

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.30	▼ \$ (0.05)	▼ \$ (0.07)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 42.23	▼ \$ (0.35)	▼ \$ (0.2)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 44.27	▼ \$ (0.63)	▼ \$ (0.8)

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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	1.0	-0.7	2.6
24 Hr Chg	0.9	-3.4	-2.5	-5.0

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.5	4.0	4.2	9.7
24 Hr Chg	0.7	3.8	3.6	8.1

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	85.9	▼ -0.53	▼ -0.58

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	38.8	▲ 0.80	▼ -1.29

	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.1	▲ 0.07	▲ 0.24

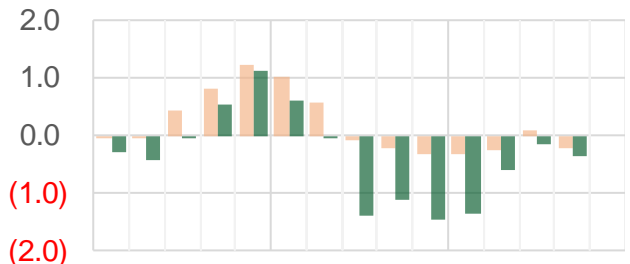
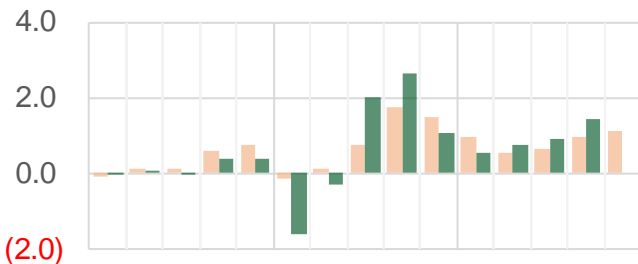
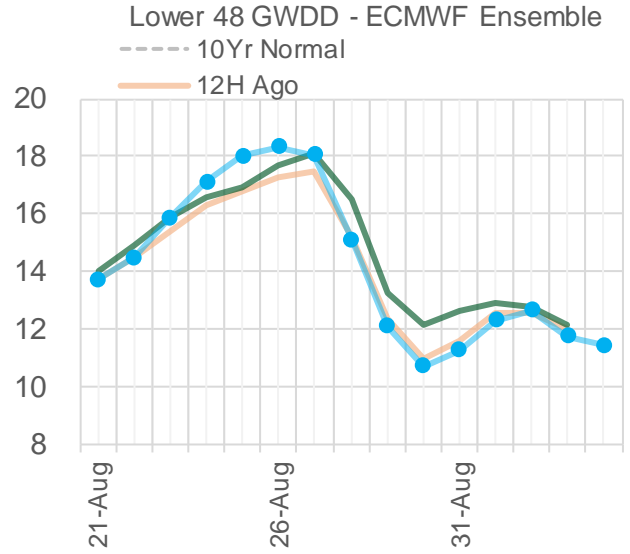
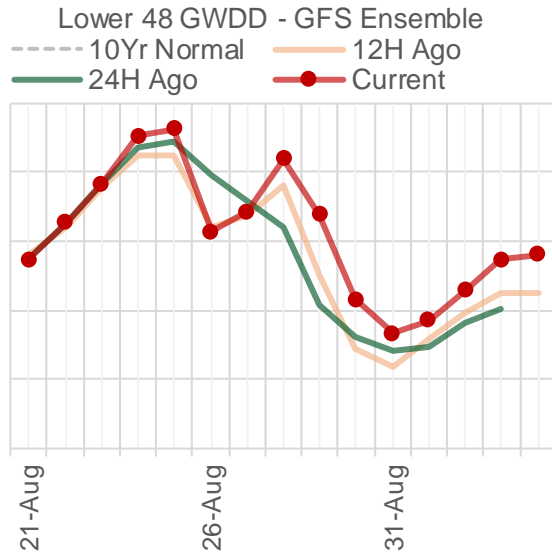
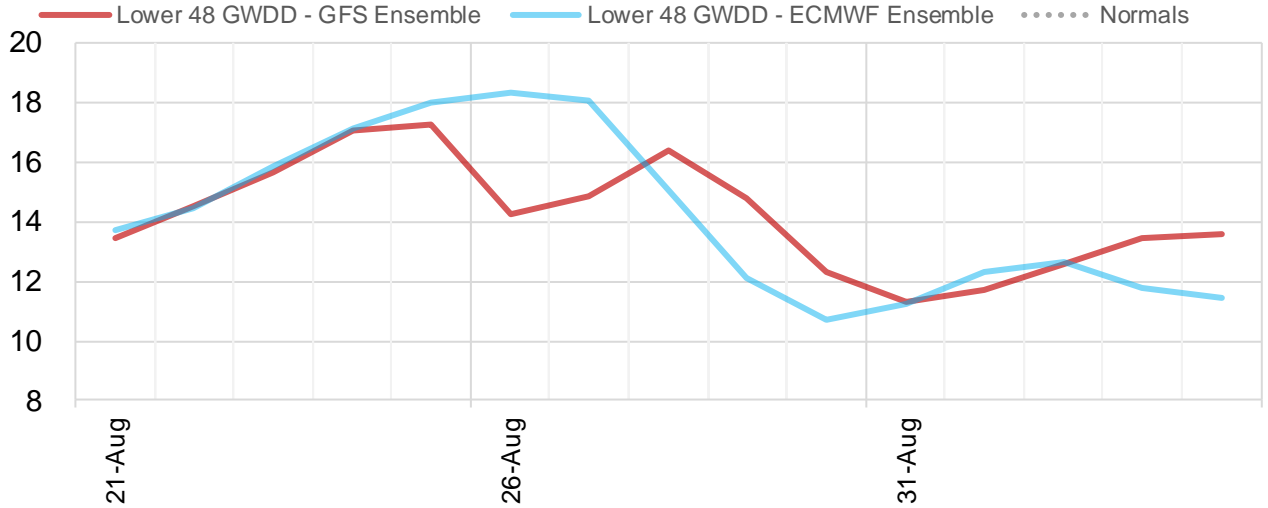
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.0	▼ -0.02	▲ 0.29

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	5.1	▲ 0.04	▲ 0.31

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.2	▼ -0.23	▲ 0.02

Short-term Weather Model Outlooks (00z)

Lower 48 TDD Forecast



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	DoD	vs. 7D
Lower 48 Dry Production	86.7	86.7	86.5	86.3	86.1	86.4	85.9	▼ -0.5	▼ -0.5
Canadian Imports	4.6	4.6	4.6	4.6	4.7	5.0	5.0	▼ 0.0	▲ 0.3
L48 Power	40.1	38.7	40.7	40.6	38.9	38.0	38.8	▲ 0.8	▼ -0.7
L48 Residential & Commercial	7.6	7.5	8.0	8.1	8.1	8.1	8.1	▲ 0.1	▲ 0.3
L48 Industrial	19.7	19.8	20.0	19.9	19.9	19.9	19.8	▼ -0.1	▼ -0.1
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	2.2	2.1	2.2	2.2	2.2	2.1	2.2	▲ 0.0	▼ 0.0
L48 Regional Gas Consumption	74.4	72.9	75.8	75.6	73.8	72.9	73.7	▲ 0.8	▼ -0.5
Net LNG Exports	4.8	4.8	4.8	4.7	4.7	5.0	5.1	▲ 0.0	▲ 0.3
Total Mexican Exports	6.2	6.0	6.2	6.0	6.3	6.5	6.2	▼ -0.2	▲ 0.0
Implied Daily Storage Activity	5.8	7.6	4.4	4.7	6.0	7.0	5.9		
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	▼ -2.9	▼ -3.6
L48 Residential & Commercial	7.9	8.1	8.1	7.7	7.8	7.9	▲ 0.1	▼ 0.0
L48 Industrial	18.1	17.4	17.2	18.5	18.6	19.8	▲ 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	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	74.8	▼ -1.7	▼ -1.9
Net LNG Exports	3.3	3.6	3.1	3.9	4.4	4.8	▲ 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	5.4	0.6	
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	86.5	▲ 0.3	▼ -5.9
Canadian Imports	5.0	4.4	3.9	3.9	4.0	4.4	4.8	▲ 0.4	▲ 0.4
L48 Power	38.2	41.1	25.5	26.9	34.5	43.7	41.0	▼ -2.7	▼ 0.0
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.8	▼ -0.2	▼ 0.0
L48 Industrial	20.2	22.0	20.6	18.8	18.5	17.9	19.0	▲ 1.1	▼ -2.9
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	2.3	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	73.0	78.2	73.7	65.4	68.4	76.8	74.9	▼ -1.8	▼ -3.3
Net LNG Exports	3.3	5.2	8.2	6.7	4.0	3.3	4.4	▲ 1.1	▼ -0.8
Total Mexican Exports	5.0	5.4	4.9	4.9	5.7	6.1	6.1	▼ 0.0	▲ 0.7
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

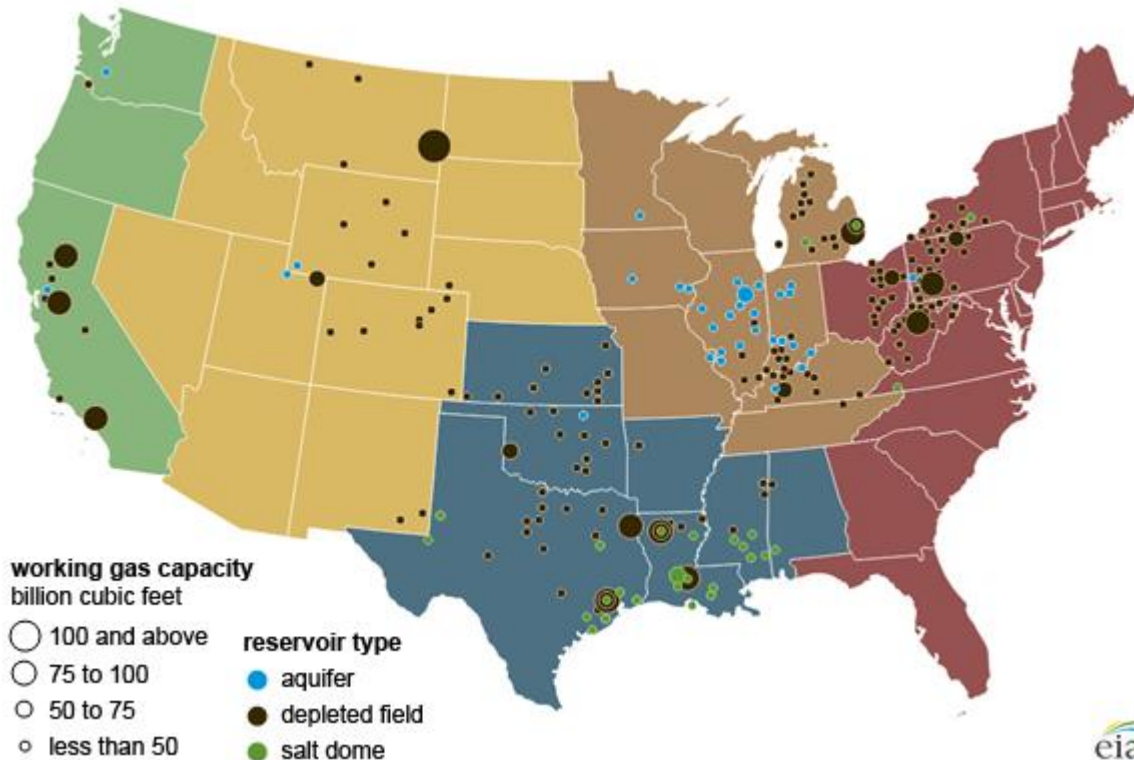
Regional S/D Models Storage Projection

Week Ending 21-Aug

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.1	1.4	6.5	46
East	1.9	2.0	3.9	27
Midwest	3.1	0.6	3.7	26
Mountain	2.9	-2.5	0.4	3
South Central	-2.3	2.0	-0.3	-2
Pacific	-0.5	-0.7	-1.2	-8

*Adjustment Factor is calculated based on historical regional deltas

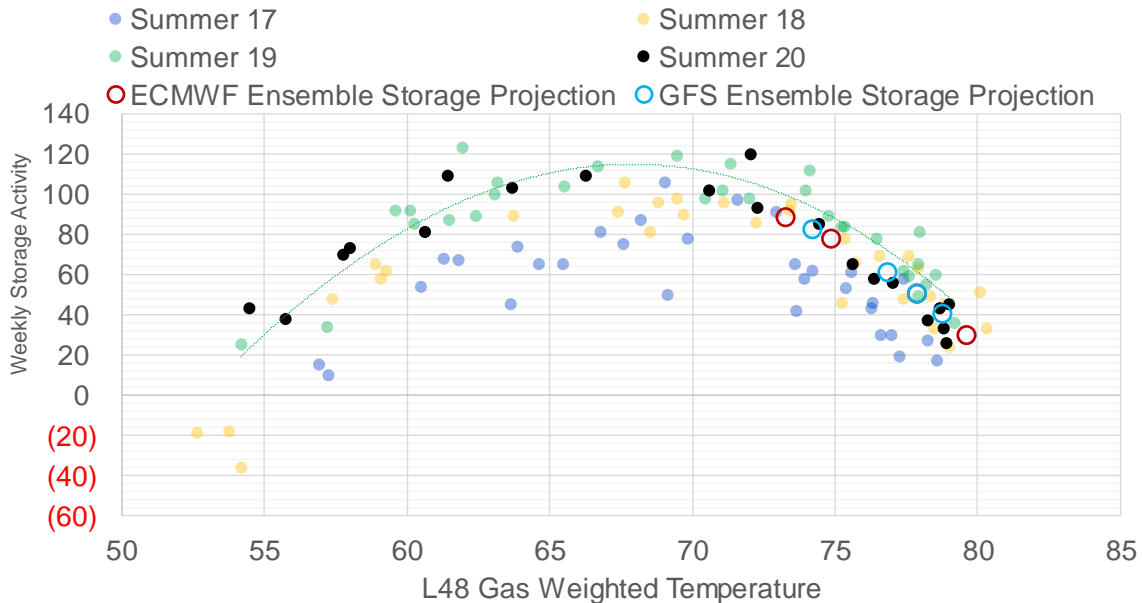
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

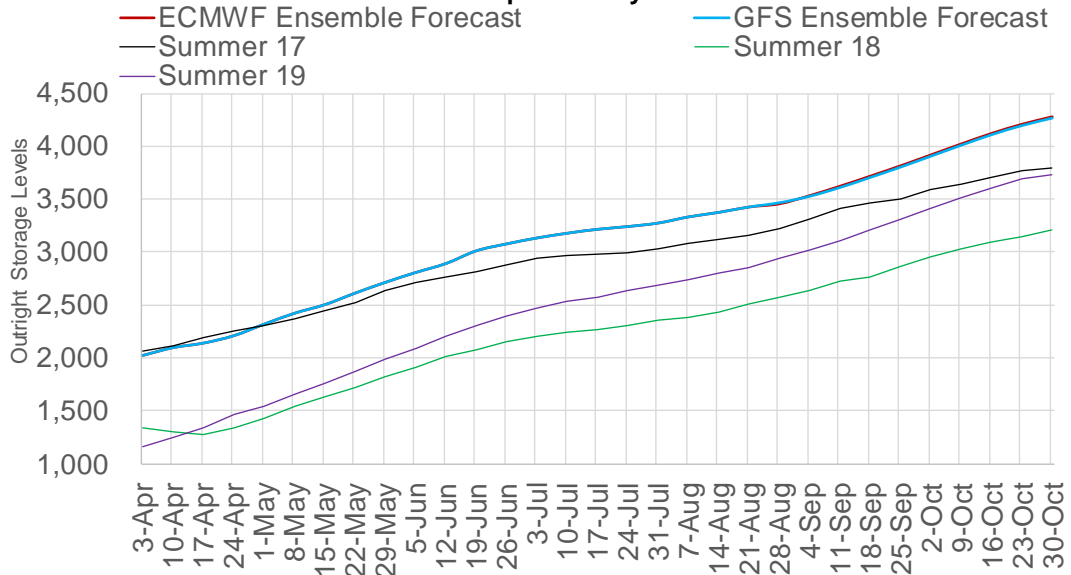
Next report and beyond	
Week Ending	Week Storage Projection
28-Aug	35
4-Sep	70
11-Sep	86

Weather Storage Model - Next 4 Week Forecast



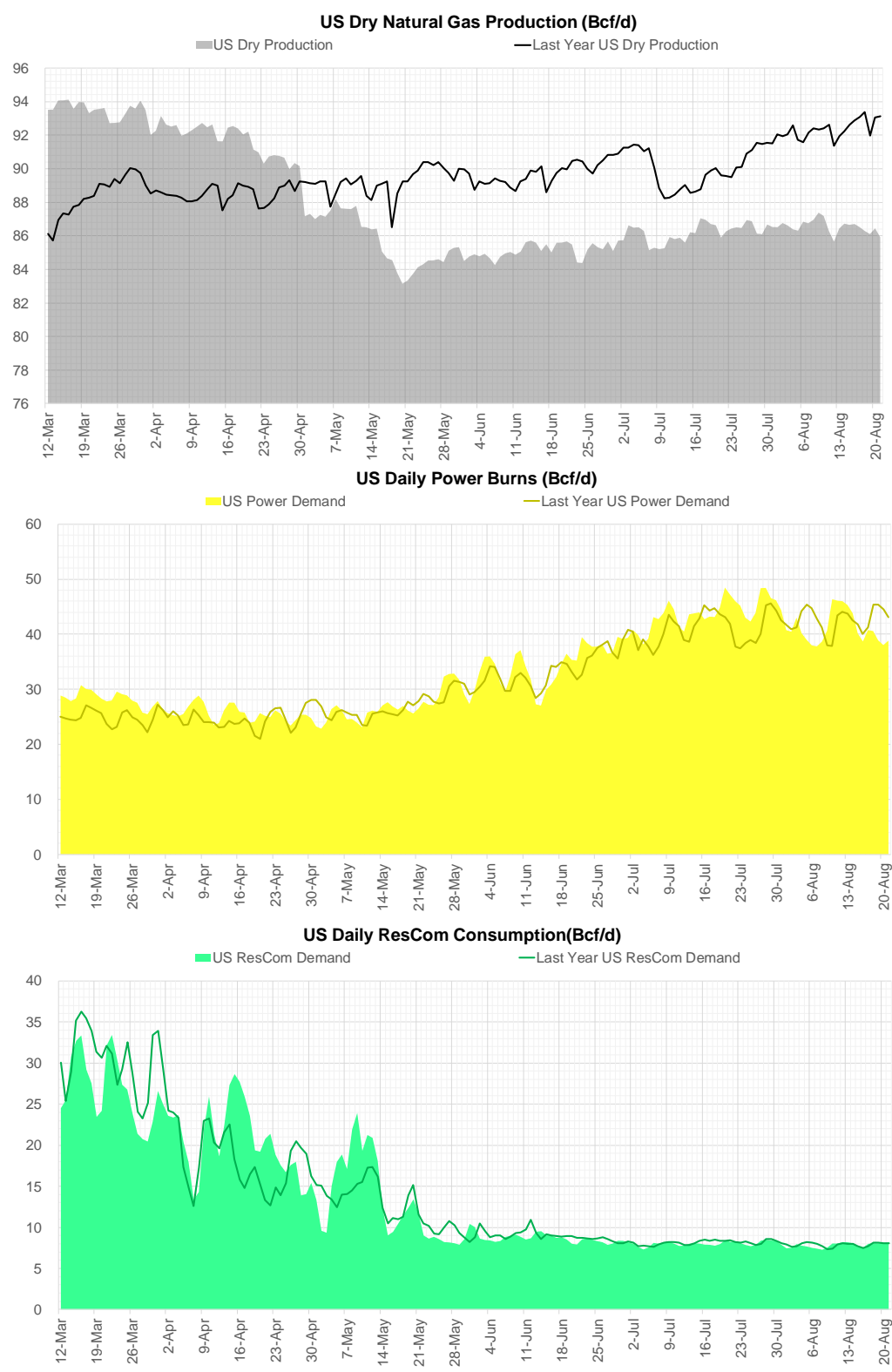
Weather Based End of Winter Projection (Bcf)

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.

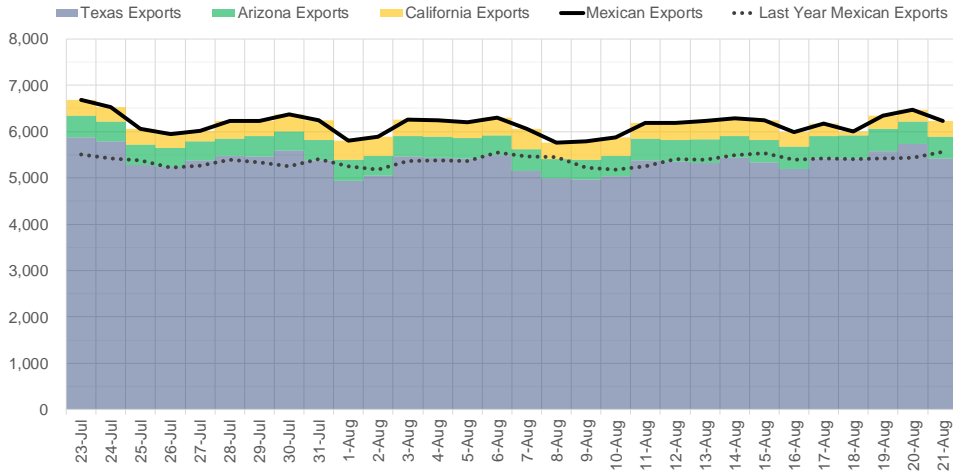
Supply – Demand Trends



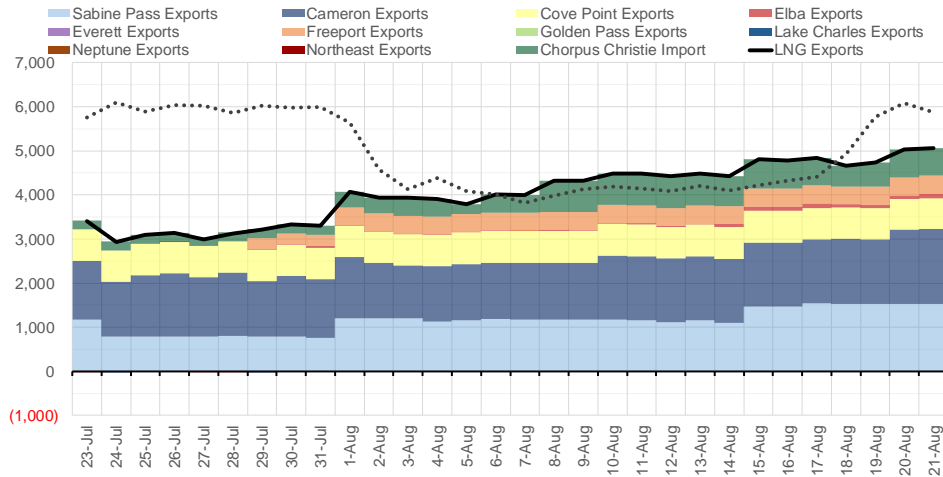
Source: Bloomberg

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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

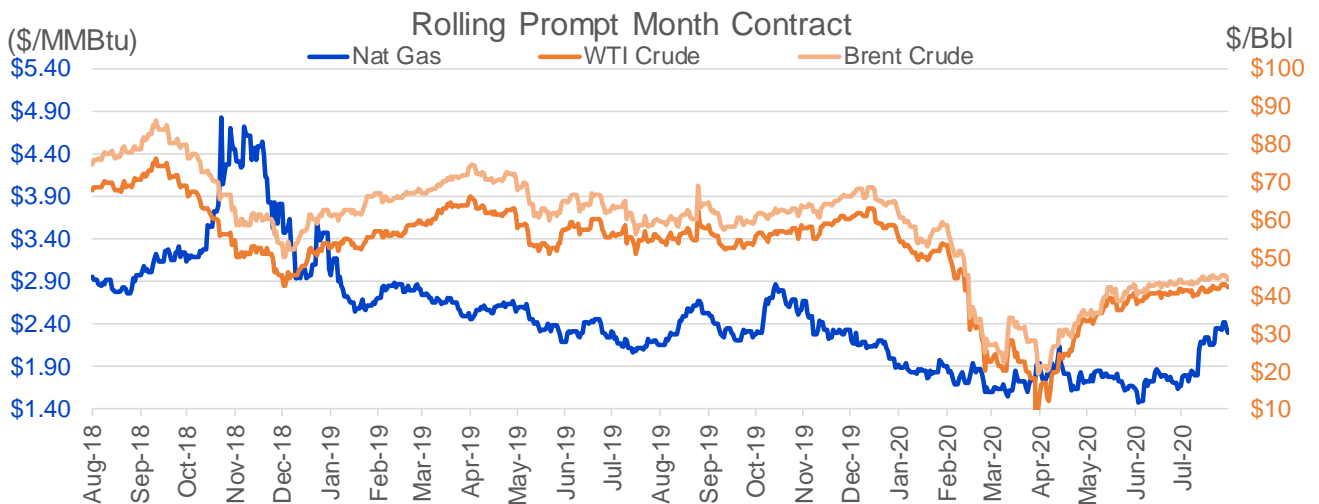
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
12	2020	P	1.50	9000	9	2020	C	2.50	49730
9	2020	P	2.20	5738	10	2020	P	1.50	47284
10	2020	C	3.25	5139	10	2020	C	2.75	45078
10	2020	C	3.50	4407	10	2020	C	2.50	40077
12	2020	P	2.00	4200	3	2021	P	2.00	35392
9	2020	P	2.25	4180	10	2020	C	3.00	34725
10	2020	P	2.25	4170	10	2020	P	1.60	33762
9	2020	C	2.50	4107	10	2020	P	2.00	33433
9	2020	C	2.75	3554	10	2020	P	1.25	28752
10	2020	P	2.00	3233	10	2020	P	1.75	28330
9	2020	P	2.15	3151	9	2020	C	2.75	24873
9	2020	P	2.35	2710	9	2020	P	1.00	24289
3	2021	C	10.00	2500	10	2020	P	1.00	24016
10	2020	C	3.00	2402	11	2020	C	3.50	23821
9	2020	P	2.40	2125	9	2020	P	1.50	23369
10	2020	P	1.75	2006	9	2020	C	3.00	23223
11	2020	P	2.50	1850	9	2020	P	1.20	22867
9	2020	P	2.10	1664	9	2020	C	2.00	22545
9	2020	C	2.55	1631	3	2021	C	3.00	22139
10	2020	P	1.40	1501	9	2020	P	2.00	22137
9	2020	P	2.30	1448	10	2020	C	2.10	21985
10	2020	P	2.50	1267	9	2020	P	1.75	21682
2	2021	C	7.00	1251	10	2020	C	3.50	20900
1	2021	C	7.00	1250	10	2020	P	2.10	20742
9	2020	C	2.60	1193	12	2020	P	2.00	20623
1	2022	C	5.00	1150	1	2021	C	3.50	20166
2	2022	C	5.00	1150	3	2021	C	6.00	20104
3	2022	C	5.00	1150	1	2021	C	4.50	19866
11	2020	C	3.50	1135	9	2020	C	2.25	19671
11	2020	P	2.00	1113	9	2020	P	1.30	19362
10	2020	C	2.75	1112	9	2020	P	1.25	19214
1	2021	C	4.25	1100	10	2020	P	1.30	19116
1	2021	C	4.50	1100	10	2020	C	2.00	18660
11	2020	P	2.25	964	3	2021	C	3.50	18650
12	2020	C	3.25	950	11	2020	C	3.00	17425
9	2020	C	2.40	886	10	2020	C	2.25	17314
9	2020	C	2.35	879	4	2021	C	5.00	16831
11	2020	C	3.25	879	1	2021	C	3.00	16668
10	2020	P	2.40	835	10	2020	P	1.80	16537
10	2020	P	2.35	795	10	2020	C	3.25	16515
9	2020	P	2.00	746	2	2021	C	5.00	15819
10	2020	C	2.85	708	11	2020	C	2.75	15733
9	2020	C	2.80	697	11	2020	C	3.25	15083
12	2020	P	2.50	600	4	2021	C	3.00	14824
10	2020	C	2.80	576	10	2020	P	2.25	14633
10	2020	P	2.15	569	1	2021	C	3.75	14327
12	2020	P	2.75	550	1	2021	P	2.25	14304
9	2020	C	2.70	538	1	2021	C	5.00	14271
11	2020	P	1.75	536	9	2020	P	2.10	14126
					10	2020	C	2.4	14052

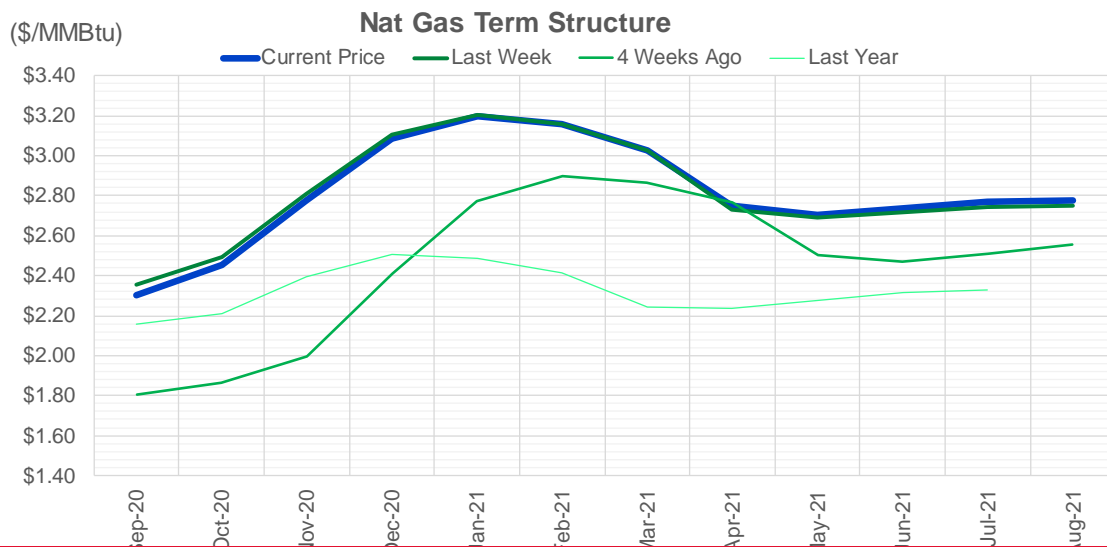
Source: CME, Nasdaq, ICE

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	52953	78283	-25330	SEP 20	73034	68837	4197.25
OCT 20	217945	213620	4325	OCT 20	84031	84986	-955
NOV 20	196107	191387	4720	NOV 20	75891	75661	229.5
DEC 20	100160	99170	990	DEC 20	72914	72732	181.5
JAN 21	129878	128347	1531	JAN 21	88120	87993	127
FEB 21	44383	43971	412	FEB 21	54936	54410	526
MAR 21	84093	81577	2516	MAR 21	72484	71651	833
APR 21	78350	78148	202	APR 21	62320	61909	411.5
MAY 21	45990	45821	169	MAY 21	51332	51053	279.75
JUN 21	24733	24790	-57	JUN 21	48742	48641	101.25
JUL 21	18973	18535	438	JUL 21	50261	50215	45.75
AUG 21	18588	18746	-158	AUG 21	49591	49526	65.25
SEP 21	24137	22572	1565	SEP 21	46654	47115	-461
OCT 21	58051	57414	637	OCT 21	68543	68422	120.75
NOV 21	26494	26305	189	NOV 21	41396	41397	-0.75
DEC 21	20960	20945	15	DEC 21	41711	41646	65.25
JAN 22	19714	19405	309	JAN 22	35037	35138	-101
FEB 22	11218	11157	61	FEB 22	29744	29697	47
MAR 22	16246	16743	-497	MAR 22	32672	32583	89.25
APR 22	18464	18592	-128	APR 22	32466	32355	110.5
MAY 22	5582	5526	56	MAY 22	23717	23595	122
JUN 22	2925	2898	27	JUN 22	23001	22917	84
JUL 22	2505	2183	322	JUL 22	23415	23250	165
AUG 22	1982	1708	274	AUG 22	23306	23219	86.75
SEP 22	2046	2111	-65	SEP 22	22451	22367	84
OCT 22	2864	2838	26	OCT 22	23965	23891	74
NOV 22	2012	1982	30	NOV 22	21666	21644	21.5
DEC 22	1965	1937	28	DEC 22	22385	22377	7.25
JAN 23	2768	2768	0	JAN 23	12137	12095	41.5
FEB 23	832	832	0	FEB 23	11158	11126	32

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	\$2.301	\$2.453	\$2.777	\$3.086	\$3.201	\$3.156	\$3.027	\$2.747	\$2.705	\$2.735	\$2.770	\$2.778
Last Week	\$2.356	\$2.495	\$2.811	\$3.104	\$3.203	\$3.156	\$3.026	\$2.732	\$2.689	\$2.714	\$2.746	\$2.752
vs. Last Week	-\$0.055	-\$0.042	-\$0.034	-\$0.018	-\$0.002	\$0.000	\$0.001	\$0.015	\$0.016	\$0.021	\$0.024	\$0.026
4 Weeks Ago	\$1.808	\$1.867	\$1.994	\$2.410	\$2.773	\$2.898	\$2.865	\$2.764	\$2.505	\$2.472	\$2.511	\$2.557
vs. 4 Weeks Ago	\$0.493	\$0.586	\$0.783	\$0.676	\$0.428	\$0.258	\$0.162	-\$0.017	\$0.200	\$0.263	\$0.259	\$0.221
Last Year	\$2.152	\$2.156	\$2.212	\$2.395	\$2.508	\$2.484	\$2.414	\$2.245	\$2.235	\$2.275	\$2.318	\$2.327
vs. Last Year	\$0.149	\$0.297	\$0.565	\$0.691	\$0.693	\$0.672	\$0.613	\$0.502	\$0.470	\$0.460	\$0.452	\$0.451

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.43	1.75	0.32
TETCO M3	\$/MMBtu	1.19	1.54	0.35
FGT Zone 3	\$/MMBtu	1.20	2.41	1.21
Zone 6 NY	\$/MMBtu	1.20	1.66	0.46
Chicago Citygate	\$/MMBtu	2.19	2.17	-0.02
Michcon	\$/MMBtu	2.13	2.08	-0.05
Columbia TCO Pool	\$/MMBtu	1.20	1.82	0.62
Ventura	\$/MMBtu	2.12	2.10	-0.02
Rockies/Opal	\$/MMBtu	2.43	2.08	-0.35
El Paso Permian Basin	\$/MMBtu	1.68	1.61	-0.07
Socal Citygate	\$/MMBtu	5.10	2.95	-2.15
Malin	\$/MMBtu	2.37	2.35	-0.02
Houston Ship Channel	\$/MMBtu	2.32	2.32	0.00
Henry Hub Cash	\$/MMBtu	2.32	2.18	-0.14
AECO Cash	C\$/GJ	2.02	1.91	-0.11
Station2 Cash	C\$/GJ	1.62	2.31	0.69
Dawn Cash	C\$/GJ	2.13	2.07	-0.06

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.45	▲ 0.017	▼ -0.061	▼ -0.057	
NatGas Mar/Apr	\$/MMBtu	-0.280	▲ 0.014	▼ -0.539	▼ -0.534	
NatGas Oct/Nov	\$/MMBtu	0.32	▲ 0.008	▼ -0.092	▲ 0.263	
NatGas Oct/Jan	\$/MMBtu	0.75	▲ 0.040	▼ -0.156	▲ 0.413	
WTI Crude	\$/Bbl	42.23	▲ 0.220	▲ 0.940	▼ -11.940	
Brent Crude	\$/Bbl	44.27	▼ -0.530	▲ 0.930	▼ -15.070	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	122.84	▼ -0.830	▼ -2.790	▼ -58.720	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.005	▲ 0.009	▲ 0.105	
Ethane, Mt. Bel	cents/Gallon	0.24	▲ 0.007	▲ 0.028	▲ 0.089	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.200	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -5.000	