

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.44	▼ \$ (0.08)	▼ \$ (0.15)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 43.03	▲ \$ 0.27	▲ \$ 0.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 45.90	▲ \$ 0.32	▲ \$ 0.7

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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	-0.5	3.4	2.5	5.5
24 Hr Chg	-1.8	5.6	6.3	10.1

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.6	1.6	-1.9	0.3
24 Hr Chg	-0.7	-2.0	-6.8	-9.6

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.7	▼ -0.90	▼ -1.30

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	37.9	▲ 1.27	▼ -0.17

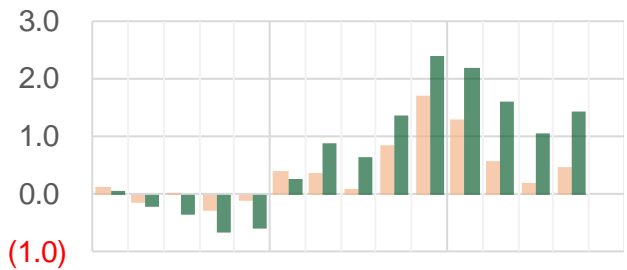
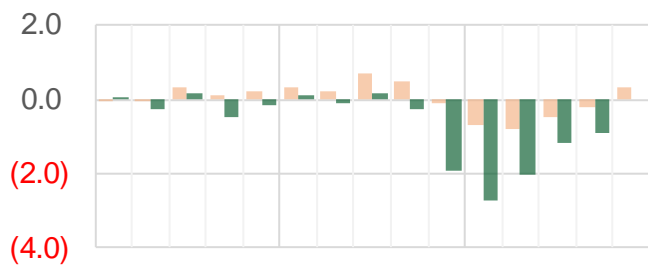
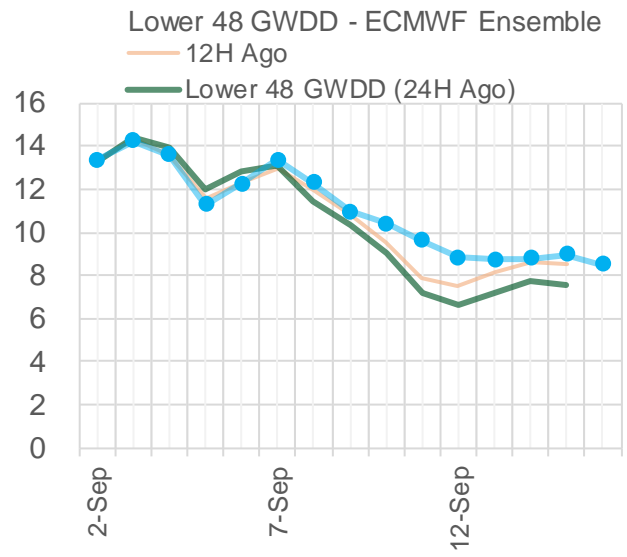
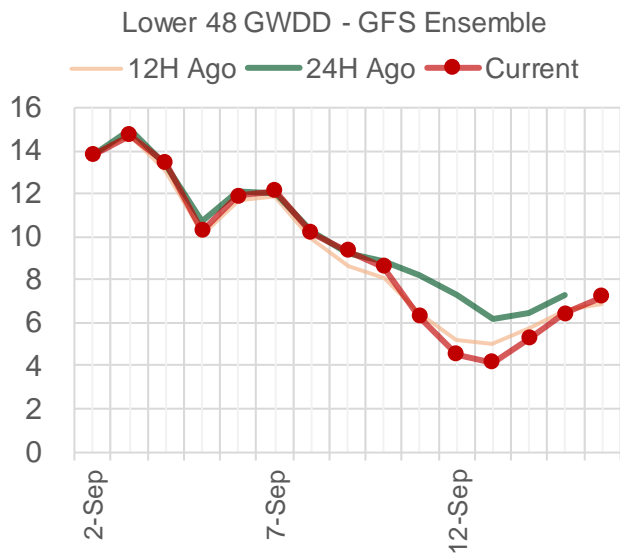
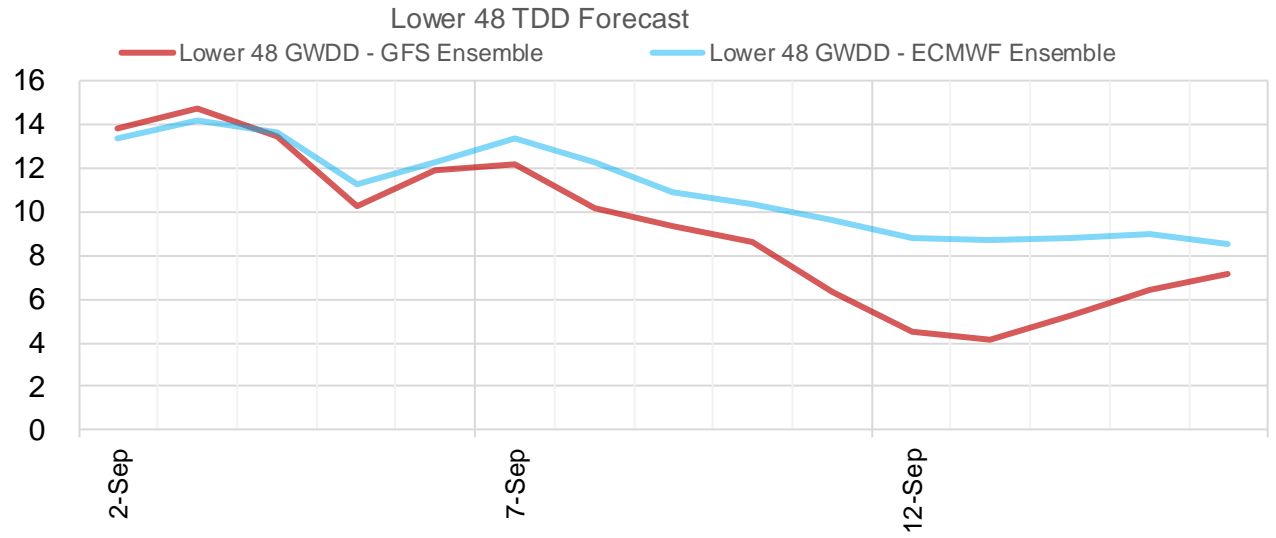
	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.4	▼ -0.44	▼ -0.51

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.7	▼ -0.84	▼ -1.05

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	3.1	▲ 0.13	▲ 0.47

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.5	▼ -0.08	▼ -0.04

Short-term Weather Model Outlooks (00z)



Source: WSI , Bloomberg

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Lower 48 Component Models

Daily Balances

	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	1-Sep	2-Sep	DoD	vs. 7D
Lower 48 Dry Production	85.7	86.7	86.0	86.3	86.3	85.6	84.7	▼ -0.9	▼ -1.4
Canadian Imports	5.1	5.0	4.4	4.3	4.4	4.5	3.7	▼ -0.8	▼ -0.9
L48 Power	42.6	40.6	35.8	33.7	35.5	36.7	37.9	▲ 1.3	▲ 0.4
L48 Residential & Commercial	8.6	7.9	7.4	7.5	7.9	7.8	7.4	▼ -0.4	▼ -0.4
L48 Industrial	19.5	19.7	20.0	20.2	20.4	20.3	20.1	▼ -0.1	▲ 0.1
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.4	2.2	2.0	1.9	2.0	2.1	2.2	▲ 0.0	▲ 0.1
L48 Regional Gas Consumption	77.8	75.3	69.9	68.1	70.6	71.7	72.4	▲ 0.7	▲ 0.1
Net LNG Exports	2.4	2.6	2.9	2.9	2.7	3.0	3.1	▲ 0.1	▲ 0.4
Total Mexican Exports	7.0	6.8	6.4	6.1	6.3	6.6	6.5	▼ -0.1	▲ 0.0
Implied Daily Storage Activity	3.6	6.9	11.2	13.6	11.2	8.9	6.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	24-Jul	31-Jul	7-Aug	14-Aug	21-Aug	28-Aug	WoW	vs. 4W
Lower 48 Dry Production	87.3	87.2	87.3	87.4	87.2	86.0	▼ -1.2	▼ -1.3
Canadian Imports	4.4	4.5	4.6	5.0	4.7	5.2	▲ 0.5	▲ 0.5
L48 Power	45.5	45.5	40.7	42.9	40.0	41.6	▲ 1.6	▼ -0.6
L48 Residential & Commercial	8.8	8.7	8.1	8.1	8.2	8.3	▲ 0.1	▲ 0.0
L48 Industrial	17.3	17.4	18.9	19.0	20.4	19.5	▼ -1.0	▲ 0.5
L48 Lease and Plant Fuel	4.9	4.9	4.9	4.9	4.8	4.8	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.5	2.5	2.2	2.3	2.2	2.3	▲ 0.1	▼ 0.0
L48 Regional Gas Consumption	78.9	78.9	74.7	77.2	75.7	76.5	▲ 0.8	▼ -0.2
Net LNG Exports	3.6	3.1	3.9	4.4	4.7	3.9	▼ -0.9	▼ -0.2
Total Mexican Exports	6.4	6.2	6.1	6.0	6.2	6.7	▲ 0.5	▲ 0.5
Implied Daily Storage Activity	2.7	3.5	7.2	4.8	5.3	4.2	-1.1	
EIA Reported Daily Storage Activity	3.7	4.7	8.3	6.1	6.4			
Daily Model Error	-1.0	-1.2	-1.1	-1.3	-1.2			

Monthly Balances

	2Yr Ago Sep-18	LY Sep-19	Apr-20	May-20	Jun-20	Jul-20	MTD Aug-20	MoM	vs. LY
Lower 48 Dry Production	85.2	93.5	91.6	85.8	85.1	86.6	87.3	▲ 0.8	▼ -6.2
Canadian Imports	4.5	4.7	3.9	3.9	4.0	4.4	4.6	▲ 0.2	▼ -0.1
L48 Power	34.2	36.4	25.5	26.9	34.8	43.8	40.5	▼ -3.4	▲ 4.1
L48 Residential & Commercial	8.5	8.3	20.3	12.9	9.0	8.6	7.9	▼ -0.7	▼ -0.4
L48 Industrial	21.6	22.3	20.7	18.9	18.3	17.8	18.7	▲ 0.9	▼ -3.6
L48 Lease and Plant Fuel	4.8	5.2	5.1	4.8	4.9	4.9	4.9	▼ 0.0	▼ -0.4
L48 Pipeline Distribution	2.0	2.1	2.1	1.9	2.0	2.4	2.2	▼ -0.2	▲ 0.1
L48 Regional Gas Consumption	71.2	74.3	73.8	65.5	69.1	77.5	74.1	▼ -3.3	▼ -0.1
Net LNG Exports	3.1	6.2	8.2	6.7	4.0	3.3	4.0	▲ 0.7	▼ -2.2
Total Mexican Exports	5.1	5.4	4.9	4.9	5.7	6.1	5.8	▼ -0.3	▲ 0.5
Implied Daily Storage Activity	10.3	12.4	8.6	12.6	10.2	4.1	7.9		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 28-Aug

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	3.9	1.4	5.3	37
East	0.4	2.1	2.5	17
Midwest	2.5	0.7	3.3	23
Mountain	3.2	-2.5	0.7	5
South Central	-2.5	1.8	-0.6	-5
Pacific	0.2	-0.7	-0.4	-3

*Adjustment Factor is calculated based on historical regional deltas

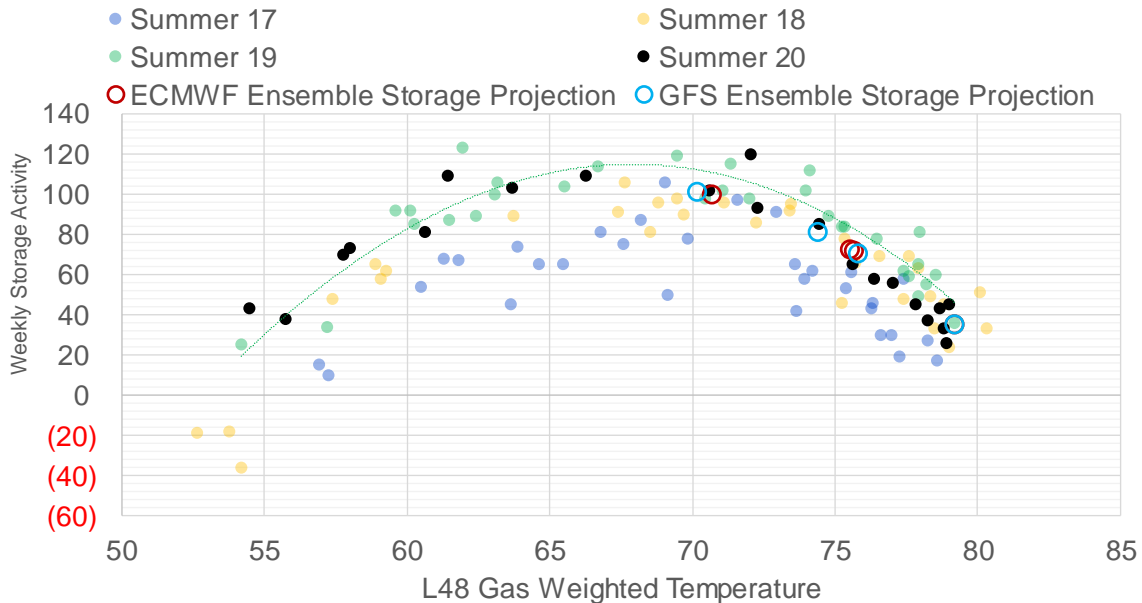
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

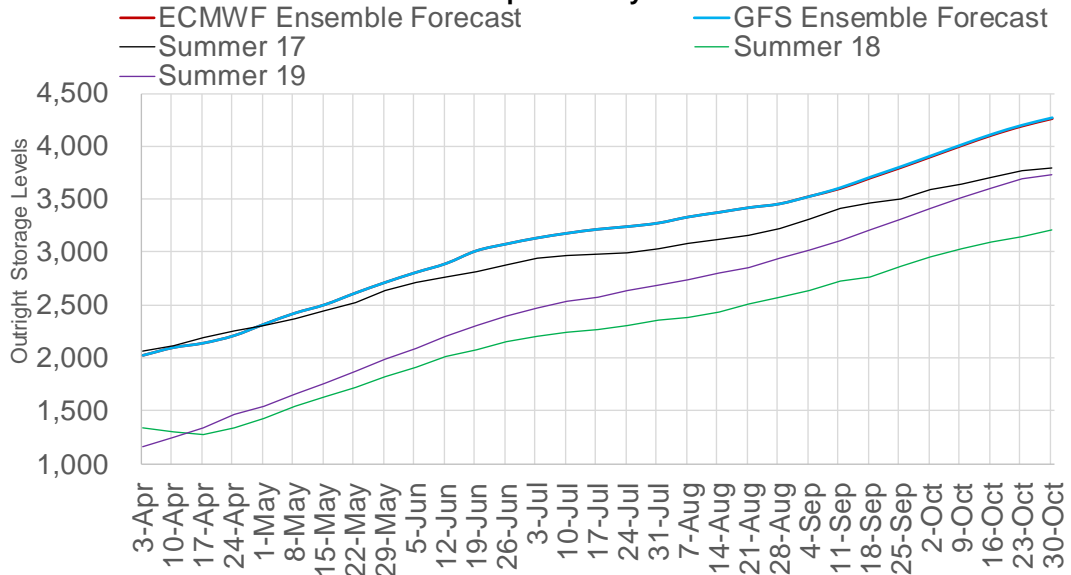
Next report and beyond	
Week Ending	Week Storage Projection
4-Sep	71
11-Sep	77
18-Sep	101

Weather Storage Model - Next 4 Week Forecast



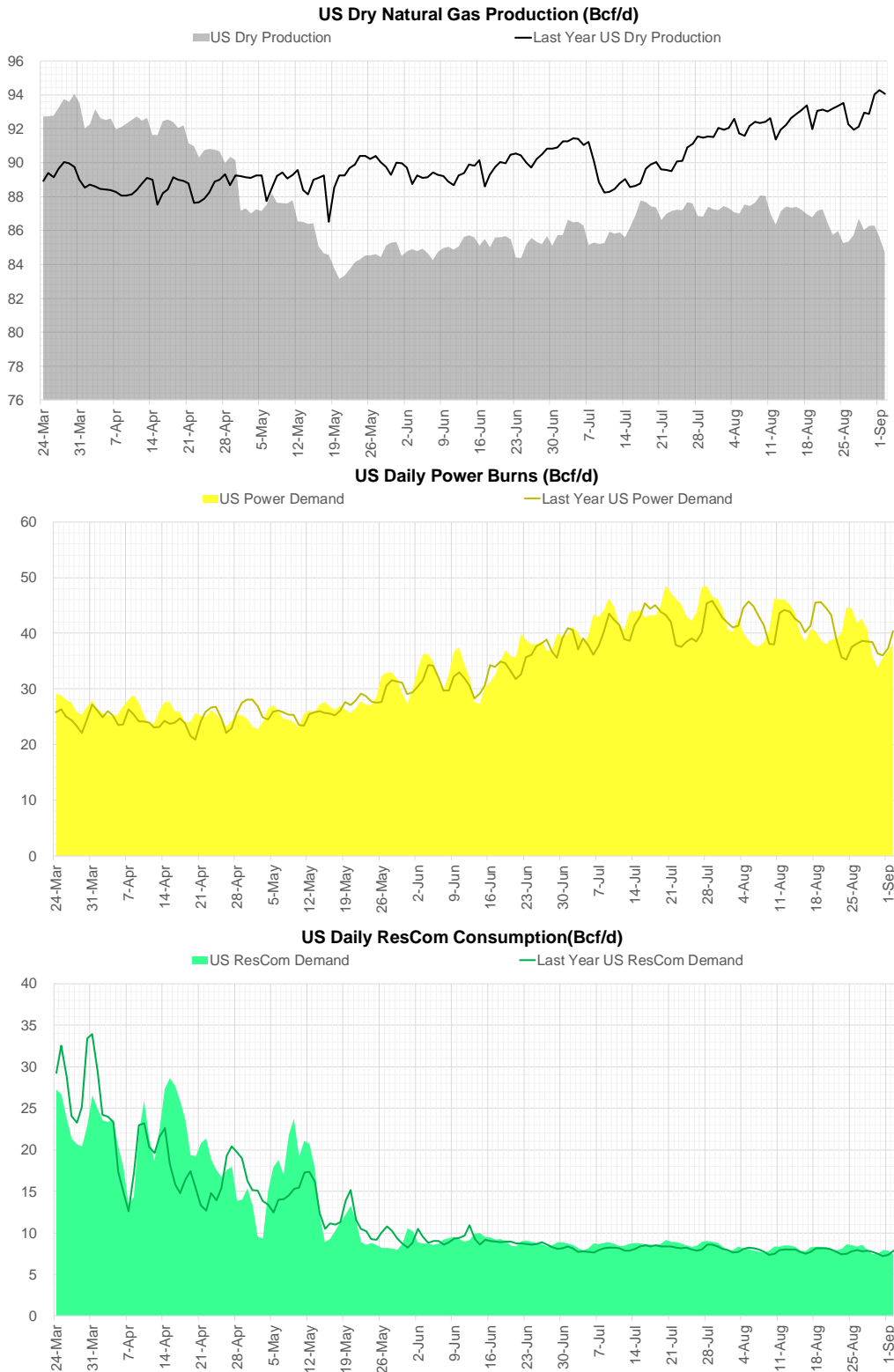
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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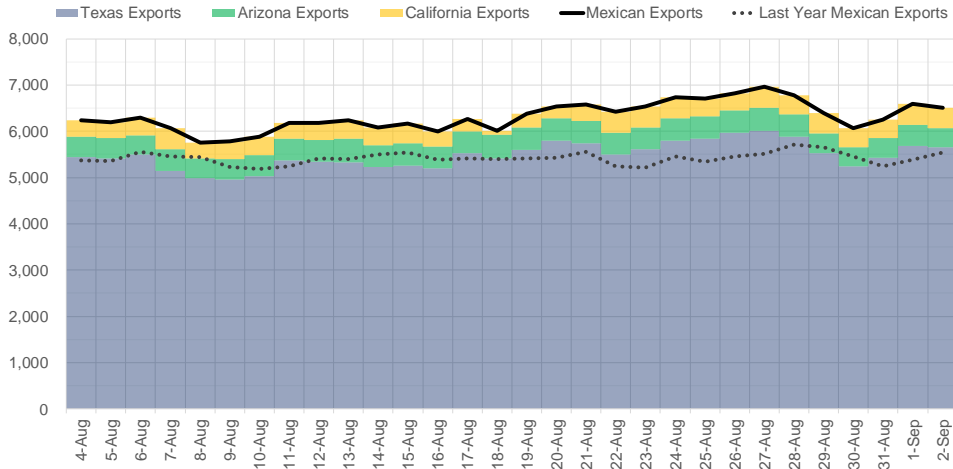
Supply – Demand Trends



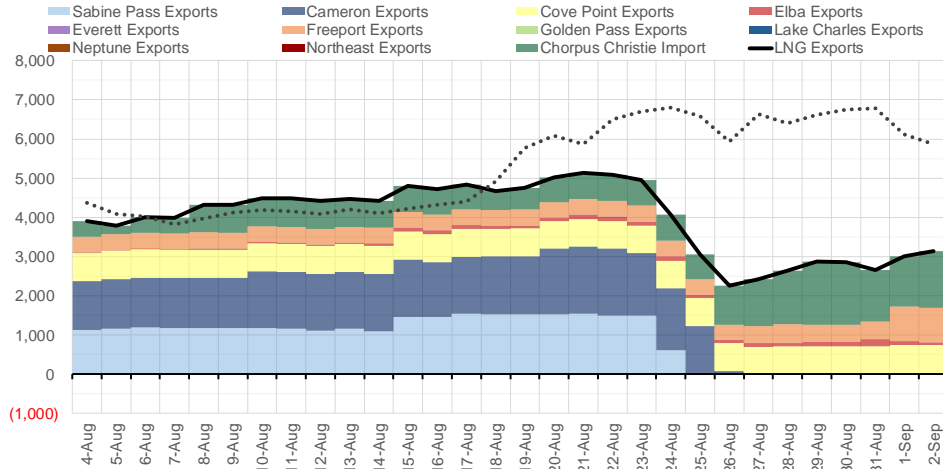
Source: Bloomberg

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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

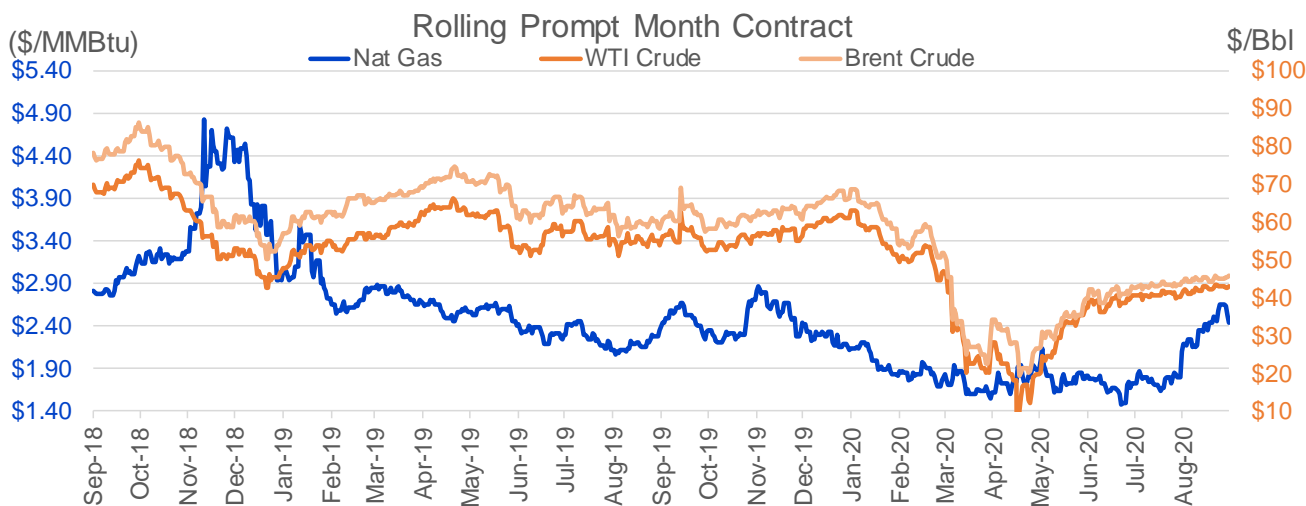
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
10	2020	C	3.00	13497	10	2020	P	1.50	46601
10	2020	P	2.00	7461	10	2020	P	2.00	44436
10	2020	C	3.25	7137	10	2020	C	2.75	42782
10	2020	P	2.25	5495	10	2020	C	3.00	38502
10	2020	C	2.75	5178	10	2020	C	2.50	34875
1	2021	C	3.75	4464	10	2020	P	1.60	34051
1	2021	C	5.00	4140	3	2021	P	2.00	31292
10	2020	C	3.50	2372	10	2020	P	1.75	30158
10	2020	P	2.15	2332	10	2020	P	1.25	28894
10	2020	P	2.50	2190	3	2021	C	3.25	25823
10	2020	C	2.60	2184	3	2021	C	4.00	24451
10	2020	P	1.70	2008	10	2020	P	1.00	24016
12	2020	C	4.00	1806	11	2020	C	3.50	23318
10	2020	C	2.65	1760	11	2020	P	2.00	23147
11	2020	C	3.50	1685	1	2021	C	4.50	23116
10	2020	P	2.35	1677	12	2020	P	2.00	22650
10	2020	P	2.10	1587	3	2021	C	3.00	22302
11	2020	C	4.00	1521	10	2020	C	2.10	21985
10	2020	C	2.80	1466	10	2020	P	2.25	21800
10	2020	C	2.50	1177	1	2021	C	3.50	21662
11	2020	P	2.50	1177	10	2020	P	2.10	21470
11	2020	C	3.00	1138	4	2021	C	5.00	20681
10	2020	C	3.20	1080	10	2020	C	3.50	20355
12	2020	C	4.50	1075	3	2021	C	3.50	20131
10	2020	C	2.85	1073	3	2021	C	6.00	20080
1	2021	C	4.50	1024	10	2020	P	1.30	19128
3	2021	C	4.00	1014	10	2020	C	2.00	18664
12	2020	C	5.00	1000	10	2020	P	1.80	18420
1	2021	C	4.00	988	10	2020	C	3.25	17965
10	2020	P	2.20	978	10	2020	C	2.25	17294
12	2020	C	3.50	921	11	2020	P	2.25	17281
5	2022	C	4.00	900	11	2020	C	3.00	17121
10	2020	P	2.40	846	1	2021	C	3.00	16783
11	2020	C	3.25	805	11	2020	P	2.50	15922
10	2020	C	2.70	774	1	2021	C	3.75	15895
4	2021	C	5.00	769	1	2021	C	5.00	15809
5	2022	C	3.25	750	2	2021	C	5.00	15469
11	2020	P	2.25	703	11	2020	C	5.00	14998
10	2020	P	2.45	673	11	2020	C	2.75	14928
10	2020	P	1.75	663	11	2020	C	3.25	14649
12	2020	C	3.25	645	1	2021	P	2.25	14304
11	2020	P	2.00	612	4	2021	C	3.00	14217
4	2021	P	2.50	570	12	2020	C	4.00	14113
5	2021	P	2.50	570	10	2020	C	2.40	13907
6	2021	P	2.50	570	10	2020	P	1.40	13897
7	2021	P	2.50	570	4	2021	P	2.00	13594
8	2021	P	2.50	570	10	2020	C	2.70	13451
9	2021	P	2.50	570	3	2021	C	5.00	13412
10	2021	P	2.50	570	1	2021	P	2.50	13228
					6	2021	C	4	13225

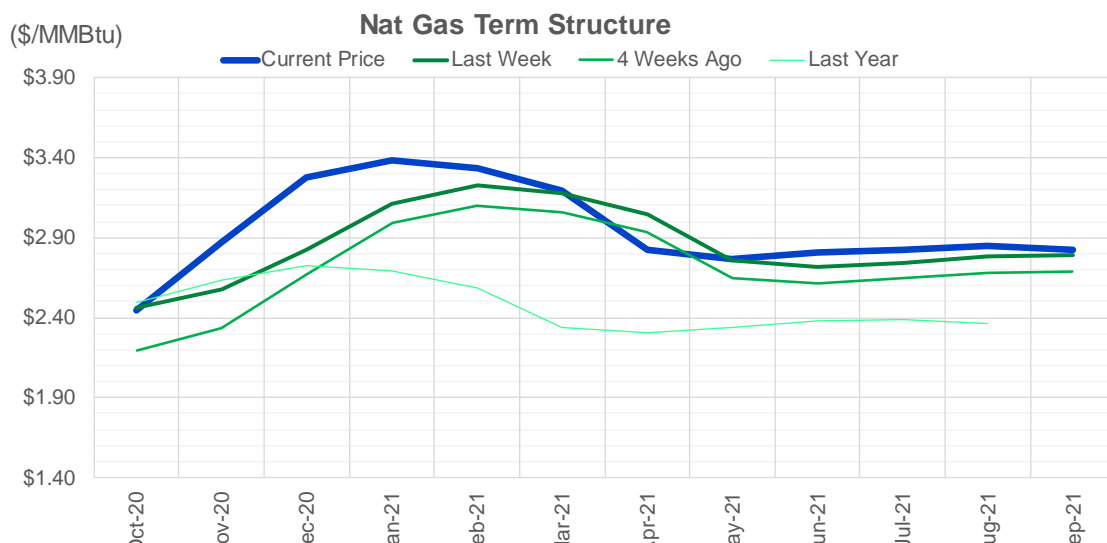
Source: CME, Nasdaq, ICE

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
OCT 20	223955	225916	-1961	OCT 20	93728	91665	2062.75
NOV 20	212975	208195	4780	NOV 20	81665	81824	-159
DEC 20	112512	112759	-247	DEC 20	72633	74474	-1841
JAN 21	129907	130417	-510	JAN 21	86360	88180	-1820.75
FEB 21	47461	47424	37	FEB 21	56461	56504	-43
MAR 21	93693	93116	577	MAR 21	78763	78924	-161
APR 21	79333	79589	-256	APR 21	63210	63221	-11
MAY 21	46353	45881	472	MAY 21	53625	53232	392.75
JUN 21	27185	27051	134	JUN 21	49928	49754	173.75
JUL 21	19667	18942	725	JUL 21	52123	51741	381.5
AUG 21	19529	19568	-39	AUG 21	52059	51637	421.75
SEP 21	25628	25221	407	SEP 21	48561	48188	372.5
OCT 21	64643	62891	1752	OCT 21	72439	72529	-90.25
NOV 21	27019	26658	361	NOV 21	42073	41819	254.25
DEC 21	22763	22391	372	DEC 21	42196	42392	-196
JAN 22	21827	21677	150	JAN 22	36085	35955	129.5
FEB 22	11758	11768	-10	FEB 22	31533	31421	112
MAR 22	17487	17748	-261	MAR 22	33589	33483	106.5
APR 22	20726	20954	-228	APR 22	33926	33779	147
MAY 22	5995	5995	0	MAY 22	24550	24506	43.5
JUN 22	3143	3146	-3	JUN 22	23829	23756	73
JUL 22	2727	2737	-10	JUL 22	24303	24287	15.5
AUG 22	1957	1955	2	AUG 22	24153	24086	67.75
SEP 22	2132	2132	0	SEP 22	23279	23206	73
OCT 22	3161	3157	4	OCT 22	24449	24439	10.25
NOV 22	2035	2211	-176	NOV 22	21924	21798	125.5
DEC 22	2148	2071	77	DEC 22	23002	22888	114.25
JAN 23	2868	2868	0	JAN 23	12557	12461	96.5
FEB 23	858	858	0	FEB 23	11436	11341	94.75
MAR 23	898	898	0	MAR 23	11916	11863	53.25

Source: CME, ICE





	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
Current Price	\$2.444	\$2.874	\$3.277	\$3.382	\$3.334	\$3.194	\$2.825	\$2.770	\$2.808	\$2.826	\$2.849	\$2.823
Last Week	\$2.461	\$2.574	\$2.825	\$3.111	\$3.226	\$3.181	\$3.047	\$2.758	\$2.718	\$2.744	\$2.779	\$2.789
vs. Last Week	-\$0.017	\$0.300	\$0.452	\$0.271	\$0.108	\$0.013	-\$0.222	\$0.012	\$0.090	\$0.082	\$0.070	\$0.034
4 Weeks Ago	\$2.191	\$2.331	\$2.675	\$2.994	\$3.103	\$3.056	\$2.936	\$2.649	\$2.613	\$2.645	\$2.684	\$2.691
vs. 4 Weeks Ago	\$0.253	\$0.543	\$0.602	\$0.388	\$0.231	\$0.138	-\$0.111	\$0.121	\$0.195	\$0.181	\$0.165	\$0.132
Last Year	\$2.445	\$2.492	\$2.631	\$2.727	\$2.690	\$2.588	\$2.338	\$2.309	\$2.341	\$2.378	\$2.384	\$2.366
vs. Last Year	-\$0.001	\$0.382	\$0.646	\$0.655	\$0.644	\$0.606	\$0.487	\$0.461	\$0.467	\$0.448	\$0.465	\$0.457

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.65	1.32	-0.33
TETCO M3	\$/MMBtu	1.37	1.12	-0.25
FGT Zone 3	\$/MMBtu	1.37	2.47	1.10
Zone 6 NY	\$/MMBtu	1.37	1.09	-0.29
Chicago Citygate	\$/MMBtu	2.09	2.23	0.14
Michcon	\$/MMBtu	2.10	2.02	-0.08
Columbia TCO Pool	\$/MMBtu	1.32	1.54	0.22
Ventura	\$/MMBtu	2.03	2.17	0.14
Rockies/Opal	\$/MMBtu	2.25	2.14	-0.11
El Paso Permian Basin	\$/MMBtu	1.85	1.53	-0.32
Socal Citygate	\$/MMBtu	2.86	2.88	0.02
Malin	\$/MMBtu	2.24	2.38	0.14
Houston Ship Channel	\$/MMBtu	2.20	2.38	0.18
Henry Hub Cash	\$/MMBtu	2.23	2.20	-0.03
AECO Cash	C\$/GJ	2.02	1.83	-0.19
Station2 Cash	C\$/GJ	2.08	2.33	0.25
Dawn Cash	C\$/GJ	2.08	2.09	0.01

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.56	▼ -0.089	▼ -0.103	▼ -0.158	
NatGas Mar/Apr	\$/MMBtu	-0.369	▼ -0.080	▼ -0.656	▼ -0.621	
NatGas Oct/Nov	\$/MMBtu	0.43	▲ 0.179	▲ 0.086	▲ 0.374	
NatGas Oct/Jan	\$/MMBtu	0.94	▲ 0.286	▲ 0.166	▲ 0.607	
WTI Crude	\$/Bbl	43.03	▼ -0.360	▲ 0.840	▼ -13.230	
Brent Crude	\$/Bbl	45.90	▲ 0.260	▲ 0.730	▼ -14.800	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	124.35	▼ -0.120	▼ -1.960	▼ -63.670	
Propane, Mt. Bel	cents/Gallon	0.52	▲ 0.012	▲ 0.013	▲ 0.088	
Ethane, Mt. Bel	cents/Gallon	0.22	▼ -0.020	▼ -0.007	▲ 0.007	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.150	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	