

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.78	▼ \$ (0.03)	▼ \$ (0.00)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 36.41	▲ \$ 0.07	▼ \$ (2.4)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 38.75	▲ \$ 0.20	▼ \$ (2.6)

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

### 00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.0	-2.6	-1.6	-3.3
24 Hr Chg	0.3	-3.3	-1.7	-4.8

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.8	-0.4	-4.0	-3.6
24 Hr Chg	-3.1	-3.9	-4.7	-11.7

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.1	▲ 0.12	▼ -0.12

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	34.1	▼ -0.11	▲ 0.31

	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.0	▲ 0.18	▼ -0.11

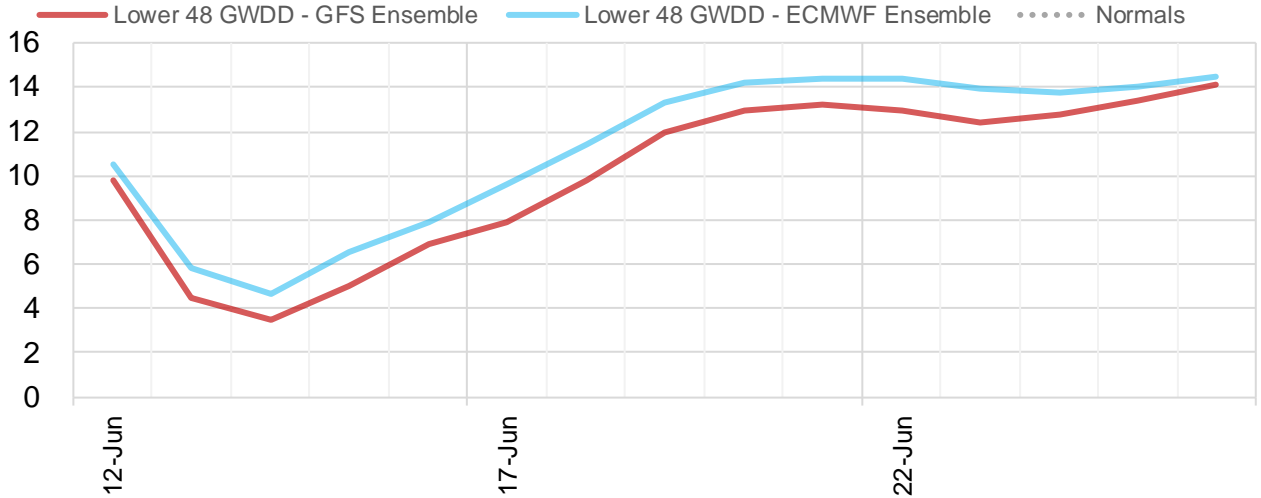
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.1	▲ 0.21	▲ 0.33

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	3.8	▼ -0.37	▼ -0.10

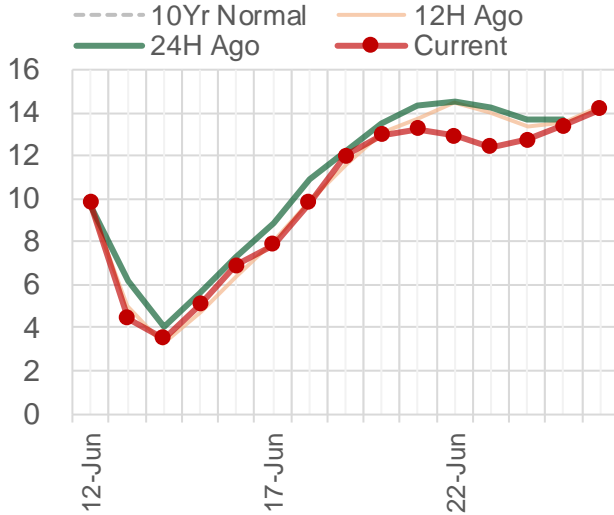
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.6	▲ 0.15	▲ 0.01

## Short-term Weather Model Outlooks (00z)

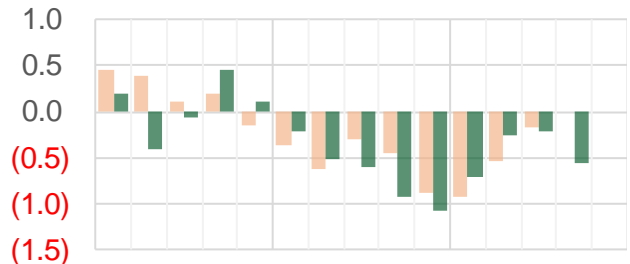
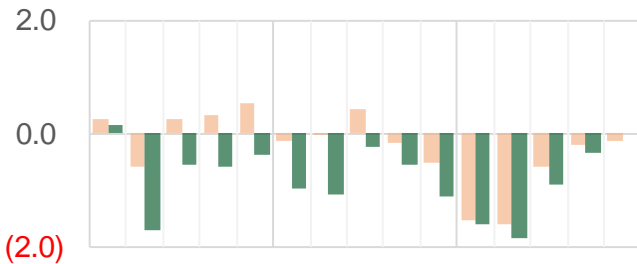
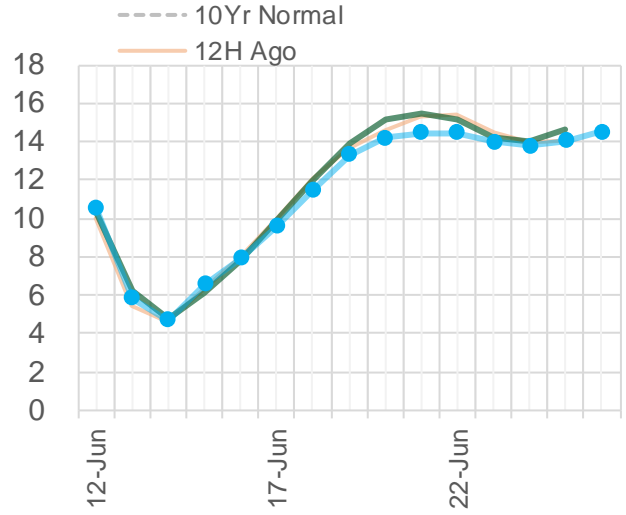
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

### Lower 48 Component Models

#### Daily Balances

	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>84.1</b>	<b>83.8</b>	<b>84.4</b>	<b>84.3</b>	<b>84.6</b>	<b>84.0</b>	<b>84.1</b>	▲ 0.1	▼ -0.1
<b>Canadian Imports</b>	<b>3.5</b>	<b>3.4</b>	<b>3.4</b>	<b>3.9</b>	<b>4.0</b>	<b>3.9</b>	<b>4.1</b>	▲ 0.2	▲ 0.4
L48 Power	31.4	29.9	32.7	36.4	37.1	34.2	34.1	▼ -0.1	▲ 0.5
L48 Residential & Commercial	7.8	8.3	8.4	8.5	8.2	7.8	8.0	▲ 0.2	▼ -0.2
L48 Industrial	18.7	18.7	18.8	18.8	18.7	18.4	18.5	▲ 0.1	▼ -0.2
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.8	4.7	4.7	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	1.9	1.8	2.0	2.2	2.2	2.0	2.0	▲ 0.0	▲ 0.0
<b>L48 Regional Gas Consumption</b>	<b>64.6</b>	<b>63.4</b>	<b>66.5</b>	<b>70.6</b>	<b>70.9</b>	<b>67.2</b>	<b>67.3</b>	▲ 0.1	▲ 0.1
<b>Net LNG Exports</b>	<b>3.9</b>	<b>3.8</b>	<b>3.6</b>	<b>3.5</b>	<b>4.0</b>	<b>4.2</b>	<b>3.8</b>	▼ -0.4	▼ 0.0
<b>Total Mexican Exports</b>	<b>5.4</b>	<b>5.2</b>	<b>5.5</b>	<b>5.8</b>	<b>6.2</b>	<b>5.5</b>	<b>5.6</b>	▲ 0.2	▲ 0.0
<b>Implied Daily Storage Activity</b>	<b>13.8</b>	<b>14.7</b>	<b>12.2</b>	<b>8.3</b>	<b>7.4</b>	<b>11.1</b>	<b>11.5</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

#### EIA Storage Week Balances

	8-May	15-May	22-May	29-May	5-Jun	12-Jun	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>87.0</b>	<b>86.5</b>	<b>83.9</b>	<b>83.9</b>	<b>84.5</b>	<b>84.3</b>	▼ -0.3	▼ -0.5
<b>Canadian Imports</b>	<b>3.6</b>	<b>4.0</b>	<b>4.1</b>	<b>4.1</b>	<b>4.2</b>	<b>3.8</b>	▼ -0.4	▼ -0.3
L48 Power	24.6	25.0	26.7	30.0	32.0	33.8	▲ 1.7	▲ 5.3
L48 Residential & Commercial	14.5	19.3	10.8	8.2	8.5	8.1	▼ -0.4	▼ -3.6
L48 Industrial	18.7	17.3	18.9	19.3	19.2	18.7	▼ -0.6	▼ 0.0
L48 Lease and Plant Fuel	4.9	4.8	4.7	4.7	4.7	4.7	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	1.9	2.2	1.9	1.9	2.0	2.0	▲ 0.0	▲ 0.0
<b>L48 Regional Gas Consumption</b>	<b>64.6</b>	<b>68.7</b>	<b>62.9</b>	<b>64.1</b>	<b>66.5</b>	<b>67.3</b>	▲ 0.8	▲ 1.8
<b>Net LNG Exports</b>	<b>7.7</b>	<b>6.9</b>	<b>6.3</b>	<b>6.1</b>	<b>5.1</b>	<b>3.9</b>	▼ -1.2	▼ -2.2
<b>Total Mexican Exports</b>	<b>4.7</b>	<b>4.7</b>	<b>5.2</b>	<b>5.0</b>	<b>5.3</b>	<b>5.6</b>	▲ 0.3	▲ 0.6
<b>Implied Daily Storage Activity</b>	<b>13.5</b>	<b>10.2</b>	<b>13.7</b>	<b>12.9</b>	<b>11.8</b>	<b>11.2</b>	-0.6	
<b>EIA Reported Daily Storage Activity</b>	<b>14.7</b>	<b>11.6</b>	<b>15.6</b>	<b>14.6</b>	<b>13.3</b>			
<b>Daily Model Error</b>	<b>-1.2</b>	<b>-1.3</b>	<b>-1.9</b>	<b>-1.7</b>	<b>-1.5</b>			

#### Monthly Balances

	2Yr Ago Jun-18	LY Jun-19	Feb-20	Mar-20	Apr-20	May-20	MTD Jun-20	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>81.6</b>	<b>89.6</b>	<b>91.8</b>	<b>92.2</b>	<b>91.2</b>	<b>85.3</b>	<b>84.2</b>	▼ -1.1	▼ -5.3
<b>Canadian Imports</b>	<b>5.6</b>	<b>4.7</b>	<b>5.2</b>	<b>4.1</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	▲ 0.1	▼ -0.7
L48 Power	31.8	33.0	30.0	28.3	25.7	26.9	33.8	▲ 7.0	▲ 0.9
L48 Residential & Commercial	8.6	9.0	39.9	27.7	21.6	12.8	8.2	▼ -4.5	▼ -0.8
L48 Industrial	21.3	21.4	24.3	21.6	18.9	18.6	18.8	▲ 0.1	▼ -2.6
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
<b>L48 Regional Gas Consumption</b>	<b>68.2</b>	<b>70.4</b>	<b>102.3</b>	<b>85.4</b>	<b>73.6</b>	<b>65.0</b>	<b>67.6</b>	▲ 2.6	▼ -2.7
<b>Net LNG Exports</b>	<b>3.2</b>	<b>5.5</b>	<b>8.5</b>	<b>8.5</b>	<b>8.2</b>	<b>6.7</b>	<b>4.0</b>	▼ -2.7	▼ -1.5
<b>Total Mexican Exports</b>	<b>4.5</b>	<b>5.3</b>	<b>5.3</b>	<b>5.6</b>	<b>4.9</b>	<b>4.9</b>	<b>5.6</b>	▲ 0.7	▲ 0.3
<b>Implied Daily Storage Activity</b>	<b>11.3</b>	<b>13.1</b>	<b>-19.0</b>	<b>-3.1</b>	<b>8.4</b>	<b>12.7</b>	<b>11.0</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

Source: Bloomberg, analytix.ai

### Regional S/D Models Storage Projection

Week Ending 12-Jun

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	10.9	1.8	12.8	90
East	1.5	2.2	3.7	26
Midwest	4.2	0.3	4.5	32
Mountain	2.9	-2.2	0.7	5
South Central	0.8	1.8	2.6	19
Pacific	1.5	-0.3	1.2	8

\*Adjustment Factor is calculated based on historical regional deltas

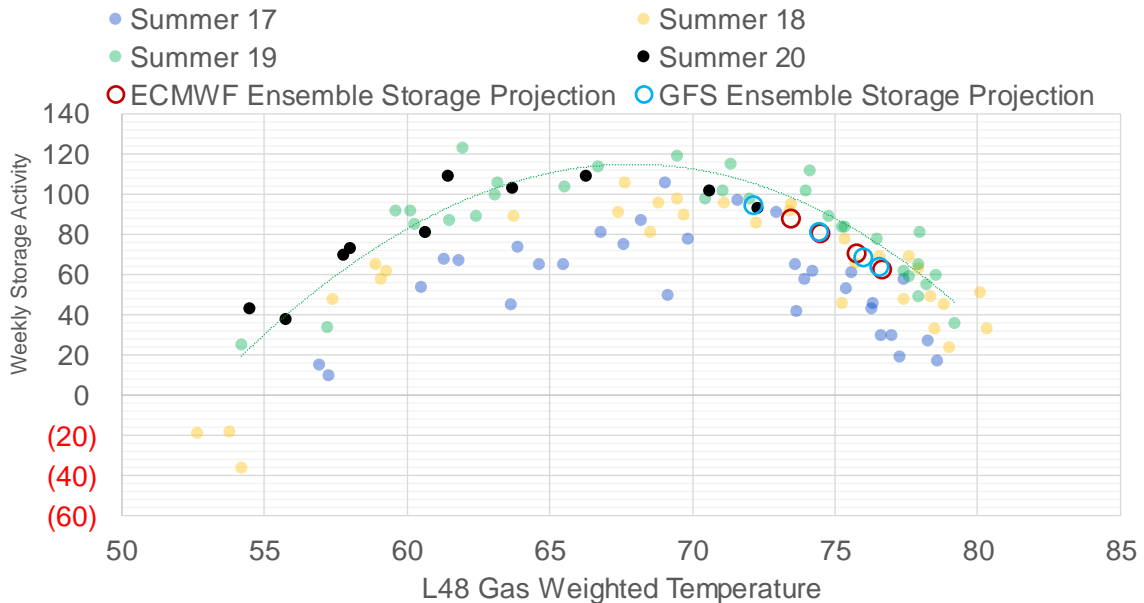
U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

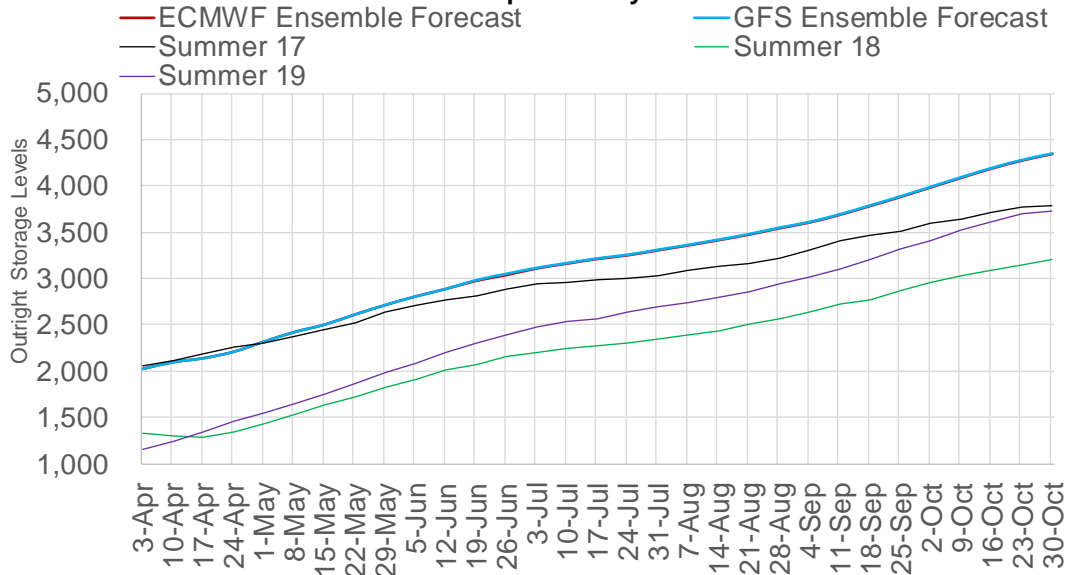
Week Ending	Week Storage Projection
12-Jun	81
19-Jun	91
26-Jun	66
3-Jul	67

### Weather Storage Model - Next 4 Week Forecast



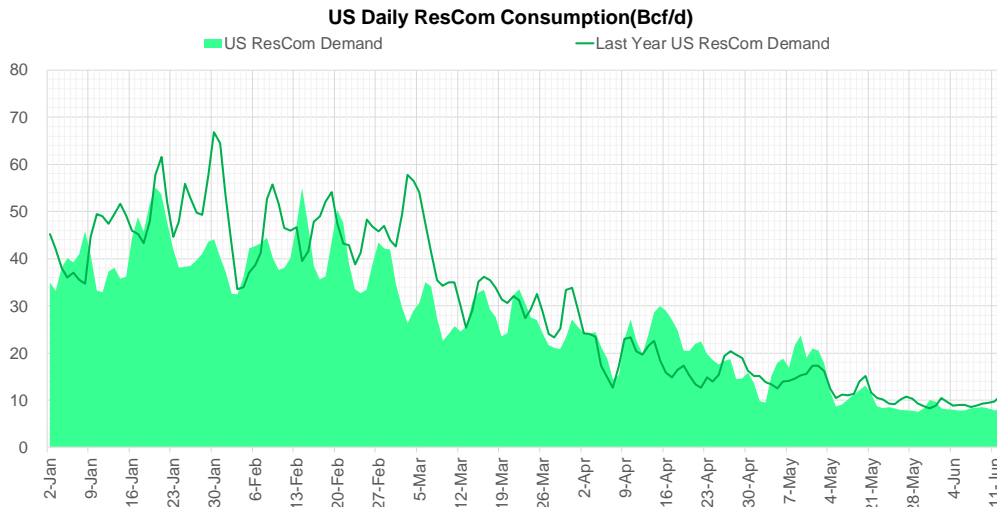
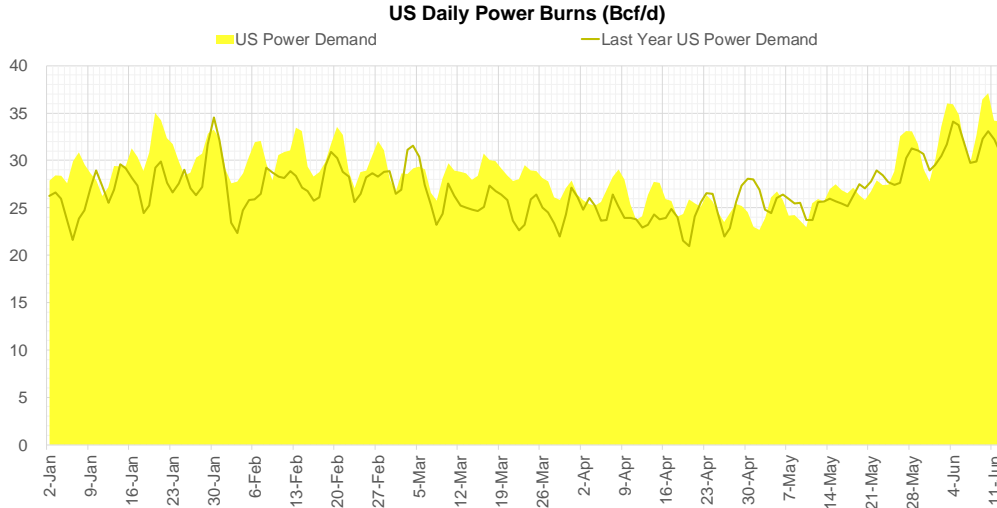
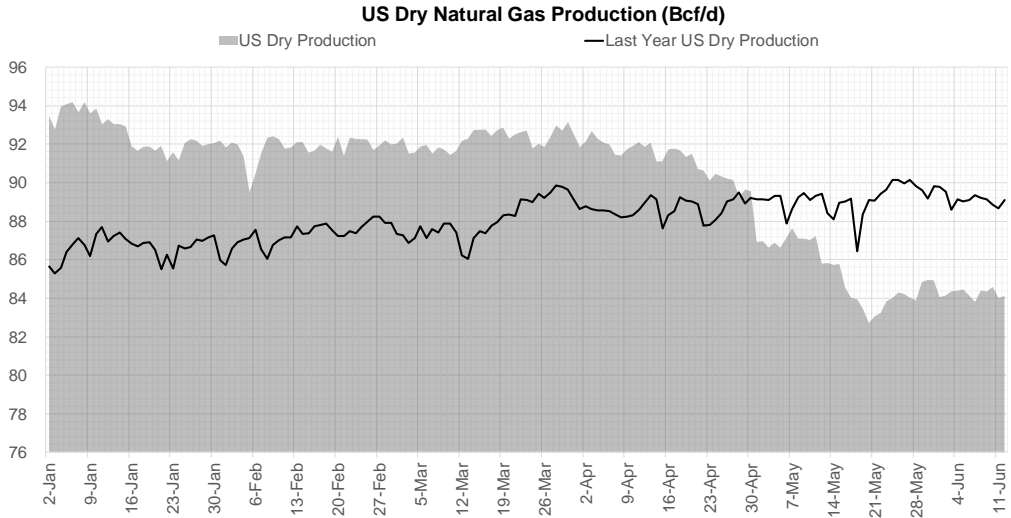
### Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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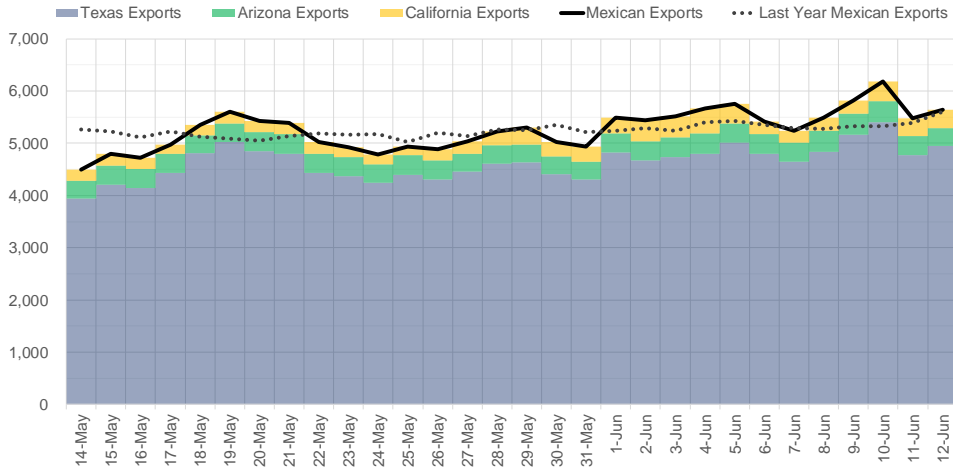
## Supply – Demand Trends



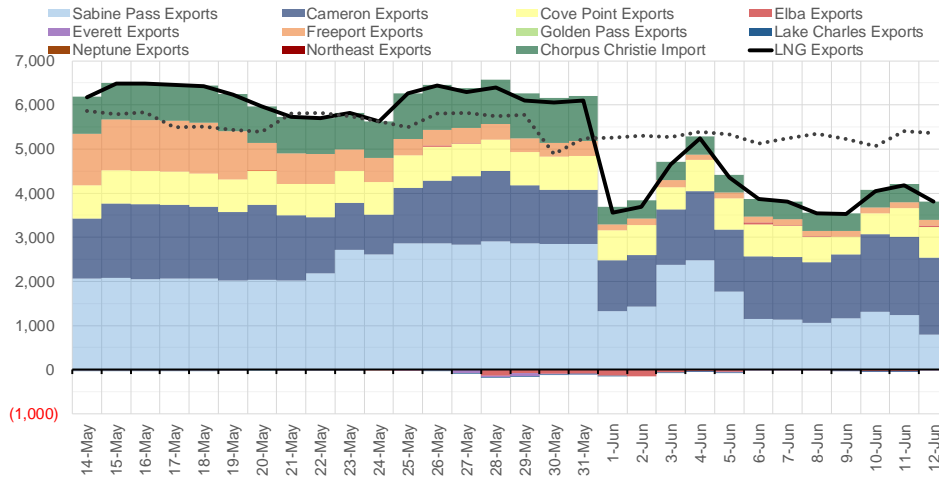
Source: Bloomberg

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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	1.70	10960	10	2020	P	1.50	41097
7	2020	C	2.25	7149	10	2020	C	2.75	36021
7	2020	P	1.65	6178	7	2020	P	1.75	35933
7	2020	P	1.75	6131	10	2020	C	3.00	35245
9	2020	P	1.20	4020	3	2021	P	2.00	32737
8	2020	P	1.20	4003	10	2020	P	1.60	32663
10	2020	P	1.20	4000	7	2020	P	1.50	29981
7	2020	P	1.50	3935	10	2020	C	2.50	29207
7	2020	C	1.95	3839	10	2020	P	2.00	27525
7	2020	P	1.60	3667	7	2020	C	2.50	25781
10	2020	C	2.75	3061	9	2020	C	2.50	25379
7	2020	C	2.00	2775	10	2020	P	1.25	25019
10	2020	P	1.75	2573	8	2020	C	2.50	24612
7	2020	C	1.85	2569	10	2020	P	1.75	22699
10	2020	P	1.50	2443	9	2020	P	1.50	22309
8	2020	P	1.30	2122	8	2020	P	1.50	22169
8	2020	P	1.10	2087	7	2020	C	2.25	20645
7	2020	C	1.80	2041	9	2020	P	1.75	20281
9	2020	P	1.30	2021	9	2020	P	1.00	20005
9	2020	P	1.10	2002	7	2020	P	2.00	19774
10	2020	P	1.10	2000	7	2020	C	2.00	19700
10	2020	P	1.30	2000	7	2020	C	3.00	19520
10	2020	C	2.40	1879	9	2020	P	1.20	19414
3	2021	C	4.00	1850	8	2020	P	1.20	19288
9	2020	P	1.60	1813	9	2020	C	2.75	19059
9	2020	P	1.00	1800	10	2020	P	1.20	18646
7	2020	C	1.90	1759	7	2020	P	1.60	18266
7	2020	P	1.80	1572	10	2020	P	2.10	18144
8	2020	P	1.75	1498	10	2020	C	2.25	18046
8	2020	P	1.50	1470	7	2020	C	2.30	17898
8	2020	C	2.25	1468	1	2021	C	3.50	17675
9	2020	P	1.50	1388	8	2020	P	1.00	17395
10	2020	P	2.00	1355	10	2020	C	3.25	16609
10	2020	C	3.25	1301	7	2020	C	2.75	16365
7	2020	P	1.45	1276	1	2021	C	3.00	16168
7	2020	C	2.10	1272	11	2020	C	4.00	16163
8	2020	P	1.60	1159	10	2020	P	1.00	16103
9	2020	C	2.75	1145	9	2020	C	3.00	15152
10	2020	P	0.75	1100	3	2021	C	3.00	15146
3	2021	C	6.00	1100	8	2020	C	3.00	14830
7	2020	P	1.35	1065	4	2021	C	3.00	14745
10	2020	C	2.50	1053	7	2020	P	1.25	14466
8	2021	C	5.00	1000	9	2020	C	2.25	14456
10	2020	C	3.50	989	3	2021	C	7.00	14393
8	2020	P	1.40	982	9	2020	P	2.00	13586
9	2020	C	2.25	908	8	2020	C	2.25	13526
9	2020	C	2.00	904	8	2020	C	2.75	13413
10	2020	C	2.35	900	8	2020	P	1.30	13293
10	2020	C	2.55	900	7	2020	P	1.00	13099
					10	2020	P	1.3	13055

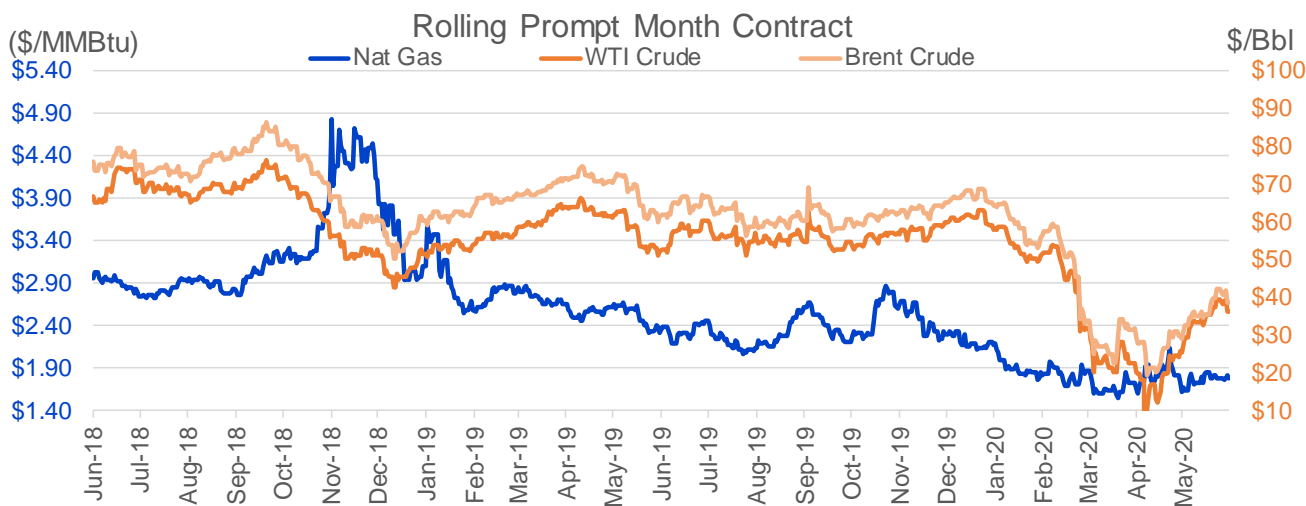
Source: CME, Nasdaq, ICE

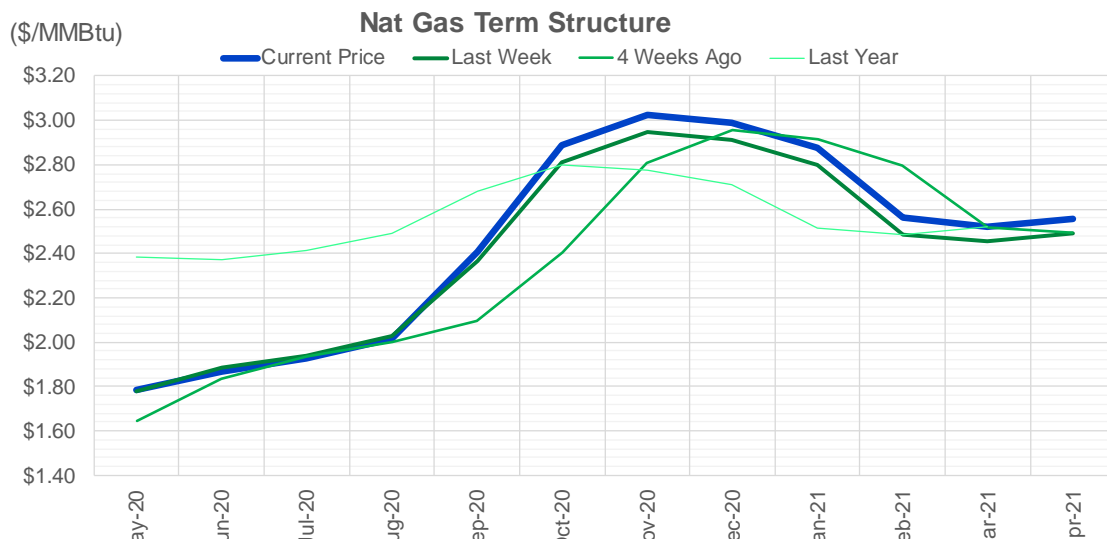


### Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MMBtu)				NASDAQ Henry Hub Futures (10,000 MMBtu)			
	Current	Prior	Daily Change		Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 20	172184	203398	-31214	JUL 20	76907	75249	1658.5	JUL 20			
AUG 20	172362	149366	22996	AUG 20	79842	80430	-587.5	AUG 20			
SEP 20	181036	174461	6575	SEP 20	67683	67769	-86.25	SEP 20			
OCT 20	114160	110237	3923	OCT 20	81982	81742	240.25	OCT 20			
NOV 20	52459	51222	1237	NOV 20	61694	60936	758.75	NOV 20			
DEC 20	61804	60637	1167	DEC 20	58138	57871	266.5	DEC 20			
JAN 21	108184	106701	1483	JAN 21	73551	72607	944.25	JAN 21			
FEB 21	37588	37599	-11	FEB 21	45523	45343	179.25	FEB 21			
MAR 21	77562	75019	2543	MAR 21	62527	62110	417	MAR 21			
APR 21	69057	69900	-843	APR 21	49445	49299	146.25	APR 21			
MAY 21	25361	25419	-58	MAY 21	46612	46512	100.75	MAY 21			
JUN 21	17826	17620	206	JUN 21	43229	43131	97.75	JUN 21			
JUL 21	14898	14620	278	JUL 21	44342	44074	267.5	JUL 21			
AUG 21	11144	11127	17	AUG 21	45022	44729	293.5	AUG 21			
SEP 21	13551	13245	306	SEP 21	42367	42272	95.5	SEP 21			
OCT 21	31440	30748	692	OCT 21	54251	54129	122	OCT 21			
NOV 21	18450	18160	290	NOV 21	36655	36488	166.5	NOV 21			
DEC 21	15517	15713	-196	DEC 21	37605	37367	238.5	DEC 21			
JAN 22	11867	11621	246	JAN 22	29523	29368	155.75	JAN 22			
FEB 22	8257	8499	-242	FEB 22	25901	25781	119.75	FEB 22			
MAR 22	15245	15217	28	MAR 22	28093	28008	84.75	MAR 22			
APR 22	11058	10856	202	APR 22	25393	24452	941	APR 22			
MAY 22	4663	4668	-5	MAY 22	22171	21990	181	MAY 22			
JUN 22	2062	2062	0	JUN 22	21553	21290	263	JUN 22			
JUL 22	1790	1790	0	JUL 22	22102	21799	303.25	JUL 22			
AUG 22	1249	1249	0	AUG 22	21171	21601	-429.25	AUG 22			
SEP 22	1317	1317	0	SEP 22	21619	21362	257.75	SEP 22			
OCT 22	1884	1884	0	OCT 22	24070	23938	131.75	OCT 22			
NOV 22	1346	1345	1	NOV 22	19316	19193	123	NOV 22			
DEC 22	1265	1264	1	DEC 22	20026	19915	110.5	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
<b>Current Price</b>	<b>\$1.784</b>	<b>\$1.870</b>	<b>\$1.925</b>	<b>\$2.019</b>	<b>\$2.405</b>	<b>\$2.886</b>	<b>\$3.024</b>	<b>\$2.990</b>	<b>\$2.877</b>	<b>\$2.559</b>	<b>\$2.518</b>	<b>\$2.554</b>
Last Week	\$1.782	\$1.886	\$1.941	\$2.028	\$2.367	\$2.811	\$2.950	\$2.914	\$2.798	\$2.485	\$2.454	\$2.488
vs. Last Week	\$0.002	-\$0.016	-\$0.016	-\$0.009	\$0.038	\$0.075	\$0.074	\$0.076	\$0.079	\$0.074	\$0.064	\$0.066
4 Weeks Ago	\$1.646	\$1.833	\$1.935	\$2.000	\$2.098	\$2.402	\$2.808	\$2.955	\$2.915	\$2.793	\$2.519	\$2.492
vs. 4 Weeks Ago	\$0.138	\$0.037	-\$0.010	\$0.019	\$0.307	\$0.484	\$0.216	\$0.035	-\$0.038	-\$0.234	-\$0.001	\$0.062
Last Year	\$2.387	\$2.381	\$2.371	\$2.413	\$2.489	\$2.680	\$2.801	\$2.778	\$2.709	\$2.513	\$2.487	\$2.523
vs. Last Year	-\$0.603	-\$0.511	-\$0.446	-\$0.394	-\$0.084	\$0.206	\$0.223	\$0.212	\$0.168	\$0.046	\$0.031	\$0.031

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.65	1.59	-0.06
TETCO M3	\$/MMBtu	1.57	1.52	-0.05
FGT Zone 3	\$/MMBtu	1.59	1.84	0.25
Zone 6 NY	\$/MMBtu	1.59	1.53	-0.06
Chicago Citygate	\$/MMBtu	1.60	1.78	0.18
Michcon	\$/MMBtu	1.66	1.75	0.09
Columbia TCO Pool	\$/MMBtu	1.51	1.55	0.04
Ventura	\$/MMBtu	1.58	1.74	0.16
Rockies/Opal	\$/MMBtu	1.67	1.62	-0.05
El Paso Permian Basin	\$/MMBtu	1.40	1.57	0.17
Socal Citygate	\$/MMBtu	2.24	2.06	-0.18
Malin	\$/MMBtu	1.53	1.72	0.19
Houston Ship Channel	\$/MMBtu	1.70	1.82	0.12
Henry Hub Cash	\$/MMBtu	1.72	1.72	-0.01
AECO Cash	C\$/GJ	1.46	1.48	0.02
Station2 Cash	C\$/GJ	1.44	1.75	0.31
Dawn Cash	C\$/GJ	1.63	1.66	0.03

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	▼ -0.238	
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.000	▼ -0.001	
NatGas Oct/Nov	\$/MMBtu	0.36	▲ 0.021	▲ 0.073	▲ 0.305	
NatGas Oct/Jan	\$/MMBtu	0.97	▲ 0.040	▲ 0.145	▲ 0.651	
WTI Crude	\$/Bbl	39.60	▲ 2.310	▲ 14.310	▼ -11.540	
Brent Crude	\$/Bbl	41.73	▲ 1.940	▲ 12.540	▼ -18.240	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	117.30	▲ 10.840	▲ 34.160	▼ -60.690	
Propane, Mt. Bel	cents/Gallon	0.50	▲ 0.005	▲ 0.116	▲ 0.085	
Ethane, Mt. Bel	cents/Gallon	0.23	▼ -0.017	▲ 0.015	▲ 0.054	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.050	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -9.500	