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	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.77	▲ \$ 0.04	▲ \$ 0.01

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 22.96	▲ \$ 0.20	▼ \$ (0.7)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 31.06	▼ \$ (0.42)	▼ \$ (0.9)

00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-2.7	0.4	3.6	1.2
24 Hr Chg	-0.2	3.0	2.7	5.6

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.8	0.1	-3.1	-4.8
24 Hr Chg	-1.3	1.0	0.9	0.7

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.6	▼ -0.52	▼ -0.70

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	24.9	▲ 2.97	▼ -1.11

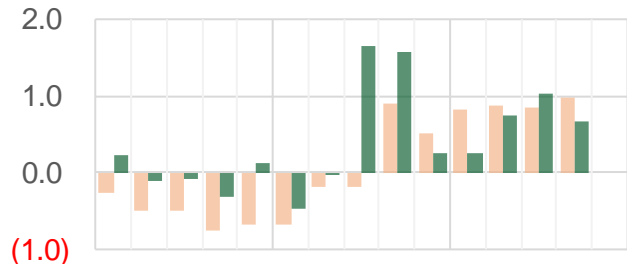
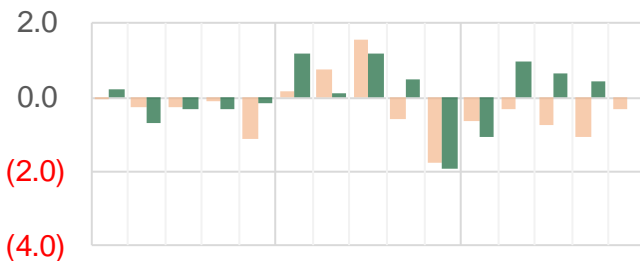
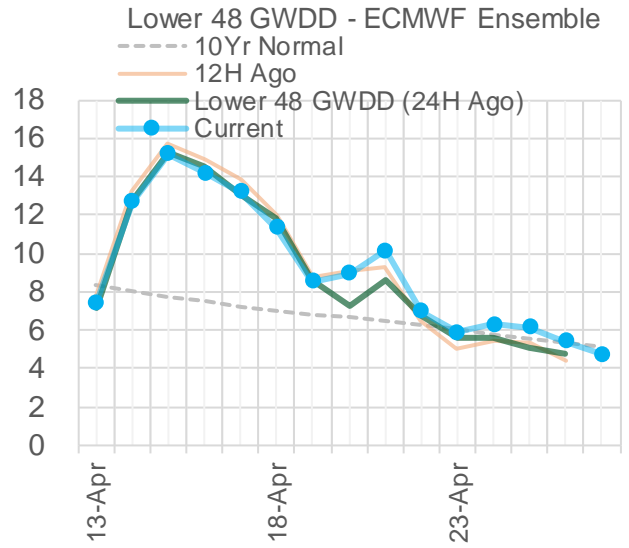
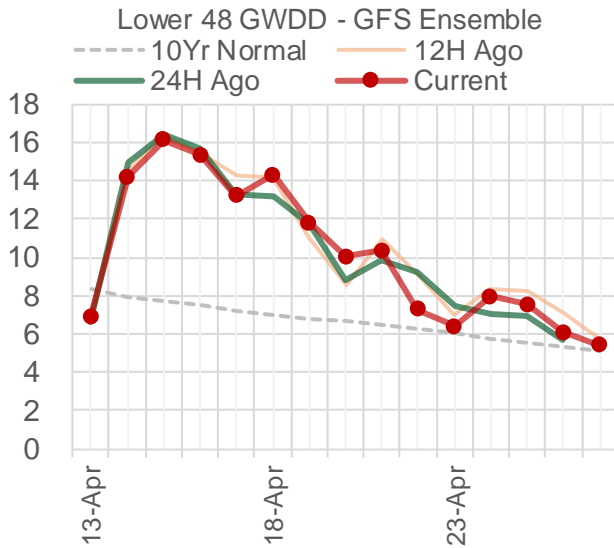
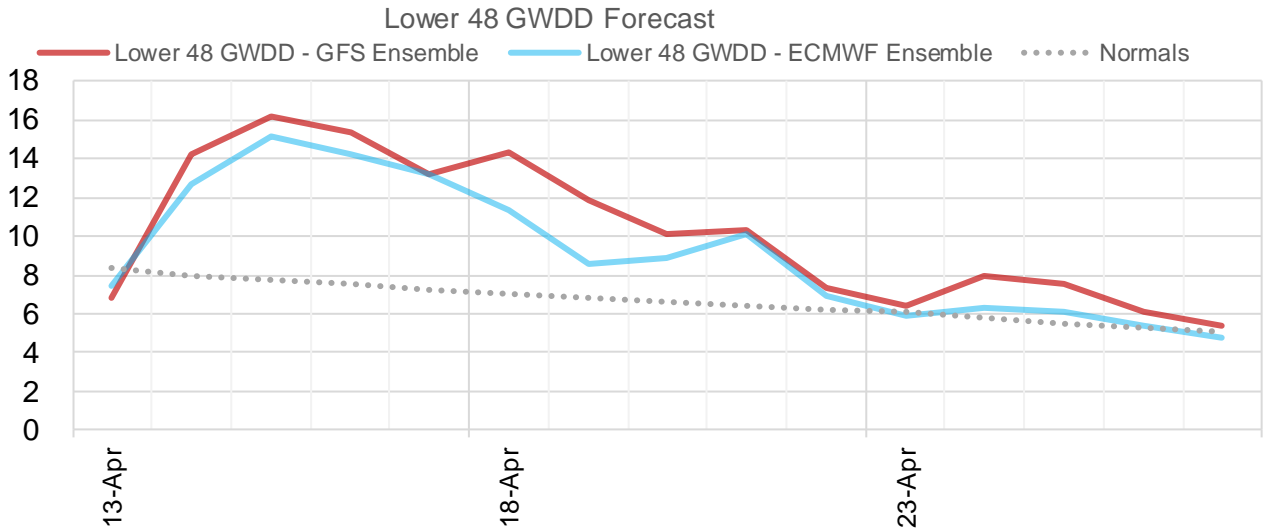
	Current	Δ from YD	Δ from 7D Avg
US ResComm	22.3	▲ 1.50	▲ 1.27

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	2.8	▼ 0.00	▼ -0.94

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	8.7	▲ 0.78	▲ 0.56

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	4.8	▼ -0.01	▼ -0.04

Short-term Weather Model Outlooks (00z)



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	7-Apr	8-Apr	9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	DoD	vs. 7D
Lower 48 Dry Production	90.8	90.7	91.1	91.2	91.4	90.9	90.4	▼ -0.5	▼ -0.7
Canadian Imports	3.8	3.9	4.3	3.8	3.8	2.8	2.8	▼ 0.0	▼ -1.0
L48 Power	28.5	29.6	28.2	24.9	22.8	22.0	24.9	▲ 3.0	▼ -1.1
L48 Residential & Commercial	15.2	16.2	23.9	28.0	23.5	20.8	22.3	▲ 1.5	▲ 1.0
L48 Industrial	21.2	21.4	22.4	22.6	22.0	22.0	22.6	▲ 0.6	▲ 0.6
L48 Lease and Plant Fuel	5.0	5.0	5.1	5.1	5.1	5.1	0.0	▼ -5.1	▼ -5.1
L48 Pipeline Distribution	2.0	2.1	2.3	2.3	2.1	2.0	0.0	▼ -2.0	▼ -2.2
L48 Regional Gas Consumption	72.0	74.4	81.9	82.9	75.6	71.8	69.8	▼ -2.0	▼ -6.6
Net LNG Exports	8.2	8.1	8.2	8.2	8.3	7.9	8.7	▲ 0.8	▲ 0.6
Total Mexican Exports	5.0	5.0	4.8	4.6	4.7	4.8	4.8	▼ 0.0	▼ 0.0
Implied Daily Storage Activity	9.4	7.2	0.5	-0.7	6.7	9.1	9.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	WoW	vs. 4W
Lower 48 Dry Production	91.2	90.9	91.9	91.5	91.8	91.3	▼ -0.5	▼ -0.2
Canadian Imports	4.5	3.8	4.1	4.4	3.8	3.7	▼ -0.1	▼ -0.3
L48 Power	27.9	27.2	29.1	28.6	26.2	26.7	▲ 0.5	▼ -1.1
L48 Residential & Commercial	34.4	28.6	29.9	29.3	24.2	20.9	▼ -3.2	▼ -7.0
L48 Industrial	23.8	23.1	23.1	23.0	22.3	22.0	▼ -0.4	▼ -0.9
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.1	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.7	2.5	2.6	2.5	2.3	2.2	▼ -0.1	▼ -0.3
L48 Regional Gas Consumption	93.9	86.4	89.7	88.5	80.0	76.9	▼ -3.2	▼ -9.3
Net LNG Exports	7.8	8.0	7.9	9.3	9.4	8.3	▼ -1.1	▼ -0.4
Total Mexican Exports	5.6	5.6	5.6	5.7	5.5	5.0	▼ -0.5	▼ -0.6
Implied Daily Storage Activity	-11.6	-5.3	-7.2	-7.5	0.7	4.9	4.2	
EIA Reported Daily Storage Activity	-6.9	-1.3	-4.1	-2.7	5.4			
Daily Model Error	-4.7	-4.0	-3.0	-4.8	-4.7			

Monthly Balances

	2Yr Ago Apr-18	LY Apr-19	Dec-19	Jan-20	Feb-20	Mar-20	MTD Apr-20	MoM	vs. LY
Lower 48 Dry Production	80.5	88.6	93.4	92.3	91.3	91.5	91.2	▼ -0.3	▲ 2.6
Canadian Imports	5.6	4.6	4.5	4.8	5.3	4.0	3.7	▼ -0.3	▼ -0.9
L48 Power	23.5	24.1	28.8	29.9	29.8	27.9	25.6	▼ -2.3	▲ 1.5
L48 Residential & Commercial	24.3	17.5	38.8	41.6	41.4	28.6	22.5	▼ -6.2	▲ 4.9
L48 Industrial	22.3	21.9	24.8	25.2	24.9	23.0	22.1	▼ -0.8	▲ 0.2
L48 Lease and Plant Fuel	4.6	4.9	5.2	5.1	5.1	5.1	4.7	▼ -0.4	▼ -0.2
L48 Pipeline Distribution	1.9	1.9	2.9	3.0	3.0	2.5	2.0	▼ -0.5	▲ 0.2
L48 Regional Gas Consumption	76.5	70.3	100.5	104.8	104.1	87.0	76.9	▼ -10.2	▲ 6.6
Net LNG Exports	3.5	4.4	7.8	8.3	8.5	8.4	8.4	▼ 0.0	▲ 4.0
Total Mexican Exports	4.3	4.8	5.0	5.2	5.3	5.6	4.9	▼ -0.7	▲ 0.1
Implied Daily Storage Activity	1.8	13.7	-15.3	-21.2	-21.3	-5.6	4.6		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 10-Apr

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	4.9	4.5	9.1	64
East	-0.2	2.4	2.3	15.9
Midwest	0.2	1.4	1.5	10.8
Mountain	1.8	-1.9	-0.3	-2.3
South Central	3.0	2.4	5.4	37.9
Pacific	0.1	0.1	0.2	1.4

*Adjustment Factor is calculated based on historical regional deltas

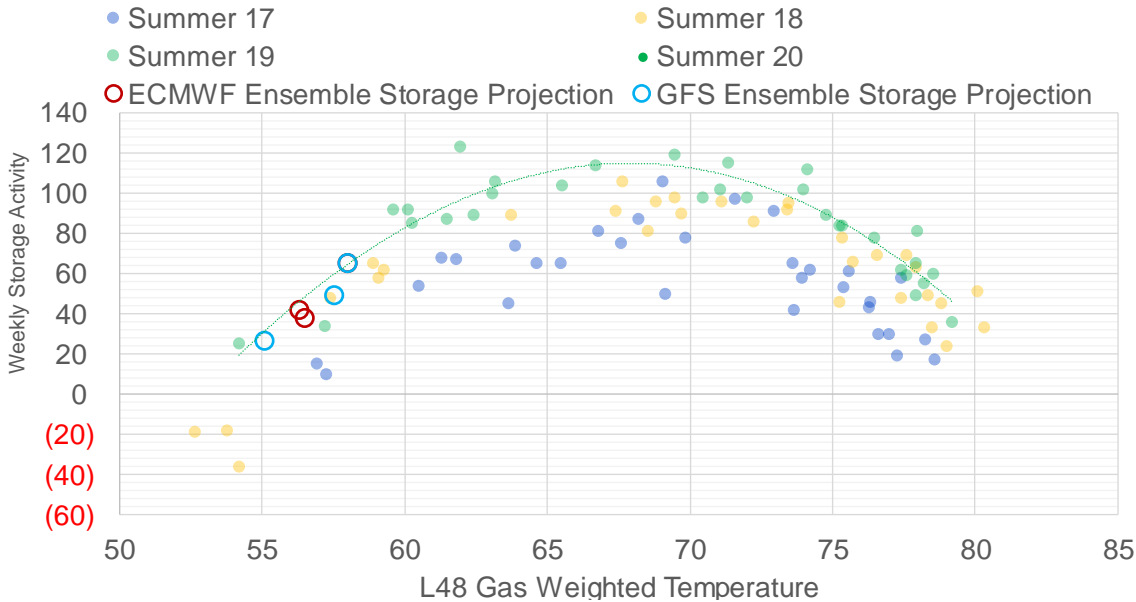
U.S. underground natural gas storage facilities by type (July 2015)



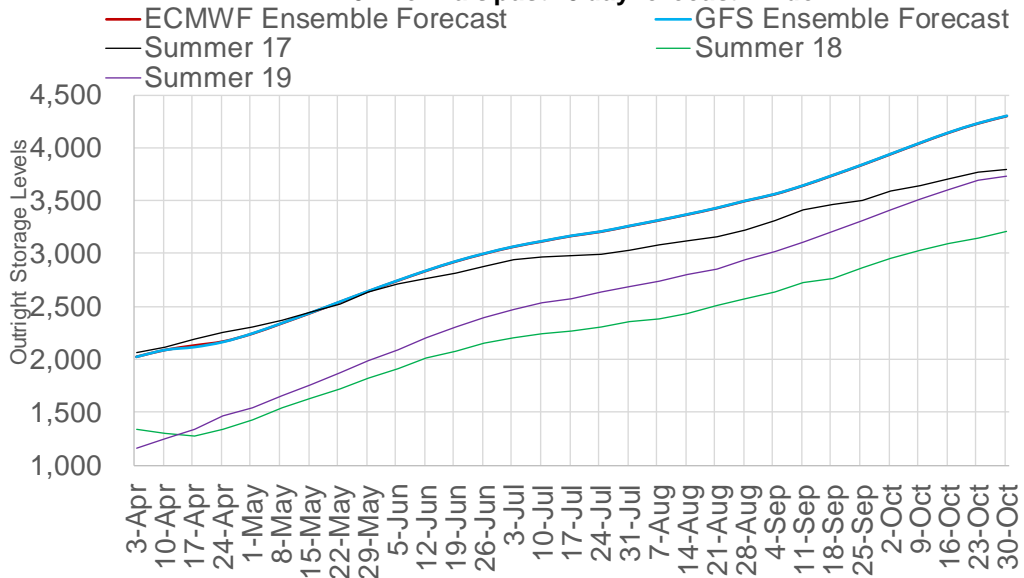
Weather Model Storage Projection

Week Ending	ECMWF Forecast	ECMWF Ensemble Storage Projection	GFS Forecast	GFS Ensemble Storage Projection
10-Apr	58.0	65	58.0	65
17-Apr	56.3	42	55.1	27
24-Apr	56.5	38	57.5	49
1-May	60.2	74	61.1	80

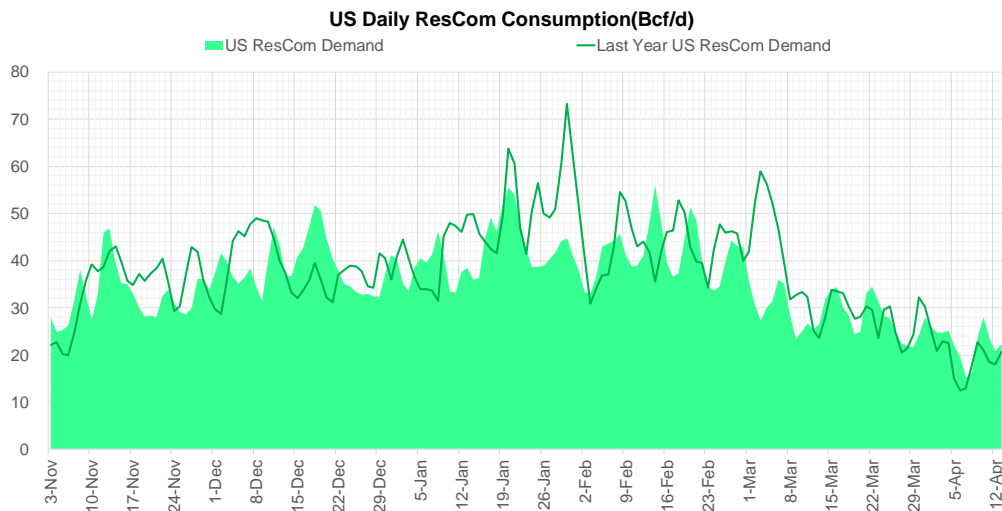
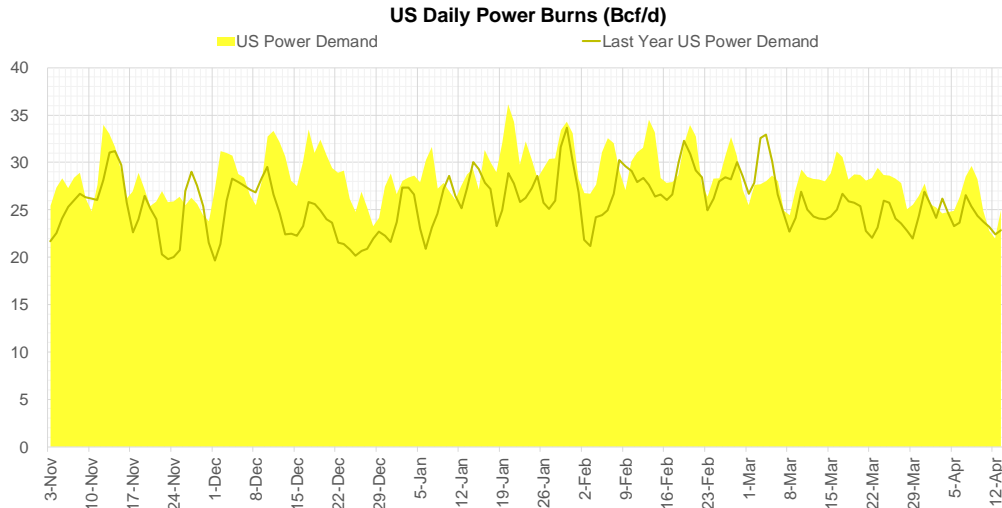
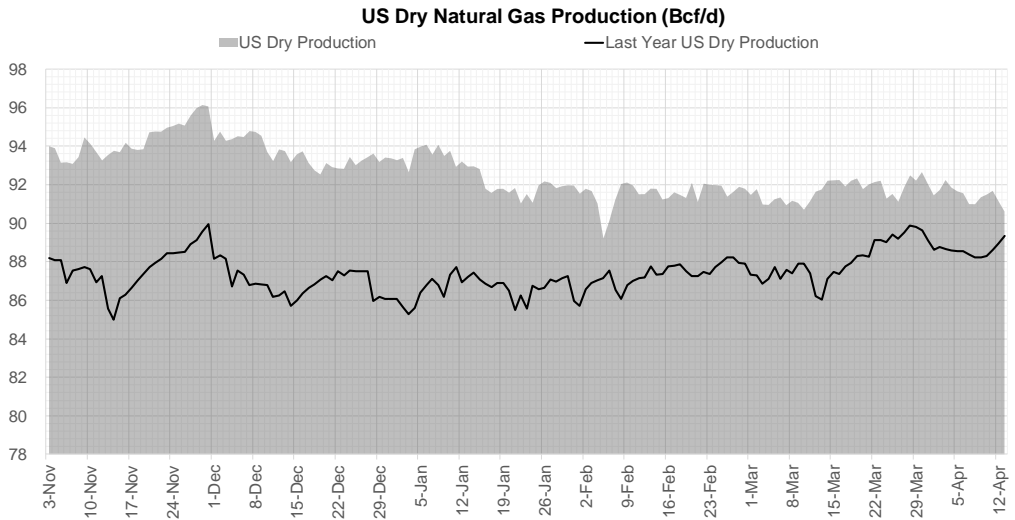
Weather Storage Model - Next 4 Week Forecast



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



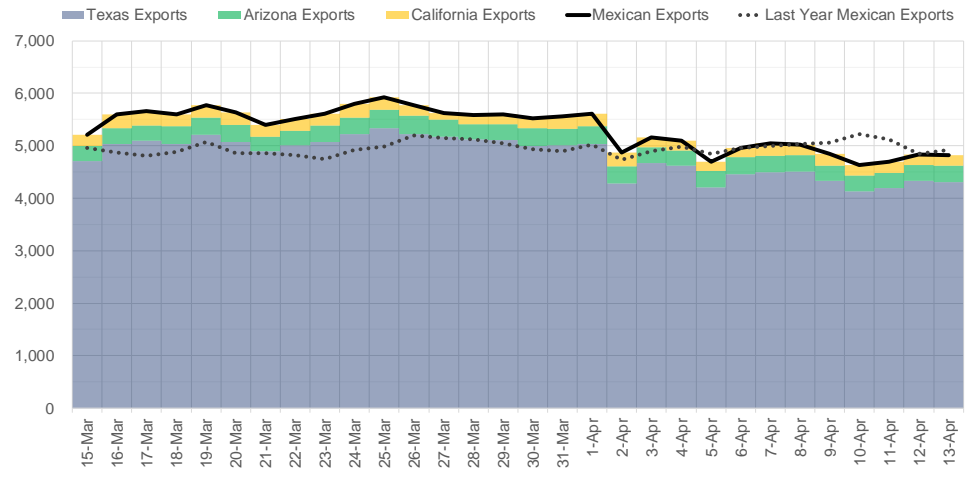
Supply – Demand Trends



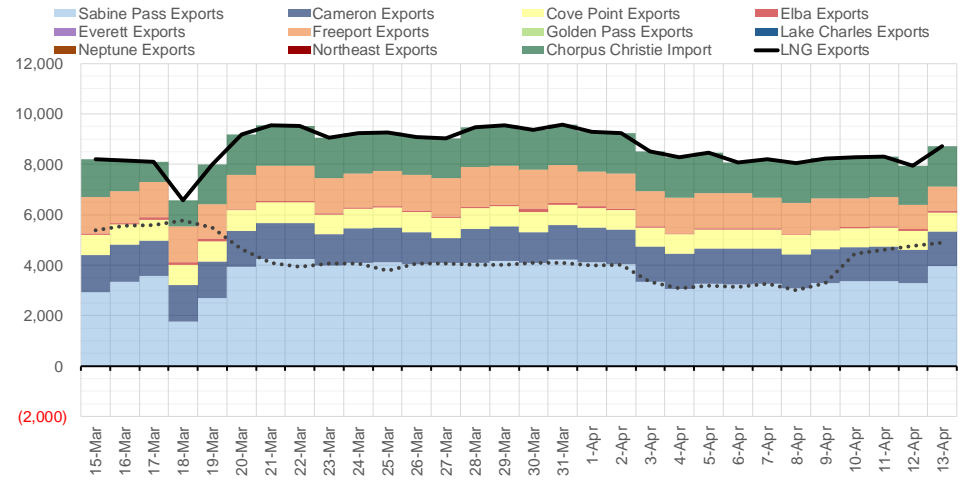
Source: Bloomberg

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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

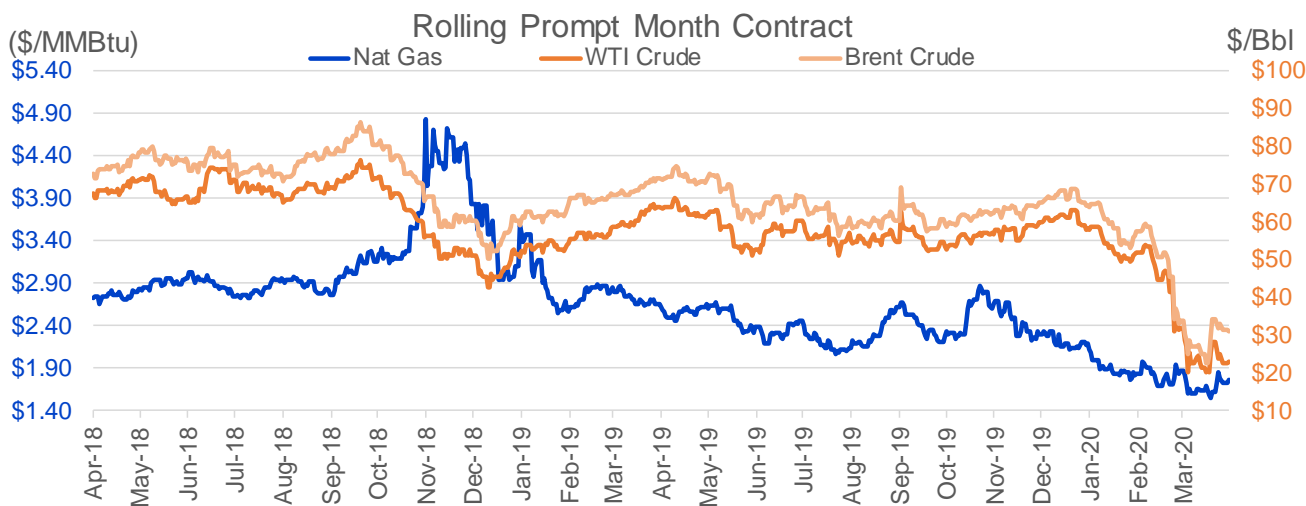
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
6	2020	P	1.75	9041	5	2020	P	1.50	54641
5	2020	P	1.60	8605	5	2020	P	1.60	47728
5	2020	P	1.50	6258	10	2020	P	1.50	42540
5	2020	C	2.00	5912	5	2020	P	1.75	41128
5	2020	C	2.25	5504	5	2020	C	2.00	39409
5	2020	P	1.75	5301	10	2020	P	1.60	39318
10	2020	C	3.00	5011	6	2020	P	1.25	39278
6	2020	P	1.35	3974	6	2020	P	1.50	35222
6	2020	P	1.50	3205	3	2021	P	2.00	33228
5	2020	C	2.15	3058	5	2020	P	1.40	31677
6	2020	C	2.00	2702	5	2020	P	1.25	27584
7	2020	P	1.75	2690	5	2020	C	2.25	25513
5	2020	C	1.85	2574	5	2020	P	1.00	24886
7	2020	P	1.50	2385	6	2020	C	2.50	24464
10	2020	P	1.50	2314	7	2020	P	1.50	24216
10	2020	C	3.25	2300	6	2020	C	2.00	24009
6	2020	P	1.60	2298	5	2020	C	2.15	23986
5	2020	C	1.75	2273	7	2020	P	1.25	23518
5	2020	P	1.65	2221	6	2020	P	1.75	23042
10	2020	C	2.75	2025	5	2020	P	1.70	22309
6	2020	P	1.55	1928	5	2020	C	2.50	22242
5	2020	P	1.70	1833	6	2020	P	2.00	22179
5	2020	C	2.10	1786	7	2020	C	2.50	21694
6	2020	C	2.25	1606	10	2020	C	3.00	21474
6	2020	P	1.25	1587	5	2020	C	2.75	20186
5	2020	C	1.95	1535	7	2020	P	2.00	20091
5	2020	C	2.40	1528	9	2020	C	2.50	19842
10	2020	P	2.00	1511	9	2020	P	1.50	19833
5	2020	C	2.35	1506	10	2020	C	2.75	19776
5	2020	C	2.50	1455	5	2020	P	1.80	19342
8	2020	C	2.10	1426	7	2020	C	2.75	19182
10	2020	P	2.20	1424	8	2020	P	1.50	18807
10	2020	C	2.20	1326	5	2020	P	2.00	18299
5	2020	C	1.90	1289	10	2020	P	2.00	18044
7	2020	C	2.50	1197	10	2020	P	1.25	17692
5	2020	C	1.80	1160	7	2020	C	3.00	17171
5	2021	C	2.75	1150	7	2020	P	1.75	17125
6	2020	P	1.40	1142	1	2021	C	3.00	16555
4	2021	C	3.00	1109	6	2020	P	1.60	16214
6	2020	C	2.75	1051	6	2020	C	2.25	16049
5	2020	P	1.40	1022	5	2020	P	1.30	15657
10	2020	P	1.60	1000	5	2020	P	1.65	15301
4	2021	C	2.75	950	5	2020	P	1.45	15146
5	2020	P	1.35	948	9	2020	P	1.25	15010
9	2020	P	1.50	936	7	2020	C	2.25	14843
8	2020	P	1.60	910	10	2020	C	2.50	14755
9	2020	P	1.90	882	5	2020	C	3.00	14482
11	2020	P	2.00	855	3	2021	C	3.50	14337
11	2020	C	3.25	850	1	2021	P	2.00	14163
					5	2020	P	1.55	13991.5

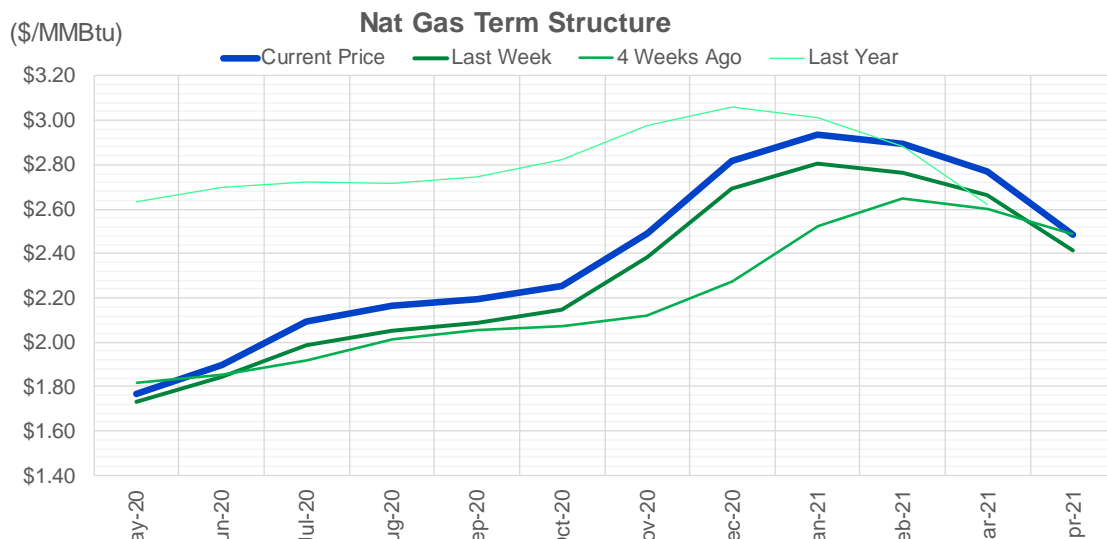
Source: CME, Nasdaq, ICE

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	226881	248479	-21598	MAY 20	86973	88352	-1379.25	MAY 20	551	551	0
JUN 20	163269	135928	27341	JUN 20	60330	58810	1520.25	JUN 20	1367	1367	0
JUL 20	140236	129974	10262	JUL 20	67537	64282	3254.25	JUL 20	2871	2871	0
AUG 20	56484	54450	2034	AUG 20	58408	58289	118.5	AUG 20	549	549	0
SEP 20	101630	100385	1245	SEP 20	59658	59371	287	SEP 20	161	161	0
OCT 20	99322	98676	646	OCT 20	71623	70501	1122	OCT 20	1010	1010	0
NOV 20	32076	32113	-37	NOV 20	49618	49450	167.75	NOV 20	741	741	0
DEC 20	38742	38298	444	DEC 20	54699	54287	411.25	DEC 20	242	242	0
JAN 21	72662	69048	3614	JAN 21	61884	61598	285.25	JAN 21	336	336	0
FEB 21	30603	29362	1241	FEB 21	39040	38924	116	FEB 21	33	33	0
MAR 21	48855	49225	-370	MAR 21	46847	46652	195.25	MAR 21	1106	1106	0
APR 21	59488	57036	2452	APR 21	46350	45782	568.5	APR 21	775	775	0
MAY 21	18647	17409	1238	MAY 21	36448	36019	429	MAY 21	46	46	0
JUN 21	13123	12899	224	JUN 21	34430	34029	401.25	JUN 21	45	45	0
JUL 21	9291	9363	-72	JUL 21	36619	36235	384	JUL 21	46	46	0
AUG 21	8573	8535	38	AUG 21	37054	36685	368.75	AUG 21	46	46	0
SEP 21	9685	9199	486	SEP 21	33767	33416	351	SEP 21	45	45	0
OCT 21	19365	17989	1376	OCT 21	40524	40068	456.75	OCT 21	571	571	0
NOV 21	11860	11923	-63	NOV 21	30970	30104	865.5	NOV 21	430	430	0
DEC 21	8434	8429	5	DEC 21	31951	31689	262.5	DEC 21	30	30	0
JAN 22	7269	6694	575	JAN 22	24261	23949	311.75	JAN 22	36	36	0
FEB 22	3870	3836	34	FEB 22	21561	21297	264.5	FEB 22	33	33	0
MAR 22	8453	8175	278	MAR 22	22935	22724	210.75	MAR 22	900	900	0
APR 22	8574	8707	-133	APR 22	20162	19963	199	APR 22	1050	1050	0
MAY 22	3705	3272	433	MAY 22	19064	18809	254.75	MAY 22	51	51	0
JUN 22	1352	1324	28	JUN 22	18644	18419	224.5	JUN 22	50	50	0
JUL 22	1384	1356	28	JUL 22	19143	18906	236.5	JUL 22	51	51	0
AUG 22	1019	991	28	AUG 22	18721	18489	232	AUG 22	51	51	0
SEP 22	1084	1056	28	SEP 22	18643	18418	224.75	SEP 22	50	50	0
OCT 22	1562	1336	226	OCT 22	19836	19578	258	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
Current Price	\$1.770	\$1.899	\$2.092	\$2.163	\$2.197	\$2.253	\$2.491	\$2.818	\$2.938	\$2.894	\$2.771	\$2.487
Last Week	\$1.731	\$1.844	\$1.989	\$2.051	\$2.085	\$2.149	\$2.383	\$2.690	\$2.804	\$2.766	\$2.661	\$2.415
vs. Last Week	\$0.039	\$0.055	\$0.103	\$0.112	\$0.112	\$0.104	\$0.108	\$0.128	\$0.134	\$0.128	\$0.110	\$0.072
4 Weeks Ago	\$1.815	\$1.853	\$1.917	\$2.011	\$2.052	\$2.071	\$2.123	\$2.274	\$2.525	\$2.646	\$2.603	\$2.489
vs. 4 Weeks Ago	-\$0.045	\$0.046	\$0.175	\$0.152	\$0.145	\$0.182	\$0.368	\$0.544	\$0.413	\$0.248	\$0.168	-\$0.002
Last Year	\$2.590	\$2.633	\$2.696	\$2.723	\$2.717	\$2.743	\$2.821	\$2.979	\$3.061	\$3.010	\$2.884	\$2.620
vs. Last Year	-\$0.820	-\$0.734	-\$0.604	-\$0.560	-\$0.520	-\$0.490	-\$0.330	-\$0.161	-\$0.123	-\$0.116	-\$0.113	-\$0.133

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.46	1.50	0.04
TETCO M3	\$/MMBtu	1.35	1.37	0.02
FGT Zone 3	\$/MMBtu	1.52	1.69	0.17
Zone 6 NY	\$/MMBtu	1.52	1.36	-0.16
Chicago Citygate	\$/MMBtu	1.64	1.51	-0.14
Michcon	\$/MMBtu	1.69	1.53	-0.16
Columbia TCO Pool	\$/MMBtu	1.55	1.39	-0.16
Ventura	\$/MMBtu	1.71	1.43	-0.28
Rockies/Opal	\$/MMBtu	1.50	1.23	-0.27
El Paso Permian Basin	\$/MMBtu	0.05	0.67	0.62
Socal Citygate	\$/MMBtu	1.61	1.21	-0.40
Malin	\$/MMBtu	1.50	1.34	-0.16
Houston Ship Channel	\$/MMBtu	1.66	1.64	-0.03
Henry Hub Cash	\$/MMBtu	1.74	1.49	-0.25
AECO Cash	C\$/GJ	1.44	1.20	-0.25
Station2 Cash	C\$/GJ	1.46	1.20	-0.26
Dawn Cash	C\$/GJ	1.65	1.54	-0.12

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.52	▲ 0.000	▼ -0.235	▼ -0.058
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.235	▼ -0.096
NatGas Oct/Nov	\$/MMBtu	0.23	▼ -0.023	▲ 0.089	▲ 0.185
NatGas Oct/Jan	\$/MMBtu	0.68	▼ -0.021	▲ 0.195	▲ 0.383
WTI Crude	\$/Bbl	22.76	▼ -5.580	▼ -8.970	▼ -41.130
Brent Crude	\$/Bbl	31.48	▼ -2.630	▼ -2.370	▼ -40.070
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	97.26	▼ -9.800	▼ -16.480	▼ -109.810
Propane, Mt. Bel	cents/Gallon	0.31	▲ 0.009	▼ -0.025	▼ -0.348
Ethane, Mt. Bel	cents/Gallon	0.10	▲ 0.004	▼ -0.037	▼ -0.127
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.200
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -12.000