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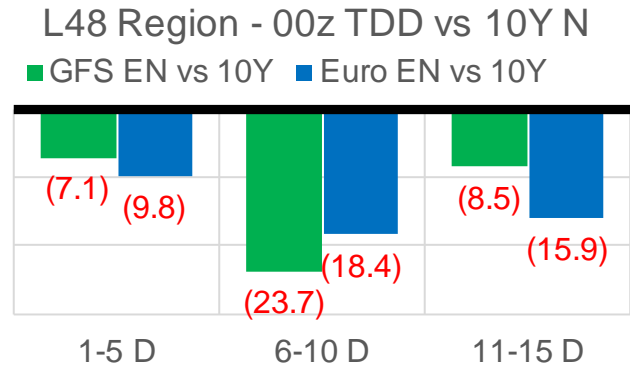
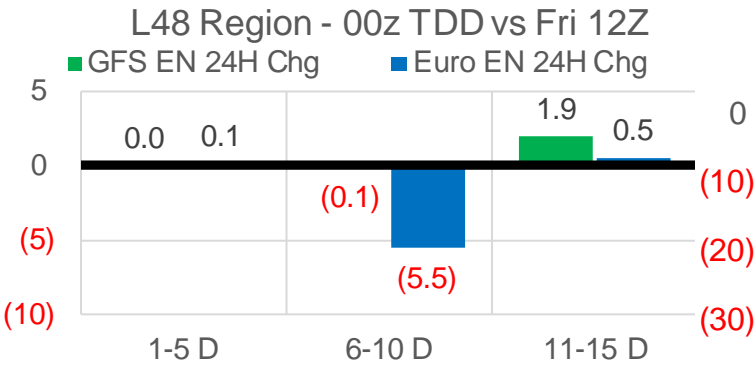
[Nat Gas Futures Open Interest](#)

[Price Summary](#)

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.72 ▲	\$ 0.02 ▼	\$ (0.23) ▼

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 41.20 ▼	\$ (0.14) ▼	\$ 0.4 ▲

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 43.71 ▼	\$ (0.11) ▼	\$ 0.4 ▲



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.6 ▼	-0.79 ▼	0.39 ▲

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	25.4 ▼	-0.60 ▼	0.17 ▲

	Current	Δ from YD	Δ from 7D Avg
US ResComm	29.2 ▲	1.87 ▲	4.92 ▲

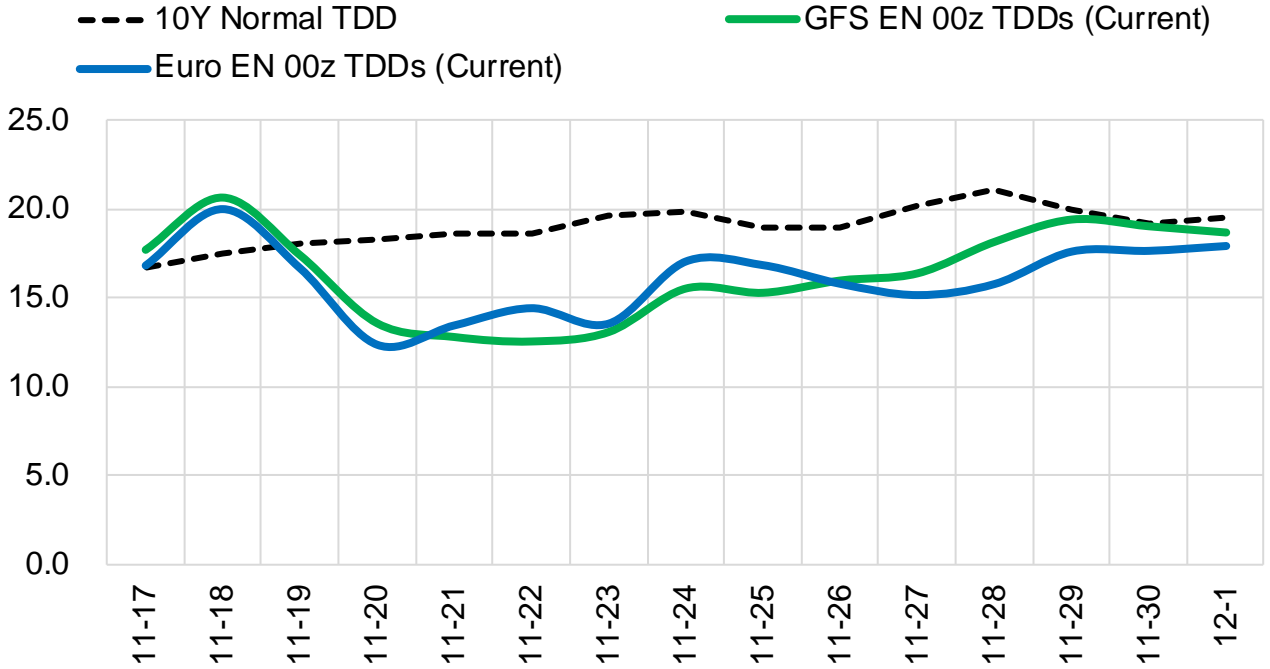
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.6 ▲	0.48 ▲	0.52 ▲

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	10.6 ▲	0.80 ▲	0.31 ▲

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4 ▲	0.26 ▼	-0.01 ▼

Short-term Weather Model Outlooks (00z)

L48 Region



Source: WSI , Bloomberg

Lower 48 Component Models

Daily Balances

	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	DoD	vs. 7D
Lower 48 Dry Production	88.5	90.3	91.2	91.1	91.0	91.4	90.6	▼-0.8	▲0.0
Canadian Imports	5.0	5.1	5.2	5.1	5.1	5.1	5.6	▲0.5	▲0.5
L48 Power	27.2	26.4	24.9	23.0	23.9	26.0	25.4	▼-0.6	▲0.1
L48 Residential & Commercial	21.7	24.9	28.0	26.7	24.2	27.3	29.2	▲1.9	▲3.7
L48 Industrial	26.1	25.9	25.6	25.0	24.5	24.6	24.4	▼-0.3	▼-0.9
L48 Lease and Plant Fuel	4.9	5.0	5.0	5.0	5.0	5.0	5.0	▼0.0	▲0.0
L48 Pipeline Distribution	2.3	2.4	2.5	2.3	2.2	2.5	2.5	▲0.1	▲0.2
L48 Regional Gas Consumption	82.1	84.6	86.0	82.1	79.9	85.5	86.5	▲1.0	▲3.1
Net LNG Delivered	10.62	10.71	10.72	10.24	9.60	9.82	10.61	▲0.8	▲0.3
Total Mexican Exports	6.6	6.8	6.6	6.1	6.0	6.1	6.4	▲0.3	▲0.0
Implied Daily Storage Activity	-5.8	-6.7	-6.9	-2.2	0.5	-5.0	-7.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	9-Oct	16-Oct	23-Oct	30-Oct	6-Nov	13-Nov	WoW	vs. 4W
Lower 48 Dry Production	88.1	86.7	90.0	88.1	90.4	89.0	▼-1.4	▲0.2
Canadian Imports	4.5	4.0	3.6	4.8	4.9	3.9	▼-0.9	▼-0.4
L48 Power	30.9	30.5	28.5	28.1	24.8	24.3	▼-0.4	▼-3.6
L48 Residential & Commercial	13.4	11.4	16.8	23.3	23.6	17.2	▼-6.4	▼-1.6
L48 Industrial	21.4	21.9	22.5	24.2	23.2	25.4	▲2.1	▲2.4
L48 Lease and Plant Fuel	4.8	4.8	4.9	4.8	5.0	4.9	▼-0.1	▲0.0
L48 Pipeline Distribution	2.2	2.1	2.2	2.5	2.3	1.9	▼-0.4	▼-0.3
L48 Regional Gas Consumption	72.8	70.6	75.0	82.9	78.9	73.8	▼-5.1	▼-3.1
Net LNG Exports	7.5	6.9	8.0	9.2	10.2	10.4	▲0.1	▲1.8
Total Mexican Exports	6.2	6.2	6.3	6.2	6.0	6.3	▲0.3	▲0.1
Implied Daily Storage Activity	6.2	7.0	4.2	-5.3	0.2	2.5	2.3	
EIA Reported Daily Storage Activity	6.6	7.0	4.1	-5.1	1.1			
Daily Model Error	-0.4	0.0	0.1	-0.2	-0.9			

Monthly Balances

	2Yr Ago Nov-18	LY Nov-19	Jul-20	Aug-20	Sep-20	Oct-20	MTD Nov-20	MoM	vs. LY
Lower 48 Dry Production	88.1	95.3	88.3	88.6	88.6	88.3	90.2	▲1.9	▼-5.1
Canadian Imports	4.1	4.5	4.4	4.9	3.8	4.3	4.5	▲0.2	▼0.0
L48 Power	25.5	27.6	43.8	40.6	33.3	29.2	24.6	▼-4.7	▼-3.0
L48 Residential & Commercial	32.9	32.8	7.9	7.7	8.5	16.8	21.5	▲4.7	▼-11.2
L48 Industrial	24.4	24.0	19.3	20.8	21.1	22.5	24.6	▲2.0	▲0.5
L48 Lease and Plant Fuel	5.0	5.3	4.9	5.0	4.9	4.9	5.0	▲0.1	▼-0.3
L48 Pipeline Distribution	2.6	2.8	2.4	2.4	2.1	2.3	2.2	▼-0.1	▼-0.7
L48 Regional Gas Consumption	90.3	92.5	78.3	76.4	69.8	75.7	77.8	▲2.1	▼-14.7
Net LNG Exports	4.3	7.2	3.3	4.0	5.9	8.0	10.3	▲2.3	▲3.1
Total Mexican Exports	4.8	5.3	6.1	6.3	6.4	6.2	6.2	▲0.0	▲0.9
Implied Daily Storage Activity	-7.2	-5.1	4.9	6.8	10.2	2.6	0.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 13-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	2.2	0.8	3.0	22
East	0.3	2.1	2.4	17
Midwest	1.5	1.2	2.7	19
Mountain	3.2	-3.3	-0.1	-1
South Central	-1.7	0.7	-1.0	-6
Pacific	-1.0	0.0	-1.0	-7

*Adjustment Factor is calculated based on historical regional deltas

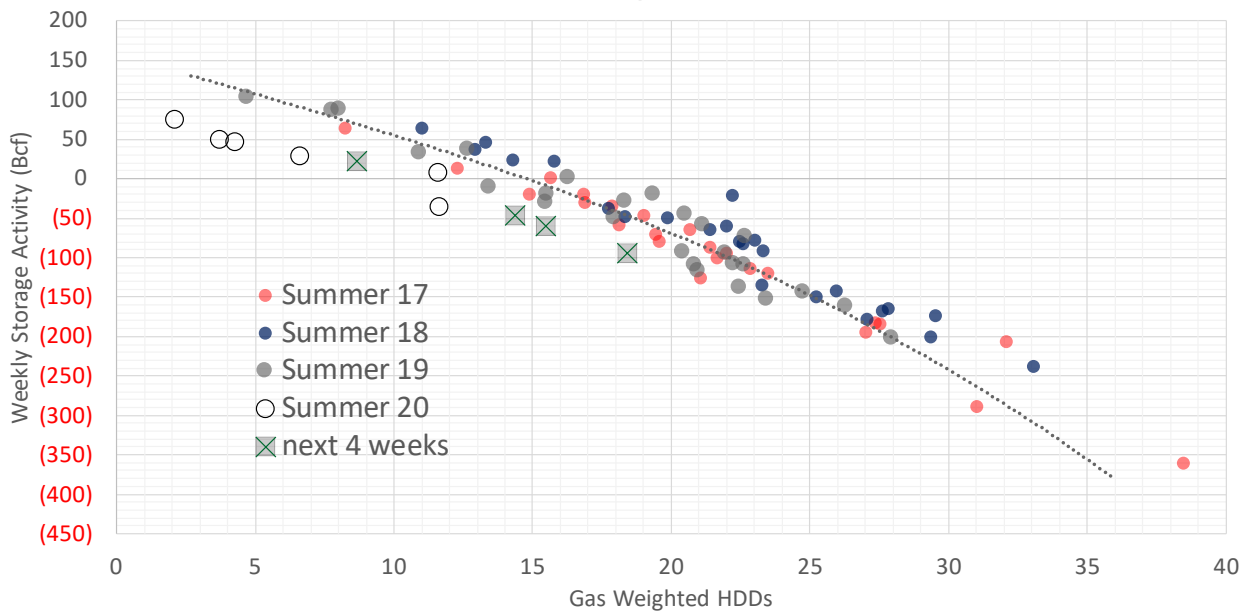
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

Next report and beyond		
Week Ending	Temp	Week Storage Projection
13-Nov	8.7	22
20-Nov	15.5	-60
27-Nov	14.4	-46
04-Dec	18.4	-94

Winter Storage Forecast

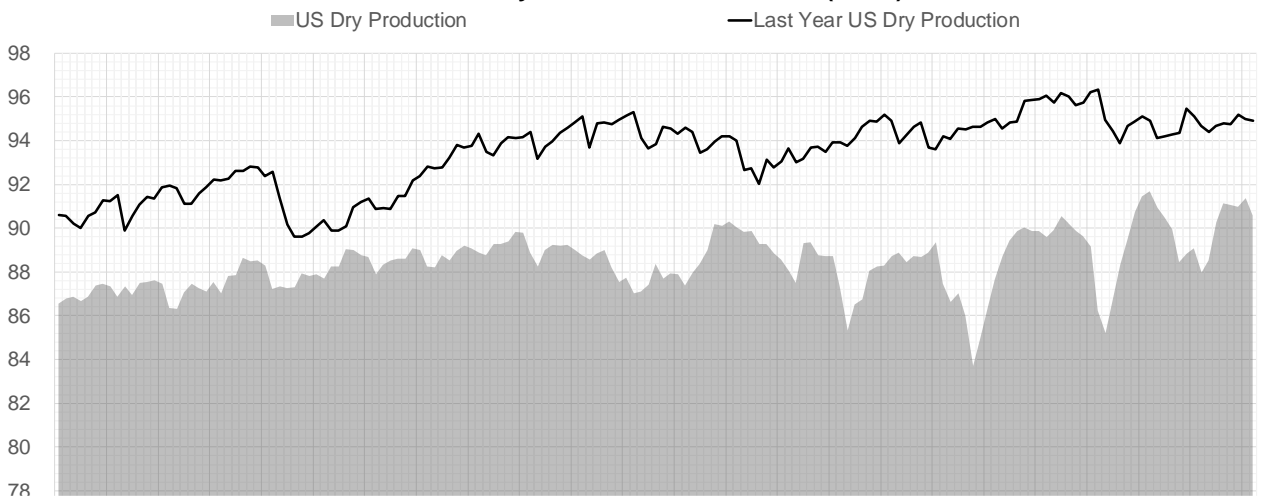


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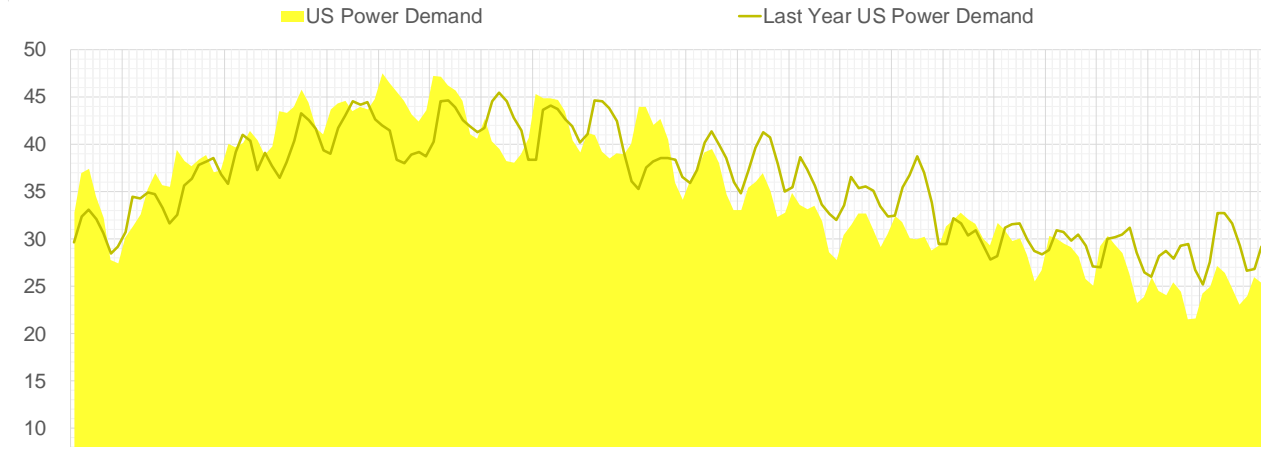


Supply – Demand Trends

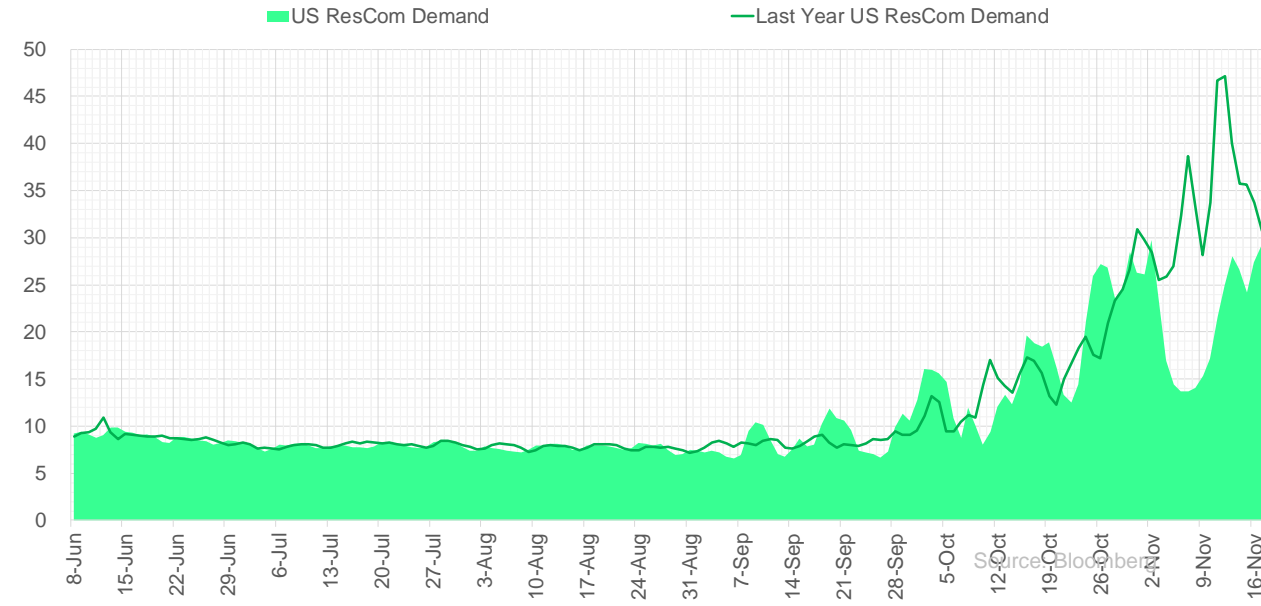
US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

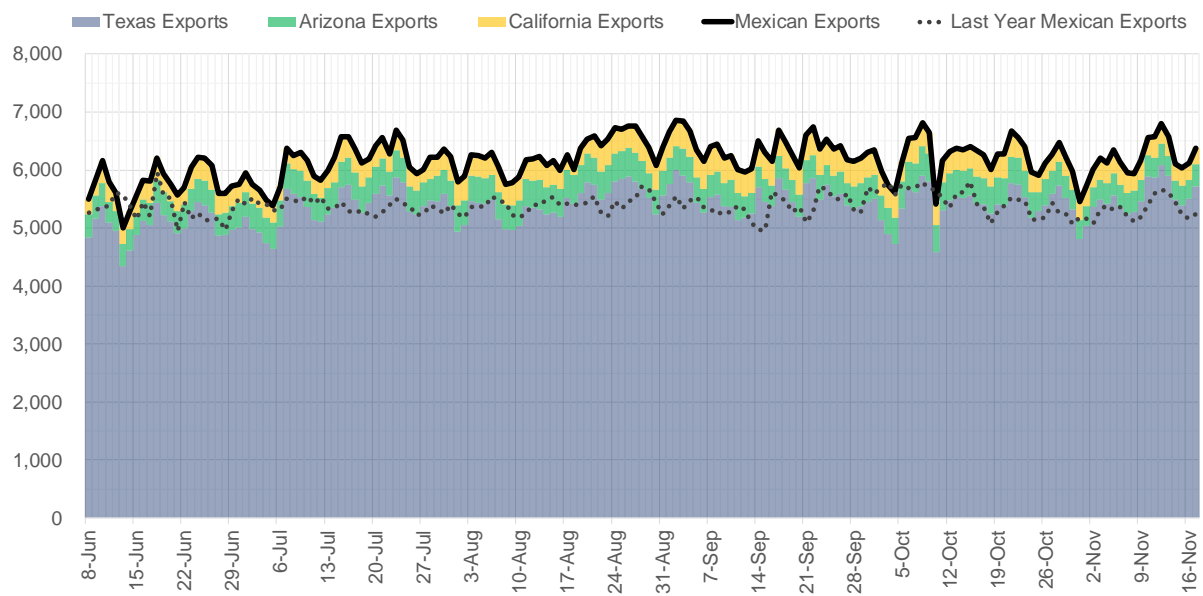


US Daily ResCom Consumption (Bcf/d)

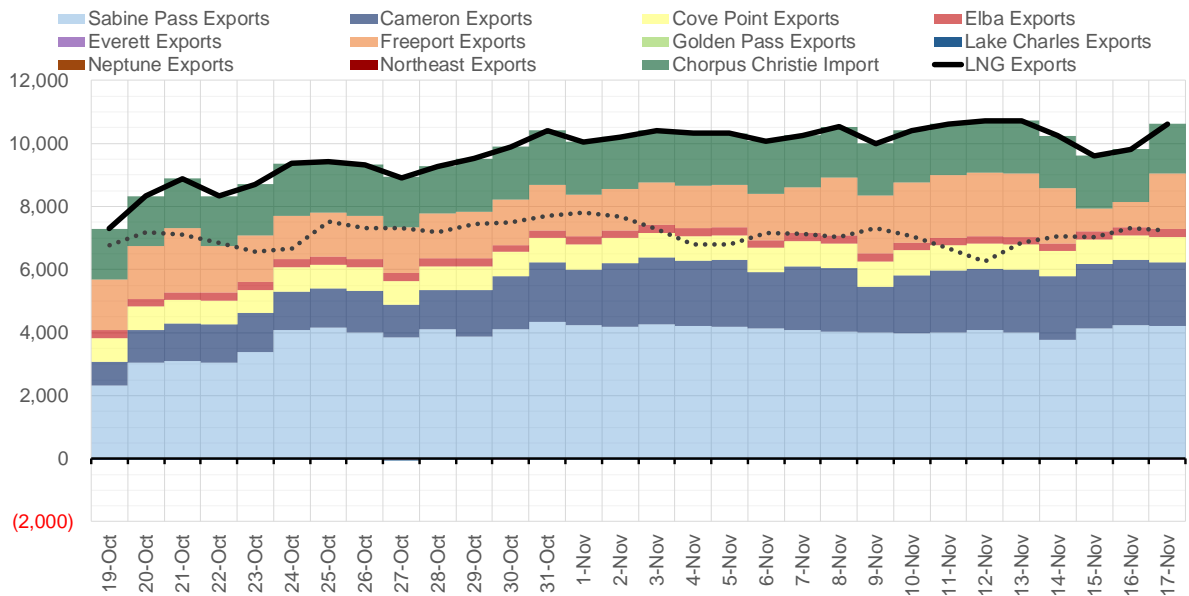


Source: Bloomberg

Mexican Exports (MMcf/d)



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



Source: Bloomberg

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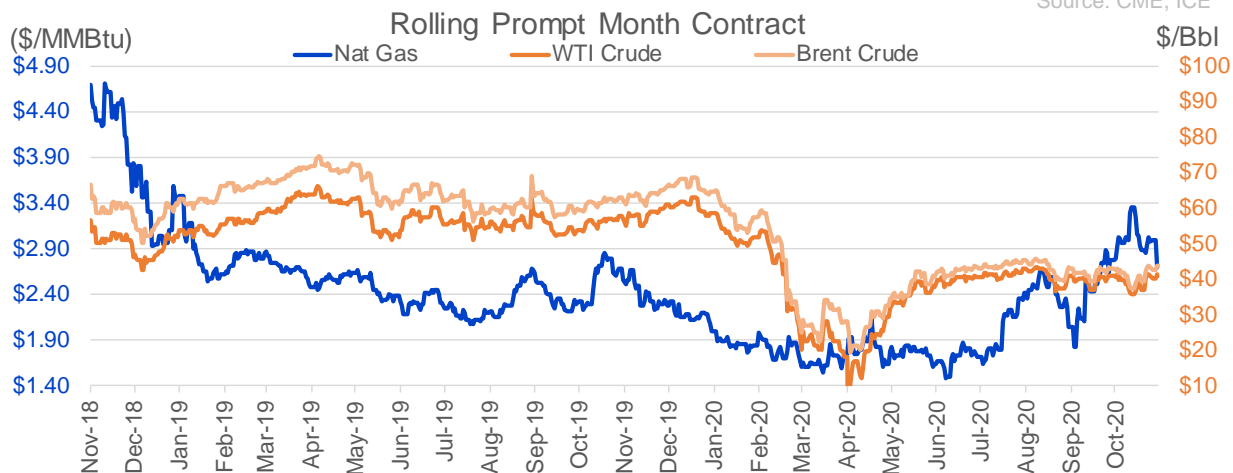
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

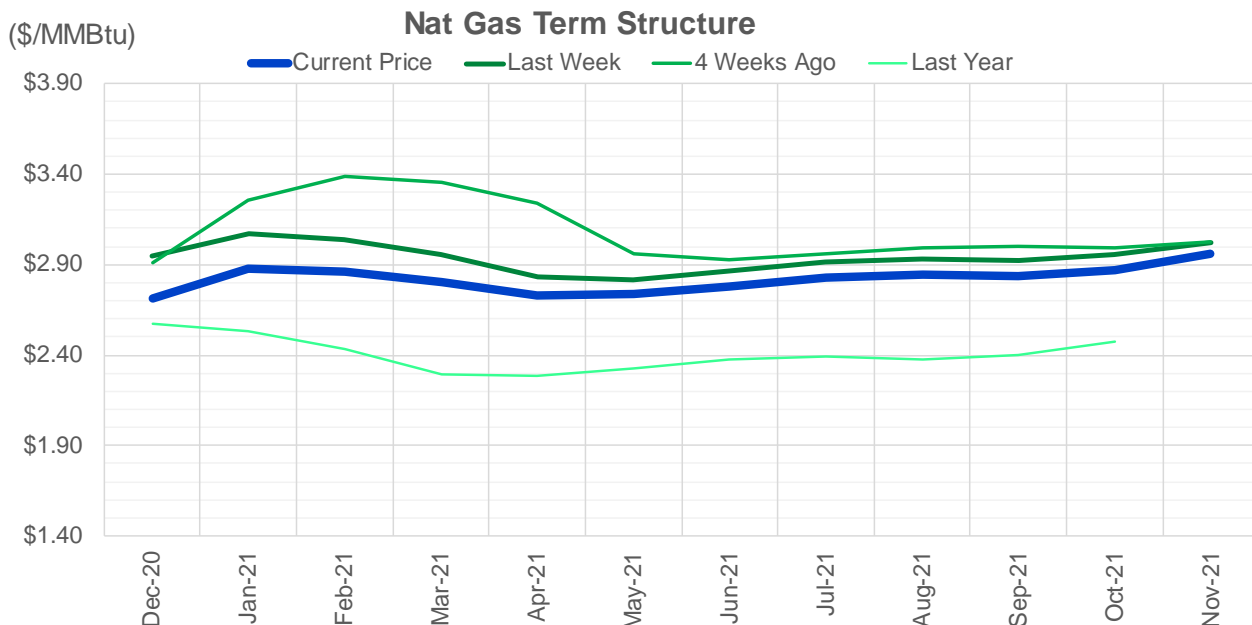
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
1	2021	C	3.50	12756	3	2021	P	2.00	38818
12	2020	P	2.50	9964	3	2021	C	4.00	37990
12	2020	C	3.00	6456	4	2021	C	4.00	37345
12	2020	P	2.75	5821	12	2020	P	2.00	32760
1	2021	C	3.25	5196	1	2021	C	3.50	32060
3	2021	C	4.00	4977	3	2021	C	3.25	30490
1	2021	P	2.50	4840	1	2021	C	4.50	29721
12	2020	C	3.50	4221	1	2021	P	2.50	29584
1	2021	C	5.00	4128	10	2021	C	4.00	28665
2	2021	C	4.00	4087	3	2021	C	6.00	27643
1	2021	C	4.00	4010	10	2021	C	3.25	27110
12	2020	C	3.25	3904	4	2021	C	5.00	26848
3	2021	C	6.00	3799	12	2020	C	3.75	26745
3	2021	C	3.50	3713	12	2020	P	2.50	26688
1	2021	P	2.75	3682	12	2020	C	3.50	26417
12	2020	P	2.80	3529	12	2020	C	4.00	26112
3	2021	C	4.75	3488	3	2021	C	7.00	24032
2	2021	C	3.50	3212	12	2020	P	2.75	24032
4	2021	C	3.00	3053	3	2021	C	5.00	23421
3	2021	C	3.00	2830	1	2021	C	3.75	22755
1	2021	C	3.75	2829	3	2021	C	4.50	22383
1	2021	C	3.00	2770	12	2020	C	4.50	22296
12	2020	P	3.00	2695	3	2021	C	3.50	21856
12	2020	C	4.00	2682	2	2021	P	2.25	21739
1	2021	C	4.75	2679	1	2021	C	4.00	21628
1	2021	C	4.25	2654	1	2021	C	6.00	21393
12	2020	P	2.25	2541	3	2021	C	3.00	21084
12	2020	P	2.70	2501	1	2021	C	5.00	20836
12	2020	P	2.60	2330	2	2021	P	2.50	20703
4	2021	P	2.50	2258	2	2021	C	3.50	19871
2	2021	C	5.00	2176	8	2021	P	2.25	19637
4	2021	P	2.25	2070	8	2021	C	4.00	19519
2	2021	C	3.75	1957	12	2020	P	3.00	19405
10	2021	C	3.00	1900	12	2020	C	3.00	19360
10	2021	C	3.25	1900	1	2021	C	3.00	19110
1	2021	P	2.60	1899	3	2021	P	2.50	18842
12	2020	P	2.65	1888	2	2021	C	4.00	18426
12	2020	C	2.90	1695	4	2021	C	3.25	18336
2	2021	C	3.00	1660	2	2021	C	5.00	18226
2	2021	C	4.50	1654	1	2021	P	2.00	18042
2	2021	P	2.50	1600	12	2020	C	3.25	17539
2	2021	C	3.25	1589	2	2021	C	4.50	16991
4	2021	C	3.50	1565	10	2021	C	5.00	16953
5	2021	P	2.00	1550	1	2021	P	2.25	16417
2	2021	C	6.00	1501	12	2020	C	5.00	15829
1	2021	P	2.25	1480	1	2021	C	3.25	15634
2	2021	P	2.25	1447	5	2021	C	3.00	15286
12	2020	P	2.85	1388	4	2021	C	3.00	15284
2	2021	P	2.75	1354	10	2021	C	3.00	15160
					4	2021	P	2	15099

Source: CME, ICE

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			
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
DEC 20	80524	92144	-11620	DEC 20	71928	70797	1130.75
JAN 21	287385	272954	14431	JAN 21	91913	91579	334
FEB 21	97373	95592	1781	FEB 21	66896	66748	147.75
MAR 21	167698	152475	15223	MAR 21	85888	89314	-3425.75
APR 21	86371	82112	4259	APR 21	71251	71016	235.25
MAY 21	61309	63127	-1818	MAY 21	71813	71755	58
JUN 21	34859	35030	-171	JUN 21	58596	58302	293.75
JUL 21	33021	32814	207	JUL 21	61397	61089	308.25
AUG 21	27388	28909	-1521	AUG 21	65134	64906	228.25
SEP 21	36206	36585	-379	SEP 21	58154	58574	-420
OCT 21	102228	102185	43	OCT 21	69467	69355	112.25
NOV 21	40318	37864	2454	NOV 21	53087	53781	-693.75
DEC 21	31874	31666	208	DEC 21	48346	48400	-53.5
JAN 22	31368	31181	187	JAN 22	46243	46477	-233.75
FEB 22	23466	22890	576	FEB 22	37728	37735	-7
MAR 22	25861	25795	66	MAR 22	40605	40805	-200.25
APR 22	25673	25852	-179	APR 22	41602	41480	122
MAY 22	11808	11401	407	MAY 22	30671	30601	70.25
JUN 22	6423	6125	298	JUN 22	30138	30025	112.5
JUL 22	4691	4521	170	JUL 22	31391	31246	144.75
AUG 22	3945	3719	226	AUG 22	30092	29936	156.25
SEP 22	4742	4606	136	SEP 22	29789	29744	45
OCT 22	7086	7202	-116	OCT 22	34761	34613	147.5
NOV 22	4814	4705	109	NOV 22	29828	29419	408.5
DEC 22	5128	5051	77	DEC 22	32301	31808	493.75
JAN 23	4405	4405	0	JAN 23	15021	15060	-38.75
FEB 23	1070	1065	5	FEB 23	13975	14010	-35
MAR 23	2902	2662	240	MAR 23	13733	13772	-38.75
APR 23	1853	1763	90	APR 23	13176	13184	-7.5
MAY 23	451	450	1	MAY 23	11825	11818	7.75





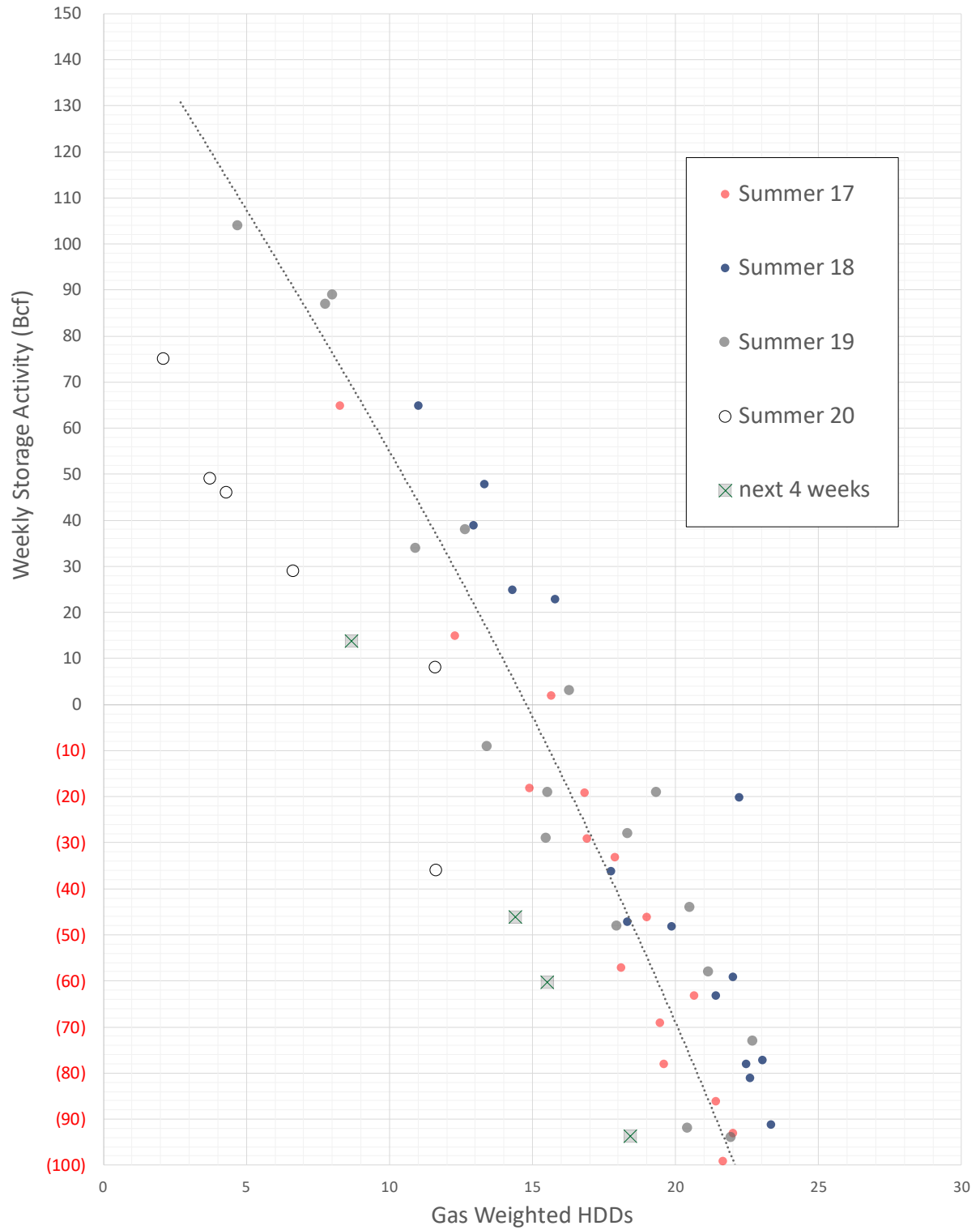
	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Current Price	\$2.716	\$2.878	\$2.862	\$2.806	\$2.733	\$2.736	\$2.778	\$2.828	\$2.844	\$2.834	\$2.873	\$2.956
Last Week	\$2.949	\$3.073	\$3.041	\$2.959	\$2.833	\$2.820	\$2.864	\$2.917	\$2.931	\$2.919	\$2.953	\$3.019
vs. Last Week	-\$0.233	-\$0.195	-\$0.179	-\$0.153	-\$0.100	-\$0.084	-\$0.086	-\$0.089	-\$0.087	-\$0.085	-\$0.080	-\$0.063
4 Weeks Ago	\$2.913	\$3.260	\$3.391	\$3.352	\$3.238	\$2.963	\$2.926	\$2.956	\$2.994	\$3.003	\$2.991	\$3.026
vs. 4 Weeks Ago	-\$0.197	-\$0.382	-\$0.529	-\$0.546	-\$0.505	-\$0.227	-\$0.148	-\$0.128	-\$0.150	-\$0.169	-\$0.118	-\$0.070
Last Year	\$2.510	\$2.576	\$2.529	\$2.435	\$2.291	\$2.282	\$2.327	\$2.378	\$2.390	\$2.377	\$2.404	\$2.475
vs. Last Year	\$0.206	\$0.302	\$0.333	\$0.371	\$0.442	\$0.454	\$0.451	\$0.450	\$0.454	\$0.457	\$0.469	\$0.481

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	4.46	4.53	0.07
TETCO M3	\$/MMBtu	1.92	2.90	0.98
FGT Zone 3	\$/MMBtu	2.36	2.98	0.62
Zone 6 NY	\$/MMBtu	2.36	3.44	1.08
Chicago Citygate	\$/MMBtu	2.44	2.85	0.41
Michcon	\$/MMBtu	2.45	2.68	0.23
Columbia TCO Pool	\$/MMBtu	2.13	2.30	0.17
Ventura	\$/MMBtu	2.63	3.02	0.39
Rockies/Opal	\$/MMBtu	2.76	2.77	0.01
El Paso Permian Basin	\$/MMBtu	2.32	2.64	0.32
Socal Citygate	\$/MMBtu	3.84	3.61	-0.23
Malin	\$/MMBtu	2.85	3.43	0.58
Houston Ship Channel	\$/MMBtu	2.62	2.91	0.29
Henry Hub Cash	\$/MMBtu	2.62	2.75	0.13
AECO Cash	C\$/GJ	2.14	2.30	0.16
Station2 Cash	C\$/GJ	1.92	4.40	2.48
Dawn Cash	C\$/GJ	2.44	2.76	0.32

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	-0.145	▲ 0.095	▲ 0.283	▲ 0.292
NatGas Mar21/Apr21	\$/MMBtu	-0.073	▲ 0.053	▼ -0.348	▼ -0.335
NatGas Oct21/Nov21	\$/MMBtu	0.083	▲ 0.017	▲ 0.024	▲ 0.017
NatGas Apr21/Oct21	\$/MMBtu	0.140	▲ 0.020	▼ -0.225	▼ -0.239
WTI Crude	\$/Bbl	41.20	▼ -0.160	▼ -0.260	▼ -14.010
Brent Crude	\$/Bbl	43.71	▲ 0.100	▲ 0.550	▼ -17.200
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	122.50	▼ -2.750	▲ 5.150	▼ -63.240
Propane, Mt. Bel	cents/Gallon	0.55	▲ 0.002	▲ 0.030	▲ 0.032
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.002	▲ 0.005	▲ 0.025
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.050
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500
Coal, ILB	\$/MMBtu	1.32			

Winter Storage Forecast



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