

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.68	▲ \$ 0.07	▲ \$ 0.18

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 39.97	▲ \$ 0.75	▲ \$ 1.6

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 42.06	▲ \$ 0.77	▲ \$ 1.8

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- [Nat Gas Futures Open Interest](#)
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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	3.2	1.3	2.5	7.0
24 Hr Chg	1.7	1.6	4.0	7.3

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.4	0.8	8.1	9.2
24 Hr Chg	-0.4	1.8	4.6	6.0

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.4	▼ -2.29	▼ -1.64

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	32.4	▲ 1.32	▲ 2.28

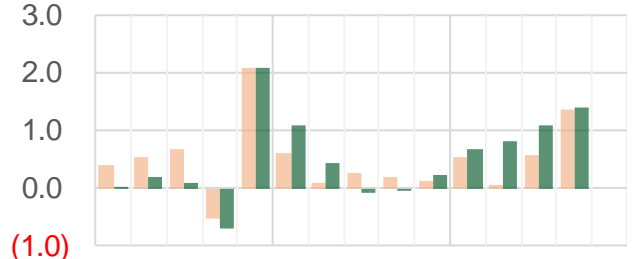
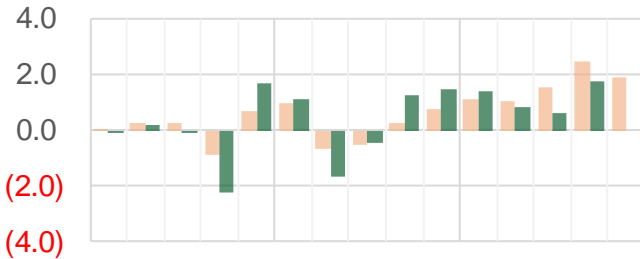
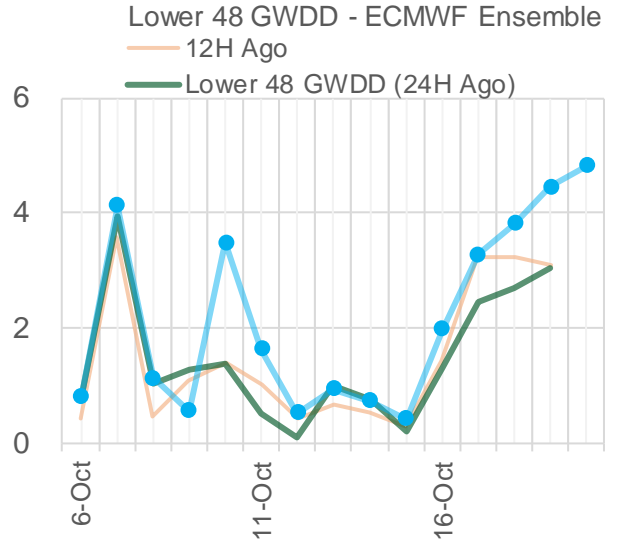
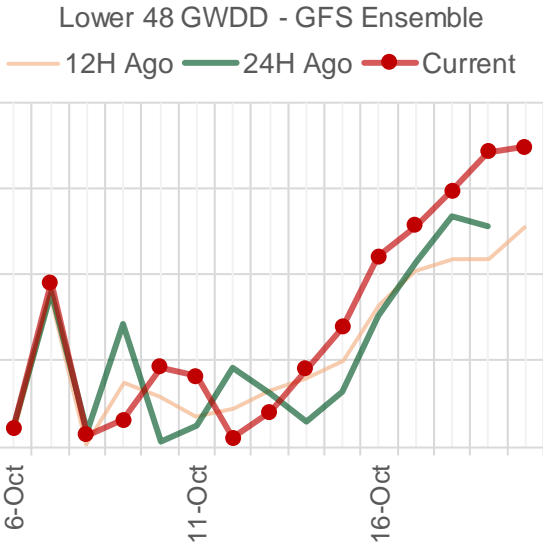
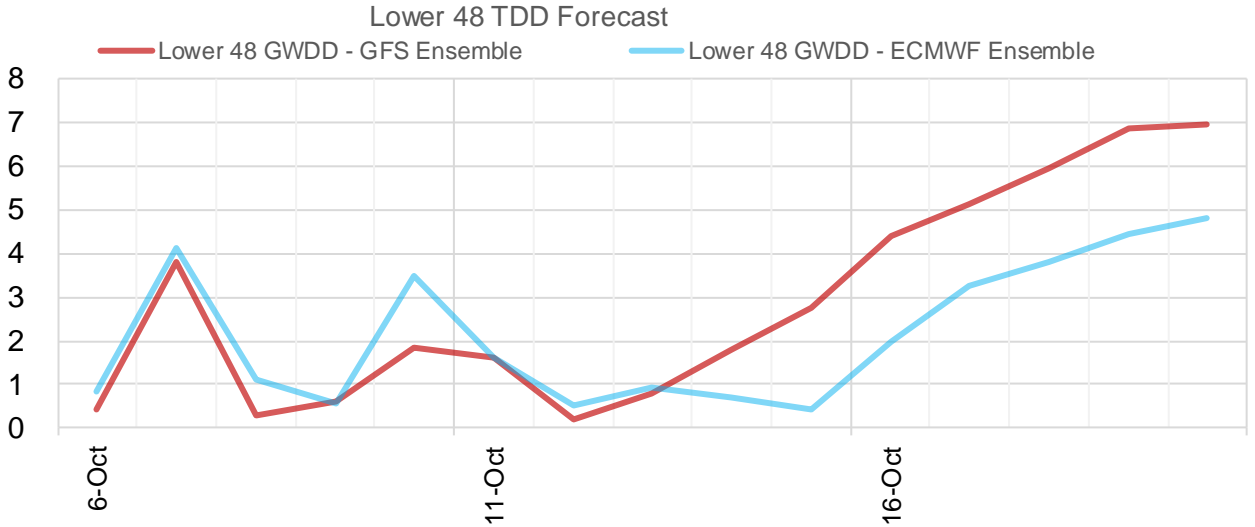
	Current	Δ from YD	Δ from 7D Avg
US ResComm	11.0	▼ -3.72	▼ -2.95

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.2	▼ -0.47	▼ -0.05

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.8	▲ 1.04	▲ 0.58

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.3	▲ 0.01	▲ 0.25

### Short-term Weather Model Outlooks (00z)



Source: WSI , Bloomberg

### Lower 48 Component Models

#### Daily Balances

	30-Sep	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>86.2</b>	<b>85.2</b>	<b>86.1</b>	<b>86.1</b>	<b>86.2</b>	<b>86.7</b>	<b>84.4</b>	▼ -2.3	▼ -1.7
<b>Canadian Imports</b>	<b>4.2</b>	<b>3.8</b>	<b>4.2</b>	<b>4.5</b>	<b>4.6</b>	<b>4.5</b>	<b>4.2</b>	▼ -0.4	▼ -0.1
L48 Power	29.9	30.0	30.2	28.8	29.3	31.1	32.4	▲ 1.3	▲ 2.5
L48 Residential & Commercial	10.8	12.9	16.2	16.1	15.7	14.8	11.0	▼ -3.7	▼ -3.4
L48 Industrial	20.3	19.8	19.5	18.9	18.4	18.0	17.8	▼ -0.2	▼ -1.4
L48 Lease and Plant Fuel	4.8	4.7	4.8	4.8	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.0	2.1	2.3	2.2	2.2	2.2	2.1	▼ -0.1	▼ 0.0
<b>L48 Regional Gas Consumption</b>	<b>67.7</b>	<b>69.6</b>	<b>73.0</b>	<b>70.8</b>	<b>70.4</b>	<b>70.9</b>	<b>68.0</b>	▼ -2.9	▼ -2.4
<b>Net LNG Delivered</b>	<b>7.01</b>	<b>7.02</b>	<b>6.86</b>	<b>7.84</b>	<b>7.96</b>	<b>6.73</b>	<b>7.77</b>	▲ 1.0	▲ 0.5
<b>Total Mexican Exports</b>	<b>6.3</b>	<b>5.8</b>	<b>6.1</b>	<b>5.9</b>	<b>5.6</b>	<b>6.3</b>	<b>6.3</b>	▲ 0.0	▲ 0.3
Implied Daily Storage Activity	9.3	6.6	4.3	6.0	6.8	7.3	6.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

#### EIA Storage Week Balances

	28-Aug	4-Sep	11-Sep	18-Sep	25-Sep	2-Oct	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>85.0</b>	<b>85.3</b>	<b>87.3</b>	<b>86.0</b>	<b>85.1</b>	<b>85.4</b>	▲ 0.2	▼ -0.5
<b>Canadian Imports</b>	<b>5.2</b>	<b>4.4</b>	<b>3.8</b>	<b>3.8</b>	<b>3.6</b>	<b>3.9</b>	▲ 0.2	▼ 0.0
L48 Power	41.6	37.6	35.3	33.5	30.8	30.6	▼ -0.2	▼ -3.7
L48 Residential & Commercial	7.9	7.4	8.4	8.0	9.9	9.5	▼ -0.4	▲ 1.1
L48 Industrial	19.0	18.7	18.0	19.6	19.4	20.4	▲ 1.0	▲ 1.5
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.7	4.7	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.4	2.2	2.2	2.1	2.0	2.0	▼ 0.0	▼ -0.1
<b>L48 Regional Gas Consumption</b>	<b>75.6</b>	<b>70.5</b>	<b>68.8</b>	<b>68.0</b>	<b>66.8</b>	<b>67.3</b>	▲ 0.5	▼ -1.2
<b>Net LNG Exports</b>	<b>3.9</b>	<b>3.0</b>	<b>5.2</b>	<b>7.3</b>	<b>5.8</b>	<b>6.8</b>	▲ 0.9	▲ 1.4
<b>Total Mexican Exports</b>	<b>6.6</b>	<b>6.5</b>	<b>6.4</b>	<b>6.2</b>	<b>6.4</b>	<b>6.2</b>	▼ -0.2	▼ -0.2
Implied Daily Storage Activity	4.2	9.6	10.8	8.3	9.7	9.0	-0.6	
EIA Reported Daily Storage Activity	5.0	10.0	12.7	9.4	10.9			
Daily Model Error	-0.8	-0.4	-2.0	-1.1	-1.2			

#### Monthly Balances

	2Yr Ago Oct-18	LY Oct-19	Jun-20	Jul-20	Aug-20	Sep-20	MTD Oct-20	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>86.9</b>	<b>94.7</b>	<b>85.3</b>	<b>86.2</b>	<b>86.1</b>	<b>85.9</b>	<b>85.8</b>	▼ -0.1	▼ -9.0
<b>Canadian Imports</b>	<b>4.7</b>	<b>4.6</b>	<b>4.0</b>	<b>4.4</b>	<b>4.9</b>	<b>3.8</b>	<b>4.3</b>	▲ 0.5	▼ -0.3
L48 Power	28.8	30.7	35.0	43.8	40.6	33.3	30.3	▼ -3.0	▼ -0.5
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	14.5	▲ 5.8	▼ -0.8
L48 Industrial	22.3	23.3	17.6	17.4	18.9	19.3	18.7	▼ -0.5	▼ -4.5
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.7	4.8	4.8	▼ 0.0	▼ -0.5
L48 Pipeline Distribution	2.1	2.3	2.2	2.4	2.3	2.1	2.2	▲ 0.1	▼ -0.1
<b>L48 Regional Gas Consumption</b>	<b>74.3</b>	<b>76.7</b>	<b>68.5</b>	<b>76.6</b>	<b>74.3</b>	<b>68.0</b>	<b>70.4</b>	▲ 2.4	▼ -6.3
<b>Net LNG Exports</b>	<b>3.3</b>	<b>6.7</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>5.9</b>	<b>7.4</b>	▲ 1.4	▲ 0.7
<b>Total Mexican Exports</b>	<b>5.0</b>	<b>5.5</b>	<b>5.7</b>	<b>6.1</b>	<b>6.3</b>	<b>6.4</b>	<b>6.0</b>	▼ -0.4	▲ 0.5
Implied Daily Storage Activity	9.0	10.5	11.1	4.6	6.3	9.4	6.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

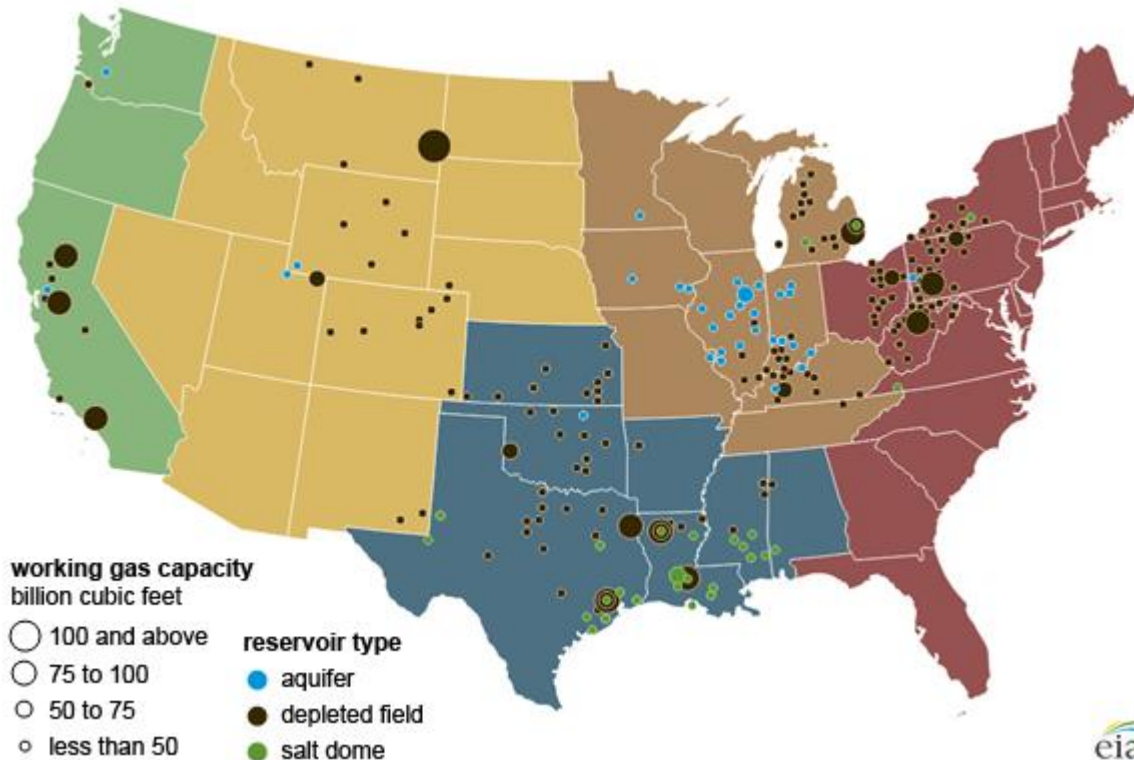
### Regional S/D Models Storage Projection

Week Ending 2-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	8.8	1.4	10.1	71
East	2.0	1.7	3.7	26
Midwest	3.5	-0.2	3.4	24
Mountain	3.3	-3.0	0.3	2
South Central	-0.7	3.3	2.6	18
Pacific	0.6	-0.4	0.2	1

\*Adjustment Factor is calculated based on historical regional deltas

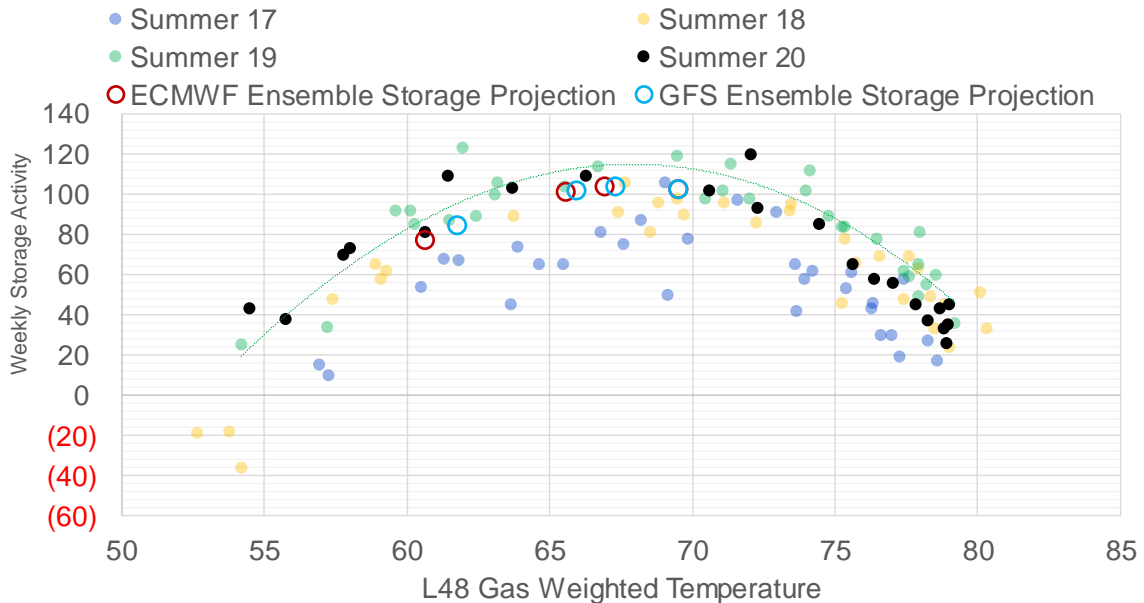
U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

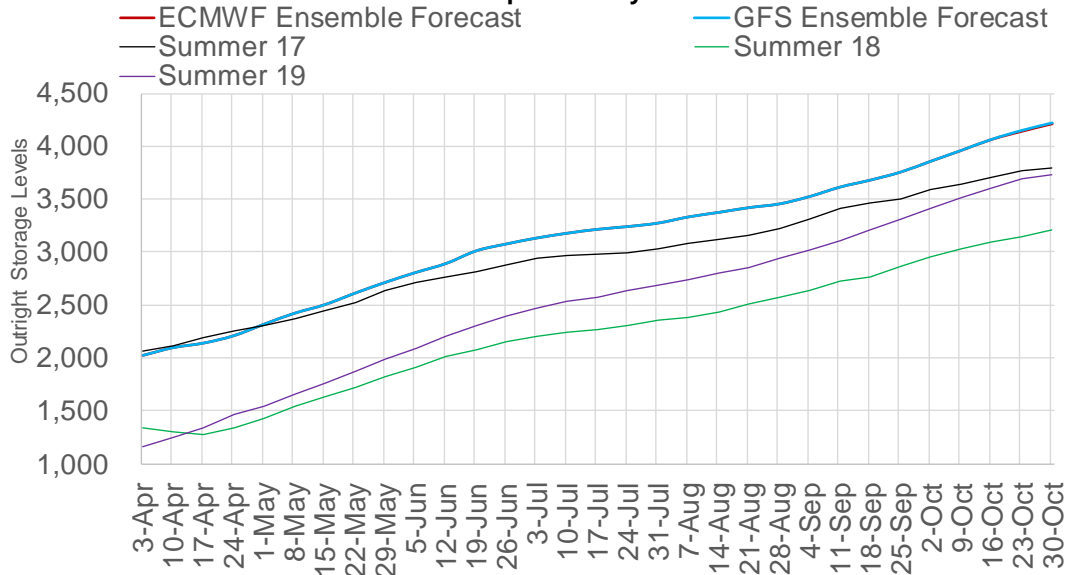
Next report and beyond	
Week Ending	Week Storage Projection
9-Oct	102
16-Oct	104
23-Oct	81

### Weather Storage Model - Next 4 Week Forecast



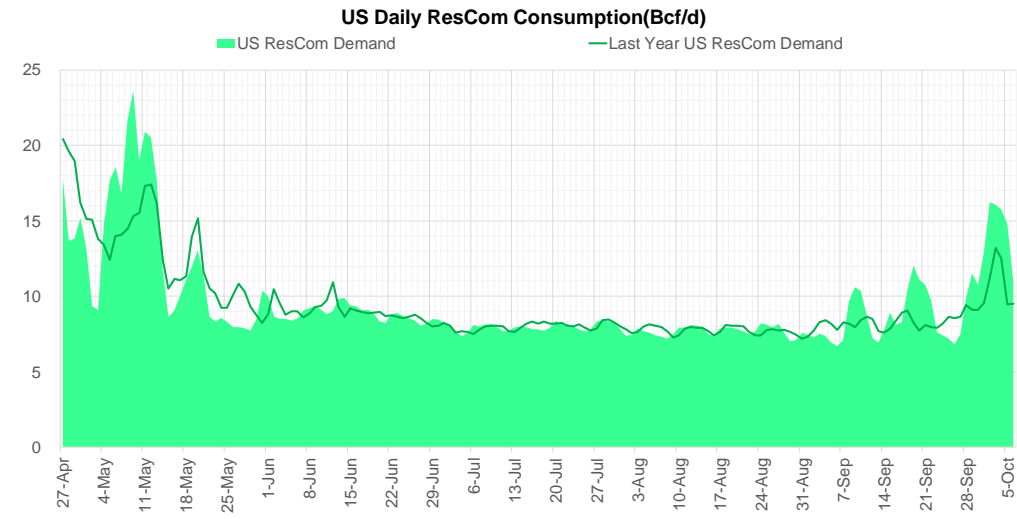
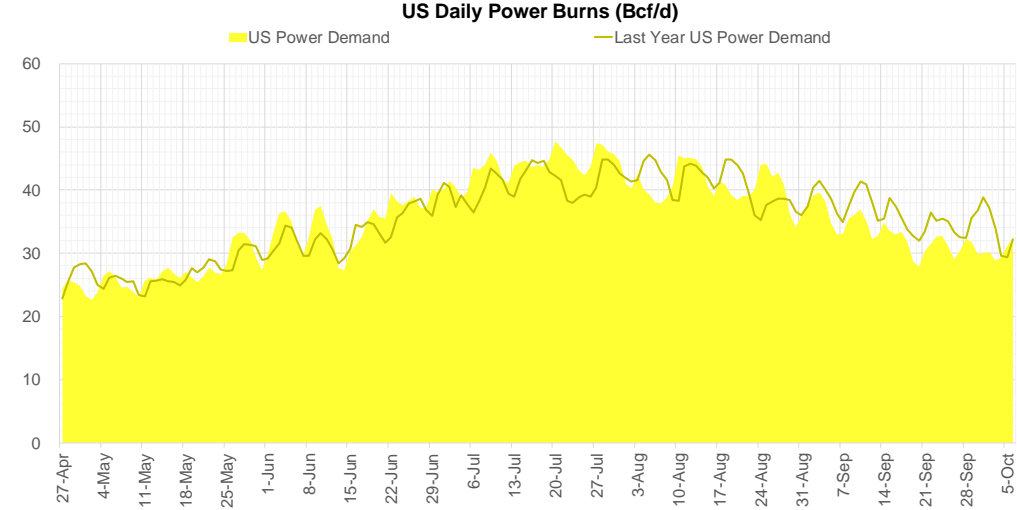
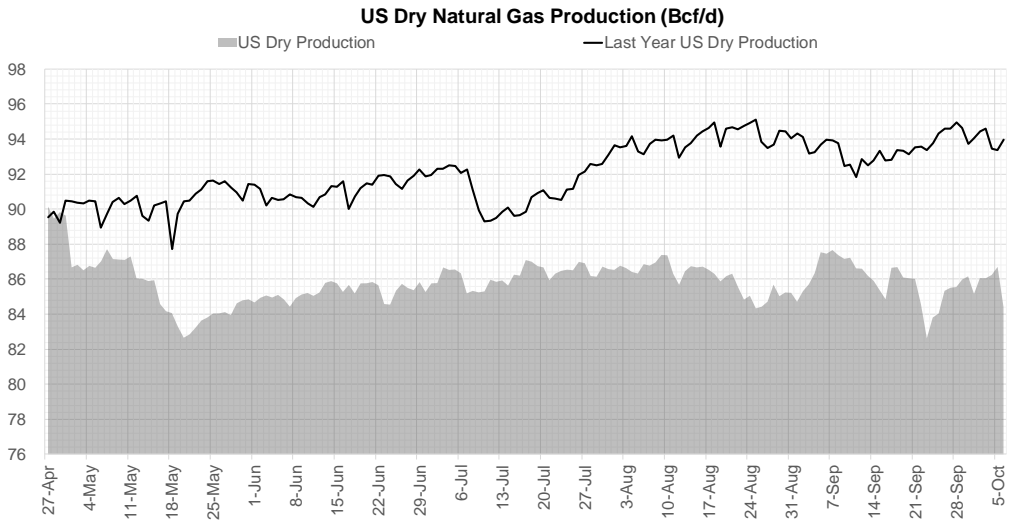
### Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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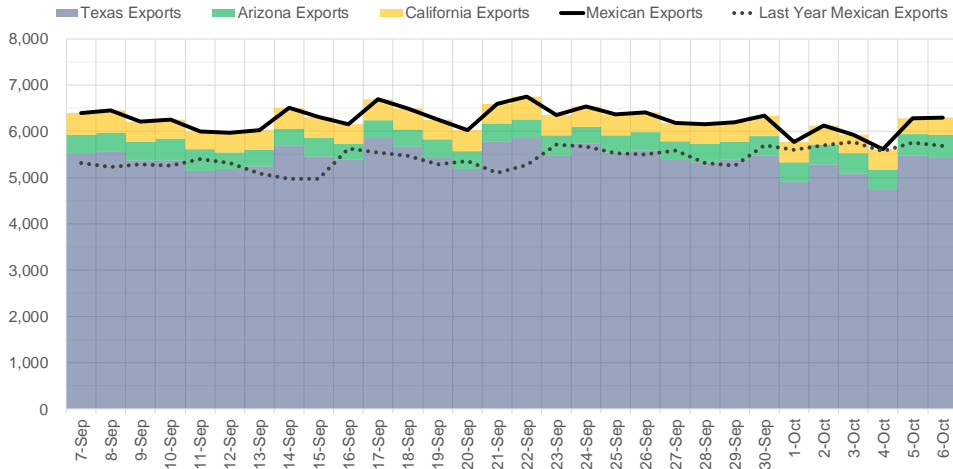
## Supply – Demand Trends



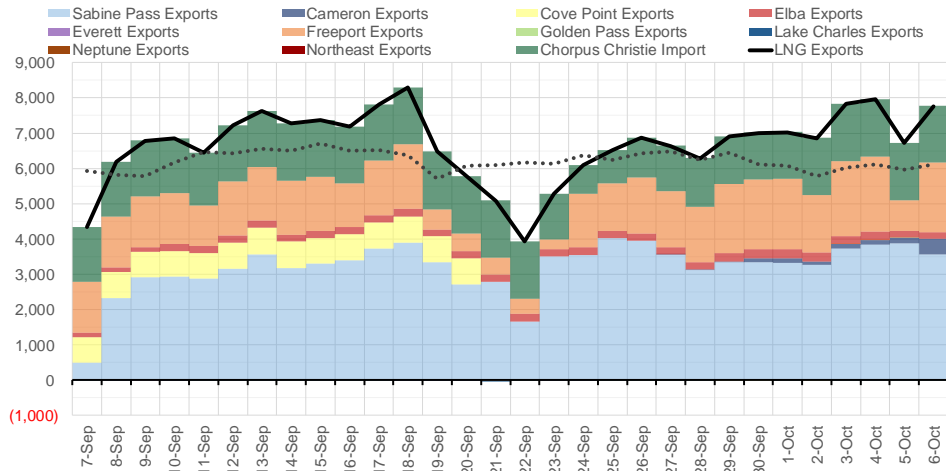
Source: Bloomberg

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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
11	2020	P	2.00	26538	11	2020	P	2.00	47871
11	2020	P	2.25	15302	3	2021	P	2.00	34183
11	2020	P	1.75	10403	12	2020	P	2.00	29367
11	2020	P	2.50	6946	3	2021	C	6.00	28320
11	2020	C	5.00	4567	3	2021	C	4.00	27185
11	2020	C	3.00	4295	3	2021	C	3.25	27176
11	2020	P	2.10	3727	4	2021	C	5.00	25987
11	2020	P	2.40	3674	1	2021	C	4.50	25651
11	2020	C	3.25	3602	11	2020	P	2.25	25336
11	2020	P	2.20	3595	11	2020	C	5.00	25065
12	2020	P	2.25	3357	1	2021	C	3.50	24896
12	2020	P	2.00	3124	12	2020	P	2.50	24172
1	2021	C	5.00	3076	11	2020	C	3.50	23796
11	2020	C	3.50	2646	11	2020	C	3.00	22447
11	2020	P	1.60	2433	3	2021	C	3.00	22261
11	2020	C	4.50	2385	11	2020	C	3.25	21820
11	2020	C	2.75	2260	3	2021	C	3.50	21703
1	2021	P	2.00	2255	3	2021	C	7.00	21332
11	2020	P	2.35	2247	4	2021	C	4.00	18378
11	2020	C	4.00	2221	11	2020	C	4.00	17996
3	2021	C	3.50	2151	2	2021	C	5.00	17622
11	2020	C	3.75	2139	1	2021	C	5.00	17393
1	2021	C	6.00	2104	12	2020	C	3.75	17335
1	2021	C	7.00	2001	1	2021	P	2.50	17139
12	2020	C	4.50	1608	1	2021	C	3.00	16885
12	2020	P	2.90	1513	11	2020	C	2.75	16843
1	2021	C	4.50	1501	12	2020	C	4.00	16774
3	2021	C	3.00	1500	11	2020	P	2.50	16729
1	2021	C	3.50	1455	1	2021	C	3.75	16532
12	2020	C	5.00	1409	11	2020	P	1.75	16468
11	2020	C	3.40	1303	1	2021	C	6.00	14931
11	2020	C	2.85	1286	11	2020	P	2.65	14465
11	2020	C	2.80	1253	12	2020	P	1.50	14445
11	2020	P	2.75	1216	3	2021	C	5.00	14193
11	2020	P	2.30	1153	2	2021	C	3.50	14107
12	2020	C	3.50	1017	1	2021	P	2.25	14058
11	2020	C	2.65	1008	4	2021	C	3.00	13985
11	2020	C	2.90	928	4	2021	P	2.00	13896
11	2020	P	2.55	915	1	2021	P	2.00	13697
5	2021	P	2.50	855	3	2021	P	2.50	13684
12	2020	C	4.00	820	5	2021	C	3.00	13318
11	2020	P	2.60	812	1	2021	C	3.25	13212
1	2021	C	4.75	800	11	2020	P	2.80	13209
11	2020	P	2.45	786	12	2020	C	5.00	13206
12	2020	P	2.40	785	12	2020	C	3.50	13145
11	2020	P	1.50	752	11	2020	P	2.20	13134
5	2021	C	5.00	700	6	2021	C	4.00	13025
11	2020	P	2.15	664	11	2020	C	2.85	12926
2	2021	P	2.00	658	12	2020	C	3.00	12581
					4	2021	C	2.75	12536.25

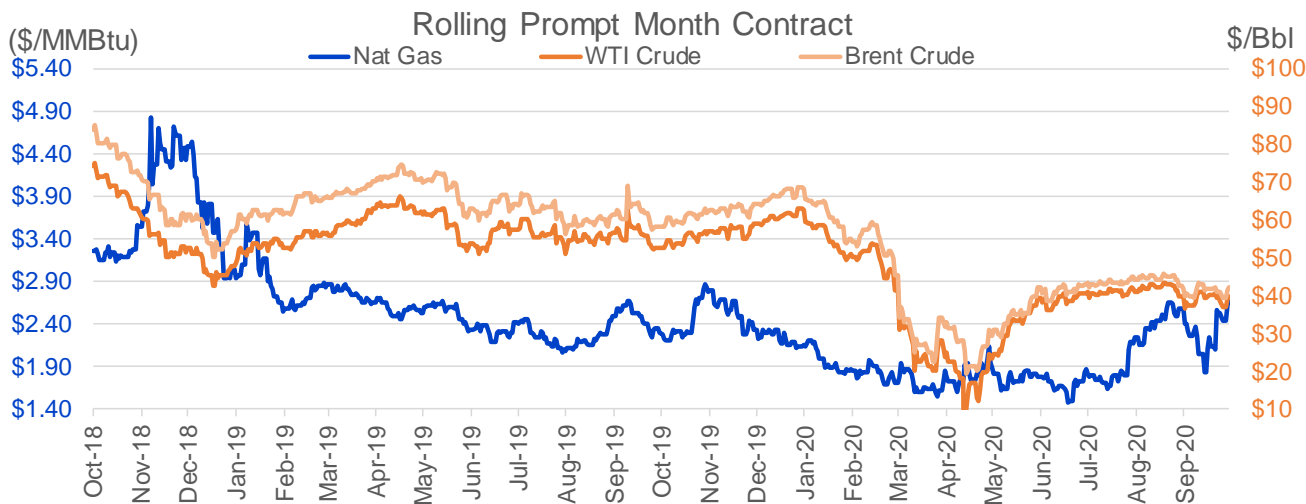
Source: CME, Nasdaq, ICE



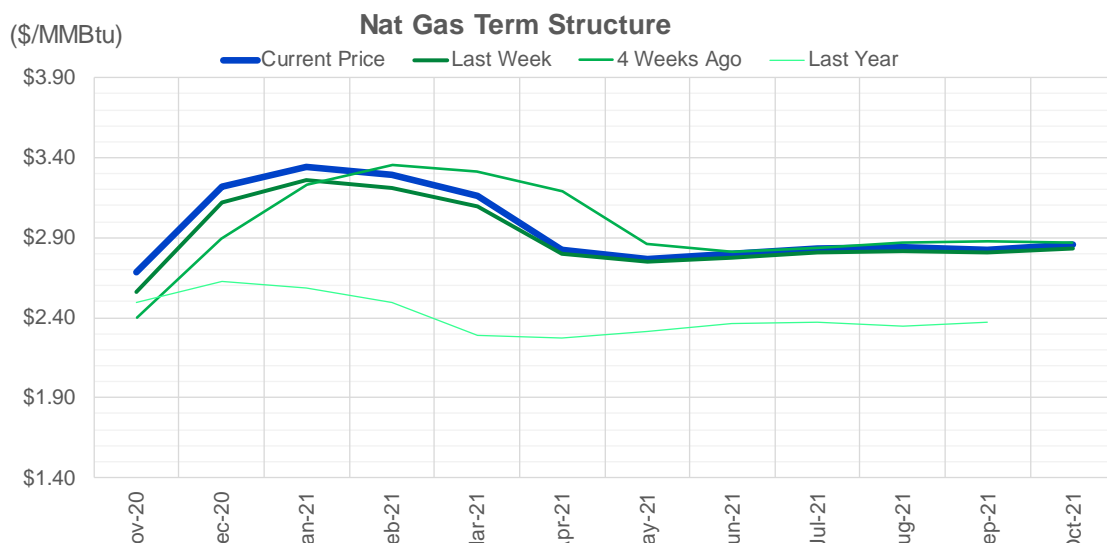
### Nat Gas Futures Open Interest CME, and ICE Combined

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
NOV 20	291479	291422	57	NOV 20	82708	80536	2172.5
DEC 20	152011	149036	2975	DEC 20	81325	80360	964.5
JAN 21	141427	140799	628	JAN 21	87651	87494	157
FEB 21	67847	68640	-793	FEB 21	61976	61938	38
MAR 21	124041	122078	1963	MAR 21	81707	82296	-589
APR 21	84542	82711	1831	APR 21	66561	66200	360.75
MAY 21	47426	47285	141	MAY 21	60261	60086	175.25
JUN 21	33067	32106	961	JUN 21	53655	53219	436.25
JUL 21	21343	20930	413	JUL 21	55853	55806	46.75
AUG 21	26364	26430	-66	AUG 21	59100	58947	153.5
SEP 21	34312	33153	1159	SEP 21	53583	53132	451.75
OCT 21	79041	78026	1015	OCT 21	80058	79458	599.75
NOV 21	30105	29373	732	NOV 21	46603	46197	406
DEC 21	25511	25367	144	DEC 21	44993	44733	259.25
JAN 22	26375	26210	165	JAN 22	40163	39682	480.25
FEB 22	15484	15477	7	FEB 22	33917	33855	62
MAR 22	19181	19020	161	MAR 22	36450	36403	47
APR 22	23343	23373	-30	APR 22	37103	36919	183.5
MAY 22	7604	7273	331	MAY 22	26450	26276	174.5
JUN 22	3900	3893	7	JUN 22	25081	24920	161.5
JUL 22	3446	3434	12	JUL 22	26953	26777	175.5
AUG 22	2326	2325	1	AUG 22	25418	25289	129
SEP 22	2237	2231	6	SEP 22	24255	24093	162.25
OCT 22	3704	3671	33	OCT 22	27546	27425	121.25
NOV 22	2797	2777	20	NOV 22	23696	23551	145.5
DEC 22	3019	3017	2	DEC 22	27392	27359	33
JAN 23	2833	2837	-4	JAN 23	13669	13616	53.75
FEB 23	887	887	0	FEB 23	12891	12839	52.25
MAR 23	897	900	-3	MAR 23	13040	12993	46.5
APR 23	2450	2451	-1	APR 23	12303	12242	61

Source: CME, ICE



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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
<b>Current Price</b>	<b>\$2.683</b>	<b>\$3.218</b>	<b>\$3.345</b>	<b>\$3.295</b>	<b>\$3.161</b>	<b>\$2.828</b>	<b>\$2.767</b>	<b>\$2.796</b>	<b>\$2.831</b>	<b>\$2.838</b>	<b>\$2.827</b>	<b>\$2.854</b>
Last Week	\$2.561	\$3.118	\$3.259	\$3.214	\$3.096	\$2.796	\$2.749	\$2.776	\$2.811	\$2.819	\$2.806	\$2.835
vs. Last Week	\$0.122	\$0.100	\$0.086	\$0.081	\$0.065	\$0.032	\$0.018	\$0.020	\$0.020	\$0.019	\$0.021	\$0.019
4 Weeks Ago	\$2.400	\$2.892	\$3.235	\$3.352	\$3.313	\$3.187	\$2.858	\$2.815	\$2.839	\$2.871	\$2.880	\$2.868
vs. 4 Weeks Ago	\$0.283	\$0.326	\$0.110	-\$0.057	-\$0.152	-\$0.359	-\$0.091	-\$0.019	-\$0.008	-\$0.033	-\$0.053	-\$0.014
Last Year	\$2.288	\$2.491	\$2.623	\$2.584	\$2.492	\$2.285	\$2.269	\$2.312	\$2.360	\$2.368	\$2.349	\$2.375
vs. Last Year	\$0.395	\$0.727	\$0.722	\$0.711	\$0.669	\$0.543	\$0.498	\$0.484	\$0.471	\$0.470	\$0.478	\$0.479

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.45	3.62	2.17
TETCO M3	\$/MMBtu	0.87	2.28	1.41
FGT Zone 3	\$/MMBtu	1.10	2.52	1.42
Zone 6 NY	\$/MMBtu	1.10	2.40	1.30
Chicago Citygate	\$/MMBtu	1.45	2.37	0.92
Michcon	\$/MMBtu	1.41	2.29	0.88
Columbia TCO Pool	\$/MMBtu	1.36	2.09	0.73
Ventura	\$/MMBtu	1.06	2.39	1.33
Rockies/Opal	\$/MMBtu	2.07	2.26	0.19
El Paso Permian Basin	\$/MMBtu	-0.04	1.47	1.51
Socal Citygate	\$/MMBtu	4.05	2.73	-1.32
Malin	\$/MMBtu	1.91	2.75	0.84
Houston Ship Channel	\$/MMBtu	1.81	2.45	0.64
Henry Hub Cash	\$/MMBtu	1.90	2.33	0.43
AECO Cash	C\$/GJ	1.18	1.99	0.81
Station2 Cash	C\$/GJ	0.37	3.71	3.34
Dawn Cash	C\$/GJ	1.39	2.36	0.97

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.52	▼ -0.054	▼ -0.023	▼ -0.089	
NatGas Mar/Apr	\$/MMBtu	-0.333	▼ -0.033	▼ -0.662	▼ -0.599	
NatGas Oct/Nov	\$/MMBtu	0.58	▲ 0.123	▲ 0.091	▲ 0.517	
NatGas Oct/Jan	\$/MMBtu	1.24	▲ 0.086	▲ 0.292	▲ 0.900	
WTI Crude	\$/Bbl	39.97	▲ 0.680	▲ 3.210	▼ -12.660	
Brent Crude	\$/Bbl	42.06	▲ 1.030	▲ 2.280	▼ -16.180	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	115.79	▲ 4.890	▲ 8.110	▼ -75.220	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.015	▲ 0.045	▲ 0.041	
Ethane, Mt. Bel	cents/Gallon	0.20	▲ 0.002	▲ 0.003	▲ 0.005	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	