

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.23	▲ \$ 0.04	▲ \$ 0.27

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 41.94	▼ \$ (0.25)	▲ \$ 1.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 45.02	▼ \$ (0.15)	▲ \$ 1.2

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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	1.0	2.1	-0.9	2.2
24 Hr Chg	-0.1	0.0	-0.7	-0.8

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.5	2.8	1.1	4.4
24 Hr Chg	-1.7	3.4	-1.2	0.5

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	85.1	▼ -0.48	▼ -0.75

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	38.1	▼ -1.00	▼ -3.97

	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.5	▼ -0.17	▼ -0.26

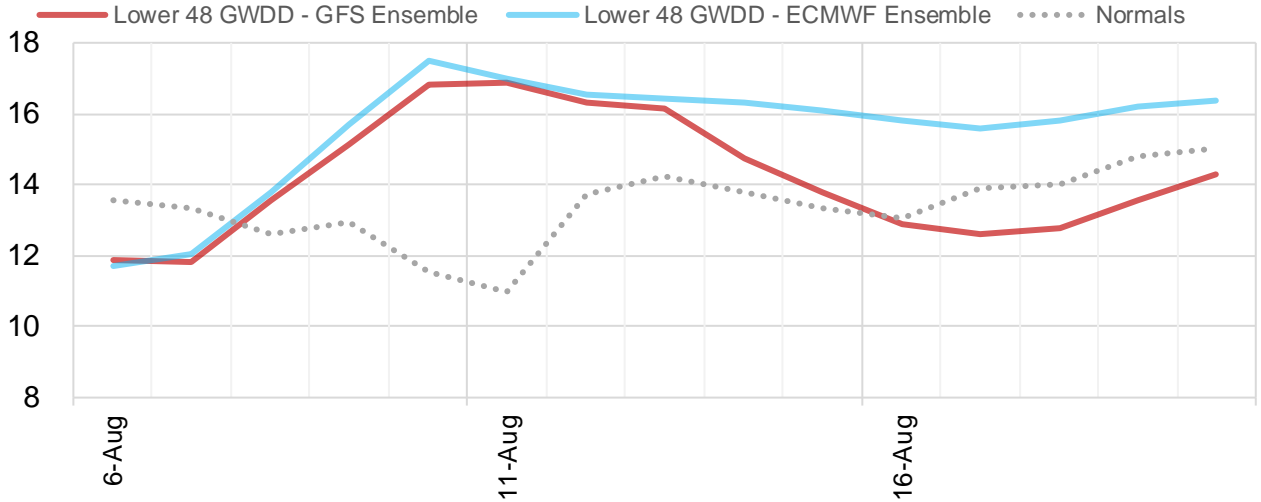
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.2	▼ -0.68	▼ -0.54

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	4.0	▲ 0.20	▲ 0.23

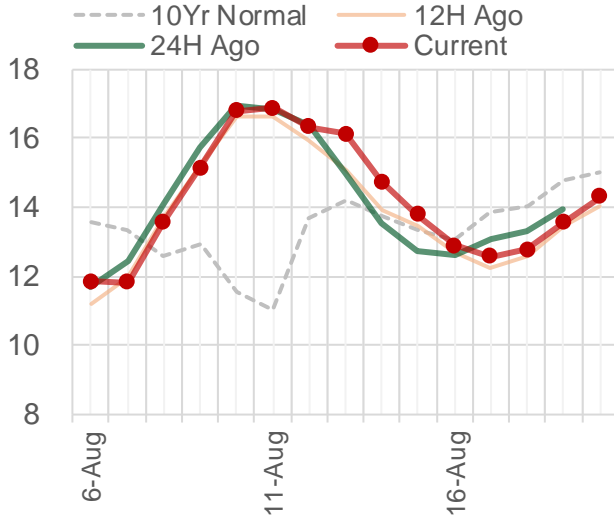
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.1	▼ -0.20	▼ -0.16

Short-term Weather Model Outlooks (00z)

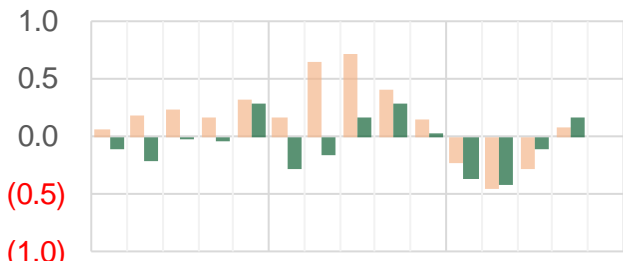
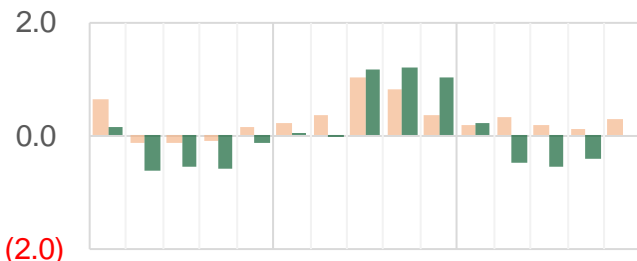
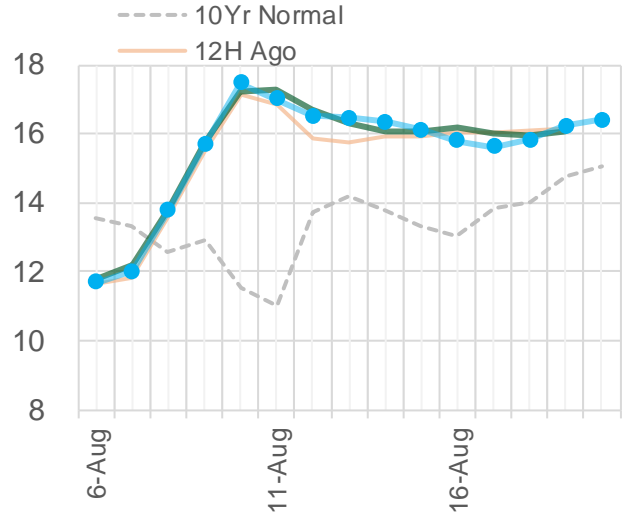
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	31-Jul	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	DoD	vs. 7D
Lower 48 Dry Production	85.9	85.8	86.1	85.9	85.7	85.6	85.1	▼ -0.5	▼ -0.7
Canadian Imports	4.6	4.6	4.6	4.8	4.9	4.9	4.2	▼ -0.7	▼ -0.5
L48 Power	44.4	40.8	40.5	43.0	40.2	39.0	38.1	▼ -1.0	▼ -3.3
L48 Residential & Commercial	7.9	7.4	7.5	8.0	7.8	7.7	7.5	▼ -0.2	▼ -0.2
L48 Industrial	17.0	17.1	17.2	17.5	17.6	17.8	18.0	▲ 0.2	▲ 0.7
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.4	2.2	2.2	2.4	2.2	2.2	2.1	▼ -0.1	▼ -0.2
L48 Regional Gas Consumption	76.5	72.3	72.2	75.6	72.5	71.5	70.5	▼ -1.0	▼ -3.0
Net LNG Exports	3.3	4.1	3.9	3.9	3.9	3.8	4.0	▲ 0.2	▲ 0.2
Total Mexican Exports	6.5	6.0	5.9	6.5	6.3	6.3	6.1	▼ -0.2	▼ -0.1
Implied Daily Storage Activity	4.2	8.0	8.7	4.7	7.9	9.0	8.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	26-Jun	3-Jul	10-Jul	17-Jul	24-Jul	31-Jul	WoW	vs. 4W
Lower 48 Dry Production	84.7	84.9	85.3	85.2	85.9	85.9	▼ 0.0	▲ 0.6
Canadian Imports	4.2	4.1	4.3	4.5	4.4	4.5	▲ 0.1	▲ 0.2
L48 Power	37.1	38.5	41.8	42.9	45.5	45.6	▲ 0.1	▲ 3.4
L48 Residential & Commercial	8.3	8.2	7.9	7.9	8.1	8.1	▲ 0.1	▲ 0.1
L48 Industrial	18.0	18.7	17.9	17.5	16.8	16.8	▲ 0.0	▼ -0.9
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.2	2.2	2.3	2.3	2.4	2.4	▲ 0.0	▲ 0.1
L48 Regional Gas Consumption	70.4	72.3	74.6	75.4	77.6	77.8	▲ 0.2	▲ 2.8
Net LNG Exports	4.0	4.0	3.0	3.3	3.6	3.1	▼ -0.5	▼ -0.4
Total Mexican Exports	5.9	5.8	5.9	6.2	6.4	6.2	▼ -0.2	▲ 0.1
Implied Daily Storage Activity	8.5	6.9	6.0	4.8	2.7	3.3	0.6	
EIA Reported Daily Storage Activity	9.3	8.0	6.4	5.3	3.7			
Daily Model Error	-0.8	-1.1	-0.4	-0.5	-1.0			

Monthly Balances

	2Yr Ago Aug-18	LY Aug-19	Apr-20	May-20	Jun-20	Jul-20	MTD Aug-20	MoM	vs. LY
Lower 48 Dry Production	83.3	92.4	91.7	86.0	84.8	85.6	85.7	▲ 0.2	▼ -6.7
Canadian Imports	5.0	4.4	3.9	3.9	4.0	4.4	4.7	▲ 0.3	▲ 0.3
L48 Power	38.2	41.0	25.5	26.9	34.4	43.7	40.3	▼ -3.5	▼ -0.8
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.7	▼ -0.3	▼ -0.2
L48 Industrial	20.3	21.9	20.7	18.7	18.2	17.3	17.5	▲ 0.2	▼ -4.3
L48 Lease and Plant Fuel	4.7	5.1	5.1	4.8	4.8	4.8	4.8	▼ 0.0	▼ -0.4
L48 Pipeline Distribution	2.1	2.3	2.1	1.9	2.1	2.3	2.2	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	73.1	78.1	73.8	65.4	68.0	76.2	72.4	▼ -3.7	▼ -5.7
Net LNG Exports	3.3	5.2	8.2	6.7	4.0	3.3	3.9	▲ 0.7	▼ -1.2
Total Mexican Exports	5.0	5.4	4.9	4.9	5.7	6.1	6.2	▲ 0.0	▲ 0.8
Implied Daily Storage Activity	6.9	8.1	8.7	12.9	11.0	4.4	7.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

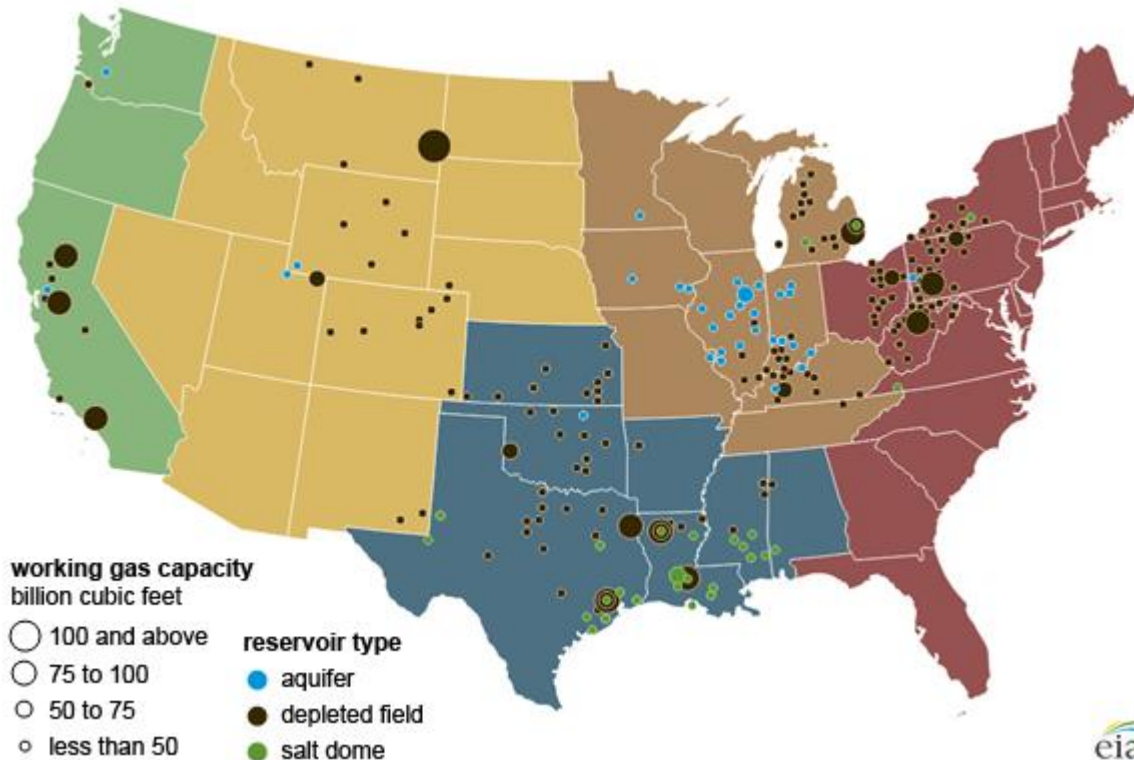
Regional S/D Models Storage Projection

Week Ending 31-Jul

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	3.1	1.1	4.1	29
East	-1.2	2.4	1.2	8
Midwest	2.4	-0.5	1.9	13
Mountain	3.0	-2.3	0.7	5
South Central	-1.8	1.9	0.2	1
Pacific	0.6	-0.5	0.2	1

*Adjustment Factor is calculated based on historical regional deltas

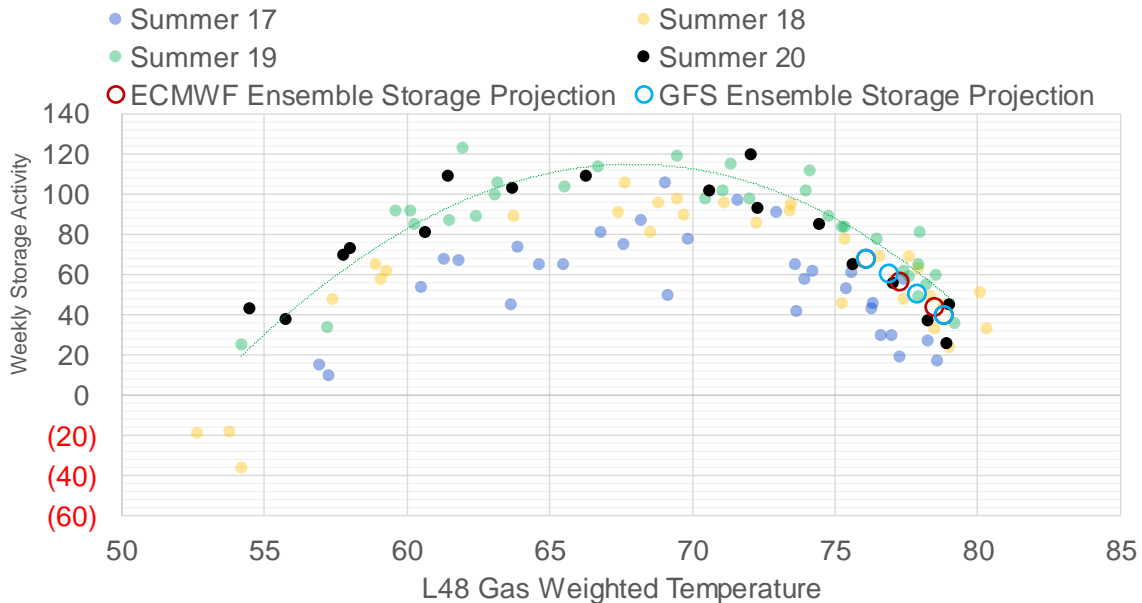
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

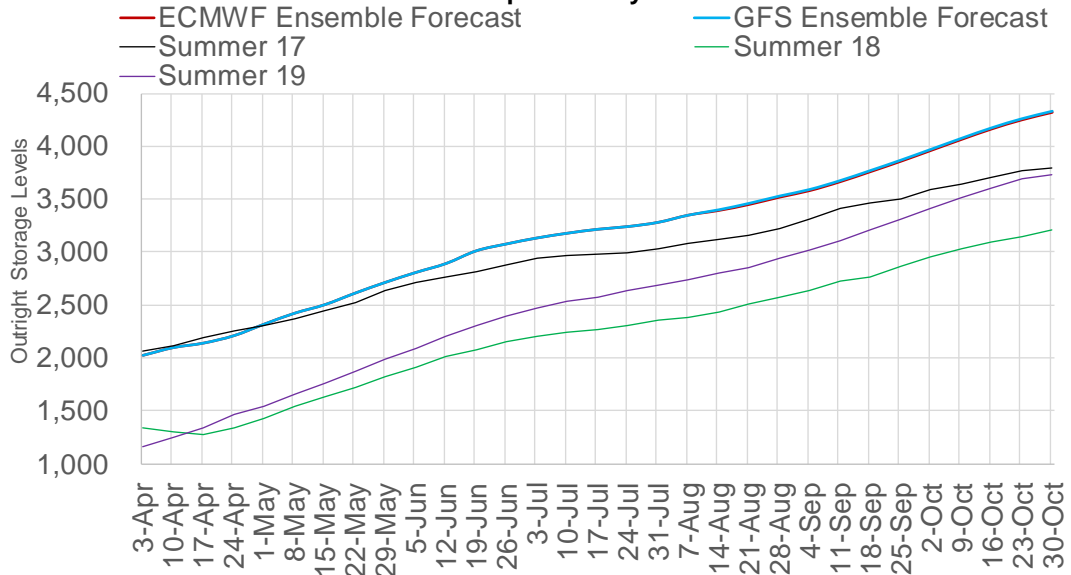
Next report and beyond	
Week Ending	Week Storage Projection
7-Aug	68
14-Aug	47
21-Aug	59

Weather Storage Model - Next 4 Week Forecast



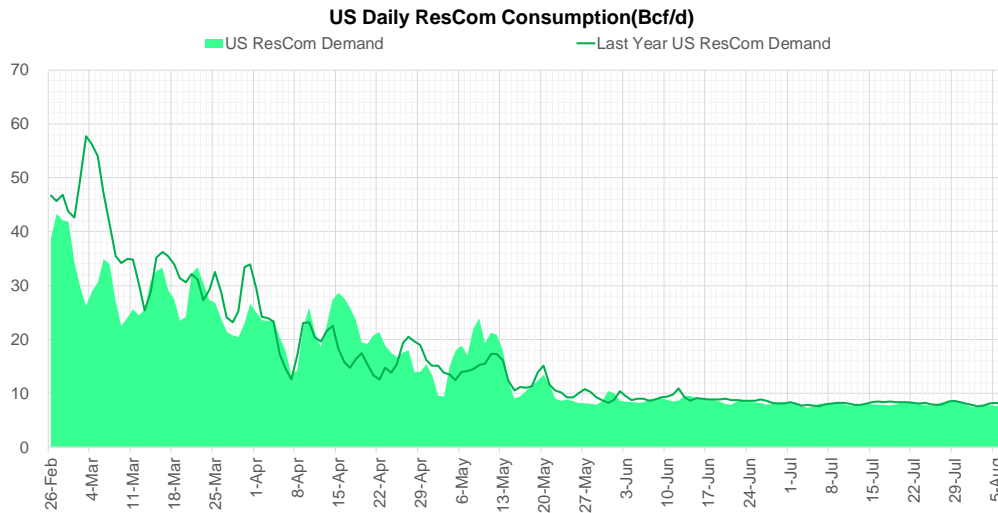
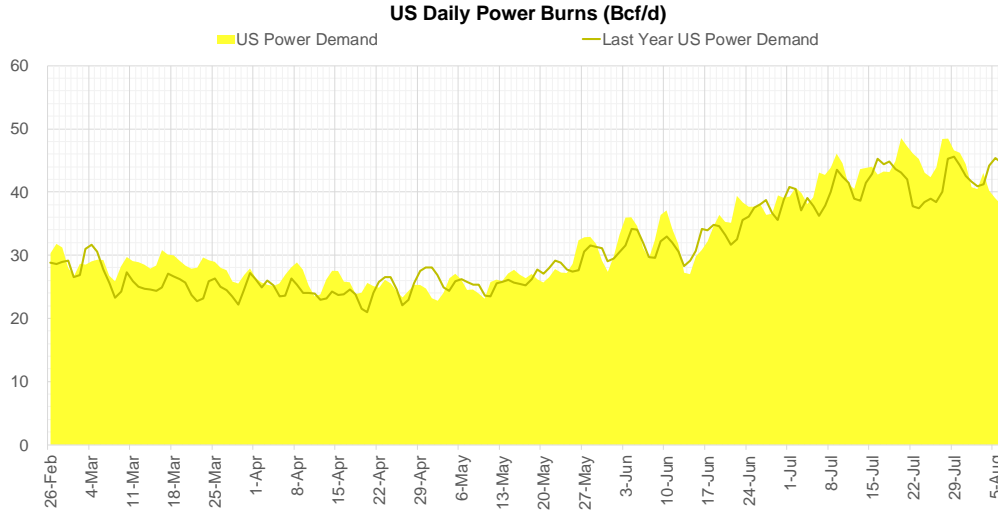
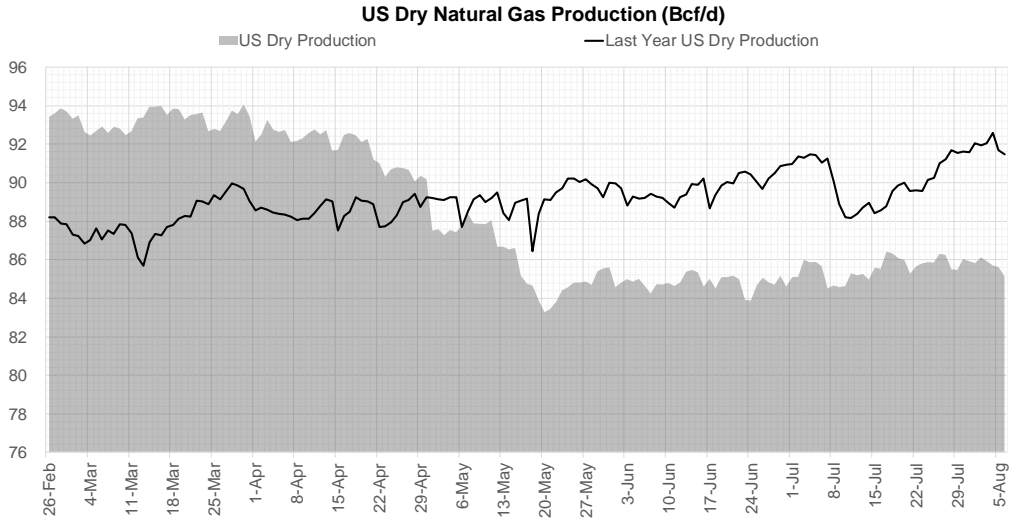
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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.

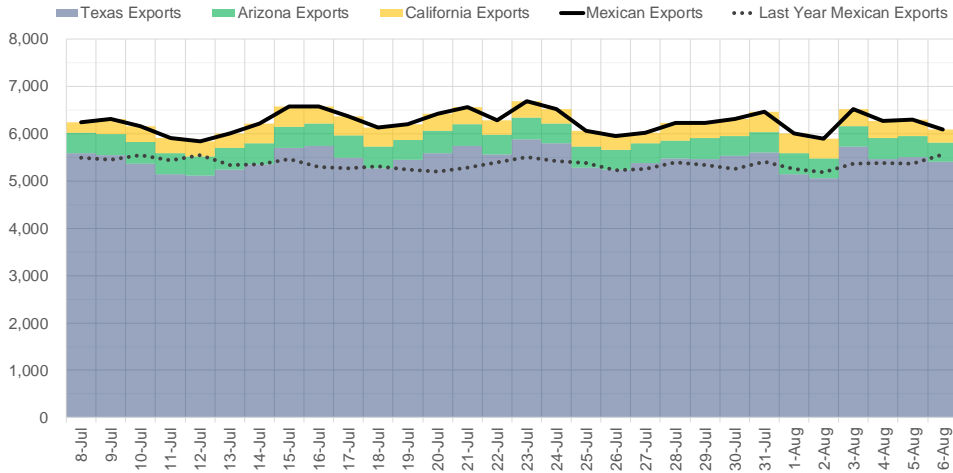
Supply – Demand Trends



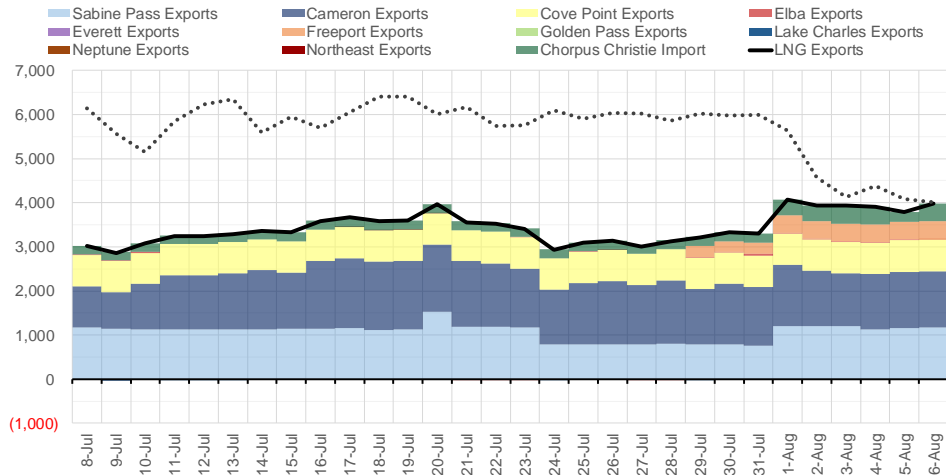
Source: Bloomberg

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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

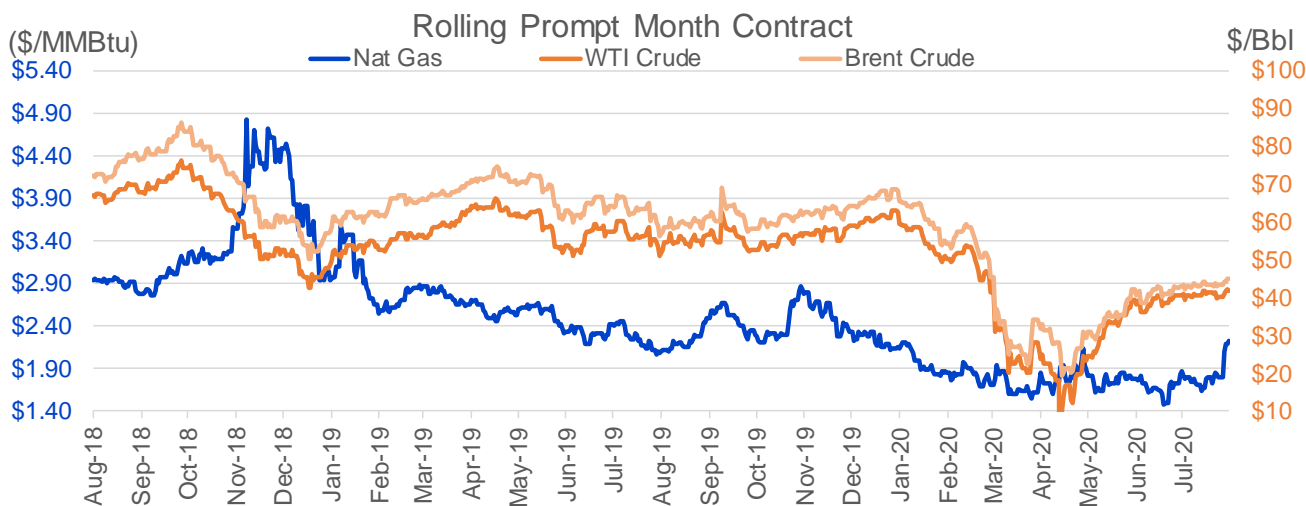
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
10	2020	C	2.75	13575	10	2020	P	1.50	49083
10	2020	C	3.00	12152	10	2020	C	2.75	48980
9	2020	C	2.50	8678	9	2020	C	2.50	43584
9	2020	P	2.00	7901	10	2020	C	2.50	39102
2	2021	C	6.00	6453	3	2021	P	2.00	35996
10	2020	C	3.25	6219	10	2020	P	1.60	34751
1	2021	C	6.00	5900	10	2020	P	2.00	33520
10	2020	C	2.50	5761	10	2020	C	3.00	32620
1	2021	C	4.50	5600	10	2020	P	1.25	28740
10	2020	P	1.80	5448	9	2020	P	1.50	28049
2	2021	C	4.50	5310	3	2021	C	6.00	25504
10	2020	P	1.90	4175	9	2020	C	3.00	25394
10	2020	P	1.75	4161	10	2020	P	1.75	25337
9	2020	C	3.00	4077	9	2020	P	1.75	24847
9	2020	P	1.75	3618	10	2020	P	1.00	24762
10	2020	C	2.60	3568	9	2020	P	1.00	24289
9	2020	P	2.10	3501	9	2020	C	2.00	22992
10	2020	P	2.00	3180	9	2020	P	1.20	22889
10	2020	P	1.50	3170	3	2021	C	3.00	22674
9	2020	C	2.30	3033	10	2020	C	2.10	22556
9	2020	C	2.75	2919	9	2020	P	1.25	20141
11	2020	C	2.75	2787	9	2020	P	1.30	19460
1	2021	C	7.00	2500	10	2020	P	1.30	19109
9	2020	P	1.80	2496	12	2020	P	1.50	19054
9	2020	P	1.90	2449	3	2021	C	3.50	19045
12	2020	C	5.00	2301	10	2020	C	2.00	18587
11	2020	C	3.00	2300	10	2020	P	2.10	18543
9	2020	C	2.40	2195	1	2021	C	3.50	18527
9	2020	P	1.50	2010	9	2020	C	2.25	18123
10	2020	P	1.60	1696	12	2020	P	2.00	17944
10	2020	C	3.75	1617	10	2020	C	3.25	17869
9	2020	C	2.25	1537	1	2021	C	3.00	17408
3	2021	C	6.00	1500	10	2020	C	2.25	17312
11	2020	C	4.00	1454	9	2020	C	2.75	16807
11	2020	C	5.00	1370	9	2020	P	2.00	16689
9	2020	P	1.65	1336	10	2020	C	2.40	16547
10	2020	P	2.10	1302	11	2020	P	1.75	15700
9	2020	P	2.20	1251	11	2020	C	3.00	15620
9	2020	P	1.95	1203	4	2021	C	3.00	15412
9	2020	C	2.60	1115	11	2020	C	3.50	14036
11	2020	P	2.00	1102	1	2021	C	3.75	13927
9	2020	C	2.20	1071	10	2020	C	3.50	13662
9	2020	C	2.45	1070	11	2020	C	2.75	13571
9	2020	P	1.70	1035	1	2021	C	4.50	13374
10	2020	P	1.65	1016	10	2020	P	1.80	13155
9	2020	P	1.25	1007	9	2020	C	3.25	12896
1	2021	C	4.00	1001	4	2021	P	2.00	12824
12	2020	P	1.50	1000	10	2020	C	2.20	12764
12	2020	P	2.00	1000	1	2021	P	2.50	12559
					10	2021	C	3	12550

Source: CME, Nasdaq, ICE

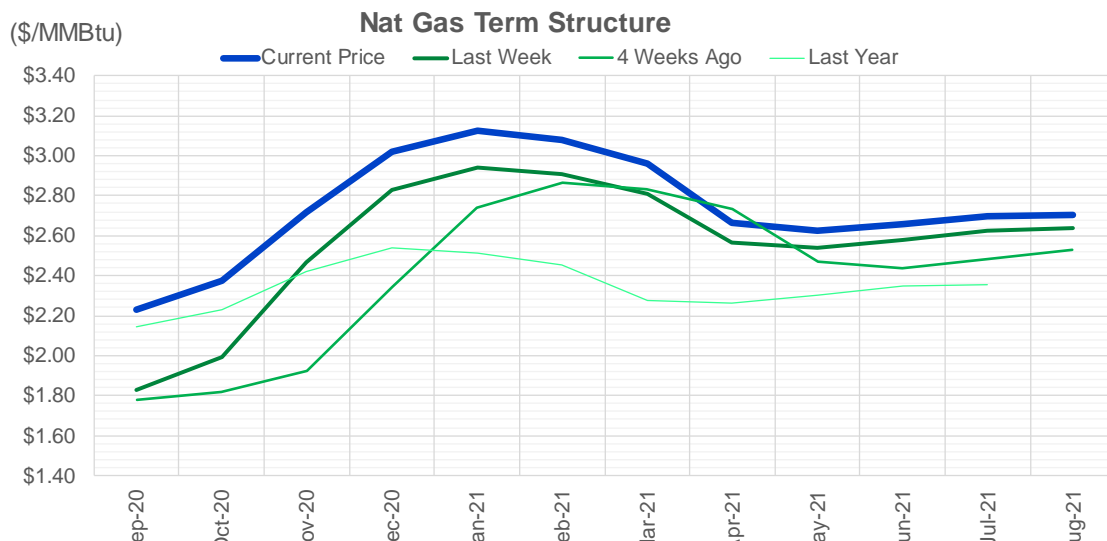
Nat Gas Futures Open Interest CME, and ICE Combined

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
SEP 20	323843	334705	-10862	SEP 20	72471	73063	-592.25
OCT 20	139555	140545	-990	OCT 20	80654	81535	-880.75
NOV 20	106921	104900	2021	NOV 20	67819	66288	1531
DEC 20	87848	86937	911	DEC 20	67862	66555	1306.75
JAN 21	127528	129503	-1975	JAN 21	87038	86445	592.25
FEB 21	39826	39735	91	FEB 21	53013	52404	608.5
MAR 21	83698	82001	1697	MAR 21	68467	69049	-581.75
APR 21	78784	78694	90	APR 21	58541	58355	185.25
MAY 21	39930	40105	-175	MAY 21	48813	48279	534.5
JUN 21	22941	22706	235	JUN 21	47892	47502	389.75
JUL 21	18314	18165	149	JUL 21	48986	48719	266.75
AUG 21	15747	15373	374	AUG 21	48018	48689	-671.25
SEP 21	18352	17801	551	SEP 21	46083	45788	295.25
OCT 21	48672	46977	1695	OCT 21	67721	67479	242.25
NOV 21	23714	23472	242	NOV 21	39427	39352	75
DEC 21	16473	16060	413	DEC 21	41280	41041	238.75
JAN 22	18032	17850	182	JAN 22	33836	33547	288.25
FEB 22	10621	10413	208	FEB 22	29173	29053	119.75
MAR 22	15210	15229	-19	MAR 22	31443	31349	93.5
APR 22	16014	15902	112	APR 22	30452	30263	188.75
MAY 22	5406	5419	-13	MAY 22	23426	23381	44.5
JUN 22	2823	2741	82	JUN 22	23415	23273	141.75
JUL 22	2119	2105	14	JUL 22	23145	23122	23.25
AUG 22	1723	1718	5	AUG 22	23141	23018	123.25
SEP 22	2246	2246	0	SEP 22	22628	22510	118.5
OCT 22	2562	2546	16	OCT 22	24252	24295	-42.25
NOV 22	1989	1982	7	NOV 22	21633	21528	105
DEC 22	1941	1935	6	DEC 22	22417	22187	230
JAN 23	2635	2635	0	JAN 23	11899	11914	-15.5
FEB 23	666	666	0	FEB 23	10812	10870	-57.75

Source: CME, ICE



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	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21
Current Price	\$2.229	\$2.374	\$2.716	\$3.019	\$3.126	\$3.082	\$2.958	\$2.667	\$2.627	\$2.656	\$2.696	\$2.703
Last Week	\$1.829	\$1.991	\$2.465	\$2.826	\$2.944	\$2.910	\$2.811	\$2.568	\$2.538	\$2.579	\$2.627	\$2.637
vs. Last Week	\$0.400	\$0.383	\$0.251	\$0.193	\$0.182	\$0.172	\$0.147	\$0.099	\$0.089	\$0.077	\$0.069	\$0.066
4 Weeks Ago	\$1.779	\$1.821	\$1.922	\$2.344	\$2.737	\$2.865	\$2.833	\$2.731	\$2.472	\$2.439	\$2.481	\$2.530
vs. 4 Weeks Ago	\$0.450	\$0.553	\$0.794	\$0.675	\$0.389	\$0.217	\$0.125	-\$0.064	\$0.155	\$0.217	\$0.215	\$0.173
Last Year	\$2.128	\$2.146	\$2.228	\$2.418	\$2.540	\$2.516	\$2.454	\$2.278	\$2.264	\$2.302	\$2.345	\$2.357
vs. Last Year	\$0.101	\$0.228	\$0.488	\$0.601	\$0.586	\$0.566	\$0.504	\$0.389	\$0.363	\$0.354	\$0.351	\$0.346

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.60	1.54	-0.06
TETCO M3	\$/MMBtu	1.55	1.40	-0.15
FGT Zone 3	\$/MMBtu	1.56	1.89	0.33
Zone 6 NY	\$/MMBtu	1.56	1.42	-0.14
Chicago Citygate	\$/MMBtu	1.95	1.68	-0.27
Michcon	\$/MMBtu	1.86	1.61	-0.25
Columbia TCO Pool	\$/MMBtu	1.79	1.46	-0.33
Ventura	\$/MMBtu	1.91	1.64	-0.27
Rockies/Opal	\$/MMBtu	1.83	1.58	-0.25
El Paso Permian Basin	\$/MMBtu	1.34	1.47	0.13
Socal Citygate	\$/MMBtu	2.18	1.89	-0.29
Malin	\$/MMBtu	1.85	1.68	-0.17
Houston Ship Channel	\$/MMBtu	2.20	1.82	-0.38
Henry Hub Cash	\$/MMBtu	2.17	1.71	-0.47
AECO Cash	C\$/GJ	1.78	1.48	-0.30
Station2 Cash	C\$/GJ	1.79	1.69	-0.10
Dawn Cash	C\$/GJ	1.92	1.62	-0.30

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.46	▼ -0.083	▼ -0.066	▼ -0.085	
NatGas Mar/Apr	\$/MMBtu	-0.291	▼ -0.048	▼ -0.550	▼ -0.534	
NatGas Oct/Nov	\$/MMBtu	0.34	▼ -0.132	▼ -0.080	▲ 0.274	
NatGas Oct/Jan	\$/MMBtu	0.75	▼ -0.201	▼ -0.191	▲ 0.404	
WTI Crude	\$/Bbl	41.94	▲ 2.020	▲ 2.320	▼ -10.600	
Brent Crude	\$/Bbl	45.02	▲ 2.080	▲ 2.670	▼ -12.360	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	125.54	▲ 4.350	▲ 3.150	▼ -52.120	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.014	▲ 0.023	▲ 0.098	
Ethane, Mt. Bel	cents/Gallon	0.23	▲ 0.011	▲ 0.010	▲ 0.073	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -7.500	