

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.79	▲ \$ 0.01	▼ \$ (0.02)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 36.32	▲ \$ 0.88	▲ \$ 1.6

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 39.30	▲ \$ 0.98	▲ \$ 3.5

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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	4.2	-0.9	0.6	3.9
24 Hr Chg	2.7	-0.9	-3.1	-1.3

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	1.1	2.5	-6.5	-2.9
24 Hr Chg	0.5	4.9	-5.3	0.1

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	83.2	▼ -0.78	▼ -1.23

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	30.9	▲ 0.49	▼ -0.17

	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.7	▼ -2.06	▼ -0.74

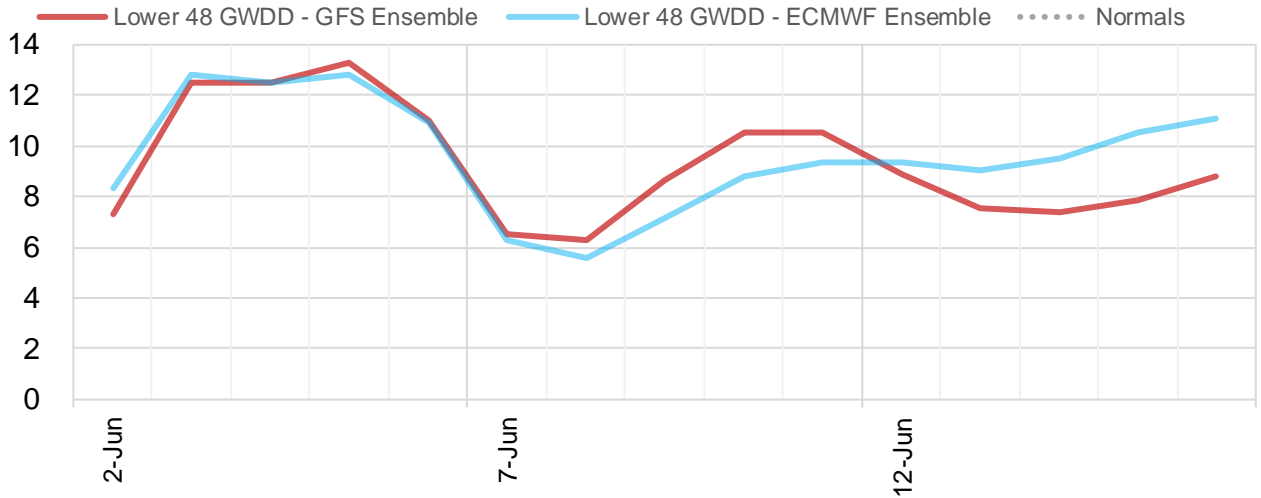
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.9	▼ -0.05	▼ -0.36

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	3.4	▼ -0.20	▼ -2.49

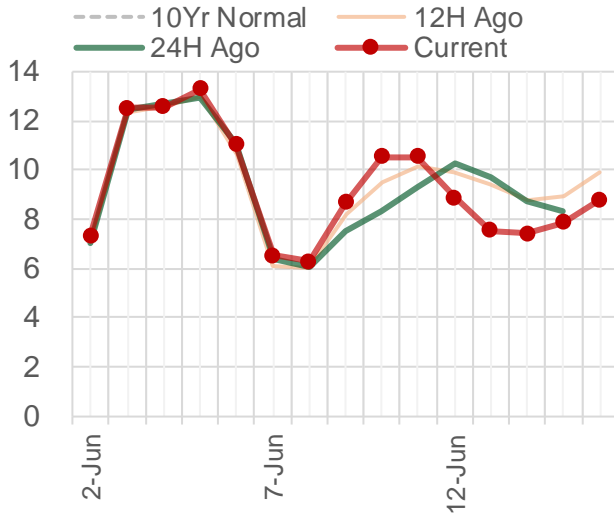
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.4	▼ -0.03	▲ 0.27

Short-term Weather Model Outlooks (00z)

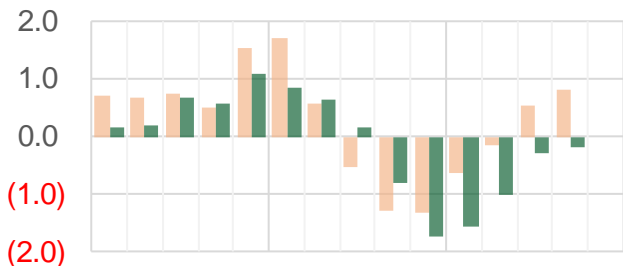
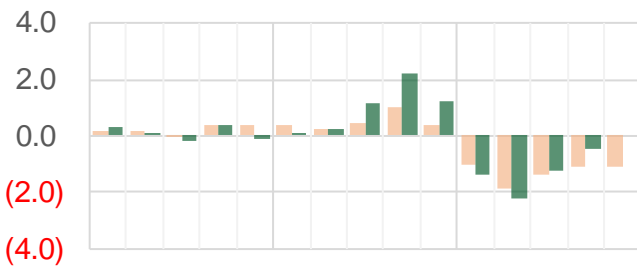
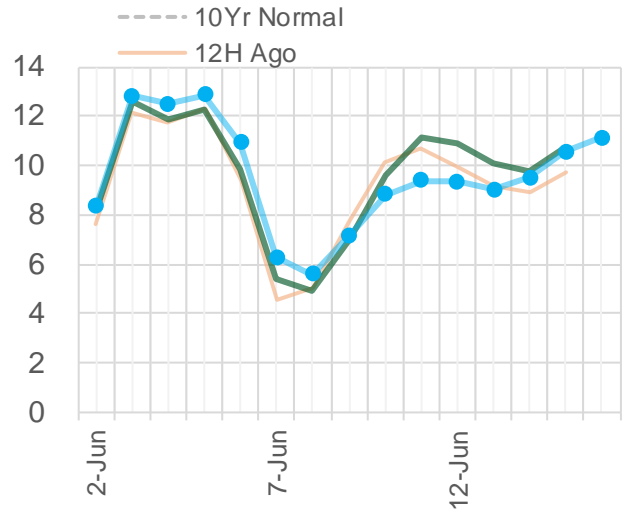
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	27-May	28-May	29-May	30-May	31-May	1-Jun	2-Jun	DoD	vs. 7D
Lower 48 Dry Production	84.0	83.9	84.8	85.0	84.9	84.0	83.2	▼ -0.8	▼ -1.3
Canadian Imports	4.8	4.8	4.2	4.0	4.0	3.9	3.9	▼ -0.1	▼ -0.4
L48 Power	33.1	33.0	31.7	29.1	27.8	30.5	30.9	▲ 0.5	▲ 0.1
L48 Residential & Commercial	7.9	7.7	7.5	8.2	10.0	9.8	7.7	▼ -2.1	▼ -0.8
L48 Industrial	18.7	19.0	19.0	19.1	19.4	19.3	19.1	▼ -0.1	▲ 0.1
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.8	4.7	4.7	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.0	2.0	1.9	1.8	1.9	1.9	1.9	▼ -0.1	▼ -0.1
L48 Regional Gas Consumption	66.3	66.5	65.0	63.1	63.9	66.2	64.3	▼ -1.8	▼ -0.8
Net LNG Exports	6.3	6.4	6.1	6.0	6.1	3.6	3.4	▼ -0.2	▼ -2.4
Total Mexican Exports	5.0	5.2	5.5	5.1	4.8	5.4	5.4	▼ 0.0	▲ 0.2
Implied Daily Storage Activity	11.2	10.6	12.5	14.7	14.2	12.8	14.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	24-Apr	1-May	8-May	15-May	22-May	29-May	WoW	vs. 4W
Lower 48 Dry Production	91.1	89.9	87.0	86.5	83.9	83.9	▼ 0.0	▼ -2.9
Canadian Imports	3.9	3.4	3.6	4.0	4.1	4.1	▲ 0.0	▲ 0.3
L48 Power	25.3	24.8	24.6	25.0	26.7	30.0	▲ 3.3	▲ 4.8
L48 Residential & Commercial	22.4	16.8	14.5	19.3	10.8	8.2	▼ -2.6	▼ -7.2
L48 Industrial	18.7	18.4	18.7	17.3	18.8	18.5	▼ -0.4	▲ 0.2
L48 Lease and Plant Fuel	5.1	5.1	4.9	4.8	4.7	4.7	▲ 0.0	▼ -0.2
L48 Pipeline Distribution	2.3	2.0	1.9	2.2	1.9	1.9	▲ 0.0	▼ -0.1
L48 Regional Gas Consumption	73.9	67.0	64.6	68.6	62.8	63.2	▲ 0.4	▼ -2.5
Net LNG Exports	8.1	7.5	7.7	6.9	6.3	6.1	▼ -0.2	▼ -1.0
Total Mexican Exports	5.0	4.8	4.7	4.7	5.2	5.0	▼ -0.2	▲ 0.1
Implied Daily Storage Activity	8.0	13.9	13.5	10.3	13.7	13.7	0.0	
EIA Reported Daily Storage Activity	10.0	15.6	14.7	11.6	15.6			
Daily Model Error	-2.0	-1.6	-1.2	-1.3	-1.8			

Monthly Balances

	2Yr Ago Jun-18	LY Jun-19	Jan-20	Feb-20	Mar-20	Apr-20	MTD May-20	MoM	vs. LY
Lower 48 Dry Production	81.6	89.6	92.6	91.8	92.2	91.2	86.9	▼ -4.3	▼ -2.6
Canadian Imports	5.6	4.7	4.8	5.3	4.1	3.9	3.1	▼ -0.8	▼ -1.6
L48 Power	31.8	33.0	29.9	30.1	28.3	25.7	22.8	▼ -2.9	▼ -10.1
L48 Residential & Commercial	8.6	9.0	41.2	40.4	27.7	21.6	11.7	▼ -9.8	▲ 2.7
L48 Industrial	21.3	21.4	24.5	24.6	21.6	18.8	18.5	▼ -0.4	▼ -2.9
L48 Lease and Plant Fuel	4.5	5.0	5.3	5.2	5.2	5.2	4.9	▼ -0.3	▼ -0.2
L48 Pipeline Distribution	1.9	2.0	3.0	3.0	2.5	2.3	1.7	▼ -0.6	▼ -0.3
L48 Regional Gas Consumption	68.2	70.4	104.0	103.3	85.4	73.5	59.6	▼ -14.0	▼ -10.8
Net LNG Exports	3.2	5.5	8.3	8.5	8.5	8.2	8.0	▼ -0.2	▲ 2.5
Total Mexican Exports	4.5	5.3	5.2	5.3	5.6	4.9	4.4	▼ -0.5	▼ -0.9
Implied Daily Storage Activity	11.3	13.1	-20.1	-20.0	-3.1	8.4	18.1		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

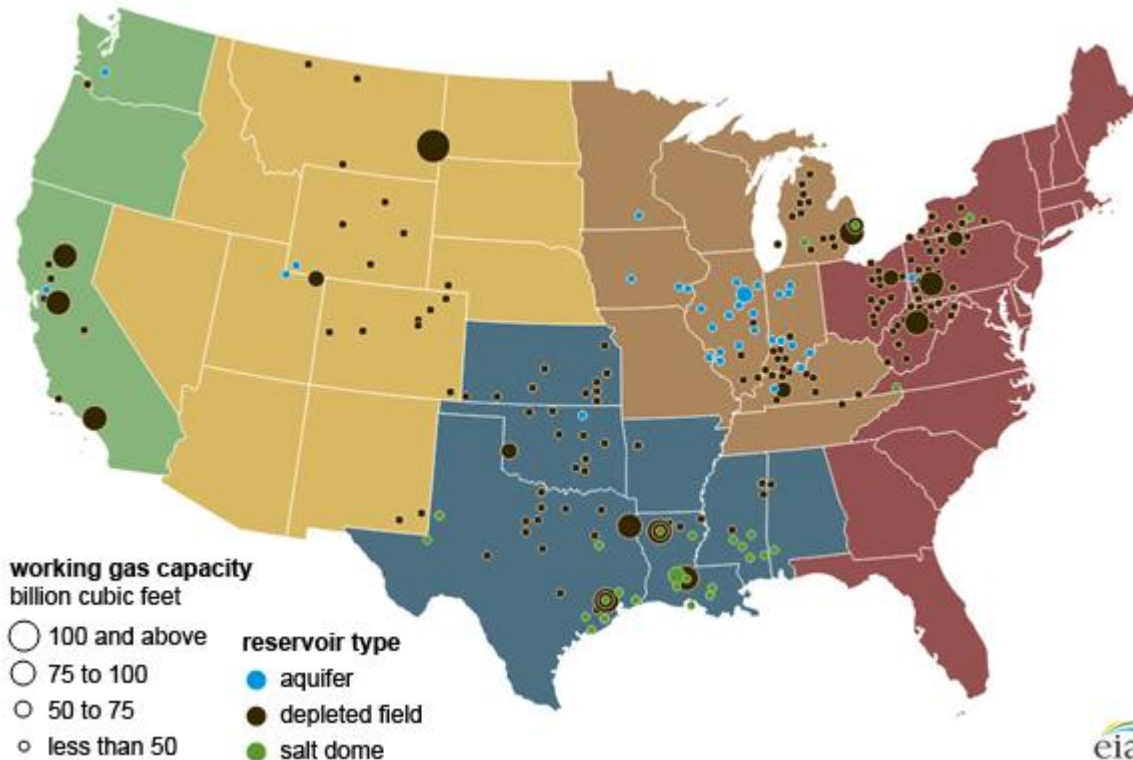
Regional S/D Models Storage Projection

Week Ending 29-May

	Daily Raw Storage	Daily Adjustment Factor	Daily Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	13.5	1.8	15.3	107
East	3.0	2.8	5.8	41
Midwest	3.8	0.7	4.5	31
Mountain	3.3	-2.0	1.3	9
South Central	1.8	0.9	2.7	19
Pacific	1.7	-0.7	1.0	7

*Adjustment Factor is calculated based on historical regional deltas

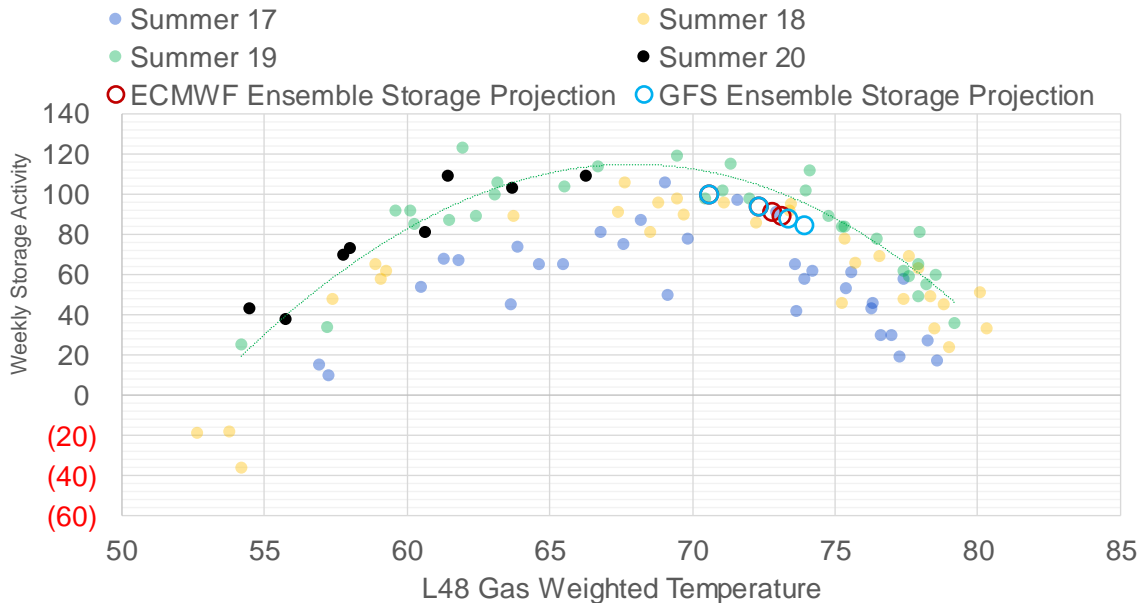
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

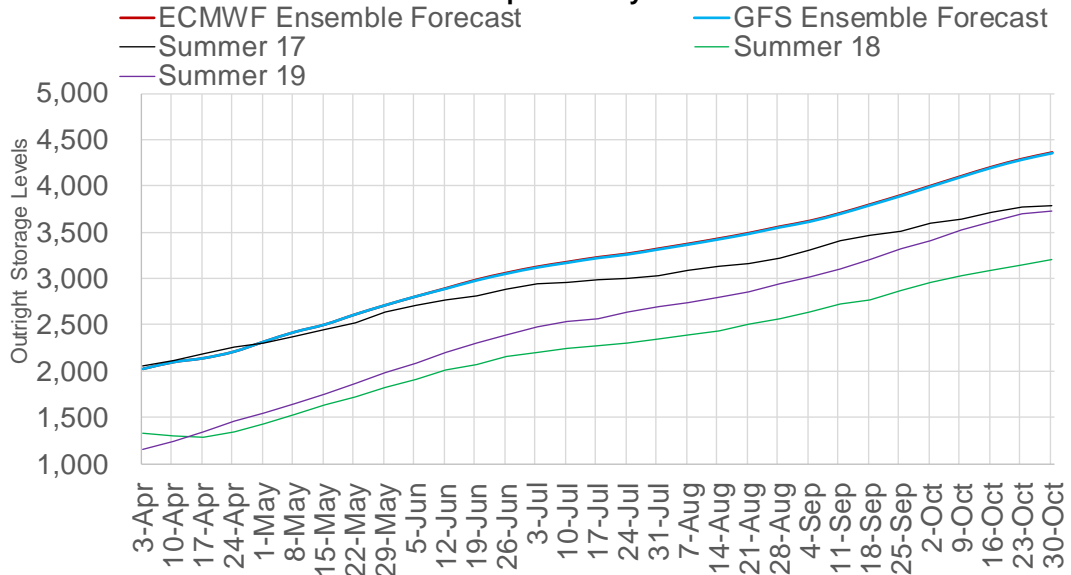
Week Ending	Week Storage Projection
29-May	100
5-Jun	94
12-Jun	87
19-Jun	90

Weather Storage Model - Next 4 Week Forecast



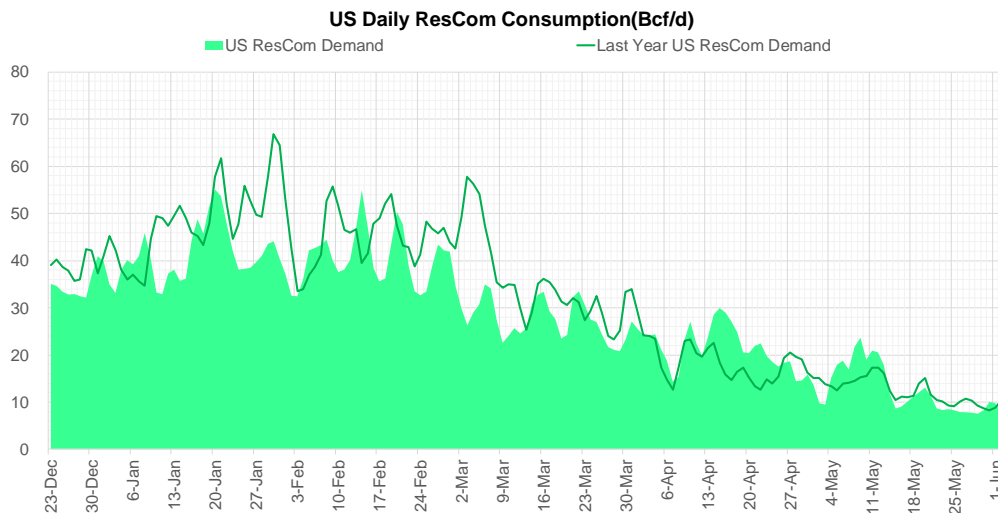
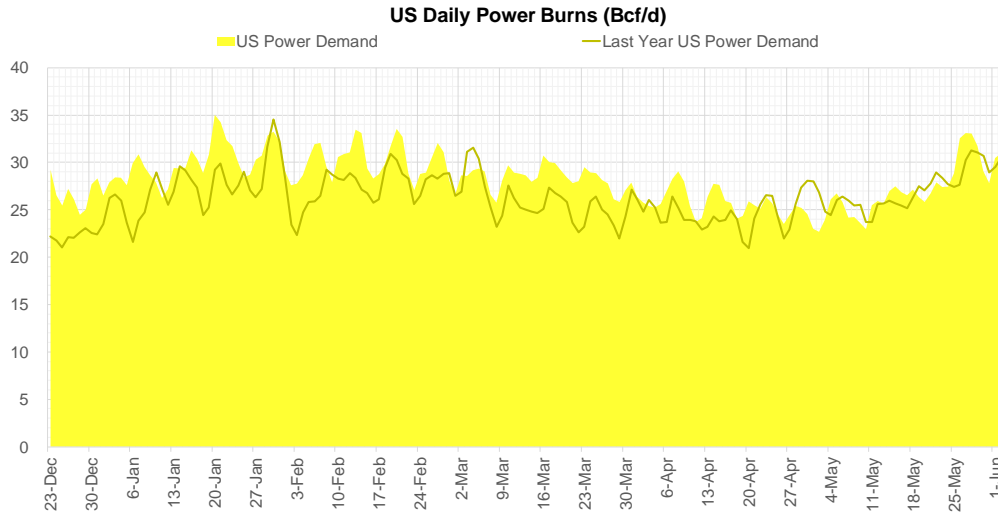
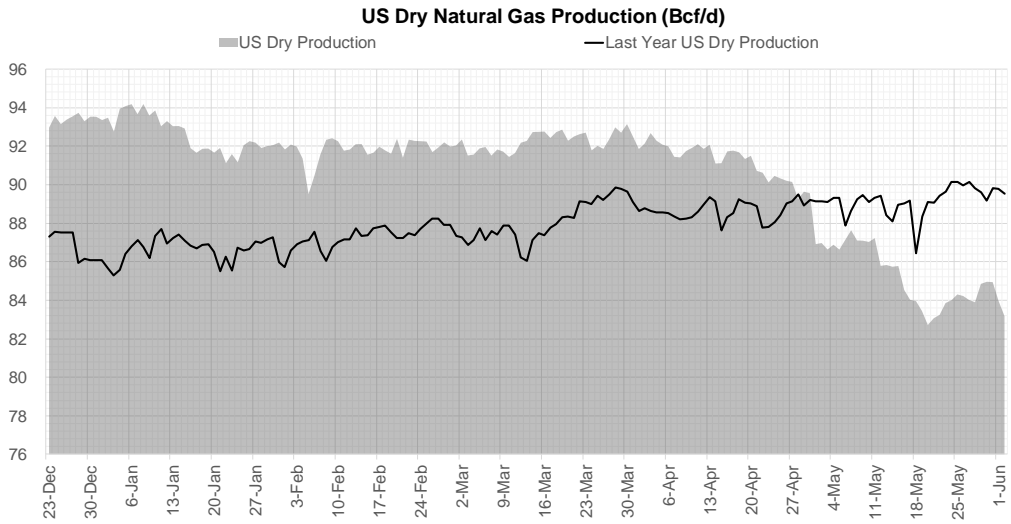
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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.

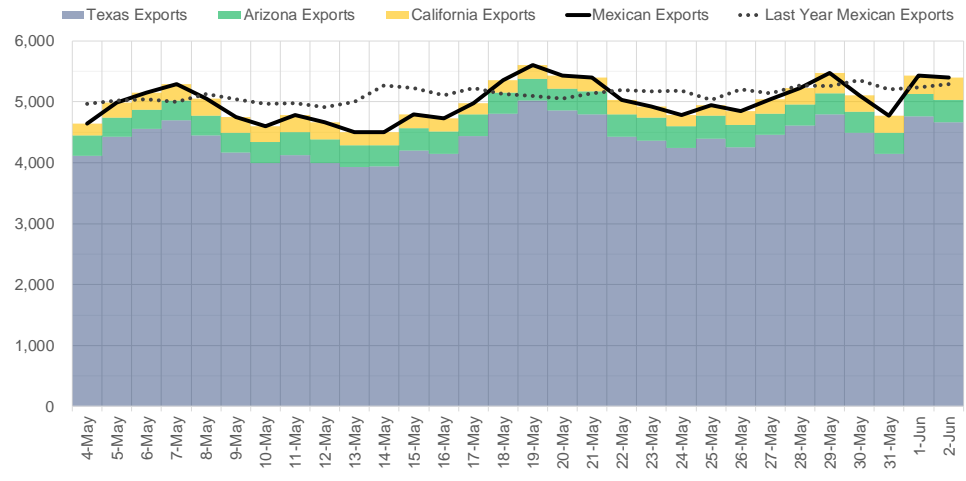
Supply – Demand Trends



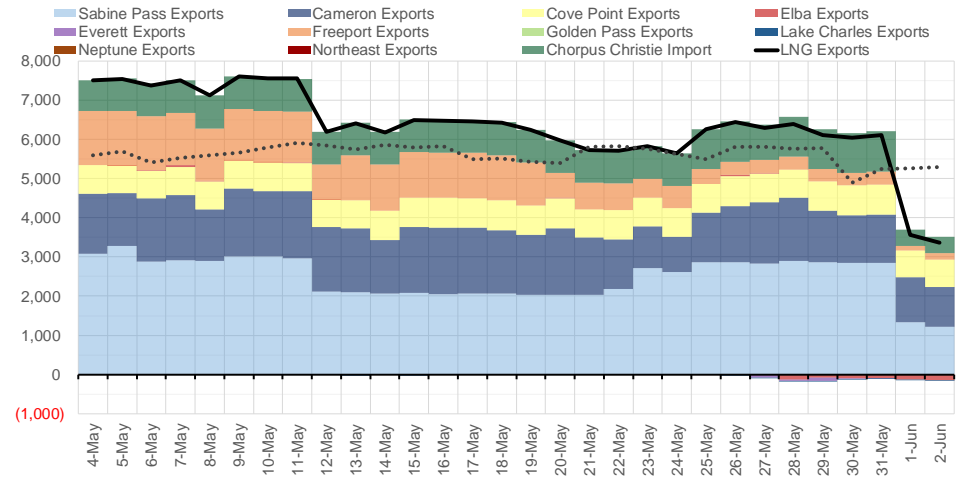
Source: Bloomberg

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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

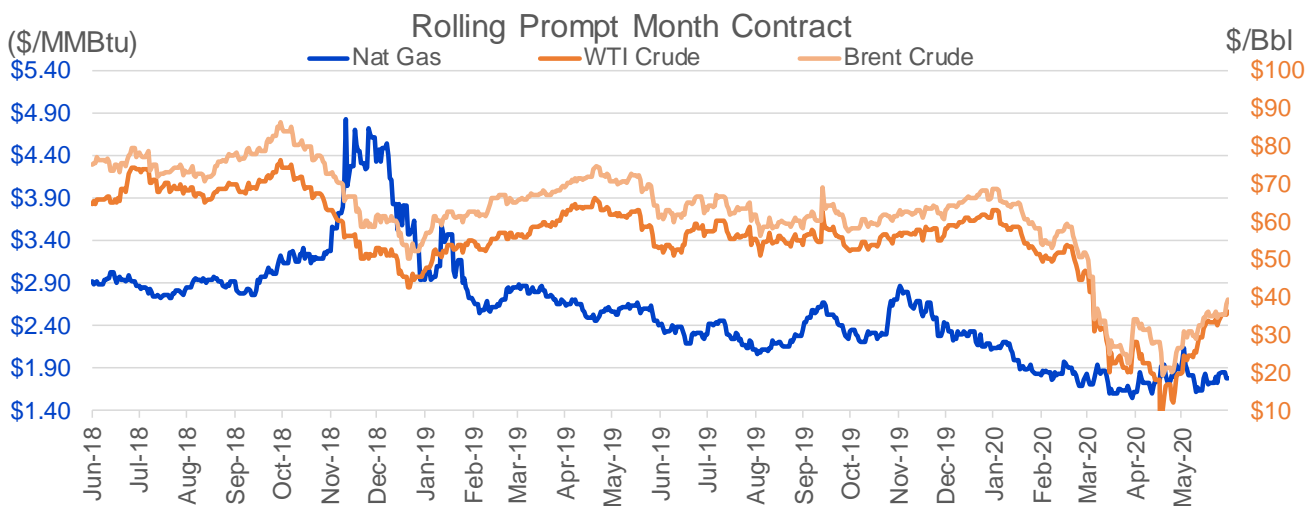
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
7	2020	P	1.50	5935	10	2020	P	1.50	35300
9	2020	P	1.00	3850	10	2020	C	3.00	33331
7	2020	P	1.60	1908	3	2021	P	2.00	32743
10	2020	C	2.40	1750	7	2020	P	1.50	31640
9	2020	P	0.50	1700	7	2020	P	1.75	31336
7	2020	C	2.00	1636	10	2020	P	1.60	30582
7	2020	C	2.50	1617	10	2020	C	2.75	30072
10	2020	C	2.10	1500	10	2020	P	2.00	27401
7	2020	P	1.40	1336	9	2020	C	2.50	25320
7	2020	P	1.75	1308	10	2020	C	2.50	25180
7	2020	C	1.90	1177	7	2020	C	2.50	24225
3	2021	P	2.00	996	10	2020	P	1.25	21956
9	2020	C	2.75	869	9	2020	P	1.50	21735
8	2020	C	2.75	818	8	2020	P	1.50	21497
8	2020	P	1.70	801	9	2020	C	2.75	21116
9	2020	P	0.75	750	8	2020	C	2.50	20500
8	2020	C	2.50	733	7	2020	P	2.00	20233
7	2020	C	2.25	724	7	2020	C	2.25	20175
7	2020	P	1.55	677	10	2020	P	1.75	20149
10	2020	P	2.00	650	7	2020	C	3.00	19520
8	2020	P	1.50	616	1	2021	C	3.50	17985
7	2020	C	2.35	606	10	2020	P	2.10	17913
10	2020	P	1.90	530	11	2020	C	4.00	17864
8	2020	C	2.20	527	7	2020	C	2.30	17762
8	2020	P	1.25	522	7	2020	C	2.00	17649
10	2020	P	2.10	508	1	2021	C	3.00	17548
9	2020	P	1.25	502	10	2020	C	2.25	17184
10	2020	C	2.25	496	7	2020	P	1.60	16815
7	2020	P	1.70	495	10	2020	C	3.25	16647
7	2020	C	1.95	477	7	2020	P	2.75	16485
9	2020	P	1.75	450	7	2020	P	1.25	16433
8	2020	C	2.10	440	9	2020	P	1.75	15951
1	2021	C	3.75	422	3	2021	C	3.00	15107
1	2021	C	4.50	422	9	2020	C	2.25	15045
9	2020	C	2.40	400	8	2020	C	2.75	14841
10	2020	C	2.75	400	4	2021	C	3.00	14664
9	2020	C	2.25	398	10	2020	P	1.00	14579
7	2020	C	2.75	373	7	2020	P	1.00	14526
7	2020	P	1.65	360	8	2020	P	1.00	14264
8	2020	C	2.35	358	7	2020	C	2.35	13992
10	2020	C	2.50	351	8	2020	P	1.25	13918
7	2020	P	1.25	309	8	2020	C	3.00	13901
7	2020	C	2.40	308	9	2020	P	2.00	13699
8	2020	C	3.00	300	8	2020	C	2.25	13277
10	2020	C	2.80	300	9	2020	C	3.00	13247
10	2020	P	1.00	300	3	2021	C	7.00	12881
7	2020	C	2.10	277	9	2020	P	1.20	12801
7	2020	C	2.60	256	8	2020	P	1.20	12747
9	2020	C	2.00	251	3	2021	C	3.50	12585
					1	2021	P	2.5	12551

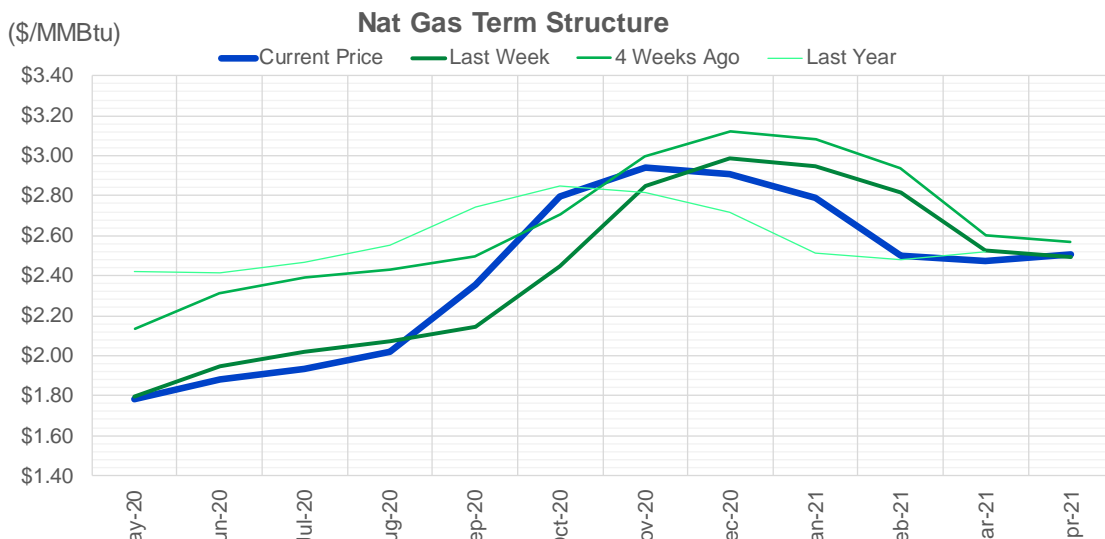
Source: CME, Nasdaq, ICE

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
JUL 20	364886	369232	-4346	JUL 20	87149	89618	-2469.25	JUL 20			
AUG 20	81818	83527	-1709	AUG 20	69946	67323	2623	AUG 20			
SEP 20	153635	151733	1902	SEP 20	66485	66143	341.25	SEP 20			
OCT 20	115826	113526	2300	OCT 20	79258	79290	-32.25	OCT 20			
NOV 20	48093	47543	550	NOV 20	60300	60139	160.5	NOV 20			
DEC 20	57560	57920	-360	DEC 20	57960	57785	175.5	DEC 20			
JAN 21	104528	102956	1572	JAN 21	71179	70994	185	JAN 21			
FEB 21	37199	36328	871	FEB 21	44132	44012	119.5	FEB 21			
MAR 21	63406	62359	1047	MAR 21	60775	59913	862.25	MAR 21			
APR 21	70236	70093	143	APR 21	51453	51262	191.5	APR 21			
MAY 21	25575	25785	-210	MAY 21	44390	44278	112.25	MAY 21			
JUN 21	16518	16537	-19	JUN 21	41988	41878	110	JUN 21			
JUL 21	12788	12580	208	JUL 21	43126	43094	32	JUL 21			
AUG 21	10690	10620	70	AUG 21	43808	43734	74	AUG 21			
SEP 21	11701	11690	11	SEP 21	41316	41217	99.5	SEP 21			
OCT 21	25435	25200	235	OCT 21	52769	52609	160	OCT 21			
NOV 21	16702	16757	-55	NOV 21	35827	35868	-41	NOV 21			
DEC 21	13645	13647	-2	DEC 21	36204	36266	-61.75	DEC 21			
JAN 22	11668	11376	292	JAN 22	28036	27985	50.75	JAN 22			
FEB 22	8156	8150	6	FEB 22	24907	24858	49.25	FEB 22			
MAR 22	13729	13651	78	MAR 22	26605	26552	53.25	MAR 22			
APR 22	10827	10853	-26	APR 22	23379	23328	50.75	APR 22			
MAY 22	4403	4402	1	MAY 22	20945	20891	53.75	MAY 22			
JUN 22	2075	2072	3	JUN 22	20434	20384	50.5	JUN 22			
JUL 22	1812	1810	2	JUL 22	21086	21018	67.75	JUL 22			
AUG 22	1273	1269	4	AUG 22	20718	20681	36.75	AUG 22			
SEP 22	1336	1332	4	SEP 22	20540	20490	50.5	SEP 22			
OCT 22	1908	1904	4	OCT 22	23399	23328	70.25	OCT 22			
NOV 22	1373	1369	4	NOV 22	18504	18444	60	NOV 22			
DEC 22	1288	1284	4	DEC 22	19562	19500	62	DEC 22			

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	\$1.785	\$1.880	\$1.934	\$2.018	\$2.356	\$2.797	\$2.940	\$2.910	\$2.792	\$2.500	\$2.474	\$2.508
Last Week	\$1.793	\$1.945	\$2.019	\$2.069	\$2.146	\$2.449	\$2.848	\$2.987	\$2.949	\$2.818	\$2.525	\$2.496
vs. Last Week	-\$0.008	-\$0.065	-\$0.085	-\$0.051	\$0.210	\$0.348	\$0.092	-\$0.077	-\$0.157	-\$0.318	-\$0.051	\$0.012
4 Weeks Ago	\$2.134	\$2.312	\$2.388	\$2.430	\$2.498	\$2.705	\$2.994	\$3.125	\$3.080	\$2.935	\$2.605	\$2.568
vs. 4 Weeks Ago	-\$0.349	-\$0.432	-\$0.454	-\$0.412	-\$0.142	\$0.092	-\$0.054	-\$0.215	-\$0.288	-\$0.435	-\$0.131	-\$0.060
Last Year	\$2.416	\$2.419	\$2.411	\$2.464	\$2.554	\$2.741	\$2.849	\$2.814	\$2.719	\$2.511	\$2.482	\$2.517
vs. Last Year	-\$0.631	-\$0.539	-\$0.477	-\$0.446	-\$0.198	\$0.056	\$0.091	\$0.096	\$0.073	-\$0.011	-\$0.008	-\$0.009

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.60	1.44	-0.16
TETCO M3	\$/MMBtu	1.31	1.42	0.11
FGT Zone 3	\$/MMBtu	1.20	1.76	0.56
Zone 6 NY	\$/MMBtu	1.20	1.40	0.20
Chicago Citygate	\$/MMBtu	1.51	1.66	0.15
Michcon	\$/MMBtu	1.60	1.64	0.04
Columbia TCO Pool	\$/MMBtu	1.44	1.50	0.06
Ventura	\$/MMBtu	1.61	1.63	0.02
Rockies/Opal	\$/MMBtu	1.51	1.50	-0.01
El Paso Permian Basin	\$/MMBtu	1.46	1.45	-0.01
Socal Citygate	\$/MMBtu	1.81	1.70	-0.11
Malin	\$/MMBtu	1.60	1.56	-0.04
Houston Ship Channel	\$/MMBtu	1.75	1.72	-0.03
Henry Hub Cash	\$/MMBtu	1.70	1.62	-0.08
AECO Cash	C\$/GJ	1.44	1.50	0.06
Station2 Cash	C\$/GJ	1.41	1.51	0.10
Dawn Cash	C\$/GJ	1.52	1.66	0.14

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.52	▲ 0.000	▲ 0.000	▼ -0.167	
NatGas Mar/Apr	\$/MMBtu	0.187	▲ 0.000	▲ 0.000	▼ -0.026	
NatGas Oct/Nov	\$/MMBtu	0.32	▲ 0.008	▲ 0.074	▲ 0.260	
NatGas Oct/Jan	\$/MMBtu	0.89	▲ 0.025	▲ 0.179	▲ 0.560	
WTI Crude	\$/Bbl	35.49	▲ 2.240	▲ 15.710	▼ -18.010	
Brent Crude	\$/Bbl	35.33	▲ 0.200	▲ 8.890	▼ -29.160	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	96.47	▼ -1.730	▲ 16.860	▼ -87.710	
Propane, Mt. Bel	cents/Gallon	0.41	▲ 0.001	▲ 0.086	▼ -0.165	
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.003	▲ 0.050	▼ -0.003	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.150	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -9.500	