

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.52	▲ \$ 0.00	▲ \$ 0.02

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 39.47	▼ \$ (1.20)	▲ \$ 0.9

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 41.60	▼ \$ (1.05)	▲ \$ 1.1

### Page Menu

- [Short-term Weather Model Outlooks](#)
- [Lower 48 Component Models](#)
- [Regional S/D Models Storage Projection](#)
- [Weather Model Storage Projection](#)
- [Supply – Demand Trends](#)
- [Nat Gas Options Volume and Open Interest](#)
- [Nat Gas Futures Open Interest](#)
- [Price Summary](#)

### 00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.5	-0.5	-2.7	-1.7
24 Hr Chg	-1.1	-0.7	1.7	-0.2

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.1	-0.9	-1.1	-3.1
24 Hr Chg	-1.8	-0.3	-3.4	-5.5

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	82.9	▼ -1.85	▼ -3.05

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	33.4	▲ 1.66	▲ 3.20

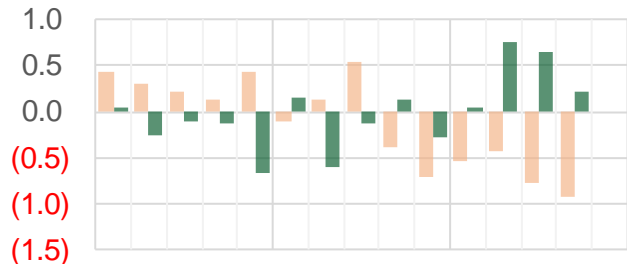
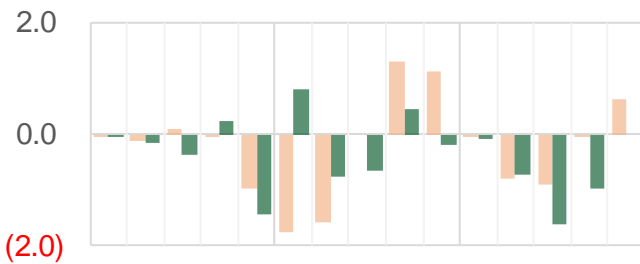
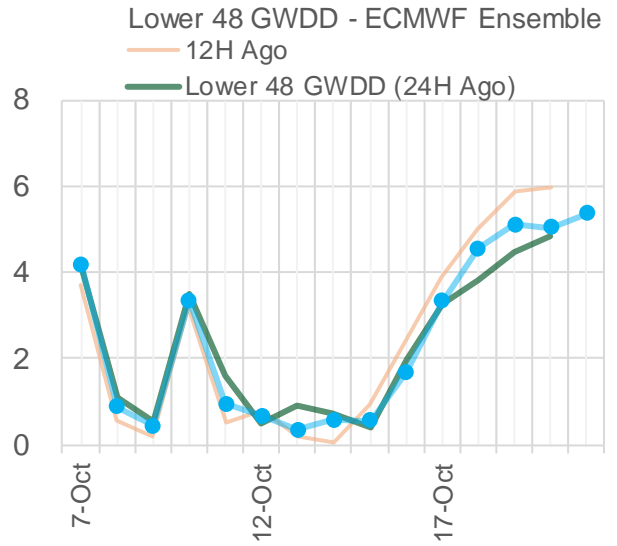
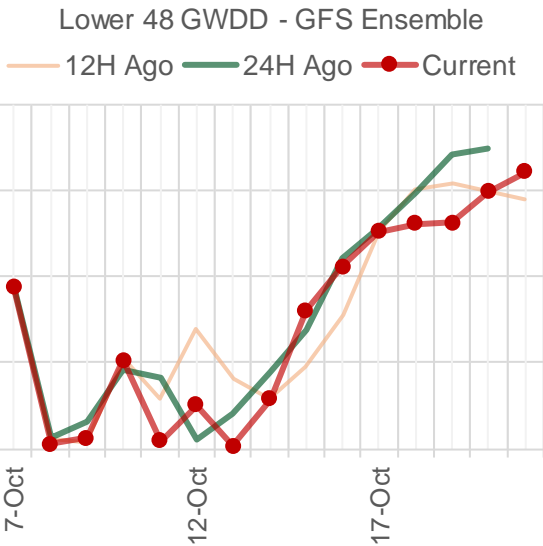
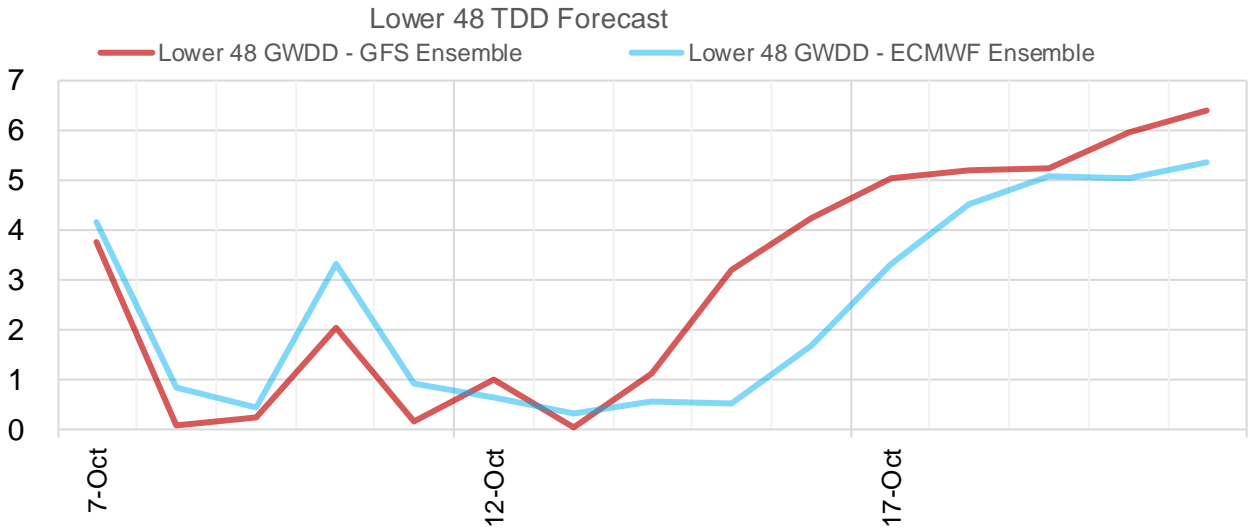
	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.6	▼ -2.50	▼ -5.38

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.4	▲ 0.05	▲ 0.07

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	8.5	▲ 0.47	▲ 1.17

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▼ -0.06	▲ 0.28

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



Source: WSI, Bloomberg

### Lower 48 Component Models

#### Daily Balances

	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>85.8</b>	<b>86.1</b>	<b>86.1</b>	<b>86.2</b>	<b>86.7</b>	<b>84.8</b>	<b>82.9</b>	▼ -1.9	▼ -3.0
<b>Canadian Imports</b>	<b>3.8</b>	<b>4.2</b>	<b>4.5</b>	<b>4.6</b>	<b>4.6</b>	<b>4.3</b>	<b>4.4</b>	▲ 0.1	▲ 0.0
L48 Power	30.0	30.2	28.8	29.3	31.2	31.7	33.4	▲ 1.7	▲ 3.2
L48 Residential & Commercial	12.9	16.3	16.1	15.8	14.9	11.1	8.6	▼ -2.5	▼ -5.9
L48 Industrial	19.9	19.6	19.0	18.5	18.1	17.7	17.9	▲ 0.1	▼ -0.9
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.7	4.6	▼ -0.1	▼ -0.2
L48 Pipeline Distribution	2.1	2.3	2.2	2.2	2.3	2.1	2.1	▼ 0.0	▼ -0.1
<b>L48 Regional Gas Consumption</b>	<b>69.7</b>	<b>73.0</b>	<b>70.9</b>	<b>70.6</b>	<b>71.3</b>	<b>67.3</b>	<b>66.5</b>	▼ -0.9	▼ -4.0
<b>Net LNG Delivered</b>	<b>7.02</b>	<b>6.86</b>	<b>7.84</b>	<b>7.96</b>	<b>6.73</b>	<b>8.06</b>	<b>8.53</b>	▲ 0.5	▲ 1.1
<b>Total Mexican Exports</b>	<b>6.4</b>	<b>6.1</b>	<b>5.9</b>	<b>5.6</b>	<b>6.1</b>	<b>6.5</b>	<b>6.4</b>	▼ -0.1	▲ 0.3
Implied Daily Storage Activity	6.5	4.2	5.9	6.7	7.2	7.2	5.9		
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>85.5</b>	▲ 0.3	▼ -0.4
<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	▼ -0.3	▲ 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>6.3</b>	▼ -0.1	▼ -0.1
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>85.5</b>	▼ -0.4	▼ -9.2
<b>Canadian Imports</b>	<b>4.7</b>	<b>4.6</b>	<b>4.0</b>	<b>4.4</b>	<b>4.8</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	30.6	▼ -2.6	▼ -0.1
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	13.7	▲ 5.0	▼ -1.6
L48 Industrial	22.3	23.3	17.6	17.4	18.9	19.3	18.7	▼ -0.6	▼ -4.6
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.7	4.8	4.7	▼ 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>69.9</b>	▲ 1.8	▼ -6.8
<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>7.6</b>	▲ 1.6	▲ 0.9
<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>6.2</b>	▼ -0.2	▲ 0.7
Implied Daily Storage Activity	9.0	10.5	11.1	4.6	6.3	9.4	6.2		
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	8.7	1.4	10.1	71
East	2.0	1.7	3.7	26
Midwest	3.5	-0.2	3.4	24
Mountain	3.4	-3.0	0.4	3
South Central	-0.8	3.3	2.5	17
Pacific	0.6	-0.4	0.2	1

\*Adjustment Factor is calculated based on historical regional deltas

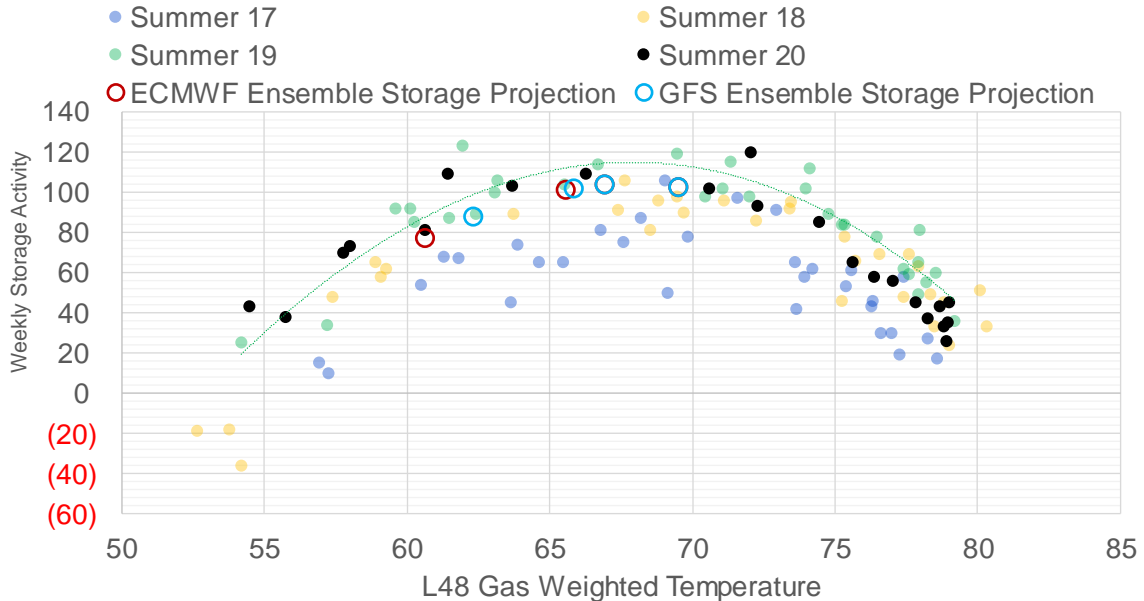
U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

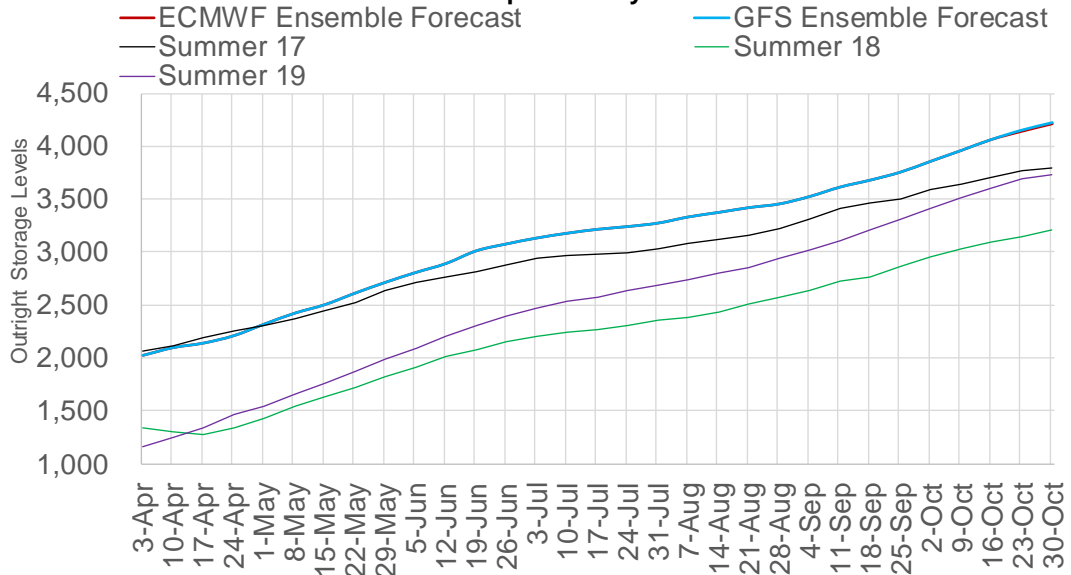
Next report and beyond	
Week Ending	Week Storage Projection
9-Oct	102
16-Oct	104
23-Oct	83

### Weather Storage Model - Next 4 Week Forecast



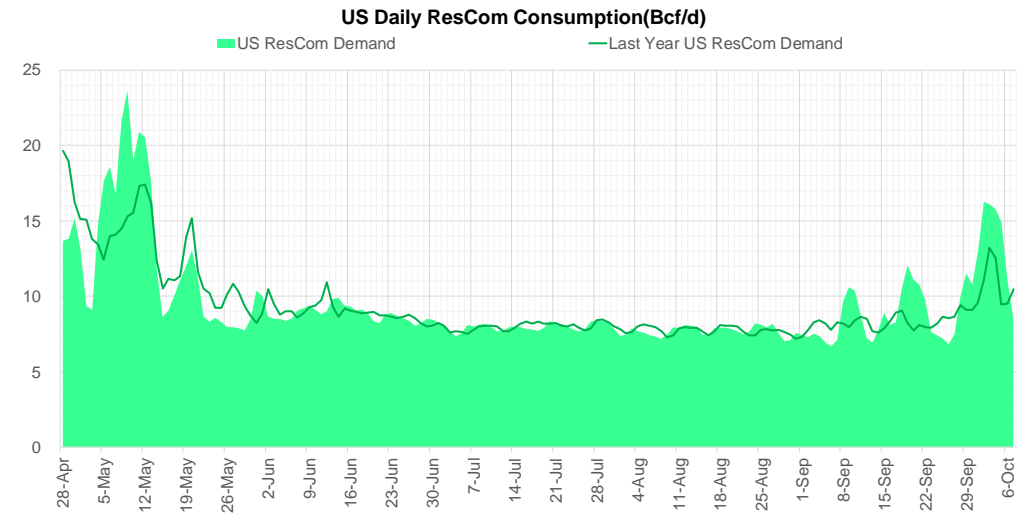
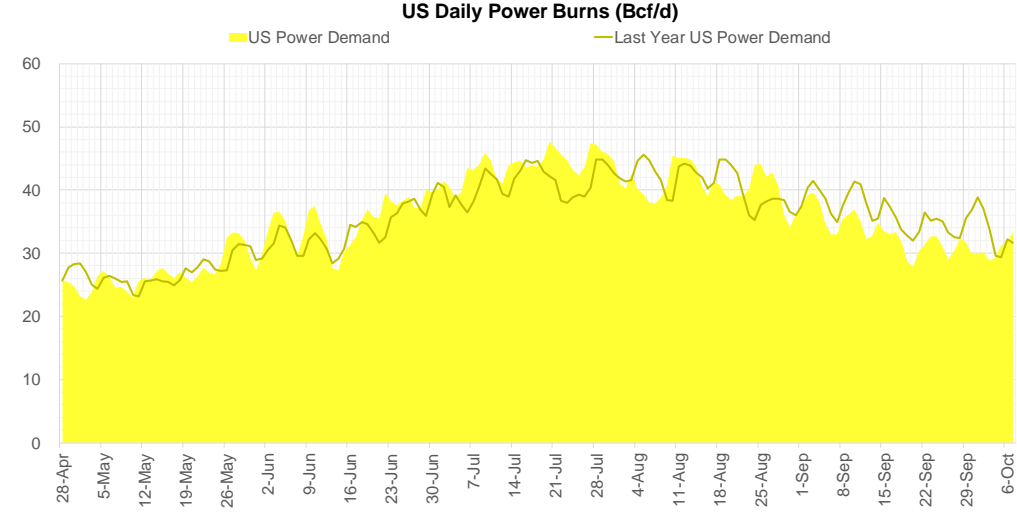
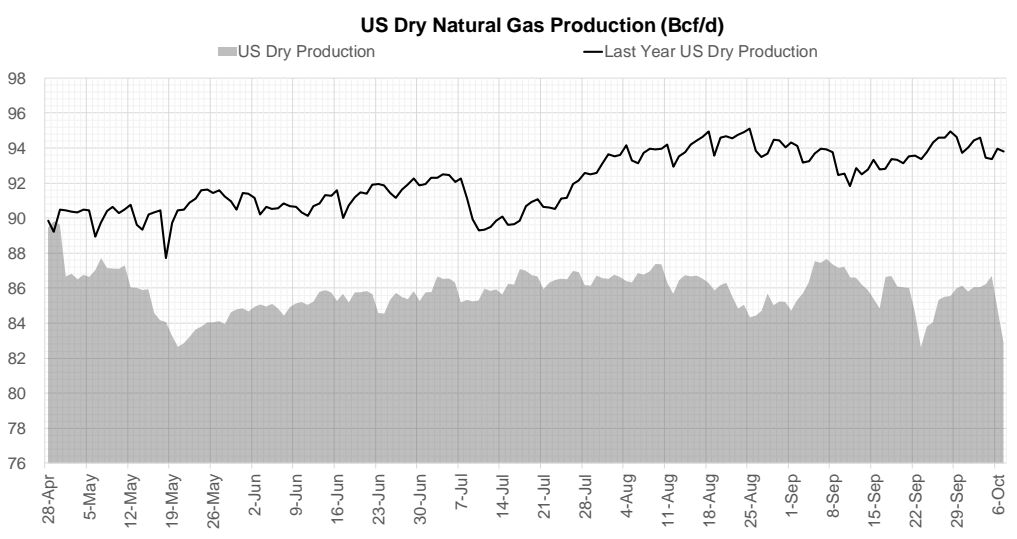
### Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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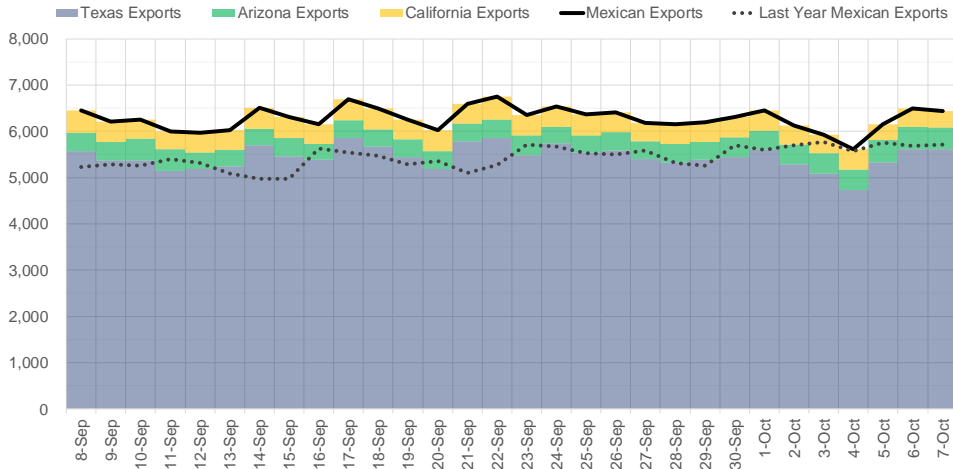
## Supply – Demand Trends



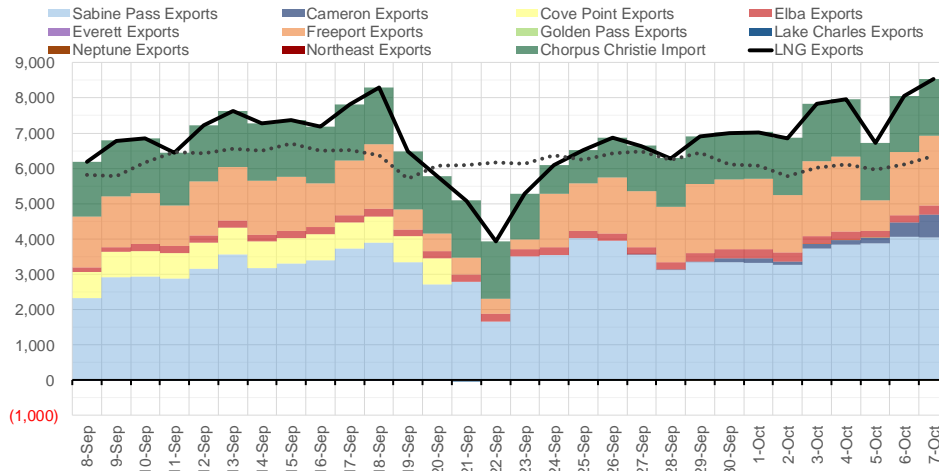
Source: Bloomberg

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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	9842	11	2020	P	2.00	57424
11	2020	P	2.25	6404	3	2021	P	2.00	34183
11	2020	C	3.75	5445	12	2020	P	2.00	29639
11	2020	C	3.00	5069	3	2021	C	6.00	28320
12	2020	C	4.50	4184	1	2021	C	4.50	27652
11	2020	C	4.50	3332	3	2021	C	4.00	27260
12	2020	C	5.00	3243	3	2021	C	3.25	27176
11	2020	C	4.00	3135	4	2021	C	5.00	26162
12	2020	C	4.00	2610	1	2021	C	3.50	25896
11	2020	C	3.25	2576	12	2020	P	2.50	24246
11	2020	P	1.75	2187	11	2020	P	2.25	23859
11	2020	P	2.30	2022	11	2020	C	3.50	23781
2	2021	C	4.50	2004	11	2020	C	3.00	22337
1	2021	C	4.50	2000	11	2020	C	3.25	22303
11	2020	P	2.10	1949	11	2020	C	5.00	21659
11	2020	P	2.50	1760	3	2021	C	7.00	21336
11	2020	C	2.75	1738	3	2021	C	3.00	20761
2	2021	C	4.00	1629	11	2020	P	1.75	20469
2	2021	C	5.00	1629	3	2021	C	3.50	19737
11	2020	P	2.45	1576	11	2020	C	4.00	19101
11	2020	P	2.60	1530	2	2021	C	5.00	18747
11	2020	P	2.35	1432	1	2021	C	5.00	18503
11	2020	P	2.40	1423	4	2021	C	4.00	18478
11	2020	P	1.85	1421	12	2020	C	3.75	17881
12	2020	P	2.00	1361	11	2020	C	2.75	17223
1	2021	C	6.00	1150	1	2021	P	2.50	17209
1	2021	C	5.00	1125	12	2020	C	4.00	17136
11	2020	C	3.10	1039	1	2021	C	3.00	16885
12	2020	C	3.90	1036	11	2020	P	2.50	16648
11	2020	P	2.20	1035	1	2021	C	3.75	16608
1	2021	C	4.00	1025	1	2021	C	6.00	15374
12	2020	C	7.00	1005	1	2021	P	2.00	14565
1	2021	C	7.00	1000	11	2020	P	2.65	14491
11	2020	C	2.80	975	12	2020	P	1.50	14445
11	2020	P	2.55	969	3	2021	C	5.00	14194
12	2020	C	3.65	934	2	2021	C	3.50	14107
12	2020	C	3.75	906	1	2021	P	2.25	14058
11	2020	C	3.50	824	4	2021	C	3.00	14010
11	2020	P	2.15	804	4	2021	P	2.00	13896
5	2021	C	3.75	708	3	2021	P	2.50	13684
11	2020	C	3.15	687	12	2020	C	3.50	13596
12	2020	C	3.50	653	5	2021	C	3.00	13448
1	2021	P	2.50	604	11	2020	P	2.20	13430
12	2020	C	4.75	602	11	2020	P	2.80	13209
11	2020	P	1.90	507	1	2021	C	3.25	13137
12	2020	C	3.40	503	6	2021	C	4.00	13095
1	2021	P	1.85	500	11	2020	C	2.85	12990
5	2021	C	3.25	500	12	2020	C	5.00	12802
5	2021	P	2.25	500	4	2021	C	2.75	12536
					10	2021	C	3	12405

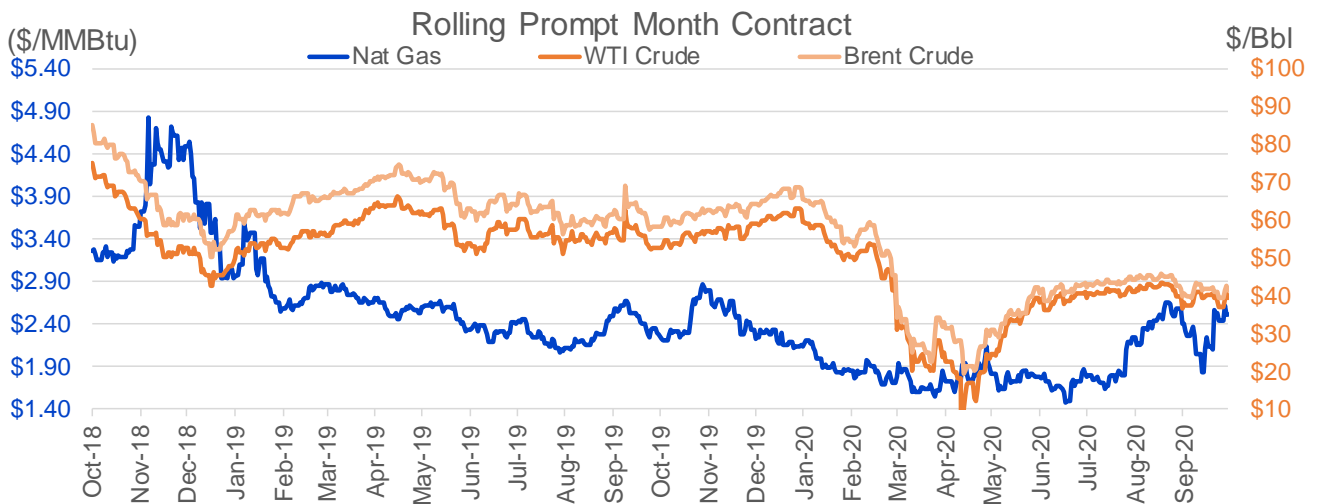
Source: CME, Nasdaq, ICE



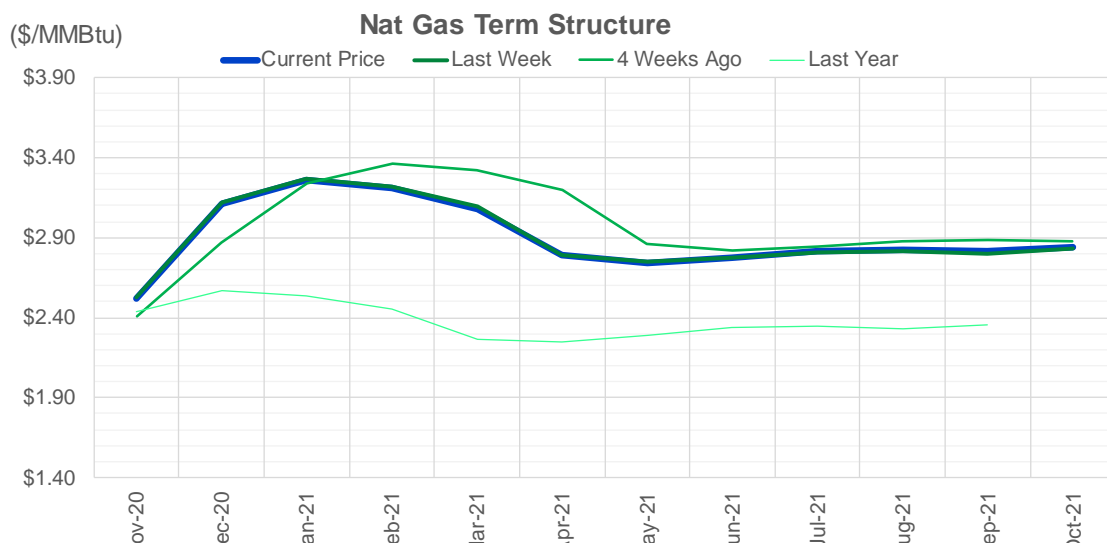
## Nat Gas Futures Open Interest CME, and ICE Combined

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	281202	290293	-9091	NOV 20	83998	82708	1289.75
DEC 20	150815	151998	-1183	DEC 20	81058	81325	-266.75
JAN 21	138350	141357	-3007	JAN 21	87943	87651	291.5
FEB 21	69884	67847	2037	FEB 21	62030	61976	54.5
MAR 21	124442	124041	401	MAR 21	81191	81707	-515.75
APR 21	83569	84542	-973	APR 21	66407	66561	-154
MAY 21	46979	47426	-447	MAY 21	60979	60261	718
JUN 21	33057	33067	-10	JUN 21	53669	53655	13.75
JUL 21	21524	21343	181	JUL 21	56147	55853	294.5
AUG 21	25904	26364	-460	AUG 21	59338	59100	238.25
SEP 21	34179	34312	-133	SEP 21	53638	53583	54.25
OCT 21	79650	79041	609	OCT 21	76435	80058	-3622.75
NOV 21	30262	30105	157	NOV 21	46852	46603	248.5
DEC 21	25741	25511	230	DEC 21	45041	44993	48.75
JAN 22	26682	26375	307	JAN 22	40671	40163	508.5
FEB 22	15745	15484	261	FEB 22	33722	33917	-194.75
MAR 22	18969	19181	-212	MAR 22	36666	36450	216.75
APR 22	23943	23343	600	APR 22	37091	37103	-12
MAY 22	7661	7604	57	MAY 22	26450	26450	-0.75
JUN 22	3849	3900	-51	JUN 22	25212	25081	130.25
JUL 22	3471	3446	25	JUL 22	27062	26953	108.75
AUG 22	2316	2326	-10	AUG 22	25511	25418	93.25
SEP 22	2245	2237	8	SEP 22	24345	24255	90
OCT 22	3704	3704	0	OCT 22	26703	27546	-843
NOV 22	2793	2797	-4	NOV 22	24020	23696	324
DEC 22	3039	3019	20	DEC 22	27377	27392	-15.25
JAN 23	2834	2833	1	JAN 23	13917	13669	248
FEB 23	887	887	0	FEB 23	12926	12891	35
MAR 23	897	897	0	MAR 23	13115	13040	75
APR 23	2450	2450	0	APR 23	12275	12303	-28

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>\$2.521</b>	<b>\$3.110</b>	<b>\$3.258</b>	<b>\$3.212</b>	<b>\$3.080</b>	<b>\$2.794</b>	<b>\$2.739</b>	<b>\$2.775</b>	<b>\$2.818</b>	<b>\$2.821</b>	<b>\$2.812</b>	<b>\$2.839</b>
Last Week	\$2.527	\$3.117	\$3.267	\$3.221	\$3.099	\$2.794	\$2.748	\$2.774	\$2.809	\$2.816	\$2.803	\$2.833
vs. Last Week	-\$0.006	-\$0.007	-\$0.009	-\$0.009	-\$0.019	\$0.000	-\$0.009	\$0.001	\$0.009	\$0.005	\$0.009	\$0.006
4 Weeks Ago	\$2.406	\$2.873	\$3.241	\$3.361	\$3.323	\$3.201	\$2.862	\$2.820	\$2.844	\$2.877	\$2.887	\$2.875
vs. 4 Weeks Ago	\$0.115	\$0.237	\$0.017	-\$0.149	-\$0.243	-\$0.407	-\$0.123	-\$0.045	-\$0.026	-\$0.056	-\$0.075	-\$0.036
Last Year	\$2.234	\$2.436	\$2.568	\$2.537	\$2.455	\$2.262	\$2.249	\$2.293	\$2.340	\$2.349	\$2.331	\$2.357
vs. Last Year	\$0.287	\$0.674	\$0.690	\$0.675	\$0.625	\$0.532	\$0.490	\$0.482	\$0.478	\$0.472	\$0.481	\$0.482

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.45	3.66	2.21
TETCO M3	\$/MMBtu	1.13	2.33	1.20
FGT Zone 3	\$/MMBtu	1.15	2.57	1.42
Zone 6 NY	\$/MMBtu	1.15	2.46	1.31
Chicago Citygate	\$/MMBtu	1.53	2.41	0.88
Michcon	\$/MMBtu	1.54	2.34	0.80
Columbia TCO Pool	\$/MMBtu	1.39	2.14	0.75
Ventura	\$/MMBtu	1.06	2.37	1.31
Rockies/Opal	\$/MMBtu	1.81	2.31	0.50
El Paso Permian Basin	\$/MMBtu	0.51	1.51	1.00
Socal Citygate	\$/MMBtu	4.24	2.77	-1.47
Malin	\$/MMBtu	1.84	2.79	0.95
Houston Ship Channel	\$/MMBtu	2.01	2.49	0.48
Henry Hub Cash	\$/MMBtu	1.86	2.37	0.51
AECO Cash	C\$/GJ	1.26	2.04	0.78
Station2 Cash	C\$/GJ	0.40	3.79	3.39
Dawn Cash	C\$/GJ	1.48	2.41	0.93

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.46	▲ 0.009	▲ 0.035	▼ -0.040	
NatGas Mar/Apr	\$/MMBtu	-0.286	▲ 0.019	▼ -0.625	▼ -0.548	
NatGas Oct/Nov	\$/MMBtu	0.42	▼ -0.006	▼ -0.047	▲ 0.352	
NatGas Oct/Jan	\$/MMBtu	1.16	▼ -0.009	▲ 0.202	▲ 0.807	
WTI Crude	\$/Bbl	39.47	▼ -0.750	▲ 1.420	▼ -13.120	
Brent Crude	\$/Bbl	41.60	▲ 0.650	▲ 0.810	▼ -16.720	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	115.57	▲ 1.030	▲ 4.960	▼ -76.360	
Propane, Mt. Bel	cents/Gallon	0.51	▲ 0.018	▲ 0.044	▲ 0.034	
Ethane, Mt. Bel	cents/Gallon	0.20	▲ 0.004	▼ -0.008	▲ 0.007	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	