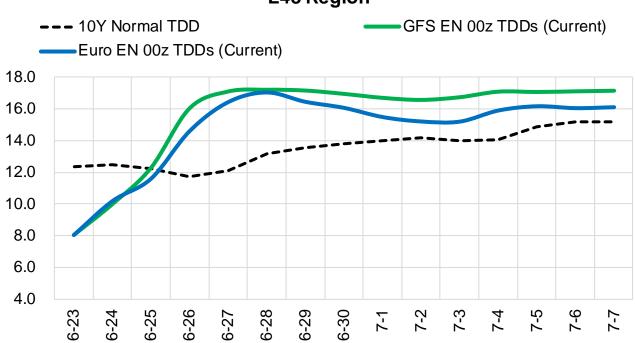


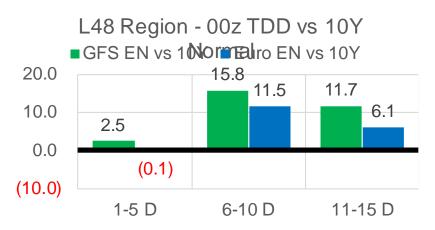


## Short-term Weather Model Outlooks (00z)



### L48 Region

## Vs. 10Y Normal



Source: WSI, Bloomberg

# **Market Report**

#### **Daily Balances**

	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	DoD	vs.7D
Lower 48 Dry Production	92.1	92.4	92.8	93.0	93.0	92.2	91.1	-1.1	-1.5
Canadian Imports	5.2	5.1	4.6	4.8	4.9	4.6	4.3	-0.2	-0.5
L48 Power	34.7	36.1	34.9	35.5	36.7	33.2	33.0	-0.2	-2.2
L48 Residential & Commercial	8.6	8.1	7.8	7.8	8.7	9.4	8.2	-1.2	-0.2
L48 Industrial	21.3	21.0	20.1	19.8	19.7	19.7	19.5	-0.2	-0.8
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.1	5.0	-0.1	-0.1
L48 Pipeline Distribution	2.1	2.2	2.1	2.1	2.2	2.1	2.0	-0.1	-0.1
L48 Regional Gas Consumption	71.8	72.5	70.0	70.3	72.5	69.5	67.7	-1.7	-3.4
Net LNG Delivered	9.75	9.73	10.34	10.48	10.19	9.71	11 <b>.0</b> 4	1.3	1.0
Total Mexican Exports	7.9	7.9	7.2	7.0	7.5	7.8	7.5	-0.3	-0.1
Implied Daily Storage Activity EIA Reported Daily Storage Activity	7.9	7.4	9.9	9.9	7.7	9.8	9.2		

Lower 48 Component Models

Daily Model Error

#### **EIA Storage Week Balances**

	14-May	21-May	28-May	4-Jun	11-Jun	18-Jun	WoW	vs. 4W
Lower 48 Dry Production	91.8	91.7	92.4	92.2	92.6	91.9	▼ -0.7	<b>-0.3</b>
Canadian Imports	4.8	4.6	4.5	3.9	4.8	5.1	<b>0.3</b>	<b>0.7</b>
L48 Power	26.1	26.5	29.5	27.8	34.4	34.8	<b>0</b> .4	<b>5</b> .3
L48 Residential & Commercial	18.2	10.5	9.4	11.7	8.4	8.2	<b>V</b> -0.2	<b>T</b> -1.9
L48 Industrial	18.0	20.0	20.1	18.0	21.0	21.5	<b>0.5</b>	<b>1</b> .7
L48 Lease and Plant Fuel	5.0	5.0	5.1	5.1	5.1	5.1	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.3	1.9	2.0	2.0	2.1	2.1	▲ 0.0	<b>a</b> 0.1
L48 Regional Gas Consumption	69.5	63.9	66.0	64.6	71.0	71.7	<b>0.7</b>	<b>5.3</b>
Net LNG Exports	11.0	10.4	10.5	11.0	9.4	9.6	<b>0.1</b>	▼-0.8
Total Mexican Exports	6.8	6.8	6.7	7.2	7.3	7.5	<b>0.2</b>	<b>0.5</b>
Implied Daily Storage Activity	9.3	15.2	13.6	13.3	9.6	8.3	-1.3	
EIA Reported Daily Storage Activity	10.1	16.4	14.0	14.0	2.3			
Daily Model Error	-0.8	-1.2	-0.4	-0.7	7.3			

#### **Monthly Balances**

	2Yr Ago	LY					MTD		
	Jun-19	Jun-20	Feb-21	Mar-21	Apr-21	May-21	Jun-21	MoM	vs. LY
Lower 48 Dry Production	91.5	87.7	85.2	91.8	91.7	91.9	92.3	<b>0.4</b>	<b>0.5</b>
Canadian Imports	4.7	4.0	6.3	4.8	4.7	4.5	4.8	<b>0.3</b>	▲ 0.0
L48 Power	33.1	35.0	27.8	24.2	25.0	27.0	34.2	<b>A</b> 7.2	<b>1</b> 0.0
L48 Residential & Commercial	9.0	8.8	47.1	29.3	20.0	13.1	8.3	<b>-</b> 4.8	▼-21.0
L48 Industrial	22.5	19.9	21.3	19.7	20.5	19.3	20.5	<b>1.2</b>	<b>A</b> 0.8
L48 Lease and Plant Fuel	5.0	4.8	4.7	5.0	5.0	5.0	5.1	<b>A</b> 0.1	<b>A</b> 0.1
L48 Pipeline Distribution	2.1	2.2	3.3	2.5	2.2	2.1	2.1	▲ 0.0	<b>V</b> -0.5
L48 Regional Gas Consumption	71.7	70.7	104.1	80.9	72.8	66.4	70.2	<b>3.8</b>	▼-10.6
Net LNG Exports	5.5	4.0	8.6	11.1	11.5	10.8	9.9	<b>-0.9</b>	▼-1.3
Total Mexican Exports	5.2	5.5	5.8	6.5	6.7	6.8	7.4	<b>0.7</b>	<b>1.0</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	13.8	11.5	-27.0	-2.0	5.4	12.4	9.6		

Source: Bloomberg, analytix.ai

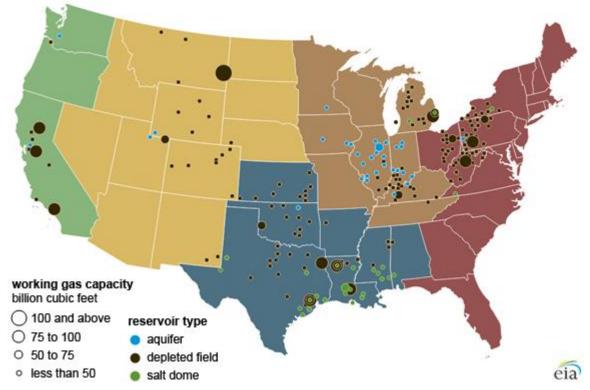


### Regional S/D Models Storage Projection

Week Ending	18-Jun			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
<u>L</u> 48	7.9	0.6	8.6	60
East	3.5	0.6	4.1	29
Midwest	3.9	-0.8	3.0	21
Mountain	4.7	-3.7	1.0	7
South Central	-4.8	4.6	-0.2	-1
Pacific	0.7	-0.1	0.6	4

\*Adjustment Factor is calcuated based on historical regional deltas

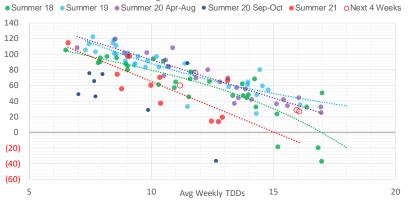
#### U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
18-Jun	11.2	60
25-Jun	11.8	76
02-Jul	16.1	27
09-Jul	16.0	29

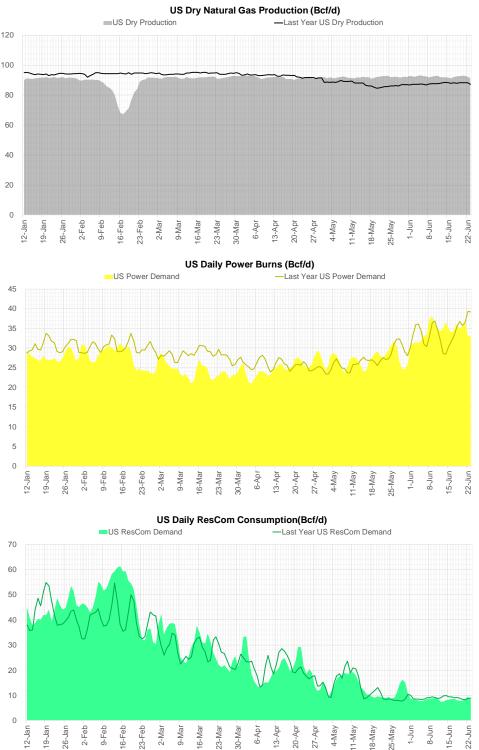
#### Weather Storage Model - Next 4 Week Forecast



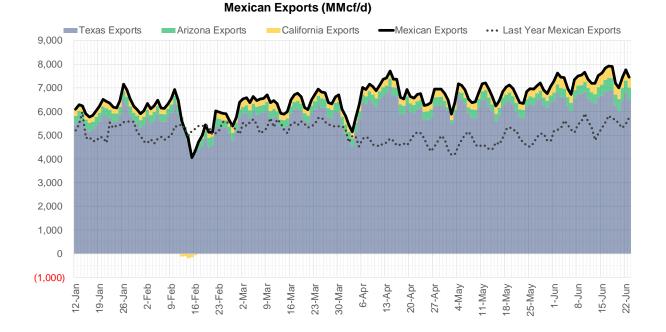
# Go to larger image

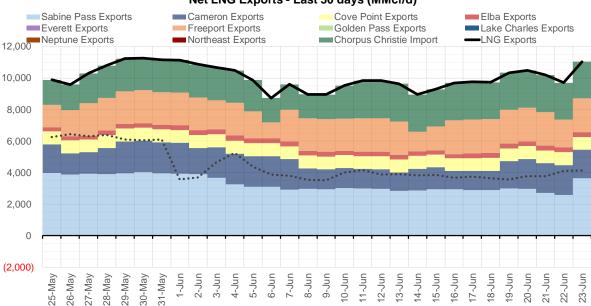






Source: Bloomberg





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

Source: Bloomberg

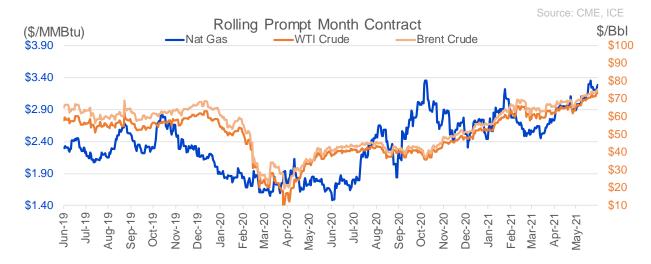


### Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRAC MONTH	CT CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2021	С	3.75	5244	10	2021	С	4.00	44883
8	2021	С	4.00	4691	8	2021	С	3.50	42715
8	2021	C	3.50	4117	9	2021	С	4.00	41557
10	2021	C	4.00	3801	8	2021	С	4.00	39256
10	2021	C	5.00	2900	7	2021	С	3.50	35420
9	2021	С	4.00	2453	10	2021	С	3.50	34364
7	2021	C	3.35	2237	10	2021	Р	2.50	32521
8	2021	C	3.40	2029	8	2021	Р	3.00	30078
8	2021	С	3.25	1937	7	2021	С	3.25	29585
7	2021	C	3.40	1895	7	2021	Р	2.90	29560
8	2021	C	3.70	1864	8	2021	Р	2.50	29304
7	2021	P	3.25	1750	10	2021	С	5.00	28852
4	2022	C	4.00	1575	7	2021	Р	2.50	28794
7	2021	C	3.25	1526	10	2021	С	3.25	28700
7	2021	P	3.10	1450	7	2021	С	4.00	28471
10	2021	C	6.00	1300	8	2021	С	3.75	27372
7	2021	C	3.30	1273	9	2021	С	3.50	26964
4	2022	P	2.00	1200	7	2021	Р	2.75	26180
9	2021	P	2.90	1081	8	2021	Р	2.90	25655
5	2022	C	3.75	1050	8	2021	С	3.25	25229
8	2021	Ċ	3.60	1043	10	2021	Р	2.75	24794
8	2021	C	4.25	1031	9	2021	Р	2.50	23800
7	2021	P	3.15	956	7	2021	Р	3.00	23776
4	2022	P	2.25	950	10	2021	Р	2.00	23689
1	2022	C	4.00	925	7	2021	Р	2.85	23679
7	2021	P	3.20	922	7	2021	Р	2.80	23464
5	2022	C	4.00	875	12	2021	С	4.00	23336
6	2022	C	4.00	875	7	2021	С	3.75	21846
7	2022	c	4.00	875	7	2021	С	3.00	21294
8	2022	C	4.00	875	9	2021	Р	2.00	20423
9	2022	C	4.00	875	8	2021	P	2.75	20344
10	2022	c	4.00	875	9	2021	С	3.25	20291
8	2021	P	2.75	832	10	2021	C P	4.50	20250
11	2021	C	4.00	780	8	2021		2.00	19664
9	2021	P	2.50	762	4	2022 2021	C P	3.00	19623
7	2021	P	3.00	746	10		P	2.25	19541
8	2021	C	4.20	725	8 10	2021 2021	P C	2.25 3.00	19478 18010
3	2022	P	2.50	701	10	2021	c	3.00 4.00	17755
7	2021	C	3.45	697	3	2021	c	4.00	16906
9	2021	C	3.75	608	8	2022	c	4.00 3.00	16908
8	2021	P	3.25	578	° 7	2021	P	2.00	16035
1	2022	C	3.50	550	8	2021	F C	3.30	15679
9	2022	P	2.25	500	0 11	2021	P	2.50	15470
10	2021	Ċ	3.75	500	7	2021	P	2.50	15368
7	2021	c	3.50	486	3	2021	F C	3.00	15293
5	2022	P	2.00	450	10	2022	c	6.00	14648
5	2022	P	2.00	450	3	2021	c	5.00	14046
6	2022	P	2.20	450	12	2022	P	2.00	13884
6	2022	P	2.00	450	12	2021	C	5	13747
Ũ	LULL		2.20	100	12	2021	Source	e: CMĚ, ICE	10171

#### Nat Gas Futures Open Interest CME, and ICE Combined

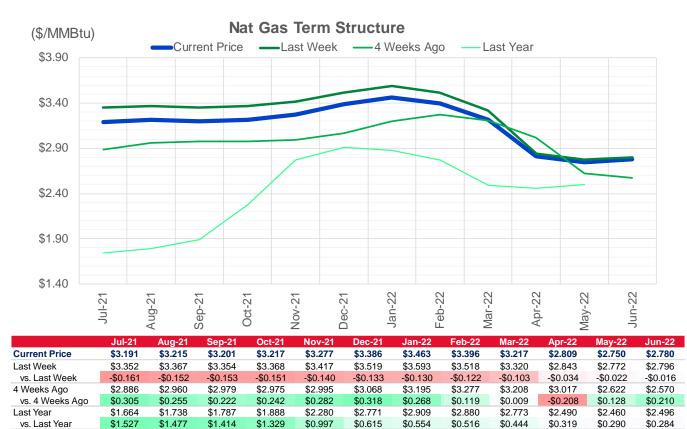
CME Henry Hub Futures (10,000 MMBtu) ICE Henry Hub Futures Contract Equivalent (10,000 MM									
CME Henry H				ICE Henry I					
	Current	Prior	Daily Change		Current	Prior	Daily Change		
JUL 21	41966	57754	-15788	JUL 21	86354	90486	-4133		
AUG 21	205650	197008	8642	AUG 21	81915	80399	1515		
SEP 21	204569	204671	-102	SEP 21	85517	85090	427		
OCT 21	144993	143991	1002	OCT 21	97456	98441	-985		
NOV 21	91509	91670	-161	NOV 21	71044	70836	208		
DEC 21	63833	64102	-269	DEC 21	68129	67766	363		
JAN 22	95167	94193	974	JAN 22	84584	84528	57		
FEB 22	38087	38040	47	FEB 22	65682	65491	191		
MAR 22	82267	82886	-619	MAR 22	64533	65071	-538		
APR 22	74699	74642	57	APR 22	58690	58177	514		
MAY 22	51300	51075	225	MAY 22	54818	54360	459		
JUN 22	23748	23668	80	JUN 22	51231	50781	450		
JUL 22	17121	16481	640	JUL 22	49276	48877	399		
AUG 22	17331	17175	156	AUG 22	49686	49256	430		
SEP 22	15325	15385	-60	SEP 22	49798	49372	426		
OCT 22	47870	47211	659	OCT 22	56360	55910	450		
NOV 22	18975	18857	118	NOV 22	43678	43438	240		
DEC 22	13429	13040	389	DEC 22	46870	46823	47		
JAN 23	8375	7875	500	JAN 23	25990	25875	115		
FEB 23	2844	2836	8	FEB 23	23726	23645	81		
MAR 23	7111	7057	54	MAR 23	26835	26751	84		
APR 23	8332	8326	6	APR 23	21258	21169	89		
MAY 23	4529	4531	-2	MAY 23	21493	21366	127		
JUN 23	1086	1082	4	JUN 23	20014	19889	125		
JUL 23	1785	1785	0	JUL 23	19869	19744	124		
AUG 23	881	880	1	AUG 23	19854	19730	124		
SEP 23	1014	1012	2	SEP 23	19407	19288	119		
OCT 23	2318	2320	-2	OCT 23	20426	20302	124		
NOV 23	806	802	4	NOV 23	19243	19100	143		
DEC 23	1133	1133	0	DEC 23	19601	19482	119		



\$1.477

\$1.414

## **Market Report**



\$0.997

\$0.615

		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	2.75	2.83	0.08
TETCO M3	\$/MMBtu	2.51	2.61	0.10
FGT Zone 3	\$/MMBtu	2.59	3.30	0.71
Zone 6 NY	\$/MMBtu	2.59	2.59	0.00
Chicago Citygate	\$/MMBtu	3.05	3.14	0.09
Michcon	\$/MMBtu	3.07	3.07	0.00
Columbia TCO Pool	\$/MMBtu	2.73	2.58	-0.15
Ventura	\$/MMBtu	2.66	3.08	0.42
Rockies/Opal	\$/MMBtu	3.23	3.13	-0.11
El Paso Permian Basin	\$/MMBtu	2.88	3.23	0.35
Socal Citygate	\$/MMBtu	5.00	4.77	-0.23
Malin	\$/MMBtu	3.37	3.58	0.21
Houston Ship Channel	\$/MMBtu	3.21	3.31	0.10
Henry Hub Cash	\$/MMBtu	3.21	3.12	-0.09
AECO Cash	C\$/GJ	2.72	2.64	-0.08
Station2 Cash	C\$/GJ	2.63	3.48	0.85
Dawn Cash	C\$/GJ	3.07	3.06	-0.01

Source: CME, Bloomberg

\$0.444

\$0.319

\$0.290



		vs. 4 Weeks						
	Units	<b>Current Price</b>	vs.	Last Week		Ago	vs	. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.018		-0.001		-0.017		0.004
NatGas Oct21/Nov21	\$/MMBtu	0.056		0.001		-0.016		0.008
NatGas Oct21/Jan22	\$/MMBtu	0.236		-0.004		-0.042	▼	-0.048
NatGas Apr22/Oct22	\$/MMBtu	0.026		0.004		-0.009	▼	-0.028
WTI Crude	\$/Bbl	73.06		0.940		6.990		32.690
Brent Crude	\$/Bbl	74.81		0.820		6.160		32.180
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	215.10		3.870		11.560		94.800
Propane, Mt. Bel	cents/Gallon	0.96		0.018		0.136		0.452
Ethane, Mt. Bel	cents/Gallon	0.27		-0.002		0.015		0.053
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.000
Coal, PRB	\$/MMBtu	0.70						
Coal, ILB	\$/MTon	31.05		0.000		0.000		0.000
Coal, ILB	\$/MMBtu	1.32						





Summer 18

Summer 19

Summer 20 Apr-Aug

Summer 20 Sept-Oct

t • Summer 21

ONext 4 Weeks

