

# **Market Report**

	Cı	Current		Δ from YD			Δ from 7D Avg		
Nat Gas Prompt	\$	1.91	_	\$	0.08	_	\$	0.17	

	С	urrent	Δ from YD	Δ from Av	
WTI Prompt	\$	40.41	<b>&gt;</b> \$ (0.22)	<b>\$</b>	0.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ -	<b>&gt;</b> ######	<b>&gt;</b> \$ (42.6)

#### Page Menu

Short-term Weather Model Outlooks
Lower 48 Component Models
Regional S/D Models Storage Projection
Weather Model Storage Projection
Supply – Demand Trends
Nat Gas Options Volume and Open Interest
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	1.4	2.0	0.4	3.8
24 Hr Chg	-1.3	0.7	-0.7	-1.3
GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
GFS Ensemble 00z 12 Hr Chg	1-5 Day 0.4	6-10 Day 4.5	11-15 Day -1.0	Total 3.9

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	81.7	▼ -3.39	▼ -3.17

	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.5	▼ -0.06	<b>a</b> 0.19

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	3.1	▼ -0.04	▲ 0.24

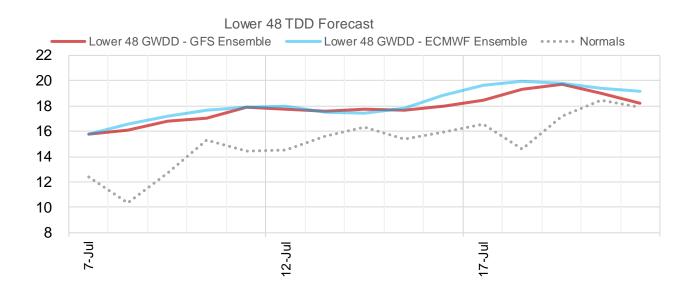
	Current	Δ from YD	om 7D Avg
US Power Burns	40.9	▼ -0.60	1.05

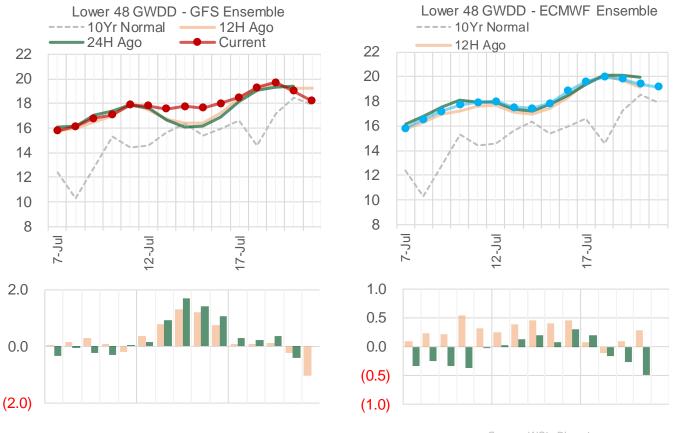
	Current	Δ fror	m YD	om 7D Avg
Canadian Imports	4.3	<u> </u>	0.03	0.21

	Current	Δf	rom YD	Δf	rom 7D Avg
Mexican Exports	5.9		0.31		0.24



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





Source: WSI, Bloomberg



# **Market Report**

## Lower 48 Component Models

#### **Daily Balances**

	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	DoD	vs.7D
Lower 48 Dry Production	84.4	84.4	85.4	85.2	85.2	85.1	81.7	-3.4	-3.3
Canadian Imports	4.1	4.1	3.9	3.8	4.0	4.3	4.3	▲ 0.0	<b>▲ 0.3</b>
L48 Power	39.5	40.9	40.1	38.2	39.3	41.5	40.9	▼ -0.6	<b>1.0</b>
L48 Residential & Commercial	7.5	7.4	7.0	6.8	7.0	7.5	7.5	▼ -0.1	<b>a</b> 0.3
L48 Industrial	18.6	18.6	18.5	18.4	18.5	18.7	18.8	<b>△</b> 0.1	<b>a</b> 0.2
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.8	4.8	4.6	▼ -0.2	▼ -0.2
L48 Pipeline Distribution	2.1	2.2	2.1	2.0	2.1	2.2	2.2	▼ 0.0	<b>0.1</b>
L48 Regional Gas Consumption	72.4	73.8	72.5	70.2	71.7	74.6	73.9	▼ -0.8	<b>1.3</b>
Net LNG Exports	3.2	3.0	1.8	3.2	3.0	3.0	3.1	▲ 0.0	<b>△</b> 0.2
Total Mexican Exports	6.0	5.9	5.7	5.5	5.3	5.6	5.9	<b>▲</b> 0.3	<b>△</b> 0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	6.9	5.8	9.2	10.0	9.2	6.0	3.1		

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

	29-May	5-Jun	12-Jun	19-Jun	26-Jun	3-Jul	WoW	vs. 4W
Lower 48 Dry Production	83.8	84.4	84.2	84.5	84.4	84.4	<b>△ 0.1</b>	<b>△</b> 0.1
Canadian Imports	4.1	4.2	3.9	3.8	4.2	4.1	<b>▽ -0.1</b>	<b>△</b> 0.1
L48 Power	29.2	31.4	33.3	30.3	37.3	38.7	<b>1.4</b>	<b>5.7</b>
L48 Residential & Commercial	7.7	8.1	7.7	8.0	7.4	7.4	<b>△</b> 0.0	▼ -0.4
L48 Industrial	20.5	20.3	19.2	18.2	18.5	18.6	<b>0.1</b>	▼ -0.5
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.8	4.8	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	1.8	1.9	2.0	1.8	2.2	2.2	<b>a</b> 0.0	<b>a</b> 0.2
L48 Regional Gas Consumption	63.9	66.4	67.0	63.1	70.1	71.7	<b>1.5</b>	<b>5.0</b>
Net LNG Exports	6.1	5.1	3.9	3.8	4.0	4.0	<b>▽</b> 0.0	▽ -0.2
Total Mexican Exports	5.0	5.3	5.7	5.6	5.9	5.8	<b>▽ -0.1</b>	<b>△</b> 0.2
Implied Daily Storage Activity	12.9	11.8	11.6	15.7	8.5	7.1	-1.5	
EIA Reported Daily Storage Activity	14.6	13.3	12.1	17.1	9.3			
Daily Model Error	-1.7	-1.5	-0.6	-1.5	-0.8			

Monthly B	alances
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,	2Yr Ago	LY					MTD		
	Jul-18	Jul-19	Mar-20	Apr-20	May-20	Jun-20	Jul-20	MoM	vs. LY
Lower 48 Dry Production	81.9	90.1	92.2	90.7	85.1	84.3	84.5	<b>△</b> 0.1	-5.6
Canadian Imports	5.6	5.0	4.1	4.0	3.9	4.0	4.1	<b>△ 0.1</b>	▽ -0.9
L48 Power	39.0	40.9	28.3	25.4	26.3	34.3	40.0	<b>5.7</b>	▼ -0.8
L48 Residential & Commercial	7.8	8.1	27.5	20.9	12.3	7.7	7.2	▼ -0.5	▼ -0.9
L48 Industrial	20.7	20.1	21.9	19.6	19.6	18.8	18.6	▼ -0.2	▼ -1.6
L48 Lease and Plant Fuel	4.6	5.0	5.2	5.1	4.8	4.8	4.7	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	2.2	2.2	2.5	2.1	1.9	2.0	2.1	<b>△</b> 0.1	▼ -0.1
L48 Regional Gas Consumption	74.3	76.4	85.3	73.1	64.8	67.6	72.7	<b>▲ 5.1</b>	▼ -3.7
Net LNG Exports	3.3	6.0	8.5	8.2	6.7	4.0	2.9	▼ -1.1	▼ -3.1
Total Mexican Exports	5.0	5.4	5.6	4.9	4.9	5.7	5.7	▲ 0.0	<b>△</b> 0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity	5.0	7.3	-3.1	8.4	12.7	11.0	7.2		
Daily Model Error							0	Discontinu	and an alestic

Source: Bloomberg, analytix.ai



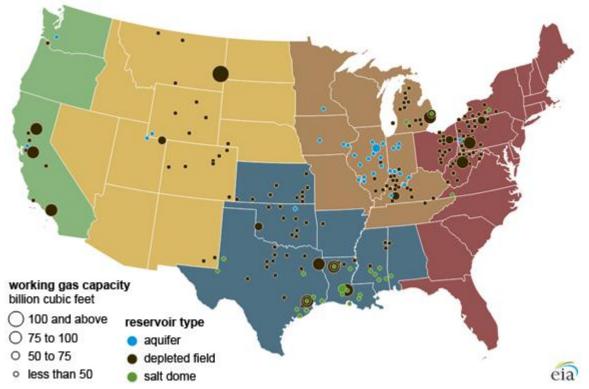
### Regional S/D Models Storage Projection

Week Ending 3-Jul

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	6.8	1.4	8.2	57
East	1.2	1.5	2.6	18
Midwest	3.4	-0.5	3.0	21
Mountain	2.9	-2.0	0.9	6
South Central	-2.1	2.7	0.7	5
Pacific	1.3	-0.3	1.0	7

<sup>\*</sup>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 Storage							
Week Ending	Projection							
10-Jul	32							
17-Jul	5							
24-Jul	25							

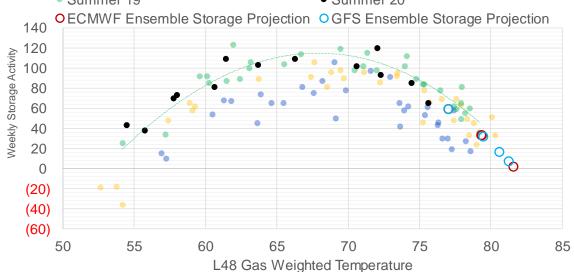
#### Weather Storage Model - Next 4 Week Forecast

Summer 17

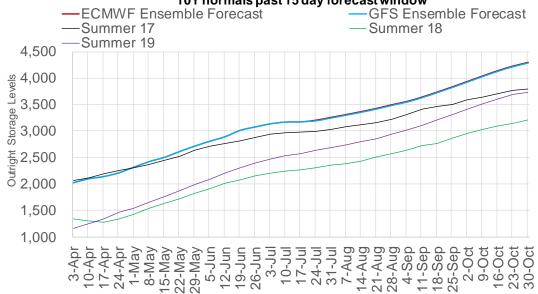
Summer 18

Summer 19

• Summer 20



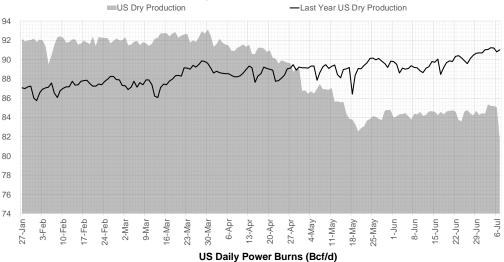
#### Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window

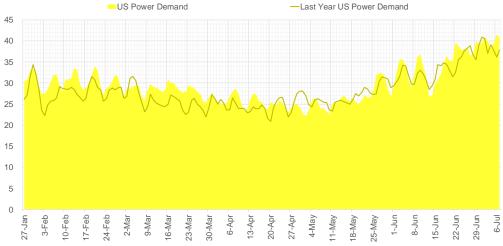




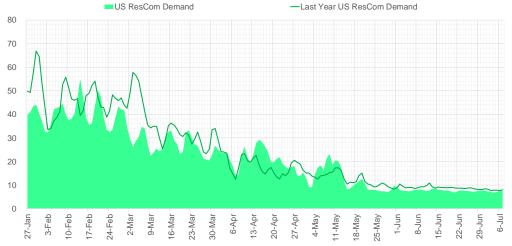
### Supply - Demand Trends

#### US Dry Natural Gas Production (Bcf/d)





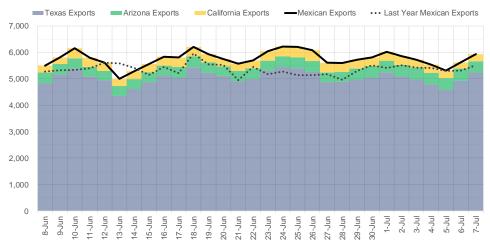
#### US Daily ResCom Consumption(Bcf/d)



Source: Bloomberg



#### Mexican Exports - Last 30 days (MMcf/d)



#### Net LNG Exports - Last 30 days (MMcf/d) Cameron Exports Cove Point Exports Elba Exports Sabine Pass Exports Golden Pass Exports Everett Exports Freeport 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 (1,000)

Source: Bloomberg



# **Market Report**

# 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		
9	2020	С	3.00	11200	8		2020	2020 P	2020 P 1.50
10	2020	P	1.50	7120	10	202			
8	2020	C	2.00	5215	10	2020		C	
10	2020	P	1.60	3812	8	2020		Č	
10	2020	P	1.00	3676	3	2021		P	
					10	2020		Ċ	
9	2020	P	1.20	3458	10	2020		P	
8	2020	P	1.50	3446					
9	2020	С	2.00	3364	10	2020		С	
8	2020	С	2.25	3352	10	2020		P	
10	2020	С	2.00	2760	9	2020		Р	
9	2020	Р	1.50	2504	9	2020		С	
9	2020	С	2.20	2408	9	2020		Р	
8	2020	Р	1.20	2220	8	2020		С	
8	2020	Р	1.10	2051	10	2020		Р	
10	2020	P	1.20	2010	10	2020		Р	
9	2020	Р	1.10	2004	9	2020		Р	P 1.00
10	2020	Р	1.10	2002	9	2020		Р	P 1.25
8	2020	C	2.20	1987	9	2020		Р	P 1.75
8	2020	C	1.80	1901	9	2020		С	C 2.75
					8	2020		С	
8	2020	С	2.10	1849	8	2020		Р	P 1.30
8	2020	P	1.60	1835	10	2020		С	
10	2020	С	2.10	1713	10	2020		P	
8	2020	Р	1.65	1701	8	2020		Р	
8	2020	С	2.15	1664	1	2021		C	
8	2020	Р	1.30	1598	10	2020		P	
3	2021	С	3.00	1500	10	2020		C	
10	2020	С	2.25	1488	10	2020		P	
3	2021	С	3.50	1400	8	2020		P	
8	2020	Р	1.75	1373	8 1			C	
8	2020	C	2.50	1371		2021			
9	2020	Č	1.90	1371	3	2021		С	
9	2020	P	1.00	1365	9	2020		С	
9	2020	C	2.25	1290	9	2020		С	
10	2020	C	2.23	1272	10	2020		Р	
					12	2020		Р	
11	2020	P	1.70	1200	9	2020		С	
9	2020	С	1.80	1183	8	2020		Р	P 1.40
9	2020	С	2.10	1025	10	2020		С	C 2.25
10	2020	Р	1.35	1015	4	2021		С	
10	2020	Р	1.75	1013	8	2020		C	
9	2020	Р	1.25	1009	8	2020		P	
10	2020	С	1.80	1004	8	2020		C	
9	2020	С	2.50	1000	8	2020		P	
8	2020	P	1.80	993	9	2020		Р	
8	2020	C	1.90	959	9	2020		P	
8	2020	Č	1.85	903	8	2020		r P	
9	2020	P	1.70	896	o 11	2020		C	
10	2020	C	2.50	880	8	2020		C	
10					8 10			C	
	2020	С	2.75	877		2020			
9	2020	Р	1.80	807	1	2021		Р	P 2.5

Source: CME, Nasdaq, ICE

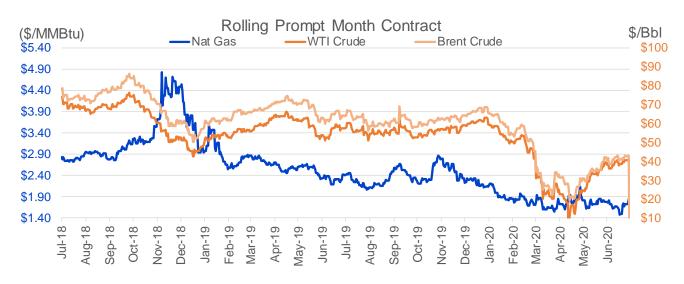


# Nat Gas Futures Open Interest

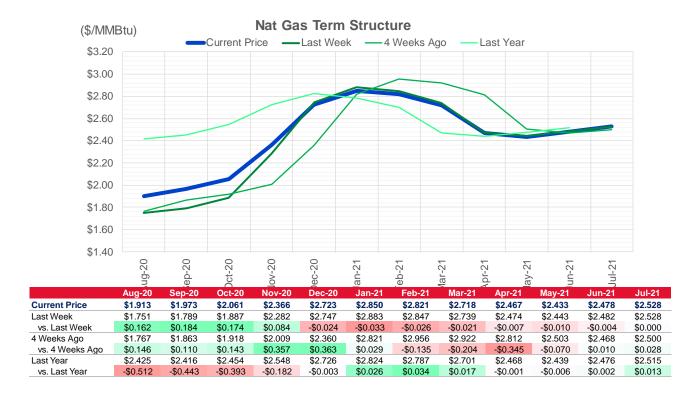
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CME Hoppy	CME Henry Hub Futures (10,000 MMBtu)  ICE Henry Hub Futures Contract Equivalent (10,000 MM								
CIVIL FIETHY	Current	Prior		FOR JUNE 26	Current	Prior	Daily Change		
AUG 20	289786	273584	16202	AUG 20	86721	87206	-484.75		
SEP 20	205712	207981	-2269	SEP 20	75246	72985	2261		
OCT 20	122010	120805	1205	OCT 20	80320	77527	2793		
NOV 20	71838	71484	354	NOV 20	66116	65966	150		
DEC 20	74299	74873	-574	DEC 20	61010	61186	-176		
JAN 21	112146	115175	-3029	JAN 21	75340	75665	-325		
FEB 21	40254	39417	837	FEB 21	47372	46958	414.5		
MAR 21	79913	84352	-4439	MAR 21	63276	63085	190.5		
APR 21	76661	76329	-4439 332	APR 21	51847	50838	1008.75		
MAY 21	32524	30816	1708	MAY 21	46308	46214	93.5		
JUN 21	18379	18069	310	JUN 21	44324	44397	-73		
JUL 21	16500	16625	-125	JUL 21	44880	44863	16.5		
AUG 21	12974	12846	-125 128	AUG 21	45400	45330	70.25		
SEP 21				SEP 21					
OCT 21	15643	15853	-210	OCT 21	43385	43315	70.25		
	38939	36687	2252	NOV 21	63823	61582	2241.25		
NOV 21	21371	20451	920		36883	36933	-49.75		
DEC 21	15629	15664	-35	DEC 21	37754	37767	-13.25		
JAN 22	13413	13186	227	JAN 22	29846	29776	70		
FEB 22	8674	8810	-136	FEB 22	26713	26635	78		
MAR 22	13552	13545	7	MAR 22	28383	28329	54.5		
APR 22	12359	12458	-99 	APR 22	27509	27410	99		
MAY 22	5229	5204	25	MAY 22	22573	22519	54.25		
JUN 22	2023	2029	-6	JUN 22	22425	22319	105.75		
JUL 22	1795	1796	-1	JUL 22	22349	22248	101.5		
AUG 22	1261	1248	13	AUG 22	22141	22032	109.25		
SEP 22	1471	1451	20	SEP 22	21717	21611	105.75		
OCT 22	1877	1910	-33	OCT 22	23537	23470	66.5		
NOV 22	1479	1425	54	NOV 22	20202	20105	97.5		
DEC 22	1293	1292	1	DEC 22	20787	20686	101		
JAN 23	2464	2464	0	JAN 23	11118	11056	62.25		

Source: CME, ICE







	Halla	Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	1.55	1.74	0.19
TETCO M3	\$/MMBtu	1.73	1.59	-0.14
FGT Zone 3	\$/MMBtu	1.76	1.79	0.03
Zone 6 NY	\$/MMBtu	1.76	1.57	-0.19
Chicago Citygate	\$/MMBtu	1.72	1.75	0.03
Michcon	\$/MMBtu	1.67	1.67	0.00
Columbia TCO Pool	\$/MMBtu	1.57	1.50	-0.07
Ventura	\$/MMBtu	1.45	1.68	0.23
Rockies/Opal	\$/MMBtu	1.54	1.54	0.00
El Paso Permian Basin	\$/MMBtu	1.26	1.50	0.24
Socal Citygate	\$/MMBtu	1.80	1.99	0.19
Malin	\$/MMBtu	1.52	1.69	0.17
Houston Ship Channel	\$/MMBtu	1.71	1.76	0.05
Henry Hub Cash	\$/MMBtu	1.71	1.65	-0.06
AECO Cash	C\$/GJ	1.46	1.48	0.02
Station2 Cash	C\$/GJ	1.50	1.75	0.25
Dawn Cash	C\$/GJ	1.77	1.71	-0.06

Source: CME, Bloomberg



					V	s. 4 Weeks		
	Units	<b>Current Price</b>	vs	. Last Week		Ago	VS	s. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.38	_	0.026		0.070		0.017
NatGas Mar/Apr	\$/MMBtu	-0.251	_	0.014	$\overline{}$	-0.560	$\overline{}$	-0.510
NatGas Oct/Nov	\$/MMBtu	0.31	$\overline{}$	-0.088	$\overline{}$	-0.044		0.251
NatGas Oct/Jan	\$/MMBtu	0.79	$\overline{}$	-0.205	$\overline{}$	-0.156		0.476
WTI Crude	\$/BbI	40.41	_	1.140		1.470	$\overline{}$	-17.420
Brent Crude	\$/BbI	0.00	$\overline{}$	-41.150	$\overline{}$	-41.180	$\overline{}$	-64.160
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	_	0.000		0.000		0.000
Heating Oil	cents/Gallon	123.32	_	5.510	_	7.850	$\overline{}$	-67.740
Propane, Mt. Bel	cents/Gallon	0.47	$\overline{}$	-0.024	$\overline{}$	-0.021		0.006
Ethane, Mt. Bel	cents/Gallon	0.21	$\overline{}$	-0.012	$\overline{}$	-0.026		0.067
Coal, PRB	\$/MTon	12.30	_	0.000	_	0.000		0.000
Coal, ILB	\$/MTon	31.05	_	0.000		0.000	$\overline{}$	-7.500