

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.76	▼ \$ (0.09)	▼ \$ (0.04)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 35.42	▼ \$ (0.07)	▲ \$ 1.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 38.12	▲ \$ 2.79	▲ \$ 2.7

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00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	3.5	-4.5	5.5	4.5
24 Hr Chg	3.1	-10.0	4.5	-2.4

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.5	-4.1	-0.7	-3.2
24 Hr Chg	4.6	-9.0	-5.8	-10.3

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	82.7	▼ -2.26	▼ -1.75

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	30.9	▲ 2.28	▼ -0.12

	Current	Δ from YD	Δ from 7D Avg
US ResComm	9.2	▼ -0.92	▲ 1.00

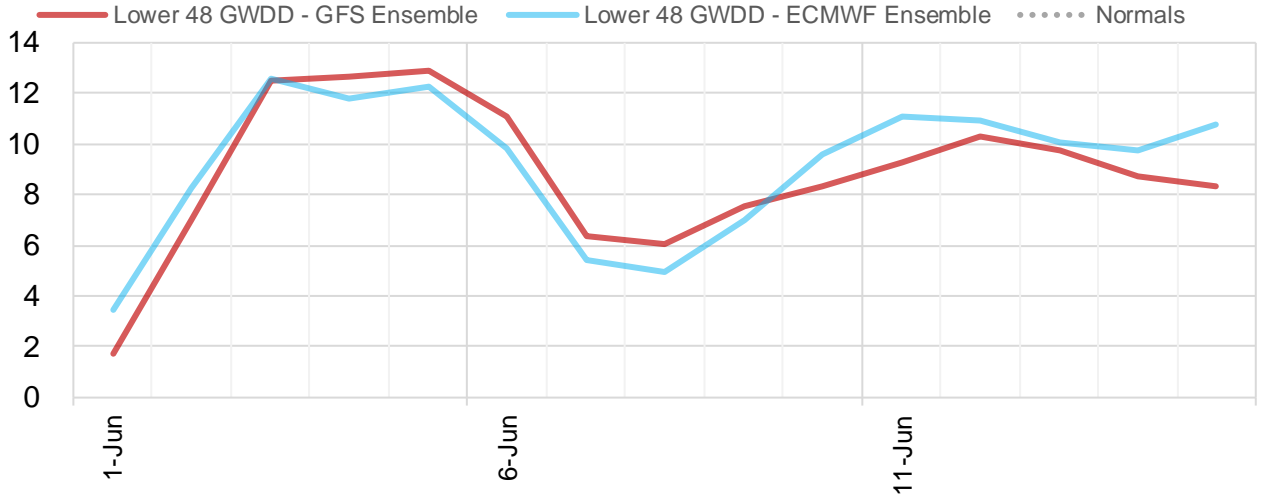
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.9	▼ -0.05	▼ -0.35

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	4.1	▼ -1.99	▼ -2.12

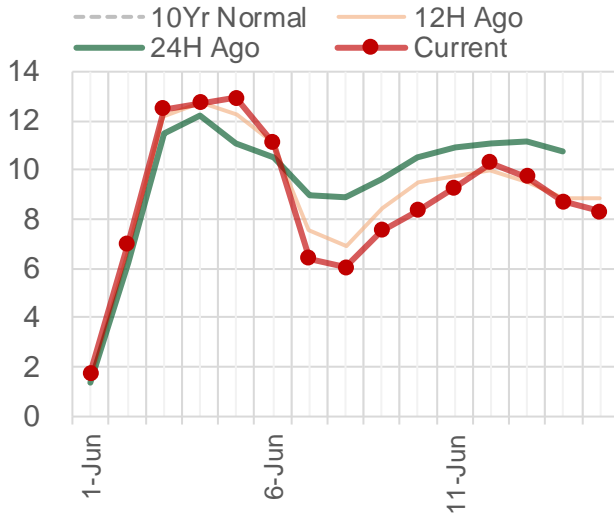
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.5	▲ 0.59	▲ 0.39

Short-term Weather Model Outlooks (00z)

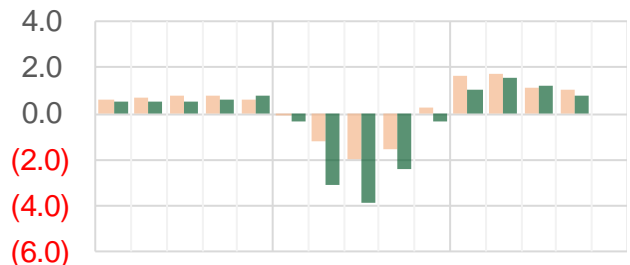
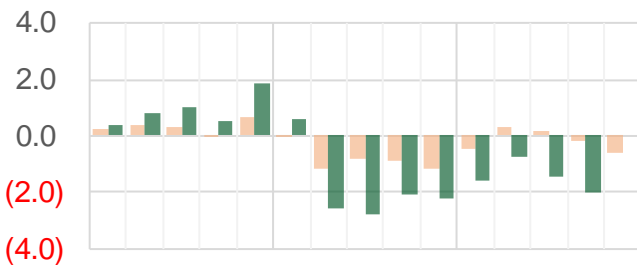
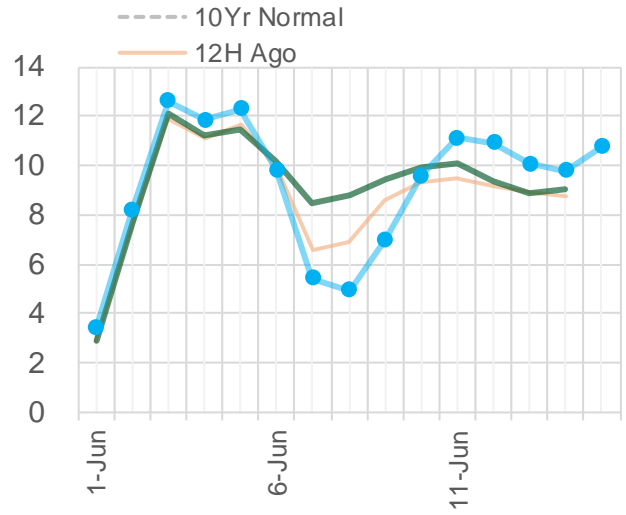
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



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	84.2	84.0	83.9	84.9	85.0	85.0	82.7	▼ -2.3	▼ -1.8
Canadian Imports	4.1	4.8	4.8	4.2	4.0	3.9	3.9	▼ -0.1	▼ -0.4
L48 Power	32.5	33.1	33.0	31.7	29.1	28.6	30.9	▲ 2.3	▼ -0.5
L48 Residential & Commercial	7.9	7.9	7.7	7.6	8.3	10.2	9.2	▼ -0.9	▲ 1.0
L48 Industrial	18.7	18.8	19.0	18.9	18.9	19.1	18.8	▼ -0.3	▼ -0.1
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.7	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.0	2.0	2.0	1.9	1.8	1.9	1.9	▲ 0.0	▼ 0.0
L48 Regional Gas Consumption	65.8	66.5	66.5	64.9	62.9	64.5	65.5	▲ 1.0	▲ 0.3
Net LNG Exports	6.4	6.3	6.4	6.1	6.0	6.1	4.1	▼ -2.0	▼ -2.1
Total Mexican Exports	4.8	5.0	5.2	5.5	5.1	4.9	5.5	▲ 0.6	▲ 0.4
Implied Daily Storage Activity	11.2	11.0	10.5	12.5	14.9	13.4	11.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	24-Apr	1-May	8-May	15-May	22-May	29-May	WoW	vs. 4W
Lower 48 Dry Production	91.1	89.9	87.0	86.5	83.9	83.9	▼ 0.0	▼ -2.9
Canadian Imports	3.9	3.4	3.6	4.0	4.1	4.1	▲ 0.0	▲ 0.3
L48 Power	25.3	24.8	24.6	25.0	26.7	30.0	▲ 3.3	▲ 4.8
L48 Residential & Commercial	22.4	16.8	14.5	19.3	10.8	8.2	▼ -2.6	▼ -7.2
L48 Industrial	18.7	18.4	18.7	17.3	18.8	18.7	▼ -0.2	▲ 0.4
L48 Lease and Plant Fuel	5.1	5.1	4.9	4.8	4.7	4.7	▲ 0.0	▼ -0.2
L48 Pipeline Distribution	2.3	2.0	1.9	2.2	1.9	1.9	▲ 0.0	▼ -0.1
L48 Regional Gas Consumption	73.9	67.0	64.6	68.6	62.8	63.5	▲ 0.6	▼ -2.3
Net LNG Exports	8.1	7.5	7.7	6.9	6.3	6.1	▼ -0.2	▼ -1.0
Total Mexican Exports	5.0	4.8	4.7	4.7	5.2	5.0	▼ -0.2	▲ 0.1
Implied Daily Storage Activity	8.0	13.9	13.5	10.3	13.7	13.5	-0.2	
EIA Reported Daily Storage Activity	10.0	15.6	14.7	11.6	15.6			
Daily Model Error	-2.0	-1.6	-1.2	-1.3	-1.8			

Monthly Balances

	2Yr Ago Jun-18	LY Jun-19	Jan-20	Feb-20	Mar-20	Apr-20	MTD May-20	MoM	vs. LY
Lower 48 Dry Production	81.6	89.6	92.6	91.8	92.2	91.2	86.9	▼ -4.3	▼ -2.6
Canadian Imports	5.6	4.7	4.8	5.3	4.1	3.9	3.3	▼ -0.6	▼ -1.4
L48 Power	31.8	33.0	29.9	30.1	28.3	25.7	23.0	▼ -2.7	▼ -10.0
L48 Residential & Commercial	8.6	9.0	41.2	40.4	27.7	21.6	13.6	▼ -7.9	▲ 4.7
L48 Industrial	21.3	21.4	24.5	24.6	21.6	18.8	18.6	▼ -0.3	▼ -2.8
L48 Lease and Plant Fuel	4.5	5.0	5.3	5.2	5.2	5.2	4.9	▼ -0.3	▼ -0.2
L48 Pipeline Distribution	1.9	2.0	3.0	3.0	2.5	2.3	1.8	▼ -0.5	▼ -0.2
L48 Regional Gas Consumption	68.2	70.4	104.0	103.3	85.4	73.5	61.9	▼ -11.7	▼ -8.5
Net LNG Exports	3.2	5.5	8.3	8.5	8.5	8.2	8.0	▼ -0.2	▲ 2.5
Total Mexican Exports	4.5	5.3	5.2	5.3	5.6	4.9	4.5	▼ -0.4	▼ -0.8
Implied Daily Storage Activity	11.3	13.1	-20.1	-20.0	-3.1	8.4	15.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 29-May

	Daily Raw Storage	Daily Adjustment Factor	Daily Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	13.3	1.8	15.1	105
East	2.9	2.8	5.8	40
Midwest	3.7	0.7	4.4	31
Mountain	3.3	-2.0	1.2	9
South Central	1.7	0.9	2.6	18
Pacific	1.7	-0.7	1.0	7

*Adjustment Factor is calculated based on historical regional deltas

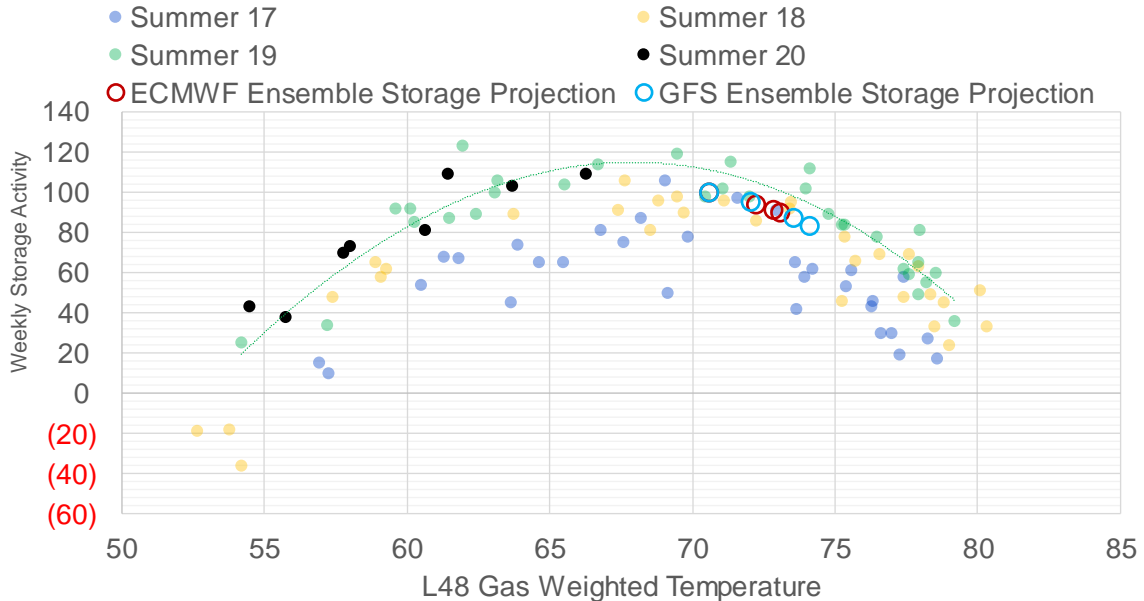
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

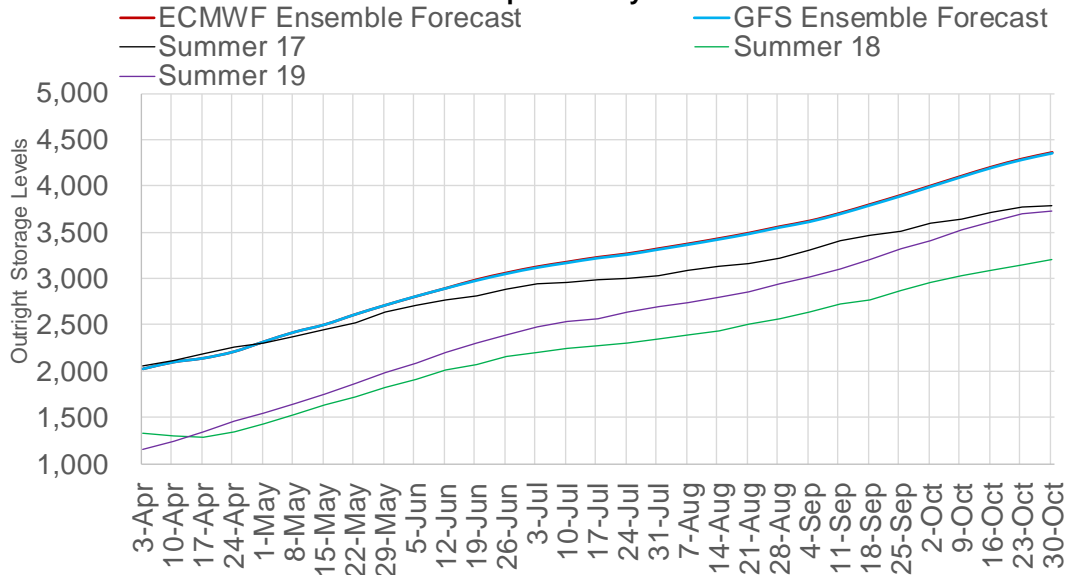
Week Ending	Week Storage Projection
29-May	100
5-Jun	95
12-Jun	88
19-Jun	87

Weather Storage Model - Next 4 Week Forecast



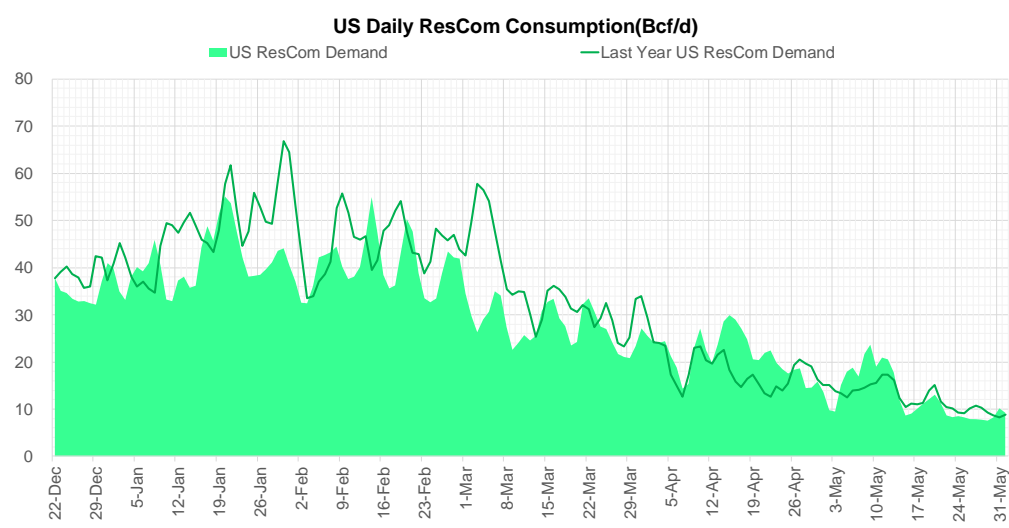
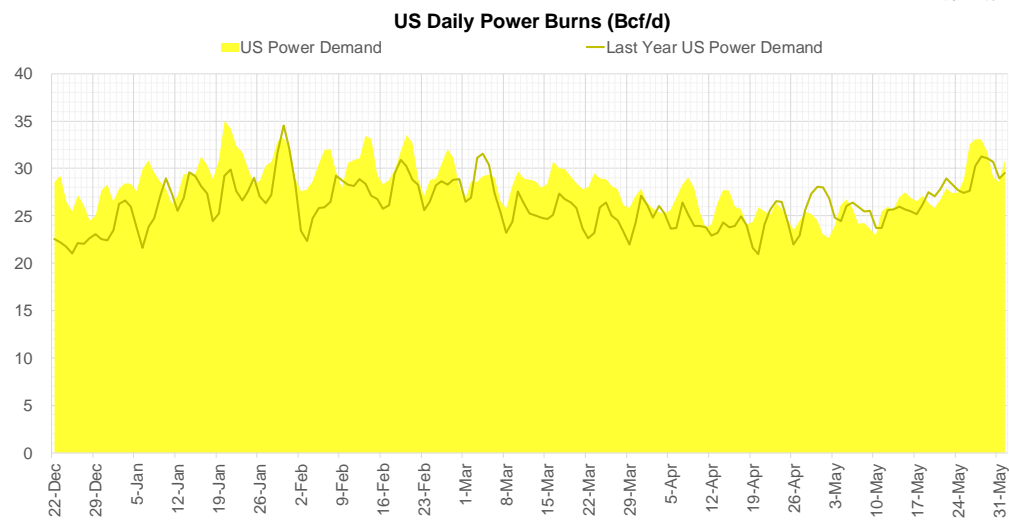
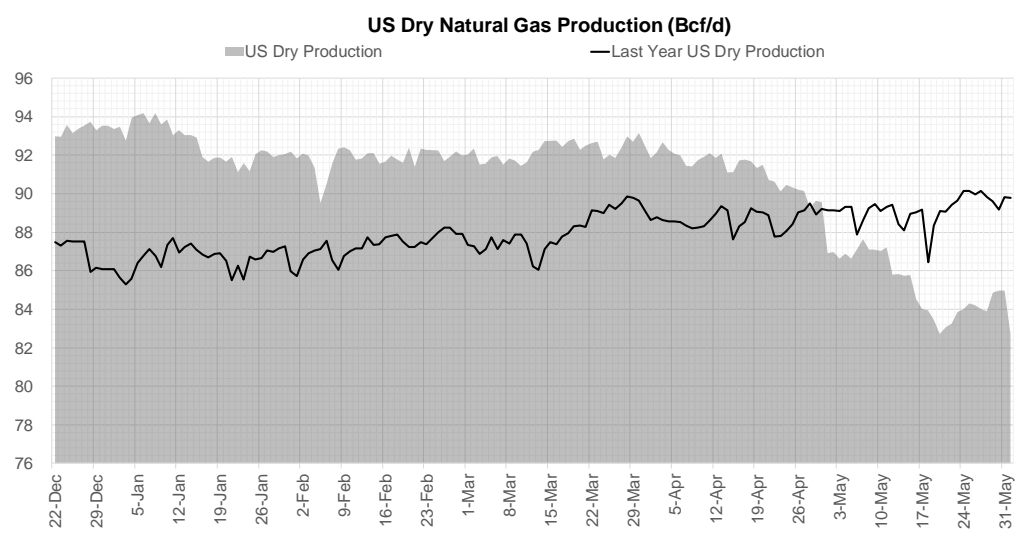
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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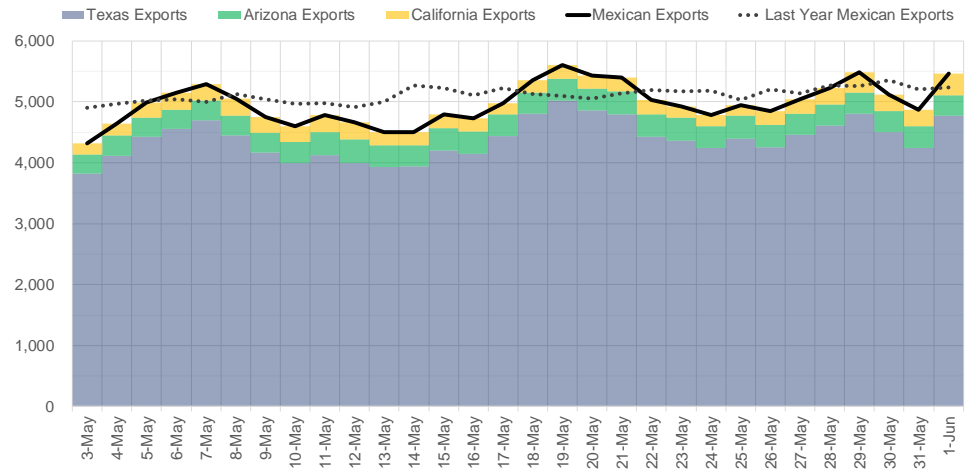
Supply – Demand Trends



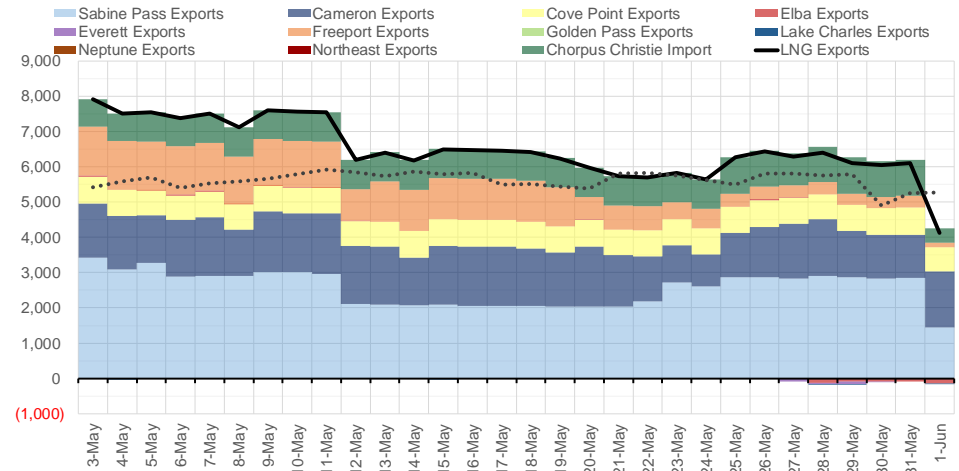
Source: Bloomberg

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Mexican Exports - Last 30 days (MMcf/d)



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



Source: Bloomberg

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

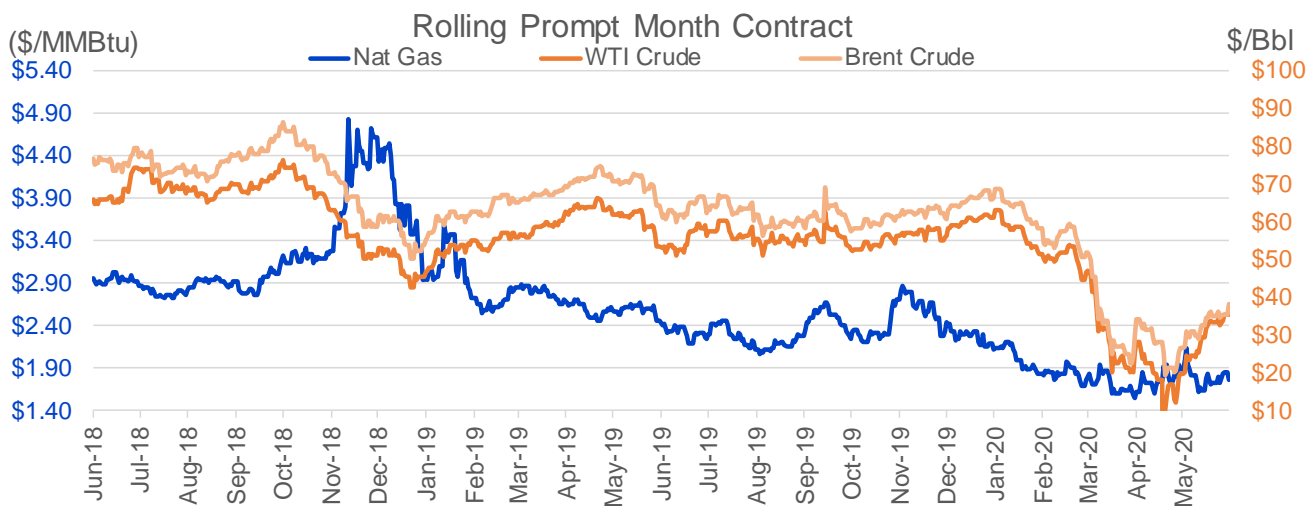
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
7	2020	C	2.00	6099	10	2020	P	1.50	35150
7	2020	C	2.20	5231	3	2021	P	2.00	32743
8	2020	C	2.50	4926	10	2020	C	3.00	32431
8	2020	P	1.50	4281	7	2020	P	1.50	31666
7	2020	P	1.70	4224	10	2020	P	1.60	30634
7	2020	P	1.75	4155	10	2020	C	2.75	30072
3	2021	C	9.00	3500	7	2020	P	1.75	29972
8	2020	C	2.25	3347	10	2020	P	2.00	27512
7	2020	C	1.90	3153	9	2020	C	2.50	25319
7	2020	C	2.25	2797	10	2020	C	2.50	25254
8	2020	P	1.25	2619	7	2020	C	2.50	24177
7	2020	P	1.50	2555	10	2020	P	1.25	21956
9	2020	P	1.30	2524	9	2020	P	1.50	21641
7	2020	C	2.50	2296	9	2020	C	2.75	21116
8	2020	P	1.60	2136	8	2020	P	1.50	20355
7	2020	C	2.10	2068	10	2020	P	1.75	20266
10	2020	P	1.60	2052	7	2020	P	2.00	20244
8	2020	P	1.30	2042	7	2020	C	2.25	19753
9	2020	P	1.60	2001	7	2020	C	3.00	19521
10	2020	P	1.30	2000	8	2020	C	2.50	18364
10	2020	P	2.00	2000	1	2021	C	3.50	17982
8	2020	P	1.90	1951	10	2020	P	2.10	17913
7	2020	P	1.40	1778	11	2020	C	4.00	17864
8	2020	P	1.75	1702	7	2020	C	2.30	17757
8	2020	C	2.20	1587	1	2021	C	3.00	17548
9	2020	C	2.30	1526	10	2020	C	2.25	16813
10	2020	P	1.90	1389	7	2020	C	2.00	16797
9	2020	P	1.90	1372	10	2020	C	3.25	16627
10	2020	C	3.00	1370	7	2020	P	1.60	16590
8	2020	C	2.75	1317	7	2020	C	2.75	16487
1	2021	C	3.10	1250	7	2020	P	1.25	16433
3	2021	C	6.00	1250	9	2020	P	1.75	15451
8	2020	C	2.00	1208	8	2020	C	2.75	15189
10	2020	C	3.50	1200	3	2021	C	3.00	15107
9	2020	P	0.75	1000	9	2020	C	2.25	15045
9	2020	P	1.75	1000	4	2021	C	3.00	14664
9	2020	P	1.50	959	7	2020	P	1.00	14526
8	2020	P	1.80	824	10	2020	P	1.00	14359
9	2020	P	1.00	822	8	2020	P	1.00	14264
8	2020	C	3.00	804	8	2020	C	3.00	13896
1	2021	C	3.25	725	7	2020	C	2.35	13796
7	2020	P	1.80	703	9	2020	P	2.00	13794
10	2020	P	1.75	702	9	2020	C	3.00	13244
7	2020	C	2.30	701	8	2020	P	1.75	12889
7	2020	C	2.70	684	3	2021	C	7.00	12881
7	2020	P	1.55	645	9	2020	P	1.20	12801
10	2020	C	2.25	644	8	2020	P	1.20	12747
7	2020	P	1.65	629	3	2021	C	3.50	12585
8	2020	C	2.45	618	1	2021	P	2.50	12551
					1	2021	C	4.5	12352

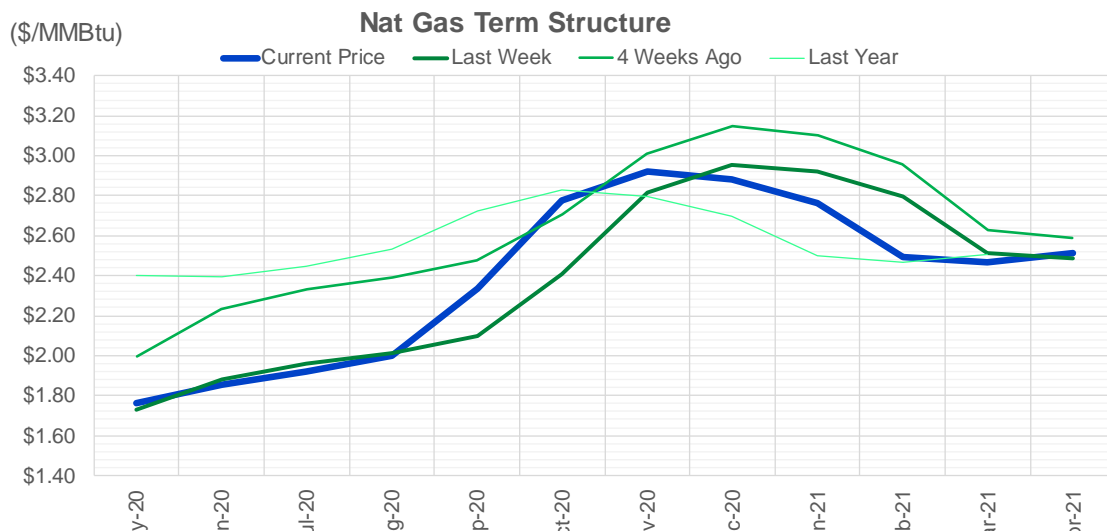
Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM)				NASDAQ Henry Hub Futures (10,000 MMBtu)			
	Current	Prior	Daily Change		Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 20	370212	360574	9638	JUL 20	89618	89154	463.75	JUL 20			
AUG 20	83503	80995	2508	AUG 20	67323	69054	-1730.5	AUG 20			
SEP 20	151706	153112	-1406	SEP 20	66143	65808	335	SEP 20			
OCT 20	113494	107280	6214	OCT 20	79290	75814	3476.25	OCT 20			
NOV 20	47543	47625	-82	NOV 20	60139	60121	18.75	NOV 20			
DEC 20	57920	57988	-68	DEC 20	57785	57659	125.25	DEC 20			
JAN 21	102937	99916	3021	JAN 21	70994	70199	795.75	JAN 21			
FEB 21	36328	36953	-625	FEB 21	44012	43759	253.25	FEB 21			
MAR 21	62359	62179	180	MAR 21	59913	59692	220.75	MAR 21			
APR 21	70093	70697	-604	APR 21	51262	51449	-187.5	APR 21			
MAY 21	25785	26128	-343	MAY 21	44278	44286	-7.75	MAY 21			
JUN 21	16594	16525	69	JUN 21	41878	41745	132.5	JUN 21			
JUL 21	12610	12596	14	JUL 21	43094	43019	74.75	JUL 21			
AUG 21	10620	10739	-119	AUG 21	43734	43611	123	AUG 21			
SEP 21	11690	11749	-59	SEP 21	41217	41077	140	SEP 21			
OCT 21	25200	24847	353	OCT 21	52609	52479	130.25	OCT 21			
NOV 21	16757	16739	18	NOV 21	35868	35852	16.5	NOV 21			
DEC 21	13651	13727	-76	DEC 21	36266	36204	62.25	DEC 21			
JAN 22	11376	11308	68	JAN 22	27985	27867	117.75	JAN 22			
FEB 22	8150	7994	156	FEB 22	24858	24793	64.5	FEB 22			
MAR 22	13651	13517	134	MAR 22	26552	26441	110.25	MAR 22			
APR 22	10853	10846	7	APR 22	23328	23226	102	APR 22			
MAY 22	4402	4386	16	MAY 22	20891	20808	83	MAY 22			
JUN 22	2072	2068	4	JUN 22	20384	20222	162	JUN 22			
JUL 22	1810	1807	3	JUL 22	21018	20947	71.25	JUL 22			
AUG 22	1269	1262	7	AUG 22	20681	20591	89.75	AUG 22			
SEP 22	1332	1326	6	SEP 22	20490	20485	4.5	SEP 22			
OCT 22	1904	1898	6	OCT 22	23328	23250	78	OCT 22			
NOV 22	1369	1362	7	NOV 22	18444	18383	61.5	NOV 22			
DEC 22	1284	1274	10	DEC 22	19500	19437	63.75	DEC 22			

Source: CME, Nasdaq, ICE





	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Current Price	\$1.761	\$1.857	\$1.917	\$1.999	\$2.334	\$2.777	\$2.920	\$2.883	\$2.766	\$2.492	\$2.466	\$2.510
Last Week	\$1.731	\$1.881	\$1.958	\$2.013	\$2.095	\$2.408	\$2.817	\$2.957	\$2.920	\$2.795	\$2.511	\$2.485
vs. Last Week	\$0.030	-\$0.024	-\$0.041	-\$0.014	\$0.239	\$0.369	\$0.103	-\$0.074	-\$0.154	-\$0.303	-\$0.045	\$0.025
4 Weeks Ago	\$1.993	\$2.230	\$2.330	\$2.390	\$2.479	\$2.707	\$3.010	\$3.146	\$3.101	\$2.956	\$2.627	\$2.590
vs. 4 Weeks Ago	-\$0.232	-\$0.373	-\$0.413	-\$0.391	-\$0.145	\$0.070	-\$0.090	-\$0.263	-\$0.335	-\$0.464	-\$0.161	-\$0.080
Last Year	\$2.403	\$2.403	\$2.392	\$2.446	\$2.536	\$2.722	\$2.832	\$2.796	\$2.696	\$2.498	\$2.470	\$2.504
vs. Last Year	-\$0.642	-\$0.546	-\$0.475	-\$0.447	-\$0.202	\$0.055	\$0.088	\$0.087	\$0.070	-\$0.006	-\$0.004	\$0.006

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.60	1.44	-0.16
TETCO M3	\$/MMBtu	1.31	1.42	0.11
FGT Zone 3	\$/MMBtu	1.25	1.76	0.51
Zone 6 NY	\$/MMBtu	1.25	1.40	0.16
Chicago Citygate	\$/MMBtu	1.51	1.66	0.15
Michcon	\$/MMBtu	1.60	1.64	0.04
Columbia TCO Pool	\$/MMBtu	1.44	1.50	0.06
Ventura	\$/MMBtu	1.61	1.63	0.02
Rockies/Opal	\$/MMBtu	1.51	1.50	-0.01
El Paso Permian Basin	\$/MMBtu	1.46	1.45	-0.01
Socal Citygate	\$/MMBtu	1.81	1.70	-0.11
Malin	\$/MMBtu	1.60	1.56	-0.04
Houston Ship Channel	\$/MMBtu	1.74	1.72	-0.02
Henry Hub Cash	\$/MMBtu	1.70	1.62	-0.08
AECO Cash	C\$/GJ	1.44	1.50	0.06
Station2 Cash	C\$/GJ	1.41	1.51	0.10
Dawn Cash	C\$/GJ	1.52	1.66	0.14

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.52	▲ 0.000	▲ 0.000	▼ -0.167	
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.000	▼ -0.026	
NatGas Oct/Nov	\$/MMBtu	0.32	▲ 0.008	▲ 0.074	▲ 0.260	
NatGas Oct/Jan	\$/MMBtu	0.89	▲ 0.025	▲ 0.179	▲ 0.560	
WTI Crude	\$/Bbl	35.49	▲ 2.240	▲ 15.710	▼ -18.010	
Brent Crude	\$/Bbl	35.33	▲ 0.200	▲ 8.890	▼ -29.160	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	96.47	▼ -1.730	▲ 16.860	▼ -87.710	
Propane, Mt. Bel	cents/Gallon	0.41	▲ 0.001	▲ 0.086	▼ -0.165	
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.003	▲ 0.050	▼ -0.003	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.150	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -9.500	