

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.59	▲ \$ 0.01	▼ \$ (0.04)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 22.25	▲ \$ 1.94	▲ \$ 1.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 27.03	▲ \$ 2.29	▲ \$ 2.5

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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	-2.1	-5.0	2.4	-4.7
24 Hr Chg	1.2	-1.4	1.7	1.4

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.3	5.0	-2.3	1.4
24 Hr Chg	0.1	10.0	3.7	13.8

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.5	▼ -0.41	▼ -1.22

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	26.4	▲ 2.36	▲ 0.01

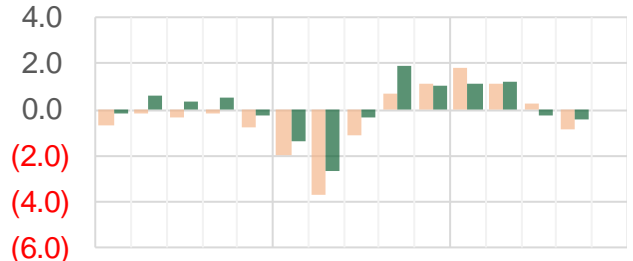
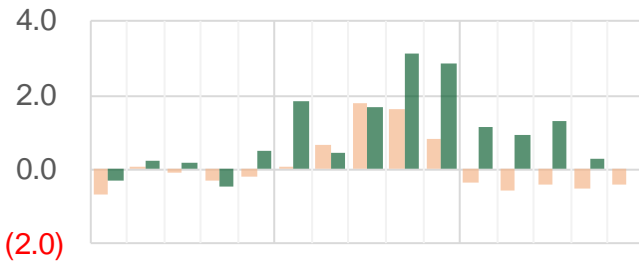
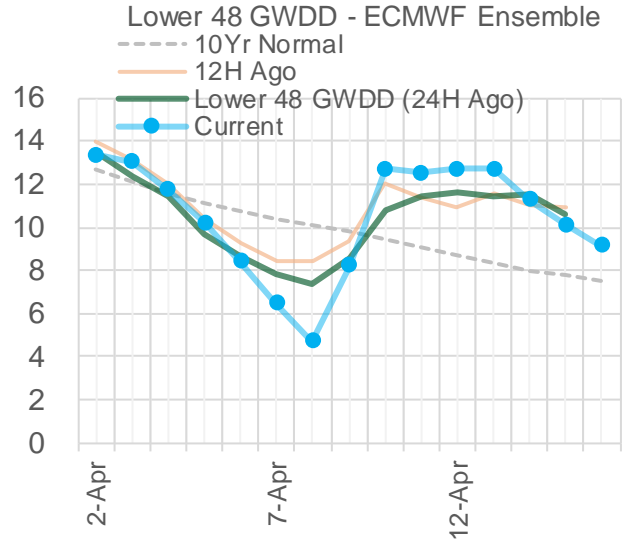
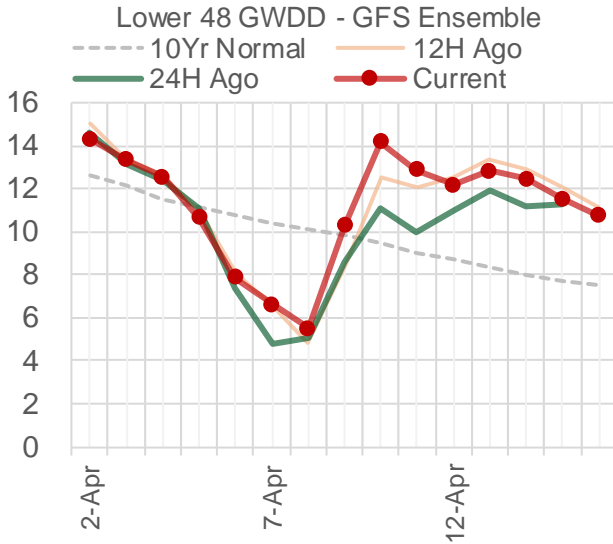
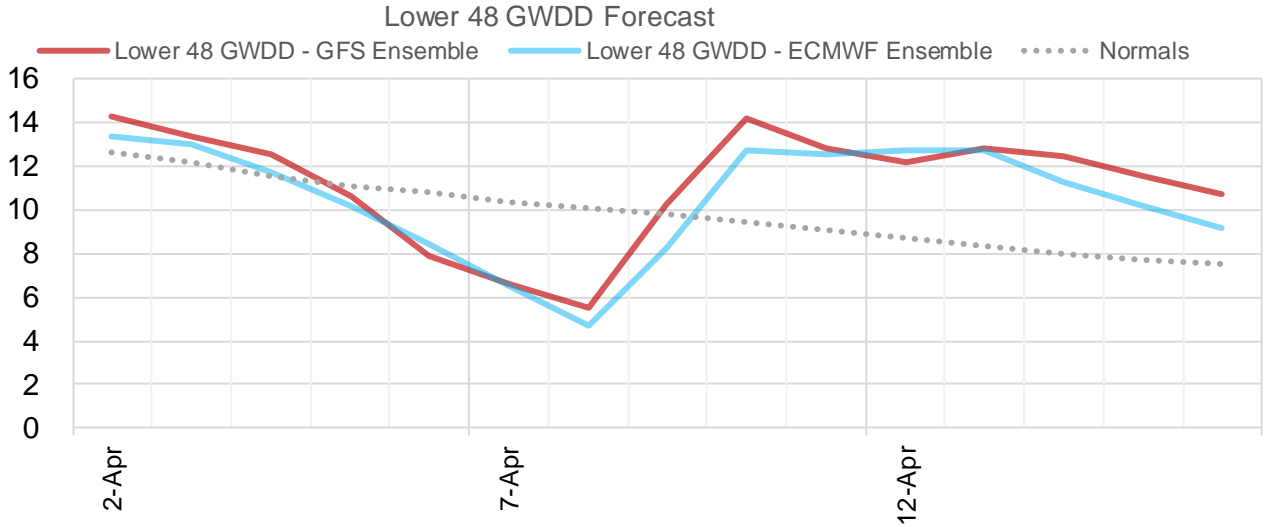
	Current	Δ from YD	Δ from 7D Avg
US ResComm	24.9	▼ -1.19	▲ 0.84

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.2	▼ -0.44	▲ 0.41

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	9.2	▼ -0.08	▼ -0.12

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.7	▲ 0.08	▲ 0.09

Short-term Weather Model Outlooks (00z)



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	1-Apr	2-Apr	DoD	vs. 7D
Lower 48 Dry Production	91.6	92.2	91.9	92.4	91.8	90.9	90.5	▼ -0.4	▼ -1.3
Canadian Imports	3.6	3.3	3.3	3.5	3.9	4.7	4.2	▼ -0.4	▲ 0.5
L48 Power	27.7	24.9	25.4	26.4	27.7	24.0	26.4	▲ 2.4	▲ 0.3
L48 Residential & Commercial	22.4	21.7	21.7	24.1	27.7	26.1	24.9	▼ -1.2	▲ 1.0
L48 Industrial	22.0	22.0	22.2	22.4	23.0	22.7	22.5	▼ -0.2	▲ 0.1
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	0.0	0.0	▲ 0.0	▼ -4.2
L48 Pipeline Distribution	2.3	2.1	2.2	2.3	1.5	0.0	0.0	▲ 0.0	▼ -1.7
L48 Regional Gas Consumption	79.4	75.9	76.6	80.3	85.0	72.8	73.8	▲ 0.9	▼ -4.6
Net LNG Exports	9.0	9.5	9.5	9.4	9.6	9.3	9.2	▼ -0.1	▼ -0.2
Total Mexican Exports	5.6	5.7	5.6	5.6	5.6	5.7	5.7	▲ 0.1	▲ 0.1
Implied Daily Storage Activity	1.1	4.5	3.5	0.6	-4.5	7.7	6.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	21-Feb	28-Feb	6-Mar	13-Mar	20-Mar	27-Mar	WoW	vs. 4W
Lower 48 Dry Production	91.3	91.5	91.2	90.9	91.9	91.5	▼ -0.4	▲ 0.2
Canadian Imports	5.6	5.0	4.5	3.8	4.1	4.5	▲ 0.4	▲ 0.2
L48 Power	30.3	29.5	27.9	27.2	29.1	28.6	▼ -0.5	▲ 0.1
L48 Residential & Commercial	44.8	39.3	34.4	28.6	29.9	29.3	▼ -0.6	▼ -3.8
L48 Industrial	25.1	24.8	23.8	23.1	23.0	23.0	▼ -0.1	▼ -0.7
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.0	5.1	5.1	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	3.1	2.9	2.7	2.5	2.6	2.5	▼ 0.0	▼ -0.1
L48 Regional Gas Consumption	108.4	101.7	93.9	86.4	89.7	88.4	▼ -1.3	▼ -4.5
Net LNG Exports	7.8	8.8	7.8	8.0	7.9	9.3	▲ 1.4	▲ 1.2
Total Mexican Exports	5.4	5.5	5.6	5.6	5.6	5.7	▲ 0.1	▲ 0.1
Implied Daily Storage Activity	-24.7	-19.4	-11.6	-5.3	-7.1	-7.3	-0.1	
EIA Reported Daily Storage Activity	-20.4	-15.6	-6.9	-1.3	-4.1			
Daily Model Error	-4.2	-3.8	-4.7	-4.0	-3.0			

Monthly Balances

	2Yr Ago Apr-18	LY Apr-19	Nov-19	Dec-19	Jan-20	Feb-20	MTD Mar-20	MoM	vs. LY
Lower 48 Dry Production	80.5	88.6	94.1	93.4	92.3	91.3	91.4	▲ 0.1	▲ 2.8
Canadian Imports	5.6	4.6	4.5	4.5	4.8	5.3	4.6	▼ -0.7	▲ 0.0
L48 Power	23.5	24.1	27.4	28.9	29.8	29.8	26.6	▼ -3.3	▲ 2.5
L48 Residential & Commercial	24.3	17.5	32.4	38.8	41.6	41.4	33.1	▼ -8.3	▲ 15.6
L48 Industrial	22.3	21.9	24.3	24.8	25.2	24.9	23.3	▼ -1.6	▲ 1.4
L48 Lease and Plant Fuel	4.6	4.9	5.2	5.2	5.1	5.1	5.1	▲ 0.0	▲ 0.1
L48 Pipeline Distribution	1.9	1.9	2.7	2.9	3.0	3.0	2.6	▼ -0.4	▲ 0.7
L48 Regional Gas Consumption	76.5	70.3	92.0	100.6	104.7	104.1	90.7	▼ -13.5	▲ 20.4
Net LNG Exports	3.5	4.4	7.2	7.8	8.3	8.5	8.3	▼ -0.2	▲ 3.9
Total Mexican Exports	4.3	4.8	5.3	5.0	5.2	5.3	5.4	▲ 0.1	▲ 0.6
Implied Daily Storage Activity	1.8	13.7	-5.8	-15.4	-21.2	-21.3	-8.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 27-Mar

	Daily Raw Storage	Daily Adjustment Factor	Daily Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-7.3	3.5	-3.7	-26
East	-4.3	2.7	-1.7	-11.8
Midwest	-3.9	0.9	-3.0	-21.2
Mountain	1.5	-2.2	-0.7	-4.7
South Central	-0.8	1.9	1.1	8.0
Pacific	0.3	0.2	0.5	3.5

*Adjustment Factor is calculated based on historical regional deltas

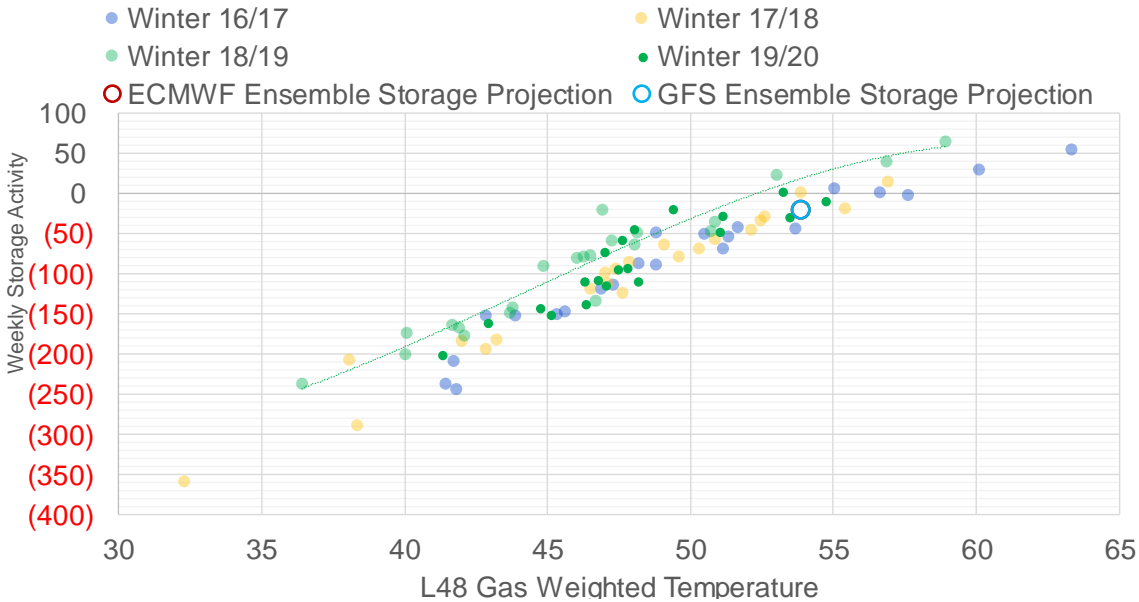
U.S. underground natural gas storage facilities by type (July 2015)



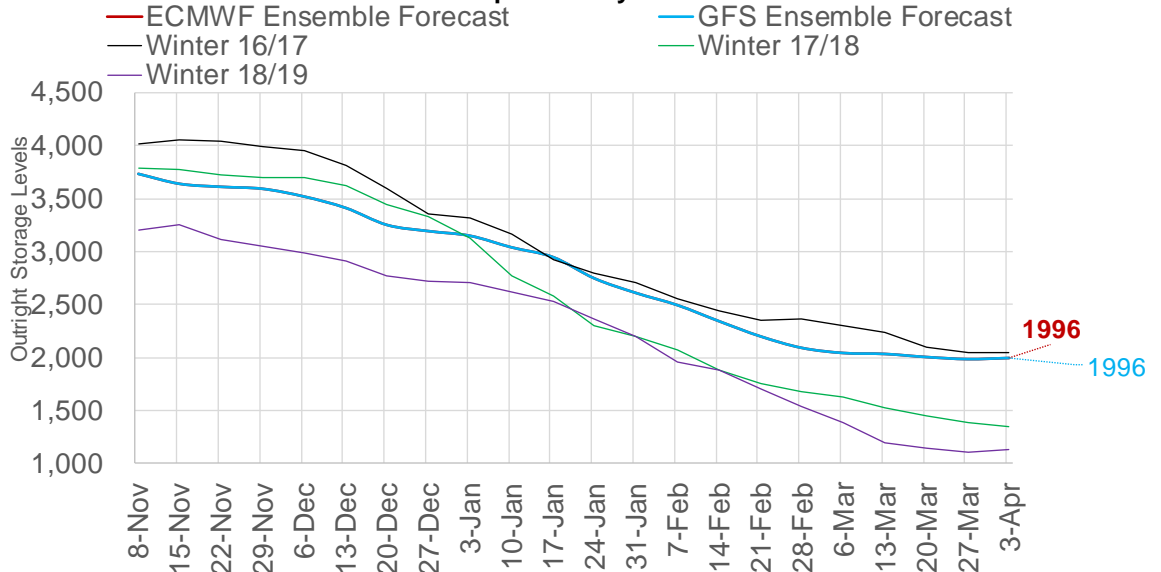
Weather Model Storage Projection

Week Ending	ECMWF Forecast	ECMWF Ensemble Storage Projection	GFS Forecast	GFS Ensemble Storage Projection
27-Mar	53.9	-20	53.9	-20
3-Apr	55.8	10	55.7	11
10-Apr				
17-Apr				

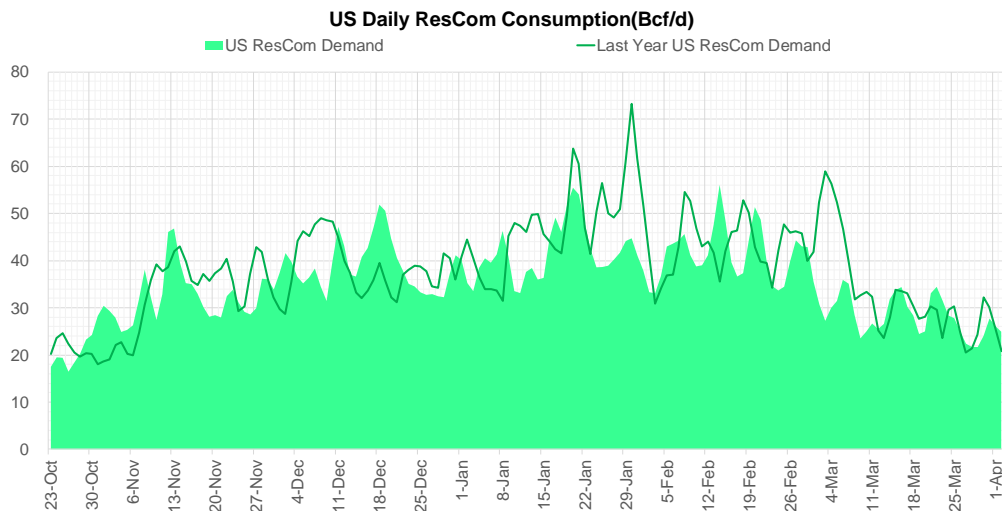
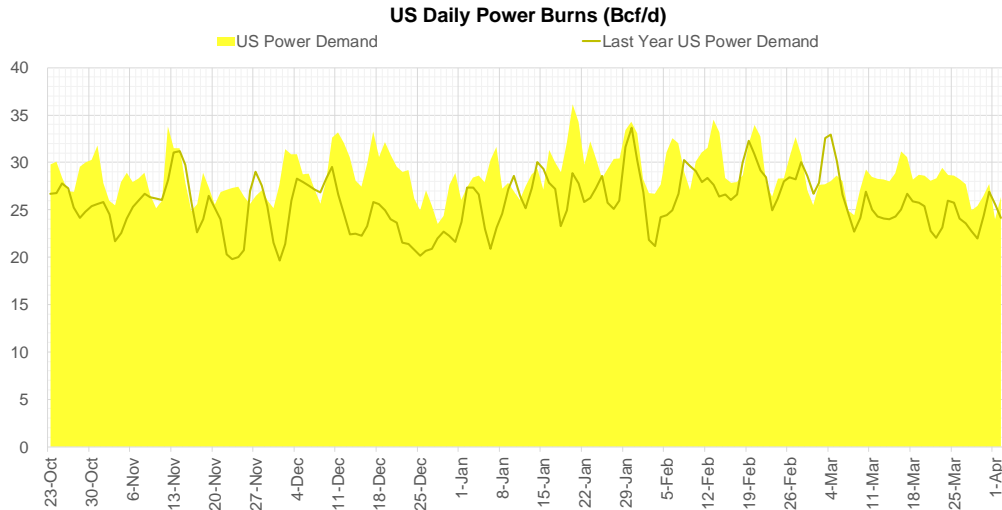
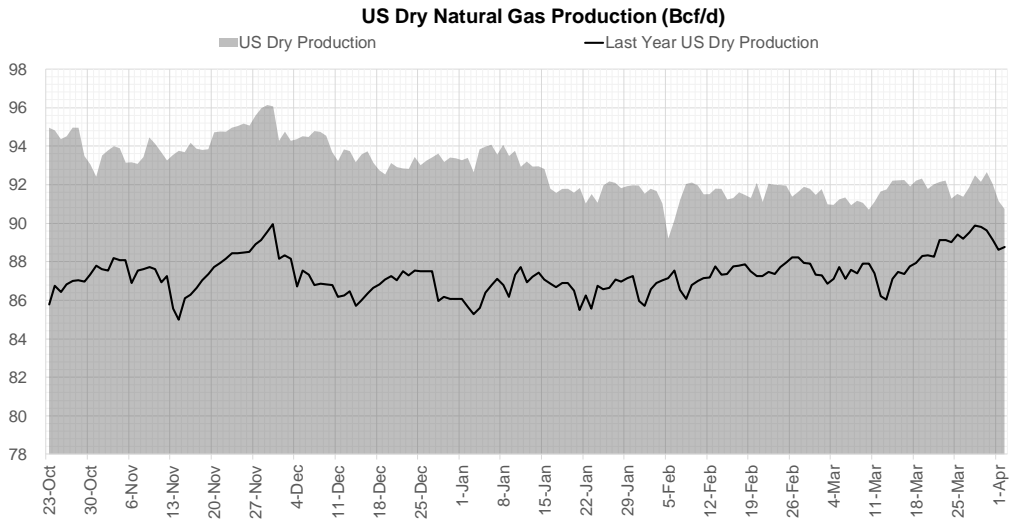
Weather Storage Model - Next 4 Week Forecast



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



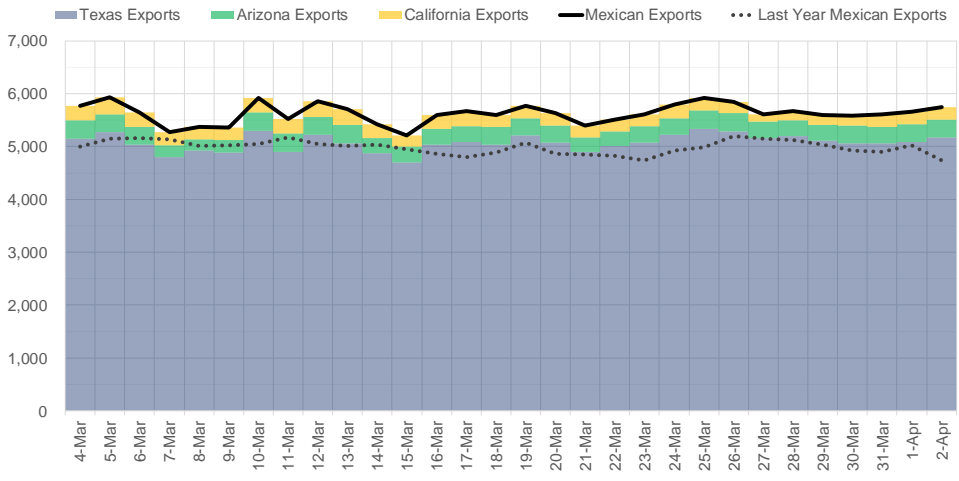
Supply – Demand Trends



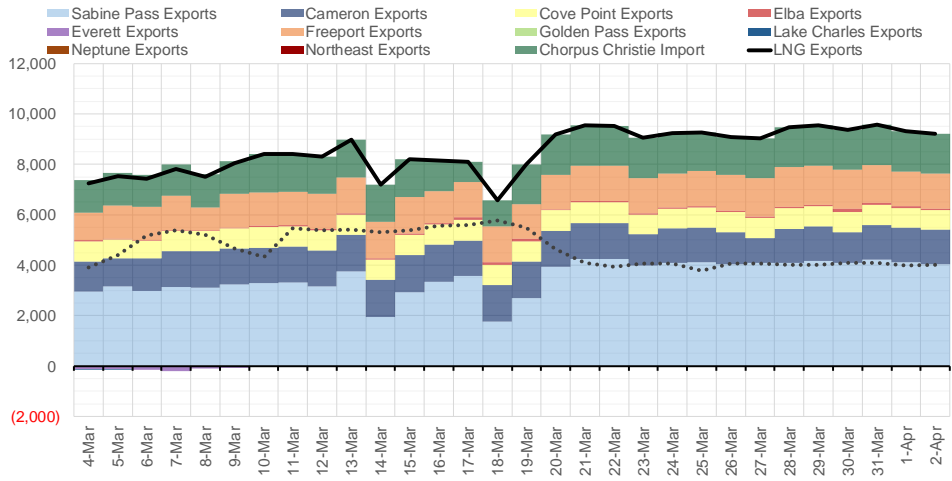
Source: Bloomberg

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.

Mexican Exports - Last 30 days (MMcf/d)



Net LNG Exports - Last 30 days (MMcf/d)



Source: Bloomberg

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.

Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

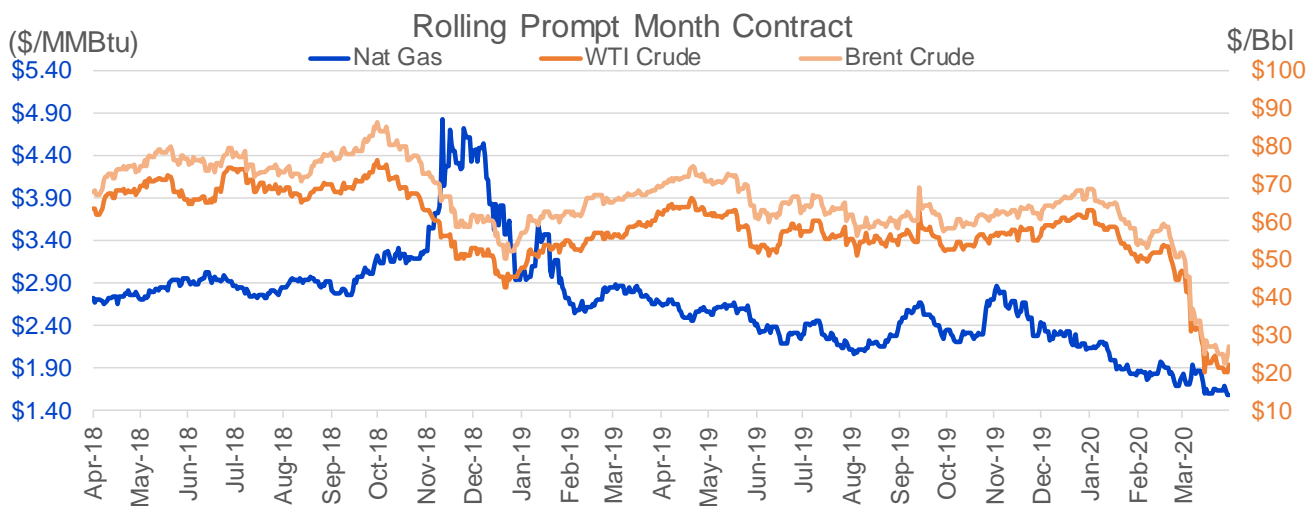
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
5	2020	P	1.50	13592	5	2020	P	1.50	58753
5	2020	P	1.40	12144	6	2020	P	1.25	52710
5	2020	C	2.00	11040	5	2020	P	1.25	49421
5	2020	P	1.25	8750	10	2020	P	1.50	41382
5	2020	P	1.00	5950	5	2020	P	1.40	37372
12	2020	P	1.50	5000	10	2020	P	1.60	34009
7	2020	P	1.25	4131	3	2021	P	2.00	33287
6	2020	P	1.50	3977	5	2020	C	2.00	33262
7	2020	P	1.50	3972	5	2020	P	1.60	29705
10	2020	C	2.50	3501	5	2020	P	1.75	29384
5	2020	C	1.75	3408	6	2020	C	2.50	25935
5	2020	C	1.65	3077	5	2020	C	2.25	23920
10	2020	C	2.75	3010	6	2020	P	2.00	23698
1	2021	C	3.75	3000	5	2020	C	2.50	22967
5	2020	P	1.15	2945	7	2020	C	3.00	22955
6	2020	C	2.00	2934	7	2020	C	2.75	22223
6	2020	C	2.25	2887	6	2020	C	2.00	22200
6	2020	P	1.75	2589	7	2020	P	1.50	22185
1	2021	C	4.25	2500	6	2020	P	1.50	21313
12	2020	C	3.00	2265	5	2020	C	2.75	21083
7	2020	P	1.75	2250	10	2020	C	3.00	21064
7	2020	P	1.40	2220	9	2020	C	2.50	21062
5	2020	P	1.60	2195	5	2020	C	3.00	20857
6	2020	P	1.35	2167	5	2020	P	1.70	20598
7	2020	C	2.50	2084	7	2020	C	2.50	20401
8	2020	P	1.40	2000	7	2020	P	2.00	20379
9	2020	P	1.40	2000	10	2020	C	2.75	20372
6	2020	P	1.70	1984	9	2020	P	1.50	20169
7	2020	C	2.25	1664	5	2020	P	2.00	19635
10	2020	C	3.00	1660	5	2020	C	2.15	19215
5	2020	C	1.80	1602	8	2020	P	1.50	19157
5	2020	C	1.85	1575	7	2020	P	1.75	18588
1	2021	C	2.75	1550	1	2021	C	3.00	18510
6	2020	P	1.60	1534	5	2020	P	1.80	18184
7	2020	P	1.60	1530	10	2020	C	2.50	17431
12	2020	C	2.65	1510	6	2020	P	1.75	17153
7	2020	C	2.40	1501	9	2020	C	3.00	17149
7	2020	P	1.80	1490	8	2020	C	3.00	17111
5	2020	C	1.95	1349	10	2020	P	2.00	16884
8	2020	C	2.55	1260	10	2020	P	1.25	16344
7	2020	P	1.20	1220	7	2020	P	1.25	16015
10	2020	P	1.50	1162	6	2020	C	3.00	15743
5	2020	C	1.70	1153	6	2020	C	2.25	15359
9	2020	P	1.75	1150	6	2020	P	1.60	14893
6	2020	C	2.05	1137	1	2021	P	2.00	14688
5	2020	P	1.45	1135	3	2021	C	3.50	14681
8	2020	P	1.20	1100	5	2020	C	2.60	14573
6	2020	P	1.40	1056	9	2020	P	1.25	14508
8	2020	P	1.80	1035	3	2021	C	3.00	14227
					6	2020	P	1.4	14177

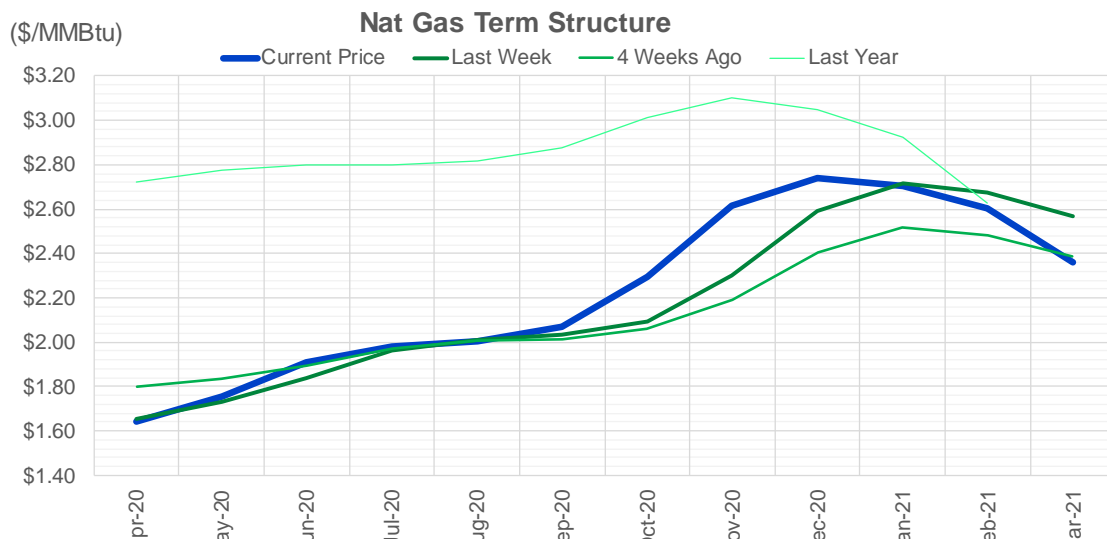
Source: CME, Nasdaq, ICE

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	350514	347178	3336	MAY 20	92088	91065	1022.75	MAY 20	551	551	0
JUN 20	98179	96844	1335	JUN 20	61512	60878	634.75	JUN 20	1367	1367	0
JUL 20	129230	126779	2451	JUL 20	65117	64192	924.5	JUL 20	2871	2871	0
AUG 20	56471	54201	2270	AUG 20	57750	58459	-709.25	AUG 20	549	549	0
SEP 20	101619	99735	1884	SEP 20	58791	58724	67.25	SEP 20	161	161	0
OCT 20	101626	102542	-916	OCT 20	73608	73260	348.5	OCT 20	1010	1010	0
NOV 20	35431	35965	-534	NOV 20	49594	49811	-217	NOV 20	741	741	0
DEC 20	36799	35821	978	DEC 20	53449	53639	-190.75	DEC 20	242	242	0
JAN 21	66539	66973	-434	JAN 21	57296	56958	337.75	JAN 21	336	336	0
FEB 21	28856	28667	189	FEB 21	37393	37582	-189	FEB 21	33	33	0
MAR 21	46122	45629	493	MAR 21	44877	44395	481.75	MAR 21	1106	1106	0
APR 21	53267	49847	3420	APR 21	42640	42056	583.75	APR 21	775	775	0
MAY 21	14936	14328	608	MAY 21	34129	33738	390.5	MAY 21	46	46	0
JUN 21	11166	10965	201	JUN 21	32343	32041	302.75	JUN 21	45	45	0
JUL 21	8914	8946	-32	JUL 21	34721	34380	341.75	JUL 21	46	46	0
AUG 21	8881	8556	325	AUG 21	35293	34913	380.25	AUG 21	46	46	0
SEP 21	8341	8298	43	SEP 21	31943	31796	147.25	SEP 21	45	45	0
OCT 21	17908	18038	-130	OCT 21	37987	36703	1283.75	OCT 21	571	571	0
NOV 21	12989	13320	-331	NOV 21	29352	29179	173	NOV 21	430	430	0
DEC 21	8405	8493	-88	DEC 21	30612	30473	139	DEC 21	30	30	0
JAN 22	6184	6079	105	JAN 22	23101	23036	64.5	JAN 22	36	36	0
FEB 22	4270	4242	28	FEB 22	20493	20353	139.75	FEB 22	33	33	0
MAR 22	7822	7497	325	MAR 22	21875	21801	74.5	MAR 22	900	900	0
APR 22	7877	7638	239	APR 22	18685	18618	67.5	APR 22	1050	1050	0
MAY 22	3324	3324	0	MAY 22	17856	17761	95.25	MAY 22	51	51	0
JUN 22	1168	1161	7	JUN 22	17204	16889	315	JUN 22	50	50	0
JUL 22	1202	1199	3	JUL 22	17326	16980	345.75	JUL 22	51	51	0
AUG 22	836	834	2	AUG 22	17265	16919	345.75	AUG 22	51	51	0
SEP 22	896	895	1	SEP 22	17166	16784	382.5	SEP 22	50	50	0
OCT 22	1281	1282	-1	OCT 22	18429	17461	968.5	OCT 22	515	515	0

Source: CME, Nasdaq, ICE





	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Current Price	\$1.640	\$1.756	\$1.912	\$1.978	\$2.006	\$2.070	\$2.295	\$2.615	\$2.739	\$2.706	\$2.604	\$2.359
Last Week	\$1.653	\$1.729	\$1.836	\$1.960	\$2.010	\$2.035	\$2.093	\$2.301	\$2.592	\$2.713	\$2.677	\$2.565
vs. Last Week	-\$0.013	\$0.027	\$0.076	\$0.018	-\$0.004	\$0.035	\$0.202	\$0.314	\$0.147	-\$0.007	-\$0.073	-\$0.206
4 Weeks Ago	\$1.800	\$1.838	\$1.897	\$1.974	\$2.008	\$2.014	\$2.061	\$2.189	\$2.406	\$2.517	\$2.482	\$2.388
vs. 4 Weeks Ago	-\$0.160	-\$0.082	\$0.015	\$0.004	-\$0.002	\$0.056	\$0.234	\$0.426	\$0.333	\$0.189	\$0.122	-\$0.029
Last Year	\$2.684	\$2.722	\$2.775	\$2.801	\$2.798	\$2.818	\$2.873	\$3.015	\$3.103	\$3.045	\$2.924	\$2.625
vs. Last Year	-\$1.044	-\$0.966	-\$0.863	-\$0.823	-\$0.792	-\$0.748	-\$0.578	-\$0.400	-\$0.364	-\$0.339	-\$0.320	-\$0.266

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.64	1.60	-0.04
TETCO M3	\$/MMBtu	1.52	1.39	-0.13
FGT Zone 3	\$/MMBtu	1.59	1.69	0.10
Zone 6 NY	\$/MMBtu	1.59	1.40	-0.19
Chicago Citygate	\$/MMBtu	1.56	1.53	-0.03
Michcon	\$/MMBtu	1.58	1.55	-0.03
Columbia TCO Pool	\$/MMBtu	1.47	1.42	-0.05
Ventura	\$/MMBtu	1.28	1.44	0.16
Rockies/Opal	\$/MMBtu	1.39	1.34	-0.05
El Paso Permian Basin	\$/MMBtu	0.23	0.51	0.28
Socal Citygate	\$/MMBtu	1.47	1.40	-0.07
Malin	\$/MMBtu	1.42	1.48	0.06
Houston Ship Channel	\$/MMBtu	1.65	1.63	-0.02
Henry Hub Cash	\$/MMBtu	1.71	1.49	-0.22
AECO Cash	C\$/GJ	1.31	1.26	-0.05
Station2 Cash	C\$/GJ	1.31	1.43	0.12
Dawn Cash	C\$/GJ	1.54	1.54	0.00

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.52	▼ -0.019	▼ -0.166	▼ -0.046
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.019	▲ 0.166	▼ -0.112
NatGas Oct/Nov	\$/MMBtu	0.23	▲ 0.017	▲ 0.097	▲ 0.179
NatGas Oct/Jan	\$/MMBtu	0.67	▲ 0.049	▲ 0.213	▲ 0.359
WTI Crude	\$/Bbl	20.48	▼ -3.530	▼ -26.700	▼ -42.100
Brent Crude	\$/Bbl	22.74	▼ -4.410	▼ -29.120	▼ -46.630
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	101.21	▼ -6.820	▼ -52.090	▼ -99.680
Propane, Mt. Bel	cents/Gallon	0.29	▲ 0.007	▼ -0.111	▼ -0.345
Ethane, Mt. Bel	cents/Gallon	0.12	▲ 0.001	▼ -0.023	▼ -0.083
Coal, PRB	\$/MTon	12.30	▲ 0.000	▼ -0.100	▼ -0.300
Coal, ILB	\$/MTon	31.05	▲ 0.000	▼ -0.750	▼ -14.000