

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 1.70	▲ \$ 0.03	▲ \$ 0.05

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 39.50	▼ \$ (0.25)	▲ \$ 0.7

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 41.94	▼ \$ (0.25)	▲ \$ 0.6

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- [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	1.3	4.6	0.9	6.8
24 Hr Chg	-0.9	1.3	-1.3	-0.9

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.1	1.8	-2.9	-2.2
24 Hr Chg	-2.6	-1.6	-3.1	-7.3

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.5	▼ -0.31	▼ -0.10

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	37.8	▲ 2.33	▲ 4.08

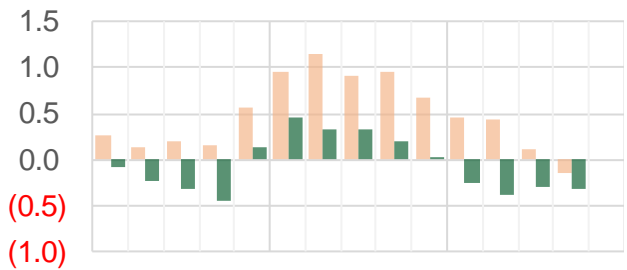
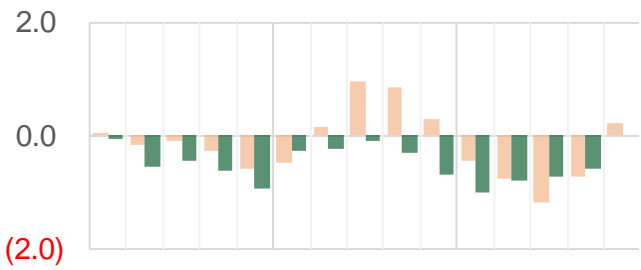
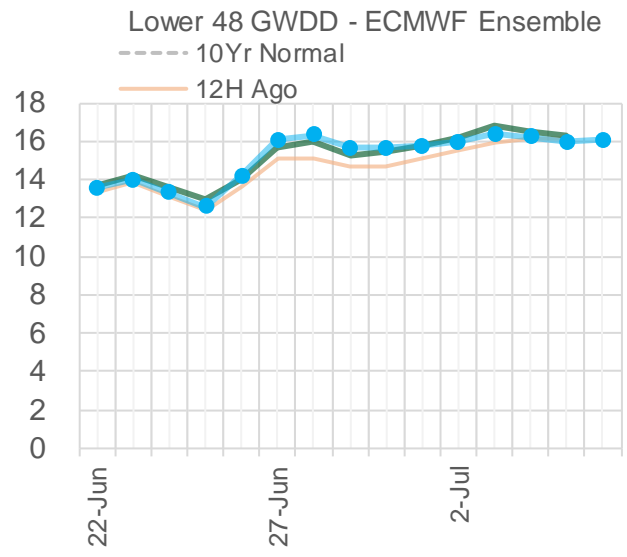
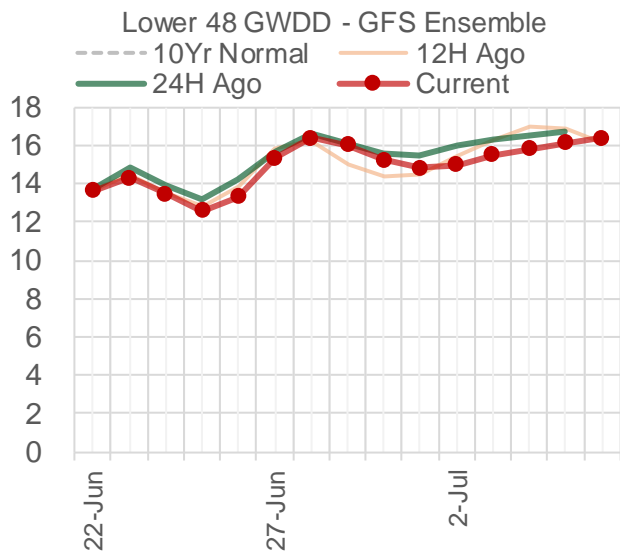
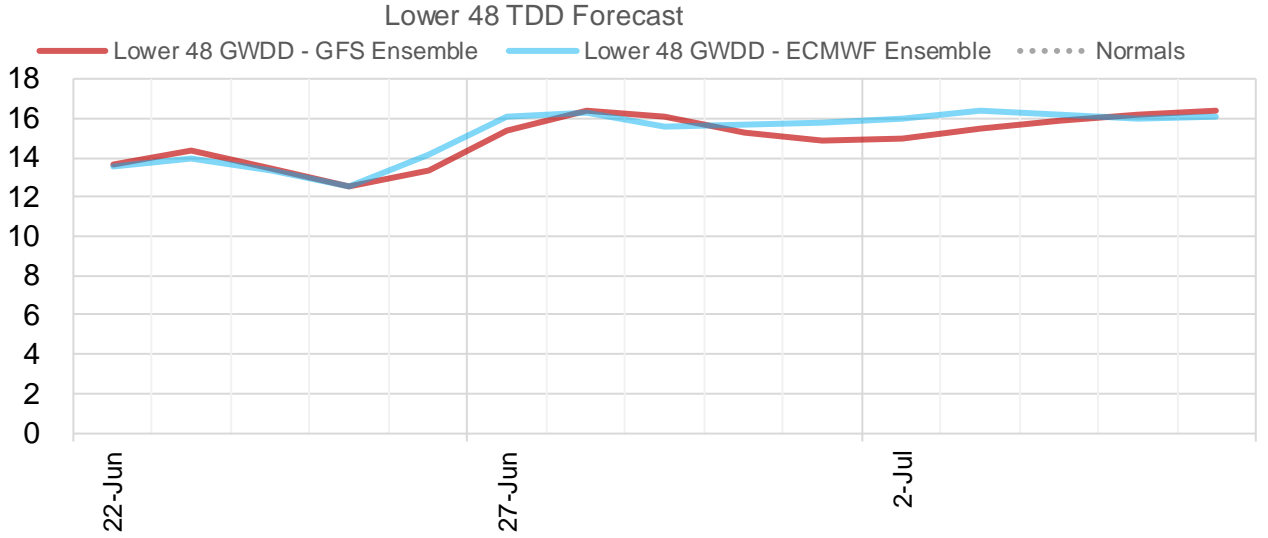
	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.6	▲ 0.24	▼ -0.30

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.0	▲ 0.12	▲ 0.08

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	4.1	▲ 0.30	▲ 0.36

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.8	▲ 0.17	▲ 0.04

Short-term Weather Model Outlooks (00z)



Source: WSI, 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.

Lower 48 Component Models

Daily Balances

	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	DoD	vs. 7D
Lower 48 Dry Production	84.3	84.6	84.4	84.7	84.8	84.8	84.5	▼ -0.3	▼ -0.1
Canadian Imports	4.0	4.0	4.2	4.2	3.9	3.9	4.0	▲ 0.1	▲ 0.0
L48 Power	31.1	32.4	34.8	36.6	35.4	35.5	37.8	▲ 2.3	▲ 3.5
L48 Residential & Commercial	8.3	8.0	8.1	7.8	7.3	7.3	7.6	▲ 0.2	▼ -0.2
L48 Industrial	19.5	19.0	18.4	17.7	16.9	16.4	16.3	▼ -0.1	▼ -1.7
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	4.8	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	1.9	1.9	2.1	2.1	2.1	2.1	2.2	▲ 0.1	▲ 0.2
L48 Regional Gas Consumption	65.5	66.0	68.2	69.0	66.5	66.1	68.6	▲ 2.5	▲ 1.7
Net LNG Exports	3.7	3.8	3.6	3.6	3.8	3.8	4.1	▲ 0.3	▲ 0.4
Total Mexican Exports	5.6	5.8	6.2	5.9	5.7	5.7	5.8	▲ 0.2	▼ 0.0
Implied Daily Storage Activity	13.5	13.0	10.5	10.4	12.7	13.2	10.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	15-May	22-May	29-May	5-Jun	12-Jun	19-Jun	WoW	vs. 4W
Lower 48 Dry Production	86.6	84.0	84.0	84.5	84.3	84.5	▲ 0.2	▲ 0.3
Canadian Imports	4.0	4.1	4.1	4.2	3.8	3.7	▼ -0.1	▼ -0.3
L48 Power	25.0	26.5	29.8	31.7	33.6	30.8	▼ -2.9	▲ 0.3
L48 Residential & Commercial	19.3	10.8	8.2	8.5	8.1	8.3	▲ 0.2	▼ -0.6
L48 Industrial	17.3	19.0	19.6	19.6	18.6	19.2	▲ 0.7	▲ 0.0
L48 Lease and Plant Fuel	4.8	4.7	4.7	4.7	4.7	4.8	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	2.2	1.8	1.9	2.0	2.0	1.9	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	68.7	62.9	64.1	66.5	67.1	65.0	▼ -2.1	▼ -0.2
Net LNG Exports	6.9	6.3	6.1	5.1	3.9	3.8	▼ -0.1	▼ -1.5
Total Mexican Exports	4.7	5.2	5.0	5.3	5.7	5.6	▼ -0.1	▲ 0.3
Implied Daily Storage Activity	10.2	13.7	12.9	11.8	11.5	13.9	2.4	
EIA Reported Daily Storage Activity	11.6	15.6	14.6	13.3	12.1			
Daily Model Error	-1.3	-1.9	-1.7	-1.5	-0.6			

Monthly Balances

	2Yr Ago Jun-18	LY Jun-19	Feb-20	Mar-20	Apr-20	May-20	MTD Jun-20	MoM	vs. LY
Lower 48 Dry Production	81.6	89.6	91.8	92.2	91.2	85.3	84.4	▼ -0.9	▼ -5.1
Canadian Imports	5.6	4.7	5.2	4.1	4.0	3.9	3.9	▲ 0.0	▼ -0.8
L48 Power	31.8	33.0	30.0	28.3	25.8	26.8	33.2	▲ 6.4	▲ 0.2
L48 Residential & Commercial	8.6	9.0	39.9	27.7	21.6	12.8	8.1	▼ -4.6	▼ -0.8
L48 Industrial	21.3	21.3	24.3	21.6	18.9	18.7	18.6	▼ -0.1	▼ -2.7
L48 Lease and Plant Fuel	4.5	5.0	5.2	5.2	5.2	4.8	4.8	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	1.9	2.0	3.0	2.5	2.3	2.0	2.0	▲ 0.0	▼ 0.0
L48 Regional Gas Consumption	68.2	70.4	102.3	85.4	73.6	65.0	66.7	▲ 1.7	▼ -3.7
Net LNG Exports	3.2	5.5	8.5	8.5	8.2	6.7	3.9	▼ -2.8	▼ -1.6
Total Mexican Exports	4.5	5.3	5.3	5.6	4.9	4.9	5.6	▲ 0.7	▲ 0.3
Implied Daily Storage Activity	11.3	13.1	-19.0	-3.1	8.4	12.7	12.1		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

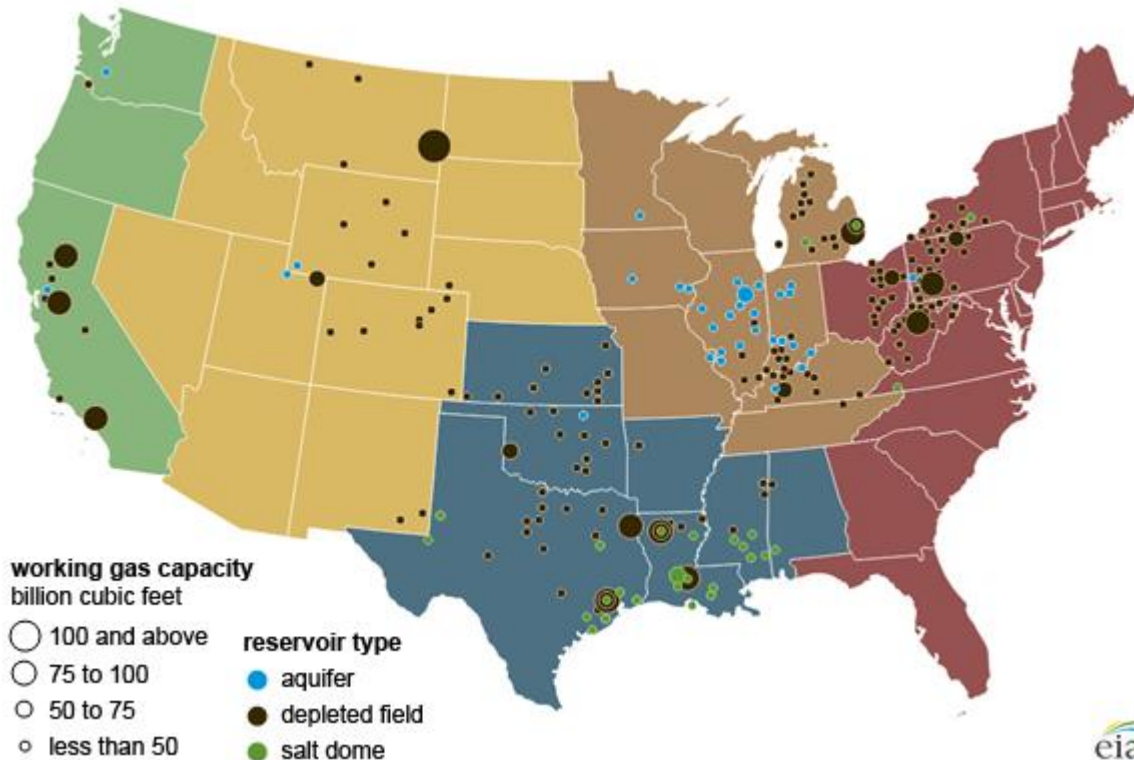
Regional S/D Models Storage Projection

Week Ending 19-Jun

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	13.7	1.4	15.1	106
East	2.5	1.9	4.3	30
Midwest	4.1	-0.1	4.0	28
Mountain	3.0	-2.0	1.0	7
South Central	2.2	2.0	4.2	29
Pacific	1.8	-0.3	1.6	11

*Adjustment Factor is calculated based on historical regional deltas

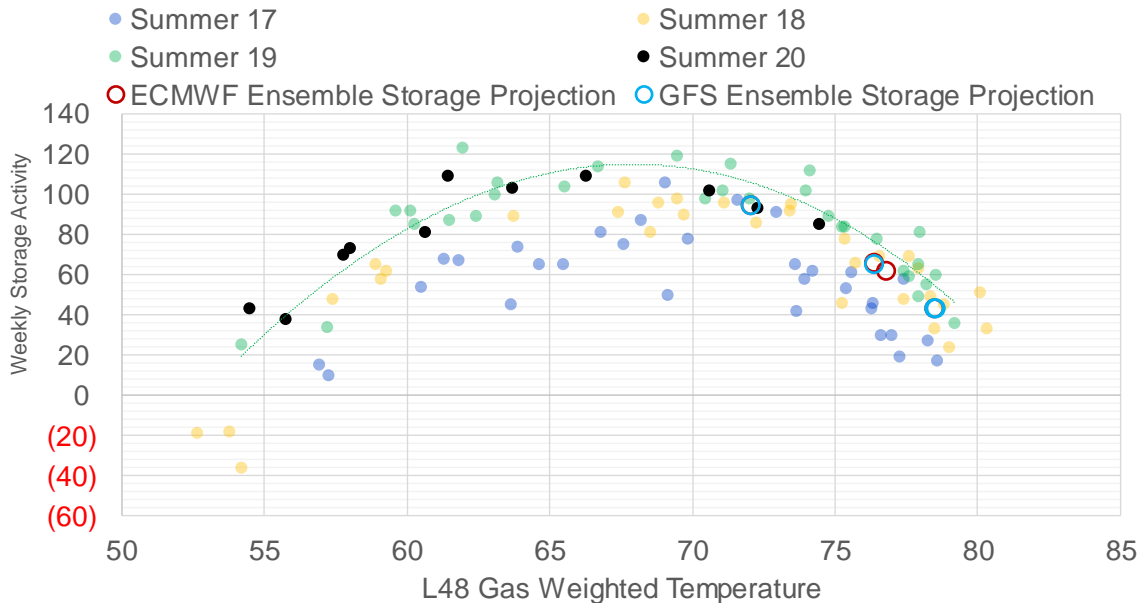
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

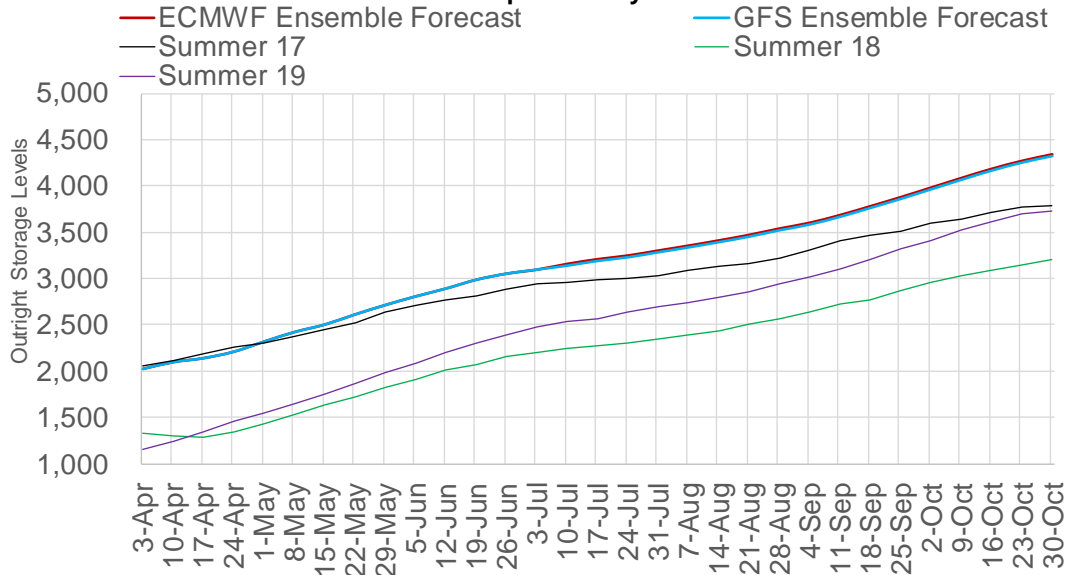
Next report and beyond	
Week Ending	Week Storage Projection
26-Jun	66
3-Jul	43
10-Jul	53

Weather Storage Model - Next 4 Week Forecast



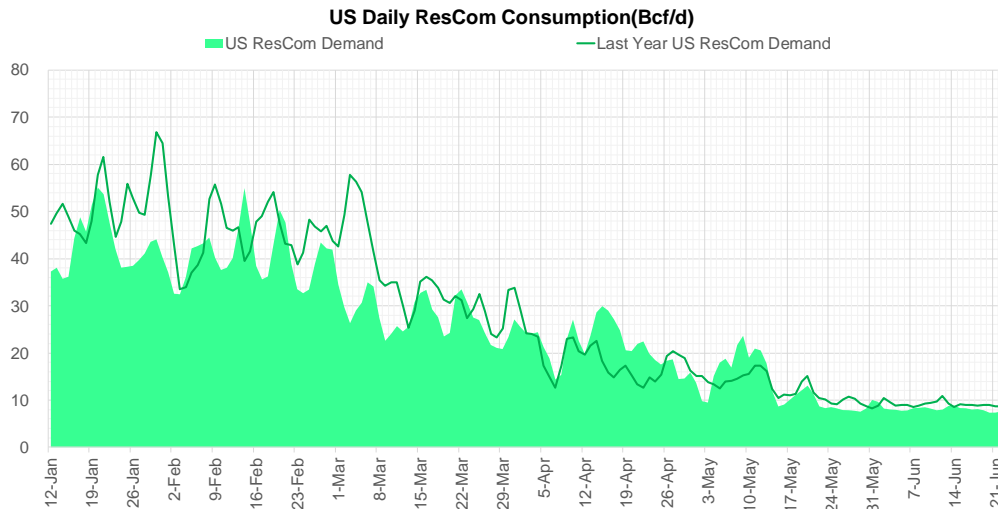
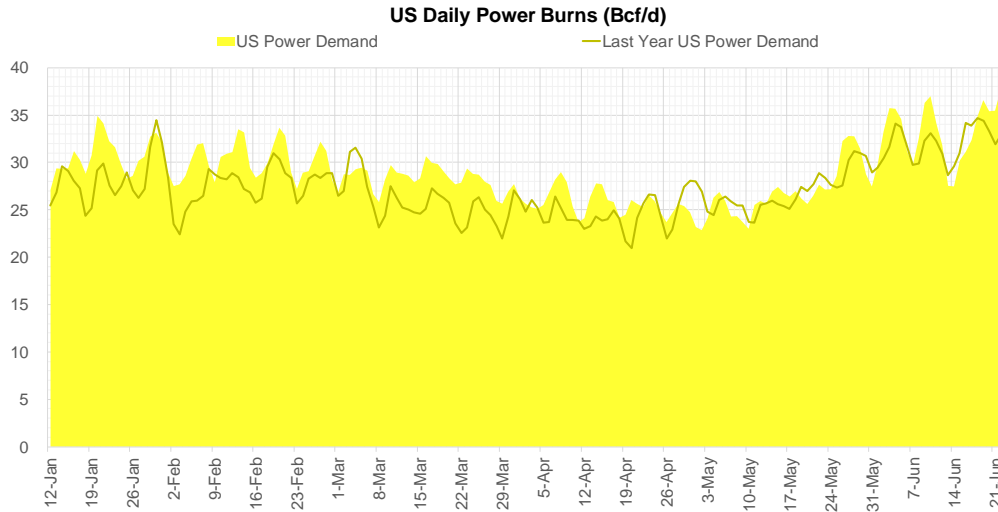
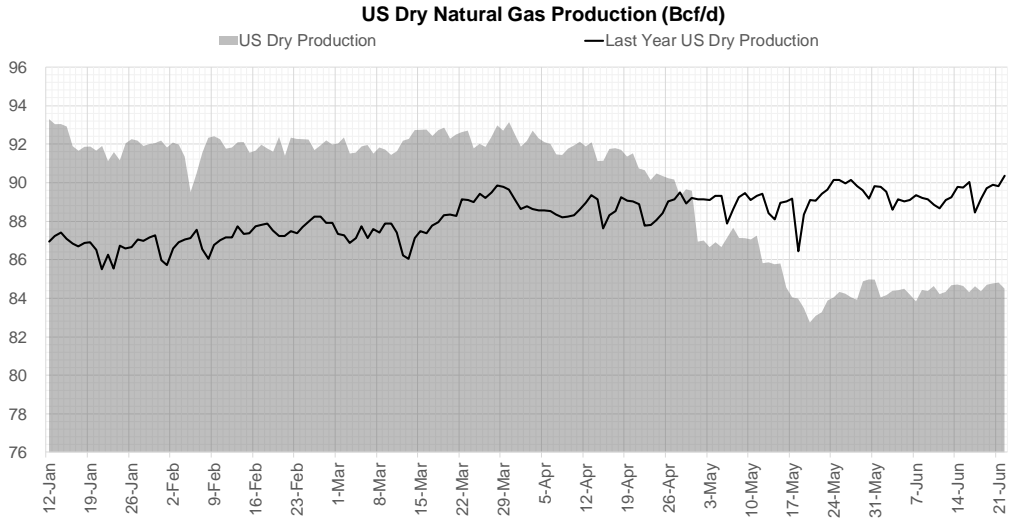
Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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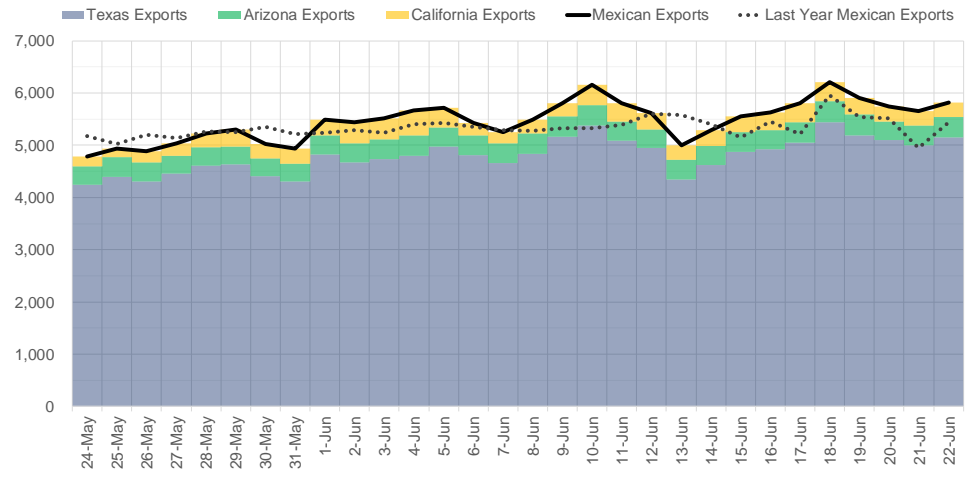
Supply – Demand Trends



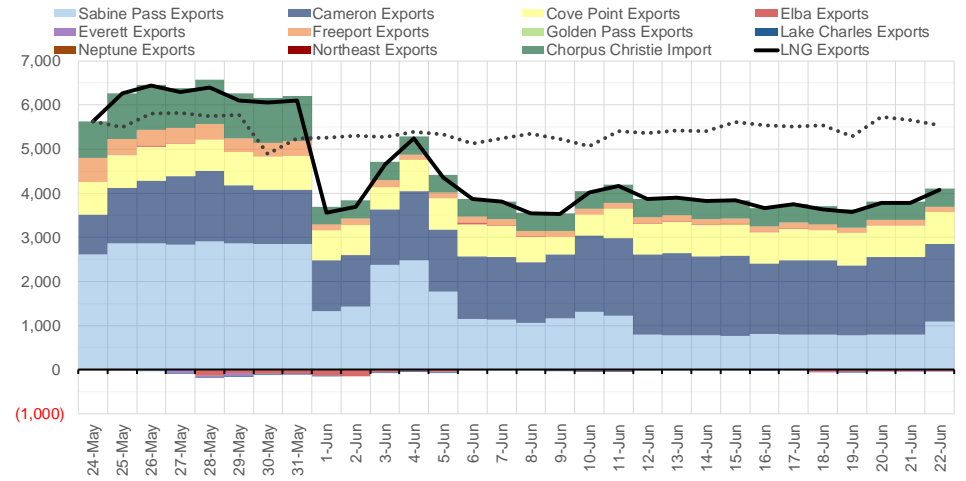
Source: Bloomberg

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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

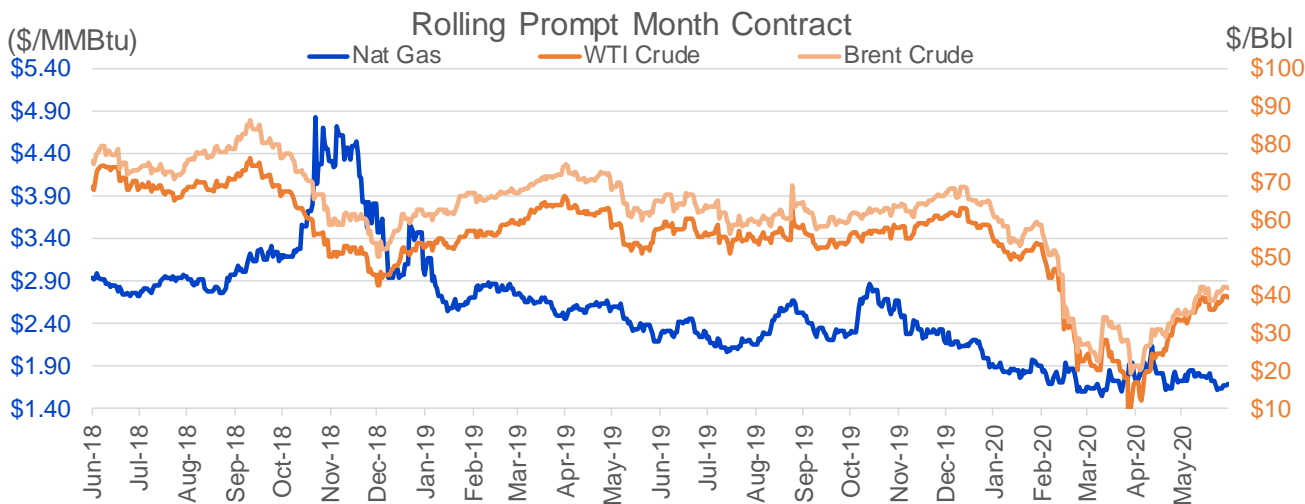
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2020	C	2.50	5886	10	2020	P	1.50	42625
8	2020	C	2.25	4626	10	2020	C	2.75	36888
7	2020	P	1.60	4311	10	2020	C	3.00	33713
7	2020	C	1.75	4105	7	2020	P	1.50	33195
7	2020	P	1.50	3596	7	2020	P	1.75	33183
10	2020	P	1.00	3268	3	2021	P	2.00	32975
10	2020	P	1.25	3150	10	2020	P	1.60	32488
9	2020	P	1.50	2855	8	2020	P	1.50	30800
10	2020	P	1.40	2600	9	2020	P	1.20	30646
9	2020	P	0.85	2528	10	2020	C	2.50	29814
9	2020	P	0.55	2525	10	2020	P	2.00	28782
9	2020	C	1.80	2506	9	2020	C	2.50	26542
8	2020	C	1.75	2123	7	2020	C	2.50	25708
11	2020	C	4.00	2101	10	2020	P	1.25	24798
10	2020	C	2.25	1900	8	2020	C	2.50	24268
8	2020	P	1.65	1854	10	2020	P	1.75	23844
9	2020	C	2.30	1771	9	2020	P	1.50	22927
8	2020	C	2.10	1754	9	2020	P	1.00	22528
10	2020	P	1.20	1743	7	2020	C	2.25	21030
7	2020	C	1.65	1652	9	2020	P	1.75	19804
10	2020	C	2.50	1600	7	2020	P	2.00	19733
8	2020	P	1.75	1557	7	2020	C	2.00	19669
9	2020	P	1.75	1516	9	2020	C	2.75	19535
9	2020	P	1.00	1487	7	2020	C	3.00	19520
9	2020	P	0.50	1421	8	2020	P	1.20	19512
9	2020	C	2.25	1404	10	2020	P	1.20	18746
9	2020	P	1.25	1275	10	2020	C	3.25	18342
10	2020	P	1.50	1201	10	2020	P	2.10	18144
7	2020	P	1.65	1063	7	2020	C	2.30	18037
9	2020	P	1.20	1026	7	2020	P	1.60	17645
8	2020	C	2.45	1001	1	2021	C	3.50	17506
8	2020	C	2.35	1000	8	2020	P	1.00	17399
3	2021	C	7.00	1000	10	2020	C	2.25	16969
9	2020	C	2.75	833	1	2021	C	3.00	16661
11	2020	C	3.50	801	10	2020	P	1.00	16387
9	2020	C	3.50	800	7	2020	C	2.75	16365
10	2020	P	1.75	750	7	2020	P	1.70	15916
10	2020	P	1.30	731	3	2021	C	3.00	15647
7	2020	C	1.70	704	3	2021	C	7.00	15285
9	2020	C	2.00	700	8	2020	P	1.30	15223
4	2021	P	1.90	600	4	2021	C	3.00	14670
5	2021	P	1.90	600	8	2020	C	3.00	14664
6	2021	P	1.90	600	8	2020	C	2.25	14458
7	2021	P	1.90	600	9	2020	C	2.25	14133
8	2021	P	1.90	600	9	2020	C	3.00	14125
9	2021	P	1.90	600	7	2020	P	1.25	14057
10	2021	P	1.90	600	8	2020	P	1.25	13788
8	2020	P	1.25	595	9	2020	P	1.25	13572
8	2020	P	1.25	595	11	2020	C	4.00	13507
8	2020	P	1.55	505	9	2020	P	2	13495

Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

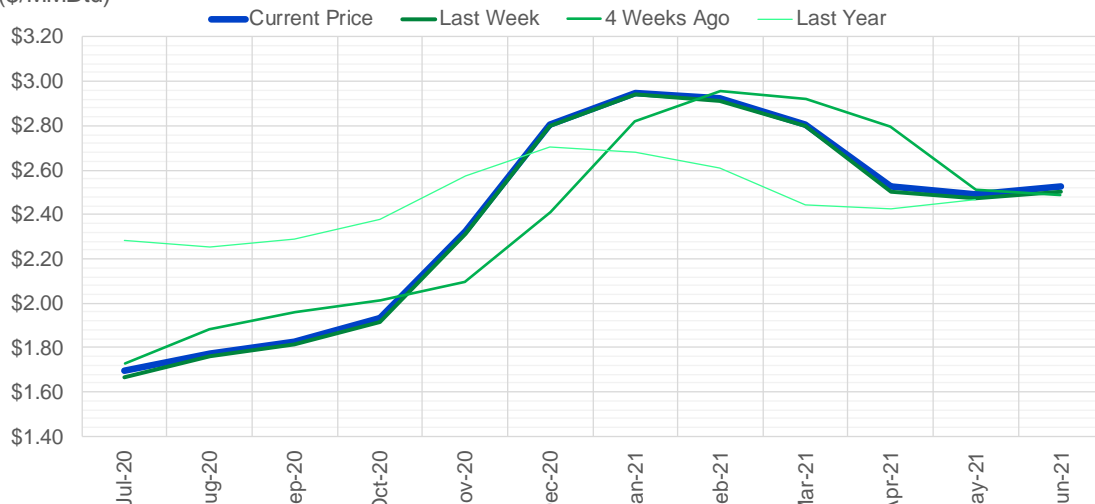
CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM			
	Current	Prior	Daily Change		Current	Prior	Daily Change
JUL 20	70662	98070	-27408	JUL 20	81938	83398	-1460
AUG 20	256208	238650	17558	AUG 20	89965	88935	1029.5
SEP 20	187320	187261	59	SEP 20	70422	70728	-305.5
OCT 20	122448	118592	3856	OCT 20	80527	79951	576.75
NOV 20	61407	59952	1455	NOV 20	63593	63074	518.25
DEC 20	69953	67567	2386	DEC 20	59285	58721	564
JAN 21	116674	115196	1478	JAN 21	74604	74189	414.75
FEB 21	39366	39284	82	FEB 21	46621	46471	149.75
MAR 21	81013	79476	1537	MAR 21	62530	62478	52.25
APR 21	69616	69175	441	APR 21	48978	48993	-15.75
MAY 21	27331	27010	321	MAY 21	45704	45513	191.25
JUN 21	17884	17659	225	JUN 21	43423	43240	183.25
JUL 21	15607	15567	40	JUL 21	44331	44136	195.5
AUG 21	11932	11739	193	AUG 21	44869	44670	199
SEP 21	14234	13848	386	SEP 21	42517	42350	167.5
OCT 21	33704	33310	394	OCT 21	55903	54898	1005.25
NOV 21	19337	18959	378	NOV 21	36694	36513	181
DEC 21	16028	15869	159	DEC 21	37560	37366	193.75
JAN 22	12171	11872	299	JAN 22	29335	29253	81.25
FEB 22	8318	8321	-3	FEB 22	25875	25792	83
MAR 22	14345	14559	-214	MAR 22	27361	27248	113.5
APR 22	12244	11761	483	APR 22	26282	26215	67.5
MAY 22	4669	4664	5	MAY 22	22121	22147	-25.5
JUN 22	2023	2023	0	JUN 22	21936	21839	97.5
JUL 22	1793	1792	1	JUL 22	22434	22375	59
AUG 22	1252	1251	1	AUG 22	21603	21502	100.25
SEP 22	1328	1328	0	SEP 22	21655	21557	97.5
OCT 22	1891	1891	0	OCT 22	23788	23822	-33.5
NOV 22	1395	1394	1	NOV 22	19238	19140	98
DEC 22	1294	1294	0	DEC 22	19925	19829	96

Source: CME, ICE



(\$/MMBtu)

Nat Gas Term Structure



	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Current Price	\$1.699	\$1.775	\$1.828	\$1.933	\$2.322	\$2.807	\$2.946	\$2.924	\$2.806	\$2.524	\$2.490	\$2.529
Last Week	\$1.669	\$1.760	\$1.814	\$1.917	\$2.313	\$2.801	\$2.941	\$2.909	\$2.799	\$2.501	\$2.471	\$2.502
vs. Last Week	\$0.030	\$0.015	\$0.014	\$0.016	\$0.009	\$0.006	\$0.005	\$0.015	\$0.007	\$0.023	\$0.019	\$0.027
4 Weeks Ago	\$1.731	\$1.881	\$1.958	\$2.013	\$2.095	\$2.408	\$2.817	\$2.957	\$2.920	\$2.795	\$2.511	\$2.485
vs. 4 Weeks Ago	-\$0.032	-\$0.106	-\$0.130	-\$0.080	\$0.227	\$0.399	\$0.129	-\$0.033	-\$0.114	-\$0.271	-\$0.021	\$0.044
Last Year	\$2.303	\$2.284	\$2.256	\$2.291	\$2.380	\$2.576	\$2.704	\$2.681	\$2.610	\$2.446	\$2.426	\$2.466
vs. Last Year	-\$0.604	-\$0.509	-\$0.428	-\$0.358	-\$0.058	\$0.231	\$0.242	\$0.243	\$0.196	\$0.078	\$0.064	\$0.063

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.64	1.50	-0.15
TETCO M3	\$/MMBtu	1.44	1.41	-0.03
FGT Zone 3	\$/MMBtu	1.44	1.71	0.27
Zone 6 NY	\$/MMBtu	1.44	1.40	-0.04
Chicago Citygate	\$/MMBtu	1.52	1.58	0.06
Michcon	\$/MMBtu	1.56	1.56	0.00
Columbia TCO Pool	\$/MMBtu	1.37	1.41	0.04
Ventura	\$/MMBtu	1.48	1.53	0.05
Rockies/Opal	\$/MMBtu	1.40	1.46	0.06
El Paso Permian Basin	\$/MMBtu	1.29	1.32	0.03
Socal Citygate	\$/MMBtu	1.58	1.84	0.25
Malin	\$/MMBtu	1.42	1.55	0.13
Houston Ship Channel	\$/MMBtu	1.52	1.68	0.16
Henry Hub Cash	\$/MMBtu	1.46	1.55	0.09
AECO Cash	C\$/GJ	1.36	1.33	-0.03
Station2 Cash	C\$/GJ	1.33	1.52	0.19
Dawn Cash	C\$/GJ	1.56	1.57	0.01

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.42	▲ 0.018	▲ 0.024	▼ -0.052	
NatGas Mar/Apr	\$/MMBtu	-0.282	▲ 0.016	▼ -0.566	▼ -0.526	
NatGas Oct/Nov	\$/MMBtu	0.39	▼ -0.007	▲ 0.076	▲ 0.321	
NatGas Oct/Jan	\$/MMBtu	1.01	▼ -0.011	▲ 0.151	▲ 0.678	
WTI Crude	\$/Bbl	39.50	▲ 2.380	▲ 6.250	▼ -18.400	
Brent Crude	\$/Bbl	41.94	▲ 2.220	▲ 6.410	▼ -22.920	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	121.35	▲ 7.650	▲ 23.150	▼ -69.540	
Propane, Mt. Bel	cents/Gallon	0.50	▲ 0.009	▲ 0.093	▲ 0.062	
Ethane, Mt. Bel	cents/Gallon	0.22	▼ -0.003	▲ 0.004	▲ 0.050	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.050	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -9.500	