

NGI's Published Natural Gas Indices

prepared for:
NAESB's Wholesale Gas Quadrant
Executive Committee Meeting

Ellen Beswick
Founder and Publisher
Intelligence Press, Inc.
June 25, 2008



Natural Gas Intelligence®
NGI's *Weekly* Gas Price Index®
NGI's *Daily* Gas Price Index®

**Power Market
Today**
published by NGI, Inc.

A Brief History of Intelligence Press, Inc....

- 1981 *NGI* founded and first issue of the weekly *Natural Gas Intelligence* Newsletter is published
- 1983 *NGI* becomes first to publish a table of natural gas prices
- 1987 *NGI* hosts first GasMart conference and tradeshow
- 1988 *NGI* first publishes the Weekly Gas Price Index
- 1993 *NGI* publishes the first issue of Daily Gas Price Index
- 2001 *NGI* publishes first issue of Power Market Today
- 2004 *NGI* adopts FERC standards for Gas Price Index Developers
- 2008 *NGI* becomes only natural gas Index Developer to include ICE transactions in its indexes

FERC Policy Statement on Natural Gas and Electric Price Indices (Issued July 24, 2003)


- ◆ **Set Forth Guidelines for Data Providers**
 - Make public and adopt a "Code of Conduct"
 - Data is reported from department that is independent of the trading group
 - Report all applicable transactions at all locations, in granular form (no combining of trades)
 - Submit corrections and respond to Index Developer in timely manner
 - Retain Data for a minimum of three years. Arrange for independent review of processes and implementation annually.

FERC Policy Statement on Natural Gas and Electric Price Indices (continued)

◆ **Set Forth Guidelines for Index Developers**

- Make public and adopt a "Code of Conduct" (Price Methodology)
- Maximize Transparency through collection and dissemination of Data
- Data Verification, Error Correction and Monitoring
- Independent outside verification of processes and implementation
- Subject to Confidentiality Provisions, Index Developer will provide FERC access to certain relevant Data

NGI's Bidweek Price Table

NGI's BIDWEEK SURVEYSM  **SPOT GAS PRICES**
Supplement to NGI's Weekly Gas Price Index June 1, 2008

Most Points See Strong Index Gains; Rockies Soft Despite REX Advance

Chalk it up to the start of hurricane season, lingering concerns about whether the annual storage refill will be adequate, fear of a very hot summer — or whatever. Most points continued to record strong advances in June indexes despite generally mild weather throughout May and some above-expectations storage injections that occurred even though the Gulf of Mexico's 1 Bcf/d-capable Independence Hub has been out of service for nearly two months.

One might expect Rockies prices to be flourishing in the first bidweek since the advent of full Rockies Express-West service all the way to Panhandle Eastern in Missouri. Instead, the region accounted for nearly all of the index results ranging from

June 2008 Bidweek
 Gas Traded May 23 - 30 for June Baseload Delivery

	<u>range</u>	<u>avg.</u>	<u>chg.</u>	<u>vol.</u>	<u>deals</u>
South Texas					
Agua Dulce	11.67-11.74	11.71	+89	43	3
El Paso GTT (Valero)	- - -	- - -			
Florida Gas Zone 1	11.82-11.89	11.85	+64	8	3
NGPL S. TX	11.41-11.66	11.56	+57	420	38
Tennessee	11.21-11.74	11.49	+61	160	28
Texas Eastern S. TX	11.06-11.72	11.46	+58	444	81
Transco St. 30	11.70-11.84	11.75	+63	154	40
Regional Avg.	11.06-11.89	11.64	+66		
East Texas					
Carthage	11.50-11.80	11.62	+58	28	9
Houston Ship Channel	11.21-11.85	11.66	+83	1728	211
Katy	11.52-11.82	11.62	+68	131	16
NGPL TexOk	11.01-11.65	11.49	+89	860	133

NGI's Daily Price Table

File Edit View Document Tools Window Help

Save a Copy Search Select Help Search Web

Get better feedback and faster approvals

NGI's Daily Gas Price Index[®]

A Daily Price Service of Natural Gas Intelligence

Monday June 23, 2008 Volume 15, No. 237

Regional Heat Lets Rockies Avoid Overall Softness

Thursday's July futures dive of 34.9 cents and forecasts for a weekend reversal of modest warming trends that had been occurring in the Midwest and Northeast resulted in double-digit drops at most points in trading for the first weekend of summer Friday. The decline of industrial load that accompanies a weekend market also played a part.

All but one of the exceptions to overall softness were in the Rockies, where regional heat drove numbers higher by anywhere from a little less than 15 cents to about half a dollar. Denver temperatures were expected to peak around 90 degrees Saturday, according to Madison, WI-based Weather Central, and The Weather

JUNE CASH MARKET PRICES

	<u>range</u>	<u>avg.</u>	<u>chg.</u>	<u>vol.</u>	<u>deals</u>
South Texas					
Agua Dulce	\$12.43-\$12.52	\$12.49	-29	56	6
El Paso GTT (Valero)	\$12.44-\$12.44	\$12.44	-29	11	2
Florida Gas Zone 1	\$12.59-\$12.64	\$12.63	-37	28	10
NGPL S. TX	\$12.44-\$12.62	\$12.48	-25	368	50
Tennessee	\$12.39-\$12.45	\$12.41	-34	299	39
Texas Eastern S. TX	\$12.26-\$12.69	\$12.40	-30	254	52
Transco St. 30	\$12.40-\$12.70	\$12.44	-35	173	34
East Texas					
Carthage	\$12.38-\$12.70	\$12.45	-29	254	56
Houston Ship Channel	\$12.42-\$12.83	\$12.47	-41	1500	152

NGI's Bidweek Price Table

SoCal Citygate: New Index Location

In response to the scheduled October 1st implementation of Firm Access Receipt Rights and Off-System Delivery (FAR-OFF) by Southern California Gas Company, NGI will be making changes to our Southern California spot gas pricing coverage. Principally a "SoCal Citygate" index pricing location will be added to the California section of NGI's daily, weekly and bidweek (monthly) spot gas price tables. This new location will represent gas delivered into the citygate pool of the SoCal gas system. NGI expects to begin publishing data at this location in its Bidweek Survey and Daily Gas Price Index publications dated October 1, 2008.

Additionally, NGI is soliciting comments from the marketplace on the need for, and viability of, listing prices at specific Southern Border receipt points or transmission zones. These additional pricing locations would be in addition to NGI's Southern California Border Average listing, which will remain unchanged.

California

Malin	10.30-11.02	10.87	+46	648	104
PG&E Citygate	10.81-11.56	11.31	+47	581	115
Southern Border, PG&E	9.84-10.63	10.35	-3	139	27
Southern Border, SoCal	9.90-10.75	10.46	+13	1304	218
Southern Cal. Bdr. Avg.	9.90-10.75	10.46	+13	1304	218
Regional Avg.	9.84-11.56	10.69	+23		
National Spot Gas Avg.	8.25-12.92	11.19	+49		

Canada

NOVA/AECO C Cdn\$/GJ	9.30-10.03	9.78	+6	2877	444
Westcoast St.2 Cdn\$/GJ	9.37-10.00	9.59	+14	57	13

Notes to Bidweek Spot Gas Prices table: Survey taken May 23 - 30 of baseload fixed price and physical basis transactions for the month of June. Prices are in US\$/MMBtu except for prices in the Canada section, which are expressed in Cdn\$/GJ. Changes are calculated from the May bidweek. The deals column represents the number of transaction reports used by NGI in the calculation of the price and the volume column represents the sum of the volume of those deals, expressed in thousand MMBtus/day. Pricing points may be marked with an asterisk in the volume column to denote NGI has used editorial judgment based on confirmed bids or asks, or relationships to other market locations in determining the published price.

For more information, please see NGI's Price Methodology at: <http://intelligencepress.com/methodology.html>

© Copyright 2008 Intelligence Press, Inc.

NGI's Daily Price Table

Blair, a broker with Rafferty Technical Research in New York. "We basically got to a high of \$13.350 on Thursday, which is almost on top of our major resistance level of \$13.365. When we failed, we dropped to a low of \$12.625 — which is very near our major support numbers — before rallying. We are playing it back and forth between our numbers. While the 57 Bcf [storage] injection report Thursday was expected, it does put us further behind both year-ago and five-year average levels. That does not help with perception. In addition, we've got eyes on the tropical weather situation. While it is still early for major development, you never know."

Blair noted that the petroleum markets once again "stole the show" on Friday with renewed tension in the Middle East and the continued problems in Nigeria. Partially recovering from Thursday's \$4.75/bbl drop, July crude on Friday regained \$2.69 to close at \$134.62/bbl. "There is a lot of attention being paid to the petroleum sector right now, which leaves the natural gas market as the forgotten child," he said. "Natural gas is going to come to the forefront in the next couple of weeks as we get closer to the real potential of severe tropical weather."

NOVA/AECO C Cdn\$/GJ \$10.85-\$11.06 \$10.94 -16 1326 113
Westcoast Station 2 Cdn\$/GJ \$10.91-\$10.95 \$10.93 -23 76 18

Notes: Prices traded Friday, June 20 for June 21 - 23 delivery. Changes are calculated from prices traded June 19 for June 20 delivery. A blank in the change column indicates information was not available for either the current or prior period. Prices are in U.S./MMBtu except for locations in the Canada section which are in Cdn\$/GJ. The deals column represents the number of transaction reports used by NGI in the calculation of the price and the volume column represents the sum of the volume of those deals, expressed in thousand MMBtus/day. Pricing points may be marked with an asterisk (none this issue) to denote NGI has used editorial judgment based on confirmed bids or asks, or relationships to other market locations in determining the price.

For more information, please see NGI's Price Methodology at:
<http://intelligencepress.com/methodology.html>

Previous 5 Days

	6/16	6/17	6/18	6/19	6/20
June Henry Hub	\$12.73	\$12.87	\$12.93	\$13.09	\$12.76
July Nymex	\$12.933	\$12.952	\$13.210	\$12.861	\$12.994
3 Month Strip	\$13.014	\$13.030	\$13.291	\$12.961	\$13.088
6 Month Strip	\$13.217	\$13.228	\$13.483	\$13.169	\$13.299
12 Month Strip	\$12.888	\$12.887	\$13.117	\$12.839	\$12.957
18 Month Strip	\$12.472	\$12.464	\$12.673	\$12.417	\$12.529
24 Month Strip	\$12.162	\$12.147	\$12.337	\$12.096	\$12.203

© Copyright 2008 Intelligence Press, Inc.

NGI's Code of Conduct and Price Index Methodology

entire document available here: <http://intelligencepress.com/methodology.html>

- ◆ Broad Industry Participation
- ◆ Confidentiality
- ◆ Code of Conduct
- ◆ Requirements of Data Accepted
- ◆ Data is Parsed into *NGI* Systems
- ◆ Outliers and Anomalous Data
- ◆ Data Published and Increased Transparency
- ◆ Assessments

Guide to Providing Data to NGI

- ◆ Report all negotiated, fixed-price, non-affiliate natural gas transactions for both daily "incremental" and monthly (bidweek) "baseload" delivery.
 - Daily data includes all fixed price deals done each business day (where a business day is any day the IntercontinentalExchange offers trading of daily/next day physical gas) before the 12:30 p.m. EPT pipeline nomination deadline for gas to flow the next day or over the weekend, as is the case Fridays.
 - Monthly bidweek data includes transactions done on the last five business days of the month (where a business day is any day Nymex is trading) for gas to be delivered in the following month.
 - Nymex physical basis deals done during bidweek should be denoted as such and included.
- ◆ Each transaction should be listed separately and should include the following: trading location, transaction date, beginning flow date, ending flow date (may be the same as beginning flow date, volume, price (\$/MMBtu or C\$/Gigajoule for Canadian trading location, buy/sell indicator, counterparty (currently optional).
- ◆ Provide data from a central, mid- or back- office reporting source within the company.
- ◆ Data providers should make all reasonable efforts to send price data to prices@intelligencepress.com by 4:00 p.m. (EPT) on the business day before the beginning flow date of the data being submitted.
- ◆ List the contact information of data provider representatives that can answer questions about the data.
- ◆ If the data provider becomes aware of errors or omissions to submitted data within three business days, the data provider should make reasonable efforts to notify NGI of those errors or omissions. To submit a correction, email prices@intelligencepress.com with a corrected data submission in the same or similar format as the original submission.

How Data is Used to Set Indexes

NGI does not use a “midpoint” but rather a volumetric weighted average of the deals reported, minus the excluded outliers.
The volumetric weighted average formula is expressed as:

$$A = \Sigma(P*V)/TV$$

where A = average price, P = price per individual transaction, V = volume of each individual transaction, P*V cumulative total of each transaction multiplied by its volume, TV = total volume.

Example:

Price	Volume (in thousand MMBtus)	Factor (P*V)
7.25	5	36.25
7.36	10	73.6
7.22	10	72.2
7.15	15	107.25
7.43	7.5	55.725
sum:	47.5	345.025
Average (345.03/47.5)=		7.264
Average rounded=		\$7.26

Facts and Statistics about NGI Indexes

- ◆ With more than 60 Data Providers participating, including 8 of Top 10 Marketers/Traders, NGI receives a vast majority of “reportable transactions” consummated in the marketplace.
- ◆ This robustness of “direct” data, combined NGI's unique ability to include transactions from the ICE trading platform gives NGI a breadth and volume of data unparalleled by other Index Developers in the industry.
- ◆ Statistics for the June Bidweek:
 - Indexes Published: 82
 - Individual Deals used to calculate those 82 Indexes: 5,394
 - Total Volume of those 5,394 Deals: 32.3 Bcf/day (32,300,000 MMBtus/day)
 - Average # of Deals per Index: 66
 - Average Volume per Index: 400,000 MMBtus/day (nearly half a Bcf/day)
 - Average Volume per deal: 6,000 MMBtu/day

Facts and Statistics about NGI Indexes (continued)

- ◆ Statistics for NGI Daily Prices Published June 24, 2008
 - Indexes Published: 87
 - Individual Deals used to calculate those 87 Indexes: 7,081
 - Total Volume of those 7,081 Deals: 45 Bcf/day (45,000,000 MMBtus/day)
 - Average # of Deals per Index: 81
 - Average Volume per Index: 517,000 MMBtus/day (more than half a Bcf/day)
 - Average Volume per deal: 6,356 MMBtu/day

NGI Pricing Point Locations

South Texas

Agua Dulce
El Paso GTT (Valero)
Florida Gas Zone 1
NGPL S. TX
Tennessee
Texas Eastern S. TX
Transco St. 30

East Texas

Carthage
Houston Ship Channel
Katy
NGPL TexOk
Texas Eastern E. TX
Texas Gas zone 1
Transco St. 45

West Texas

El Paso Permian
Transwestern
Waha
Midwest
Alliance
ANR ML7
Chicago Citygate
Consumers Energy
Dawn
Michigan Consolidated

Midcontinent

ANR SW
CenterPoint East
CenterPoint West
NGPL Amarillo Mainline
NGPL Midcontinent
Northern Natural Demarc
Northern Natural Ventura
OGT
Panhandle Eastern
Southern Star

Louisiana

ANR SE
Columbia Gulf Mainline
Columbia Gulf Onshore
Florida Gas Zone 2
Florida Gas Zone 3
Henry Hub
Miss. River Trans.
NGPL LA
Southern Natural
Tennessee Line 500
Tennessee Line 800
Texas Eastern E. LA
Texas Eastern W. LA
Texas Gas Zone SL
Transco St. 65
Trunkline E. LA
Trunkline W. LA
Alabama/Mississippi
Texas Eastern M-1, 24
Texas Eastern M-1, 30
Transco St. 85

Florida

FGT Citygate
Rocky Mountains
Cheyenne Hub
CIG
El Paso Bondad
El Paso non-Bondad
Kern River
Kingsgate
Northwest Domestic
Northwest S. of Green River
Northwest Sumas

Opal

Questar
Stanfield

Northeast

Algonquin (citygate)
Columbia Gas
Dominion (CNG)
Dracut
Iroquois Zone 2
Iroquois, Waddington

Northeast

Niagara
Tennessee Zone 6
Texas Eastern M-2,30
Texas Eastern M-3
Transco Zone 5
Transco Zone 6 non-NY
Transco Zone 6 NY

Arizona/Nevada

El Paso S. Mainline/N. Baja
Kern Delivery

California

Malin
PG&E Citygate
Southern Border, PG&E
Southern Border, SoCal*
Southern California Border Avg

Canada

NOVA/AECO C Cdn\$/GJ
Westcoast Station 2 Cdn\$/GJ

* Bidweek only

Announcing



**GasMart 2009
Chicago
May 19-21**

**Sheraton Chicago
Hotel & Towers**

gasmart.com