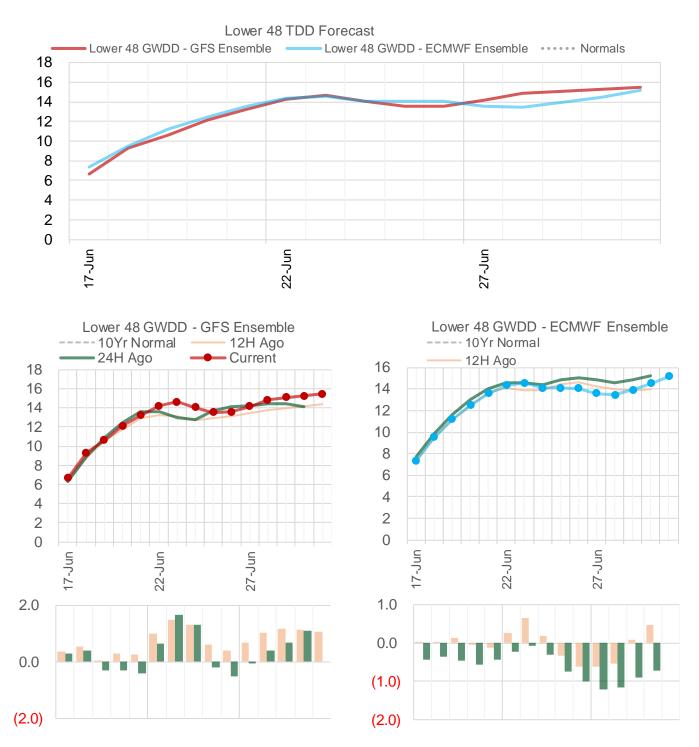
ion.	Market Report					17 June 2020					
	Curren	t ∆ from Y	D Δ from 7 Avg	Page M		Model Outlooks					
Nat Gas Prompt	\$ 1.6	62 🔺 \$ 0.0	00 🔻 \$ (0.1	11) <u>Lower 4</u>) <u>Short-term Weather Model Outlooks</u> <u>Lower 48 Component Models</u> <u>Regional S/D Models Storage Projection</u>						
Current Δ from YD Δ from 7D Avg											
WTI Prompt	\$ 37.7	73 🔻 \$ (0.6	5) 🔺 \$ (s Futures Op						
	Currer	t ∆ from Y	D ^{∆ from 7} Avg	7D							
Brent Prompt	\$ 40.4	14 🔻 \$ (0.5	2) 🔺 💲 🤇	0.8							
00z G	WDD Ch	ange	Coole	er Change	Warr	mer Change					
ECMW	/F Ensem	ble 00z	1-5 Day	6-10 Day	11-15 Da	y Total					
	12	2 Hr Chg	0.0	0.2	-0.6	-0.3					
	24	Hr Chg	-2.2	-2.3	-4.0	-8.6					
GF	S Ensem	ble 00z	1-5 Day	6-10 Day	11-15 Da	y Total					
	12	2 Hr Chg	1.6	4.8	5.1	11.5					
	24	HrChg	-0.3	2.9	2.1	4.7					
	Current	Δ from YD	∆ from 7D Avg		Current	Δ from YD Δ from 7D Avg					
US Dry Production	84.2	▼ -0.03	-0.30	US Power Burns	33.6	▲ 1.76 ▲ 1.39					
	Current	∆ from YD	∆ from 7D Avg		Current	Δ from YD Δ from 7D Avg					
US ResComm	8.0	▼ -0.35	▼ -0.44	Canadian Imports	3.9	▼ -0.07 ▲ 0.13					
	Current	∆ from YD	∆ from 7D Avg		Current	$\Delta \text{ from YD } \begin{array}{c} \Delta \text{ from 7D} \\ A \text{ vg} \end{array}$					
Net LNG Exports	3.7	▲ 0.08	▼ -0.15	Mexican Exports	5.8	▲ 0.15 ▲ 0.15					



Short-term Weather Model Outlooks (00z)



Source: WSI , Bloomberg



Market Report

Daily Balances

	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	DoD	vs.7D
Lower 48 Dry Production	84.2	84.3	84.7	84.7	84.6	84.2	84.2	▼ 0.0	▼ -0.3
Canadian Imports	4.1	3.9	3.3	3.3	3.6	3.9	3.9	▼ -0.1	0.2
L48 Power	34.1	33.0	29.2	29.0	31.5	31.9	33.6	1.8	A 2.2
L48 Residential & Commercial	7.8	8.2	8.9	9.0	8.6	8.4	8.0	▼ -0.3	▼ -0.5
L48 Industrial	18.2	18.1	17.8	17.7	17.6	17.8	18.1	a 0.3	a 0.2
L48 Lease and Plant Fuel	4.7	4.8	4.8	4.8	4.8	4.7	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.0	2.0	1.8	1.8	1.9	1.9	2.0	a 0.1	a 0.1
L48 Regional Gas Consumption	66.9	66.1	62.5	62.3	64.4	64.7	66.5	1.8	2.0
Net LNG Exports	4.2	3.9	3.9	3.8	3.8	3.7	3.7	A 0.1	▼ -0.1
Total Mexican Exports	6.0	5.8	5.2	4.9	5.6	5.6	5.8	A 0.2	0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity	11.3	12.5	16.3	16.9	14.4	14.1	12.0		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	8-May	15-May	22-May	29-May	5-Jun	12-Jun	WoW	vs. 4W
Lower 48 Dry Production	87.0	86.6	84.0	84.0	84.5	84.3	▼ -0.2	▼ -0.4
Canadian Imports	3.6	4.0	4.1	4.1	4.2	3.8	▼ -0.4	▼ -0.3
L48 Power	24.8	25.0	26.6	29.8	31.8	33.7	4 1.9	▲ 5.4
L48 Residential & Commercial	14.5	19.3	10.8	8.2	8.5	8.1	▼ -0.4	▼ -3.6
L48 Industrial	18.5	17.3	19.1	19.6	19.5	18.8	▼ -0.6	▼ 0.0
L48 Lease and Plant Fuel	4.9	4.8	4.7	4.7	4.7	4.7	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	1.9	2.2	1.8	1.9	2.0	2.0	▲ 0.0	▲ 0.0
L48 Regional Gas Consumption	64.6	68.7	62.9	64.1	66.5	67.4	A 0.9	1.8
Net LNG Exports	7.7	6.9	6.3	6.1	5.1	3.9	▼ -1.2	▼ -2.2
Total Mexican Exports	4.7	4.7	5.2	5.0	5.3	5.7	0.4	0.7
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	13.5 14.7 -1.2	10.2 11.6 -1.3	13.7 15.6 -1.9	12.9 14.6 -1.7	11.8 13.3 -1.5	11.1	-0.7	

Monthly Balances

	2Yr Ago	LY					MTD		
	Jun-18	Jun-19	Feb-20	Mar-20	Apr-20	May-20	Jun-20	МоМ	vs. LY
Lower 48 Dry Production	81.6	89.6	91.8	92.2	91.2	85.3	84.3	▼ -1.0	▼ -5.2
Canadian Imports	5.6	4.7	5.2	4.1	4.0	3.9	3.9	▼ -0.1	▼ -0.9
L48 Power	31.8	33.0	30.0	28.3	25.8	26.8	32.9	6 .1	▼ -0.2
L48 Residential & Commercial	8.6	9.0	39.9	27.7	21.6	12.8	8.3	▼ -4.4	▼ -0.6
L48 Industrial	21.3	21.3	24.3	21.6	18.9	18.7	18.6	▼ -0.2	▼ -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	66.5	🔺 1.5	▼ -3.8
Net LNG Exports	3.2	5.5	8.5	8.5	8.2	6.7	4.0	▼ -2.7	▼ -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 EIA Reported Daily Storage Activity Daily Model Error	11.3	13.1	-19.0	-3.1	8.4	12.7	12.2		

Source: Bloomberg, analytix.ai

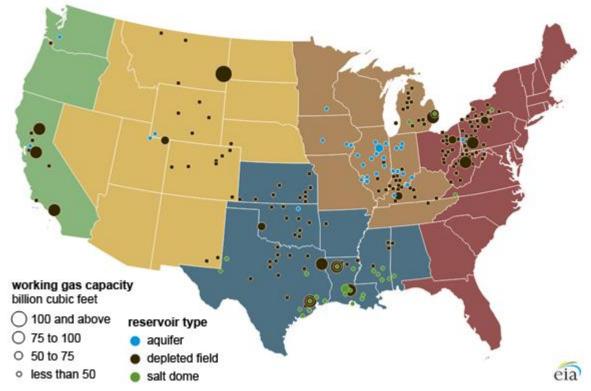


Regional S/D Models Storage Projection

Week Ending	12-Jun			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
L48	10.9	1.8	12.7	89
East	1.6	2.2	3.8	27
Midwest	4.2	0.4	4.5	32
Mountain	2.9	-2.2	0.7	5
South Central	0.7	1.8	2.5	17
Pacific	1.5	-0.3	1.2	8

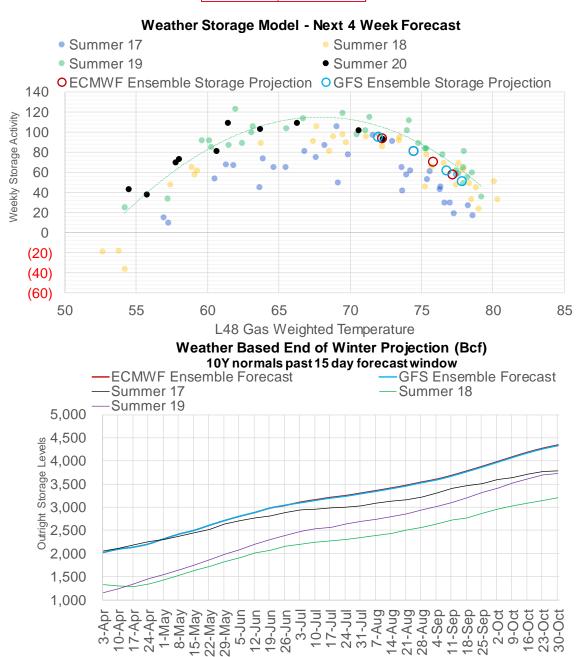
*Adjustment Factor is calcuated based on historical regional deltas

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

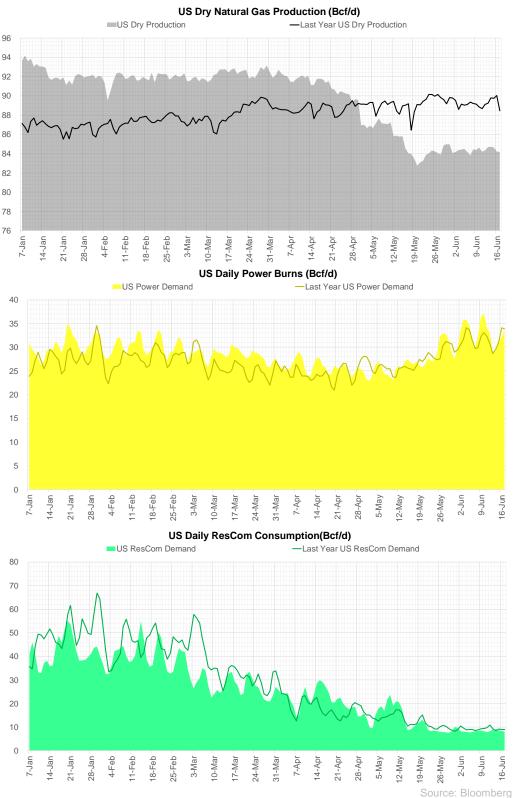


Weather Model Storage Projection

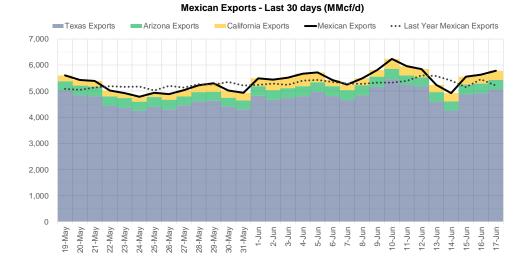
	Week Storage
Week Ending	Projection
12-Jun	81
19-Jun	95
26-Jun	60
3-Jul	61



Supply – Demand Trends



ENERGY



Cameron Exports Cove Point Exports Elba Exports Sabine Pass Exports Everett Exports Freeport Exports Golden Pass Exports Lake Charles Exports Neptune Exports Northeast Exports Chorpus Christie Import LNG Exports 7,000 6,000 5,000 4.000 3.000 2.000 1,000 0 (1,000) 1-Jun 2-Jun 31-May 3-Jun 4-Jun e-Jun 25-May 26-May 27-May 28-May 29-May 30-May 5-Jun 7-Jun 8-Jun 20-May 21-May 22-May 23-May 24-May 9-Jun unC-0 1-Jun 2-Jun 13-Jun 4-Jun 15-Jun I7-Jun le-Jun 19-May

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

Source: Bloomberg



Nat Gas Options Volume and Open Interest

CME, ICE and Nasdaq Combined

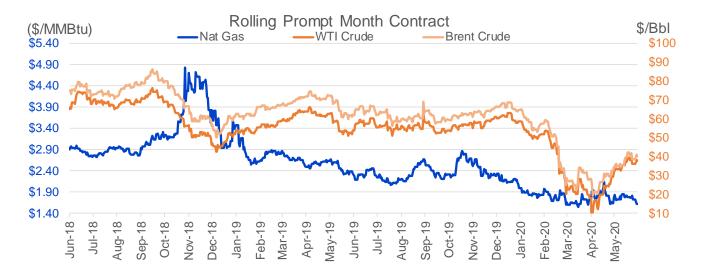
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
7	2020	Р	1.50	22884	10	2020	Р	1.50	41329
7	2020	С	1.80	10932	10	2020	С	2.75	37493
7	2020	Р	1.35	7041	10	2020	С	3.00	34773
9	2020	Р	1.50	6315	7	2020	Р	1.75	34043
7	2020	С	1.75	5791	3	2021	Р	2.00	32975
7	2020	С	1.65	5262	10	2020	Р	1.60	32312
7	2020	С	1.90	5042	7	2020	Р	1.50	30044
8	2020	Р	1.50	4848	10	2020	С	2.50	29452
7	2020	Р	1.40	4813	10	2020	Р	2.00	28482
7	2020	Р	1.60	4778	7	2020	С	2.50	25718
7	2020	Р	1.45	4700	9	2020	С	2.50	25455
9	2020	Р	1.25	3860	10	2020	Р	1.25	24978
7	2020	Р	1.30	3855	8	2020	С	2.50	24963
9	2020	Р	1.75	3476	10	2020	Р	1.75	23893
7	2020	С	1.85	3260	8	2020	Р	1.50	23877
11	2020	С	4.00	3252	9	2020	Р	1.00	21609
8	2020	P	1.40	2986	9	2020	Р	1.50	21369
7	2020	Р	1.65	2950	7	2020	С	2.25	21030
11	2020	Р	1.75	2701	7	2020	Р	2.00	20018
11	2020	P	1.50	2700	9	2020	С	2.75	19757
10	2020	P	1.50	2661	7	2020	С	3.00	19520
10	2020	C	2.75	2616	9	2020	Р	1.20	19446
8	2020	C	1.90	2574	8	2020	Р	1.20	19291
10	2020	P	1.70	2501	7	2020	С	2.00	19187
10	2020	P	1.35	2463	10	2020	Р	1.20	18676
7	2020	P	1.55	2264	9	2020	Р	1.75	18361
8	2020	P	1.65	2112	10	2020	С	3.25	18342
10	2020	P	1.40	1834	10	2020	Р	2.10	18144
8	2020	c	2.00	1802	7	2020	С	2.30	18042
7	2020	P	1.25	1631	1	2021	С	3.50	17556
7	2020	C	2.05	1611	8	2020	Р	1.00	17495
9	2020	P	1.60	1584	10	2020	С	2.25	17245
9 10	2020	P	1.25	1502	7	2020	Р	1.60	17014
7	2020	F C	1.25	1390	1	2021	С	3.00	16631
9	2020	c	2.25	1265	7	2020	С	2.75	16365
8		P			7	2020	Р	1.70	16174
8 10	2020 2020	P	1.70	1249 1224	11	2020	С	4.00	16160
9		Р С	1.60		10	2020	Р	1.00	16044
	2020		2.30	1162	3	2021	С	3.00	15647
8	2020	Р	1.25	1146	3	2021	С	7.00	14893
7	2020	P	1.80	1119	8	2020	С	3.00	14881
7	2020	С	2.00	1105	4	2021	С	3.00	14665
9	2020	P	1.35	1097	9	2020	С	3.00	14624
10	2020	С	3.00	1096	7	2020	Р	1.25	14101
8	2020	С	1.80	1085	9	2020	С	2.25	13951
10	2020	С	2.00	1053	9	2020	Р	2.00	13498
7	2020	С	1.60	1036	8	2020	С	2.75	13434
3	2021	С	2.50	1000	8	2020	Р	1.30	13279
3	2021	Р	2.00	1000	7	2020	Р	1.00	13099
7	2020	Р	1.75	906	9	2020	Р	1.3	13087

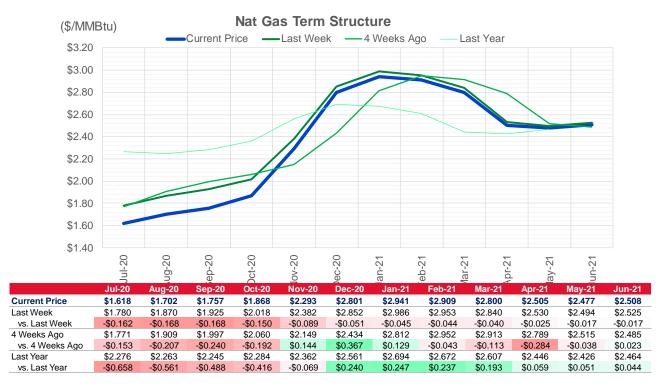
Source: CME, Nasdaq, ICE

OME, TOE and Nasdad Combined										
CME Henry	Hub Futures (1)			ICE Henry Hub Futures Contract Equivalent (10,000 M						
	Current	Prior	Daily Change		Current	Prior	Daily Change			
JUL 20	146668	156428	-9760	JUL 20	79923	78662	1261.25			
AUG 20	212159	194453	17706	AUG 20	81247	80098	1149.5			
SEP 20	181207	179240	1967	SEP 20	70951	70805	146			
OCT 20	116943	116768	175	OCT 20	80336	81417	-1081.25			
NOV 20	55540	54600	940	NOV 20	62106	62377	-271.75			
DEC 20	64119	63786	333	DEC 20	58244	58505	-261			
JAN 21	112294	112374	-80	JAN 21	73621	73785	-164.25			
FEB 21	38735	38708	27	FEB 21	45753	45611	142			
MAR 21	77835	77882	-47	MAR 21	62551	62404	147			
APR 21	69119	69114	5	APR 21	49384	49433	-49.5			
MAY 21	26335	26371	-36	MAY 21	45762	46774	-1012			
JUN 21	17718	17860	-142	JUN 21	43540	43466	73.5			
JUL 21	15238	15014	224	JUL 21	44153	44260	-106.5			
AUG 21	11597	11597	0	AUG 21	44877	44995	-118.75			
SEP 21	13936	14086	-150	SEP 21	42740	42460	280.25			
OCT 21	32894	32401	493	OCT 21	54491	54502	-11			
NOV 21	18702	18708	-6	NOV 21	36829	36824	5.25			
DEC 21	15546	15533	13	DEC 21	37630	37722	-92			
JAN 22	11760	11775	-15	JAN 22	29546	29474	72			
FEB 22	8319	8249	70	FEB 22	26025	25974	51			
MAR 22	15298	15345	-47	MAR 22	27954	28165	-210.75			
APR 22	11276	11153	123	APR 22	25862	25571	291.75			
MAY 22	4667	4763	-96	MAY 22	22284	22208	76.75			
JUN 22	2018	2017	1	JUN 22	21696	21568	128			
JUL 22	1791	1791	0	JUL 22	22294	22231	62.5			
AUG 22	1249	1249	0	AUG 22	21355	21293	62.5			
SEP 22	1324	1324	0	SEP 22	21805	21737	68			
OCT 22	1872	1872	0	OCT 22	24095	24081	14.25			
NOV 22	1399	1399	0	NOV 22	19426	19425	0.5			
DEC 22	1270	1269	1	DEC 22	20139	20138	0.5			

Nat Gas Futures Open Interest CME. ICE and Nasdag Combined

Source: CME, ICE





	11-10-	Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	1.45	1.59	0.14
TETCO M3	\$/MMBtu	1.31	1.51	0.20
FGT Zone 3	\$/MMBtu	1.33	1.82	0.49
Zone 6 NY	\$/MMBtu	1.33	1.52	0.19
Chicago Citygate	\$/MMBtu	1.38	1.71	0.33
Michcon	\$/MMBtu	1.42	1.69	0.27
Columbia TCO Pool	\$/MMBtu	1.27	1.53	0.26
Ventura	\$/MMBtu	1.38	1.67	0.29
Rockies/Opal	\$/MMBtu	1.45	1.57	0.12
El Paso Permian Basin	\$/MMBtu	1.24	1.41	0.17
Socal Citygate	\$/MMBtu	1.87	1.95	0.08
Malin	\$/MMBtu	1.32	1.68	0.36
Houston Ship Channel	\$/MMBtu	1.38	1.80	0.42
Henry Hub Cash	\$/MMBtu	1.42	1.66	0.24
AECO Cash	C\$/GJ	1.25	1.46	0.21
Station2 Cash	C\$/GJ	1.21	1.68	0.47
Dawn Cash	C\$/GJ	1.43	1.71	0.28

Source: CME, Bloomberg



		vs. 4 Weeks						
	Units	Current Price	vs.	Last Week		Ago	vs	. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.44		0.020		0.001	$\mathbf{\nabla}$	-0.065
NatGas Mar/Apr	\$/MMBtu	-0.295		0.015	\checkmark	-0.569	$\mathbf{\nabla}$	-0.532
NatGas Oct/Nov	\$/MMBtu	0.43		0.061		0.140		0.360
NatGas Oct/Jan	\$/MMBtu	1.07		0.105		0.270		0.746
WTI Crude	\$/Bbl	37.73	$\mathbf{\nabla}$	-1.870		4.240	$\mathbf{\nabla}$	-16.030
Brent Crude	\$/Bbl	40.44	\bigtriangledown	-1.290		4.690	$\mathbf{\nabla}$	-21.380
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03		0.000		0.000		0.000
Heating Oil	cents/Gallon	117.18	$\mathbf{\nabla}$	-0.120		18.120	$\mathbf{\nabla}$	-65.760
Propane, Mt. Bel	cents/Gallon	0.50	\bigtriangledown	-0.001		0.087		0.071
Ethane, Mt. Bel	cents/Gallon	0.23		0.002		0.008		0.054
Coal, PRB	\$/MTon	12.30		0.000		0.000	$\mathbf{\nabla}$	-0.050
Coal, ILB	\$/MTon	31.05		0.000		0.000	\checkmark	-9.500