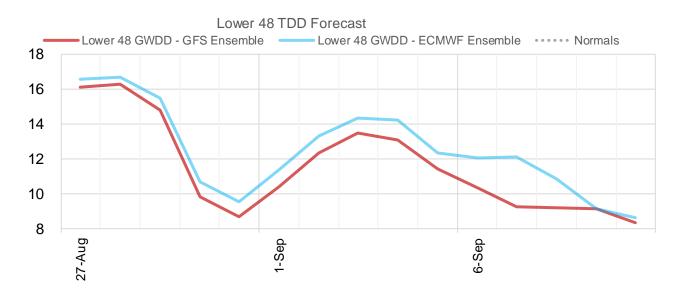
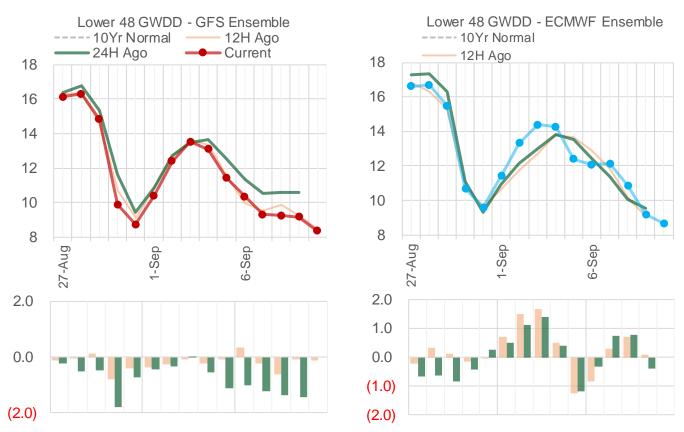
	NERGY	Marke	et Repo	rt	27 August 2020						
	Curre	nt Δ from Σ	/D Δ from 7 Avg	Page M		lodel Outlooks					
Nat Gas Prompt	\$ 2	.50 🔺 \$ 0.0	04 🔺 \$ 0.0	05 <u>Lower 4</u>	5 <u>Short-term Weather Model Outlooks</u> <u>Lower 48 Component Models</u> Regional S/D Models Storage Projection						
Current Δ from YD Δ from 7D Avg											
WTI Prompt	\$ 43	.10 🔻 \$ (0.2	29) 🔺 \$ (Futures Oper						
	Curre	nt Δ from Σ	/D ^{∆ from 7} Avg								
Brent Prompt	\$ 45	.46 🔻 \$ (0.1	8) 🔺 \$ (0.5							
00z G	WDD C	hange	Coole	er Change	Warm	er Change					
ECMM	/F Enser	nble 00z	1-5 Day	6-10 Day	11-15 Day	Total					
	1	2 Hr Chg	0.0	3.2	0.3	3.4					
	2	4 Hr Chg	-2.3	2.3	0.8	0.8					
GF	S Enser	nble 00z	1-5 Day	6-10 Day	11-15 Day	Total					
	1	2 Hr Chg	-1.2	-1.1	-0.7	-2.9					
	2	4 Hr Chg	-3.7	-2.4	-5.0	-11.2					
	Current	∆ from YD	∆ from 7D Avg		Current Δ	from YD	om 7D Vg				
US Dry Production	84.2	▼ -0.25	▼ -1.25	US Power Burns	43.0	1.67 🔺	2.02				
	Current	∆ from YD	∆ from 7D Avg		Current Δ	trom YL)	om 7D Vg				
US ResComm	8.1	▼ -0.04	▲ 0.13	Canadian Imports	5.1 🔻	-0.44 🔻 -	0.16				
	Current	∆ from YD	∆ from 7D Avg		Current Δ	from YL)	om 7D Vg				
Net LNG Exports	2.1	▼ -0.15	▼ -2.11	Mexican Exports	6.9	0.05 🔺	0.31				



Short-term Weather Model Outlooks (00z)





Source: WSI , Bloomberg



Market Report

Daily Balances

	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	DoD	vs.7D
Lower 48 Dry Production	86.6	85.8	85.0	85.3	84.6	84.4	84.2	▼ -0.2	▼ -1.1
Canadian Imports	5.0	5.1	5.2	5.4	5.3	5.5	5.1	▼ -0.4	▼ -0.2
L48 Power	38.9	39.0	40.2	44.6	44.5	41.3	43.0	1.7	1.5
L48 Residential & Commercial	7.7	7.6	7.7	8.3	8.2	8.1	8.1	▼ 0.0	A 0.1
L48 Industrial	19.5	19.4	19.2	19.4	19.2	19.0	18.9	▼ -0.1	▼ -0.4
L48 Lease and Plant Fuel	4.8	4.8	4.7	4.7	4.7	4.7	4.7	▼ 0.0	▼ -0.1
L48 Pipeline Distribution	2.2	2.1	2.2	2.4	2.4	2.3	2.4	a 0.1	4 0.1
L48 Regional Gas Consumption	73.2	72.9	74.1	79.4	79.0	75.4	77.0	1.6	1.3
Net LNG Exports	5.1	5.1	5.0	4.1	3.1	2.3	2.1	▼ -0.2	▼ -2.0
Total Mexican Exports	6.6	6.4	6.3	6.8	6.4	6.8	6.9	A 0.1	A 0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity	6.7	6.5	4.9	0.3	1.3	5.5	3.3		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	17-Jul	24-Jul	31-Jul	7-Aug	14-Aug	21-Aug	WoW	vs. 4W
Lower 48 Dry Production	85.8	86.6	86.5	86.6	86.7	86.5	▼ -0.2	▼ -0.1
Canadian Imports	4.5	4.4	4.5	4.6	5.0	4.7	▼ -0.3	▲ 0.1
L48 Power	42.9	45.4	45.5	40.8	43.0	40.2	▼ -2.8	▼ -3.6
L48 Residential & Commercial	7.9	8.1	8.1	7.7	7.8	7.8	🔺 0.1	▼ -0.1
L48 Industrial	18.1	17.4	17.2	18.5	18.6	19.8	🔺 1.2	🔺 1.9
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.8	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.3	2.4	2.4	2.2	2.3	2.2	▼ -0.1	▼ -0.1
L48 Regional Gas Consumption	76.0	78.2	78.2	74.0	76.5	74.8	▼ -1.7	▼ -1.9
Net LNG Exports	3.3	3.6	3.1	3.9	4.4	4.7	0.4	1.0
Total Mexican Exports	6.2	6.4	6.2	6.1	6.0	6.2	A 0.2	▲ 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity	4.8 5.3	2.7 3.7	3.5 4.7	7.2 8.3	4.8 6.1	5.4	0.6	
Daily Model Error	-0.5	-1.0	-1.2	-1.1	-1.3			

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	83.2	92.5	91.6	85.8	85.1	86.2	86.2	a 0.0	▼ -6.3
Canadian Imports	5.0	4.4	3.9	3.9	4.0	4.4	4.9	a 0.5	a 0.5
L48 Power	38.2	41.1	25.5	26.9	34.5	43.7	41.3	▼ -2.4	▲ 0.2
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.8	▼ -0.2	▼ 0.0
L48 Industrial	20.2	22.0	20.6	18.8	18.5	17.9	19.0	1.2	▼ -2.9
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	2.4	2.3	▼ -0.1	▲ 0.0
L48 Regional Gas Consumption	73.0	78.2	73.7	65.4	68.4	76.8	75.2	▼ -1.5	▼ -3.0
Net LNG Exports	3.3	5.2	8.2	6.7	4.0	3.3	4.2	4 1.0	▼ -0.9
Total Mexican Exports	5.0	5.4	4.9	4.9	5.7	6.1	6.2	a 0.1	A 0.8
Implied Daily Storage Activity	6.9	8.0	8.7	12.7	10.9	4.4	5.4		
EIA Reported Daily Storage Activity Daily Model Error									

Source: Bloomberg, analytix.ai

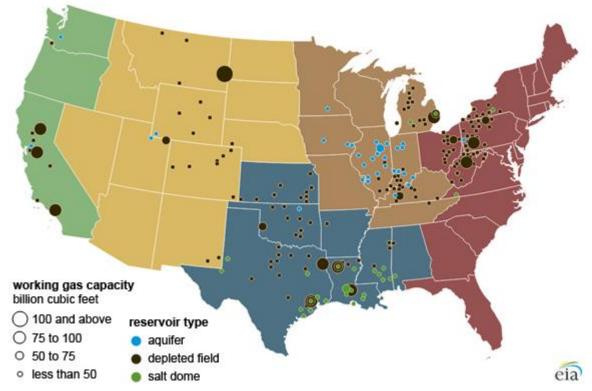


Regional S/D Models Storage Projection

Week Ending	21-Aug			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
L48	5.2	1.4	6.6	48
East	1.9	2.0	3.9	28
Midwest	3.1	0.6	3.7	26
Mountain	2.9	-2.5	0.4	3
South Central	-2.4	2.0	-0.4	-2
Pacific	-0.4	-0.7	-1.2	-7

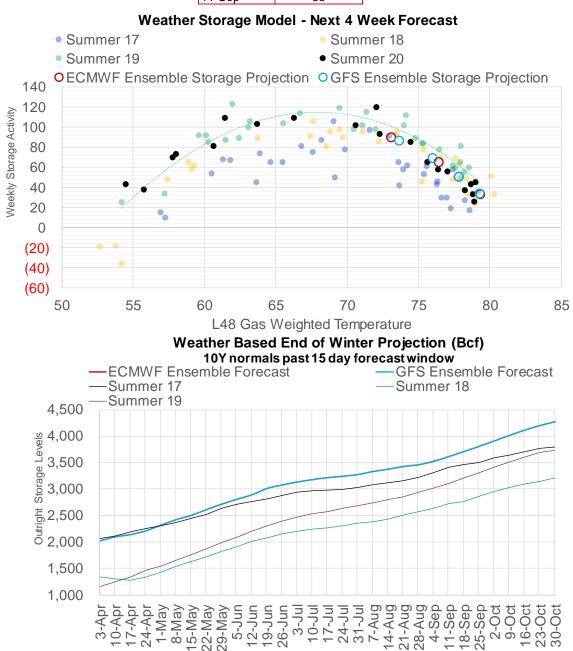
*Adjustment Factor is calcuated based on historical regional deltas

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

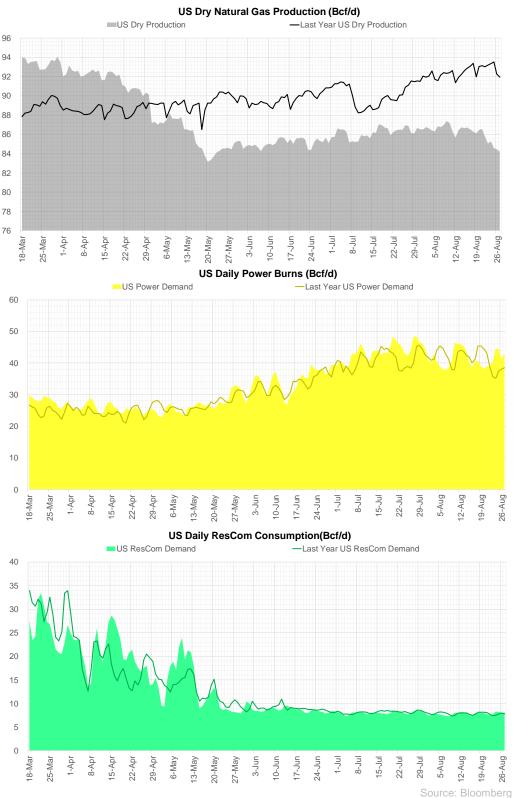


Weather Model Storage Projection

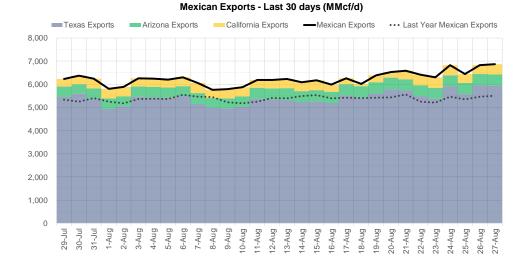
Next report and beyond								
	Week Storage							
Week Ending	Projection							
28-Aug	34							
4-Sep	67							
11-Sep	88							

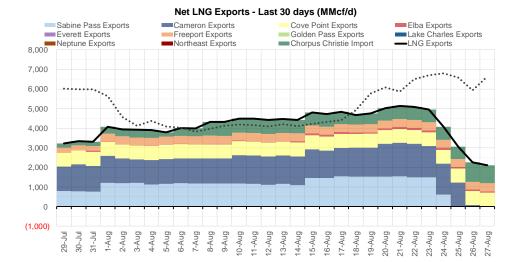


Supply – Demand Trends



ENERGY





Source: Bloomberg



Nat Gas Options Volume and Open Interest

CME, ICE and Nasdaq Combined

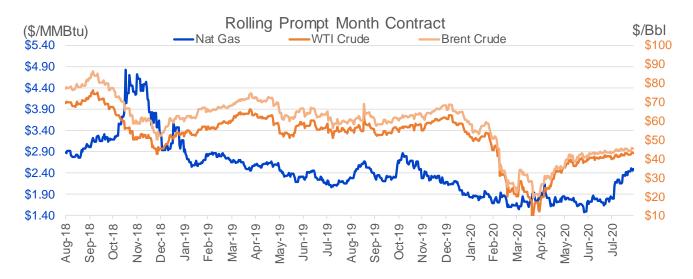
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
10	2020	С	3.50	10715	9	2020	С	2.50	49397
12	2020	Р	2.00	10390	10	2020	Р	1.50	47242
10	2020	С	3.00	9616	10	2020	С	2.75	44496
10	2020	Р	2.00	7931	10	2020	Р	2.00	41168
10	2020	Р	2.25	6883	10	2020	С	3.00	38922
10	2020	Р	2.20	6679	10	2020	С	2.50	37380
10	2020	Р	1.75	6659	10	2020	Р	1.60	33827
12	2020	Р	2.50	6131	3	2021	Р	2.00	31292
10	2020	С	4.00	4742	10	2020	Р	1.75	29876
9	2020	С	2.75	4042	10	2020	Р	1.25	28898
10	2020	С	2.75	3582	10	2020	С	3.50	25225
11	2020	Р	2.50	3388	9	2020	С	2.75	25104
10	2020	Р	2.15	3041	11	2020	С	3.50	24363
12	2020	С	4.00	2851	9	2020	Р	1.00	24289
12	2020	Р	2.20	2625	10	2020	Р	1.00	24016
3	2021	С	10.00	2500	9	2020	Р	1.50	23368
3	2021	C	15.00	2500	9	2020	С	3.00	23273
10	2020	P	2.50	2451	1	2021	С	4.50	22941
10	2020	С	3.25	2447	9	2020	Р	1.20	22867
9	2020	C	2.50	2359	9	2020	Р	2.00	22736
11	2020	Č	3.00	2311	9	2020	С	2.00	22519
11	2020	P	2.20	2254	3	2021	С	3.00	22189
10	2020	P	2.40	2244	10	2020	С	2.10	21985
10	2020	P	2.30	2109	12	2020	Р	2.00	21763
12	2020	C	4.50	2001	9	2020	Р	1.75	21681
9	2020	C	2.60	2000	10	2020	Р	2.10	21278
10	2020	P	1.80	1997	1	2021	С	3.50	20746
11	2020	P	2.00	1709	11	2020	Р	2.00	20002
10	2020	P	2.45	1619	3	2021	С	6.00	19955
9	2020	P	2.40	1460	9	2020	С	2.25	19746
10	2020	c	2.80	1336	9	2020	Р	1.30	19361
10	2020	c	2.75	1313	3	2021	С	3.50	19280
10	2020	c	3.20	1147	9	2020	Р	1.25	19214
9	2020	c	2.55	1114	11	2020	С	3.00	19128
10	2020	c	2.70	1079	10	2020	Р	1.30	19116
10	2020	P	2.70	1073	10	2020	С	2.00	18664
10	2020	C	2.20	1061	10	2020	Р	2.25	18287
10	2020	P	1.90	1055	4	2021	С	5.00	17331
8	2020	C	4.00	1050	10	2020	С	2.25	17296
12	2021	P	2.25	1037	10	2020	Р	1.80	17288
12	2020	C	3.20	1030	9	2020	P	2.25	16926
12	2020	P			1	2021	С	3.00	16668
9	2020	P	1.90 2.45	1000 995	10	2020	С	3.25	16400
		P			2	2021	С	5.00	15569
9	2020		2.50	924	11	2020	С	2.75	15099
10	2020	С	2.65	847	11	2020	С	3.25	15030
12	2020	C P	5.00	803	1	2021	С	5.00	14819
10	2020		2.35	801	4	2021	С	3.00	14724
10	2020	P P	2.10	789	1	2021	C P	3.75	14327
10	2020	Р	1.60	783	1	2021	Р	2.25	14304

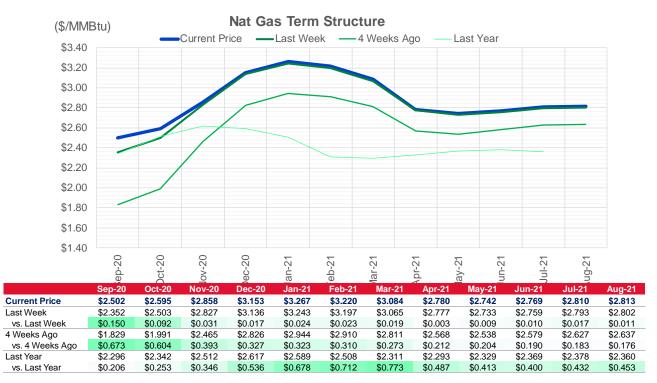
Source: CME, Nasdaq, ICE



CME, and ICE Combined									
CME Henry	Hub Futures (1						lent (10,000 MM		
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change		
SEP 20	2949	18008	-15059	SEP 20	63405	63712	-307.25		
OCT 20	233334	230572	2762	OCT 20	81636	84698	-3062.25		
NOV 20	196459	194271	2188	NOV 20	77076	76915	161		
DEC 20	99088	99929	-841	DEC 20	71281	71421	-140		
JAN 21	130960	130915	45	JAN 21	87576	87769	-193		
FEB 21	45358	44463	895	FEB 21	55134	54846	287.75		
MAR 21	89432	89255	177	MAR 21	75075	74392	682.75		
APR 21	80950	79977	973	APR 21	63723	63402	321.5		
MAY 21	44992	45851	-859	MAY 21	52252	51756	496		
JUN 21	25038	24936	102	JUN 21	49249	48792	456.75		
JUL 21	19168	18868	300	JUL 21	51240	50721	519.75		
AUG 21	18633	18638	-5	AUG 21	50533	50175	358.25		
SEP 21	24691	24610	81	SEP 21	47621	47110	511.25		
OCT 21	59894	59902	-8	OCT 21	70172	69629	543		
NOV 21	26801	26743	58	NOV 21	41973	41627	345.75		
DEC 21	21394	21181	213	DEC 21	42111	41994	117.25		
JAN 22	20336	20066	270	JAN 22	35653	35391	261.75		
FEB 22	12145	11588	557	FEB 22	31051	29936	1115.5		
MAR 22	17513	16646	867	MAR 22	32999	32875	123.25		
APR 22	19005	18618	387	APR 22	32748	32643	104.5		
MAY 22	5813	5677	136	MAY 22	23942	23893	49.25		
JUN 22	3146	3039	107	JUN 22	23273	23178	95		
JUL 22	2569	2539	30	JUL 22	23704	23670	34.25		
AUG 22	1931	1994	-63	AUG 22	23580	23489	90.5		
SEP 22	2122	2122	0	SEP 22	22715	22628	87.5		
OCT 22	2965	2874	91	OCT 22	24221	24123	98.25		
NOV 22	2019	2010	9	NOV 22	21860	21788	72.5		
DEC 22	2050	2049	1	DEC 22	22589	22514	75		
JAN 23	2861	2861	0	JAN 23	12319	12323	-4		
FEB 23	861	861	0	FEB 23	11241	11244	-3.5		

Source: CME, ICE





		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	1.55	1.56	0.01
TETCO M3	\$/MMBtu	2.05	1.41	-0.64
FGT Zone 3	\$/MMBtu	2.04	2.42	0.38
Zone 6 NY	\$/MMBtu	2.04	0.20	-1.84
Chicago Citygate	\$/MMBtu	2.32	2.15	-0.17
Michcon	\$/MMBtu	2.16	2.08	-0.08
Columbia TCO Pool	\$/MMBtu	1.94	1.56	-0.38
Ventura	\$/MMBtu	2.36	2.10	-0.27
Rockies/Opal	\$/MMBtu	2.48	2.03	-0.45
El Paso Permian Basin	\$/MMBtu	0.80	1.61	0.81
Socal Citygate	\$/MMBtu	4.59	3.13	-1.47
Malin	\$/MMBtu	2.49	2.25	-0.24
Houston Ship Channel	\$/MMBtu	2.38	2.33	-0.05
Henry Hub Cash	\$/MMBtu	2.52	2.18	-0.34
AECO Cash	C\$/GJ	2.07	1.84	-0.23
Station2 Cash	C\$/GJ	2.05	2.27	0.22
Dawn Cash	C\$/GJ	2.22	2.09	-0.13

Source: CME, Bloomberg



		vs. 4 Weeks						
	Units	Current Price	vs.	Last Week		Ago	vs	. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.49	\checkmark	-0.021	\checkmark	-0.111	$\mathbf{\nabla}$	-0.092
NatGas Mar/Apr	\$/MMBtu	-0.304	\checkmark	-0.016	\checkmark	-0.547	$\mathbf{\nabla}$	-0.555
NatGas Oct/Nov	\$/MMBtu	0.26	$\mathbf{\nabla}$	-0.061	$\mathbf{\nabla}$	-0.211		0.199
NatGas Oct/Jan	\$/MMBtu	0.67	\bigtriangledown	-0.068	\bigtriangledown	-0.281		0.328
WTI Crude	\$/Bbl	43.10		0.520		3.180	$\mathbf{\nabla}$	-13.610
Brent Crude	\$/Bbl	45.46		0.560		2.520	$\mathbf{\nabla}$	-15.620
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03		0.000		0.000		0.000
Heating Oil	cents/Gallon	123.21	$\mathbf{\nabla}$	-1.460		2.020	$\mathbf{\nabla}$	-63.190
Propane, Mt. Bel	cents/Gallon	0.51		0.001		0.015		0.103
Ethane, Mt. Bel	cents/Gallon	0.24	$\mathbf{\nabla}$	-0.004		0.025		0.082
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.150
Coal, ILB	\$/MTon	31.05		0.000		0.000	$\mathbf{\nabla}$	-4.500