, adding that ample levels of storage at the end of

(continued on page 2)

## Analysts: Lower Canadian imports to outpace LNG

The record levels of liquefied natural gas imports expected to reach the US this year will not make up for an anticipated drop in Canadian gas imports, analysts with Raymond James and Associates asserted Monday.

They join several other analysts who have predicted in recent weeks that Canadian imports to the US will weaken this summer, due both to drilling cutbacks and higher Canadian gas demand (GD 4/5, 3/15).

"The recent increase in LNG has left many people wondering if LNG will depress US natural gas prices this summer," analysts Marshall

Adkins and James Rollyson said. But should Canadian gas imports drop by more than 1 Bcf/d in 2007 as the analysts believe, "this huge decline in imports should more than offset any potential effect that increased LNG imports would have on domestic gas supply and prices."

LNG imports in March averaged 2.8 Bcf/d, a nearly 155% jump from the 1.1 Bcf/d imported in March 2006 thanks in part to lower weather-linked demand in Europe and Asia, as well as to "easy year-over-year comparisons," the analysts noted. While such a large increase "is probably not repeatable, we do believe LNG imports for the summer will be noticeably higher than last year." The analysts estimated US LNG imports averaging 2.56 Bcf/d between the end of March and the end of October, an increase of around 800,000 Mcf/d over last summer.

Imports will not likely move much higher than that this summer, the analysts suggested, as the five operating LNG import terminals are currently operating at 70% of capacity, which "is probably the maximum sustainable level" due to ship-

ping traffic constraints. In addition, the closure of Dominion's Cove Point, Maryland, terminal in June for maintenance will prevent any additional growth, the analysts said.

Because Asian consumers typically begin to build their winter storage supplies in August, "we believe that LNG imports will start to decline in the July time-frame," followed by another hit in September as European importers begin preparing for their winter season. "By October, when both Asia and Europe's demand returns, LNG imports should fall approximately 1 Bcf/d from peak import levels" of around 3 Bcf/d.

Over the long term, "given our belief that US domestic gas supplies are in a state of permanent and likely irreversible decline, we believe that LNG will become an integral part of the US gas market over the next decade," the analysts maintained.

While some have argued that the US will have to bid more for those cargoes to compete with Asian and European demand, "the reality is, many facilities use Henry Hub for benchmark pricing," meaning that LNG-importing countries "will pay Henry Hub pricing plus some assigned premium." As such, "if the US bids higher, it would not necessarily increase the level of LNG imports drastically but may, instead, make LNG more expensive globally."

A more likely scenario for bringing more LNG to the US is to increase liquefaction capacity worldwide, thereby increasing LNG supplies, the analysts suggested. In any event, "as has been the case in the recent past, the US will continue to compete with other foreign natural gas consumers for every molecule of gas it hopes to receive."

Trans. date: 4/09  
Flow date(s): 4/10

DE-Kentucky  
Attach: 1 Hedging Plan Applic.  
Page 33 of 307

Midpoint Absolute

Permian Basin Area					
El Paso, Permian Basin	7.015	6.91-7.09	6.97-7.06	815	126
Waha	7.205	7.10-7.27	7.16-7.25	842	116
Transwestern, Permian Basin	7.055	6.95-7.10	7.02-7.09	36	7
East Texas-North Louisiana Area					
Carthage Hub	7.050	6.91-7.20	6.98-7.12	117	20
NGPL, Texok zone	7.105	7.05-7.15	7.08-7.13	1496	185
Texas Eastern, ETX	7.145	7.01-7.20	7.10-7.19	59	12
Texas Gas, zone 1	7.640	7.59-7.67	7.62-7.66	172	25
East-Houston-Katy					
Houston Ship Channel	7.370	7.30-7.53	7.31-7.43	773	98
Katy	7.350	7.26-7.55	7.28-7.42	793	100
South-Corpus Christi					
Agua Dulce Hub	7.380	7.30-7.40	7.36-7.40	152	10
NGPL, STX	7.255	7.20-7.27	7.24-7.27	102	19
Tennessee, zone 0	7.310	7.24-7.51	7.24-7.38	179	27
Texas Eastern, STX	7.335	7.20-7.42	7.28-7.39	171	36
Transco, zone 1	7.390	7.30-7.45	7.35-7.43	64	12

Feb 2010	9.151	9.151	9.151	+2.3	0
Mar 2010	8.921	8.061	8.061	+2.3	100
Apr 2010	7.501	7.501	7.501	+1.3	100

### Contract data for Friday

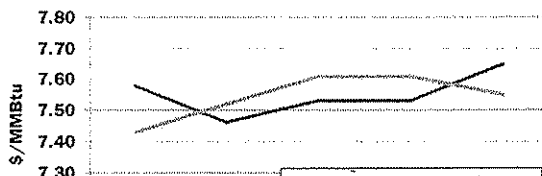
Volume of contracts traded: 83,724

Front-months open interest:

MAY: 114,970; JUN: 47,339; JUL: 32,362

Total open interest: 740,406

### Henry Hub/NYMEX spread



## Copano Energy agrees to pay \$95 million for Cimarron Gathering

Copano Energy said it has agreed to buy Cimarron Gathering for \$41 million in cash and \$54 million of Class C units to be issued at closing.

Gainesville, Texas-based Cimarron owns stakes in about 3,829 miles of pipelines in central and eastern Oklahoma and in north Texas, of which about 430 miles are operated for natural gas service, 50 miles for crude oil gathering service and about 3,340 are held for potential future development, Copano said.

Houston-based Copano, a midstream natural gas company, late Thursday said it expects to close the deal in the second quarter, subject to customary closing conditions, including antitrust regulatory approval.

### Canadian Enerdata gas storage survey, Mar 30

(in Bcf)	East	West	Total
Working gas	66.30	42.20	108.5
Weekly Change	+6.1	+2.4	+8.5
% of capacity	26.43%	41.27%	67.7%
Working Gas	97.2	55.9	153.10
Mar 30, 2006			

The information contained in this report is obtained from sources considered to be reliable. However, the information contained here-in cannot be guaranteed with respect to its accuracy or completeness. Canadian Enerdata Ltd. assumes no responsibility for either the direct or indirect use of the information contained herein.

MT



## New Jersey loses round in LNG jurisdictional fight

A special master of the US Supreme Court has issued a ruling in a jurisdictional dispute between New Jersey and Delaware that puts BP's proposed Crown Landing liquefied natural gas import terminal in jeopardy.

In his recommendation, Ralph Lancaster said Delaware has the authority to block construction of an off-loading pier that would serve the 1.2 Bcf/d Crown Landing facility planned for Logan Township, New Jersey.

David Wald, director of communications for the New Jersey Attorney General's office, said the state was "disappointed in the special master's decision" and "we continue to believe that New Jersey has

(continued on page 5)

## Range, Equitable to ramp up Appalachian drilling

Range Resources on Monday said its first-quarter production shot up 19% from a year earlier, to a company record 306,000 Mcf equivalent/d, as the Fort Worth-based independent announced plans to increase its gas output in Appalachia.

CEO John Pinkerton said in a conference call Monday that Range, whose production is about 90% gas, has finished divesting its Gulf of Mexico producing properties for about \$4/Mcf of reserves as the firm transitions to a purely onshore explorer.

"We sold high-cost, mature properties for a good price," he said.

(continued on page 4)

## Officials stress need for 'unconventional' gas

As traditional North American gas reserves are gradually depleted, the industry is increasingly turning to unconventional supply sources both domestically and abroad to meet growing demand, officials and analysts said Monday.

"The low-hanging fruits have been pretty well picked over," Doug Rephlo, Shell Trading's vice president of marketing and structured transactions, told Interchange Energy's LDC Forum in Atlanta.

Even deepwater drilling in the Gulf of Mexico, once viewed as a robust supply source, is not producing enough gas to offset declines onshore, Rephlo said. As a result, the industry must diversify its energy supplies not only by utilizing more liquefied natural gas but also by targeting non-traditional resources such as coalbed methane and shale gas.

James Duncan, director of structured products for ConocoPhillips, said the price and supply security that conventional gas supplies once provided the market is giving way to fear and uncertainty as more drilling is needed just to keep production levels flat.

That is why more producers are turning to areas such as the Barnett Shale of North Texas, which accounts for approximately 1 Bcf/d of supply growth over the past six years, according to Duncan, who projected a 54% jump in unconventional gas output by 2012.

"Resources are out there and we're going to find them," Duncan asserted.

Anatol Feygin, head of global commodity strategies for Bank of America, said LNG imports will continue to help fill the supply/demand gap in North America, as will unconventional domestic production — and that should prompt the industry to build and/or expand facilities to handle the additional volumes.

For instance, he said US storage capacity is expected to grow by 123 Bcf over the next two years — nearly as much as the last five years — primarily in the form of high-deliverability salt-dome caverns.

## Range, Equitable team up in Nora Field ... from page 1

"Besides increasing reserves and lengthening the reserve life, we have improved our cost structure by reducing unit operating costs."

Range offset the production lost from the divested assets by buying out the minority owners of gas wells in the Barnett Shale for \$29 million and spending \$30 million for minority stakes in Oklahoma shallow oil play, the CEO said. The Barnett Shale property includes the huge 12,000-Mcf equivalent/d well that Range drilled in the first quarter.

### Daily price survey (\$/MMBtu)

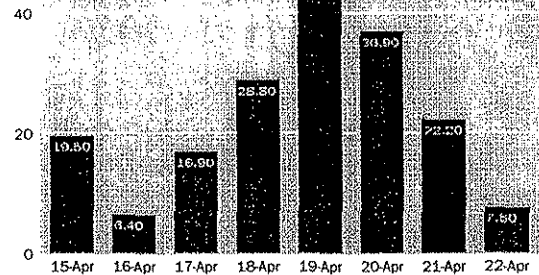
NATIONAL AVERAGE PRICE: 7.490

Trans. date: 4/16  
 Flow date(s): 4/17

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.865	6.75-6.92	6.82-6.91	556	95
Waha	7.080	7.03-7.11	7.06-7.10	393	70
Transwestern, Permian Basin	6.935	6.90-6.95	6.92-6.95	18	3
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	6.975	6.90-7.20	6.90-7.05	67	13
NGPL, Texok zone	6.935	6.85-7.05	6.89-6.99	1159	157
Texas Eastern, ETX	7.040	6.80-7.20	6.94-7.14	43	13
Texas Gas, zone 1	7.645	7.60-7.71	7.62-7.67	215	36
<b>East-Houston-Katy</b>					
Houston Ship Channel	7.430	7.32-7.57	7.37-7.49	957	104
Katy	7.325	7.21-7.43	7.27-7.38	766	95
<b>South-Corpus Christi</b>					
Agua Dulce Hub	7.375	7.30-7.41	7.35-7.40	131	7
NGPL, STX	7.275	7.23-7.32	7.25-7.30	81	12
Tennessee, zone 0	7.285	7.02-7.34	7.21-7.34	113	27
Texas Eastern, STX	7.320	7.25-7.36	7.29-7.35	238	38
Transco, zone 1	7.095	6.90-7.20	7.02-7.17	14	7

### Louisiana-Onshore South

ANR, La.	7.660	7.60-7.72	7.63-7.69	230	49
Columbia Gulf, La.	7.655	7.58-7.71	7.62-7.69	166	29
Columbia Gulf, mainline	7.725	7.65-7.78	7.69-7.76	229	47
Florida Gas, zone 1	7.530	7.23-7.70	7.41-7.65	36	7
Florida Gas, zone 2	7.720	7.71-7.73	7.72-7.73	10	2
Florida Gas, zone 3	7.800	7.65-7.88	7.74-7.86	44	4
Henry Hub	7.655	7.56-7.72	7.62-7.70	862	131
NGPL, La.	7.275	7.20-7.39	7.23-7.32	32	7
Southern Natural, La.	7.665	7.61-7.72	7.64-7.69	333	27
Tennessee, La., 500 Leg	7.700	7.60-7.78	7.66-7.75	220	47
Tennessee, La., 800 Leg	7.635	7.55-7.74	7.59-7.68	263	49
Texas Eastern, WLA	7.640	7.58-7.67	7.62-7.66	309	50
Texas Eastern, ELA	7.685	7.63-7.72	7.66-7.71	194	39
Texas Gas, zone SL	7.655	7.60-7.70	7.63-7.68	132	32
Texas Gas, zone 2	7.710	7.65-7.75	7.69-7.74	167	34



This section of the Dominion Energy Index represents a national forecast for home heating and cooling requirements above or below normal with the baseline of 0 representing normal for that day based on historical data.

Source: Dominion

platts

## International Gas Report

The leading source of quality intelligence on the international gas and liquids industry.

AS



# Expiration Knock-in Swap November 2007 - March 2008

- **Term : Nov 1, 2007 through March 31, 2008**
- **Volume: 10,000 MMBtu/d Baseload**
- **Average Strip Levels: \$8.45 Swap - \$9.47 Knock-in - \$9.72 Futures**  
(Swap and Knock-in Levels are different for each month in the strip)
  
- **December Example (futures at \$9.71):**  
If the December contract expires:
  - Anywhere above \$9.46, the customer's price is Market less \$0.50 for 10,000 MMBtu/d.
  - Anywhere between \$8.61 and \$9.46, customer prices 10,000 MMBtu/d at \$8.61.
  - Below \$8.61, the customer prices 10,000 Mmbtu/d at \$8.61.
  - Refer to the following slides for other months' prices.

## Other Terms

- Customer is guaranteed a discount of \$0.50 if the market is above the Knock-in Price.
- Customer may "trigger" a discount (\$1.27 average) to the current futures strip price if the market falls.
- NO COST to Customer
- Pricing is subject to market conditions and management approval
- Prices reflect financial side of structure; actual price will be adjusted for Basis for appropriate supply area and pipeline
- Levels can be adjusted to reflect Customer's requirements and market bias (i.e. higher ceiling, lower trigger price, etc.)
- Structure based on pricing effective 4/12/07



# Ratable Purchaser Winter 2007/2008

- **Term :** Nov 1, 2007 through March 31, 2008
- **Volume:** 10,000 MMBtu/d Baseload (maximum daily quantity)
- **Average Levels:** \$9.11 swap level 1 - \$9.71 swap level 2 - \$9.72 futures  
(swap levels are different for each month in the winter strip)
  
- **December example with futures at 9.71:**  
Each day from the Tomorrow to the End Accumulation Date, if the December contract settles:
  - ☒ Above 9.70, the customer prices 25% of the the Daily Accumulation Quantity (DAQ) at \$9.70  
(see the Accumulation Table for the corresponding DAQ for each contract).
  - ☒ Between \$9.10 and \$9.70, the customer prices 50% of the DAQ at \$9.10.
  - ☒ Below \$9.10, the customer prices 100% of the DAQ at \$9.10.

## Other Terms

- Fractional swaps are purchased each day to the December 26.
- Customer receives a discount ranging from \$0.01 to \$0.61 from the current market price.
- Customer buys less as market prices increase and buy more as market prices decrease. (average down)
- Customer is guaranteed a minimum quantity of 25% of the DAQ.
- No cost to customer
- Prices reflect financial side of structure; actual price will be adjusted for Basis for appropriate supply area and pipeline
- Pricing subject to market conditions and management approval

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 May 15, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↑	Long	NOAA: Warmer than normal July-September in most of the US.
Mid Term Weather (30-60 days)	↔	Long	Small pockets of above normal temperatures in June and July.
6-10 day forecast	↓	Short	Above Normal temps, but not hot enough to create demand for electric generation.
Tropical Storm Activity	↔	Short	No current tropical storm activity.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending May 4 were 96 BCF. Storage levels are 12% lower than last year at 1.7 TCF. (Sill 20% higher than 5 year average)
<b>Industry Publications</b>			
Cambridge Energy Research Associates <i>Winter 2007/08: \$7.272</i> <i>Summer 2008: \$7.181</i>	↑	Long	"...with many weather prognosticators calling for an active hurricane season and a warmer-than-normal summer, the perception of risk continues to be reflected in the futures market."
Paribas	↑	Short	"...the likely hood of a huge rally are increasing with heat demand and hurricane fears on the horizon."
Gas Daily	↕↑	Long	Gas Daily April 24th: "Anaysts' supply, demand outlooks differ sharply"
Conoco Morning Briefing	↔	Short	"...sideways chop between the \$8.10s and \$7.50s..."
<b>Government Agencies</b>			
Energy Information Administration <i>Winter 2007/08: \$8.26</i> <i>Summer 2008: \$7.07</i>	↔	Long	"Despite the recent surge, prices are expected to dip in May before rising over the next several months."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↔	Short	[REDACTED]
<b>Economy</b>			
Demand	↑	Long	"...ethanol capacity under construction will increase gas consumption by about 170 Bcf/year..."
Supply	↑	Long	"Producers are having an increasignly difficult time keeping up with growing gas demand across North America..."
Oil Market	↑	Long	International Energy Agency (IEA): lowered its 2007 oil product demand forecast slightly by 70,00 bpd while warning the global oil market is tightening.
<b>Meeting Minutes: 10th Floor North Conference Room - 2:00 pm</b>			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program  
 Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					

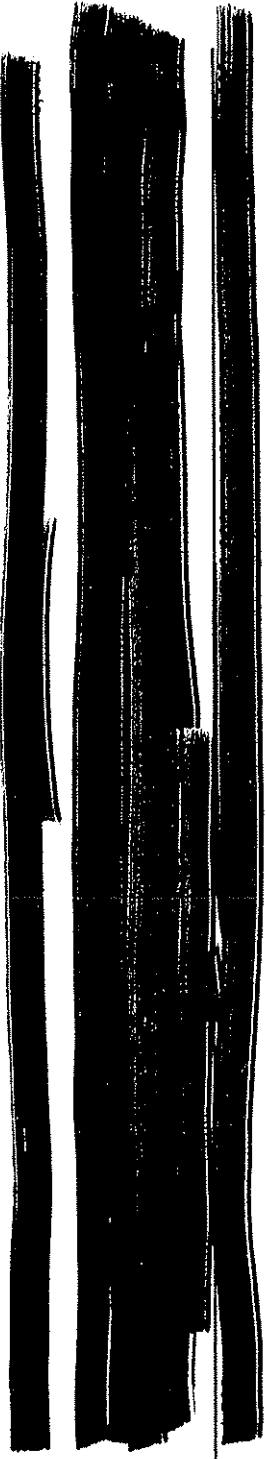


Duke Energy Kentucky  
Hedging Program - Current Position  
November 2007 - October 2008  
As of 05/14/07

Nov-07    Dec-07    Jan-08    Feb-08    Mar-08    Apr-08    May-08    Jun-08    Jul-08    Aug-08    Sep-08    Oct-08

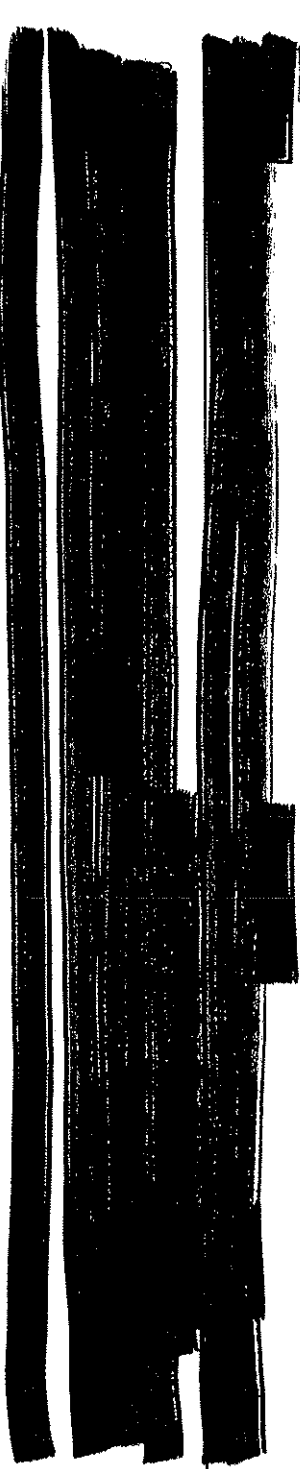
Daily Base

Estimated Base (Gross)  
Amount Hedged  
Fixed Price  
Fixed Price  
Fixed Price  
Fixed Price  
Cost Averaging  
Total Hedged



Monthly Base

Estimated Base (Gross)  
Hedged to date  
Fixed Price  
Fixed Price  
Fixed Price  
Fixed Price  
Cost Averaging  
Total Hedged  
% of Base Supply  
Seasonal % of Base



Normal Load (City Gate)

Hedged (City Gate)  
Storage Withdrawal  
Market  
Total (incl. injections)  
% Hedged & Storage  
Seasonal %



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 05/14/07

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Total Hedged

[REDACTED]

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

[REDACTED]

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

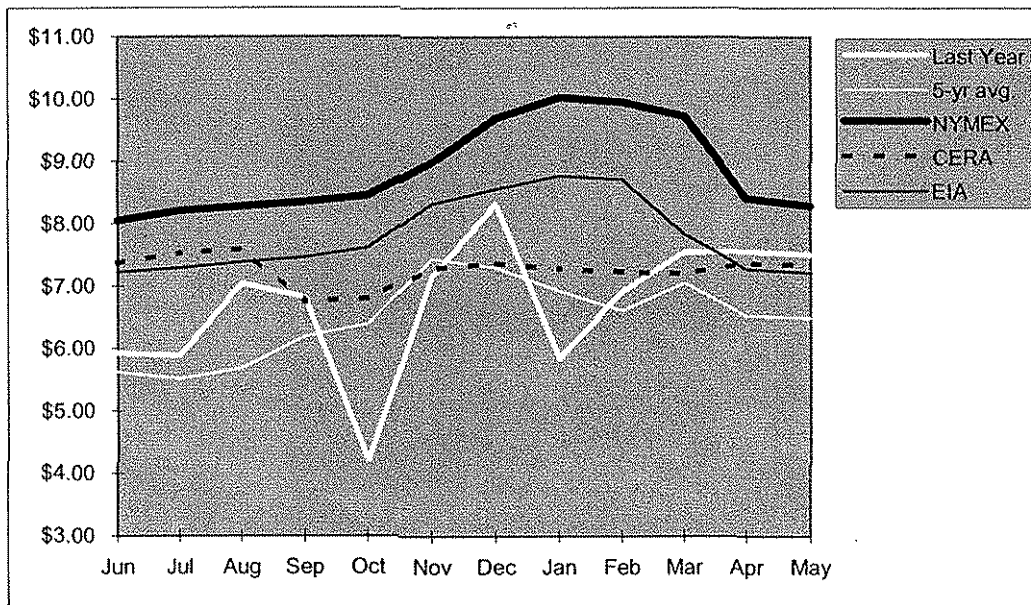
[REDACTED]

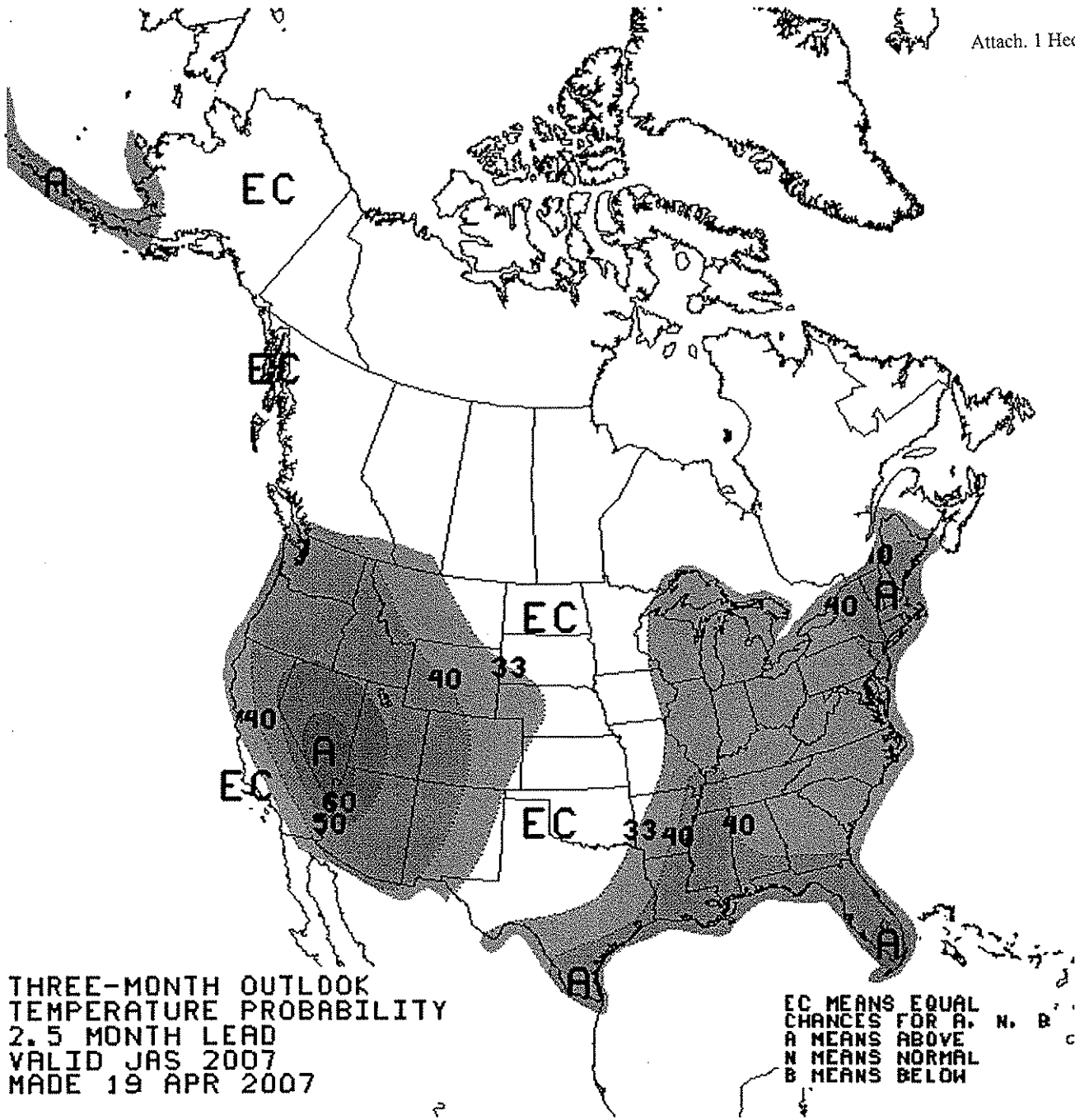




## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Apr-07	EIA 10-Apr-07	NYMEX 14-May-07
Jun	\$5.62	\$5.93		\$7.370	\$7.226	\$8.050
Jul	\$5.51	\$5.89		\$7.530	\$7.290	\$8.210
Aug	\$5.68	\$7.04		\$7.590	\$7.385	\$8.280
Sep	\$6.19	\$6.82		\$6.750	\$7.464	\$8.350
Oct	\$6.39	\$4.20		\$6.800	\$7.614	\$8.450
Nov	\$7.44	\$7.15		\$7.280	\$8.317	\$8.988
Dec	\$7.29	\$8.32		\$7.370	\$8.558	\$9.700
Jan	\$6.92	\$5.84		\$7.280	\$8.769	\$10.030
Feb	\$6.61	\$6.92		\$7.230	\$8.714	\$9.953
Mar	\$7.05	\$7.55		\$7.200	\$7.840	\$9.723
Apr	\$6.53	\$7.56		\$7.370	\$7.277	\$8.413
May	\$6.49	\$7.51		\$7.340	\$7.215	\$8.288
<b>12 Month Avg</b>	<b>\$6.48</b>	<b>\$6.73</b>		<b>\$7.259</b>	<b>\$7.806</b>	<b>\$8.870</b>
Summer Average				\$7.250	\$7.353	\$8.292
Winter Average				\$7.272	\$8.439	\$9.679



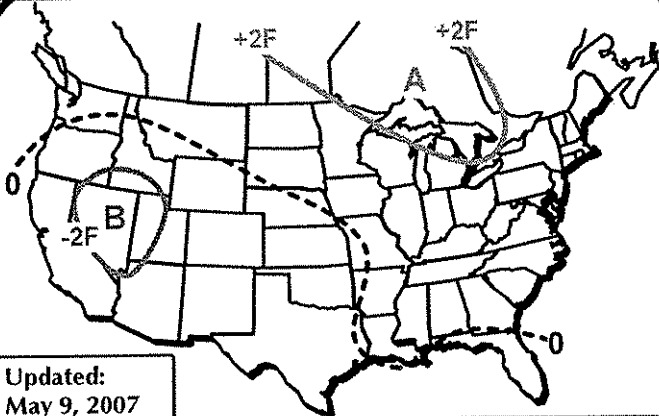




# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

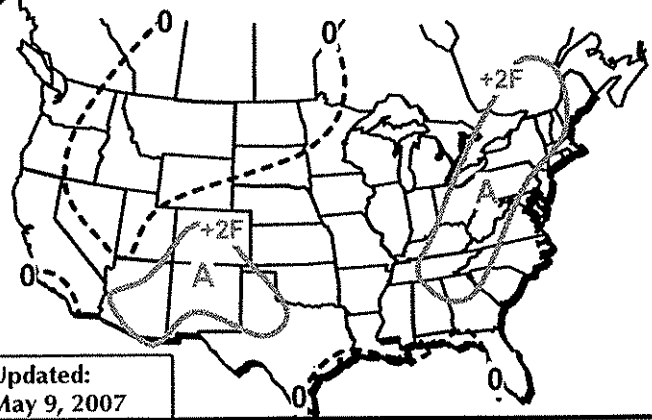
Wednesday **DAY** 5/9/07 **DATE** 8:40 AM EDT **TIME** MR **FORECASTER**

## JUNE 2007

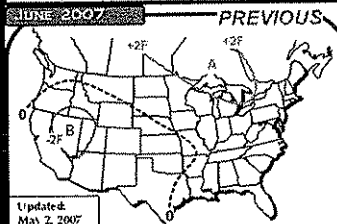


Updated:  
 May 9, 2007

## JULY 2007



Updated:  
 May 9, 2007



**No Major  
 Changes to June**

A Little Cooler  
 Along the Gulf Coast

The June outlook is largely unchanged from last week and essentially reflects the MDA EarthSat consensus outlook (Gulf Coast is cooled just a bit). The thinking continues to be unusual for the summer months in recent decades with a cooler leaning toward the Southwest and seasonal to warm conditions toward the Midwest and East. A similar situation (albeit more extreme) occurred in June 2005. Otherwise, one has to go back to June 1999 (or June 1998) to find something a bit closer to this thinking.

### June PWCCD\* Forecasts

June 2007 Fcst: **235.0** 10Y Normal: 226.6  
 30Y Normal: 213.7  
 June 2006: 239.9  
 Change: +5

\*National Population-Weighted CDDs

### Southwest Shifts Warmer from June

### Seasonal to Above Eastern U.S.

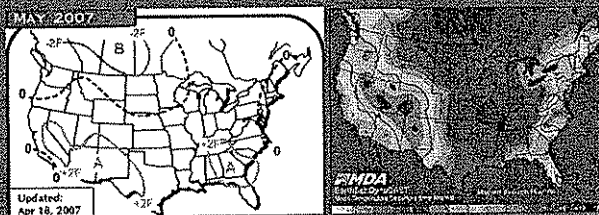
The current consensus thinking from the MDA EarthSat weather group is for a seasonal to warmer than normal July period for much of the nation and southern Canada. There is a warmer leaning toward the eastern Midwest and Appalachians. Some weakness on the East Coast could be attributed to potential sea breeze fronts at times (or backdoor coolings) as a slight offset. In the West, the more typical Southwestern ridging is seen returning toward this period, but the usual arrival of the monsoon will have to be watched for closely down there too. As of now, July 2007 is not forecast to be as warm overall as the last two years.

### July PWCCD\* Forecasts

July 2007 Fcst: **360.0** 10Y Normal: 342.0  
 30Y Normal: 327.4  
 July 2006: 392.5

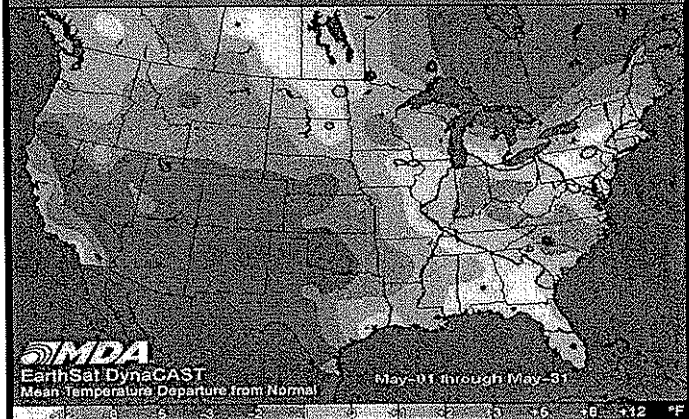
\*National Population-Weighted CDDs

## May 2007 Comparison



We're only one week into May so far so there is plenty of time for re-adjustment here. Warming in the West in the next week should erase the interior cool anomalies. The seasonal to cool along the Mid-Atlantic and Northeast actually already fit the monthly outlook, but the Midwest and Plains are considerably warmer overall yet.

## MAY 2006



Maps above depict deviations of average temperatures from normal in Fahrenheit.



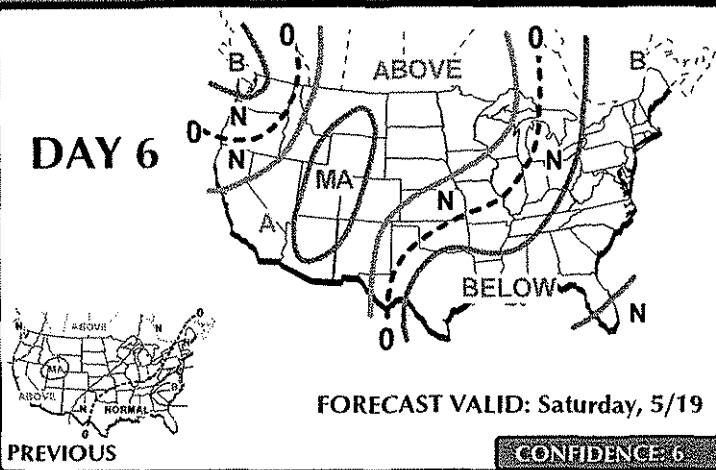
# MDA EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Monday DAY 5/14/2007 DATE 6:30 A.M. TIME MR/AC FORECASTER

### FORECAST TEMPERATURE DEVIATIONS

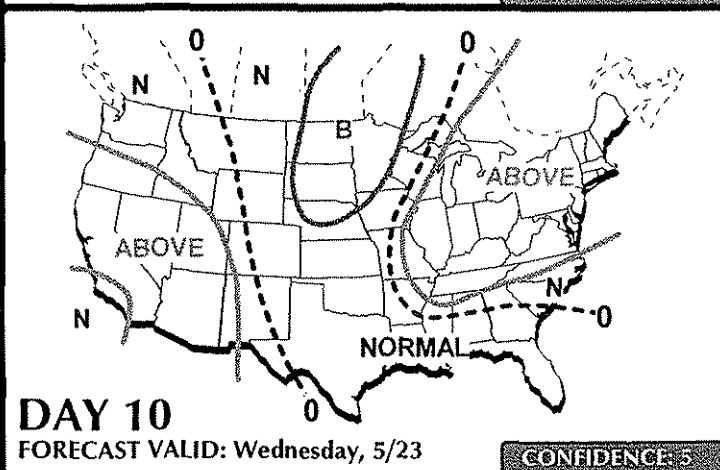
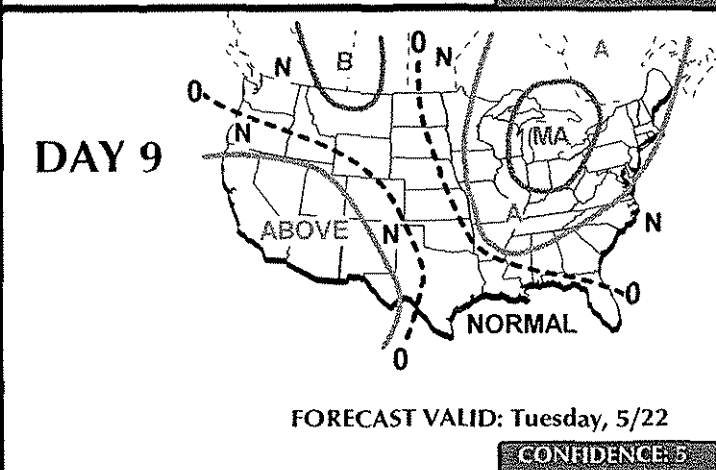
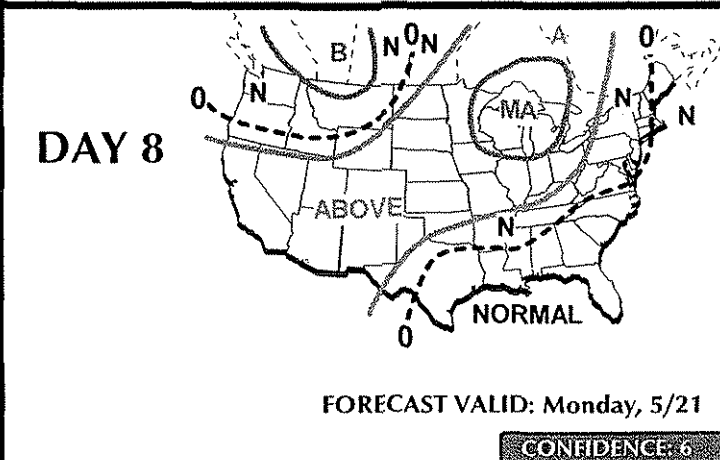
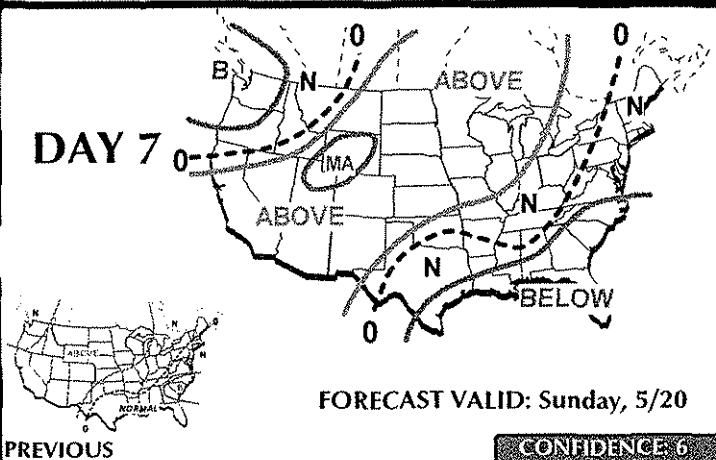
### DISCUSSION



### Today's Forecast

#### Variability To Occur Across Most Regions

For the start of the forecast period, a broad ridge settles in the Interior West, keeping warm weather in the region and extending it towards the Plains as the ridge progresses eastward. In the East, however, a cool pattern takes shape as a trough slides cool air as far south as Florida. By the middle of the period, warm weather should reach into the Midwest with its continued progression, but a split in the warm regions could occur. This is because a trough coming out of central Canada aims to bring a shot of cool air into the Northern Plains later in the period.



### LEGEND

STRONG ABOVE..... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

**NORMAL**  
 -2F TO +2F

STRONG BELOW..... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## WEATHER, OR NOT

### KEY IMPLICATIONS

For the past few months, the North American natural gas market has endured alternating weather extremes, but storage inventories remain strong. Nevertheless, with many weather prognosticators calling for an active hurricane season and a warmer-than-normal summer, the perception of risk continues to be reflected in the futures market.

- Warm weather in March allowed North American gas storage inventories to finish March 366 billion cubic feet (Bcf) above the five-year average, but 124 Bcf below the 2006 level.
- The current month outlook reflects a number of key changes, including a reduced gross domestic product outlook, a revised benchmark for normal weather, and a reduction in the outlook for production in the Western Canada Sedimentary Basin.
- Assuming normal weather, CERA expects spot prices to average \$7.28 per million British thermal units (MMBtu) at Henry Hub in May and \$7.22 per MMBtu for May through October. CERA expects spot prices to average C\$6.71 per gigajoule (\$6.16 per MMBtu) at AECO in May.

**DATE**  
April 20, 2007

### NORTH AMERICAN GAS MARKET

For the past few months, the North American natural gas market has endured alternating weather extremes. In February on a heating degree-day (HDD) basis the US Lower 48 was 19.7 percent colder than normal, and Canada was 14.4 percent colder than normal. The reverse was true in March, when the Lower 48 was 16.2 percent and Canada 1.2 percent warmer than normal. Thus far in April it has been back to much colder-than-normal weather. From a physical perspective the industry has the flexibility to manage the weather-driven swings in demand. North American storage inventories remained 366 billion cubic feet (Bcf) above the five-year average at the end of March. However, the wide variations in weather have taken a psychological toll. With many weather prognosticators calling for an active hurricane season, the market has focused more on the end-of-March

Note: All prices are in US dollars unless otherwise indicated.

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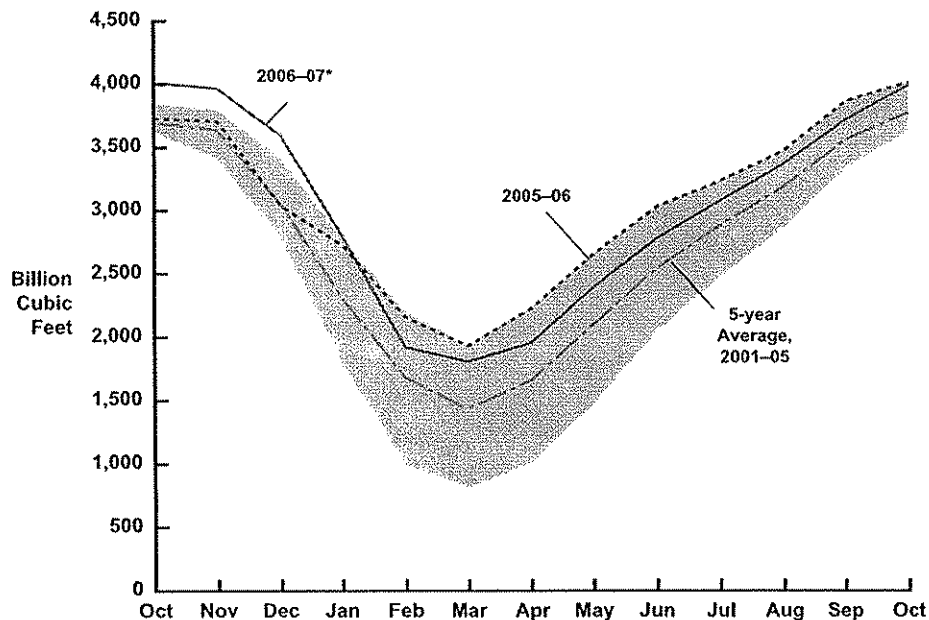


North American storage inventory, which was 124 Bcf below the 2006 level, and is taking little comfort from the comparison to the five-year average (see Figure 1).

This month's report reflects a number of important changes to the outlook.

- First, projected US gross domestic product (GDP) growth for 2007 was lowered by 0.8 percent to 2.2 percent, and for 2008 projected US growth was lowered by 0.2 percent to 2.8 percent. Projected growth *rates* for subsequent years within the five-year horizon used for this report were not changed. However, the reduction in 2007 and 2008 GDP growth does result in a reduction in demand levels throughout the forecast period.
- Second, as discussed below, the period used to define "normal" weather was rolled forward to the 15-year period ending with and including 2005. This results in a lower demand estimate.
- Third, the supply curves used to develop the analysis include some initial revisions to reflect the results of Phase II of CERA's Multiclient Study *Diminishing Returns: The Cost of North American Gas Supply in an Unconventional Era*, which yielded higher projected future costs than had been reflected in CERA's previous outlook. Further work will be required to fully digest the implications of the *Diminishing Returns* analysis and harmonize those results with the supply outlook.

Figure 1  
 North America Monthly Gas Storage Inventory



Source: Cambridge Energy Research Associates.  
 \*Data after March 2007 are CERA forecasts.  
 60802-13\_1804

- Fourth, this outlook reflects downward revisions to the projected build of coal-fired electric generating capacity. The bulk of the reduction lies beyond the 60-month time horizon of this report, and it is primarily in the Electric Reliability Council of Texas region, where the projected build has been reduced by 6.6 gigawatts after 2013.
- Lastly, this outlook reflects a reduction in projected wellhead productive capacity in the Western Canada Sedimentary Basin (WCSB) following the recent slowdown in drilling in the region.

For April through December, CERA has reduced projected prices at the Henry Hub by \$0.47 per million British thermal units (MMBtu), reflecting the net effect of the changes described above (see Table 1).<sup>\*</sup> The price outlook for 2008 has also been slightly reduced. For 2010 through 2012, however, the outlook has been increased.

Despite the downward revision for 2007, CERA believes that the balance of risk to CERA's normal weather outlook lies to the high side. The largest risk to any near-term outlook derives from the variation in demand due to weather. Most weather forecasts are currently projecting a warmer-than-normal summer and, as previously indicated, an active hurricane season. This outlook also projects that storage capacity holders will rebuild North American storage inventories to about 4 trillion cubic feet, nearly at par with the 2006 level. These additional injections will keep pressure on the market through the summer.

**Table 1**

**Henry Hub Prices**  
 (nominal US dollars per MMBtu)

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
January	2.29	5.39	6.03	6.17	8.76	6.33	7.28	7.31	6.63	7.05	6.41
February	2.27	7.00	5.41	6.09	7.62	8.06	7.23	7.33	6.29	6.92	6.21
March	3.00	6.37	5.38	6.91	6.88	7.10	7.20	7.22	6.18	6.59	6.30
April	3.37	5.27	5.70	7.19	7.09	7.55	7.37	6.60	6.20	6.37	6.31
May	3.51	5.77	6.28	6.47	6.23	7.28	7.34	6.49	6.11	6.15	6.18
June	3.20	5.80	6.26	7.17	6.26	7.37	7.29	6.57	6.17	6.25	6.25
July	2.99	5.04	5.92	7.57	6.05	7.53	7.30	6.60	6.21	6.28	6.29
August	3.08	4.96	5.43	9.29	7.24	7.59	7.05	6.42	6.26	6.32	6.32
September	3.50	4.61	4.99	12.11	4.95	6.75	6.66	6.15	6.00	6.06	6.21
October	4.08	4.65	6.24	13.36	5.67	6.80	7.26	6.43	6.83	6.14	6.65
November	4.06	4.45	5.88	10.29	7.32	7.28	7.43	6.66	7.13	6.40	6.90
December	4.74	6.12	6.63	12.98	6.83	7.37	7.46	6.65	7.01	6.38	6.75
<b>Year average</b>	<b>3.34</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>7.25</b>	<b>7.24</b>	<b>6.70</b>	<b>6.42</b>	<b>6.41</b>	<b>6.40</b>

Sources: Cambridge Energy Research Associates; historical data derived from Platts Gas Daily.  
 Note: The 2002–March 2007 figures are derived from historical data as available; CERA projections April 2007–12.  
 Excel tables are available in the North American Natural Gas Client Services area at CERA.com.

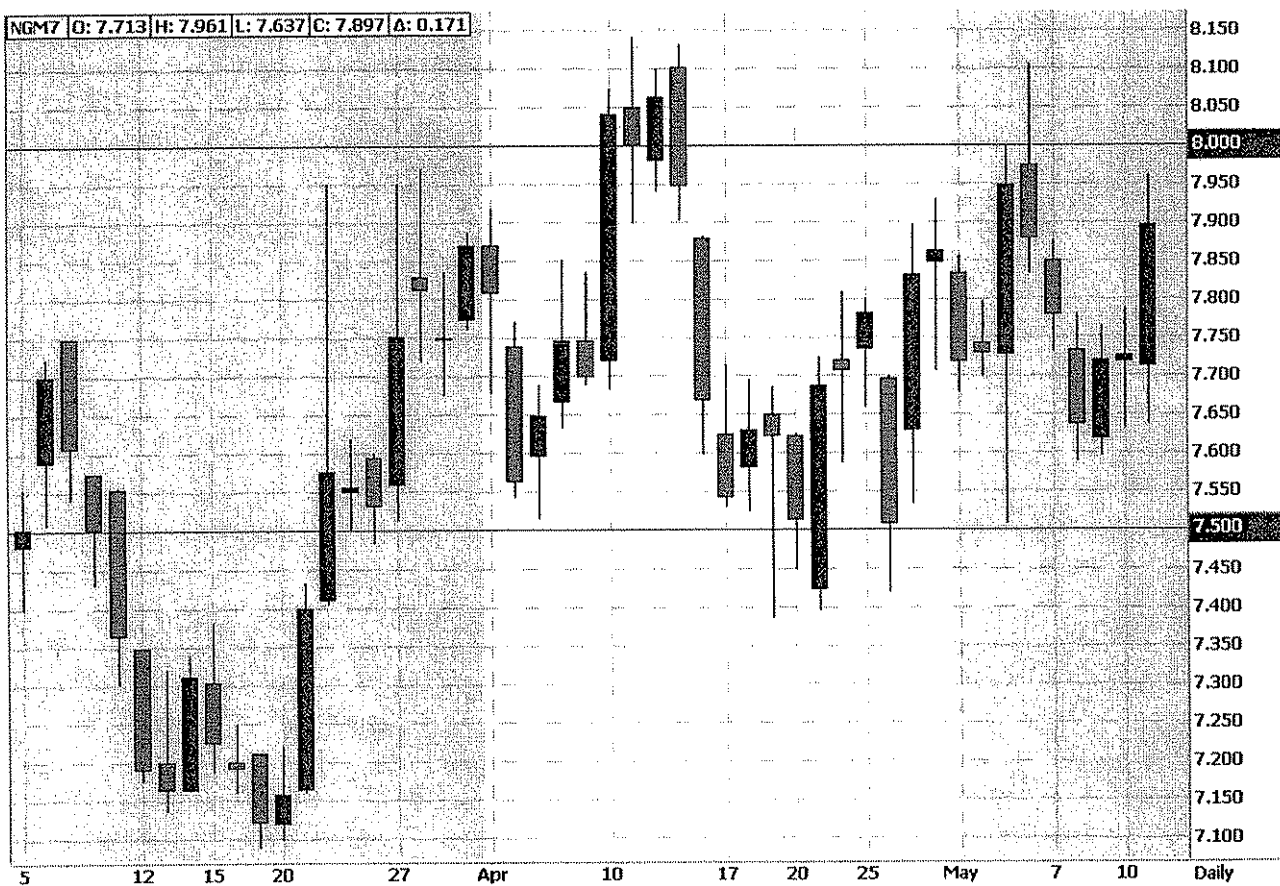
<sup>\*</sup>Unless otherwise indicated, all CERA price and basis outlooks predict the average daily spot.





### Commentary

Natural exploded higher on Friday surprising many traders. We settled 7899 up 17.3 cents. The market sold off early due to softness in the Cash market because of the mild temperatures over the weekend. However, the market ran out of momentum at 7650 and consolidated prompting new length to enter the market. The market propelled higher electing buy stops. Traders who have been baited into selling the bearish fundamentals were stopped out. I have been writing we are in a range between 7500-8000 and that is evident by today's high and low (7637-7961). The longer the market hovers in this range and fails to sustain any sell-offs the likely hood of a huge rally are increasing with heat demand and hurricane fears on the horizon. In addition, the entire complex is very sensitive to a rally in the gasoline market as driving season approaches. Ironically, I think the market opens lower on Monday.



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Tuesday, April 24, 2007

## Analysts' supply, demand outlooks differ sharply

Two industry analysts on Monday offered starkly different views on where gas supply, demand and prices will be this spring and summer.

Ron Denhardt, vice president of Strategic Energy and Economic Research, projected that domestic supply will grow 1.5% this year while demand increases 0.8%, assuming summer weather that is 5% warmer than normal. Under that scenario, he expects Henry Hub prices to average \$7.33/MMBtu "for the remainder of the non-heating season."

"The projected looser supply/demand balance is more than offset by lower working gas storage which is currently 217 Bcf below last year,"

Denhardt said, forecasting that storage inventories will end October at 3.347 Tcf vs. 3.452 Tcf last year.

Domestic growth at the wellhead will be the largest contributor to the overall increase in supply, Denhardt said. He noted that Enterprise Product Partners' Independence Hub should begin flowing gas in the third quarter and that volumes from Texas' Barnett Shale and other unconventional plays in the Midcontinent and Rocky Mountains will continue to rise.

While liquefied natural gas imports will also increase, Denhardt said they will merely offset a 1 Bcf/d drop in Canadian gas imports by mid-year as more of Canada's gas production goes to use in Alberta's oil sands projects, Denhardt said.

Taking a more bullish stance was Raymond James and Associates analyst Marshall Adkins, who foresees US gas production dropping 1.5% this year as demand increases 1.25%. "While this does not mean that gas is grossly under-supplied, it does mean that the market is not as over-supplied as current perception may indicate," he said.

Key to Adkins' thesis is the contention that new wells are experiencing 30% declines in their first year of production.

"The bottom line is that we continue to believe that sharply higher first-year production declines and diminishing prospect quality will perpetuate, materializing in a 1.5% decrease in year-over-year core US gas production despite modestly higher drilling capital expenditures," Adkins said.

On the demand side, Adkins predicts that summer gas usage will be driven by price-sensitive industrial buyers and price-insensitive residential users turning on their air conditioners.

Historically, industrial use tends to grow with the gross domestic product barring extreme weather, according to Adkins.

"In summers where there were either stable or lower gas prices (relative to oil products), summer gas demand actually increased at a slightly lower pace than overall economic activity. Given our view that natural gas prices will remain more attractive than oil prices through the summer, we are modeling a modest 1% improvement in year-over-year US industrial gas consumption this summer," he said.

"Even though last year saw only very moderate overall electric demand growth, gas-fired demand growth was up a whopping 10% as cheap natural gas prices and coal rail problems allowed natural gas-fired generation to capture a greater total share of the US generation pie," he added.

As a result, Raymond James is predicting a season-ending storage level of about 3.1 Tcf, vs. what Adkins called "overly bearish" consensus expectations of between 3.4 and 3.5 Tcf.

That would set the stage for a 1-to-7 price ratio with crude oil heading into next heating season, or "\$10/Mcf gas if our \$70 crude forecast is right."

In the event of hurricanes in the Gulf of Mexico, both analysts agreed that all bets are off.

## Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.980

Trans. date: 4/23  
 Flow date(s): 4/24

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.525	6.42-6.60	6.48-6.57	1046	152
Waha	6.780	6.65-6.85	6.73-6.83	611	86
Transwestern, Permian Basin	6.505	6.35-6.57	6.45-6.56	43	6

<b>East Texas-North Louisiana Area</b>					
	Midpoint	Absolute	Common	Volume	Deals
<b>Carthage Hub</b>	6.760	6.70-6.84	6.73-6.80	50	11
May 2009	7.787	7.787	7.787	+14.5	84
Jun 2009	7.857	7.857	7.857	+14.5	0
Jul 2009	7.937	7.937	7.937	+14.5	0
Aug 2009	7.997	7.997	7.997	+14.5	0
Sep 2009	8.047	8.047	8.047	+14.5	0
Oct 2009	8.147	8.147	8.147	+14.5	10
Nov 2009	8.592	8.592	8.592	+14.5	3
Dec 2009	9.032	9.032	9.032	+14.5	3
Jan 2010	9.257	9.257	9.257	+14.5	3
Feb 2010	9.252	9.252	9.252	+14.5	3
Mar 2010	9.012	8.147	8.147	+14.5	3
Apr 2010	7.622	7.622	7.622	+14.0	3

### Contract data for Friday

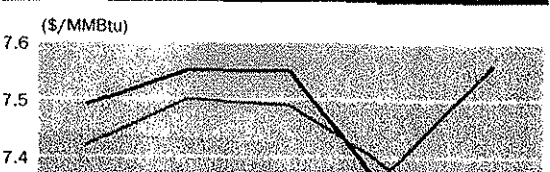
Volume of contracts traded: 73,367

Front-months open interest:

MAY: 40,022 ; JUN: 87,652 ; JUL: 70,888

Total open interest: 754,466

## Henry Hub/NYMEX spread



## WSI: May to warmer than normal in all regions except Northwest

May will be warmer than normal in every region except the Pacific Northwest, private forecaster WSI Corporation said Monday.

"Early-season cooling demand in the Northeast would increase electrical loads and natural gas demand for power," Energy Security Analysis Inc. said in a companion report on the market impact of WSI's outlook. "Cooler weather across much of the northern US would not likely provide much offset to any increased demand in the Northeast."

For June, Andover, Massachusetts-based WSI predicted that most of the Northeast will experience below-normal temperatures, as will the Northwest and northern-tier states, while warmer-than-average weather will continue everywhere else.

But patterns shift again in July, when the Northeast can expect above-average readings, WSI said. Unseasonably warm weather also should prevail during July in every region except the Southeast, which can expect cooler-than-normal conditions, according to the forecast.

"As the summer progresses, we expect the core of the heat to move from the Southeast in May/June to the Northeast by August," said WSI forecaster Todd Crawford. "It currently appears that a new La Niña event may not become fully established until later this year, similar to what occurred in 1995 and 2005."

BH

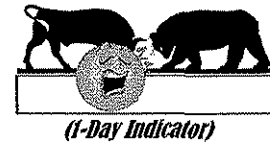


## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com



Monday, May 14, 2007

### June Posts Another UNSUPPORTED Day To The Upside



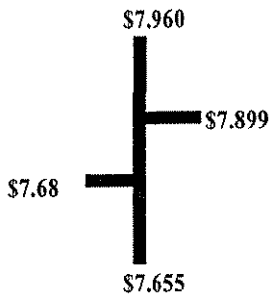
**Today: Bullish** **June Natural Gas Closed** *Up 0.173¢* **30-Day: Bullish**  
 Bottom Line – Crude oil has a little instability in its world this morning, and the natural gas market has weather forecasts that are suggesting above-normal temperatures coming in high-population areas. If anything...we'll be supported.

Yesterday's Market

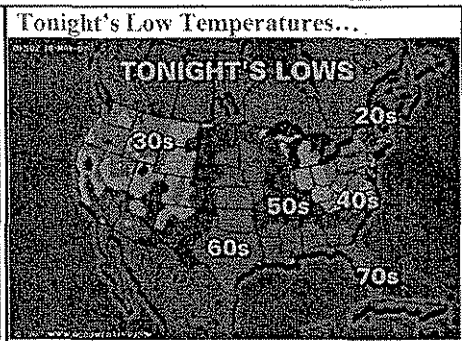
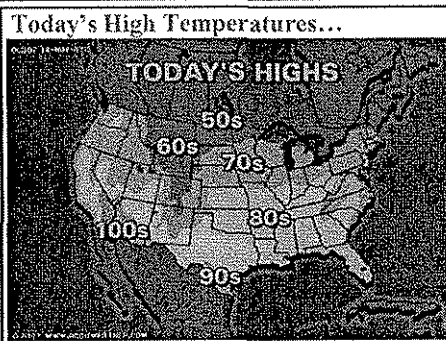
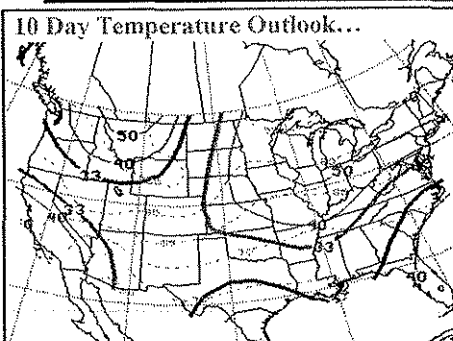
- Instead of watching its own bearish fundamentals, June natural gas rode up as high as \$7.96 Friday, bucking the idea that those weak fundamentals including storage and weather should be pulling the market down. Instead, with a bit of short covering here and some crude support there, natural gas again tested \$8.00 resistance and managed to close out the week on a high note, though still range-bound with a clear lack of supportive or bullish change on the horizon. The front month settled at \$7.899, up 17.3¢ yet firmly planted in its usual range. Without direction or solid support, the contract appeared fairly strong for the entire session. Meanwhile, the NYMEX June crude oil contract settled at \$62.37, up 56¢ after trading as low as \$61.70.

Today's Market

- We've been in this sideways chop between the \$8.10s and \$7.50s, in that range on the June contract since February. I'm not sure there's much I can say to make this market do something else. We need some big news or weather... Weather, you say? I've told you I think it's going to be hot and humid in the Northeast Quad this summer. I'm still holding to that forecast. Unfortunately, we're in that technical area of exogenesis. That means we're going to see sympathetic movement and knee-jerk reactions, which means more chop. If price breaks under \$7.40 or over \$8.14, technically, we'd see movement, but that's so wide I could drive Austin, Texas through that...metaphorically, that is. Look for this market to follow crude oil and some prompt heat in the Northeast Quad higher today. It's short-lived.



Access Trading	5/14/2007	7:41 AM	Natural Gas	\$7.990	\$8.06
WTI Crude	\$62.950	\$0.59	IPE Brent	\$65.370	\$0.67



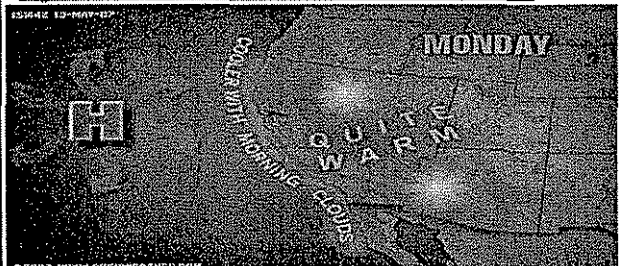
**Weather Briefs** – Thunderstorms Possible For Upper Midwest Today – Wet And Warm Over Most Of South - Cool On Monday...Warming Tuesday In Northeast – Hot Out West

**Storage...**

We expect to see 100 Bcf build from storage this week.

The EIA reported a 96 Bcf storage build last week, increasing the nationwide stocks to 1.747 Tcf. The build was within the industry's expectation of 80 to 105 Bcf. In the same week last year the stock level was 1.989 Tcf, which sends the year on year deficit to 242 Bcf. Early indication for this week is a 100 Bcf build compared to a 91 Bcf build last year and a 85 Bcf build for the 5yr. average.

**Sigmets: Summer-Like Heat Continues Out West**



Another week of anomalous heat is in store for Southwest CONUS. The warmest readings are forecast over the Desert Southwest, where daytime high temperatures in the 90s and low 100s are anticipated each day this week. Meanwhile, highs well into 80s to lower 90s are forecast over interior California and the Intermountain West. This includes the Sacramento and Salt Lake City metro-areas.

Inventories). Gasoline inventories are expected to remain below the lower end of the normal range throughout the summer, which will keep pressure on gasoline prices and likely result in higher margins and retail prices than those seen last summer.

**Prices.** WTI crude oil spot prices are projected to average \$64.27 per barrel in 2007, down from \$66.02 in 2006 (West Texas Intermediate Crude Oil Prices). In 2008, WTI spot prices are projected to decline slightly to an average of \$63.83 per barrel. The price of WTI is not, at this time, a reliable benchmark for average U.S. and other world crude oil prices (for further explanation see EIA's This Week in Petroleum, May 2, 2007). An alternative benchmark, the refiner average crude oil acquisition cost (RAC) (the volume-weighted average price of all crude oils processed by U.S. refineries) is projected to average \$60.18 per barrel in 2007, a decrease of just 5 cents from the 2006 average, and \$59.30 per barrel in 2008.

The combined effects of the recent rise in crude oil prices, persistent refinery outages, and seasonal demand growth are expected to push monthly regular grade motor gasoline prices from \$2.24 per gallon in January to \$3.01 per gallon in May (Gasoline and Crude Oil Prices). EIA expects the gasoline price could then ease slightly before returning to the May level in August, as gasoline inventories remain low and the hurricane season approaches. As a result, the average price of gasoline for the summer driving season (April – September) is projected to be \$2.95 per gallon, up 11 cents per gallon from last summer's average.

### *Natural Gas Markets*

**Consumption.** Colder weather through the first 4 months of the year compared with last year (13 percent more heating degree-days) has prompted a rise in expectations for total natural gas consumption in 2007 (Total U.S. Natural Gas Consumption Growth). Total consumption was up more than 10 percent in the first quarter of 2007 compared with the same period last year. In annual terms, natural gas consumption is expected to rise by 3.4 percent in 2007 and by 0.9 percent in 2008.

**Production and Imports.** Sustained high rig counts and the startup of the Independence Hub natural gas system contribute to expected growth in total U.S. dry natural gas production. With gains coming primarily in the onshore region of the lower-48 States, dry natural gas production increased by 1.3 percent year-over-year in the first quarter of 2007. On an annual basis, total dry natural gas production is projected to increase by 0.9 percent this year and 1.4 percent next year. Imports of liquefied natural gas (LNG) are estimated to have reached 180 billion cubic feet (bcf) in the first quarter, more than 60 percent above the corresponding period last year.

LNG shipments are projected to remain strong throughout the forecast period, reaching 790 bcf in 2007 and more than 1,000 bcf in 2008. Higher U.S. prices relative to those in other LNG-consuming countries have spurred the recent surge in LNG imports and should continue to drive growth in the near term.

*Inventories.* On April 27, 2007, working natural gas in storage stood at 1,651 bcf (U.S. Working Natural Gas in Storage). Stocks are 266 bcf above the 5-year average (2002 – 2006) although, on a year-over-year basis, natural gas inventories are 245 bcf below the level from the corresponding week in 2006.

*Prices.* Support from colder-than-normal weather in April (heating-degree-days were 14 percent above normal) pushed the average Henry Hub natural gas spot price from an average of \$7.32 per mcf in March to an April average of \$7.83 per mcf. Despite the recent surge, prices are expected to dip in May before rising over the next several months. The Henry Hub natural gas spot price is expected to average \$7.84 per mcf in 2007, 90 cents above the 2006 average, and \$8.16 per mcf in 2008.

### *Electricity Markets*

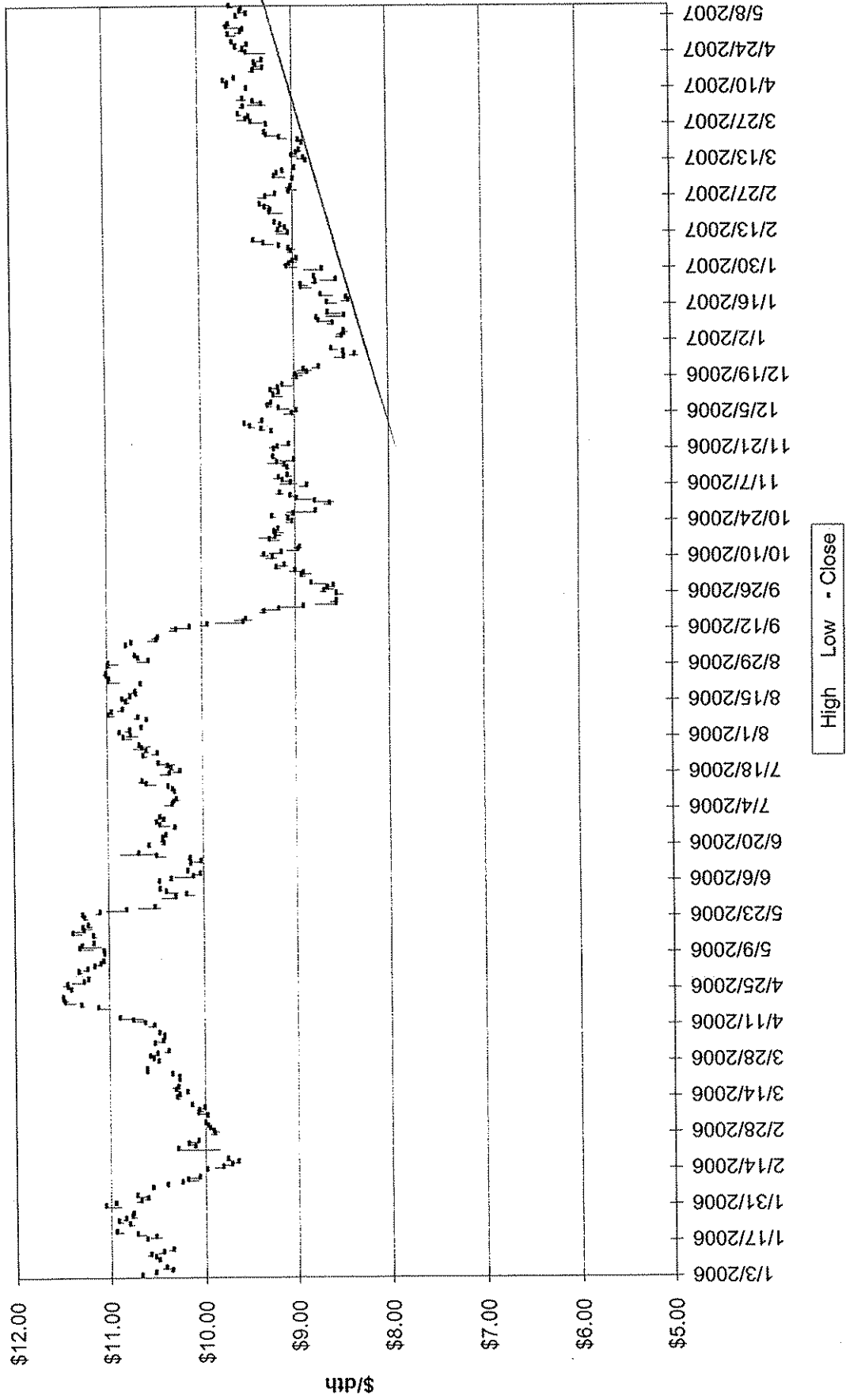
*Consumption.* Preliminary estimates show that February residential electricity consumption was nearly 17 percent higher than in the same month last year due to colder temperatures. However, an assumed return to normal summer temperatures should keep total U.S. electricity consumption growing at a relatively normal rate of 1.5 percent this year and 1.9 percent in 2008 (Total U.S. Electricity Consumption Growth).

*Prices.* Residential electricity prices are expected to increase at a rate of 2.6 percent during 2007, a growth rate close to the 2.2 percent average over the last 10 years (U.S. Residential Electricity Prices and Consumption). Those regions with States undergoing market restructuring may experience more price volatility. For example, residential prices in the East North Central region are projected to rise by nearly 6 percent in 2007, compared to the last 10-year average of only 1 percent. During 2008, average U.S. residential prices are expected to rise by 2.8 percent.

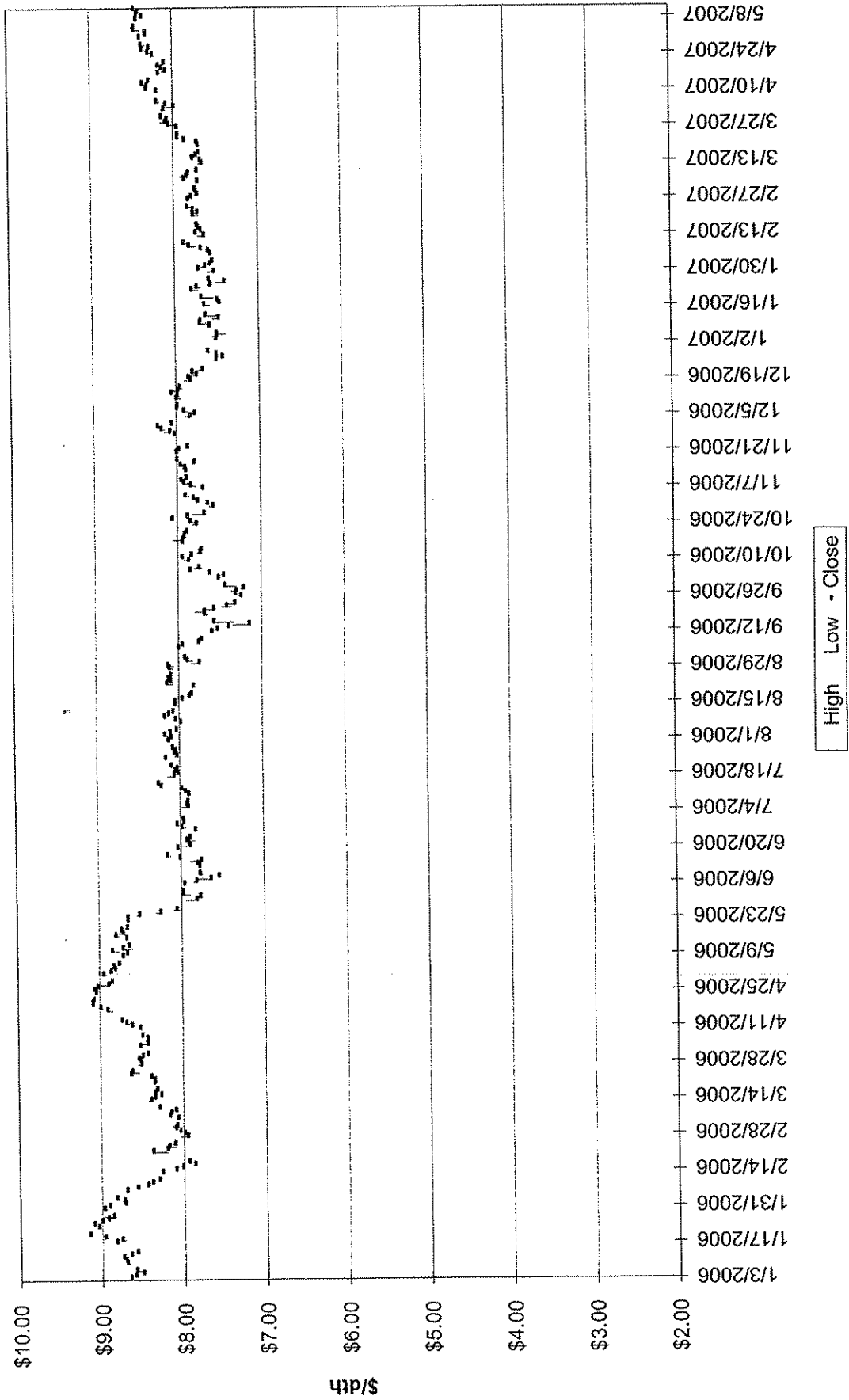
### *Coal Markets*

*Consumption.* Coal consumption by the electric power sector, which makes up about 92 percent of total coal consumption, fell by 1.1 percent in 2006, the first decrease in consumption since 2001 (U.S. Coal Consumption Growth). Projected growth in electricity demand should raise electric-power-sector coal consumption

### Winter Strip Nov07 - Mar08



### Summer Strip 2008



as Southern California Gas prices remained flat to Tuesday, the trader continued, but shippers holding interruptible transport were likely to lose out.

"If you're not holding firm, it's worse than feast or famine in the Rockies — it's famine or famine," the trader remarked. "Either the spread will be weak and won't cover your variable costs, or it'll be giving up so much money that there won't be any room left on the pipe. You lose either way."

In the Southwest, prices in the Permian and San Juan basins were boosted by a strong Rockies market and climbed around a dime, a California trader said. "I think Rockies gas is a very significant factor in all of this. It swings from being very constrained to very free [-flowing], and I think the Rockies and the Southwest vie for similar demand markets."

Farther north, Malin, Oregon, shed a couple of cents, as did the Pacific Gas and Electric city-gate. — Market Staff Reports

## Analyst: Ethanol growth propping up gas demand

The growing popularity of ethanol as a gasoline additive is having the unintended consequence of boosting demand for natural gas, Citigroup analyst Gil Yang said in a report Tuesday.

Gas is used in several steps of the ethanol production process, including drying feedstock crops, providing steam to liquefy corn starch and creating heat to distill alcohol and to dry leftover grains. Gas also is used indirectly to manufacture fertilizers used to grow crops — usually corn, Yang explained.

Ethanol production grew more than 25% last year, and another 70-plus plants are being built, according to Yang, who said production of the fuel additive has risen by an average of 23%/year since 2001.

He predicted that the ethanol capacity under construction will increase gas consumption by about 170 Bcf/year, or about 0.8% of total annual US demand.

Additionally, to keep up with the demand for corn, farmers are expected to increase plantings by 15% this year, thereby boosting consumption of nitrogen-based fertilizers for which gas is used as a feedstock, according to Yang.

"With 33 Mcf of natural gas required to produce one short ton of ammonia, we believe the domestic ammonia industry is consuming about 310 Bcf of natural gas annually, or 1.4% of total US gas demand," the report said.

That's bullish news for the industrial end-use sector, where use of gas has declined nearly 3% annually over the past decade, he added.

Yang said he doesn't expect US ammonia plants that have been shuttered to reopen because gas remains cheaper overseas. But the existing domestic plants "will likely be under less pressure to close due to margin strength, providing additional stability for industrial-based natural gas demand." SGS

## Northwest, Vector, PG&E top satisfaction survey

Northwest Pipeline, Vector Pipeline and Pacific Gas & Electric won high marks in Mastio and Company's latest gas pipeline customer satisfaction survey released Wednesday.

Northwest, a Williams subsidiary, ranked highest in both the mega-pipeline category — defined as being at least 3,500 miles long and delivering at least 1 Tcf annually — and the major-pipeline category, which includes systems at least 3,500 miles long and serving three or more states, the St. Joseph, Missouri-based consultant said.

Others in the mega-pipeline category that received better-than-average satisfaction ratings included Dominion Transmission, Natural Gas Pipeline Co. of America, Northern Natural Gas, Southern Natural Gas, Texas Gas Transmission, and Williams' Transcontinental Gas Pipe Line.

In the major-pipeline category, top performers included Columbia Gulf

## Stock exchange, asset manager launch first US gas-based fund

The American Stock Exchange and Victoria Bay Asset Management on Wednesday announced the launch of the first natural gas-based exchange-traded fund in the US.

The fund is a commodity pool that will invest in NYMEX gas futures contracts as well as other gas-related forward, futures and swap contracts. It will be managed by Victoria Bay and listed on AMEX under the symbol "UNG."

The fund managers will "always have the possibility of using other gas derivatives, but they'll be using the near-month [futures] contract as much as possible" to make up the fund's portfolio, Scott Ebner, senior vice president of AMEX's ETF Marketplace, said in an interview.

Ebner said authorized purchasers — largely investment banks — can create or redeem shares of the fund on a daily basis, creating an "arbitrage discipline" that will help keep the fund's asset value close to the price of the front-month NYMEX Henry Hub gas contract.

The fund's daily holdings and pending trades will be posted daily on its web site, [www.unitedstatesnaturalgasfund.com](http://www.unitedstatesnaturalgasfund.com). LK

## Southeast buyers seek ways to reduce gas prices, volatility

Concerned about high and volatile gas prices, several Southeastern utility and industrial buyers on Wednesday cited plans to diversify their supply portfolios and increase their hedging activities.

"Our two main concerns are price and price," quipped Al Bean, director of gas management for the Southeast Alabama Gas District, at Interchange Energy's LDC Forum in Atlanta.

Bean said local distribution companies are particularly concerned about how summer weather and the upcoming hurricane season will affect gas supply and demand in the Southeast.

John Cavallin, an asset portfolio manager with Scana Services, said he has observed more conservation by residential and commercial customers and more hedging by utilities to help mitigate price swings. "That is a pattern that will certainly continue," he predicted.

Bruce Christmas, vice president of fuels management for Teco Energy, echoed Bean's concerns, saying 2005's Gulf of Mexico hurricanes "caught a lot of people fairly short." As a result, he said his company plans to diversify its gas supply sources and its storage portfolio.

Several officials said an expected increase in imports of liquefied natural gas should help ease the supply/demand balance. "We're interested in LNG and encouraging it," Christmas said. "It's got to show up and when it does, we'll buy it."

He and some other buyers expressed concerns about potential problems with LNG, such as gas quality and interchangeability. But Cavallin assured conference attendees that as a user of gas from the Elba Island, Georgia, LNG facility, his company has yet to experience any significant issues. AS

## Platts Podcast



### Hess LNG CEO worried over US LNG future

Gordon Shearer, CEO of Hess LNG, upbeat on Weaver's Cove LNG project but concerned about prospects US for terminals in general.

Download the podcast: [www.platts.com/energypodium](http://www.platts.com/energypodium)



# Gas Daily

Friday, May 11, 2007

## Kelliher pressed on market monitoring, LNG safety

Federal Energy Regulatory Commission Chairman Joseph Kelliher faced pointed questions Thursday on market monitoring and liquefied natural gas terminal safety as the Senate Energy and Natural Resources Committee began considering his nomination for a second term.

In his prepared statement, Kelliher described FERC's principal missions — economic regulation, energy infrastructure, safety, reliability and enforcement — and pledged that "if confirmed by the Senate to another term, these five missions will continue to be [the] focus of my chairmanship."

(continued on page 5)

## Officials: Industry struggling to meet gas demand

Producers are having an increasingly difficult time keeping up with growing gas demand across North America, industry officials said Thursday in Chicago.

"We are on a treadmill to get supply going, and consumption is outpacing that," William Hussey, senior vice president of origination for ConocoPhillips Gas & Power, told GasMart 2007 attendees.

Even though US drilling activity is at an all-time high — more than 30,000 wells are set for completion this year — overall production isn't growing because newer wells are less productive and experience rapid decline rates, Hussey explained.

And as traditional fields are depleted, forms of gas that are more costly to produce — particularly gas from shale and tight sands — will assume a larger share of the production pie. "In 2000, 65% came from conventional sources," Hussey said. "About 55% will be from unconventional in 2010 or so."

The Barnett Shale of North Texas is already producing more than 2 Bcf/d, and drillers are flocking to the play to tap its potential, Hussey told the conference hosted by Intelligence Press. But that trend comes at a substantial price.

For example, the so-called Bend Shale play in West Texas will cost as much as \$10/Mcf to develop, making it uneconomical under current market conditions, he said.

North America can expect some relief in the form of liquefied natural gas as the expansion of import capacity and storage facilities allows the US and Canada to accept more LNG, according to Hussey. But he noted that LNG supply growth will be partially offset by a drop in gas shipped from Canada as that country diverts more of its domestically produced volumes to Alberta's oil sands development.

David Slater, managing director of marketing at Nexen Marketing USA, echoed many of Hussey's concerns, maintaining that "the supply warning lights are flashing."

Coalbed methane production is growing rapidly in Canada, but not quickly enough to make up for shortfalls in conventional supplies, Slater said. "Producers are more disciplined and they are deploying their capital" where they can get better returns, "and that's not in gas."

Ken Snodgrass, senior vice president of Shell Trading Gas and Power, agreed that the gap between supply and demand that opened in the 1990s will continue to grow — and that "up to 2015, the only solution that makes sense is LNG."

Snodgrass said a small amount of gas demand will be cut by price-induced conservation and renewable fuel technologies — but the impact will be nominal for at least seven or eight years. CB

## Kelliher pressed on LNG safety issues ... from page 1

Asked by Committee Chairman Jeff Bingaman, Democrat-New Mexico, to comment on market oversight, Kelliher said FERC has made great strides in beefing up its enforcement activities and is working closely with the Commodity Futures Trading Commission to ferret out manipulation in the gas and electric markets.

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 7.400

Trans. date: 5/10  
Flow date(s): 5/11

	Mldpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.985	6.96-7.02	6.97-7.00	1365	195
Waha	7.235	6.98-7.32	7.15-7.32	472	86
Transwestern, Permian Basin	7.045	7.00-7.06	7.03-7.06	8	3

#### East Texas-North Louisiana Area

Carthage Hub	7.390	7.26-7.44	7.35-7.44	110	20
NGPL, Texok zone	7.245	7.19-7.27	7.23-7.27	1034	165
Texas Eastern, ETX	7.320	7.32-7.32	7.32-7.32	2	1
Texas Gas, zone 1	7.625	7.59-7.65	7.61-7.64	64	14

#### East-Houston-Katy

Houston Ship Channel	7.455	7.35-7.55	7.41-7.51	610	68
Katy	7.435	7.34-7.48	7.40-7.47	729	97

#### South-Corpus Christi

Agua Dulce Hub	7.485	7.43-7.50	7.47-7.50	190	17
NGPL, STX	7.415	7.38-7.44	7.40-7.43	118	17
Tennessee, zone 0	7.470	7.32-7.50	7.43-7.50	241	40
Texas Eastern, STX	7.430	7.35-7.47	7.40-7.46	168	36
Tranco, zone 1	7.475	7.38-7.54	7.44-7.52	75	18

#### Louisiana/Olefin South

	Settlement	High	Low	+/-	Volume
Jun 2007	7.726	7.790	7.650	+0.6	47323
Jul 2007	7.877	7.925	7.810	-0.4	26273
Aug 2007	7.997	8.015	7.930	-1.2	6490
Sep 2007	8.054	8.054	8.010	-1.3	2201
Oct 2007	8.164	8.185	8.164	-1.1	4344
Nov 2007	8.844	8.844	8.844	-1.1	1000
Dec 2007	9.514	9.514	9.514	-1.6	1458
Jan 2008	9.849	9.849	9.849	-1.6	2317
Feb 2008	9.837	9.837	9.837	-1.6	521
Mar 2008	9.609	9.609	9.609	-1.6	1707
Apr 2008	8.354	8.354	8.354	-1.6	3613
May 2008	8.232	8.240	8.232	-1.6	2251
Jun 2008	8.309	8.309	8.309	-1.6	1135
Jul 2008	8.394	8.394	8.394	-1.6	853
Aug 2008	8.464	8.464	8.464	-1.6	1070
Sep 2008	8.504	8.504	8.504	-1.6	345
Oct 2008	8.599	8.599	8.599	-1.6	553
Nov 2008	9.064	9.080	9.064	-1.6	124
Dec 2008	9.539	9.550	9.539	-1.6	15
Jan 2009	9.809	9.809	9.809	-0.6	474
Feb 2009	9.794	9.794	9.794	-0.6	20
Mar 2009	9.549	9.549	9.549	-0.1	8
Apr 2009	8.084	8.084	8.084	+0.4	822
May 2009	7.949	7.949	7.949	+0.2	822
Jun 2009	8.022	8.022	8.022	+0.2	0
Jul 2009	8.101	8.101	8.101	+0.2	0
Aug 2009	8.168	8.180	8.168	+0.2	0
Sep 2009	8.217	8.217	8.217	+0.2	0
Oct 2009	8.314	8.314	8.314	+0.2	0
Nov 2009	8.769	8.770	8.769	+0.2	25
Dec 2009	9.209	9.220	9.209	-0.8	25
Jan 2010	9.439	9.450	9.439	+0.7	25
Feb 2010	9.429	9.440	9.420	+0.7	25
Mar 2010	9.174	9.174	9.174	+0.7	25
Apr 2010	7.744	8.770	8.769	+0.2	0
May 2010	7.614	7.614	7.614	+0.0	0

#### Contract data for Wednesday

Volume of contracts traded: 105,864

Front-months open interest:

JUN, 57,378 ; JUL, 97,476 ; AUG, 34,484

Total open interest: 737,508

#### Henry Hub/NYMEX spread

(\$/MMBtu)

— Henry Hub cash price  
— NYMEX front month close

8.0

Paris (5/11)-The International Energy Agency in its latest Monthly Oil Markets Report issued today, lowered its 2007 oil product demand forecast slightly by 70,000 bpd while warning the global oil market is tightening. The agency said OPEC must up its output before the summer to avoid a further tightening. OPEC oil ministers have recently indicated they do not plan to up output before their next meeting in September and as such, the IEA sees a tight global market even after having slightly lowered its demand forecast. The agency said while total stocks in industrialized countries of the OECD region are in the upper portion of the 5-year range, preliminary data still points to a 930,000 bpd drop in stocks in the first quarter.

In the closely watched gasoline market, the agency said OECD gasoline stocks are tight while U.S. stocks are at their lowest level in 16 years in terms of forward demand cover due to constraints due to season maintenance and unexpected shutdowns. The IEA said while refiners should have increased their output capacity by June, global oil product production will still lag behind consumption in this period. By July and August, the situation should improve as refiners will have built up enough capacity to meet forecast oil product demand increases, said the agency.

The IEA revised lower its global oil product demand outlook to 85.7 million bpd, off 70,000 bpd from the last monthly report. The figure implies year-on-year oil demand growth of 1.8 percent.

Highlights of the report include:

- Nigerian crude capacity shut-ins rose to 815 kbd in early May, adding to pressures caused by a gasoline market already tightened by an unusually high level of unplanned refinery outages. Unsurprisingly, gasoline remains the primary driver behind oil prices, with cracks and U.S. retail prices reaching levels not seen since the post Hurricane Katrina spike in September 2005.
- Seasonal refinery maintenance and a spate of unplanned outages is expected to depress global throughputs. This implies, with demand increasing in June, that there will be a further tightening of product stocks. Refinery runs, and therefore crude demand, should rise sharply in July (2.5 mbd over March) as refiners seek to meet peak summer demand.
- Preliminary OECD stock data continue to point to a 930 kbd draw in first quarter total oil stocks, following on from a draw of similar magnitude in the previous quarter. Forward demand cover provided by total oil inventories remains around the five-year average, but gasoline stocks are low in all regions.
- Global oil product demand has been revised down to 84.3 mbd in 2006 and 85.8 mbd in 2007. For 2006, this is mainly related to improved data in non-OECD countries. Demand in the OECD remained largely unchanged, as a cold spell in North America was offset by milder temperatures in Europe and the Pacific.
- April world oil output rose by 55 kbd to 85.5 mbd, with OPEC supply leveling off near 30.3 mbd. Non-OPEC growth in 2007 is trimmed to 1.0 mbd,

plus 0.2 mbd of OPEC NGLs, which leaves the 2.3 mbd rise in the 'call on OPEC' by 4Q running well ahead of expected OPEC capacity additions. This implies lower spare capacity later in the year.

---Global oil product demand is revised down marginally to 84.2 mbd in 2006 and 85.7 mbd in 2007 following adjustments to baseline historical demand. Changes are centered in the Middle East, but Chinese demand has also been revised down, despite strong 1Q growth.

Jodi Shafto, [Jshafto@emimail.org](mailto:Jshafto@emimail.org), [www.energyinstitution.org](http://www.energyinstitution.org)

For more extensive coverage of the broader petroleum complex, including a detailed look at inventories data as well as in-depth market analysis and trading strategies, request a free trial of the Daily Hedger by contacting the Energy Management Institute at 888-871-1207 or <http://www.energyinstitution.org/Dailyhedger%20free%20request.htm>

[Related Stories]

# Floating CRC Winter 07/08

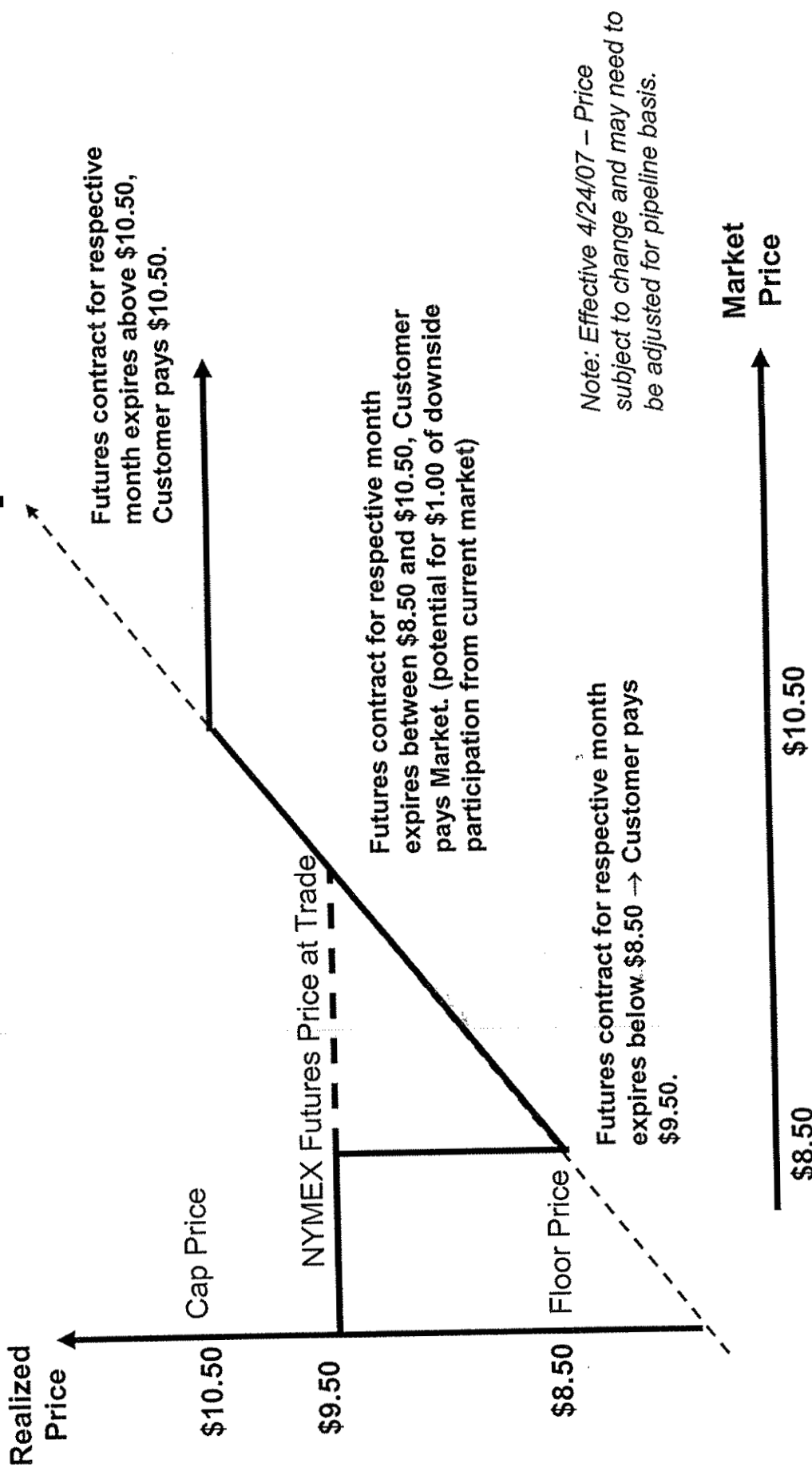


- **Term : Nov 1, 2007 through March 31, 2008**
- **Volume: 10,000 MMBtu/d Baseload**
- **Avg Strip Levels: \$8.50 Floor Price- \$9.50 Futures \$10.50 Cap**
- **Monthly Price – depends upon NYMEX expiration for respective month**  
If the respective contract expires:
  - Anywhere above \$10.50, the customer's price is \$10.50
  - Between \$8.50 and \$10.50, the customer's price is market.
  - Below \$8.50, the customer's price is \$9.50.

## Other Terms

- ◆ Customer can price at a discount of up to \$1.00 to the current futures level.
- ◆ Customer has perfect upside protection, like a swap/futures, that starts a modest amount above the current futures level.
- ◆ NO COST to Customer
- ◆ Pricing is subject to market conditions and management approval
- ◆ Prices reflect financial side of structure; actual price will be adjusted for Basis for appropriate supply area and pipeline
- ◆ Levels can be adjusted to reflect Customer's requirements and market bias (i.e. higher ceiling, lower trigger price, etc.)
- ◆ Structure based on pricing effective 4/24/07

# Floating CRC Nov-Mar Example



*Note: This information is confidential & proprietary. For Oxy customers only. Not for Distribution.*

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 June 12, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↑	Long	NOAA: Warmer than normal August-October in most of the US.
Mid Term Weather (30-60 days)	↑	Long	Mostly above normal for June & July.
6-10 day forecast	↑	Short	Above Normal temps and most people have the A/C on, so there is potential for Electric Generation load.
Tropical Storm Activity	↔	Short	No tropical storms in the Atlantic or Gulf at this time.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending June 1 were 110 BCF. Storage levels are 6% lower than last year at 2.2 TCF. (Still 20% higher than 5 year average)
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$7.181	↓	Long	"...with many weather prognosticators calling for an active hurricane season and a warmer-than-normal summer, the perception of risk continues to be reflected in the futures market." (Unchanged from last meeting).
Paribas	↓	Short	"The settle was extremely bearish considering we couldn't even gather enough momentum for a short covering bounce into the weekend."
Gas Daily	↔	Long	May 31st: NEB Summer supply, prices should hold steady: "...overall prices are not likely to change much..."
Conoco Morning Briefing	↓	Short	"...there's no real demand-inducing weather on the horizon, which includes the fact that the tropics are quiet..."
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$8.26 Summer 2008: \$7.07	↔	Long	"Despite the recent surge, prices are expected to dip in May before rising over the next several months." (Unchanged from last meeting.)
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↑↓	Long	Gas Daily 5/30: Although the article states that demand is rising, they attribute it mostly to the Residential and Commercial sectors. Industrial is expected to decline 1.1%
Supply	↓	Long	Gas Daily 5/16: "We believe bearish trends in the natural gas markets will overshadow bullish ones, which should keep prices contained in the short- to medium term..."
Oil Market	↑	Long	EIA: "World oil markets are projected to tighten this summer due to continued growth in oil demand and production restraint by member of...(OPEC)."
<b>Meeting Minutes: 10th Floor North Conference Room - 3:00 pm</b>			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2006 - October 2007  
 As of 06/11/07

	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07
<b>Daily Base</b>												
Estimated Base (Gross)												
Amount Hedged												
Fixed Price (												
Fixed Price												
Fixed Price												
Acc Swap												
Collar												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Total Hedged												
<b>Monthly Base</b>												
Estimated Base (Gross)												
Hedged to date												
Fixed Price												
Fixed Price												
Fixed Price												
Acc Swap												
Collar												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Total Hedged												
% of Base Supply												
Seasonal % of Base												
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)												
Storage Withdrawal												
Market												
Total (Incl. Injections)												
% Hedged & Storage												
Seasonal %												

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 06/11/07

Nov-07 Dec-07 Jan-08 Feb-08 Mar-08 Apr-08 May-08 Jun-08 Jul-08 Aug-08 Sep-08 Oct-08

**Daily Base**

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

**Monthly Base**

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

% of Base Supply

Seasonal % of Base

**Normal Load (City Gate)**

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

[The table content is almost entirely redacted with black bars.]



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 06/11/07

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Total Hedged

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Normal Load (City Gate)

Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (Incl. Injections)  
 % Hedged & Storage  
 Seasonal %

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

6/11/2007

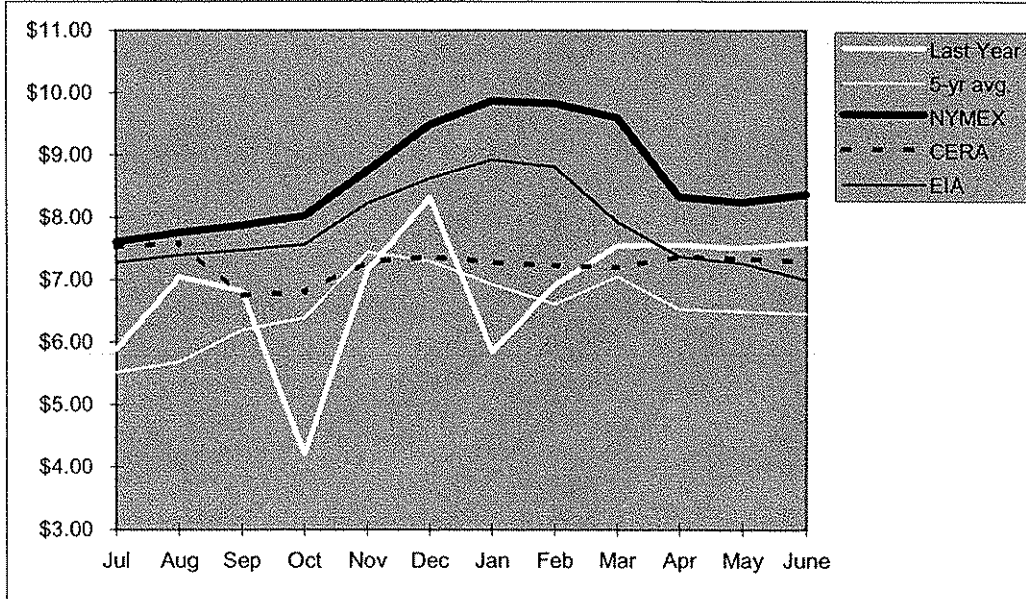
**Duke Energy Kentucky  
 Hedging Program  
 Current Position**

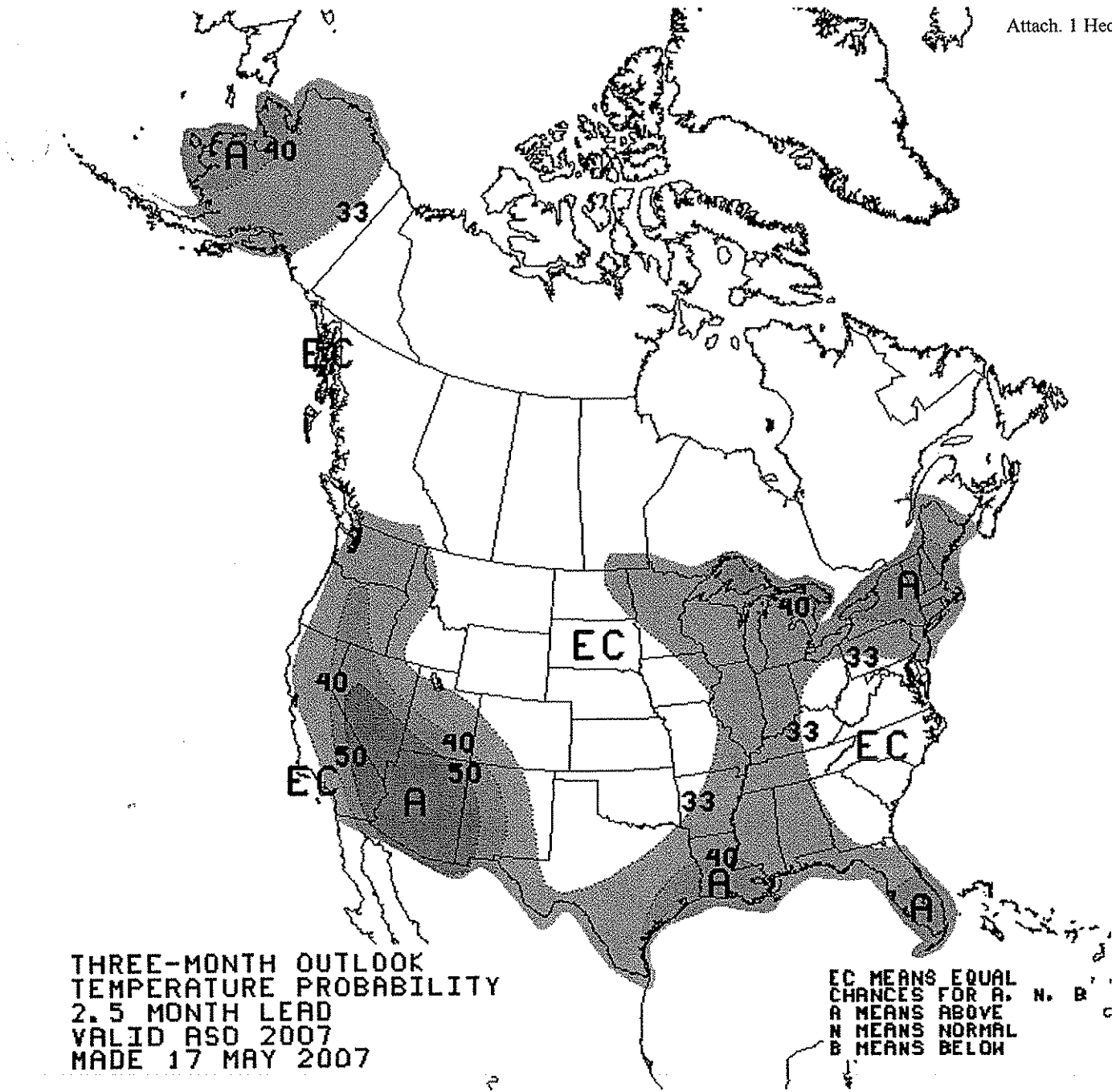
Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					



## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 18-May-07	EIA 8-May-07	NYMEX 11-Jun-07
Jul	\$5.51	\$5.89		\$7.530	\$7.274	\$7.608
Aug	\$5.68	\$7.04		\$7.590	\$7.393	\$7.755
Sep	\$6.19	\$6.82		\$6.750	\$7.473	\$7.870
Oct	\$6.39	\$4.20		\$6.800	\$7.565	\$8.025
Nov	\$7.44	\$7.15		\$7.280	\$8.229	\$8.750
Dec	\$7.29	\$8.32		\$7.370	\$8.627	\$9.485
Jan	\$6.92	\$5.84		\$7.280	\$8.925	\$9.870
Feb	\$6.61	\$6.92		\$7.230	\$8.809	\$9.830
Mar	\$7.05	\$7.55		\$7.200	\$7.926	\$9.600
Apr	\$6.53	\$7.56		\$7.370	\$7.374	\$8.330
May	\$6.49	\$7.51		\$7.340	\$7.262	\$8.240
June	\$6.45	\$7.59		\$7.290	\$6.996	\$8.370
12 Month Avg	<b>\$6.55</b>	<b>\$6.86</b>		<b>\$7.253</b>	<b>\$7.821</b>	<b>\$8.644</b>
Summer Average				\$7.239	\$7.334	\$8.028
Winter Average				\$7.272	\$8.503	\$9.507



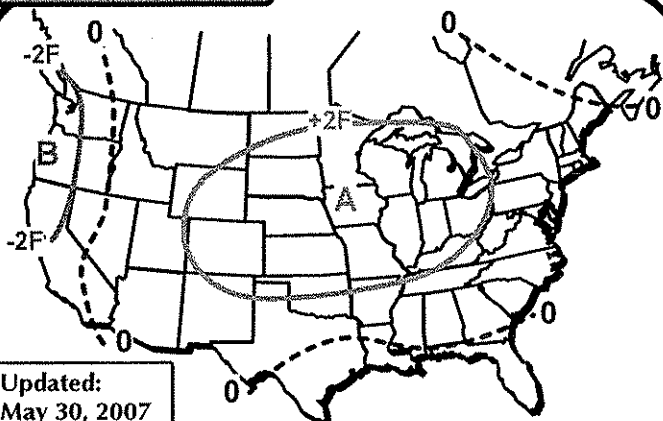




# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

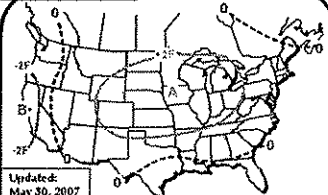
Wednesday DAY 6/6/07 DATE 9:30 AM EDT TIME DS FORECASTER

**JUNE 2007**



Updated:  
 May 30, 2007

**JUNE 2007**



**Interior Warmth  
 Remains Dominant**  
**Pacific Northwest Cools**

Updated:  
 May 30, 2007

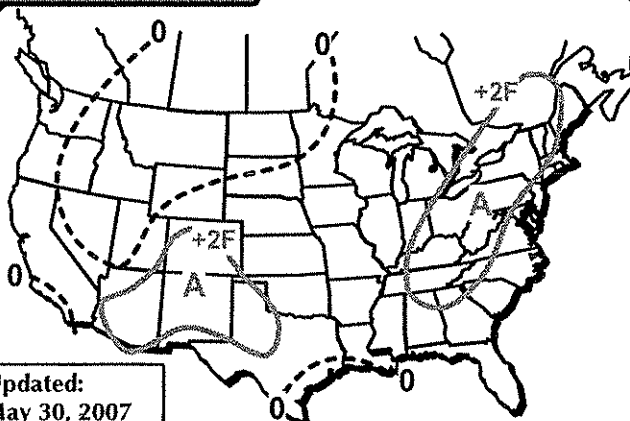
The Midwest and Plains continue to be the most favored warm to hot areas for June. This is well supported by the dynamic models now which extend out-through the third week of the month. The main adjustment to the forecast was due to the inputs of the medium range models which still support cool troughing on the West Coast but focus it more notably in the Pacific Northwest. This leads to the shift north of the one area of significantly below normal readings.

### June PWCCD\* Forecasts

June 2007 Fcst: **260.0** 10Y Normal: 226.6  
 30Y Normal: 213.7  
 June 2006: 239.9  
 Change: 0

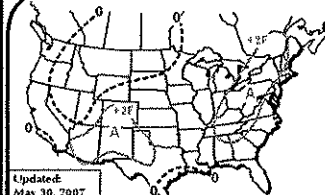
\*National Population-Weighted CDDs

**JULY 2007**



Updated:  
 May 30, 2007

**JULY 2007**



**No Changes**  
**Warmth Centered on East  
 and Southwest**

Updated:  
 May 30, 2007

The July outlook is being maintained with warmer than normal conditions in a large portion of the country, but not as hot as July 2006. Warm to hot ridging should be most frequent in the Southwest but will extend across the mid-continent and into the East. Showers are still expected to limit the hotter conditions seen last year and in '05 as well. The limited warmth in the northwest pattern is due to the maintaining of Western cool troughing this summer compared to the past few cases.

### July PWCCD\* Forecasts

July 2007 Fcst: **360.0** 10Y Normal: 342.0  
 30Y Normal: 327.4  
 July 2006: 392.5  
 Change: 0

\*National Population-Weighted CDDs

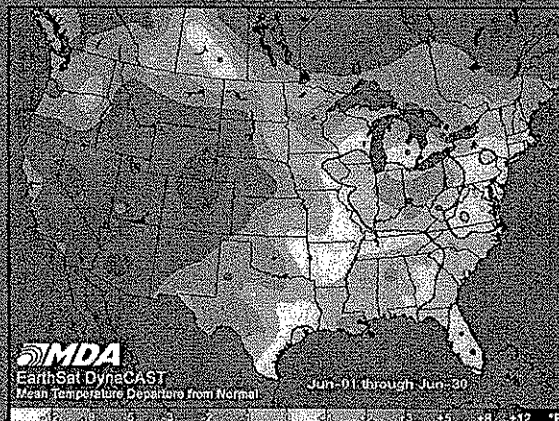
### May 2007 Comparison



Updated:  
 Apr 18, 2007

The heat exceeded expectations over the month of May across much of the country, with the Midwest and Mid-Atlantic seeing temperatures climb the farthest above last month's forecast. Significant storm activity kept West Texas and New Mexico much cooler than originally anticipated.

### JUNE 2006



MDA  
 EarthSat DynaCAST  
 Mean Temperature Departure from Normal

Jun-01 through Jun-30

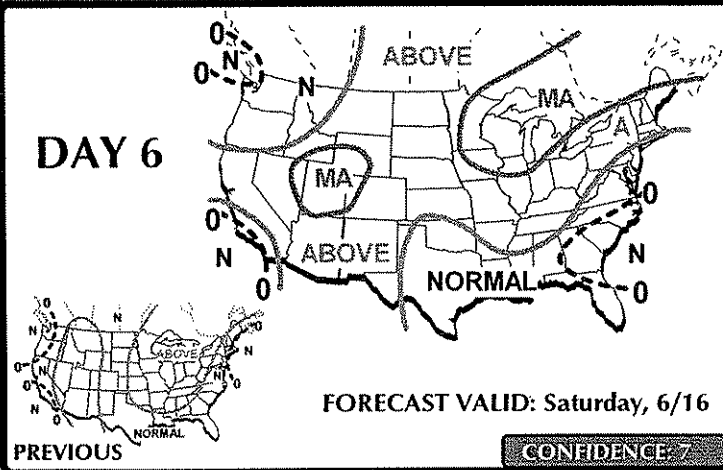
Maps above depict deviations of average temperatures from normal in Fahrenheit.



# MDA EarthSat's Energy Weather The 6 to 10 Day Forecast - Detailed Version

Monday DAY 6/11/2007 DATE 6:30 A.M. TIME MR/AC FORECASTER

## FORECAST TEMPERATURE DEVIATIONS

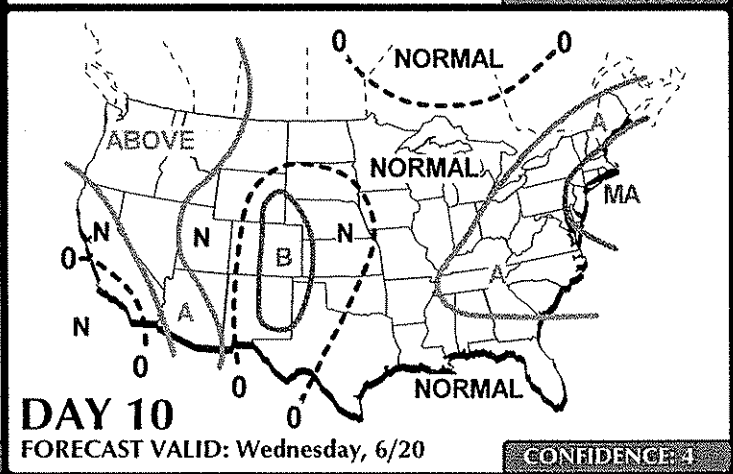
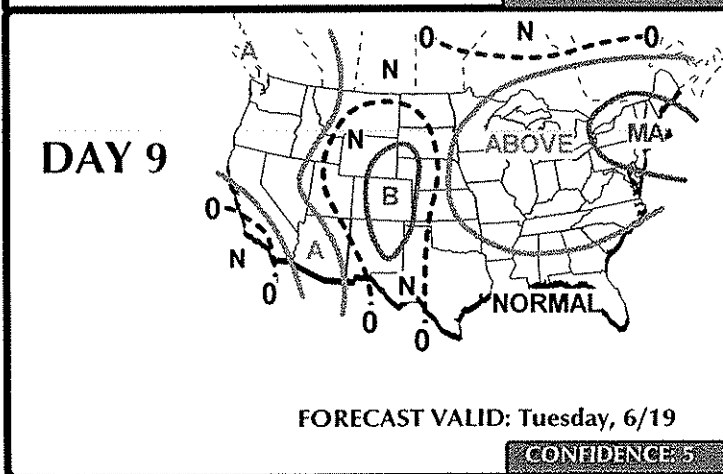
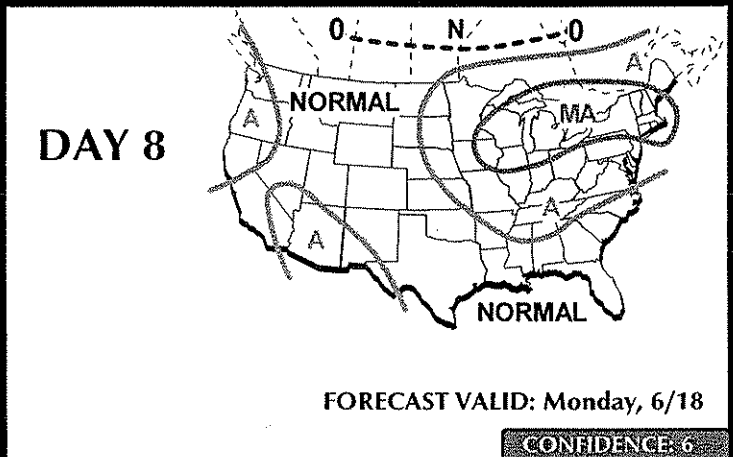
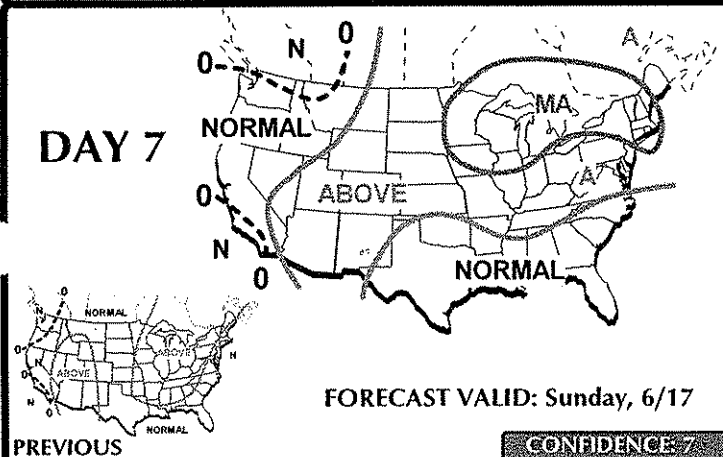


## DISCUSSION

### Today's Forecast

### East Takes On Warmth; Some NW, SW Concerns

As a ridge forces warm weather into the Midwest and East through the majority of the forecast, temperatures along the South will remain seasonable, albeit still warm in the process. A trough impacting the Northwest early in the period will begin to shift towards the Northern Plains as a ridge begins to build across the Northwest by the middle and later periods. The potential exists for warmer readings to occur from the current forecast. Another troublesome area could be New Mexico (and w. Texas), where pending precipitation could allow cooler weather to coincide.



## LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

**NORMAL**  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

### Fundamentals of Storage for Week Ending June 8

Though the momentum might be slowing, the natural gas storage picture remains clearly bearish after the most recent report released Thursday (6/7) showed the fifth straight historically large build and the third straight triple-digit injection for the week ending June 1.

Though still early, current forecasts suggest a build to underground storage near 88-103 Bcf, which could be the sixth larger-than-normal and fourth triple-digit build in a row. On the other hand, if actual data comes in at the low side of current estimates, the industry could be looking at its first sub-par injection since late April.

In either case, the whopping year-on-five-year-average surplus is hardly under any serious threat. Coming off the largest build of the year to date (110 Bcf) reported last week, total storage at 2,163 Bcf is still 366 Bcf above the five-year average of 1,797 Bcf -- quite comfortable any way you cut it.

Meanwhile, even low-end estimates for this week would continue to cut down the year-on-year deficit, with a hypothetical middle-of-the-road build of 95 Bcf, the year on year deficit cut be cut to less than 130 Bcf when the most recent data is released this Thursday (6/14). Again, though still in a y-o-y shortfall, this bearish trend looks uninterrupted this week.

Though there remains a good chance that this week's data could offer the first double-digit build in almost a month as current estimates trend closer to the five-year average, bears have little concern in the near-term. Assuming the five-year average -- at times a dangerous assumption to be discussed momentarily -- the year-on-year deficit will be totally erased by mid July, the industry would reach the 3.1 trillion cubic foot comfort zone by early September and final storage ahead of the winter will be a close to 3.6 Tcf by early November.

That said, the only thread of hope being maintained by the bulls is what the summer might offer -- more specifically, heat and hurricanes. We need only remember last summer -- the second hottest on record for the lower 48 -- brought two unprecedented storage withdrawals because of the heat and subsequent record-breaking cooling demand, much of which runs on natural gas. We also note the recent hurricane activity. Last year (2006) was a bust for the most part but Hurricane Ivan in 2004 shut-in 172 Bcf in the Gulf of Mexico when all was said and done. The combination of Hurricanes Katrina and Rita in 2005 erased a whopping 720 Bcf of GOM production over the five-month restoration period.

With a record two named storms under our belt at this point and with forecasts abound for another hyperactive season in 2007, the market bulls also find some ammunition in widespread forecasts for another hot summer in the low 48 this year. The combination of these two factors could be key to limiting injections over the remaining 23 rebuilding weeks of the storage season.

At the markets, July futures has tumbled hard of late -- from an intraday high of \$8.21 on June 4 to an intraday low of \$7.58 today -- thus



suggesting the bears in control for now. However with the market remaining heavily short according to the most recent CFTC Commitment of Traders report, the emergence of either heat or hurricanes moving forward will also offer the possibility of igniting a rally. The NYMEX front month has not settled outside the \$7.50-\$8.20 since early April.

Peter Marrin, [Peterm@btu.net](mailto:Peterm@btu.net), [www.energyinstitution.org](http://www.energyinstitution.org)

For more in-depth natural gas storage coverage including fundamental analyses, projections, regional breakdowns, and historical trends Request a Free Trial of Btu's Daily Gas Wire by emailing [info@btu.net](mailto:info@btu.net) or calling 888-871-1207

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North American  
Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## ASYMMETRICAL RISK FOR SUMMER GAS MARKET

### KEY IMPLICATIONS

CERA's expectation for the summer gas market remains essentially unchanged from the April *Monthly Briefing*. Storage inventories remain strong compared to the five-year average despite a cold April. This month's report includes summer 2007 weather sensitivities that examine the effects of a mild summer, hot summer, and a hot summer with an Ivan-size hurricane.

### DATE

May 18, 2007

- CERA's expectation for US liquefied natural gas imports for the remainder of 2007 is up 0.3 billion cubic feet (Bcf) per day based on reports that year-to-date worldwide liquefaction capacity utilization was 96 percent, compared to utilization levels just below 90 percent in 2006.
- Cold weather in April slowed down the pace of injections but North American storage inventories finished the month at 1,968 Bcf—301 Bcf above the five-year average, but 255 Bcf below April 2006.
- Assuming normal weather, CERA expects spot prices to average \$7.37 per million British thermal units (MMBtu) at Henry Hub in June and \$7.21 per MMBtu for June through October. CERA expects spot prices to average C\$6.80 per gigajoule (\$6.16 per MMBtu) at AECO in June.

### NORTH AMERICAN GAS MARKET

The North American gas market continued its pattern of alternating weather extremes in April with 15 percent more heating degree-days (HDDs) than normal. The reverse was true in March, which was much warmer than normal by comparison. However, holders of storage were still able to inject nearly 5.3 billion cubic feet (Bcf) per day of gas into storage during April—2.3 Bcf per day less than the five-year average—despite increased demand from colder weather.

Nevertheless, CERA's outlook for the gas market this summer remains essentially unchanged. We have increased our projected liquefied natural gas (LNG) imports for the remainder of 2007 by 0.3 Bcf per day. Year-to-date utilization rates for global liquefaction facilities reached 96 percent of capacity, up from just below 90 percent in 2006. This supply increase is offset by an increase in gas demand

Note: All prices are in US dollars unless otherwise indicated.

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for power of 0.3 Bcf per day. This stems from the expectation that gas will remain at a discount to residual fuel oil in the New York market, assuming normal weather. Hence, CERA's price outlook remains unchanged apart from a small increase for the month of May. The projected May price is up \$0.10 per million British thermal units (MMBtu) to average \$7.47 per MMBtu for the month (see Table 1).\*

North American gas storage inventories ended April 2007 at 1,968 Bcf, 255 Bcf below last April's record, but 301 Bcf above the 2002–06 five-year average (see Figure 1). CERA expects North American gas storage inventories at the end of May and June to increase to 2,402 and 2,771 Bcf, respectively, based on the assumption of normal weather. Although CERA's projection for North American gas storage inventories at the end of June is 223 Bcf above the five-year average, it is a significant 261 Bcf below the June 2006 record of 3,032 Bcf. Despite the current year-over-year deficit, CERA expects North American gas storage inventories to finish October at 4,059 Bcf, 56 Bcf above last year's record. With the NYMEX forward market still showing a strong contango—a June–October average of \$8.02 versus a November–March average of \$9.59 per MMBtu as of May 7, 2007—there remains a strong financial incentive to inject gas into storage.

Table 1

Henry Hub Prices

(nominal US dollars per MMBtu)

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
January	2.29	5.39	6.03	6.17	8.76	6.33	7.28	7.31	6.63	7.05
February	2.27	7.00	5.41	6.09	7.62	8.06	7.23	7.33	6.29	6.92
March	3.00	6.37	5.38	6.91	6.88	7.10	7.20	7.22	6.18	6.59
April	3.37	5.27	5.70	7.19	7.09	7.57	7.37	6.60	6.20	6.37
May	3.51	5.77	6.28	6.47	6.23	7.47	7.34	6.49	6.11	6.15
June	3.20	5.80	6.26	7.17	6.26	7.37	7.29	6.57	6.17	6.25
July	2.99	5.04	5.92	7.57	6.05	7.53	7.30	6.60	6.21	6.28
August	3.08	4.96	5.43	9.29	7.24	7.59	7.05	6.42	6.26	6.32
September	3.50	4.61	4.99	12.11	4.95	6.75	6.66	6.15	6.00	6.06
October	4.08	4.65	6.24	13.36	5.67	6.80	7.26	6.43	6.83	6.14
November	4.06	4.45	5.88	10.29	7.32	7.28	7.43	6.66	7.13	6.40
December	4.74	6.12	6.63	12.98	6.83	7.37	7.46	6.65	7.01	6.38
<b>Year average</b>	<b>3.34</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>7.27</b>	<b>7.24</b>	<b>6.70</b>	<b>6.42</b>	<b>6.41</b>

Sources: Cambridge Energy Research Associates. Historical data derived from Platts Gas Daily.

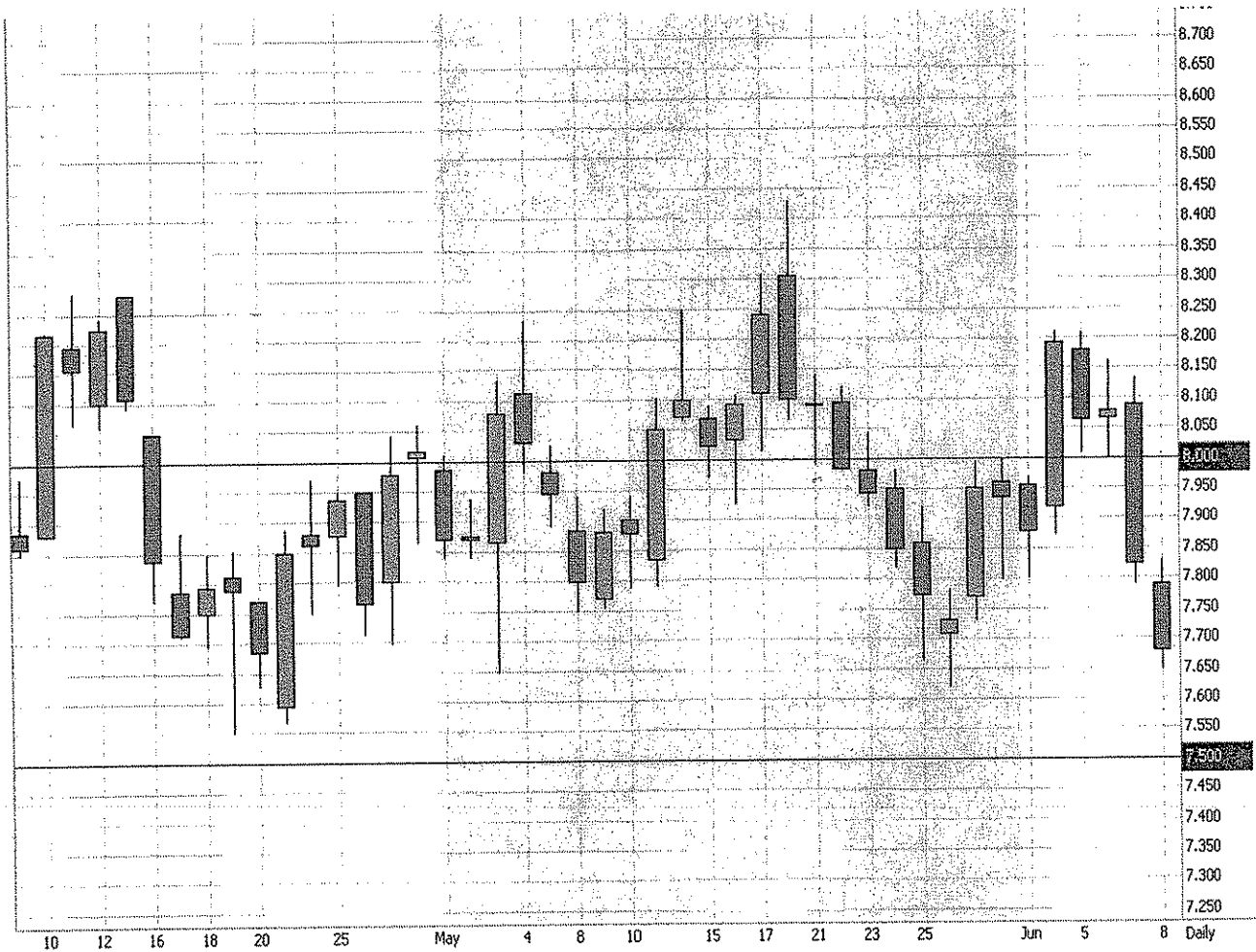
Note: The 2002–April 2007 figures are derived from historical data as available; CERA projections are from May 2007–12. Excel tables are available in the North American Natural Gas Client Services area at CERA.com.

\*Unless otherwise indicated, all CERA price and basis outlooks predict the average daily spot price.



### Commentary

The Energy Complex aggressively sold off on Friday. Petroleum products gave back all the previous days rally and then sum. Natural gas resumed its down trend. We settled on the lows of the day 7663 down 16.2 cents. The settle was extremely bearish considering we couldn't even gather enough momentum for a short covering bounce into the weekend. Weak cash prices on moderate temperatures in key consuming regions drove cash prices lower for the weekend. Cash posted 7885 and went out trading 7525 this morning. Once again, the 7500 level is the next objective. Have a good weekend!!!



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# Gas Daily

Thursday, May 31, 2007

## NEB: Summer supply, prices should hold steady

North American gas supplies should be relatively stable this summer, which should help stabilize gas prices as well, Canada's National Energy Board said in a report Wednesday.

Exceptionally hot weather or hurricane-induced supply disruptions could trigger gas price increases, but overall prices "are not likely to change much" from the \$6/MMBtu to \$8/MMBtu range seen over the past year, the NEB predicted in its summer energy outlook.

Canadian production is expected to drop by 500,000 Mcf/d this year compared with 2006, while Gulf Coast output should decline by about 600,000 Mcf/d, the board said. At the same time, however, Rockies production should rise more than 600,000 Mcf/d and Midcontinent volumes are expected to climb at least 500,000 Mcf/d.

So far in 2007, Canadian producers have continued to restrain their gas drilling activity despite strengthening commodity prices, and that "may have already had some impact on drilling costs" in terms of greater rig availability, the NEB noted. "Should natural gas prices continue to rise and drilling costs stabilize, there is the potential for drilling activity to strengthen later in the year."

Moreover, should imports of liquefied natural gas to the US reach the "unusually heavy" levels that some are forecasting, US gas storage facilities should fill quickly and "could even result in a price decline, but this likely wouldn't happen before fall," the report said.

LNG imports were about 50% higher during the first four months of this year due to mild European weather, which depressed LNG demand abroad and diverted cargoes to North America.

"LNG imports are not likely to be as strong after the summer if European weather returns to normal, but should still benefit from more LNG supply becoming available as exports start from Equatorial Guinea" as early as next month, the NEB explained.

Although an unusually cold winter ate into the gas storage surplus, "North America still had ample gas in storage at the end of the heating season," the board said, noting that inventories were about 26% above the five-year average as of March 31.

Assuming normal weather, "the pace of 2007 storage injections has the potential to be almost as strong as last year," though the NEB cautioned that the potential for supply-curtailling hurricanes "is certainly a wild card" that could temporarily lift prices. However, "while a more active hurricane season is expected by the weather forecasters, this is by no means certain," the report stressed.

In fact, "if gas consumption is more muted due to cool weather, or if gas supplies increase ... this will cause some downward pressure, probably around September-October as storage facilities become full."

Transco, zone 3	7.810	7.76-7.86	7.79-7.84	516	76
Trunkline, WLA	7.710	7.65-7.74	7.69-7.73	51	14
Trunkline, ELA	7.725	7.67-7.75	7.71-7.75	39	8

Oklahoma					
ANR, Okla.	6.630	6.60-6.67	6.61-6.65	67	27
CenterPoint, East	6.850	6.60-7.20	6.70-7.00	392	54
NGPL, Midcontinent	6.650	6.58-6.72	6.62-6.69	502	84
Oneok, Okla.	6.570	6.57-6.59	6.57-6.58	29	6
Panhandle, Tx-Okla.	6.595	6.20-6.71	6.47-6.71	815	117
Southern Star, Tx-Okla.-Kan.	6.620	6.62-6.62	6.62-6.62	4	1

### New Mexico-San Juan Basin

Power Administration and the Forest Service, including 16 years as forest supervisor at the Clearwater and Targhee national forests.  
 He would succeed Kathleen Clarke, who resigned earlier this year. BLM Deputy Director Jim Hughes has been running the bureau on an acting basis. BL

### Marketer rankings notice

Gas Daily is compiling data for a first-quarter 2007 ranking of North American gas marketers by daily physical wholesale volumes sold. Gas Daily staff intends to compile the rankings from information appearing in reports filed with the Securities and Exchange Commission.

For companies that are not publicly traded or do not provide such data to the SEC, staff requests quarterly gas sales data be reported in writing, and verified by executive personnel, by the end of business today, May 31. Please contact Stephanie Seay by phone at 865-690-4319, fax 865-690-0933, e-mail stephanie\_seay@platts.com; or Mark Davidson at 202-383-2148, mark\_davidson@platts.com, with any questions.

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## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

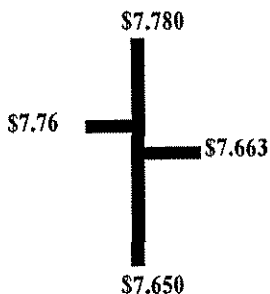
**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com



Monday, June 11, 2007

### July Continues To Slide As Crude Weakens, Again



**Today: Bearish** **July Natural Gas Closed** **Down 0.162¢** **30-Day: Bearish**  
 Bottom Line – It's not really a bullish scenario...we're just falling back into a range. If we don't break below \$7.64, we'll bounce due to early week technical buying. If we follow fundamentals we'll see a break of that support.

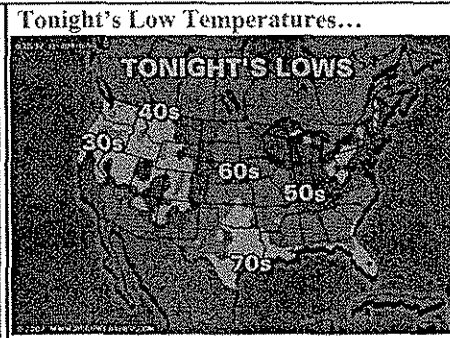
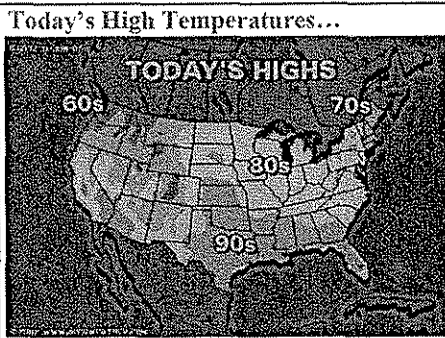
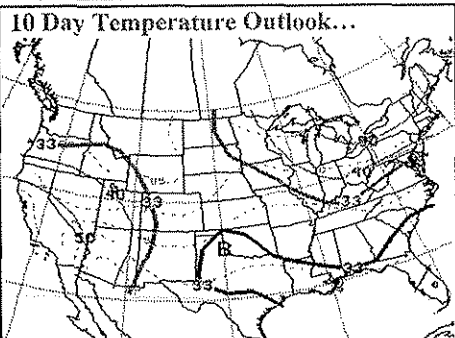
**Yesterday's Market**

- July natural gas continued the decline Friday back into range that began with Thursday's 25.5¢ loss. A weak storage report and falling crude oil prices spurred yet another fall-off in July's price to end the week. The front month settled at \$7.663, down 16.2¢, successfully testing and breaking \$7.70 support, though the current territory is not new as the front month contract spent much of the last several months range-bound between \$7.50 and \$8.20. The July crude oil contract, meanwhile, settled at \$64.76, down a whopping \$2.17 slightly above the low of \$64.65. Crude's major crumble was likely in sympathy to RBOB gasoline futures, which lost 3%, as well as the New York Stock Exchange, which saw solid losses all week until Friday. Another catalyst for crude's decline was likely the ever-weakening threat from Tropical Storm Gonu in the Persian Gulf as several production facilities in the region came back online after the storm made landfall without any direct threat to production.

**Today's Market**

- It's as good a time as any to go down, isn't it? I've been bearish for so long I'm growing fur! Since there's no real demand-inducing weather on the horizon, which includes the fact that the tropics are quiet, I think we'll turn this thing around and probe lower for a week or so. If you're a fundamentalist, like I am, it's been quite awhile coming. If you're a technician, like I am, you're likely to welcome another direction besides sideways. If you're confused, you're likely in a boat with a lot of people in it. The only hitch in the giddy-up will be the fact that we're sitting on top of technical support and we're moving into Monday. There always seems to be a lot of buying on Monday morning...especially after a late-week sell-off. So, despite wanting to see lower prices, we'll likely see some significant buying today. After all, those guys want to see a hurricane, and they want to be long **BEFORE** that happens.

Access Trading	6/11/2007	7:55 AM	Natural Gas	\$7.626	(3.3¢)
WTI Crude	\$65.150	\$0.41	IPE Brent	---	---



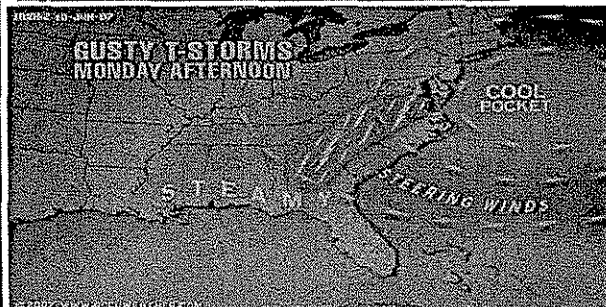
**Weather Briefs** – Northeast Sees Cool Temperatures...Some Rain – Southeast Cooler – Heat Coming To Upper Midwest – Cooler In The West

#### Storage...

We expect to see 96 Bcf build from storage this week.

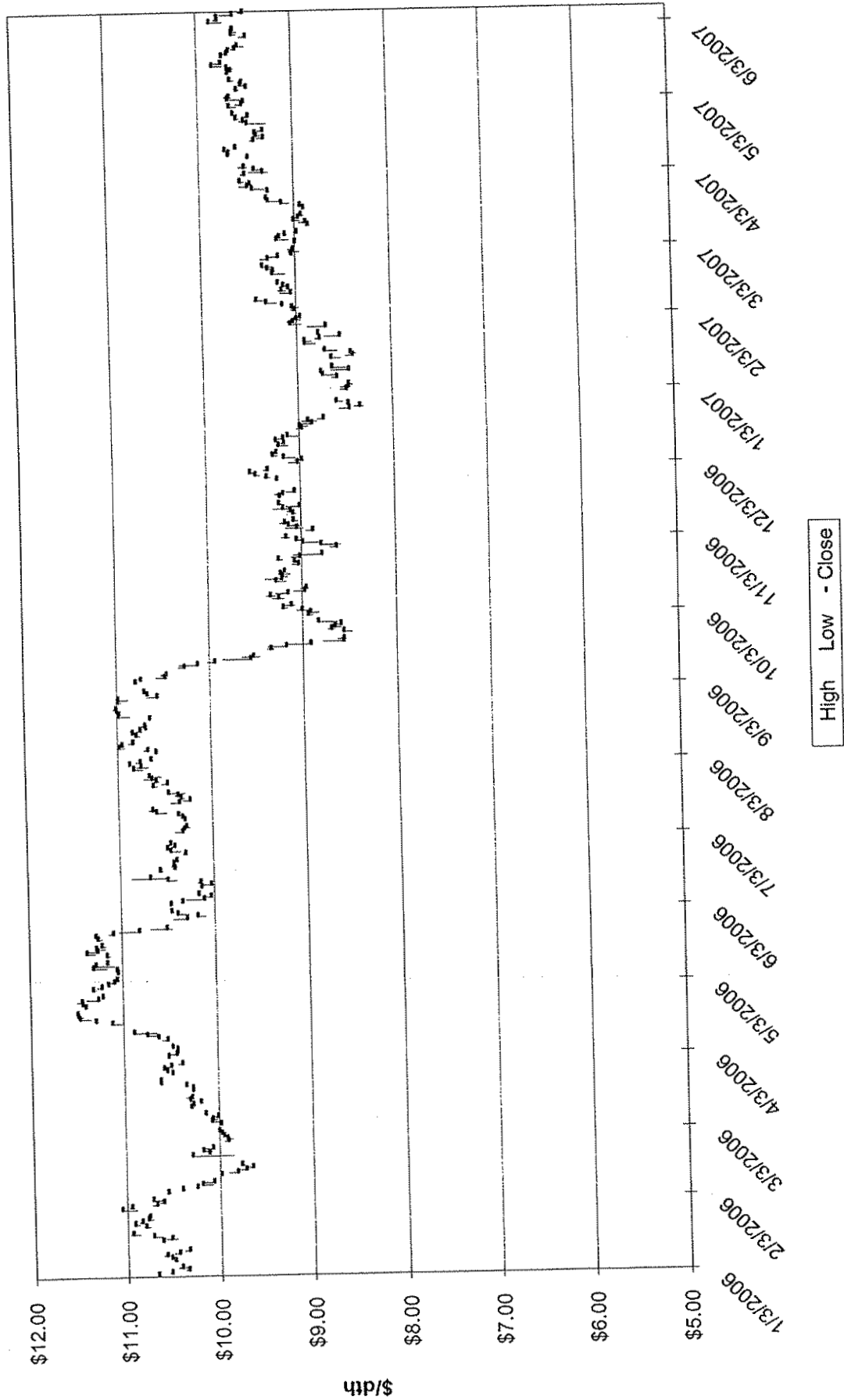
The EIA reported a 109 Bcf storage build this week, increasing the nationwide stocks to 2.162 Tcf. The build was within the industry's expectation. In the same week last year the stock level was 2.32 Tcf, which sends the year on year deficit to 158 Bcf. Early Indication for this week is a 96 Bcf build compared to a 77 Bcf build last year and a 88 Bcf build for the 5yr. Average.

#### Sigmets: Southeast Could Get Rain This Week

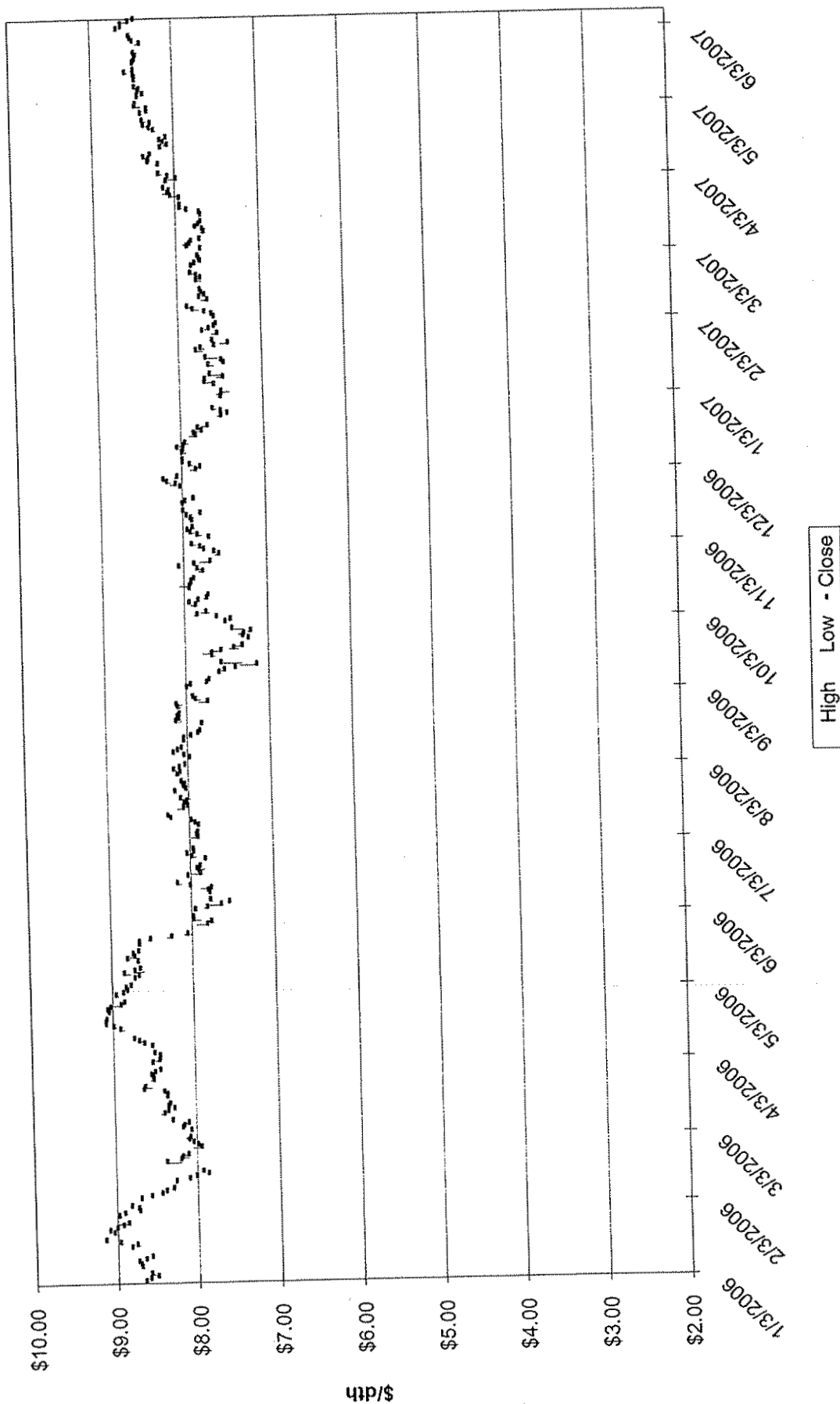


Summer-like heat will continue diminishing across the Southeast early this week. While daytime temperatures in the hottest locales should continue climbing into the lower 90s the next couple of days, including the Atlanta metro-area, no unusual heat and humidity by mid-June standards is expected during the week ahead. Highs may even struggle past the mid-upper 80s by Tuesday.

Winter Strip Nov07 - Mar08



Summer Strip 2008





## Gas Daily

Wednesday, May 30, 2007

### Analyst expects gas demand to hit 5-year high

US gas demand in 2007 should reach its highest level in five years, fueled by a cold winter and expectations for another hot summer, independent analyst Stephen Smith said Tuesday.

The president of Natchez, Mississippi-based Stephen Smith Energy Associates estimated that 22.6 Tcf will be consumed this year, a 3.4% increase over 2006 levels and the highest level since 2002, when demand hit 23 Tcf.

"Total US gas consumption, other than weather effects, has been largely unchanged since 1995," Smith said. But the cold weather that blanketed much of the country during the first four months of this year will prompt "a substantial increase" in heating degree-days for 2007 as a whole and "is the main driving force for the total gas demand increase for the year."

Gas use by the residential sector should soar 9.5% this year, while the commercial sector's consumption should rise 7%, Smith said. The power-generation sector should use 3.4% more gas than in 2006 based on an assumption that cooling degree-days will be 5% above average this summer. However, the downward trend in the industrial sector should continue, with demand dropping about 1.1%, he said.

Due to the overall demand surge, Smith estimated a full-year Henry Hub bid-week average price of \$7.80/MMBtu, up 5% from his most recent estimate of \$7.40/MMBtu. Smith also raised his forecast for 2008 to \$7.50/MMBtu from \$7.10/MMBtu, and predicted an average \$7.20/MMBtu price in 2009 and 2010, up from \$6.95/MMBtu and \$6.85/MMBtu, respectively.

But the higher prices should not dissuade storage operators from refilling their supplies this year. Though storage levels at the beginning of June should hold about 145 to 150 Bcf below year-ago levels, Smith said that by the end of August, inventories should hit 3.08 Tcf, surpassing year-earlier levels by about 114 Bcf.

Though several forecasts have called for a warmer-than-normal summer, Smith noted that storage stocks last fall were "high enough to raise storage capacity concerns and add downward pressure to prices" despite an extraordinarily hot summer.

US gas production rose 1.5% in the first two months of this year compared with the same period of 2006, Smith estimated, though that increase "may have included some benefit from deferred start-ups of production that had been lost" to Hurricanes Katrina and Rita in 2005. Overall, domestic production should grow by a modest 500,000 Mcf/d this year, he said.

Although Smith said his forecasts assume no loss of gas production to hurricanes through the end of August, "hurricane expectations could have a large influence on the late-summer gas price if an extremely hot summer should erode the storage surplus by late August."

Liquefied natural gas imports have been running about 1 Bcf/d higher than last year since about March 10 and should continue that trend for much of this year, Smith said. Meanwhile, a 200,000 Mcf/d drop in gas imports from Canada will likely "provide only a partial offset to comparative LNG strength." MT

Columbia Gulf, La.	7.440	7.38-7.58	7.39-7.49	453	83
Columbia Gulf, mainline	7.500	7.42-7.60	7.46-7.55	531	97
Florida Gas, zone 1	7.395	7.39-7.40	7.39-7.40	22	4
Florida Gas, zone 2	7.520	7.52-7.52	7.52-7.52	5	1
Florida Gas, zone 3	7.550	7.50-7.61	7.52-7.58	58	14
Henry Hub	7.510	7.45-7.62	7.47-7.55	1022	146
NGPL, La.	7.255	7.20-7.30	7.23-7.28	22	4
Southern Natural, La.	7.545	7.45-7.63	7.50-7.59	583	62
Tennessee, La., 500 Leg	7.515	7.46-7.63	7.47-7.56	626	99
Tennessee, La., 800 Leg	7.470	7.40-7.54	7.44-7.51	203	39
Texas Eastern, WLA	7.445	7.41-7.57	7.41-7.49	222	47
Texas Eastern, ELA	7.500	7.46-7.53	7.48-7.52	368	71
Texas Gas, zone SL	7.510	7.43-7.60	7.47-7.55	149	31

Deals from the CenterPoint posting in the marketplace disagree and believe the premium in the south zone will not last and the posting should remain unchanged.

Platts would like to know your thoughts. Please comment on the following:

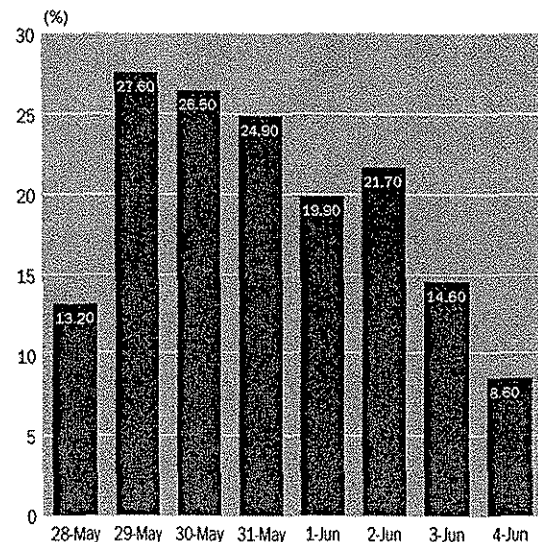
1) Should deals in the south zone be eliminated from the CenterPoint postings?

2) If the south zone deals were eliminated from the CenterPoint posting, should north zone deals, which can trade at a discount to flex/neutral zone deals, be eliminated as well?

3) Is there and will there be in the future enough liquidity in the south zone to establish a separate posting there?

Please send email responses by June 1 to gas\_survey\_comments@platts.com. If you have questions about this notice, please contact Kelley Doolan at 202-383-2145 (Kelley\_Doolan@platts.com) or Tom Castleman at 713-658-3263 (Tom\_Castleman@platts.com).

### Dominion's U.S. energy use forecast



This section of the Dominion Energy Index represents a national forecast for home heating and cooling requirements above or below normal.

### Pogo to sell Canadian E&P division ... from page 1

Barker-Homek said. "We see the acquisition of Northrock as a solid base for further investments and growth in Canada."

TAQA, which has been producing gas and oil since 1958, has been moving more of its operations out of Abu Dhabi as production from fields there slows. According to its web site, TAQA plans to spend \$1.64 billion this year on new

Prices at El Paso Natural Gas in the San Juan Basin continued to slide in the face of numerous maintenance projects, ending the day nearly 20 cents lower. Prices at the PG&E South point fell around 30 cents, while the PG&E city-gate dropped around 15 cents.

Elsewhere, El Paso in the Permian Basin dropped nearly 30 cents, while Waha slid about a quarter. — Market Staff Reports

## Analyst: LNG to keep 'lid' on near-term gas prices

An increase in liquefied natural gas imports to the US should help "keep a near-term lid on gas prices despite lower Canadian imports," Lehman Brothers analyst Thomas Driscoll said in a recent report.

"We believe bearish trends in the natural gas markets will overshadow bullish ones," which should keep prices contained in the short- to medium term, Driscoll said. "Longer-term drilling economics may argue for prices well over \$9/MMBtu; however, the desire to grow volumes and fast-growing LNG imports may prevent price increases."

Canadian imports, which contributed 15% of the gas consumed in the US during 2005, will likely drop to 7.8 Bcf/d this year and to 7 Bcf/d by 2010, Driscoll said, citing cutbacks in Canadian gas drilling and increased use of gas for oil sands extraction.

At the same time, the analyst anticipates a 1.3% increase in US gas production this year due to active drilling programs, but "high service costs and deteriorating geology" have pushed production costs higher.

As a result, "we believe marginal economics will limit the ability of producers to continue to increase capital spending," most likely triggering a drop in US production to 50.2 Bcf/d by 2010, he said.

But global liquefaction capacity should nearly double between 2006 and 2010, with the US market likely becoming "a primary beneficiary" of that growth. US LNG imports should rise to 7.6 Bcf/d by 2010 — a 375% increase from last year — as domestic regasification capacity hits 16 Bcf in 2010, a 357% increase.

In the Atlantic Basin in particular, the US share of the LNG market should grow from 21% in 2007 to 41% in 2010, Driscoll said. Trinidad and Tobago should remain the primary supplier to the US, followed by Nigeria, Qatar, Algeria, Equatorial Guinea, Egypt, Norway and Yemen.

As Atlantic Basin regasification facilities are completed, an LNG spot market in the Atlantic basin is likely to expand, Driscoll predicted. Over time, "this could result in a trend toward linked natural gas prices between Europe and the US," he said.

On the demand side, rising LNG imports should help stabilize the drop-off in US industrial gas use, although consumption should still trend lower. "As a percent of consumption, we expect the industrial sector to fall from 35% of the market in 2006 to 32% in 2010." At the same time, the use of gas for power generation should climb between 1.5% and 2% each year through 2010, Driscoll said. MT

## Security zone established at Georgia LNG terminal

The Coast Guard on Tuesday established a permanent security zone around El Paso's Elba Island, Georgia, liquefied natural gas terminal in hopes of averting "sabotage or other adverse action that could result in significant damage to property and a loss of life."

The final rule, essentially unchanged from an interim version in place for the past four months, takes effect June 14.

After determining that the addition of two berths for LNG tankers had increased security risks associated with the Elba Island facility, the Coast Guard in January put the enhanced security zone into effect immediately, explaining that a delay for public comment would have an adverse effect on the safety of naviga-

## Columbia Gulf solicits interest in Louisiana expansion project

Columbia Gulf Transmission is conducting an open season through May 25 to gauge interest in a proposed expansion of its Henry Hub interconnection with Sabine Pipe Line in Louisiana.

If enough shippers express interest, the NiSource subsidiary said it would build additional compression to expand deliveries to Henry Hub by up to 200,000 Dt/d.

The project would provide additional market access for gas production in Texas, Louisiana and Arkansas that flows into Columbia Gulf at or near Perryville, Louisiana, the company said.

Meanwhile, Columbia Gulf is seeking binding proposals from existing customers to turn back firm capacity to reduce the scope of the facilities required if the pipeline proceeds with the Henry Hub/Sabine expansion.

To turn back capacity, an interested shipper must have firm rights to transportation capacity on Columbia Gulf's East Lateral system, with a primary delivery of Henry Hub, for a full-year term.

Columbia Gulf said the turnback of capacity would become effective as necessary to accommodate any requested in-service dates for expansion service. The "reverse open season" bids are subject to Columbia Gulf's evaluation and approval.

Any turnback of capacity established through a binding arrangement with Columbia Gulf will be permanent and non-recallable, the pipeline stressed.

Bids can be submitted via fax at 713-267-4730. For more information on both the open season and the reverse open season, contact John McNamara at 713-267-4737 or Pete Brastrom at 713-267-4735.

## Northeast Gateway LNG terminal gets license from federal agency

Excelerate Energy has received a deepwater port license from the US Maritime Administration to construct its Northeast Gateway liquefied natural gas import terminal off the Massachusetts coast, the company announced late Monday.

MARAD initially signed off on the 500,000 Mcf/d facility in February (GD 2/9). Construction of the facility should begin later this month, with LNG deliveries starting by the end of the year, The Woodlands, Texas-based Excelerate said.

"This facility and others we are developing, along with our expanding fleet, provide us with unparalleled flexibility to serve multiple markets at any given time and make the company a major force in the worldwide LNG market," said Kathleen Eisbrenner, president and CEO of Excelerate.

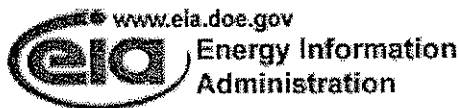
Excelerate also owns and operates the Gulf Gateway LNG facility off Cameron Parish, Louisiana. MT

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May 2007

## Short-Term Energy Outlook

May 8, 2007 Release

### *Highlights*

- Continuing problems for refineries in the United States and abroad, combined with strong global gasoline demand, have raised our projected average summer gasoline price by 14 cents per gallon from our last *Outlook*. Retail regular grade motor gasoline prices are now projected to average \$2.95 per gallon this summer compared with the \$2.84 per gallon average of last summer. During the summer season, the average monthly gasoline pump price is projected to peak at \$3.01 per gallon in May and again in August, compared with \$2.98 per gallon last July.
- The price of West Texas Intermediate (WTI) crude oil is expected to average over \$66 per barrel this summer, compared with over \$70 per barrel last summer, and to average about \$64 per barrel annually in both 2007 and 2008. However, the price of WTI is not, at this time, a reliable marker for other crude oil prices. The average cost of all crude oils to U.S. refiners is projected to be only about \$2 per barrel less this summer than last summer.
- The Henry Hub natural gas spot price is expected to average \$7.84 per thousand cubic feet (mcf) in 2007, a 90-cent increase from the 2006 average, and \$8.16 per mcf in 2008.
- Residential electricity prices are expected to continue to grow at about 3 percent annually during 2007 and 2008 as higher fuel costs, particularly for natural gas, are passed through to retail customers.

### *Global Petroleum Markets*

**Demand.** World oil markets are projected to tighten this summer due to continued growth in oil demand and production restraint by members of the Organization of Petroleum Exporting Countries (OPEC). Despite the recent increases in world oil prices, global oil consumption is projected to grow by 1.4 million barrels per day (bbl/d) in 2007 and by 1.6 million bbl/d in 2008. About one-half of the projected growth will come from China and the United States ([World Oil Consumption](#))

Duke Energy  
 Hedging Program  
 Remaining Base Not Yet Locked In  
 Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u>							
Previously Hedged	[REDACTED]						
Total	[REDACTED]						
<u>Duke Energy Kentucky</u>							
Previously Hedged	[REDACTED]						
Total	[REDACTED]						

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 July 25, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal start to winter.
Mid Term Weather (30-60 days)	↑	Long	WSI and Earthsat both predicting warmer than normal August and September.
6-10 day forecast	↔	Short	Most of the country is normal with some above normal to the northwest.
Tropical Storm Activity	↔	Short	No tropical storms in the Atlantic or Gulf at this time.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending July 13 were 65 BCF. Storage levels are 2% lower than last year at 2.7 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$7.181	↓	Long	"The balance of risk for the North American gas market has begun to change toward the downside."
Paribas	↓	Short	"...the fundamentals remain extremely bearish unless we see some Hurricane hype..."
Gas Daily	↓	Long	Gelber & Associates: "With amount of gas we have in storage, the fair market value is closer to \$5.50"
Conoco Morning Briefing	↓	Short	"That means we've got a lot of downside to go."
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$8.41 Summer 2008: \$7.31	↔	Long	"...temperatures likely will continue to play a key role in determining natural gas consumption throughout the third quarter."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↓	Short	[REDACTED]
Summer 2008 Strip Chart	↔	Short	[REDACTED]
<b>Economy</b>			
Demand	↑	Long	EIA: "...consumption is expected to rise by 4.3 percent in 2007 and 1.1 percent in 2008."
Supply	↓	Long	EIA: "Expectations of continued production growth of 1.1 percent from onshore wells in 2008 likely will result in an increase of total U.S. dry natural gas production of 2.2 percent."
Oil Market	↓	Long	"Oil prices kept falling Tuesday amid worries that crude prices have risen too high lately and on speculation that recent OPEC comments may signal a less bullish position..."

Meeting Minutes: 10th Floor North Conference Room - 2:00 pm

Attendees: [REDACTED]

[REDACTED]

[REDACTED]





Duke Energy Kentucky  
Hedging Program - Current Position  
November 2007 - October 2008  
As of 07/24/07

Nov-07    Dec-07    Jan-08    Feb-08    Mar-08    Apr-08    May-08    Jun-08    Jul-08    Aug-08    Sep-08    Oct-08

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (Incl. Injections)

% Hedged & Storage

Seasonal %



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 07/24/07

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Total Hedged

Nov-08	[REDACTED]
Dec-08	[REDACTED]
Jan-09	[REDACTED]
Feb-09	[REDACTED]
Mar-09	[REDACTED]
Apr-09	[REDACTED]
May-09	[REDACTED]
Jun-09	[REDACTED]
Jul-09	[REDACTED]
Aug-09	[REDACTED]
Sep-09	[REDACTED]
Oct-09	[REDACTED]

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

Nov-08	[REDACTED]
Dec-08	[REDACTED]
Jan-09	[REDACTED]
Feb-09	[REDACTED]
Mar-09	[REDACTED]
Apr-09	[REDACTED]
May-09	[REDACTED]
Jun-09	[REDACTED]
Jul-09	[REDACTED]
Aug-09	[REDACTED]
Sep-09	[REDACTED]
Oct-09	[REDACTED]

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

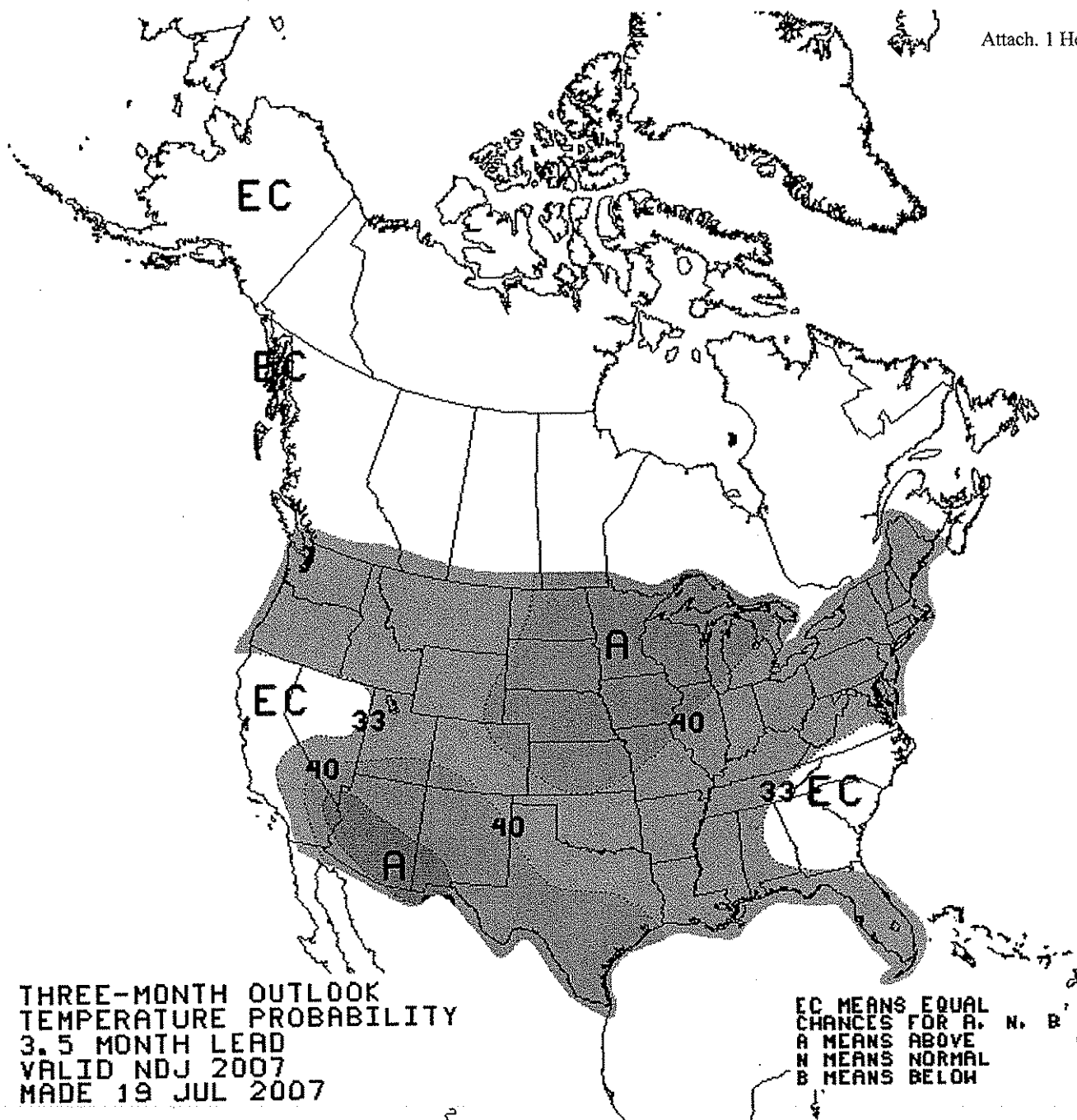
Total (incl. injections)

% Hedged & Storage

Seasonal %

Nov-08	[REDACTED]
Dec-08	[REDACTED]
Jan-09	[REDACTED]
Feb-09	[REDACTED]
Mar-09	[REDACTED]
Apr-09	[REDACTED]
May-09	[REDACTED]
Jun-09	[REDACTED]
Jul-09	[REDACTED]
Aug-09	[REDACTED]
Sep-09	[REDACTED]
Oct-09	[REDACTED]





He said his group would like to sit down with the lessees and make sure their drilling projects do not interfere with wildlife migration.

Liz Howell of the Wyoming Wildlife Association said her group is worried about the disappearance of leks, which are flat, open areas where sage grouse do their mating dances.

Wyoming has "given plenty, and we'll continue to give plenty, but special areas still need to be protected for those who live here and love it," Howell said. JC

## Rosetta calls Calpine's claims about deal 'misleading'

Rosetta Resources on Monday said assertions that merchant generator Calpine made last week about Rosetta's \$1.05 billion purchase of its gas and oil reserves in 2005 "are misleading, incorrect and wholly unsupported."

Rosetta "is confident that Calpine received full and fair value for the purchased assets and that Rosetta will prevail in any related litigation," the Houston-based independent said.

In a disclosure statement filed June 20 with a reorganization plan Calpine submitted to the US Bankruptcy Court for the Southern District of New York (GD 6/22), the San Jose, California-based company claimed Rosetta underpaid for the reserves. As a result, Calpine said it would either pursue the return of all of the 383 Bcf equivalent of proved reserves in California and the Gulf of Mexico or seek an additional payment of about \$400 million.

Calpine said a probe that occurred after it filed for bankruptcy in December 2005 concluded that the sale of the properties was carried out at fire-sale prices and not at arm's length.

"Rosetta believes that there is no basis in law or fact for Calpine's assertion that it can recover additional amounts from Rosetta with respect to its 2005 purchase of Calpine's remaining oil and gas assets," Rosetta said in its response Monday. "Moreover, Rosetta believes that Calpine's recent assertions regarding its 'in-depth' analysis following its bankruptcy and conclusions regarding value are seriously flawed and are inconsistent with economic reality in the oil-and-gas industry."

According to Rosetta, "Calpine weighed and considered alternatives with respect to these oil and gas assets before electing to proceed with the 2005 Rosetta transaction at the price Calpine established. Rosetta also understands Calpine received one or more competing offers from third parties before agreeing to the sale to Rosetta."

The company said it "will take all necessary action and vigorously assert its defenses to ensure that its rights and those of its shareholders are protected." VJ

## Petrohawk to sell off Gulf assets ... from page 1

Petrohawk," said Floyd Wilson, the company's chairman, president and CEO. "We have built a highly successful drilling program there, bolstered by an extensive library of 3-D surveys, joint ventures with quality partners, and we have a large inventory of 3-D-based drilling prospects in the Wilcox, Vicksburg and Drio trends. In late 2006, we announced three major discoveries — the Nabors, Colson and Winchester fields — and additional exploration prospects are being evaluated with the 2007 drilling program."

Wilson said during a conference call with analysts that he hopes the Gulf assets will sell as one package to a single buyer. Proceeds will go toward strengthening Petrohawk's balance sheet and growing its position in tight-gas development areas.

To that end, Petrohawk said it will quadruple its holdings in Arkansas' Fayetteville Shale with a new agreement to acquire 32,500 net acres for an undisclosed sum. Additional acquisitions in the shale are possible, the company added.

## WSI expects steamy weather in most markets from July through September

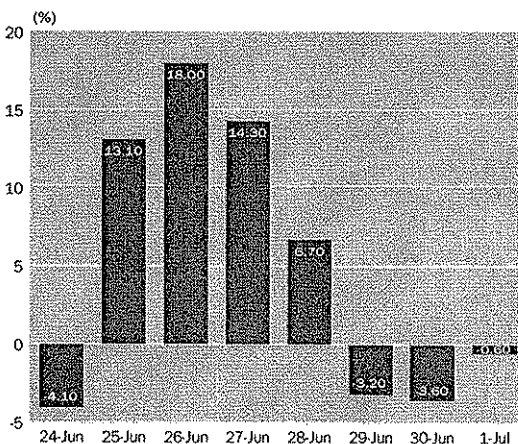
Most of the US will experience warmer-than-normal weather during the three months beginning July 1, private forecaster WSI said Monday in its latest seasonal outlook. But WSI said much of the East Coast can expect below-average temperatures during the period, which should offset high cooling demand in other regions.

Andover, Massachusetts-based WSI called for higher-than-normal July temperatures everywhere except New England, Texas and coastal California. "The cooler outlook for these key demand areas is slightly bearish for gas demand in these areas and could moderate any summer demand-related price increases," Energy Security Analysis Inc. said in an accompanying market outlook. "The slightly warmer-than-normal outlook for ... the rest of the country provides a higher probability of heat events — and an increased likelihood of weather-related price spikes in the power markets."

For August, WSI expects unusually hot weather in all regions except the Northeast and Northern Plains. "Above-normal temperatures in the Southeast and Southwest regions will increase natural gas demand for cooling in these areas," ESAI said. "This demand increase will be offset by lower demand from the Northeast and North Central regions."

In September, WSI predicted warmer-than-normal weather across the Eastern and Central US but cooler-than-average conditions across much of the West. "Cooler weather in the Southwest and California will have a bearish impact on natural gas demand from the power sector, while warmer weather in the Northeast will result in slightly higher-than-normal gas demand," according to ESAI. "Overall, natural gas demand in September should be neutral to bearish for gas prices." MD

## Dominion's U.S. energy use forecast



This section of the Dominion Energy Index represents a national forecast for home heating and cooling requirements above or below normal with the baseline of 0 representing normal for that day based on historical data.

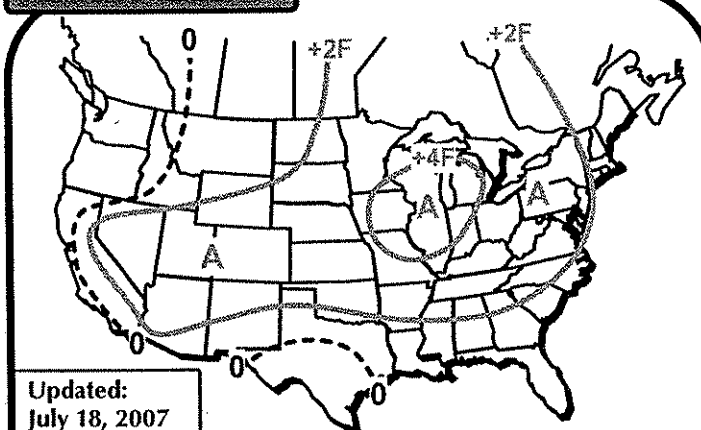
Source: Dominion



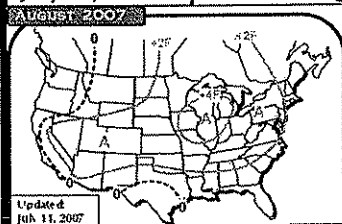
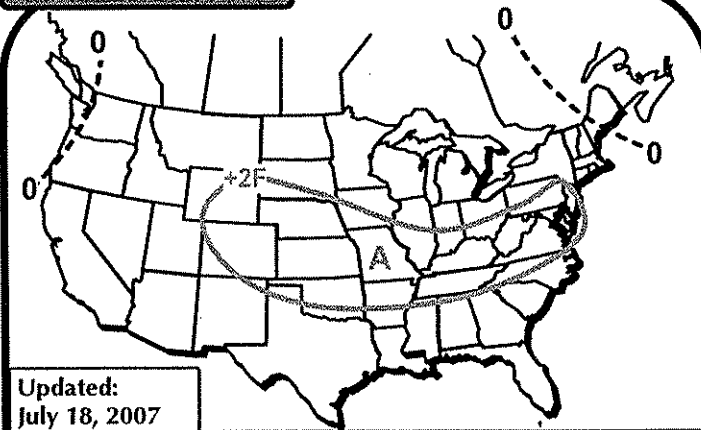
# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

Wednesday DAY 7/18/07 DATE 9:20 AM EDT TIME MR FORECASTER

## AUGUST 2007



## SEPTEMBER 2007



### No Changes

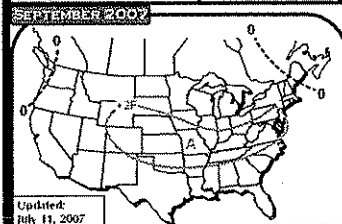
Mid-Continent Ridging  
 Pattern Still Favored

Today's outlook remains unchanged with above normals expected to canvas much of the nation. The focus of the strongest warming is in the middle of the Midwest. This continues to be in line with years in which the NINO 3.4 region is negative in August and also in line with the latest dynamic model trends for late July here. As a result of this convergence, there does not appear to be any need for big forecast changes. There is some concern that the West could be cooler, but long-term trends may offset that issue to the warm side.

### August PWCDD\* Forecasts

Aug 2007 Fcst: **350.0** 10Y Normal: 307.0  
 30Y Normal: 286.8  
 Aug 2006: 330.4  
 Change: +5

\*National Population-Weighted CDDs



### September Still Leans Warm

Analogs Suggest Opposite  
 Pattern from September 2006

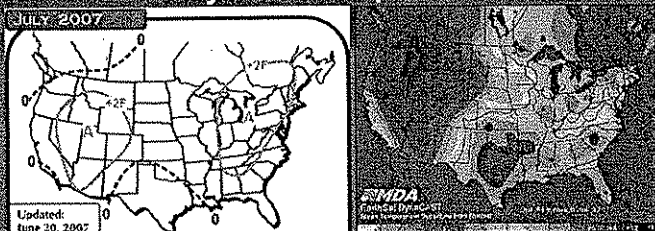
In 2005, the strong persistent summer heat pattern dug deep into September as well. Highs in the 90s were still being reported in key Eastern cities as late as mid-month. Last year, the summer heat pattern broke by mid-August and a cool September verified. Right now, the latest analog thinking suggests that September should be in between those two cases, but on the hotter side of the 30Y normal. Like '05, the best chance for demand-driving heat timing-wise would be in the first half of the month.

### September PWCDD\* Forecasts

Sep 2007 Fcst: **205.0** 10Y Normal: 175.8  
 30Y Normal: 160.6  
 Sep 2006: 138.7  
 Change: 0

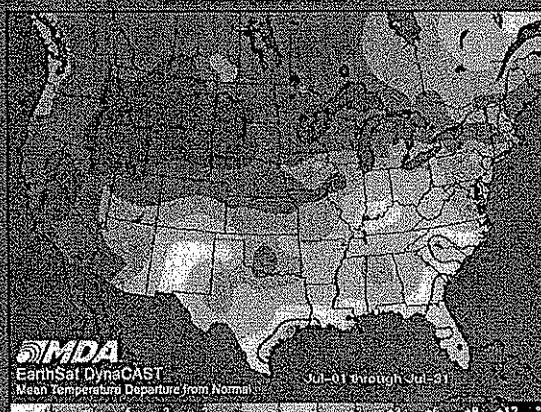
\*National Population-Weighted CDDs

## July 2007 Comparison



The Western heat forecast is working out fairly well, but the heat outlooked for the Midwest, Northeast, and Mid-Atlantic is not...yet. The question is whether the heat in the final third of the month will be sufficient to inch the East back to the hotter side of normal. The thinking here is that it may only be sufficient to modify the East to about or just above the 30Y normal.

## JULY 2006



Maps above depict deviations of average temperatures from normal in Fahrenheit.



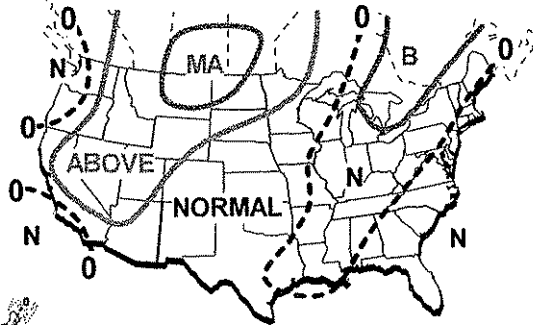
# MDA EarthSat's Energy Weather The 6 to 10 Day Forecast - Detailed Version

Tuesday DAY 7/24/2007 DATE 6:30 A.M. TIME MR/AC FORECASTER

## FORECAST TEMPERATURE DEVIATIONS

## DISCUSSION

**DAY 6**



FORECAST VALID: Sunday, 7/29

PREVIOUS

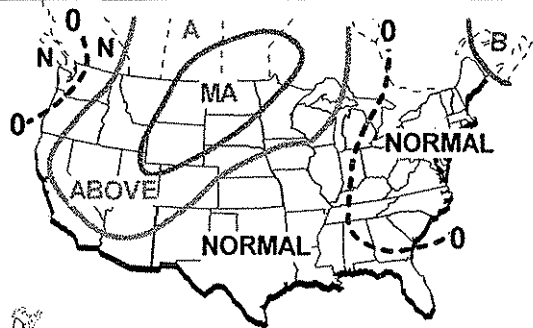
CONFIDENCE: 8

### Today's Forecast

#### Ridge In Plains Still Hesitates Slightly Eastward

Some of the more notable changes to this forecast can be found along the Mid-Atlantic and Northeast as a cold front passing through eastern Ontario may slide some below normal temperatures across these regions early in the period. The warmth in the Plains is still reluctant to advance into most of the Midwest, and into the entire East for that matter, around Tuesday. The ridge providing the much aboves in the Plains could lose some of its punch as it progresses eastward for the end of the period. Less intense warmth heading towards the East may result late.

**DAY 7**

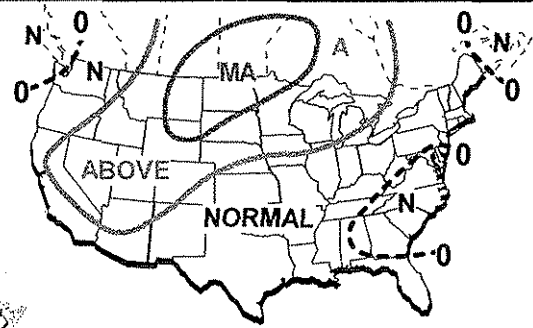


FORECAST VALID: Monday, 7/30

PREVIOUS

CONFIDENCE: 7

**DAY 8**

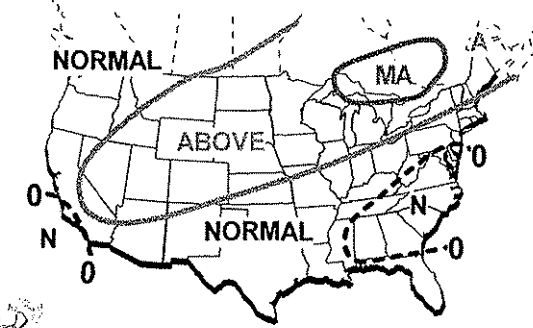


FORECAST VALID: Tuesday, 7/31

PREVIOUS

CONFIDENCE: 6

**DAY 9**

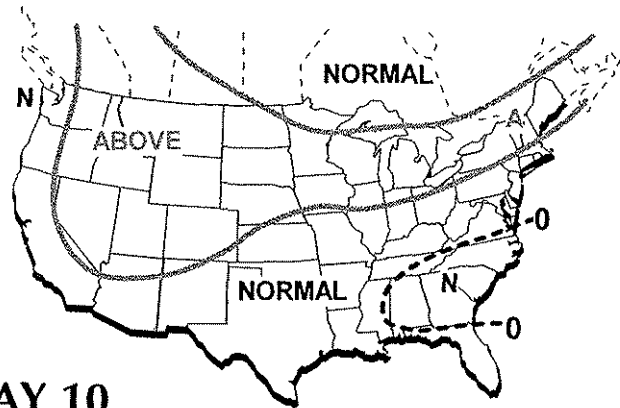


FORECAST VALID: Wednesday, 8/1

PREVIOUS

CONFIDENCE: 5

**DAY 10**



FORECAST VALID: Thursday, 8/2

CONFIDENCE: 4

## LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

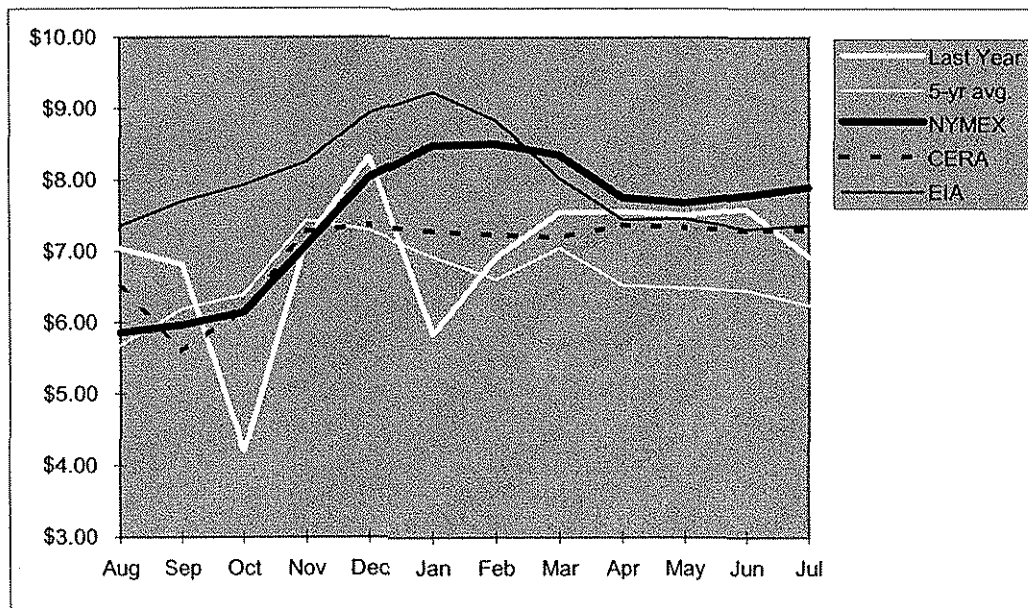
NORMAL  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Jul-07	EIA 10-Jul-07	NYMEX 24-Jul-07
Aug	\$5.68	\$7.04		\$6.490	\$7.354	\$5.860
Sep	\$6.19	\$6.82		\$5.600	\$7.700	\$5.965
Oct	\$6.39	\$4.20		\$6.190	\$7.926	\$6.145
Nov	\$7.44	\$7.15		\$7.280	\$8.250	\$7.085
Dec	\$7.29	\$8.32		\$7.370	\$8.940	\$8.035
Jan	\$6.92	\$5.84		\$7.280	\$9.231	\$8.480
Feb	\$6.61	\$6.92		\$7.230	\$8.835	\$8.510
Mar	\$7.05	\$7.55		\$7.200	\$8.031	\$8.350
Apr	\$6.53	\$7.56		\$7.370	\$7.445	\$7.755
May	\$6.49	\$7.51		\$7.340	\$7.462	\$7.680
Jun	\$6.45	\$7.59		\$7.290	\$7.312	\$7.780
Jul	\$6.24	\$6.93		\$7.300	\$7.369	\$7.900
12 Month Avg	<b>\$6.61</b>	<b>\$6.95</b>		<b>\$6.995</b>	<b>\$7.988</b>	<b>\$7.462</b>
Summer Average				\$6.797	\$7.510	\$7.012
Winter Average				\$7.272	\$8.657	\$8.092



CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## A CHANGING BALANCE OF RISK

### KEY IMPLICATIONS

The balance of risk for the North American gas market has begun to change toward the downside. Key pillars of gas price support are beginning to crack under the weight of an increasing storage surplus relative to the five-year average. Relatively mild weather, particularly compared to the summer of 2006, has kept gas demand flat year over year, while imports of liquefied natural gas (LNG) through June have increased by nearly 1 billion cubic feet (Bcf) per day over 2006 levels.

**DATE**  
July 20, 2007

- CERA expects gas prices at Henry Hub to average \$6.87 per million British thermal units (MMBtu) in July and \$6.49 per MMBtu in August. For AECO CERA expects gas prices to average C\$5.61 per gigajoule (GJ) in July and C\$5.19 per GJ in August (\$5.62 per MMBtu and \$5.20 per MMBtu, respectively).
- CERA's estimate for end-October North American storage inventories has decreased by 52 Bcf to 4,123 Bcf. However, CERA has also reduced the estimate of additions to North American working storage capacity that will be in service for September 1, 2007, to 82 Bcf. Net, this increases the possibility of a short price collapse this fall.
- Nevertheless, upside price excursions owing to extreme heat or hurricane disruptions remain possible. In addition, LNG imports may fall following the earthquake-related shutdown of a nuclear power plant in Japan. Conversely, mild weather could exacerbate the predominantly bearish trend in the market.

### NORTH AMERICAN GAS MARKET COULD SEE LOWER PRICES YET

Reality set in for the North American gas market as prices at Henry Hub began a downward journey starting in mid-June at \$7.60 per million British thermal units (MMBtu) and dropping nearly \$1.50 per MMBtu through early July to a low of \$6.15 per MMBtu—settling in the \$6.30s per MMBtu range in the second week of July. In CERA's view key "pillars of gas price support" are beginning to crack under the weight of a strong storage surplus relative to the five-year average

Note: All prices are in US dollars unless otherwise indicated.

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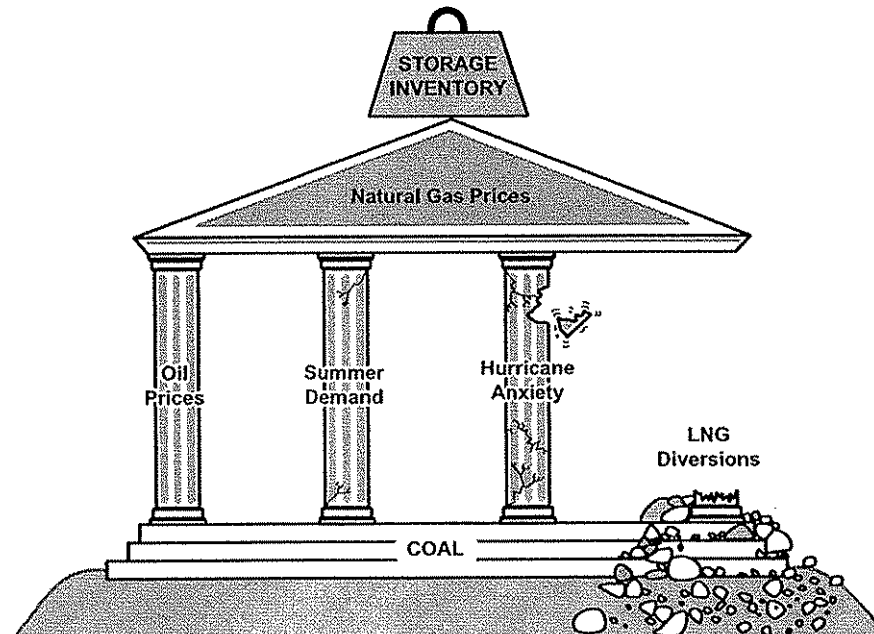
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(see Figure 1). Hence, the balance of risk is changing to the downside as market fundamentals reassert themselves. CERA expects gas prices to average \$6.87 per MMBtu at Henry Hub in July and \$6.49 per MMBtu in August (see Table 1).\*

- One pillar of price support that has not weakened is oil prices.** West Texas Intermediate (WTI) prices averaged \$65 per barrel in second quarter 2007. The recent increase in oil prices—in excess of \$74 for WTI and \$77 for Dated Brent—has occurred despite US crude oil inventories' reaching a nine-year high and European crude oil inventories' standing about 3 percent above normal. For both the Gulf Coast and New York markets CERA's outlook for natural gas prices is below that for residual fuel oil prices (see Figures 2 and 3). Gas delivered into Florida is expected to average \$1.68 per MMBtu below Gulf Coast residual fuel oil prices from July through October. In New York gas prices are expected to average \$2.22 per MMBtu below residual fuel oil prices for the same period. Therefore, dual-fuel plants in both markets should run on gas rather than residual fuel oil. Hence, in the event of a price spike, the market will be able to shed some demand—CERA estimates roughly 769 million cubic feet (MMcf) per day for the combined New York and Florida markets.\*\* However, with gas trading below residual fuel oil in both these markets, there will likely be some resistance to gas prices' moving above residual fuel oil.

Figure 1  
 Pillars of Gas Price Support



Source: Cambridge Energy Research Associates.  
 70704-1

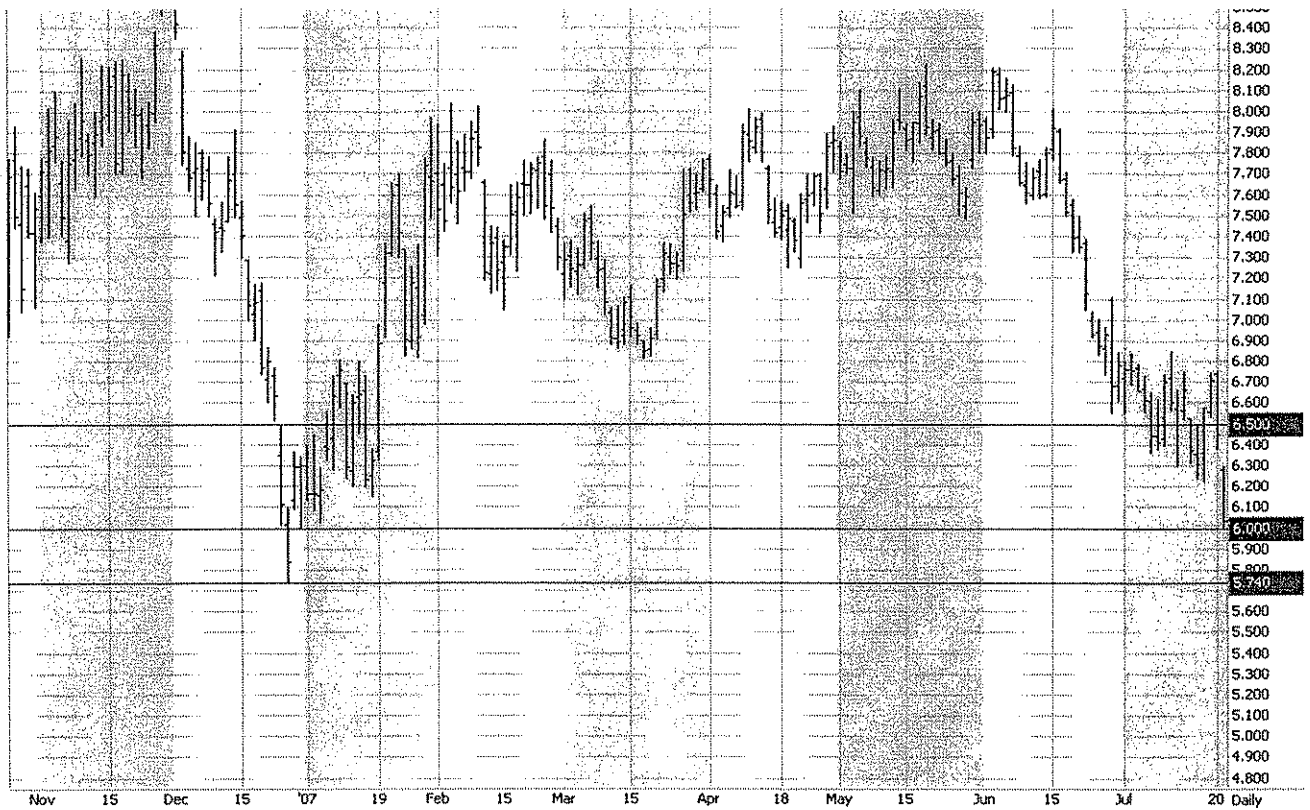
\*Unless otherwise indicated, all CERA price and basis outlooks predict the average daily spot.

\*\*See the CERA Decision Brief *Dual-fuel Steam Generation: Alive and Well*.



## Commentary

Natural Gas gapped lower on Monday morning indication the bearish fundamentals are weighing heavily on traders minds. The gap is from 6378 to 6295. The lack of heat demand is crushing the cash and the futures are following. Cash traded 597ish today after posting 6460 on Friday. Futures settled 6039 down 40.7 cents. The market sold off right to the next major support level of 6000 and held the first test. The market may consolidate in this area as we get closer to August expiration. However, the fundamentals remain extremely bearish unless we see some Hurricane hype which will create fear in the minds of all. The short term and long term weather forecasts are all calling form normal temps in the key Electricity /AC demand regions. The lack of weather is also calling for larger EIA Storage Builds. The larger builds will diminish the yr on yr deficit and add to the 5 yr surplus. I think the market searches for sell stops below 6000 on Tuesday. Support: 6000, 5740, and 5500. Resistance: 6300 and 6500.



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# Gas Daily

Tuesday, July 24, 2007

## NYMEX spirals toward \$6, settles at 7-month low

**THE MARKET**

The August NYMEX gas futures contract plunged 40.7 cents on Monday to close at \$6.039/MMBtu, the lowest prompt-month settlement since December 27. Cash prices followed suit in every region but the Rockies, where pipeline constraints provided support.

The August contract opened at \$6.16 and inched to a high of \$6.18 early in the day before plummeting to a low of \$6.01. Over the past two days, it has tanked nearly 10%, or 66.7 cents.

"It fell to the most important pricing support level that I have been talking to my customers about for the better part of six months," said Charlie Sanchez, analyst for Gelber & Associates. "The \$6.10 level is an important target level. Today was huge."

Sanchez said he believes the contract has enough downward momentum to break through heavy resistance at \$6 and slide to \$5.75 or so. "With the amount of gas we have in storage, the fair market value is closer to \$5.50."

He added that \$6 "has an important history in gas market. Once [a contract] gets through \$6, it moves quickly down or up. That's usually a place where there is a somewhat noticeable battle between longs and shorts."

In the spot market, Southwest and West Coast prices spiraled lower due to a variety of factors, including moderating weather, the falling NYMEX contract and a softening crude oil market.

The Pacific Gas and Electric city-gate dropped around 35 cents as "the market got totally squashed," a trader remarked. Malin, Oregon, also sank around 35 cents and Southern California Gas shed 30 cents or so.

Even triple-digit temperatures in parts of the desert Southwest failed to support prices on El Paso Natural Gas in the San Juan Basin, which lost about 30 cents, or El Paso in the Permian Basin, which gave back about as much.

## Rockies prices buck national trend, move higher

Prices tumbled in the Pacific Northwest and western Canada, with persistent rain showers and the NYMEX contract's weakness deflating Westcoast Energy's station 2 in British Columbia by around 45 cents. "There were actually pretty decent volumes, but not a lot of value on the T-south line," one trader said, referring to the transportation route between station 2 and Sumas, Washington.

Sumas prices fell nearly 45 cents, while AECO-NIT in Alberta dropped about 40 cents.

But in the Rockies, where Northwest Pipeline alerted shippers of another maintenance project, cash prices rallied. The pipeline said it will conduct pig runs between its Lava Hot Springs compressor station and its Pocatello compressor station, which will take as much as 18,000 Dt/d offline. The work is expected to be completed by Friday.

Northwest's south of Green River station shot up more than 35 cents, while Northwest's Wyoming pool increased more than 15 cents and Kern River Gas Transmission at the Opal, Wyoming, plant gained nearly a dime. But Colorado Interstate Gas moved a few cents in the other direction.

In the Midcontinent, prices retreated due to light weather-related demand and the sinking NYMEX. "We are hoping for a spinner in the

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 5.760

Trans. date: 7/23  
 Flow date(s): 7/24

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	5.550	5.50-5.60	5.53-5.58	716	99
Waha	5.660	5.48-5.74	5.60-5.73	270	54
Transwestern, Permian Basin	5.535	5.45-5.56	5.51-5.56	87	8

### East Texas-North Louisiana Area

Trans. date: 7/23  
 Flow date(s): 7/24

	Midpoint	Absolute	Common	Volume	Deals
<b>Rockies</b>					
ClG, Rocky Mountains	3.655	3.50-3.95	3.54-3.77	58	16
Kern River, Opal plant	3.735	3.45-4.50	3.47-4.00	279	56
Stanfield, Ore.	5.400	5.38-5.42	5.39-5.41	174	36
Questar, Rocky Mountains	3.190	2.75-3.46	3.01-3.37	33	4
Cheyenne Hub	4.355	3.98-5.30	4.03-4.69	108	20
Northwest, Wyo. Pool	3.755	3.57-4.30	3.57-3.94	19	4
Northwest, s. of Green River	3.920	3.92-3.92	3.92-3.92	70	1

### Canadian Gas

Iroquois, receipts	6.250	6.19-6.30	6.22-6.28	391	59
Niagara	6.205	6.17-6.26	6.18-6.23	252	34
Northwest, Can. bdr. (Sumas)	5.245	5.22-5.26	5.24-5.26	238	44
TCPL Alberta, AECO-C*	C4.905	C4.85-4.98	C4.87-4.94	1168	103
Emerson, Viking GL	5.505	5.46-5.57	5.48-5.53	280	33
Dawn, Ontario	6.135	6.09-6.19	6.11-6.16	854	107
GTN, Kingsgate	5.335	5.31-5.36	5.32-5.35	253	18
Westcoast, station 2*	C4.775	C4.75-4.81	C4.76-4.79	202	27

### Appalachia

Dominion, North Point	6.390	6.39-6.39	6.39-6.39	4	1
Dominion, South Point	6.285	6.22-6.34	6.26-6.32	519	106
Leidy Hub	6.320	6.32-6.32	6.32-6.32	2	1
Columbia Gas, Appalachia	6.240	6.15-6.30	6.20-6.28	522	97

### Mississippi-Alabama

Texas Eastern, M-1 (Kosi)	5.935	5.90-5.98	5.92-5.96	88	22
Transco, zone 4	5.960	5.92-6.00	5.94-5.98	37	16

### Others

Algonquin, receipts	—	—	—	—	—
SoCal Gas	5.780	5.75-5.84	5.76-5.80	1192	137
PG&E, South	5.760	5.72-5.80	5.74-5.78	216	22
PG&E, Malin	5.635	5.61-5.67	5.62-5.65	416	58
Alliance, into interstates	5.810	5.78-5.85	5.79-5.83	139	24
ANR, ML 7	6.080	6.04-6.18	6.05-6.12	7	3
NGPL, Amarillo receipt	5.500	5.50-5.50	5.50-5.50	1	1
Northern, Ventura	5.685	5.60-5.71	5.66-5.71	371	58
Northern, demarc	5.685	5.64-5.74	5.66-5.71	190	40
Dracut, Mass.	6.245	6.21-6.27	6.23-6.26	108	15

### Citygates

Chicago city-gates	5.825	5.78-5.89	5.80-5.85	633	126
Consumers Energy city-gate	6.045	5.97-6.14	6.00-6.09	232	36
Mich Con city-gate	6.010	5.95-6.16	5.96-6.06	287	47
PG&E city-gate	6.070	6.03-6.13	6.05-6.10	846	96
Florida city-gates	6.700	6.70-6.70	6.70-6.70	20	1
Algonquin, city-gates	6.465	6.39-6.51	6.44-6.50	210	38
Tennessee, zone 6 delivered	6.380	6.34-6.42	6.36-6.40	107	25
Iroquois, zone 2	6.435	6.36-6.45	6.41-6.45	222	34
Texas Eastern, M-3	6.360	6.29-6.44	6.32-6.40	542	112

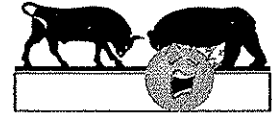


## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com



(1-Day Indicator)

Tuesday, July 24, 2007

# Cool Weather Kicks Support Out Of August...Loses 40.7¢



**Today: Bearish August Natural Gas Closed Down 0.407¢ 30-Day: Bullish (Hurricane)**

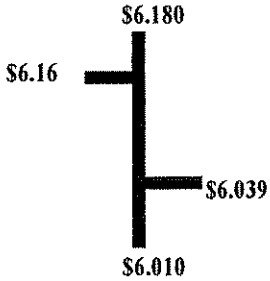
**Bottom Line** – There are still no storms...or anything close to being classified, yet. It's still cool in the Northeast Quad and along the Gulf Coast CONUS, which means low heat-related demand. High inventory levels and the prospect of even more supplies as the injection season continues is also pressuring prices. Finally, there's nothing like a tropical storm anywhere in the Atlantic. It's the bearishness I told you was going to happen last month...and didn't.

Yesterday's Market

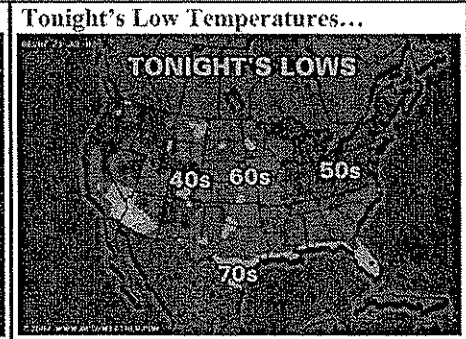
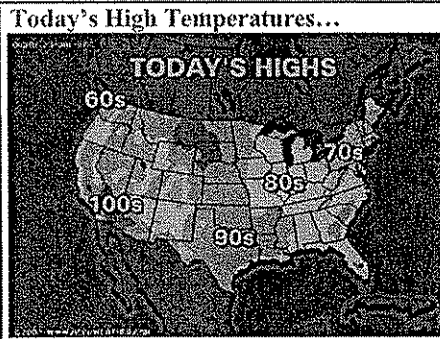
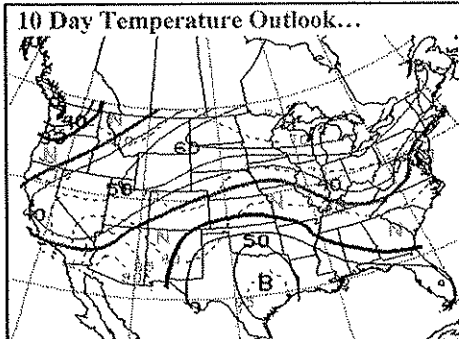
- It's the old "kick the supports out from under the statue and see it fall and crumble" market move. Without weather and facing a glut of supplies, August blew past technical support levels overnight and into the outcry trading session Monday, finally coming to rest at its lowest finish of the year so far -- \$6.039. Early last week August gas found support near \$6.24, which sent futures on a technical rebound up to a \$6.74 ceiling on July 19th. Unable to move any higher due to a lack of any clear upside drive, August promptly resumed the downside assault, taking out the previous \$6.25 floor of support in the overnight session then taking out \$6.10 once outcry trading resumed. Having found its daily high of \$6.18 in some of the first minutes of trading, August natural gas (like the entire energy complex Monday) spent the entire session in the red, finding a low of \$6.01, a new low for all of 2007. In its front month debut, the September crude oil contract fell 90¢ to settle at \$74.89 as profit taking and liquidation followed Friday's August expiration at \$75.57.

Today's Market

- What can I say? This is the crash that should have happened last month, but didn't. That said, it's my experience that delayed reactions to overwhelming fundamentals usually result in an aggressive overreaction that's almost elastic in its momentum along the axis of mean reversion. That means we've got a lot of downside to go.



Access Trading	7/24/2007	7:52 AM	Natural Gas	\$5.860	(17.1¢)
WTI Crude	\$73.940	(\$0.97)	IPE Brent	---	---



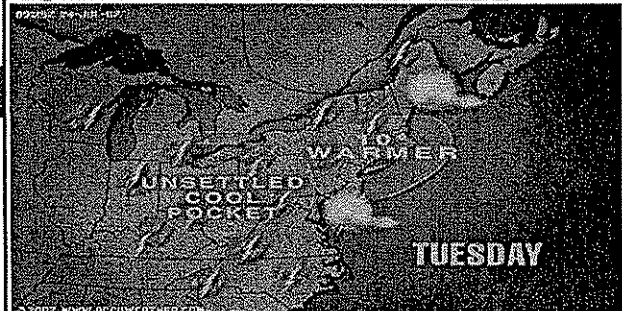
**Weather Briefs** – Interior Northeast Continues Wet – Heat Remains In The Plains, But The Upper Midwest Is Cool Due To Extreme Moisture – Southwest Monsoon Continues... L.A. Is Cool, Dude!

**Storage...**

We expect to see 70 Bcf build from storage this week.

The EIA reported a 65 Bcf storage build last week, increasing the nationwide stocks to 2.692 Tcf. The build was within the industry's expectation of 58 – 80 Bcf. In the same week last year the stock level was 2.763 Tcf, which sends the year on year deficit to 71 Bcf. Indication for this week is a 70 Bcf build compared to a 7 Bcf draw last year and a 46 Bcf build for the 5yr. Average.

**Sigmets: "Faux Tropical Storm" In Northeast**



The ridge out West remains strong, and the Northeast Quad should be wildly hot, but a freak storm has moved onshore and cooled the area off. Winds in some places reached 50 mph and rain droplet size was measured equal to tropical storm size. If this system was over the GOM it would have been classified. So much for the heat that was forecast in the high-population areas, guys. It will return, however...next week.

barrels for the Gulf of Mexico between now and October (see 2007 Outlook for Hurricane Impacts). Domestic production is also projected to increase by 3.5 percent in 2008, averaging 5.3 million bbl/d. Contributing to the increases in output are the Atlantis deepwater platform, which is expected to come on-stream later this year, and the Thunderhorse platform, expected to come on-stream late in 2008.

*Inventories.* Motor gasoline inventories during the first half of the summer (April-June) were tight and are expected to remain so during the rest of the season (Gasoline and Distillate Inventories). At the end of June total gasoline inventories were 205 million barrels, 8 million barrels below the average of the previous 5 years. The low-inventory situation is expected to persist, with end-of-season (September 30) stocks at 198 million barrels, 7 million barrels below the previous 5-year average and 17 million barrels below last year. The inventory situation, combined with continued demand growth, is expected to contribute to refinery margins higher than those of the previous summer season.

*Prices.* Crude oil prices, which have been rising over the last 2 months, are expected to reach a peak monthly average price in August before starting to ease slightly. In 2007, the average refiner acquisition cost (RAC) of crude oil is projected to be \$62.35 per barrel, higher than the \$60.23 per barrel average in 2006. The main reason for this increase, the tight world oil supply and demand balance, is expected to continue next year, with a projected average 2008 RAC price of \$63.92 per barrel. WTI prices are projected to average \$65.56 per barrel in 2007, and increase to an average of \$66.92 in 2008 (West Texas Intermediate Crude Oil Prices).

The average summer-season retail regular motor gasoline price is projected to average \$3.02 per gallon, up 18 cents per gallon from last summer (Gasoline and Crude Oil Prices).

### *Natural Gas Markets*

*Consumption.* Colder-than-normal weather (4 percent more heating degree-days than normal) and increased utilization of natural gas-fired facilities in the electric power sector raised total natural gas consumption by 2.9 percent in the second quarter 2007 over the corresponding period of 2006. With natural gas as a primary fuel source for meeting peak demand for summer cooling, temperatures likely will continue to play a key role in determining natural gas consumption throughout the third quarter. The assumed return of near-normal weather in third quarter 2007 from the warmer-than-normal third quarter of 2006 (10 percent more cooling degree-days than normal) is expected to result in a decline in year-over-year consumption for the quarter. On an annual basis, however, total natural gas

consumption is expected to rise by 4.3 percent in 2007 and 1.1 percent in 2008 (Total U.S. Natural Gas Consumption Growth).

**Production and Imports.** In 2007, total dry natural gas production is expected to increase by 0.3 percent. EIA's projection of 2007 U.S. dry natural gas production reflects an allowance for hurricane-induced outages of about 85 billion cubic feet (bcf) in the Gulf. On an annual basis, production from the Federal Gulf of Mexico is expected to decline by 4.9 percent this year, but recover with 8.1 percent growth in 2008. Expectations of continued production growth of 1.1 percent from onshore wells in 2008 likely will result in an increase of total U.S. dry natural gas production of 2.2 percent.

Imports of LNG averaged 3 bcf per day during the second quarter and are now expected to total 840 bcf in 2007, roughly 44 percent above last year. In 2008, LNG imports are projected to increase by 22 percent above 2007 levels to 1,020 bcf.

**Inventories.** On June 29, 2007, working natural gas in storage was 2,521 bcf (U.S. Working Natural Gas in Storage). After a string of above-average injections in May and June, current inventories are now 364 bcf above the 5-year average (2002-2006) and just 84 bcf below the level of a year ago.

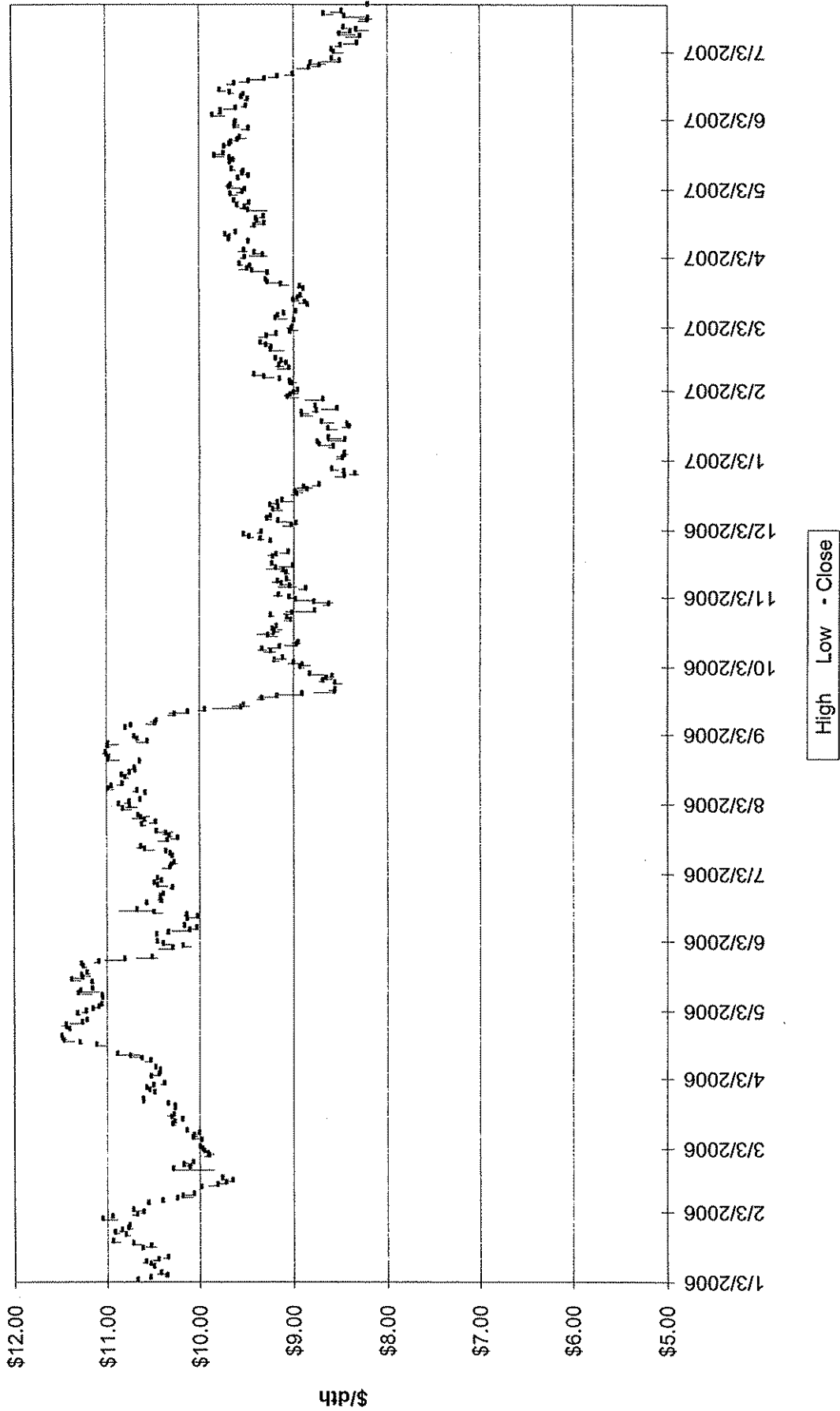
**Prices.** Absent weather scenarios that diverge from EIA's hurricane and temperature assumptions, the Henry Hub spot price is expected to average \$7.66 per thousand cubic feet (mcf) in the third quarter and \$8.79 per mcf in the fourth quarter. Currently, EIA projects that the winter price peak will occur in the first quarter of 2008, and the average monthly price is expected to remain under \$10 per mcf. On an annual basis, the Henry Hub spot price is expected to average \$7.91 per mcf in 2007 and \$8.39 per mcf in 2008.

### *Electricity Markets*

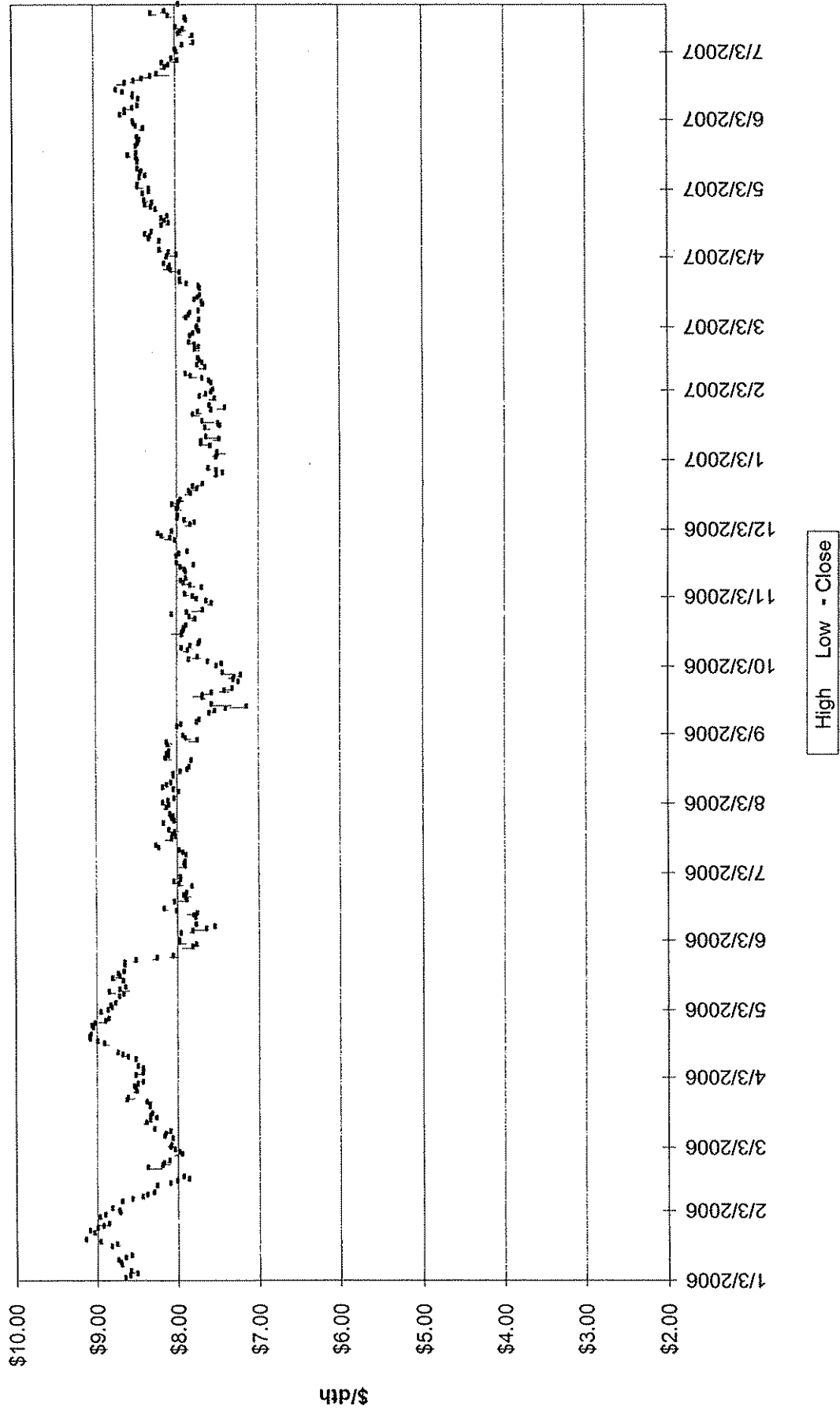
**Consumption.** Total retail sales of electricity during the first two quarters of 2007 are estimated to be 2.4 percent higher than during the same period in 2006. Although cooling degree-days for the third quarter of 2007 are expected to be about 9 percent lower than last year, continued economic growth will likely push third-quarter residential and commercial electricity sales slightly higher than last summer. Total electricity demand is expected to increase by 1.8 percent in 2007 and by an additional 1.4 percent in 2008 (Total U.S. Electricity Consumption Growth).

**Prices.** With the exception of the East North Central region, residential electricity prices have been growing at a relatively modest rate so far this year compared with

### Winter Strip Nov07 - Mar08



### Summer Strip 2008





By PABLO GORONDI=  
Associated Press Writer=  
Topic:MarketUpdates

Oil prices kept falling Tuesday amid worries that crude prices have risen too high lately and on speculation that recent OPEC comments may signal a less bullish position on production and supplies.

Light, sweet crude for September delivery on the New York Mercantile Exchange lost \$1.07 to \$73.82 a barrel in electronic trading by afternoon in Europe. On Monday, the contract had fallen 90 cents to \$74.89 a barrel.

September Brent crude dropped \$1.04 to \$75.82 a barrel on the ICE Futures exchange in London.

A fair price for crude oil is between \$60 and \$65 a barrel, Hasan Qabazard, head of research for the Organization of Petroleum Exporting Countries, told Dow Jones Newswires on Monday \_ leading some to conclude the cartel may be open to reversing its long-held position that oil supplies are adequate.

Reports Sunday had quoted OPEC President Mohammed al-Hamli as saying the group is concerned about the impact of higher oil prices.

"The OPEC comments gave traders a good opportunity to take profit as it was really too high," said Koichi Murakami, an analyst with Tokyo brokerage Daiichi Shohin.

Energy traders were most focused on the prospect that OPEC could boost output, analysts said. The group has maintained for months that high oil prices are not its fault, and analysts have criticized OPEC for cutting production this year.

Qabazard, however, stopped short of announcing the cartel will increase output, saying that while prices are hovering above his target range, he sees no reason for OPEC to increase output at its September meeting.

Al-Hamli said as well that it is not yet clear whether production will be raised by the end of the year.

Others, however, said OPEC's comments would not have a deep impact.

"The rhetoric alone is insufficient to divert the current bull run," said Paul J. Harris, head of natural resources risk management at Bank of Ireland Global Markets. "Whilst traders have cut the extent of their long positions, technicals still suggest further upward moves to test the highs of last August."

Market participants were also awaiting the Wednesday release of weekly U.S. government data on the country's fuel inventories.

Analysts surveyed by Dow Jones expect the U.S. Energy Information Administration's report to show crude oil stocks falling 1.1 million barrels and gasoline stockpiles growing by 510,000 barrels last week. Distillates, which include heating oil

and diesel, are forecast to have gained 730,000 barrels.

U.S. refinery use is expected to have grown 0.8 percentage point to 91.8 percent of operable capacity. If the forecasts for refinery usage ring true, it will be the highest use level since September 2006. The average for this time of year is 94 percent.

"IA data will test the resolve of the bulls in the market," Harris said, adding that it would take only a slight change from expectations on the upside to push Brent prices back to near US\$78 a barrel.

Nymex heating oil futures lost 1.26 cents to \$2.0435 a gallon. Gasoline prices lost 3.06 cent to \$2.0735 a gallon. Natural gas futures dropped 16.2 cents to \$5.877 per 1,000 cubic feet.

Austria's PVM Oil Associates attributed the fall in natural gas prices to high inventory levels due to the warm summer.

Associated Press Writer Gillian Wong in Singapore contributed to this report.

(PROFILE

(COUNTRY:Austria; ISOCOUNTRY3:AUT; UNTOP:150; UN2ND:155; APGROUP:Europe;)

(COUNTRY:Ireland; ISOCOUNTRY3:IRL; UNTOP:150; UN2ND:154; APGROUP:Europe;)

(COUNTRY:Japan; ISOCOUNTRY3:JPN; UNTOP:142; UN2ND:030; APGROUP:Asia;)

(COUNTRY:Singapore; ISOCOUNTRY3:SGP; UNTOP:142; UN2ND:035; APGROUP:Asia;)

(COUNTRY:United States; ISOCOUNTRY3:USA; UNTOP:021; APGROUP:NorthAmerica;)

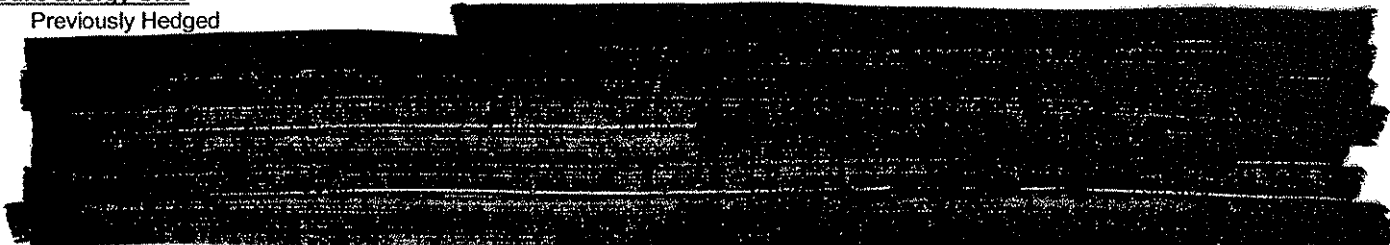

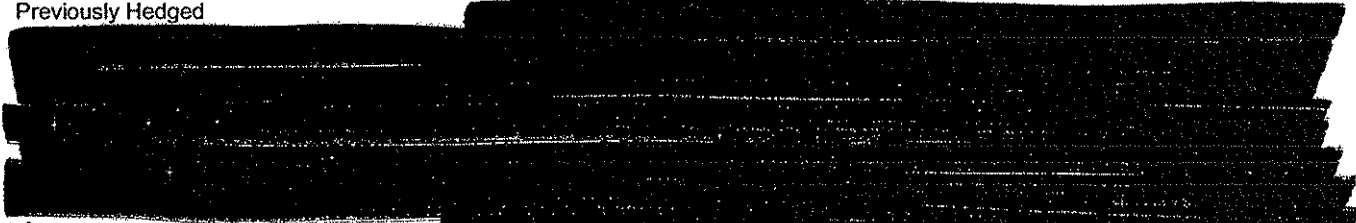

(CO:United States Oil Fund LP; TS:USO; IG:8700;)

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[Related Stories]

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	November	December	Dth/Day January	February	March	Total	%
<u>Duke Energy Ohio</u>							
Previously Hedged							
Total							
<u>Duke Energy Kentucky</u>							
Previously Hedged							
Total							

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 August 28, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal start to winter.
Mid Term Weather (30-60 days)	↓	Long	Above normal temps for September and October will most likely not create a lot of load for electric generation, but will postpone the start of the heating season.
6-10 day forecast	↑	Short	Heat waves continue.
Tropical Storm Activity	↓	Short	CSU & NOAA revised forecast down, but still predicting more activity than normal. WeatherRisk predicting repeat of last year. Currently there is no tropical storm activity in the Atlantic or Gulf.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending August 17 were 23 BCF. Storage levels are 3% higher than last year at 2.9 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$7.181	↓	Long	"CERA projects that North American gas storage inventories will finish the injection season at 4,203 billion cubic feet..."
Paribas	↓	Short	"...the late sell off sets up to test 5250 on Monday."
Gas Daily	↑	Long	August 14th - "Pace: Gas market in 'permanent shortage' mode"
Gas Daily	↓	Short	August 22nd - "Denhardt: Sub-\$5 gas not out of the question"
Conoco Morning Briefing	↓	Short	"We're in the process of breaking every short and long term support level I've got, which builds oversold momentum as we go."
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$7.81 Summer 2008: \$7.05	↔	Long	"...current price projections remain vulnerable to potential storm induced supply disruptions..."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↓ ↑	Short	[REDACTED]
Summer 2008 Strip Chart	↔	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: "...industrial sector consumption is expected to decline by 1.5 percent."
Supply	↓	Long	EIA: "Growth in onshore production continues to offset declines in production from the Gulf of Mexico."
Oil Market	↑	Long	"Benchmark oil prices edged upward Monday as traders focused on signs that the U.S. economy is in better shape than previously thought."

Meeting Minutes: 10th Floor North Conference Room - 2:00 pm  
 Attendees: [REDACTED]



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 08/27/07

Nov-07    Dec-07    Jan-08    Feb-08    Mar-08    Apr-08    May-08    Jun-08    Jul-08    Aug-08    Sep-08    Oct-08

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Fixed Price

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

[The table content is almost entirely obscured by heavy black redaction bars.]

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 08/27/07

Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (Incl. Injections)

% Hedged & Storage

Seasonal %

[The table content is completely redacted with black bars.]

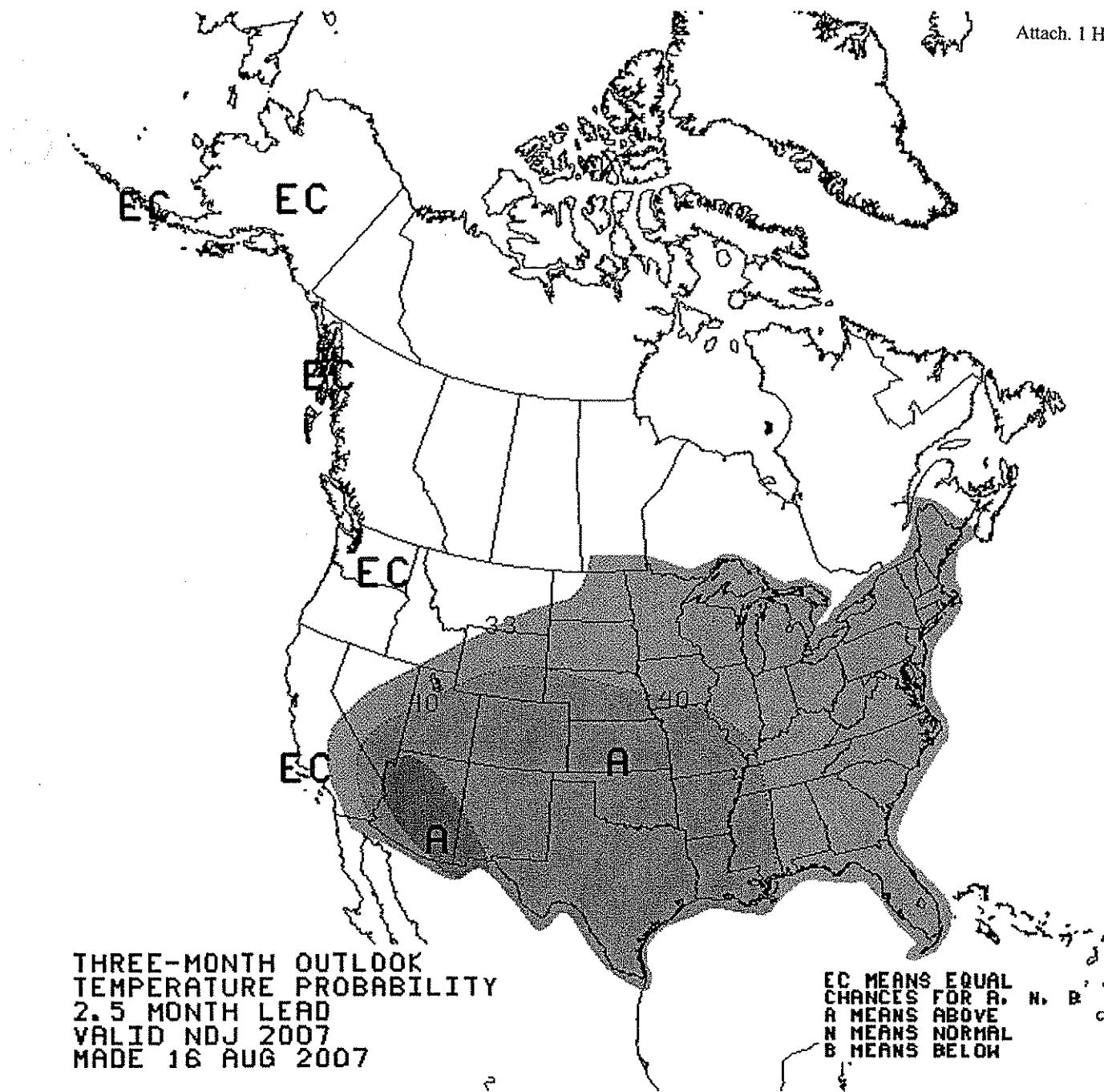
8/27/2007

**Duke Energy Kentucky  
 Hedging Program  
 Current Position**

Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					







THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
2.5 MONTH LEAD  
VALID NDJ 2007  
MADE 16 AUG 2007

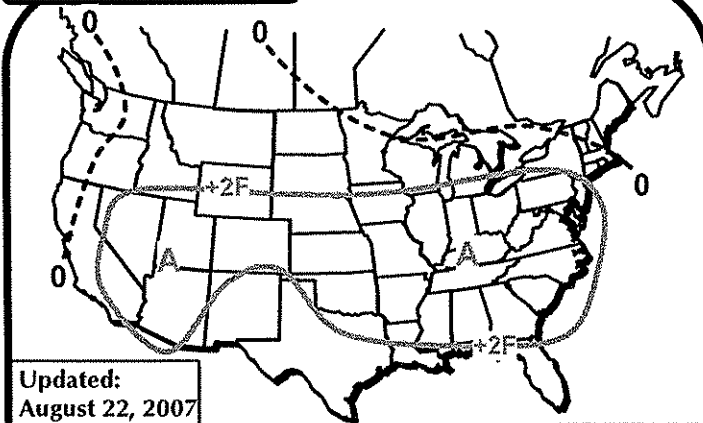
EC MEANS EQUAL  
CHANCES FOR A, N, B, C  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW



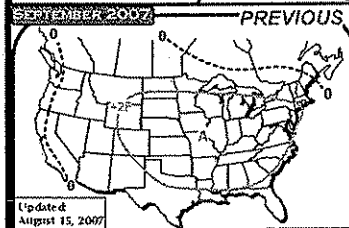
# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

Wednesday **DAY** 8/22/07 **DATE** 8:35 AM EDT **TIME** MR **FORECASTER**

## SEPTEMBER 2007



Updated:  
 August 22, 2007



Northern Tier Cooled  
 Southwest Warmed

Updated:  
 August 15, 2007

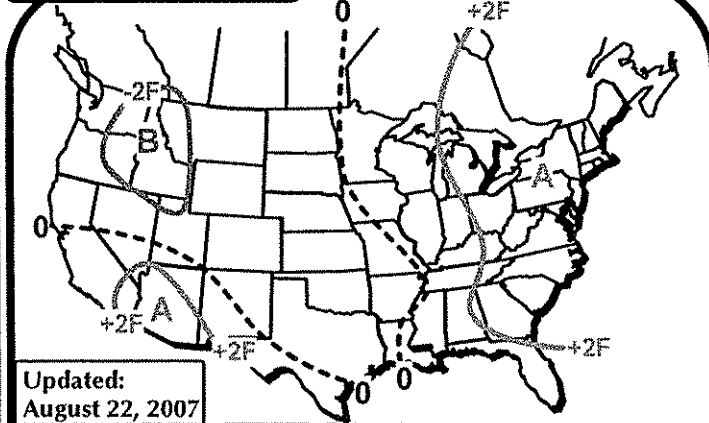
As was noted back in the 3rd week of July too, there is considerable pressure right now to significantly cool the month-ahead outlook. The current cooler-than-expected week on the East Coast is being compounded by the potential for one (or two) moderate to strong cool shots by late in the 6-10 into the 11-15 day timeframes. Despite the cooler start, the thinking is that the overall month will still dovetail toward the big picture negative ENSO (La Niña) thinking of widespread warming supported by the large majority of analogs.

### September PWCCD\* Forecasts

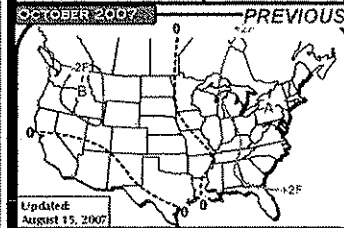
Sep 2007 Fcst: **205.0** 10Y Normal: 175.8  
 30Y Normal: 160.6  
 Change: -20 Sep 2006: 138.7

\*National Population-Weighted CDDs

## OCTOBER 2007



Updated:  
 August 22, 2007



No Big Changes  
 to October

Tough Call on Shoulder Month

Updated:  
 August 15, 2007

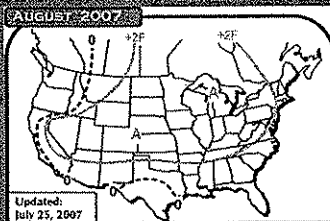
October can always be tricky as some years see a very stagnant pattern situation and other years see very volatile conditions. Right now, the best thinking yields to some La Niña response with cooler (and probably wetter) trends toward the Pacific Northwest and warmer (and probably drier) trends toward the Southeast. If true, then the Southeast and maybe the neighboring Deep South could still generate some stronger late season cooling demand as current dry soil conditions compound the impact of the warmer conditions.

### October GWHDD\* Forecasts

Oct 2007 Fcst: **260.0** 10Y Normal: 281.6  
 30Y Normal: 304.5  
 Change: 0 Oct 2006: 326.0

\*National Natural Gas-Weighted HDDs

## August 2007 Comparison

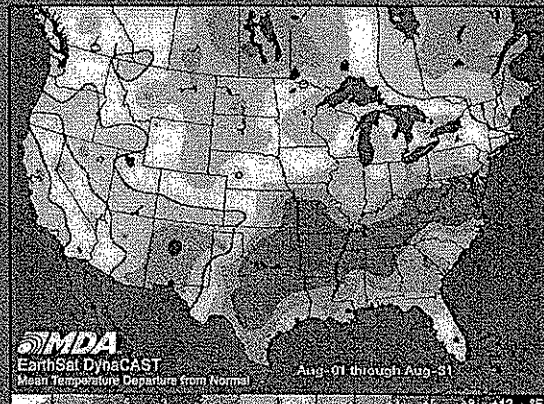


Updated:  
 July 25, 2007



Most of the nation is still verifying warmer than normal and is close to the forecast range, but stronger than expected cooling this week is making a huge dent into the Northeast. The analogs had long suggested that the Chicago would be warmer than New York (vs. normal) this month, but the thinking was that both cities would be warmer than normal overall still.

## AUGUST 2006



MDA  
 EarthSat DynaCAST

Mean Temperature Departure from Normal Aug-01 through Aug-31

Maps above depict deviations of average temperatures from normal in Fahrenheit.



# MDA EarthSat's Energy Weather

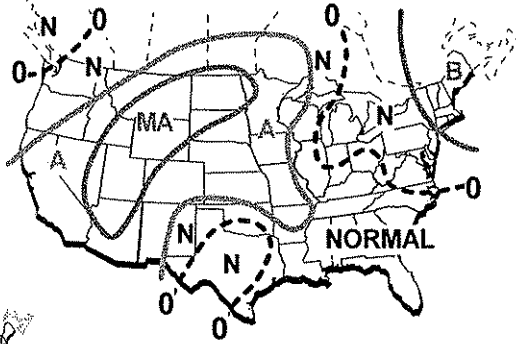
## The 6 to 10 Day Forecast - Detailed Version

Monday DAY 8/27/2007 DATE 6:30 A.M. TIME MR/JAC FORECASTER

### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION

DAY 6



FORECAST VALID: Saturday, 9/1

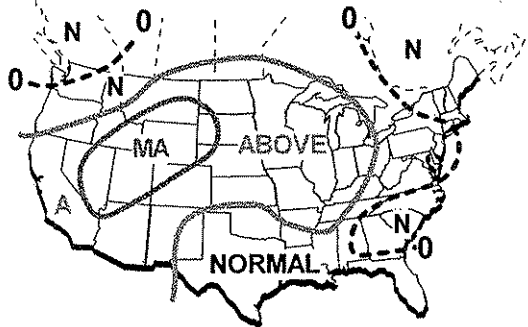
CONFIDENCE: 6

PREVIOUS

### Today's Forecast

**Warm Weather Aims To Dominate Int. West**  
 Models are consistent with a broad area of warm weather settling into the Interior West for much of the period. Compared to last week's analysis, this warmth is holding its ground longer than expected. The Northwest, meanwhile, could struggle to see persistent warm weather stretch towards the region for the majority of the period. If any warm weather reaches this region, it would appear to be brief in nature, particularly later in the period. The South could also be a trouble spot as the potential for drier conditions may yield warmer weather during the period.

DAY 7

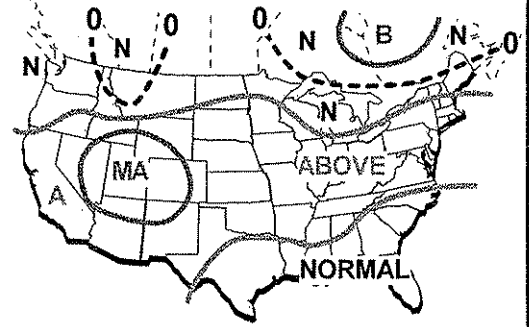


FORECAST VALID: Sunday, 9/2

CONFIDENCE: 5

PREVIOUS

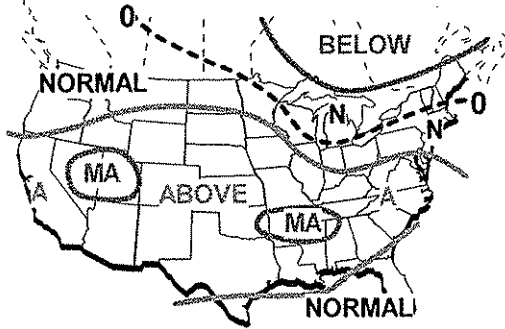
DAY 8



FORECAST VALID: Monday, 9/3

CONFIDENCE: 5

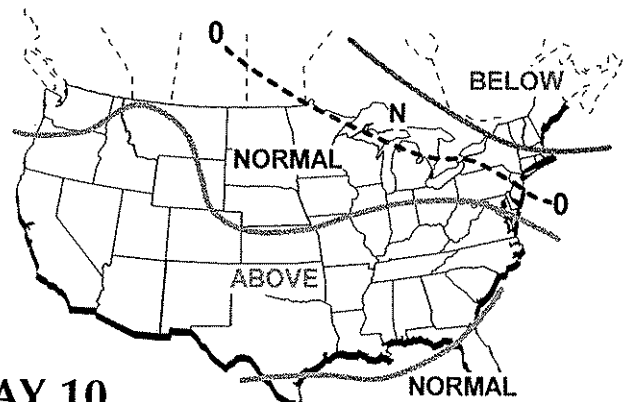
DAY 9



FORECAST VALID: Tuesday, 9/4

CONFIDENCE: 4

DAY 10



FORECAST VALID: Wednesday, 9/5

CONFIDENCE: 3

### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

NORMAL  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High



as early as January 2010 and the second by December 2012.

The new pipeline also would be built in two phases, with the so-called Southern Segment expected to be in service by July 2011. That leg, comprising about 105 miles of 42-inch-diameter pipe, would run from an interconnection with Southern Natural's line near Port Wentworth, Georgia, to Southern's Wrens compressor station in Jefferson County, Georgia.

The Northern Segment, comprising 83.1 miles of 36-inch-diameter pipe, would run from Wrens to interconnections with Transcontinental Gas Pipe Line in Hart County, Georgia, and Anderson County, South Carolina. **KG**

## Bush likely to veto energy bills ... from page 1

The House Democratic leadership had planned to begin debate on the measures Friday morning, but an acrimonious dispute over an agriculture spending bill delayed action on the energy legislation until Saturday.

The twin bills are designed to promote renewable energy and repeal several provisions in the Energy Policy Act of 2005, including up to \$15.3 billion tax breaks for the oil and gas industry (*GD 8/2*). The White House said it was particularly concerned about the latter proposal, saying it would lead to higher energy costs for US consumers and businesses.

"Repealing the manufacturing deduction for only the oil and gas industry is a targeted tax increase that puts US industries at a disadvantage to their foreign competitors," the OMB statement said. "Changes to the foreign tax credit rules related to foreign oil and gas extraction income and foreign oil-related income will also disadvantage US-based companies by reducing their ability to compete for investments in foreign energy-related projects."

The statement said the bills include \$8 billion in "expensive and highly inefficient" tax credit bonds for conservation and renewable energy production. "Current law already provides sufficient federal assistance to encourage these efforts," OMB said.

The White House also "strongly opposes" language that would bar companies that hold controversial 1998 and 1999 Gulf of Mexico leases from acquiring new leases, or require them to pay a conservation fee, unless they agree to accept price thresholds that were omitted from the original contracts (*GD 9/14*).

The fees would be \$9/barrel on newly produced oil and \$1.25/MMBtu on gas. They would become effective when the prices of oil and gas exceed \$34.73/barrel and/or \$4.34/MMBtu.

"This provision is likely to result in significant delays in lease sales in the event that the provision is litigated," OMB said. **CL**

## CSU team expects second half of hurricane season to be active

The Colorado State University hurricane forecast team on Friday slightly reduced the number of storms it expects in the Atlantic Basin this season, citing lower sea surface temperatures over the tropical Atlantic.

But CSU researchers Philip Klotzbach and William Gray said they still anticipate above-normal activity for the season that began June 1 and ends November 30. They are calling for a total of 15 named storms, with eight becoming hurricanes and four becoming intense hurricanes of Category 3 strength or greater.

In late May, Klotzbach and Gray predicted 17 named storms, nine hurricanes and five intense hurricanes.

The forecasters noted Friday that only two named storms have emerged so far this season. They did not count subtropical storm Andrea, which formed off the southeastern US coastline on May 9 and never was classified as a tropical storm by the National Hurricane Center.

The team put the probability of a hurricane making landfall along the Gulf Coast from the Florida Panhandle westward to Brownsville, Texas, at 44%, compared with a long-term average of 30%. **JB**

## Northwest launches open season for Colorado Hub Lateral project

Northwest Pipeline on Friday launched an open season through 3 pm Mountain time August 31 to solicit binding commitments from shippers for its proposed Colorado Hub Connection.

The project would involve a new 34-mile pipeline, the Colorado Hub Lateral, that would allow the Greasewood and Meeker hubs to access Northwest's mainline near Sand Springs, Colorado, parent company Williams said.

Shippers can subscribe for existing Northwest capacity paired with Colorado Hub Lateral capacity to move gas from points north of Sand Springs on the pipeline's mainline system to the Greasewood and Meeker hubs; or from the Greasewood and Meeker hubs to delivery points near Ignacio, Colorado, where Northwest interconnects with El Paso Natural Gas and Transwestern Pipeline.

Subject to regulatory approvals, the company expects to bring the Colorado Hub Lateral online in November 2010. Additional information can be obtained from Hank Henrie at 801-584-6625 or Larry Larsen at 801-584-6645.

# platts Gas Daily

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## EIA reports 42-Bcf storage build ... from page 1

was below consensus expectations of 49 and 54 Bcf, suggested either that gas demand has become more sensitive to modest changes in cooling degree-days, some domestic production has been shut in or liquefied natural gas imports have dropped.

"Either way, this suggests lower injections going forward as well and is a clear bullish surprise," he said.

In addition, "this week has been hotter than last week and next week may be a little bit warmer overall than this week," Evans said. "So we could have another

couple of supportive storage numbers still in this series."

But Wachovia economist Jason Schenker said Thursday's EIA report instead reinforces the bearish pressures on the market — specifically, a fast-growing year-over-year surplus and inventories that are 16.4% above the five-year average.

Schenker reaffirmed his projection that inventories will end the cooling season near or above record levels. "As such, while recent warmer weather and hur-

ricane concerns may have boosted the price of natural gas recently, contract prices could see significant downside risk from a well-supplied market," he said.

Inventories now are 159 Bcf above the five-year average of 1.385 Tcf in the East, 58 Bcf above the average of 348 Bcf in the West and 190 Bcf above the 742 Bcf average in the producing region.

SGS/CB

### Estimated working gas in storage

(week ending Aug 3)

	This Week (Bcf)	Last Week (Bcf)	Change (Bcf)
Consuming Region East	1,544	1,511	33
Consuming Region West	406	401	5
Producing Region	932	928	4
Total U.S.	2,882	2,840	42

	This Week Last Yr. (Bcf)	Prior 5 Year Average (Bcf)
Consuming Region East	1,554	1,385
Consuming Region West	379	348
Producing Region	832	742
Total U.S.	2,765	2,475

Source: Energy Information Administration

## NOAA maintains its forecast for active hurricane season

Government forecasters on Thursday slightly reduced the level of tropical activity they expect in the Atlantic Basin this year but maintained their prediction of a busier-than-average hurricane season.

The National Oceanic and Atmospheric Administration forecast 13 to 16 named storms, of which seven to nine will become hurricanes. Of those, NOAA said three to five could develop into severe storms of Category 3 strength or better.

In its May outlook, the agency predicted the season would bring 13 to 17 named storms and seven to 10 hurricanes, three to five of them intense.

"Most of the atmospheric and oceanic conditions have developed as expected and are consistent with those predicted in May," Gerry Bell, lead seasonal hurricane forecaster at NOAA's Climate Prediction Center, said in a statement. "The biggest wild card in the May outlook was whether or not La Niña would form, and if so, how strong it would be."

"Today's El Niño/La Niña forecast from the Climate Prediction Center indicates a slightly greater than 50% probability that La Niña will form during the peak of the hurricane season. But more importantly, we are already observing wind patterns similar to those created by La Niña across the tropical Pacific Ocean and Caribbean Sea that encourage tropical cyclone development. The conditions are ripe for an above-normal season."

The agency said that to date this season, there have been three named storms in the Atlantic, which is slightly above average. The Atlantic hurricane season runs from June 1 through November 30.

JB

## platts Gas Daily

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## Court rejects Devon's appeal ... from page 1

ter, Oklahoma City-based Devon deducted the costs of compressing and dehydrating gathered gas for transport to its Buckshot plant 126 miles away for further sale.

In 2003, at Devon's request, Interior examined royalty calculations on the Powder River gas and disallowed the deduction, saying it didn't involve the cost of transporting gas to a sales point. Interior ordered Devon to recalculate how much money it owed the government.

Devon appealed to the US District Court for the District of Columbia, saying the reversal constituted a new rule and that Interior hadn't gone through the proper rulemaking process.

Devon argued the department's action violated the Administrative Procedure Act by "reinterpreting Interior regulations in a manner fundamentally different from the agency's prior interpretation of the same regulations," without issuing a notice and allowing for comment.

But District Judge Louis Oberdorfer ruled late Thursday that the guidelines "constitute a policy statement of enforcement, not an interpretation of the marketable condition rule," which requires lessees to pay the costs of bringing gas into marketable condition at no cost to the government.

Even if the guidelines were considered an interpretation, the judge said the "interpretation is ambiguous and ... Interior's 2003 decision rejecting Devon's deductions is not inconsistent with the marketable condition rule."

The American Petroleum Institute filed an amicus brief with the court supporting Devon and noting that companies need to be able to rely on government agencies to give rulings consistent with their previous rulings under the same law. Otherwise, producers could be in a never-ending cycle of calculating and recalculating royalty payments, API maintained.

"Interior's attempt to retroactively change the value of gas produced from federal leases has significant implications for all oil and gas produced from the thousands of extant onshore and offshore federal leases," API attorney Martha Cox told the court.

"Given the legal consequences, regulatory reporting burden and financial impact of Interior's regulatory royalty evaluation system, the reliability and predictability of that regulatory regime are critical for all federal lessees," Cox argued. BH

## GTI moves beyond gas R&D ... from page 1

tapping into the rising global demand for clean energy technology.

The Super Boiler represents one step in that direction, Lewnard said in an interview last week. Developed with the help of manufacturer Cleaver-Brookes, the first generation boiler has been retrofitted onto an industrial generator in Alabama. The Super Boiler is also ready to be demonstrated at a food processor in California in a project co-sponsored by the Department of Energy and the California Energy Commission.

"It's imperative that people start rolling out the commercial versions of next-generation technologies," said Lewnard, an engineer with eight patents.

In its prior life as the Gas Research Institute, GTI survived the late 1980s and 1990s, during which private-sector research and development slowed because of rock-bottom natural gas prices. Toward the end of that period, producers and pipelines pressured the government to stop the funding.

A gradual phase-out of the pipeline fees mandated by FERC ended in 2004, shocking GTI into vastly expanding its customer base and boosting revenues.

President and CEO David Carroll has led that transition, bringing on Lewnard to bolster GTI's efforts to attract capital and lead projects that further a national goal of increasing energy efficiency and reducing greenhouse gas emissions.

"The notion of developing a more diverse and secure fuel supply is not going away," Lewnard said. "The second real driver is the concern about our CO2 footprint. That puts a tremendous amount of emphasis on efficiency and conserva-

## Forecaster: Likelihood of active hurricane season has diminished

An independent weather forecaster suggested Friday that it's time to consider revising the 2007 Atlantic Basin hurricane outlook again, saying a large area of cold water in the eastern Atlantic Ocean has become a major inhibiting factor in the development of storms moving off the southwestern coast of Africa.

If WeatherRisk's Dave Tolleris' assessment holds true, it would be a blessing to Gulf of Mexico gas and oil producers, which dodged a bullet earlier this month when Hurricane Dean stayed well south of the Gulf before pounding Mexico's Yucatan Peninsula as a dangerous Category 5 storm.

"The sole reason Hurricane Dean developed was that the system ... came off the African coast at almost 10 degrees latitude, which is really far south for any sort of tropical wave," Tolleris said. He noted that a large high-pressure system over the Azores has been unusually strong and is forcing northeasterly winds along the Spanish and North African coasts to drive cold water into the far eastern tropical Atlantic.

The so-called Azores High also means persistent northeasterly winds have forced the Sahara Desert dust layer — another inhibiting factor for the development of hurricanes — to stay farther south than usual, he said.

"The final result is that we end up with almost the same [situation] as last year," which brought far few tropical storms and hurricanes than expected.

The two major hurricane forecasters — the National Oceanic and Atmospheric Administration and Colorado State University — earlier this month revised their forecasts slightly downward, though each still predicted a busier-than-average season, which runs from June 1 through November 30.

On August 3, CSU predicted 15 named storms and eight hurricanes, four of which would reach Category 3 strength or greater. Similarly, NOAA said in an August 9 update that it expects 13 to 16 named storms, seven to nine hurricanes and three to five Category 3 hurricanes.

Despite unanimous predictions that the 2006 season would bring above-normal activity to the Atlantic — and to the Gulf of Mexico — only nine named storms developed, five of which became hurricanes. Of those, two reached Category 3 strength and none threatened the Gulf or made landfall in the US.

Tolleris said he expects the current season to more closely resemble last year's than the record-setting 2005 season that brought Hurricanes Katrina and Rita, among others. CB

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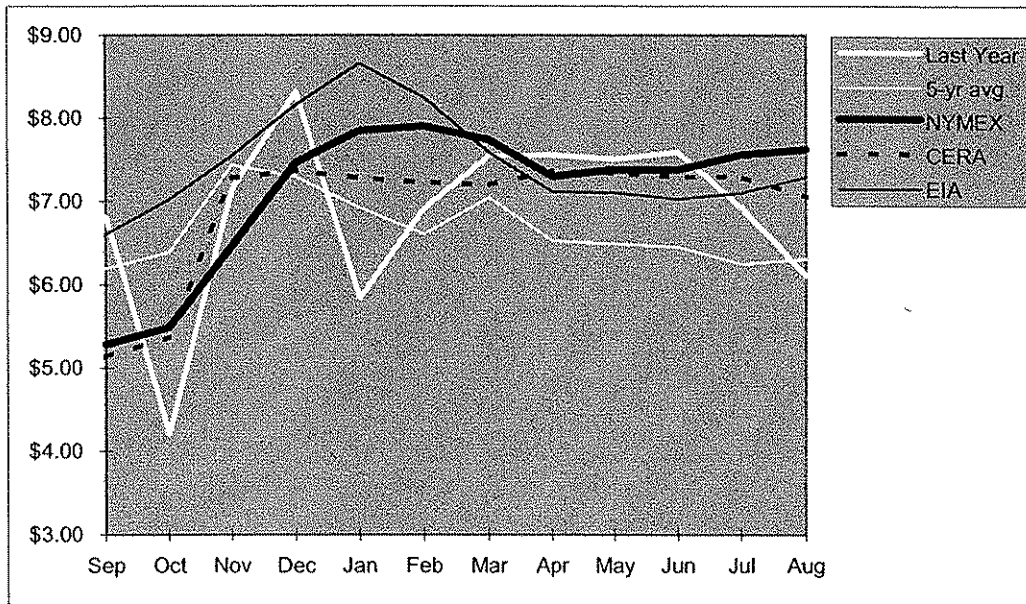
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## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Aug-07	EIA 7-Aug-07	NYMEX 27-Aug-07
Sep	\$6.19	\$6.82		\$5.130	\$6.608	\$5.280
Oct	\$6.39	\$4.20		\$5.370	\$7.026	\$5.485
Nov	\$7.44	\$7.15		\$7.280	\$7.546	\$6.465
Dec	\$7.29	\$8.32		\$7.370	\$8.162	\$7.470
Jan	\$6.92	\$5.84		\$7.280	\$8.660	\$7.850
Feb	\$6.61	\$6.92		\$7.230	\$8.247	\$7.905
Mar	\$7.05	\$7.55		\$7.200	\$7.591	\$7.740
Apr	\$6.53	\$7.56		\$7.370	\$7.117	\$7.300
May	\$6.49	\$7.51		\$7.340	\$7.106	\$7.385
Jun	\$6.45	\$7.59		\$7.290	\$7.030	\$7.380
Jul	\$6.24	\$6.93		\$7.300	\$7.104	\$7.558
Aug	\$6.31	\$6.11		\$7.050	\$7.293	\$7.624
<b>12 Month Avg</b>	<b>\$6.66</b>	<b>\$6.87</b>		<b>\$6.934</b>	<b>\$7.457</b>	<b>\$7.120</b>
Summer Average				\$6.693	\$7.041	\$6.859
Winter Average				\$7.272	\$8.041	\$7.486





CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## GAS PRICES FEELING THE WEIGHT OF STORAGE

### KEY IMPLICATIONS

CERA is now expecting a short falloff in gas prices in September and October, given our higher outlook for September and October gas storage inventory levels. CERA projects that North American gas storage inventories will finish the injection season at 4,203 billion cubic feet (Bcf), 200 Bcf above the October 2006 record.

#### DATE

August 20, 2007

- Gas prices at Henry Hub will likely average \$5.13 per million British thermal units (MMBtu) in September and \$5.37 per MMBtu for October. For AECO, CERA expects gas prices to average C\$4.18 per gigajoule (GJ) in September and C\$4.28 per GJ in October (\$4.34 per MMBtu and \$4.42 per MMBtu, respectively).
- Regional market basis will be tightening over the next few months with the expected decline in Henry Hub prices coupled with seasonal lows in gas demand in many markets. Moreover, CERA projects that growing storage inventories across the continent will create additional downside price pressure throughout the remainder of the injection season.
- CERA has reduced projections for liquefied natural gas imports through the end of the year to take into account the outage at the Kashiwazaki-Kariwa nuclear plant in Japan and CERA's expectation for lower Henry Hub prices in September and October.

### NORTH AMERICAN GAS MARKET: PRICES SOFTENED BY BURGEONING STORAGE INVENTORY

North American natural gas storage inventories have surged, surpassing year-ago levels in July and moving into record territory. The weight of strong inventory levels has already begun to depress the price of natural gas. The North American gas market has seen prices at Henry Hub decrease by more than \$1 per million British thermal units (MMBtu) since June, to average \$6.39 per MMBtu through

Note: All prices are in US dollars unless otherwise indicated.

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An IHS Company

the first 14 days of August. Warmer-than-normal temperatures in the first half of August have lifted cash natural gas prices at Henry Hub once again above the \$7 per MMBtu mark. Meanwhile, Hurricane Dean has formed in the Atlantic, and Tropical Storm Erin has landed on the Texas coast, reminding the market that hurricane season has arrived, with its potential to disrupt supplies. Hence, forward prices have risen as well. As the August heat wave abates, the storage surplus will resume its role as the dominant theme driving the market. Hence, CERA expects gas prices at Henry Hub to average \$6.06 per MMBtu in August—absent a major hurricane event (see Table 1).\*

North American gas storage inventories ended July 2007 at 3,361 billion cubic feet (Bcf), 125 Bcf above last July's record. Gas storage levels now stand 480 Bcf above the 2002–06 five-year average—a bearish signal for gas prices (see Figure 1). CERA expects North American gas storage inventories at the end of August and September to increase to 3,620 Bcf and 3,956 Bcf, respectively, based on the assumption of normal weather. CERA projects that North American gas storage inventories will finish the injection season at 4,203 Bcf, up 200 Bcf from the October 2006 record, again assuming normal weather.

- **CERA is now expecting a short falloff in gas prices in September and October, given the higher outlook for September and October gas storage inventory levels.** Even if hotter-than-normal weather for the balance of the cooling season increased gas demand for power generation, it is still unlikely to prevent this gas price falloff. CERA expects gas prices at Henry Hub to average \$5.13 per MMBtu and \$5.37 per MMBtu in September and October, respectively. Only a major hurricane event could prevent gas prices from

Table 1

**Henry Hub Prices**  
 (nominal US dollars per MMBtu)

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
January	2.29	5.39	6.03	6.17	8.76	6.33	7.28	7.31	6.63	7.05	6.41
February	2.27	7.00	5.41	6.09	7.62	8.06	7.23	7.33	6.29	6.92	6.21
March	3.00	6.37	5.38	6.91	6.88	7.10	7.20	7.22	6.18	6.59	6.30
April	3.37	5.27	5.70	7.19	7.09	7.57	7.37	6.60	6.20	6.37	6.31
May	3.51	5.77	6.28	6.47	6.23	7.64	7.34	6.49	6.11	6.15	6.18
June	3.20	5.80	6.26	7.17	6.26	7.40	7.29	6.57	6.17	6.25	6.25
July	2.99	5.04	5.92	7.57	6.05	6.21	7.30	6.60	6.21	6.28	6.29
August	3.08	4.96	5.43	9.29	7.24	6.06	7.05	6.42	6.26	6.32	6.32
September	3.50	4.61	4.99	12.11	4.95	5.13	6.66	6.15	6.00	6.06	6.21
October	4.08	4.65	6.24	13.36	5.67	5.37	7.26	6.43	6.83	6.14	6.65
November	4.06	4.45	5.88	10.29	7.32	7.28	7.43	6.66	7.13	6.40	6.90
December	4.74	6.12	6.63	12.98	6.83	7.37	7.46	6.65	7.01	6.38	6.75
<b>Year average</b>	<b>3.34</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>6.79</b>	<b>7.24</b>	<b>6.70</b>	<b>6.42</b>	<b>6.41</b>	<b>6.40</b>

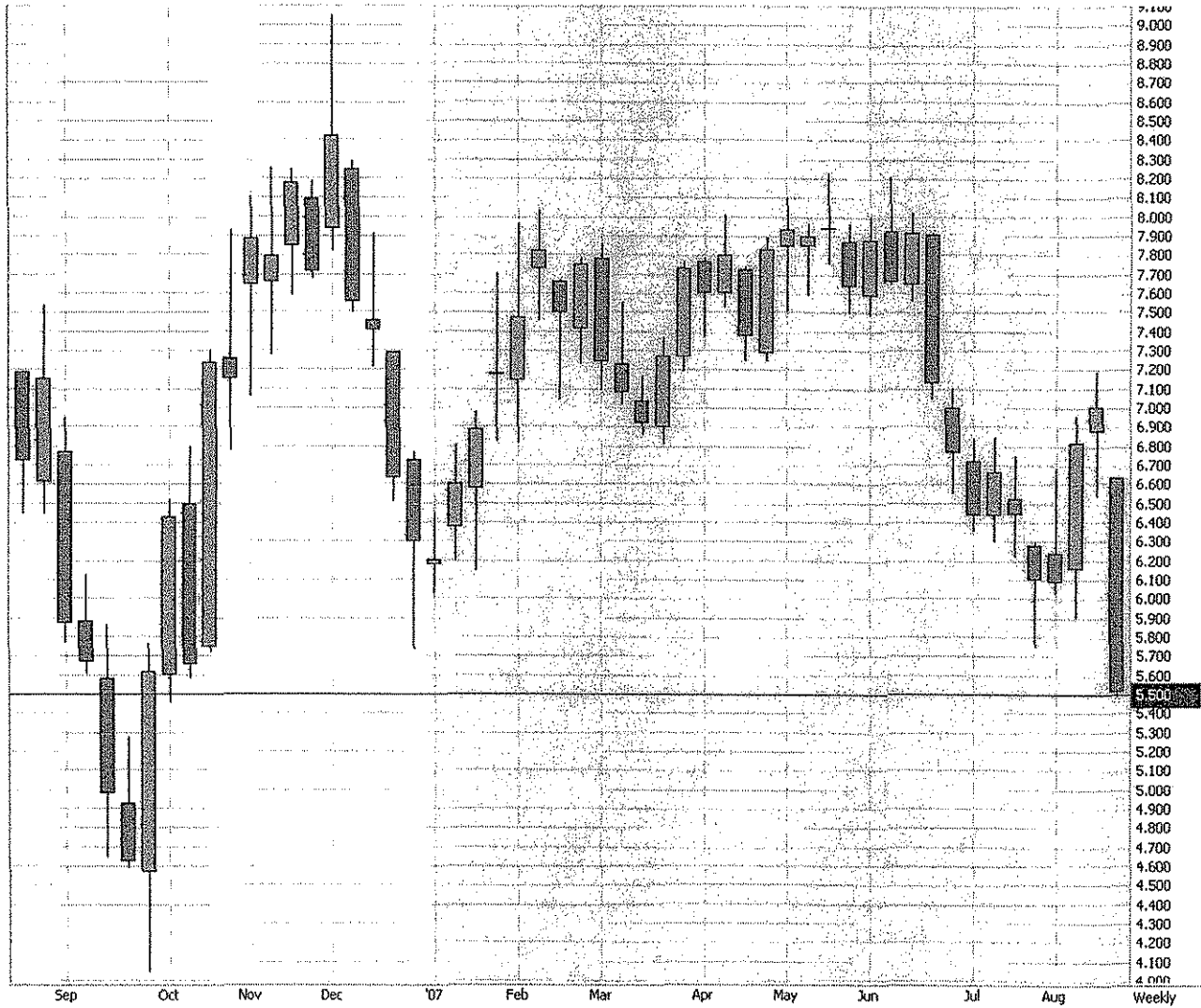
Sources: Cambridge Energy Research Associates. Historical data derived from Platts Gas Daily.  
 Note: The 2002–July 2007 figures are derived from historical data as available; August 2007–12 prices are CERA projections.  
 Excel tables are available in the North American Natural Gas Client Services area at CERA.com.

\*Unless otherwise indicated, all CERA price and basis outlooks predict the average daily spot.



### Commentary

Friday's trading range was identical to Thursdays before the late day sell off. I was very surprised by the weak settle. Natural settled 5523 and proceeded to penetrate 5500 major support after hours on GLOBEX. I think the late sell off sets up to test 5250 on Monday. Support: 5250, and 5000. Resistance: 5750, 5900, and 6000.



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# Gas Daily

Tuesday, August 14, 2007

## Cash prices rally; NYMEX tops \$7, pulls back

**THE MARKET** Cash prices shot higher Monday, propelled by an early NYMEX rally, another wave of record heat and jitters about a possible tropical storm in the Gulf of Mexico. But the September NYMEX gas futures contract ended the day 2.6 cents lower at \$6.794/MMBtu after topping \$7 early in the day.

Spot prices soared in Florida, where "we saw some pretty stout demand," a trader said, noting that temperatures should peak around 100 degrees through Thursday in many parts of the state. Florida Gas  
(continued on page 2)

## Pace: Gas market in 'permanent shortage' mode

After years of rising production costs and an increasingly tight supply/demand balance, the North American gas market has been scared into a "permanent shortage" mentality that only a shift to frontier and global gas supplies may change, according to a new report by Pace Global Energy Services.

"Enough is not enough anymore because it could be taken away at any time by hurricanes, incremental use of less than fully utilized natural gas-fired power generation assets, greenhouse gas compliance requirements and dwindling available conventional supplies," Pace said in its quarterly gas market outlook.

The first half of this year provided a brief glimpse into the future, Pace said, as Rockies prices plunged to 15 cents/MMBtu on June 4 when one of the pipelines moving supply out of the region was shut down (GD 6/5). New pipelines such as Rockies Express will boost export capacity from the Rockies and ease the impact of such events, but not for another year or more.

"Call the early-June crash a leading indicator of the long-term shift in North American gas production patterns," Pace said. "The Gulf of Mexico and Western Canadian Sedimentary Basin, which together anchored the recovery of the domestic gas market in the 1980s and 1990s, can no longer be relied upon to fill any delivery gap."

Meanwhile, imports of liquefied natural gas set new records this summer due to a glut of European supplies, the Fairfax, Virginia-based consultancy noted. The US, with its vast underground gas storage capacity, is better-positioned to take advantage of rising LNG imports during the shoulder and summer seasons than other countries, and that trend will likely continue, Pace said.

The consultancy said it expects Henry Hub gas prices to average in the high-\$7/MMBtu range, supported in part by lofty global oil prices. In 2008, when prices will be capped by a gas storage surplus, they will average \$7.70/MMBtu, Pace predicted, adding that increased LNG imports should reduce that to around \$6.20/MMBtu by 2016.

Price volatility will remain high in the near term, however, as the effort to bring new production online brings mixed results and LNG imports remain susceptible to weather and political developments, Pace said.

US demand is expected to be moderate through 2015 as gas use by the electric power sector remains steady while residential and commercial consumption slows, according to the report. As for supply, with Canadian gas imports declining, Pace predicts that LNG will reach 11% of domestic gas consumed in 2010 and 22% in 2015.

Meanwhile, the outlook is "much brighter" for Rocky Mountain production, where higher prices, better infrastructure and advanced technology are overcoming previous obstacles in getting that gas to market, Pace said.

## Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.880

Trans. date: 8/13  
Flow date(s): 8/14

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.715	6.59-6.85	6.65-6.78	1044	162
Waha	6.940	6.77-7.00	6.88-7.00	633	72
Transwestern, Permian Basin	6.680	6.68-6.68	6.68-6.68	4	2
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	6.980	6.93-7.07	6.95-7.02	233	37
NGPL, Texok zone	6.780	6.70-7.00	6.71-6.86	1253	175
Texas Eastern, ETX	7.010	6.92-7.03	6.98-7.03	17	6
Texas Gas, zone 1	7.140	7.12-7.16	7.13-7.15	121	24
<b>East-Houston-Katy</b>					
Houston Ship Channel	6.975	6.88-7.15	6.91-7.04	468	46
Katy	6.955	6.86-7.06	6.91-7.01	1254	175
<b>South-Corpus Christi</b>					
Agua Dulce Hub	6.960	6.83-7.00	6.92-7.00	224	17
NGPL, STX	6.945	6.89-7.00	6.92-6.97	89	17
Tennessee, zone 0	6.980	6.90-7.05	6.94-7.02	124	20
Texas Eastern, STX	6.975	6.92-7.00	6.96-7.00	165	35
Transco, zone 1	7.015	6.96-7.04	7.00-7.04	40	12

7.2

7.0

6.8

## Report cites gas supply crunch in Trinidad, a major LNG exporter

A new report by Ryder Scott says Trinidad and Tobago's gas reserves are declining at a rapid rate, raising serious questions about the island republic's ability to continue delivering large volumes of liquefied natural gas to the US.

While T&T Prime Minister Patrick Manning sought to portray the declines as temporary, noting that the country contains significant areas that have yet to be explored, some energy analysts expressed pessimism that the government can turn things around.

"I don't see any quick fixes to this problem," said independent consultant Fazal Hosein. "The government takes a lot of time to get things done." He noted that few gas discoveries have been made in T&T in recent years and that it would take six months just to draw up fiscal terms and incentives for future exploration.

T&T is by far the largest supplier of LNG to the US, accounting for two-thirds of the 584 Bcf received in 2006, according to the Energy Information Administration.

The Ryder Scott audit found that T&T's total gas reserves in 2006 were 31.04 Tcf, down 1.1% from 2004 levels. Proved reserves dropped 9% to 17.05 Tcf, probable reserves fell 14% to 7.76 Tcf and possible reserves declined 12% to 6.23 Tcf, it said.

The Houston-based consulting firm cautioned that T&T's gas supply is assured for only 12 more years assuming current production and consumption rates.

T&T's Energy Ministry reiterated Friday that it is reviewing fiscal terms for exploration blocks that are believed to contain substantial undiscovered gas reserves. But T&T energy consultant Anthony Paul said the Ryder Scott report points up the need for a "re-thinking and energizing of efforts" regarding exploration, including incentives to develop marginal gas fields. LB

# Gas Daily

Wednesday, August 22, 2007

## NYMEX settles at 10-month low; cash prices fall

**THE MARKET**

The September NYMEX gas futures contract fell another 22.3 cents Tuesday to settle at \$5.817/MMBtu — the lowest prompt-month settlement since October. Cash prices dropped another 35 to 60 cents in most regions as the threat of Hurricane Dean abated and cooler weather sapped demand.

The contract started the session at \$5.875 and traded between \$5.77 and \$5.90. Since Monday, it has shed more than \$1.20, or 17% of its value.

(continued on page 2)

## Denhardt: Sub-\$5 gas not out of the question

Barring a significant hurricane-related supply disruption in the Gulf of Mexico, US gas prices could sink below \$5/MMBtu in September or October, Strategic Energy and Economic Research said Tuesday.

However, a storm along the lines of 2005's Katrina or Rita could send prices soaring "well above \$10/MMBtu," Ron Denhardt, SEER's vice president of natural gas services, said in a report.

Assuming normal weather and about 50 Bcf of production lost due to hurricanes, working gas storage in the US nevertheless should end the traditional injection season at about 3.5 Tcf — above the record of 3.452 Tcf set in 2006 and the five-year average of 3.27 Tcf. "Last year, because of high working gas storage, Henry Hub prices averaged \$5.30/MMBtu in September and October," Denhardt noted.

Beyond October, however, the overall US economic outlook and the path of oil prices will play a significant role in determining gas prices, the analyst said.

A recession could cause oil prices to fall to around \$55/barrel, although Denhardt said a more likely scenario would involve an economic slowdown rather than a full-on recession — which would likely keep oil prices above \$60/barrel. "Even without a decline in oil prices, natural gas supplies look abundant with normal weather for the next year," he said.

Domestic gas production "will receive a boost" from the Independence Hub in the Gulf, which is projected to produce as much as 1 Bcf/d by the end of the year (GD 7/23). In addition, Barnett Shale gas production in Texas "has already reached 1.7 Bcf/d and is continuing to grow," the analyst said.

However, a drop in gas prices would probably trigger an associated loss of production, which could prove "substantial" if prices hold below \$6.50/MMBtu.

Gross liquefied natural gas imports should reach 2.6 Bcf/d this year, down slightly from earlier projections due to higher gas demand from Japan. Next year, gross LNG imports could reach 3.9 Bcf/d as Norway's Snohvit project is expected to reach full production in three to six months and a sixth train from Nigeria should be completed by the end of this year, Denhardt said.

Other LNG supplies should come online in 2008, including shipments from Qatar, Yemen and Russia, some of which could make it to US markets either through Atlantic Basin trade or through the Energía Costa Azul import terminal in Baja California, Mexico, according to the report.

Sempra Energy, the owner of Energía Costa Azul, has "targeted US markets as a final destination for some of the LNG throughput" via cross-border pipeline shipment of the terminal's regasified LNG, Denhardt noted.

## Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 5.680

Trans. date: 8/21  
Flow date(s): 8/22

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	5.515	5.45-5.70	5.45-5.58	1602	221
Waha	5.635	5.55-5.72	5.59-5.68	555	71
Transwestern, Permian Basin	5.500	5.46-5.54	5.48-5.52	31	5
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	5.750	5.65-5.88	5.69-5.81	204	38
NGPL, Texok zone	5.590	5.50-5.74	5.53-5.65	892	139
Texas Eastern, EFX	5.540	5.52-5.60	5.52-5.56	18	6
Texas Gas, zone 1	5.820	5.76-5.85	5.80-5.84	130	26
<b>East-Houston-Katy</b>					
Houston Ship Channel	5.745	5.65-5.86	5.69-5.80	601	72
Katy	5.725	5.65-5.90	5.66-5.79	549	85
<b>South-Corpus Christi</b>					
Agua Dulce Hub	5.770	5.70-6.00	5.70-5.85	314	24
NGPL, STX	5.715	5.67-5.74	5.70-5.73	146	21
Tennessee, zone O	5.885	5.70-6.00	5.81-5.96	47	10
Texas Eastern, STX	5.715	5.68-5.75	5.70-5.73	198	36
Transco, zone 1	5.760	5.68-5.80	5.73-5.79	49	11

## far fewer bidders than last year's

Far fewer bids were placed in this year's Western Gulf of Mexico lease sale than in last year's, probably due to a smaller amount of available acreage, the Minerals Management Service said Tuesday.

Forty companies placed a total of 358 bids on 282 tracts for today's Lease Sale 204, compared with 62 companies, 541 bids and 381 tracts in 2006's Lease Sale 200.

Lars Herbst, MMS's acting Gulf regional director, noted that the Western Planning Area in federal waters off the coast of Texas is about 20% smaller than a year ago because the boundaries between the Western and Central Gulf have been redrawn. A chunk of former Western acreage is now part of the Central Planning Area, for which a separate lease sale is planned October 3.

Despite the sharp drop in the number of bids, "there are just a few less companies," Herbst said. And the actual number of sale participants is likely to be higher given that many single bids are submitted by multi-company consortia, he explained.

Although MMS did not release the precise distribution of bids in deep vs. shallow waters, exploration-and-production companies are expected to be chasing deep-water blocks this time around, Herbst said.

"It appears that deepwater, as expected, is going to be the major player in this lease sale, although there are a number of bids in the shallow-water shelf area," he said.

SS



## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator



(1-Day Indicator)

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com

Monday, August 27, 2007

# Weakness Prevails As Weather And Storage Pressures NatGas



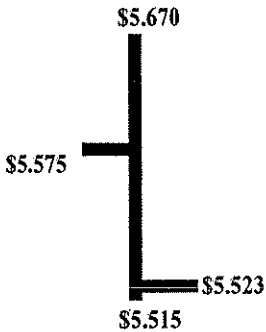
**Today: Flat Out Bearish**      **September Natural Gas Closed**      **Down 0.099¢**      **30-Day: Bullish**  
**Bottom Line** – There's nothing between us and Africa, except cooler water and clear skies. No storms are expected the first half of this week. Short-term weather forecasts are cooler than expected, so expect more weakness in prices.

Yesterday's Market

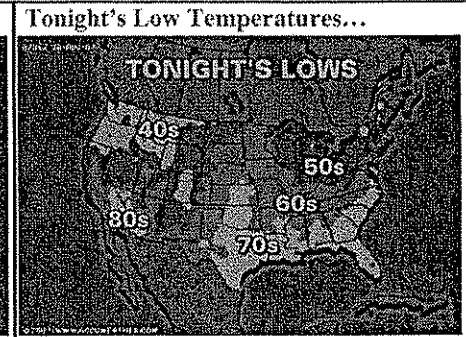
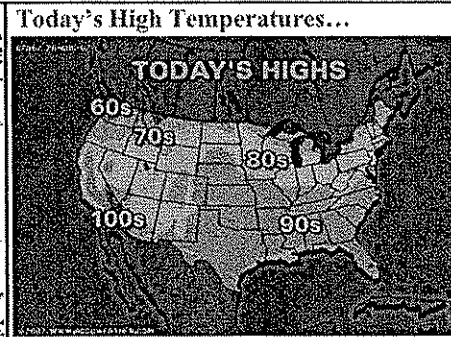
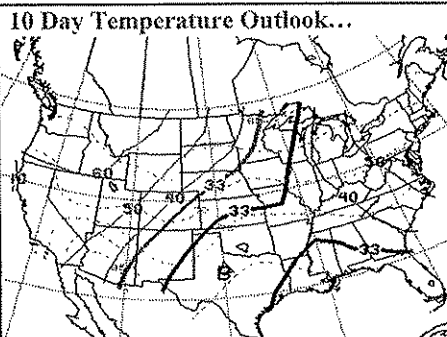
- September settled at \$5.523 Friday, down 9.9¢ after trading between \$5.515 and \$5.67. The front-month contract traded in positive territory early in the day, but fell toward the end of the session giving nothing for the bulls to hold onto. Conversely, crude oil finished Friday well in positive territory. The October crude oil contract settled at \$71.09, up \$1.26 after struggling earlier in the day. Refinery problems along with a powerful rise in RBOB gasoline helped support crude, which had been struggling as of late in the wake of Hurricane Dean's non-threat.

Today's Market

- The hurricane season just isn't supporting the bulls in the manner to which they wanted to become accustomed...and we've now broken back below the "burger level". We're trading below the price of a good hamburger...with fries. Without a hurricane, and I'm fast becoming less interested in that eventuality, or some really hot weather, and I can see the end of that, too, we're going to start chasing the "hot dog" level. We're in the process of breaking every short and long term support level I've got, which builds oversold momentum as we go. Remember, however, we can technically stay oversold for long periods of time, especially with heavy supplies, somewhat mild intermediate temperatures and a significant lack of tropical threat. Thursday's lower-than-expected storage report that showed a build of 23 billion cubic feet was dismissed by the market, largely because the still healthy storage total of over 2.9 Tcf appears, at least for the moment, safe for the duration of summer.



Access Trading	8/27/2007	7:52 AM	Natural Gas	\$5.262	(26.1¢)
WTI Crude	\$71.120	\$0.03	IPE Brent	---	---



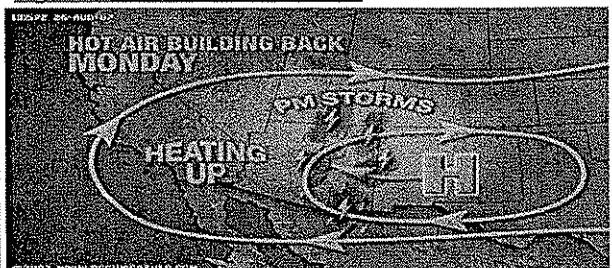
**Weather Briefs** – Beautiful Fall-like Skies Over Northeast Today – More Storms Are On The Way For Upper Midwest – Relief From The Heat Coming For South – Heat Building Back Into West

**Storage...**

We expect to see 42 Bcf build from storage this week.

The EIA reported a 23 Bcf storage build last week, increasing the nationwide stocks to 2.926 Tcf. The build was a little lower than the industry's expectation of a mid 20 to a low 30 Bcf injection. In the same week last year the stock level was 2.857 Tcf, which sends the year on year surplus to 69 Bcf. Indication for this week is a 42 Bcf build compared to a 48 Bcf build last year and a 64 Bcf build for the 5yr. Average.

**Sigmets: Heat Building Out West**



While hot weather will generally continue across the interior west all week, look for some of this heat to also build along the West Coast as a ridge increases in strength over the region. High temperatures are forecast to reach the mid and upper 90s for at least a 3-4 day period across interior California by mid-late week, including Sacramento. Otherwise, no relief is foreseen in most of the interior West where daytime highs in the 95°-105° range can be expected over the Southwest deserts each day with many values approaching 110°.

output are the Atlantis deepwater platform, which is expected to come on-stream later this year, and the Thunderhorse platform, expected to come on-stream late in 2008.

*Inventories.* Motor gasoline inventories during the first half of the summer (April-June) were tight and are expected to remain so during the rest of the season (Gasoline and Distillate Inventories). At the end of July, total gasoline inventories were about 204 million barrels, 5 million barrels below the average of the previous 5 years. The low gasoline inventory situation is expected to persist, with end-of-season (September 30) stocks at 198 million barrels, 6 million barrels below the previous 5-year average and 17 million barrels below last year. Distillate inventories, which had held at relatively high levels since late 2005, quickly fell to the middle of the normal band in June. Distillate stocks are projected to remain near the previous 5-year average through this winter.

*Prices.* Crude oil prices, which have been rising over the last 2 months, are expected to reach a peak monthly average price in August before starting to ease slightly. In 2007, the RAC of crude oil is projected to be \$64.86 per barrel compared to the \$60.23 per barrel average in 2006. The main reason for this increase, the tight world oil supply and demand balance, is expected to continue next year, with a projected average 2008 RAC price of \$68.75 per barrel. WTI prices, having averaged \$66.02 per barrel in 2006, are projected to average \$67.61 per barrel in 2007 and \$71.25 in 2008 (West Texas Intermediate Crude Oil Prices).

This summer's average retail regular motor gasoline price is projected to be \$2.95 per gallon, up 11 cents per gallon from last summer (Gasoline and Crude Oil Prices). Despite the continuing low gasoline inventories, gasoline prices began to fall in the second half of July and are expected to continue to decline through the end of this year. Regular-grade gasoline prices are expected to average about \$2.64 per gallon in December 2007, compared with an average monthly high of \$3.15 in May 2007.

Retail heating oil prices are projected to average \$2.85 per gallon during the coming heating season (October through March), compared to \$2.48 last heating season. Rising crude oil prices and projections of lower distillate inventories going into the heating season, combined with the assumption of a colder winter than last year, are the reasons for the projected increase.

### *Natural Gas Markets*

*Consumption.* On an annual basis, total natural gas consumption is expected to rise by 4 percent in 2007 and 1.3 percent in 2008 (Total U.S. Natural Gas Consumption

Growth). In annual terms, EIA projects increased consumption of natural-gas-fired in the electric power sector in 2007, rising 4.8 percent over 2006. In 2007, the residential and commercial sectors are expected to show annual growth of 10.5 and 7.5 percent, respectively, because of the projected return to normal winter weather, while industrial sector consumption is expected to decline by 1.5 percent.

***Production and Imports.*** Growth in onshore production continues to offset declines in production from the Gulf of Mexico. Through the first half of 2007, year-over-year Federal Gulf production has declined about 2.3 percent. Conversely, production over this same period in the Lower-48 onshore region has increased by 3.1 percent. On an annual basis, Gulf production is expected to decline by 4.2 percent in 2007 while Lower-48 onshore production is expected to rise by 1.6 percent. EIA projects a total hurricane-induced outage of 81 billion cubic feet (bcf) for the Gulf of Mexico (down from 85 bcf projected in the last *Outlook*). Total U.S. dry natural gas production is expected to rise 0.8 percent in 2007 and 1.5 percent in 2008.

Imports of liquefied natural gas (LNG) for the first half of 2007 totaled 460 Bcf, about 53 percent more than the comparable period in 2006. For the remainder of the year EIA is forecasting a decline in LNG imports as more cargoes are expected to be directed to European and Asian markets. In Europe, market prices in recent weeks have risen from relatively lower levels earlier this year and are now more competitive with U.S. market prices. Total LNG imports in 2007 are still expected to reach 850 bcf, which would be a record high.

***Inventories.*** On July 27, 2007, working natural gas in storage was 2,840 bcf (U.S. Working Natural Gas in Storage). Strong injections in July pushed current stocks over year-ago levels for the first time since EIA's storage report for January 27, 2007. Current inventories are now 410 bcf above the 5-year average from 2002 to 2006, and 68 bcf above the level from the corresponding week last year.

***Prices.*** Current spot prices at the Henry Hub reflect an inactive hurricane season thus far in the Gulf, storage inventories that recently surpassed the corresponding level of a year ago, and mild summer weather in the West South Central region (which represents about one-third of the electric power sector's total natural gas demand). As a result, the average monthly spot price has declined for 3 consecutive months (May, June, and July). However, the hurricane season runs through November 30, and current price projections remain vulnerable to potential storm-induced supply disruptions during that period. Taking into account EIA's current assumption about hurricanes, the Henry Hub spot price is expected to average \$6.66 per mcf in the third quarter and \$7.96 per mcf in the fourth quarter. For the year, the



Henry Hub spot price is expected to average about \$7.45 per mcf in 2007 and \$8.06 per mcf in 2008.

### *Electricity Markets*

**Consumption.** Despite high heating-related demand earlier in the year, the assumption of lower temperatures during the third quarter compared to last year should keep electricity consumption growing at a relatively normal rate of 1.9 percent in 2007 (Total U.S. Electricity Consumption Growth). Consumption is expected to grow at a lower rate of 1.4 percent in 2008 due to slightly slower economic growth and a return to normal temperatures.

**Prices.** U.S. residential electricity prices are projected to increase by 2.6 percent in 2007 and 2.9 percent in 2008 (U.S. Residential Electricity Prices and Consumption). Recent industry and regulatory efforts in Illinois may help temporarily restrict the price increases that resulted from the expiration of rate caps earlier this year. Electricity prices in the Mid-Atlantic region are also expected to increase at a faster-than-normal rate, especially for the industrial sector.

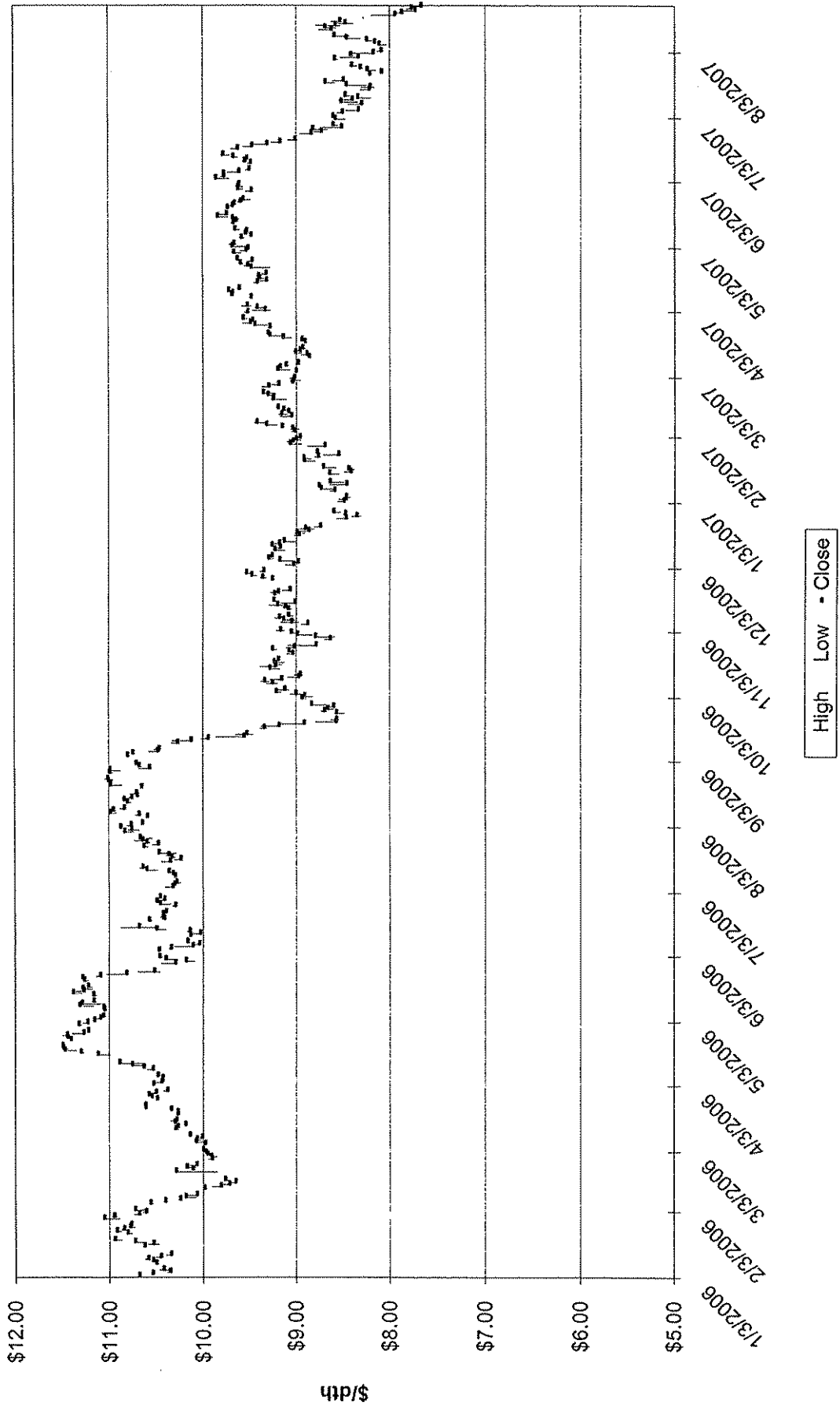
### *Coal Markets*

**Consumption.** Projected growth in electricity consumption will raise electric-power-sector coal consumption this year. Electric-power-sector coal consumption is expected to grow by 1 percent in 2007 and remain relatively flat in 2008 (U.S. Coal Consumption Growth).

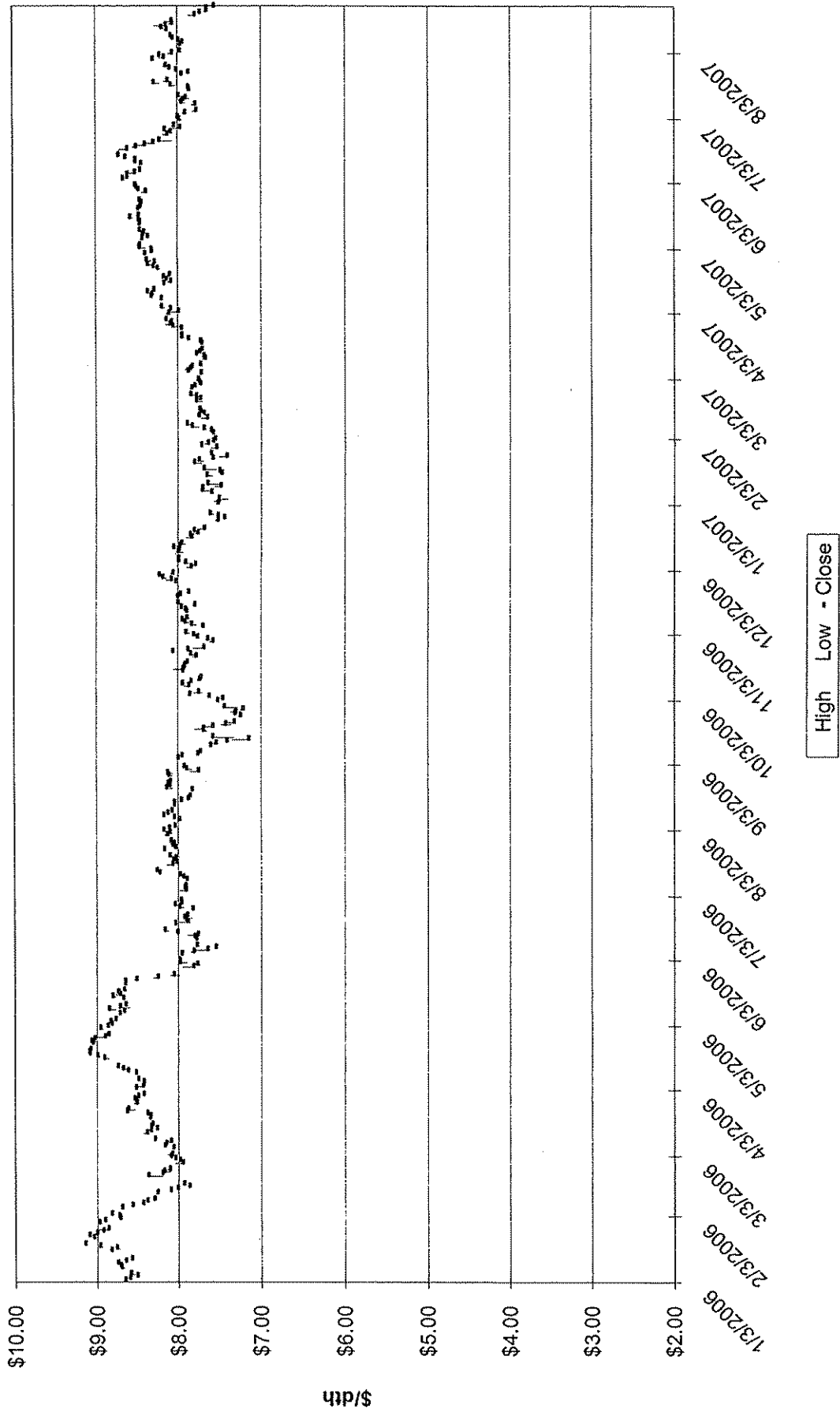
**Supply.** U.S. coal production (U.S. Coal Production), which increased by 2.6 percent in 2006, is expected to fall by about the same percentage in 2007 and fall again by 0.5 percent in 2008. Western coal production, which represents just over half of total domestic coal production, is expected to decline by 2.3 percent in 2007 and by an additional 0.1 percent in 2008.

**Inventories.** Coal stocks held by producers/distributors are expected to decline over 12 percent in 2007, ending at 30.8 million short tons. Producer/distributor stocks are projected to shrink by an additional 11.2 percent in 2008. Total stocks held by the consuming sectors are expected to fall by 1.4 percent in 2007 to 147 million short tons and remain at that level in 2008.

Winter Strip Nov07 - Mar08



### Summer Strip 2008



08/27 10:20a CDT Oil Prices Edge Up on Economic Outlook  
Oil Prices Edge Up on Economic Outlook

By GEORGE JAHN=  
Associated Press Writer=  
biz\_topic:MarketUpdates

VIENNA, Austria (AP) \_ Benchmark oil prices edged upward Monday as traders focused on signs that the U.S. economy is in better shape than previously thought.

While gasoline prices were down marginally, concerns of possible supply shortfalls also acted to shore up the crude market.

Light, sweet crude for October delivery rose 8 cents to \$71.17 a barrel on the New York Mercantile Exchange by afternoon in Europe in electronic trading.

The contract rose \$1.26 to settle at \$71.09 a barrel Friday on positive U.S. economic data and problems at a U.S. refinery.

The U.S. Commerce Department said Friday sales of durable goods and new homes rose in July, suggesting the economy may not be slowing as much as investors feared. Also, a report that Chevron Corp.'s Pascagoula, Mississippi refinery was canceling crude purchases supported prices at the end of last week on renewed worries about gasoline inventories.

Earlier in the year, concern over low gasoline stocks during the U.S. summer driving season were a major factor keeping crude oil prices high. And now, when traders normally expect to see gasoline use dropping off gasoline stockpiles are dropping off in the midst of a refinery outage and high demand.

The U.S. Energy Department said in its weekly report last Wednesday that over the four weeks to Aug. 17 the country's gasoline demand averaged over 9.6 million barrels a day, 0.6 percent above the same period last year. Analysts at Barclays Capital noted that implied gasoline demand of 9.726 million barrels a day for the fourth week \_ a weekly record.

The Mississippi refinery, Chevron's largest in the United States, has been operating at half-capacity after being damaged by a mid-August fire. Energy News Today, a trade publication, reported last week that Chevron canceled a 550,000-barrel Venezuelan crude shipment. Chevron would not confirm that specifically, but said the company's refinery is running less crude and that "we are working closely with our crude suppliers and expect some crude shipments may be canceled or rerouted to other refineries in our global network."

The news raised some speculation that gasoline prices may again become a key driver of crude oil prices.

After the large decline in U.S. gasoline inventories reported last week amid record demand, the gasoline market is "going to remain highly sensitive to any refinery problems," said Linda Rafield, senior oil analyst at energy information provider Platts.

Vienna's PVM Oil Associates noted that "inventories of ... motor fuel fell by a massive 5.7 million barrels, and are now 3 percent below the five-year average.

"This was attributed to weakening imports, which were down 30 percent, year-on-year," it said.

Earlier last week, before the inventory report, crude oil and gasoline prices made steep declines as Hurricane Dean missed key oil facilities in the Gulf of Mexico.

Uncertainty in the credit markets also weighed on energy futures, with many investors worrying that a severe credit tightening could crimp growth and dampen energy demand. But with stock markets showing more stability and with the positive economic data released Friday, crude oil prices have more support than in the past couple of weeks.

October Brent crude fell by 7 cents to \$70.55 a barrel on the ICE futures exchange in London.

Nymex heating oil futures and gasoline both dropped by less than a penny to fetch \$1.9914 and \$1.9731 a gallon (3.8 liters.)

Natural gas prices declined nearly 27 cents to \$5.253 per 1,000 cubic feet.



Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 September 13, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Dec-Feb.
Mid Term Weather (30-60 days)	↓	Long	Warm October and "marginally below normal" November.
6-10 day forecast	↔	Short	Above Normal, but not hot enough for a lot of electric generation.
Tropical Storm Activity	↑	Short	Tropical Storm Humberto in the Gulf and Tropical Depression #8 in the South Atlantic
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending August 31 were 36 BCF. Storage levels are 1% higher than last year at 3.0 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$7.181	↓	Long	"CERA projects that North American gas storage inventories will finish the injection season at 4,203 billion cubic feet..." (Not Updated since last meeting)
Paribas	↕	Short	"I want to say Natural should retrace to 5600-5700. However, the 6000 level is so close and the bears are getting nervous."
Gas Daily	↕	Long	"While Natexis Bleichroeder expects prices to fall due to robust inventory levels, Stephen Smith Energy Associates tweaked his price forecast higher given the slowing effect the August heat wave had on the pace of storage injections."
Conoco Morning Briefing	↑	Short	Increased Tropical activity, strong crude and sabotage in Mexico.
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$7.72 Summer 2008: \$7.06	↑	Long	"Spot prices at the Henry Hub are projected to begin rising to a winter peak of \$9.01 per mcf in January 2008."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: "...industrial sector consumption is expected to decline by 1.5 percent."
Supply	↓	Long	EIA: "Growth in onshore production continues to offset declines in production from the Gulf of Mexico."
Oil Market	↑	Long	"Crude surged...posting a fresh record high of \$79.20..."
<b>Meeting Minutes: 10th Floor North Conference Room - 10:00 am</b>			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program  
 Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	dth/day	dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					







Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 09/12/07

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

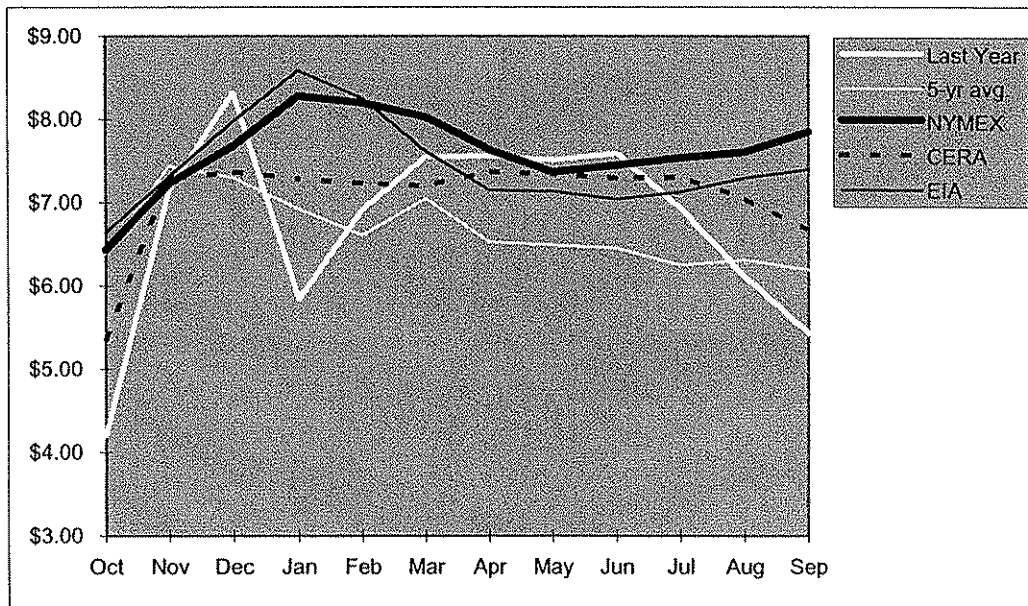
Normal Load (City Gate)

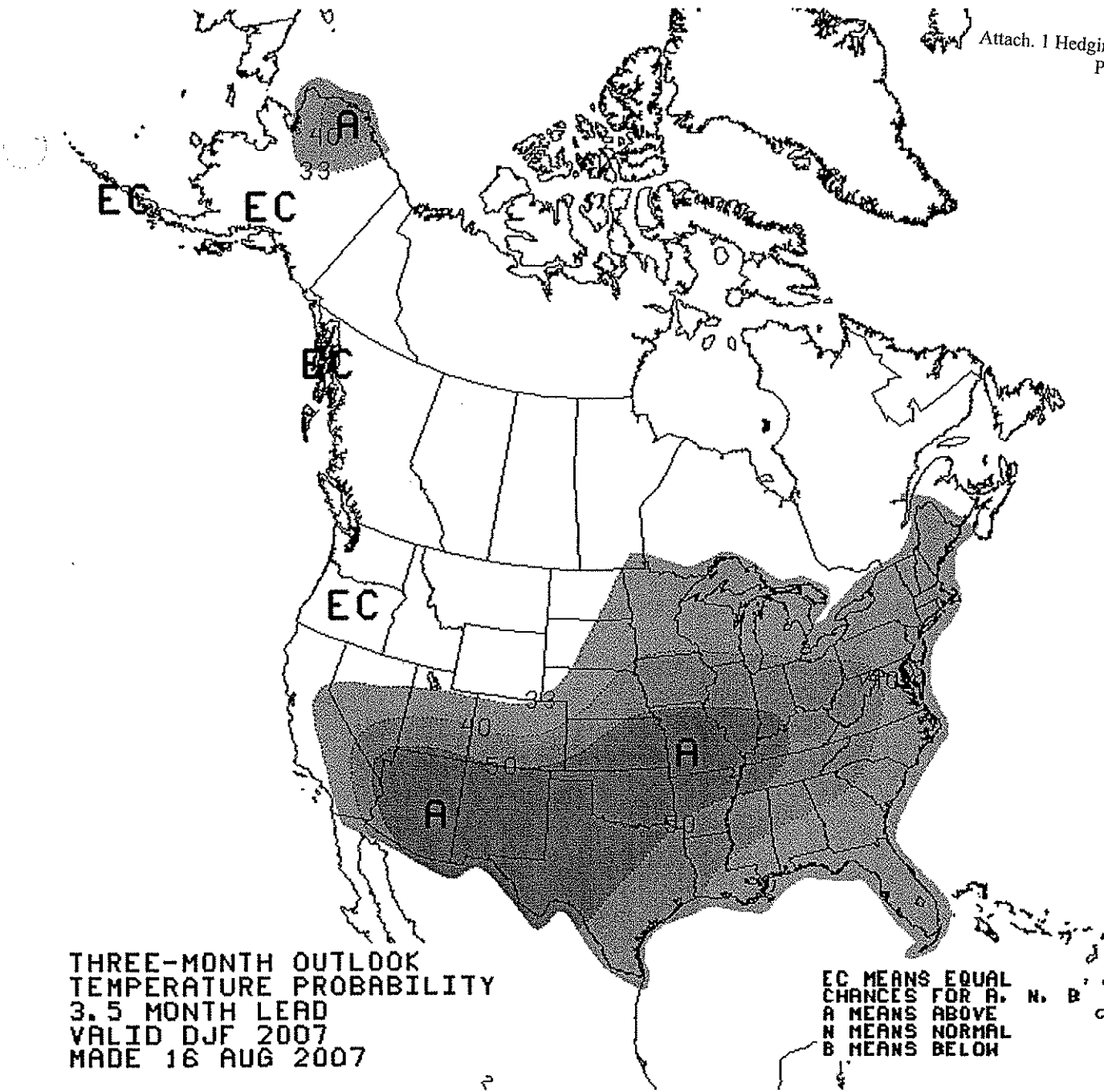
Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

[REDACTED]

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

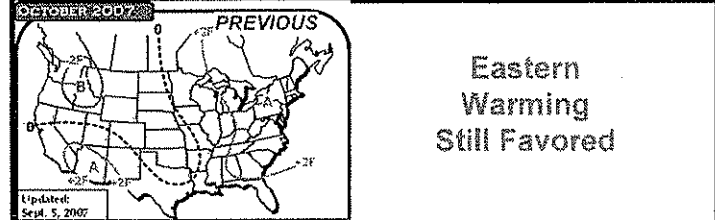
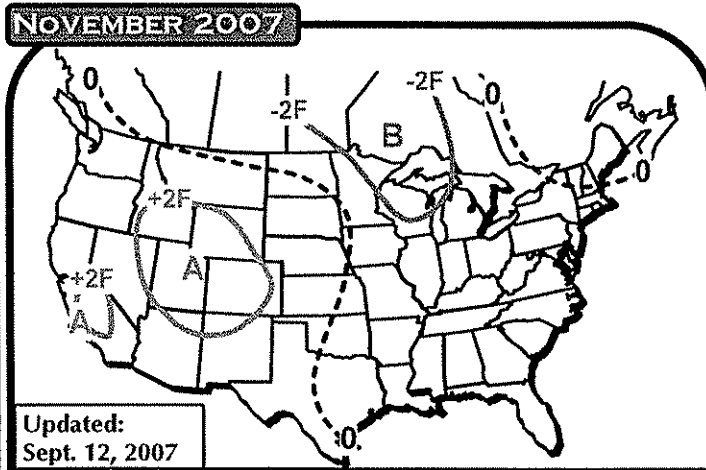
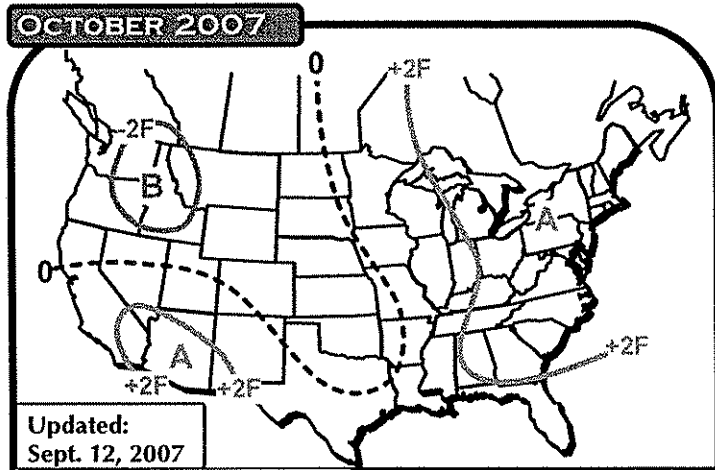
Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Aug-07	EIA 11-Sep-07	NYMEX 12-Sep-07
Oct	\$6.39	\$4.20		\$5.370	\$6.636	\$6.430
Nov	\$7.44	\$7.15		\$7.280	\$7.311	\$7.230
Dec	\$7.29	\$8.32		\$7.370	\$7.975	\$7.680
Jan	\$6.92	\$5.84		\$7.280	\$8.587	\$8.280
Feb	\$6.61	\$6.92		\$7.230	\$8.251	\$8.200
Mar	\$7.05	\$7.55		\$7.200	\$7.614	\$8.027
Apr	\$6.53	\$7.56		\$7.370	\$7.150	\$7.635
May	\$6.49	\$7.51		\$7.340	\$7.132	\$7.365
Jun	\$6.45	\$7.59		\$7.290	\$7.041	\$7.447
Jul	\$6.24	\$6.93		\$7.300	\$7.124	\$7.537
Aug	\$6.31	\$6.11		\$7.050	\$7.291	\$7.607
Sep	\$6.19	\$5.43		\$6.660	\$7.398	\$7.850
12 Month Avg	<b>\$6.66</b>	<b>\$6.76</b>		<b>\$7.062</b>	<b>\$7.459</b>	<b>\$7.607</b>
Summer Average				\$6.911	\$7.110	\$7.410
Winter Average				\$7.272	\$7.947	\$7.883





# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

Wednesday DAY 9/12/07 DATE 9:35 AM EDT TIME MRDS/BH FORECASTER



**Eastern Warming Still Favored**

No changes are being made to October at the current time. While variable weather and some early season cool to cold shots are anticipated, it does not appear as though it will dominate the East in October per the current analog thinking. The forecast right now is considerably warmer than last year's cool to cold October and closer overall to the 10Y running average. Cooling in the Northwest could coincide with a stronger start to the rainy season there. Southern California could experience some Santa Ana events this month.

### October GWHDD\* Forecasts

Oct 2007 Fcst:	<b>260.0</b>	10Y Normal:	281.6
	Change: 0	30Y Normal:	304.5
		Oct 2006:	326.0

\*National Natural Gas-Weighted HDDs

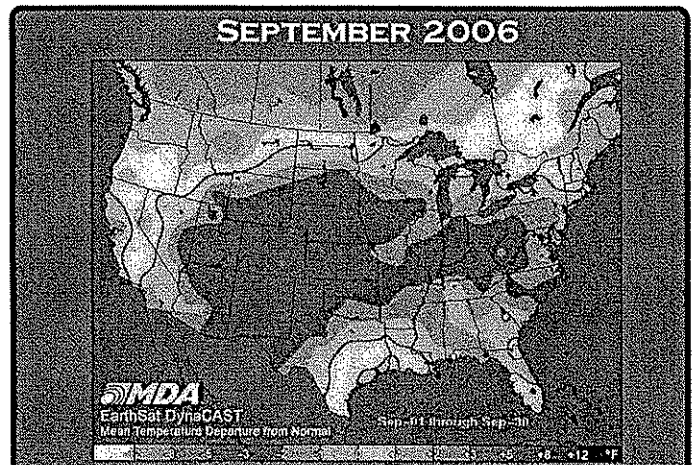
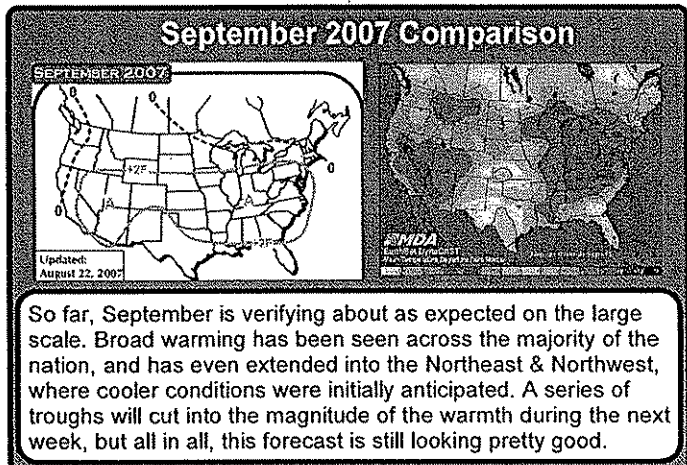
**Normal to Below East for November**

Both the NINO 3.4 Tropical Pacific analogs and the MDA EarthSat internal consensus forecast favor the first nationally colder than normal November in five years. The last below normal November was back in 2002 when 590.8 HDDs were reported for the month. The MDA EarthSat consensus is marginally below normal and is favored in the forecast above, while the NINO 3.4 analogs tend to be stronger with the Eastern cooling. One key factor will be to see if the current weak La Niña holds through November (to support cold).

### November GWHDD\* Forecasts

Nov 2007 Fcst:	<b>595.0</b>	10Y Normal:	528.1
	Change: 0	30Y Normal:	578.1
		Nov 2006:	496.1

\*National Natural Gas-Weighted HDDs



Maps above depict deviations of average temperatures from normal in Fahrenheit.



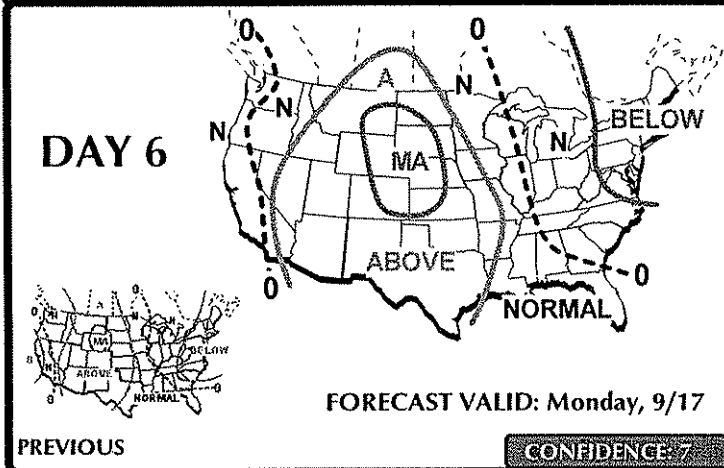
# MDA EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Wednesday **DAY** 9/12/2007 **DATE** 6:30 A.M. **TIME** DS/AC **FORECASTER**

### FORECAST TEMPERATURE DEVIATIONS

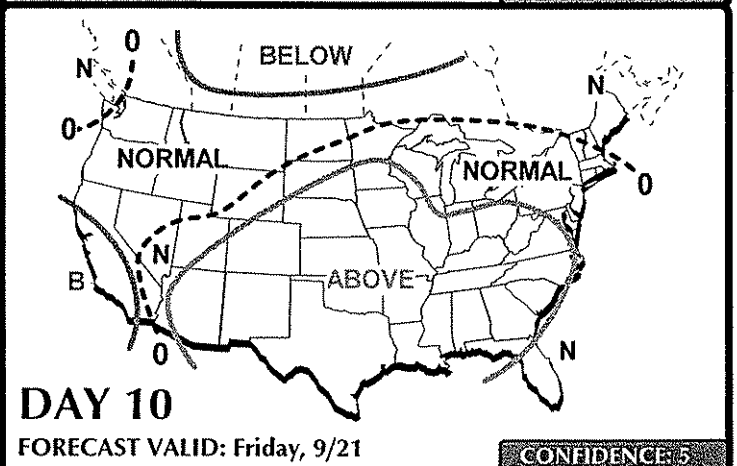
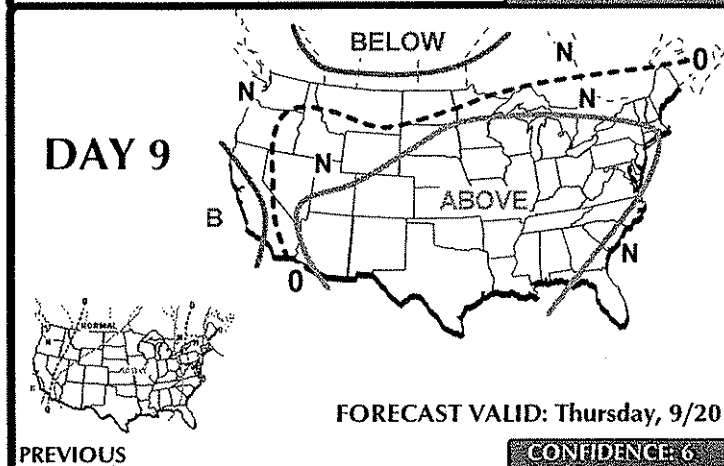
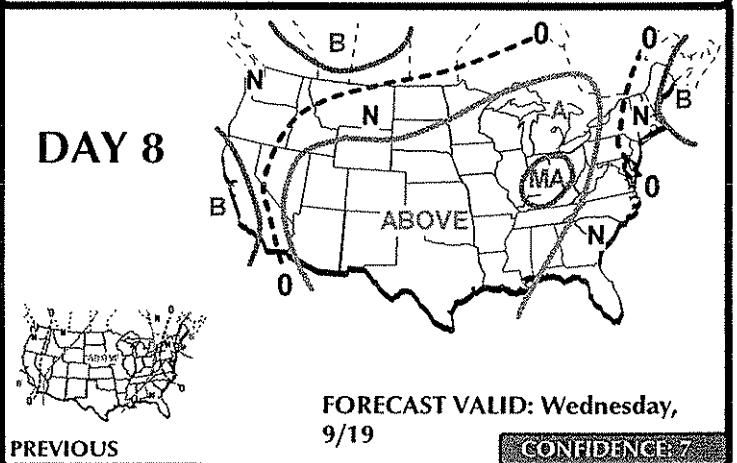
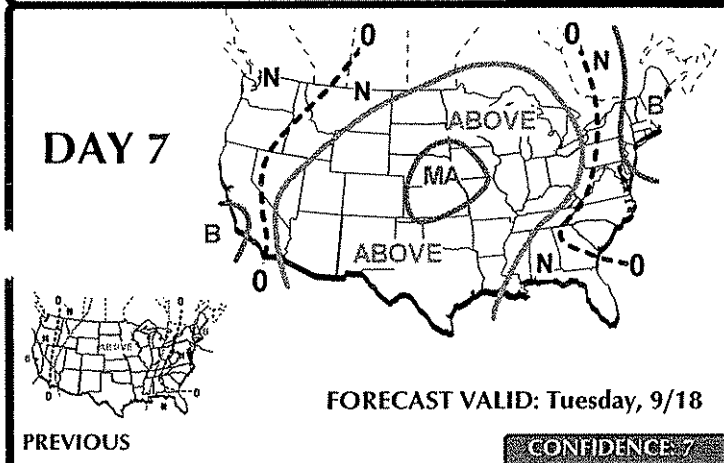
### DISCUSSION



#### Today's Forecast

#### Warming Grows In Plains; SoCal Still Cool

The timing of the cooling along the East continues to remain on track in general with the only change coming in the form of cooler air staying more towards the Mid-Atlantic for Monday and Tuesday. Also in the early period, a broader area of much aboves has sprouted in the Plains with a gradual weakening of this warmth expected around the middle of the period. A trough near central Canada could keep warmer temperatures towards the Midwest for the mid-period as well. Belows in SoCal have persisted and grown a bit stronger for the second half of the forecast.



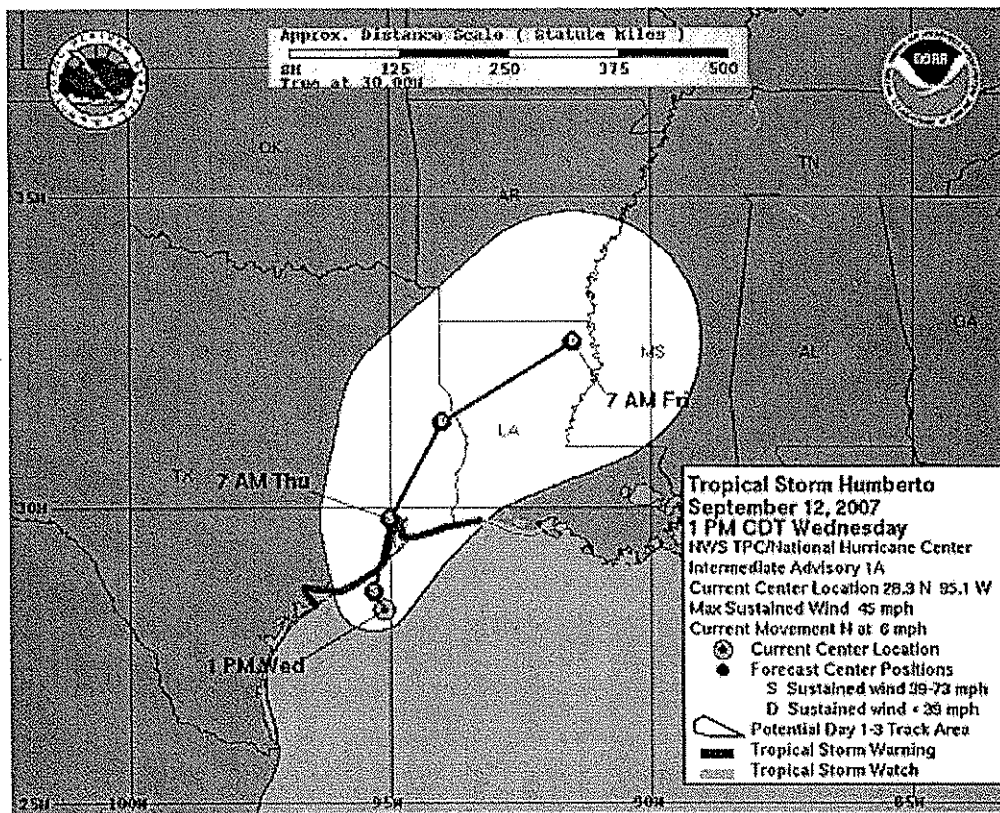
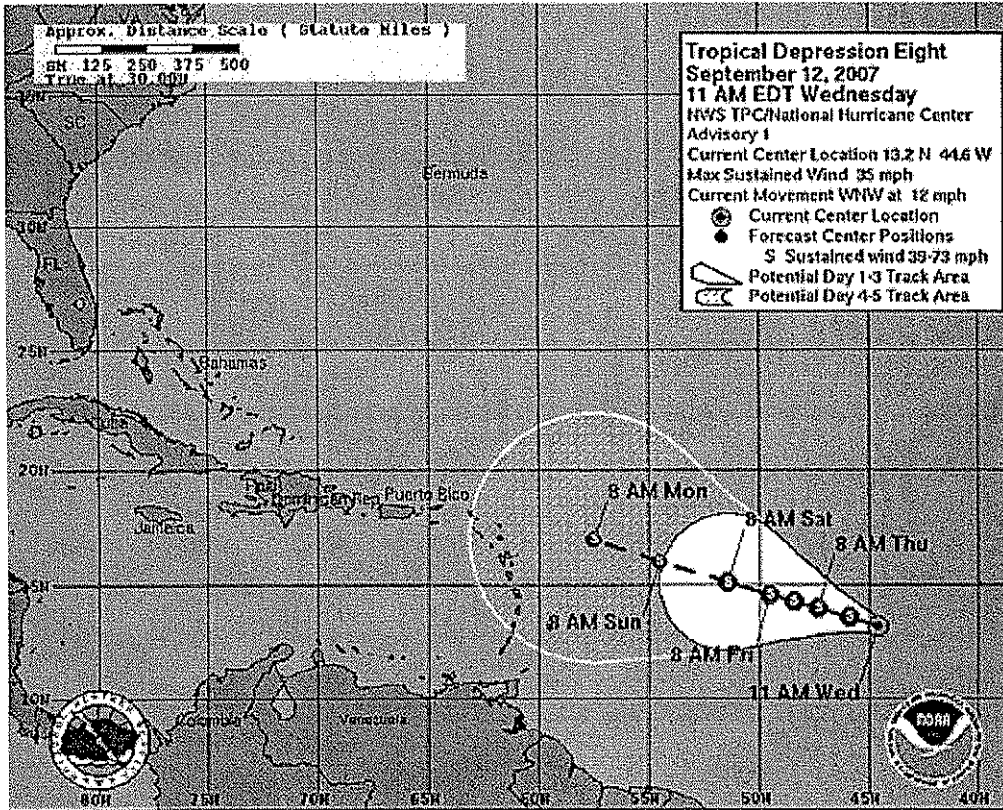
### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

**NORMAL**  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

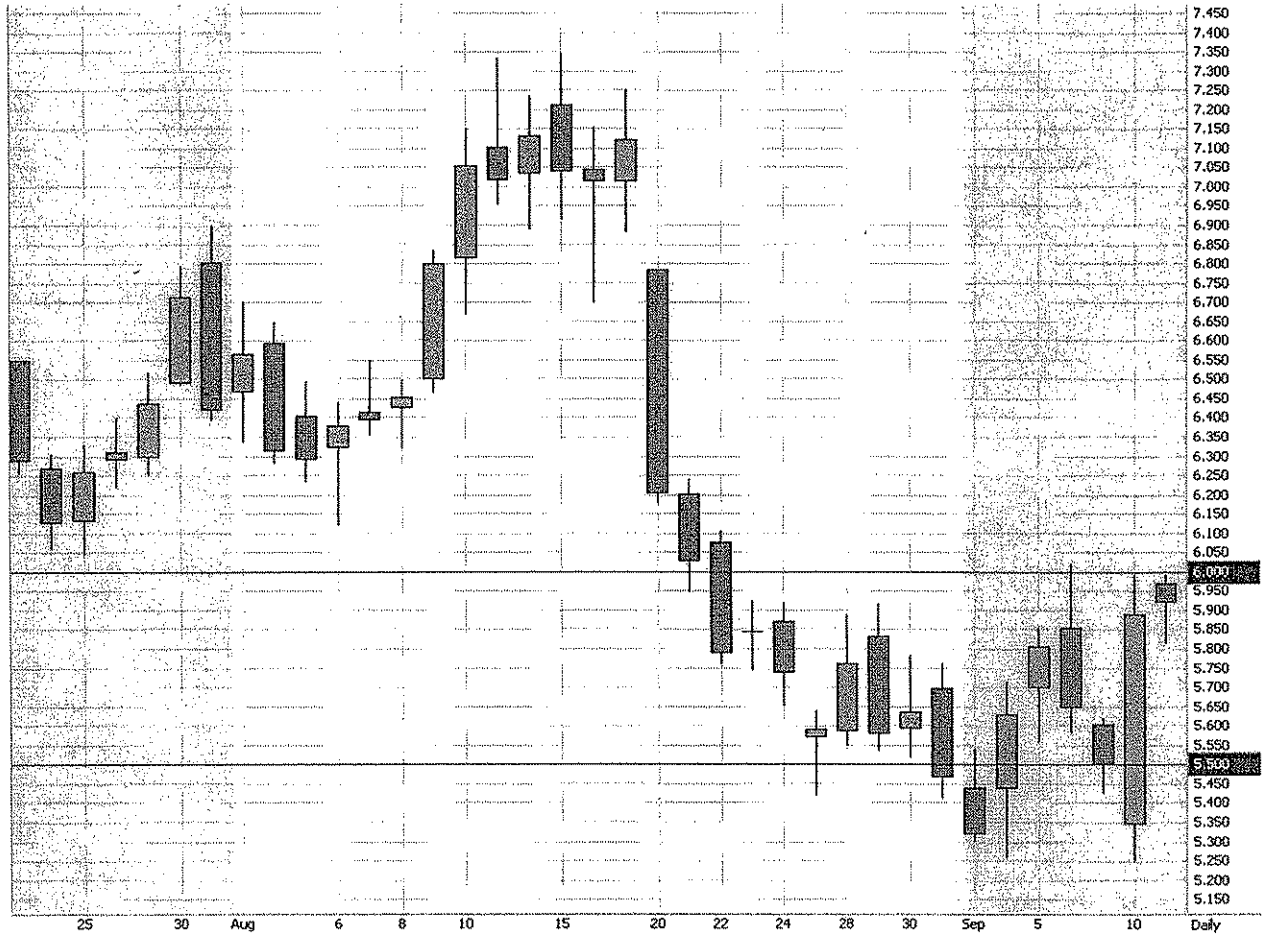
Confidence Level Boxes: 1=Low, 5=Moderate, 10=High





## Commentary

Natural gas consolidated on the highs between 5815-5994. The market failed to take out major resistance of 6000. The energy markets were skittish today because of the OPEC meeting. OPEC finally agreed to raise Oil output by 500,000 barrels in November. Traders had mixed feelings on this because many feel OPEC already over produces between 500-1m barrels. In addition, any increase in production will not affect this winters HO supply because the oil still needs to be refined. Crude settled 7823, which was an all time high settle by 2 cents. I want to say Natural should retrace to 5600-5700. However, the 6000 level is so close and the bears are getting nervous. Traders will be focusing on the EIA Petroleum stats on Wednesday. Estimates: CL -2.5, MOGAS -1.0, and Distillate +1.5. Support: 5500, 5250, and 5000. Resistance: 6000 and 6100.



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surged. Although much of the California coast was experiencing seasonal weather, interior California cities such as Pasadena, Sacramento and Bakersfield were baking under triple-digit temperatures, with little respite expected through early next week.

In Oregon, Malin prices lost more than 15 cents while Stanfield prices fell about a nickel. Farther south, Southern California Gas shed around 20 cents, while El Paso Natural Gas in the San Juan Basin fell around 30 cents. — Market Staff Reports

## Analysts differ on how storage level will affect prices

Analysts took a look at the amount of gas in storage last week and came up with strikingly different projections of its impact on the market.

While Natexis Bleichroeder expects prices to fall due to robust inventory levels, Stephen Smith Energy Associates tweaked his price forecast higher given the slowing effect the August heat wave had on the pace of storage injections.

Natexis analysts John White and Roger Read lowered their third-quarter estimate by a full dollar, to \$6/MMBtu, and their fourth-quarter estimate by a quarter to \$7/MMBtu. They cited "the record level of storage and currently lower prices that seem likely to persist into early fall 2007. Thus, we believe that for the remainder of 2007 and especially in the latter half of September, US natural gas prices will remain under pressure."

While "weekly injections to date have been normal, the high level of storage at the start of refill season has created another temporary oversupply situation as we enter the fall shoulder season," they said in a report Friday. "In the absence of tropical activity, we see little near-term support for natural gas prices and would not be surprised to see the front-month contract price drop below \$5/MMBtu."

But analyst Stephen Smith noted in his Monthly Energy Outlook that the spate of higher-than-normal temperatures in August actually cooled the injection frenzy, placing upward pressure on the market.

As a result, Smith raised his estimate of fourth-quarter Henry Hub bidweek prices to an average of \$6.75/MMBtu from \$6.20/MMBtu. For the full year, he raised his projection by a nickel to \$6.80/MMBtu.

"What we got was a displaced summer from last year," Smith told Platts on Friday. "The heat showed up in August; it wasn't centered in the middle of summer." August had 25% more cooling degree-days than normal, noted Smith, principal of Stephen Smith Energy Associates.

He noted that storage inventories started the summer about 150 Bcf below last year's level, but then a series of large injections made it "look as if we would end up about 150 Bcf higher than last year." The August heat tamped that projection down and Smith now expects the season-ending level to be some 50 Bcf above last year's by November 1.

SGS

## BLM to issue alternative drilling plans for Pinedale

The Bureau of Land Management plans to release two new alternatives for energy development on western Wyoming's Pinedale Anticline that could yield up to 25 Tcf of gas over two decades.

"Comments received from the public, operators and the Wyoming Game and Fish Department have provided additional insight into this project," BLM Wyoming State Director Bob Bennett said last week. "These insights and proposals were significant enough to warrant two additional alternatives for public review."

BLM said the plans will be incorporated later this year into a revised supplemental environmental impact statement on the Pinedale Anticline Project Area.

The first, alternative D, would allow firms to conduct year-round drilling in a larger area than originally proposed while suspending leases on the east and west flanks of the 198,000-acre project area.

### Weekly weighted average prices

	08/18-24 2007	08/25-31 2007	-/+
<b>Permian Basin Area</b>			
El Paso, Permian Basin	5.88	5.30	-58
Waha	6.04	5.36	-68
Transwestern, Permian Basin	5.98	5.19	-79
<b>East Texas-North Louisiana Area</b>			
Carthage Hub	6.23	5.44	-78
NGPL, Texok zone	6.11	5.31	-79
Texas Eastern, ETX	6.05	5.53	-51
Texas Gas, zone 1	6.67	5.53	-114
<b>East-Houston-Katy</b>			
Houston Ship Channel	6.31	5.48	-83
Katy	6.42	5.45	-96
<b>South-Corpus Christi</b>			
Agua Dulce Hub	6.24	5.46	-79
NGPL, STX	6.18	5.42	-76
Tennessee, zone 0	6.37	5.38	-98
Texas Eastern, STX	6.21	5.45	-76
Transco, zone 1	6.19	5.46	-72
<b>Louisiana-Onshore South</b>			
ANR, La.	6.31	5.56	-75
Columbia Gulf, La.	6.43	5.55	-88
Columbia Gulf, mainline	6.38	5.54	-85
Florida Gas, zone 1	6.62	5.53	-110
Florida Gas, zone 2	6.28	5.83	-45
Florida Gas, zone 3	8.39	7.02	-137
Henry Hub	6.45	5.60	-85
NGPL, La.	6.22	5.47	-75
Southern Natural, La.	6.64	5.71	-93
Tennessee, La., 500 Leg	6.55	5.64	-91
Tennessee, La., 800 Leg	6.44	5.52	-92
Texas Eastern, WLA	6.15	5.60	-56
Texas Eastern, ELA	6.39	5.63	-76
Texas Gas, zone SL	6.55	5.54	-100
Transco, zone 2	6.58	5.61	-97
Transco, zone 3	6.64	5.80	-84
Trunkline, WLA	6.29	5.56	-73
Trunkline, ELA	6.22	5.58	-64
<b>Oklahoma</b>			
ANR, Okla.	5.85	5.18	-67
CenterPoint, East	5.83	5.26	-57
NGPL, Midcontinent	5.83	5.14	-69
Oneok, Okla.	5.43	5.20	-23
Panhandle, Tx.-Okla.	5.80	5.12	-68
Southern Star, Tx.-Okla.-Kan.	5.80	5.16	-65
<b>New Mexico-San Juan Basin</b>			
El Paso, Bondad	5.62	5.12	-50
El Paso, San Juan Basin	5.69	5.09	-60
<b>Rockies</b>			
ClG, Rocky Mountains	3.41	1.66	-175
Kern River, Opal plant	3.38	2.08	-130
Stanfield, Ore.	5.71	5.02	-69
Questar, Rocky Mountains	3.43	1.68	-175
Cheyenne Hub	3.38	2.22	-116
Northwest, Wyo. Pool	3.43	2.37	-107
Northwest, s. of Green River	3.34	1.58	-176
<b>Canadian Gas</b>			
Iroquois, receipts	6.47	5.75	-72
Niagara	6.46	5.72	-75
Northwest, Can. bdr. (Sumas)	5.51	5.11	-40
TCPL Alberta, AECO-C*	C5.02	C4.32	C-70
Emerson, Viking GL	5.49	4.89	-60
Dawn, Ontario	6.26	5.58	-68
GTN, Kingsgate	5.61	4.94	-67
Westcoast, station 2*	C4.91	C4.64	C-28



## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com



(1-Day Indicator)

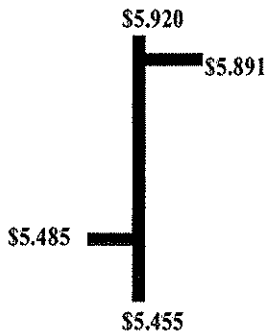
# Tuesday, September 11, 2007 Crude, Tropics, & Mexican Sabotage Launches October 39¢



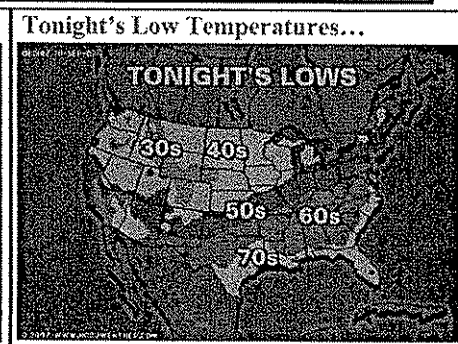
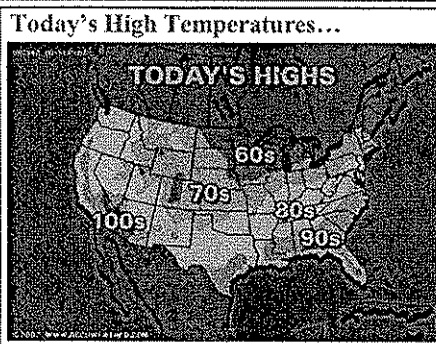
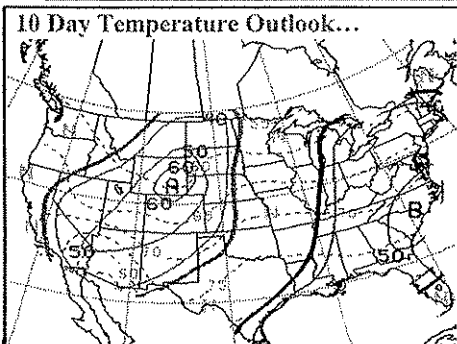
**Today: Bearish...It was overdone yesterday... October Natural Gas Closed Up 0.39¢ 30-Day: Bullish**  
 Bottom Line – There are three areas being watched for development this morning. Nothing is imminent. If yesterday was emotional...and it just had to be...we should go back down today. Yes, there are still those areas of interest in the Atlantic and GOM, but, really, people. At least wait for an actual threat. Remember, we are close to another uptick in tropical activity near the end of this week. The three areas of interest are your sign that I'm right.

Yesterday's Market

- October started the week with a bit of panic buying sparked by several domestic as well as international supply questions, a still-active tropical picture and a strong crude complex. The market was spooked by a collection of somewhat supportive elements that gave traders direction and justification for generating the price action. First, a series of explosions on the PEMEX natural gas pipeline system in Mexico caused numerous outages, reportedly the work of an anti-Mexican rebel group that laid claim to similar actions in the past, which gave the market jitters on demand heading in and out of Mexico. Second, the National Hurricane Center is monitoring a train of tropical waves in the Atlantic Basin, giving the funds reason to cover shorts. While there is no imminent threat to the U.S. Gulf of Mexico energy complex, the possibility of another hurricane acted as a reminder to the market that this is still an active season with plenty of time on the clock. The front month ultimately settled at \$5.891, up 39¢ on the day after trading between \$5.455 and \$5.92. The contract appeared to be in a key reversal after making a new low in overnight trading at \$5.249, only to settle over the two most recent highs. Meanwhile, NYMEX October crude closed 79¢ higher at \$77.49 after faltering early on rumors that OPEC would elect during Tuesday's (9/11) meeting to increase production by as much as 500,000 barrels per day, only to regain strength later in the session when liquids took off, giving crude strong support. WHEW! That was a lot!



Access Trading	9/11/2007	7:49 AM	Natural Gas	\$5.974	8.3¢
WTI Crude	\$77.660	\$0.17	IPE Brent	---	---



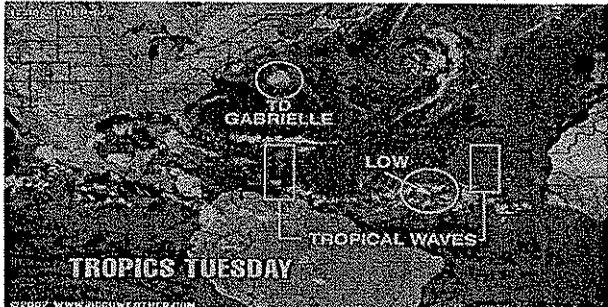
**Weather Briefs** – Northeast Sees Showers And Much Cooler Temps The Next Few Days – Rain And Cooler Temps Across South – Midcon Breezy, Windy, And Cool – West Dry And Warm

**Storage...**

We expect to see 67 Bcf build from storage this week.

The EIA reported a 36 Bcf storage build last week, increasing the nationwide stocks to 3.005 Tcf. The build was on the lower end of the industry's expectation of 33 to 50 Bcf injection. In the same week last year the stock level was 2.976 Tcf, which sends the year on year surplus to 29 Bcf. Indication for this week is a 67 Bcf build compared to a 108 Bcf build last year and a 93 Bcf build for the 5yr. Average.

**Signets: Three Systems Of Interest In Tropics**



The NHC said today that it is watching three areas of interest in the tropical Atlantic. The most of interest is an area associated with a tropical wave between the Cape Verde Islands and Leeward Islands. That system is gradually becoming better organized and has the potential to develop into a tropical depression during the next couple of days as it moves westward to west-northwestward at 10 to 15 miles per hour.

end of this year, with a projected average price of about \$2.63 per gallon in December 2007.

Retail heating oil prices are projected to average \$2.78 per gallon from October 2007 through March 2008, compared to \$2.48 last heating season. Higher crude oil prices and projections of lower distillate inventories than last year going into the heating season, contribute to the projected increase.

### *Natural Gas Markets*

*Consumption.* Driven by increases in the residential, commercial, and electric power sectors, total natural gas consumption is expected to rise by 4.5 percent in 2007 (U.S. Total Natural Gas Consumption). For 2008, the assumption of near-normal weather will temper consumption in the residential, commercial, and electric power sectors considerably, leading to an increase in total natural gas consumption of only 0.3 percent in 2008.

*Production and Imports.* Although marketed natural gas production in the Gulf of Mexico is expected to decline by 4.3 percent in 2007, production in the Lower-48 onshore region is expected to increase by 1.7 percent this year, led by strong growth in the second quarter. In 2008, the start-up of new deepwater production facilities is expected to increase marketed production in the Gulf by 7.1 percent, while marketed production in the Lower-48 onshore is projected to increase by 0.3 percent. In sum, total U.S. marketed natural gas production is expected to increase by 0.8 percent in 2007 and 1.3 percent in 2008.

Imports of liquefied natural gas (LNG) are expected to increase by 47 percent in 2007, and by 19 percent in 2008. Relatively high U.S. natural gas prices during the first half of 2007, compared to other LNG-consuming countries, were largely responsible for the recent surge in U.S. imports. As demand for LNG around the world begins to rise in the near term, shipments to the United States are projected to decline during the third and fourth quarters before increasing again at the start of 2008.

*Inventories.* On August 31, 2007, working natural gas in storage was 3,005 bcf (U.S. Working Natural Gas in Storage). Current inventories are now 284 bcf above the 5-year average (2002–2006) and 39 bcf above the level of the corresponding week last year.

*Prices.* Spot prices at the Henry Hub averaged \$6.37 per mcf in August, about the same as the monthly average spot price in July. Spot prices at the Henry Hub are projected to begin rising to a winter peak of \$9.01 per mcf in January 2008. For the

year, the Henry Hub spot price is expected to average about \$7.31 per mcf in 2007 and \$8.07 per mcf in 2008.

### *Electricity Markets*

**Consumption.** Summer temperatures have exhibited significant variability this year. Cooling degree-days in July were about 3 percent below normal and 18 percent lower than July of last year; yet, preliminary weather information for August indicates cooling degree-days were 24 percent higher than normal and warmer than temperatures last year (U.S. Summer Cooling Degree Days). This extreme August weather has been particularly severe in the Southeast and Midwest regions. Overall, electricity consumption for the third quarter is expected to average about 1.6 percent higher than the same period in 2006 and is expected to grow by 2.5 percent for the entire year (U.S. Total Electricity Consumption). Growth in 2008 is expected to slow to 0.8 percent as temperatures are assumed to return to near-normal levels.

**Prices.** After the sharp increases experienced last year, U.S. residential electricity prices averaged 11.1 cents per kilowatt hour in June 2007. Residential electricity prices are expected to grow by 2.5 percent in 2007 and by 2 percent in 2008, slightly lower than the rate of inflation (U.S. Residential Electricity Prices and Consumption). Industrial electricity prices are expected to grow by 5.0 percent in 2007 and by 1.0 percent in 2008.

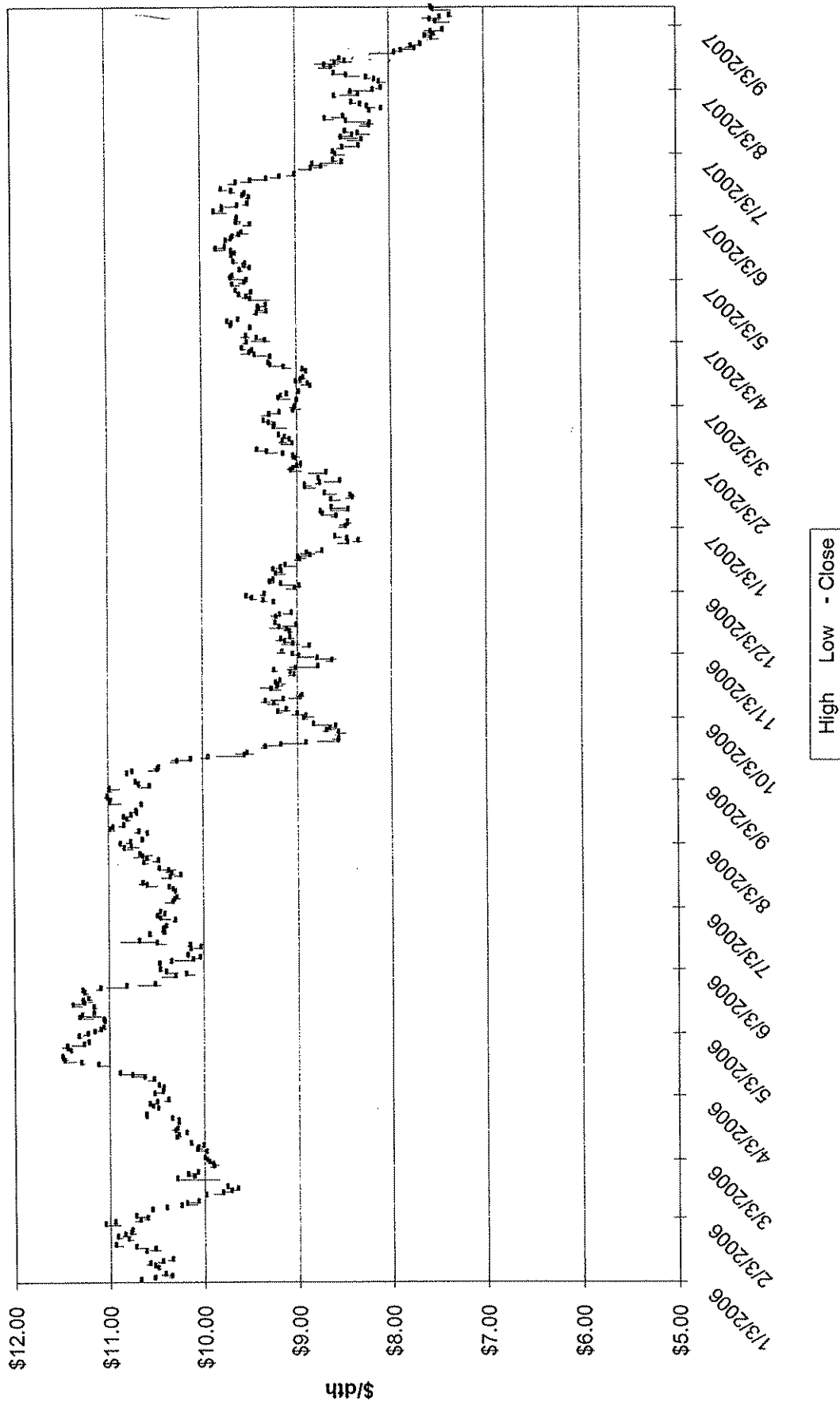
### *Coal Markets*

**Consumption.** Projected growth in electricity consumption will raise electric-power-sector coal consumption this year. It is expected to grow by 1.7 percent in 2007 and remain relatively flat in 2008 (U.S. Coal Consumption Growth).

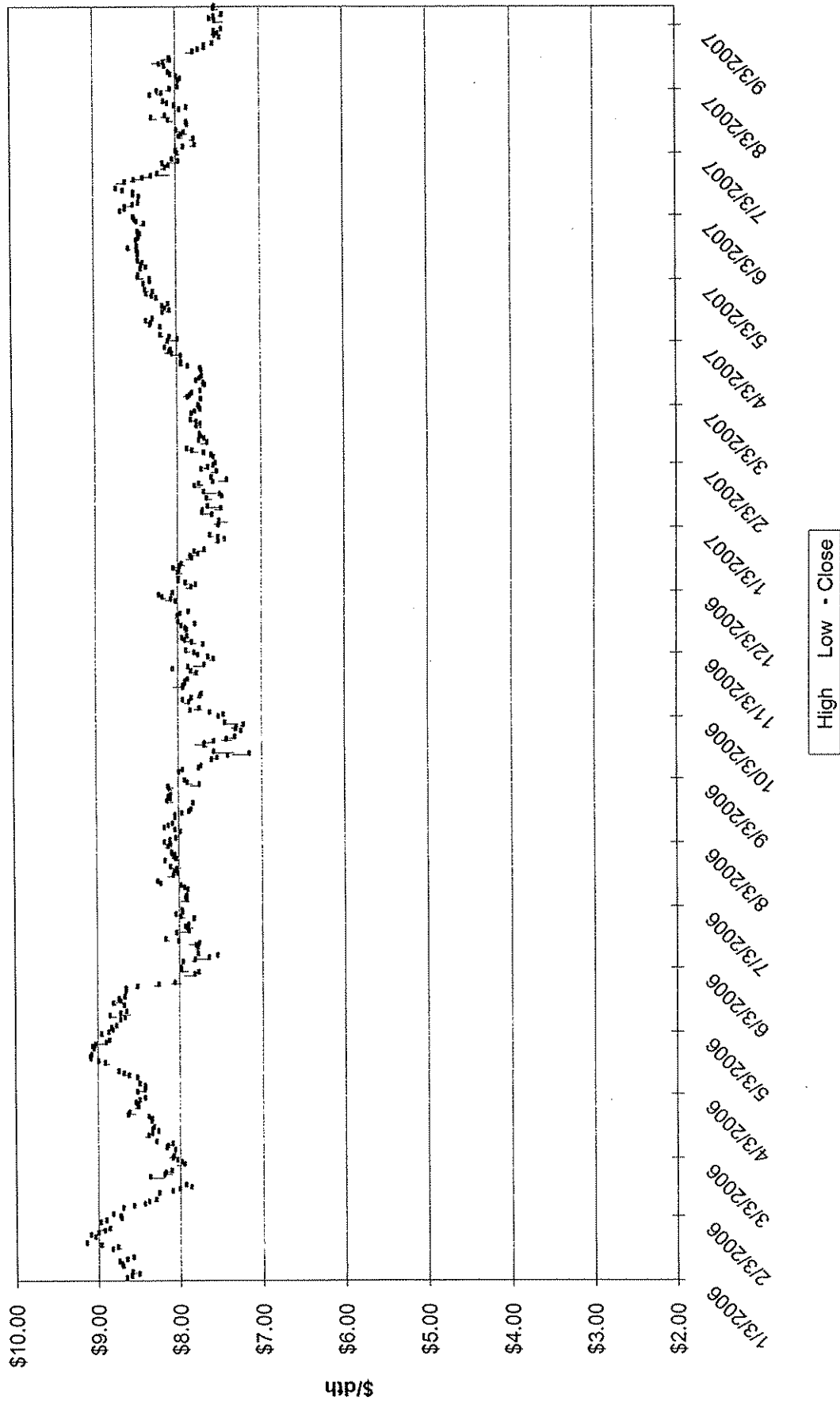
**Production.** U.S. coal production (U.S. Coal Production), which increased by 2.6 percent in 2006, is expected to fall by 2.5 percent in 2007 and fall again by 0.6 percent in 2008. Western coal production, which represents just over half of total domestic coal production, is expected to decline by 2.3 percent in 2007 and remain relatively flat in 2008.

**Inventories.** Total coal stocks held by the consuming sectors are expected to fall by 4.7 percent in 2007 to 142 million short tons and remain relatively flat in 2008.

### Winter Strip Nov07 - Mar08



### Summer Strip 2008



Washington, D.C. (9/13)-Crude surged this morning, posting a fresh record high of \$79.20 after EIA inventory data showed a larger than anticipated draw of 7.0 million barrels on the week. Product futures were lower as gasoline inventories fell by 666,000 barrels in line with estimates while distillate stocks built by a greater-than-anticipated 1.8 million barrels for the weeklong period to September 7.

The plunge in crude inventories brings the year-on-year deficit to 5.1 million barrels spurring on gains after OPEC's decision Tuesday to hike output by just 500,000 barrels, an amount thought by many to be too little and with the supply not expected to be available to the market until January...too late.

Crude shot to its all-time record high of \$79.20 before falling back but holding significant ground last eyed up 54 cents at \$78.77.

The data also showed refining runs down sharply on the week, dropping 1.56 percent, now 2.51 percent below last year at just 90.5 percent of capacity. Typically refiners ramp production of heating fuels during this time of year ahead of the peak winter heating demand season. The decline in refining operations supported some worry of distillate stocks improvement ahead of the increasing demand. According to the data, distillate production was lower by 187,000 barrels on the week while demand dropped 148,000 barrels.

Imports were lower across the board. Crude imports were lower by 674,000 barrels adding to the overall sharp drop in inventories. In products, imports of gasoline were lower by 298,000 barrels while data showed distillate imports down 37,000 barrels.

Along with a decline in demand for distillates on the week, demand side data showed demand for gasoline lower by 184,000 barrels.

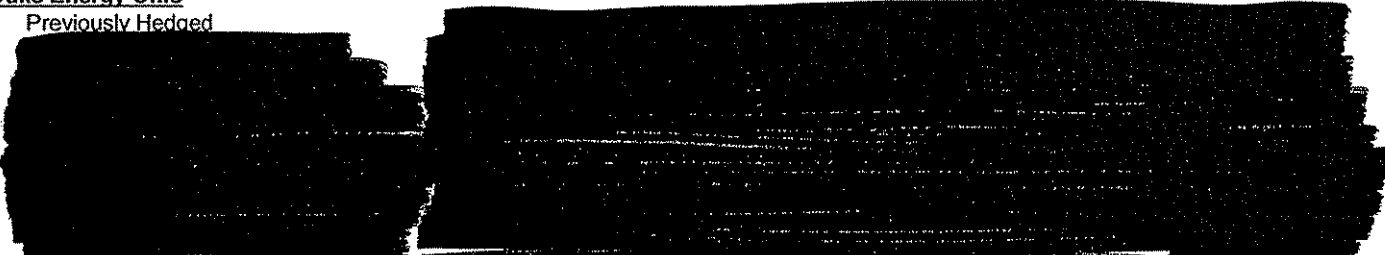

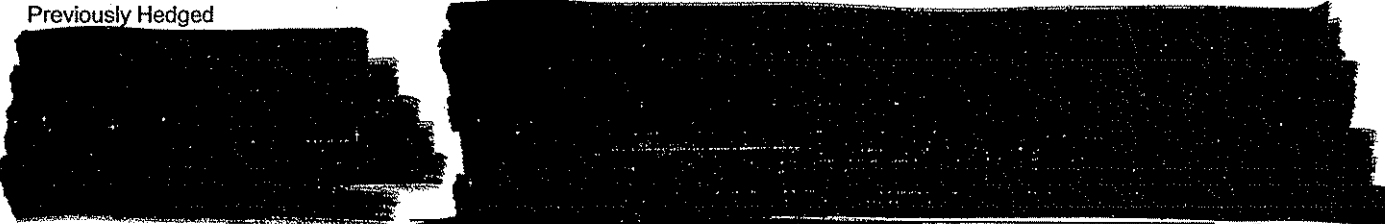

Crude futures were well supported with the inventory data and OPEC's decision Tuesday. Meanwhile, the International Energy Agency today revised only slightly lower world oil demand forecasts even amid the recent economic uncertainties.

Jodi Shafto, [Jshafto@emimail.org](mailto:Jshafto@emimail.org), [www.energyinstitution.org](http://www.energyinstitution.org)

For more extensive coverage of the broader petroleum complex, including a detailed look at inventories data as well as in-depth market analysis and trading strategies, request a free trial of the Daily Hedger by contacting the Energy Management Institute at 888-871-1207 or <http://www.energyinstitution.org/Dailyhedger%20free%20request.htm>

[Related Stories]

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u>							
Previously Hedged							
Total							
<u>Duke Energy Kentucky</u>							
Previously Hedged							
Total							



**Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 September 26, 2007**

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Dec-Feb.
Mid Term Weather (30-60 days)	↓	Long	Warm October and "marginally below normal" November.
6-10 day forecast	↔	Short	Above Normal, but not hot enough for a lot of electric generation.
Tropical Storm Activity	↔	Short	Tropical Storm Karen in Atlantic but should not impact production
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending September 14 were 63 BCF. Storage levels are 1% lower than last year at 3.1 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$6.872	↓	Long	"Gas prices at Henry Hub are expected to average \$5.58 per MMBtu in October."
Paribas	↕	Short	"As far as Oct. is concerned, it remains very unpredictable and the flow on the floor did not help any."
Gas Daily	↕	Long	Sept 18th: 4th quarter 2007 estimate revised from \$6.50 to \$7.50/Mcf. In addition, analyst slashes '08 gas price forecast by 30% from \$10/Mcf to \$7/Mcf
Conoco Morning Briefing	↓	Short	Momentum continues to the downside and, save a profit-taking rally late in the day, we'll continue lower.
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$7.72 Summer 2008: \$7.06	↑	Long	"Spot prices at the Henry Hub are projected to begin rising to a winter peak of \$9.01 per mcf in January 2008."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↕	Long	EIA: "For 2008, the assumption of near-term weather will temper consumption in sectors leading to an increase in total natural gas consumption of only 0.3% in 2008."
Supply	↓	Long	Gas Daily 9/14 "Unconventional resources such as shale gas and coalbed methane have boosted the amount of natural gas recoverable in the US by 16.6% in the last two years to a total of 1,525 Tcf."
Oil Market	↓	Long	"We expect the price decline to continue through today with the inventory reports likely becoming the main driver for the rest of the week."

**Meeting Minutes: 10th Floor North Conference Room - 10:00 am**  
 Attendees: [REDACTED]

Duke Energy Kentucky  
 Hedging Program  
 Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					

Duke Energy Kentucky  
Hedging Program - Current Position  
November 2007 - October 2008  
As of 09/25/07

Nov-07    Dec-07    Jan-08    Feb-08    Mar-08    Apr-08    May-08    Jun-08    Jul-08    Aug-08    Sep-08    Oct-08

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price (

Fixed Price (

Fixed Price (

Cost Averaging

Fixed Price (

Fixed Price (

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price (

Fixed Price (

Fixed Price (

Fixed Price (

Cost Averaging

Fixed Price (

Fixed Price (

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

Duke Energy Kentucky  
Hedging Program - Current Position  
November 2008 - October 2009  
As of 09/25/07

Nov-08   Dec-08   Jan-09   Feb-09   Mar-09   Apr-09   May-09   Jun-09   Jul-09   Aug-09   Sep-09   Oct-09

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

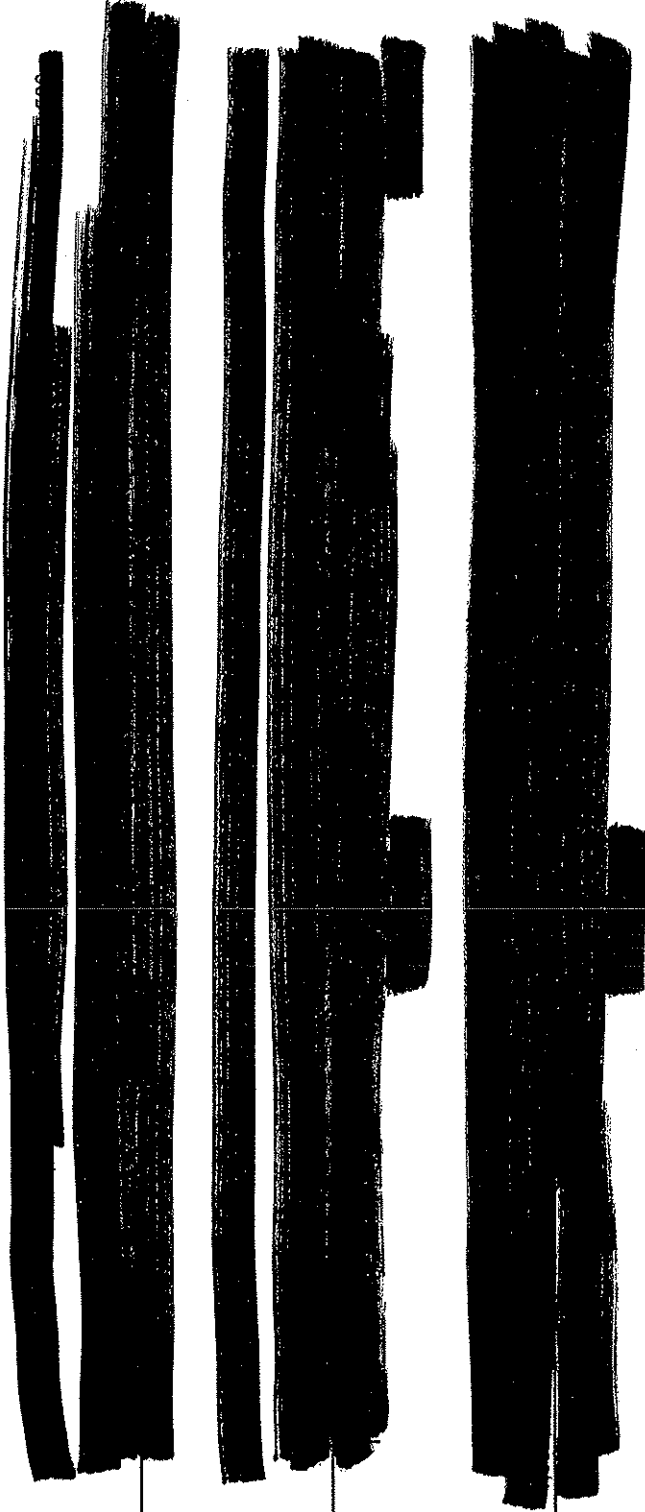
Storage Withdrawal

Market

Total (Incl. Injections)

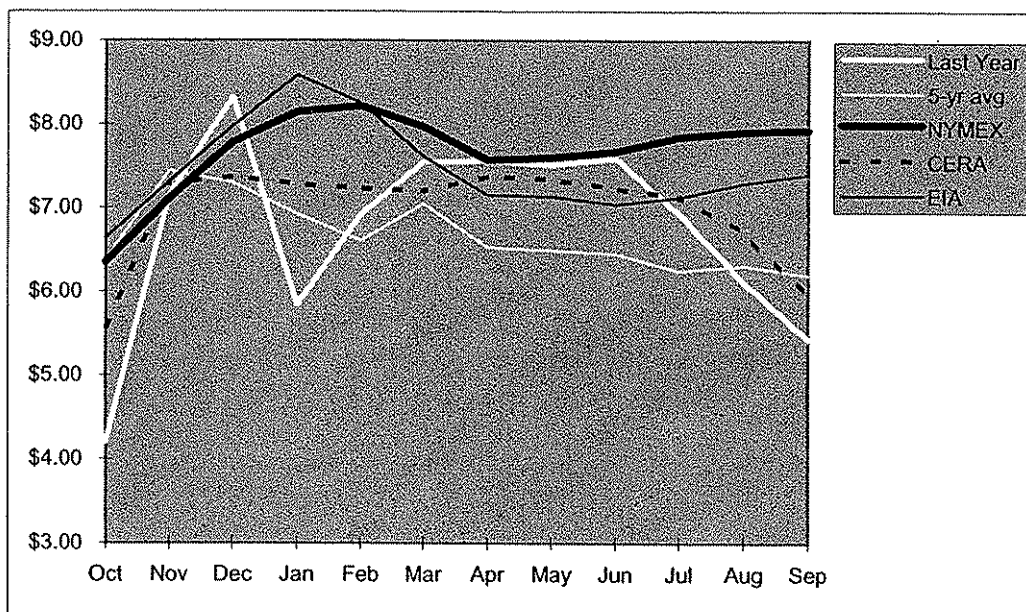
% Hedged & Storage

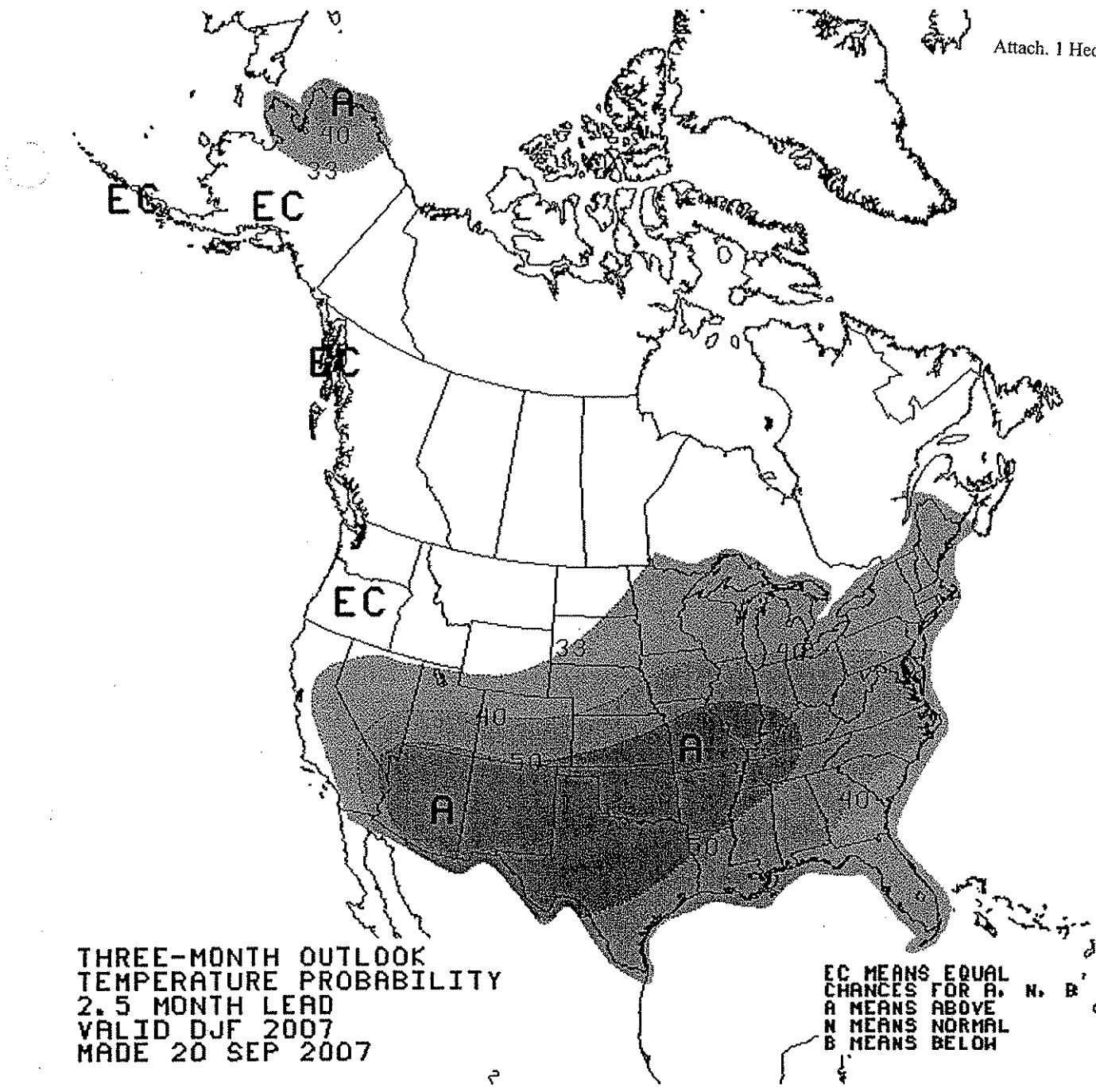
Seasonal %



## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Sep-07	EIA 11-Sep-07	NYMEX 25-Sep-07
Oct	\$6.39	\$4.20		\$5.580	\$6.636	\$6.350
Nov	\$7.44	\$7.15		\$7.280	\$7.311	\$7.105
Dec	\$7.29	\$8.32		\$7.370	\$7.975	\$7.780
Jan	\$6.92	\$5.84		\$7.280	\$8.587	\$8.145
Feb	\$6.61	\$6.92		\$7.230	\$8.251	\$8.215
Mar	\$7.05	\$7.55		\$7.200	\$7.614	\$7.970
Apr	\$6.53	\$7.56		\$7.370	\$7.150	\$7.570
May	\$6.49	\$7.51		\$7.340	\$7.132	\$7.600
Jun	\$6.45	\$7.59		\$7.230	\$7.041	\$7.670
Jul	\$6.24	\$6.93		\$7.130	\$7.124	\$7.845
Aug	\$6.31	\$6.11		\$6.710	\$7.291	\$7.907
Sep	\$6.19	\$5.43		\$5.950	\$7.398	\$7.927
12 Month Avg	<b>\$6.66</b>	<b>\$6.76</b>		<b>\$6.973</b>	<b>\$7.459</b>	<b>\$7.674</b>
Summer Average				\$6.759	\$7.110	\$7.553
Winter Average				\$7.272	\$7.947	\$7.843





THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
2.5 MONTH LEAD  
VALID DJF 2007  
MADE 20 SEP 2007

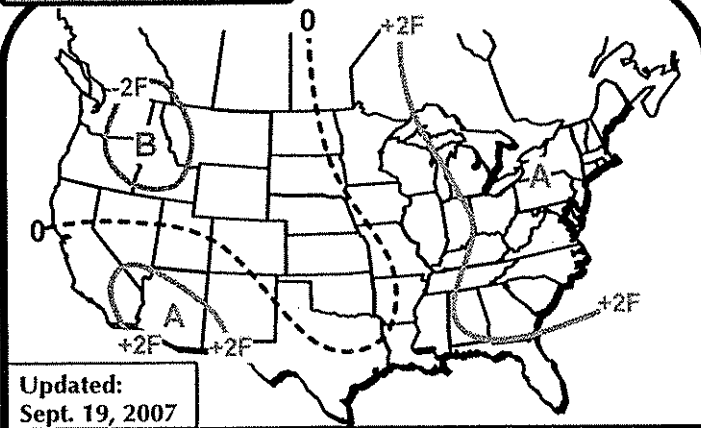
EC MEANS EQUAL  
CHANCES FOR A, N, B  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW



# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

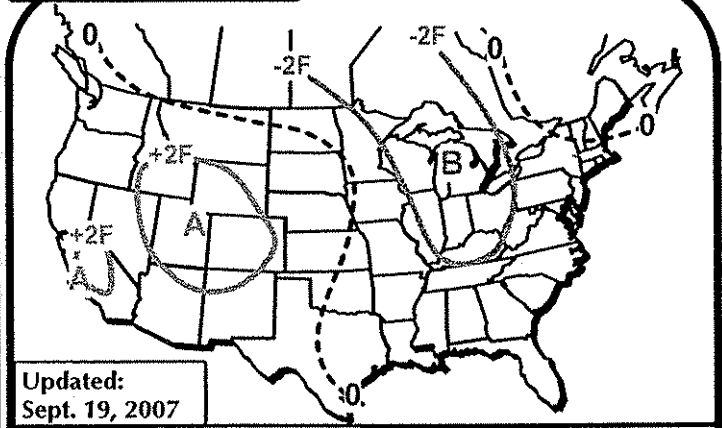
Wednesday **DAY** 9/19/07 **DATE** 9:55 AM EDT **TIME** MR **FORECASTER**

## OCTOBER 2007

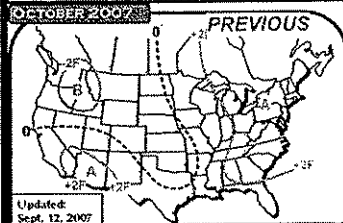


Updated:  
 Sept. 19, 2007

## NOVEMBER 2007



Updated:  
 Sept. 19, 2007



No Changes  
 to October

Updated:  
 Sept. 12, 2007



A Bit  
 Cooler in  
 Midwest

Updated:  
 Sept. 12, 2007

The October outlook is being held constant with today's update. The current thinking is that warmer ridging will continue to mainly dominate the eastern Midwest, much of the South, and the East Coast in a situation that is very different from last year. The top analog (1995) is performing well in both the Tropical Pacific and with real weather over the past month. That year did offer some stronger cooling in the mid-continent by especially late month, so that situation will need to be monitored. Otherwise, the East stays warm it seems.

The latest thinking for November is just a touch cooler/colder than last week. This outlook is not as cold as the top analog, 1995, but it is a bit colder than the MDA EarthSat internal consensus forecast. The main difference is in the Midwest, where the consensus is closer to the -1F range. Either way (consensus or 1995) offers the coldest November in the East since 2002. This development will need to be watched very closely. In 1995, the cold pattern began to develop in the final days of October.

### October GWHDD\* Forecasts

Oct 2007 Fcst: **260.0** 10Y Normal: 281.6  
 30Y Normal: 304.5  
 Oct 2006: 326.0  
 Change: 0

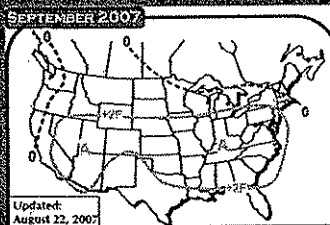
\*National Natural Gas-Weighted HDDs

### November GWHDD\* Forecasts

Nov 2007 Fcst: **610.0** 10Y Normal: 528.1  
 30Y Normal: 578.1  
 Nov 2006: 496.1  
 Change: +10

\*National Natural Gas-Weighted HDDs

## September 2007 Comparison



Updated:  
 August 22, 2007



So far, September is looking like a close match to the overall summer (JJA) verification with two primary hot spots in the interior West and in the eastern Midwest/Tenn. Valley areas. The large above normal coverage seems to have been correctly identified on the month-ahead outlook. Current forecasts suggests that those mid-continent cool spots should fill in.

## SEPTEMBER 2006



MDA  
 EarthSat DynaCAST  
 Mean Temperature Departure from Normal

Sept. 01 through Sept. 30

Maps above depict deviations of average temperatures from normal in Fahrenheit.



# MDA EarthSat's Energy Weather

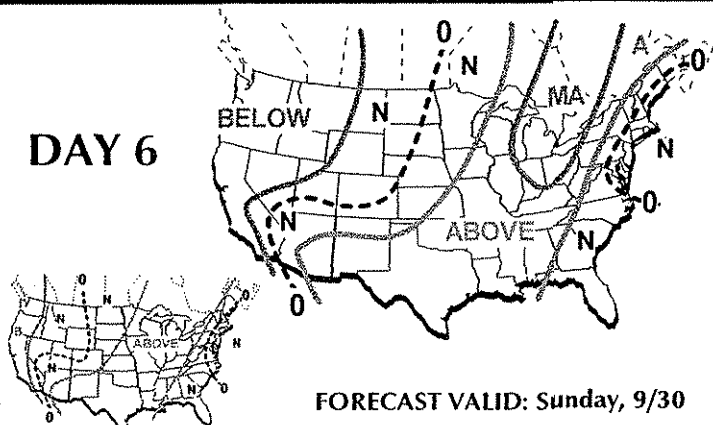
## The 6 to 10 Day Forecast - Detailed Version

Tuesday **DAY** 9/25/2007 **DATE** 6:30 A.M. **TIME** JS/AC **FORECASTER**

### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION

**DAY 6**



FORECAST VALID: Sunday, 9/30

PREVIOUS

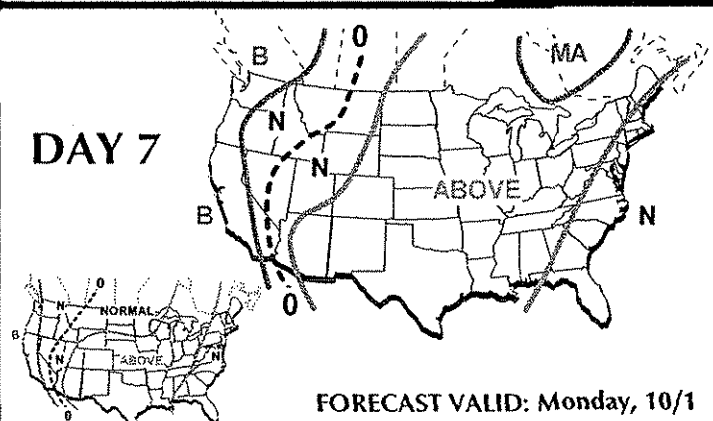
CONFIDENCE: 9

### Today's Forecast

#### Considerably Warm MW, East Persists

The forecast across much of the nation is fairly consistent. Temperatures are projected to be warmer in the Hudson Bay region for the early part of the period with the rest of the forecast taking on a similar look to yesterday. There is some risk for the Ohio Valley to be warmer than forecast as dry conditions under a strong ridge could permit this occurrence. Another potential area where temperatures may be warmer is parts of the Tennessee Valley and Southeast. The timing of aboves into the East Coast early in the period is a concern as well.

**DAY 7**

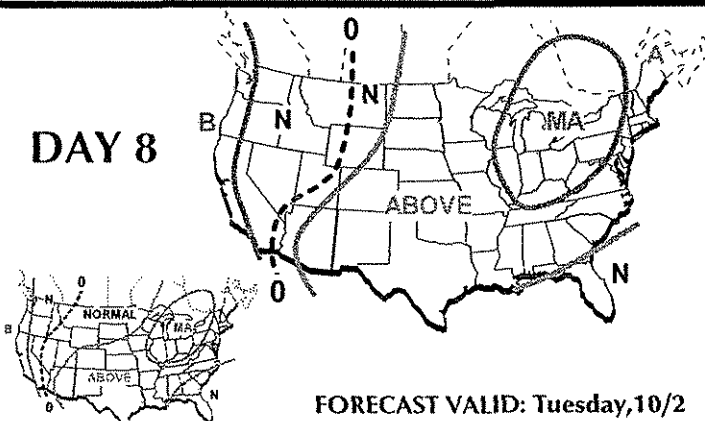


FORECAST VALID: Monday, 10/1

PREVIOUS

CONFIDENCE: 9

**DAY 8**

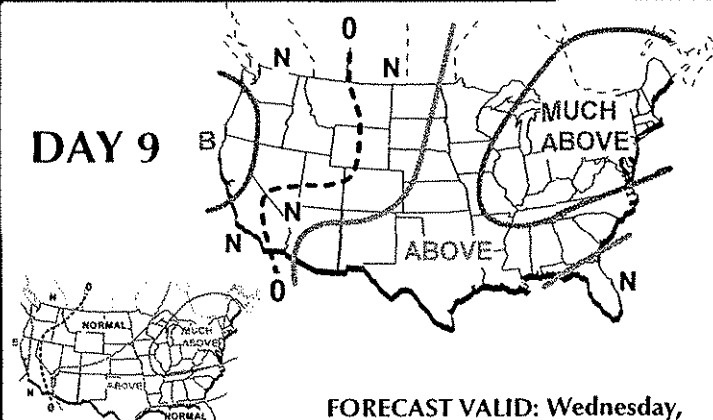


FORECAST VALID: Tuesday, 10/2

PREVIOUS

CONFIDENCE: 9

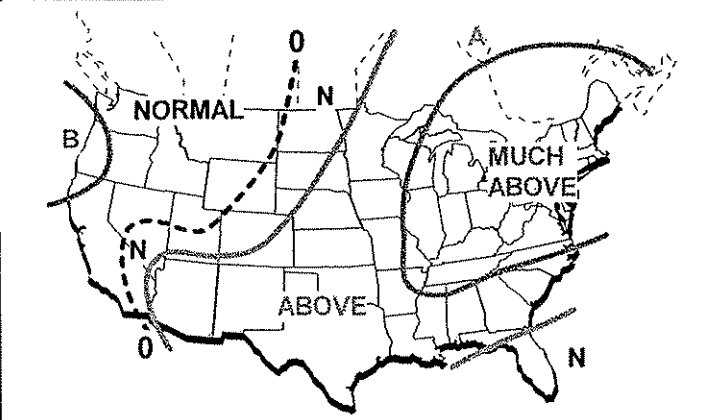
**DAY 9**



FORECAST VALID: Wednesday, 10/3

PREVIOUS

CONFIDENCE: 8



FORECAST VALID: Thursday, 10/4

CONFIDENCE: 7

### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

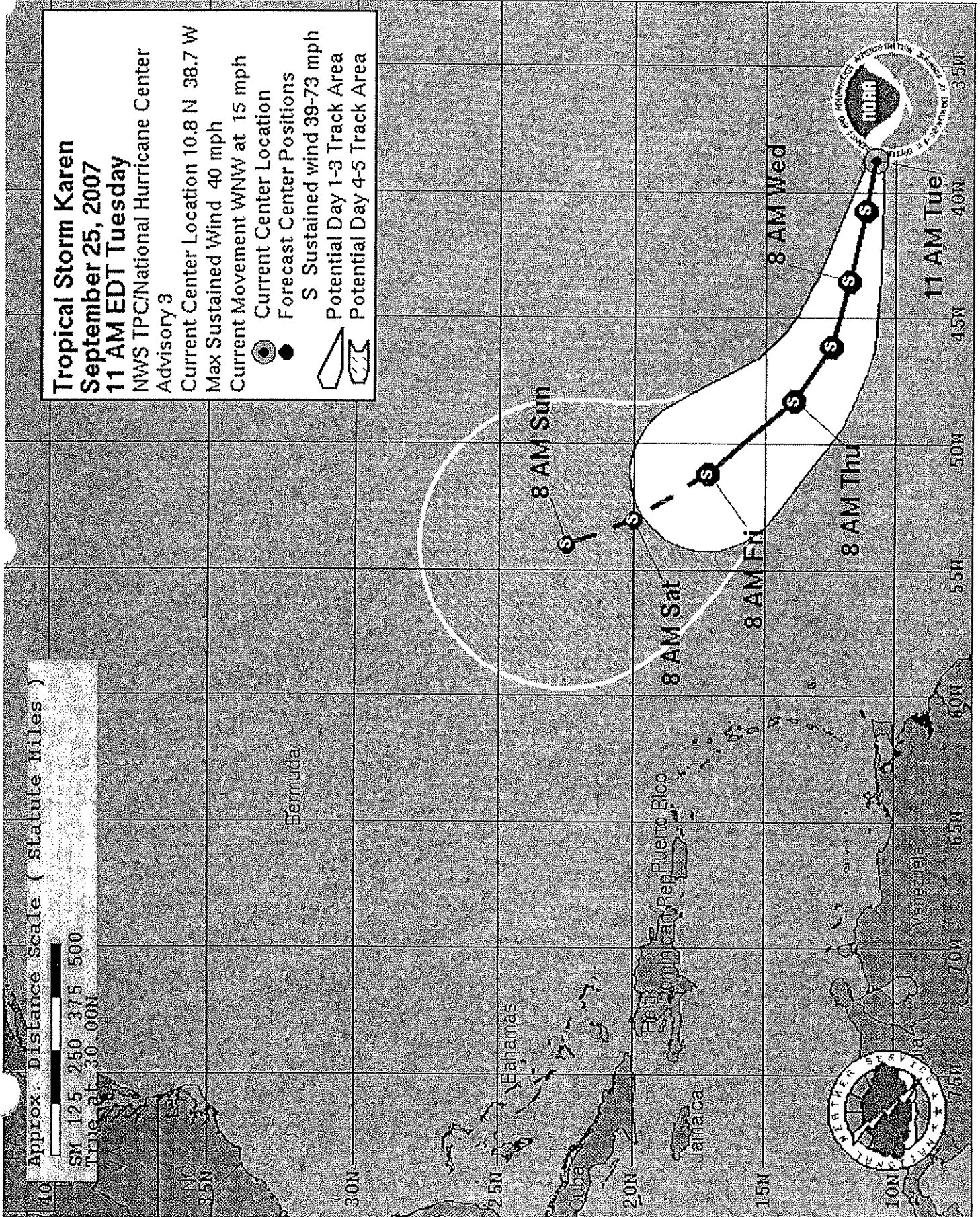
NORMAL  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

### DAY 10





CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## SUMMER ROLLER COASTER RIDE FOR PRICES

### KEY IMPLICATIONS

Through August and into September the North American gas market has seen volatile gas prices, with the price at Henry Hub at one point falling by nearly \$2 per million British thermal units (MMBtu) in just 12 days. CERA attributes this roller coaster ride to the dual demands of gas for power generation and the need to refill storage inventories, set against the backdrop of a hurricane season characterized by rapidly strengthening storms. Owing to strong cooling loads, August storage injections, at 5.6 billion cubic feet (Bcf) per day, averaged 4.4 Bcf per day below the 2002–06 five-year average.

- CERA expects North American gas storage inventories at the end of September and October to increase to 3,895 Bcf and 4,162 Bcf, respectively, based on the assumption of normal weather. The expected October storage inventory level of 4,162 Bcf would be 159 Bcf above last year's record level—just over 1 Bcf per day more incremental supply for the winter period.
- August saw strong growth in gas-related drilling activity, which reached a new record of 1,523 total rigs. In the Rockies prices continue to plunge to new lows as oversupply conditions have become acute in the region and gas at Opal has been selling for pennies. Rockies prices should begin to improve with the onset of heating season. CERA is calling for basis to climb to \$2.54 per MMBtu under Henry Hub in October on flat production at current levels.
- Gas prices at Henry Hub are expected to average \$5.58 per MMBtu in October and then climb to \$7.28 per MMBtu in November as the winter heating season begins in earnest. For AECO prices CERA expects October and November to average C\$4.20 and C\$6.03 per gigajoule (\$4.34 and \$6.23 per MMBtu), respectively.

### NORTH AMERICAN GAS MARKET

North American gas prices have been on a roller coaster ride since midsummer: Henry Hub traded at \$5.56 per million British thermal units (MMBtu) on July 26 before ascending to \$7.30 per MMBtu on August 16 and then dropping to \$5.30 per MMBtu on September 5. CERA attributes the August run-up in prices to a combination of hot weather and hurricane fears.

Note: All prices are in US dollars unless otherwise indicated.

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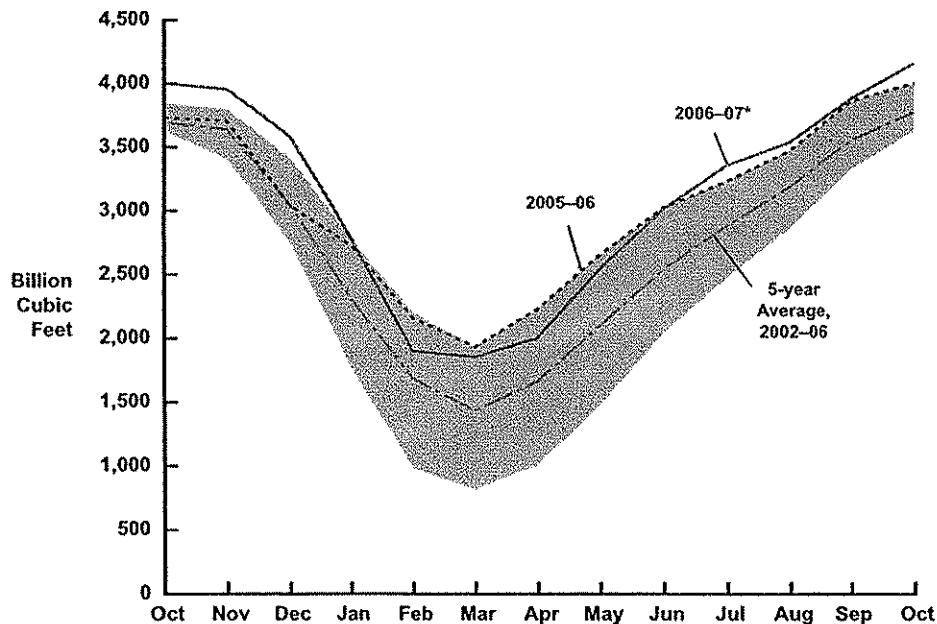


Hurricane fears played a significant role in these price movements, with the mid-August price surge coinciding with category 5 Hurricane Dean's rampage across the Caribbean to Mexico's Yucatan Peninsula. A second category 5 storm, Hurricane Felix, followed a path similar to Dean's several days later, evoking memories of the highly destructive 2005 hurricane season. Adding to the anxiety, both storms, but particularly Felix, strengthened rapidly after entering the Caribbean. Moreover, in September, Hurricane Humberto formed off the Galveston coast in the blink of an eye, escalating from tropical disturbance to hurricane in just 14 hours.

August storage injections of 5.6 billion cubic feet (Bcf) per day averaged 2.7 Bcf per day less than CERA's expectation, resulting in storage inventories 84 Bcf below our August *Monthly Briefing* estimate. The reduction in storage injections was primarily a function of higher power generation gas demand caused by 21 percent more cooling degree-days (CDDs) than normal in the US Lower 48. North American gas storage inventories ended August 2007 at 3,536 Bcf, 69 Bcf above last August's record and 344 Bcf above the 2002-06 five-year average (see Figure 1).

Prices at Henry Hub have increased again, reaching \$6.24 per MMBtu on September 14. Weather through the first half of September in many regions of North American was warmer than normal. CERA estimates that prices at Henry Hub will average \$5.50 per MMBtu for September and \$5.58 per MMBtu for October, assuming a return to normal weather (see Table 1).\*

**Figure 1**  
**North America Monthly Gas Storage Inventory**



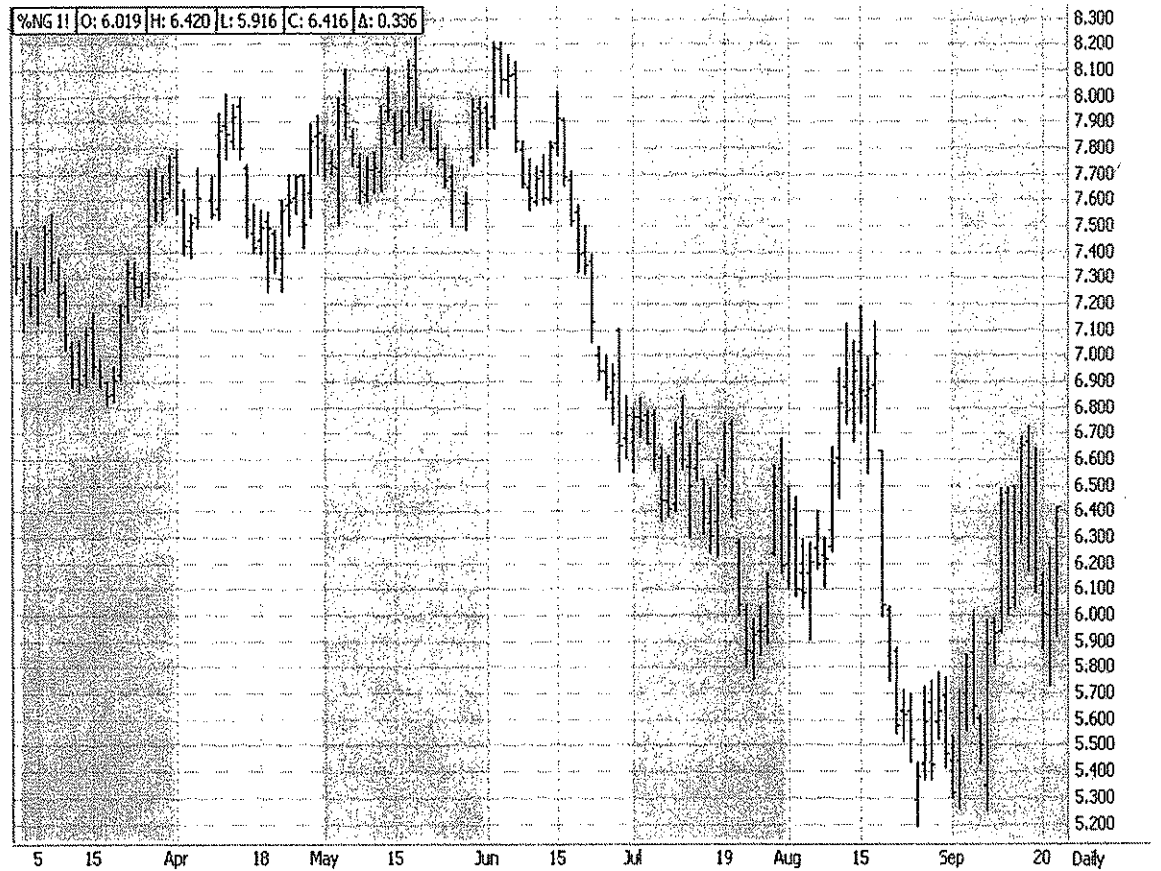
Source: Cambridge Energy Research Associates.  
 \*Data after August 2007 are CERA forecast.  
 70202-1\_1709

\*Unless otherwise indicated, all CERA price and basis outlooks predict the average daily spot.



### Commentary

Since the open interest in Oct. has dropped 18,000 lots in the last 2 sessions and it is clearly detached from the rest of the market, it seems as though any technical analysis should be viewed from Nov. on out for the next 2 days. With this in mind, the uptrend in Nov. should continue toward a high of 7.85 before we see a pull back. As far as Oct. is concerned, it remains very unpredictable and the flow on the floor did not help any. The highest open interest in the options is at the 6 dollar strike with 4000 calls and 9000 puts but that may not matter if the market sees an opportunity to empty someone's pockets or even the remote threat of a storm appears in the gulf. We will see what tomorrow holds.



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## NYMEX rallies; Rockies gas goes for a penny

**THE MARKET**

The October NYMEX gas futures contract shot up 37.4 cents, or 6%, to settle Monday at \$6.653/MMBtu in what traders and analysts deemed a technical shortcovering rally.

But an outage on Cheyenne Plains Gas Pipeline caused cash prices to plummet once again in the Rocky Mountains, with some points trading as low as a penny.

The October contract started the day at \$6.395 and slid to \$6.36 before breaching key resistance at \$6.50 and steadily climbing to a peak  
*(continued on page 2)*

## Analyst slashes '08 gas price forecast by 30%

Analyst Marshall Adkins on Monday raised his fourth-quarter gas price forecast by \$1/Mcf but sliced a full \$3/Mcf off his 2008 forecast, saying tight supplies this winter will give way to a gas glut next spring and summer.

The normally bullish Raymond James and Associates analyst adjusted his fourth-quarter price estimate from \$6.50/Mcf to \$7.50/Mcf while slashing his 2008 forecast from \$10/Mcf to \$7/Mcf.

"We expect prices to bottom in September/October as the market prices in full storage," Adkins said, adding that inventories are on track  
*(continued on page 6)*

## Analyst slashes price forecast by 30% ... from page 1

to reach a record 3.5 Tcf by October 31. But "normal winter weather should lead to the withdrawal of nearly 30% (or about 200 Bcf) more gas than last year through the first 82 days of winter," he said.

That rapid storage inventory decline will cause gas prices to spike, "perhaps more sharply than in 2006 when they reached \$9/Mcf."

But the second half of the winter looks considerably more bearish, Adkins said. "Coupled with increased domestic supply, we expect a withdrawal of up to 30% (or over 300 Bcf) less gas than last year over the final 10 weeks of winter. If our projections are correct, total gas withdrawals will be about 7% less than last winter, and the market will be left with a bloated average of 1.7 Tcf of winter-ending storage."

The resulting oversupply will send prices spiraling downward through next spring, Adkins predicted. "Compounding the problem, increased summer 2008 US domestic supply and a hefty increase in liquefied natural gas imports should further saturate the market through the summer," he said.

The analyst noted that US LNG regasification capacity should nearly double by early summer, with year-over-year imports growing by about 2 Bcf/d. Increased gas storage capacity should combine with more North Sea gas flowing into European markets to drive at least half of the new global liquefaction capacity to North America next summer, he explained.

In addition, Adkins predicts that core domestic gas supplies will increase about 1.5 Bcf/d over the winter, due largely to prolific onshore plays such as the Barnett Shale of North Texas. Meanwhile, production from the Independence Hub will add another 1 Bcf/d or so from the deepwater Gulf of Mexico beginning in January.

"As if beginning the summer with a record storage level was not enough, plentiful supplies will likely force much higher-than-normal gas inventory builds through the summer of 2008," Adkins said, predicting that storage injections will run about 2 Bcf/d higher than last summer.

"We expect to see an early-winter natural gas rally supported by easy year-over-year weather comparisons," Adkins concluded. But the second half of the winter and the rest of 2008 "look much uglier as increasing US gas supplies coupled with a surge in LNG imports should drive US gas prices lower through the summer." SGS

## Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 5.850

Trans. date: 9/17  
Flow date(s): 9/18

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	5.775	5.65-5.82	5.73-5.82	1122	170
Waha	5.770	5.73-5.80	5.75-5.79	600	85
Transwestern, Permian Basin	5.700	5.63-5.76	5.67-5.73	28	5
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	6.015	5.95-6.07	5.99-6.05	279	44
NGPL, Texok zone	6.005	5.72-6.09	5.91-6.09	838	129
Texas Eastern, ETX	5.935	5.85-5.96	5.91-5.96	44	10
Texas Gas, zone 1	6.170	6.14-6.22	6.15-6.19	116	21
<b>East Houston-Katy</b>					
Houston Ship Channel	6.390	6.31-6.48	6.35-6.43	794	89
Katy	6.350	6.29-6.40	6.32-6.38	849	119
<b>South-Corpus Christi</b>					
Agua Dulce Hub	6.335	6.23-6.39	6.30-6.38	203	15
NGPL, STX	6.225	6.21-6.28	6.21-6.24	181	36
Tennessee, zone 0	6.140	6.10-6.22	6.11-6.17	56	18
Texas Eastern, STX	6.095	6.08-6.20	6.08-6.13	174	33
Transco, zone 1	6.315	6.30-6.32	6.31-6.32	15	6

## Louisiana Onshore, South

	7.642	7.642	7.642	+4.0	0
Apr 2010	7.642	7.642	7.642	+4.0	0
May 2010	7.552	7.552	7.552	+4.0	0
Jun 2010	7.612	7.612	7.612	+4.0	0
Jul 2010	7.672	7.672	7.672	+4.0	0
Aug 2010	7.702	8.692	8.692	+4.0	0
Sep 2010	7.727	7.727	7.727	+4.0	0

## Contract data for Friday

Volume of contracts traded: 154,607

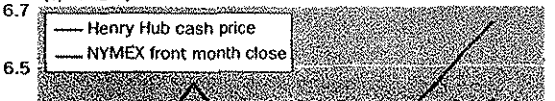
Front-months open interest:

OCT: 78,902 ; NOV: 122,110; DEC: 53,455

Total open interest: 801,847

## Henry Hub/NYMEX spread

(\$/MMBtu)



## Venture launches open season for Appalachian storage capacity

Chestnut Ridge Storage, a joint venture of Tenaska Power Fund and eCorp, on Monday launched a non-binding open season for up to 25 Bcf of new gas storage capacity at the proposed Junction Natural Gas Storage Facility being developed in southwestern Pennsylvania and northern West Virginia.

The Junction facility is being converted from a depleted natural gas reservoir into a multi-cycle, high-deliverability storage system with 500,000 Dt/d of injection and withdrawal capability. The company said it expects to bring the facility into service in the first quarter of 2009.

Chestnut Ridge said the project will provide service to the Northeast, Mid-Atlantic and upper Midwest market areas and has the potential to be interconnect with Columbia Gas Transmission, Dominion Transmission and Texas Eastern Transmission.

The open season will close at 5 pm CDT on October 10. Interested parties should contact Mark Stauss at 713-520-0993 or mstauss@ecorpusa.com. JB

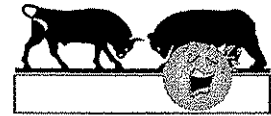


# Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com



(1-Day Indicator)

Friday, September 21, 2007

### Storm Forces Shut-Ins, But October Loses 17.2¢

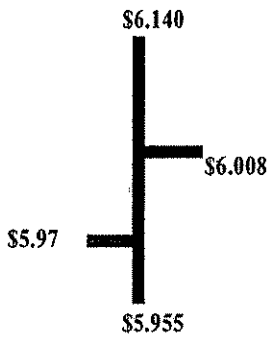
**Today: Bearish**      **October Natural Gas Closed**      **Down 0.172¢**      **30-Day: Bearish**  
 Bottom Line – What is being referred to as 93-L in the eastern Gulf of Mexico has changed little the past two days. That pattern will continue. In other words, this system is sub-tropical and will result in a lot of rain for the New Orleans area. Momentum continues to the downside and, save a profit-taking rally late in the day, we'll continue lower.

**Yesterday's Market**

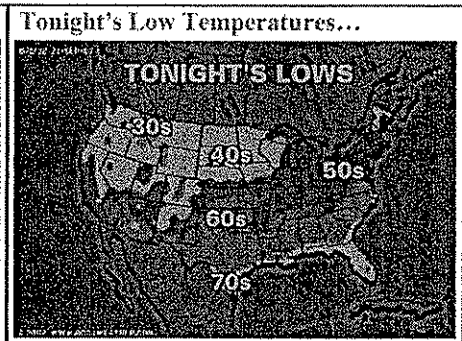
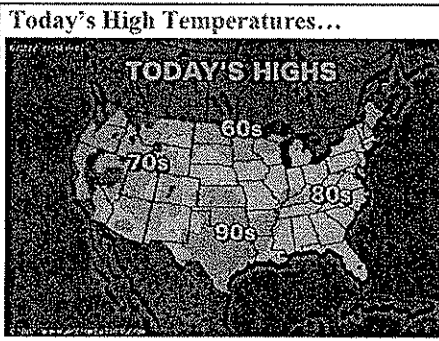
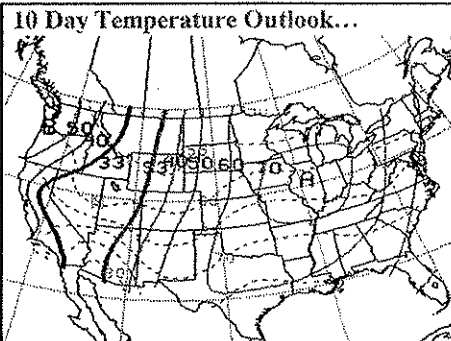
- Crude oil set yet another record high yesterday as trading optimism continued in that market. October natural gas, however, ignored that trend and sank even lower testing key support and seemingly discounting not only a potential tropical threat in the Gulf of Mexico, but shut-ins of 16.7% of Gulf of Mexico production. The front-month contract lost 17.2¢ on the day, trading between \$5.955 and \$6.14 before finding support and closing at \$6.008. Meanwhile, October crude expired at \$83.32, up \$1.39, supported by a storage deficit expected to increase with the announcements of shut-ins totaling 27.7% of Gulf of Mexico crude production. The contract, upon which many traders were squaring books as expiration approached, peaked late at \$84.10.

**Today's Market**

- The Minerals Management Services reported yesterday that 1.89 Bcf of natural gas and over 360,000 bpd of crude oil were shut-in as a precaution just in case 93-L gains strength in the eastern Gulf and turns into a subtropical or tropical storm...endangering the lives of offshore workers. The owner/operators of GOM offshore production rigs, of which we are one, leaned, as always, toward safety and evacuated those personnel. Without the people there, production necessarily slows. The National Hurricane Center is also siding with safety and continues to say that this system has the potential to acquire subtropical characteristics today as it moves west-northwestward over the warm waters of the Gulf of Mexico. This is a textbook case of a baroclinic system...as opposed to a barotropic system or quasi-barotropic. A baroclinic system, in case you're wondering, is defined as a state for which the isopycnal surfaces are inclined with respect to the isobaric surfaces, which implies that it is not a function of the pressure alone. In general, the density of a fluid mixture is a function of temperature and concentration of solute as well as pressure. In the ocean the isothermal surfaces and surfaces of constant salinity (isohaline surfaces) are inclined with respect to the level surfaces, and isobaric surfaces. This implies that the isopycnal surfaces are also inclined with respect to the isobaric surfaces. So, it's just going to rain...



Access Trading	9/21/2007	7:44 AM	Natural Gas	\$5.820	(18.8¢)
WTI Crude	\$81.500	(\$0.29)	IPE Brent	---	---



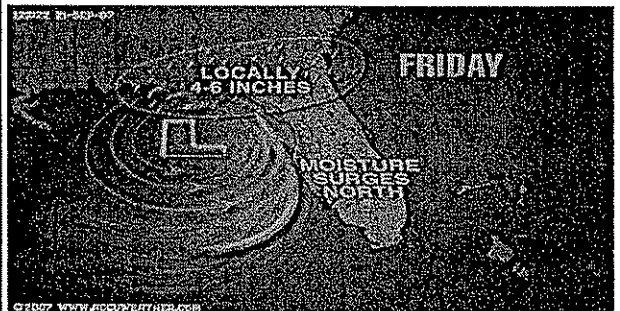
**Weather Briefs** – Temperatures through the middle of next week are expected to average 3°-10°F above normal for most of the eastern U.S. and 3°-5° below normal for the west.

**Storage...**

We expect to see 70 Bcf build from storage this week.

The EIA reported a 63 Bcf storage build last week, increasing the nationwide stocks to 3.132 Tcf. The build was within the industry's expectation of 60 to 75 Bcf injection. In the same week last year the stock level was 3.177 Tcf, which sends the year on year deficit to 45 Bcf. Indication for this week is a 70 Bcf build compared to a 77 Bcf build last year and a 70 Bcf build for the 5yr. Average.

**Sigmets: Time Is Ticking Away For This Storm**



The low pressure area over the northeastern Gulf of Mexico has been moving northwestward during the night and is now centered about 100 miles south of Apalachicola, Florida. Satellite imagery, radar data, and surface observations indicate that system is gradually becoming better organized, but does not yet have the characteristics of a subtropical or tropical cyclone. It's running out of time to develop into a significant threat.

end of this year, with a projected average price of about \$2.63 per gallon in December 2007.

Retail heating oil prices are projected to average \$2.78 per gallon from October 2007 through March 2008, compared to \$2.48 last heating season. Higher crude oil prices and projections of lower distillate inventories than last year going into the heating season, contribute to the projected increase.

### *Natural Gas Markets*

**Consumption.** Driven by increases in the residential, commercial, and electric power sectors, total natural gas consumption is expected to rise by 4.5 percent in 2007 (U.S. Total Natural Gas Consumption). For 2008, the assumption of near-normal weather will temper consumption in the residential, commercial, and electric power sectors considerably, leading to an increase in total natural gas consumption of only 0.3 percent in 2008.

**Production and Imports.** Although marketed natural gas production in the Gulf of Mexico is expected to decline by 4.3 percent in 2007, production in the Lower-48 onshore region is expected to increase by 1.7 percent this year, led by strong growth in the second quarter. In 2008, the start-up of new deepwater production facilities is expected to increase marketed production in the Gulf by 7.1 percent, while marketed production in the Lower-48 onshore is projected to increase by 0.3 percent. In sum, total U.S. marketed natural gas production is expected to increase by 0.8 percent in 2007 and 1.3 percent in 2008.

Imports of liquefied natural gas (LNG) are expected to increase by 47 percent in 2007, and by 19 percent in 2008. Relatively high U.S. natural gas prices during the first half of 2007, compared to other LNG-consuming countries, were largely responsible for the recent surge in U.S. imports. As demand for LNG around the world begins to rise in the near term, shipments to the United States are projected to decline during the third and fourth quarters before increasing again at the start of 2008.

**Inventories.** On August 31, 2007, working natural gas in storage was 3,005 bcf (U.S. Working Natural Gas in Storage). Current inventories are now 284 bcf above the 5-year average (2002–2006) and 39 bcf above the level of the corresponding week last year.

**Prices.** Spot prices at the Henry Hub averaged \$6.37 per mcf in August, about the same as the monthly average spot price in July. Spot prices at the Henry Hub are projected to begin rising to a winter peak of \$9.01 per mcf in January 2008. For the

year, the Henry Hub spot price is expected to average about \$7.31 per mcf in 2007 and \$8.07 per mcf in 2008.

### *Electricity Markets*

**Consumption.** Summer temperatures have exhibited significant variability this year. Cooling degree-days in July were about 3 percent below normal and 18 percent lower than July of last year; yet, preliminary weather information for August indicates cooling degree-days were 24 percent higher than normal and warmer than temperatures last year (U.S. Summer Cooling Degree Days). This extreme August weather has been particularly severe in the Southeast and Midwest regions. Overall, electricity consumption for the third quarter is expected to average about 1.6 percent higher than the same period in 2006 and is expected to grow by 2.5 percent for the entire year (U.S. Total Electricity Consumption). Growth in 2008 is expected to slow to 0.8 percent as temperatures are assumed to return to near-normal levels.

**Prices.** After the sharp increases experienced last year, U.S. residential electricity prices averaged 11.1 cents per kilowatt hour in June 2007. Residential electricity prices are expected to grow by 2.5 percent in 2007 and by 2 percent in 2008, slightly lower than the rate of inflation (U.S. Residential Electricity Prices and Consumption). Industrial electricity prices are expected to grow by 5.0 percent in 2007 and by 1.0 percent in 2008.

### *Coal Markets*

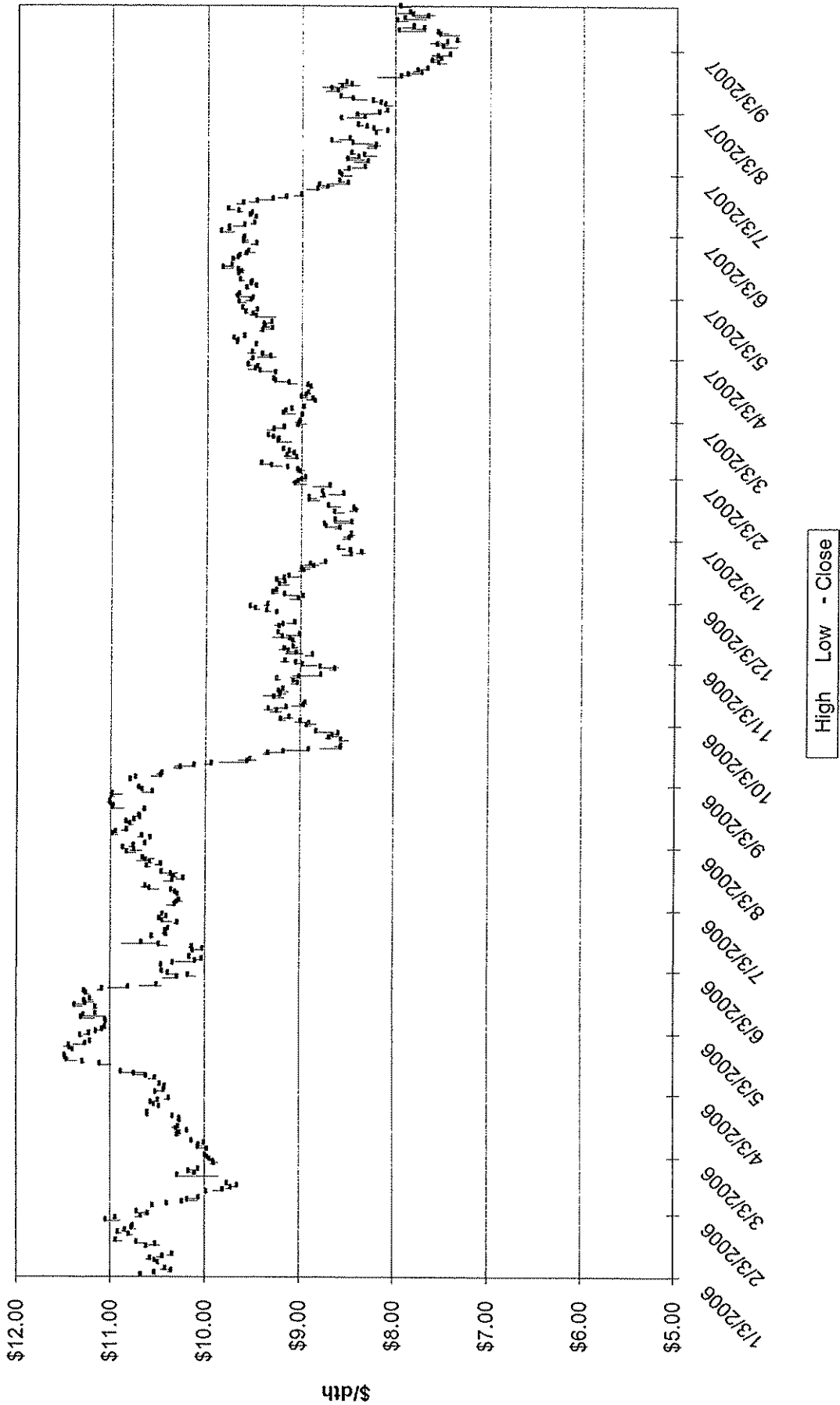
**Consumption.** Projected growth in electricity consumption will raise electric-power-sector coal consumption this year. It is expected to grow by 1.7 percent in 2007 and remain relatively flat in 2008 (U.S. Coal Consumption Growth).

**Production.** U.S. coal production (U.S. Coal Production), which increased by 2.6 percent in 2006, is expected to fall by 2.5 percent in 2007 and fall again by 0.6 percent in 2008. Western coal production, which represents just over half of total domestic coal production, is expected to decline by 2.3 percent in 2007 and remain relatively flat in 2008.

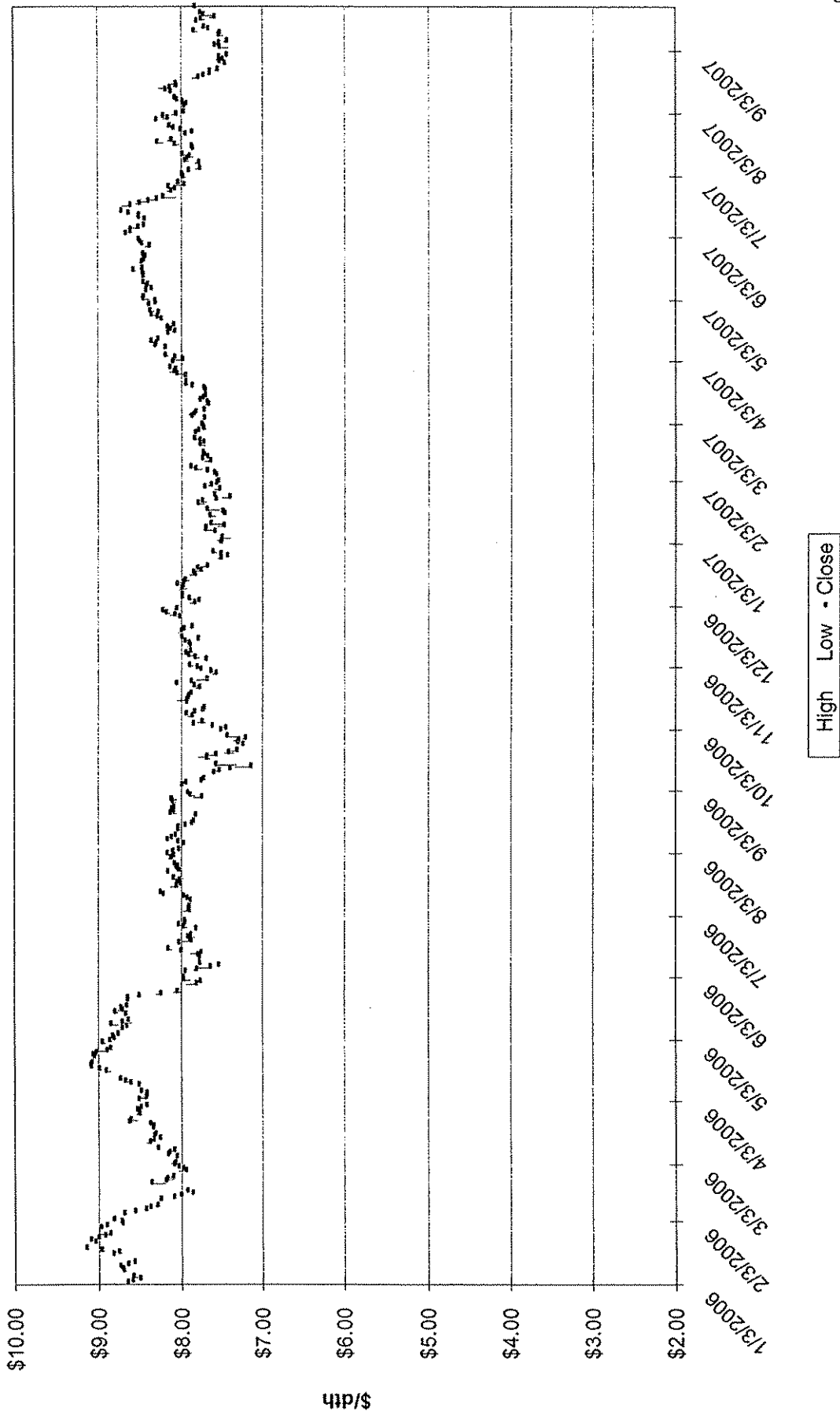
**Inventories.** Total coal stocks held by the consuming sectors are expected to fall by 4.7 percent in 2007 to 142 million short tons and remain relatively flat in 2008.



### Winter Strip Nov07 - Mar08



### Summer Strip 2008



## Committee: US gas resource estimate rises 16.6%

Unconventional resources such as shale gas and coalbed methane have boosted the amount of natural gas recoverable in the US by 16.6% in the last two years to a total of 1,525 Tcf, the Potential Gas Committee said Thursday in a new report.

The PGC attributed much of the increase to higher production from onshore shale and coal seam formations, including the Arkoma, Anadarko, Forth Worth and Permian basins. Growth in the resource base also was attributed to new data from production areas along the Gulf Coast, Rocky Mountain and Pacific regions. In the PGC's last report released in 2005, the resource was pegged at a total 1,308 Tcf (GD 9/14/05).

The biennial report put estimated gas reserves in the MidContinent at 232.2 Tcf at the end of 2006, 104.5% above the 113.4 Tcf estimated at the end of 2004. Estimated reserves in the Rockies were raised to 233.6 Tcf, 22% above the previous estimate of 191.4 Tcf.

John Curtis, director of the PGC, said that in 2006 there was 1,154.8 Tcf of gas, not including CBM resources, in the US resource base. Of that amount, 270.1 Tcf could be found in probable, or existing, gas fields; 426.4 Tcf in possible, or new, gas fields; and 460.7 Tcf in speculative gas fields. So-called speculative fields have not been drilled, but the committee members used seismic data and what they know about the geologic formations to make their estimates.

Curtis said there is about 15.5 Tcf of CBM in probable fields, 50.9 Tcf in possible fields and 98.9 Tcf in speculative fields for a total of 166.1 Tcf. Total proved reserves of gas were estimated to be 204.4 Tcf.

The committee consists of 105 individuals from the gas industry, government agencies and academic institutions. The group functions independently, but with guidance from the Potential Gas Agency at the Colorado School of Mines.

In a press conference hosted by the American Gas Association, Curtis pointed out that in assessing the amount of gas that might be available in offshore areas currently off-limits to drilling, the committee had to rely on methodology developed by Canadian geologists in developing their offshore resources. Since there is no new data to use, he said they consider those reserves to be speculative.

Given that caveat, he said the PGC estimates that 19.4 Tcf of the 91.7 Tcf thought to be available in the eastern states lies offshore, he said. Likewise, 17 Tcf of the estimated 55.5 Tcf believed to be in the country's four most western states of the contiguous 48 states — Washington, Oregon, California and Nevada — is offshore. He also said that in the Gulf Coast region, 18 of the 32.9 Tcf can be found in the eastern half of the Gulf of Mexico. Finally, the committee estimates that 65 Tcf of the 193.8 Tcf of gas in Alaska is offshore.

Curtis pointed out that many people in the industry did not think it would be worth the money to develop coalbed methane resources. But they have become "the most active areas of the country along with shale," he said.

The Powder River Basin's CBM is "now one of the most active regions in the country," he said. "When people initially looked at it, they concluded these wells will never be productive." That all changed with new technology and science "and now you drill one [CBM] well a week. It is dramatically improved and productive."

CBM accounts for at least 10% of the nation's annual natural gas production, Curtis added. While the report notes the prospects for finding more CBM has slipped 2% between 2004 and 2006, he said that is likely to change as drillers explore resources in the Rocky Mountain States and Alaska.

Currently, production in the Barnett Shale in the Fort Worth Basin "is the hottest new play for natural gas at the moment," Curtis noted.

Committee member Michael Decker said that most of the new drilling is occurring in the Rockies' gas shale regions. "I think you will see a pretty significant jump in the resource potential in the Rockies in our next report in 2008," he said.

"Abundant natural gas resources help to keep energy costs affordable for US consumers as long as producers are allowed access to those resources," said Chris McGill, AGA's managing director for policy analysis. "This kind of growth in onshore resources only happens when companies are permitted to explore the opportunities for leasing and permitting of multi-use acreage is allowed to proceed."

While the report paints a positive picture about potential new reserves, McGill said it doesn't detract from the fact that most new supplies of gas remain constrained by access issues. He also asserted that proposed legislation would "roll back" provisions in the Energy Policy Act of 2005 that improved access to those reserves. "The treatment of the access issue has been very uneven, and that has been a problem," he said.

He also said that gas production in the western Gulf of Mexico "is clearly declining." Production from the eastern Gulf is prohibited, he said. "You cannot

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 5.850

Trans. date: 9/13  
 Flow date(s): 9/14

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	5.600	5.55-5.69	5.57-5.64	1358	181
Waha	5.645	5.57-5.69	5.62-5.68	565	88
Transwestern, Permian Basin	5.570	5.50-5.59	5.55-5.59	19	5

### East Texas-North Louisiana Area

Month	Midpoint	Absolute	Common	Volume	Deals
Sep 2009	7.938	7.938	7.938	-19.3	0
Oct 2009	8.018	8.018	8.018	-19.8	0
Nov 2009	8.343	8.343	8.343	-20.3	13
Dec 2009	8.665	8.665	8.665	-20.3	13
Jan 2010	8.893	8.893	8.893	-20.3	13
Feb 2010	8.893	8.893	8.893	-20.3	14
Mar 2010	8.638	8.638	8.638	-20.3	23
Apr 2010	7.608	7.608	7.608	-18.3	16
May 2010	7.518	7.518	7.518	-17.8	7
Jun 2010	7.581	7.581	7.581	-17.8	0
Jul 2010	7.646	7.646	7.646	-17.8	0
Aug 2010	7.681	8.638	8.638	-17.8	0
Sep 2010	7.711	7.711	7.711	-17.8	1

### Contract data for Wednesday

Volume of contracts traded: 154,575  
 Front-months open interest:  
 OCT, 94,487 ; NOV, 101,809; DEC, 50,884  
 Total open interest: 792,452

### Henry Hub/NYMEX spread



### Williams details offering for new pipeline MLP

Gas and oil producer Williams said late Wednesday that it would spin off a 25% interest in its Northwest Pipeline unit to a master limited partnership to be called Williams Pipeline Partners.

Tulsa-based Williams indicated in a registration statement with the Securities and Exchange Commission that it projected selling a 54% stake, 13 million limited partner units, at \$20/unit, with roughly \$240 million being returned to Williams proper as payment for the pipeline stake.

Northwest Pipeline is a 3,900-mile bi-directional interstate pipeline system that connects natural gas fields in the Rocky Mountains, Canada and the San Juan Basin to markets in the Pacific Northwest. The pipeline unit also has a working natural gas storage capacity of about 12.4 Bcf.

Williams will continue to own the remaining 75% interest in Northwest Pipeline and Williams employees will continue to operate it, the registration statement said.

Williams will also own the 2% general partner interest and the remaining 44% of the limited partner units in the MLP.

Williams said in its registration that it anticipates the initial public offering will take place in the fourth quarter of this year.

Northwest gets 91% of its revenue from long term contracts, the SEC filing said, with current reservations running at 3.4 Bcf/d. Its two biggest customers are Washington's Puget Sound Energy and Oregon's Northwest Natural Gas, two local distribution companies.

Williams Pipeline Partners plans its initial distribution to begin being paid in February 2008 at a rate of \$1.15/unit per year, the SEC filing said. A 25% stake in Northwest would have given the MLP \$22.6 million in income in the first half of 2006, pro forma financial statements said, of which the MLP would have distributed \$20.3 million to unit holders. Overall, Northwest had \$61.9 million in profits in the first half of 2007, nearly double that of the same period in 2006, due to a favorable resolution of a FERC rate case.

Creating an MLP will also help parent company Williams, Calyon analyst Gordon Howald said Thursday, by highlighting Williams' exploration and production arm.

"We suspect the market is discounting the company's E&P business given the current weakness in natural gas prices," Howald said. "We continue to believe natural gas prices will be strong, particularly as we head into the winter, so we expect this discount will disappear," increasing the value of parent Williams' stock. BH

As we have been discussing since late last week the market has moved  
ad of itself and is now undergoing the predicted retracement we thought  
would happen. So far overnight prices are continuing where they left off  
on the defensive.

The majority of the production that was shut last week in the U.S.  
Gulf has been restored. Most everything is relatively quiet at the moment.  
Nothing new on the Geopolitical front, the weather is docile right now  
with a few tropical disturbances out in the Atlantic and not a threat to  
the Gulf and the market awaiting this week's snapshot of oil & ng  
inventories. The early indications for tomorrow's oil inventory report are  
calling for another decline in refinery runs as planned maintenance gets  
underway. Crude oil is expected to show a decline of about 2 million  
barrels with gasoline unchanged and distillate increasing by about 1.2  
million barrels.

We expect the price decline to continue through today with the  
inventory reports likely becoming the main driver for the rest of the  
week. Currently oil prices are lower across the board while NG is steady.

#### Current Expected Trading Range

	9/25/2007	Change	Upper	Lower
	Electronic	From	Resistance	Support
	6:35 AM	Yesterday		
WTI	\$80.26	(\$0.69)	\$84.00	\$78.50
Oct HO	\$2.2201	(\$0.0105)	\$2.2700	\$2.2000
Oct RBOB	\$2.0631	(\$0.0203)	\$2.1600	\$2.0500
Oct NG	\$6.385	\$0.015	\$6.250	\$5.570

Dominick A. Chirichella, dchirichella@emimail.org

Interested in more in-depth analysis of the energy markets? Want  
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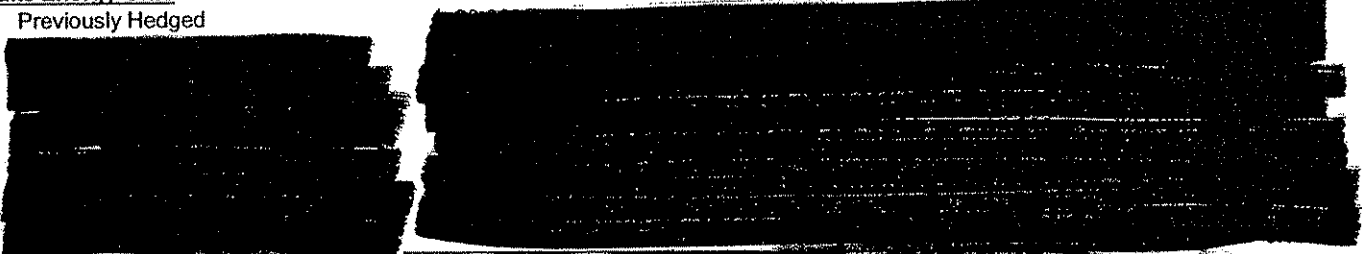

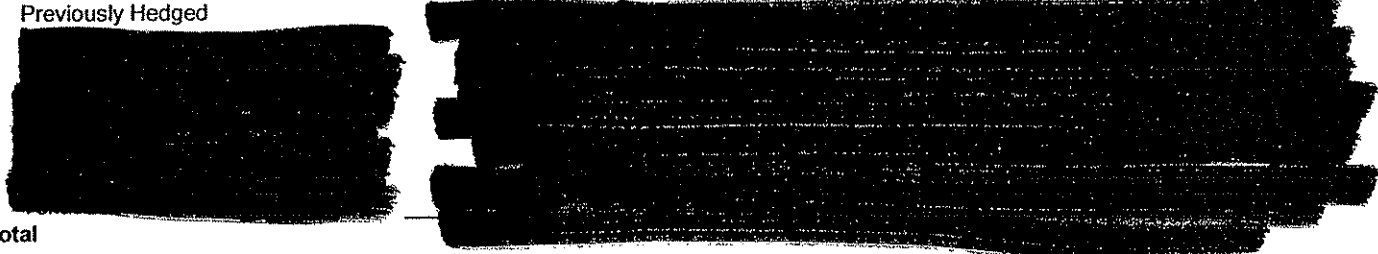

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market, including over a decade of natural gas and power price

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u> Previously Hedged							
Total							
<u>Duke Energy Kentucky</u> Previously Hedged							
Total							

## Feds urged to boost LIHEAP funds ... from page 1

...ve trouble managing utility bills now, it is a more significant burden."

The Low Income Home Energy Assistance Program, which is designed to aid such customers, "is not adequately funded to meet the energy needs of the South right now," Wolfe said. "Basically we have a program that is not designed for either changing climate or the changing regulatory structure."

As a result, "many families are falling behind on their bills and are at risk of shut-off of basic electric and gas services," he said.

In the Energy Policy Act of 2005, Congress increased LIHEAP's funding authorization to \$5.5 billion. But only if the government actually provides that much — an unlikely scenario — would states "have the flexibility to work out partnerships with utilities and fuel oil dealers. It would be quite significant."

Daphne Magnuson, senior director of communications with the American Gas Association, agreed, saying "it does seem clear that under any of the climate change bills, demand for natural gas will increase and that will put upward pressure on natural gas prices as we go forward."

Vivian Lausevic, AGA's director of public affairs, said federal energy assistance for low-income people has not kept up with demand.

"Since LIHEAP's inception 26 years ago, the funding levels for the program have grown 17%, but the consumer price index has risen 133%," she said. "Had LIHEAP kept up with inflation, the annual appropriation would be \$4.2 billion and not the \$2.2 billion appropriated last year" (GD 2/12).

Magnuson said AGA will release a study today showing that poor households are spending 33% more of their income on home energy than in 1998. "These households typically spend about one-fifth of their annual income on home energy bills, which is about six times as much as other income groups," she said.

Wolfe said the Bush administration has the authority to release \$151.5 million in contingency funds to help those people pay outstanding debts stemming from high gas and electric bills. "If these funds are not released by September 30, \$131 million of the balance will expire," he noted.

Wolfe cited a recent survey of state energy assistance directors showing that at least 1.2 million households were disconnected during the three-month period following the end of state shut-off moratoria, with the average family owing around \$850.

RAW

## Groups sue to block drilling project ... from page 1

which also names as defendants the Interior Department and Interior Secretary Dirk Kempthorne, seeks an injunction to halt gas development in the area until BLM conducts an environmental analysis of the project.

The groups claim BLM approved the development project "without a plan for where the wells, roads and pipelines would go, preventing the agency from studying the magnitude of impacts to sensitive soils, vegetation and wildlife."

They also claim that BLM "failed to consider the impact that the greatly expanded drilling activity would have on dangerous methane seeps, which have been popping up along the Atlantic Rim as exploratory coalbed methane drilling has increased."

The suit also contends that BLM "relied on sage grouse protection measures that are scientifically proven failures, and would not even consider stronger measures as alternatives."

The Atlantic Rim, along the eastern edge of Wyoming's Red Desert, is home to an assortment of wildlife, including elk, mule deer and pronghorn. It also includes one of the largest breeding grounds for sage grouse.

"BLM has approved at least 90 new wells in the project area without providing public participation or the analysis required by the National Environmental Policy Act," the suit alleges. In addition, "243 more applications for permits to

## WSI predicts warm start to fall, except in northern tier of US

The next two months will be warmer than normal across most of the US, although December will bring below-normal temperatures to several regions, private forecaster WSI Corporation said Tuesday.

"The La Niña event continues to slowly strengthen and play a dominant role in temperature patterns, primarily via modulation of tropical convection patterns and their subsequent downstream impacts in the US," said WSI's Todd Crawford.

"Typically, in the eastern US, La Niña means a warm October and a cold December, with the transition occurring in November," Crawford said. "While we feel that December will indeed be cold in the East, the current ocean temperature patterns in the northern Pacific suggest that the early fall warmth may not be as certain as the La Niña signal suggests."

In October, the Andover, Massachusetts-based firm expects warmer-than-average weather everywhere except the Northeast and North Central regions, which will be colder than normal.

For the natural gas sector, isolated heating demand won't be enough to offset "continued gas injections to storage," Energy Security Analysis Inc. in accompanying market commentary. "With moderate temperatures and low nuclear outages, gas demand from the power sector in the Northeast will be moderate."

In November, colder weather will dominate in the North Central, South Central and Northwest sections, while all other areas will be warmer than normal, WSI predicts.

The early cold spell "could ease pressure on growing natural gas inventories," ESAI said, although it "should be offset by warmer temperatures elsewhere in the country."

In December, only the South Central and Southwest regions are expected to experience above-average temperatures, according to WSI's forecast.

"Colder weather across all of the key heating demand areas in December should be bullish for gas prices. However, supply concerns are likely to be moderated by high natural gas inventories at the start of the heating season in mid-November," ESAI said. SGS

Advertisement

**FINDING THE BALANCE:  
ENERGY AND CLIMATE**

**CONFERENCE**

**OCTOBER 8-10, 2007**

**JACKSON HOLE, WYOMING**

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 October 24, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Dec-Feb.
Mid Term Weather (30-60 days)	↔	Long	Normal November temperatures.
6-10 day forecast	↓	Short	Above Normal for the end of October--NO heating load.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending October 12 were 39 BCF. Storage levels are 2% lower than last year at 3.4 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Winter 2007/08: \$7.272 Summer 2008: \$6.872	↓	Long	"Gas prices at Henry Hub are expected to average \$5.58 per MMBtu in October."
Paribas	↓	Short	"The underlying feeling for the past few days is that the fundamentals may finally be taking over. If that is the case, it shouldn't be too difficult to break through \$7.00 and continue lower going into the pre winter months but time will tell."
Gas Daily	↓	Long	Oct 19th--FERC: Storage, mild weather to foil winter spikes. Oct 18th--Fitch: Expect \$8 gas on high storage levels.
AGA Winter Outlook	↓	Short	"Robust production activity, abundant natural gas storage, the expected expansion of LGN terminals and construction of new pipelines are likely to benefit natural gas customers over the 2007-08 winter."
Conoco Morning Briefing	↓	Short	"The entire energy complex should follow the expiring crude contract today, which will show some serious weakness as it roll into expiration. Weather related demand will weaken and prices should follow suit."
<b>Government Agencies</b>			
Energy Information Administration Winter 2007/08: \$7.141 Summer 2008: \$6.871	↓	Long	"A lack of significant hurricane activity in the Gulf of Mexico and historically high storage inventories have contributed to the recent decline in the Henry Hub spot price. Spot prices at the Henry Hub are projected to rise to a winter peak of \$8.65 per mcf in January 2008. On an annual basis, the Henry Hub spot price is expected to average about \$7.21 per mcf in 2007 and \$7.86 per mcf in 2008."
<b>Technical Analysis</b>			
Winter 2007-08 Strip Chart	↑	Short	[REDACTED]
Summer 2008 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↑	Long	EIA: "Industrial sector consumption is projected to decline by 0.9 percent in 2007, but increase by 0.4 percent in 2008."
Supply	↓	Long	"...marketed production is expected to increase by 1.9 percent in 2007, offsetting production declines in the Gulf, and by 0.2 percent in 2008."
Oil Market	↓	Long	"Oil fell sharply toward \$87 a barrel on Monday as part of a broad-based commodities sell-off on concerns over the health of the U.S. economy and a recovery in the U.S. dollar."
Meeting Minutes: 10th Floor North Conference Room - 11:00 am			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program  
 Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (10/31/07)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Nov-07	[REDACTED]					
Dec-07	[REDACTED]					
Jan-08	[REDACTED]					
Feb-08	[REDACTED]					
Mar-08	[REDACTED]					
Winter 07/08	[REDACTED]					
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					



Duke Energy Kentucky  
Hedging Program - Current Position  
November 2007 - October 2008  
As of 10/22/07

Nov-07 Dec-07 Jan-08 Feb-08 Mar-08 Apr-08 May-08 Jun-08 Jul-08 Aug-08 Sep-08 Oct-08

**Daily Base**

Estimated Base (Gross)

Amount Hedged

Fixed Price (

#REF!

Fixed Price

Fixed Price

Cost Averaging

Fixed Price

Fixed Price

Total Hedged

**Monthly Base**

Estimated Base (Gross)

Hedged to date

Fixed Price (

#REF!

Fixed Price

Fixed Price

Cost Averaging

Fixed Price

Fixed Price

Total Hedged

% of Base Supply

Seasonal % of Base

**Normal Load (City Gate)**

Hedged (City Gate)

Storage Withdrawal

Market

Total (Incl. Injections)

% Hedged & Storage

Seasonal %

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 10/22/07

Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09

**Daily Base**

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**

Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 10/22/07

Nov-09    Dec-09    Jan-10    Feb-10    Mar-10    Apr-10    May-10    Jun-10    Jul-10    Aug-10    Sep-10    Oct-10

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

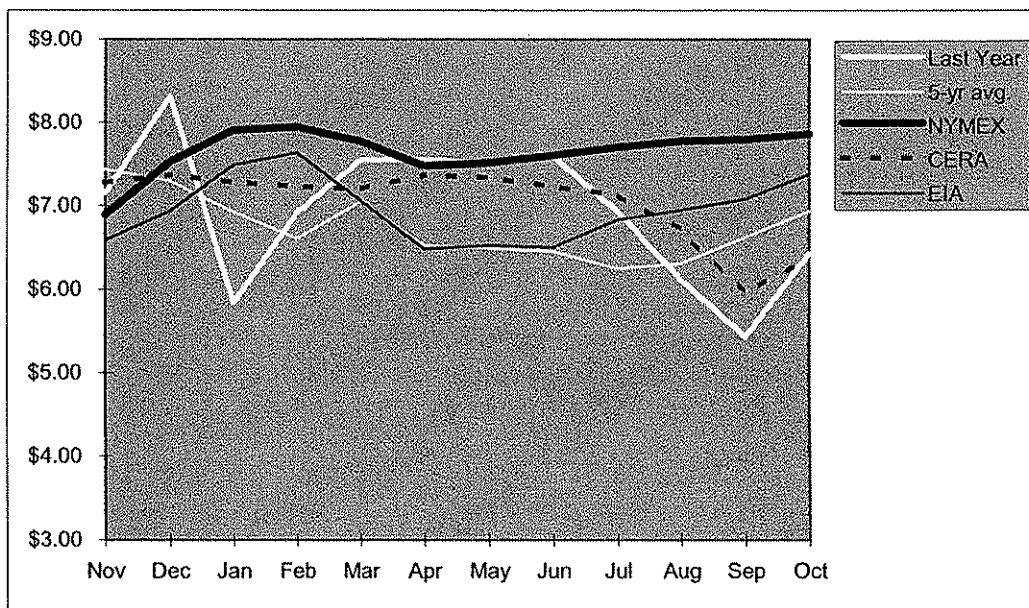
Normal Load (City Gate)

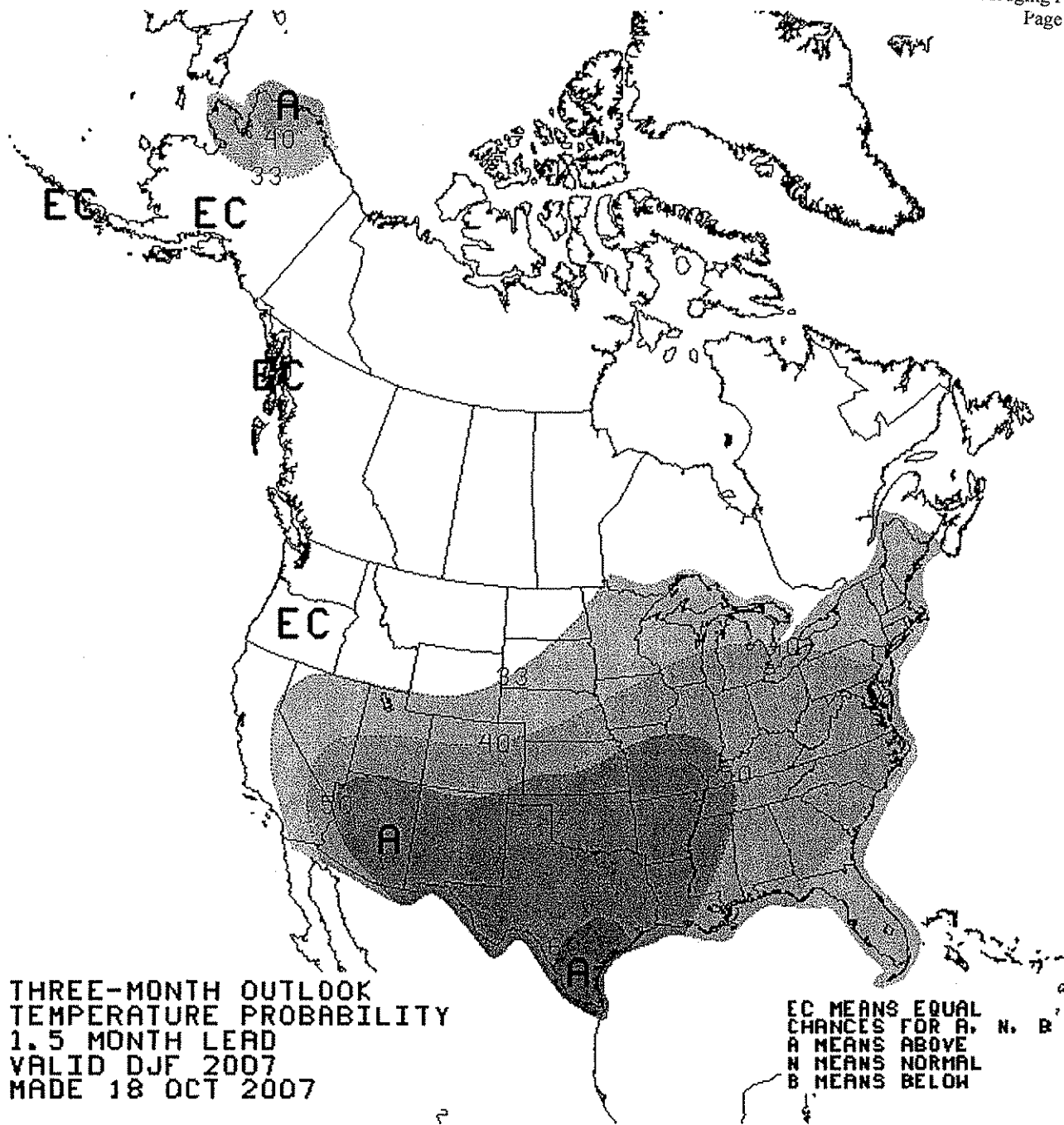
Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

9

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 20-Sep-07	EIA 9-Oct-07	NYMEX 22-Oct-07
Nov	\$7.44	\$7.15		\$7.280	\$6.586	\$6.891
Dec	\$7.29	\$8.32		\$7.370	\$6.935	\$7.529
Jan	\$6.92	\$5.84		\$7.280	\$7.491	\$7.906
Feb	\$6.61	\$6.92		\$7.230	\$7.635	\$7.946
Mar	\$7.05	\$7.55		\$7.200	\$7.059	\$7.771
Apr	\$6.53	\$7.56		\$7.370	\$6.483	\$7.476
May	\$6.49	\$7.51		\$7.340	\$6.524	\$7.518
Jun	\$6.45	\$7.59		\$7.230	\$6.503	\$7.607
Jul	\$6.24	\$6.93		\$7.130	\$6.833	\$7.702
Aug	\$6.31	\$6.11		\$6.710	\$6.946	\$7.775
Sep	\$6.62	\$5.43		\$5.950	\$7.080	\$7.796
Oct	\$6.94	\$6.42		\$6.380	\$7.378	\$7.861
<b>12 Month Avg</b>	<b>\$6.74</b>	<b>\$6.94</b>		<b>\$7.039</b>	<b>\$6.954</b>	<b>\$7.648</b>
Summer Average				\$6.873	\$6.821	\$7.676
Winter Average				\$7.272	\$7.141	\$7.609





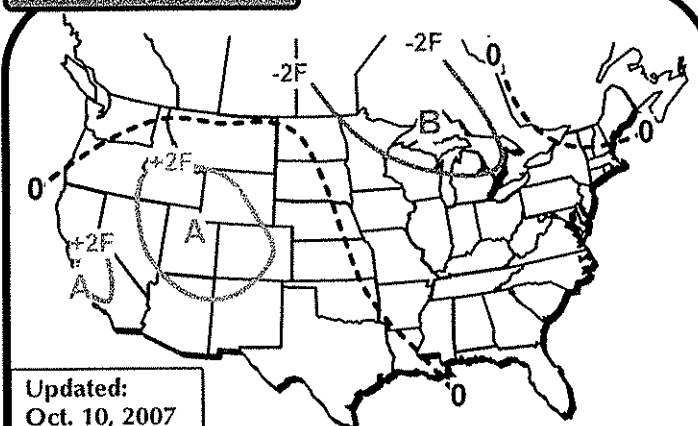
11



# MDA EarthSat Energy Weather - Long Range Forecasts: 30 - 60 Day Outlook

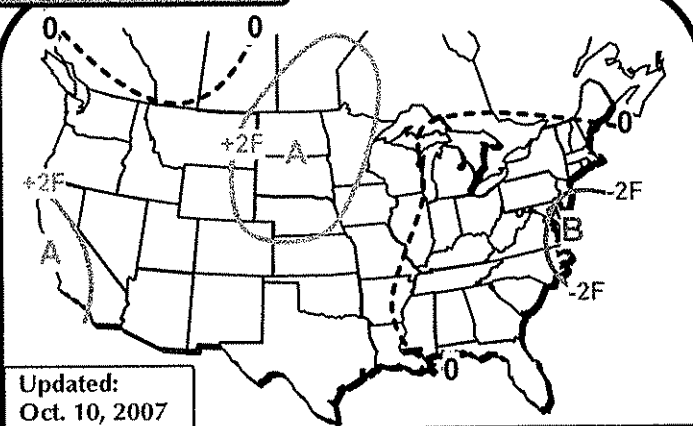
Wednesday **DAY** 10/17/07 **DATE** 9:35 AM EDT **TIME** MR **FORECASTER**

## NOVEMBER 2007



Updated:  
 Oct. 10, 2007

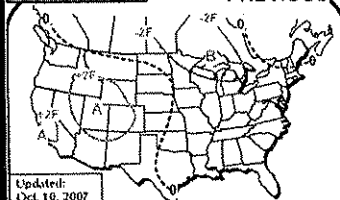
## DECEMBER 2007



Updated:  
 Oct. 10, 2007

### NOVEMBER 2007

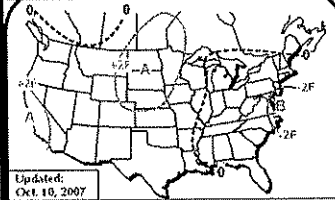
### PREVIOUS



Updated:  
 Oct. 16, 2007

**Northwest Cooled Slightly**  
  
**Texas Warmed Slightly**

### DECEMBER 2007



Updated:  
 Oct. 10, 2007

**No Changes to December**

No major changes are noted this morning, although as noted in the headline, the Northwest and Texas were adjusted slightly. There is generally lower November forecast confidence currently. On one side, the models are indicating potential pattern changes by late October leading into early November. On the other side, the La Niña is getting quite strong. The latest ENSO analogs have been re-adjusted based on the new data and show better support for this more modest November outlook (they had been colder in the East).

The 30/60 day outlook is the same as last week's. The latest ENSO analogs offer some changes that may better match the La Niña thinking with a warmer South and colder Northern tier with below normals from Calgary to the Great Lakes to the Northeast. If the weekly SST anomalies remain as strong into a second week, next week's December outlook may need to be revised a bit more in this direction. That update would still keep Chicago close to the 30Y normal and still have New York about a degree colder than normal.

### November GWHDD\* Forecasts

Nov 2007 Fcst: **590.0** 10Y Normal: 528.1  
 30Y Normal: 578.1  
 Change: 0 Nov 2006: 496.1

\*National Natural Gas-Weighted HDDs

### December GWHDD\* Forecasts

Dec 2007 Fcst: **900.0** 10Y Normal: 837.1  
 30Y Normal: 871.3  
 Change: 0 Dec 2006: 732.9

\*National Natural Gas-Weighted HDDs

### October 2007 Comparison

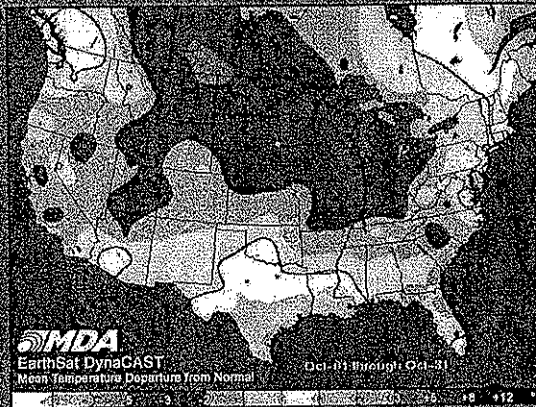


Updated:  
 Sept. 19, 2007



The first half of October has worked out fairly well for the East and Northwest. The middle third of the nation has verified warmer than expected, while California has been cooler than expected. Some changes later this month may help to ease some of these differences and even dampen the stronger anomalies in the Eastern U.S.

### OCTOBER 2006



Oct. 11 through Oct. 21

Maps above depict deviations of average temperatures from normal in Fahrenheit.



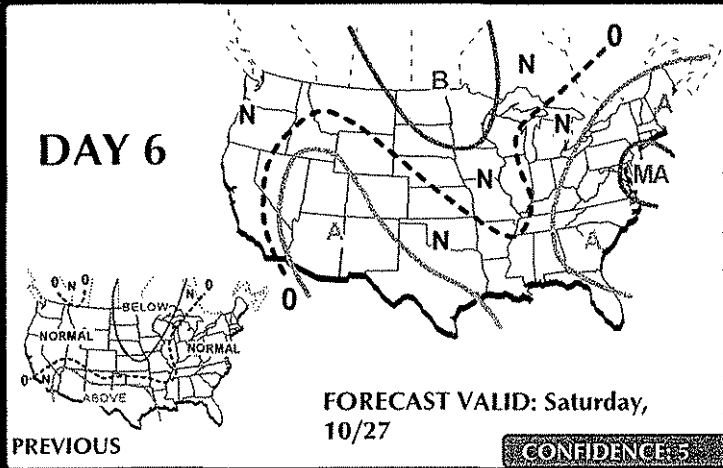
# MDA EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

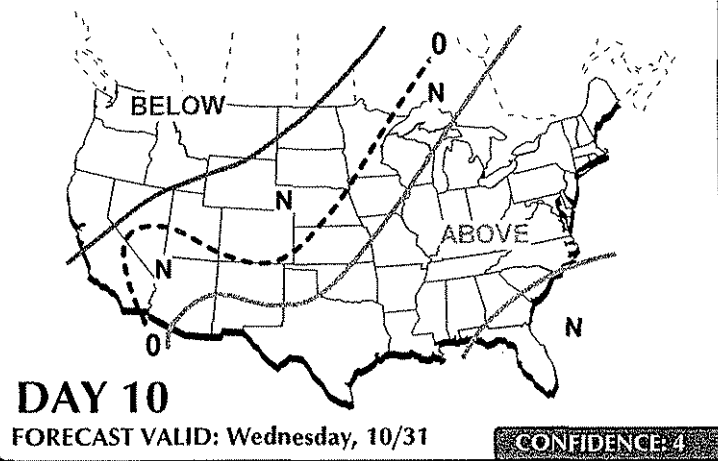
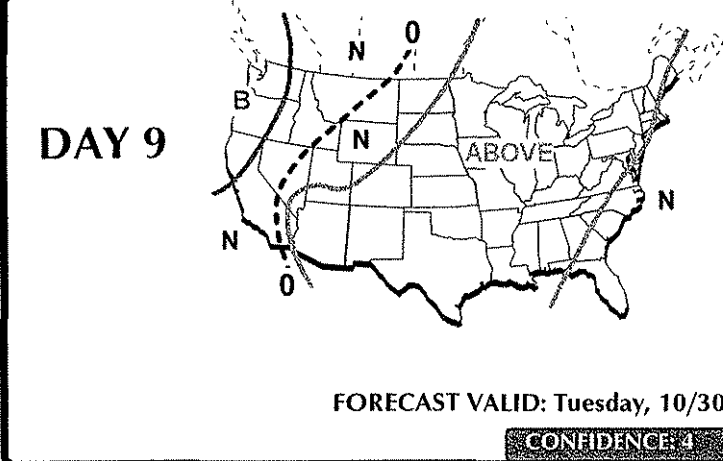
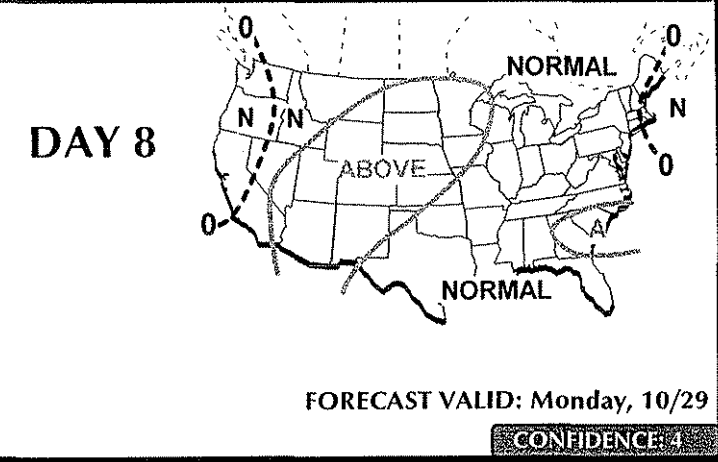
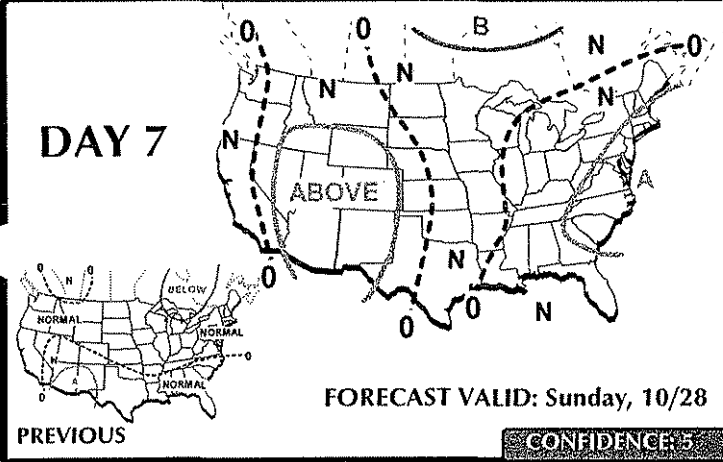
Monday **DAY** 10/22/2007 **DATE** 6:30 A.M. **TIME** JS/AC **FORECASTER**

### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION



**Today's Forecast**  
 Normals To Settle Into Midwest; Warmth In East  
 Aside from a cold front advancing across the East on Monday, the majority of the region will aim to see warm weather early and late in the period. Temperatures could remain fairly stagnant in the Midwest and parts of the Plains through the weekend before an anticipated ridge brings back a round of above normal weather for the second half of the period. In the West, the American and European models are at ends with each other, as the the American model portrays a cooler scenario.

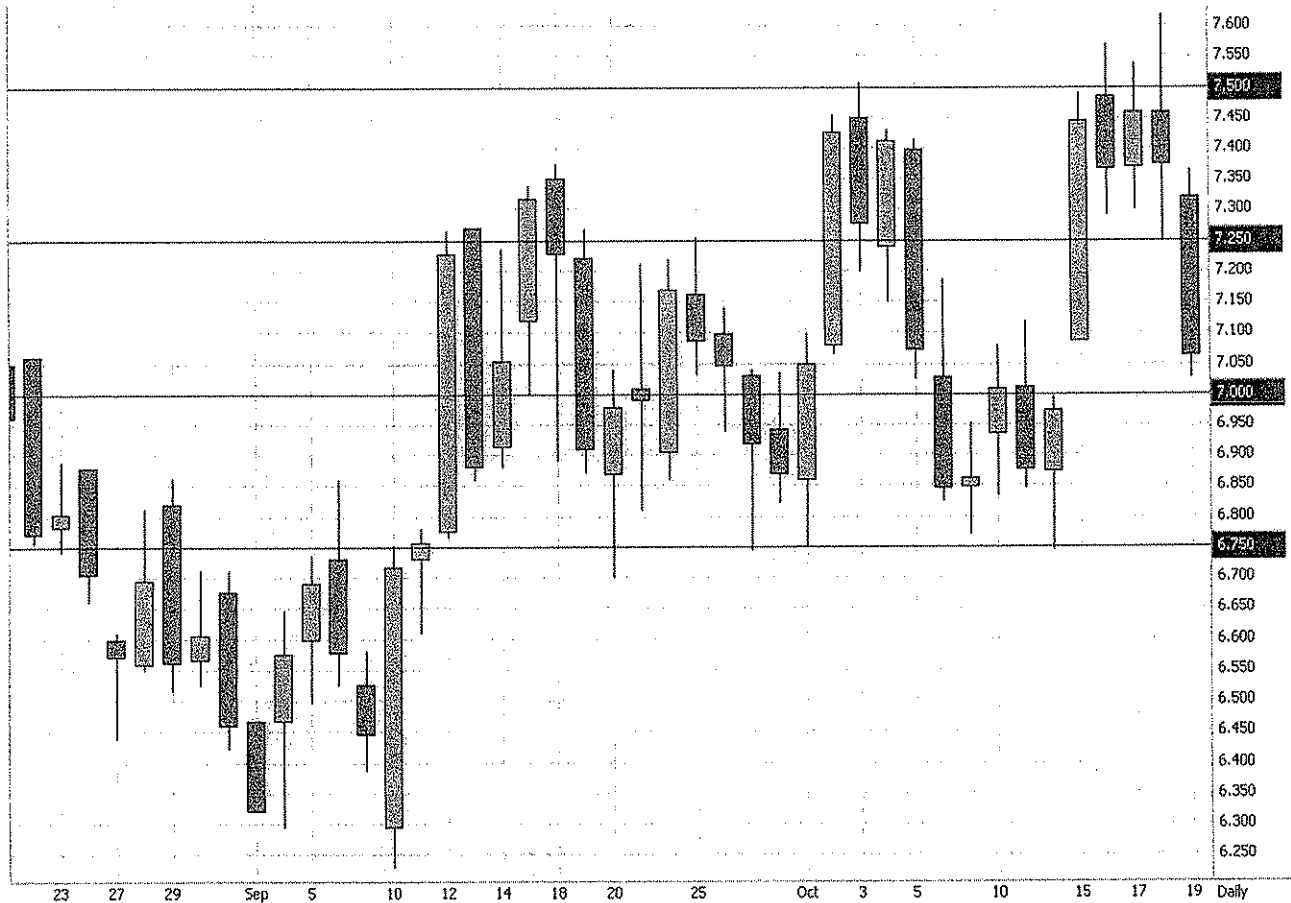


<b>LEGEND</b>		
STRONG ABOVE..... +15 OR UP	<b>NORMAL</b>	STRONG BELOW.... -15 OR DOWN
MUCH ABOVE..... +8F TO +14	-2F TO +2F	MUCH BELOW..... -8F TO -14F
ABOVE..... +3F TO +7F		BELOW..... -7F TO -3F

**Confidence Level Boxes: 1=Low, 5=Moderate, 10=High**

### Commentary

The bears took over in natural gas today even as it looked like crude would continue higher and set another record. Crude eventually ran out of steam and settled 87 cents lower on the day as Natural gas drifted lower throughout the day and almost tested \$7.00. The volume was light and volatility dropped as many of the usual players were out of the game while attending the PIRA conferences. The underlying feeling for the past few days is that the fundamentals may finally be taking over. If that is the case, it shouldn't be too difficult to break through \$7.00 and continue lower going into the pre winter months but time will tell.



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# Gas Daily

Thursday, October 18, 2007

## Rockies Express timing key to basis shifts: analyst

The Rockies Express gas pipeline is often touted as a means of bringing much-needed natural gas from the Rockies production areas to markets, thereby easing the enormous basis differentials between Rockies prices and those in other areas.

But according to a new report from Barclays Capital Research, the timing of the project could have a huge impact on whether the pipeline will indeed help to readjust basis levels.

"The market appetite for additional Rockies pipeline capacity has been made obvious by the bottlenecking of gas in the Rockies this  
(continued on page 4)

## Fitch: Expect \$8 gas on high storage levels

High levels of gas in storage and the lack of any hurricanes will keep natural gas prices below their peak levels of the past two years, with 2008 prices averaging \$8/MMBtu, analysts at Fitch Ratings said in a report published Wednesday.

"Nevertheless, the longer-term outlook for natural gas is for tight supply, with higher demand for gas for power generation, dwindling deliverability of conventional gas sources and new supplies coming from unconventional sources at higher costs," Fitch power analyst Justin Bowerstock said.

Gas demand for power will grow over time because Fitch sees the next round of power plant construction dominated by new gas plants, as new coal and nuclear plants face increasingly high costs and local environmental opposition.

"Declining reserve margins and rising market clearing heat rates indicate that new [power] capacity is needed, particularly in the Texas, Maryland and New York regions," the Fitch report said. "Fitch believes that the majority of new capacity additions in the next few years will likely be gas-fired. While coal and nuclear baseload may make more economic sense, growing construction costs, combined with environmental opposition on the local and national levels, increase the obstacles to new construction."

Fitch said it has revised the gas prices it uses in its models that evaluate the business performance of power plants. In its base case, Fitch said it will assume gas prices of \$8/MMBtu in 2008, declining to \$6/MMBtu by 2010.

Fitch's high price assumption is for \$8.50/MMBtu in 2008, increasing to \$10/MMBtu going forward. Its low price case, which "Fitch does not consider realistic," is for gas to average \$5.50/MMBtu in 2008, dropping off to \$4.50/MMBtu. Fitch uses the low price estimate to see how competing coal, nuclear, and hydro power plants would stack up against gas power plants running on cheaper fuel.

BH

## REX timing, impact uncertain ... from page 1

year," causing basis in the region to widen dramatically on several different occasions, Barclays analyst George Hopley said.

Once Rockies Express is flowing at capacity — which could be as soon as

### Gas Daily basis forwards assessments, Oct 17

	Nov 2007	Dec 2007	Winter 2007-08	Summer 2008	Winter 2008-09	Summer 2009
Transco Zone 6-NY	63.250	134.250	197.500	69.000	242.000	71.000
Texas Eastern, M2	57.750	103.750	100.250	50.500	142.250	50.750

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.860

Trans. date: 10/17  
Flow date(s): 10/18

	Midpoint	Absolute	Common	Volume	Deals
<b>Pemian Basin Area</b>					
El Paso, Permian Basin	6.565	6.49-6.73	6.51-6.63	982	136
Waha	6.720	6.67-6.85	6.68-6.77	685	97
Transwestern, Permian Basin	6.605	6.58-6.62	6.60-6.62	17	2

### East Texas-North Louisiana Area

Carthage Hub	6.765	6.75-6.81	6.75-6.78	161	24
NGPL, Texok zone	6.745	6.71-7.00	6.71-6.82	809	125
Texas Eastern, ETX	6.840	6.79-6.95	6.80-6.88	17	2
Texas Gas, zone 1	7.010	6.98-7.08	6.99-7.04	96	22

### East-Houston-Katy

Houston Ship Channel	7.110	7.05-7.20	7.07-7.15	874	98
Katy	7.065	7.00-7.12	7.04-7.10	657	90

### South-Corus Christi

Agua Dulce Hub	7.045	6.90-7.13	6.99-7.10	155	13
NGPL, STX	6.915	6.90-6.95	6.90-6.93	150	17
Tennessee, zone 0	6.935	6.86-7.00	6.90-6.97	100	18
Texas Eastern, STX	6.900	6.86-6.92	6.89-6.92	233	38
Transco, zone 1	7.055	7.02-7.10	7.04-7.08	85	15

### Louisiana-Oakboro-South

Jun 2009	8.075	8.075	8.000	+10.5	4
Jul 2009	8.135	8.135	8.135	+10.5	4
Aug 2009	8.185	8.185	8.185	+10.5	1
Sep 2009	8.200	8.200	8.200	+10.5	1
Oct 2009	8.260	8.260	8.260	+10.5	1
Nov 2009	8.580	8.580	8.580	+10.8	201
Dec 2009	8.912	8.912	8.912	+11.0	696
Jan 2010	9.142	9.142	9.142	+10.7	495
Feb 2010	9.142	9.142	9.142	+10.7	5
Mar 2010	8.887	8.887	8.887	+10.7	200
Apr 2010	7.897	7.897	7.897	+7.2	200
May 2010	7.817	7.817	7.817	+7.7	0
Jun 2010	7.867	7.867	7.867	+7.7	0
Jul 2010	7.927	7.927	7.927	+7.7	4
Aug 2010	7.967	7.967	7.967	+7.7	6
Sep 2010	7.982	7.897	7.897	+7.7	6
Oct 2010	8.047	8.047	8.047	+8.2	0

### Contract data for Tuesday

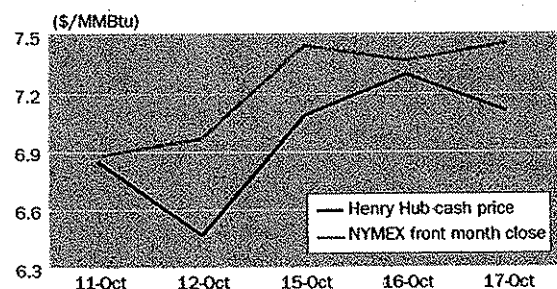
Volume of contracts traded: 139,475

Front-months open interest:

NOV, 66,732 ; DEC, 78,304 ; JAN, 81,940

Total open interest: 757,518

### Henry Hub/NYMEX spread



### Platts oil prices, Oct 17

15

# Gas Daily

Friday, October 19, 2007

## FERC: Storage, mild weather to foil winter spikes

US natural gas markets will enter this winter with significant flexibility to survive cold spells and avoid disruptions as robust storage inventories and mild weather forecasts continue to shield consumers from price spikes, FERC officials said Thursday.

In its Winter 2007-08 Energy Market Assessment, commission staff pointed out that spot gas prices have not taken the same steep northern climb as oil, which is pushing \$90/barrel in its NYMEX November futures contract. Fuel switching has increased gas consumption but not prices.

"For a second year, the prospects for natural gas markets as we head into this winter are very good," said Stephen Harvey, director of the division of energy market oversight. "Current conditions for natural gas demonstrate significant flexibility to deal with most challenges that might arise through the winter."

### Moeller: US more dependent on gas

Natural gas "seems to be the fuel of choice for the foreseeable future" for US power generation as plans for coal-fired capacity additions fall by the wayside and questions about the timing of when new nuclear generation may come online linger, said Philip Moeller, a member of the Federal Energy Regulatory Commission, on Thursday.

Speaking after the FERC staff's presentation of its upcoming winter energy market assessment, Moeller said it is clear that "as a country, we're becoming more dependent on natural gas, and particularly for electricity generation. I think we should make it clear that that's where this country's heading right now."

"You've certainly heard about coal plants being canceled throughout the country," Moeller said, adding that a new nuclear plant "is far away, or at least a few years away."

Moreover, although "many of us greatly support renewables, they are often location-constrained with a transmission lag," he said.

PC

gas and oil price competition may be dead — at least for now," Harvey said.

Gas production due to new wells has helped keep prices down this year, staff said. Current prices in the area of \$7/Mcf support drilling costs. But how commodity prices and more drilling really impact the overall supply situation is less clear as companies struggle to maintain productivity in tougher basins, said the report.

Commission staff also noted the record levels of LNG coming to shore in the first half of the year. Through mid-October, 2.5 Bcf/d of regasified LNG entered the US pipeline grid, up about 50% compared to the same January-October period

Still, gas price volatility is an issue. And increased capacity from new pipelines and liquefied natural gas import terminals might shift some regional pricing dynamics in early 2008, Harvey told commissioners at their October open meeting.

With oil prices going in one direction and gas prices going in another, staff surmised the fuels are crossing into a new era. "The change may reflect a new relationship between gas and oil prices. In effect,

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.900

Trans. date: 10/18  
Flow date(s): 10/19

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.615	6.55-6.74	6.57-6.66	1365	189
Waha	6.735	6.67-6.88	6.68-6.79	579	79
Transwestern, Permian Basin	6.645	6.62-6.67	6.63-6.66	65	9

### East Texas-North Louisiana Area

	Midpoint	Absolute	Common	Volume	Deals
May 2008	7.899	7.900	7.810	+0.5	1290
Jun 2008	7.976	7.976	7.976	+0.7	319
Jul 2008	8.062	8.062	8.062	+1.2	447
Aug 2008	8.132	8.132	8.132	+1.2	742
Sep 2008	8.152	8.152	8.152	+1.4	348
Oct 2008	8.218	8.280	8.250	+1.2	1474
Nov 2008	8.598	8.598	8.598	+1.2	114
Dec 2008	9.008	9.008	9.008	+2.7	298
Jan 2009	9.283	9.241	9.241	+3.2	409
Feb 2009	9.283	9.340	9.340	+3.2	140
Mar 2009	9.030	9.030	9.030	+3.2	917
Apr 2009	8.105	8.203	8.140	+1.2	451
May 2009	8.042	8.042	8.042	+1.2	390
Jun 2009	8.087	8.087	8.087	+1.2	35
Jul 2009	8.152	8.152	8.152	+1.7	0
Aug 2009	8.202	8.202	8.202	+1.7	0
Sep 2009	8.217	8.217	8.217	+1.7	100
Oct 2009	8.282	8.250	8.250	+2.2	100
Nov 2009	8.607	8.607	8.607	+2.7	0
Dec 2009	8.947	8.947	8.947	+3.5	800
Jan 2010	9.177	9.177	9.177	+3.5	908
Feb 2010	9.177	9.177	9.177	+3.5	1
Mar 2010	8.922	8.922	8.922	+3.5	108
Apr 2010	7.922	7.922	7.922	+2.5	1
May 2010	7.842	7.842	7.842	+2.5	101
Jun 2010	7.892	7.892	7.892	+2.5	1
Jul 2010	7.957	7.957	7.957	+3.0	1
Aug 2010	7.997	7.997	7.997	+3.0	129
Sep 2010	8.012	7.922	7.922	+3.0	1
Oct 2010	8.077	8.077	8.077	+3.0	1

### Contract data for Wednesday

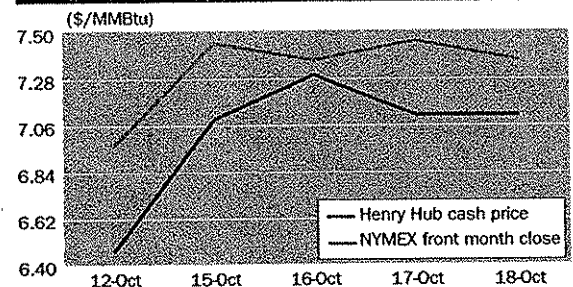
Volume of contracts traded: 125,435

Front-months open interest:

NOV: 55,363 ; DEC: 83,571 ; JAN: 82,909

Total open interest: 753,172

### Henry Hub/NYMEX spread



### Gas Daily basis forwards assessments, Oct 18

	Nov 2007	Dec 2007	Winter 2007-08	Summer 2008	Winter 2008-09	Summer 2009
Transco Zone 6-NY	63.500	133.500	197.750	68.500	242.500	71.000
Texas Eastern, M-3	58.250	101.750	128.250	59.750	144.000	60.000
Columbia Gas, Appalachia	26.750	21.500	25.750	32.750	25.500	31.500
Transco, zone 3	8.000	9.500	9.500	5.750	6.000	3.500
Trunkline, LA	-5.000	-5.250	-4.750	-7.000	-6.500	-7.000
Houston Ship Channel	-28.000	-41.250	-38.000	-22.750	-37.750	-20.500

### Platts oil prices, Oct 18

	(\$/b)	(\$/MMBtu)
Gulf Coast spot	67.25-67.35	10.70

last year (see story, page 1). The LNG surge stemmed from demand reductions in Europe, more liquefaction on the supply side, and new supplies from the Middle East, according to FERC.

In his testimony, Harvey suggested that EIA projections that LNG sendout will increase over the course of the winter may be optimistic, given projections of rising prices in Europe. "LNG will be available when US prices are relatively high," he said. "Consequently, expanding LNG capacity serves as a sort of insurance policy — not used much when times are good, but very helpful if times get bad."

Besides LNG, gas storage has been a huge factor this year, staff said. Analysts expect to see full storage this year, protecting the markets from shocks associated with tight supply-demand balances.

But weather is always the big determinant for winter gas usage. In noting a National Oceanic and Atmospheric Administration forecast of warmer-than-normal temperatures across much of the country this winter, Harvey said the ingredients are there for prices to remain stable or even dip some.

Market dynamics could change late in the winter as pipeline and LNG infrastructure comes online. The Independence Trail Pipeline out of the Gulf of Mexico and the long-haul western section of the Rockies Express Pipeline from the Cheyenne Hub to Missouri are expected to begin operating in early 2008.

On top of that, several new LNG terminals are primed to go live in the first quarter, noted the staff report, including the Freeport and Sabine Pass LNG terminals in Texas, the Northeast Gateway terminal off the coast of Massachusetts and Sempra's Energía Costa Azul terminal in Baja California, Mexico.

Plenty of infrastructure projects are under construction and under development, the commission said. Yet the anticipation did nothing for conditions in the Rocky Mountains late this summer and early fall, where prices dipped to pennies due to stranded gas.

"The difference in prices nationally and in the Rockies is further evidence of the extreme price volatility that can result from constraints on the interstate pipeline system," Harvey told commissioners.

At the time that Rockies prices tanked, prices hovered around \$6.20/MMBtu at Henry Hub, he noted, saying the gas market is such that prices are consistently driven down in areas where supply is bottled up. "The fix for this kind of price volatility is infrastructure." JK

## FERC gives nod to Aquila gas, electric utility asset sales

The Federal Energy Regulatory Commission on Thursday approved a two-step transaction under which Aquila will sell its Colorado-based electric utility, along with natural gas operations in Colorado, Iowa, Kansas and Nebraska, to Black Hills, while also merging its Missouri electric utility assets with Great Plains Energy.

Approving the Federal Power Act section 203 merger application that the companies filed in May, FERC found that the deal would not harm competition or increase the merged firms' ability to exercise market power.

The commission found that the merger would not create or enhance the applicants' ability to use control of upstream transmission and natural gas assets to harm competition because the merged company does not control fuel inputs serving generating plants and it would continue to provide open-access transmission service.

The deal will not affect wholesale power or transmission rates because none of the existing wholesale power contracts would change and all other sales by the merged company will be made at market-based rates, FERC said. It also found that the applicants met all commission standards to show that the merger would not result in improper cross-subsidization of non-utility companies.

The Nebraska Public Service Commission earlier this week approved Black Hills' acquisition of Aquila's natural gas utility assets and operations in the state and the Iowa Utilities Board previously gave its approval for the transfer of utility assets in that state. Under the two-part deal announced in February, Black Hills plans to pay \$940 million for the assets (GD 2/8).

After that deal is complete, Kansas City, Missouri-based Great Plains Energy will acquire what remains of Aquila in a deal that shareholders of both companies approved last week. Upon completion of that deal, which is pending before state regulators in Kansas and Colorado, Aquila would become a Great Plains Energy subsidiary. TT

## platts Gas Daily

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For Release  
October 8, 2007  
PR – 57

### **Natural Gas Utilities Provide 2007-08 Winter Outlook for Natural Gas Customers**

Washington, D.C. – Robust production activity, abundant natural gas storage, the expected expansion of liquefied natural gas (LNG) terminals and construction of new pipelines are likely to benefit natural gas customers over the 2007-08 winter, according to key executives from the American Gas Association (AGA), which represents the nation's natural gas utilities. At its Winter Heating Outlook press briefing here today, AGA representatives said this winter's supply of natural gas is abundant, but reminded the audience that utilities acquired a portion of the natural gas they will pipe to homes and businesses this winter earlier in the year when wholesale prices were higher than they are at present. AGA representatives also warned that weather conditions ultimately determine the size of home energy bills, because cold weather causes consumers to use more natural gas.

"This year, it's a return to 'business as usual' for natural gas utilities and their customers," said Chris McGill, managing director, policy analysis for AGA. "The business of a natural gas utility is to provide reliable supplies at an affordable price to its customers throughout the winter and all indications are that utilities are going to conduct that business very well this year." McGill said natural gas customers will benefit from incremental increases in natural gas supply made possible through the completed expansion of two LNG terminals, the construction of the Rockies Express Pipeline and the Independence Hub.

According to AGA, natural gas utilities purchase natural gas from a variety of competing suppliers throughout the year. Some of this natural gas is placed in underground storage facilities for the utility to draw from during the winter and some of it is scheduled for delivery to the utility's pipeline system during the winter months.

McGill said that demand for natural gas for electricity generation continues to grow. "There are peaks in demand for natural gas during the hottest months, when it's needed to generate electricity," McGill said. "However there are also multiple mini-peaks in consumption of natural gas to generate electricity throughout the winter to take into account.

"Are we challenged for this winter? Not from the stand point of reliably supplying customer demand," McGill said. "But we need to keep in mind that costs are higher today than when compared to history and that adequate supply for winters to come remains an issue."

Paul Wilkinson, vice president, policy analysis, AGA agreed with McGill, "Natural gas is a premiere fuel from an environmental perspective," said Wilkinson. "Ninety percent of all new electricity generation plants built since the 1990s have been natural-gas fired," he said. "Climate change mitigation policies are likely to lead to an even greater reliance on natural gas; however the potential for natural gas to contribute to environmental improvements cannot be realized unless access to the resource is increased."

Natural gas utilities have used storage, the competitive marketplace and financial tools to protect their customers from price increases and volatility. According to U.S. Energy Information Administration statistics, the price of all major home energies has increased since 2000. By law, natural gas utilities may not mark up the price of natural gas. Instead, utilities charge natural gas customers the same wholesale price they paid to acquire the fuel. Like FedEx or UPS, utilities earn any profits from a separate delivery charge that is not linked to the price of the product they deliver.

"By continuing to use energy wisely, customers can gain greater control and predictability over their home energy bills," said Wilkinson. In addition to using programmable thermostats, he advised customers to take advantage of tax credits for high efficiency furnaces and boilers, energy-saving windows and home insulation and to look into levelized billing programs offered by natural gas utilities.

"Households are using about 33 percent less natural gas than they did in 1980," Wilkinson said. "But efficiency alone is not the answer: low-income households need help."

Mark Wolfe, executive director of the National Energy Assistance Directors Association, which is the primary educational and policy organization for the state directors of the Low Income Home Energy Assistance Program (LIHEAP), agreed with Wilkinson and called on Congress to increase funding for LIHEAP this winter.

*The American Gas Association, founded in 1918, represents 200 local energy utility companies that deliver natural gas to more than 64 million homes, businesses and industries throughout the United States. A total of 69 million residential, commercial and industrial customers receive natural gas in the US, and AGA's members' deliver 92 percent of all natural gas provided by the nation's natural gas utilities. Natural gas meets almost one-fourth of the United States' energy needs. For more information, please visit [www.aga.org](http://www.aga.org).*

- AGA -



# Natural Gas, Gas Liquids and Power Market Update

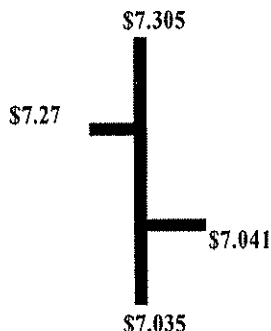
## Daily Market Indicator



**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com

**Monday, October 22, 2007**



**Today: Bearish**      **November Natural Gas Closed**      **Down 0.333¢**      **30-Day: Bearish**  
 Bottom Line – The entire energy complex should follow the expiring crude contract today, which will show some serious weakness as it rolls into expiration. Weather related demand will weaken and prices should follow suit.

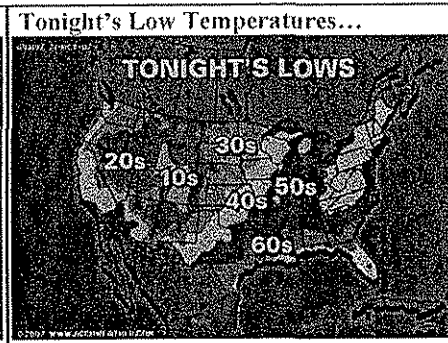
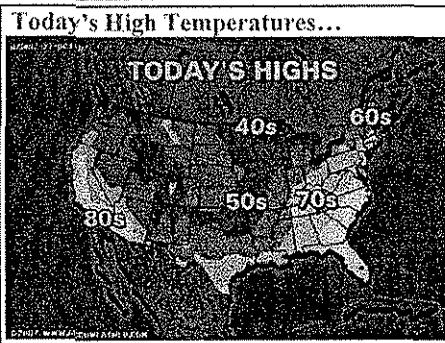
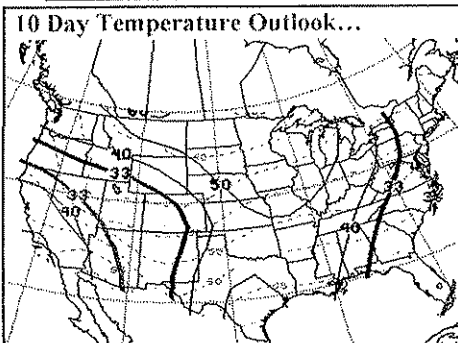
Yesterday's Market

- November fell "off the wagon" on Friday as energy markets, in general, traded in negative territory. Natural gas tested \$7.00 support while looking ahead to unresponsive fundamentals, including a mild winter outlook and a healthy storage tally. The front month closed the week at \$7.041, down 33.3¢, after running a range between \$7.035 and \$7.305. November crude futures, which expire today, settled at \$88.60, down 87¢ after trading between \$87.90 and \$89.56. Most saw the weakness in natural gas, at least fundamentally, due to milder weather across CONUS this week.

Today's Market

- I love saying the word autumnal. Say it with me... *o-tum-nal*. Now, don't you feel better. Use it in a sentence today. It's better than using the word...FALL. That's so anti-intellectual. The reason is...fall is here! While some warm weather is still bound to show up, we're done with the extremes of summer. That means with storage at seriously high levels, weather related demand weak, and OH!, I forgot! Hurricane season being virtually OVER!...we're heading into seriously bearish fundamentals. I know, you've heard that before. I agree with you. However, the crude oil contract has hit such historic highs lately that there has to be a lot of longs in that market. Today is expiration. They'll have to sell to get out of positions. Such weakness will be felt across the energy board...at least today. I attended PIRA last week. What I got out of two days of listening was that the natural gas fundamentals are bearish now, but bullish next year. Crude oil is bullish now...and forever! Maybe I'm overstating the comments...maybe not.

Access Trading	10/22/2007	7:14 AM	Natural Gas	\$6.925	(11.6¢)
WTI Crude	\$87.130	(\$1.48)	IPE Brent	\$67.190	



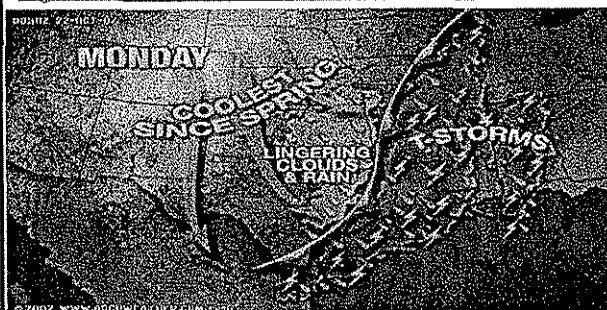
Weather Briefs – Temperatures this week are expected to average 4°-11°F above normal along the Eastern Seaboard as well as parts of the Great Lakes region. The coolest anomalies for the western U.S. exist across the southern and central Plains. The warmest anomalies persist across southern California where strong Santa Ana winds heat the region.

**Storage...**

We expect to see 42 Bcf build from storage this week.

The EIA reported a 73 Bcf storage build last week, increasing the nationwide stocks to 3.336 Tcf. The build was within the industry's expectation of 60 to 80 Bcf injection. In the same week last year the stock level was 3.389 Tcf, which sends the year on year deficit to 53 Bcf. Indication for this week is a 42 Bcf build compared to a 53 Bcf build last year and a 64 Bcf build for the 5yr. Average.

Sigmets: Strong Cold Front Moving Across Country



The cold front moving across the country at this moment will significantly drop mean temperatures for most locations east of the Rockies this week. Look for demonstrably lower temperatures across most of the eastern U.S. with the most dramatic temperature drops in the south...90's last week to 70's this week. This WON'T last, people, but it does mark the autumnal flip.

inventories are expected to recover as higher prices draw in imports, ending the winter season at 27.7 million barrels, near the average over the last 5 years.

*Prices.* Spot propane prices are strongly influenced by both crude oil and natural gas prices. Retail propane prices are projected to average \$2.13 per gallon in 2007 and \$2.20 per gallon in 2008. However, with current inventories well below year-ago levels, propane markets are likely to remain relatively tight this winter, with the potential for additional upward pressure on residential propane prices if the U.S. experiences severe weather.

### *Natural Gas Markets*

*Consumption.* Heating degree-days in the fourth quarter of 2007 are expected to increase by 10 percent over the corresponding period in 2006, contributing to expectations of 9.5- and 6.9-percent growth in residential and commercial sector natural gas consumption, respectively, for 2007 over 2006. Total natural gas consumption is expected to rise by 4.6 percent in 2007 because of increases in the residential, commercial, and electric power sectors, particularly in the first half of the year (Total U.S. Natural Gas Consumption Growth). In 2008, the continuation of near-normal weather would slow expected year-over-year consumption growth to 0.4 percent. In the residential sector, consumption growth is expected to increase by 1.5 percent, but only small changes are expected in the commercial and electric power sectors. Industrial sector consumption is projected to decline by 0.9 percent in 2007, but increase by 0.4 percent in 2008.

*Production and Imports.* Total U.S. marketed natural gas production is expected to rise by 1.3 percent in 2007 and by 0.9 percent in 2008. In the Gulf of Mexico, where year-to-date tropical storm-induced production losses currently total 8.27 billion cubic feet (bcf), marketed production is expected to decline by 2.6 percent in 2007 and increase by 5.4 percent in 2008 as a result of developing deepwater supply infrastructure. In the Lower-48 onshore region, marketed production is expected to increase by 1.9 percent in 2007, offsetting production declines in the Gulf, and by 0.2 percent in 2008.

Imports of liquefied natural gas (LNG) are expected to increase by about 260 bcf (44.5 percent) in 2007 and by about 170 bcf (19.7 percent) in 2008. High natural gas prices in the United States compared with other LNG-consuming countries, combined with increased global supply of LNG, created a surge in shipments to the United States during the first half of 2007. LNG imports have slowed in the last 2 months as natural gas demand in Japan for electricity generation has increased since the shutdown of the Kashiwazaki-Kariwa nuclear power plant in July.

**Inventories.** On September 28, 2007, working natural gas in storage was 3,263 bcf (U.S. Working Natural Gas in Storage). Inventories were 227 bcf above the 5-year average (2002–2006) and 54 bcf below the level of the corresponding week last year. Working gas inventories by the beginning of the heating season are projected to reach 3,444 bcf, slightly below the all-time high for natural gas storage inventories recorded at the end of November 1990.

**Prices.** The Henry Hub spot price averaged \$6.26 per mcf in September, which marked the fourth consecutive decline in the monthly average spot price since May. A lack of significant hurricane activity in the Gulf of Mexico and historically high storage inventories have contributed to the recent decline in the Henry Hub spot price. Spot prices at the Henry Hub are projected to rise to a winter peak of \$8.65 per mcf in January 2008. On an annual basis, the Henry Hub spot price is expected to average about \$7.21 per mcf in 2007 and \$7.86 per mcf in 2008.

### *Electricity Markets*

**Consumption.** Cooling degree-days this summer were 12 percent higher than normal (U.S. Summer Cooling Degree-Days) and slightly higher than last summer. Summer residential electricity consumption this year was 1.5 percent higher than it was in the summer of 2006. For the entire year of 2007, total consumption is expected to grow about 2.4 percent, primarily due to a surge in electricity consumption in the first quarter (U.S. Total Electricity Consumption). Growth in 2008 is expected to slow to 0.7 percent due to an assumed return to near-normal summer temperatures and slightly slower growth in economic activity.

**Prices.** U.S. residential electricity prices are expected to grow by 2.2 percent this year and 2.3 percent in 2008, much lower than the growth rates experienced during 2006 (U.S. Residential Electricity Prices). Most of this increase is a result of increases in the fuel costs faced by electric power generators. Industrial electricity prices are expected to grow by 4.8 percent in 2007 and by 1.7 percent in 2008.

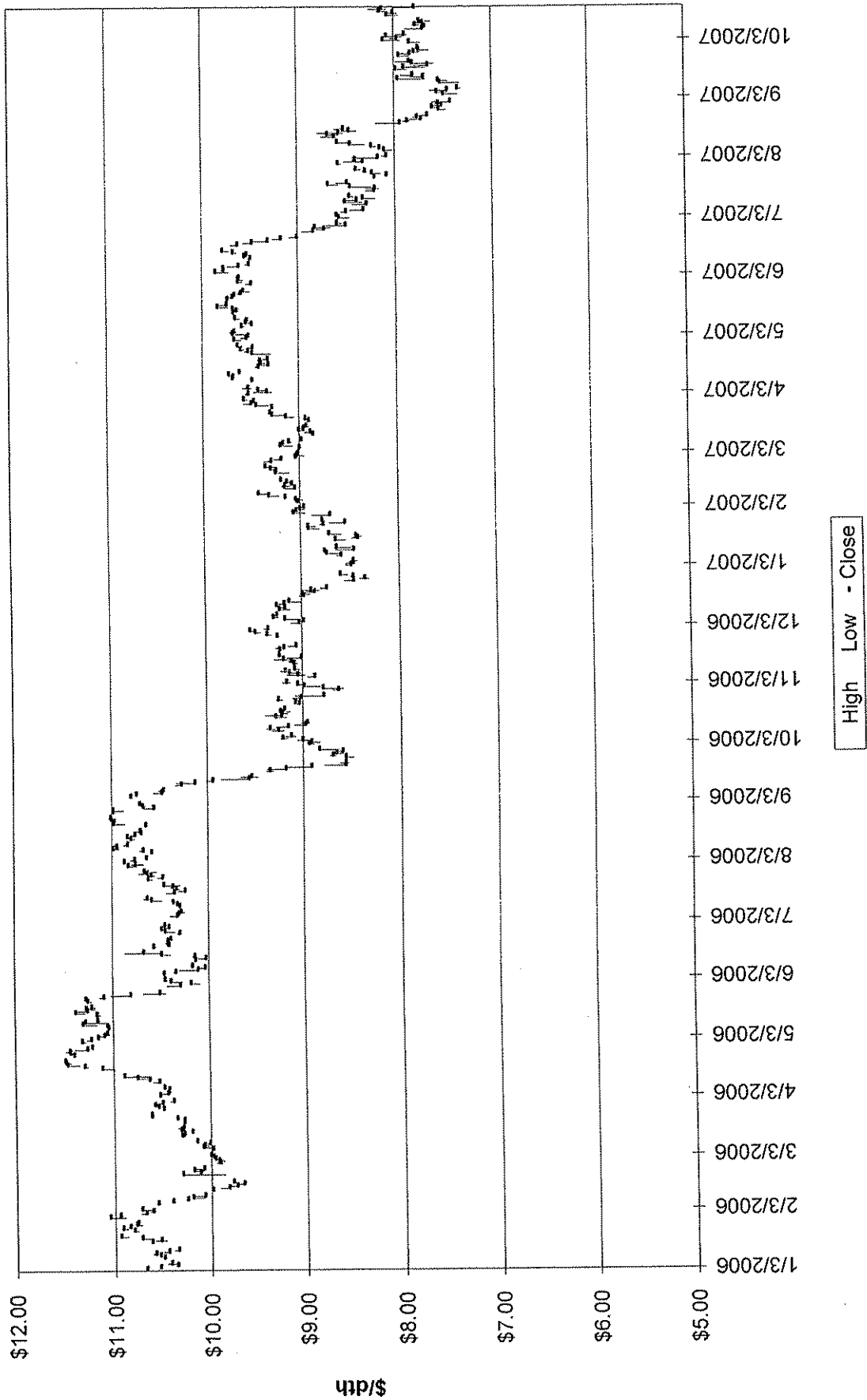
### *Coal Markets*

**Consumption.** Projected growth in electricity consumption of 2.4 percent will raise electric-power-sector coal consumption by 2 percent in 2007. Electric-power-sector coal consumption will remain relatively flat in 2008 (U.S. Coal Consumption Growth).

**Production.** U.S. coal production (U.S. Coal Production), which increased by 2.8 percent in 2006, is expected to fall by 2.7 percent in 2007. Production is projected to

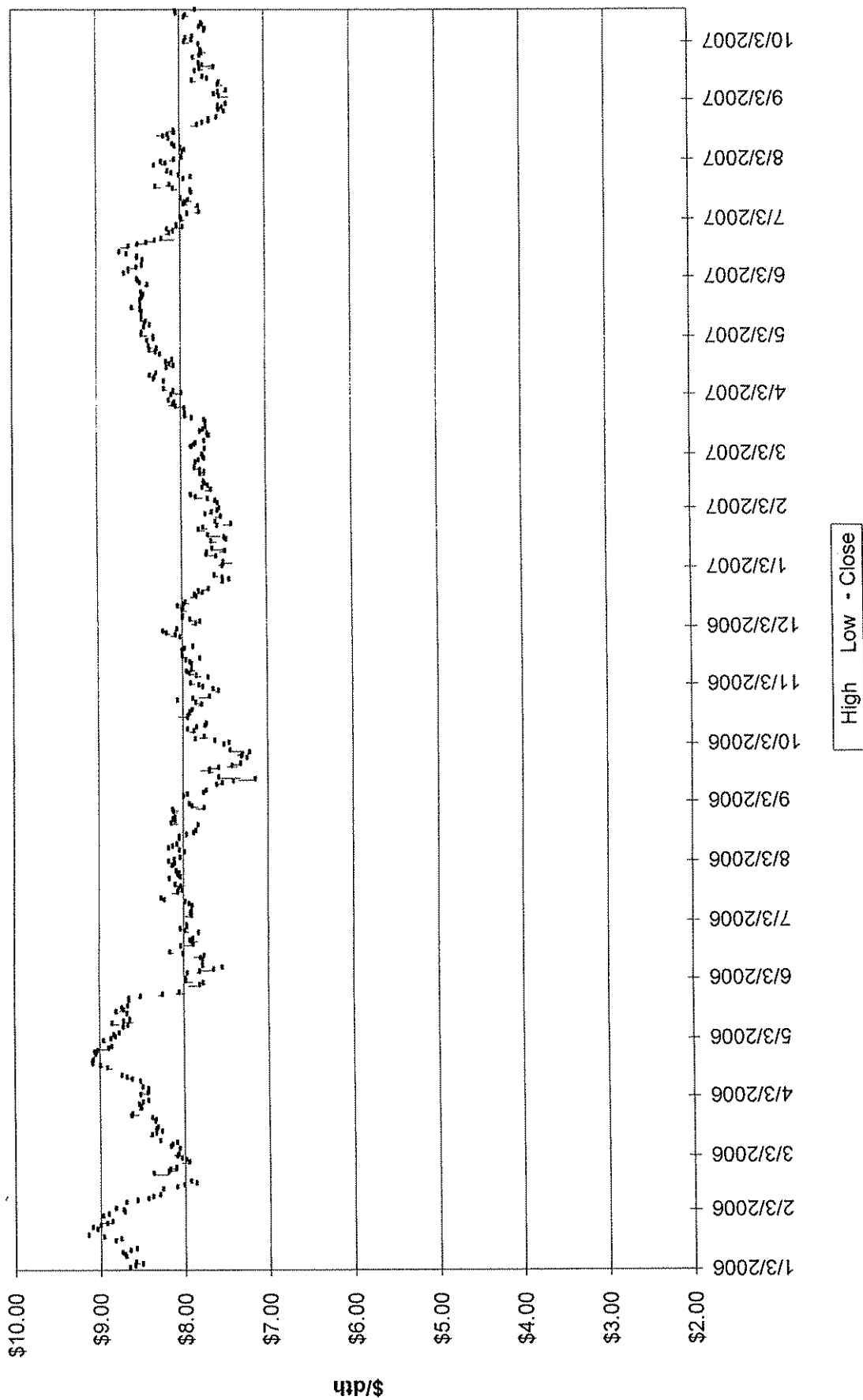


Winter Strip Nov07 - Mar08



3

### Summer Strip 2008



(Updates prices with settlements)

By Santosh Menon

LONDON, Oct 22 (Reuters) - Oil fell sharply toward \$87 a barrel on Monday as part of a broad-based commodities sell-off on concerns over the health of the U.S. economy and a recovery in the U.S. dollar.

U.S. crude <CLC1> settled down \$1.04 at \$87.56 a barrel, retreating from last week's all-time high of \$90.07. London Brent crude <LCOc1> was 52 cents lower at \$83.27.

Dealers said the dollar's rebound from a record low against the euro <EUR=>, alongside sliding world stock markets following a flurry of weak corporate earnings results encouraged selling across energy and metals.

U.S. oil remains up around 10 percent since Oct. 8, propelled by geopolitical worries and expectations that energy inventories will be tight during the Northern Hemisphere winter.

Analysts said news that Kurdish rebels fighting Turkish troops near the Iraqi border could announce a cease-fire Monday evening added to Monday's losses.

Turkey had vowed Sunday to take tough action after the rebels killed 17 of its soldiers, raising fears of wider ability in the Middle East.

Kuwait's acting oil minister said Monday geopolitics and a lack of refining capacity was behind the recent surge in world oil prices and that a 500,000-barrels per day (bpd) output increase already agreed by OPEC would positively affect the market.

"We think that the production rise by 500,000 bpd will affect positively (the price)," Mohammad al-Olaim told reporters on the sidelines of an oil conference.

"It is in our interest that the price is appropriate for consumers and producers."

However, others contend OPEC's output increase from Nov. 1 is too little and too late.

"To bring the oil price down from its current level, OPEC's members need to put more oil onto the market and allow commercial inventories to be replenished," the London-based Center for Global Energy Studies said in a report.

Meanwhile, speculators on the New York Mercantile Exchange crude oil market increased their net long positions in the week to Oct. 16 as part of the rally that sent prices to a record \$90.07 a barrel.

Crude longs rose to 87,988, the highest level since mid-August, from 69,190.

Analysts said the continued rise in the size of speculative net long positions made oil vulnerable to a correction.

"The growing size of un-hedged positions in the market is a source of downside price risk, albeit strong underlying fundamentals should act to limit the extent of any potential correction," Barclays Capital said.

(Additional reporting by Richard Valdmanis in New York, Faye Long in Sydney)

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Keywords: MARKETS OIL/

RIC: N2\_UBMS PNAC: nL22111520

RET ABANFNGEMN

[Related Stories]

**Gas Commercial Operations  
 Long Term Fixed Price  
 Bid Sheet**

Date of Bids: October 16, 2007  
 Time of Bids: 11:00 AM  
 Location: Columbia Gulf Onshore or Mainline  
 Term: Nov 08 - Mar 10  
 Volume (dth/day) [REDACTED]

		<u>Onshore Bid</u>		<u>Mainline Bid</u>
		<u>Onshore</u>	<u>Mainline Equivalent **</u>	
[REDACTED]	[REDACTED]	_____ /dth	_____ /dth	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED] dth	\$8.5364 /dth	_____ /dth
[REDACTED]	[REDACTED]	[REDACTED] dth	\$8.5113 /dth	_____ /dth

[REDACTED] th/day Ohio and [REDACTED] th/day Kentucky

\*\* Based on weighted average commodity cost of [REDACTED]

Duke Energy  
 Hedging Program  
 Remaining Base Not Yet Locked In  
 Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u>							
Previously Hedged							
Total							
<u>Duke Energy Kentucky</u>							
Previously Hedged							
Total							

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 November 12, 2007

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Dec-Feb.
Mid Term Weather (30-60 days)	↓	Long	The only colder than normal temps are in Canada and a small section of the east coast.
6-10 day forecast	↑	Short	Warmer weather continues through next week, but turns colder again for the weekend.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage injections for the week ending November 2 were 36 BCF. Storage levels are 3% higher than last year at 3.5 TCF.
<b>Industry Publications</b>			
Cambridge Energy Research Associates Summer 2008: \$7.037 Winter 08/09: \$7.174	↑	Long	"the price of gas at Henry Hub has increased since late summer, and CERA expect this trend to continue well into winter."
Paribas	↓	Short	"A strong rise in open interest in a falling market indicates that the downtrend is probably here for a bit."
	↑	Long	"Longer term, we are starting to see news reports that new demand for natural gas will outpace supply and production..."
Gas Daily	↓	Long	Oct 31: NEB: Storage gas 'more than adequate' for winter Nov 2: Gas storage inventories top 3.5 Tcf, set record
Conoco Morning Briefing	↓	Short	"I'm not really bullish...I just think price (NYMEX) will go up today...despite the fact that cash is VERY weak, and prices should continue to tank."
<b>Government Agencies</b>			
Energy Information Administration Summer 2008: \$7.399 Winter 2008/09: \$	↓	Long	"The Henry Hub spot price...is projected to reach a winter peak monthly average price of about \$8.65 per mcf in January 2008."
<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: "Consumption in the industrial sector is projected to decline by 0.7 percent in 2007 and remain relatively unchanged in 2008."
Supply	↓	Long	"...the development of deepwater supply sources is expected to lead to production growth of 7.4 percent in 2008."
Oil Market	↑	Long	"Global oil markets will likely remain stretched, as world oil demand has continued to grow much faster than oil supply outside of (OPEC) Countries, putting pressure on OPEC and inventories to bridge the gap."
<b>Meeting Minutes: 10th Floor North Conference Room - 1:00 pm</b>			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 11/09/07

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
<b>Daily Base</b>												
Estimated Base (Gross)												
Amount Hedged												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Fixed Price												
Fixed Price												
Total Hedged												
<b>Monthly Base</b>												
Estimated Base (Gross)												
Hedged to date												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Fixed Price												
Fixed Price												
Total Hedged												
% of Base Supply												
Seasonal % of Base												
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)												
Storage Withdrawal												
Market												
Total (incl. Injections)												
% Hedged & Storage												
Seasonal %												

**Daily Base**  
 Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**  
 Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**  
 Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 11/09/07

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

[REDACTED]

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 11/09/07

Nov-09    Dec-09    Jan-10    Feb-10    Mar-10    Apr-10    May-10    Jun-10    Jul-10    Aug-10    Sep-10    Oct-10

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

Normal Load (City Gate)

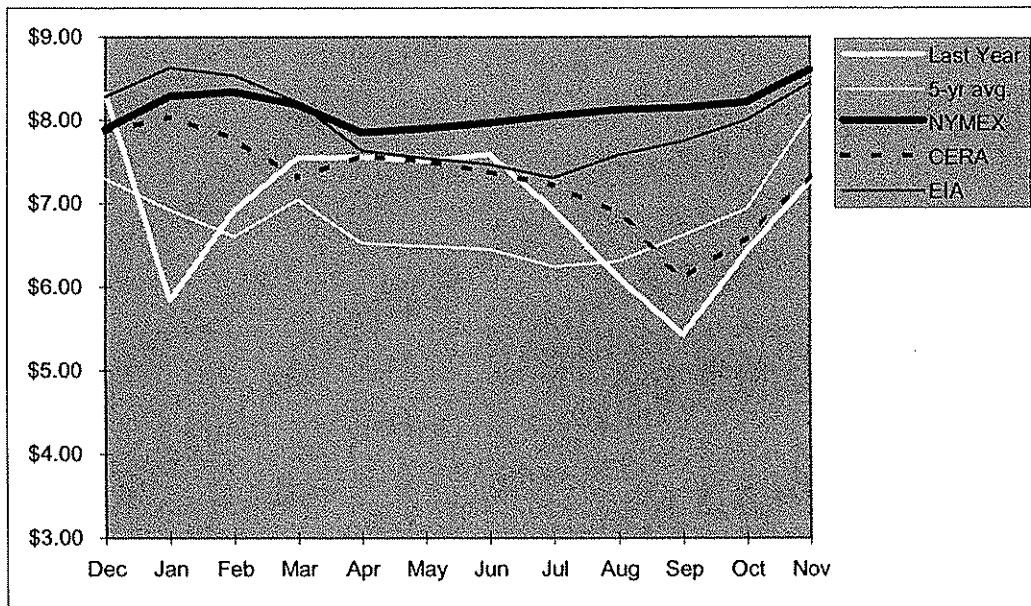
Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. injections)  
 % Hedged & Storage  
 Seasonal %

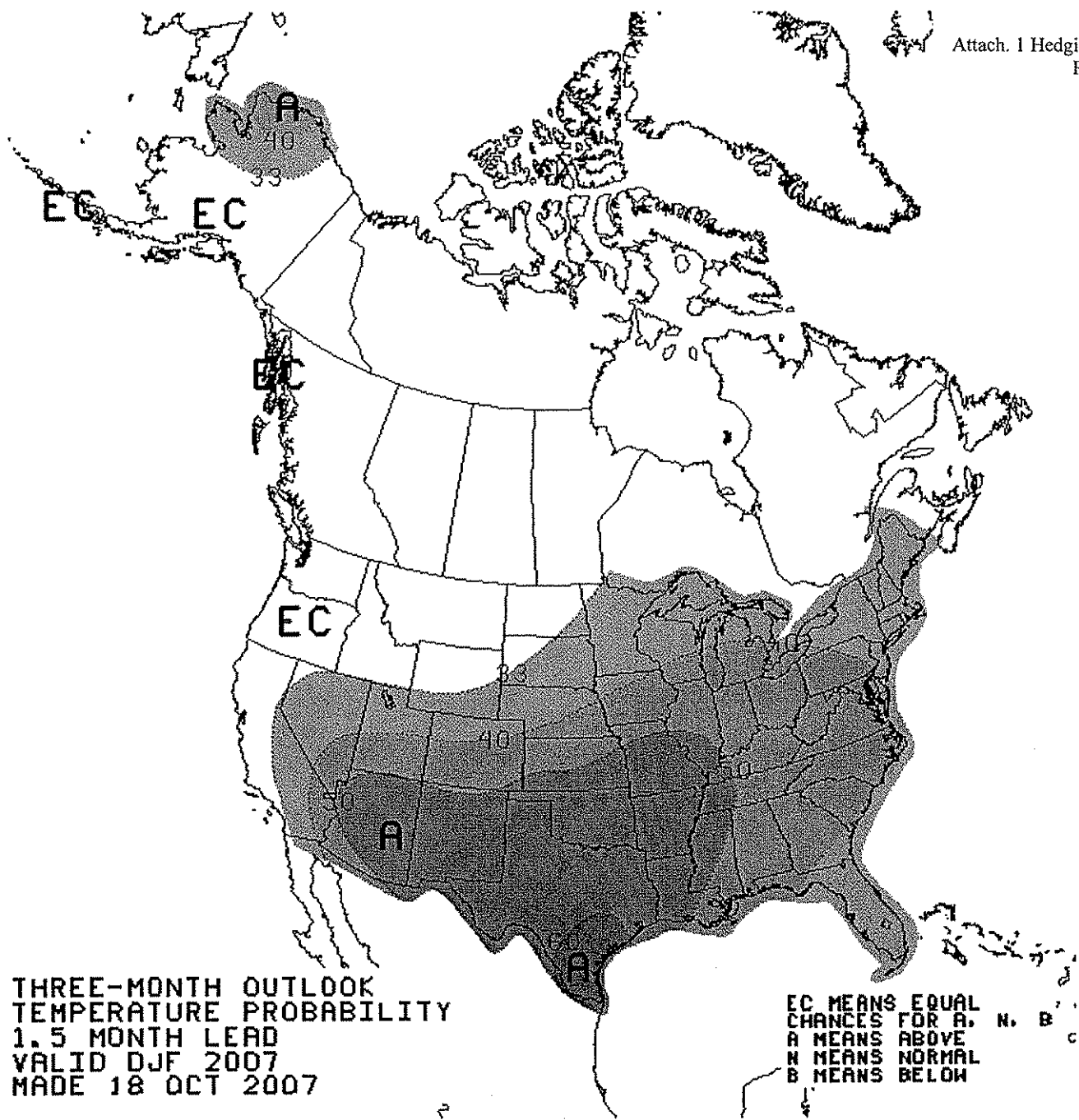
Duke Energy Kentucky  
Hedging Program  
Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (3/31/08)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Apr-08						
May-08						
Jun-08						
Jul-08						
Aug-08						
Sep-08						
Oct-08						
Summer 2008						
Nov-08						
Dec-08						
Jan-09						
Feb-09						
Mar-09						
Winter 08/09						
Apr-09						
May-09						
Jun-09						
Jul-09						
Aug-09						
Sep-09						
Oct-09						
Summer 2009						
Nov-09						
Dec-09						
Jan-10						
Feb-10						
Mar-10						
Winter 09/10						
Apr-10						
May-10						
Jun-10						
Jul-10						
Aug-10						
Sep-10						
Oct-10						
Summer 2010						

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

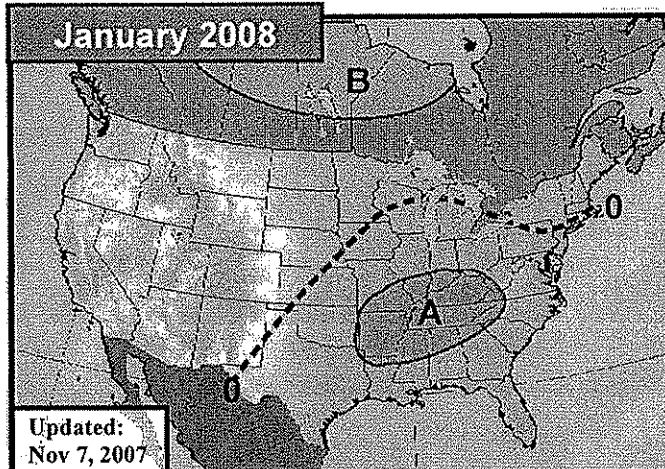
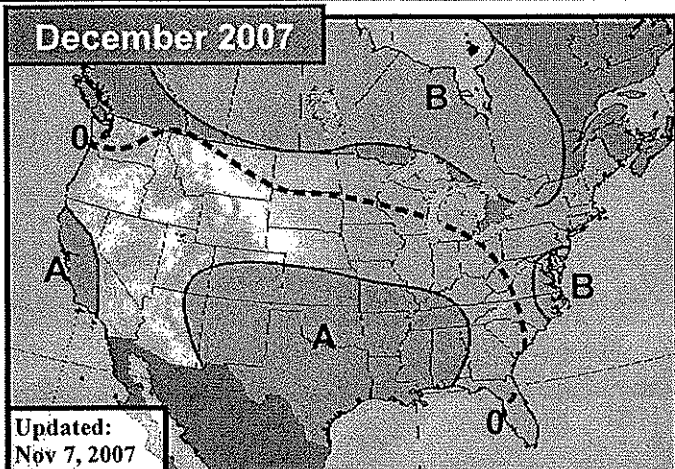
Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (01/02-05/06)	Last Year (2005-2006)		CERA 25-Oct-07	EIA 6-Nov-07	NYMEX 9-Nov-07
Dec	\$7.29	\$8.32		\$7.860	\$8.283	\$7.897
Jan	\$6.92	\$5.84		\$8.040	\$8.633	\$8.290
Feb	\$6.61	\$6.92		\$7.780	\$8.541	\$8.343
Mar	\$7.05	\$7.55		\$7.310	\$8.222	\$8.185
Apr	\$6.53	\$7.56		\$7.570	\$7.635	\$7.855
May	\$6.49	\$7.51		\$7.510	\$7.543	\$7.898
Jun	\$6.45	\$7.59		\$7.380	\$7.471	\$7.971
Jul	\$6.24	\$6.93		\$7.220	\$7.306	\$8.056
Aug	\$6.31	\$6.11		\$6.890	\$7.584	\$8.128
Sep	\$6.62	\$5.43		\$6.100	\$7.748	\$8.153
Oct	\$6.94	\$6.42		\$6.590	\$8.006	\$8.223
Nov	\$8.07	\$7.27		\$7.330	\$8.448	\$8.608
<b>12 Month Avg</b>	<b>\$6.79</b>	<b>\$6.95</b>		<b>\$7.298</b>	<b>\$7.952</b>	<b>\$8.134</b>
Summer Average				\$7.037	\$7.613	\$8.041
Winter Average				\$7.664	\$8.425	\$8.265





THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
1.5 MONTH LEAD  
VALID DJF 2007  
MADE 18 OCT 2007

EC MEANS EQUAL  
CHANCES FOR A, N, B  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW



Much Above (+4)
  Above (+2)
  0
  Below (-2)
  Much Below (-4)



### December Forecast Remains Unchanged

The December outlook remains unchanged in this week's update. The most favored area for cooler weather is again across Canada and on the Mid-Atlantic coast, with warmth dominating much of the South and in parts of California. As November wears on, the evolution of the pattern, particularly in the North Pacific, in the latter half of the month has large implications for December. The further east the GOA low is, the warmer the forecast in North America. Also important is the status of La Niña, which remained steady in the moderate category this week.

#### December GWHDD\* Forecasts

Dec 2007 Fcst:	895.0	10Y Normal	837.1
		30Y Normal	871.3
		Dec-2006	732.9

Change: 0

\*National Gas-Weighted HDDs

### January Turns Warmer in the East Cooler Temperatures Found In Canada

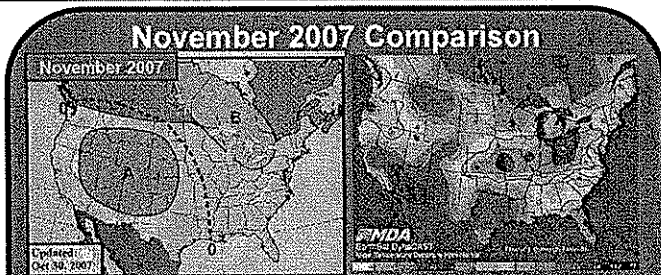
January outlook is based on a break in the cool pattern occurring early in the month. This is based on a trend from a negative NAO pattern in December to a more positive one in January. This typically correlates with a milder pattern along the immediate East Coast. The colder than normal conditions contract in Canada but are still present and could still produce a cold break or two during the month for the U.S. The West will only be slightly below normal as an east based La Nina pattern limits cold air intrusions.

#### January GWHDD\* Forecasts

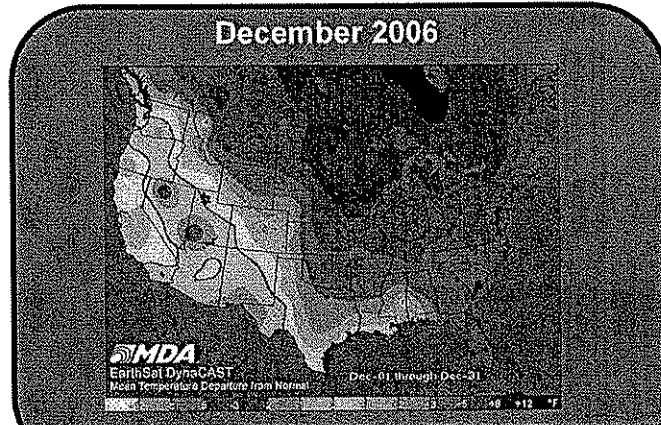
Jan 2008 Fcst:	844.0	10Y Normal	895.3
		30Y Normal	980.2
		Jan-2007	892.6

Change: NA

\*National Gas-Weighted HDDs



Though very early in the month, here is how November is shaping up to date. Cooler weather has begun to materialize in the Eastern US, with more cool weather expected for the balance of this week, though warmer weather is seen for next week. The problem area appears to be across Canada where barely a dent has been put in the warmth and little cold weather forecast into the middle of the month.



Maps above depict deviations of average temperatures from normal in Fahrenheit.



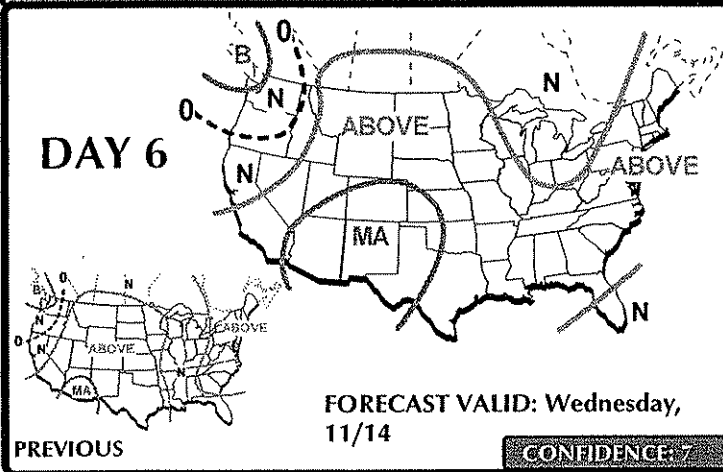
# MDA EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Friday DAY 11/9/2007 DATE 6:30 A.M. TIME JS/AC FORECASTER

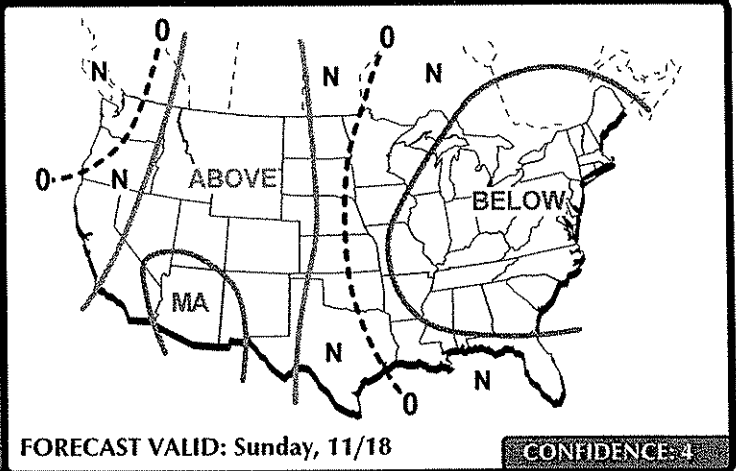
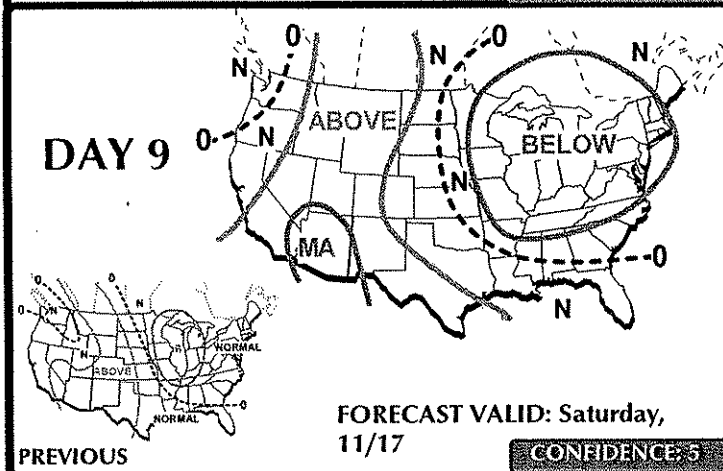
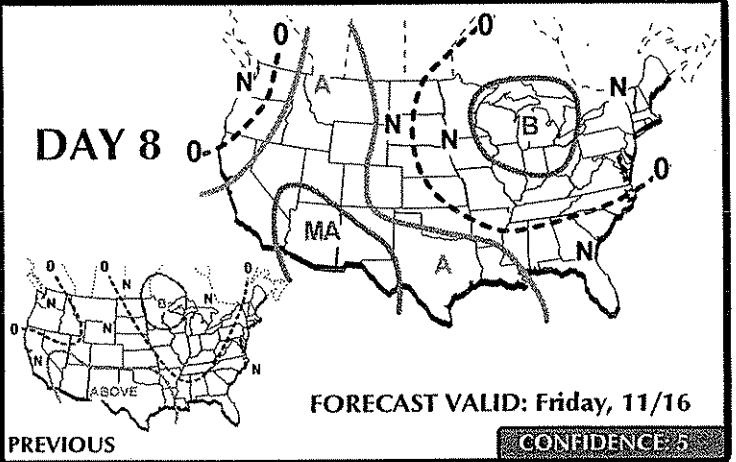
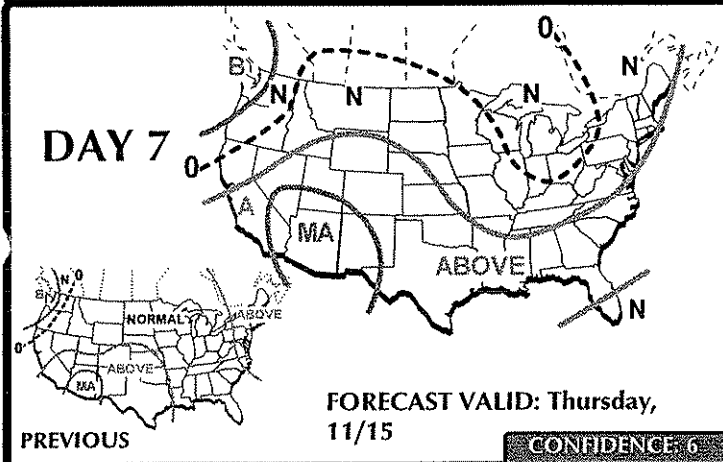
### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION



#### Today's Forecast

**Stronger Eastern Cooling late; West Still Warm**  
 While some relative warmth lingers at the beginning of the period, cooling quickly builds south and east for next weekend. The primary threat to the forecast in the East is to the cold side with much belows possible on days 9 and 10. Texas could also see cooler temperatures late. In the West, much aboves were extended longer today in the deserts of the Southwest. This was part of a larger-scale warming of the interior West.



### LEGEND

STRONG ABOVE..... +15 OR UP  
 MUCH ABOVE..... +8F TO +14  
 ABOVE..... +3F TO +7F

NORMAL  
 -2F TO +2F

STRONG BELOW..... -15 OR DOWN  
 MUCH BELOW..... -8F TO -14F  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

CERA ADVISORY SERVICE

North American  
Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## NATURAL GAS PRICES SET TO RISE FOR WINTER

### KEY IMPLICATIONS

The price of gas at Henry Hub has increased since late summer, and CERA expects this trend to continue well into the winter. Seasonal space-heating demand coupled with a seasonal downturn in liquefied natural gas imports will elevate the price level for the winter season. CERA expects gas prices at Henry Hub to average \$7.73 per million British thermal units (MMBtu) over the course of the winter, peaking at \$8.04 per MMBtu in January. For the AECO Hub, CERA expects gas prices to average C\$6.46 per gigajoule (\$6.68 per MMBtu).

**DATE**  
October 25, 2007

- CERA expects the end-October storage inventory to reach 4,099 billion cubic feet (Bcf) for North America. This would represent an average incremental gas supply increase of 1.3 Bcf per day over the 150-day winter period compared with last winter.
- Total North American gas demand is expected to increase by 3.1 Bcf per day, assuming a return to normal weather this winter. If winter weather is colder than normal, demand could be an additional 4.7 Bcf per day higher, while another warm winter would reduce demand by 5 Bcf per day from normal.
- The completion of Rockies Express Pipeline–West in January 2008 will begin to shift regional prices. Rockies gas prices will receive a substantial boost, reconnecting them with the broader western market, but at the same time prices in Mid-Continent markets will fall owing to the influx of Rockies gas supply formerly trapped behind the pipeline bottleneck.

## NORTH AMERICAN GAS MARKET PRICES RISING INTO WINTER

North American gas prices have crept upward slowly since late summer, averaging \$5.98 per million British thermal units (MMBtu) for the month of September—\$0.48 per MMBtu above CERA's estimate in the September *Monthly Briefing*. The recent run-up in oil prices to near \$90 per barrel has no doubt contributed to the gas price rise at Henry Hub, which again broke through the \$7 per MMBtu

Note: All prices are in US dollars unless otherwise indicated.

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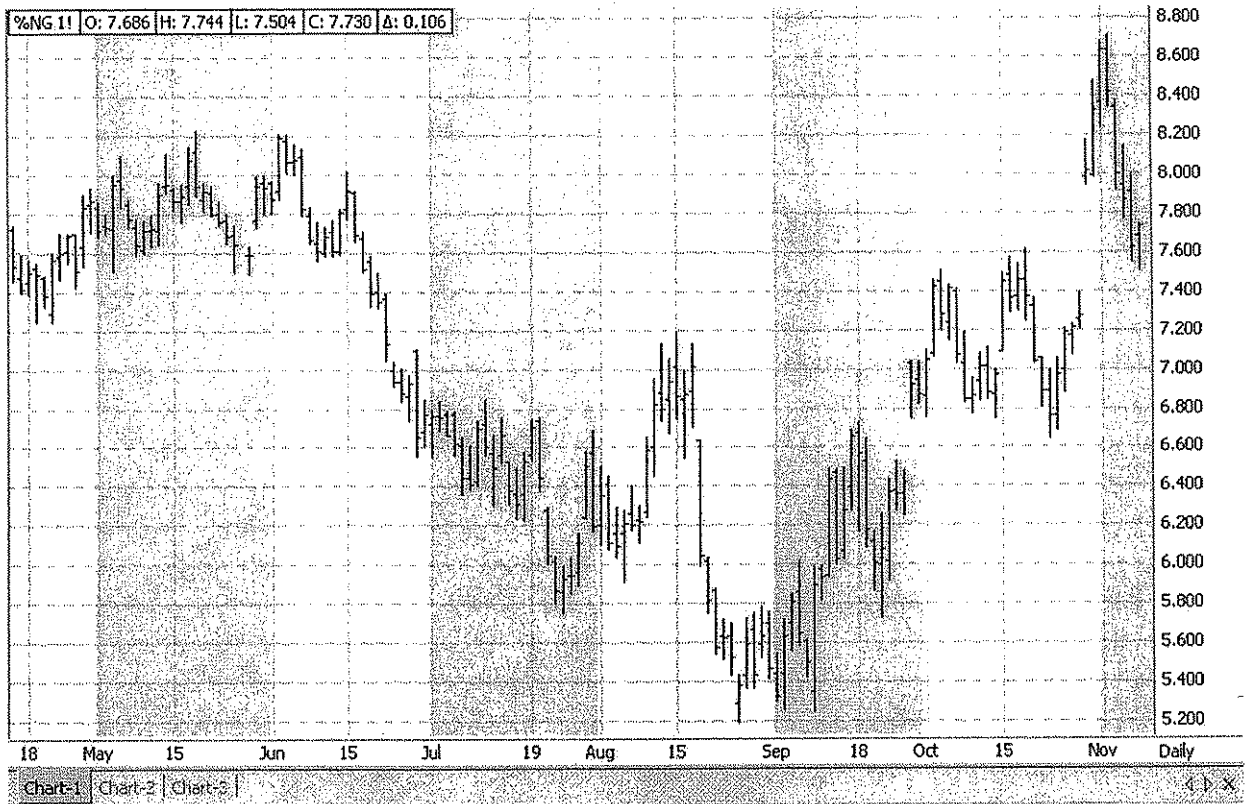
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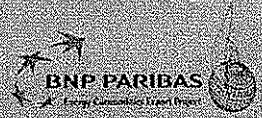


### Commentary

The downtrend in the Natural gas market took a breather today as the market traded sideways for the session. The EIA storage number came out at +36 which was right in line with expectations. An important point to note is that the open interest at the close of business on Tuesday was up over 15,000 contracts. A strong rise in open interest in a falling market indicates that the downtrend is probably here for a bit. Longer term, we are starting to see news reports that new demand for natural gas will outpace supply and production in the coming years. This is easy to understand considering the current state of the crude oil/heating oil market and more people deciding to heat their homes with gas instead of oil. The conversion ratio of heating oil to natural gas is 7.24 which means that the current heating oil price of \$2.61 is about the same as natural gas trading \$18.90.



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# Gas Daily

Wednesday, October 31, 2007

## Cold weather scares up broad pre-Halloween rally

THE MARKET

An influx of cold weather in some regions helped lift the December NYMEX gas futures contract 4.7 cents higher Tuesday to close at \$8.021/MMBtu, the highest prompt-month settlement since June 6. Cash prices also pressed higher in most markets.

The contract started the session at \$8.03 and rose as high as \$8.175 before its gains were trimmed at the end of the session. It posted an intra-day low of \$8.01, with some sources pegging the late reversal to psychological pressure following a steep sell-off in crude oil.

(continued on page 2)

## NEB: Storage gas 'more than adequate' for winter

Gas storage inventories "will be more than adequate" to meet heating demand across North America this winter, Canada's National Energy Board said Tuesday.

In its 2007-08 Winter Energy Outlook, the NEB said even if winter weather is colder than currently anticipated, high storage levels "should help to keep the market at ease," with gas prices holding in a range between \$6/MMBtu and \$8/MMBtu. However, the board noted that an exceptionally frigid winter could cause prices to rise above that range, especially if a cold snap occurs early in the season.

"Energy price volatility is the only certainty," NEB Chairman Gaétan Caron said in a statement. "We can never know for sure whether it will be a cold winter, or what events may occur in the world."

The NEB estimated that withdrawals from storage this winter in the Lower-48 states and Canada would average 12.6 Bcf/d, which would leave around 1.6 Tcf of gas in storage at the end of March — slightly less than the previous withdrawal season but well above normal end-of-season levels of around 1 Tcf.

"Overall, the forecasted gas supply in North America will be fairly flat over the winter, but starting to build again by late in the season," the report said.

A drop in the number of Canadian gas wells being drilled since early 2006 should result in Canadian gas supplies falling an average of 840,000 Mcf/d this winter compared with last. But while that decline is significant, "other supply sources are likely to offset the loss," including liquefied natural gas imports and higher production from the US Rockies and Midcontinent shale plays, according to the board.

As for oil, prices will likely remain high throughout the winter in the \$75/barrel to \$80/barrel range, with a continued rising price risk due to tightening supply inventories. At the same time, "mounting evidence that US economic growth may be slowing is a risk" to crude prices, the NEB remarked.

Although the price of heating oil should track that of crude, the NEB said heating oil inventories "are adequate for this winter" even though stocks in the US "are considerably lower than last year." However, natural gas prices "appear to be disconnected" from the price of oil as record-high crude prices in recent weeks have not significantly affected the gas market.

Meanwhile, barring extreme weather or unplanned grid outages, most Canadian provinces should have sufficient electricity supply to meet increased winter demand, the NEB predicted.

## Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.970

Trans. date: 10/30  
Flow date(s): 10/31

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.790	6.74-6.85	6.76-6.82	1406	179
Waha	6.810	6.73-6.90	6.77-6.85	371	55
Transwestern, Permian Basin	6.675	6.60-6.71	6.65-6.70	34	3
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	6.955	6.81-7.13	6.88-7.04	184	38
NGPL, Texok zone	6.900	6.70-7.10	6.80-7.00	586	107
Texas Eastern, ETX	6.820	6.75-6.85	6.80-6.85	8	5
Texas Gas, zone 1	7.020	6.83-7.12	6.95-7.09	134	19
<b>East-Houston-Katy</b>					
Houston Ship Channel	6.925	6.85-7.06	6.87-6.98	442	55
Katy	6.920	6.86-7.03	6.88-6.96	820	115
<b>South-Corpus Christi</b>					
Agua Dulce Hub	6.880	6.82-7.00	6.84-6.93	181	9
NGPL, STX	6.835	6.75-7.02	6.77-6.90	163	27
Tennessee, zone 0	6.835	6.70-7.02	6.76-6.92	127	24
Texas Eastern, STX	6.885	6.80-6.95	6.85-6.92	87	18

## TransCanada income up 11% on increased pipeline revenues

TransCanada said Tuesday that its third-quarter net income rose 11% from a year earlier, to \$324 million, due to higher revenues from its Canadian mainline and the purchase this year of ANR Pipeline, as well as the completion of new power generation facilities (all dollar figures Canadian).

The Calgary-based firm's pipelines business generated net earnings of \$163 million, a 25% increase from a year ago.

The Canadian mainline benefited from a higher deemed common equity ratio, performance-based incentive arrangements and operational savings, TransCanada said. A contribution of \$19 million by ANR, which was acquired in February, was generally in line with company expectations.

The mainline's throughput climbed 6% to average 8.6 Bcf/d, the company said. Throughput on the company's other systems in the latest quarter was essentially flat to a year ago, with the Alberta system at 11 Bcf/d, Gas Transmission Northwest at 2.2 Bcf/d and the Foothills pipeline at 3.9 Bcf/d. ANR's throughput averaged 3.8 Bcf/d during the quarter.

Income from gas storage operations jumped 62.5% to \$39 million due to higher revenues and the startup of the Edson storage facility in Alberta last December.

TransCanada's power generation business' earnings rose 27% to \$156 million due to higher realized power prices in Alberta and the startup of its Becancour and Edson facilities late last year. SGS

MT

# Gas Daily

Friday, November 2, 2007

## NYMEX barrels toward \$9; Rockies prices surge

**THE MARKET**

The December NYMEX gas futures contract rallied again Thursday, gaining 30.7 cents to settle at \$8.637/MMBtu and capping a two-day, 8.3% gain. Cash prices soared in the Rockies as pipeline constraints eased across the region.

The contract opened at \$8.355 and traded between a high of \$8.66 and a low of \$8.30. A NYMEX analyst said there is a lot of volatility in commodity markets and investors are looking for opportunities to buy — with gas as a prime target.

(continued on page 2)

## Gas storage inventories top 3.5 Tcf, set record

Gas storage inventories reached a new record high during the week ending October 26, when 66 Bcf was injected nationwide, the Energy Information Administration reported Thursday.

The build, which was above consensus expectations of 57 to 62 Bcf, raised stocks to 3.509 Tcf — eclipsing last year's all-time peak of 3.461 Tcf.

In the same week of 2006, EIA reported a 5-Bcf net withdrawal and 3.453 Tcf in storage. As a result, the 15-Bcf deficit from the year-ago level flipped to a 56-Bcf surplus, while the surplus over the five-year average expanded by 40 Bcf to 272 Bcf.

Inventories are now 107 Bcf above the five-year average of 1.897 Tcf in the East, 32 Bcf above the average of 427 Bcf in the West, and 133 Bcf above the average of 913 Bcf in the producing region.

And analysts said Thursday that the market should expect another net injection for the week ending November 2. In fact, "next week's build may be more than the 25-Bcf estimate we had penciled in," said Tim Evans of Citigroup Global Markets.

But fast-growing storage inventories over the past few weeks haven't translated to lower gas prices, several analysts pointed out. Gelber & Associates' Kent Bayazitoglu said anxiety driven by other factors, such as soaring crude oil prices and

flattening domestic production, means "the markets are reacting to any kind of bullish news."

But Bayazitoglu said the record storage levels will likely combine with other bearish forces, such as the impending start-up of the Rockies Express Pipeline's next leg, to ease pressure on the market. He also said liquefied natural gas will comprise a growing share of the US supply mix, especially in the shoulder months.

"It's got to go somewhere,"

Bayazitoglu said. "When Europe gets warm, it will come to us."

Evans agreed, adding that the market should not discount the robust storage inventories and the approaching end of the hurricane season.

"This is not the petroleum complex where a year-on-year stock decline to average levels can be given a bullish spin," he said. "Inventories are at a record high going into what is forecast to be a warmer-than-normal winter overall." CB/MD

### Daily price survey (\$/MMBtu)

NATIONAL AVERAGE PRICE: 6.860

Trans. date: 11/01  
Flow date(s): 11/02

	Midpoint	Absolute	Common	Volume	Deals
<b>Permian Basin Area</b>					
El Paso, Permian Basin	6.285	6.17-6.40	6.23-6.34	1312	178
Waha	6.335	6.17-6.48	6.26-6.41	386	72
Transwestern, Permian Basin	6.295	6.24-6.37	6.26-6.33	37	9
<b>East Texas-North Louisiana Area</b>					
Carthage Hub	6.485	6.35-6.60	6.42-6.55	121	26
NGPL, Texok zone	6.495	6.40-6.66	6.43-6.56	1244	199
Texas Eastern, ETX	6.415	6.27-6.50	6.36-6.47	10	5
Texas Gas, zone 1	6.855	6.68-7.05	6.76-6.95	199	35
<b>East-Houston-Katy</b>					
Houston Ship Channel	6.755	6.36-7.04	6.59-6.93	968	104
Katy	6.555	6.34-6.78	6.45-6.67	1003	137
<b>South-Corpus Christi</b>					
Agua Dulce Hub	6.640	6.45-6.82	6.55-6.73	200	14
NGPL, STX	6.485	6.39-6.60	6.43-6.54	168	31
Tennessee, zone 0	6.520	6.40-6.65	6.46-6.58	147	31
Texas Eastern, STX	6.485	6.40-6.55	6.45-6.52	244	44
Transco, zone 1	6.485	6.40-6.60	6.44-6.54	82	26

is continuing to reduce its debt and increase investments in Consumers.

"We plan to invest \$6 billion in the utility over the next five years in energy efficiency, renewable energy, environmental and customer service enhancements and new power generation and are seeking changes to Michigan's electric deregulation law to support these investments," Joos said. "These major investments will help us continue to provide safe, clean and reliable electric and natural gas service to our customers and keep rates competitive." VJ

### Estimated working gas in storage

(week ending Oct 26)

	This Week (Bcf)	Last Week (Bcf)	Change (Bcf)
Consuming Region East	2,004	1,970	34
Consuming Region West	459	453	6
Producing Region	1,046	1,020	26
Total U.S.	3,509	3,443	66

	This Week Last Yr. (Bcf)	Prior 5 Year Average (Bcf)
Consuming Region East	1,978	1,897
Consuming Region West	468	427
Producing Region	1,007	913
Total U.S.	3,453	3,237

Source: Energy Information Administration

### Reduced price volatility cuts into AGL's quarterly earnings

AGL Resources on Thursday posted net income of \$13 million for the third quarter, significantly lower than the \$36 million it earned a year earlier.

Atlanta-based AGL blamed the decline on a \$39 million drop in income at Sequent, its wholesale services unit, including a \$27 million reduction in storage-related hedging gains due to less volatility in forward NYMEX prices and a \$12 million drop in transportation hedging gains.

But the company's gas distribution segment contributed \$55 million in earnings before interest and taxes, a \$5 million year-over-year increase. The company said a \$6 million improvement in operating margins was driven by higher customer growth at Atlanta Gas Light, Elizabethtown Gas and Virginia Natural Gas.

AGL said its distribution segment delivered 45.2 Bcf of gas in the latest quarter, down 5% from the 47.7 Bcf delivered a year earlier.

The company's retail energy operations delivered 3.8 Bcf, up from 3.4 Bcf a year earlier, while its wholesale physical sales were nearly unchanged at 2.3 Bcf/d. RAW



## Natural Gas, Gas Liquids and Power Market Update

## Daily Market Indicator



(1-Day Indicator)

**Jim Duncan, Market Analyst**  
 (281) 293-1649

Email: James.W.Duncan@conocophillips.com

Friday, November 9, 2007

**Today: Bullish**      **December Natural Gas Closed**      *Up 0.089¢*      **30-Day: Bullish**

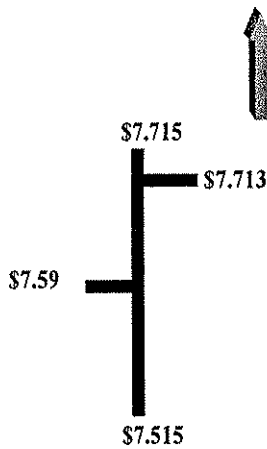
Bottom Line – I'm not really bullish...I just think prices (NYMEX) will go up today...despite the fact that cash is VERY weak, and prices should continue to tank. If true, and we do move higher today, it would be just that...today...and would be a psychologically triggered rally devoid of reason and absent fundamental reality. But, when was the last time that mattered?

Yesterday's Market

- December avoided a bearish storage report yesterday and, instead, chopped around with an upward bias before settlement as traders saw an opportunity to sell off some short positions. Still, without constructive fundamentals, many players found profits in selling to rally late despite a drop on the crude market. The front month contract ultimately settled up 8.9¢ on the day, trading between \$7.515 and \$7.715 before closing just under the high at \$7.713. The latest storage report from the Energy Information Administration showed a bearish 36 Bcf injected into storage last week, but the report carried little weight this week as the record storage and mild winter outlook have largely been built into the futures price already. Meanwhile, December crude settled at \$95.46, down 9¢ after trading between \$94.23 and \$97.70.

Today's Market

- Is it me, or does this market trade on nanosecond meteorological minutia. As the model runs came out yesterday morning, it seemed the natural gas market moved with the release of every frame. I hope that doesn't become a normal event. The midday model doesn't have a lot of skill at this time in history. The weather models used by the National Weather Service use varying levels of initialization data dependent upon runtime. The overnight model uses the most data including winds aloft data, which is absent in the midday model. It gives a lower skill resolution.



Access Trading	11/9/2007	7:38 AM	Natural Gas	\$7.845	14.2¢
WTI Crude	\$95.050	(\$0.41)	IPE Brent	Invalid	Invalid

<p>10 Day Temperature Outlook...</p>	<p>Today's High Temperatures...</p>	<p>Tonight's Low Temperatures...</p>
--------------------------------------	-------------------------------------	--------------------------------------

**Weather Briefs** – Temperatures are expected to average as much as 5°-13°F above normal into the middle of next week for all but the Eastern Seaboard. Very warm temperatures will be the rule from the Southwest into the Rockies and Plains through the weekend. Temps will average between 5°-15°F above normal. More seasonable along the West Coast.

**Storage...**

**We expect to see -4 Bcf draw from storage this week.**

The EIA reported a 36 Bcf storage build last week, increasing the nationwide stocks to 3.545 Tcf. The build was on the higher side of the industry's expectation of 25 to 40 Bcf injection. In the same week last year the stock level was 3.445 Tcf, which sends the year on year surplus to 100 Bcf. Indication for this week is a 4 Bcf draw compared to a 5 Bcf build last year and a 4 Bcf build for the 5yr. Average.

**Sigmets: Cold In Northeast Next 3-4 Days**

Below and much below normal temperatures are expected to continue across the northeastern U.S. through early next week as a deep trough only gradually slides off the Atlantic Seaboard. High temperatures are forecast to reach into the 40s and lower 50s most days, including the Boston-Washington corridor. Overnight readings meanwhile will be in the 30s and lower 40s for the urban locales, and even colder in the outlying valleys.

**Inventories.** Commercial crude oil inventories have generally been declining since May, a trend that is expected to continue through the forecast. As of October 31, total motor gasoline inventories were an estimated 195 million barrels, down 10 million barrels from 2006 and 4 million barrels below the previous 5-year average. On the eve of the summer driving season (March 31, 2008) total gasoline stocks are projected to total 208 million barrels, up 6 million barrels from 2007 and about 3 million barrels above the previous 5-year average. Distillate stocks were an estimated 135 million barrels on October 31, down 8 million barrels from 2006 but 7 million barrels above the previous 5-year average. Distillate stocks are projected to end the heating season (March 31, 2008) at 116 million barrels, down 4 million barrels from 2007 but still 6 million barrels above the previous 5-year average.

### ***Natural Gas Markets***

**Consumption.** Total natural gas consumption for 2007 is expected to rise by 4.5 percent primarily because of increases in the residential, commercial, and electric power sectors that occurred in the early part of the year (Total U.S. Natural Gas Consumption Growth). In 2008, total consumption is projected to grow by 0.9 percent. In the residential sector, consumption is expected to increase by 2.0 percent in 2008, with 0.9 and 1.3 percent growth expected in the commercial and electric power sectors, respectively. Consumption in the industrial sector is projected to decline by 0.7 percent in 2007 and remain relatively unchanged in 2008.

**Production and Imports.** Total U.S. natural gas production is expected to rise by 1.4 percent in 2007 and by 1.3 percent in 2008. In 2007, rising natural gas production in the Lower-48 onshore region has been partially offset by lower production in the Gulf of Mexico. Ongoing efforts to develop unconventional reserves are expected to increase Lower-48 onshore production by 2.2 percent this year and by 0.3 percent in 2008. Although production in the Gulf is expected to decline by 2.8 percent in 2007, the development of deepwater supply sources is expected to lead to production growth of 7.4 percent in 2008.

Imports of liquefied natural gas (LNG) have slowed substantially since earlier this year, reflecting changes in world LNG supply and demand. Several LNG producers are experiencing difficulties maintaining full production levels at the same time as strong demand in other parts of the world has resulted in higher prices, which divert cargos away from the United States. For example, Japan, which is the world's largest importer of LNG, is using more LNG for electricity generation following an earthquake that resulted in the ongoing shutdown of a major nuclear power plant. Despite the current reduction in U.S. LNG imports, they are still expected to increase

by 39 percent in 2007 and by 24 percent in 2008 as global liquefaction capacity continues to increase.

**Inventories.** On October 26, 2007, working natural gas in storage was 3,509 billion cubic feet (bcf) (U.S. Working Natural Gas in Storage). This was the first time weekly working gas stocks have exceeded 3.5 tcf, breaking a 17-year-old record.

**Prices.** The Henry Hub spot price averaged \$6.94 per mcf in October and is projected to reach a winter peak monthly average price of about \$8.65 per mcf in January 2008. On an annual basis, Henry Hub spot prices are expected to average \$7.30 per mcf in 2007 and \$8.01 per mcf in 2008.

### *Electricity Markets*

**Consumption.** Total electricity consumption for 2007 is projected to average 10.7 billion kilowatthours per day, 2.1 percent above last year's consumption (U.S. Total Electricity Consumption). The projected return to normal summer temperatures should limit growth in electricity consumption to about 0.5 percent during 2008.

**Prices.** U.S. residential electricity prices are expected to average 10.6 cents per kilowatthour in 2007 (U.S. Residential Electricity Prices). Relatively slow growth in the cost of coal to power generators should keep residential prices growing at a rate of about 2 percent during 2008.

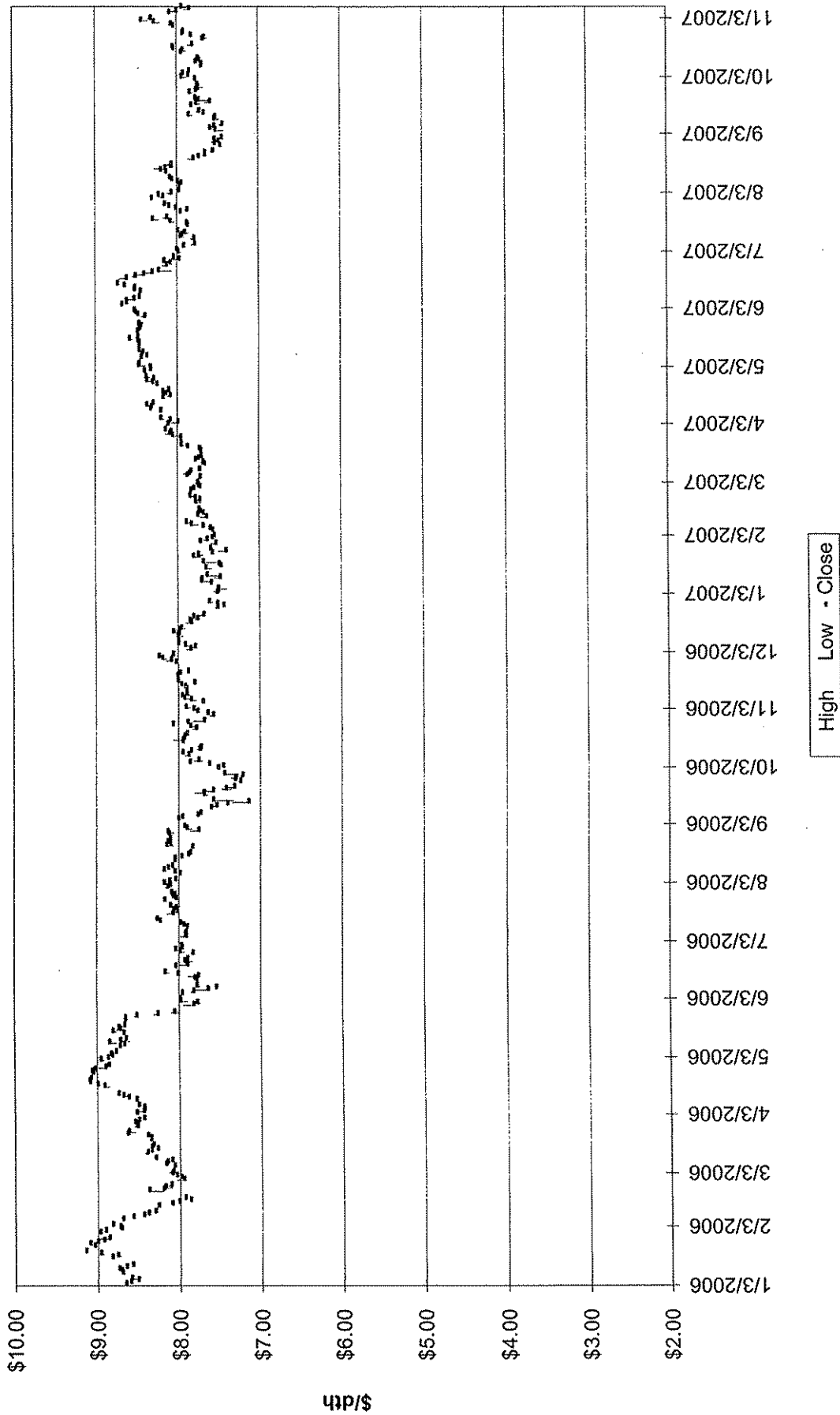
### *Coal Markets*

**Consumption.** Electric-power-sector coal consumption, which accounts for over 92 percent of total U.S. coal consumption, is expected to grow by 1.6 percent in 2007, then remain relatively flat in 2008 (U.S. Coal Consumption Growth).

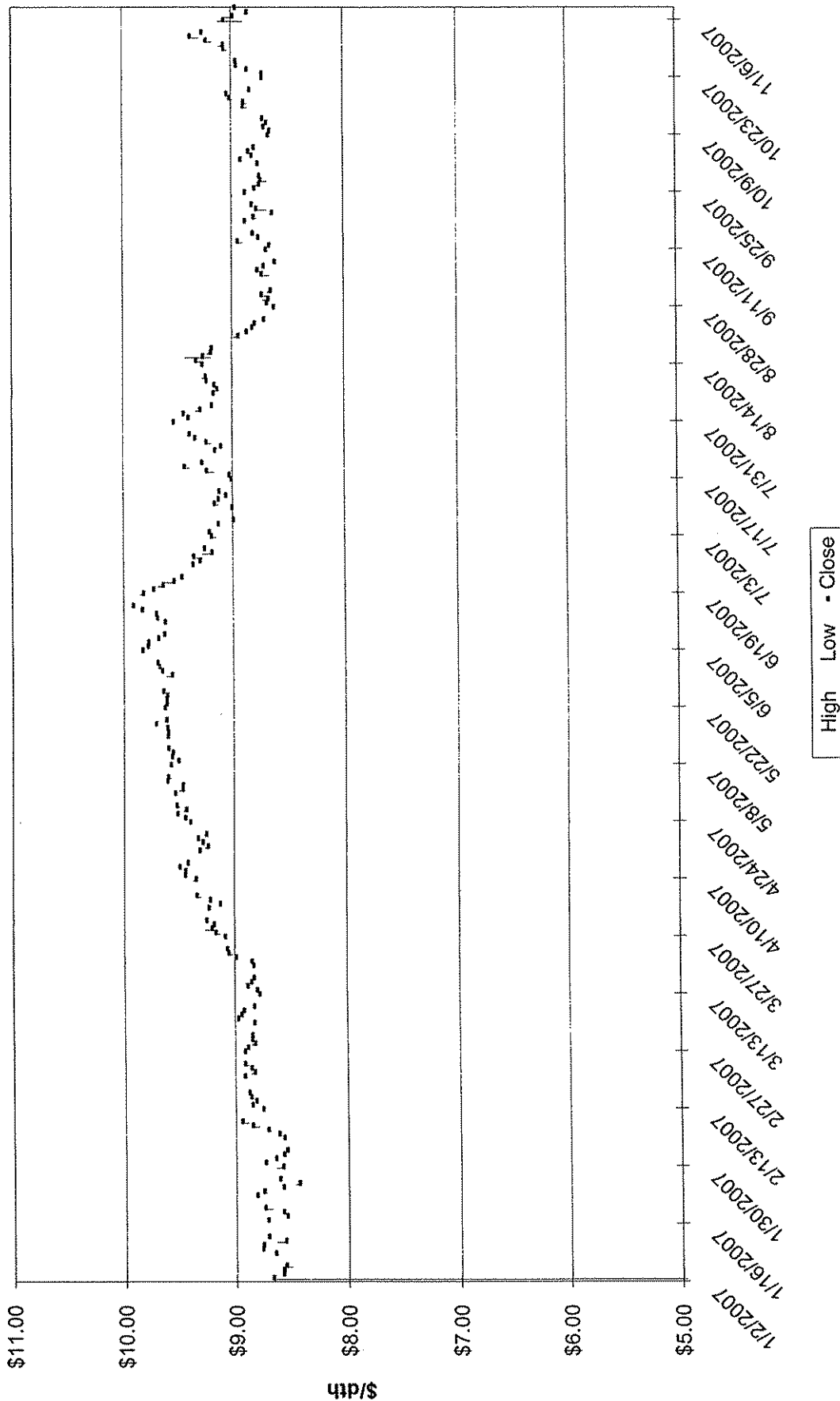
**Production.** U.S. coal production (U.S. Coal Production), which increased by 2.8 percent in 2006, is expected to fall by 2.0 percent in 2007. Production is projected to stay relatively flat in 2008, with a 0.5-percent increase in Western coal production, largely offset by a slight decline in output from the Appalachian and Interior regions.

**Inventories.** Withdrawals from primary (producer/distributor) and secondary (consuming sectors) inventories are expected to supply nearly all (approximately 85 percent) of the projected coal consumption increase in 2007. Total coal stocks are expected to fall by 8.2 percent in 2007 to 170.4 million short tons. Primary inventories are projected to fall by an additional 11 percent in 2008.

### Summer Strip 2008



Winter Strip Nov08 - Mar09





Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<b>Duke Energy Ohio</b>							
Previously Hedged							
<b>Total</b>							
<b>Duke Energy Kentucky</b>							
Previously Hedged							
<b>Total</b>							

**Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 December 17, 2007**

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Dec-Feb.
Mid Term Weather (30-60 days)	↓	Long	Normal or warmer than normal in Mid Continent and East Coast.
6-10 day forecast	↓	Short	Much of the Continent predicting normal and above normal temperatures.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage withdraws for the week ending December 7 were 146 BCF, a larger-than-expected drawdown. Storage levels are 1% higher than last year at 3.3 TCF (8.5% above 5-year average 3.0 TCF).
<b>Industry Publications</b>			
Cambridge Energy Research Associates <i>Summer 2008: \$7.037</i> <i>Winter 08/09: \$7.174</i>	↑	Long	CERA expects spot prices at Henry Hub for December to average \$7.86 per MMBtu, for December through March to average \$7.75 per MMBtu.
Paribas	↓	Short	The warmer temps should add to the already bearish storage situation. Many traders may not want to take an aggressive stance until the New Year.
Gas Daily	↑	Short	"Given the weather forecasts going forward the next 10 to 15 days, we fully expect the current gas storage surplus to last year to change back into a deficit by the week ending December 21."
<b>Government Agencies</b>			
Energy Information Administration <i>Summer 2008: \$7.254</i> <i>Winter 2008/09: \$</i>	↓	Long	"The Henry Hub spot price are expected to average about \$7.21/Mcf in 2007 and \$7.78/Mcf in 2008, according to EIA."
<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↑	Long	Goldman Sachs: "We believe that U.S. natural gas has been oversold and, barring another warmer-than-average winter, gas prices will likely rebound as a long list of supporting factors begin to dominate."
Supply	↓	Long	EIA forecasts 8% rise in gas production by 2021.
Oil Market	↑	Long	Goldman Sachs has raised its average 2008 oil price forecast for Nymex crude by \$10 to \$95 a barrel. Expectations have been growing that a slowing U.S. economy could significantly crimp global oil demand, but Goldman Sachs said oil demand remains robust in the U.S. and Japan, and is accelerating in China and Korea.
<b>Meeting Minutes: 10th Floor North Conference Room - 1:00 pm</b>			
Attendees: [REDACTED]			

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 12/14/07

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
<b>Daily Base</b>												
Estimated Base (Gross)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Amount Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Monthly Base</b>												
Estimated Base (Gross)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Hedged to date	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
% of Base Supply	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Seasonal % of Base	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Storage Withdrawal	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Market	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total (incl. Injections)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
% Hedged & Storage	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Seasonal %	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**Daily Base**  
 Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**  
 Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**  
 Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 12/14/07

Nov-09    Dec-09    Jan-10    Feb-10    Mar-10    Apr-10    May-10    Jun-10    Jul-10    Aug-10    Sep-10    Oct-10

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

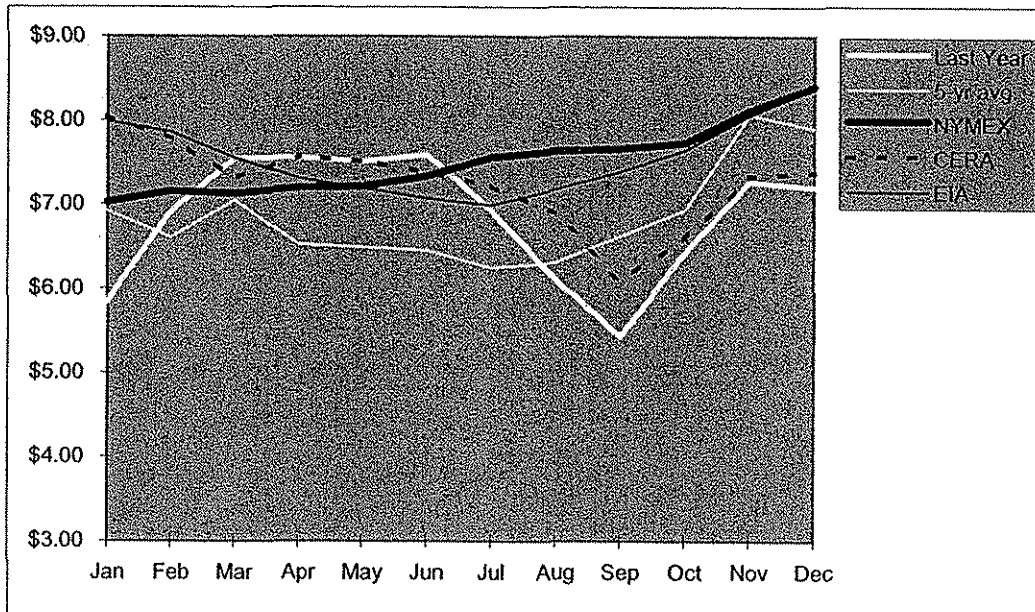
12/14/2007

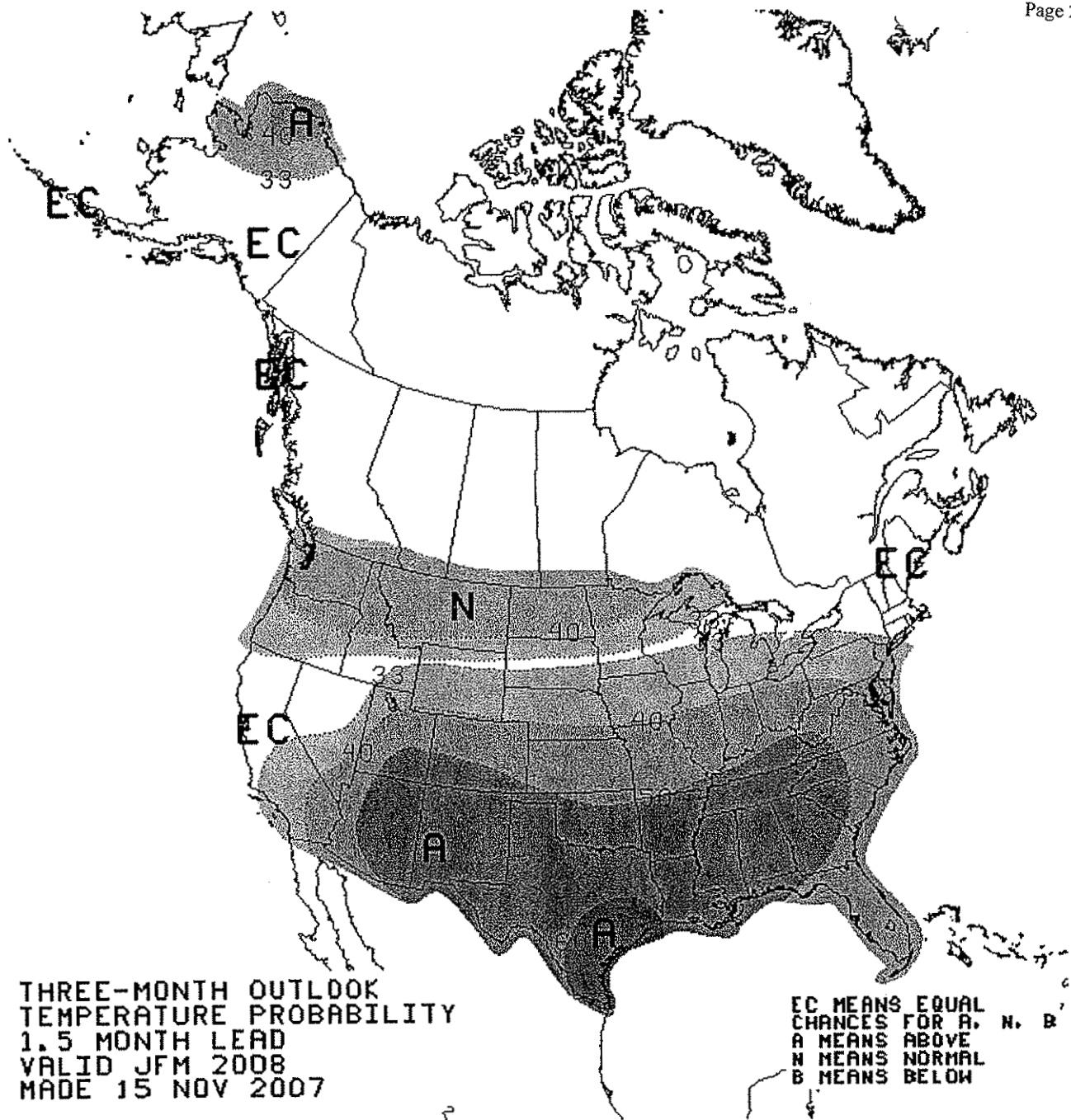
**Duke Energy Kentucky  
 Hedging Program  
 Current Position**

Delivery Month	Base Supply		Hedged to Date		Next Target (3/31/08)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					
Apr-10	[REDACTED]					
May-10	[REDACTED]					
Jun-10	[REDACTED]					
Jul-10	[REDACTED]					
Aug-10	[REDACTED]					
Sep-10	[REDACTED]					
Oct-10	[REDACTED]					
Summer 2010	[REDACTED]					

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (03/04-07/08)	Last Year (2007-2008)		CERA 20-Nov-07	EIA 11-Dec-07	NYMEX 14-Dec-07
Jan	\$6.92	\$5.84		\$8.040	\$7.990	\$7.025
Feb	\$6.61	\$6.92		\$7.780	\$7.860	\$7.155
Mar	\$7.05	\$7.55		\$7.310	\$7.550	\$7.130
Apr	\$6.53	\$7.56		\$7.570	\$7.310	\$7.200
May	\$6.49	\$7.51		\$7.510	\$7.190	\$7.215
Jun	\$6.45	\$7.59		\$7.380	\$7.070	\$7.335
Jul	\$6.24	\$6.93		\$7.220	\$6.990	\$7.560
Aug	\$6.31	\$6.11		\$6.890	\$7.180	\$7.637
Sep	\$6.62	\$5.43		\$6.100	\$7.390	\$7.663
Oct	\$6.94	\$6.42		\$6.590	\$7.650	\$7.733
Nov	\$8.07	\$7.27		\$7.330	\$8.060	\$8.118
Dec	\$7.91	\$7.20		\$7.380	\$8.390	\$8.405
<b>12 Month Avg</b>	<b>\$6.84</b>	<b>\$6.86</b>		<b>\$7.258</b>	<b>\$7.553</b>	<b>\$7.515</b>
<b>Summer Average</b>				<b>\$7.037</b>	<b>\$7.254</b>	<b>\$7.478</b>
<b>Winter Average</b>				<b>\$7.568</b>	<b>\$7.970</b>	<b>\$7.567</b>







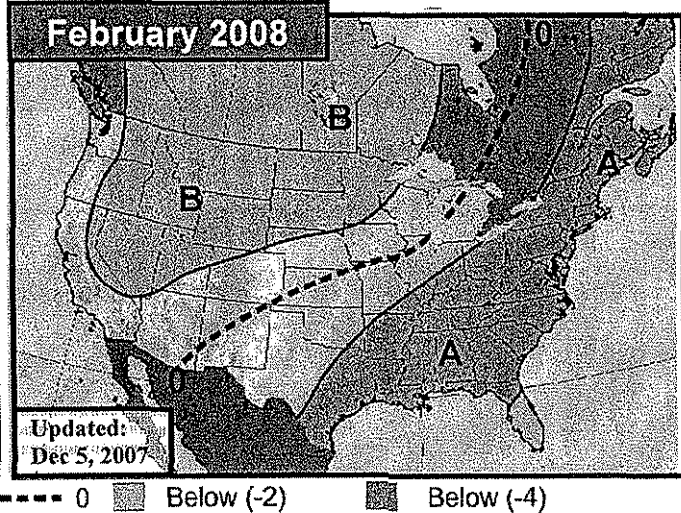
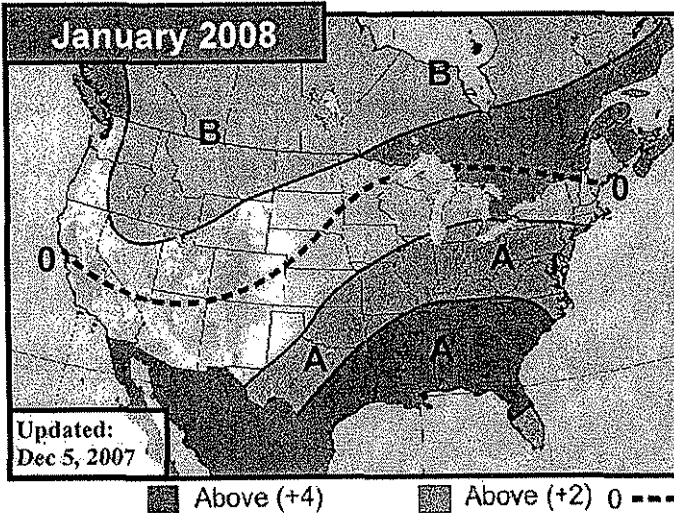


# EarthSat's 30-60 Day Outlook

Wednesday, December 05, 2007

EarthSat Weather

Forecaster: MR/DS/JS



January 2008 Previous

Updated: Nov 28, 2007

**Colder for Canada**

**Similar (Warm) Themes for Eastern U.S.**

The updated January outlook does show expansion of cold expectations over more of Canada given the correlations with La Niña thinking and the early development of stronger cold there this month too. Otherwise, the thinking for warm ridging toward the Southeast is still intact. One strong concern here is that a subset of analog years (including 1970) suggest that December is the warm month and January the colder one. This will need to be watched for if December surprises to the warmer than normal side overall.

January GWHDD* Forecasts			
Jan 2008 Fcst:	931.2	10Y Normal	895.3
		30Y Normal	980.2
		Jan-2007	892.6
Change: +7.5		*National Gas-Weighted HDDs	

**February Generally Cold West And Warm East**

Unlike last year, this February is expected to be one of the warmer months of the winter season for the Eastern states. La Niña tends to impact the middle to latter part of the season the most and most of the analogs offered up February as the warmest month (most of the analogs favored a colder Dec too with a smaller subset preferring Jan instead). Certainly, the pattern evolution here in December and forward into January will be important for this forecast as well. For now, the Western states have the better chance for cold.

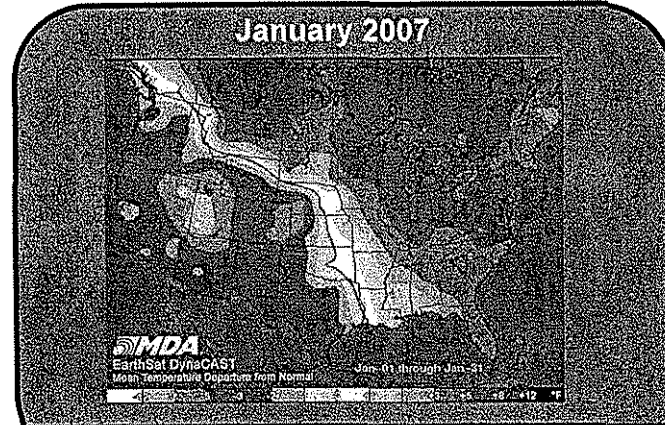
February GWHDD* Forecasts			
Feb 2008 Fcst:	787.0	10Y Normal	735.5
		30Y Normal	791.3
		Feb-2007	896.8
Change: N/A		*National Gas-Weighted HDDs	

**December 2007 Comparison**

December 2007

Updated: Nov 14, 2007

December is certainly starting out on the right foot with cold weather stretching across Canada and into the North-central and northeastern US, while warmth dominates a majority of the West and South. With more than half the month within the 15 day reach of the dynamical models, however, it appears that Texas, the Southeast, and the Mid-Atlantic could verify warmer than originally forecast.



**Maps above depict deviations of average temperatures from normal in Fahrenheit.**



# EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Thursday **DAY** 12/12/2007 **DATE** 6:30 A.M. **TIME** JS/AC **FORECASTER**

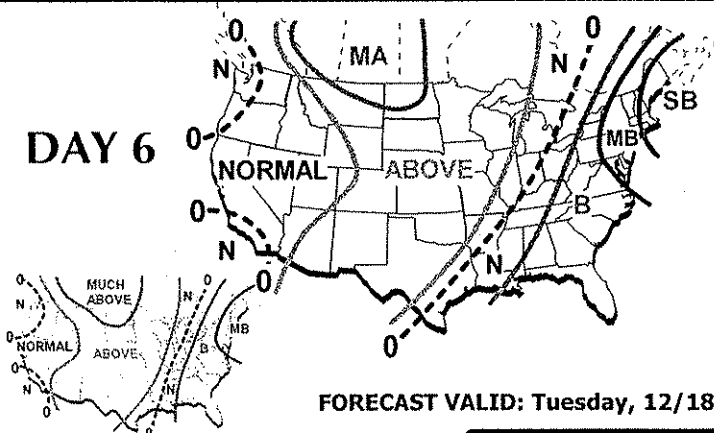
### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION

#### Today's Forecast

**Warmth Continues to Push East, Albeit Slowly**  
 The period starts off with cool weather entrenched on the East Coast in the wake of the weekend storm. The cold is slow to release its grip, with belows remaining into day 7. Meanwhile, in the Heartland, warmth courtesy of the Gulf of Alaska low continues to press eastward through the period. The warmest conditions exit the Plains by the second half of the period as another storm forms in the Southern Plains and moves northeastward. Belows at that time could be more expansive and reach even towards West Texas.

**DAY 6**

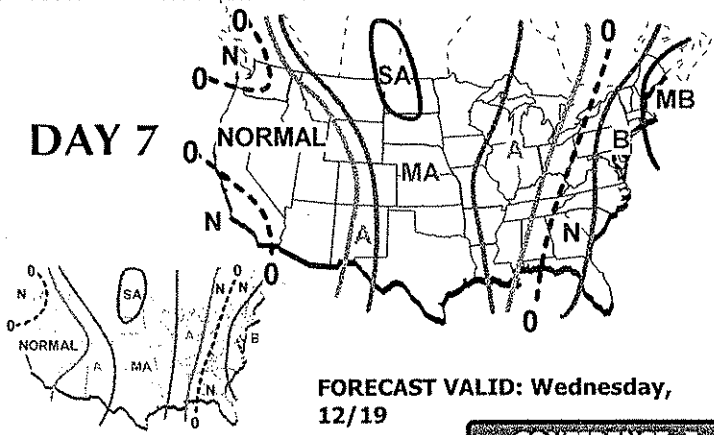


FORECAST VALID: Tuesday, 12/18

PREVIOUS

CONFIDENCE: 5

**DAY 7**

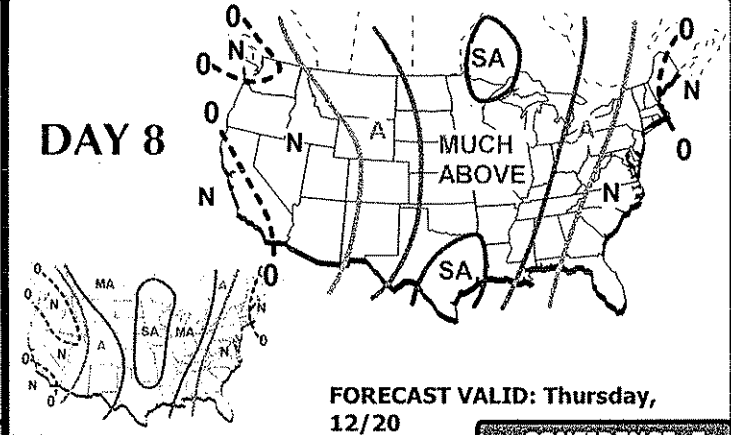


FORECAST VALID: Wednesday, 12/19

PREVIOUS

CONFIDENCE: 5

**DAY 8**

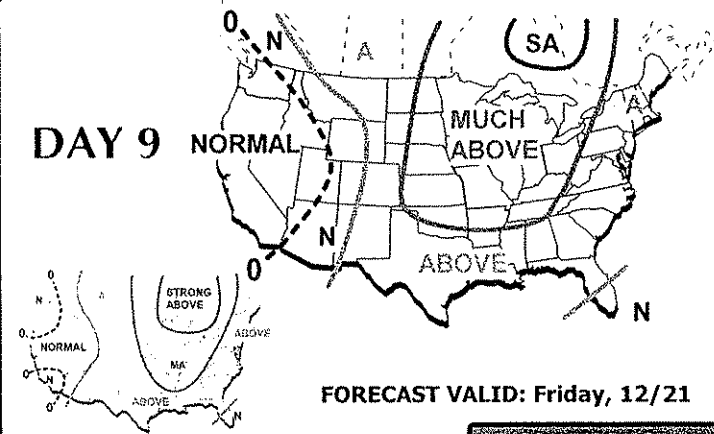


FORECAST VALID: Thursday, 12/20

PREVIOUS

CONFIDENCE: 5

**DAY 9**

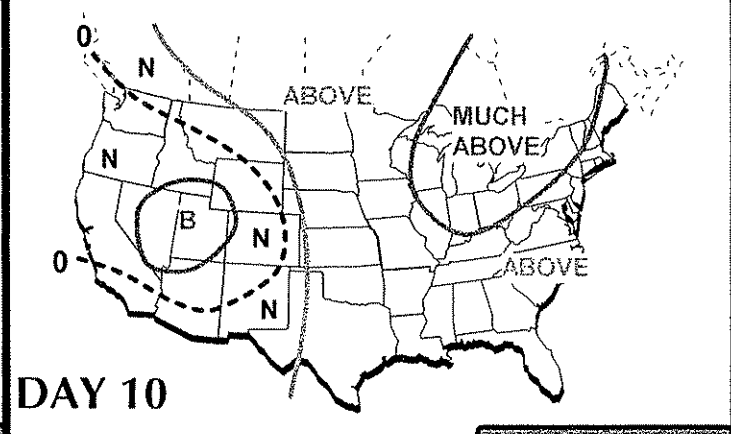


FORECAST VALID: Friday, 12/21

PREVIOUS

CONFIDENCE: 4

**DAY 10**



FORECAST VALID: Saturday, 12/22

CONFIDENCE: 4

### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE... +8F TO +14  
 ABOVE..... +3F TO +7F

NORMAL  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F OR DOWN  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High



Home > Natural Gas > Weekly Natural Gas Storage Report

# Weekly Natural Gas Storage Report

Released: December 13, 2007 at 10:30 A.M. (Eastern time) for the Week Ending December 7, 2007.  
 Next Release: December 20, 2007

## Working Gas in Underground Storage, Lower 48

other formats: [Summ](#)

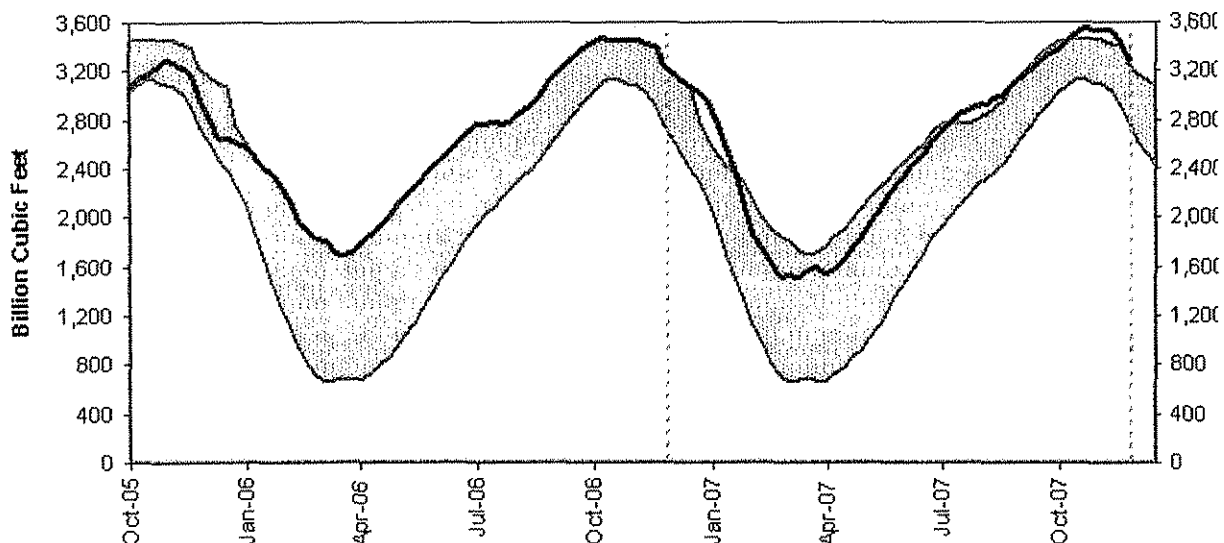
Region	Stocks in billion cubic feet (Bcf)			Historical Comparisons			
	12/07/07	11/30/07	Change	Year Ago (12/07/06)		5-Year (2002-2006)	
				Stocks (Bcf)	% Change	Stocks (Bcf)	% Change
East	1,831	1,932	-101	1,866	-1.9	1,770	4.5
West	453	463	-10	433	4.6	401	15.2
Producing	1,010	1,045	-35	963	4.9	865	12.6
<b>Total</b>	<b>3,294</b>	<b>3,440</b>	<b>-146</b>	<b>3,262</b>	<b>1.0</b>	<b>3,035</b>	<b>8.2</b>

### Notes and Definitions

#### Summary

Working gas in storage was 3,294 Bcf as of Friday, December 7, 2007, according to EIA estimates. This represents a decline of 146 Bcf from the previous week. Stocks were 32 Bcf higher than last year at this time and 259 Bcf above a 5-year average of 3,035 Bcf. In the East Region, stocks were 61 Bcf above the 5-year average following a net withdrawal of 101 Bcf. Stocks in the Producing Region were 145 Bcf above the 5-year average of 865 Bcf after a net withdrawal of 35 Bcf. Stocks in the West Region were 52 Bcf above the 5-year average after a net drawdown of 10 Bcf. At 3,294 Bcf, working gas is above the 5-year historical range.

Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2002 through 2006.  
 Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

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CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## STORAGE INVENTORIES SUPPORT OIL AND GAS PRICE DISCONNECT

### KEY IMPLICATIONS

The North American gas market registered record storage inventories in both Canada and the United States at the end of October. Mild late autumn weather has kept early seasonal space-heating demand limited, thus allowing above-average October storage injections to be maintained despite the lower volume of imported liquefied natural gas (LNG) recorded since 2003.

- Near \$100 per barrel oil prices for West Texas Intermediate have not affected natural gas prices in the cash market. Record storage inventories are muting the fundamental tightness in the North American gas market.
- CERA expects that spot prices at Henry Hub will average \$7.86 per million British thermal units (MMBtu) for December and C\$6.79 per gigajoule at AECO (\$6.95 per MMBtu).
- CERA expects imports of LNG will average 1.5 Bcf per day over the winter, or 0.4 Bcf per day lower than the same period last year, owing to higher prices paid in both Asia and Europe.
- It is unlikely that gas-related drilling will exceed the August peak of 1,523 rigs by year-end. However, footage drilled at current levels of rig activity is increasing as new, efficient rigs are capable of drilling up to one-third more wells per year than the older rigs being retired. Hence, CERA expects well completions will rise in spite of the softness in overall rig counts.

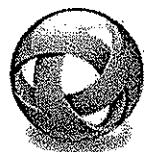
### NORTH AMERICAN GAS MARKET PRICES DISCONNECTED FROM OIL PRICES

North American storage inventories set a new end-of-October record, reaching 4,126 Bcf (see Figure 1). October storage injections were 0.8 billion cubic feet (Bcf) per day higher than CERA expected in the October *Monthly Briefing*, largely the result of warmer-than-normal weather across much of the US Lower

Note: All prices are in US dollars unless otherwise indicated.

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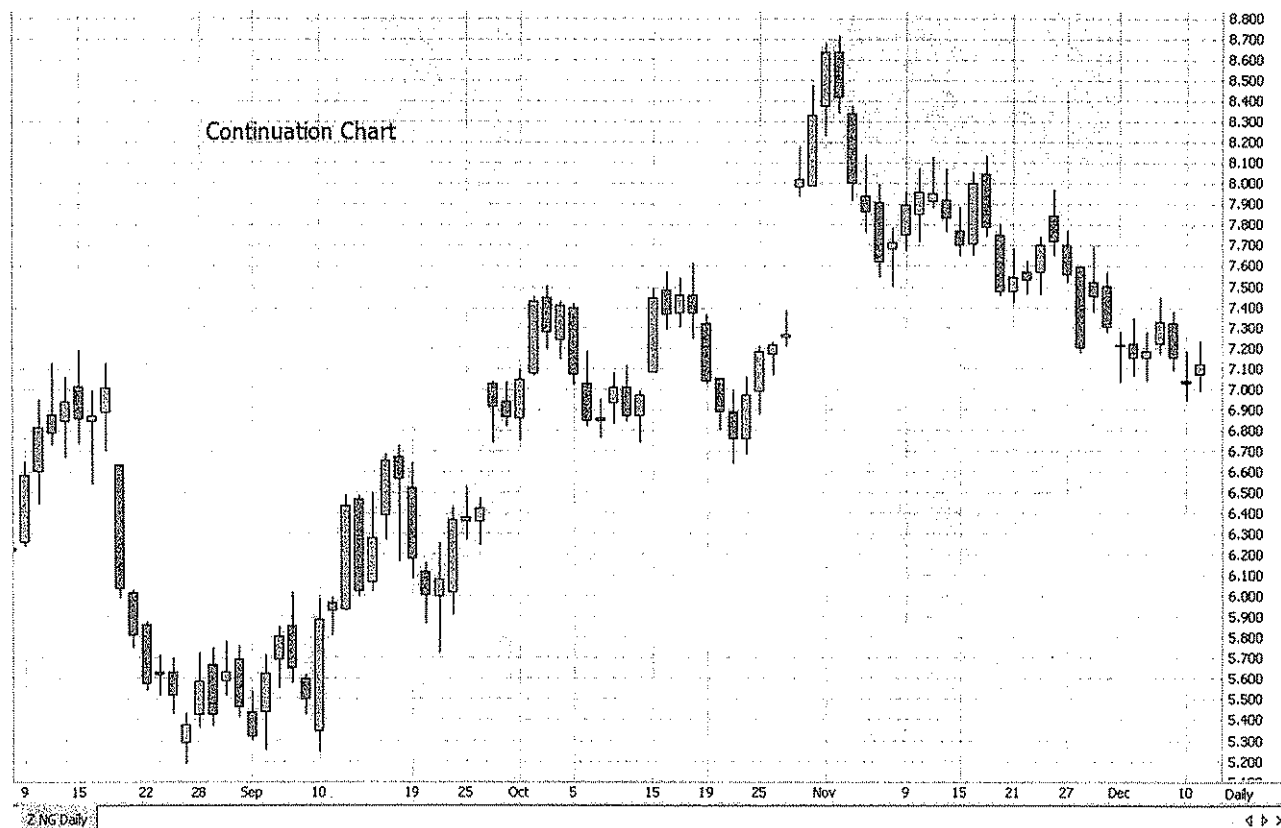
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## Commentary

Natural Gas congested in a volatile range bound (7000-7200) trading session. The market rallied early due to technicals, short covering, crude strength, and cash was slightly stronger. Cash went out around 7080ish after posting 6985. The market tested major resistance in the 7200 area and held. We proceeded to sell off to 7000 major support and congest for the rest of the day. The early strength was hard to sustain with all the bearish fundamentals in the market place. The 6 to 10 and 11 to 15 day weather forecast are calling for above normal temps. In addition, the warmer temps should add to the already bearish storage situation. Year end and the holiday season will be upon us when the warmer weather arrives. Many traders may not want to take an aggressive stance until the New Year. Until then the technicals may drive the market. Traders were very interested in today's fed decision on a macro-economic level and its effect on the dollar, equity markets, and commodity prices. The 25 point rate cut was bearish for commodity prices as the dollar rallied. Wednesday's Petroleum EIA reports may provide the next trading opportunity. Expectations: CL +1.0, Distillate -0.5, and MOGAS +1.5.



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# Gas Daily

Friday, December 14, 2007

## Cold snap leads to 146-Bcf storage withdrawal

Gas storage operators pulled 146 Bcf during the week ending December 7, a larger-than-expected drawdown that reduced nationwide stocks to 3.294 Tcf, the Energy Information Administration reported Thursday.

The report was viewed as bullish and prompted a strong but brief rally by the January NYMEX gas futures contract (*see story, above*). In the same week of 2006, EIA reported an identical 146-Bcf drawdown and 3.262 Tcf in storage. As a result, the surplus over the year-ago level remained at 32 Bcf, though the surplus over the five-year average narrowed to 259 Bcf from 273 Bcf a week ago.

Lehman Brothers analysts said last week was the coldest since February 2006, with temperatures averaging around 8% below normal. In particular, the Northern Plains, upper Midwest and Northeast regions were much colder than average for early December, which caused heating demand to surge.

"It looks like we have a little bit more sensitivity to the cold than what people were anticipating," Citigroup analyst Tim Evans said, noting that most analysts and traders expected EIA to report a withdrawal of around 130 Bcf.

"The relationship between heating degree-days and natural gas consumption isn't truly linear," Evans explained. "It gives us the direction that we can be anticipating — whether storage withdrawals are going to be up or down — but the tricky part is that a 10-degree difference between, say, 50 degrees down to 40 may not produce as much heating demand as a 10-degree drop from 40."

First Enercast Financial Principal Ben Smith said the 146-Bcf pull wasn't all that surprising given the frigid weather. "We're supposed to be having large winter draws now," he said. "Electric power use was up, and heating demand throughout the Midwest was up dramatically from last week."

Looking ahead to late December, Smith said a combination of milder temperatures and a typical reduction in holiday demand could produce "sub-100-Bcf draws when typically we're at 150-plus-Bcf draws."

But the Lehman analysts stressed that "a repeat of the exceptionally warm December 2006 weather pattern is not forecast for the remaining weeks of December 2007. After a very strong storage draw in early December 2006, the remaining weeks had relatively light draws. Therefore, given the weather forecasts going forward the next 10 to 15 days, we fully expect the current storage surplus to last year to change back into a deficit by the week ending December 21."

According to analysts with Wachovia Capital Markets, "while this week's withdrawal was fairly significant, we note that the direction for total storage levels will largely be determined in the next few weeks. Since November 1, total heating degree-days have been just 1% below the 'normalized' level, and roughly 44% of the total demand has historically surfaced in the period between December 6 and February 9."

According to EIA's data, inventories are now 61 Bcf above the five-year average of 1.77 Tcf in the East, 52 Bcf above the average of 401 Bcf in the West, and 145 Bcf above the average of 865 Bcf in the producing region. MD

# Gas Daily

Wednesday, December 12, 2007

## EIA: Storage glut to keep gas prices in check

Record-high gas storage inventories heading into the winter continue to insulate gas customers from the potential impact of high-priced crude oil, according to the Energy Information Administration, which on Tuesday reduced its projected fourth-quarter Henry Hub spot price by 38 cents to \$7.34/Mcf.

Still, EIA expects seasonal prices to increase nearly \$1/Mcf over the course of the winter to peak at \$8.22/Mcf in January.

Working gas in storage stood at 3.44 Tcf as of November 30, the agency noted in its December short-term energy outlook. That, "combined with limited remaining fuel-switching capability, has insulated the natural gas market from the impact of the recent price increases in petroleum markets to some extent."

Crude has hovered in the \$90 to \$100/barrel range for much of the past month, again raising questions among energy analysts about the extent of the relationship between oil and gas prices.

"Consequently, while petroleum product prices are expected to increase and remain historically high, only moderate gains are expected for natural gas prices through 2008," EIA said.

Henry Hub spot prices are expected to average about \$7.21/Mcf in 2007 and \$7.78/Mcf in 2008, according to EIA, which predicted that average household gas expenditures this winter will increase by about 7% from last winter.

Total domestic gas consumption is expected to increase 5% in 2007 compared with 2006, largely as a result of demand spikes early this year, EIA reported.

"Even though consumption of natural gas in the industrial sector is projected to decline by 0.7% in 2007, the weaker US dollar and global demand for naturalgas-intensive goods produced domestically are expected to contribute to a 0.8% increase in industrial-sector consumption in 2008," the agency said.

Domestic supplies are positioned to grow in 2008, according to the report.

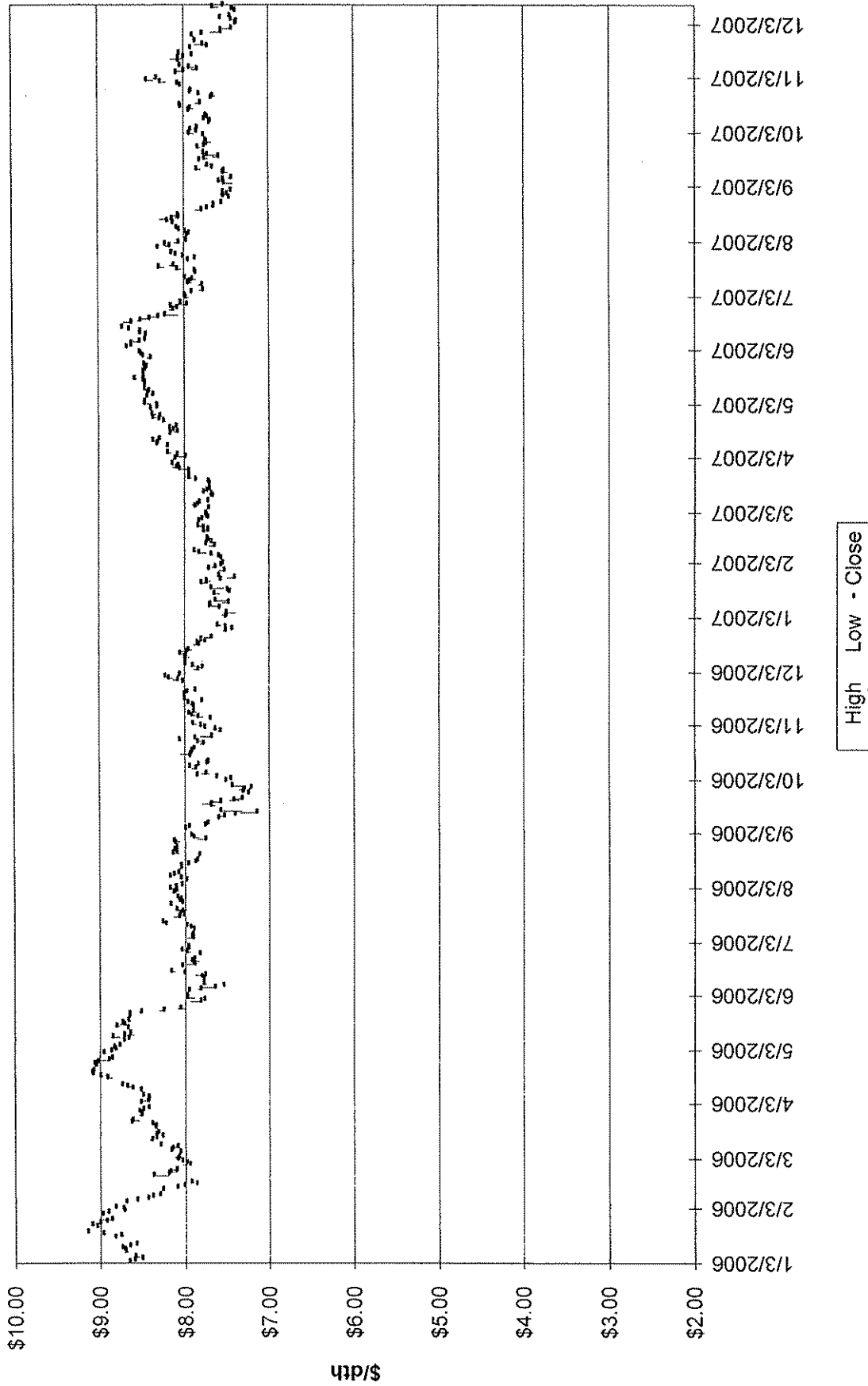
While EIA expects a modest 2.1% increase in production this year — some of which is offset by declines in the Gulf of Mexico — it said new deepwater platforms and unconventional gas resources will likely boost domestic output in 2008.

Meanwhile, liquefied natural gas imports will hit 790 Bcf this year, a 35% increase over 2006, EIA projected, adding that LNG shipments to American shores are expected to increase another 19% in 2008 to 940 Bcf.

Production and liquefaction problems, along with shifting global demand, slowed LNG imports in recent months, but the expansion of worldwide liquefaction capacity should boost LNG shipments to the US next year, EIA added.

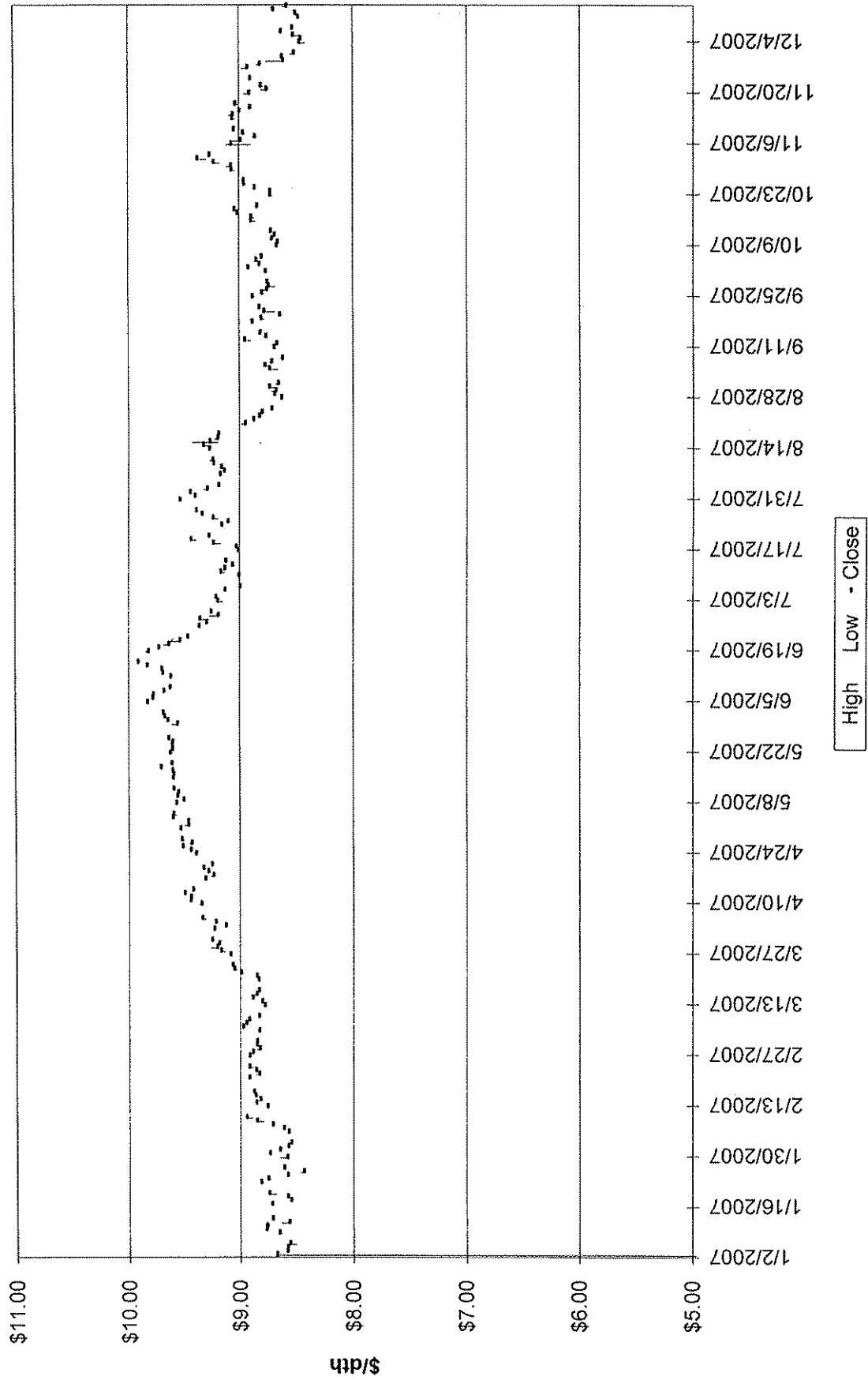
"But the risk of project delays and production shortfalls, as well as negative price differentials between the US market and other LNG-consuming countries, could temper the number of spot cargoes directed to US ports next year," the agency cautioned. JK

### Summer Strip 2008





Winter Strip Nov08 - Mar09



## Executive summary

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### Energy: It's all about the back end

We are raising our average 2008 WTI price forecast to \$95/bbl from \$85/bbl. This shift is entirely driven by a rise in our forecast of long-dated WTI crude oil prices by \$10/bbl to \$80/bbl as cost inflation and technological and political uncertainty continue to increase the price required to motivate capacity investment, which has been reflected in a recent large rise in long-dated prices to the \$80-85/bbl range. Although we continue to expect a cyclically softer market heading into 2008, we believe that OPEC's decision to hold supply steady will dominate weaker expected demand and that timespreads are oversold relative to these expectations. Further, we expect a cyclically stronger market in 2H2008 to push WTI prices to \$105/bbl by 2008 year-end. Net, we are raising our energy index returns forecast to 20% and recommend opening a long WTI timespread position as well as a call spread position in WTI deferred contracts.

### US Natural Gas: A dislocated market, creating upside opportunities

We believe that US natural gas has been oversold and, barring another warmer-than-average winter, gas prices will likely rebound as a long list of supportive factors begin to dominate. As a result, we are recommending a long US and short European summer natural gas position. Although fundamentals have played out as expected, we are raising our winter and summer NYMEX price forecasts by \$0.40/mmBtu and \$0.50/mmBtu, respectively, to \$9.60/mmBtu and \$9.00/mmBtu to reflect our higher oil price forecast. We also believe that long-dated prices at \$7.85/mmBtu – far below fuel oil equivalency – significantly mis-price the cleaner qualities of gas, creating value in calendar 2013 prices.

### Industrial Metals: In like a bear, out like a bull

As base metals are the commodities most closely linked to the industrial cycle, we are reducing our outlook for metals prices in 2008 in line with recent downgrades to expected global economic activity. However, we expect prices to rise again in 2H2008, in some cases sharply, as demand reaccelerates and the market takes note that inventories are still low. Strength in long-dated prices is also expected to continue to lend support. Net, we are lowering our 2008 average year metals forecasts with copper and aluminum prices now expected to average \$7,500/mt and \$2,490/mt, respectively, down from \$9,000/mt and \$2,740/mt, as we expect more price appreciation to be pushed back into 2009. We are lowering our industrial metals index returns forecast modestly to 10%, but recommend opening a long timespread position in copper.

### Precious Metals: Up goes the dollar, down goes gold

In line with GS economists' views, we believe a strengthening US dollar will pressure gold prices lower in 2008. We therefore maintain a 12-month ahead gold price forecast of \$750/oz and believe precious metals returns will remain limited over the next year. We recommend opening a short position in gold deferred contracts.

### Agriculture: Beans in the 'teens?

In 2008, we remain most constructive on soybeans and are raising our 12-month-ahead soybean price forecast to 1,450 cents/bu from 900 cents/bu as recent wheat price strength suggests soybean acreage and inventories will again decline in the 2008/2009 crop year. Although the large US corn harvest in recent months is likely to mute near-term upside for corn, we believe that an expected large deficit in the 2008/2009 crop year and higher oil prices will lend support. We are therefore raising our 12-month forward corn price forecast to 530 cents/bu from 440 cents/bu. We believe wheat fundamentals are likely to remain tight in the near-term and have raised our 12-month ahead wheat price forecast to 750 cents/bu from 600 cents/bu on tighter expected supplies. Net, we are raising our agriculture returns forecast to 5% and recommend opening a long position in deferred soybean contracts as well as a long corn/short wheat spread trade.

# Gas Daily

Thursday, December 13, 2007

## EIA forecasts 8% rise in gas production by 2021

US gas production will rise 8% between now and 2021, to 20.2 Tcf, before dropping back to 19.9 Tcf in 2030, the Energy Information Administration said Wednesday in its 2008 Annual Energy Outlook. EIA projected that offshore gas production from the Lower-48 states will grow from 3 Tcf in 2006 to a peak of 4.5 Tcf in 2019 as new reserves are tapped in the Gulf of Mexico. But it expects the trend to reverse itself thereafter, with annual offshore volumes declining to 3.5 Tcf by 2030. EIA, which assumes that a 4.5 Bcf/d Alaska gas pipeline is completed in 2020, said total Alaska gas production will increase five-fold, rising from 400 Bcf in 2006 to 2 Tcf in 2021, then jump to 2.4 Tcf in 2030. The agency also expects the real wellhead price of US gas, in 2006 dollars, to decline through 2017 as new supplies enter the market. After 2017, however, gas prices will begin rising again and peak at \$6.60/Mcf in 2030, it said. Total electricity consumption, including both purchases from power producers and on-site generation, will increase from 3.821 trillion kWh in 2006 to 5.149 trillion kWh in 2030, or an annual rate of 1.3%.

Gas' share of electricity generation will remain between 20% and 21% through 2018 before falling to 14.3% in 2030, EIA projected. Coal's share is expected to decline slightly from 49% in 2006 to 48% in 2017, then shoot to 55% in 2030.

EIA cut its previous estimates for liquefied natural gas imports, saying it now expects LNG shipments to US shores to rise to 2.9 Tcf in 2030. In its 2007 outlook, it projected 4.5 Tcf in 2030.

The agency attributed the revision to "higher costs throughout the LNG industry, especially in the area of liquefaction, and decreased US gas consumption because of higher prices, slower economic growth and expected greater competition for supplies within the global LNG market."

The report said domestic LNG regasification capacity will rise from 1.5 Tcf in 2006 to 5.2 Tcf in 2009, assuming the addition of five new import terminals now under construction — four along the Gulf Coast and one off the New England coast. But given global LNG supply constraints, "overall capacity utilization at the US LNG import facilities is expected to remain under 35% through 2013, after which it is expected to increase to 57% in 2017 and remain in the range of 55% to 58% through 2030," EIA said. JB

DJ 2nd UPDATE:Goldman Ups '08 Oil Price Forecast \$10 To \$95/Bbl

(Adds analyst quotes, more details.)

By Natalie Obiko Pearson and Nick Heath

Of DOW JONES NEWSWIRES

LONDON (Dow Jones)--Goldman Sachs - which was among the first to predict \$100-a-barrel oil two years ago amid deep skepticism - has raised its average 2008 oil price forecast for Nymex crude by \$10 to \$95 a barrel.

The U.S.-based investment bank said it made the upward revision because the Organization of Petroleum Exporting Countries was already preemptively limiting oil supplies in anticipation of a slowdown in oil demand growth, even though there are "no signs of significant weakness yet."

Expectations have been growing that a slowing U.S. economy could significantly crimp global oil demand, but Goldman Sachs said oil demand remains robust in the U.S. and Japan, and is accelerating in China and Korea. "The softening of the balance in 2008 will likely be modest and short-lived," while the second half of the year could see "demand recover more quickly than OPEC supplies increase," it said in a research note Wednesday.

Goldman Sachs also said it now expects the price for West Texas Intermediate crude, a benchmark contract traded on the New York Mercantile Exchange, to reach \$105 a barrel by the end of 2008.

In March 2005 Goldman Sachs analyst Arjun Murti was one of the first to forecast oil prices would rise above \$100 a barrel due to stronger-than-expected demand. At the time, the prediction was treated with skepticism, but prices hit an all-time high of \$99.29 a barrel on Nov. 21, 2007.

Prices have fallen by more than 10% in the last two weeks. WTI was trading at \$89.86 a barrel Wednesday morning in London.

But Goldman Sachs called the current sell-off "overdone."

The note pointed to long-term WTI oil prices for delivery five years ahead, which have risen and held amid the recent downturn in a range of \$80- \$85 a barrel.

That shows "cost inflation and technological and political uncertainty continue to increase the price required" for the oil industry to continue making investments to increase oil-producing capacity, it said.

OPEC, analysts and others have accused financial players highly active in global energy markets, like Goldman Sachs, of helping to drive up prices in order to profit on oil futures contracts. Many argue there is adequate supply of oil and that current high prices aren't justified.

"One key factor that has contributed to the rise in oil prices over the past few years is the virtual explosion of trading of paper contracts for oil

delivery in future months - trading which is speculative and not intended to result in the actual delivery of oil," U.S. Senator Carl Levin, D-Mich., said in a U.S. Senate panel hearing Tuesday.

"These are traders who are solely interested in trading for a profit, rather than hedging their positions to assure a stable supply (of oil) at a price they can count on," Levin said.

John Hall, an independent energy analyst of John Hall Associates, said that forecasts like Wednesday's help to create bullish momentum in the market.

While Goldman Sach's average forecast of \$95 a barrel could still pan out, "it's artificially high. It should be nearer \$70 a barrel," Hall said.

Goldman Sachs said it expected the market to soften in early 2008, as the northern hemisphere comes out of winter when oil demand is typically high. But last week's decision by OPEC to hold oil output steady will offset the effects of weaker demand, it said.

"The OPEC decision is now limiting actual supplies coming to market while the anticipated weakness in economic and oil demand growth remains a forecast, it said. "There is little evidence of deterioration in oil demand growth at this time."

Goldman Sachs said it was lowering its first-quarter forecast of OPEC supply growth by 500,000 barrels a day.

It said there was a substantial risk of another run-up in oil prices if the forecasted economic slowdown doesn't occur and predicted that prices could again rise in the second half of 2008 as "the forecasted economic slowdown is reduced while supply growth remains subdued" leading to a tighter oil market.

John Waterlow, a U.K.-based energy analyst with Wood Mckenzie, said, "It's in the interest of financial speculators for the oil price to rise. It has nothing to do with what's happening in the market."

But he said OPEC, if interested in stabilizing oil markets as it claims, could be doing more to ease things.

"They could give more messages, they could say they're going to produce more oil," Waterlow said. "It makes you wonder: are they really worried?"

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day						
	November	December	January	February	March	Total	%
<u>Duke Energy Ohio</u> Previously Hedged	[REDACTED]						
Total	[REDACTED]						
<u>Duke Energy Kentucky</u> Previously Hedged	[REDACTED]						
Total	[REDACTED]						

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 January 22, 2008

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Feb–April.
Mid Term Weather (30-60 days)	↔	Long	Cold start to Feb., expected to shift to warmer by mid to late Feb. Below temps over portions of Mid Continent, normal weather over most US projected for March.
6-10 day forecast	↑	Short	Much of the Continent predicting below normal temperatures.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↓	Both	Storage withdraws for the week ending January 11 were 59 BCF, within the range most analysts had forecasted. Storage levels are 8.7% lower than last year at 2.7 TCF (8.7% above 5-year average 2.5 TCF).
<b>Industry Publications</b>			
Cambridge Energy Research Associates <i>Summer 2008: \$6.967</i> <i>Winter 08/09: \$7.128</i>	↑	Long	CERA expects spot prices at Henry Hub for January to average \$7.42 per MMBtu, for January through March to average \$7.32 per MMBtu.
Paribas	↑	Short	All weather reports call for much-below temperatures next week and the PIRA estimate for 2 weeks is a draw of 292 bcf which would break the record of 260 set in 1997. The question is, will a large draw send this market skyward or are the estimates already factored in.
Conoco Morning Briefing	↓	Long	"While cold air continues threaten, I'm not convinced the market is all that excited about this cold shot. Crude oil is weak and getting weaker. Expect this bearish trend to continue."
Gas Daily	↓	Long	UBS: Expects 2008 average price to be \$7.25/MMBtu, down from its previous projection of \$8/MMBtu, while its 2009 average price was cut from \$8.25/MMBtu to \$7.60/MMBtu.
Gas Daily	↑ ↓	Short	"Gas industry analysts are looking at similar storage and weather data and drawing starkly different conclusions on where the market is headed."
<b>Government Agencies</b>			
Energy Information Administration <i>Summer 2008: \$7.301</i> <i>Winter 2008/09: \$8.176</i>	↓	Long	"The Henry Hub spot price are expected to average about \$7.78/Mcf in 2008 and \$7.92/Mcf in 2009, according to EIA."
<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↓	Short	[REDACTED]
Winter 2008-09 Strip Chart	↓	Short	[REDACTED]
<b>Economy</b>			
Demand	↔	Long	EIA: "The forecast of near-normal weather in 2008 and 2009 is projected to lower the annual increase in total consumption to 0.6 and 1 percent, respectively, for those two years."
Supply	↓	Long	EIA: "In 2008, total marketed production is expected to increase by 1.6 percent primarily because of the start-up of new deepwater Gulf of Mexico supply infrastructure..."
Oil Market	↑	Long	Global oil markets will likely remain tight through 2008, then ease moderately in 2009. EIA projects that world oil demand will continue to grow faster than oil supply outside OPEC in 2008.
<b>Meeting Minutes: 10th Floor North Conference Room - 1:00 pm</b>			
Attendees: [REDACTED]			

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 January 21, 2008

Support  
 Page

Weather	Price Pressure	Term	Comments
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Mid Term Weather (30-60 days)	↔	Long	Cold start to Feb., expected to shift to warmer by mid to late Feb. Below temps over portions of Mid Continent, normal weather over most US projected for March.
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Meeting Minutes: 10th Floor North Conference Room - 1:00 pm  
 Attendees: [REDACTED]



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 01/21/08

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
<b>Daily Base</b>												
Estimated Base (Gross)												
Amount Hedged												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Cost Averaging												
Fixed Price												
Fixed Price												
Total Hedged												
<b>Monthly Base</b>												
Estimated Base (Gross)												
Hedged to date												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Cost Averaging												
Fixed Price												
Fixed Price												
Total Hedged												
% of Base Supply												
Seasonal % of Base												
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)												
Storage Withdrawal												
Market												
Total (incl. Injections)												
% Hedged & Storage												
Seasonal %												

**Daily Base**  
 Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**  
 Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**  
 Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 01/18/08

Nov-08    Dec-08    Jan-09    Feb-09    Mar-09    Apr-09    May-09    Jun-09    Jul-09    Aug-09    Sep-09    Oct-09

	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09
<b>Daily Base</b>												
Estimated Base (Gross)												
Amount Hedged												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Total Hedged												
<b>Monthly Base</b>												
Estimated Base (Gross)												
Hedged to date												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Total Hedged												
% of Base Supply												
Seasonal % of Base												
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)												
Storage Withdrawal												
Market												
Total (incl. Injections)												
% Hedged & Storage												
Seasonal %												

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 01/18/08

Nov-09 Dec-09 Jan-10 Feb-10 Mar-10 Apr-10 May-10 Jun-10 Jul-10 Aug-10 Sep-10 Oct-10

**Daily Base**

Estimated Base (Gross)	[REDACTED]
Amount Hedged	[REDACTED]
Fixed Price	[REDACTED]
Total Hedged	[REDACTED]

**Monthly Base**

Estimated Base (Gross)	[REDACTED]
Hedged to date	[REDACTED]
Fixed Price	[REDACTED]
Total Hedged	[REDACTED]
% of Base Supply	[REDACTED]
Seasonal % of Base	[REDACTED]

**Normal Load (City Gate)**

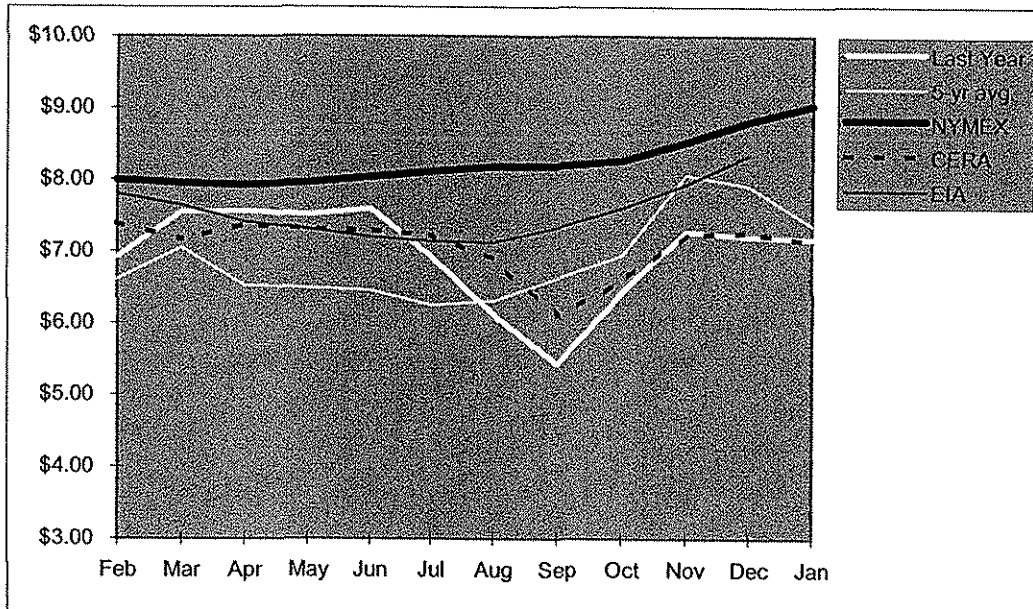
Hedged (City Gate)	[REDACTED]
Storage Withdrawal	[REDACTED]
Market	[REDACTED]
Total (incl. Injections)	[REDACTED]
% Hedged & Storage	[REDACTED]
Seasonal %	[REDACTED]

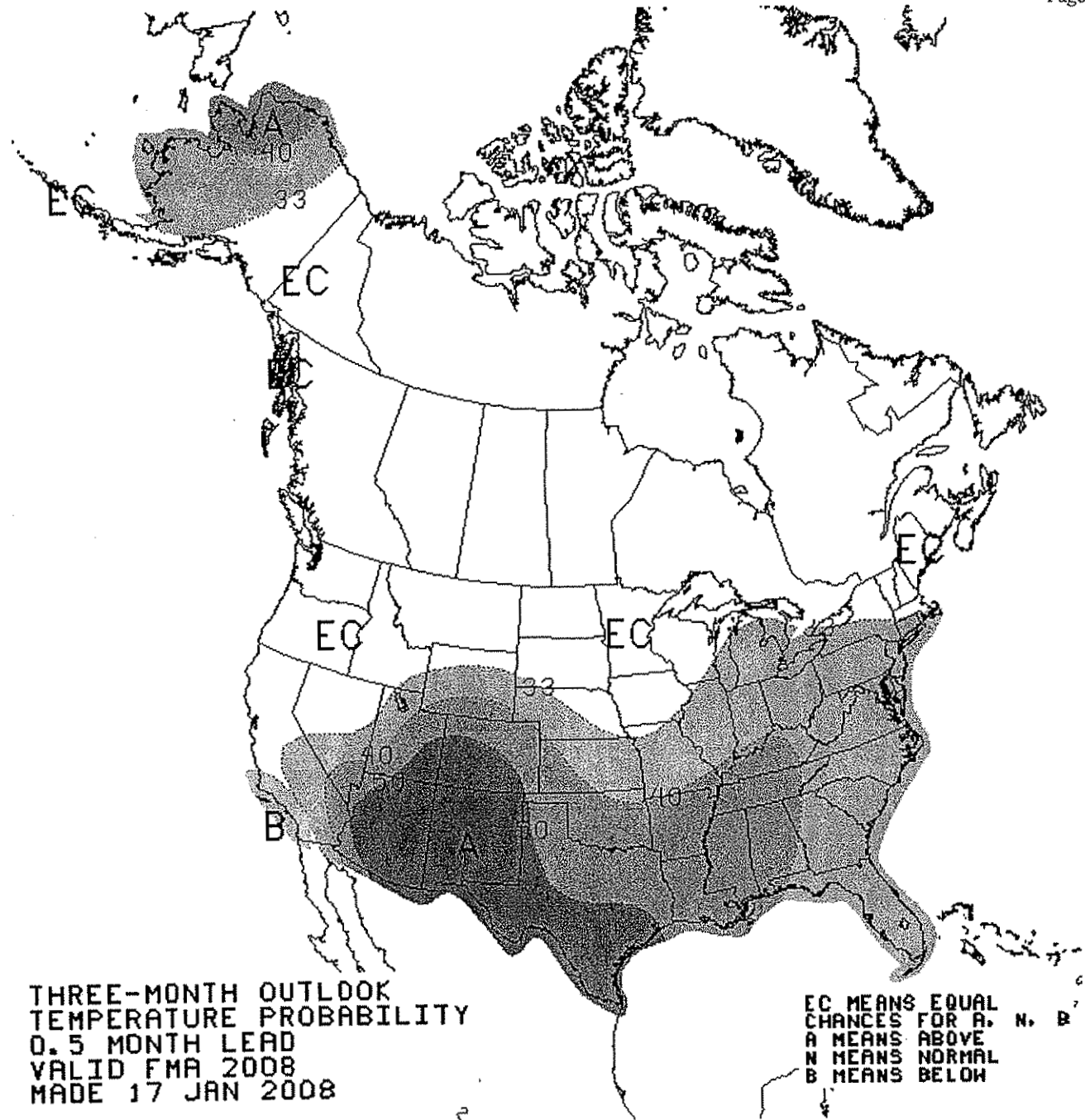
Duke Energy Kentucky  
Hedging Program  
Current Position

Delivery Month	Base Supply		Hedged to Date		Next Target (3/31/08)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					
Apr-10	[REDACTED]					
May-10	[REDACTED]					
Jun-10	[REDACTED]					
Jul-10	[REDACTED]					
Aug-10	[REDACTED]					
Sep-10	[REDACTED]					
Oct-10	[REDACTED]					
Summer 2010	[REDACTED]					

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (03/04-07/08)	Last Year (2007-2008)		CERA 21-Dec-07	EIA 8-Jan-08	NYMEX 21-Jan-08
Feb	\$6.61	\$6.92		\$7.390	\$7.800	\$7.993
Mar	\$7.05	\$7.55		\$7.160	\$7.640	\$7.947
Apr	\$6.53	\$7.56		\$7.370	\$7.410	\$7.919
May	\$6.49	\$7.51		\$7.310	\$7.310	\$7.956
Jun	\$6.45	\$7.59		\$7.290	\$7.200	\$8.034
Jul	\$6.24	\$6.93		\$7.220	\$7.140	\$8.111
Aug	\$6.31	\$6.11		\$6.890	\$7.120	\$8.179
Sep	\$6.62	\$5.43		\$6.100	\$7.330	\$8.189
Oct	\$6.94	\$6.42		\$6.590	\$7.600	\$8.266
Nov	\$8.07	\$7.27		\$7.220	\$7.930	\$8.521
Dec	\$7.91	\$7.20		\$7.260	\$8.340	\$8.811
Jan	\$7.36	\$7.17		\$7.120	\$8.470	\$9.031
12 Month Avg	<b>\$6.88</b>	<b>\$6.97</b>		<b>\$7.077</b>	<b>\$7.608</b>	<b>\$8.246</b>
Summer Average				\$6.967	\$7.301	\$8.093
Winter Average				\$7.230	\$8.036	\$8.461





THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
0.5 MONTH LEAD  
VALID FMA 2008  
MADE 17 JAN 2008

EC MEANS EQUAL  
CHANCES FOR A. N. B  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW

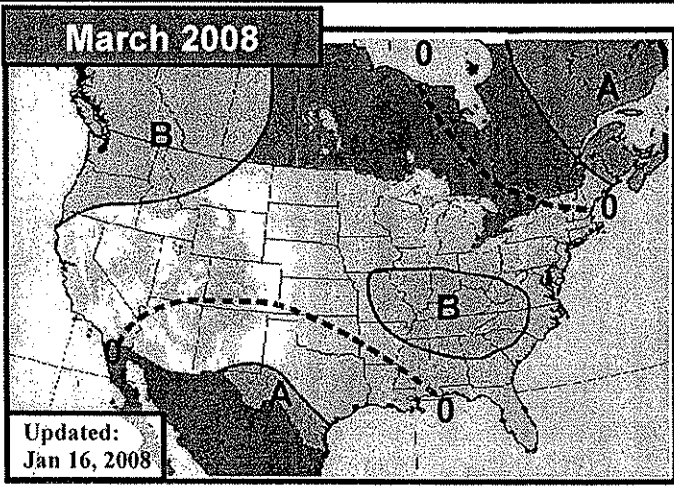
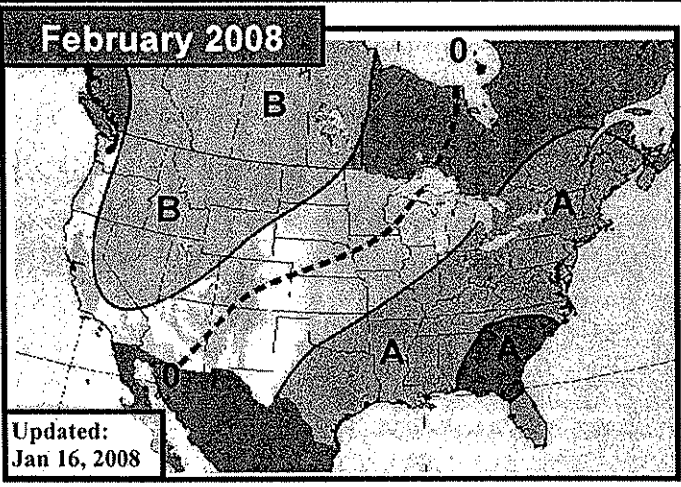


# EarthSat's 30-60 Day Outlook

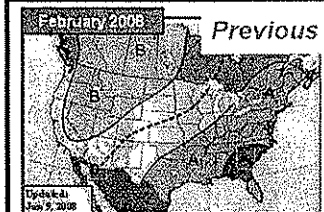
Wednesday, January 16, 2008

Forecaster: MR/DS/JS

## EarthSat Weather



Above (+4)  
  Above (+2)  
  0  
  Below (-2)  
  Below (-4)



**No Changes**

Cold Start to February  
Expected to Shift  
Warmer by Mid to Late

Without significant blocking and with the slight La Niña increase in the past week, the current thinking is that the cold second half of January may only have enough legs to get into about the first week of February. Current model guidance is showing no fundamental pattern changes through the next two weeks, but past performance of both warm and cold periods this winter suggests that the majority of February should be back on the warmer side in the East. Analog analyses are also supporting this conclusion.



**March Holds Steady**

No changes are being made to the March outlook. There are definitely more mixed signals regarding March as some of the years used to justify the colder second half of January resist a significant return to colder weather for this period. But March is a shoulder month and the long lead tools struggle on the shoulders (Nov, Mar). The current close fit ENSO cases (see upper right map on page 2) shows a variable March with conditions really close to normal for most segments of the nation. Volatility makes a lot of sense this year!

### February GWHDD\* Forecasts

Feb 2008 Fcst:	775.0	10Y Normal *	782.8
		30Y Normal *	820.6
		Feb-2007	896.6
Change: 0.0		*National Gas-Weighted HDDs	

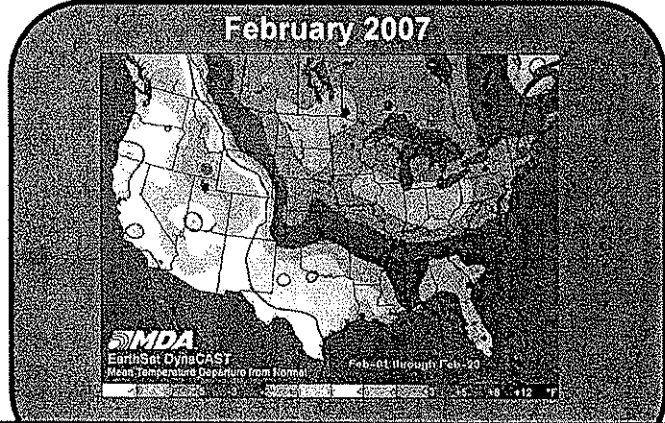
### March GWHDD\* Forecasts

Mar 2008 Fcst:	654.0	10Y Normal	615.9
		30Y Normal	640.2
		Mar-2007	518.9
Change: 0.0		*National Gas-Weighted HDDs	

**January 2008 Comparison**

Updated: Dec 26, 2008

The northern half of the nation has been much warmer so far this month and a huge battle now awaits for monthly supremacy as a massive cold shift is occurring in Canada. Despite the cold, the Southeast warmth still has the best chance of verifying correctly for the month (given typical Southeast cold resistance this winter).



Maps above depict deviations of average temperatures from 30 Y normal in Fahrenheit.



# EarthSat's Energy Weather

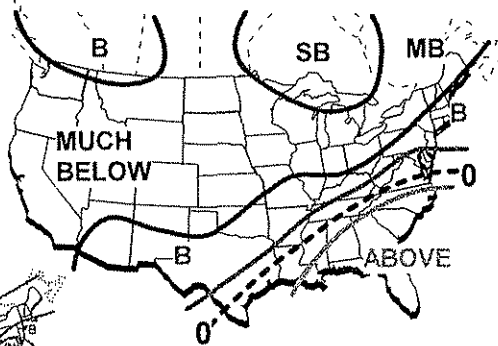
## The 6 to 10 Day Forecast - Detailed Version

Friday **DAY** 1/18/2008 **DATE** 6:30 A.M. **TIME** JS/AC **FORECASTER**

### FORECAST TEMPERATURE DEVIATIONS

### DISCUSSION

**DAY 6**



FORECAST VALID: Wednesday, 1/23

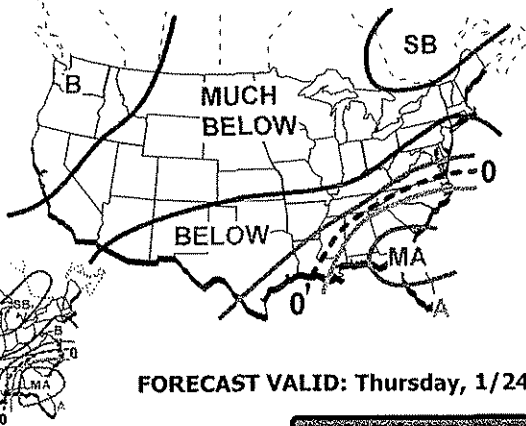
CONFIDENCE: 7

#### Today's Forecast

**Strong Belows Dissipate, But Continued Cold Along North**  
 The overall look to the forecast period has moderated a bit. The strong below normals have dwindled, particularly during the mid-period, but much below normal readings will persist. This warm up is gradual due to the potential for snow cover to impact temperatures over the Plains, Midwest, and Northeast. The Southeast continues to hold an above normal outlook in places, and the risk is still to the warmer side in the region. Some seasonal readings may slip out of Central Canada late in the period.

PREVIOUS

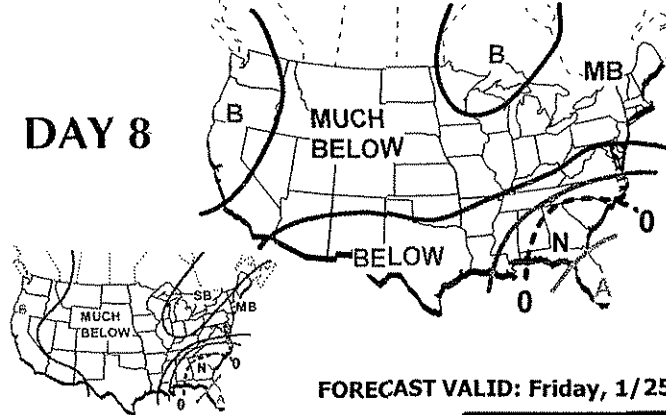
**DAY 7**



FORECAST VALID: Thursday, 1/24

CONFIDENCE: 7

**DAY 8**



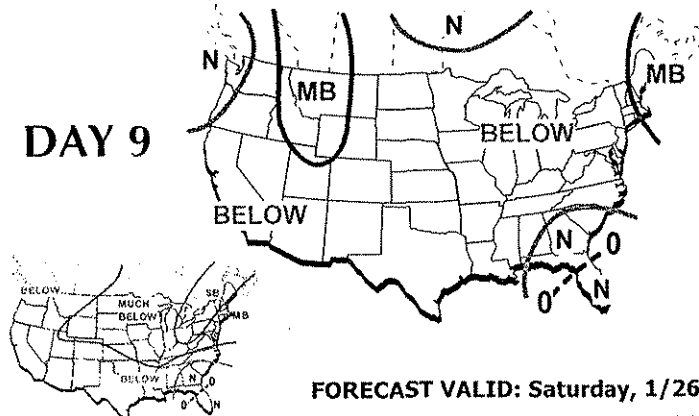
FORECAST VALID: Friday, 1/25

CONFIDENCE: 6

PREVIOUS

PREVIOUS

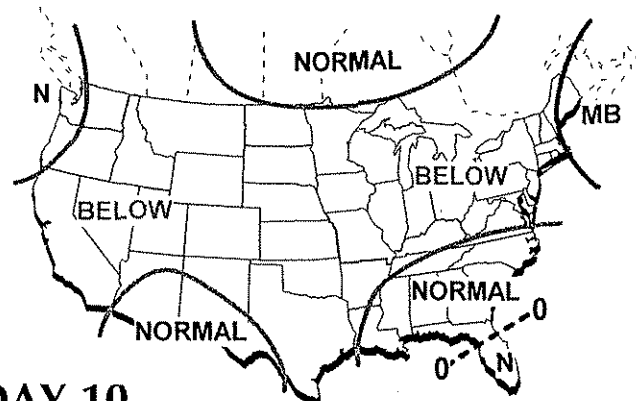
**DAY 9**



FORECAST VALID: Saturday, 1/26

CONFIDENCE: 4

**DAY 10**



FORECAST VALID: Sunday, 1/27

CONFIDENCE: 4

PREVIOUS

### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE.. +8F TO +14  
 ABOVE..... +3F TO +7F

**NORMAL**  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F OR DOWN  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

Anomalies based on 30Y normals.





Home > Natural Gas > Weekly Natural Gas Storage Report

# Weekly Natural Gas Storage Report

Released: January 17, 2008 at 10:30 A.M. (Eastern time) for the Week Ending January 11, 2008.  
 Next Release: January 24, 2008

## Working Gas in Underground Storage, Lower 48

other formats: [Summ](#)

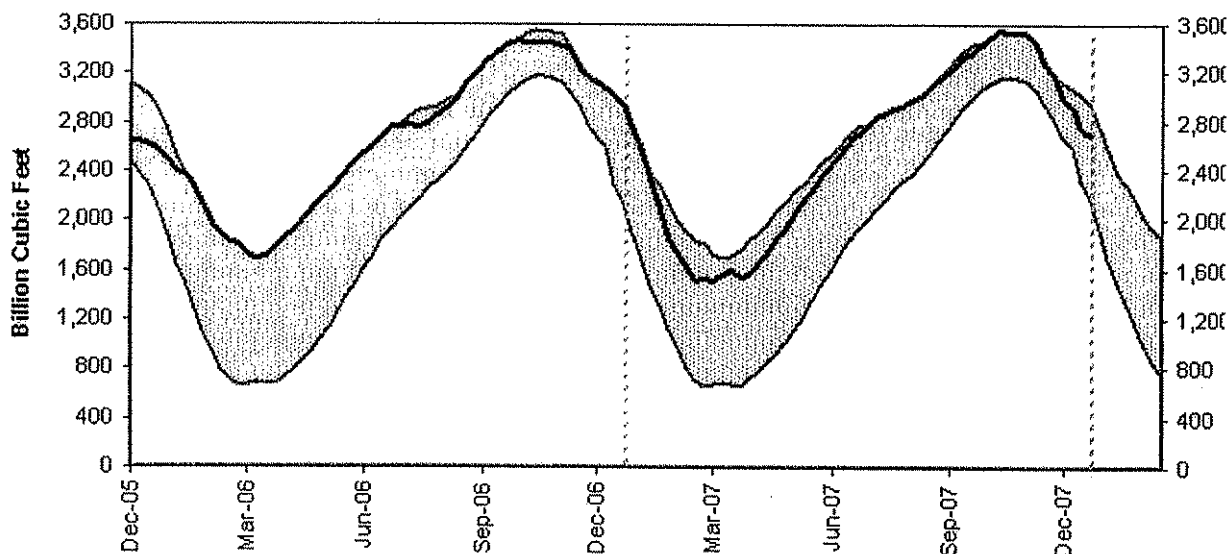
Region	Stocks in billion cubic feet (Bcf)			Historical Comparisons			
	01/11/08	01/04/08	Change	Year Ago (01/11/07)		5-Year (2003-2007)	
				Stocks (Bcf)	% Change	Stocks (Bcf)	% Change
East	1,482	1,511	-29	1,667	-11.1	1,441	
West	351	375	-24	365	-3.8	333	
Producing	858	864	-6	916	-6.3	749	
<b>Total</b>	<b>2,691</b>	<b>2,750</b>	<b>-59</b>	<b>2,949</b>	<b>-8.7</b>	<b>2,523</b>	

### Notes and Definitions

#### Summary

Working gas in storage was 2,691 Bcf as of Friday, January 11, 2008, according to EIA estimates. This represents a decline of 59 Bcf from the previous week. Stocks were 258 Bcf less than last year at this time and 168 Bcf below the 5-year average of 2,523 Bcf. In the East Region, stocks were 41 Bcf above the 5-year average following a net withdrawal of 29 Bcf. Stocks in the Producing Region were 109 Bcf above the 5-year average of 749 Bcf after a net withdrawal of 6 Bcf. Stocks in the West Region were 18 Bcf above the 5-year average after a net drawdown of 24 Bcf. At 2,691 Bcf, working gas is within the 5-year historical range.

Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2003 through 2007.

Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

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CERA ADVISORY SERVICE  
North American Natural Gas

# CERA Monthly Briefing<sup>®</sup>

## THE CALM DESPITE THE STORMS

### KEY IMPLICATIONS

Ample natural gas supplies in storage and increasing production in the US Lower 48 have kept Henry Hub prices stable, at around \$7 per million British thermal units (MMBtu) well into the winter heating season.

#### DATE

December 21, 2007

- Natural gas prices in some regions have responded strongly to winter weather conditions. For example, in early December, New York prices soared above \$20 per MMBtu in response to cold weather, pipeline constraints, and a Canadian supply disruption.
- US drilling activity is expected to hold steady through 2008, while Canadian drilling is expected to remain depressed. The prolonged decline in drilling will reduce Canadian dry gas production capacity in 2010 by at least 2 billion cubic feet (Bcf) per day below CERA's fall outlook.
- After reaching record levels in March through August, liquefied natural gas (LNG) imports dropped to an estimated 0.85 Bcf per day in October and November, the lowest level since the spring of 2003. The sharp swings in LNG imports exemplify North America's growing role as a "swing" market for global LNG.
- CERA expects that spot prices at Henry Hub will average \$7.42 per MMBtu in January and C\$6.05 per gigajoule at AECO (US\$6.31 per MMBtu).

### AMPLE SUPPLIES KEEP HENRY HUB PRICES IN CHECK

Six weeks into the winter heating season, the weather throughout North America has been 8 percent colder than last year, winter storms have struck the Midwest and Northeast, Canadian gas production is declining, liquefied natural gas (LNG) imports are down, and yet the overall price response to these trends has been minimal. At Henry Hub the average November price was the lowest in three years, at \$7.01 per million British thermal units (MMBtu), and prices increased by only a further \$0.14 per MMBtu on average during the first two weeks of December.

Note: All prices are in US dollars unless otherwise indicated.

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Table 1

Henry Hub Prices

(nominal US dollars per MMBtu)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	2.29	5.39	6.03	6.17	8.76	6.33	7.42	7.12	6.57	6.75	6.68
February	2.27	7.00	5.41	6.09	7.62	8.06 <sup>2008</sup>	7.39	7.08	6.55	6.67	6.59
March	3.00	6.37	5.38	6.91	6.88	7.10	7.16	6.96	6.35	6.54	6.51
April	3.37	5.27	5.70	7.19	7.09	7.57	7.37	6.55	6.44	6.29	6.27
May	3.51	5.77	6.28	6.47	6.23	7.64	7.31	6.41	6.52	6.46	6.48
June	3.20	5.80	6.26	7.17	6.26	7.40	7.29	6.42	6.47	6.64	6.53
July	2.99	5.04	5.92	7.57	6.05	6.21	7.22	6.43	6.52	6.39	6.54
August	3.08	4.96	5.43	9.29	7.24	6.30	6.89	6.18	6.36	6.28	6.47
September	3.50	4.61	4.99	12.11	4.95	5.98	6.10	5.89	5.96	6.33	6.13
October	4.08	4.65	6.24	13.36	5.67	6.68	6.59	6.14	6.28	6.06	6.18
November	4.06	4.45	5.88	10.29	7.32	7.01	7.22	6.52	6.59	6.68	6.59
December	4.74	6.12	6.63	12.98	6.83	7.36	7.26	6.50	6.64	6.70	6.62
<b>Year average</b>	<b>3.34</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>6.97</b>	<b>7.10</b>	<b>6.52</b>	<b>6.44</b>	<b>6.48</b>	<b>6.47</b>

Source: Cambridge Energy Research Associates. Historical data derived from Platts Gas Daily.  
 Note: The 2002-October 2007 figures are derived from historical data as available; CERA projections November 2007-12.  
 Excel tables are available in the North American Natural Gas Client Services area at CERA.com.

BNP Paribas Natural Gas Market Watch  
16 January  
2008

### Commentary

It was another very quiet day in Natural gas although the Globex volume was decent at over 114,000 lots. The market traded lower over night and then sideways for the rest of the day. **All weather reports call for much-below temperatures next week and the PIRA estimate for 2 weeks from tomorrow is a draw of 292 bcf which would easily break the record of -260 set on January 17<sup>th</sup> of 1997. The question is, will a large draw send this market skyward or are the weather and the estimates already factored in.** If they are factored in, we should be trading around \$7.50 right now. Another piece of information worth noting is that the open interest has risen over 19,000 contracts in the last 4 trading days and 3 of those 4 days have been corrective to the downside. It feels as though this market will continue trending downward testing and possibly breaking \$8.00 despite next weeks cold weather and then use the large draw in 2 weeks as an excuse to rally back up. Time will tell.

## **Natural Gas, Gas Liquids and Power Market Update**

**Jim Duncan, Market Analyst**

Thursday, January 17, 2008

# February Natural Gas Continues Slide On Weak Crude

Today: Bearish 30-Day: Bearish

Bottom Line – While cold air continues to threaten the CONUS, I'm not convinced the market is all that excited about this cold shot. Crude oil is weak and getting weaker. Expect this bearish trend to continue.

# Gas Daily

Tuesday, January 22, 2008

## **UBS cuts 2008 spot gas price forecast by 9%**

Mild weather forecasts and robust US gas production led the energy analysts at investment bank UBS to trim their 2008 and 2009 composite spot gas price forecasts by 9% and 8%, respectively.

UBS said Thursday that it expects the 2008 average price to be \$7.25/MMBtu, down from its previous projection of \$8/MMBtu, while its 2009 average price was cut from \$8.25/MMBtu to \$7.60/MMBtu.

“These downward revisions are based on the following: stronger-than-expected US gas production growth [around 2.5%], primarily from increased production from the Barnett Shale in Texas; storage volumes that are well above historical levels; warmer-than-normal weather this winter, coupled with a positive spring outlook for hydroelectric production; and a slowdown in US economic growth,” UBS Managing Director Ronald Barone said in a note to clients.

In 2008, “volumes will benefit from a full year of production from Independence Hub in the eastern deepwater Gulf of Mexico and the modest amount of shut-in Rockies supplies reaching the market as the Rockies Express Pipeline partially came on stream last week,” Barone said. “This production growth is surprisingly strong in the context of the 1.2% per-annum decline from 2001-06, and is likely to continue to grow until the Barnett Shale profile flattens and rolls over — presumably in 2010-11.”

UBS forecasts spot gas prices of \$7.20/MMBtu in the first quarter, \$6.75/MMBtu in the second, \$7.05/MMBtu in the third and \$8/MMBtu in the fourth.

Meanwhile, UBS raised its WTI crude oil price forecast by 15% to \$85/barrel in 2008 and 6% to \$78/barrel in 2009, citing lower inventories in the fourth quarter of 2007 and a slower-than-expected deceleration in US economic growth. BH

# Gas Daily

Tuesday, January 15, 2008

## Analysts' views on storage, gas prices at odds

Gas industry analysts are looking at similar storage and weather data and drawing starkly different conclusions on where the market is headed. Credit Suisse analyst Teri Viswanath said Monday that, despite record amounts of gas in storage at the start of the heating season, core demand for gas "has been much heavier than expected, fueling speculation that the market will be less prepared to build summer stocks." That, Viswanath said, should lead gas prices to trend higher and average around \$7.49/MMBtu this year.

But analysts with Raymond James and Associates said Monday that temperatures are likely to be higher than last winter, when weather was 10% colder than normal across much of the US from mid-January through early March. "Given the short-term weather forecasts, it looks as if repeating, let alone surpassing, such cold weather may be a tough task to accomplish," the analysts said. Thus, the tightening of gas storage inventories during the last few weeks "is likely to reverse course, taking natural gas prices back down as the historical correlation between year-over-year storage differential and prices hold."

The Raymond James analysts predicted that the current 282-Bcf year-over-year storage deficit will evolve into a surplus of 275 Bcf by the end of the withdrawal season, which should cause gas prices "to trend south on a sustainable basis into this summer."

But Viswanath predicted April 1 storage levels of around 1.439 Tcf, a 164-Bcf deficit to last year and a 253-Bcf deficit to 2006.

"With more than half the season still weighing in the balance, it might seem irresponsible to forecast a writedown of another [1.3 Tcf] in inventories," the analyst wrote. "However, the pace of storage withdrawals for the winter of 2007/2008 has easily eclipsed the previous three seasons."

Withdrawals so far this season have totaled nearly 800 Bcf, which far surpasses the corresponding three-year average of 552 Bcf, Viswanath noted. "It's little wonder that the market has taken notice of these changes in light of the heavy withdrawals likely to materialize over the next two weeks."

Beyond weather, factors such as domestic and Canadian production trends, along with imports of liquefied natural gas, are helping keep the storage picture somewhat murky.

John Gerdes, head of The Gerdes Group, said he anticipates "moderating growth in domestic production, deteriorating Canadian production/imports and strengthening LNG imports." Given the current cost environment, a 4% increase in US gas drilling activity should produce an average gas price between \$8/MMBtu and \$8.25/MMBtu, Gerdes said.

*Energy Information Administration*

# Short-Term Energy Outlook

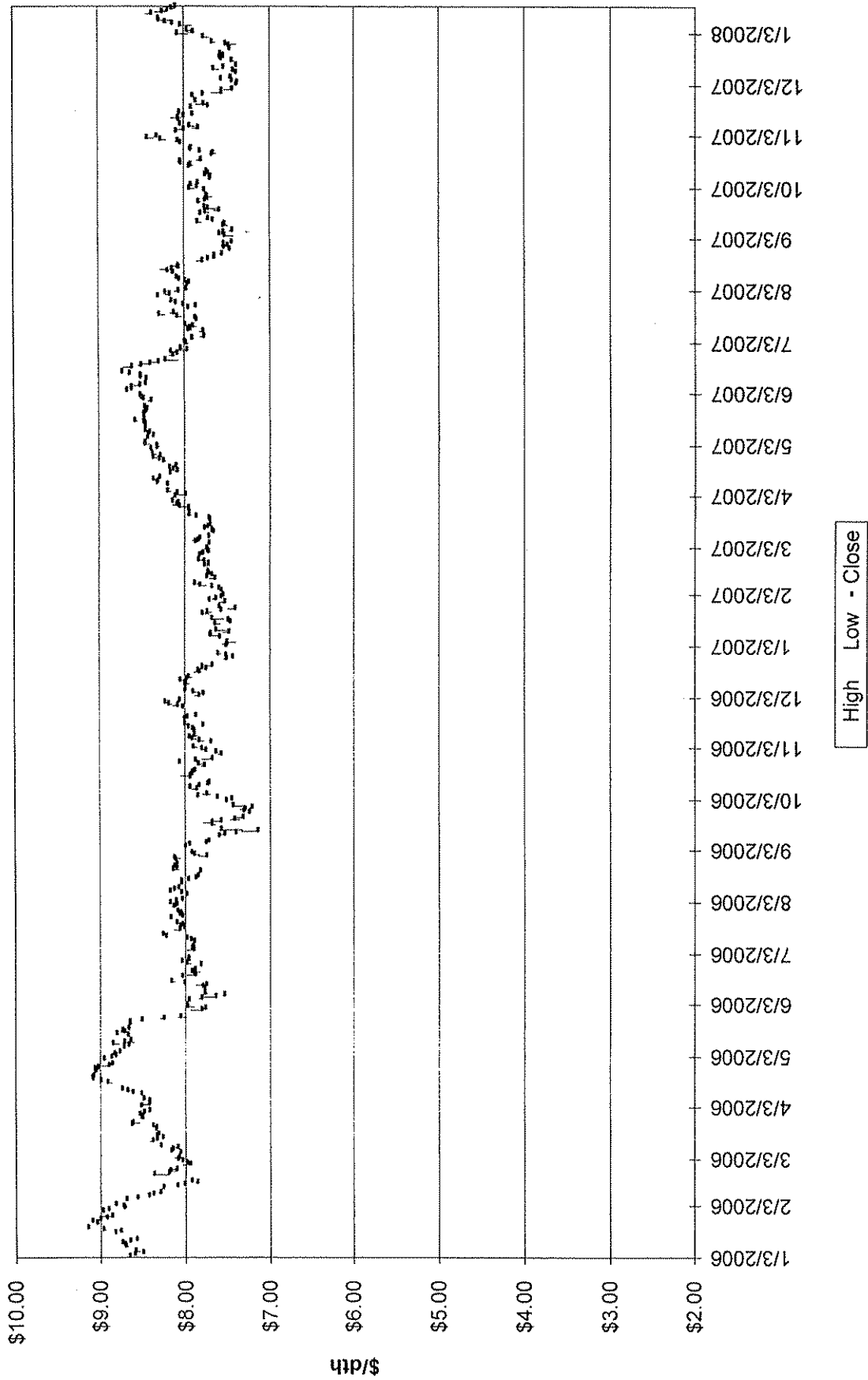
January 8, 2008 Release  
(Next Update: February 12, 2008)

## **Highlights**

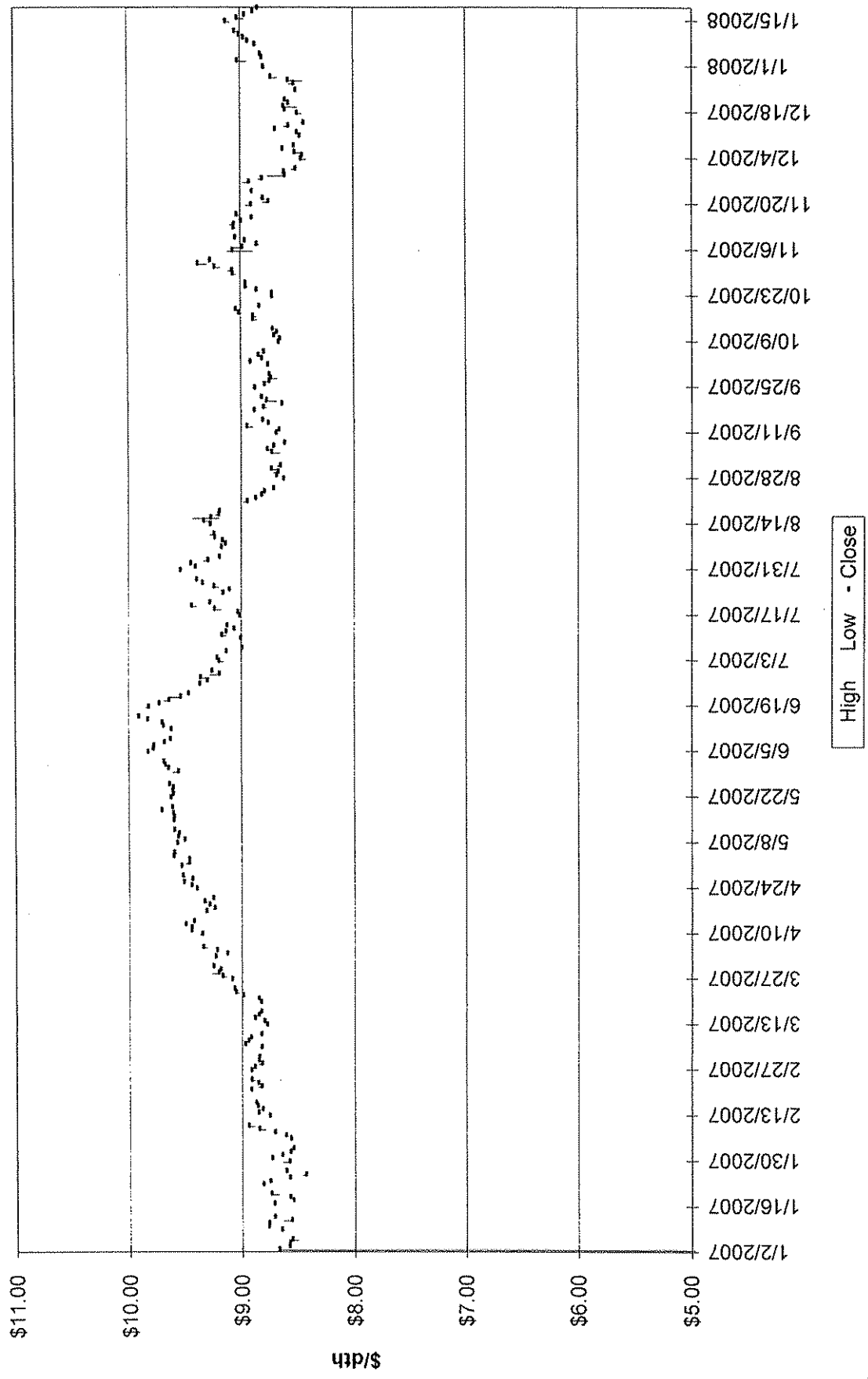
- The Henry Hub natural gas spot price averaged \$7.17 per thousand cubic feet (mcf) in 2007 and is expected to average \$7.78 per mcf in 2008 and \$7.92 per mcf in 2009.



### Summer Strip 2008



Winter Strip Nov08 - Mar09



Energy Information Administration

# Short-Term Energy Outlook

January 8, 2008 Release  
(Next Update: February 12, 2008)

## **Natural Gas**

**Consumption.** Total natural gas consumption is estimated to have increased by 6 percent in 2007, driven largely by increases in the residential, commercial, and electric power sectors that occurred earlier in the year. The forecast of near-normal weather in 2008 and 2009 is projected to lower the annual increase in total consumption to 0.6 and 1 percent, respectively, for those two years.

**Production and Imports.** Total U.S. marketed natural gas production is estimated to have increased by 2.5 percent in 2007, with increases in onshore lower-48 production offsetting declines in the offshore Gulf of Mexico. In 2008, total marketed production is expected to increase by 1.6 percent primarily because of the start-up of new deepwater Gulf of Mexico supply infrastructure, which is expected to increase Gulf production by 7.9 percent for the year. In addition, lower-48 onshore production in 2008 is expected to rise by 0.5 percent. In 2009, the anticipated 2.8 percent decline in production from the Gulf due to steep decline rates in the offshore fields is expected to be offset by production growth of 0.8 percent in the lower-48 onshore region, resulting in net growth in total marketed production of 0.2 percent.

# Short-Term Energy Outlook

January 8, 2008 Release  
(Next Update: February 12, 2008)

## Highlights

- Global oil markets will likely remain tight through 2008, then ease moderately in 2009. EIA projects that world oil demand will continue to grow faster than oil supply outside of the Organization of the Petroleum Exporting Countries (OPEC) in 2008, leaving OPEC and inventories to offset the upward pressure on prices. In 2009, higher non-OPEC production and planned additions to OPEC capacity should relieve some of the tightness in the market. As a result, the level of surplus production capacity is projected to grow from its current level of under 2 million barrels per day (bbl/d) to more than 4 million bbl/d by the end of 2009.
- The West Texas Intermediate (WTI) crude oil spot price approached \$100 per barrel twice over the last 6 weeks, reaching \$99.16 per barrel on November 20 and \$99.64 per barrel, a record price in nominal terms, on January 2, after falling below \$90 in mid-December. Recent high prices and large price swings reflect the current tight and volatile world crude oil market. The WTI price is expected to average \$94 per barrel in January 2008. The WTI price, which averaged \$72 per barrel in 2007, is expected to average about \$87 per barrel in 2008 and \$82 in 2009.

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u> Previously Hedged	[REDACTED]						
al	[REDACTED]						
<u>Duke Energy Kentucky</u> Previously Hedged	[REDACTED]						
al	[REDACTED]						

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 February 18, 2008

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Mar-May
Mid Term Weather (30-60 days)	↑	Long	March and April are expected to be about 3.3% colder than the ten year normal. March--Cold in the North, Warm in the South
6-10 day forecast	↔	Short	Mixed bag--Below or Much Below east of Mississippi river, Above west of river for Day 6--Day 7 warmer weather pushing east--Days 8 thru 10 Above to Normal.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↑	Both	Storage withdraws for the week ending February 8 were 120 BCF, a larger-than-expected drawdown. Storage levels are 8.6% lower than last year at 1.94 TCF (5.9% above 5-year average 1.83 TCF).
<b>Industry Publications</b>			
Cambridge Energy Research Associates Summer 2008: \$7.299 Winter 08/09: \$7.288	↑	Long	A slightly tighter supply-demand balance in the North American natural gas market is expected to strengthen prices at Henry Hub throughout 2008, particularly in April and May as storage inventories begin to be refilled.
Paribas	↑	Short	Natural gas exploded higher on Thursday. Natural was driven by the technicals and fundamentals. Fundamentally: 6 to 10 and 11 to 15 day forecasts are below to normal temps, and the EIA Number was on the higher side of expectations.
Gas Daily	↓	Long	Energy analyst reduces gas price forecasts, saying the second half of winter and the remainder of 2008 "will be ugly for US gas prices."
<b>Government Agencies</b>			
Energy Information Administration Summer 2008: \$7.354 Winter 2008/09: \$8.068	↑	Long	"The Henry Hub spot price are expected to average about \$7.61/mmbtu in 2008 and \$7.70/mmbtu in 2009, according to EIA." The frigid weather at the end of January and so far this month in key consuming regions has forced an upward shift in prices.
<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: "Looking ahead, total US gas consumption is expected to increase by 0.9% in 2008 and by 1% in 2009." Gas usage by electric power generators should remain nearly flat on a year-over-year basis due in part to forecasts for a relatively mild summer.
Supply	↓	Long	EIA estimates that total US marketed gas production will increase by 2.2 percent in 2008 and 0.8 percent in 2009. "Growth this year will largely result from start-up of new deepwater supply infrastructure in the Gulf of Mexico..."
Oil Market	↔	Long	EIA: "The outlook over the next 2 years points to an easing of the oil market balance in 2008." The spot price of West Texas Intermediate (WTI) crude averaged \$93 per barrel in January 2008 and is expected to average \$87 in February. The WTI price, which averaged \$72 per barrel in 2007, is expected to average about \$86 per barrel in 2008 and \$82 in 2009.
Meeting Minutes: 10th Floor North Conference Room - 1:00 pm			
Attendees: [REDACTED]			

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 February 18, 2008

Support  
 Page

Weather	Price Pressure	Term	Comments
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<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: "Looking ahead, total US gas consumption is expected to increase by 0.9% in 2008 and by 1% in 2009." Gas usage by electric power generators should remain nearly flat on a year-over-year basis due in part to forecasts for a relatively mild summer.
Supply	↓	Long	EIA estimates that total US marketed gas production will increase by 2.2 percent in 2008 and 0.8 percent in 2009. "Growth this year will largely result from start-up of new deepwater supply infrastructure in the Gulf of Mexico..."
Oil Market	↔	Long	EIA: "The outlook over the next 2 years points to an easing of the oil market balance in 2008." The spot price of West Texas Intermediate (WTI) crude averaged \$93 per barrel in January 2008 and is expected to average \$87 in February. The WTI price, which averaged \$72 per barrel in 2007, is expected to average about \$86 per barrel in 2008 and \$82 in 2009.

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Meeting Minutes: 10th Floor North Conference Room - 1:00 pm  
 Attendees: [REDACTED]

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 02/14/08

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
<b>Daily Base</b>												
Estimated Base (Gross)												
Amount Hedged												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Cost Averaging												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Total Hedged												
<b>Monthly Base</b>												
Estimated Base (Gross)												
Hedged to date												
Fixed Price												
Fixed Price												
Fixed Price												
Fixed Price												
Cost Averaging												
Cost Averaging												
Fixed Price												
Fixed Price												
Fixed Price												
Total Hedged												
% of Base Supply												
Seasonal % of Base												
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)												
Storage Withdrawal												
Market												
Total (Incl. Injections)												
% Hedged & Storage												
Seasonal %												

**Daily Base**  
 Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**  
 Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**  
 Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (Incl. Injections)  
 % Hedged & Storage  
 Seasonal %



Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 02/13/08

Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09

Daily Base

Estimated Base (Gross)

Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

Monthly Base

Estimated Base (Gross)

Hedged to date

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

5

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 02/13/08

Nov-09 Dec-09 Jan-10 Feb-10 Mar-10 Apr-10 May-10 Jun-10 Jul-10 Aug-10 Sep-10 Oct-10

Daily Base

Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price  
 Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. injections)  
 % Hedged & Storage  
 Seasonal %

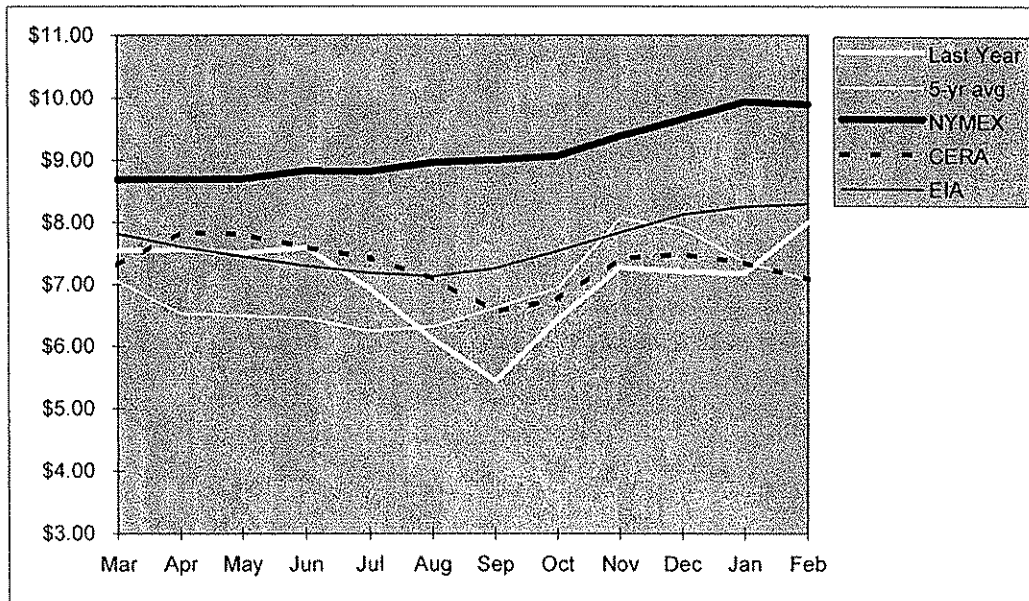
2/14/2008

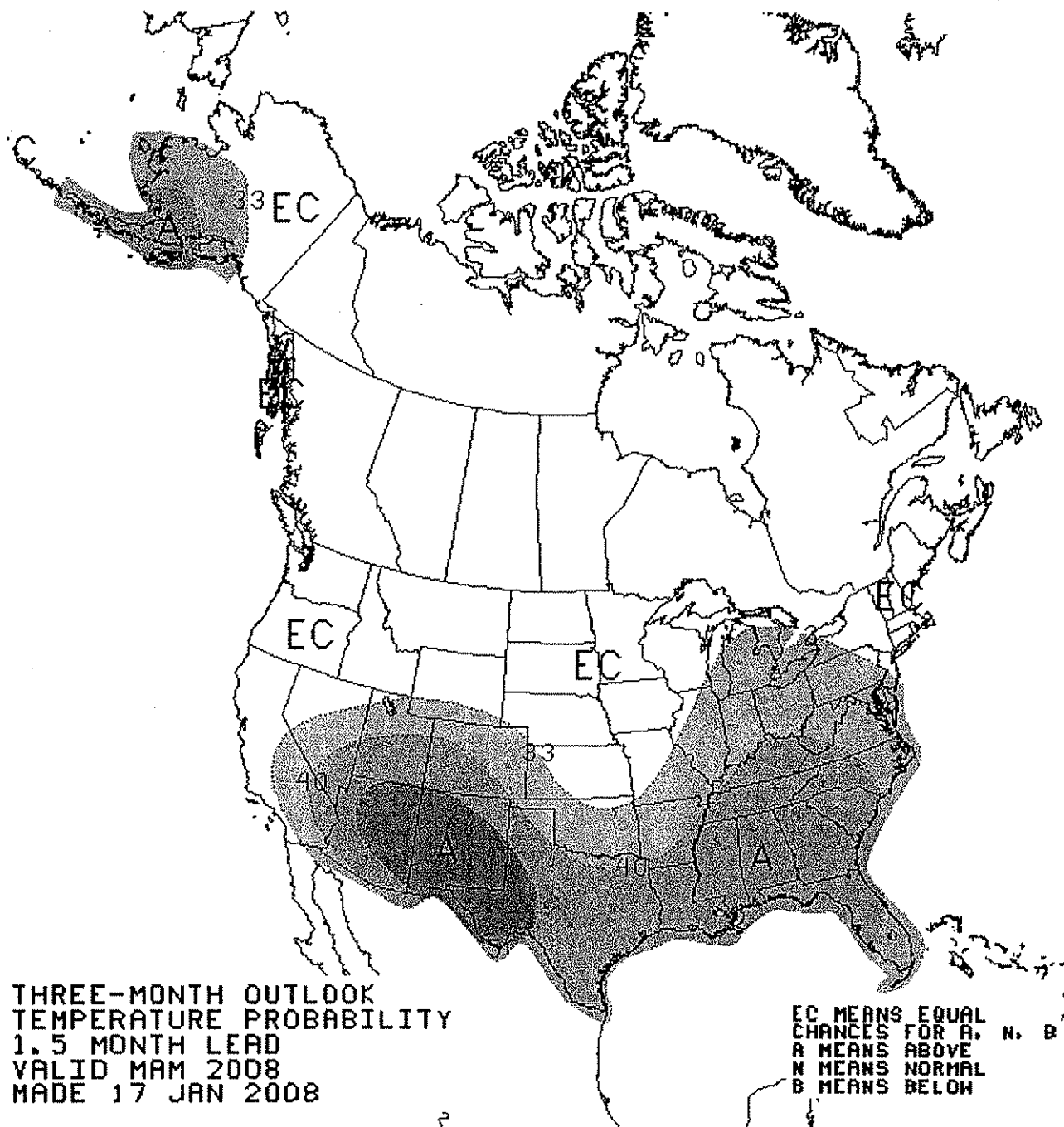
**Duke Energy Kentucky  
 Hedging Program  
 Current Position**

Delivery Month	Base Supply		Hedged to Date		Next Target (3/31/08)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					
Apr-10	[REDACTED]					
May-10	[REDACTED]					
Jun-10	[REDACTED]					
Jul-10	[REDACTED]					
Aug-10	[REDACTED]					
Sep-10	[REDACTED]					
Oct-10	[REDACTED]					
Summer 2010	[REDACTED]					

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (03/04-07/08)	Last Year (2007-2008)		CERA 23-Jan-08	EIA 12-Feb-08	NYMEX 15-Feb-08
Mar	\$7.05	\$7.55		\$7.310	\$7.820	\$8.690
Apr	\$6.53	\$7.56		\$7.840	\$7.610	\$8.695
May	\$6.49	\$7.51		\$7.810	\$7.450	\$8.700
Jun	\$6.45	\$7.59		\$7.600	\$7.300	\$8.830
Jul	\$6.24	\$6.93		\$7.430	\$7.190	\$8.820
Aug	\$6.31	\$6.11		\$7.090	\$7.130	\$8.965
Sep	\$6.62	\$5.43		\$6.560	\$7.260	\$9.005
Oct	\$6.94	\$6.42		\$6.760	\$7.540	\$9.070
Nov	\$8.07	\$7.27		\$7.420	\$7.840	\$9.388
Dec	\$7.91	\$7.20		\$7.490	\$8.130	\$9.660
Jan	\$7.36	\$7.17		\$7.350	\$8.260	\$9.940
Feb	\$7.08	\$8.00		\$7.080	\$8.300	\$9.900
12 Month Avg	<b>\$6.92</b>	<b>\$7.06</b>		<b>\$7.312</b>	<b>\$7.653</b>	<b>\$9.139</b>
Summer Average				\$7.299	\$7.354	\$8.869
Winter Average				\$7.330	\$8.070	\$9.516





THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
1.5 MONTH LEAD  
VALID MAM 2008  
MADE 17 JAN 2008

EC MEANS EQUAL  
CHANCES FOR A. N. B  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW

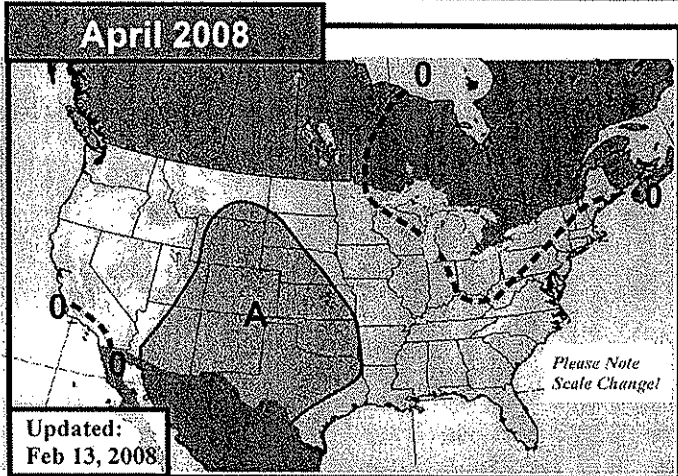
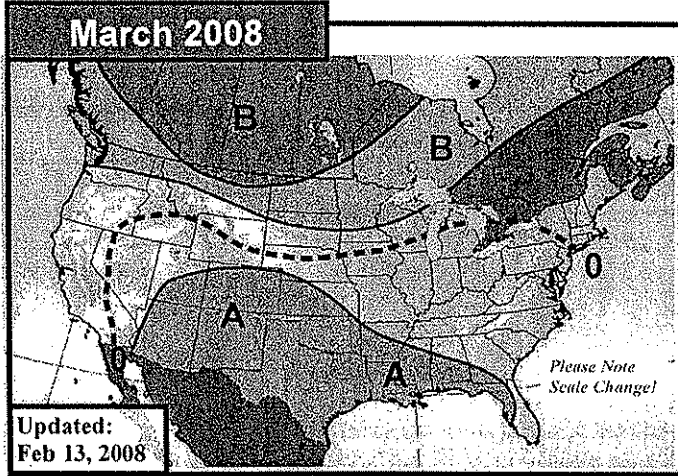


# EarthSat's 30-60 Day Outlook

Wednesday, February 13, 2008

EarthSat Weather

Forecaster: MR/DS/JS



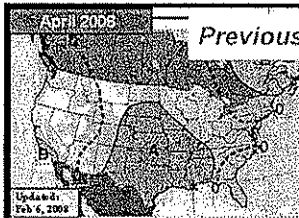
■ Above (+2)   ■ Above (+1)   0   ■ Below (-1)   ■ Below (-2)



**Seasonal to Cold North Again**

**Still Warmer Side South**

Today's forecast is the very first MDA Federal consensus-based 30 day outlook. It is comprised from the input of 19 in-house meteorologists. The inevitable result from averaging out 19 different monthly outlooks is an averaging effect toward climatology. But the value of this forecast is hopefully better directional skill in the long run. Interestingly enough, a majority of forecasters agree with the warmer leanings in the Southern tier of the nation along with seasonal to colder leanings along the Northern tier.



**No Major Changes Directionally**

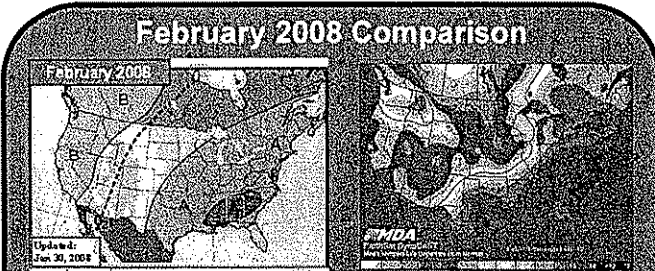
This April forecast also did not change too remarkably from last week based on the revised consensus forecast. Looking at the numbers down below, the outlook shows a split with a colder than 10Y forecast and a warmer than 30Y forecast for the month. As shown in the Editor's Notes yesterday, a number of similar La Niña fits offered up a cooler spring potential, but other factors, like long-term warming trends, are also baked into this outlook. The results of March should offer up some guidance on how this spring may go.

**March GWHDD\* Forecasts**

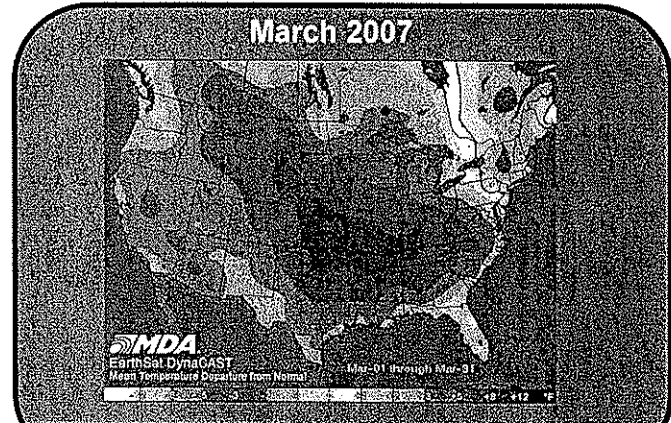
Mar 2008 Fcst:	<b>635.4</b>	10Y Normal	615.9
		30Y Normal	640.2
		Mar-2007	518.9
Change: +13.3		*National Gas-Weighted HDDs	

**April GWHDD\* Forecasts**

Apr 2008 Fcst:	<b>351.7</b>	10Y Normal	340.3
		30Y Normal	377.0
		Apr-2007	390.6
Change: +5.5		*National Gas-Weighted HDDs	



Well, for the first 1/3 of February, the forecast thinking of a cold West and warm East has been working out fairly well. Cold changes this week and bleeding into next week will challenge these anomalies in the Midwest and at times in the Northeast, but the Southeast ridge may be able to hold given latest 11-15 day thinking.



Maps above depict deviations of average temperatures from 30 Y normal in Fahrenheit.



# EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Friday **DAY** 2/15/2008 **DATE** 6:30 A.M. **TIME** JS/AC **FORECASTER**

### FORECAST TEMPERATURE DEVIATIONS

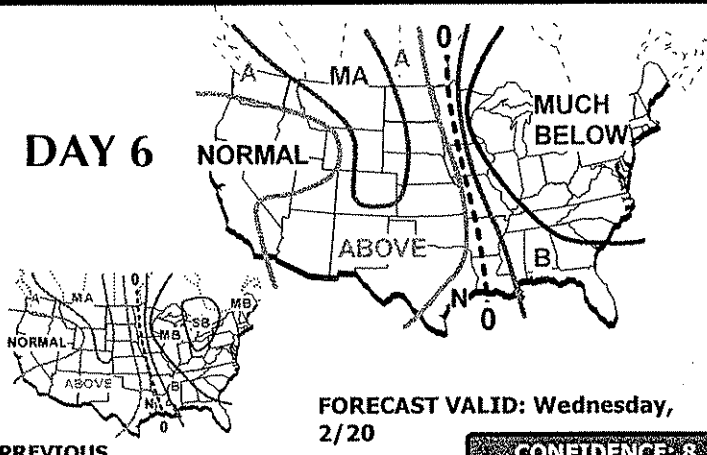
### DISCUSSION

#### Today's Forecast

#### Early Cold In East Departs By 2nd Half Of Period

With high pressure expected to sit over eastern Canada, conditions could clear enough for temperatures to drop colder than anticipated in the Great Lakes region and New England for the second half of next week. Some cooler readings may seep towards the Carolinas as well. By next weekend, warmer conditions should break through into these regions as a trough exits eastward. A storm system advancing through the Midwest on Day 10 may provide a cooler scenario than portrayed here.

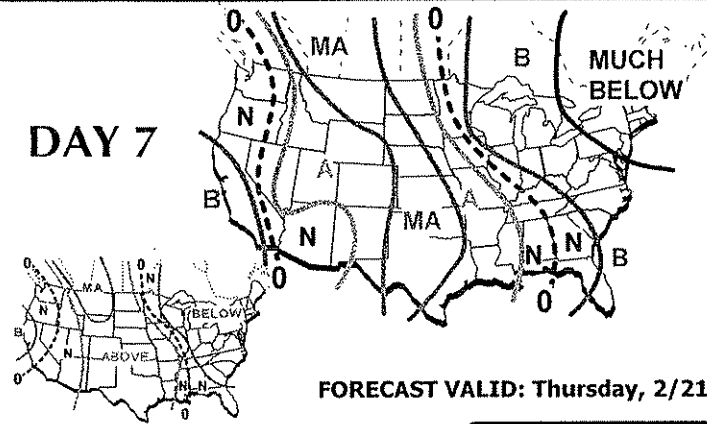
**DAY 6**



FORECAST VALID: Wednesday, 2/20

CONFIDENCE: 8

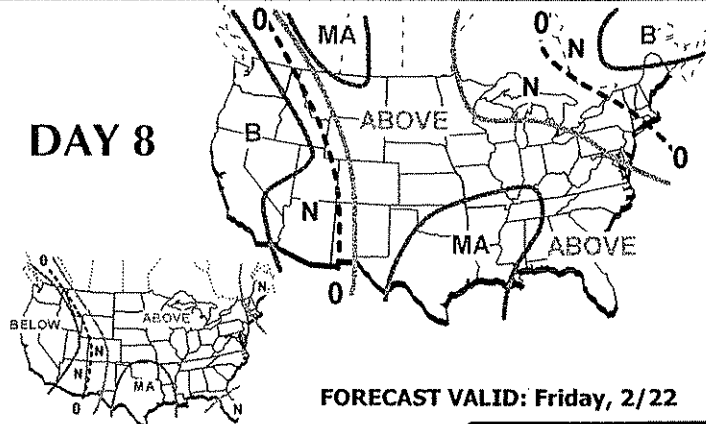
**DAY 7**



FORECAST VALID: Thursday, 2/21

CONFIDENCE: 7

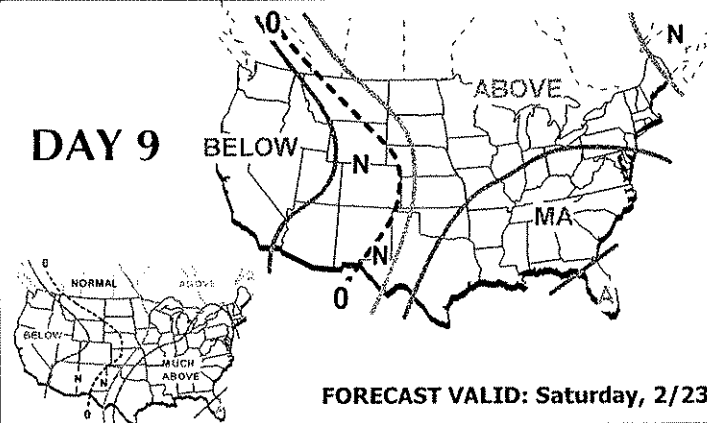
**DAY 8**



FORECAST VALID: Friday, 2/22

CONFIDENCE: 7

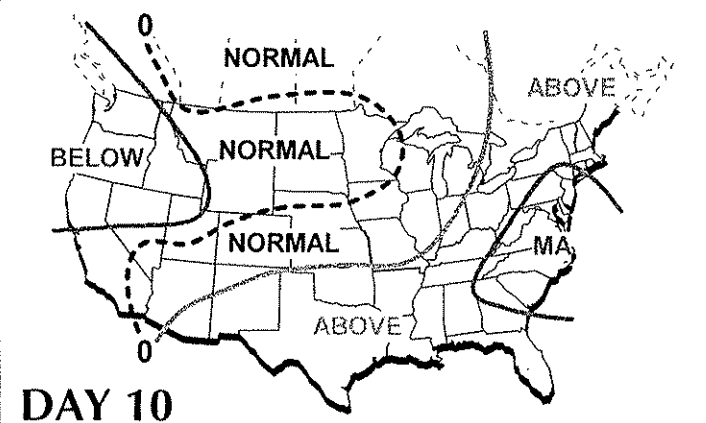
**DAY 9**



FORECAST VALID: Saturday, 2/23

CONFIDENCE: 6

**DAY 10**



FORECAST VALID: Sunday, 2/24

CONFIDENCE: 5

### LEGEND

STRONG ABOVE.... +15 OR UP  
 MUCH ABOVE.. +8F TO +14  
 ABOVE..... +3F TO +7F

NORMAL  
 -2F TO +2F

STRONG BELOW.... -15 OR DOWN  
 MUCH BELOW..... -8F OR DOWN  
 BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High

Anomalies based on 30Y normals.



Home > Natural Gas > Weekly Natural Gas Storage Report

# Weekly Natural Gas Storage Report

Released: February 14, 2008 at 10:30 A.M. (Eastern time) for the Week Ending February 8, 2008.  
 Next Release: February 21, 2008

## Working Gas in Underground Storage, Lower 48

other formats: [Summr](#)

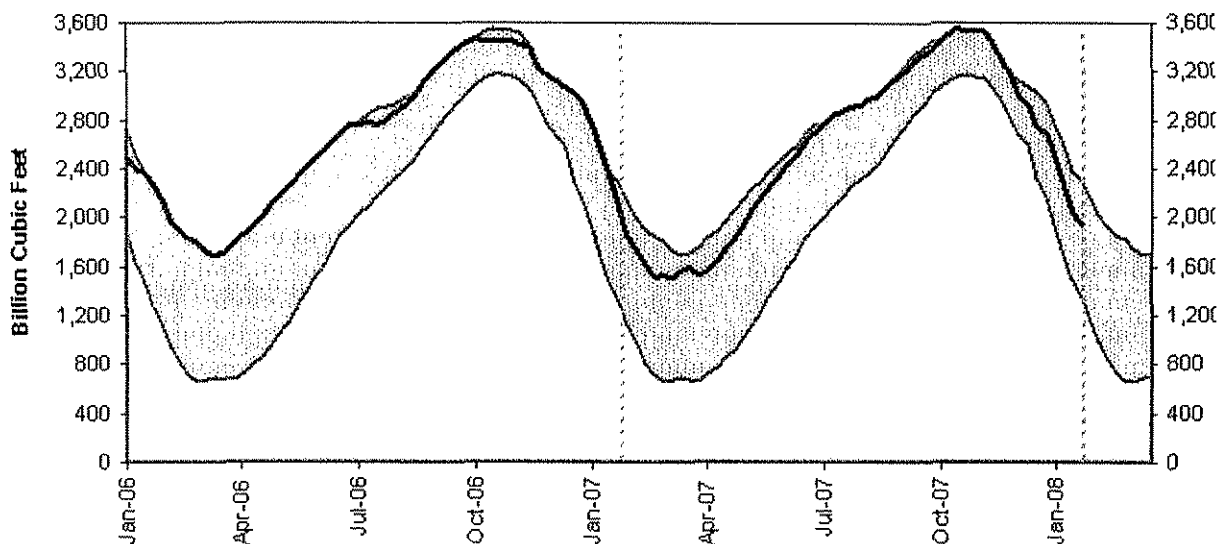
Region	Stocks in billion cubic feet (Bcf)			Historical Comparisons			
	02/08/08	02/01/08	Change	Year Ago (02/08/07)		5-Year (2003-2007)	
				Stocks (Bcf)	% Change	Stocks (Bcf)	% Change
East	1,072	1,138	-66	1,173	-8.6	1,001	-10.2
West	227	254	-27	267	-15.0	261	-13.7
Producing	643	670	-27	686	-6.3	571	-12.1
<b>Total</b>	<b>1,942</b>	<b>2,062</b>	<b>-120</b>	<b>2,125</b>	<b>-8.6</b>	<b>1,833</b>	<b>-6.1</b>

### Notes and Definitions

#### Summary

Working gas in storage was 1,942 Bcf as of Friday, February 8, 2008, according to EIA estimates. This represents a decline of 120 Bcf from the previous week. Stocks were 183 Bcf less than last year at this time and 109 Bcf below the year average of 1,833 Bcf. In the East Region, stocks were 71 Bcf above the 5-year average following a net withdrawal of 66 Bcf. Stocks in the Producing Region were 72 Bcf above the 5-year average of 571 Bcf after a net withdrawal of 27 Bcf. Stocks in the West Region were 34 Bcf below the 5-year average after a net drawdown of 27 Bcf. At 1,942 Bcf, working gas is within the 5-year historical range.

Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2003 through 2007. Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

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**OFFSETTING FACTORS TO YIELD SLIGHTLY FIRMER PRICES IN 2008**

A slightly tighter supply-demand balance in the North American natural gas market is expected to strengthen prices at Henry Hub throughout 2008, particularly in April and May as storage inventories begin to be refilled (see Table 1).

Colder weather thus far in the 2007/08 winter has increased demand over year-ago levels.\* CERA expects North American natural gas demand to be more than 4 percent higher this winter over last, assuming normal weather for the balance of the winter. At the same time, Canadian production is falling and LNG imports are lower. These declines are being offset by higher production in the US Lower 48 and by increased storage withdrawals compared with last winter.

The deteriorating outlook for Canadian gas production and downward revisions in expected 2008 liquefied natural gas (LNG) imports have led CERA to raise our 2008 Henry Hub price forecast to \$7.37 per million British thermal units (MMBtu) (compared with a forecast of \$7.10 per MMBtu in last month's *Briefing*). This year's peak is expected in April, when the average Henry Hub price is expected to reach \$7.84 per MMBtu as the storage injection season begins.

The longer-term outlook is more bearish for prices. Significant new productive capacity in the US Lower 48 is expected to more than offset declining Canadian capacity during 2010-13, and increasing volumes of LNG imports are anticipated. Slower economic growth could reduce gas demand in the industrial and electric power sectors. Given these factors, CERA projects that Henry Hub prices could range between \$6.15 and \$6.28 per MMBtu during 2010-13, close to CERA's estimated price floor of around \$6 per MMBtu, based on long-run costs of natural gas production.

Table 1

**Henry Hub Prices**  
 (nominal US dollars per MMBtu)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	5.39	6.03	6.17	8.76	6.33	7.60	7.35	6.32	6.65	6.24	6.45
February	7.00	5.41	6.09	7.62	8.06	7.53	7.22	6.36	6.58	6.15	6.40
March	6.37	5.38	6.91	6.88	7.10	7.31	6.96	6.35	6.44	6.22	6.27
April	5.27	5.70	7.19	7.09	7.57	7.84	6.55	6.17	6.29	5.99	6.10
May	5.77	6.28	6.47	6.23	7.64	7.81	6.41	6.30	6.20	6.07	6.08
June	5.80	6.26	7.17	6.26	7.40	7.60	6.42	6.29	6.28	6.16	6.20
July	5.04	5.92	7.57	6.05	6.21	7.43	6.43	6.30	6.19	6.20	6.24
August	4.96	5.43	9.29	7.24	6.30	7.09	6.18	6.21	6.13	6.21	6.27
September	4.61	4.99	12.11	4.95	5.98	6.56	5.85	5.60	6.02	5.85	5.63
October	4.65	6.24	13.36	5.67	6.68	6.76	6.08	6.28	5.80	5.95	5.91
November	4.45	5.88	10.29	7.32	7.01	7.42	6.34	6.59	6.28	6.33	6.29
December	6.12	6.63	12.98	6.83	7.08	7.49	6.33	6.64	6.30	6.36	6.30
<b>Year average</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>6.95</b>	<b>7.37</b>	<b>6.51</b>	<b>6.28</b>	<b>6.26</b>	<b>6.15</b>	<b>6.18</b>

Sources: Cambridge Energy Research Associates. Historical data derived from *Platts Gas Daily*.  
 Note: The 2003-December 2007 figures are derived from historical data as available; January 2008-13 figures are CERA projections.  
 Excel tables are available in the North American Natural Gas Client Services area at CERA.com.

\*The US lower-48 weather for November 2007 through mid-January 2008 has been 15 percent colder than the comparable period last year.

BNP Paribas Natural Gas Market Watch  
14 February  
2008

### **Commentary**

**Natural gas exploded higher on Thursday.** The market held 8300 support yesterday after filling the gap down to 8330 late in the day. Natural was driven by the technicals and fundamentals. Technically: held support, ran stops, short covering, Open Interest building, and taking out resistance levels provoking new length. **Fundamentally: cash was strong, 6 to 10 and 11 to 15 day forecasts are below to normal temps, and the EIA Number was on the higher side of expectations.** The EIA Storage number was a draw of 120 (expectations: BNP Paribas Survey -120 and PIRA 110). Support: 8500 and 8230. Resistance: 8850 and 9000.

# Gas Daily

Tuesday, February 12, 2008

## Adkins gets more bearish on natural gas prices

Normally bullish Raymond James energy analyst Marshall Adkins sliced his natural gas price forecasts again Monday, saying the second half of winter and the remainder of 2008 "will be ugly for US gas prices."

In September, Adkins cut his price forecast 30% (*GD 9/18*) and Monday he sliced another 20% off the first quarter of 2008's forecast, predicting prices will average \$7.50/Mcf, down from \$9/Mcf.

For the full year, Adkins cut his price forecast 7% to \$6.50/Mcf.

By the third quarter of this year, Adkins says gas should be selling at \$5/Mcf as increased US gas production from the Independence Hub in the Gulf of Mexico and Texas' Barnett Shale adds 2.6 Bcf/d of gas to the nation's supply under normal weather conditions.

"We are set to have a meaningfully warmer second half of winter versus last year," Adkins said, when it was cooler-than normal. "When we adjust for warmer anticipated year-over-year weather, it now appears we will have 4 Bcf/d less gas demand over the next 70 days than we had last year."

"All in, we are forecasting a 359-Bcf bearish swing in the year-over-year gas storage differentials," Adkins said. "For the full winter, this would leave ending storage at 1,664 Bcf, which is over 100 Bcf more gas than last year."

"We are on track to have nearly 2 Bcf/d more gas in the system this summer than we had last summer," Adkins said. "That means summer injections would be over 400 Bcf more than last year. Since we are likely to start the summer with over 100 Bcf more than last year, the implied summer ending storage figure would be a ridiculously high 4 Tcf of theoretical gas."

Adkins predicted that when storage levels reach this peak, operators will start shutting in production by late summer as gas in the ground competes directly with gas in storage, creating unique gas-on-gas competition.

# Gas Daily

Wednesday, February 13, 2008

## EIA: Winter gas prices to top last year's by 10%

With most forecasters calling for the current cold spell to continue, the Energy Information Administration on Tuesday projected that Henry Hub spot gas prices will average \$8.18/Mcf in the first quarter, or about 10% above the \$7.41/Mcf average price during the first quarter of 2007. In its February short-term energy outlook, EIA predicted a full-year spot price average of \$7.83/Mcf, up a nickel from its month-ago forecast. The frigid weather at the end of January and so far this month in key consuming regions has forced an upward shift in prices, EIA noted. The agency last month said spot gas prices would average \$8/Mcf in January, while actual prices last month averaged \$8.25/Mcf.

Looking ahead, total US gas consumption is expected to increase by 0.9% in 2008 and by 1% in 2009. "Consumption growth in 2008 is driven by the residential and commercial sectors because of the expected slightly colder winter months on average," EIA said.

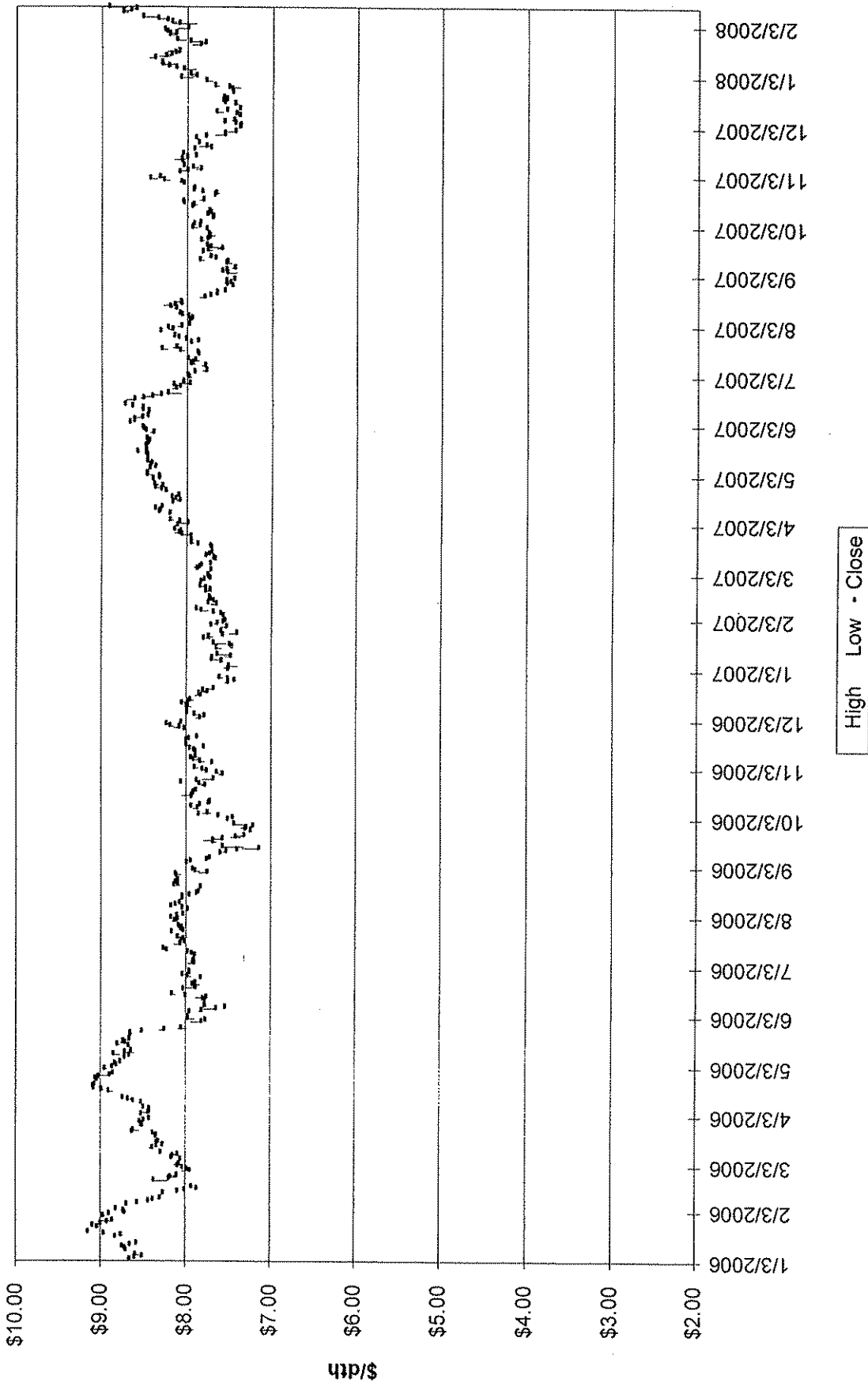
Still, gas usage by electric power generators should remain nearly flat on a year-over-year basis due in part to forecasts for a relatively mild summer. EIA said it expects US electricity consumption to increase a modest 0.4% in 2008 and 1.6% in 2009. Gas prices also turn on storage inventories, which EIA reported at 2.06 Tcf on February 1 as companies withdrew a record amount of gas at the end of January. Storage stocks are now 63 Bcf above the five-year average but 317 Bcf below where they were at this time last year.

EIA estimated that total US marketed gas production will increase by 2.2% in 2008 and 0.8% in 2009. Growth this year will largely result from the start-up of new deepwater supply infrastructure in the Gulf of Mexico and continued growth from unconventional reserve basins, such as shale and coalbed methane plays, in the Lower-48 states, it said.

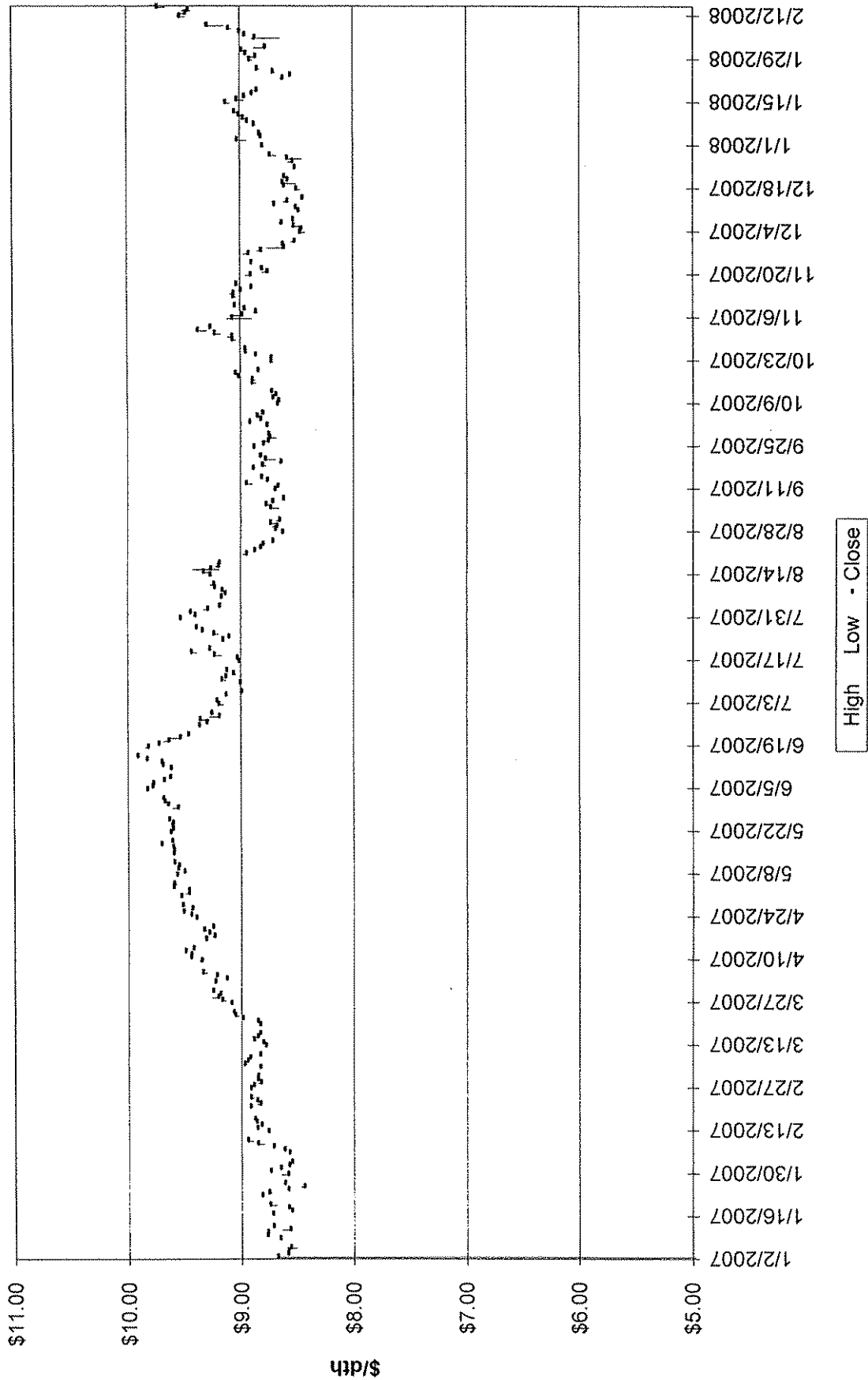
The agency also said US imports of liquefied natural gas will total 788 Bcf in 2008, 1.8% above 2007 levels. That estimate is down sharply from the 937 Bcf in imports the agency forecast in its January report.

EIA said the change reflects demand strength in Asia and Western Europe, which compete with the US for marginal LNG supplies, and uncertainty about liquefaction projects set to come online in 2008 and early 2009.

Summer Strip 2008



Winter Strip Nov08 - Mar09



# Short-Term Energy Outlook

February 12, 2008 Release  
(Next Update: March 11, 2008)

- The outlook over the next 2 years points to an easing of the oil market balance in 2008. Higher production outside of the Organization of the Petroleum Exporting Countries (OPEC) and planned additions to OPEC capacity should more than offset expected moderate world oil demand growth and relieve some of the tightness in the market.
- The spot price of West Texas Intermediate (WTI) crude oil averaged \$93 per barrel in January 2008 and is expected to average \$87 in February. The WTI price, which averaged \$72 per barrel in 2007, is expected to average about \$86 per barrel in 2008 and \$82 in 2009.

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u> Previously Hedged	[REDACTED]					[REDACTED]	[REDACTED]
Total	[REDACTED]					[REDACTED]	[REDACTED]
<u>Duke Energy Kentucky</u> Previously Hedged	[REDACTED]					[REDACTED]	[REDACTED]
Total	[REDACTED]					[REDACTED]	[REDACTED]



**Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 March 14, 2008**

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Mar-May
Mid Term Weather (30-60 days)	↑	Long	EarthSat: April is expected to be about 7.7% colder than the ten year normal. May is expected to be about 8.6% colder than normal.
6-10 day forecast	↑	Short	Above to normal temperatures in Mid-Continent for Day 6--Below to normal temperatures in Mid-Continent for the remainder of the forecast period.
Tropical Storm Activity	↓	Short	No activity in the near term.
<b>Storage Inventory</b>			
EIA Weekly Storage Report	↑	Both	Storage withdraws for the week ending March 7 were 86 BCF. Storage levels are 9.7% lower than last year at 1.40 TCF (4.3% above 5-year average 1.34 TCF).
<b>Industry Publications</b>			
Cambridge Energy Research Associates Summer 2008: \$7.299 Winter 08/09: \$7.288	↑	Long	"The need to refill storage capacity during this year's injection season after such a strong drawdown will support prices throughout the spring and summer. For 2008, CERA projects an average price of \$7.43 per MMBtu."
Paribas	↑	Short	The trend is your friend and it's higher. Natural Gas is going to continue to follow the rest of the sector higher. We will need a major event to cause a major pullback or possibly increased margins to slow down the rally.
Gas Daily	↑	Long	Even with a slowing economy, warmer weather and lower gas storage levels should drive Henry Hub prices to \$8.50/MMBtu this summer.
<b>Government Agencies</b>			
Energy Information Administration Summer 2008: \$7.686 Winter 2008/09: \$8.166	↑	Long	"The Henry Hub spot price are expected to average about \$7.945/mmbtu in 2008 and \$7.726/mmbtu in 2009, according to EIA."
<b>Technical Analysis</b>			
Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
<b>Economy</b>			
Demand	↓	Long	EIA: Growth in total natural gas consumption is expected to slow from 6.4% in 2007 to 0.7% in 2008 and 0.8% in 2009.
Demand	↑	Long	Gas Daily: Carbon regulation is likely to place upward pressure on natural gas demand and consequently on prices. Natural gas has the lowest carbon emissions of any fossil fuel and has become the energy source of choice for new electricity production. This places more demand on the gas industry to produce more at a time when access to new supplies on federal lands is constrained.
Supply	↓	Long	EIA: Total U.S. marketed natural gas production is expected to increase by 2.9 percent in 2008 and 0.3 percent in 2009. Imports of LNG are projected to be about 770 Bcf for 2008, or about the same amount imported in 2007.
Oil Market	↔	Long	EIA: "The slowing economy combined with high petroleum prices is expected to constrain growth in U.S. consumption to just 40,000 barrels per day in 2008. After accounting for increased ethanol use, U.S. consumption falls by 90,000 barrels per day." The spot price of West Texas Intermediate (WTI) crude averaged \$95 per barrel in February 2008 and is expected to average \$102 in March. The WTI price, which averaged \$72 per barrel in 2007, is expected to average about \$94 per barrel in 2008 and \$86 in 2009.

**Meeting Minutes: 10th Floor North Conference Room - 10:00 am**  
 Attendees: [REDACTED]

Gas Commercial Operations  
 Hedging Program  
 Market Indicators Summary  
 March 14, 2008

Support  
 Page

Weather	Price Pressure	Term	Comments
Long Term Weather Forecast	↓	Long	NOAA predicting a warmer than normal Mar-May
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Summer 2008 Strip Chart	↑	Short	[REDACTED]
Winter 2008-09 Strip Chart	↑	Short	[REDACTED]
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Meeting Minutes: 10th Floor North Conference Room - 10:00 am

Attendees: [REDACTED]

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2007 - October 2008  
 As of 03/13/08

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
<b>Daily Base</b>												
Estimated Base (Gross)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Amount Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price (e)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		30	31	31	29							
<b>Monthly Base</b>												
Estimated Base (Gross)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Hedged to date	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cost Averaging	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Fixed Price	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total Hedged	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
% of Base Supply	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Seasonal % of Base	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Normal Load (City Gate)</b>												
Hedged (City Gate)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Storage Withdrawal	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Market	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total (incl. Injections)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
% Hedged & Storage	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Seasonal %	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**Daily Base**  
 Estimated Base (Gross)  
 Amount Hedged  
 Fixed Price (e)  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged

**Monthly Base**  
 Estimated Base (Gross)  
 Hedged to date  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Cost Averaging  
 Cost Averaging  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Fixed Price  
 Total Hedged  
 % of Base Supply  
 Seasonal % of Base

**Normal Load (City Gate)**  
 Hedged (City Gate)  
 Storage Withdrawal  
 Market  
 Total (incl. Injections)  
 % Hedged & Storage  
 Seasonal %

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2008 - October 2009  
 As of 03/13/08

Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09

Daily Base

Estimated Base (Gross)  
 Amount Hedged

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

Monthly Base

Estimated Base (Gross)  
 Hedged to date

Fixed Price

Fixed Price

Fixed Price

Cost Averaging

Total Hedged

% of Base Supply

Seasonal % of Base

Normal Load (City Gate)

Hedged (City Gate)

Storage Withdrawal

Market

Total (incl. Injections)

% Hedged & Storage

Seasonal %

5

Duke Energy Kentucky  
 Hedging Program - Current Position  
 November 2009 - October 2010  
 As of 03/13/08

Nov-09 Dec-09 Jan-10 Feb-10 Mar-10 Apr-10 May-10 Jun-10 Jul-10 Aug-10 Sep-10 Oct-10

**Daily Base**

Estimated Base (Gross) [Redacted]  
 Amount Hedged [Redacted]  
 Fixed Price [Redacted]  
 Total Hedged [Redacted]

**Monthly Base**

Estimated Base (Gross) [Redacted]  
 Hedged to date [Redacted]  
 Fixed Price [Redacted]  
 Total Hedged [Redacted]  
 % of Base Supply [Redacted]  
 Seasonal % of Base [Redacted]

**Normal Load (City Gate)**

Hedged (City Gate) [Redacted]  
 Storage Withdrawal [Redacted]  
 Market [Redacted]  
 Total (incl. Injections) [Redacted]  
 % Hedged & Storage [Redacted]  
 Seasonal % [Redacted]

3/13/2008

**Duke Energy Kentucky  
 Hedging Program  
 Current Position**

Delivery Month	Base Supply		Hedged to Date		Next Target (3/31/08)	
	Dth/day	Dth/mo	Dth/day	Dth/mo	Required dth/day	Allowed dth/day
Apr-08	[REDACTED]					
May-08	[REDACTED]					
Jun-08	[REDACTED]					
Jul-08	[REDACTED]					
Aug-08	[REDACTED]					
Sep-08	[REDACTED]					
Oct-08	[REDACTED]					
Summer 2008	[REDACTED]					
Nov-08	[REDACTED]					
Dec-08	[REDACTED]					
Jan-09	[REDACTED]					
Feb-09	[REDACTED]					
Mar-09	[REDACTED]					
Winter 08/09	[REDACTED]					
Apr-09	[REDACTED]					
May-09	[REDACTED]					
Jun-09	[REDACTED]					
Jul-09	[REDACTED]					
Aug-09	[REDACTED]					
Sep-09	[REDACTED]					
Oct-09	[REDACTED]					
Summer 2009	[REDACTED]					
Nov-09	[REDACTED]					
Dec-09	[REDACTED]					
Jan-10	[REDACTED]					
Feb-10	[REDACTED]					
Mar-10	[REDACTED]					
Winter 09/10	[REDACTED]					
Apr-10	[REDACTED]					
May-10	[REDACTED]					
Jun-10	[REDACTED]					
Jul-10	[REDACTED]					
Aug-10	[REDACTED]					
Sep-10	[REDACTED]					
Oct-10	[REDACTED]					
Summer 2010	[REDACTED]					

Duke Energy Kentucky  
 Hedging Program for 2008/09  
 Cost Averaging with ConocoPhillips @ Columbia Gulf Mainline

Total													12 Month	Total	Locked in
Amount	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Strip	Cost	To Date
1-Feb															
4-Feb															
5-Feb															
6-Feb															
7-Feb															
8-Feb															
11-Feb															
12-Feb															
13-Feb															
14-Feb															
15-Feb															
19-Feb															
20-Feb															
21-Feb															
22-Feb															
25-Feb															
26-Feb															
27-Feb															
28-Feb															
29-Feb															
3-Mar															
4-Mar															
5-Mar															
6-Mar															
7-Mar															
10-Mar															
11-Mar															
12-Mar															
13-Mar															
14-Mar															
17-Mar															
18-Mar															
19-Mar															
20-Mar															
24-Mar															
25-Mar															
26-Mar															
27-Mar															

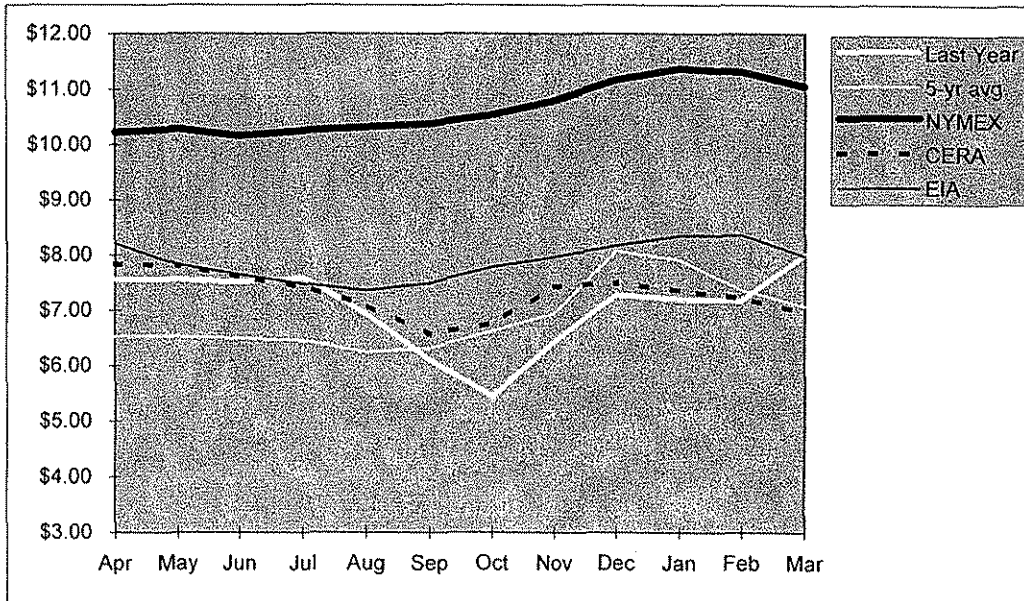
al

Basis to Columbia Gulf Onshore

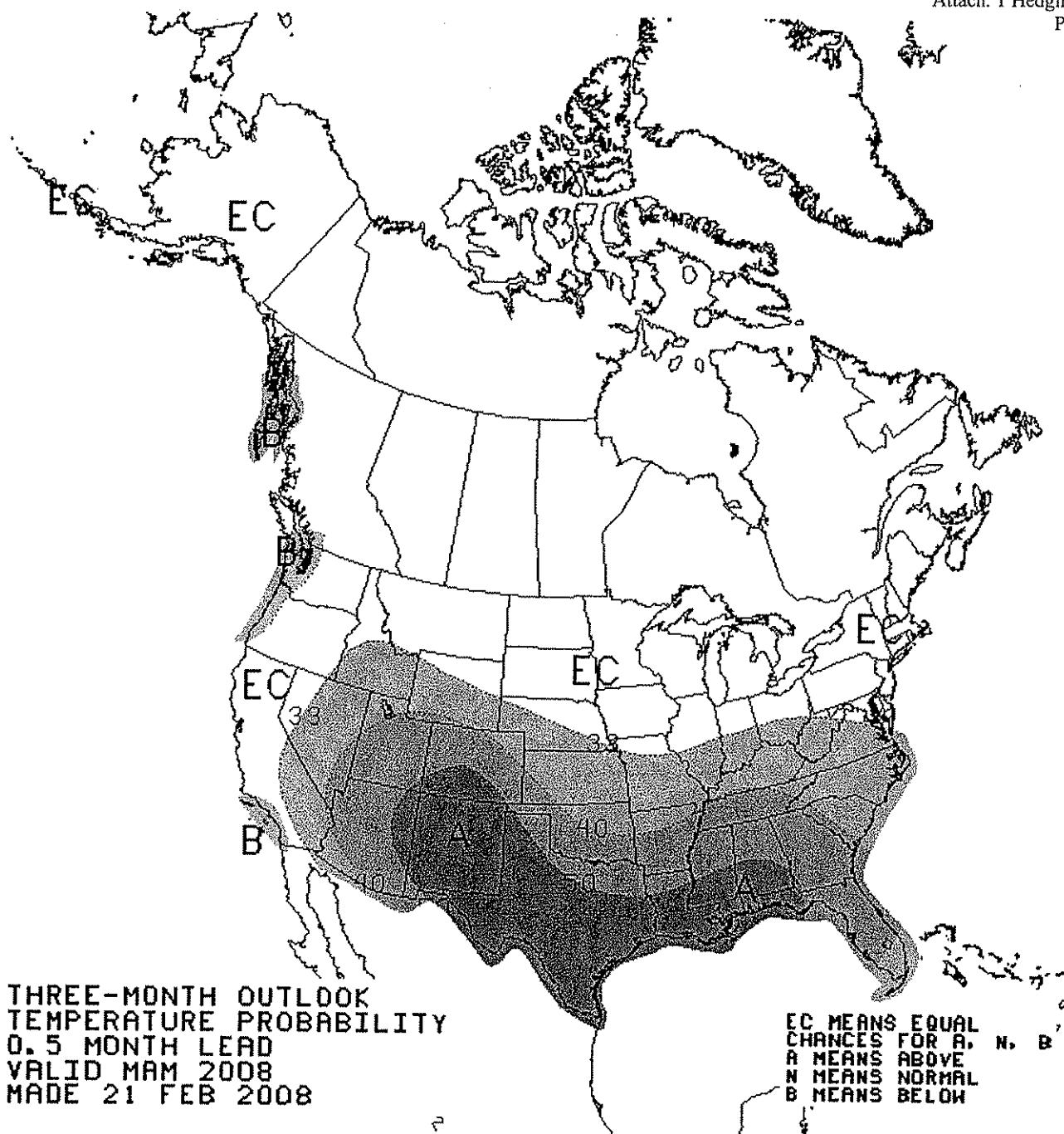
Price to be paid for [redacted] delivered April 1, 2008 to March 31, 2009: [redacted]

## COMPARISON OF HISTORIC SPOT & PROJECTED PRICES TO CURRENT FUTURES PRICES

Historic Prices:						
NYMEX Closing Price						
	5-yr. avg. (03/04-07/08)	Last Year (2007-2008)		CERA 25-Feb-08	EIA 11-Mar-08	NYMEX 13-Mar-08
Apr	\$6.53	\$7.56		\$7.840	\$8.210	<b>\$10.225</b>
May	\$6.53	\$7.56		\$7.810	\$7.830	<b>\$10.285</b>
Jun	\$6.49	\$7.51		\$7.600	\$7.650	<b>\$10.165</b>
Jul	\$6.45	\$7.59		\$7.430	\$7.480	<b>\$10.255</b>
Aug	\$6.24	\$6.93		\$7.090	\$7.360	<b>\$10.320</b>
Sep	\$6.31	\$6.11		\$6.560	\$7.490	<b>\$10.380</b>
Oct	\$6.62	\$5.43		\$6.760	\$7.780	<b>\$10.540</b>
Nov	\$6.94	\$6.42		\$7.420	\$7.970	<b>\$10.800</b>
Dec	\$8.07	\$7.27		\$7.490	\$8.170	<b>\$11.170</b>
Jan	\$7.91	\$7.20		\$7.350	\$8.350	<b>\$11.380</b>
Feb	\$7.36	\$7.17		\$7.220	\$8.360	<b>\$11.320</b>
Mar	\$7.08	\$8.00		\$6.960	\$7.980	<b>\$11.060</b>
<b>12 Month Avg</b>	<b>\$6.88</b>	<b>\$7.06</b>		<b>\$7.294</b>	<b>\$7.886</b>	<b>\$10.658</b>
Summer Average				\$7.299	\$7.686	\$10.310
Winter Average				\$7.288	\$8.166	\$11.146







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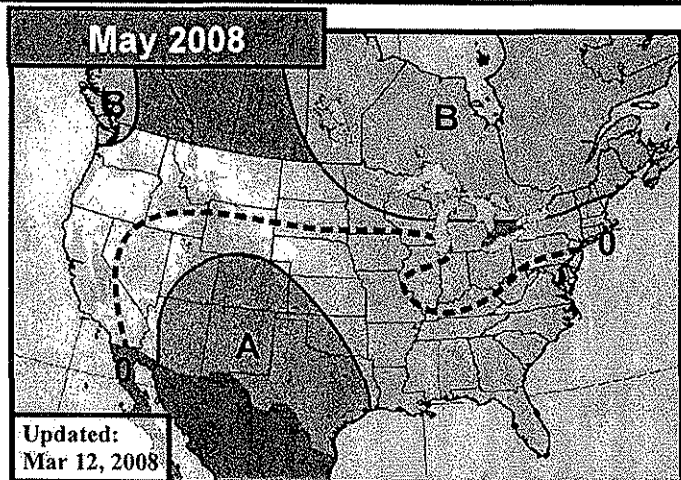
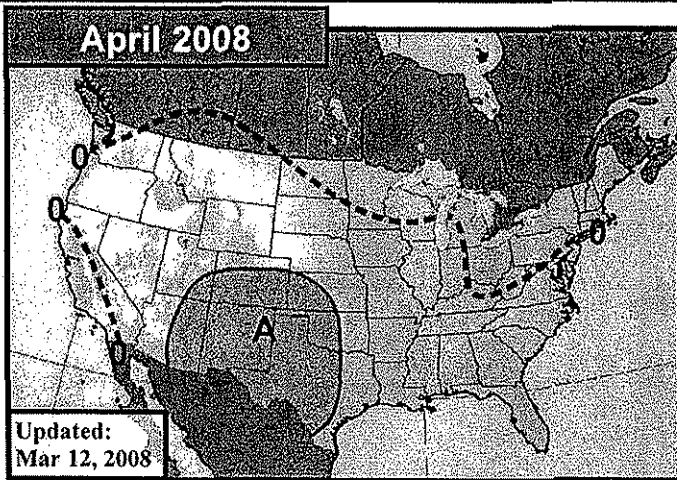


# EarthSat's 30-60 Day Outlook

Wednesday, March 12, 2008

EarthSat Weather

Forecaster: DS/SS



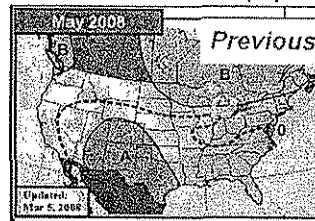
■ Above (+2) ■ Above (+1) 0 — — 0 ■ Below (-1) ■ Below (-2)



**Northeast Cools Slightly**

**Colder than 10Y  
Close to 30Y**

The April forecast picked up about 10 HDD's compared to last week. Thus it remains colder than the 10-year running normal and is now nearly equal to the 30-year fixed (71-00) normal for a change. The main consideration for the adjustment appears to be the potential of setting up a more fixed ridge west/trough east pattern later this month, that could last well into April. If the pattern is more progressive than anticipated, then April could still end up cooler than the 10 year normals but warmer than the 30 year normals as has been seen over the winter.



**Only Minor Adjustments**

**Colder than 10Y  
Close to 30Y**

The overall pattern did not change significantly this week but with all of the minor changes taken into account the HDDs did increase and as was the case with the April forecast now run close to the 30 year normals and remain above the 10 year normals. The current forecast has slightly warmer readings than last week in the East but this is outweighed by slightly cooler readings in the West and South. Still, the Southwest and South Central areas should see above normal CDD's to start out the season.

**April GWHDD\* Forecasts** \*10Y Normal updated to 98-07

Apr 2008 Fcst:	<b>375.2</b>	10Y Normal*	348.4
7.7% colder		30Y Normal	377.0
then 10Yr. normal		Apr-2007	390.6
	<b>Change: +10.2</b>	*National Gas-Weighted HDDs	

**May GWHDD\* Forecasts** \*10Y Normal updated to 98-07

May 2008 Fcst:	<b>176.3</b>	10Y Normal*	162.3
8.6% colder		30Y Normal	177.1
then 10Yr. normal		May-2007	104.9
	<b>Change: +24.3</b>	*National Gas-Weighted HDDs	

**March 2008 Comparison**

Updated: Feb 27, 2008

The Northwest and East Coast are running warmer than expected so far but cooling in these areas next week should cool the monthly running averages. The warm up in the South this week should ease the cold that has dominated that area and help to push the readings closer to our forecast of near to above normal. Western Canada continue to struggle to cool down and is unlikely to verify.

**April 2007**

MDA EarthSat Dynacast  
 Mean Temperature Departure from Normal  
 Apr-01 through Apr-08

Maps above depict deviations of average temperatures from 30 Y normal in Fahrenheit.

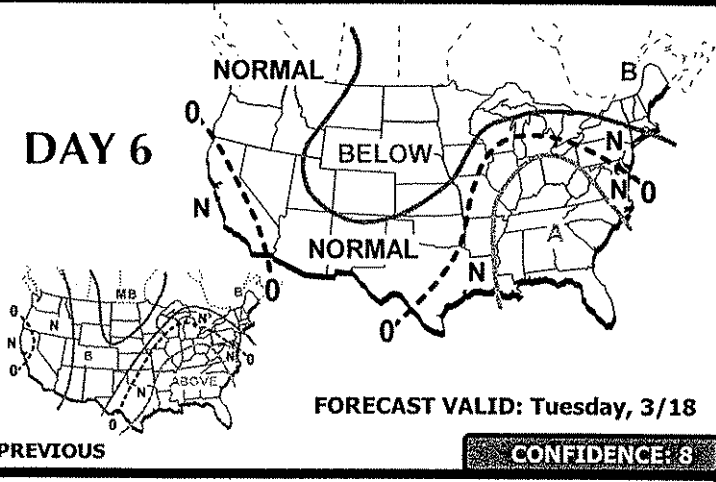


# EarthSat's Energy Weather

## The 6 to 10 Day Forecast - Detailed Version

Thursday **DAY** 3/13/2008 **DATE** 6:30 A.M. **TIME** DS/AC **FORECASTER**

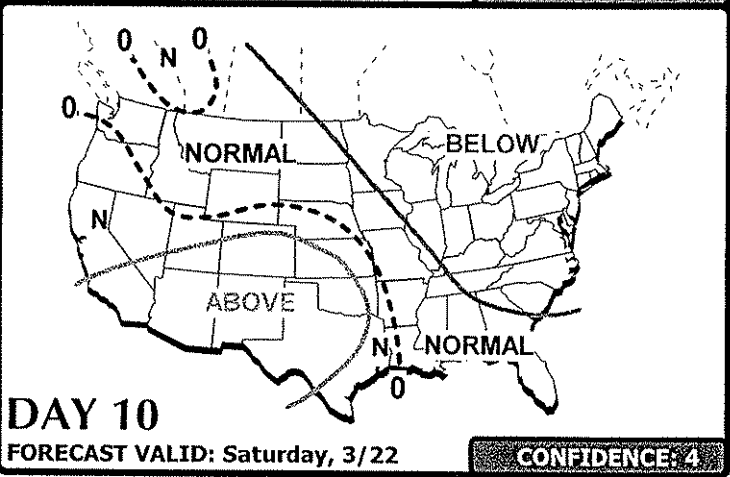
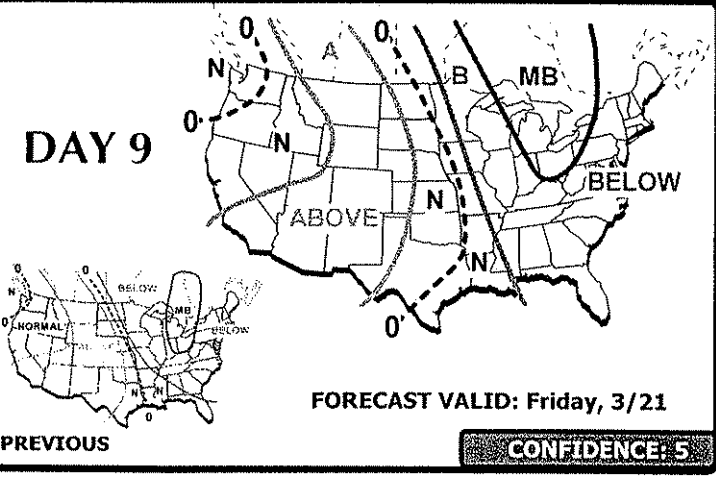
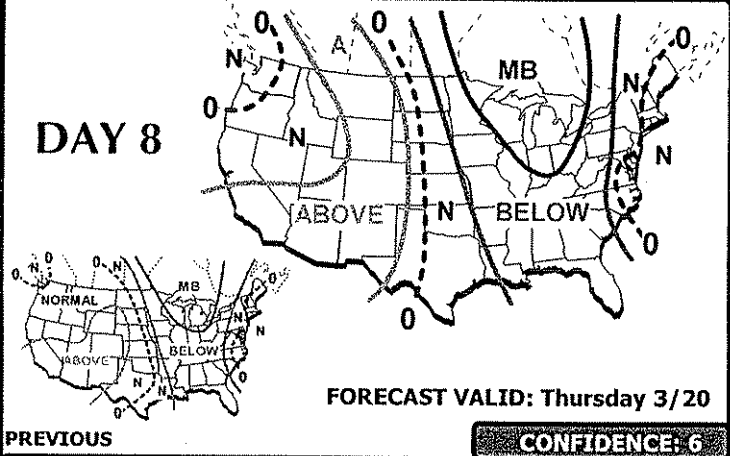
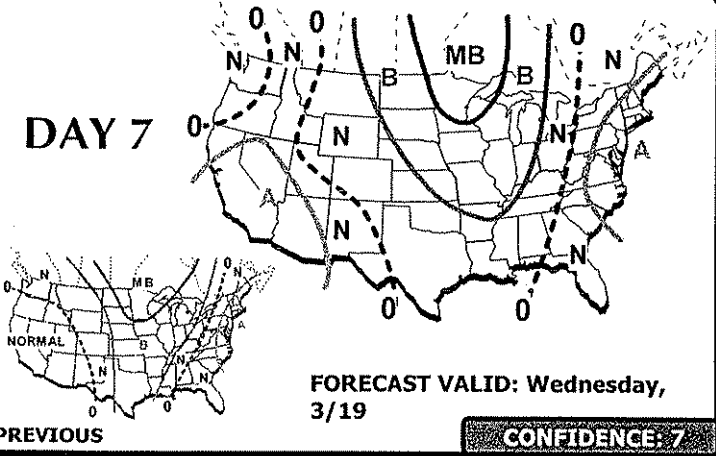
### FORECAST TEMPERATURE DEVIATIONS



### DISCUSSION

#### Today's Forecast

**Storm Through East Early; Cold In MW Out Sooner?**  
 Temperatures have still trended a little warmer in the Midwest on Tuesday as a storm system advances into the Mid-Atlantic region. With that, conditions across the East Coast and Northeast could see strong warming ahead of the system on Wednesday. Much belows could still dive into the Midwest for the mid-period. A risk to the forecast may occur late in the period as the European model tries to push out cold temperatures across the Midwest as the preferred GFS model holds onto colder readings.



### LEGEND

STRONG ABOVE.... +15 OR UP	NORMAL	STRONG BELOW.... -15 OR DOWN
MUCH ABOVE.. +8F TO +14	-2F TO +2F	MUCH BELOW..... -8F OR DOWN
ABOVE..... +3F TO +7F		BELOW..... -7F TO -3F

Confidence Level Boxes: 1=Low, 5=Moderate, 10=High      Anomalies based on 30Y normals.



Home > Natural Gas > Weekly Natural Gas Storage Report

# Weekly Natural Gas Storage Report

Released: March 13, 2008 at 10:30 A.M. (Eastern time) for the Week Ending March 7, 2008.  
 Next Release: March 20, 2008

## Working Gas in Underground Storage, Lower 48

other formats: [Summ](#)

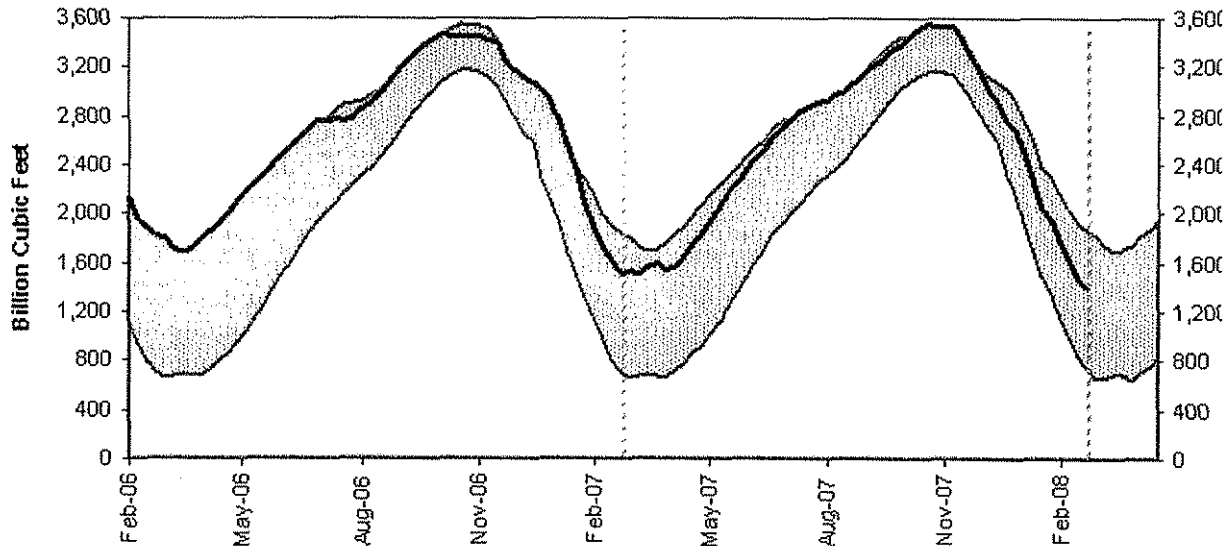
Region	Stocks in billion cubic feet (Bcf)			Historical Comparisons			
	03/07/08	02/29/08	Change	Year Ago (03/07/07)		5-Year (2003-2007)	
				Stocks (Bcf)	% Change	Stocks (Bcf)	% Change
East	706	760	-54	754	-6.4	676	-4.6
West	180	189	-9	224	-19.6	204	-11.8
Producing	512	535	-23	570	-10.2	460	12.2
<b>Total</b>	<b>1,398</b>	<b>1,484</b>	<b>-86</b>	<b>1,549</b>	<b>-9.7</b>	<b>1,341</b>	<b>4.1</b>

### Notes and Definitions

#### Summary

Working gas in storage was 1,398 Bcf as of Friday, March 7, 2008, according to EIA estimates. This represents decline of 86 Bcf from the previous week. Stocks were 151 Bcf less than last year at this time and 57 Bcf above average of 1,341 Bcf. In the East Region, stocks were 30 Bcf above the 5-year average following net withdrawal Bcf. Stocks in the Producing Region were 52 Bcf above the 5-year average of 460 Bcf after a net withdrawal of Stocks in the West Region were 24 Bcf below the 5-year average after a net drawdown of 9 Bcf. At 1,398 Bcf, working gas is within the 5-year historical range.

Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2003 through 2007.

Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

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**PRICE OUTLOOK STRONGER FOR 2008-10**

Natural gas prices at Henry Hub have strengthened through the winter, increasing to \$7.93 per million British thermal units (MMBtu) in January compared to \$7.08 in December, and rising above \$8.00 during the first half of February. Earlier in the winter, record levels of storage were available to meet demand, and cash prices at Henry Hub responded minimally to winter weather and fluctuating gas demand.\* In late January and February, however, storage levels have declined significantly, thereby increasing the Henry Hub gas price. During March, the final month of the winter season, ample domestic production and the decreasing need for storage supplies will act to soften prices until the injection season begins in April. On a normal weather basis, CERA projects the Henry Hub price to average \$7.31 per MMBtu in March before increasing to \$7.84 in April (see Table 1).

Given the heavy reliance on storage this winter, CERA projects that North American gas storage will end the winter at 1,445 billion cubic feet (Bcf), which is equal to the five-year average but nearly 22 percent lower than the year-earlier level (see Figure 1). The need to refill storage capacity during this year's injection season after such a strong drawdown will support prices throughout the spring and summer. For 2008, CERA projects an average price of \$7.43 per MMBtu.

Looking ahead to 2009 and 2010 we have adjusted our supply outlook, with more bullish implications for prices than previously. While growth in US lower-48 dry gas production in 2008 and 2009 remains a key feature of the outlook, CERA has reduced projected production slightly for 2009 and 2010 compared to the January North American Natural Gas Monthly Briefing. This revision stems primarily from downward adjustments to the supply outlook for

Table 1

**Henry Hub Prices**  
 (nominal US dollars per MMBtu)

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
January	5.39	6.03	6.17	8.76	6.33	7.93	7.35	6.62	6.65	6.24	6.45
February	7.00	5.41	6.09	7.62	8.06	7.97	7.22	6.66	6.58	6.15	6.40
March	6.37	5.38	6.91	6.88	7.10	7.31	6.96	6.65	6.44	6.22	6.27
April	5.27	5.70	7.19	7.09	7.57	7.84	7.15	6.62	6.29	5.99	6.10
May	5.77	6.28	6.47	6.23	7.64	7.81	7.01	6.75	6.20	6.07	6.08
June	5.80	6.26	7.17	6.26	7.40	7.60	6.87	6.59	6.28	6.16	6.20
July	5.04	5.92	7.57	6.05	6.21	7.43	6.73	6.60	6.19	6.20	6.24
August	4.96	5.43	9.29	7.24	6.30	7.09	6.48	6.51	6.13	6.21	6.27
September	4.61	4.99	12.11	4.95	5.98	6.56	6.15	5.90	6.02	5.85	5.63
October	4.65	6.24	13.36	5.67	6.68	6.76	6.38	6.28	5.80	5.95	5.91
November	4.45	5.88	10.29	7.32	7.01	7.42	6.64	6.59	6.28	6.33	6.29
December	6.12	6.63	12.98	6.83	7.08	7.49	6.63	6.64	6.30	6.36	6.30
<b>Year average</b>	<b>5.45</b>	<b>5.85</b>	<b>8.80</b>	<b>6.74</b>	<b>6.95</b>	<b>7.43</b>	<b>6.80</b>	<b>6.53</b>	<b>6.26</b>	<b>6.15</b>	<b>6.18</b>

Sources: Cambridge Energy Research Associates. Historical data derived from Platts Gas Daily.  
 Note: The 2003-January 2008 figures are derived from historical data as available; February 2008-13 figures are CERA projections.  
 Excel tables are available in the North American Natural Gas Client Services area at cera.com.

\*See the CERA December 2007 Monthly Briefing *The Calm Despite the Storms*.

BNP Paribas Natural Gas Market Watch 10 March 2008  
2 Commodity Futures

## Commentary

I have been away on business the past week and I'm sure I missed a lot of market intelligence in the middle. However, **the one constant that is still the same is the trend is your friend and it's higher.** The Crude Oil market continues to rule the commodity sector. The relentless rally continues as we seem to make a new all time high and settle everyday. Crude settled 107.90 up 2.7 and the high was 108.21. I don't know who is going to sell into a market that seems to be driven by a global freight train. **The market is fueled by a weak dollar, money is moving out of a struggling equities market into a Bullish commodity sector, bullish technicals, and numerous geopolitical concerns.** In my opinion, the Chinese news affected the market the most today. My understanding is China had record CL imports and China may double LNG imports. This adds more fear that we are all fighting for a single commodity and other economies are growing more powerful to compete as evidenced by the falling dollar. **Natural Gas is going to continue to follow the rest of the sector higher.** Natural settled 10.024 up 25.5 cents. **We will need a major event to cause a major pullback or possibly increased margins to slow down the rally etc.**

# Gas Daily

Tuesday, February 26, 2008

## Analyst: Low storage, hot weather to lift prices

**Even with a slowing economy, warmer weather and lower gas storage levels should drive Henry Hub prices to \$8.50/MMBtu this summer, analyst Ron Denhardt said Monday.**

In his monthly newsletter, Denhardt, the vice president for natural gas services for Winchester, Massachusetts-based consulting firm Strategic Energy and Economic Research, increased his price forecast 14% from his January call of \$7.43/MMBtu.

**On the downside, Denhardt thinks the chance of a US recession is greater than 50% and depending on how slack the economy gets, combined with variable weather, prices could drop to \$7/MMBtu at Henry Hub.**

Driving his price forecasts is the amount of working gas in storage, Denhardt said.

“Natural gas prices have increased sharply in the last month because of a ‘short squeeze’ and a shift in fundamentals. Colder-than-projected weather, a onemonth delay in the Rockies Express pipeline, a sharp decline in Canadian production and strong worldwide demand for LNG have caused us to lower our projected end-of-March working gas storage” to 1.315 Tcf, vs. an estimate of 1.45 Tcf last month and an actual level of 1.603 Tcf last year, Denhardt explained. “This lower level of working gas storage has caused us to raise our price forecast for the nonheating season.”

Denhardt sees storage beginning the injection season 288 Bcf below last year’s 1.6 Tcf inventory and ending the injection season 190 Bcf below last year’s record around 3.6 Tcf.

**“There is tremendous uncertainty about prices,” Denhardt said. “It is not clear what the market perceives as ‘balanced’ and there is a tremendous amount of uncertainty about the price response of supply and demand. Many projections (including the EIA) have working gas storage ending October at approximately (3.35 Tcf) Bcf, with average Henry Hub non-heating season prices of approximately \$7.60/MMBtu vs. the current forward market of \$9.30 and our projection of \$8.50.”** — *Bill Holland*

Jan2007	6.55
Feb2007	8.00
Mar2007	7.11
Apr2007	7.60
May2007	7.64
Jun2007	7.35
Jul2007	6.22
Aug2007	6.19
Sep2007	6.08
Oct2007	6.74
Nov2007	7.10
Dec2007	7.11
Jan2008	8.01
Feb2008	8.51
Mar2008	8.88
Apr2008	8.21
May2008	7.83
Jun2008	7.65
Jul2008	7.48
Aug2008	7.36
Sep2008	7.49
Oct2008	7.78
Nov2008	7.97
Dec2008	8.17
Jan2009	8.35
Feb2009	8.36
Mar2009	7.98
Apr2009	7.59
May2009	7.45
Jun2009	7.31
Jul2009	7.26
Aug2009	7.28
Sep2009	7.35
Oct2009	7.63
Nov2009	7.93

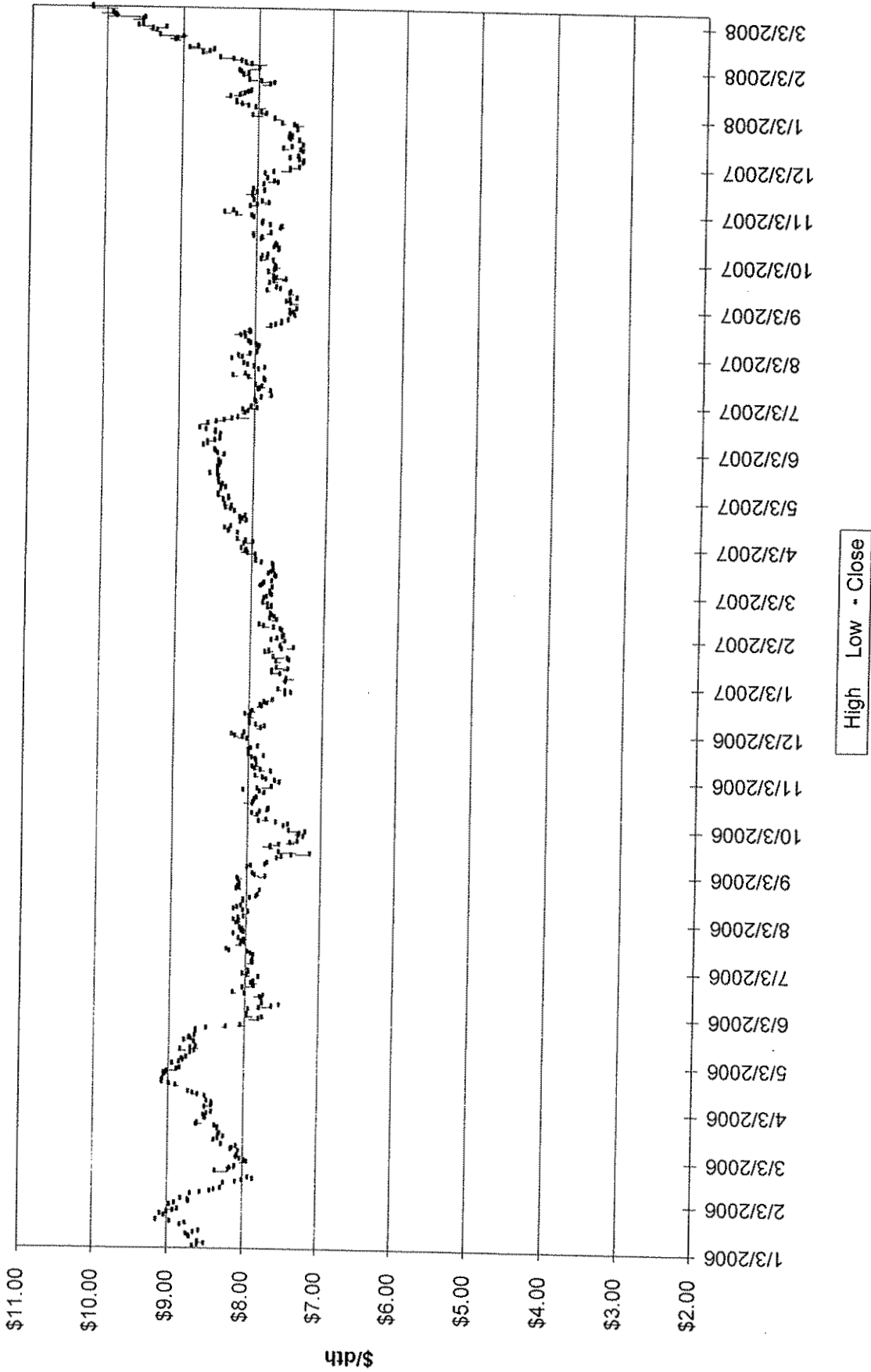
Dec 2009 8.22



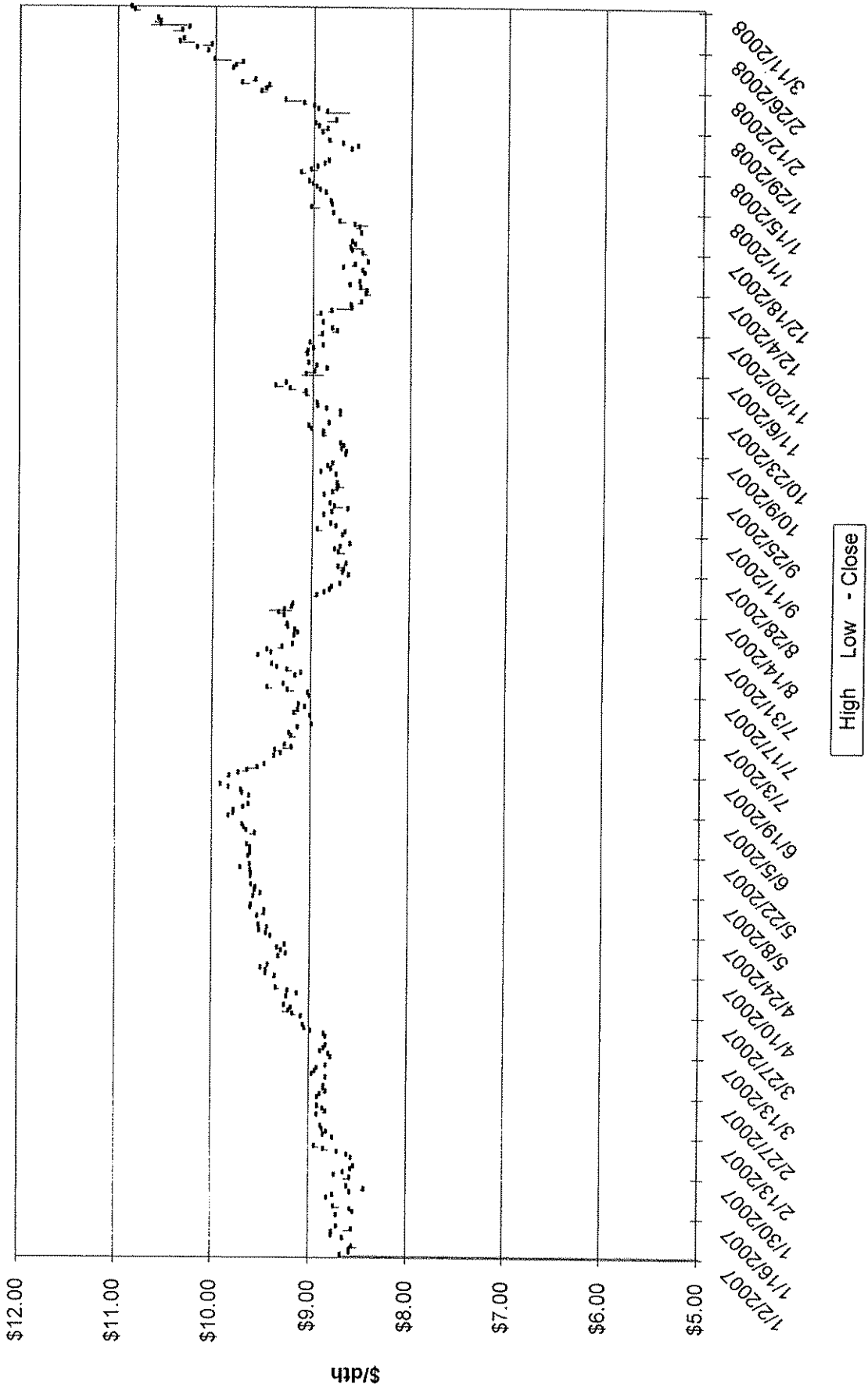
From EIA Report  
 3/11/08 stats



Summer Strip 2008



Winter Strip Nov08 - Mar09



# Short-Term Energy Outlook

March 11, 2008 Release  
(Next Update: April 8, 2008, 8:30 am)

## Natural Gas

**Consumption.** Growth in total natural gas consumption is expected to slow from 6.4 percent in 2007 to 0.7 percent in 2008 and 0.8 percent in 2009. In 2009 total natural gas consumption is expected to reach a record 23.4 trillion cubic feet. Natural gas consumption in the electric power sector, which makes up about 30 percent of total natural gas consumption, grew by over 10 percent in 2007 but is expected to decline slightly in 2008 because of the projected milder summer temperatures. Natural gas consumption in the industrial sector is also projected to decline by 0.2 percent in 2008 because of slowing economic growth.

**Production and Imports.** Total U.S. marketed natural gas production is expected to increase by 2.9 percent in 2008 and by 0.3 percent in 2009. New deepwater supply infrastructure, which came online at the end of 2007, is expected to drive growth of 5.8 percent in the Gulf of Mexico in 2008. In addition, production from the Lower-48 onshore region is expected to increase by 2.5 percent in 2008 led by the development of unconventional supply sources.

**Imports of liquefied natural gas (LNG)** are projected to be about 770 billion cubic feet (Bcf) for 2008, or about the same amount imported in 2007. Trinidad and Tobago is expected to remain the primary source of U.S. LNG imports through the forecast period. New liquefaction capacity under construction in Qatar and recent startups in Equatorial Guinea, Nigeria, and Norway are expected to boost the global supply of LNG and contribute to an increase in LNG shipments to the United States later this year and in 2009. Next year, volumes are projected to total 995 Bcf.

## Global Petroleum

- The slowing economy combined with high petroleum prices is expected to constrain growth in U.S. consumption of liquid fuels and other petroleum products to just 40,000 barrels per day (bbl/d) in 2008. After accounting for increased ethanol use, U.S. petroleum consumption falls by 90,000 bbl/d. U.S. real gross domestic product is expected to decline slightly in the first half of the year and then start growing again, with growth for 2008 as a whole at 1.3 percent, the slowest annual rate since 2001.
- WTI averaged \$95 per barrel in February and is expected to average \$102 in March (the spot price of WTI closed at nearly \$108 per barrel

on March 10, 2008 but is expected to decrease over the second half of the month). The annual average WTI price, which was \$72 per barrel in 2007, is projected to average \$94 per barrel in 2008, but ease somewhat to about \$86 per barrel in 2009.

# Gas Daily

Wednesday, February 20, 2008

## Officials warn of carbon controls' impact on gas

With carbon control legislation likely emerging soon from Congress, producers and utility officials expressed concern Monday over the potential effects on natural gas supply and, ultimately, prices.

**"Carbon regulation is likely to place upward pressure on natural gas demand and consequently on prices, and the industry and regulators will be left to explain this to consumers,"** said Jenny Fordham, director of energy markets and government affairs for the Natural Gas Supply Association.

Fordham was among several industry spokesmen participating in a National Association of Regulatory Utility Commissioners panel on gas supply issues. **She noted that natural gas has the lowest carbon emissions of any fossil fuel, has become the energy source of choice for new electricity production and serves as a preferred backup for renewable sources of energy, such as wind power and solar generation facilities.**

**All of this, however, puts more demand on the gas industry to produce more of the fuel at a time when access to new supplies on federal lands is constrained, she said.** Fordham encouraged the state public service commissioners to help educate federal officials and consumers about the potential impacts of climate change legislation on gas markets.

"We need to work together to help ensure that carbon regulation policy includes access to new sources of natural gas," she said. "Current federal restrictions apply to more than 250 Tcf of potential natural gas resources. LNG imports and unconventional sources will not be enough to make up for the increases in natural gas demand that are likely in a carbon-constrained economy."

"We are not running out of domestic natural gas," noted Alan Allred, president and CEO of Questar Gas. "Any form of carbon regulation, whether it's a direct tax or indirect tax or cap-and-trade, will favor the substitution of natural gas for high-carbon fuels."

More gas will be needed as a result, and gas supplies can be increased without affecting the environment, he maintained. But doing so will require greater levels of cooperation among all stakeholders.

Georgia Public Service Commissioner Stan Wise said that the industry has been pleading with decision-makers for years to understand supply issues. He blamed the lack of public understanding about natural gas supply and demand issues on the popular press "who have their own agendas. They support renewables and want to see gasoline taxes go up a dollar so that they could change your mind about how you use your car."

"It's the same for natural gas, coal and nuclear power," Wise insisted. "No matter what this body does, the industry has to fight a battle to send its message to Congress."

Wise said alternative energy advocates have demanded that utilities rely on wind power for electric generation. "But as I have said many times, we need some wind in Georgia," he said. "The wind doesn't blow in August." RAW

Duke Energy  
Hedging Program  
Remaining Base Not Yet Locked In  
Winter 2007-08

	Dth/Day					Total	%
	November	December	January	February	March		
<u>Duke Energy Ohio</u> Previously Hedged	[REDACTED]						
Total	[REDACTED]						
<u>Duke Energy Kentucky</u> Previously Hedged	[REDACTED]						
Total	[REDACTED]						
<u>Duke Energy--Total</u> Previously Hedged	[REDACTED]						
Total	[REDACTED]						

**ATTACHMENT B**

**Cost Averaging Fixed Prices**

Duke Energy Kentucky  
 Hedging Program for Winter 2007/08  
 Cost Averaging w/ [REDACTED]

	Total Amount					4 Month Strip	Total Cost	Locked in To Date
		Dec-07	Jan-08	Feb-08	Mar-08			
1-May								
2-May								
3-May								
4-May								
7-May								
8-May								
9-May								
10-May								
11-May								
14-May								
15-May								
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8-Aug								
9-Aug								
10-Aug								
Total								
Basis to Column								
Price to be pa								



**ATTACHMENT C**

**Cost Averaging Fixed Prices**

Duke Energy Kentucky  
 Hedging Program for 2008/09

Cost Average

Total Amount Apr-08 May-08 Jun-08 Jul-08 Aug-08 Sep-08 Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 12 Month Strip Total Cost Locked in To Date

1-Feb  
 4-Feb  
 5-Feb  
 6-Feb  
 7-Feb  
 8-Feb  
 11-Feb  
 12-Feb  
 13-Feb  
 14-Feb  
 15-Feb  
 19-Feb  
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 26-Mar  
 27-Mar  
 Total

Basis to Co  
 Price to be



**DUKE ENERGY KENTUCKY, INC**

**NATURAL GAS HEDGING PLAN**

**May 2008**

## 1. Introduction

On July 16, 2001, the Kentucky Public Service Commission approved Duke Energy Kentucky, Inc's ("DE-Kentucky") Pilot Gas Hedging Program. Since that time, DE-Kentucky has sought, and was granted, approval for similar hedging programs in 2002, 2003 and 2005 with the most recent program covering the three years ended March 31, 2008. The goal of the Hedging Plan is to reduce price volatility. As documented in the reports of the actual results, filed in May of each year, the hedging strategy increased costs when natural gas prices were low and decreased cost when natural gas prices were high. Since the hedging plans have achieved their goal of reducing the volatility in purchased gas costs, hedging natural gas prices should become a standard part of DE-Kentucky's gas supply portfolio.

In Case No. 2003-00151, DE-Kentucky proposed that a similar plan to what was adopted for the 2001-2002 and 2002-2003 heating seasons be approved on a continuing basis, with the inclusion of hedging for summer months as well as winter. This was later revised to be a three-year plan, ended March of 2006. However, in the Order dated June 19, 2003, the Commission ordered DE-Kentucky to file any continued hedging plan by May 15, 2005. In Case No. 2005-00191, the commission approved DE-Kentucky's Hedging Plan ("HP-2005") for both winter and summer seasons through March 31, 2008 (three years). Although this plan covered hedging activity through March of 2008, the months for which natural gas will be purchased will extend through October 31, 2010.

Similar to what was approved by the Commission in Case No 2005-00191, DE-Kentucky is seeking to institute another natural gas hedging plan with a three year term ("HP-2008"), to mitigate market volatility. The following Hedging Plan, HP-2008 is

similar to the previous plan and would cover hedging activity through March of 2011 which would allow purchases for gas delivered through October 31, 2013.

Under HP-2008, DE-Kentucky will hedge between [REDACTED] and [REDACTED] of its estimated total winter system supply, assuming normal weather and [REDACTED] to [REDACTED] of its summer system supply, including purchases for storage. As in previous years, hedging will be accomplished through the use of fixed price contracts, price caps, or no-cost collars. HP-2008 specifies a range for the volumes of gas that DE-Kentucky will acquire each month, up to 36 months into the future. HP-2008 strikes a reasonable balance between: (1) providing the Commission with the specific parameters of gas volumes for which DE-Kentucky will receive cost recovery through the GCA; and (2) leaving DE-Kentucky with adequate management discretion to time the purchases at projected optimal points within the framework pre-approved by the Commission.

DE-Kentucky will make its hedging decisions based on its analysis of gas prices. DE-Kentucky will continue to monitor gas prices on a daily basis, by studying NYMEX futures prices versus historic prices and expected future prices. DE-Kentucky determines expected future gas prices based on a thorough review of various industry publications such as Gas Daily, Cambridge Energy Research Associates (CERA) Monthly Briefing, and the Energy Information Administration (EIA) Short-Term Energy Outlook.

## 2. Amount of DE-Kentucky's Gas Supply Subject to the Hedging Plan

DE-Kentucky will hedge between [REDACTED] and [REDACTED] of its estimated total system supply for the winter season, assuming normal weather and between [REDACTED] and [REDACTED] of its total system supply for the summer season, including purchases to refill storage. Combined with estimated storage withdrawals, which provides approximately [REDACTED] of a

normal winter's system supply, the total percentage of system supply that would be insulated from winter season market volatility would be [REDACTED]. This range could change if DE-Kentucky enters into additional interstate pipeline storage contracts or supply contracts which mimic storage service. The total percent of winter gas supply at known prices, both hedged and storage, will be limited to a maximum of [REDACTED].

**3. Schedule for Purchase of Hedging Instruments**

DE-Kentucky will use the following seasonal schedule for obtaining price hedges for its system supply. These schedules reflect the continuation of hedging purchases which were made in accordance with HP-2005. Target levels of hedging will be accomplished by October 31<sup>st</sup> for winter system supply and by March 31<sup>st</sup> for summer system supply. By including minimum quantities to be hedged, DE-Kentucky will gain the advantages of a mechanistic feature for part of its hedging program, to spread the hedging purchases out over a longer period of time, while preserving management discretion as to the timing of gas supply purchases.

**System Supply Hedged for the Winter Season**

October X	Nov X – Mar X+1	Nov X+1 – Mar X+2	Nov X+2 – Mar X+3
Minimum	[REDACTED]	[REDACTED]	[REDACTED]
Maximum	[REDACTED]	[REDACTED]	[REDACTED]

**System Supply Hedged for the Summer Season**

March X	Apr X – Oct X	Apr X+1 – Oct X+1	Apr X+2 – Oct X+2
Minimum	[REDACTED]	[REDACTED]	[REDACTED]
Maximum	[REDACTED]	[REDACTED]	[REDACTED]

#### 4. Types of Hedging Products

DE-Kentucky management will hedge using a combination of fixed price contracts with cost-averaging, fixed price contracts without cost averaging, price caps and no-cost collars. DE-Kentucky will not purchase futures contracts on the NYMEX or any other financial instruments to effectuate its hedging strategy. DE-Kentucky will utilize the following hedging products to price gas supplies at a fixed, capped or collared price. DE-Kentucky will not hedge more than ■■■ of its estimated winter season system supply, or ■■■ of its summer system supply using a single type of hedging product.

##### A. Fixed Price Contracts

Fixed price contracts are the simplest form of hedging instruments. Perhaps the most widely known fixed price contract for gas purchases is a contract to purchase gas from a supplier at a fixed price, based on the NYMEX. DE-Kentucky will not actually purchase futures contracts on the NYMEX, but rather will enter into a contract with a supplier to obtain physical delivery of gas based on NYMEX prices at the time the hedging agreement is arranged.

DE-Kentucky will take actual physical delivery of the gas into an interstate pipeline in which DE-Kentucky holds Firm Transportation capacity. NYMEX prices are based on delivery at the Henry Hub in southern Louisiana. The difference in price between the Henry Hub and the interstate pipeline receipt point at which the supplier can deliver the gas into the interstate pipeline (referred to as the “basis”) will either be locked-in or will remain open at the discretion of DE-Kentucky.

One set of fixed price hedging products DE-Kentucky utilizes sets the price on an average NYMEX strip price over a period of time. A strip simply means the purchase of



a specified volume of gas for a specified number of months (*i.e.*, November through March). DE-Kentucky may utilize cost-averaging products that price the gas supply for the upcoming winter season at a price set by averaging the actual NYMEX daily closing price for a strip from a start date through the last day that the strip trades on NYMEX or any other mutually agreed time period. Each day during this period, a portion of the price will be established by fixing the price of the proportionate volume for each corresponding month at the NYMEX daily close.

#### B. Price Caps

A price cap is a form of option contract that establishes a maximum price for gas deliveries during a specified month. Suppliers charge DE-Kentucky for this option, based on the NYMEX price in effect at the time the option is purchased for the month that will be subject to the price cap.

DE-Kentucky and the supplier will agree to whether the cost must be paid when the price cap is purchased or when the gas is delivered. Other than a slight difference due to the time value of money, the end result is the same. The practical result that occurs when price caps are utilized is that, if the market price at the time of delivery is lower than the price cap, then DE-Kentucky pays the market price plus the cost of the price cap. On the other hand, if the market price is higher than the price cap at the time of delivery, then DE-Kentucky pays the cap price plus the cost of the price cap.

#### C. No-Cost Collars

Collars are a combination of a price cap (ceiling) and a lower price limit (floor). If the cost of the ceiling is equal to the value of the floor, then there is no charge for the collar (no-cost collar). At the time of delivery, the supplier will charge the market price

unless it is outside the range set by the collar. The range for a no-cost collar is established by DE-Kentucky first specifying either a floor or a ceiling price, and then the supplier calculates the other bound for the collar. The supplier also adds in the basis for the interstate pipeline receipt point specified by DE-Kentucky. In a no-cost collar, the ceiling of the range is usually set at a greater distance from the current NYMEX price than the floor. After the supplier determines the remaining bound for the collar, DE-Kentucky decides whether to agree to price the gas subject to the no-cost collar. DE-Kentucky will determine prices from at least two suppliers to verify that the offered price is consistent with the market.

## 5. Price Ranges for Purchases

### A. Fixed Price Contracts

To the extent that DE-Kentucky enters into any fixed price contracts with cost-averaging, DE-Kentucky will enter into such contracts at the NYMEX closing price during the specified period. To the extent that DE-Kentucky enters into any fixed price contracts without cost averaging, DE-Kentucky will enter into such contracts between the highest and lowest price that NYMEX trades on the day that DE-Kentucky and the supplier agree to the fixed price (strike date).

### B. Price Caps

To the extent that DE-Kentucky enters into any price cap contracts during any month, DE-Kentucky will enter into such contracts with a ceiling (cap) price not to exceed \$ [REDACTED] dth over the NYMEX open price for the respective months on the day that DE-Kentucky and the supplier agree to the cap (strike date).

### C. No-Cost Collars

To the extent that DE-Kentucky enters into any collar contracts during any month, DE-Kentucky will enter into such contracts with a ceiling (cap) price not to exceed \$ [REDACTED]/dth over the NYMEX open price for the respective months on the day that DE-Kentucky and the supplier agree to the collar (strike date).

## 6. Conclusion

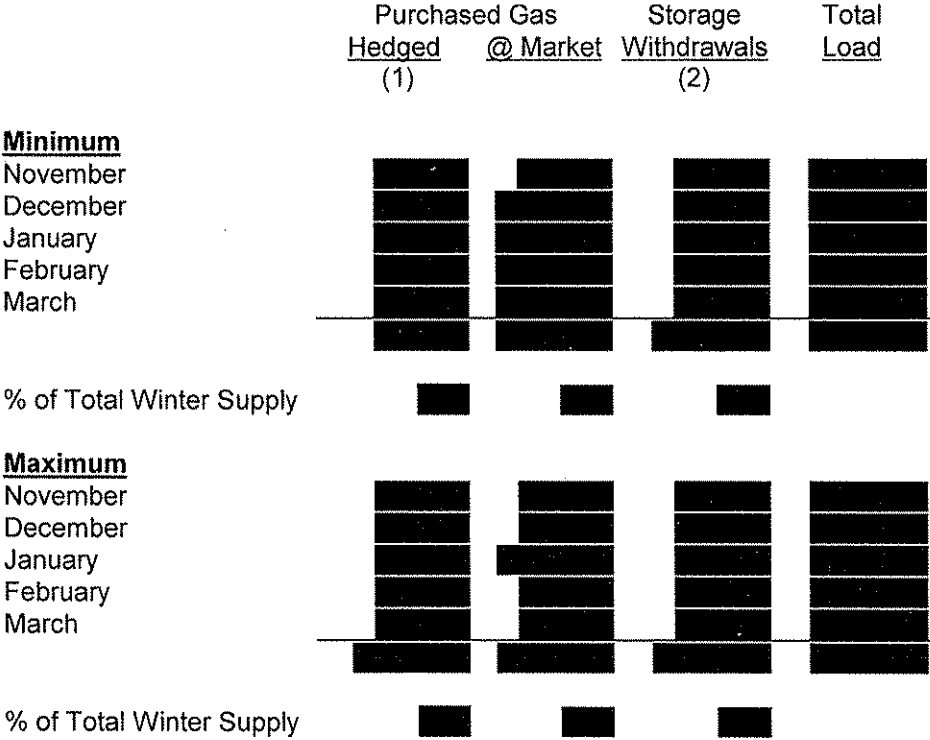
HP-2008 will allow DE-Kentucky to hedge up to [REDACTED] of its system supply in the winter and [REDACTED] of its system supply in the summer. By allowing hedging activity as early as 36 months prior to the month of delivery, the plan can further stabilize prices by taking advantage of favorable market conditions for longer periods of time. In addition, the minimum hedged percentages will assure that hedging transactions will take place gradually over the three years prior to the delivery season, without resorting to a strict mechanistic approach.

Including current projected storage withdrawals, which are fixed at summer prices, the quantity of winter supply at known prices represents [REDACTED] of DE-Kentucky total winter supply (assuming normal weather). Consequently, DE-Kentucky will be able to obtain a substantial volume of its gas supply at fixed prices. DE-Kentucky will purchase the majority of its remaining gas supply requirements at either the *Inside FERC First of Month Index* or the *Gas Daily Midpoint*, assuming these indices continue to be published. Attachment A depicts how the DE-Kentucky would obtain its gas supply requirements for a typical winter season utilizing this Hedging Plan.

HP-2008 provides several important benefits. First, the Plan will reduce the impact of price volatility for DE-Kentucky's customers. Second, the Plan allows the Commission to see clear parameters within which DE-Kentucky's management will

operate. Third, the Plan provides DE-Kentucky management sufficient flexibility to make purchase decisions within these parameters.

Attachment A  
 Example of How DE-Kentucky's Base  
 Supply for Typical Winter Season  
 Could be Obtained Through Hedging Plan



(1) Fixed price, no-cost collar, or price cap at DE-Kentucky's discretion

(2) Based on [Redacted]