

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.77	▼ \$ (0.04)	▲ \$ 0.02

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 41.45	▲ \$ 0.16	▲ \$ 0.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 43.51	▲ \$ 0.17	▼ \$ (0.1)

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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	2.3	1.0	-2.1	1.3
24 Hr Chg	0.8	-2.9	-3.2	-5.2

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	4.0	0.8	1.4	6.2
24 Hr Chg	2.7	-3.0	-1.7	-2.1

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	86.1	▲ 0.11	▲ 0.10

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	42.4	▼ -0.36	▼ -2.84

	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.2	▼ -0.03	▼ -0.30

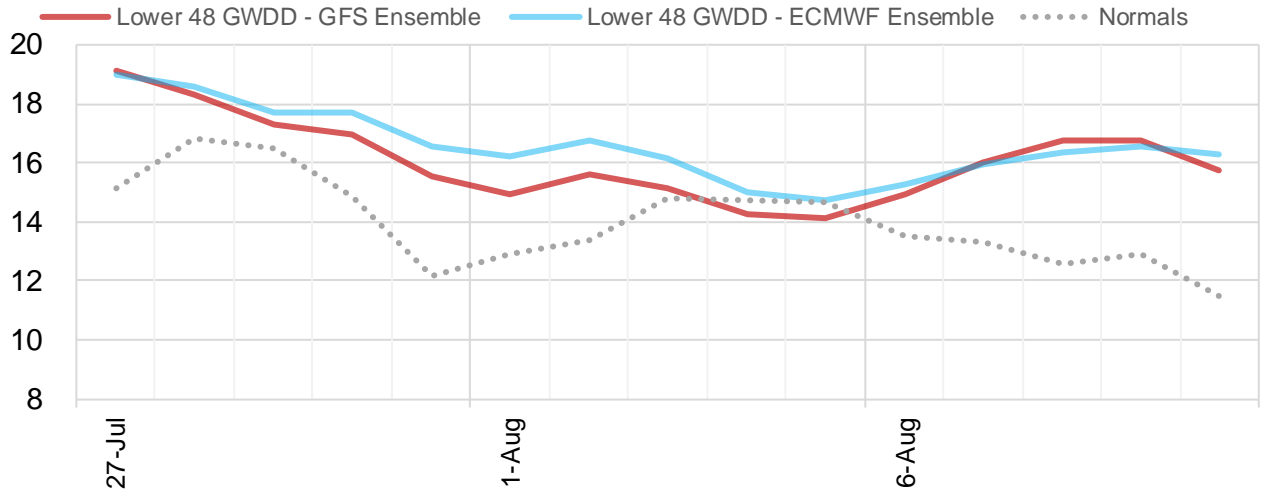
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.1	▼ 0.00	▼ -0.14

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	3.1	▼ 0.00	▼ -0.27

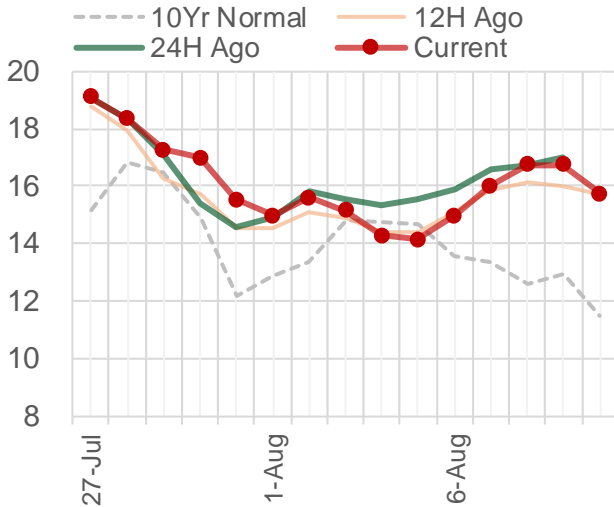
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.0	▲ 0.05	▼ -0.28

Short-term Weather Model Outlooks (00z)

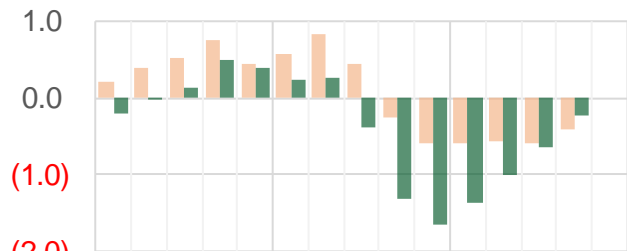
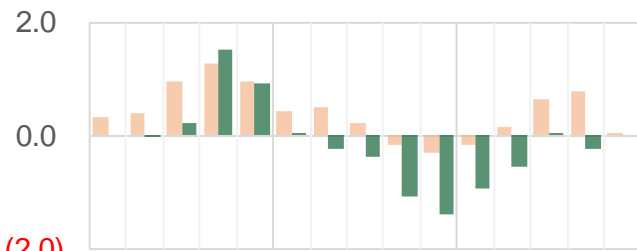
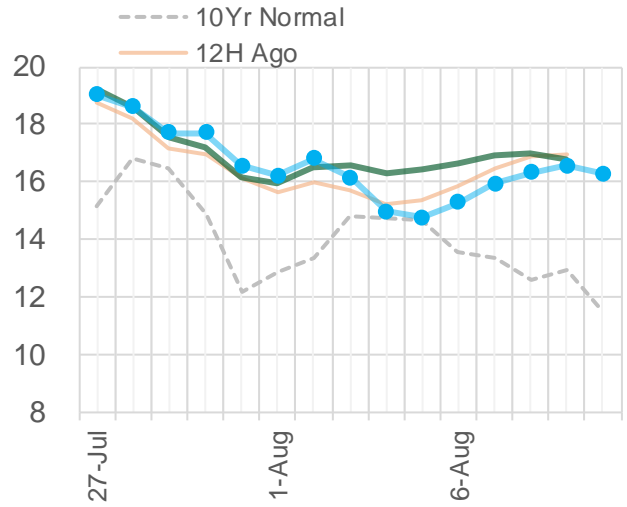
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	DoD	vs. 7D
Lower 48 Dry Production	85.6	85.9	86.1	86.1	86.1	86.0	86.1	▲ 0.1	▲ 0.1
Canadian Imports	4.4	4.1	4.0	4.1	4.1	4.1	4.1	▼ 0.0	▼ -0.1
L48 Power	47.6	46.4	45.4	43.1	42.4	42.7	42.4	▼ -0.4	▼ -2.2
L48 Residential & Commercial	7.7	7.7	7.6	7.4	7.2	7.3	7.2	▼ 0.0	▼ -0.2
L48 Industrial	17.0	17.2	17.5	17.9	18.1	18.4	18.1	▼ -0.3	▲ 0.4
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	4.8	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	2.5	2.5	2.4	2.3	2.3	2.3	2.3	▼ 0.0	▼ -0.1
L48 Regional Gas Consumption	79.6	78.6	77.7	75.5	74.8	75.5	74.8	▼ -0.7	▼ -2.1
Net LNG Exports	3.6	3.5	3.4	2.9	3.1	3.1	3.1	▼ 0.0	▼ -0.2
Total Mexican Exports	6.6	6.2	6.6	6.5	6.0	6.0	6.0	▲ 0.0	▼ -0.3
Implied Daily Storage Activity	0.3	1.7	2.4	5.2	6.2	5.4	6.2		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	19-Jun	26-Jun	3-Jul	10-Jul	17-Jul	24-Jul	WoW	vs. 4W
Lower 48 Dry Production	85.1	84.9	85.2	85.6	85.5	86.2	▲ 0.7	▲ 0.9
Canadian Imports	3.8	4.2	4.1	4.3	4.5	4.4	▼ -0.1	▲ 0.1
L48 Power	30.3	37.1	38.4	41.8	42.9	45.7	▲ 2.7	▲ 5.6
L48 Residential & Commercial	8.0	7.4	7.4	7.3	7.4	7.6	▲ 0.2	▲ 0.2
L48 Industrial	19.0	19.3	19.8	18.8	18.3	17.2	▼ -1.2	▼ -1.9
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	1.8	2.1	2.2	2.2	2.3	2.4	▲ 0.1	▲ 0.2
L48 Regional Gas Consumption	63.8	70.7	72.6	74.9	75.7	77.7	▲ 1.9	▲ 4.2
Net LNG Exports	3.8	4.0	4.0	3.0	3.3	3.6	▲ 0.3	▲ 0.0
Total Mexican Exports	5.6	5.9	5.8	5.9	6.2	6.3	▲ 0.1	▲ 0.4
Implied Daily Storage Activity	15.7	8.5	6.9	6.0	4.8	3.0	-1.8	
EIA Reported Daily Storage Activity	17.1	9.3	8.0	6.4	5.3			
Daily Model Error	-1.5	-0.8	-1.1	-0.4	-0.5			

Monthly Balances

	2Yr Ago Jul-18	LY Jul-19	Mar-20	Apr-20	May-20	Jun-20	MTD Jul-20	MoM	vs. LY
Lower 48 Dry Production	81.8	90.1	93.3	91.8	86.0	84.9	85.8	▲ 0.9	▼ -4.3
Canadian Imports	5.6	5.0	4.1	4.0	3.9	4.0	4.3	▲ 0.3	▼ -0.7
L48 Power	39.1	40.9	28.3	25.3	26.3	34.3	43.1	▲ 8.8	▲ 2.2
L48 Residential & Commercial	7.8	8.1	27.5	20.9	12.3	7.7	7.4	▼ -0.3	▼ -0.7
L48 Industrial	20.7	20.3	22.8	20.7	20.3	19.6	18.2	▼ -1.4	▼ -2.1
L48 Lease and Plant Fuel	4.6	5.0	5.2	5.1	4.8	4.8	4.8	▲ 0.0	▼ -0.2
L48 Pipeline Distribution	2.2	2.2	2.5	2.1	1.9	2.0	2.3	▲ 0.3	▲ 0.1
L48 Regional Gas Consumption	74.3	76.6	86.4	74.2	65.6	68.3	75.8	▲ 7.5	▼ -0.8
Net LNG Exports	3.3	6.0	8.5	8.2	6.7	4.0	3.3	▼ -0.8	▼ -2.7
Total Mexican Exports	5.0	5.4	5.6	4.9	4.9	5.7	6.1	▲ 0.4	▲ 0.7
Implied Daily Storage Activity	4.8	7.1	-3.1	8.4	12.7	10.9	4.9		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 24-Jul

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	2.8	0.7	3.5	22
East	-0.6	2.0	1.4	9
Midwest	2.6	-0.7	1.9	12
Mountain	2.9	-2.4	0.4	3
South Central	-2.9	2.2	-0.6	-4
Pacific	0.7	-0.3	0.4	3

*Adjustment Factor is calculated based on historical regional deltas

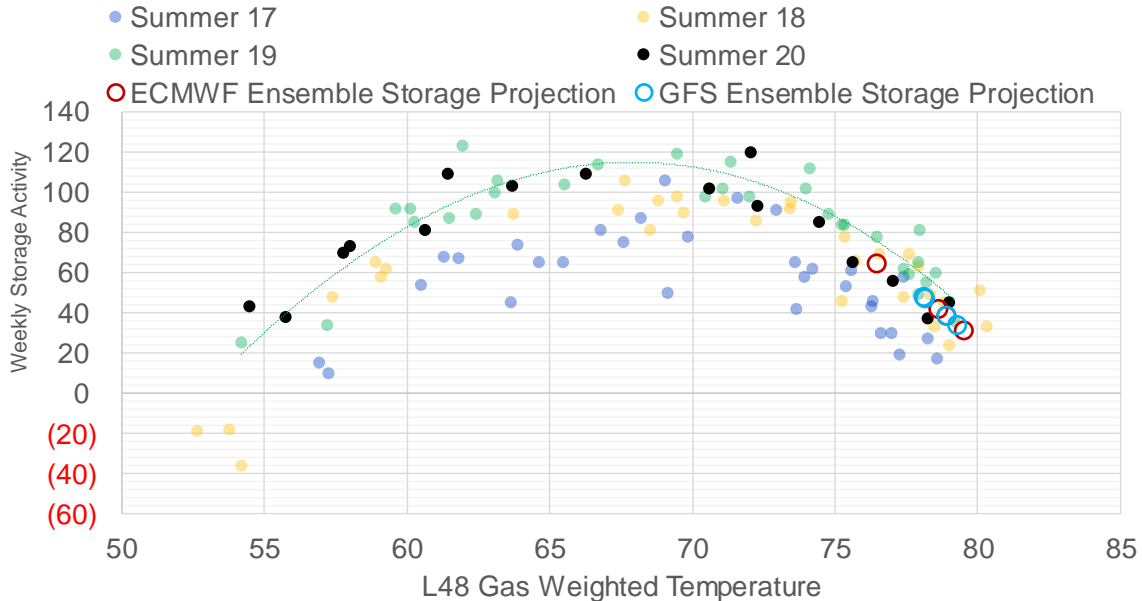
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

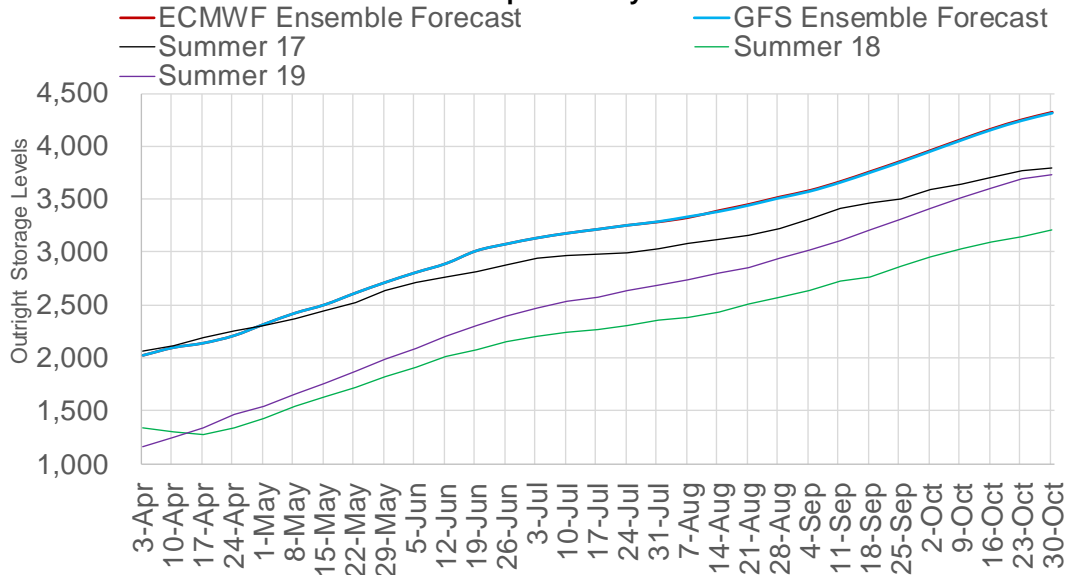
Next report and beyond	
Week Ending	Week Storage Projection
31-Jul	33
7-Aug	45
14-Aug	56

Weather Storage Model - Next 4 Week Forecast

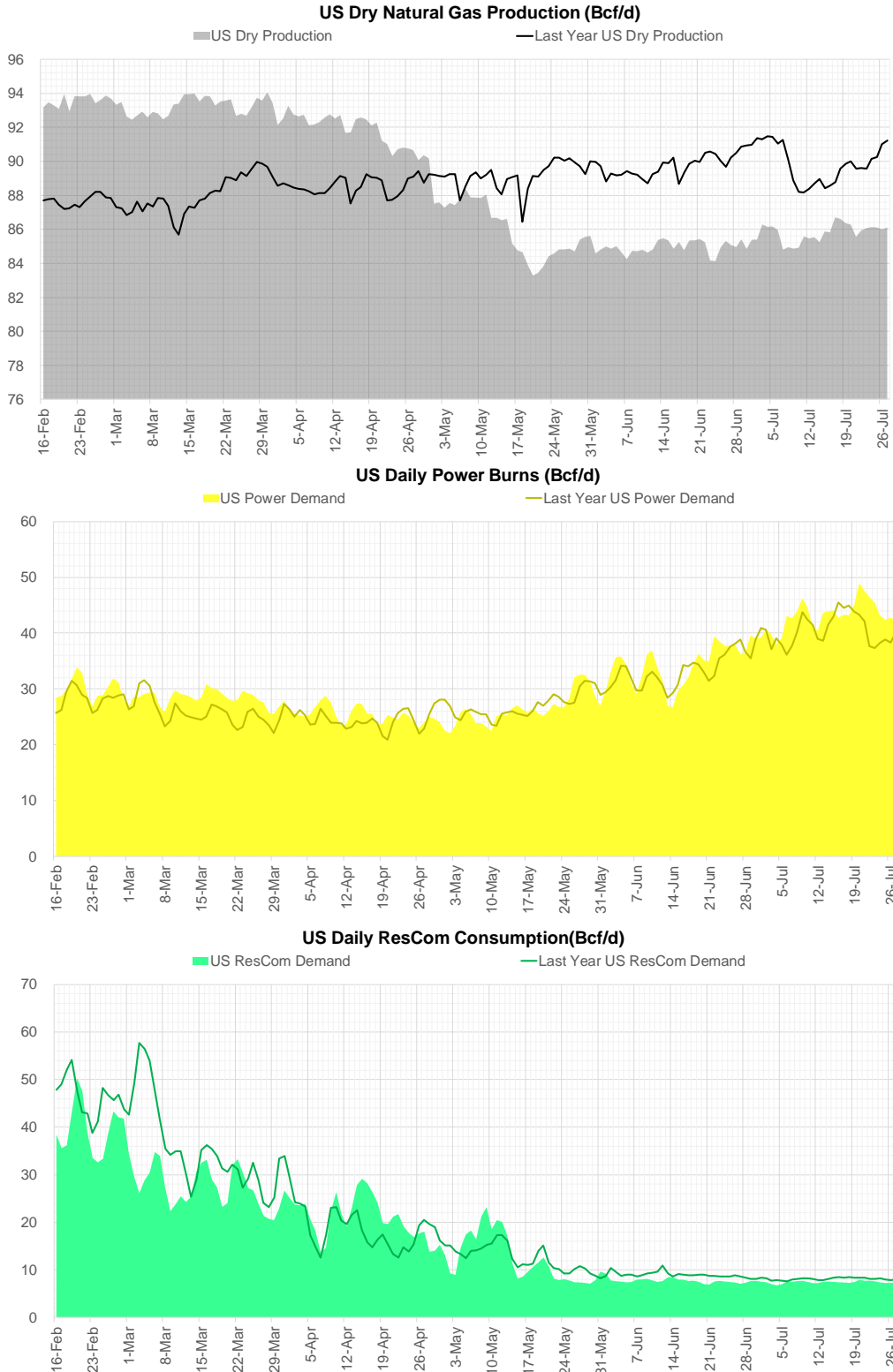


Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



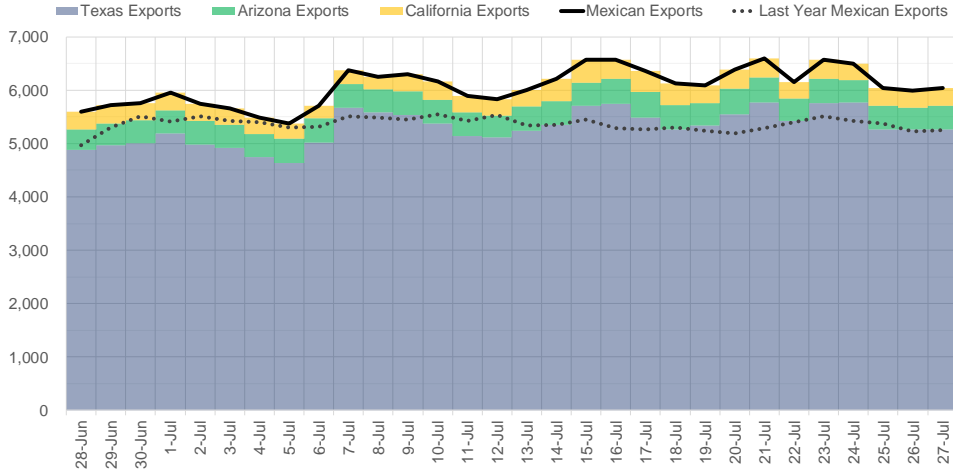
Supply – Demand Trends



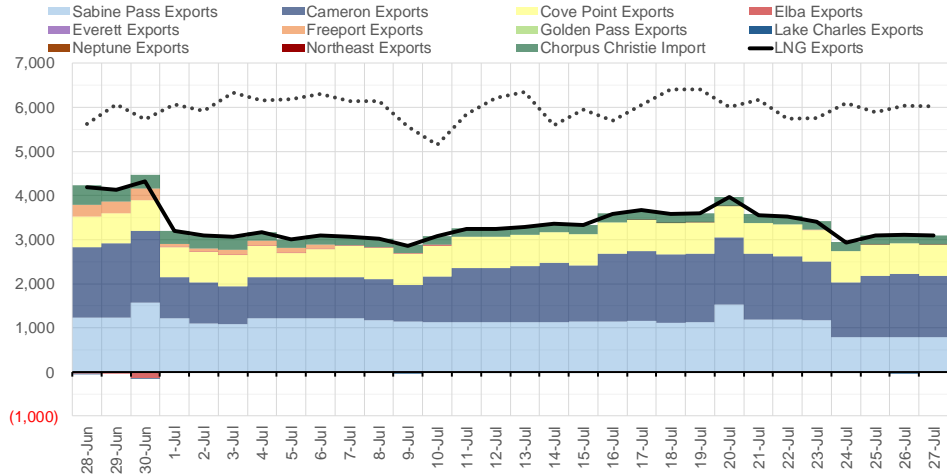
Source: Bloomberg

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.

Mexican Exports - Last 30 days (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

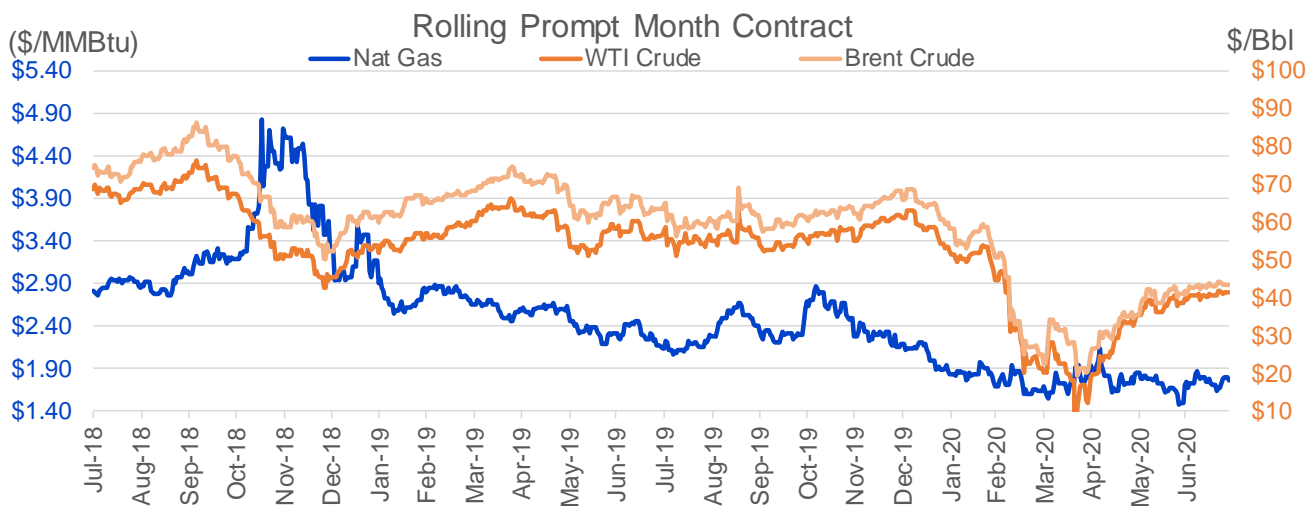
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
9	2020	P	1.50	8849	10	2020	C	2.75	49359
9	2020	C	3.25	7810	10	2020	P	1.50	49121
10	2020	C	2.75	5115	8	2020	C	2.00	37984
8	2020	C	2.00	4980	10	2020	C	2.50	36420
10	2020	P	1.00	3362	3	2021	P	2.00	35681
8	2020	P	1.75	3356	9	2020	P	1.50	33216
11	2020	P	1.75	2946	10	2020	P	1.60	32364
10	2020	P	1.60	2748	10	2020	C	3.00	31928
10	2020	P	1.50	2668	8	2020	P	1.50	30727
10	2020	P	1.75	2666	10	2020	P	2.00	30679
10	2020	C	2.50	2350	9	2020	C	2.50	30113
10	2020	P	1.80	2290	10	2020	P	1.25	28348
10	2020	P	0.75	2252	10	2020	P	1.75	26459
8	2020	C	1.90	2139	9	2020	P	1.00	24797
9	2020	P	1.75	2110	9	2020	C	3.00	24385
9	2020	C	2.25	1926	8	2020	C	2.50	23901
8	2020	P	1.65	1904	9	2020	P	1.20	23767
9	2020	P	1.40	1875	3	2021	C	3.00	21504
11	2020	P	1.85	1800	9	2020	P	1.75	20826
8	2020	P	1.70	1788	9	2020	C	2.00	20278
9	2020	P	1.25	1764	9	2020	P	1.25	20119
9	2020	P	1.70	1736	9	2020	P	1.30	19368
9	2020	C	2.20	1694	8	2020	C	2.25	18979
9	2020	C	2.10	1628	8	2020	P	1.30	18845
8	2020	C	1.80	1590	10	2020	P	1.30	18745
11	2020	C	2.75	1471	3	2021	C	6.00	18626
9	2020	P	1.35	1359	9	2020	C	2.75	18588
8	2020	P	1.60	1339	10	2020	C	2.10	18523
9	2020	P	1.60	1304	10	2020	P	1.00	18468
11	2020	P	1.50	1279	1	2021	C	3.50	18259
11	2020	C	3.00	1191	10	2020	C	3.25	18190
9	2020	C	2.30	1006	10	2020	P	2.10	18133
3	2021	C	10.00	1000	3	2021	C	3.50	17908
10	2020	P	1.70	839	10	2020	C	2.25	17752
10	2020	P	1.85	800	12	2020	P	2.00	17453
9	2020	C	2.00	779	1	2021	C	3.00	17188
9	2020	P	1.30	689	9	2020	C	2.25	17041
8	2020	C	1.75	673	8	2020	P	1.75	16792
10	2020	C	2.00	664	8	2020	P	1.00	16762
2	2021	P	2.50	600	8	2020	P	1.65	16434
3	2021	P	2.50	600	10	2020	C	2.40	16105
10	2020	P	1.55	558	10	2020	C	2.00	15994
11	2020	P	2.25	550	11	2020	P	1.75	15789
10	2020	C	2.40	515	8	2020	P	1.25	15675
8	2020	C	1.85	501	8	2020	P	1.20	15638
1	2021	P	2.50	500	4	2021	C	3.00	15541
3	2021	C	7.00	500	12	2020	P	1.50	15254
11	2020	C	3.50	475	8	2020	C	3.00	14670
9	2020	C	2.40	463	9	2020	C	3.25	14191

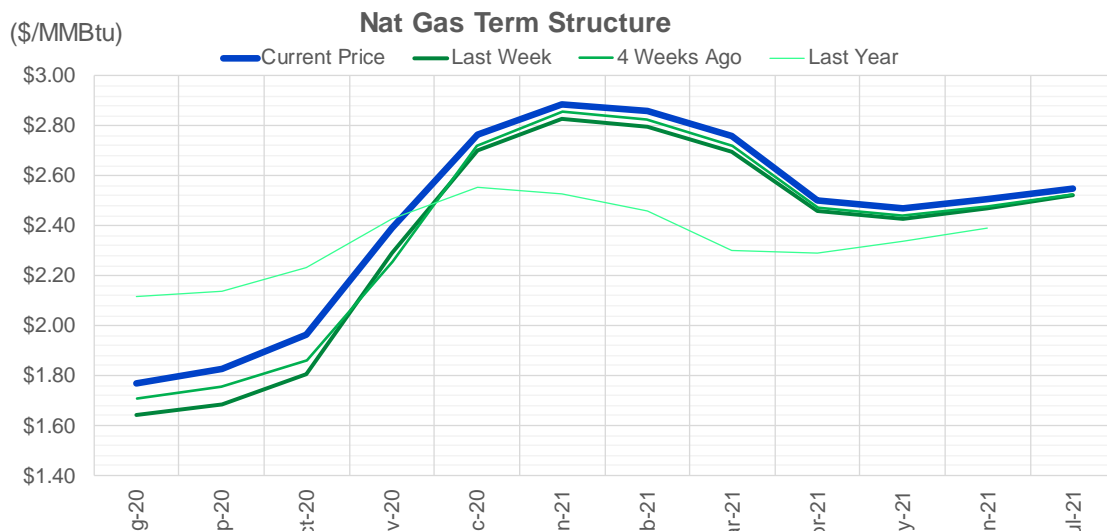
Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, and ICE Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM			
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
AUG 20	17719	34031	-16312	AUG 20	69487	70203	-716
SEP 20	350602	349711	891	SEP 20	75858	74871	986.75
OCT 20	146634	145364	1270	OCT 20	82553	83530	-977.25
NOV 20	98082	95691	2391	NOV 20	67417	67451	-34.25
DEC 20	87486	86163	1323	DEC 20	64462	63608	854
JAN 21	129117	127169	1948	JAN 21	81993	81293	700
FEB 21	41409	41720	-311	FEB 21	49593	49108	485.5
MAR 21	78994	80173	-1179	MAR 21	67270	66939	331.75
APR 21	77399	78065	-666	APR 21	54827	54263	564.5
MAY 21	35115	34629	486	MAY 21	47516	47071	445
JUN 21	20704	20440	264	JUN 21	46141	46076	64.75
JUL 21	16952	17136	-184	JUL 21	46848	46685	163.75
AUG 21	14105	14119	-14	AUG 21	47244	47064	179.25
SEP 21	16520	16463	57	SEP 21	44764	44688	75.75
OCT 21	42661	42122	539	OCT 21	66500	66478	22.5
NOV 21	22343	22340	3	NOV 21	37694	38101	-407
DEC 21	15395	15454	-59	DEC 21	39722	39668	54.5
JAN 22	14702	14559	143	JAN 22	31568	31444	124.25
FEB 22	8823	8786	37	FEB 22	28223	28127	95.5
MAR 22	13639	13594	45	MAR 22	30125	30050	74.75
APR 22	13394	13381	13	APR 22	29079	29018	61
MAY 22	5341	5291	50	MAY 22	23027	22997	29.5
JUN 22	2556	2553	3	JUN 22	22549	22495	53.5
JUL 22	1936	1930	6	JUL 22	22550	22524	26.25
AUG 22	1361	1352	9	AUG 22	22362	22295	67
SEP 22	1881	1865	16	SEP 22	21988	21933	55.5
OCT 22	2292	2309	-17	OCT 22	23702	23607	94.5
NOV 22	1646	1654	-8	NOV 22	20749	20701	48
DEC 22	1346	1329	17	DEC 22	21226	21178	48.25
JAN 23	2595	2592	3	JAN 23	11250	11227	23.5

Source: CME, ICE





	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21
Current Price	\$1.768	\$1.826	\$1.964	\$2.390	\$2.763	\$2.888	\$2.857	\$2.757	\$2.503	\$2.469	\$2.505	\$2.550
Last Week	\$1.641	\$1.684	\$1.808	\$2.291	\$2.699	\$2.827	\$2.795	\$2.696	\$2.457	\$2.427	\$2.470	\$2.520
vs. Last Week	\$0.127	\$0.142	\$0.156	\$0.099	\$0.064	\$0.061	\$0.062	\$0.061	\$0.046	\$0.042	\$0.035	\$0.030
4 Weeks Ago	\$1.709	\$1.754	\$1.863	\$2.255	\$2.720	\$2.859	\$2.826	\$2.722	\$2.470	\$2.439	\$2.478	\$2.524
vs. 4 Weeks Ago	\$0.059	\$0.072	\$0.101	\$0.135	\$0.043	\$0.029	\$0.031	\$0.035	\$0.033	\$0.030	\$0.027	\$0.026
Last Year	\$2.141	\$2.116	\$2.139	\$2.233	\$2.427	\$2.555	\$2.530	\$2.459	\$2.299	\$2.290	\$2.339	\$2.389
vs. Last Year	-\$0.373	-\$0.290	-\$0.175	\$0.157	\$0.336	\$0.333	\$0.327	\$0.298	\$0.204	\$0.179	\$0.166	\$0.161

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.83	1.60	-0.24
TETCO M3	\$/MMBtu	1.86	1.67	-0.19
FGT Zone 3	\$/MMBtu	1.80	1.73	-0.07
Zone 6 NY	\$/MMBtu	1.80	1.55	-0.25
Chicago Citygate	\$/MMBtu	1.65	1.59	-0.06
Michcon	\$/MMBtu	1.70	1.53	-0.17
Columbia TCO Pool	\$/MMBtu	1.54	1.43	-0.11
Ventura	\$/MMBtu	1.62	1.56	-0.06
Rockies/Opal	\$/MMBtu	1.57	1.46	-0.11
El Paso Permian Basin	\$/MMBtu	1.07	1.39	0.32
Socal Citygate	\$/MMBtu	1.68	1.78	0.10
Malin	\$/MMBtu	1.59	1.56	-0.03
Houston Ship Channel	\$/MMBtu	1.71	1.63	-0.08
Henry Hub Cash	\$/MMBtu	1.63	1.54	-0.09
AECO Cash	C\$/GJ	1.53	1.38	-0.15
Station2 Cash	C\$/GJ	1.51	1.56	0.05
Dawn Cash	C\$/GJ	1.68	1.57	-0.11

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.39	▼ -0.015	▲ 0.004	▼ -0.010	
NatGas Mar/Apr	\$/MMBtu	-0.254	▼ -0.015	▼ -0.506	▼ -0.498	
NatGas Oct/Nov	\$/MMBtu	0.43	▼ -0.057	▲ 0.034	▲ 0.354	
NatGas Oct/Jan	\$/MMBtu	0.92	▼ -0.095	▼ -0.072	▲ 0.573	
WTI Crude	\$/Bbl	41.45	▲ 0.640	▲ 1.750	▼ -15.420	
Brent Crude	\$/Bbl	43.51	▲ 0.230	▲ 1.800	▼ -20.200	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	125.24	▲ 1.690	▲ 8.700	▼ -65.820	
Propane, Mt. Bel	cents/Gallon	0.50	▲ 0.011	▼ -0.001	▲ 0.007	
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.002	▼ -0.002	▲ 0.070	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.000	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -7.500	