

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.63	\$ (0.02)	\$ (0.10)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 19.65	\$ (0.46)	\$ (3.0)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 28.36	\$ (1.24)	\$ (3.1)

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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	-0.9	-3.4	-3.5	-7.9
24 Hr Chg	1.5	2.2	-2.6	1.1

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-0.1	0.5	-1.5	-1.1
24 Hr Chg	-1.1	0.7	-3.0	-3.4

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.3	-0.40	-1.03

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	26.1	-0.85	0.19

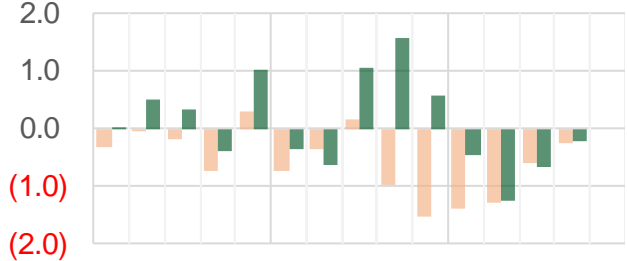
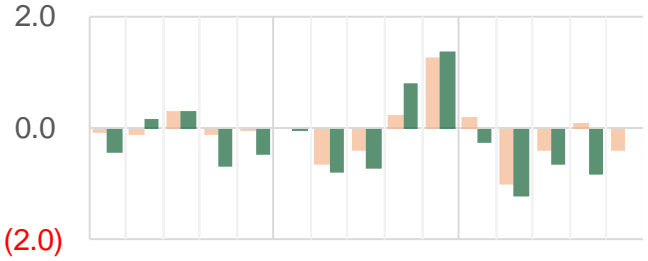
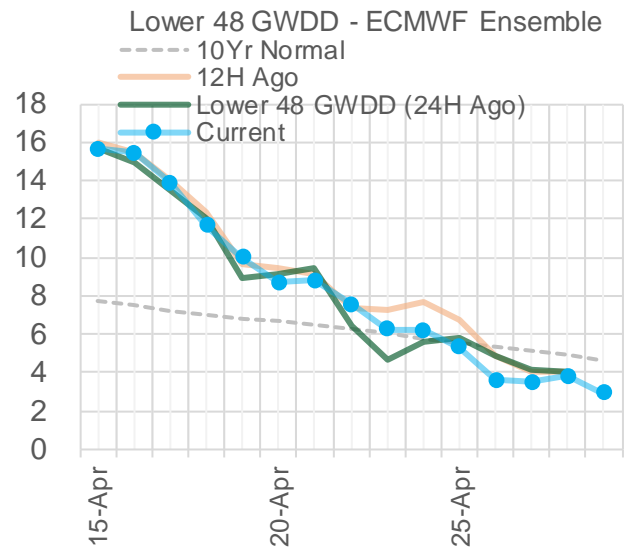
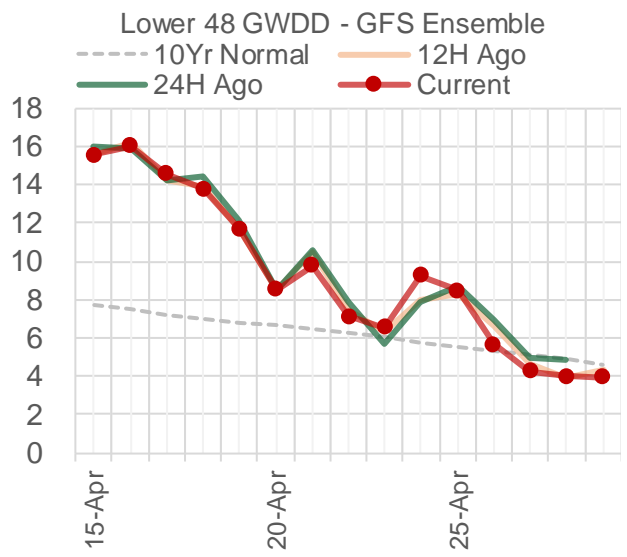
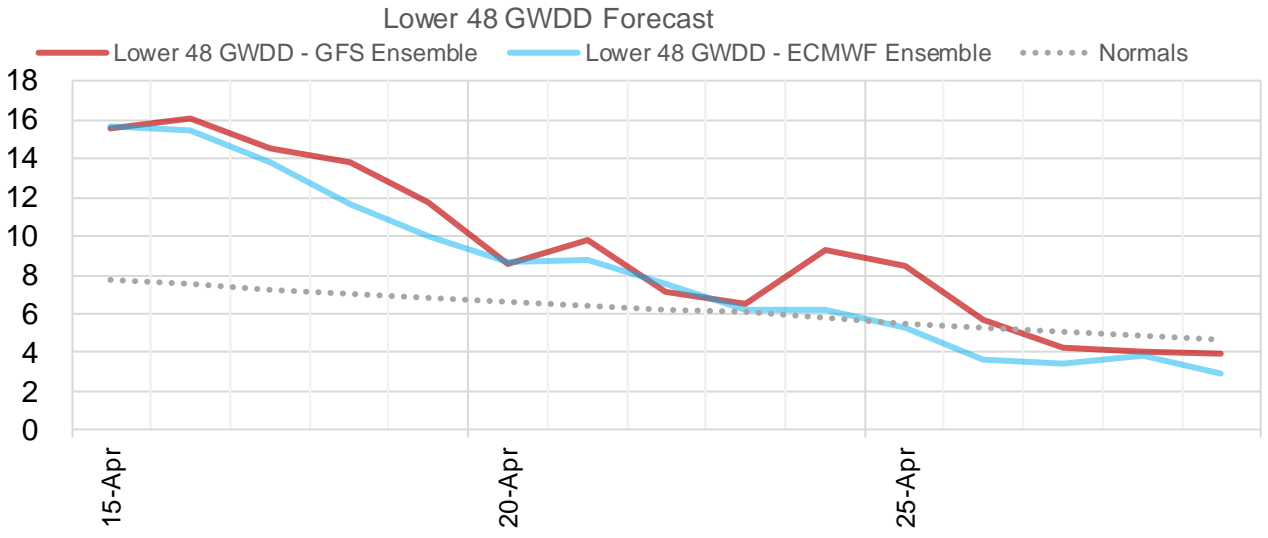
	Current	Δ from YD	Δ from 7D Avg
US ResComm	30.7	1.04	6.94

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.8	-0.18	0.75

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	8.7	0.30	0.39

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.0	-0.11	0.20

Short-term Weather Model Outlooks (00z)



Source: WSI , Bloomberg

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Lower 48 Component Models

Daily Balances

	9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	DoD	vs. 7D
Lower 48 Dry Production	91.4	91.5	91.7	91.5	91.7	90.7	90.3	▼ -0.4	▼ -1.1
Canadian Imports	4.3	3.8	3.8	3.8	4.0	5.0	4.8	▼ -0.2	▲ 0.7
L48 Power	28.2	24.9	22.9	23.3	25.7	27.0	26.1	▼ -0.8	▲ 0.8
L48 Residential & Commercial	23.9	28.0	23.5	20.5	24.4	29.6	30.7	▲ 1.0	▲ 5.7
L48 Industrial	22.5	22.7	22.2	22.2	22.8	23.4	23.5	▲ 0.2	▲ 0.9
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.0	4.9	▼ -0.2	▼ -0.2
L48 Pipeline Distribution	2.3	2.4	2.1	2.1	2.3	2.5	2.5	▲ 0.0	▲ 0.2
L48 Regional Gas Consumption	82.0	83.1	75.9	73.1	80.3	87.5	87.7	▲ 0.2	▲ 7.4
Net LNG Exports	8.2	8.2	8.3	7.9	8.8	8.4	8.7	▲ 0.3	▲ 0.4
Total Mexican Exports	4.8	4.6	4.7	4.7	4.9	5.1	5.0	▼ -0.1	▲ 0.2
Implied Daily Storage Activity	0.6	-0.6	6.7	9.5	1.7	-5.3	-6.2		
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	91.6	91.3	92.2	91.9	92.1	91.5	▼ -0.6	▼ -0.3
Canadian Imports	4.5	3.8	4.1	4.5	3.8	3.7	▼ -0.1	▼ -0.4
L48 Power	27.9	27.3	29.2	28.6	26.3	26.8	▲ 0.5	▼ -1.1
L48 Residential & Commercial	34.5	28.7	30.0	29.4	24.2	20.9	▼ -3.3	▼ -7.1
L48 Industrial	24.0	23.3	23.2	23.1	22.4	22.1	▼ -0.3	▼ -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	94.2	86.7	90.1	88.7	80.3	77.1	▼ -3.2	▼ -9.4
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	-11.5	-5.2	-7.2	-7.2	0.8	5.0	4.1	
EIA Reported Daily Storage Activity	-6.9	-1.3	-4.1	-2.7	5.4			
Daily Model Error	-4.7	-3.9	-3.0	-4.5	-4.6			

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	80.3	88.6	93.6	92.5	91.6	91.8	91.4	▼ -0.4	▲ 2.8
Canadian Imports	5.6	4.6	4.5	4.8	5.3	4.1	4.0	▼ -0.1	▼ -0.6
L48 Power	23.5	24.1	28.8	29.9	29.9	27.9	25.9	▼ -2.1	▲ 1.8
L48 Residential & Commercial	24.3	17.5	38.9	41.8	41.5	28.7	23.6	▼ -5.1	▲ 6.1
L48 Industrial	22.3	21.9	24.9	25.3	25.0	23.1	22.4	▼ -0.6	▲ 0.6
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	▼ -0.2	▲ 0.4
L48 Regional Gas Consumption	76.5	70.3	100.8	105.0	104.5	87.3	79.3	▼ -8.1	▲ 9.0
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	5.0	▼ -0.6	▲ 0.2
Implied Daily Storage Activity	1.6	13.7	-15.4	-21.2	-21.3	-5.5	2.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

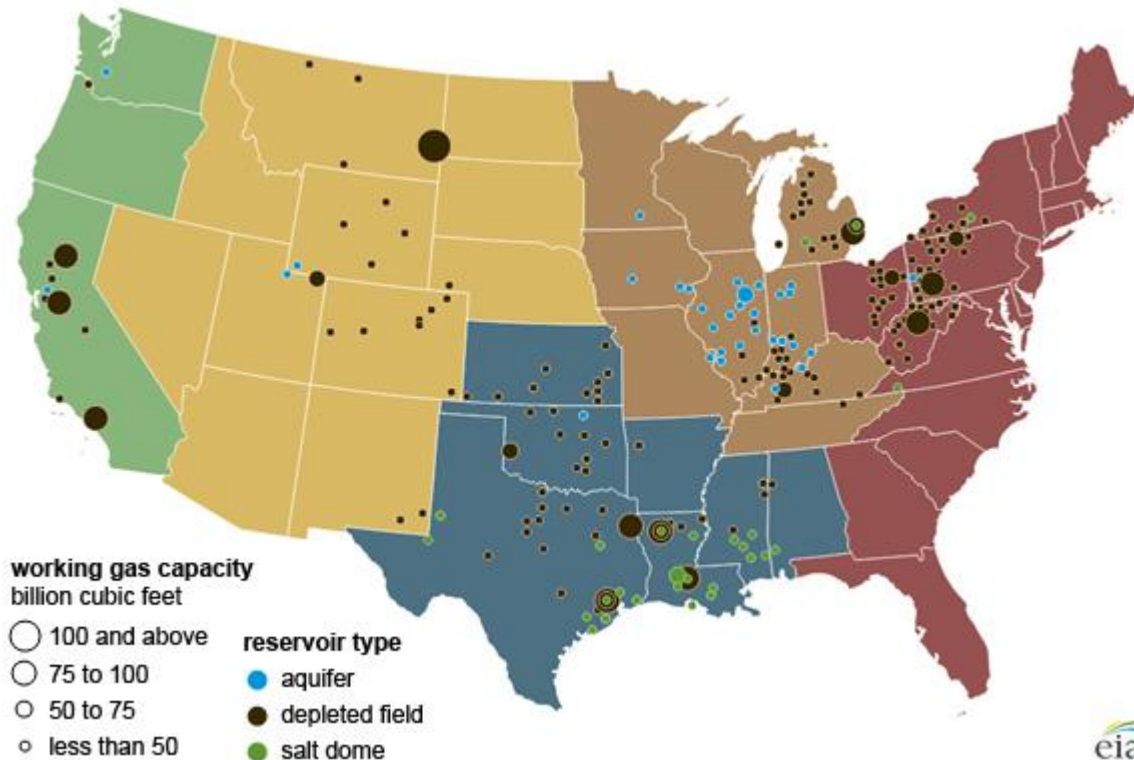
Regional S/D Models Storage Projection

Week Ending 10-Apr

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	4.7	4.6	9.0	63
East	-0.3	2.7	2.3	16.4
Midwest	0.2	1.3	1.4	10.1
Mountain	1.9	-1.9	-0.3	-2.0
South Central	3.0	2.3	5.3	37.2
Pacific	0.0	0.2	0.2	1.2

*Adjustment Factor is calculated based on historical regional deltas

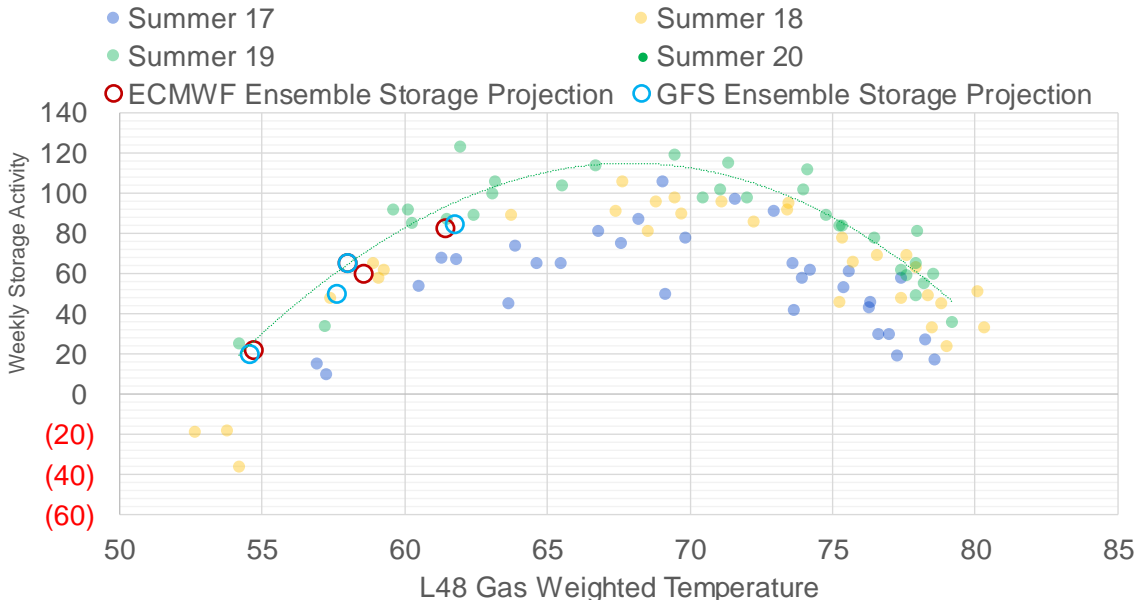
U.S. underground natural gas storage facilities by type (July 2015)



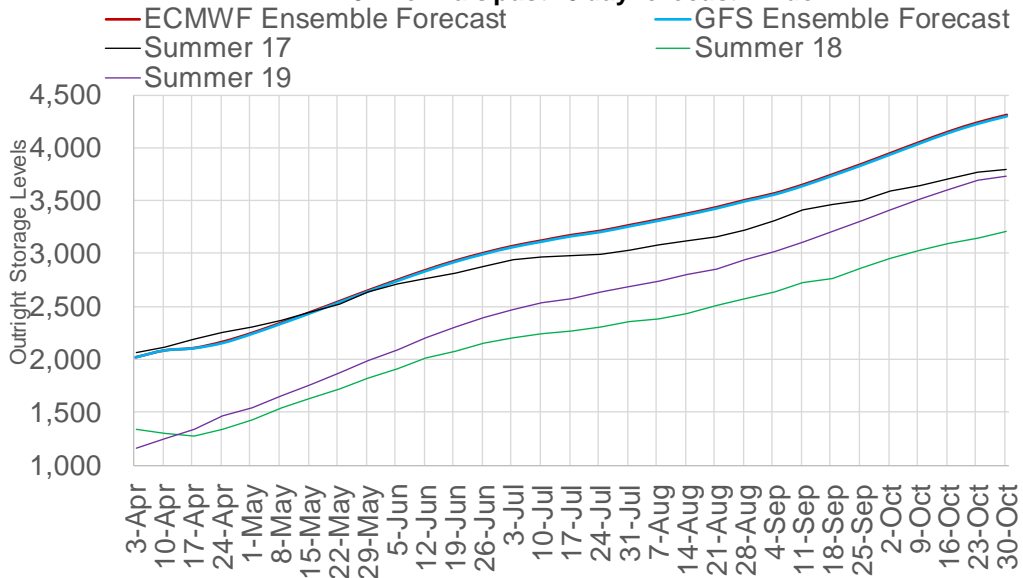
Weather Model Storage Projection

Week Ending	ECMWF Forecast	ECMWF Ensemble Storage Projection	GFS Forecast	GFS Ensemble Storage Projection
10-Apr	58.0	65	58.0	65
17-Apr	54.7	22	54.6	20
24-Apr	58.6	60	57.6	50
1-May	61.4	83	61.8	85

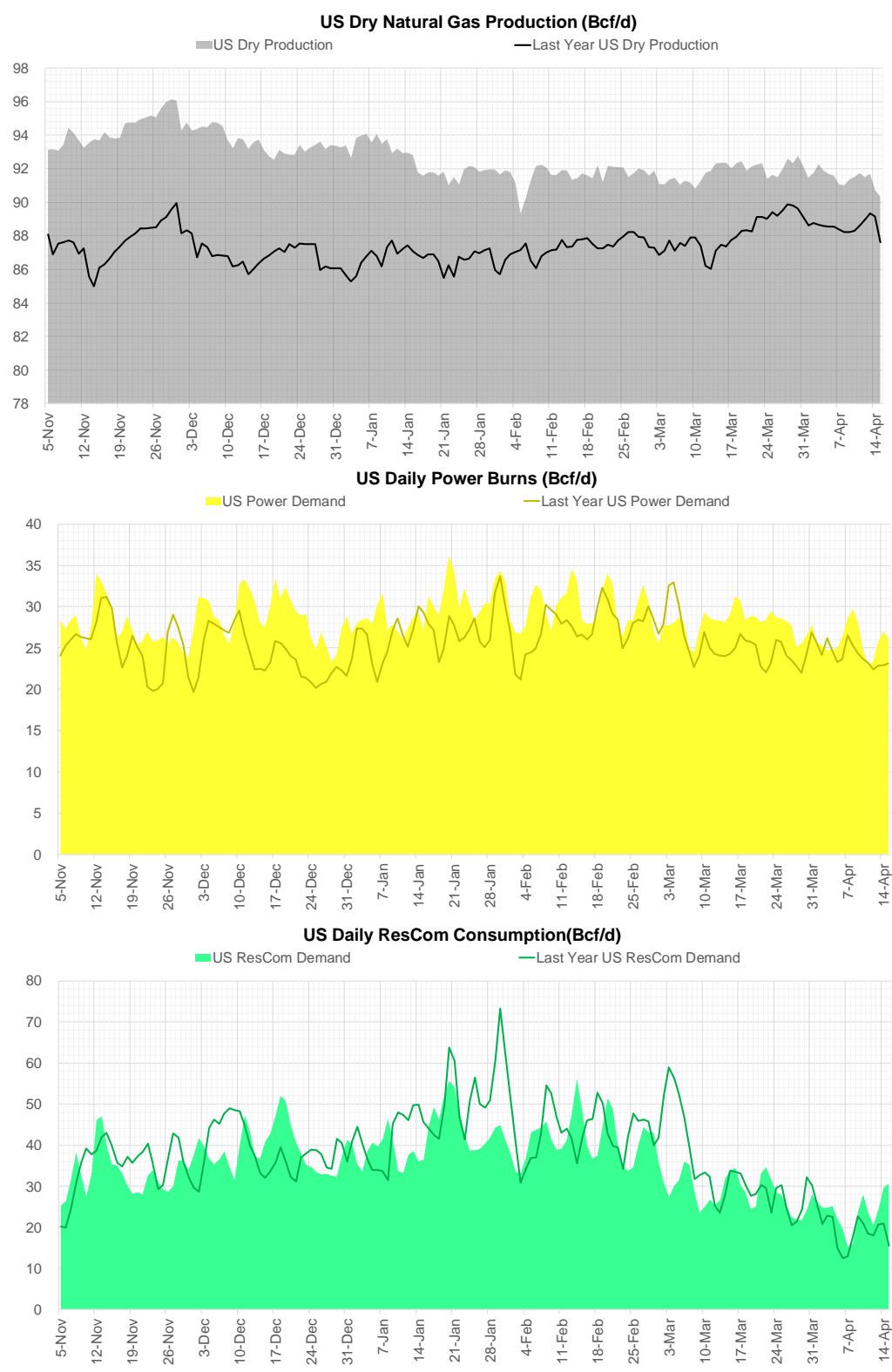
Weather Storage Model - Next 4 Week Forecast



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



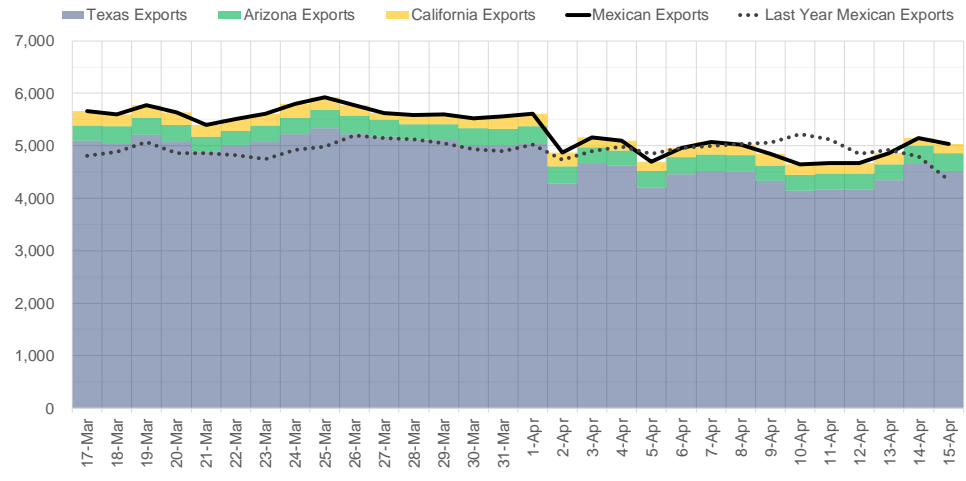
Supply – Demand Trends



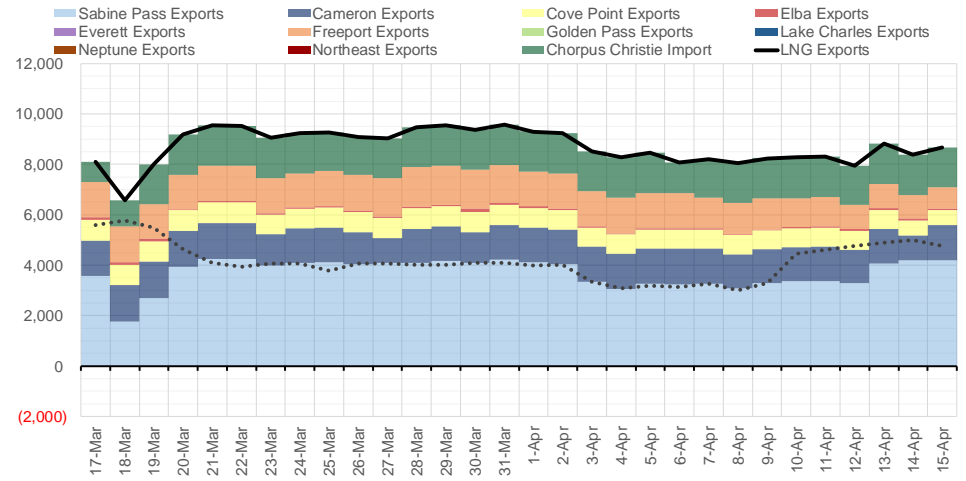
Source: Bloomberg

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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

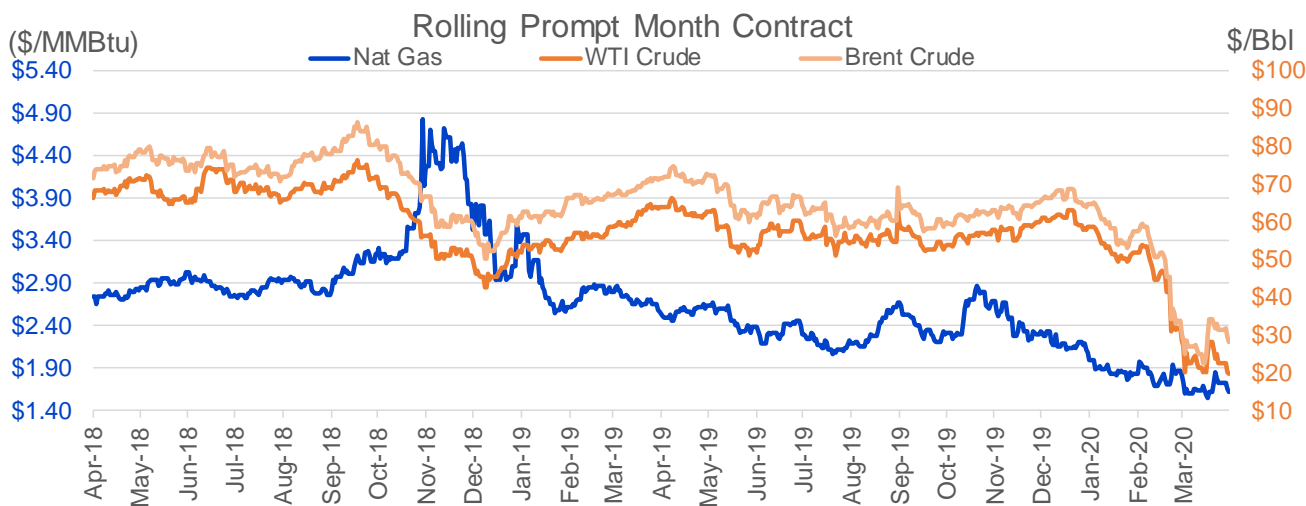
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
5	2020	P	1.50	8346	5	2020	P	1.50	56335
5	2020	P	1.60	8095	5	2020	P	1.60	48113
6	2020	P	1.25	6185	5	2020	P	1.75	42917
5	2020	C	2.00	6092	6	2020	P	1.25	42700
5	2020	P	1.25	5644	10	2020	P	1.50	42388
6	2020	P	1.50	4463	10	2020	P	1.60	37825
5	2020	P	1.45	3612	5	2020	C	2.00	37462
6	2020	P	1.75	2906	6	2020	P	1.50	34906
5	2020	P	1.40	2548	5	2020	P	1.40	34392
5	2020	P	1.65	2380	3	2021	P	2.00	33803
6	2020	C	2.00	2084	6	2020	P	1.75	28893
5	2020	C	1.70	1850	10	2020	C	3.00	27247
5	2020	C	1.80	1849	5	2020	P	1.25	27196
5	2020	P	1.30	1831	5	2020	C	2.25	26080
7	2020	P	1.25	1779	5	2020	P	1.70	25544
5	2020	C	1.75	1699	6	2020	C	2.50	25180
4	2021	C	3.00	1600	7	2020	P	1.50	25026
10	2020	C	2.25	1460	6	2020	C	2.00	24980
5	2020	P	1.70	1412	5	2020	P	1.00	24886
5	2020	P	1.55	1370	6	2020	P	2.00	24110
6	2020	C	3.00	1367	5	2020	C	2.15	24054
6	2020	P	1.35	1239	7	2020	P	1.25	23293
5	2020	P	1.75	1212	7	2020	C	3.00	23072
10	2020	P	2.00	1200	5	2020	C	2.50	22518
6	2020	C	2.15	1126	7	2020	C	2.50	20921
5	2020	C	1.85	1125	5	2020	C	2.75	20761
7	2020	P	1.50	1108	5	2020	C	3.00	20382
10	2020	C	2.40	1100	10	2020	C	2.75	20336
7	2020	P	1.00	1000	7	2020	P	2.00	20293
10	2020	C	2.75	950	9	2020	P	1.50	20144
7	2020	P	2.00	942	8	2020	P	1.50	20107
6	2020	C	2.25	920	5	2020	P	2.00	20087
6	2020	C	1.75	859	9	2020	C	2.50	19887
4	2022	C	3.00	850	10	2020	P	2.00	19822
5	2022	C	3.00	850	5	2020	P	1.80	19784
6	2022	C	3.00	850	7	2020	C	2.75	19667
7	2022	C	3.00	850	1	2021	C	3.00	19000
8	2022	C	3.00	850	7	2020	P	1.75	17695
9	2022	C	3.00	850	10	2020	P	1.25	17692
10	2022	C	3.00	850	8	2020	C	3.00	17391
7	2020	P	1.70	824	10	2020	C	2.50	17054
6	2020	C	2.20	813	7	2020	C	2.25	16948
6	2020	P	1.00	776	9	2020	C	3.00	16922
6	2020	C	1.90	758	6	2020	P	1.60	16378
6	2020	C	1.80	737	6	2020	C	2.25	16330
6	2020	P	1.60	727	6	2020	P	1.70	15763
7	2020	P	1.55	726	5	2020	P	1.30	15567
5	2020	C	2.05	721	5	2020	P	1.65	15485
7	2020	C	2.20	702	5	2020	P	1.45	15436
					3	2021	C	3	15218

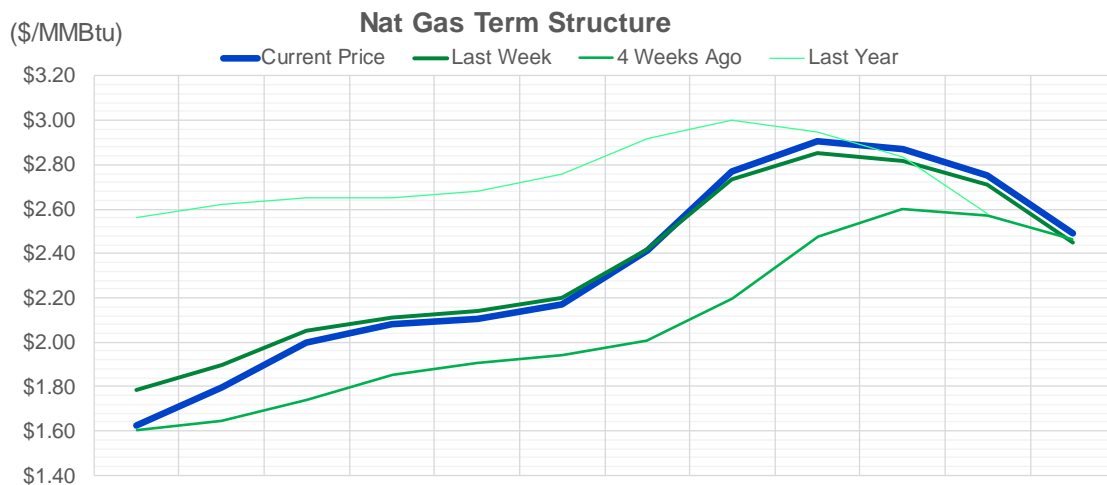
Source: CME, Nasdaq, ICE

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	161505	188698	-27193	MAY 20	87017	89885	-2868.5	MAY 20	551	551	0
JUN 20	201749	184135	17614	JUN 20	72328	69738	2589.25	JUN 20	81	81	0
JUL 20	157990	147233	10757	JUL 20	71312	69784	1527.5	JUL 20	80	80	0
AUG 20	57903	55832	2071	AUG 20	58766	58376	390	AUG 20	280	280	0
SEP 20	103024	102342	682	SEP 20	60430	60367	63.5	SEP 20	81	81	0
OCT 20	97640	98014	-374	OCT 20	72009	71599	410	OCT 20	760	760	0
NOV 20	32099	31725	374	NOV 20	51239	50924	315	NOV 20	641	641	0
DEC 20	41906	41161	745	DEC 20	55219	55158	60.75	DEC 20	142	142	0
JAN 21	76044	75814	230	JAN 21	63772	63181	590.5	JAN 21	151	151	0
FEB 21	32517	32704	-187	FEB 21	39812	39727	85	FEB 21	25	25	0
MAR 21	51723	50308	1415	MAR 21	48263	47837	426.5	MAR 21	1101	1101	0
APR 21	61788	61053	735	APR 21	47289	47086	203.5	APR 21	775	775	0
MAY 21	18769	18462	307	MAY 21	37392	37272	120.5	MAY 21	41	41	0
JUN 21	13288	12795	493	JUN 21	35329	35197	132	JUN 21	40	40	0
JUL 21	9107	9024	83	JUL 21	37920	37476	443.5	JUL 21	41	41	0
AUG 21	8268	8320	-52	AUG 21	38328	37865	463	AUG 21	41	41	0
SEP 21	9989	9759	230	SEP 21	35010	34558	452.25	SEP 21	40	40	0
OCT 21	19480	19186	294	OCT 21	41083	40851	232.25	OCT 21	560	560	0
NOV 21	12026	11956	70	NOV 21	31481	31472	9	NOV 21	430	430	0
DEC 21	9677	8458	1219	DEC 21	32578	32423	155.5	DEC 21	30	30	0
JAN 22	8152	7050	1102	JAN 22	24496	24477	19.75	JAN 22	36	36	0
FEB 22	4366	3872	494	FEB 22	22206	22018	188	FEB 22	33	33	0
MAR 22	8808	8963	-155	MAR 22	23378	23352	25.75	MAR 22	900	900	0
APR 22	9051	9012	39	APR 22	20319	20279	39.75	APR 22	1035	1035	0
MAY 22	3580	3708	-128	MAY 22	19202	19196	6.25	MAY 22	36	36	0
JUN 22	1408	1373	35	JUN 22	18759	18761	-2.25	JUN 22	35	35	0
JUL 22	1424	1389	35	JUL 22	19263	19282	-18.25	JUL 22	36	36	0
AUG 22	1059	1024	35	AUG 22	18862	18871	-9.25	AUG 22	36	36	0
SEP 22	1124	1089	35	SEP 22	18773	18775	-2	SEP 22	35	35	0
OCT 22	1602	1567	35	OCT 22	19921	20012	-91.25	OCT 22	479	479	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	\$1.625	\$1.797	\$1.996	\$2.080	\$2.107	\$2.168	\$2.412	\$2.768	\$2.905	\$2.871	\$2.751	\$2.493
Last Week	\$1.783	\$1.896	\$2.052	\$2.110	\$2.139	\$2.200	\$2.417	\$2.733	\$2.853	\$2.815	\$2.709	\$2.449
vs. Last Week	-\$0.158	-\$0.099	-\$0.056	-\$0.030	-\$0.032	-\$0.032	-\$0.005	\$0.035	\$0.052	\$0.056	\$0.042	\$0.044
4 Weeks Ago	\$1.604	\$1.647	\$1.740	\$1.854	\$1.907	\$1.940	\$2.005	\$2.196	\$2.475	\$2.598	\$2.568	\$2.466
vs. 4 Weeks Ago	\$0.021	\$0.150	\$0.256	\$0.226	\$0.200	\$0.228	\$0.407	\$0.572	\$0.430	\$0.273	\$0.183	\$0.027
Last Year	\$2.517	\$2.559	\$2.623	\$2.652	\$2.649	\$2.679	\$2.757	\$2.917	\$2.999	\$2.949	\$2.835	\$2.581
vs. Last Year	-\$0.892	-\$0.762	-\$0.627	-\$0.572	-\$0.542	-\$0.511	-\$0.345	-\$0.149	-\$0.094	-\$0.078	-\$0.084	-\$0.088

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.75	1.59	-0.16
TETCO M3	\$/MMBtu	1.49	1.48	-0.01
FGT Zone 3	\$/MMBtu	1.52	1.78	0.26
Zone 6 NY	\$/MMBtu	1.52	1.45	-0.07
Chicago Citygate	\$/MMBtu	1.78	1.61	-0.17
Michcon	\$/MMBtu	1.73	1.63	-0.10
Columbia TCO Pool	\$/MMBtu	1.62	1.49	-0.13
Ventura	\$/MMBtu	1.71	1.54	-0.18
Rockies/Opal	\$/MMBtu	1.57	1.30	-0.27
El Paso Permian Basin	\$/MMBtu	0.25	0.74	0.49
Socal Citygate	\$/MMBtu	1.82	1.27	-0.55
Malin	\$/MMBtu	1.57	1.41	-0.16
Houston Ship Channel	\$/MMBtu	1.77	1.74	-0.03
Henry Hub Cash	\$/MMBtu	1.86	1.59	-0.27
AECO Cash	C\$/GJ	1.49	1.27	-0.22
Station2 Cash	C\$/GJ	1.48	1.30	-0.18
Dawn Cash	C\$/GJ	1.72	1.63	-0.09

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.52	▲ 0.000	▼ -0.181	▼ -0.083
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.181	▼ -0.077
NatGas Oct/Nov	\$/MMBtu	0.23	▲ 0.000	▲ 0.083	▲ 0.190
NatGas Oct/Jan	\$/MMBtu	0.72	▲ 0.061	▲ 0.193	▲ 0.412
WTI Crude	\$/Bbl	22.41	▼ -3.670	▼ -6.290	▼ -40.990
Brent Crude	\$/Bbl	31.74	▼ -1.310	▲ 1.690	▼ -39.440
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	99.46	▼ -5.110	▼ -5.200	▼ -106.640
Propane, Mt. Bel	cents/Gallon	0.33	▲ 0.043	▲ 0.010	▼ -0.317
Ethane, Mt. Bel	cents/Gallon	0.11	▲ 0.007	▼ -0.025	▼ -0.115
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.200
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -12.000