

NYMEX Natural Gas Update

MAY 2017



Coming Soon – Four new European Natural Gas Futures Contracts on NYMEX

- > UK NBP Natural Gas (USD/MMBtu) (ICIS Heren) Front Month Futures (NBP)
- > Dutch TTF Natural Gas (USD/MMBtu) (ICIS Heren) Front Month Futures (TTE)
- > Henry Hub NBP (ICIS Heren) Natural Gas Spread Futures (NYP)
- > Henry Hub TTF (ICIS Heren) Natural Gas Spread Futures (THD)

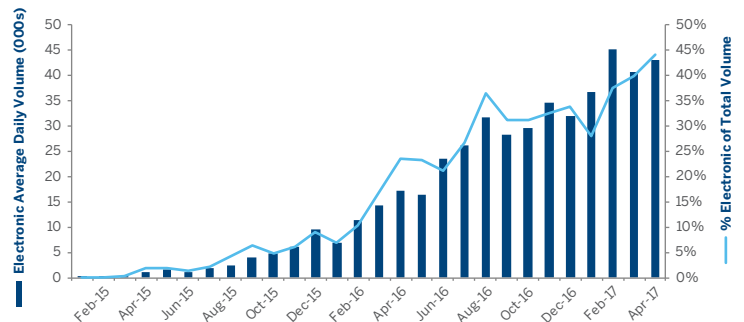
Available for trading as of Sunday, May 21, 2017 for trade Date Monday, May 22, 2017

Natural Gas Options Electronic Growth

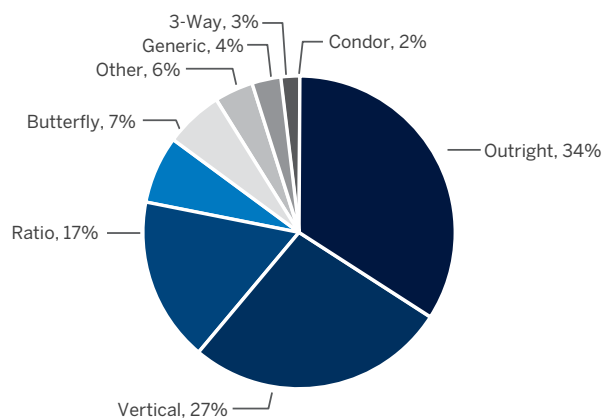
- > Natural Gas Financial Options (LN) traded 44% on screen; a new record
- > Electronic average daily volume has increased 150% year over year

- > 66% of all natural gas financial options traded on screen are spread strategies.

Natural Gas Financial Options (LN):
Electronic Daily Volume and Percentage Electronic



Natural Gas Financial Options (LN) – Electronic Strategies

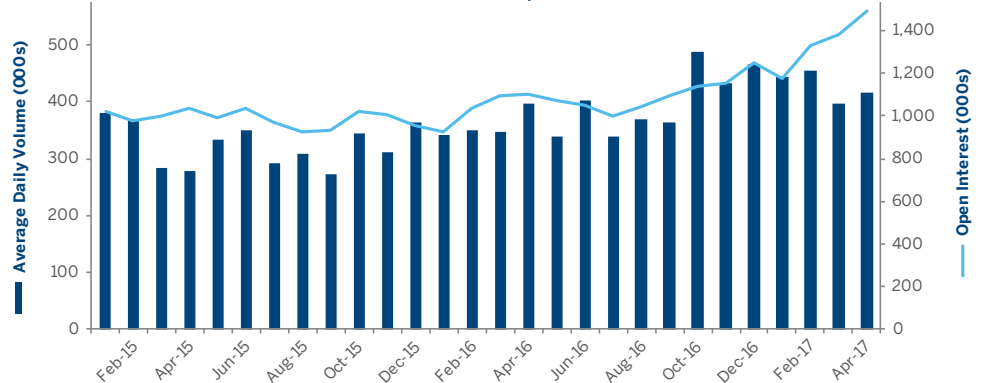


NYMEX Natural Gas Futures

Improved liquidity for Henry Hub Futures Products

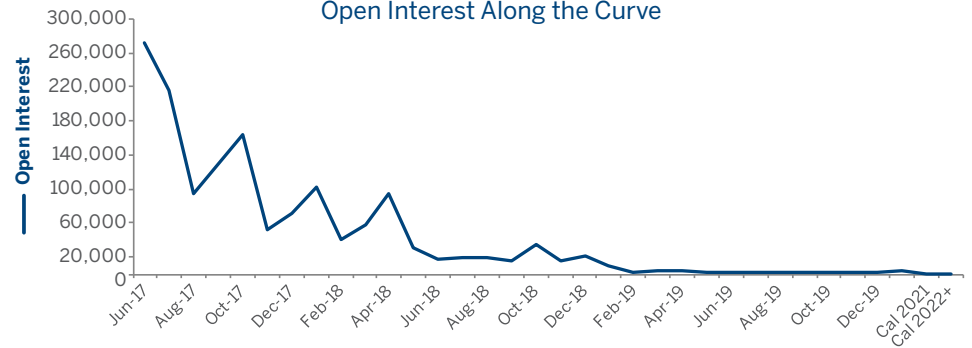
- > Henry Hub Natural Gas Futures (NG) open interest broke a multi-year record with nearly 1.5 million contracts outstanding.
- > Average daily volume remains strong with almost 420,000 contracts traded per day; up 20% year over year YTD.

Year Record Open Interest-Henry Hub Natural Gas Futures (NG):
Multi-Year Record Open Interest



- > NYMEX Henry Hub Futures (NG) has the deepest liquidity farther out the curve.

Henry Hub Natural Gas Futures (NG):
Open Interest Along the Curve



- > Physical (NG) & Financial (HH) Henry Hub strip markets currently available to trade electronically

- > Liquid Butterfly Spreads for 12 months out the curve

NG	Henry Hub Future	2018	+	4	3.067	3.076	5
NG	Henry Hub Future	2019	+	8	2.825	2.850	4
NG	Henry Hub Future	2020	+	8	2.815	2.845	8
NG	Henry Hub Future	2021	+	8	2.825	2.865	8
NG	Henry Hub Future	Summer 18	+	12	2.861	2.872	8
NG	Henry Hub Future	Winter 17-18	+	12	3.580	3.587	8
NG	Henry Hub Future	Summer 19	+	8	2.685	2.714	4
NG	Henry Hub Future	Winter 18-19	+	4	3.062	3.087	8
NG	Henry Hub Future	Winter 17-18/Summer 18	+	8	0.708	0.726	8
NG	Henry Hub Future	Summer 18/Winter 18-19	+	12	-0.229	-0.188	8
NG	Henry Hub Future	Summer 18/Summer 19	+	12	0.157	0.177	12
NG	Henry Hub Future	Winter 17-18/Winter 18-19	+	8	0.500	0.518	4
NG	Henry Hub Future	Q3 17	+	8	3.418	3.425	8
NG	Henry Hub Future	Q4 17	+	8	3.501	3.508	8
NG	Henry Hub Future	Q1 18	+	8	3.610	3.616	4
NG	Henry Hub Future	Q2 18	+	12	2.860	2.867	12

NG	Henry Hub Future	May17/June17/July17	Open	362	-0.002	0.000	365
NG	Henry Hub Future	June17/July17/Aug17	Open	352	-0.050	-0.048	89
NG	Henry Hub Future	July17/Aug17/Sep17	Open	89	-0.038	-0.036	578
NG	Henry Hub Future	Aug17/Sep17/Oct17	Open	60	0.023	0.025	622
NG	Henry Hub Future	Sep17/Oct17/Nov17	Open	148	0.034	0.036	11
NG	Henry Hub Future	Oct17/Nov17/Dec17	Open	1	0.074	0.076	118
NG	Henry Hub Future	Nov17/Dec17/Jan18	Open	118	-0.052	-0.050	1
NG	Henry Hub Future	Dec17/Jan18/Feb18	Open	1	-0.110	-0.108	225
NG	Henry Hub Future	Jan18/Feb18/Mar18	Open	196	-0.060	-0.057	1
NG	Henry Hub Future	Feb18/Mar18/Apr18	Open	1	-0.534	-0.528	28

HH	Henry Hub Financial Future	2018	Open	+	4	3.061	3.071	8
HH	Henry Hub Financial Future	2019	Open	+	8	2.825	2.855	8
HH	Henry Hub Financial Future	2020	Open	+	8	2.815	2.845	8
HH	Henry Hub Financial Future	Winter 17-18	Open	+	8	3.577	3.583	4
HH	Henry Hub Financial Future	Winter 18-19	Open	+	4	3.060	3.084	4
HH	Henry Hub Financial Future	Summer 18	Open	+	4	2.858	2.869	8
HH	Henry Hub Financial Future	Summer 19	Open	+	8	2.682	2.709	4
HH	Henry Hub Financial Future	Q4 17	Open	+	8	3.497	3.504	8
HH	Henry Hub Financial Future	Q3 17	Open	+	8	3.414	3.421	8
HH	Henry Hub Financial Future	Q1 18	Open	+	8	3.606	3.612	4
HH	Henry Hub Financial Future	Q2 18	Open	+	8	2.857	2.863	4

NYMEX Natural Gas

Financial Natural Gas Activity and Upcoming Features

TRADING NOW: Reduced Ticks

- > **OPTIONS:** Reduced tick functionality (1/10 of a tick, 0.0001) now available for physical (ON) vs. financial natural gas (LN) option user-defined spreads
- > **FUTURES:** Trade the following natural gas spreads in quarter tick increments: NG-HH, HP-NG, and HP-HH

Penultimate Spreads (HP/NG and HP/HH) and EFS Spreads (NG/HH)

Product	CC	Term	+	Qty	Bid	Ofr	Qty
+ EFS/NGS (NG/HH)							
Henry Hub Future/Henry Hub Financial Future	NG/HH	Feb17	+	80	0.00400	0.00425	182
Henry Hub Future/Henry Hub Financial Future	NG/HH	Mar17	+	332	0.00325	0.00425	206
Henry Hub Future/Henry Hub Financial Future	NG/HH	Apr17	+	4	0.00350	0.00450	353
Henry Hub Future/Henry Hub Financial Future	NG/HH	May17	+	4	0.00350	0.00450	3
Henry Hub Future/Henry Hub Financial Future	NG/HH	Jun17	+	34	0.00350	0.00450	2
Henry Hub Future/Henry Hub Financial Future	NG/HH	Jul17	+	220	0.00350	0.00450	10
Henry Hub Future/Henry Hub Financial Future	NG/HH	Aug17	+	3	0.00325	0.00450	3
Henry Hub Future/Henry Hub Financial Future	NG/HH	Sep17	+	3	0.00325	0.00450	3
Henry Hub Future/Henry Hub Financial Future	NG/HH	Oct17	+	200	0.00350	0.00400	1
Henry Hub Future/Henry Hub Financial Future	NG/HH	Nov17	+	201	0.00350	0.00400	1
Henry Hub Future/Henry Hub Financial Future	NG/HH	Dec17	+	200	0.00350	0.00400	5

Natural Gas Options (LN) Outrights

Vol	Δ	+	C Qty	C Bid	Theo	C Ofr	C Qty	Strike	P Qty	P Bid	Theo	P Ofr	P Qty	+	Δ	Vol
- Henry Hub Eu Fin Option Feb17, 16.18 days, F: 3.273																
								ATM	3.280 ▼▲		3 strikes - +					
NG Feb17																
52.38 %	0.54	+	35	0.149	0.150	0.153	40	3.260	80	0.136	0.137	0.141	80	+	-0.46	52.38 %
52.43 %	0.51		80	0.139	0.140	0.144	80	3.280	80	0.147	0.148	0.152	80	+	-0.49	52.43 %
52.49 %	0.49	+	128	0.130	0.131	0.135	80	3.300	122	0.157	0.159	0.162	40	+	-0.51	52.49 %
- Henry Hub Eu Fin Option Mar17, 44.18 days, F: 3.266																
								ATM	3.260 ▼▲		3 strikes - +					
NG Mar17																
46.75 %	0.54	+	89	0.217	0.219	0.223	185	3.250	105	0.201	0.203	0.206	144	+	-0.46	46.75 %
46.78 %	0.54	+	94	0.212	0.214	0.218	44	3.260	55	0.206	0.209	0.211	44	+	-0.46	46.78 %
46.83 %	0.52	+	94	0.203	0.205	0.209	94	3.280	55	0.217	0.220	0.222	44	+	-0.48	46.83 %
- Henry Hub Eu Fin Option Apr17, 77.14 days, F: 3.243																
								ATM	3.250 ▼▲		3 strikes - +					
NG Apr17																
39.04 %	0.56	+	69	0.250	0.252	0.259	94	3.200	51	0.207	0.209	0.213	5	+	-0.43	39.04 %
39.08 %	0.53	+	116	0.226	0.228	0.235	46	3.250	49	0.233	0.236	0.240	22	+	-0.47	39.08 %
39.08 %	0.52		22	0.222	0.224	0.232	22	3.260	22	0.235	0.241	0.245	22		-0.48	39.08 %

Natural Gas Options (LN) Strategies

CC	Description	Type	+	Imp	Qty	Bid	Theo	Ofr	Qty	Imp	Last	Volume	Δ	Vol	
- My Watch Items															
- Recently Active Markets															
LN	May17 4.500 Call	Trade			46	0.013	0.016	0.018	50		0.018	1	0.06	37.45 %	
LN	Feb17 3.500/3.600 CS	RFQ	+		210	0.020	0.020	0.022	478				0.08	53.42 %	
LN	Feb17 3.200/3.000/2.800 PFLY	RFQ	+		60	0.036	0.037	0.038	297				-0.07	51.83 %	
LN	Apr17 3.250 Put	Trade	+		99	0.234	0.236	0.241	199		0.235	1	-0.47	39.08 %	
LN	Feb17 3.000 Put	Trade	+		438	0.041	0.042	0.044	94		↓ 0.040	480	-0.20	51.86 %	
LN	Mar17 2.950 Put	Trade	+		75	0.079	0.081	0.083	333		↓ 0.079	14	-0.24	46.26 %	
LN	Mar17 2.800/3.750 STNGL	Trade			17	0.105	0.113	0.115	50		0.110	20	0.08	47.58 %	
LN	Feb17 3.250 STRD	RFQ	+		25	0.284	0.287	0.289	25		0.284	50	0.08	52.36 %	
LN	Mar17 3.500/3.750 CS	Trade	+		110	0.055	0.055	0.058	168		0.057	100	0.13	48.33 %	
LN	Feb17 3.450/3.750 CS	RFQ	+		144	0.052	0.053	0.055	412				0.21	53.79 %	

NYMEX Natural Gas

Monthly NYMEX Henry Hub Natural Gas Futures and Options

> Product

Specifications of Natural Gas Futures and Options

	Futures						Options	
	Physical Futures	Financial Futures (Quarter/Day)	Financial Futures (Quarter/Mo)	Financial Futures	Penultimate Financial Futures	Penultimate Fin. Futures (Quarter/Mo)	Physical Option	Financial Option
	NG Clear NG Globex NG	NN Clear NN Globex NN	NNE Globex NNE	HH Clear HH Globex HH	HP Clear HP Globex HP	NP Clear NP Globex NPG	ON Clear ON Globex ON	LN Clear LN Globex LNE
Settle Type	Physical	Financial	Financial	Financial	Financial	Financial	Physical Settles into NG	Financial
Size	10,000 mmBTU/month	2,500 mmBtu/day	2,500 mmBtu/month	10,000 mmBTU/month	10,000 mmBTU/month	2,500 mmBtu/month	10,000 mmBTU/month	10,000 mmBTU/month
Globex Tick Size	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Last Trade Date	3rd bus. day prior to end of contract month	3rd bus. day prior to end of contract month	3rd bus. day prior to end of contract month	3rd bus. day prior to end of contract month	4th bus. day prior to end of contract month	4th bus. day prior to end of contract month	4th bus. day prior to end of contract month	4th bus. day prior to end of contract month
Option Style							American	European

Overview

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