

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.83	▲ \$ 0.01	▲ \$ 0.01

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 36.77	▼ \$ (0.52)	▲ \$ 1.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 39.54	▼ \$ (0.25)	▲ \$ 2.5

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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	3.7	2.1	-1.2	4.6
24 Hr Chg	0.1	1.3	-3.4	-2.1

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.5	-1.4	-1.0	-0.8
24 Hr Chg	-1.3	-2.6	-3.6	-7.6

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	83.6	▼ -0.78	▼ -0.85

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	35.7	▲ 0.31	▲ 4.22

	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.0	▲ 0.00	▼ -0.46

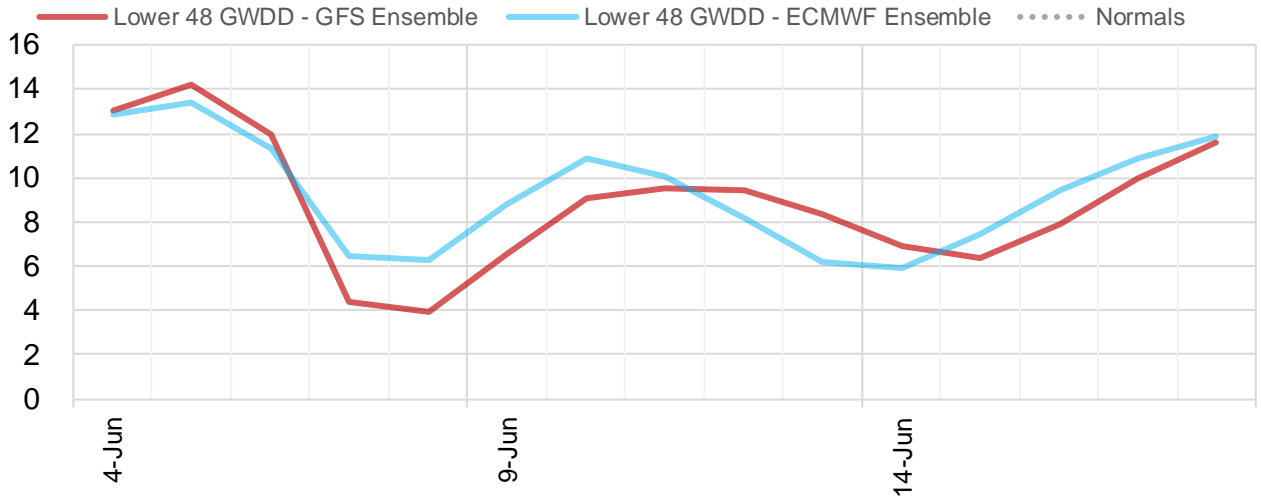
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.5	▲ 0.03	▲ 0.28

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	5.1	▲ 0.52	▼ -0.09

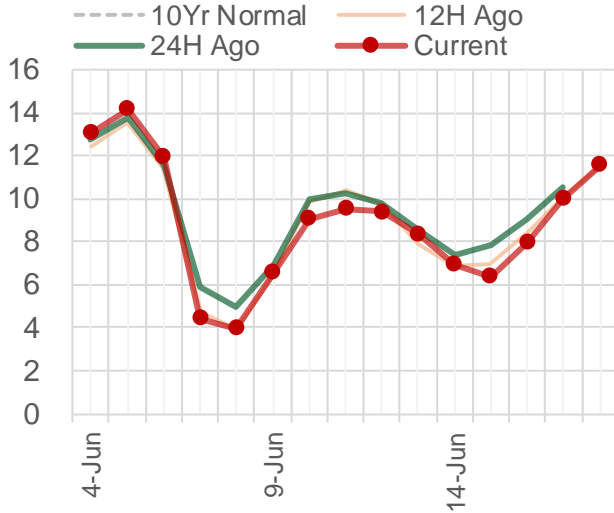
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.4	▼ -0.10	▲ 0.10

Short-term Weather Model Outlooks (00z)

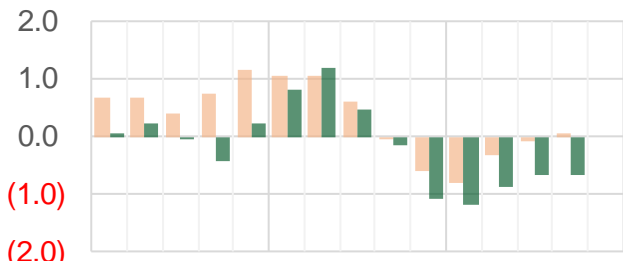
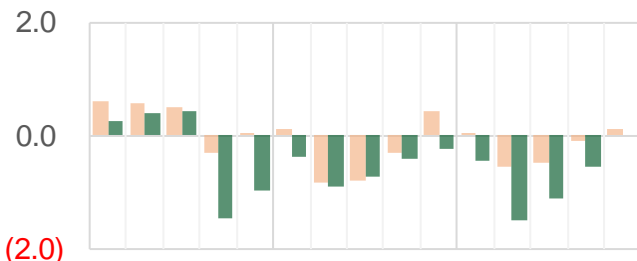
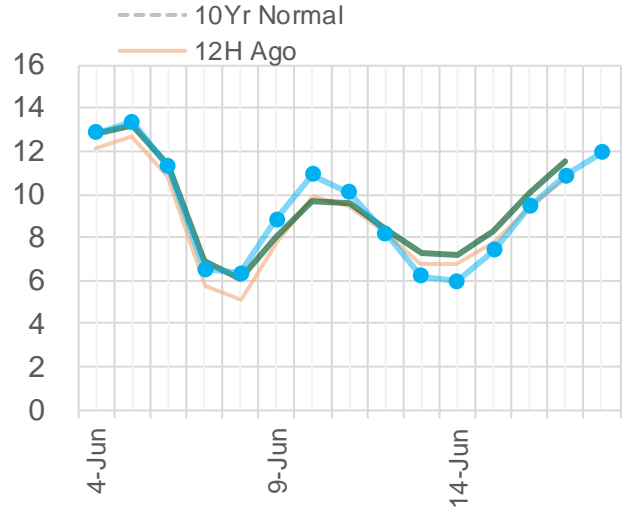
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



(2.0)

(1.0)

(2.0)

Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	29-May	30-May	31-May	1-Jun	2-Jun	3-Jun	4-Jun	DoD	vs. 7D
Lower 48 Dry Production	84.8	84.9	84.9	84.1	84.2	84.4	83.6	▼ -0.8	▼ -0.9
Canadian Imports	4.2	4.0	4.0	4.0	4.1	4.4	4.5	▲ 0.0	▲ 0.4
L48 Power	31.7	29.1	27.8	30.1	33.5	35.4	35.7	▲ 0.3	▲ 4.5
L48 Residential & Commercial	7.5	8.2	10.0	9.6	8.2	8.0	8.0	▲ 0.0	▼ -0.6
L48 Industrial	18.3	18.2	18.3	18.1	18.1	18.2	18.6	▲ 0.3	▲ 0.4
L48 Lease and Plant Fuel	4.7	4.8	4.7	4.7	4.7	4.8	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	1.9	1.8	1.9	1.9	2.0	2.1	2.1	▲ 0.0	▲ 0.2
L48 Regional Gas Consumption	64.2	62.1	62.7	64.5	66.6	68.6	69.2	▲ 0.6	▲ 4.4
Net LNG Exports	6.1	6.0	6.1	3.6	3.7	4.6	5.1	▲ 0.5	▲ 0.1
Total Mexican Exports	5.5	5.1	4.7	5.5	5.5	5.5	5.4	▼ -0.1	▲ 0.1
Implied Daily Storage Activity	13.2	15.7	15.3	14.5	12.4	10.2	8.4		
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	4.1	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	18.9	18.4	18.7	17.3	18.8	18.4	▼ -0.4	▲ 0.1
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	74.1	67.0	64.6	68.6	62.8	63.2	▲ 0.4	▼ -2.6
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	13.8	13.8	0.0	
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	Feb-20	Mar-20	Apr-20	May-20	MTD Jun-20	MoM	vs. LY
Lower 48 Dry Production	81.6	89.6	91.8	92.2	91.2	85.3	84.1	▼ -1.2	▼ -5.5
Canadian Imports	5.6	4.7	5.2	4.1	3.9	3.9	4.2	▲ 0.3	▼ -0.5
L48 Power	31.8	33.0	30.0	28.3	25.7	26.9	33.7	▲ 6.8	▲ 0.7
L48 Residential & Commercial	8.6	9.0	39.9	27.7	21.6	12.8	8.5	▼ -4.3	▼ -0.5
L48 Industrial	21.3	21.4	24.3	21.6	18.9	18.3	18.3	▼ 0.0	▼ -3.1
L48 Lease and Plant Fuel	4.5	5.0	5.2	5.2	5.2	4.8	4.7	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	1.9	2.0	3.0	2.5	2.3	2.0	2.0	▲ 0.1	▲ 0.0
L48 Regional Gas Consumption	68.2	70.4	102.3	85.4	73.6	64.6	67.2	▲ 2.6	▼ -3.2
Net LNG Exports	3.2	5.5	8.5	8.5	8.2	6.7	4.2	▼ -2.4	▼ -1.3
Total Mexican Exports	4.5	5.3	5.3	5.6	4.9	4.9	5.5	▲ 0.6	▲ 0.2
Implied Daily Storage Activity	11.3	13.1	-19.0	-3.1	8.4	13.0	11.4		
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 Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	13.5	1.8	15.3	107
East	3.0	2.8	5.9	41
Midwest	3.8	0.7	4.5	31
Mountain	3.3	-2.0	1.3	9
South Central	1.8	0.9	2.7	19
Pacific	1.7	-0.7	1.0	7

*Adjustment Factor is calculated based on historical regional deltas

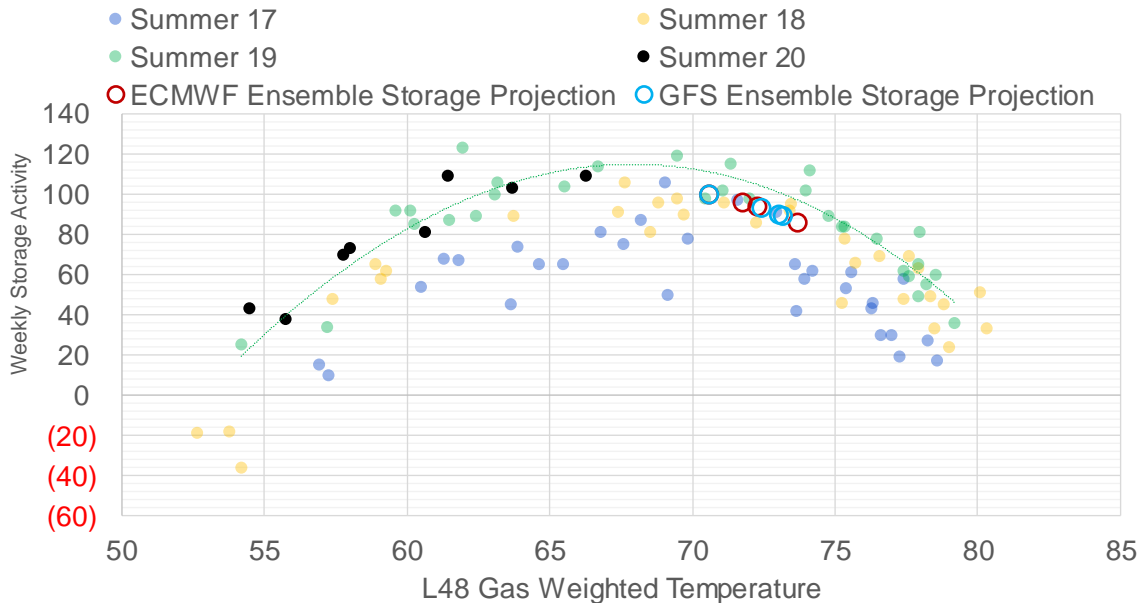
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

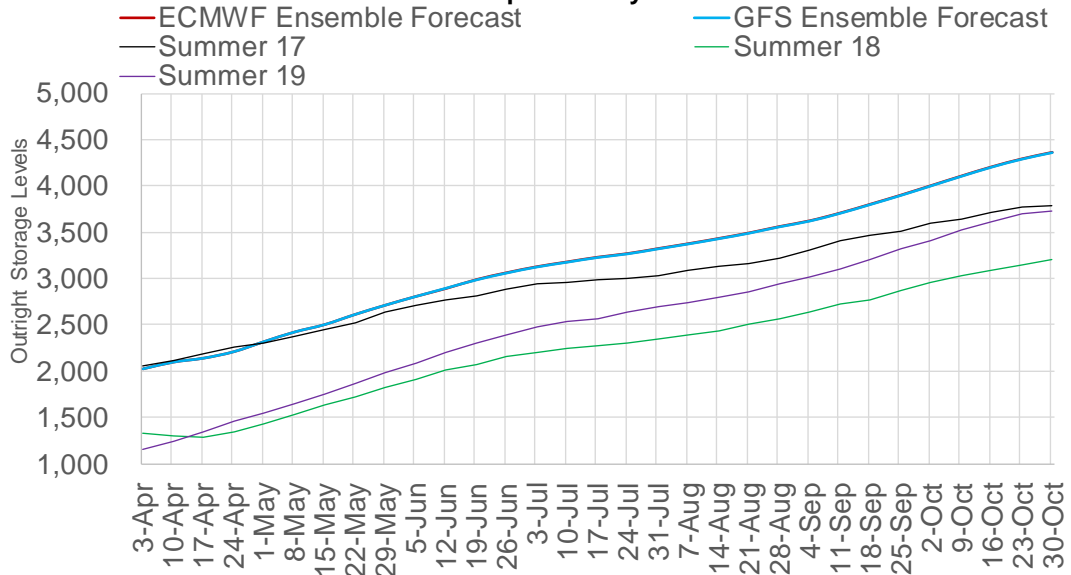
Week Ending	Week Storage Projection
29-May	100
5-Jun	94
12-Jun	88
19-Jun	93

Weather Storage Model - Next 4 Week Forecast



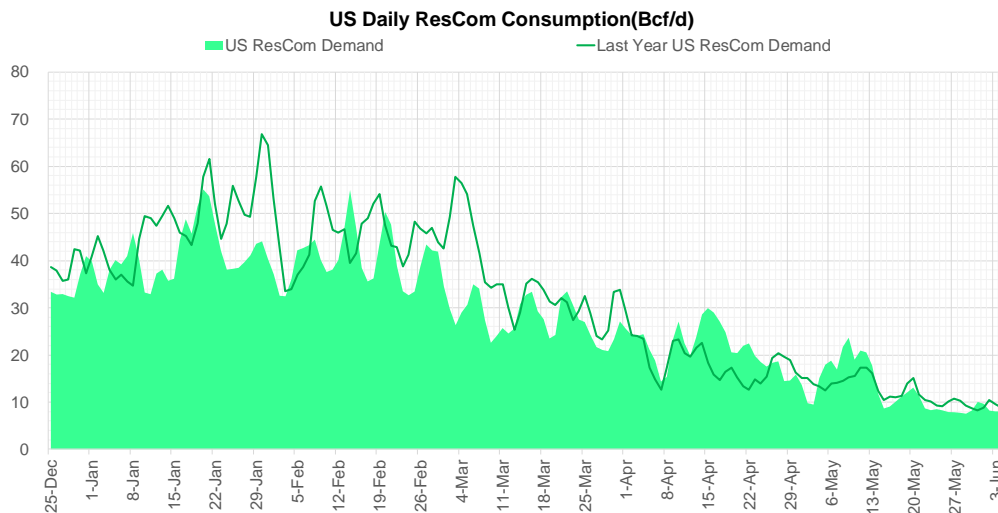
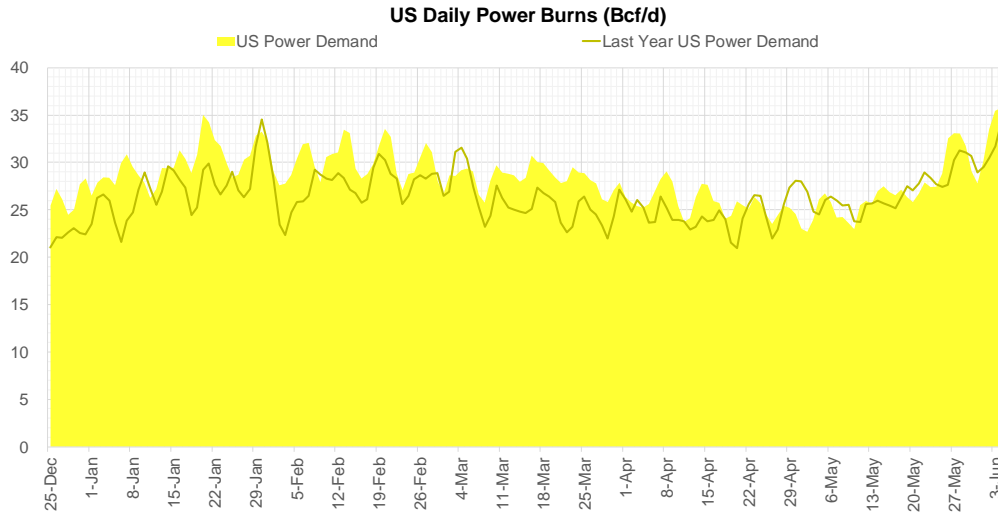
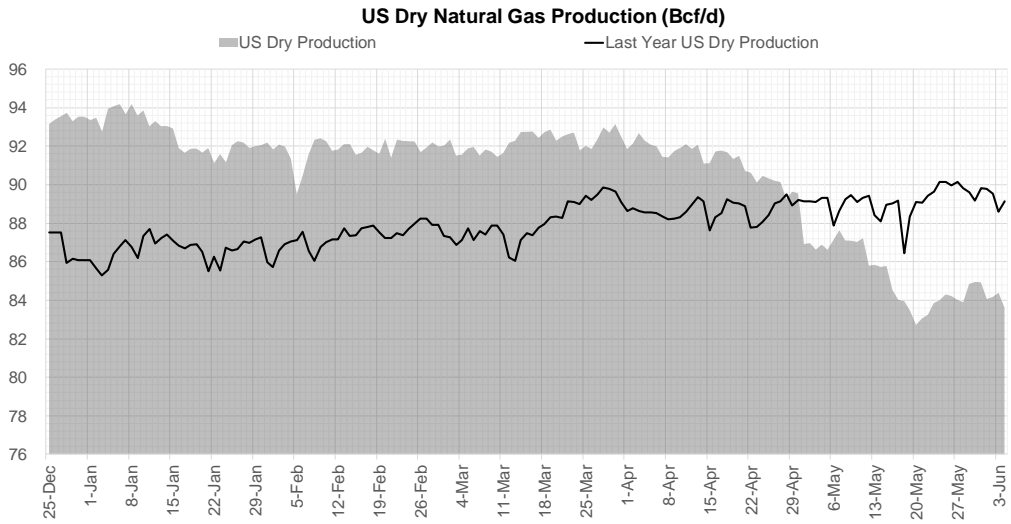
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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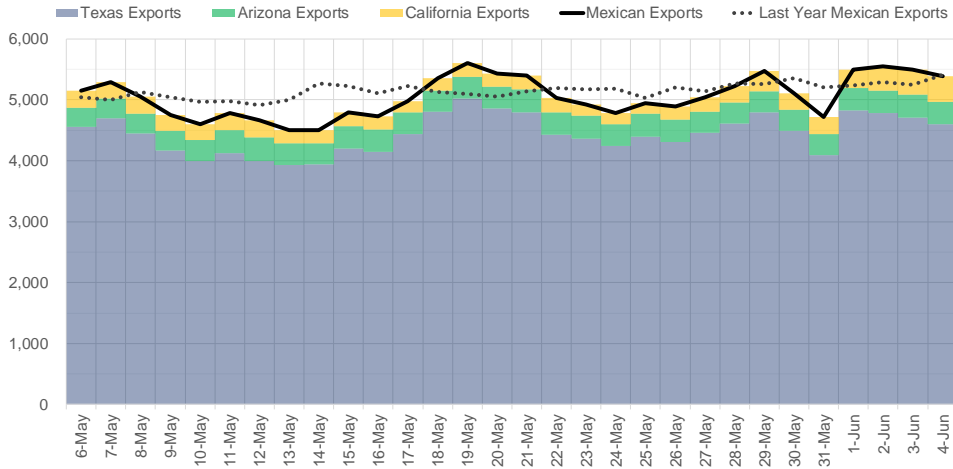
Supply – Demand Trends



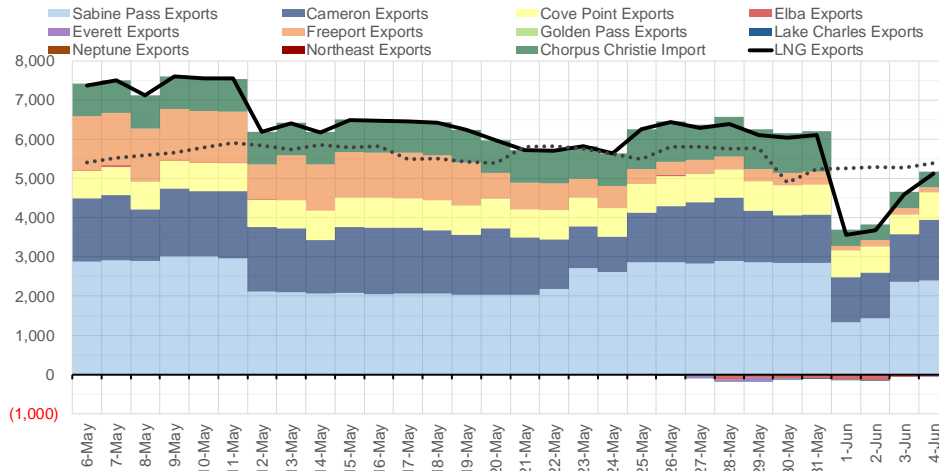
Source: Bloomberg

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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

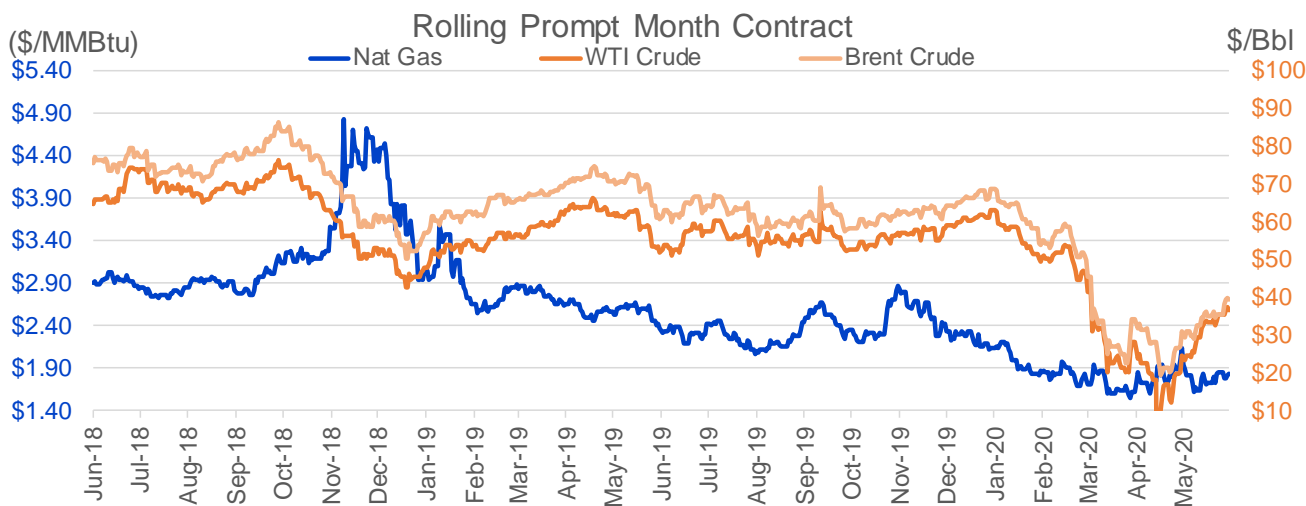
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
7	2020	P	1.60	3764	10	2020	P	1.50	35804
7	2020	C	2.25	3515	10	2020	C	3.00	33076
12	2020	P	2.50	3095	3	2021	P	2.00	32653
7	2020	P	1.50	3058	7	2020	P	1.75	31829
7	2020	C	2.00	3034	10	2020	P	1.60	30332
9	2020	P	1.50	2950	10	2020	C	2.75	30072
12	2020	C	3.15	2660	7	2020	P	1.50	29850
8	2020	P	1.50	2539	10	2020	P	2.00	27647
10	2021	C	6.00	2500	10	2020	C	2.50	25405
7	2020	P	1.75	2482	9	2020	C	2.50	25383
8	2020	P	1.25	2343	7	2020	C	2.50	23654
7	2020	C	2.50	2260	10	2020	P	1.25	23646
10	2020	P	1.50	2241	8	2020	P	1.50	21359
10	2020	P	1.75	1880	8	2020	C	2.50	21003
7	2020	P	1.55	1766	9	2020	P	1.50	20808
7	2020	C	1.95	1699	9	2020	C	2.75	20637
8	2020	P	1.65	1610	7	2020	P	2.00	20229
7	2020	P	1.65	1597	10	2020	P	1.75	20224
1	2021	C	5.00	1500	7	2020	C	3.00	19521
2	2021	C	5.00	1500	7	2020	C	2.25	18783
3	2021	C	5.00	1500	7	2020	C	2.00	18147
8	2020	P	1.60	1346	9	2020	P	1.00	18073
9	2020	P	1.65	1236	1	2021	C	3.50	17986
8	2020	P	1.75	1195	10	2020	P	2.10	17913
7	2020	C	2.20	1186	11	2020	C	4.00	17864
1	2021	P	2.25	1120	7	2020	C	2.30	17738
7	2020	P	1.70	1081	10	2020	C	2.25	17714
2	2021	C	4.00	1050	1	2021	C	3.00	17599
9	2020	P	1.60	1045	10	2020	C	3.25	16647
7	2020	C	2.75	1001	7	2020	C	2.75	16485
1	2021	C	4.00	1000	7	2020	P	1.25	16476
3	2021	C	4.00	1000	9	2020	P	1.75	16301
8	2020	C	2.25	996	8	2020	P	1.00	16040
7	2020	P	1.80	900	7	2020	P	1.60	15770
8	2020	P	1.00	864	10	2020	P	1.00	15434
5	2021	C	3.50	850	9	2020	C	2.25	15191
8	2020	P	1.35	831	3	2021	C	3.00	15107
7	2020	P	1.40	826	4	2021	C	3.00	14589
12	2020	C	3.50	781	7	2020	P	1.00	14510
10	2020	P	1.00	753	8	2020	P	1.25	14365
10	2020	C	2.10	750	7	2020	C	2.35	14197
10	2020	P	2.25	750	8	2020	C	3.00	14143
10	2020	C	2.25	730	8	2020	C	2.75	13836
7	2020	C	2.05	707	9	2020	P	2.00	13770
10	2020	P	1.65	705	9	2020	C	3.00	13247
10	2020	P	2.00	700	8	2020	C	2.25	13009
12	2020	C	3.25	621	3	2021	C	7.00	12881
8	2020	P	1.40	572	8	2020	P	1.75	12615
11	2020	C	3.40	551	3	2021	C	3.50	12585
					1	2021	P	2.5	12551

Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

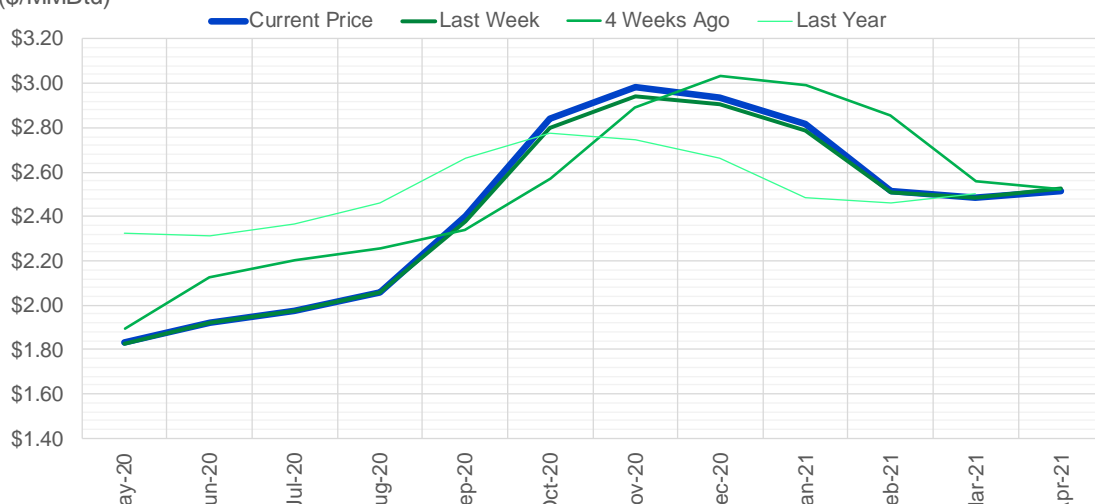
CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM)				NASDAQ Henry Hub Futures (10,000 MMBtu)			
	Current	Prior	Daily Change		Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 20	367538	368877	-1339	JUL 20	86080	85839	241.25	JUL 20			
AUG 20	91494	85661	5833	AUG 20	78020	72171	5849.75	AUG 20			
SEP 20	151182	155284	-4102	SEP 20	69229	69079	149.25	SEP 20			
OCT 20	118100	116865	1235	OCT 20	80750	80529	220.5	OCT 20			
NOV 20	52225	49200	3025	NOV 20	61026	60442	583.75	NOV 20			
DEC 20	59038	57259	1779	DEC 20	58407	58257	149.25	DEC 20			
JAN 21	106204	106928	-724	JAN 21	72111	71280	831	JAN 21			
FEB 21	37650	37993	-343	FEB 21	44690	44365	324.5	FEB 21			
MAR 21	66046	64420	1626	MAR 21	60996	60829	166.75	MAR 21			
APR 21	70304	71042	-738	APR 21	51120	51596	-475.75	APR 21			
MAY 21	25597	25500	97	MAY 21	44746	44563	183.25	MAY 21			
JUN 21	16458	16473	-15	JUN 21	42484	42254	230.25	JUN 21			
JUL 21	12905	12813	92	JUL 21	43332	43209	123.5	JUL 21			
AUG 21	10677	10674	3	AUG 21	44131	43974	156.75	AUG 21			
SEP 21	11798	11870	-72	SEP 21	41708	41553	155.25	SEP 21			
OCT 21	26752	25920	832	OCT 21	53439	52967	471.25	OCT 21			
NOV 21	16989	16799	190	NOV 21	36122	35955	166.5	NOV 21			
DEC 21	14362	13853	509	DEC 21	36567	36380	187	DEC 21			
JAN 22	11835	11759	76	JAN 22	28480	28269	211	JAN 22			
FEB 22	8237	8123	114	FEB 22	25245	25068	176.75	FEB 22			
MAR 22	13713	13665	48	MAR 22	26992	26768	223.75	MAR 22			
APR 22	10638	10680	-42	APR 22	23700	23543	156.75	APR 22			
MAY 22	4646	4641	5	MAY 22	21144	21067	76.5	MAY 22			
JUN 22	2081	2076	5	JUN 22	20762	20606	156.5	JUN 22			
JUL 22	1816	1812	4	JUL 22	21413	21260	153	JUL 22			
AUG 22	1275	1281	-6	AUG 22	21099	20879	220	AUG 22			
SEP 22	1343	1337	6	SEP 22	20868	20712	156.5	SEP 22			
OCT 22	1912	1908	4	OCT 22	23604	23528	76.5	OCT 22			
NOV 22	1377	1373	4	NOV 22	18781	18639	141.75	NOV 22			
DEC 22	1292	1288	4	DEC 22	19808	19702	106.5	DEC 22			

Source: CME, Nasdaq, ICE



(\$/MMBtu)

Nat Gas Term Structure



	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	\$1.831	\$1.920	\$1.972	\$2.055	\$2.399	\$2.840	\$2.980	\$2.937	\$2.817	\$2.515	\$2.484	\$2.516
Last Week	\$1.827	\$1.919	\$1.975	\$2.058	\$2.379	\$2.797	\$2.941	\$2.906	\$2.785	\$2.508	\$2.482	\$2.525
vs. Last Week	\$0.004	\$0.001	-\$0.003	-\$0.003	\$0.020	\$0.043	\$0.039	\$0.031	\$0.032	\$0.007	\$0.002	-\$0.009
4 Weeks Ago	\$1.894	\$2.127	\$2.202	\$2.256	\$2.342	\$2.572	\$2.893	\$3.031	\$2.991	\$2.854	\$2.559	\$2.526
vs. 4 Weeks Ago	-\$0.063	-\$0.207	-\$0.230	-\$0.201	\$0.057	\$0.268	\$0.087	-\$0.094	-\$0.174	-\$0.339	-\$0.075	-\$0.010
Last Year	\$2.324	\$2.324	\$2.315	\$2.368	\$2.462	\$2.661	\$2.775	\$2.746	\$2.663	\$2.482	\$2.463	\$2.500
vs. Last Year	-\$0.493	-\$0.404	-\$0.343	-\$0.313	-\$0.063	\$0.179	\$0.205	\$0.191	\$0.154	\$0.033	\$0.021	\$0.016

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.80	1.43	-0.37
TETCO M3	\$/MMBtu	1.48	1.35	-0.13
FGT Zone 3	\$/MMBtu	1.51	1.76	0.25
Zone 6 NY	\$/MMBtu	1.51	1.34	-0.17
Chicago Citygate	\$/MMBtu	1.63	1.63	0.00
Michcon	\$/MMBtu	1.64	1.62	-0.02
Columbia TCO Pool	\$/MMBtu	1.44	1.49	0.05
Ventura	\$/MMBtu	1.62	1.63	0.01
Rockies/Opal	\$/MMBtu	1.48	1.47	-0.01
El Paso Permian Basin	\$/MMBtu	1.52	1.42	-0.10
Socal Citygate	\$/MMBtu	2.44	1.67	-0.77
Malin	\$/MMBtu	1.54	1.56	0.02
Houston Ship Channel	\$/MMBtu	1.61	1.71	0.10
Henry Hub Cash	\$/MMBtu	1.58	1.61	0.02
AECO Cash	C\$/GJ	1.47	1.49	0.02
Station2 Cash	C\$/GJ	1.47	1.55	0.08
Dawn Cash	C\$/GJ	1.62	1.66	0.04

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	▼ -0.186	
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.000	▼ -0.021	
NatGas Oct/Nov	\$/MMBtu	0.35	▲ 0.045	▲ 0.141	▲ 0.288	
NatGas Oct/Jan	\$/MMBtu	0.94	▲ 0.098	▲ 0.312	▲ 0.614	
WTI Crude	\$/Bbl	36.81	▲ 2.460	▲ 12.250	▼ -16.670	
Brent Crude	\$/Bbl	39.57	▲ 3.400	▲ 8.600	▼ -22.400	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	109.21	▲ 10.130	▲ 19.610	▼ -72.940	
Propane, Mt. Bel	cents/Gallon	0.49	▲ 0.080	▲ 0.125	▲ 0.049	
Ethane, Mt. Bel	cents/Gallon	0.25	▲ 0.026	▲ 0.030	▲ 0.036	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.150	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -9.500	