

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 3.07 ▲	\$ 0.08 ▲	\$ 0.10

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 68.28 ▲	\$ 1.96 ▲	\$ 1.9

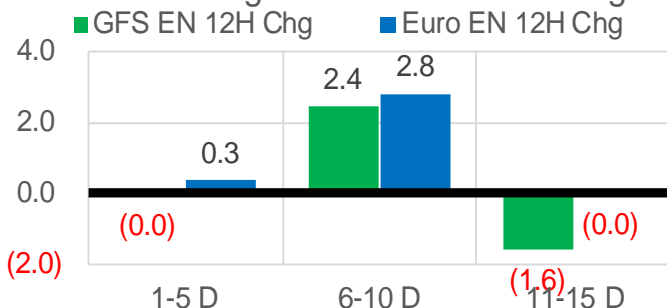
	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 70.86 ▲	\$ 1.54 ▲	\$ 1.5

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- [Supply – Demand Trends](#)
- [Nat Gas Options Volume and Open Interest](#)
- [Nat Gas Futures Open Interest](#)
- [Price Summary](#)

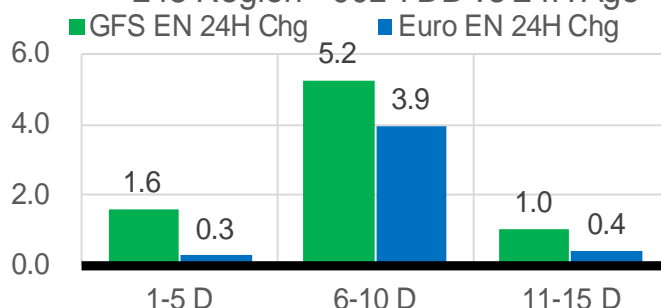
Vs. 12H Ago

L48 Region - 00z TDD vs 12H Ago



Vs. 24H Ago

L48 Region - 00z TDD vs 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	89.6 ▼	-1.74 ▼	-1.94

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	29.6 ▲	3.24 ▲	1.37

	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.7 ▼	-2.37 ▼	-3.61

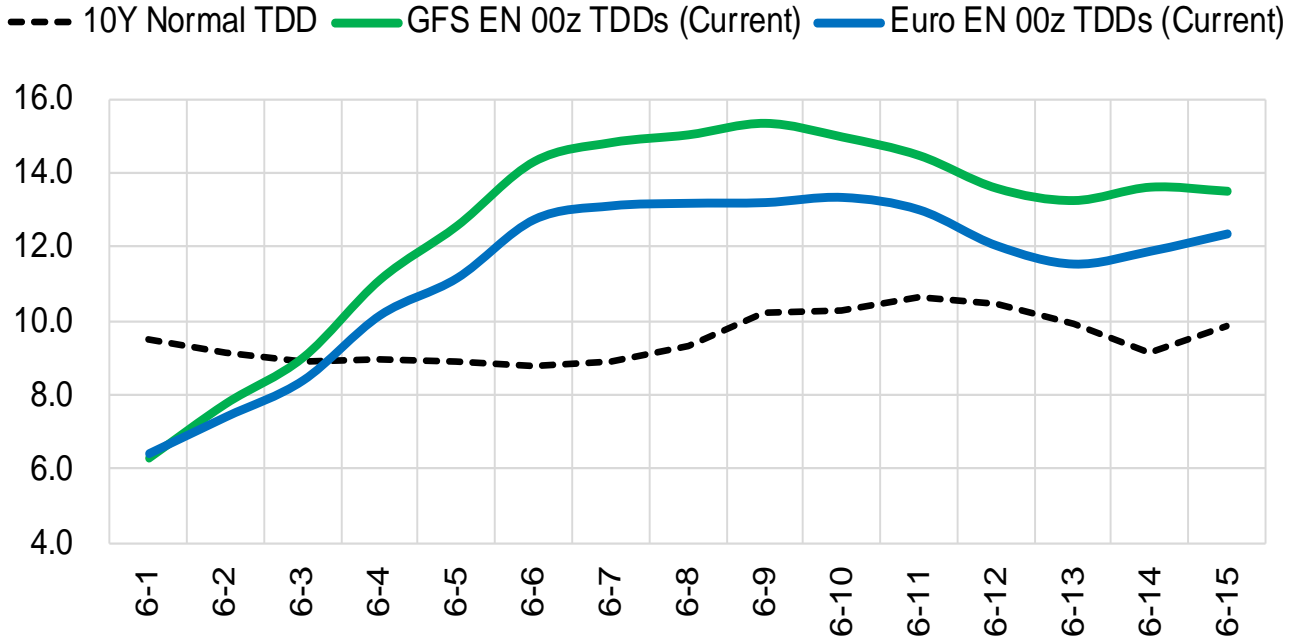
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.5 ▼	-0.38 ▼	-0.69

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.1 ▼	-0.02 ▲	0.54

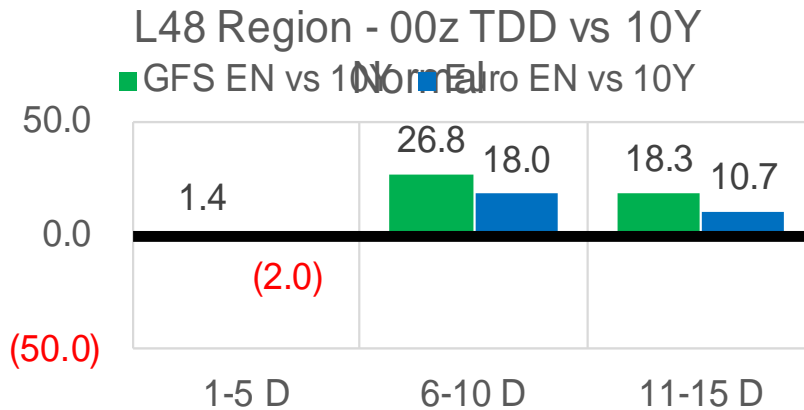
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.9 ▼	-0.08 ▼	-0.07

Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	26-May	27-May	28-May	29-May	30-May	31-May	1-Jun	DoD	vs. 7D
Lower 48 Dry Production	91.8	91.8	91.5	91.2	91.6	91.4	89.6	▼ -1.7	▼ -1.9
Canadian Imports	4.7	4.5	3.7	3.8	3.8	3.8	3.5	▼ -0.4	▼ -0.6
L48 Power	32.1	30.8	27.1	25.0	25.1	26.4	29.6	▲ 3.2	▲ 1.8
L48 Residential & Commercial	9.1	11.1	14.8	16.2	15.0	11.0	8.7	▼ -2.4	▼ -4.2
L48 Industrial	19.4	19.2	18.7	18.0	17.3	16.7	16.6	▼ -0.1	▼ -1.6
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.0	5.0	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.1	2.1	2.1	2.1	2.0	1.9	1.9	▼ 0.0	▼ -0.2
L48 Regional Gas Consumption	67.7	68.4	67.7	66.3	64.5	61.0	61.7	▲ 0.7	▼ -4.2
Net LNG Delivered	9.58	10.30	10.79	11.23	11.27	11.16	11.14	▼ 0.0	▲ 0.4
Total Mexican Exports	6.9	7.1	7.3	7.0	6.7	7.0	6.9	▼ -0.1	▼ -0.1
Implied Daily Storage Activity	12.2	10.5	9.4	10.5	12.9	16.0	13.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	23-Apr	30-Apr	7-May	14-May	21-May	28-May	WoW	vs. 4W
Lower 48 Dry Production	90.7	91.2	91.3	91.5	91.4	92.1	▲ 0.7	▲ 0.7
Canadian Imports	5.4	4.6	4.6	4.8	4.6	4.5	▼ -0.1	▼ -0.2
L48 Power	25.7	26.5	26.6	26.0	26.6	29.8	▲ 3.2	▲ 3.3
L48 Residential & Commercial	24.2	16.7	13.9	18.2	10.5	9.4	▼ -1.1	▼ -5.4
L48 Industrial	19.3	19.5	19.8	18.1	20.1	19.8	▼ -0.3	▲ 0.4
L48 Lease and Plant Fuel	4.9	5.0	5.0	5.0	5.0	5.0	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	2.5	2.1	2.1	2.3	1.9	2.0	▲ 0.1	▼ -0.1
L48 Regional Gas Consumption	76.7	69.9	67.4	69.6	64.1	66.0	▲ 1.9	▼ -1.7
Net LNG Exports	11.6	11.4	11.3	11.0	10.4	10.5	▲ 0.1	▼ -0.5
Total Mexican Exports	6.8	6.7	6.7	6.8	6.8	6.8	▼ 0.0	▲ 0.0
Implied Daily Storage Activity	1.0	7.9	10.5	9.0	14.7	13.3	-1.4	
EIA Reported Daily Storage Activity	2.1	8.6	10.1	10.1	16.4			
Daily Model Error	-1.2	-0.7	0.4	-1.2	-1.7			

Monthly Balances

	2Yr Ago Jun-19	LY Jun-20	Jan-21	Feb-21	Mar-21	Apr-21	MTD May-21	MoM	vs. LY
Lower 48 Dry Production	91.5	87.7	91.6	84.6	91.8	91.4	91.6	▲ 0.2	▲ 7.1
Canadian Imports	4.7	4.0	6.3	6.4	4.8	4.7	4.0	▼ -0.6	▼ -2.3
L48 Power	33.1	34.9	28.2	27.7	24.3	25.0	24.0	▼ -1.0	▼ -3.7
L48 Residential & Commercial	9.0	8.8	43.9	48.1	29.3	20.0	13.3	▼ -6.7	▼ -34.8
L48 Industrial	22.5	19.9	24.3	21.6	19.7	20.3	19.7	▼ -0.6	▼ -1.9
L48 Lease and Plant Fuel	5.0	4.8	5.1	4.7	5.0	5.0	5.0	▲ 0.0	▲ 0.4
L48 Pipeline Distribution	2.1	2.2	3.2	3.3	2.5	2.2	1.9	▼ -0.3	▼ -1.4
L48 Regional Gas Consumption	71.7	70.7	104.7	105.3	80.9	72.5	63.9	▼ -8.6	▼ -41.4
Net LNG Exports	5.5	4.0	10.5	8.4	11.1	11.5	11.3	▼ -0.2	▲ 2.9
Total Mexican Exports	5.2	5.5	6.2	5.7	6.5	6.7	6.5	▼ -0.2	▲ 0.8
Implied Daily Storage Activity	13.8	11.5	-23.5	-28.5	-2.0	5.4	14.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 28-May

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	13.0	1.4	14.4	101
East	3.3	0.8	4.1	29
Midwest	4.8	-0.4	4.4	31
Mountain	4.3	-3.2	1.0	7
South Central	-1.2	4.6	3.4	24
Pacific	1.8	-0.4	1.4	10

*Adjustment Factor is calculated based on historical regional deltas

U.S. underground natural gas storage facilities by type (July 2015)

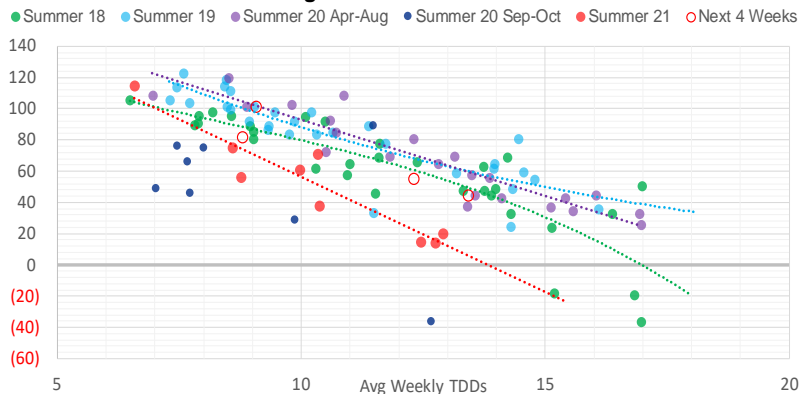


Weather Model Storage Projection

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
28-May	9.1	101
04-Jun	8.8	81
11-Jun	13.4	44
18-Jun	12.3	55

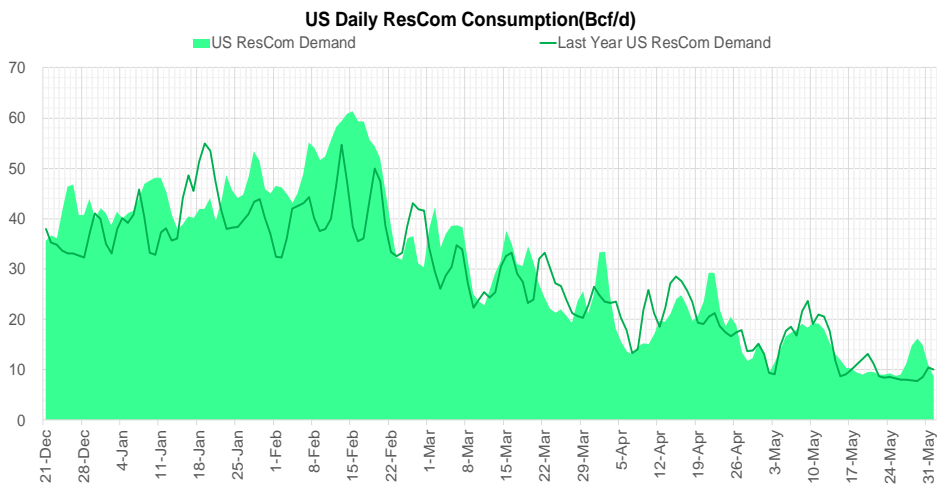
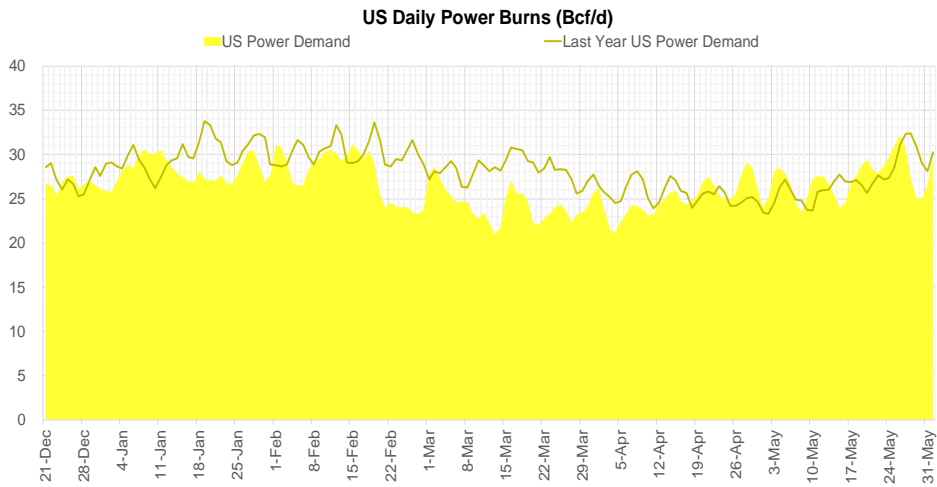
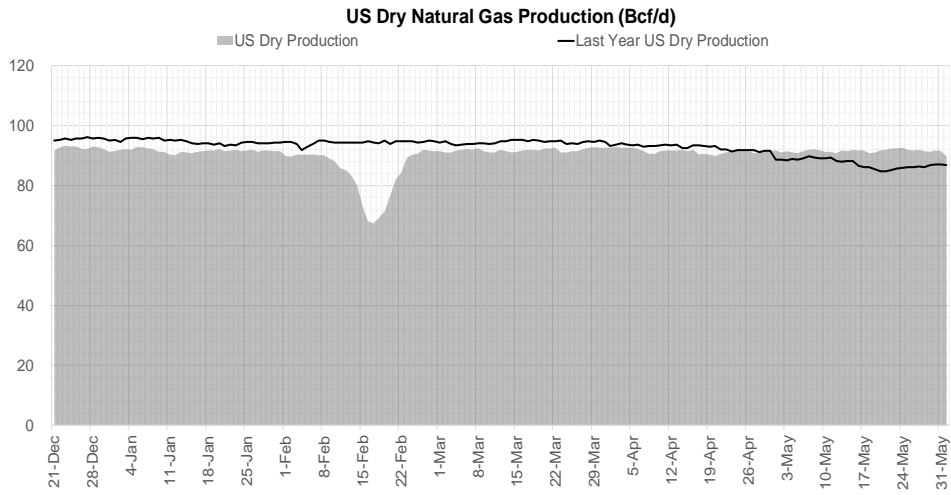
Weather Storage Model - Next 4 Week Forecast



Go to larger image



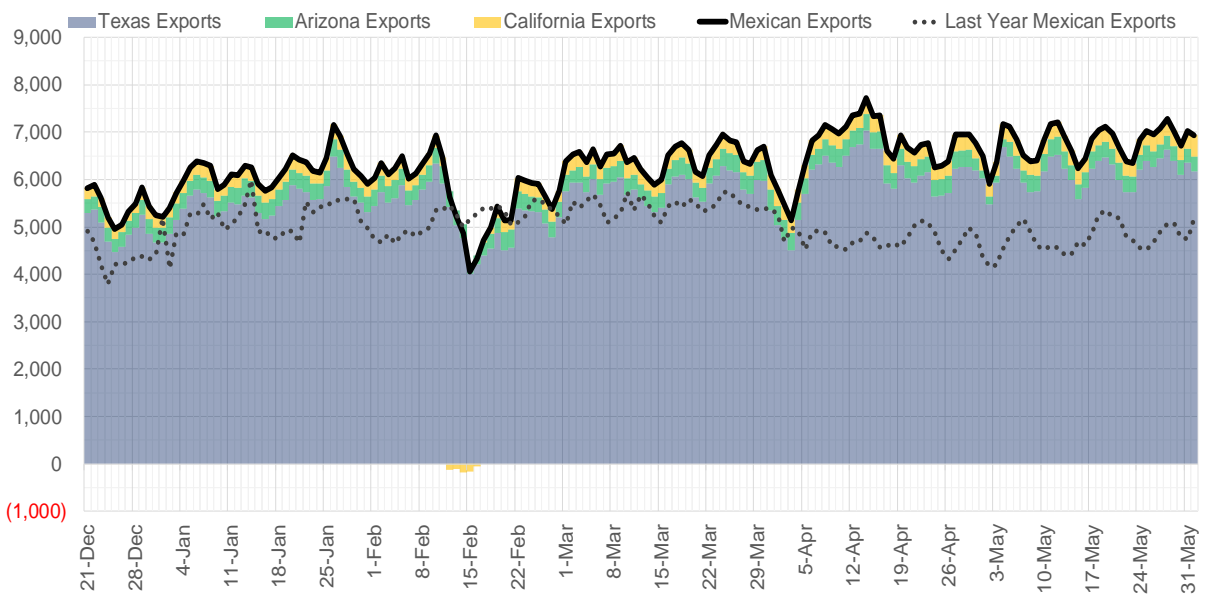
Supply – Demand Trends



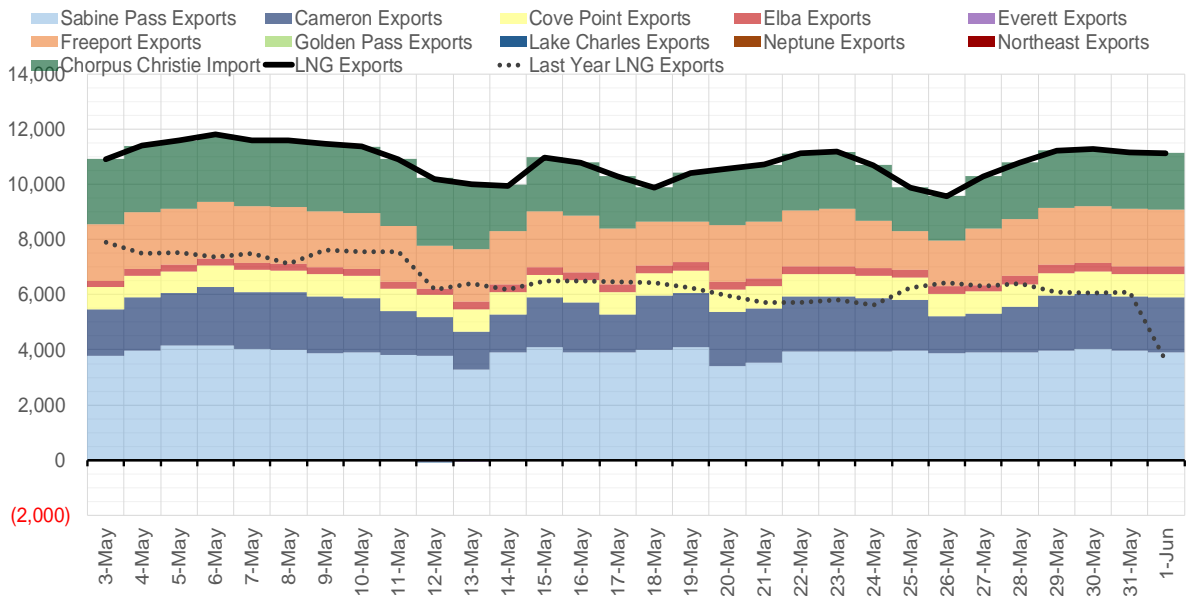
Source: Bloomberg

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Mexican Exports (MMcf/d)



Net LNG Exports - Last 30 days (MMcf/d)



Source: Bloomberg

The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

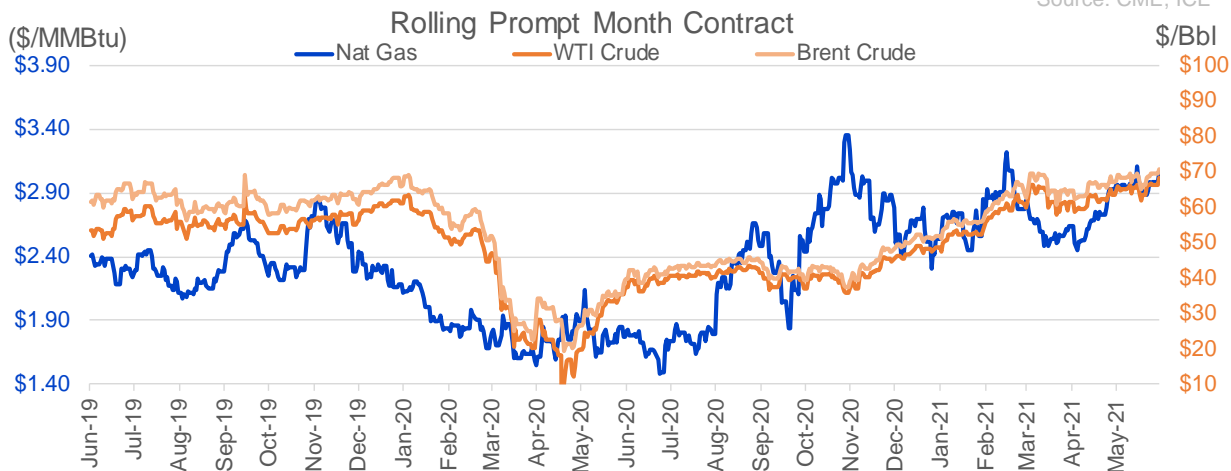
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
7	2021	P	2.90	10303	10	2021	C	4.00	40561
7	2021	P	2.80	10256	8	2021	C	3.50	35068
7	2021	P	2.75	8035	9	2021	C	4.00	33043
10	2021	P	2.00	4300	7	2021	C	3.50	33025
7	2021	C	3.10	3543	8	2021	C	3.25	32934
10	2021	P	2.25	3129	10	2021	C	3.25	30371
7	2021	C	3.25	3041	10	2021	P	2.50	29377
7	2021	C	3.20	2574	10	2021	C	5.00	27284
7	2021	C	3.75	2103	7	2021	C	4.00	26676
8	2021	C	3.25	2088	7	2021	P	2.50	26223
7	2021	C	3.00	2041	7	2021	C	3.25	26081
1	2022	P	2.75	2000	10	2021	C	3.50	25561
8	2021	C	3.50	1526	7	2021	P	2.80	25380
9	2021	P	2.50	1525	8	2021	C	4.00	24427
7	2021	P	2.70	1415	7	2021	P	2.75	23815
7	2021	C	3.50	1373	8	2021	P	2.50	21689
7	2021	C	3.15	1367	9	2021	C	3.50	21414
9	2021	C	4.00	1308	12	2021	C	4.00	20853
10	2021	C	3.25	1100	8	2021	P	2.00	20589
9	2021	P	2.25	1000	9	2021	P	2.00	20412
3	2022	C	3.20	1000	7	2021	C	3.00	20186
3	2022	C	3.60	1000	9	2021	P	2.50	20155
3	2022	P	2.50	1000	9	2021	C	3.25	20034
3	2022	P	2.70	1000	4	2022	C	3.00	19685
7	2021	P	3.00	808	8	2021	P	2.25	19386
7	2021	P	2.85	793	10	2021	C	3.00	19240
7	2021	P	2.60	728	11	2021	C	4.00	18162
8	2021	C	3.30	725	10	2021	P	2.00	18063
8	2021	C	3.05	681	10	2021	P	2.25	17652
9	2021	C	3.10	675	8	2021	C	3.75	16871
10	2021	C	3.05	620	7	2021	P	2.70	16797
8	2021	P	2.75	613	3	2022	C	4.00	16695
10	2021	P	2.75	601	8	2021	P	2.75	16382
9	2021	P	2.20	600	8	2021	C	3.00	16308
7	2021	C	3.05	578	7	2021	P	2.00	16035
7	2021	C	4.00	500	10	2021	P	2.75	15248
10	2021	C	3.30	500	3	2022	C	3.00	14519
8	2021	P	3.00	480	10	2021	C	4.50	14354
8	2021	C	3.45	472	3	2022	C	5.00	14200
10	2021	C	3.40	450	7	2021	P	3.00	14183
9	2021	C	3.25	447	10	2021	C	6.00	13996
7	2021	P	2.50	421	12	2021	P	2.00	13884
8	2021	P	2.50	406	9	2021	P	1.90	13733
7	2021	C	2.95	395	7	2021	P	2.25	13539
7	2021	P	2.95	364	7	2021	C	3.75	13515
8	2021	C	3.85	361	7	2021	P	2.65	13485
7	2021	P	2.65	359	5	2022	C	3.00	13355
12	2021	P	2.25	329	1	2022	C	4.00	13216
9	2021	P	2.75	302	6	2022	C	3.00	13068
					10	2022	C	3	12856

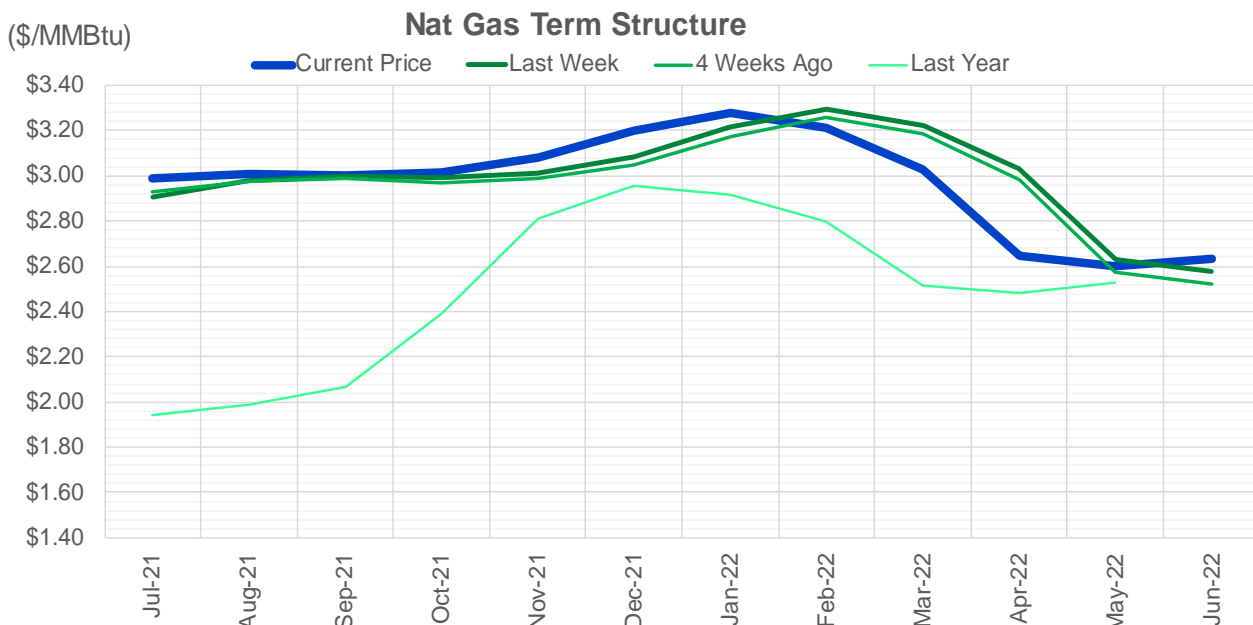
Source: CME, ICE

Nat Gas Futures Open Interest CME, and ICE Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MMBtu)			
	Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 21	307798	310761	-2963	JUL 21	100526	100342	183
AUG 21	93890	90044	3846	AUG 21	80445	80694	-249
SEP 21	148050	145090	2960	SEP 21	77592	77795	-203
OCT 21	133029	133696	-667	OCT 21	92504	92636	-132
NOV 21	75887	76228	-341	NOV 21	70582	70582	0
DEC 21	52543	52620	-77	DEC 21	65216	65216	0
JAN 22	81586	82259	-673	JAN 22	71714	71722	-8
FEB 22	30554	30537	17	FEB 22	57517	57531	-14
MAR 22	54138	55524	-1386	MAR 22	60072	60072	0
APR 22	55935	56627	-692	APR 22	52886	52886	0
MAY 22	37437	37542	-105	MAY 22	47182	47182	0
JUN 22	21050	21214	-164	JUN 22	43673	43673	0
JUL 22	11788	11647	141	JUL 22	44499	44499	0
AUG 22	10662	10320	342	AUG 22	42506	42506	0
SEP 22	11284	11155	129	SEP 22	42870	42870	0
OCT 22	28396	28286	110	OCT 22	48267	48267	0
NOV 22	11818	11717	101	NOV 22	38105	38105	0
DEC 22	11381	11349	32	DEC 22	43302	43302	0
JAN 23	6015	6020	-5	JAN 23	24624	24624	0
FEB 23	2870	2816	54	FEB 23	22497	22497	0
MAR 23	5714	5708	6	MAR 23	24453	24453	0
APR 23	6187	5940	247	APR 23	20356	20356	0
MAY 23	4499	4499	0	MAY 23	20020	20020	0
JUN 23	965	965	0	JUN 23	18531	18531	0
JUL 23	1098	1098	0	JUL 23	18471	18471	0
AUG 23	847	847	0	AUG 23	18579	18579	0
SEP 23	777	777	0	SEP 23	17997	17997	0
OCT 23	1721	1721	0	OCT 23	18803	18803	0
NOV 23	684	684	0	NOV 23	18306	18306	0
DEC 23	1040	1040	0	DEC 23	18704	18704	0

Source: CME, ICE





	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Current Price	\$2.986	\$3.007	\$3.002	\$3.017	\$3.080	\$3.198	\$3.279	\$3.210	\$3.026	\$2.646	\$2.598	\$2.632
Last Week	\$2.906	\$2.977	\$2.996	\$2.993	\$3.013	\$3.087	\$3.215	\$3.295	\$3.225	\$3.031	\$2.631	\$2.576
vs. Last Week	\$0.080	\$0.030	\$0.006	\$0.024	\$0.067	\$0.111	\$0.064	-\$0.085	-\$0.199	-\$0.385	-\$0.033	\$0.056
4 Weeks Ago	\$2.931	\$2.978	\$2.989	\$2.972	\$2.987	\$3.048	\$3.175	\$3.259	\$3.184	\$2.980	\$2.574	\$2.521
vs. 4 Weeks Ago	\$0.055	\$0.029	\$0.013	\$0.045	\$0.093	\$0.150	\$0.104	-\$0.049	-\$0.158	-\$0.334	\$0.024	\$0.111
Last Year	\$1.849	\$1.940	\$1.988	\$2.068	\$2.389	\$2.811	\$2.955	\$2.919	\$2.798	\$2.512	\$2.484	\$2.526
vs. Last Year	\$1.137	\$1.067	\$1.014	\$0.949	\$0.691	\$0.387	\$0.324	\$0.291	\$0.228	\$0.134	\$0.114	\$0.106

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	2.45	2.31	-0.14
TETCO M3	\$/MMBtu	2.33	2.25	-0.08
FGT Zone 3	\$/MMBtu	2.36	2.96	0.60
Zone 6 NY	\$/MMBtu	2.36	2.20	-0.16
Chicago Citygate	\$/MMBtu	2.77	2.81	0.04
Michcon	\$/MMBtu	2.80	2.76	-0.04
Columbia TCO Pool	\$/MMBtu	2.47	2.44	-0.03
Ventura	\$/MMBtu	2.66	2.72	0.06
Rockies/Opal	\$/MMBtu	2.72	2.71	-0.01
El Paso Permian Basin	\$/MMBtu	2.62	2.76	0.14
Socal Citygate	\$/MMBtu	3.51	3.45	-0.06
Malin	\$/MMBtu	2.78	2.94	0.16
Houston Ship Channel	\$/MMBtu	2.74	2.97	0.23
Henry Hub Cash	\$/MMBtu	2.84	2.74	-0.10
AECO Cash	C\$/GJ	2.57	2.48	-0.09
Station2 Cash	C\$/GJ	2.48	2.85	0.37
Dawn Cash	C\$/GJ	2.83	2.74	-0.09

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.031	▼ -0.005	▲ 0.022	▲ 0.033
NatGas Oct21/Nov21	\$/MMBtu	0.063	▼ -0.011	▲ 0.002	▲ 0.017
NatGas Oct21/Jan22	\$/MMBtu	0.262	▼ -0.020	▼ -0.010	▼ -0.019
NatGas Apr22/Oct22	\$/MMBtu	0.035	▲ 0.006	▲ 0.013	▼ -0.026
WTI Crude	\$/Bbl	66.32	▲ 2.740	▲ 2.740	▲ 30.830
Brent Crude	\$/Bbl	69.63	▲ 3.190	▲ 2.380	▲ 34.300
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	204.45	▲ 5.630	▲ 12.340	▲ 107.980
Propane, Mt. Bel	cents/Gallon	0.82	▲ 0.011	▲ 0.007	▲ 0.413
Ethane, Mt. Bel	cents/Gallon	0.26	▲ 0.001	▲ 0.024	▲ 0.037
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.000
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▲ 0.000
Coal, ILB	\$/MMBtu	1.32			

Weather Storage Model - Next 4 Week Forecast

● Summer 18
 ● Summer 19
 ● Summer 20 Apr-Aug
 ● Summer 20 Sept-Oct
 ● Summer 21
 ○ Next 4 Weeks

