

30 October 2020

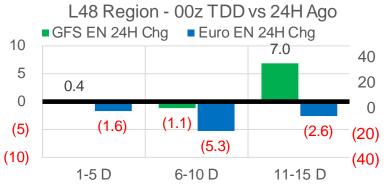
	Cı	urrent	Δ from YD	Δ from 7D Avg		
Nat Gas Prompt	\$	3.27	\$ (0.03)	\$ 0.23		

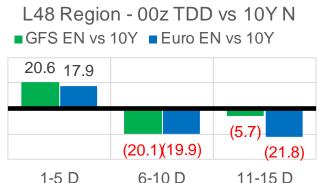
	С	urrent	Δ from YD	Δ from 7D Avg		
WTI Prompt	\$	36.14	\$ (0.03)	~ \$	(2.6)	

	<u></u>	urrant	Δ from YD	Δ from 7D			
	Curr	urreni		A	vg		
Brent Prompt	\$	37.62	\$ (0.03)	~ \$	(2.9)		

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Price Summary





	Current	Δ from YD	Δ from 7D Avg
US Dry Production	87.1	1.24	▼ -0.14

	Current	Δ from YD	Δ from 7D
	Current	Δ IIOIII 1D	Avg
US ResComm	27.6	3.34	4.24

	Current	Δ from YD	Δ from 7D Avg		
Net LNG Exports	9.8	a 0.24	a 0.54		

	Current	Δ from YD	Δ from 7D Avg		
US Power Burns	29.4	1.09	1.41		

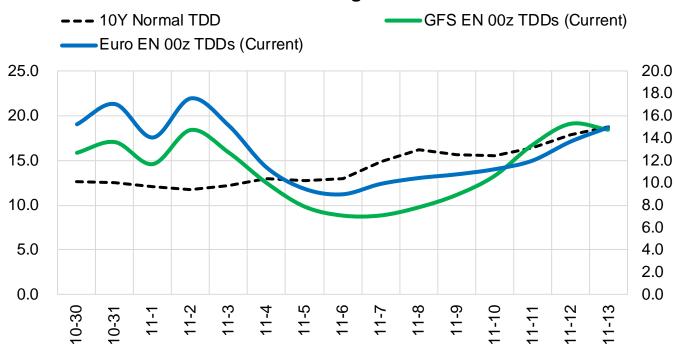
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.4	▼ -0.24	a 0.56

	Current	Δ from YD	Δ from 7D Avg		
Mexican Exports	6.4	▼ -0.13	0.12		



Short-term Weather Model Outlooks (00z)

L48 Region





Lower 48 Component Models

Daily Balances

	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	DoD	vs.7D
Lower 48 Dry Production	89.0	88.8	88.3	85.4	84.4	85.9	87.1	1.2	0.2
Canadian Imports	4.5	4.5	4.6	5.0	5.3	5.6	5.4	▼-0.2	0.5
L48 Power	25.7	24.8	29.2	30.3	29.2	28.3	29.4	1.1	1.4
L48 Residential & Commercial	21.3	26.0	27.2	26.9	23.5	24.3	27.6	3.3	2.8
L48 Industrial	24.3	24.7	24.7	24.1	22.8	21.9	21.1	▼-0.8	▼ -2.7
L48 Lease and Plant Fuel	4.9	4.9	4.9	4.7	4.6	4.7	4.8	0.1	0.0
L48 Pipeline Distribution	2.3	2.5	2.8	2.8	2.6	2.6	2.8	0.2	0.2
L48 Regional Gas Consumption	78.6	82.8	88.7	88.9	82.8	81.8	85.7	3.9	1.8
Net LNG Delivered	9.37	9.41	9.33	8.91	9.28	9.52	9.76	0.2	0.5
Total Mexican Exports	6.1	5.8	6.2	6.3	6.3	6.5	6.4	▼ -0.1	0.2
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	-0.5	-4.8	-11.3	-13.6	-8.8	-6.3	-9.3		

EIA Storage Week Balances

	25-Sep	2-Oct	9-Oct	16-Oct	23-Oct	30-Oct	WoW	vs. 4W
Lower 48 Dry Production	86.9	87.3	87.2	85.8	89.1	87.3	▼-1.8	▼-0.1
Canadian Imports	3.6	3.9	4.5	4.0	3.6	4.8	1.2	▲ 0.8
L48 Power	30.8	30.7	31.0	30.5	28.5	28.0	▼-0.5	▼ -2.2
L48 Residential & Commercial	9.9	9.5	13.5	11.5	17.0	23.4	6.4	1 0.5
L48 Industrial	21.1	22.2	21.5	21.9	22.6	23.7	1.1	1.6
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.7	4.9	4.8	▼ -0.1	▼ 0.0
L48 Pipeline Distribution	2.0	2.0	2.2	2.1	2.2	2.5	0.3	0.4
L48 Regional Gas Consumption	68.6	69.2	73.0	70.7	75.2	82.4	7.2	▲10.3
Net LNG Exports	5.8	6.8	7.5	6.9	8.0	9.2	1.2	1.9
Total Mexican Exports	6.4	6.3	6.2	6.2	6.3	6.3	▼ -0.1	▼ 0.0
Implied Daily Storage Activity	9.7	9.0	5.1	6.0	3.2	-5.7	-8.8	
EIA Reported Daily Storage Activity Daily Model Error	10.9 -1.2	10.7 -1.8	6.6 -1.5	7.0 -1.0	4.1 -1.0			

Monthly Balances									
	2Yr Ago	LY					MTD		
	Oct-18	Oct-19	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	MoM	vs. LY
Lower 48 Dry Production	86.7	95.0	86.6	87.8	87.7	87.7	87.4	▼-0.3	▼ -7.6
Canadian Imports	4.7	4.6	4.0	4.4	4.9	3.8	4.3	0.4	▼ -0.4
L48 Power	28.8	30.8	35.0	43.8	40.7	33.2	29.5	▼-3.7	▼ -1.3
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	16.6	~ 7.9	1.4
L48 Industrial	22.6	24.0	19.2	19.3	20.6	21.0	22.4	1.4	▼ -1.6
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.8	4.8	4.8	▼ 0.0	▼ -0.4
L48 Pipeline Distribution	2.1	2.3	2.2	2.4	2.3	2.1	2.3	0.2	a 0.0
L48 Regional Gas Consumption	74.5	77.4	70.1	78.4	76.1	69.8	75.5	5.8	▼ -1.9
Net LNG Exports	3.3	6.7	4.0	3.3	4.0	5.9	7.9	2.0	1.3
Total Mexican Exports	5.0	5.5	5.7	6.1	6.3	6.4	6.3	▼-0.1	▲ 0.8
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	8.6	10.0	10.9	4.4	6.2	9.4	1.9		

Source: Bloomberg, analytix.ai



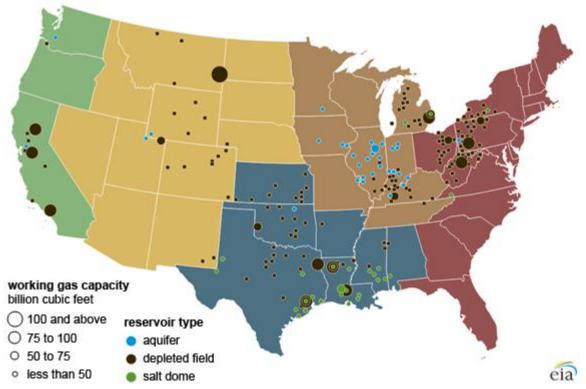
Regional S/D Models Storage Projection

Week Ending 30-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-6.0	1.5	-4.5	-31
East	-1.4	2.1	0.7	5
Midwest	-1.1	1.1	0.0	0
Mountain	2.2	-3.2	-1.0	-7
South Central	-4.9	1.6	-3.3	-23
Pacific	-0.9	0.0	-0.9	-6

^{*}Adjustment Factor is calcuated based on historical regional deltas

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

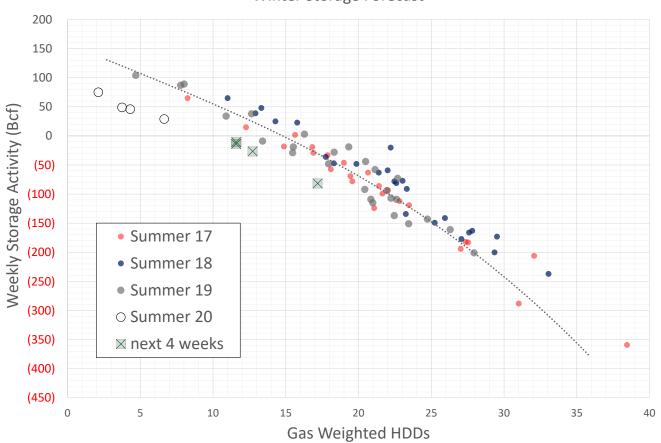




Weather Model Storage Projection

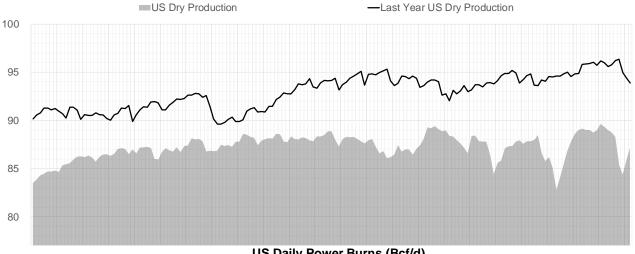
Next report and beyond							
		Week Storage					
Week Ending	Temp	Projection					
06-Nov	12.7	-26					
13-Nov	11.6	-14					
20-Nov	17.2	-82					

Winter Storage Forecast

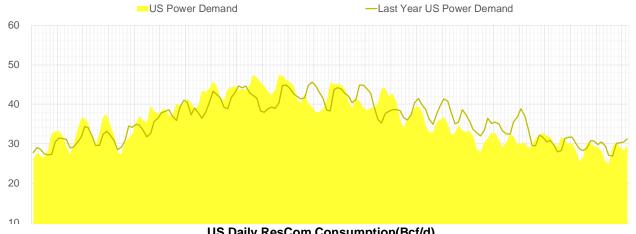




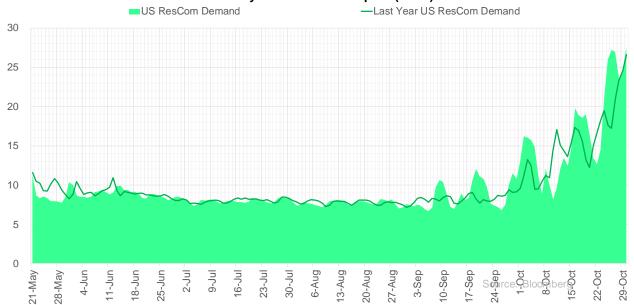
Supply – Demand Trends US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

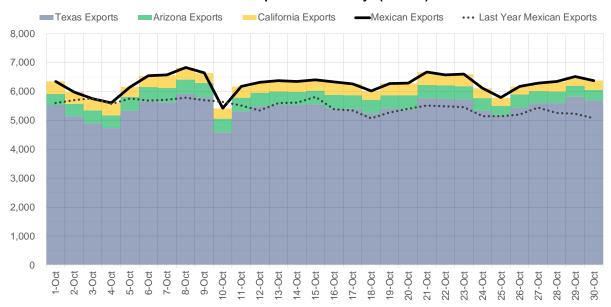


US Daily ResCom Consumption(Bcf/d)

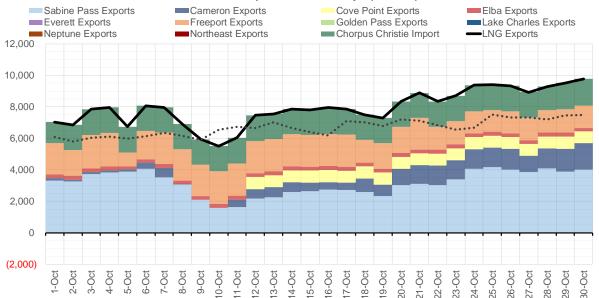




Mexican Exports - Last 30 days (MMcf/d)



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



Source: Bloomberg



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

	CONTRACT	PUT/CALL	STRIKE	CUMULATIVE	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
MONTH	YEAR			VOL	WONTH	YEAR			
12	2020	С	4.00	11831	3	2021	Р	2.00	36359
3	2021	С	4.50	7005	12	2020	Р	2.00	32583
12	2020	С	4.25	6679	3	2021	С	6.00	31814
3	2021	С	5.00	6480	3	2021	С	5.00	29863
6	2021	С	3.25	4420	1	2021	С	4.50	28929
6	2021	Р	2.50	4400	10	2021	С	4.00	28035
12	2020	Р	3.00	4019	3	2021	С	3.25	28019
1	2021	С	4.00	3623	4	2021	С	5.00	27042
12	2020	С	4.50	3526	3	2021	С	4.00	26137
12	2020	С	3.75	3411	1	2021	С	3.50	25959
12	2020	Р	2.50	3403	3	2021	С	7.00	25651
12	2020	С	5.00	3114	10	2021	C	3.25	25615
2	2021	С	4.00	2768	12	2020	P	2.50	24835
3	2021	С	4.00	2436	12	2020	С	3.75	24088
3	2021	Р	2.50	2303	4	2021	С	4.00	23748
12	2020	С	3.80	2201	12	2020	С	4.00	22630
12	2020	Р	2.75	2094	12	2020	С	4.50	22075
3	2021	С	3.50	2003	1	2021	С	6.00	21759
1	2021	С	5.00	1674	3	2021	С	3.50	21703
5	2021	С	3.00	1625	3	2021	С	3.00	21072
3	2022	С	3.50	1500	1	2021	P	2.50	20456
3	2021	Р	2.00	1432	2	2021	С	5.00	19954
1	2021	С	4.50	1387	8	2021	С	4.00	19799
5	2021	С	4.00	1350	12	2020	С	3.50	19734
12	2020	С	3.50	1321	2 12	2021	P	2.25	19037
10	2021	С	3.00	1150		2020	C P	5.00	19007
1	2021	С	3.50	1135	1 3	2021 2021	P P	2.25 2.50	18164 17894
4	2021	С	3.50	1126			P P		17894
4	2021	Р	2.75	1120	8 12	2021 2020	P P	2.25 2.75	17742
12	2020	Р	2.60	1106	1	2020	C	3.00	17131
10	2021	Р	3.00	1100	1	2021	C	3.75	16937
12	2020	Р	2.30	1055	2	2021	C	3.75	16840
2	2021	С	5.25	1050	10	2021	C	5.00	16815
2	2021	С	6.00	1029	10	2021	C	5.00	16693
12	2020	С	3.25	934	2	2021	P	2.50	16106
12	2020	Р	2.40	920	12	2020	P	3.00	15525
2	2021	С	4.50	901	1	2020	C	7.00	15152
3	2021	С	8.00	900	1	2021	Č	4.00	14813
1	2021	Р	2.75	795	12	2020	P	1.50	14450
2	2021	С	5.00	779	2	2021	C	4.00	14412
1	2021	P	2.50	734	4	2021	Č	3.00	14110
1	2021	P	3.00	691	4	2021	P	2.00	13747
12	2020	C	3.40	662	10	2021	C	3.00	13665
3	2021	Ċ	7.00	660	12	2020	Č	3.25	13531
4	2021	P	2.00	650	3	2021	Č	4.50	13478
4	2021	C	3.00	625	5	2021	Č	3.00	13398
12	2020	P	3.25	622	1	2021	Č	3.25	13176
1	2021	C	4.25	622	1	2021	P	2.00	13142
12	2020	Č	4.20	618	5	2021			12704
		-			ŭ		C Source	: CME, ICE	.2.0.

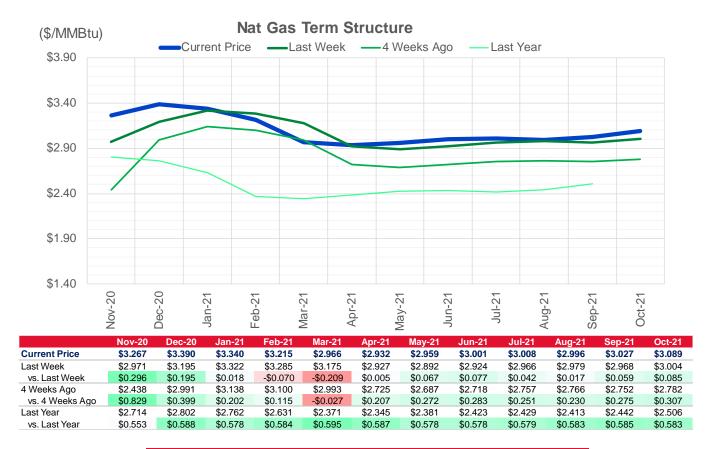


Nat Gas Futures Open Interest

CME_and ICE Combined CME Henry Hub Futures (10,000 MMBtu) ICE Henry Hub Futures Contract Equivalent (10,000 MM							
CME Henry							
	Current	Prior		FOR JUNE 26	Current	Prior	Daily Change
DEC 20	174612	177980	-3368	DEC 20	81884	82400	-516
JAN 21	206326	205600	726	JAN 21	90328	89947	380.5
FEB 21	84458	84683	-225	FEB 21	65117	64864	252.75
MAR 21	133971	134147	-176	MAR 21	87841	86678	1162.75
APR 21	73645	73760	-115	APR 21	69018	68647	371
MAY 21	50601	52084	-1483	MAY 21	66458	65724	733.5
JUN 21	34201	34891	-690	JUN 21	57701	57362	339.5
JUL 21	26893	26498	395	JUL 21	59494	59389	104.5
AUG 21	28275	27689	586	AUG 21	63370	62980	389.75
SEP 21	40045	39495	550	SEP 21	57549	57379	170.5
OCT 21	94435	94789	-354	OCT 21	66368	65832	536.25
NOV 21	34242	34101	141	NOV 21	52680	52274	406.25
DEC 21	29008	28501	507	DEC 21	47646	47554	92.25
JAN 22	32569	31864	705	JAN 22	46271	46018	252.5
FEB 22	21335	20494	841	FEB 22	37502	37444	57.75
MAR 22	22346	22563	-217	MAR 22	40281	40323	-42.25
APR 22	21955	21915	40	APR 22	38031	38106	-75.25
MAY 22	9788	9711	77	MAY 22	29359	29531	-172.5
JUN 22	5266	5181	85	JUN 22	28132	28283	-150.5
JUL 22	4572	4564	8	JUL 22	30050	30018	32
AUG 22	3323	3323	0	AUG 22	28475	28323	152.5
SEP 22	3388	3384	4	SEP 22	27862	27869	-7
OCT 22	4329	4337	-8	OCT 22	32344	32229	114.5
NOV 22	3641	3575	66	NOV 22	27293	27442	-148.25
DEC 22	4328	4274	54	DEC 22	30791	30960	-168.75
JAN 23	4227	3777	450	JAN 23	14689	14692	-2.5
FEB 23	944	944	0	FEB 23	13716	13719	-3.25
MAR 23	2310	2310	0	MAR 23	13776	13784	-7.25
APR 23	1548	1548	0	APR 23	12732	12702	30.5
MAY 23	382	0	382	MAY 23	11353	11298	54.25







		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	6.50	3.54	-2.96
TETCO M3	\$/MMBtu	2.09	2.32	0.23
FGT Zone 3	\$/MMBtu	2.48	2.97	0.49
Zone 6 NY	\$/MMBtu	2.48	2.54	0.06
Chicago Citygate	\$/MMBtu	2.91	2.90	-0.01
Michcon	\$/MMBtu	2.75	2.80	0.05
Columbia TCO Pool	\$/MMBtu	2.38	2.44	0.06
Ventura	\$/MMBtu	2.86	2.96	0.10
Rockies/Opal	\$/MMBtu	3.62	2.77	-0.86
El Paso Permian Basin	\$/MMBtu	2.68	1.95	-0.73
Socal Citygate	\$/MMBtu	3.61	3.52	-0.09
Malin	\$/MMBtu	3.20	3.36	0.16
Houston Ship Channel	\$/MMBtu	2.98	2.92	-0.06
Henry Hub Cash	\$/MMBtu	3.03	2.80	-0.23
AECO Cash	C\$/GJ	2.53	2.31	-0.22
Station2 Cash	C\$/GJ	2.49	5.08	2.59
Dawn Cash	C\$/GJ	2.83	2.86	0.03

Source: CME, Bloomberg



					VS	s. 4 Weeks		
	Units	Current Price	vs.	Last Week		Ago	VS	s. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.42		-0.028		-0.010		0.034
NatGas Mar/Apr	\$/MMBtu	-0.249	\blacksquare	-0.001		-0.517		-0.531
NatGas Oct/Nov	\$/MMBtu	0.90		0.025		0.558		0.831
NatGas Oct/Jan	\$/MMBtu	1.29		0.067		0.251		0.940
WTI Crude	\$/Bbl	36.14		-3.710	•	-0.910		-20.060
Brent Crude	\$/Bbl	37.62		-4.150		-1.650		-24.070
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03		0.000		0.000		0.000
Heating Oil	cents/Gallon	109.48		-5.650		0.980		-83.830
Propane, Mt. Bel	cents/Gallon	0.52		-0.003		0.035		0.001
Ethane, Mt. Bel	cents/Gallon	0.22		0.001		0.025		0.020
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.050
Coal, ILB	\$/MTon	31.05		0.000		0.000		-4.500