

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.44	▼ \$ (0.00)	▲ \$ 0.03

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 42.67	▲ \$ 0.33	▲ \$ 0.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 44.70	▲ \$ 0.35	▼ \$ (0.2)

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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	2.4	0.9	3.6	6.9
24 Hr Chg	-0.9	2.1	5.5	6.6

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.9	4.6	2.5	9.0
24 Hr Chg	-0.7	9.2	3.1	11.6

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.1	▼ -0.71	▼ -1.95

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	40.7	▲ 0.60	▲ 1.21

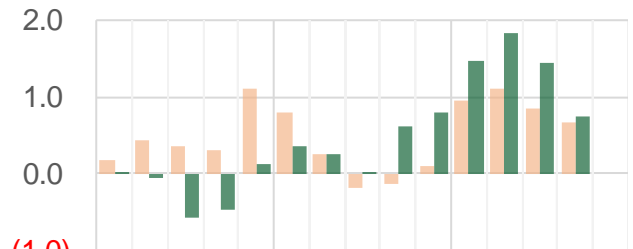
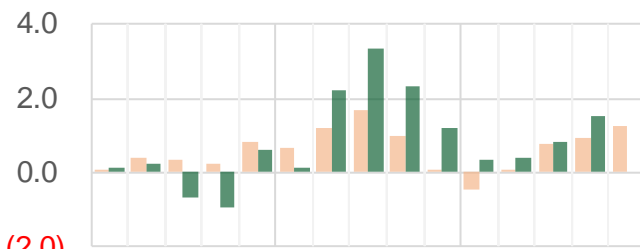
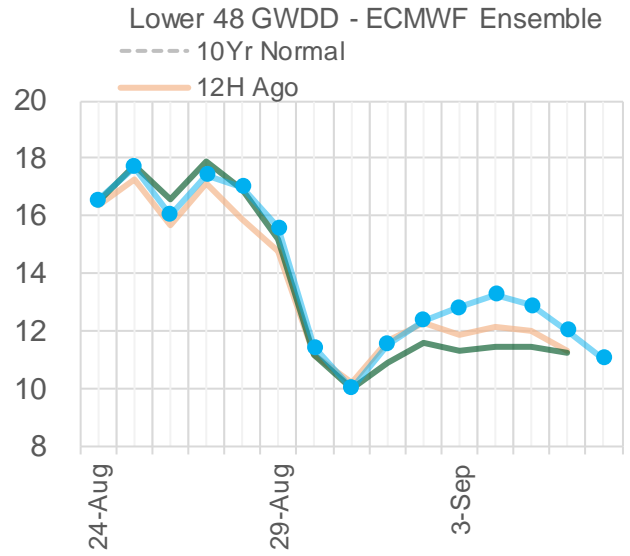
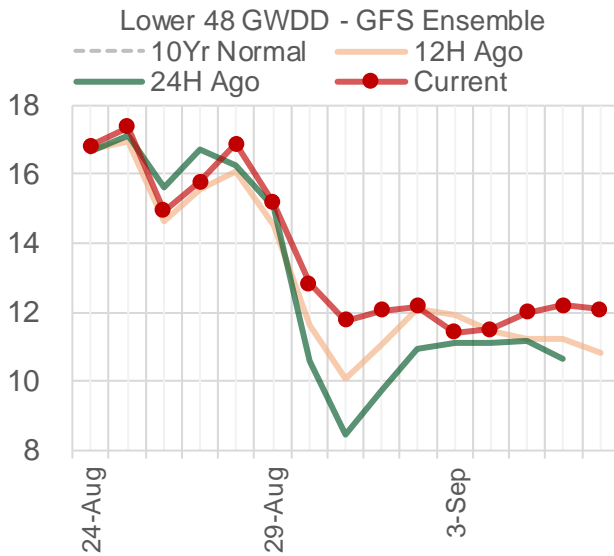
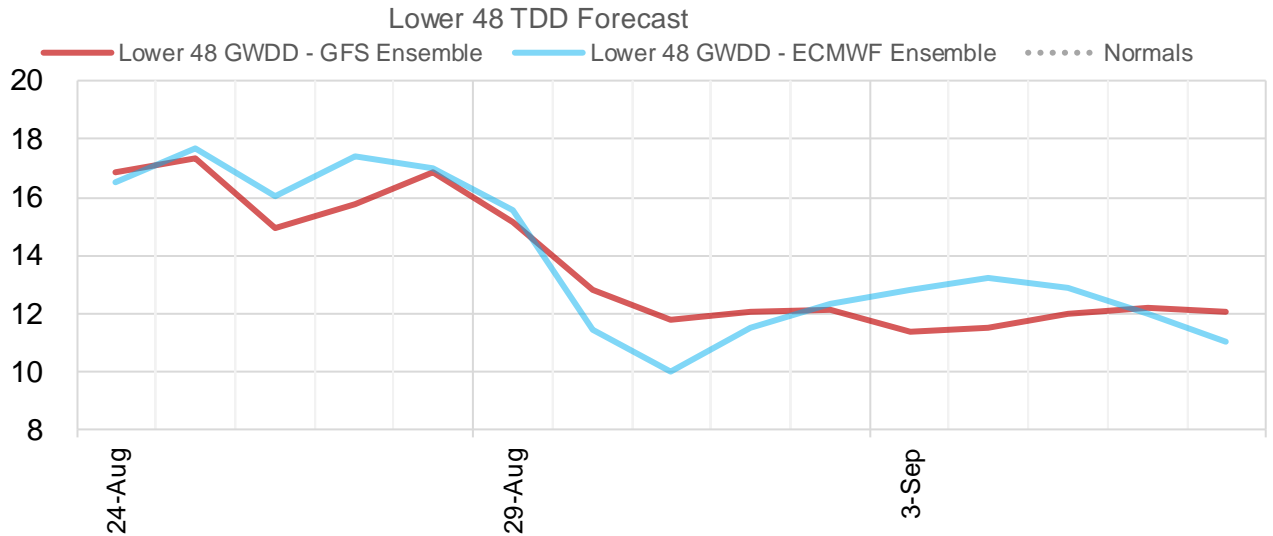
	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.7	▼ -0.05	▼ -0.18

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.3	▲ 0.03	▲ 0.37

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	5.1	▲ 0.11	▲ 0.15

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▲ 0.09	▲ 0.07

Short-term Weather Model Outlooks (00z)



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	DoD	vs. 7D
Lower 48 Dry Production	86.3	86.1	86.4	86.6	85.5	84.8	84.1	▼ -0.7	▼ -1.9
Canadian Imports	4.6	4.7	5.0	5.0	5.1	5.3	5.3	▲ 0.0	▲ 0.3
L48 Power	40.6	38.9	38.2	39.0	39.0	40.1	40.7	▲ 0.6	▲ 1.4
L48 Residential & Commercial	8.0	8.0	7.9	7.8	7.6	7.7	7.7	▼ 0.0	▼ -0.2
L48 Industrial	19.1	19.4	19.7	20.0	20.0	20.1	20.1	▲ 0.1	▲ 0.4
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.7	4.7	▼ 0.0	▼ -0.1
L48 Pipeline Distribution	2.2	2.2	2.1	2.2	2.1	2.2	2.2	▲ 0.0	▲ 0.1
L48 Regional Gas Consumption	74.8	73.3	72.7	73.6	73.5	74.8	75.4	▲ 0.6	▲ 1.6
Net LNG Exports	4.7	4.7	5.0	5.1	5.1	5.0	5.1	▲ 0.1	▲ 0.1
Total Mexican Exports	6.0	6.3	6.5	6.6	6.4	6.3	6.4	▲ 0.1	▲ 0.0
Implied Daily Storage Activity	5.5	6.5	7.2	6.2	5.8	4.0	2.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	17-Jul	24-Jul	31-Jul	7-Aug	14-Aug	21-Aug	WoW	vs. 4W
Lower 48 Dry Production	85.8	86.6	86.5	86.6	86.7	86.5	▼ -0.2	▼ -0.1
Canadian Imports	4.5	4.4	4.5	4.6	5.0	4.7	▼ -0.3	▲ 0.1
L48 Power	42.9	45.4	45.5	40.8	43.0	40.1	▼ -2.8	▼ -3.5
L48 Residential & Commercial	7.9	8.1	8.1	7.7	7.8	7.9	▲ 0.1	▼ -0.1
L48 Industrial	18.1	17.4	17.2	18.5	18.5	19.2	▲ 0.6	▲ 1.2
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.3	2.4	2.4	2.2	2.3	2.2	▼ -0.1	▼ -0.1
L48 Regional Gas Consumption	76.1	78.2	78.2	74.0	76.5	74.2	▼ -2.3	▼ -2.5
Net LNG Exports	3.3	3.6	3.1	3.9	4.4	4.7	▲ 0.4	▲ 1.0
Total Mexican Exports	6.2	6.4	6.2	6.1	6.0	6.2	▲ 0.2	▲ 0.0
Implied Daily Storage Activity	4.8	2.7	3.5	7.2	4.8	6.1	1.2	
EIA Reported Daily Storage Activity	5.3	3.7	4.7	8.3	6.1			
Daily Model Error	-0.5	-1.0	-1.2	-1.1	-1.3			

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	83.2	92.5	91.6	85.8	85.1	86.2	86.4	▲ 0.2	▼ -6.1
Canadian Imports	5.0	4.4	3.9	3.9	4.0	4.4	4.9	▲ 0.5	▲ 0.5
L48 Power	38.2	41.1	25.5	26.9	34.5	43.7	40.9	▼ -2.8	▼ -0.1
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.8	▼ -0.2	▼ -0.1
L48 Industrial	20.2	22.0	20.6	18.8	18.5	17.9	19.0	▲ 1.1	▼ -3.0
L48 Lease and Plant Fuel	4.7	5.1	5.1	4.8	4.8	4.8	4.8	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	2.1	2.3	2.1	1.9	2.1	2.4	2.2	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	73.0	78.2	73.7	65.4	68.4	76.8	74.7	▼ -2.1	▼ -3.6
Net LNG Exports	3.3	5.2	8.2	6.7	4.0	3.3	4.5	▲ 1.2	▼ -0.7
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	8.0	8.7	12.7	10.9	4.4	5.9		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 21-Aug

	Daily Raw Storage	Daily Adjustment Factor	Daily Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.8	1.4	7.2	51
East	2.0	2.0	4.0	28
Midwest	3.2	0.6	3.8	27
Mountain	3.0	-2.5	0.5	3
South Central	-2.1	2.0	-0.1	-1
Pacific	-0.4	-0.7	-1.1	-8

*Adjustment Factor is calculated based on historical regional deltas

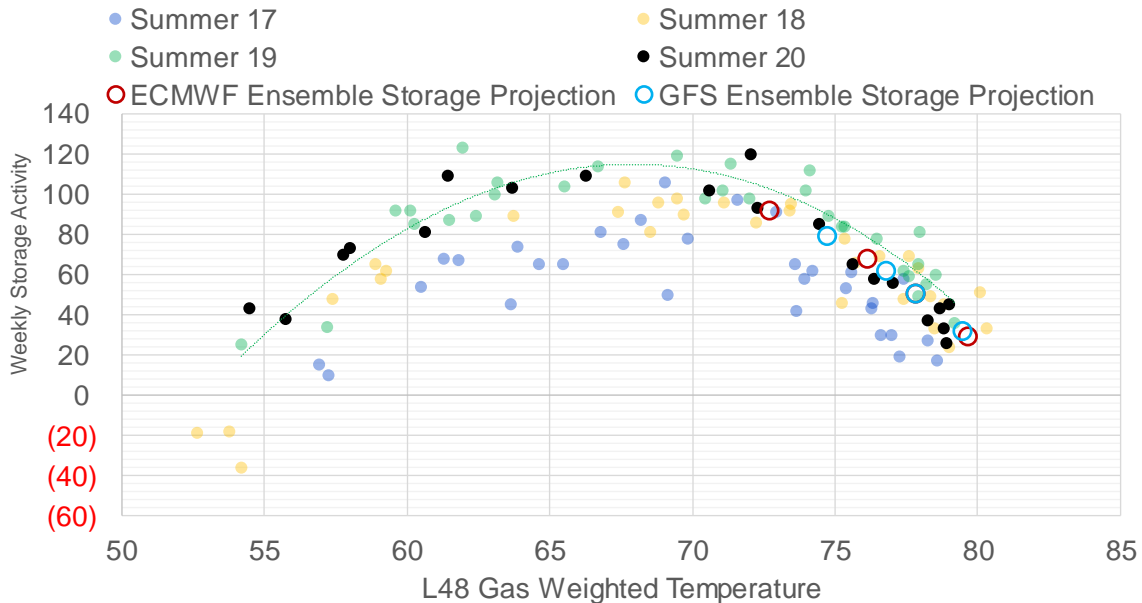
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

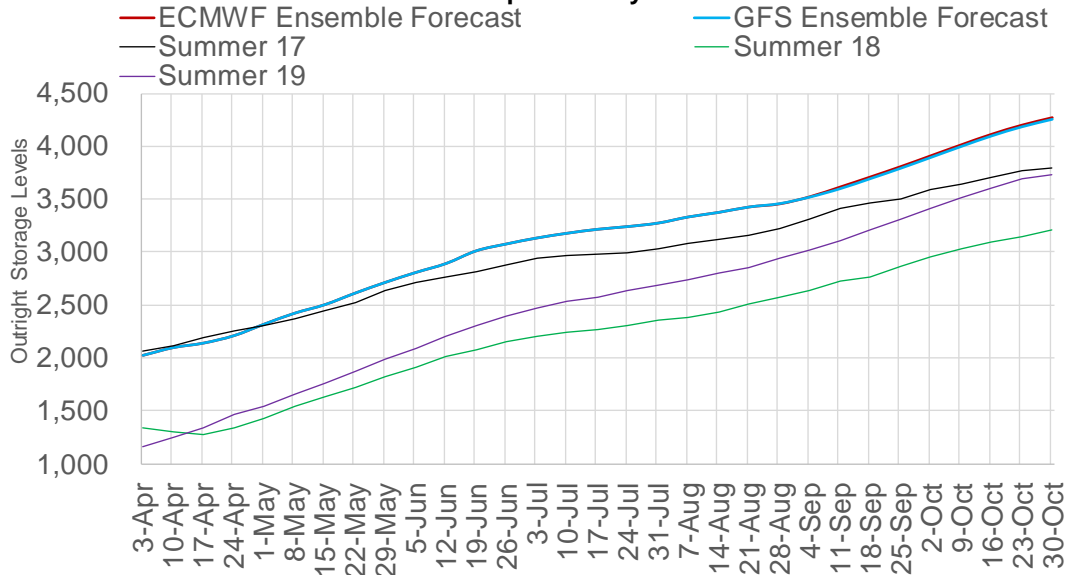
Next report and beyond	
Week Ending	Week Storage Projection
28-Aug	30
4-Sep	65
11-Sep	86

Weather Storage Model - Next 4 Week Forecast



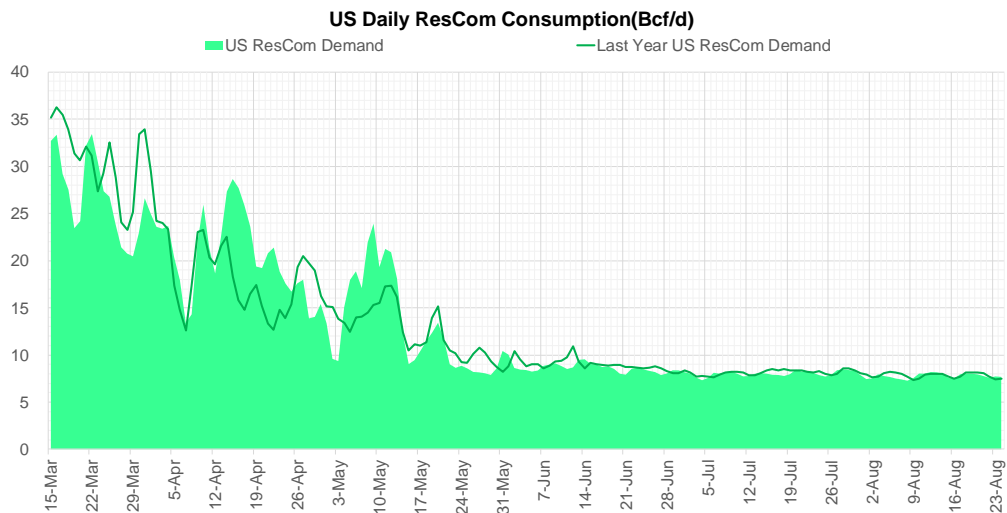
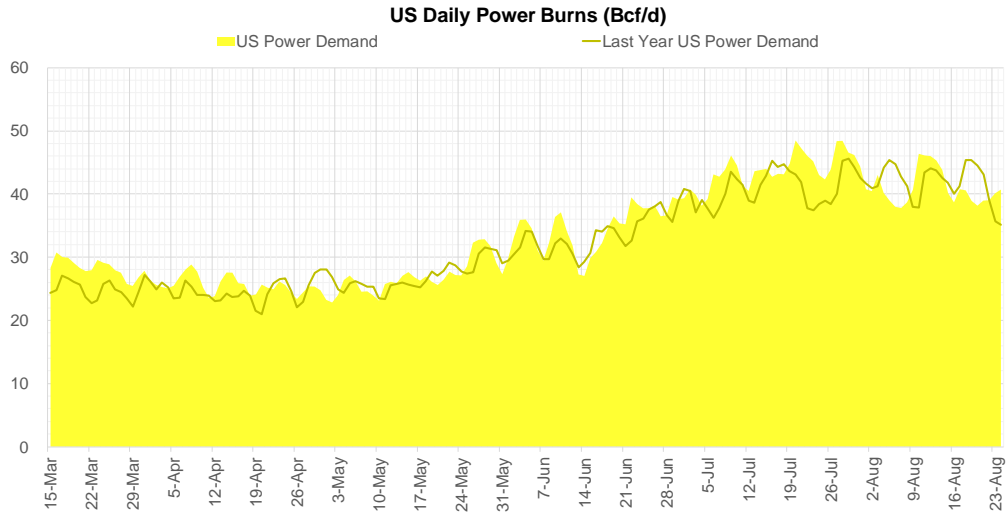
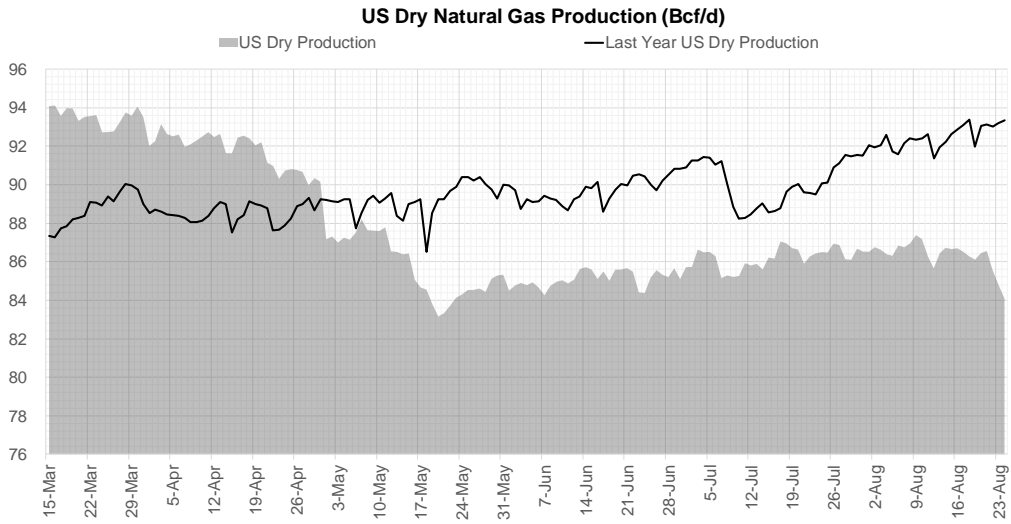
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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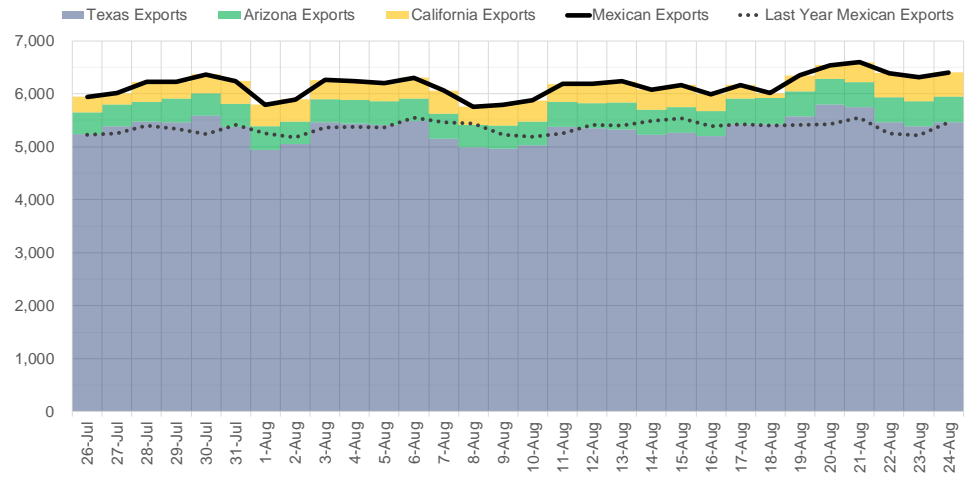
Supply – Demand Trends



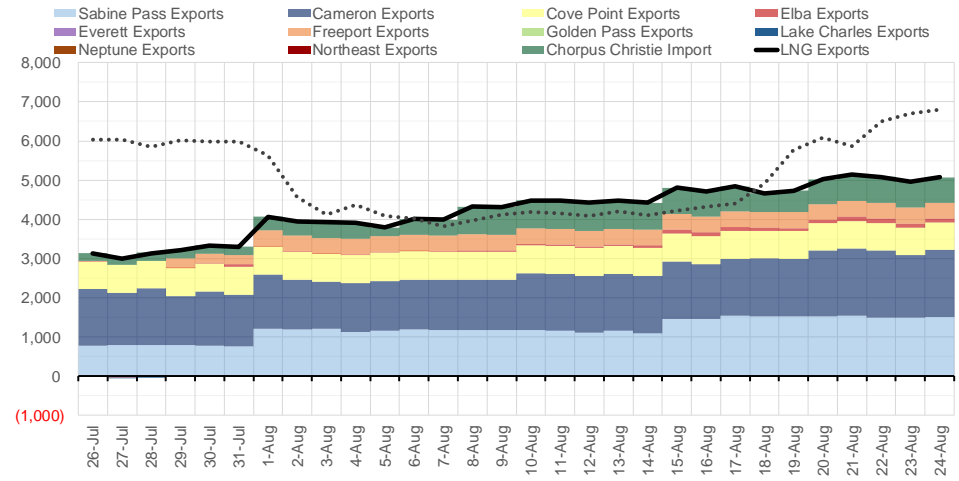
Source: Bloomberg

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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

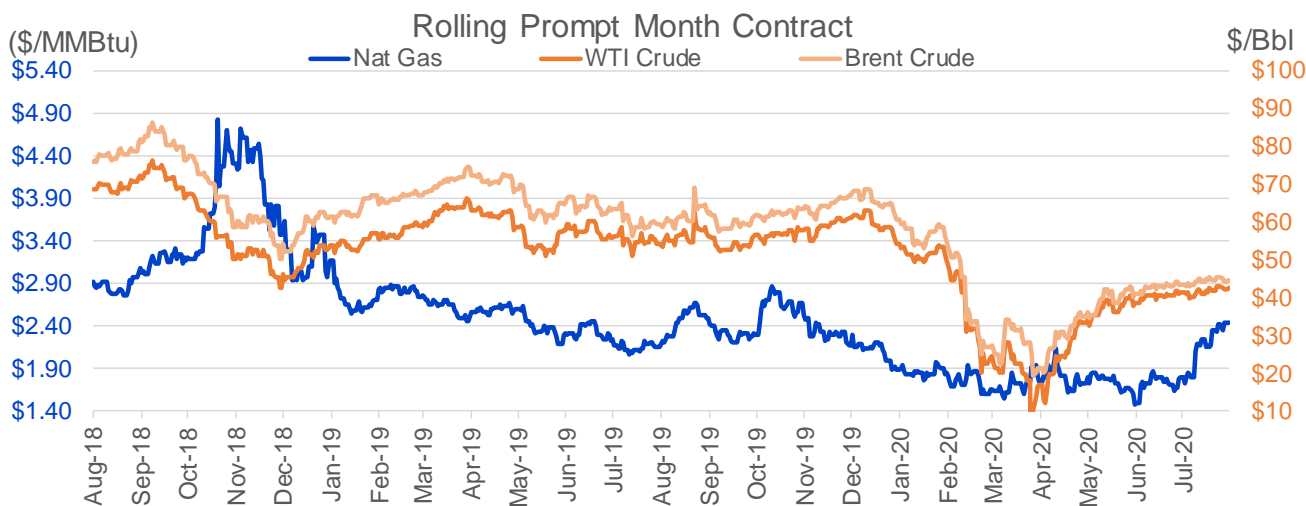
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
10	2020	C	3.00	11518	9	2020	C	2.50	49318
10	2020	P	2.00	8847	10	2020	P	1.50	47284
9	2020	P	2.25	7925	10	2020	C	2.75	45110
10	2020	C	3.25	7745	10	2020	C	2.50	39510
10	2020	C	2.75	5742	3	2021	P	2.00	35392
10	2020	P	2.25	5647	10	2020	C	3.00	34921
9	2020	C	2.50	5256	10	2020	P	2.00	34057
9	2020	P	2.15	4519	10	2020	P	1.60	33784
9	2020	P	2.20	4108	10	2020	P	1.75	29886
3	2021	C	5.00	3800	10	2020	P	1.25	28752
9	2020	C	2.45	3559	9	2020	C	2.75	25348
11	2020	P	2.00	3169	9	2020	P	1.00	24289
9	2020	P	2.35	3136	10	2020	P	1.00	24016
9	2020	P	2.30	2968	11	2020	C	3.50	23909
10	2020	P	2.15	2680	9	2020	P	1.50	23369
11	2020	C	3.00	2673	9	2020	C	3.00	23223
9	2020	C	2.75	2577	9	2020	P	1.20	22867
9	2020	C	2.40	2392	9	2020	P	2.00	22752
11	2020	C	3.25	2331	9	2020	C	2.00	22538
4	2021	C	4.00	2150	10	2020	C	3.50	22141
10	2020	C	3.50	2110	3	2021	C	3.00	22139
1	2021	C	5.00	2093	10	2020	C	2.10	21985
10	2020	C	2.50	1813	9	2020	P	1.75	21682
11	2020	C	3.50	1743	1	2021	C	4.50	20966
9	2020	C	2.60	1709	10	2020	P	2.10	20627
10	2020	C	2.90	1694	12	2020	P	2.00	20623
10	2020	P	2.35	1580	1	2021	C	3.50	20266
2	2021	C	4.00	1450	3	2021	C	6.00	19905
2	2021	C	5.00	1450	9	2020	C	2.25	19722
11	2020	C	4.00	1422	9	2020	P	1.30	19362
9	2020	C	2.35	1328	9	2020	P	1.25	19214
10	2020	C	2.65	1229	10	2020	P	1.30	19116
10	2020	P	2.30	1189	3	2021	C	3.50	18675
10	2020	P	1.75	1118	10	2020	C	2.00	18666
9	2020	C	2.90	1032	11	2020	C	3.00	17697
11	2020	C	3.20	1002	10	2020	C	2.25	17314
1	2021	C	4.25	1000	10	2020	P	2.25	17276
1	2021	C	4.50	1000	4	2021	C	5.00	16831
9	2020	C	2.80	999	1	2021	C	3.00	16668
9	2020	C	2.65	971	10	2020	P	1.80	16631
1	2021	C	4.00	826	2	2021	C	5.00	15819
10	2020	C	2.80	792	9	2020	P	2.25	15705
11	2020	P	2.60	771	10	2020	C	3.25	15680
6	2021	C	4.00	700	11	2020	C	2.75	15533
7	2021	C	4.00	700	11	2020	C	3.25	15356
8	2021	C	4.00	700	4	2021	C	3.00	14747
9	2021	C	4.00	700	1	2021	C	5.00	14370
10	2020	P	1.85	664	1	2021	C	3.75	14327
10	2020	C	2.70	648	1	2021	P	2.25	14304
					10	2020	C	2.4	14051

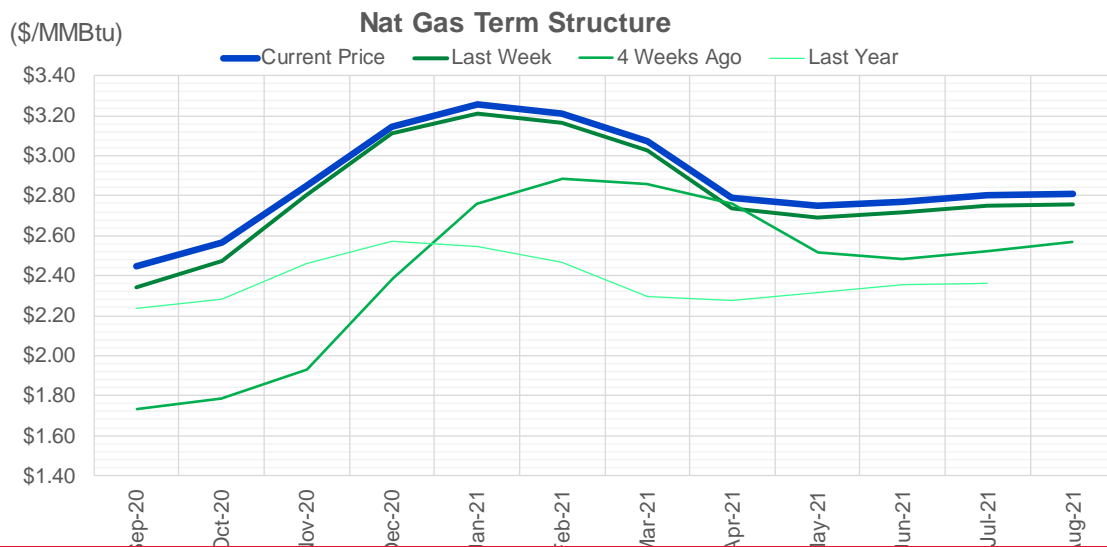
Source: CME, Nasdaq, ICE

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	44493	52953	-8460	SEP 20	70627	73034	-2407
OCT 20	225348	217914	7434	OCT 20	84110	84031	78.5
NOV 20	196528	196306	222	NOV 20	76074	75891	183.75
DEC 20	102499	100360	2139	DEC 20	71783	72914	-1131.25
JAN 21	129814	129878	-64	JAN 21	88259	88120	138.25
FEB 21	44209	44383	-174	FEB 21	54300	54936	-636
MAR 21	85015	84093	922	MAR 21	73112	72484	627.25
APR 21	78328	78350	-22	APR 21	62799	62320	478.25
MAY 21	46638	45990	648	MAY 21	51236	51332	-96
JUN 21	25314	24733	581	JUN 21	48639	48742	-102.75
JUL 21	18643	18973	-330	JUL 21	50528	50261	267
AUG 21	18488	18588	-100	AUG 21	49594	49591	3.5
SEP 21	24511	24137	374	SEP 21	46828	46654	173.75
OCT 21	58640	58051	589	OCT 21	68695	68543	151.75
NOV 21	26722	26494	228	NOV 21	41346	41396	-50
DEC 21	20927	20960	-33	DEC 21	41608	41711	-103
JAN 22	19837	19714	123	JAN 22	35149	35037	111.75
FEB 22	11209	11218	-9	FEB 22	29724	29744	-20.25
MAR 22	16291	16246	45	MAR 22	32681	32672	9.25
APR 22	18244	18464	-220	APR 22	32491	32466	25
MAY 22	5625	5582	43	MAY 22	23728	23717	10.5
JUN 22	3019	2925	94	JUN 22	23026	23001	25
JUL 22	2507	2505	2	JUL 22	23444	23415	28.75
AUG 22	1981	1982	-1	AUG 22	23332	23306	26
SEP 22	2068	2046	22	SEP 22	22476	22451	25
OCT 22	2887	2864	23	OCT 22	23991	23965	26
NOV 22	1992	2012	-20	NOV 22	21661	21666	-5
DEC 22	1969	1965	4	DEC 22	22382	22385	-2.25
JAN 23	2815	2768	47	JAN 23	12290	12137	152.75
FEB 23	827	832	-5	FEB 23	11214	11158	55.5

Source: CME, ICE





	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	\$2.444	\$2.563	\$2.849	\$3.148	\$3.258	\$3.211	\$3.075	\$2.787	\$2.748	\$2.773	\$2.806	\$2.810
Last Week	\$2.339	\$2.476	\$2.803	\$3.110	\$3.211	\$3.162	\$3.029	\$2.736	\$2.692	\$2.717	\$2.750	\$2.757
vs. Last Week	\$0.105	\$0.087	\$0.046	\$0.038	\$0.047	\$0.049	\$0.046	\$0.051	\$0.056	\$0.056	\$0.056	\$0.053
4 Weeks Ago	\$1.734	\$1.786	\$1.932	\$2.385	\$2.763	\$2.888	\$2.858	\$2.761	\$2.516	\$2.484	\$2.524	\$2.570
vs. 4 Weeks Ago	\$0.710	\$0.777	\$0.917	\$0.763	\$0.495	\$0.323	\$0.217	\$0.026	\$0.232	\$0.289	\$0.282	\$0.240
Last Year	\$2.230	\$2.233	\$2.285	\$2.463	\$2.572	\$2.545	\$2.469	\$2.293	\$2.277	\$2.314	\$2.355	\$2.363
vs. Last Year	\$0.214	\$0.330	\$0.564	\$0.685	\$0.686	\$0.666	\$0.606	\$0.494	\$0.471	\$0.459	\$0.451	\$0.447

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.48	1.73	0.25
TETCO M3	\$/MMBtu	1.23	1.53	0.30
FGT Zone 3	\$/MMBtu	1.30	2.41	1.11
Zone 6 NY	\$/MMBtu	1.30	1.62	0.32
Chicago Citygate	\$/MMBtu	2.12	2.14	0.02
Michcon	\$/MMBtu	2.05	2.07	0.02
Columbia TCO Pool	\$/MMBtu	1.64	1.80	0.16
Ventura	\$/MMBtu	2.10	2.07	-0.03
Rockies/Opal	\$/MMBtu	2.43	2.04	-0.39
El Paso Permian Basin	\$/MMBtu	1.02	1.57	0.55
Socal Citygate	\$/MMBtu	4.09	3.28	-0.81
Malin	\$/MMBtu	2.21	2.34	0.13
Houston Ship Channel	\$/MMBtu	2.30	2.32	0.02
Henry Hub Cash	\$/MMBtu	2.32	2.17	-0.15
AECO Cash	C\$/GJ	1.93	1.92	-0.01
Station2 Cash	C\$/GJ	1.93	2.32	0.39
Dawn Cash	C\$/GJ	2.04	2.07	0.03

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.47	▲ 0.004	▼ -0.099	▼ -0.066	
NatGas Mar/Apr	\$/MMBtu	-0.288	▲ 0.005	▼ -0.533	▼ -0.545	
NatGas Oct/Nov	\$/MMBtu	0.29	▼ -0.041	▼ -0.167	▲ 0.224	
NatGas Oct/Jan	\$/MMBtu	0.70	▼ -0.040	▼ -0.261	▲ 0.360	
WTI Crude	\$/Bbl	42.67	▼ -0.220	▲ 1.070	▼ -10.970	
Brent Crude	\$/Bbl	44.70	▼ -0.670	▲ 1.290	▼ -14.000	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	123.69	▼ -0.220	▼ -1.720	▼ -55.550	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.001	▲ 0.010	▲ 0.103	
Ethane, Mt. Bel	cents/Gallon	0.24	▲ 0.004	▲ 0.028	▲ 0.088	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.150	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -5.000	