

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.77	▼ \$ (0.02)	▲ \$ 0.08

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 26.20	▲ \$ 1.11	▼ \$ (0.2)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 33.60	▲ \$ 0.76	▲ \$ 0.7

### 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	-2.4	-1.6	-7.4	-11.3
24 Hr Chg	-0.7	2.9	-5.9	-3.7

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-2.8	0.4	-1.3	-3.7
24 Hr Chg	-3.2	-0.8	-3.7	-7.8

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.6	▼ -0.40	▼ -0.94

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	27.9	▼ -1.94	▲ 1.56

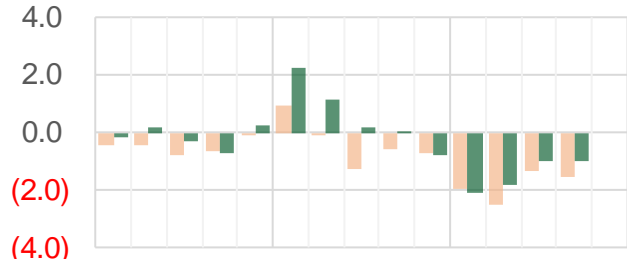
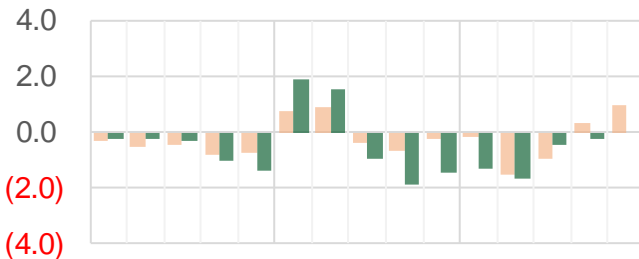
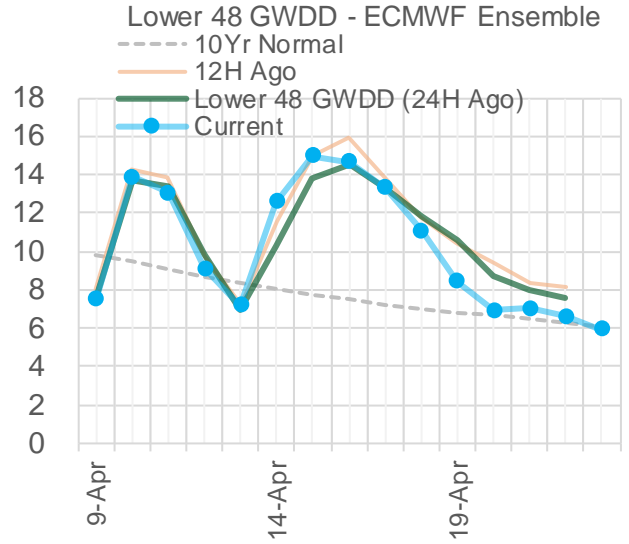
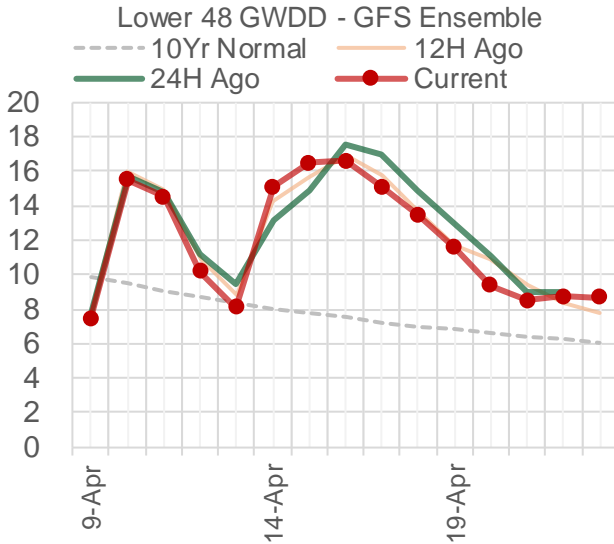
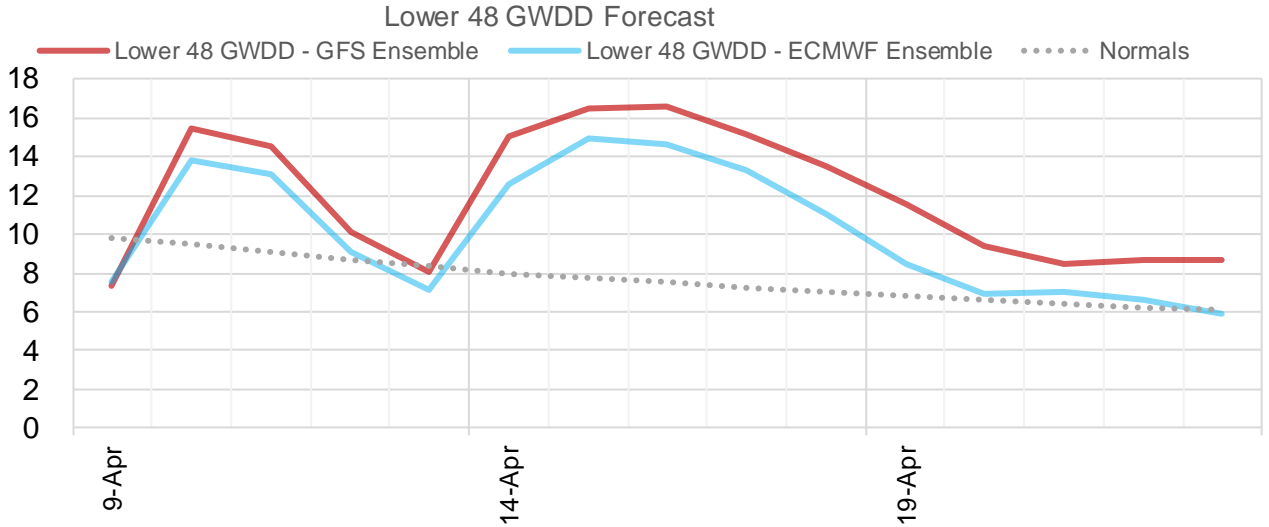
	Current	Δ from YD	Δ from 7D Avg
US ResComm	20.0	▲ 3.74	▼ -1.02

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.2	▲ 0.28	▲ 0.50

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.5	▼ -0.35	▼ -0.86

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	4.9	▼ -0.10	▼ -0.15

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



Source: WSI, Bloomberg

### Lower 48 Component Models

#### Daily Balances

	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr	9-Apr	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>92.0</b>	<b>91.6</b>	<b>91.4</b>	<b>91.3</b>	<b>90.8</b>	<b>90.8</b>	<b>90.4</b>	▼ -0.4	▼ -0.9
<b>Canadian Imports</b>	<b>3.6</b>	<b>3.4</b>	<b>3.4</b>	<b>3.4</b>	<b>3.8</b>	<b>3.9</b>	<b>4.2</b>	▲ 0.3	▲ 0.6
L48 Power	24.6	24.8	24.9	26.4	28.6	29.8	27.9	▼ -1.9	▲ 1.4
L48 Residential & Commercial	24.7	25.1	21.9	19.5	15.1	16.3	20.0	▲ 3.7	▼ -0.4
L48 Industrial	22.2	22.4	22.1	21.8	21.2	21.3	21.7	▲ 0.4	▼ -0.1
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.0	5.0	5.0	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.2	2.3	2.1	2.1	2.0	2.1	2.2	▲ 0.1	▲ 0.0
<b>L48 Regional Gas Consumption</b>	<b>78.8</b>	<b>79.6</b>	<b>76.1</b>	<b>74.9</b>	<b>71.9</b>	<b>74.6</b>	<b>76.8</b>	▲ 2.2	▲ 0.8
<b>Net LNG Exports</b>	<b>8.5</b>	<b>8.3</b>	<b>8.5</b>	<b>8.1</b>	<b>8.2</b>	<b>7.9</b>	<b>7.5</b>	▼ -0.4	▼ -0.7
<b>Total Mexican Exports</b>	<b>5.2</b>	<b>5.1</b>	<b>4.7</b>	<b>5.0</b>	<b>5.1</b>	<b>5.0</b>	<b>4.9</b>	▼ -0.1	▼ -0.1
Implied Daily Storage Activity	3.1	2.1	5.6	6.8	9.4	7.2	5.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

#### EIA Storage Week Balances

	28-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>91.5</b>	<b>91.2</b>	<b>90.9</b>	<b>91.9</b>	<b>91.5</b>	<b>91.8</b>	▲ 0.3	▲ 0.4
<b>Canadian Imports</b>	<b>5.0</b>	<b>4.5</b>	<b>3.8</b>	<b>4.1</b>	<b>4.4</b>	<b>3.8</b>	▼ -0.6	▼ -0.4
L48 Power	29.5	27.9	27.2	29.1	28.6	26.2	▼ -2.4	▼ -2.0
L48 Residential & Commercial	39.4	34.4	28.6	29.9	29.3	24.1	▼ -5.2	▼ -6.5
L48 Industrial	24.8	23.8	23.1	23.1	22.9	22.3	▼ -0.7	▼ -1.0
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.1	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	2.9	2.7	2.5	2.6	2.5	2.3	▼ -0.3	▼ -0.3
<b>L48 Regional Gas Consumption</b>	<b>101.7</b>	<b>93.9</b>	<b>86.4</b>	<b>89.8</b>	<b>88.5</b>	<b>80.0</b>	▼ -8.5	▼ -9.7
<b>Net LNG Exports</b>	<b>8.8</b>	<b>7.8</b>	<b>8.0</b>	<b>7.9</b>	<b>9.3</b>	<b>9.4</b>	▲ 0.1	▲ 1.1
<b>Total Mexican Exports</b>	<b>5.5</b>	<b>5.6</b>	<b>5.6</b>	<b>5.6</b>	<b>5.7</b>	<b>5.6</b>	▼ -0.1	▼ 0.0
Implied Daily Storage Activity	-19.4	-11.6	-5.3	-7.2	-7.5	0.7	8.2	
EIA Reported Daily Storage Activity	-15.6	-6.9	-1.3	-4.1	-2.7			
Daily Model Error	-3.8	-4.7	-4.0	-3.0	-4.8			

#### Monthly Balances

	2Yr Ago Apr-18	LY Apr-19	Dec-19	Jan-20	Feb-20	Mar-20	MTD Apr-20	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>80.5</b>	<b>88.6</b>	<b>93.4</b>	<b>92.3</b>	<b>91.3</b>	<b>91.5</b>	<b>91.2</b>	▼ -0.3	▲ 2.6
<b>Canadian Imports</b>	<b>5.6</b>	<b>4.6</b>	<b>4.5</b>	<b>4.8</b>	<b>5.3</b>	<b>4.0</b>	<b>3.9</b>	▼ -0.2	▼ -0.7
L48 Power	23.5	24.1	28.8	29.9	29.8	27.9	26.4	▼ -1.5	▲ 2.4
L48 Residential & Commercial	24.3	17.5	38.8	41.6	41.4	28.6	21.5	▼ -7.2	▲ 3.9
L48 Industrial	22.3	21.9	24.8	25.2	24.9	23.0	22.0	▼ -1.0	▲ 0.1
L48 Lease and Plant Fuel	4.6	4.9	5.2	5.1	5.1	5.1	5.1	▼ 0.0	▲ 0.1
L48 Pipeline Distribution	1.9	1.9	2.9	3.0	3.0	2.5	2.2	▼ -0.3	▲ 0.3
<b>L48 Regional Gas Consumption</b>	<b>76.5</b>	<b>70.3</b>	<b>100.5</b>	<b>104.8</b>	<b>104.1</b>	<b>87.0</b>	<b>77.1</b>	▼ -9.9	▲ 6.8
<b>Net LNG Exports</b>	<b>3.5</b>	<b>4.4</b>	<b>7.8</b>	<b>8.3</b>	<b>8.5</b>	<b>8.4</b>	<b>8.4</b>	▼ -0.1	▲ 3.9
<b>Total Mexican Exports</b>	<b>4.3</b>	<b>4.8</b>	<b>5.0</b>	<b>5.2</b>	<b>5.3</b>	<b>5.6</b>	<b>5.1</b>	▼ -0.5	▲ 0.3
Implied Daily Storage Activity	1.8	13.7	-15.3	-21.2	-21.3	-5.6	4.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

### Regional S/D Models Storage Projection

Week Ending 3-Apr

	Daily Raw Storage	Daily Adjustment Factor	Daily Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	0.7	4.1	4.6	32
East	-2.6	2.4	-0.3	-1.8
Midwest	-1.2	1.5	0.3	2.1
Mountain	2.1	-1.9	-0.1	-0.6
South Central	1.8	1.9	3.7	25.7
Pacific	0.7	0.2	0.9	6.6

\*Adjustment Factor is calculated based on historical regional deltas

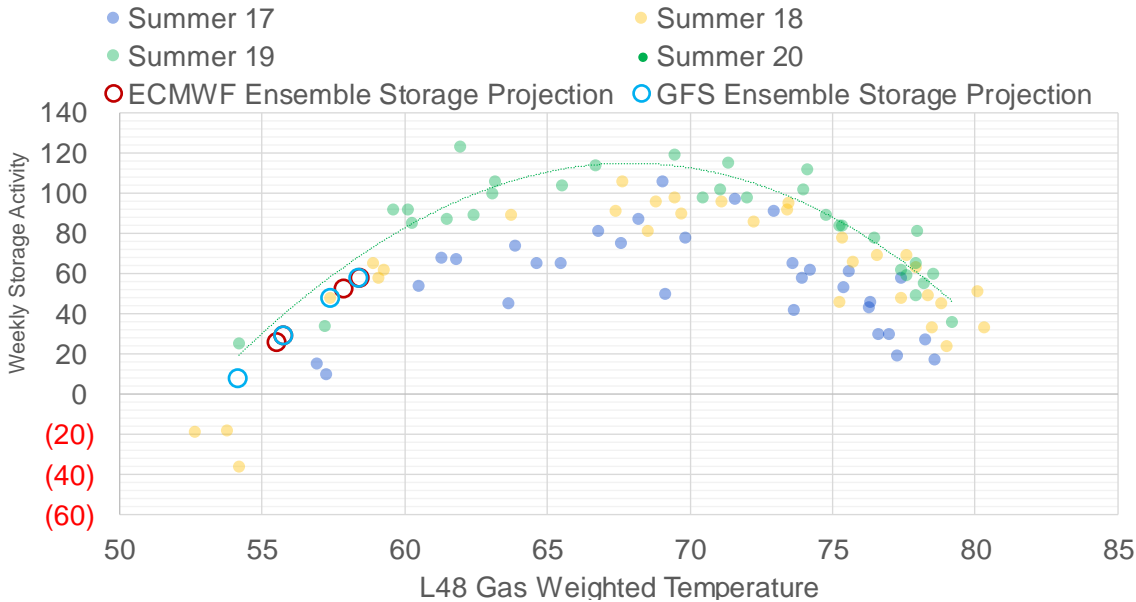
U.S. underground natural gas storage facilities by type (July 2015)



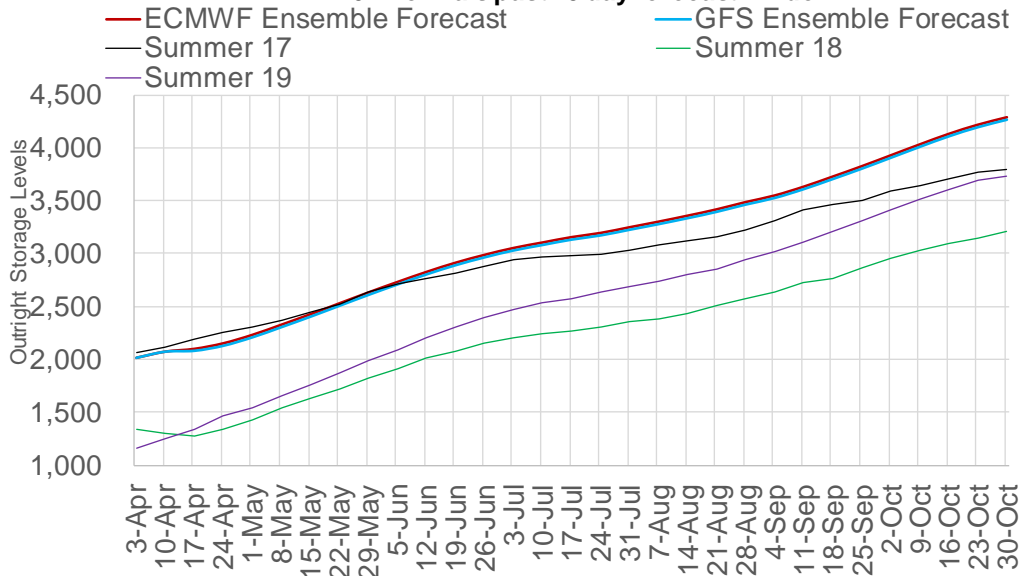
### Weather Model Storage Projection

Week Ending	ECMWF Forecast	ECMWF Ensemble Storage Projection	GFS Forecast	GFS Ensemble Storage Projection
3-Apr	55.8	29	55.8	29
10-Apr	58.4	58	58.4	58
17-Apr	55.5	26	54.1	8
24-Apr	57.9	53	57.4	48

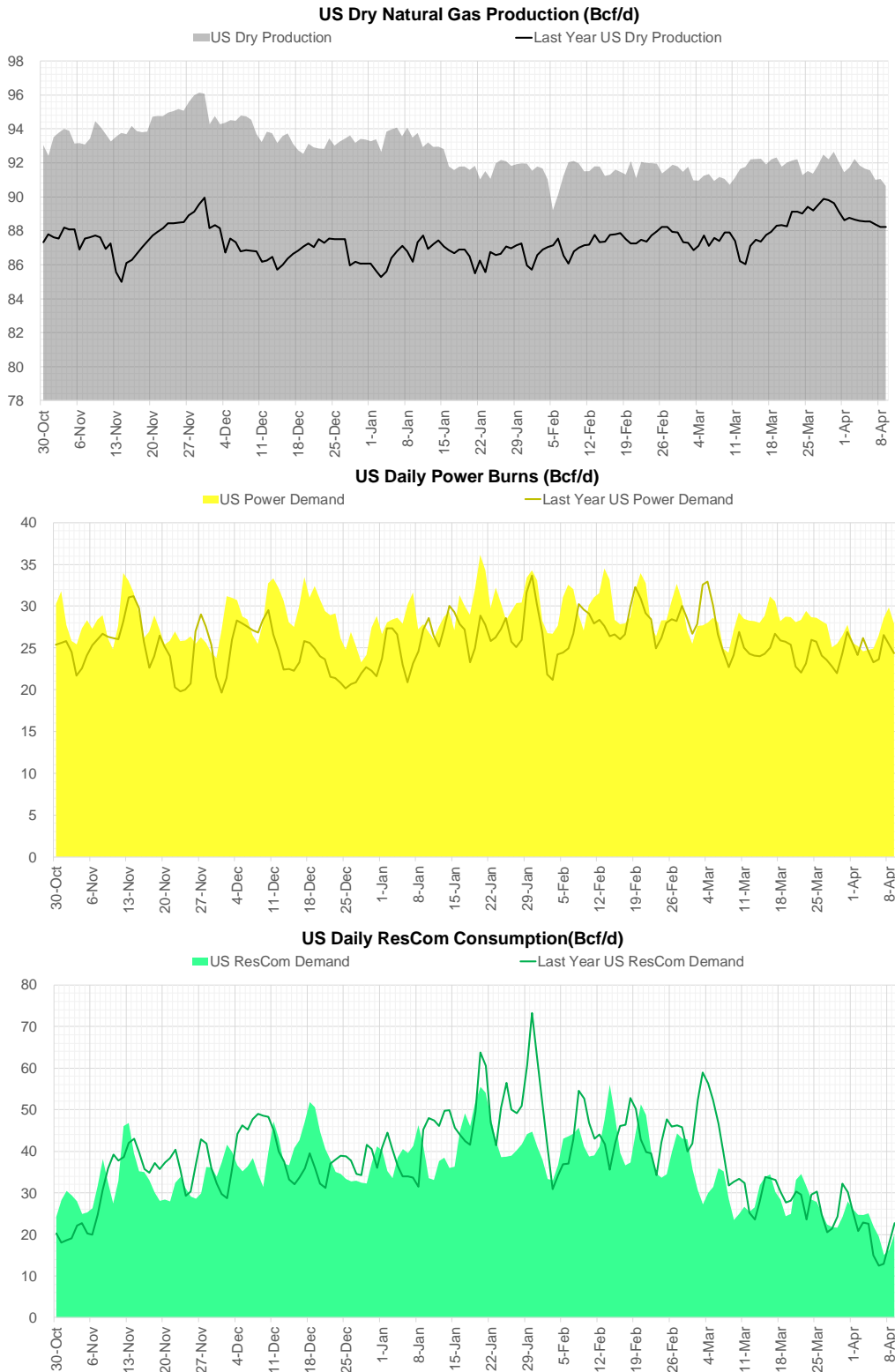
#### Weather Storage Model - Next 4 Week Forecast



#### Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window



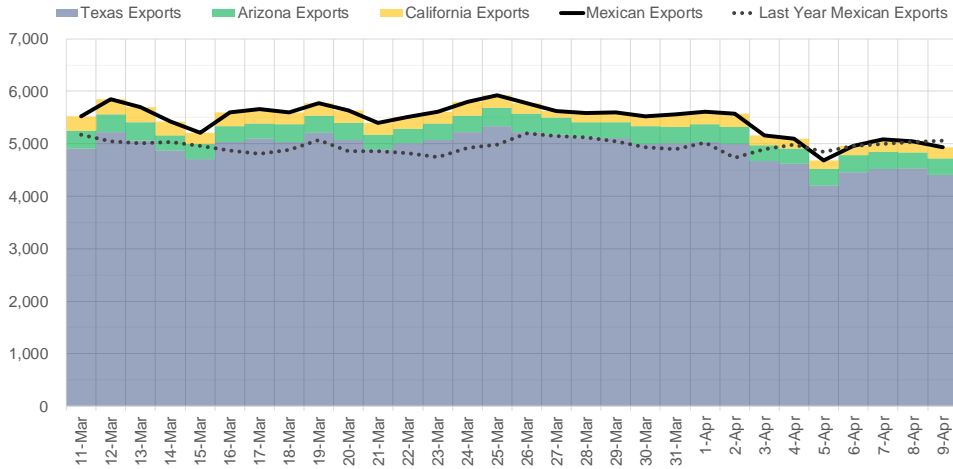
## Supply – Demand Trends



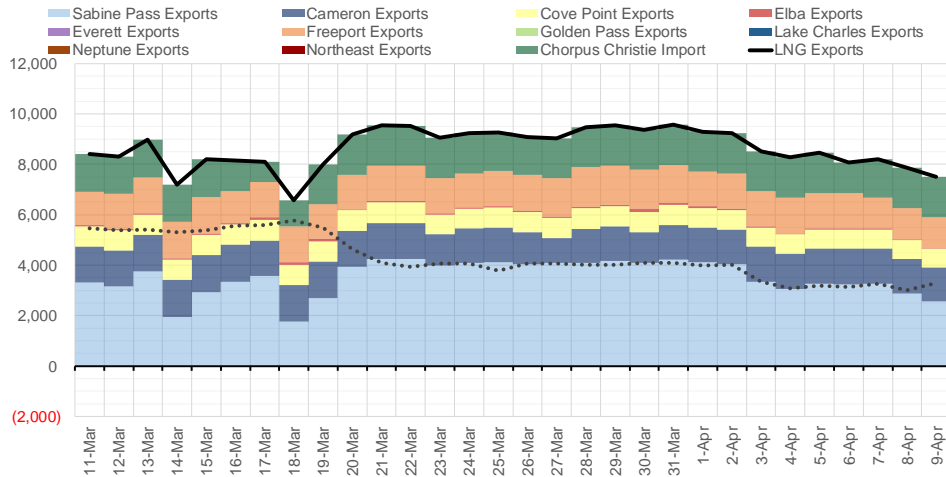
Source: Bloomberg

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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
5	2020	P	1.60	21941	5	2020	P	1.50	51774
5	2020	P	1.50	16708	6	2020	P	1.25	46002
5	2020	P	1.75	12874	5	2020	P	1.60	42329
6	2020	P	1.50	12626	10	2020	P	1.50	41655
5	2020	P	1.40	12051	10	2020	P	1.60	41382
5	2020	P	1.45	10313	5	2020	C	2.00	37693
5	2020	P	1.55	8692	5	2020	P	1.75	36022
6	2020	P	1.75	8584	3	2021	P	2.00	33323
5	2020	P	1.25	8281	5	2020	P	1.40	33177
6	2020	P	1.25	6793	5	2020	P	1.25	27815
5	2020	P	1.65	6152	6	2020	C	2.50	26094
5	2020	C	2.00	5507	5	2020	C	2.25	25175
5	2020	C	2.25	4985	5	2020	P	1.00	24886
6	2020	P	1.70	4755	6	2020	P	2.00	24711
10	2020	C	3.00	4747	10	2020	C	3.00	24085
6	2020	P	1.60	4331	6	2020	P	1.50	23956
5	2020	C	2.15	4225	5	2020	C	2.50	23465
5	2020	P	1.30	4206	7	2020	P	1.25	23436
6	2020	P	1.90	4159	7	2020	C	3.00	23406
7	2020	P	1.25	3900	6	2020	C	2.00	22976
6	2020	C	2.25	3416	7	2020	C	2.50	22819
10	2020	C	2.75	3343	7	2020	P	1.50	22530
5	2020	C	2.10	3224	9	2020	C	2.50	21102
5	2020	C	1.85	3161	5	2020	C	2.75	21083
5	2020	C	1.90	2643	5	2020	C	3.00	20857
7	2020	P	1.75	2500	7	2020	C	2.75	20584
6	2020	C	2.75	2416	5	2020	C	2.15	20572
6	2020	C	2.00	2379	1	2021	C	3.00	20430
5	2020	P	1.85	2205	7	2020	P	2.00	19997
6	2020	P	1.30	2175	5	2020	P	2.00	19784
6	2020	C	2.40	2072	5	2020	P	1.70	19709
5	2020	P	1.80	2048	9	2020	P	1.50	19492
9	2020	P	1.60	1939	10	2020	P	2.00	19334
10	2020	P	1.75	1868	10	2020	C	2.75	19043
10	2020	P	2.10	1800	8	2020	P	1.50	18777
7	2020	P	2.00	1730	6	2020	P	1.75	18515
5	2020	P	1.35	1724	5	2020	P	1.80	18257
7	2020	C	2.50	1591	6	2020	P	1.60	18154
10	2020	P	1.50	1504	10	2020	P	1.25	17692
7	2020	P	1.50	1252	9	2020	C	3.00	17595
5	2020	P	1.70	1248	10	2020	C	2.50	17514
6	2020	C	2.50	1224	8	2020	C	3.00	17365
7	2020	P	1.40	1154	7	2020	P	1.75	16661
6	2020	P	2.00	1135	5	2020	P	1.30	15925
6	2020	P	2.10	1047	6	2020	C	3.00	15709
5	2020	C	1.95	1017	6	2020	C	2.25	15064
7	2020	P	1.80	1005	9	2020	P	1.25	15010
6	2020	C	2.30	1003	1	2021	P	2.00	14833
8	2020	C	2.50	934	3	2021	C	3.50	14812
					3	2021	C	3	14803

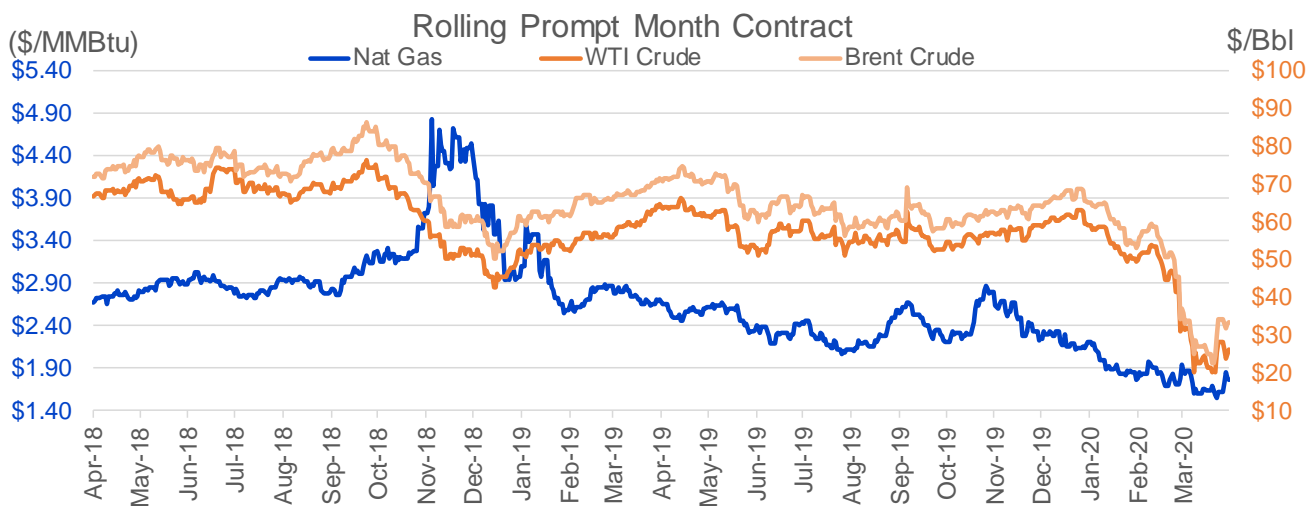
Source: CME, Nasdaq, ICE

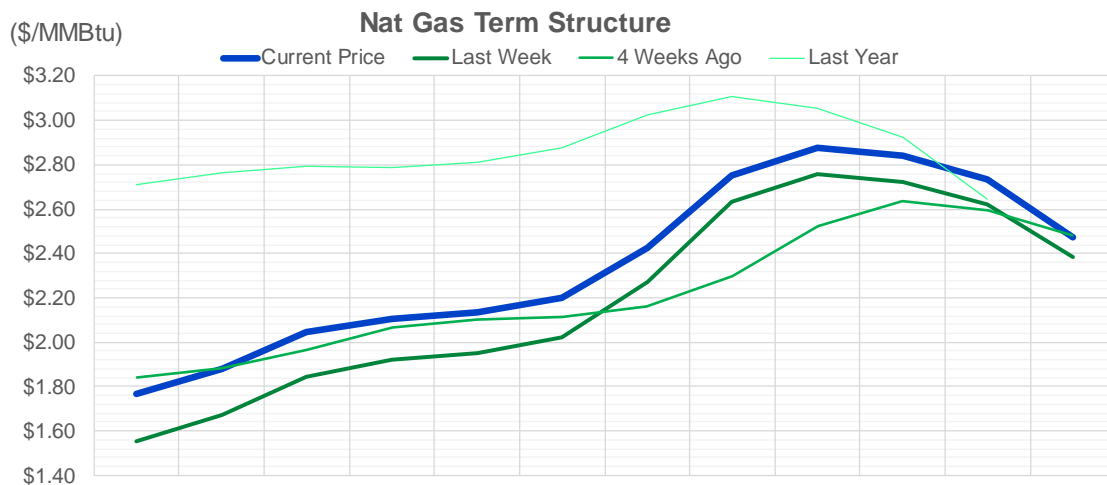


### Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM)				NASDAQ Henry Hub Futures (10,000 MMBtu)			
	Current	Prior	Daily Change		Current	Prior	Daily Change		Current	Prior	Daily Change
MAY 20	298582	340215	-41633	MAY 20	88352	91345	-2992.5	MAY 20	551	551	0
JUN 20	114382	112443	1939	JUN 20	58810	61190	-2380.25	JUN 20	1367	1367	0
JUL 20	123772	131665	-7893	JUL 20	64282	65912	-1629.75	JUL 20	2871	2871	0
AUG 20	53222	54408	-1186	AUG 20	58289	57790	499.5	AUG 20	549	549	0
SEP 20	101041	100940	101	SEP 20	59371	59440	-69	SEP 20	161	161	0
OCT 20	99302	100124	-822	OCT 20	70501	70551	-50.25	OCT 20	1010	1010	0
NOV 20	31831	33992	-2161	NOV 20	49450	50378	-928.5	NOV 20	741	741	0
DEC 20	37888	37337	551	DEC 20	54287	54811	-523.25	DEC 20	242	242	0
JAN 21	69540	67627	1913	JAN 21	61598	60356	1242	JAN 21	336	336	0
FEB 21	28910	29500	-590	FEB 21	38924	38497	427	FEB 21	33	33	0
MAR 21	48521	47152	1369	MAR 21	46652	46278	373.75	MAR 21	1106	1106	0
APR 21	57423	54922	2501	APR 21	45782	44963	818.5	APR 21	775	775	0
MAY 21	17024	16026	998	MAY 21	36019	35672	347.25	MAY 21	46	46	0
JUN 21	12483	12251	232	JUN 21	34029	33684	345	JUN 21	45	45	0
JUL 21	9330	8870	460	JUL 21	36235	35651	584.5	JUL 21	46	46	0
AUG 21	8702	9021	-319	AUG 21	36685	36163	522.75	AUG 21	46	46	0
SEP 21	9131	8963	168	SEP 21	33416	32921	494.25	SEP 21	45	45	0
OCT 21	17919	18194	-275	OCT 21	40068	39558	509.5	OCT 21	571	571	0
NOV 21	12517	13083	-566	NOV 21	30104	29818	286.25	NOV 21	430	430	0
DEC 21	8614	8390	224	DEC 21	31689	31342	346.5	DEC 21	30	30	0
JAN 22	6519	6353	166	JAN 22	23949	23536	413.5	JAN 22	36	36	0
FEB 22	3787	3737	50	FEB 22	21297	20903	394.25	FEB 22	33	33	0
MAR 22	8113	7912	201	MAR 22	22724	22352	372	MAR 22	900	900	0
APR 22	8597	8438	159	APR 22	19963	19585	378.25	APR 22	1050	1050	0
MAY 22	3239	3225	14	MAY 22	18809	18604	205	MAY 22	51	51	0
JUN 22	1286	1237	49	JUN 22	18419	18071	348.25	JUN 22	50	50	0
JUL 22	1318	1269	49	JUL 22	18906	18442	464.25	JUL 22	51	51	0
AUG 22	953	904	49	AUG 22	18489	18140	349	AUG 22	51	51	0
SEP 22	1018	969	49	SEP 22	18418	18070	348.25	SEP 22	50	50	0
OCT 22	1317	1288	29	OCT 22	19578	19250	328	OCT 22	515	515	0

Source: CME, Nasdaq, ICE





	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
<b>Current Price</b>	<b>\$1.767</b>	<b>\$1.882</b>	<b>\$2.043</b>	<b>\$2.105</b>	<b>\$2.137</b>	<b>\$2.200</b>	<b>\$2.426</b>	<b>\$2.752</b>	<b>\$2.874</b>	<b>\$2.840</b>	<b>\$2.732</b>	<b>\$2.470</b>
Last Week	\$1.552	\$1.672	\$1.847	\$1.919	\$1.952	\$2.023	\$2.274	\$2.630	\$2.755	\$2.722	\$2.623	\$2.386
vs. Last Week	\$0.215	\$0.210	\$0.196	\$0.186	\$0.185	\$0.177	\$0.152	\$0.122	\$0.119	\$0.118	\$0.109	\$0.084
4 Weeks Ago	\$1.841	\$1.885	\$1.965	\$2.065	\$2.103	\$2.116	\$2.162	\$2.298	\$2.522	\$2.637	\$2.593	\$2.480
vs. 4 Weeks Ago	-\$0.074	-\$0.003	\$0.078	\$0.040	\$0.034	\$0.084	\$0.264	\$0.454	\$0.352	\$0.203	\$0.139	-\$0.010
Last Year	\$2.664	\$2.708	\$2.766	\$2.791	\$2.785	\$2.808	\$2.875	\$3.027	\$3.109	\$3.052	\$2.924	\$2.643
vs. Last Year	-\$0.897	-\$0.826	-\$0.723	-\$0.686	-\$0.648	-\$0.608	-\$0.449	-\$0.275	-\$0.235	-\$0.212	-\$0.192	-\$0.173

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.65	1.43	-0.22
TETCO M3	\$/MMBtu	1.50	1.31	-0.19
FGT Zone 3	\$/MMBtu	1.48	1.68	0.20
Zone 6 NY	\$/MMBtu	1.48	1.32	-0.16
Chicago Citygate	\$/MMBtu	1.72	1.44	-0.28
Michcon	\$/MMBtu	1.70	1.48	-0.22
Columbia TCO Pool	\$/MMBtu	1.58	1.35	-0.23
Ventura	\$/MMBtu	1.66	1.37	-0.29
Rockies/Opal	\$/MMBtu	1.50	1.17	-0.33
El Paso Permian Basin	\$/MMBtu	0.30	0.59	0.29
Socal Citygate	\$/MMBtu	2.10	1.12	-0.98
Malin	\$/MMBtu	1.60	1.27	-0.33
Houston Ship Channel	\$/MMBtu	1.75	1.63	-0.13
Henry Hub Cash	\$/MMBtu	1.76	1.44	-0.32
AECO Cash	C\$/GJ	1.45	1.10	-0.35
Station2 Cash	C\$/GJ	1.48	1.12	-0.36
Dawn Cash	C\$/GJ	1.67	1.50	-0.17

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.52	▲ 0.000	▼ -0.302	▼ -0.037
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.302	▼ -0.113
NatGas Oct/Nov	\$/MMBtu	0.22	▼ -0.010	▲ 0.089	▲ 0.169
NatGas Oct/Jan	\$/MMBtu	0.63	▼ -0.043	▲ 0.176	▲ 0.317
WTI Crude	\$/Bbl	23.63	▲ 3.150	▼ -10.730	▼ -40.350
Brent Crude	\$/Bbl	31.87	▲ 9.130	▼ -5.350	▼ -38.740
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	102.75	▲ 1.540	▼ -22.240	▼ -101.740
Propane, Mt. Bel	cents/Gallon	0.28	▼ -0.011	▼ -0.048	▼ -0.361
Ethane, Mt. Bel	cents/Gallon	0.11	▼ -0.018	▼ -0.037	▼ -0.112
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.250
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -12.000