

# NATURAL GAS



OCTOBER 23, 2017

## Prior Day's NYMEX

### Nov-17 Contract (CT)



## NYMEX NG Futures

Month	Close	Change
Nov-17	2.915	0.042
Dec-17	3.113	0.027
Jan-18	3.241	0.023
Feb-18	3.249	0.022
Mar-18	3.208	0.020
Apr-18	2.979	0.011
May-18	2.956	0.009
Jun-18	2.985	0.008
Jul-18	3.015	0.007
Aug-18	3.017	0.006
Sep-18	2.999	0.007
Oct-18	3.023	0.008
Nov-18	3.077	0.006
Dec-18	3.212	0.004
Jan-19	3.291	0.002
Feb-19	3.259	0.002
Mar-19	3.181	0.002
Apr-19	2.798	(0.001)
May-19	2.752	(0.001)
Jun-19	2.773	(0.002)
Jul-19	2.795	(0.003)
Aug-19	2.796	(0.003)
Sep-19	2.779	(0.002)
Oct-19	2.803	(0.002)
1YR Strip	3.058	0.016
2017	3.014	0.035
5YR Strip	2.937	0.009

## IN THE NEWS

Utah moves to update regulation of oil, gas wells — Deseret News reported: SALT LAKE CITY — The Utah Air Quality Board is proposing to revamp the way it regulates the oil and gas industry by streamlining the permitting process of producing wells, which make up more than half of the "minor" source permits in the state. Utah has 12,300 producing crude oil and natural gas wells,

- Utah moves to update regulation of oil, gas wells
- Argentina ex-energy officials indicted on alleged LNG overpayments

according to 2013 numbers, and ranks 10th in the country for natural gas production and 11th for crude oil production. The majority of those wells are in eastern Utah's Uinta Basin, which struggles with heavy buildup of ozone air pollution in the winter. A series of proposed rules out for public comment set a new threshold for the amount of emissions, but are designed to create more efficiencies for both the state and the industry. For more visit [deseretnews.com](http://deseretnews.com) or click <http://bit.ly/2xYJvNx>

Argentina ex-energy officials indicted on alleged LNG overpayments — Platts reported: A federal judge in Argentina has indicted two former energy officials for alleged irregularities regarding LNG imports, a copy of the ruling showed. Judge Claudio Bonadio ordered Julio De Vido, the former minister of planning who oversaw national energy affairs from 2003 to 2015, and his former right-hand man, Roberto Baratta, to be held in custody awaiting trial, according to a 269-page ruling issued late Thursday. Baratta, the ex-secretary of coordination and control of the Planning Ministry, was arrested late Thursday. De Vido couldn't be brought in because of immunity as a congressman. The alleged "fraud" between 2008 and 2015 cost the state Pesos 7 billion (\$401 million), according to the ruling. This came as dwindling gas production left the country short of gas, which meets half of national energy needs. Gas production plunged to a 16-year low of 113.7 million cu m/d in 2014 from a record 143 million cu m/d in 2004, as government-imposed caps on gas pricing discouraged investment. For more on this story visit [platts.com](http://platts.com) or click <http://bit.ly/2lhb9dW>

## 12 MONTH CANDLESTICK (WEEKLY)



## Prompt Natural Gas (NG) Daily Sentiment

**BEARISH**



RESISTANCE  
2.95 & 2.98

SUPPORT  
2.86 & 2.82

## Trading Summary

### NATURAL GAS

Futures	Close	Change
NG	2.915	0.042
Volume	552,424	(420,603)
Open Int.	1,378,133	(4,982)

### CRUDE AND GASOLINE

Futures	Close	Change
Crude	51.84	0.33
RBOB	1.6781	0.0334
Crude/NG	16.65	(0.04)

### METALS

Futures	Close	Change
Gold	1,277.40	(2.70)

### EQUITIES

Exchange	Close	Change
DOW	23,328.63	165.59
S&P 500	2,575.21	13.11

### CURRENCY

Currency	Close	Change
EUR/USD	1.1784	(0.0068)
USD/CND	1.2638	0.0011

## Contact Us



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[info@mansfieldoil.com](mailto:info@mansfieldoil.com)

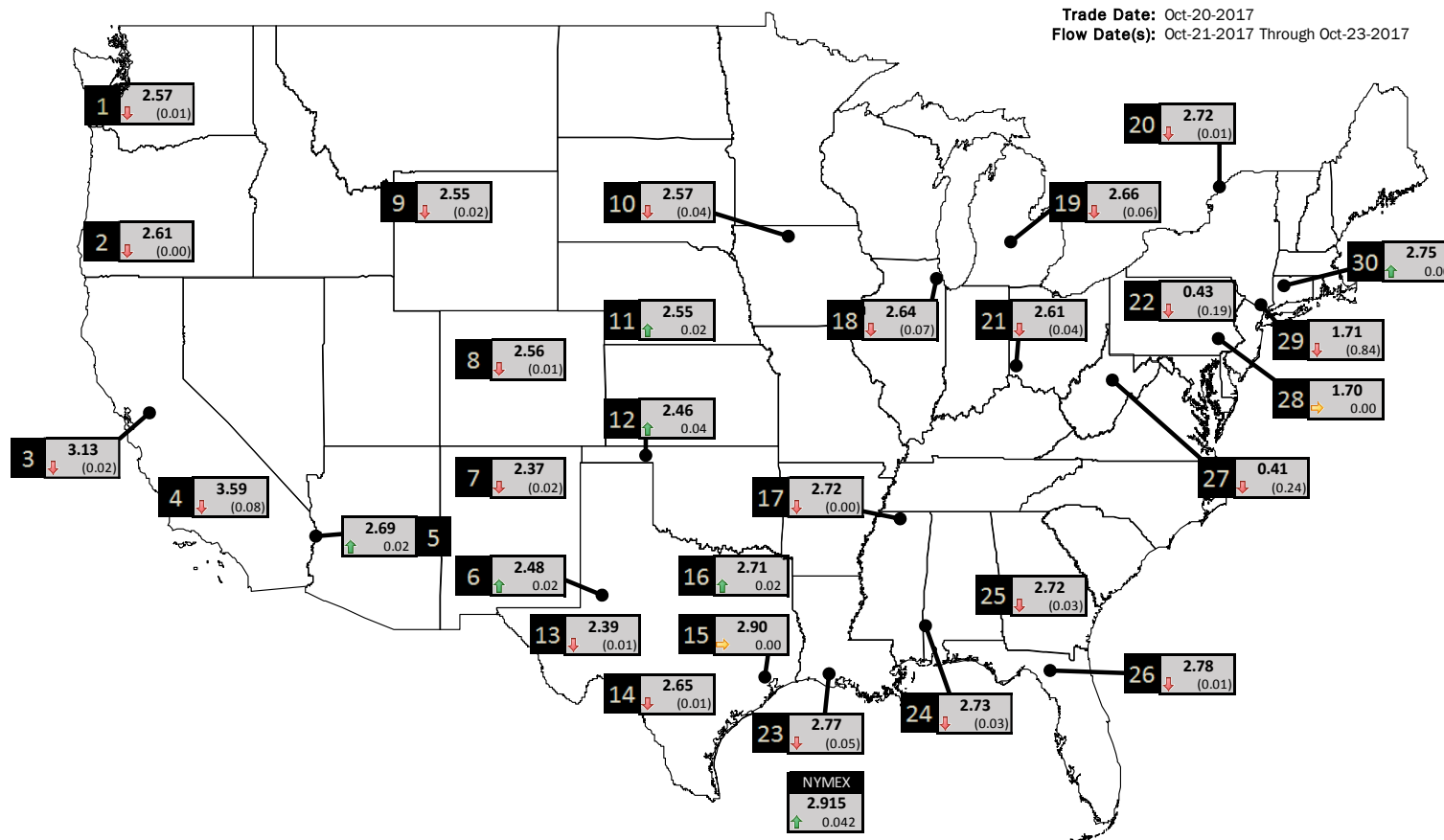
Phone: (800) 695-6626





# NATURAL GAS NEWS

## PHYSICAL SPOT NATURAL GAS PRICE MAP



ID	DAILY INDEX	PRICE	CHANGE
1	Stanfield	2.57	(0.01)
2	Malin	2.61	(0.00)
3	PG&E - Citygate	3.13	(0.02)
4	SoCal-Citygate	3.59	(0.08)
5	SoCal Border	2.69	0.02
6	Waha	2.48	0.02
7	EP-SJ Blanco Pool	2.37	(0.02)
8	Opal Plant Tailgate	2.56	(0.01)
9	NWP-Wyoming	2.55	(0.02)
10	Ventura	2.57	(0.04)

ID	DAILY INDEX	PRICE	CHANGE
11	NGPL-Midcont Pool	2.55	0.02
12	Panhandle	2.46	0.04
13	EP-Permian	2.39	(0.01)
14	TGP-ZO	2.65	(0.01)
15	Houston Ship Channel	2.90	0.00
16	NGPL-TXOK	2.71	0.02
17	TETCO-M1 30	2.72	(0.00)
18	Chicago Citygates	2.64	(0.07)
19	Michcon	2.66	(0.06)
20	Iroquois (into)	2.72	(0.01)
	NYMEX	2.915	0.042

ID	DAILY INDEX	PRICE	CHANGE
21	REX E-ANR	2.61	(0.04)
22	Leidy-Transco	0.43	(0.19)
23	Henry	2.77	(0.05)
24	Transco-85	2.73	(0.03)
25	Sonat-ZO South	2.72	(0.03)
26	FGT-Z3	2.78	(0.01)
27	Dominion-South	0.41	(0.24)
28	Transco-Z6 (non-NY)	1.70	0.00
29	Transco-Z6 (NY)	1.71	(0.84)
30	Iroquois-Z2	2.75	0.00

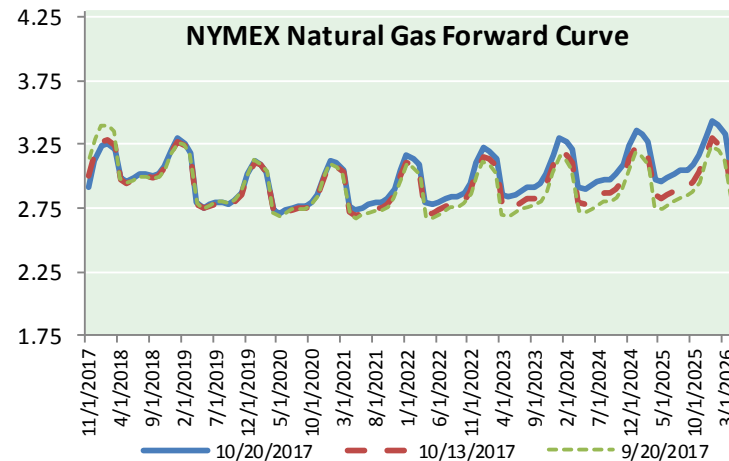
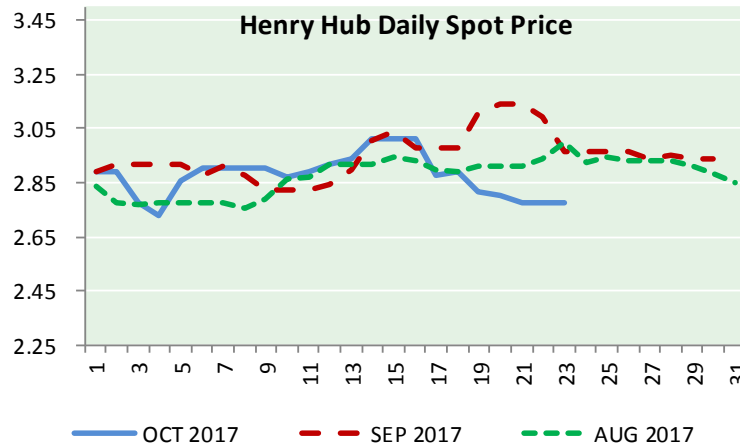
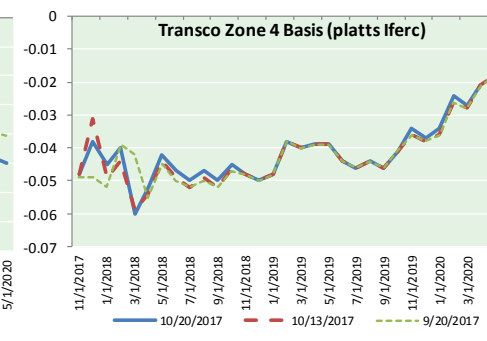
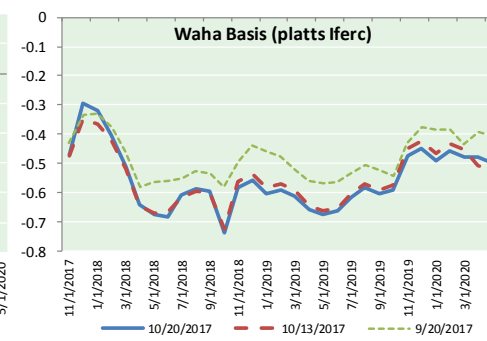
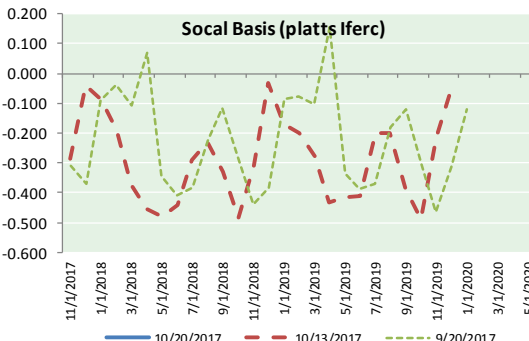
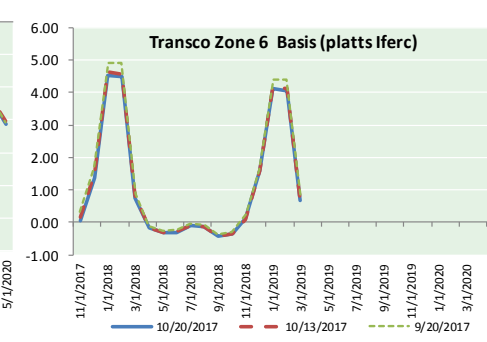
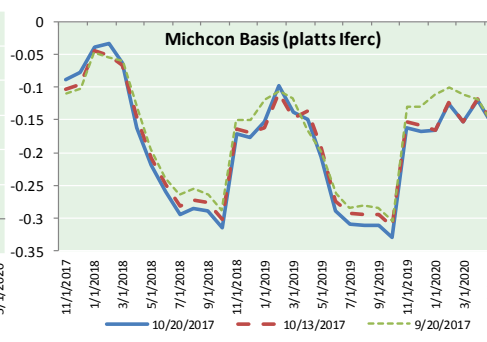
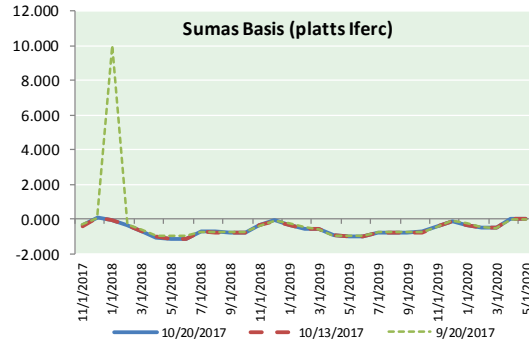
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# NATURAL GAS NEWS

## NATURAL GAS BASIS FUTURES, HENRY HUB SPOT PRICES, AND FORWARD CURVE



### CME NG Option Prices

#### ATM Call

Month	Strike	Close	Imp Vol
Nov-17	3.000	0.060	60.0
Dec-17	3.150	0.169	41.2
Jan-18	3.300	0.233	43.1
Feb-18	3.300	0.275	41.2
Mar-18	3.250	0.326	43.1
Apr-18			
May-18			
Jun-18			
Jul-18			
Aug-18			
Sep-18			
Oct-18			
Nov-18			
Dec-18			
Jan-19			
Feb-19			
Mar-19			

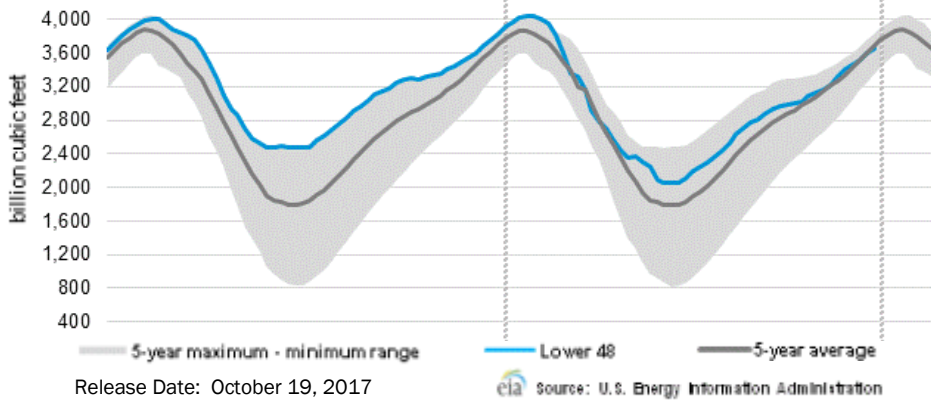
### CME NG Option Prices

#### ATM Put

Month	Strike	Close	Imp Vol
Nov-17	3.000	0.063	52.5
Dec-17	3.150	0.184	48.7
Jan-18	3.300	0.265	46.8
Feb-18	3.300	0.332	48.7
Mar-18	3.250	0.368	48.7
Apr-18			
May-18			
Jun-18			
Jul-18			
Aug-18			
Sep-18			
Oct-18			
Nov-18			
Dec-18			
Jan-19			
Feb-19			
Mar-19			



WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE



Rig Count

Report Date: October 20, 2017

	Total	Change
US -	913	(15)
CN -	202	(10)

EIA Weekly NG Storage Actual and Surveys for October 13, 2017

Released October 19, 2017

- PIRA — +45
- ARM — +46
- Reuters — +47

EIA ACTUAL — +51

Total Working Gas In Storage

**3,646 BCF**

- +51 BCF (LAST WEEK)
- (179) BCF (LAST YEAR)
- (35) BCF (5-YR AVG)

U.S. Natural Gas Supply Gas Week 10/5– 10/11

Average daily values (BCF/D):  
 Last Year (BCF/d)  
 Dry Production — +70.2  
 Total Supply — +75.6  
 Last Week (BCF/d)  
 Dry Production — +80.8  
 Total Supply — +78.4

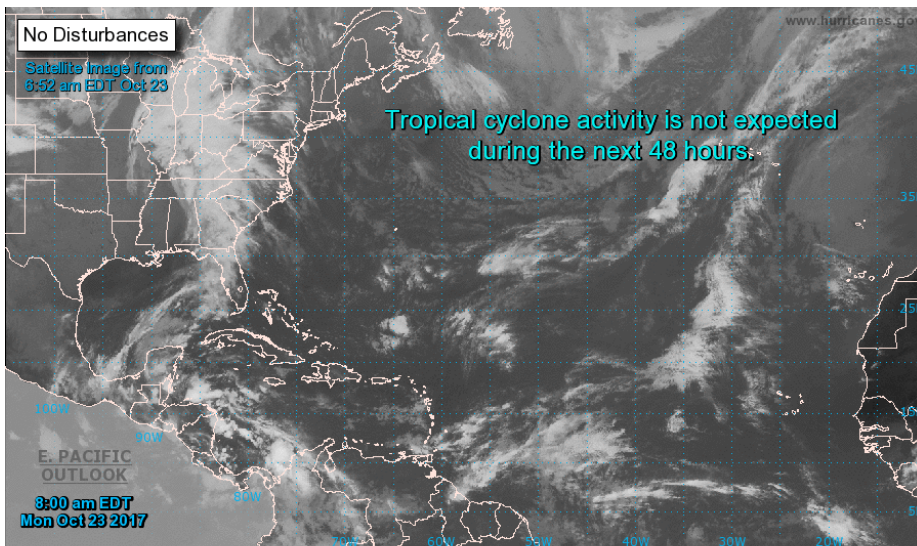
[NEXT REPORT ON OCT 26]

U.S. Natural Gas Demand Gas Week 10/5- 10/11

Average daily values (BCF/D):  
 Last Year (BCF/d)  
 Power — +24.3  
 Total Demand — +65.6  
 Last Week (BCF/d)  
 Power — +28.7  
 Total Demand — +70.4

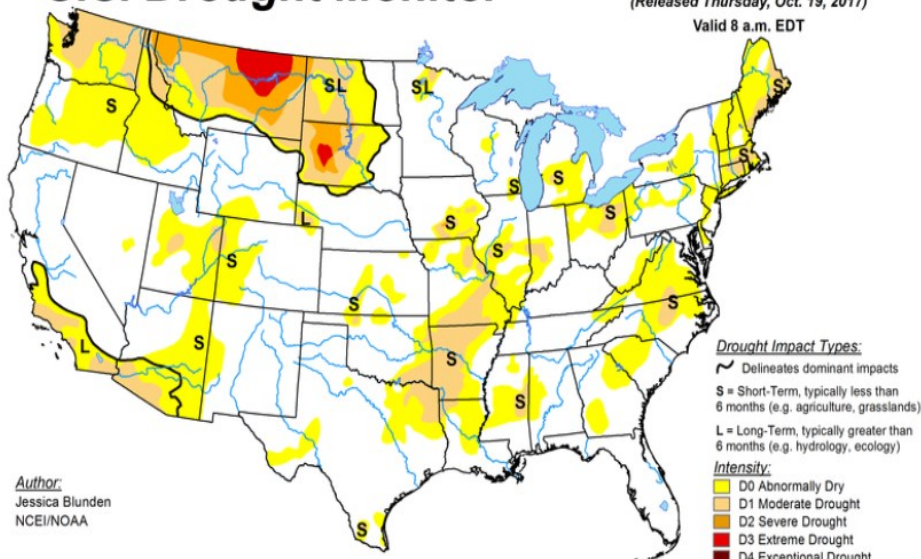
[NEXT REPORT ON OCT 26]

TROPICAL STORM ACTIVITY— ATLANTIC



U.S. Drought Monitor

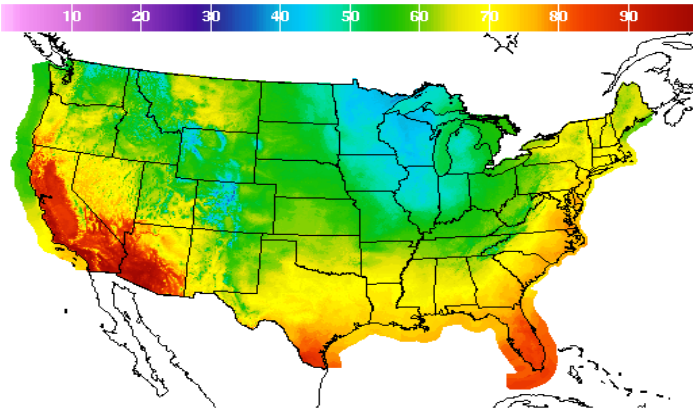
October 17, 2017  
 (Released Thursday, Oct. 19, 2017)  
 Valid 8 a.m. EDT





WEATHER – HIGH / LOW TEMPERATURE TOMORROW

HIGH Temperature



High Temperature(F) Ending Tue Oct 24 2017 8PM EDT

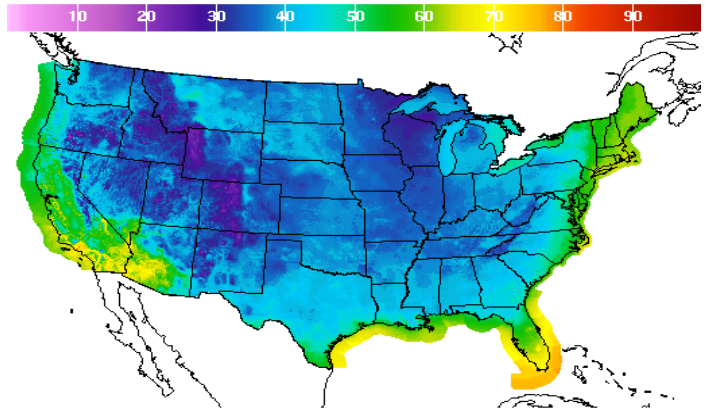
(Wed Oct 25 2017 00Z)

National Digital Forecast Database

11z issuance Graphic created-Oct 23 7:27AM EDT



LOW Temperature



Low Temperature(F) Ending Wed Oct 25 2017 8AM EDT

(Wed Oct 25 2017 12Z)

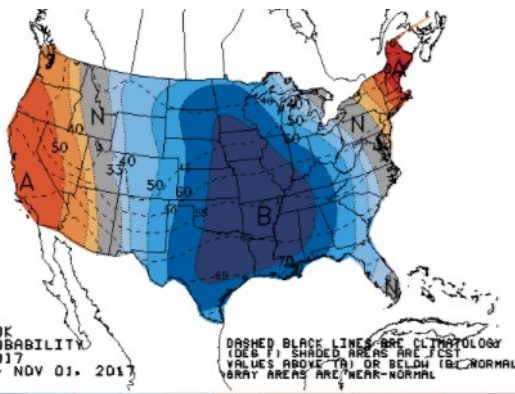
National Digital Forecast Database

11z issuance Graphic created-Oct 23 7:41AM EDT



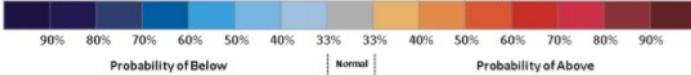
WEATHER – 6 TO 10 DAY OUTLOOK – NOAA

Temperature

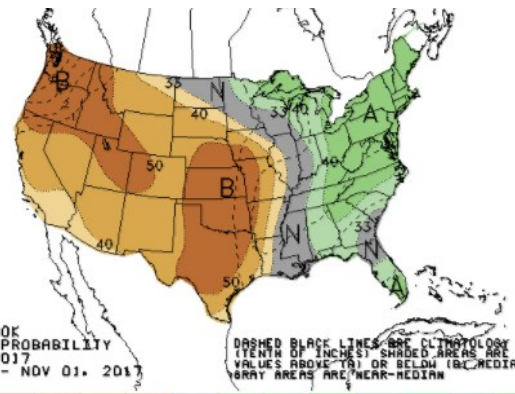


6-10 DAY OUTLOOK TEMPERATURE PROBABILITY MADE 22 OCT 2017 VALID OCT 28 - NOV 01, 2017

DASHED BLACK LINES ARE CLIMATOLOGY (DEG F) SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL GRAY AREAS ARE NEAR-NORMAL

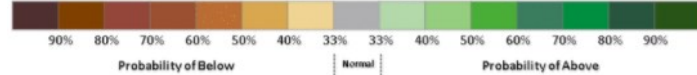


Precipitation



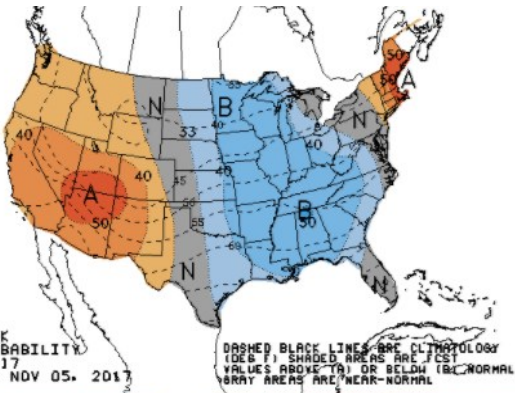
6-10 DAY OUTLOOK PRECIPITATION PROBABILITY MADE 22 OCT 2017 VALID OCT 28 - NOV 01, 2017

DASHED BLACK LINES ARE CLIMATOLOGY (TENTH OF INCHES) SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) MEDIAN GRAY AREAS ARE NEAR-MEDIAN



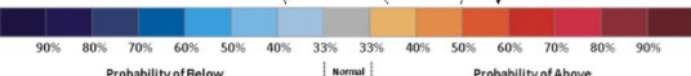
WEATHER – 8 TO 14 DAY OUTLOOK – NOAA

Temperature

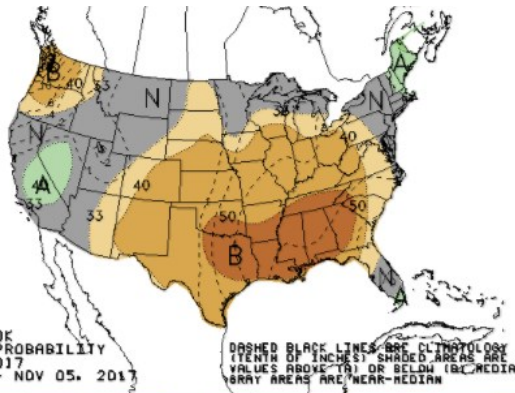


8-14 DAY OUTLOOK TEMPERATURE PROBABILITY MADE 22 OCT 2017 VALID OCT 30 - NOV 05, 2017

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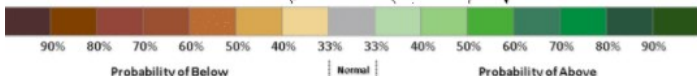


Precipitation



8-14 DAY OUTLOOK PRECIPITATION PROBABILITY MADE 22 OCT 2017 VALID OCT 30 - NOV 05, 2017

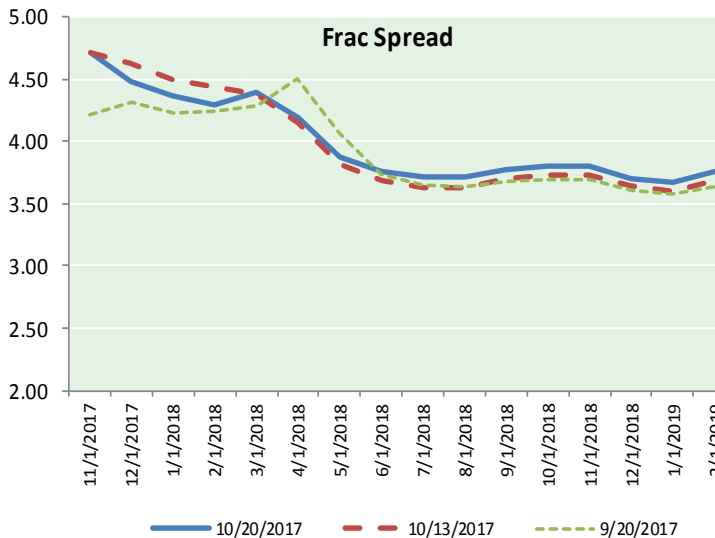
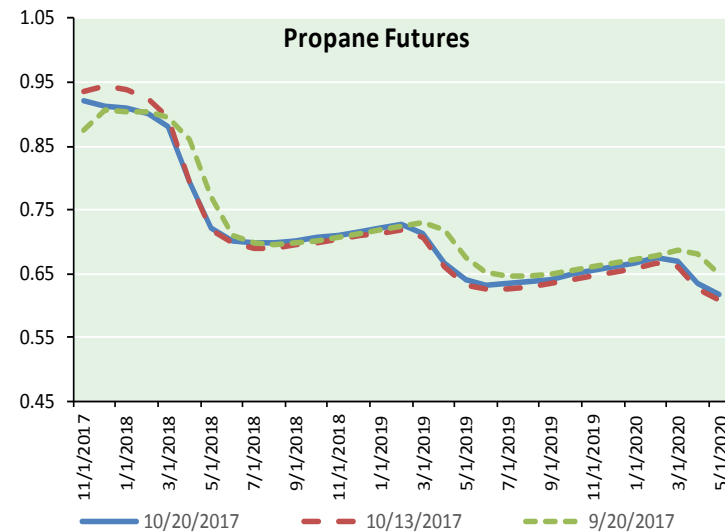
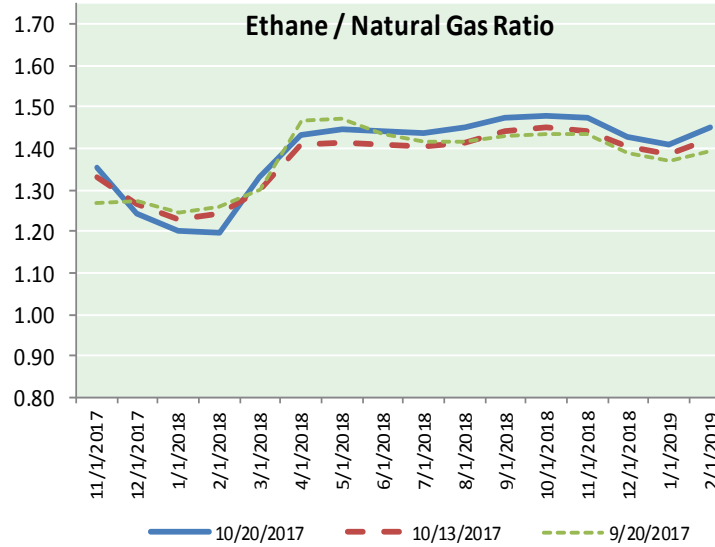
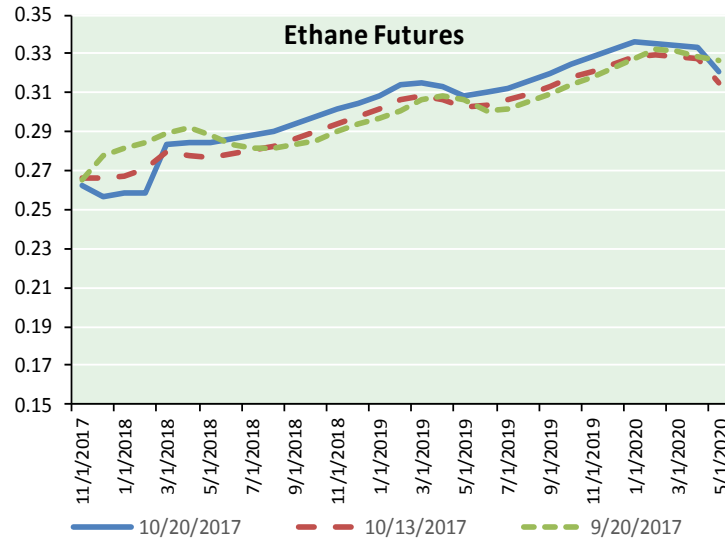
DASHED BLACK LINES ARE CLIMATOLOGY (TENTH OF INCHES) SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) MEDIAN GRAY AREAS ARE NEAR-MEDIAN



# NATURAL GAS NEWS



## ETHANE FUTURES, NG/ETHANE RATIO, PROPANE FUTURES, AND THE FRAC SPREAD



### CME Future Prices

#### Ethane (C2)

##### Non-LDH— Mont Belvieu

	(cents/gallon)	
Month	Close	Change
Nov-17	0.262	(0.001)
Dec-17	0.257	(0.003)
Jan-18	0.259	(0.003)
Feb-18	0.258	(0.002)
Mar-18	0.284	(0.002)
Apr-18	0.284	(0.001)
May-18	0.284	0.001
Jun-18	0.286	0.001
Jul-18	0.288	0.001
Aug-18	0.291	0.000
Sep-18	0.294	0.000
Oct-18	0.298	0.001

1YR Strip 0.279 (0.001)

### CME Future Prices

#### Propane (C3)

##### Non-LDH— Mont Belvieu

	(cents/gallon)	
Month	Close	Change
Nov-17	0.921	0.004
Dec-17	0.912	0.011
Jan-18	0.911	0.010
Feb-18	0.901	0.009
Mar-18	0.882	0.008
Apr-18	0.793	0.006
May-18	0.721	0.004
Jun-18	0.703	0.004
Jul-18	0.698	0.005
Aug-18	0.698	0.005
Sep-18	0.701	0.004
Oct-18	0.706	0.004

1YR Strip 0.796 0.006

# NATURAL GAS NEWS



## Prompt WTI (CL) Crude Daily Sentiment

**BULLISH**



RESISTANCE  
51.90 & 52.33  
SUPPORT  
50.87 & 50.27

### FOLLOW US ON TWITTER:



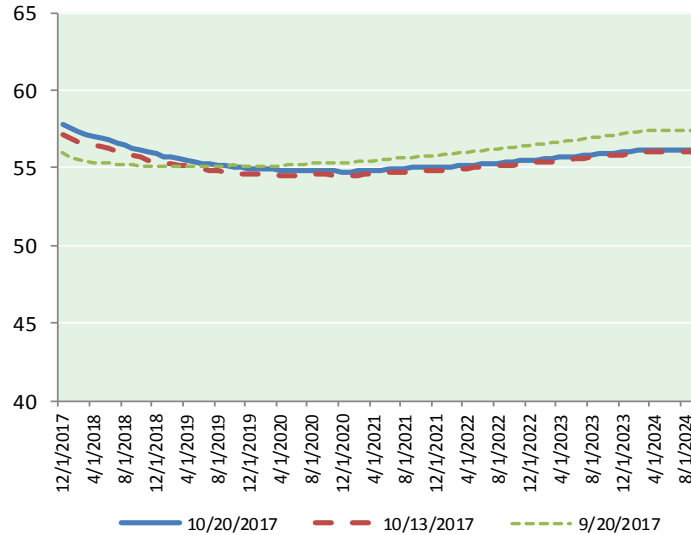
@MPG\_NatGasNews

## NYMEX Brent (BZ)

### Futures

Month	Close	Change
Dec-17	57.75	0.52
Jan-18	57.58	0.60
Feb-18	57.33	0.60
Mar-18	57.17	0.60
Apr-18	57.05	0.59
May-18	56.93	0.59
Jun-18	56.77	0.57
Jul-18	56.62	0.54
Aug-18	56.47	0.53
Sep-18	56.31	0.51
Oct-18	56.15	0.49
Nov-18	56.01	0.47
Dec-18	55.88	0.45
Jan-19	55.75	0.44
Feb-19	55.66	0.43
Mar-19	55.58	0.42
Apr-19	55.53	0.42
May-19	55.43	0.42
Jun-19	55.31	0.41
Jul-19	55.26	0.40
Aug-19	55.18	0.39
Sep-19	55.12	0.38
Oct-19	55.10	0.38
Nov-19	55.01	0.37
1YR Strip 2017	56.85	0.55
5YR Strip	55.41	0.41

## BRENT CRUDE FORWARD CURVE



## FRAC Spread

### Specifications

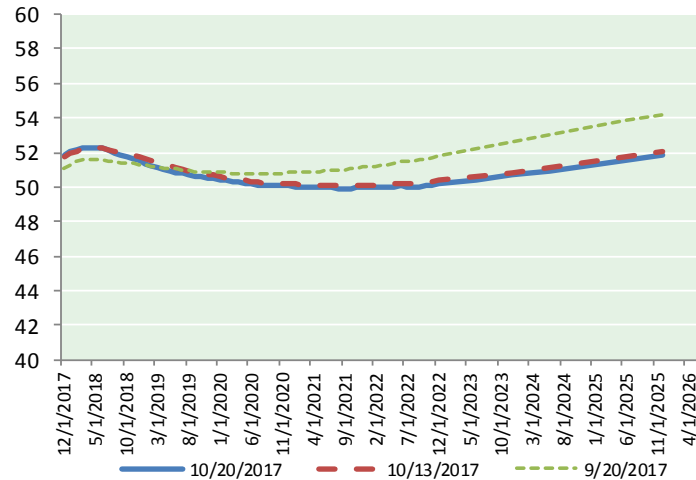
Ethane : 42%	66,500 btu/g
Propane: 28%	90,830 btu/g
Butane: 11%	102,916 btu/g
Iso-Butane: 6%	98,935 btu/g
Natural Gasoline: 13%	115,021 btu/g

## Prompt NGL Futures

### (\$/gallon)

Nov-17	Close	Change
Butane	1.051	0.004
Iso-Butane	1.047	0.004
Nat Gasoline	1.219	0.008

## WTI CRUDE FORWARD CURVE



## NYMEX WTI (CL) Futures

Month	Close	Change
Dec-17	51.84	0.33
Jan-18	52.04	0.31
Feb-18	52.17	0.30
Mar-18	52.26	0.29
Apr-18	52.30	0.29
May-18	52.29	0.29
Jun-18	52.23	0.29
Jul-18	52.12	0.28
Aug-18	52.00	0.27
Sep-18	51.88	0.26
Oct-18	51.76	0.25
Nov-18	51.64	0.23
Dec-18	51.53	0.22
Jan-19	51.38	0.21
Feb-19	51.25	0.20
Mar-19	51.12	0.18
Apr-19	51.02	0.17
May-19	50.92	0.15
Jun-19	50.86	0.14
Jul-19	50.77	0.14
Aug-19	50.69	0.15
Sep-19	50.63	0.16
Oct-19	50.59	0.17
Nov-19	50.55	0.17
1YR Strip 2017	52.04	0.28
5YR Strip	50.62	0.21

## WTI-BRENT SPREAD

