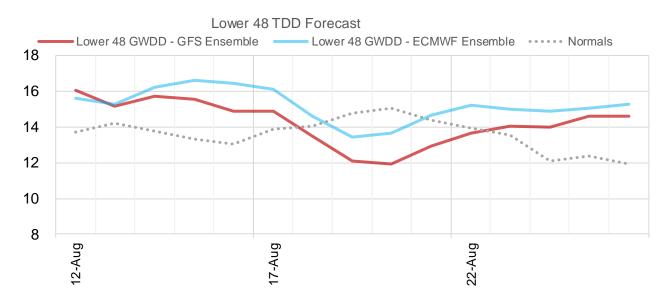
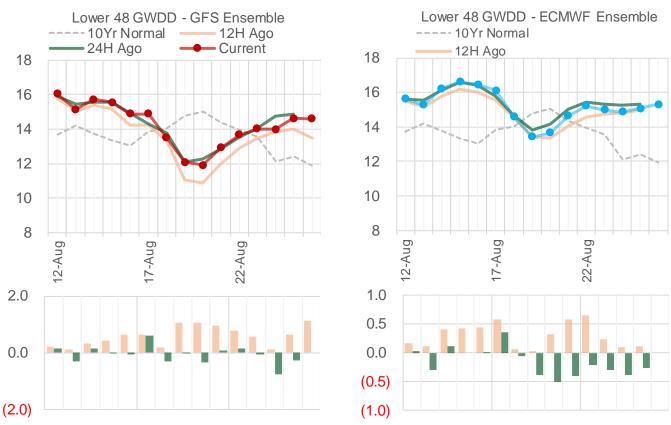
ion.	NERGY	Marke	t Repo	rt	12 August 2020						
	Curre	nt 🛛 from YI	D Δ from 7 Avg	Page N							
Nat Gas Prompt	\$ 2	.13 🔻 \$ (0.04	4) 🔻 \$ (0.0	D7) Lower 4	Short-term Weather Model Outlooks Lower 48 Component Models Regional S/D Models Storage Projection						
Current Δ from YD Δ from 7D Weather Model Storage Projection WTI Avg Supply – Demand Trends WTI Nat Gas Options Volume and Open Intered											
Prompt	\$ 42	.17 🔺 \$ 0.50	6 🔺 \$ (<u>s Futures O</u> p <u>ummary</u>	<u>pen Interest</u>					
	Curre	nt ∆ from YI	O ^{∆ from 7} Avg	7D							
Brent Prompt	\$ 45	.07 🔺 \$ 0.57	7 🔺 \$ (0.4							
00z G	WDD Cl	hange	Coole	er Change	War	mer Change					
ECMW	/F Ensen	nble 00z	1-5 Day	6-10 Day	11-15 Da	ay Total					
		2 Hr Chg	1.6	1.6	1.1	4.2					
	2	4 Hr Chg	-0.2	-1.0	-1.2	-2.3					
GF	S Ensen	nble 00z	1-5 Day	6-10 Day	11-15 Da	ay Total					
	1	2 Hr Chg	1.7	3.9	3.2	8.8					
	2	4 Hr Chg	-0.1	0.0	-0.9	-1.1					
	Current	Δ from YD	∆ from 7D Avg		Current	Δ from YD $\begin{array}{c} \Delta \text{ from} \\ A \end{array}$					
US Dry Production	84.7	✓ -1.20	-1.78	US Power Burns	42.7	▼ -2.28 ▲ 1	.92				
	Current	Δ from YD	∆ from 7D Avg		Current	Δ from YD Δ from YD Av					
US ResComm	8.0	▲ 0.02 ∡	0.44	Canadian Imports	5.2		.48				
	Current	Δ from YD	∆ from 7D Avg		Current	Δ from YD $\begin{array}{c} \Delta \text{ from} \\ A \end{array}$					
Net LNG Exports	4.3	▼ -0.15 ▲	0.13	Mexican Exports	6.1		.09				



Short-term Weather Model Outlooks (00z)





Source: WSI , Bloomberg



Market Report

Daily Balances

	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	DoD	vs.7D
Lower 48 Dry Production	86.5	86.4	86.6	87.1	86.9	85.9	84.7	▼ -1.2	▼ -1.9
Canadian Imports	4.2	4.2	4.7	4.7	5.2	5.5	5.2	▼ -0.2	A 0.5
L48 Power	37.9	37.7	38.7	40.6	46.3	44.9	42.7	▼ -2.3	1.6
L48 Residential & Commercial	7.4	7.3	7.2	7.4	7.9	8.0	8.0	▲ 0.0	a 0.4
L48 Industrial	18.5	18.5	18.7	18.9	19.0	19.2	19.2	▲ 0.0	a 0.4
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.1	2.1	2.1	2.2	2.5	2.4	2.3	▼ -0.1	4 0.1
L48 Regional Gas Consumption	70.8	70.4	71.5	74.0	80.5	79.3	76.8	▼ -2.4	2.4
Net LNG Exports	4.0	4.0	4.3	4.3	4.5	4.5	4.3	▼ -0.2	A 0.1
Total Mexican Exports	6.3	6.3	5.8	5.7	5.9	6.1	6.1	▼ 0.0	▲ 0.1
Implied Daily Storage Activity EIA Reported Daily Storage Activity	9.6	9.9	9.7	7.7	1.2	1.5	2.6		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	3-Jul	10-Jul	17-Jul	24-Jul	31-Jul	7-Aug	WoW	vs. 4W
Lower 48 Dry Production	85.3	85.7	85.6	86.3	86.3	86.3	▼ 0.0	0.3
Canadian Imports	4.1	4.3	4.5	4.4	4.5	4.6	0.1	0.2
L48 Power	38.5	41.8	42.9	45.5	45.6	40.8	▼ -4.8	▼ -3.2
L48 Residential & Commercial	8.2	7.9	7.9	8.1	8.1	7.6	▼ -0.5	▼ -0.4
L48 Industrial	19.0	18.3	17.9	17.2	17.0	18.1	A 1.1	a 0.5
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.2	2.3	2.3	2.4	2.4	2.2	▼ -0.2	▼ -0.1
L48 Regional Gas Consumption	72.7	75.0	75.8	78.0	77.9	73.5	▼ -4.4	▼ -3.1
Net LNG Exports	4.0	3.0	3.3	3.6	3.1	3.9	0.7	0.6
Total Mexican Exports	5.8	5.9	6.2	6.4	6.2	6.1	▼ -0.1	▼ 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity	6.9 8.0	6.0 6.4	4.8 5.3	2.7 3.7	3.5 4.7	7.4	3.8	
Daily Model Error	-1.1	-0.4	-0.5	-1.0	-1.2			

Monthly Balances

	2Yr Ago	LY					MTD		
	Aug-18	Aug-19	Apr-20	May-20	Jun-20	Jul-20	Aug-20	МоМ	vs. LY
Lower 48 Dry Production	83.3	92.4	91.7	86.0	84.9	85.9	86.3	A 0.3	▼ -6.2
Canadian Imports	5.0	4.4	3.9	3.9	4.0	4.4	4.8	0.4	0.4
L48 Power	38.2	41.0	25.5	26.9	34.4	43.7	41.0	▼ -2.7	▼ 0.0
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.6	▼ -0.4	▼ -0.2
L48 Industrial	20.2	21.9	20.7	18.8	18.4	17.7	18.6	4 0.9	▼ -3.4
L48 Lease and Plant Fuel	4.7	5.1	5.1	4.8	4.8	4.8	4.8	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	2.1	2.3	2.1	1.9	2.1	2.3	2.2	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	73.0	78.1	73.8	65.4	68.3	76.5	74.2	▼ -2.3	▼ -3.9
Net LNG Exports	3.3	5.2	8.2	6.7	4.0	3.3	4.1	A 0.9	▼ -1.0
Total Mexican Exports	5.0	5.4	4.9	4.9	5.7	6.1	6.1	▼ -0.1	0.6
Implied Daily Storage Activity	7.0	8.1	8.7	12.9	10.8	4.4	6.7		
EIA Reported Daily Storage Activity Daily Model Error									

Source: Bloomberg, analytix.ai

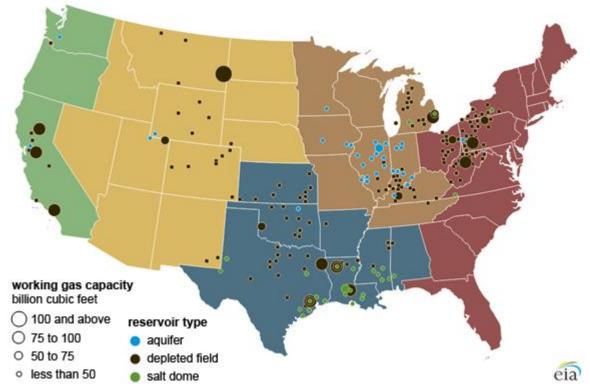


Regional S/D Models Storage Projection

Week Ending	7-Aug			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
L48	7.1	1.3	8.4	59
East	0.7	2.8	3.5	24
Midwest	3.4	-0.3	3.0	21
Mountain	3.1	-2.2	1.0	7
South Central	-1.1	1.8	0.7	5
Pacific	1.0	-0.7	0.3	2

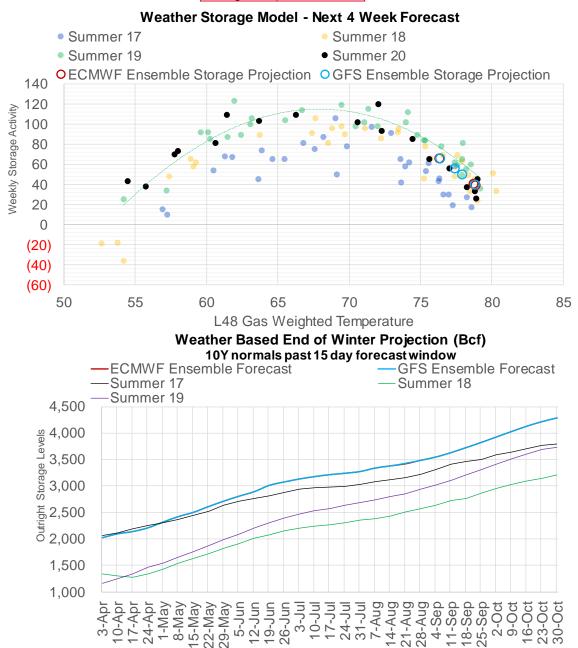
*Adjustment Factor is calcuated based on historical regional deltas

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

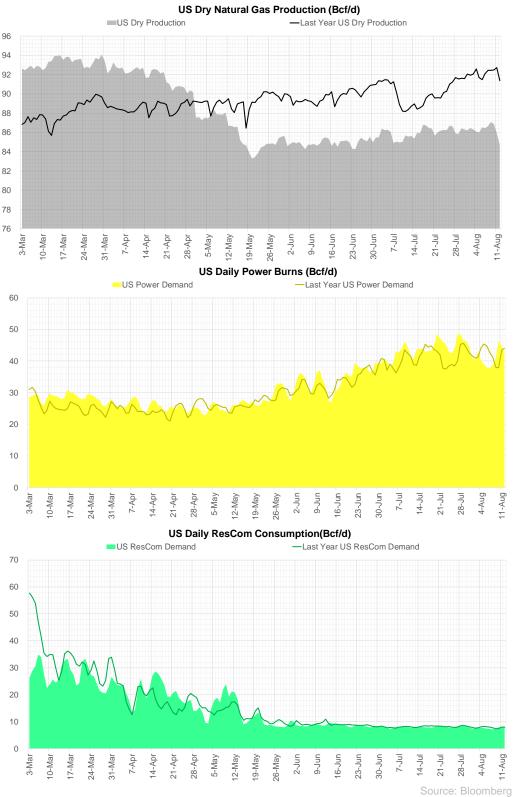


Weather Model Storage Projection

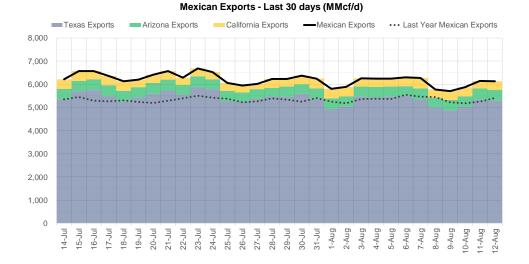
Next report and beyond								
	Week Storage							
Week Ending	Projection							
14-Aug	40							
21-Aug	45							
28-Aug	61							

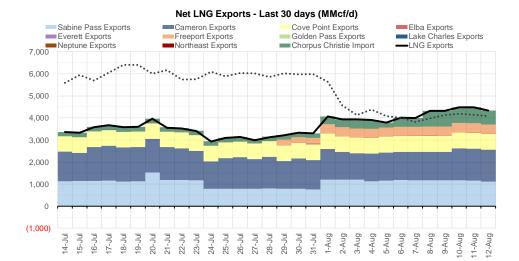


Supply – Demand Trends



ENERGY





Source: Bloomberg



Nat Gas Options Volume and Open Interest

CME, ICE and Nasdaq Combined

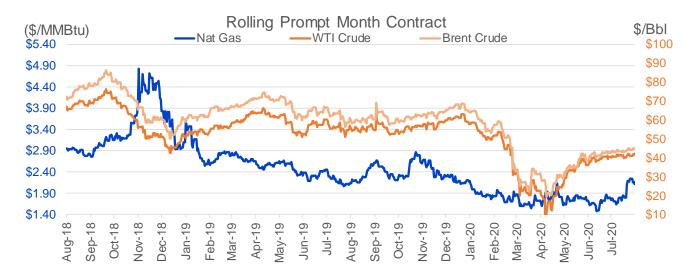
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
9	2020	С	2.50	4958	9	2020	С	2.50	46859
3	2021	С	5.00	3200	10	2020	Р	1.50	45967
9	2020	Р	2.00	2479	10	2020	С	2.75	45778
9	2020	Р	1.90	2025	10	2020	С	2.50	40496
3	2021	С	6.00	2000	10	2020	Р	2.00	37500
10	2020	Р	1.90	1992	3	2021	Р	2.00	35522
12	2020	Р	1.50	1800	10	2020	Р	1.60	34307
10	2021	С	5.00	1500	10	2020	С	3.00	33128
9	2020	Р	1.95	1423	10	2020	Р	1.25	28910
9	2020	Р	1.85	1412	10	2020	P	1.75	26539
12	2020	Р	2.00	1383	10	2020	Р	1.00	24725
9	2020	Р	2.05	1363	9	2020	P	1.00	24289
10	2020	Р	2.25	1335	9	2020	С	3.00	23763
9	2020	С	2.40	1298	9	2020	P	1.50	23622
9	2020	С	2.30	1249	3 9	2021	C P	6.00	23604
10	2020	С	3.25	1241	9	2020 2020	P C	2.00	23537 22949
9	2020	Р	2.10	1157	9	2020	P	2.00 1.20	22949
10	2020	Р	1.80	1098	9	2020	P	1.20	22471
4	2021	С	3.25	850	3	2020	C	3.00	22349
11	2020	С	3.30	794	10	2021	c	2.10	22060
10	2020	С	2.75	758	10	2020	c	3.25	21387
11	2020	С	2.80	752	9	2020	c	2.25	19606
11	2020	Р	2.50	741	12	2020	P	2.00	19542
9	2020	С	2.25	736	9	2020	P	1.30	19386
10	2020	С	2.50	718	9	2020	P	1.25	19214
10	2020	Р	1.50	649	10	2020	P	1.30	19095
9	2020	С	3.00	643	1	2021	C	4.50	19076
9	2020	С	2.15	515	10	2020	P	2.10	18999
10	2020	Р	1.40	510	3	2021	С	3.50	18984
9	2020	С	2.75	501	10	2020	С	2.00	18662
10	2021	С	4.00	500	9	2020	C	2.75	18640
9	2020	С	2.20	495	1	2021	С	3.50	18477
10	2020	Р	1.60	388	11	2020	С	3.00	17756
11	2020	Р	2.60	385	10	2020	С	2.40	17011
11	2020	Р	2.20	351	10	2020	С	2.25	16968
6	2021	С	3.00	350	11	2020	С	3.50	16697
9	2020	P	2.15	349	1	2021	С	3.00	16605
10	2020	Р	2.10	343	12	2020	Р	1.50	16402
12	2020	С	4.00	335	10	2020	Р	1.80	16342
4	2021	С	3.50	330	11	2020	С	2.75	15146
10	2020	С	3.15	322	4	2021	С	3.00	14964
9	2020	Р	2.20	321	10	2020	С	3.50	14386
10	2020	Р	1.75	316	1	2021	С	3.75	13927
10	2020	P	2.00	302	1	2021	Р	2.25	13853
5	2021	С	3.00	301	9	2020	С	2.40	13852
11	2020	С	2.85	300	2	2021	С	5.00	13519
4	2021	С	3.00	300	9	2020	С	3.25	12929
4	2021	Р	2.40	300	10	2020	P	1.40	12874
5	2021	Р	2.40	300	10	2021	С	3	12850

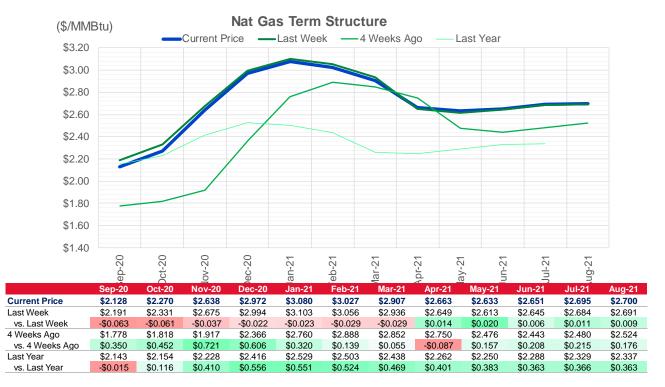
Source: CME, Nasdaq, ICE



			and ICE C				
CME Henry I	Hub Futures (1						lent (10,000 MM
	Current	Prior		FOR JUNE 26	Current	Prior	Daily Change
SEP 20	211980	246597	-34617	SEP 20	72758	73165	-407.75
OCT 20	170528	155622	14906	OCT 20	80903	82479	-1575.25
NOV 20	137286	123983	13303	NOV 20	68855	68246	609.75
DEC 20	91571	90115	1456	DEC 20	71516	71373	143.5
JAN 21	123823	122786	1037	JAN 21	87272	87051	221.25
FEB 21	41181	41017	164	FEB 21	53155	53347	-192.75
MAR 21	80053	80698	-645	MAR 21	68854	69179	-325
APR 21	78056	77745	311	APR 21	59301	58846	455.75
MAY 21	43309	42728	581	MAY 21	49732	49586	146.25
JUN 21	23366	24027	-661	JUN 21	48040	48038	2.25
JUL 21	17351	17607	-256	JUL 21	49490	48963	527
AUG 21	16674	17192	-518	AUG 21	47967	47958	9
SEP 21	19985	19821	164	SEP 21	47000	46859	140.5
OCT 21	50090	50964	-874	OCT 21	67711	68130	-418.25
NOV 21	23912	23794	118	NOV 21	40360	39603	757
DEC 21	17156	17179	-23	DEC 21	41735	41820	-85
JAN 22	18939	18604	335	JAN 22	34306	34021	285.25
FEB 22	11104	10694	410	FEB 22	29274	29292	-18.5
MAR 22	16312	16097	215	MAR 22	31667	31538	128.5
APR 22	16578	16570	8	APR 22	30733	30765	-32.75
MAY 22	5430	5482	-52	MAY 22	23218	23230	-11.5
JUN 22	2824	2819	5	JUN 22	23005	23023	-18
JUL 22	2114	2123	-9	JUL 22	22656	22675	-18.5
AUG 22	1740	1745	-5	AUG 22	22967	22993	-26.25
SEP 22	2234	2234	0	SEP 22	22461	22487	-25.5
OCT 22	2783	2657	126	OCT 22	23885	23896	-10.75
NOV 22	1947	1954	-7	NOV 22	21436	21454	-18
DEC 22	1947	1947	0	DEC 22	22192	22218	-26.25
JAN 23	2637	2628	9	JAN 23	12146	11998	148.25
FEB 23	681	675	6	FEB 23	10876	10840	35.75

Source: CME, ICE





		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	2.11	1.78	-0.33
TETCO M3	\$/MMBtu	2.03	1.68	-0.35
FGT Zone 3	\$/MMBtu	1.96	2.27	0.31
Zone 6 NY	\$/MMBtu	1.96	1.70	-0.26
Chicago Citygate	\$/MMBtu	1.96	1.94	-0.02
Michcon	\$/MMBtu	1.94	1.93	-0.01
Columbia TCO Pool	\$/MMBtu	1.88	1.75	-0.13
Ventura	\$/MMBtu	1.86	2.20	0.34
Rockies/Opal	\$/MMBtu	1.99	1.86	-0.13
El Paso Permian Basin	\$/MMBtu	1.34	1.66	0.32
Socal Citygate	\$/MMBtu	2.61	2.22	-0.40
Malin	\$/MMBtu	1.99	1.68	-0.31
Houston Ship Channel	\$/MMBtu	2.12	2.19	0.07
Henry Hub Cash	\$/MMBtu	2.15	2.05	-0.10
AECO Cash	C\$/GJ	1.76	1.80	0.04
Station2 Cash	C\$/GJ	1.78	1.99	0.21
Dawn Cash	C\$/GJ	1.94	1.93	-0.01

Source: CME, Bloomberg

		vs. 4 Weeks						
	Units	Current Price	vs.	Last Week		Ago	vs	s. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.42		0.037	\bigtriangledown	-0.005	$\mathbf{\nabla}$	-0.021
NatGas Mar/Apr	\$/MMBtu	-0.244		0.043	\checkmark	-0.518	$\mathbf{\nabla}$	-0.503
NatGas Oct/Nov	\$/MMBtu	0.37		0.024	\bigtriangledown	-0.081		0.300
NatGas Oct/Jan	\$/MMBtu	0.81		0.038	\bigtriangledown	-0.161		0.464
WTI Crude	\$/Bbl	42.17	$\mathbf{\nabla}$	-0.020		0.970	$\mathbf{\nabla}$	-13.060
Brent Crude	\$/Bbl	45.07	\checkmark	-0.100		1.280	$\mathbf{\nabla}$	-14.410
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03		0.000		0.000		0.000
Heating Oil	cents/Gallon	125.14	$\mathbf{\nabla}$	-1.170		0.660	$\mathbf{\nabla}$	-59.230
Propane, Mt. Bel	cents/Gallon	0.50	$\mathbf{\nabla}$	-0.002		0.016		0.105
Ethane, Mt. Bel	cents/Gallon	0.23		0.002		0.007		0.079
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.150
Coal, ILB	\$/MTon	31.05		0.000		0.000	$\overline{}$	-7.000