

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.80	▼ \$ (0.08)	▲ \$ 0.10

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 40.32	▲ \$ 0.89	▼ \$ (0.1)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 42.57	▲ \$ 0.85	▼ \$ (0.0)

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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	-0.9	-2.1	0.0	-3.0
24 Hr Chg	-0.1	-5.2	-2.4	-7.8

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.1	-5.5	-1.0	-6.4
24 Hr Chg	0.7	-4.1	3.3	-0.1

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	85.2	▼ -0.31	▼ -0.02

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	31.9	▲ 1.23	▲ 1.17

	Current	Δ from YD	Δ from 7D Avg
US ResComm	12.0	▼ -0.19	▲ 1.65

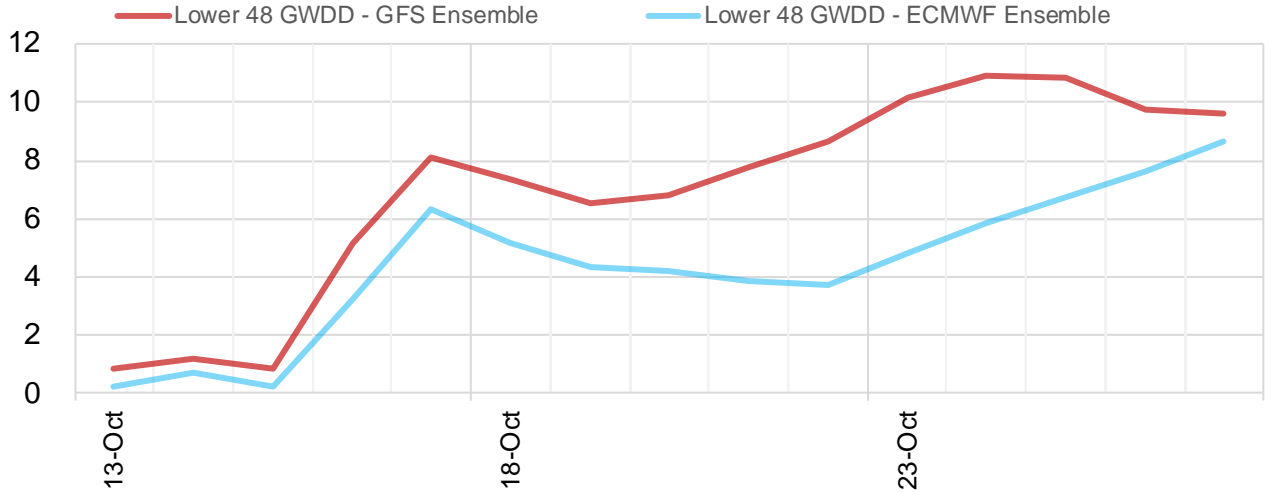
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.1	▲ 0.00	▼ -0.18

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.5	▼ -0.01	▲ 0.65

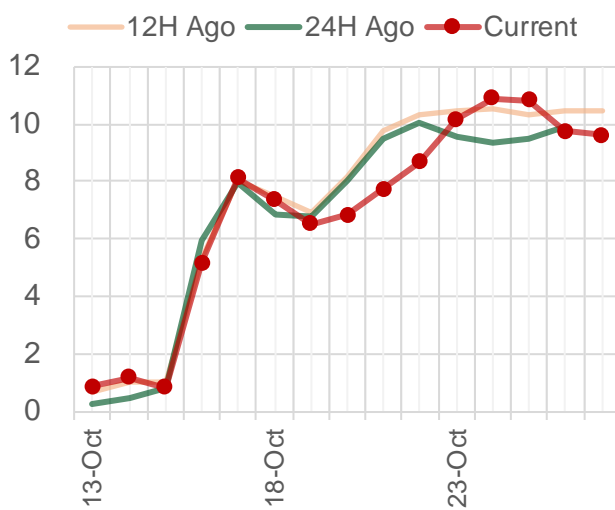
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▲ 0.04	▲ 0.04

Short-term Weather Model Outlooks (00z)

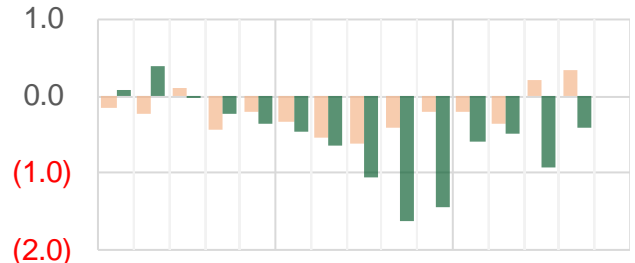
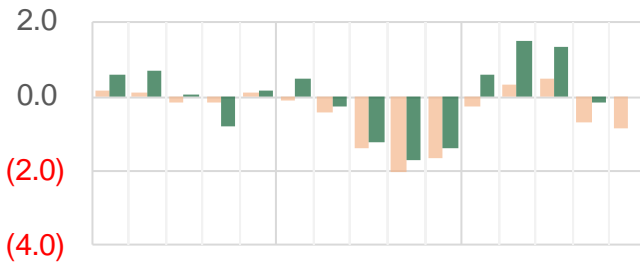
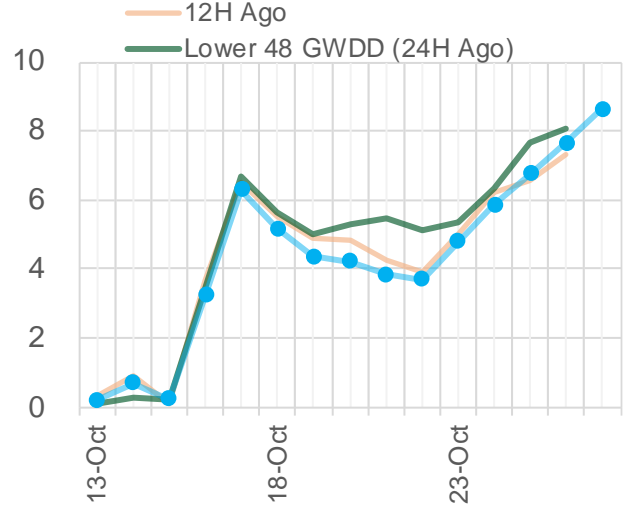
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	DoD	vs. 7D
Lower 48 Dry Production	85.8	86.3	85.2	82.9	84.1	85.5	85.2	▼ -0.3	▲ 0.2
Canadian Imports	4.7	4.5	4.0	4.1	4.1	4.1	4.1	▲ 0.0	▼ -0.1
L48 Power	32.1	31.5	31.1	29.7	28.9	30.7	31.9	▲ 1.2	▲ 1.3
L48 Residential & Commercial	8.9	12.1	10.2	8.2	9.6	12.1	12.0	▼ -0.2	▲ 1.8
L48 Industrial	20.3	20.8	20.4	20.5	20.8	21.2	21.0	▼ -0.2	▲ 0.3
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.6	4.6	4.7	4.7	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.0	2.1	2.0	1.9	1.9	2.1	2.2	▲ 0.1	▲ 0.1
L48 Regional Gas Consumption	68.1	71.3	68.4	64.8	65.7	70.8	71.7	▲ 0.9	▲ 3.5
Net LNG Delivered	7.96	6.90	5.93	5.51	6.03	7.51	7.50	▼ 0.0	▲ 0.9
Total Mexican Exports	6.5	6.7	6.6	5.9	6.2	6.4	6.4	▲ 0.0	▲ 0.0
Implied Daily Storage Activity	7.9	5.9	8.3	10.8	10.2	4.9	3.6		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	4-Sep	11-Sep	18-Sep	25-Sep	2-Oct	9-Oct	WoW	vs. 4W
Lower 48 Dry Production	87.1	89.0	87.8	86.9	87.3	87.3	▲ 0.0	▼ -0.5
Canadian Imports	4.4	3.8	3.8	3.6	3.9	4.5	▲ 0.7	▲ 0.8
L48 Power	37.6	35.4	33.5	30.8	30.6	30.7	▲ 0.0	▼ -1.9
L48 Residential & Commercial	7.4	8.4	8.0	9.9	9.5	13.6	▲ 4.1	▲ 4.6
L48 Industrial	20.4	19.7	21.3	21.2	22.2	21.1	▼ -1.1	▲ 0.0
L48 Lease and Plant Fuel	4.8	4.9	4.8	4.8	4.8	4.8	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.2	2.2	2.1	2.0	2.0	2.2	▲ 0.2	▲ 0.1
L48 Regional Gas Consumption	72.3	70.5	69.8	68.6	69.1	72.4	▲ 3.2	▲ 2.8
Net LNG Exports	3.0	5.2	7.3	5.8	6.8	7.5	▲ 0.7	▲ 1.2
Total Mexican Exports	6.5	6.4	6.2	6.4	6.3	6.2	▼ -0.1	▼ -0.2
Implied Daily Storage Activity	9.6	10.8	8.3	9.6	9.0	5.8	-3.2	
EIA Reported Daily Storage Activity	10.0	12.7	9.4	10.9	10.7			
Daily Model Error	-0.4	-1.9	-1.1	-1.2	-1.7			

Monthly Balances

	2Yr Ago Oct-18	LY Oct-19	Jun-20	Jul-20	Aug-20	Sep-20	MTD Oct-20	MoM	vs. LY
Lower 48 Dry Production	86.7	95.0	86.6	87.8	87.7	87.7	86.3	▼ -1.4	▼ -8.7
Canadian Imports	4.7	4.6	4.0	4.4	4.8	3.8	4.3	▲ 0.5	▼ -0.3
L48 Power	28.8	30.7	35.0	43.8	40.6	33.3	30.5	▼ -2.7	▼ -0.2
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	12.3	▲ 3.6	▼ -2.9
L48 Industrial	22.6	24.0	19.2	19.2	20.6	21.0	21.1	▲ 0.1	▼ -2.9
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.8	4.8	4.7	▼ -0.1	▼ -0.5
L48 Pipeline Distribution	2.1	2.3	2.2	2.4	2.3	2.1	2.1	▲ 0.0	▼ -0.2
L48 Regional Gas Consumption	74.5	77.4	70.1	78.4	76.1	69.8	70.8	▲ 0.9	▼ -6.7
Net LNG Exports	3.3	6.7	4.0	3.3	4.0	5.9	7.1	▲ 1.1	▲ 0.4
Total Mexican Exports	5.0	5.5	5.7	6.1	6.3	6.4	6.2	▼ -0.1	▲ 0.8
Implied Daily Storage Activity	8.6	10.0	10.9	4.4	6.1	9.4	6.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

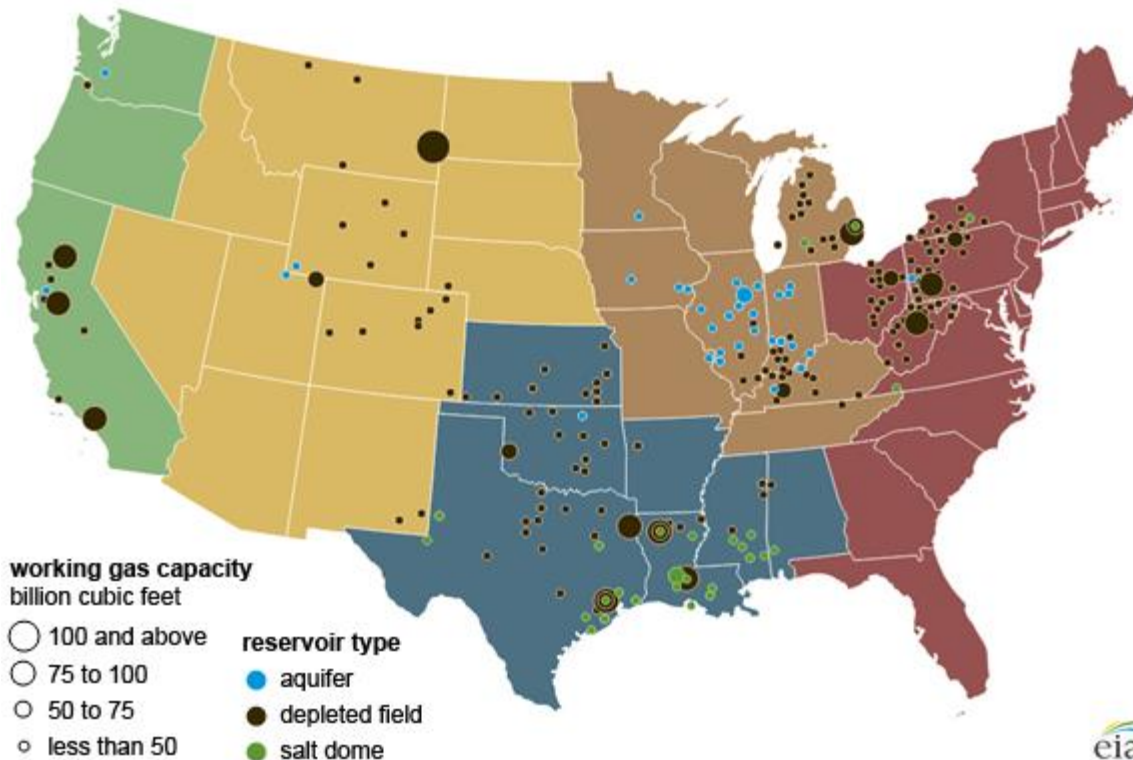
Regional S/D Models Storage Projection

Week Ending 9-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.5	1.8	7.3	51
East	0.5	1.7	2.2	15
Midwest	1.1	0.5	1.7	12
Mountain	4.4	-2.7	1.6	11
South Central	-0.9	2.5	1.6	11
Pacific	0.4	-0.2	0.2	1

*Adjustment Factor is calculated based on historical regional deltas

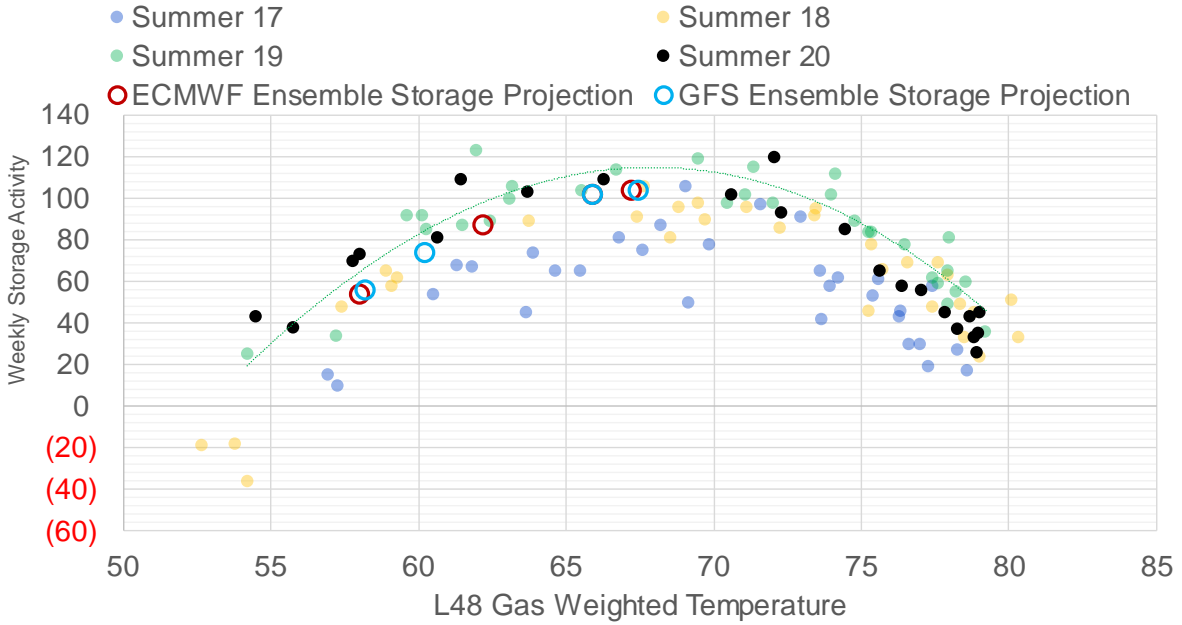
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

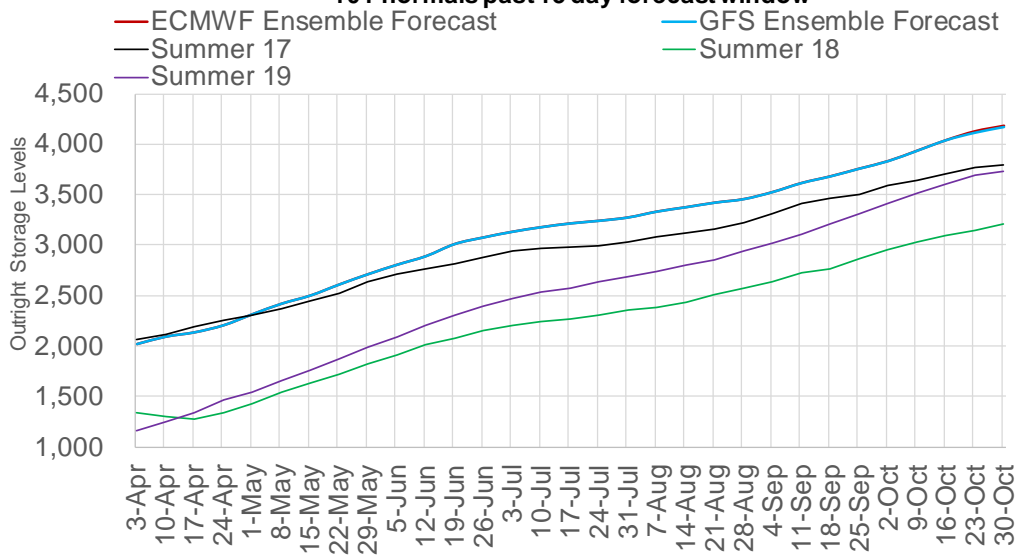
Next report and beyond	
Week Ending	Week Storage Projection
16-Oct	104
23-Oct	81
30-Oct	55

Weather Storage Model - Next 4 Week Forecast



Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window

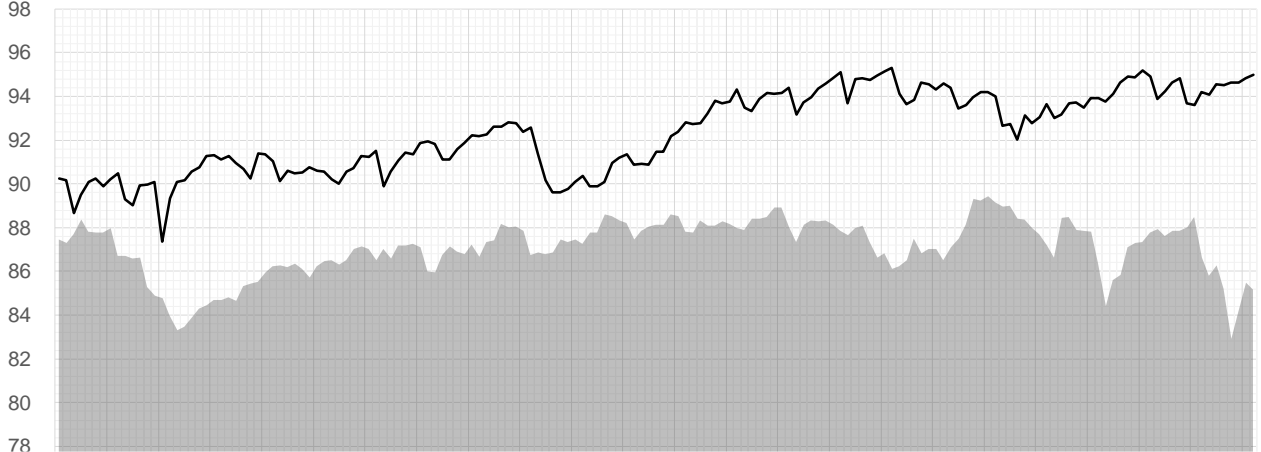


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US Dry Natural Gas Production (Bcf/d)

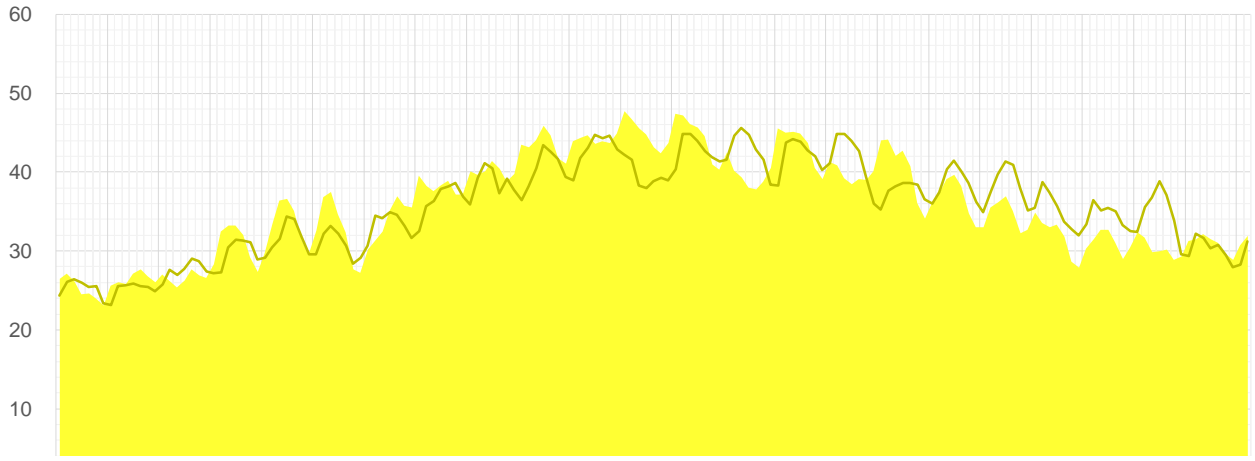
Supply - Demand Trends

■ US Dry Production — Last Year US Dry Production



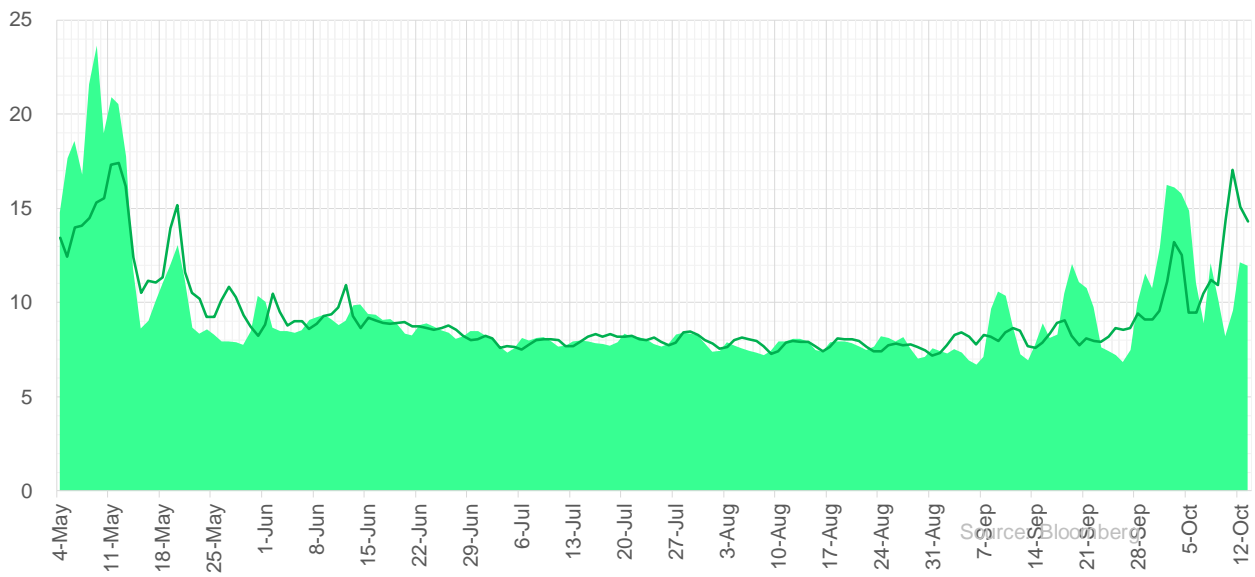
US Daily Power Burns (Bcf/d)

■ US Power Demand — Last Year US Power Demand



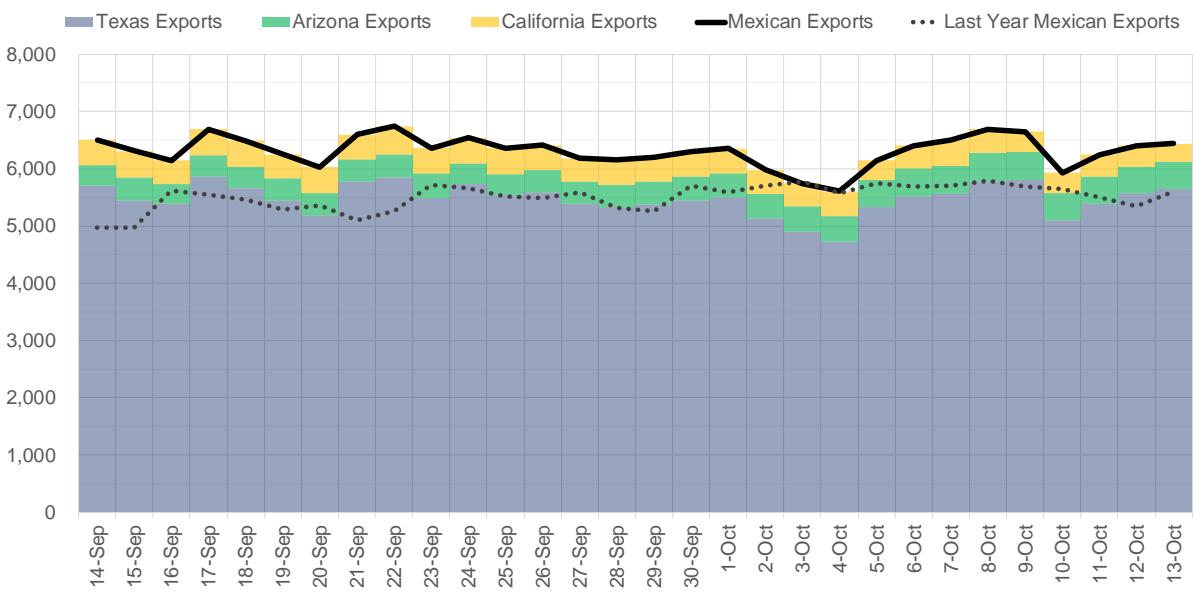
US Daily ResCom Consumption (Bcf/d)

■ US ResCom Demand — Last Year US ResCom Demand

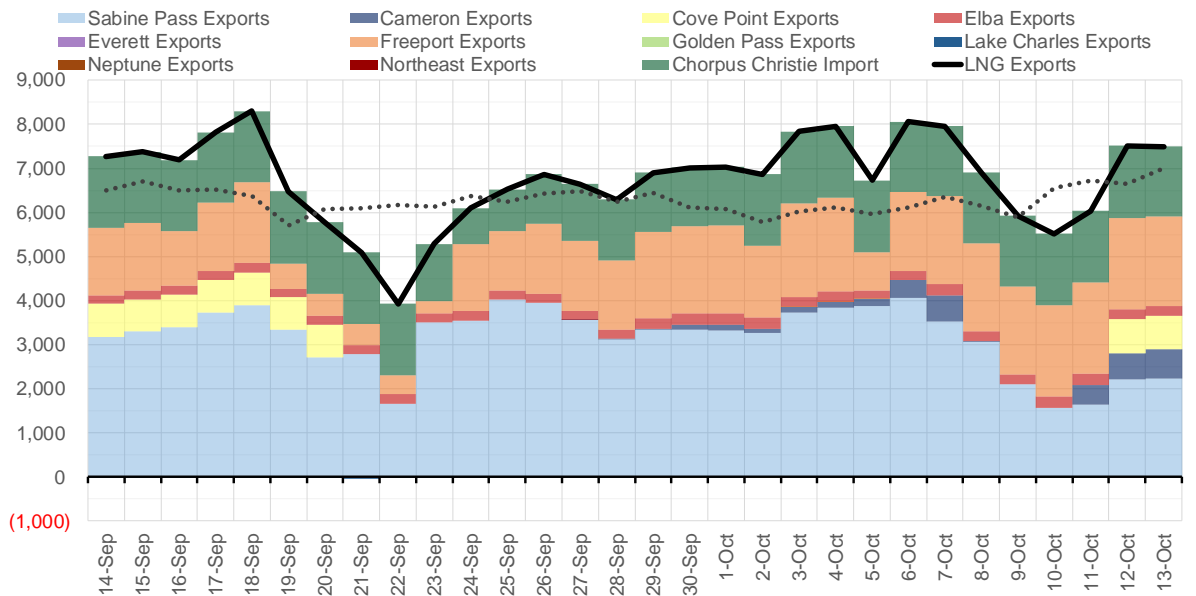


Source: Bloomberg

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

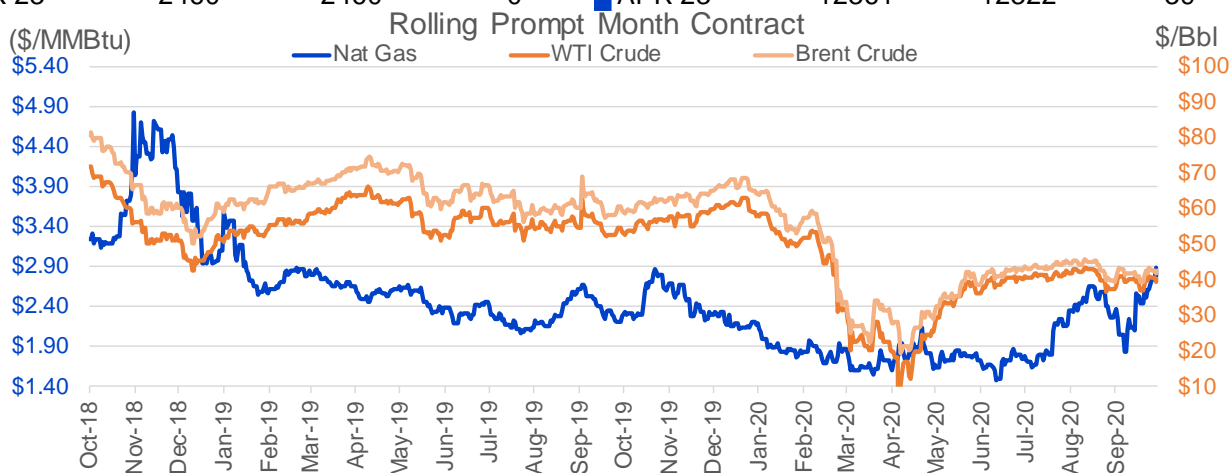
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
11	2020	C	3.75	14134	11	2020	P	2.00	51439
11	2020	C	3.50	11218	3	2021	P	2.00	34277
11	2020	C	3.25	11080	12	2020	P	2.00	31707
11	2020	C	4.00	9320	11	2020	C	3.25	31295
12	2020	C	4.00	7954	11	2020	C	3.50	30183
11	2020	C	3.00	6302	11	2020	C	4.00	28739
3	2021	C	6.00	6000	3	2021	C	6.00	28376
11	2020	P	2.50	5923	1	2021	C	4.50	27664
3	2021	C	5.00	5351	3	2021	C	3.25	27176
11	2020	P	2.00	3780	4	2021	C	5.00	26771
11	2020	P	2.25	3465	3	2021	C	4.00	26157
12	2020	P	2.50	3422	1	2021	C	3.50	25675
11	2020	P	2.40	3238	12	2020	P	2.50	24280
12	2020	C	3.40	2101	3	2021	C	5.00	24222
11	2020	P	2.75	2018	11	2020	C	3.00	23983
12	2020	C	4.80	2000	11	2020	P	2.25	23852
6	2021	C	3.25	2000	3	2021	C	7.00	23041
6	2021	C	4.00	2000	11	2020	C	5.00	21921
12	2020	P	2.25	1931	2	2021	C	5.00	20933
4	2021	P	2.00	1675	3	2021	C	3.00	20761
8	2021	C	4.00	1650	12	2020	C	4.00	20707
12	2020	C	5.00	1628	3	2021	C	3.50	20006
5	2021	P	2.00	1525	4	2021	C	4.00	19127
11	2021	C	4.00	1500	11	2020	C	2.75	18820
11	2021	P	2.00	1500	11	2020	P	2.50	18697
11	2020	P	2.30	1451	12	2020	C	3.75	18473
12	2020	C	3.75	1326	1	2021	P	2.50	18422
2	2021	P	2.50	1326	1	2021	C	5.00	18248
11	2020	C	2.75	1267	11	2020	P	1.75	18049
2	2021	P	2.25	1200	11	2020	C	3.75	17916
12	2020	C	5.50	1183	1	2021	P	2.25	17732
12	2020	C	3.30	1159	1	2021	C	6.00	16939
11	2020	C	3.10	1128	1	2021	C	3.00	16885
11	2020	C	2.55	1109	1	2021	C	3.75	16695
11	2020	P	2.70	1012	12	2020	C	3.50	15297
3	2021	C	7.00	1008	2	2021	C	3.50	15034
12	2020	C	4.50	945	11	2020	P	2.65	14533
1	2021	P	2.00	928	12	2020	C	4.50	14458
8	2021	P	2.25	900	12	2020	P	1.50	14450
11	2020	C	3.55	873	4	2021	C	3.00	14310
12	2020	P	2.75	840	12	2020	C	5.00	14239
11	2020	C	2.90	780	11	2020	P	2.20	13893
1	2021	P	2.50	741	4	2021	P	2.00	13822
11	2020	C	2.80	738	3	2021	P	2.50	13787
11	2020	P	2.60	668	2	2021	P	2.50	13753
12	2020	P	2.90	571	5	2021	C	3.00	13706
12	2020	C	3.50	542	6	2021	C	4.00	13395
1	2021	C	4.00	533	11	2020	P	2.80	13218
12	2020	C	5.75	501	1	2021	P	2.00	13159
					1	2021	C	3.25	13136

Source: CME, ICE

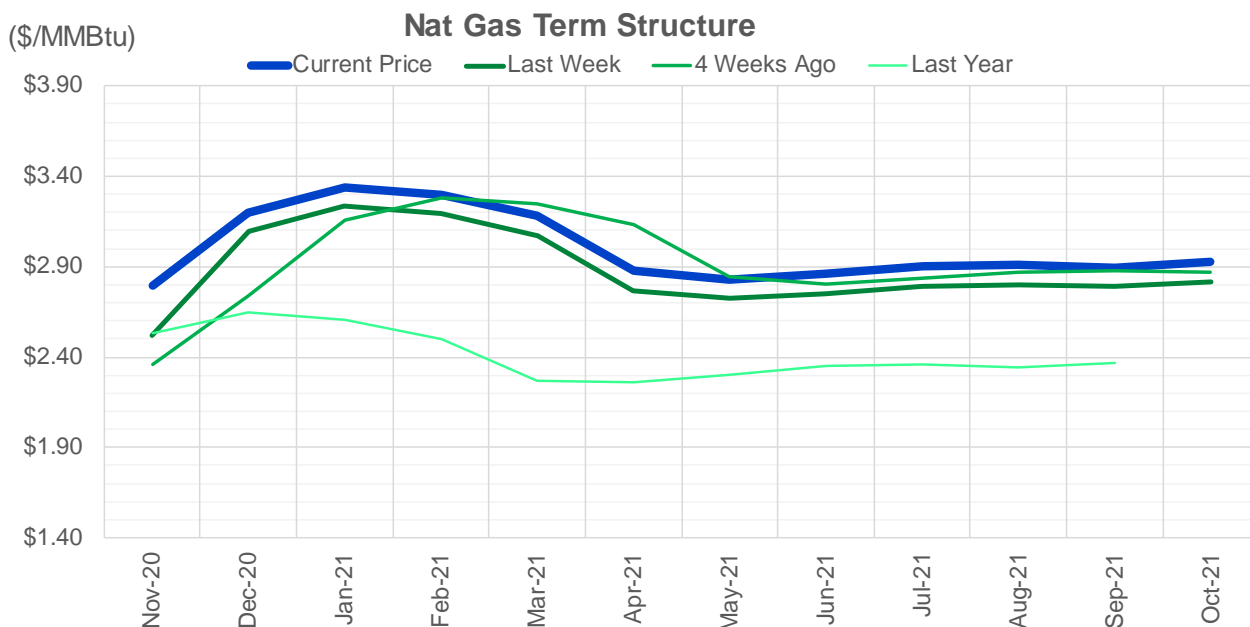
Nat Gas Futures Open Interest

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
NOV 20	157851	185321	-27470	NOV 20	76892	77679	-786.75
DEC 20	153506	156754	-3248	DEC 20	78241	79722	-1481
JAN 21	186205	166895	19310	JAN 21	89103	88662	441.25
FEB 21	76074	75400	674	FEB 21	63768	63191	576.75
MAR 21	136101	133770	2331	MAR 21	84037	83552	484.5
APR 21	86834	84862	1972	APR 21	68610	67387	1223.5
MAY 21	43067	42626	441	MAY 21	62464	62557	-93.5
JUN 21	32320	32656	-336	JUN 21	55265	54597	668
JUL 21	24133	22610	1523	JUL 21	57167	56903	264.5
AUG 21	25697	25245	452	AUG 21	60646	60138	508
SEP 21	37996	35258	2738	SEP 21	55502	54467	1034.75
OCT 21	87855	85259	2596	OCT 21	72645	72886	-240.75
NOV 21	31696	31178	518	NOV 21	48494	47981	512.5
DEC 21	26449	26320	129	DEC 21	46308	45592	715.5
JAN 22	27988	27940	48	JAN 22	41197	41075	121.75
FEB 22	16528	16236	292	FEB 22	34112	34094	18.5
MAR 22	18828	18995	-167	MAR 22	37174	37009	165
APR 22	21917	23527	-1610	APR 22	35135	36649	-1514
MAY 22	8342	8139	203	MAY 22	27162	26888	273.75
JUN 22	4093	4049	44	JUN 22	25997	25824	173.25
JUL 22	3795	3816	-21	JUL 22	27756	27535	220.75
AUG 22	2510	2444	66	AUG 22	25951	25780	171.75
SEP 22	2327	2325	2	SEP 22	25265	24864	400.75
OCT 22	3734	3680	54	OCT 22	27818	27614	203.5
NOV 22	2870	2869	1	NOV 22	24286	24217	68.25
DEC 22	2958	3088	-130	DEC 22	28037	27373	663.75
JAN 23	3010	2866	144	JAN 23	13838	13843	-5.25
FEB 23	890	890	0	FEB 23	13037	12999	37.5
MAR 23	896	896	0	MAR 23	13247	13208	39.5
APR 23	2460	2460	0	APR 23	12361	12322	39



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	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
Current Price	\$2.797	\$3.200	\$3.335	\$3.295	\$3.183	\$2.875	\$2.831	\$2.862	\$2.902	\$2.911	\$2.897	\$2.924
Last Week	\$2.520	\$3.096	\$3.239	\$3.193	\$3.071	\$2.770	\$2.724	\$2.754	\$2.793	\$2.802	\$2.789	\$2.817
vs. Last Week	\$0.277	\$0.104	\$0.096	\$0.102	\$0.112	\$0.105	\$0.107	\$0.108	\$0.109	\$0.109	\$0.108	\$0.107
4 Weeks Ago	\$2.362	\$2.741	\$3.158	\$3.282	\$3.246	\$3.133	\$2.842	\$2.805	\$2.834	\$2.871	\$2.881	\$2.870
vs. 4 Weeks Ago	\$0.435	\$0.459	\$0.177	\$0.013	-\$0.063	-\$0.258	-\$0.011	\$0.057	\$0.068	\$0.040	\$0.016	\$0.054
Last Year	\$2.339	\$2.532	\$2.647	\$2.609	\$2.498	\$2.271	\$2.257	\$2.301	\$2.348	\$2.355	\$2.339	\$2.365
vs. Last Year	\$0.458	\$0.668	\$0.688	\$0.686	\$0.685	\$0.604	\$0.574	\$0.561	\$0.554	\$0.556	\$0.558	\$0.559

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.71	3.51	1.80
TETCO M3	\$/MMBtu	0.57	2.25	1.68
FGT Zone 3	\$/MMBtu	1.24	2.54	1.30
Zone 6 NY	\$/MMBtu	1.24	2.41	1.17
Chicago Citygate	\$/MMBtu	1.75	2.36	0.61
Michcon	\$/MMBtu	1.70	2.30	0.60
Columbia TCO Pool	\$/MMBtu	1.49	2.11	0.62
Ventura	\$/MMBtu	1.74	2.34	0.60
Rockies/Opal	\$/MMBtu	1.47	2.28	0.81
El Paso Permian Basin	\$/MMBtu	0.30	1.19	0.89
Socal Citygate	\$/MMBtu	5.51	2.88	-2.63
Malin	\$/MMBtu	1.87	2.88	1.01
Houston Ship Channel	\$/MMBtu	2.56	2.46	-0.10
Henry Hub Cash	\$/MMBtu	2.34	2.31	-0.03
AECO Cash	C\$/GJ	1.60	2.00	0.40
Station2 Cash	C\$/GJ	1.12	4.40	3.28
Dawn Cash	C\$/GJ	1.71	2.13	0.42

Source: CME, Bloomberg

	Units	Current Price	vs. 4 Weeks			
			vs. Last Week	Ago	vs. Last Year	
NatGas Jan/Apr	\$/MMBtu	-0.46	▲ 0.009	▼ -0.020	▼ -0.033	
NatGas Mar/Apr	\$/MMBtu	-0.308	▼ -0.007	▼ -0.599	▼ -0.578	
NatGas Oct/Nov	\$/MMBtu	0.70	▲ 0.277	▲ 0.317	▲ 0.629	
NatGas Oct/Jan	\$/MMBtu	1.23	▲ 0.096	▲ 0.314	▲ 0.878	
WTI Crude	\$/Bbl	40.32	▼ -0.350	▲ 2.040	▼ -12.490	
Brent Crude	\$/Bbl	42.57	▼ -0.080	▲ 2.040	▼ -16.170	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	117.56	▼ -1.300	▲ 7.630	▼ -73.440	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.003	▲ 0.022	▲ 0.055	
Ethane, Mt. Bel	cents/Gallon	0.21	▲ 0.002	▼ -0.003	▲ 0.016	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	