

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.67	\$ (0.00)	\$ 0.05

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 48.02	\$ 0.20	\$ 1.0

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 51.27	\$ 0.19	\$ 0.9

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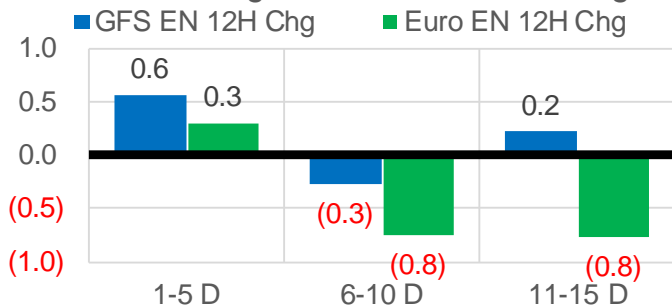
[Nat Gas Options Volume and Open Interest](#)

[Nat Gas Futures Open Interest](#)

[Price Summary](#)

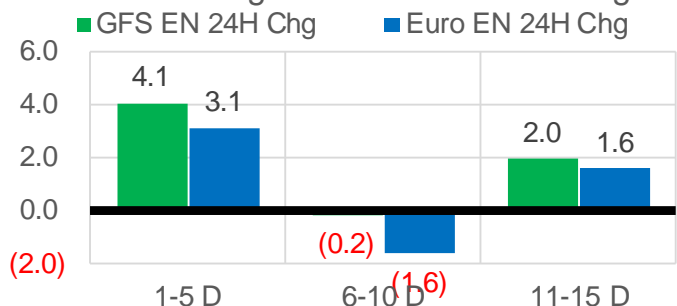
Vs. 12H Ago

L48 Region - 00z TDD vs 12H Ago



Vs. 24H Ago

L48 Region - 00z TDD vs 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	90.4	-0.35	-0.73

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	27.6	-1.32	1.19

	Current	Δ from YD	Δ from 7D Avg
US ResComm	44.3	-1.89	5.74

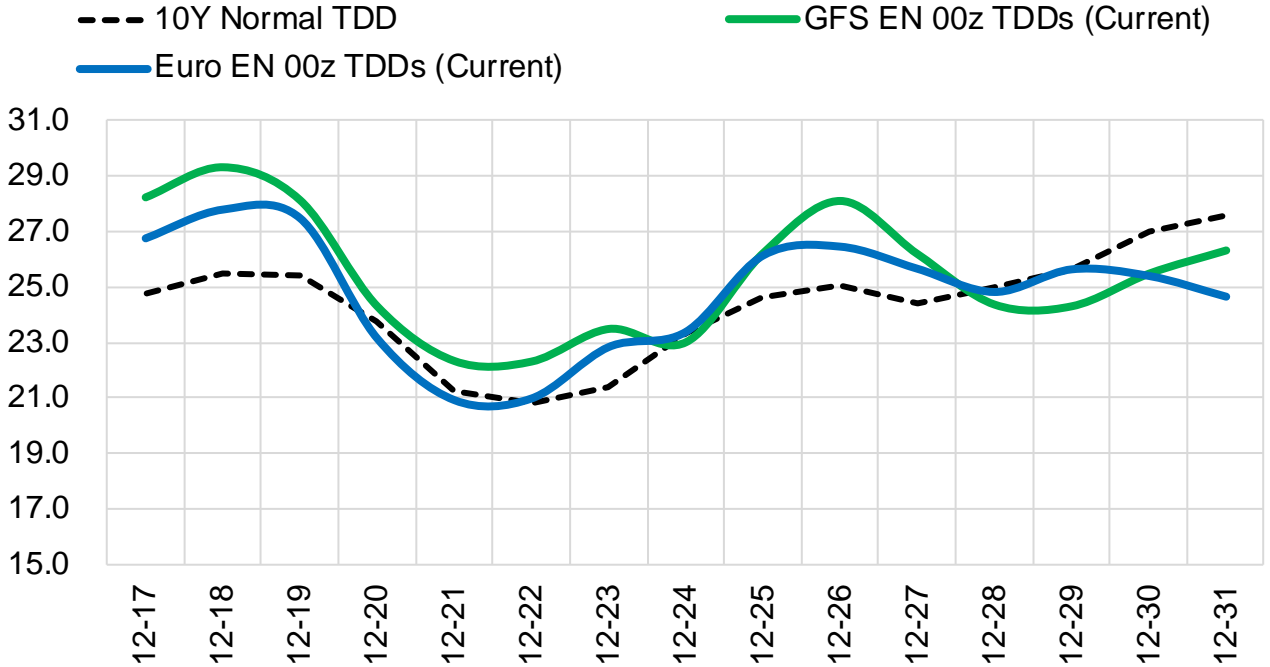
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	6.5	-0.42	0.92

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	10.9	0.27	-0.09

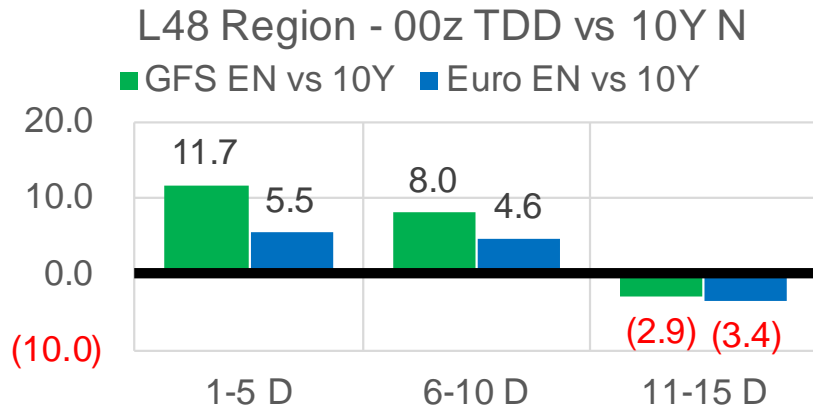
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.5	0.07	0.29

Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI, Bloomberg

Lower 48 Component Models

Daily Balances

	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	DoD	vs. 7D
Lower 48 Dry Production	91.6	91.2	91.2	90.9	90.8	90.7	90.4	▼ -0.3	▼ -0.7
Canadian Imports	4.6	4.9	5.0	5.7	6.5	6.9	6.5	▼ -0.4	▲ 0.9
L48 Power	24.7	24.0	24.3	27.9	28.8	28.9	27.6	▼ -1.3	▲ 1.1
L48 Residential & Commercial	32.3	33.2	35.2	42.8	46.8	46.2	44.3	▼ -1.9	▲ 4.9
L48 Industrial	25.7	26.9	28.0	29.0	28.9	28.1	26.9	▼ -1.1	▼ -0.8
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.0	5.0	5.0	5.0	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.6	2.6	2.7	3.2	3.4	3.4	3.3	▼ -0.1	▲ 0.3
L48 Regional Gas Consumption	90.4	91.7	95.3	107.9	112.9	111.6	107.1	▼ -4.5	▲ 5.4
Net LNG Delivered	11.49	11.59	11.62	10.79	9.40	10.63	10.90	▲ 0.3	▼ 0.0
Total Mexican Exports	6.3	6.0	5.7	6.3	6.4	6.4	6.5	▲ 0.1	▲ 0.3
Implied Daily Storage Activity	-11.9	-13.1	-16.5	-28.3	-31.4	-31.0	-27.6		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	6-Nov	13-Nov	20-Nov	27-Nov	4-Dec	11-Dec	WoW	vs. 4W
Lower 48 Dry Production	89.6	88.2	90.9	91.6	91.6	90.9	▼ -0.7	▲ 0.3
Canadian Imports	4.9	3.9	5.1	4.5	5.3	5.9	▲ 0.6	▲ 1.2
L48 Power	24.6	24.4	24.7	24.8	26.5	28.1	▲ 1.6	▲ 3.0
L48 Residential & Commercial	23.1	16.8	27.2	26.7	34.4	37.4	▲ 2.9	▲ 11.1
L48 Industrial	23.0	24.0	23.3	22.1	24.4	23.4	▼ -0.9	▼ 0.0
L48 Lease and Plant Fuel	4.9	4.9	5.0	5.1	5.1	5.0	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.3	1.9	2.4	2.4	2.8	3.0	▲ 0.2	▲ 0.6
L48 Regional Gas Consumption	78.0	72.1	82.6	81.1	93.2	96.9	▲ 3.7	▲ 14.7
Net LNG Exports	10.2	10.4	10.2	9.7	10.4	11.3	▲ 0.9	▲ 1.1
Total Mexican Exports	6.0	6.3	6.1	6.3	6.4	6.3	▼ -0.1	▲ 0.0
Implied Daily Storage Activity	0.3	3.4	-2.9	-1.0	-13.1	-17.7	-4.6	
EIA Reported Daily Storage Activity	1.1	4.4	-2.6	-0.1	-13.0			
Daily Model Error	-0.8	-1.1	-0.3	-0.9	-0.1			

Monthly Balances

	2Yr Ago Dec-18	LY Dec-19	Aug-20	Sep-20	Oct-20	Nov-20	MTD Dec-20	MoM	vs. LY
Lower 48 Dry Production	87.5	95.1	88.6	87.8	87.5	90.4	91.0	▲ 0.6	▼ -4.1
Canadian Imports	4.8	4.5	4.9	3.8	4.3	4.6	5.9	▲ 1.3	▲ 1.4
L48 Power	24.4	28.9	41.0	34.1	29.4	24.6	27.6	▲ 3.0	▼ -1.3
L48 Residential & Commercial	39.3	39.1	7.7	8.8	16.2	24.2	38.8	▲ 14.6	▼ -0.3
L48 Industrial	22.4	24.4	20.3	19.2	22.3	23.2	25.5	▲ 2.3	▲ 1.0
L48 Lease and Plant Fuel	4.9	5.3	4.9	4.9	4.8	5.0	5.0	▲ 0.1	▼ -0.2
L48 Pipeline Distribution	2.8	3.1	2.4	2.2	2.2	2.3	3.0	▲ 0.8	▼ -0.1
L48 Regional Gas Consumption	93.9	100.7	76.3	69.1	74.9	79.3	100.0	▲ 20.7	▼ -0.8
Net LNG Exports	4.5	7.8	4.0	5.9	8.0	10.1	11.0	▲ 0.9	▲ 3.2
Total Mexican Exports	4.5	5.0	6.3	6.4	6.2	6.2	6.3	▲ 0.1	▲ 1.3
Implied Daily Storage Activity	-10.7	-13.9	6.8	10.2	2.6	-0.7	-20.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

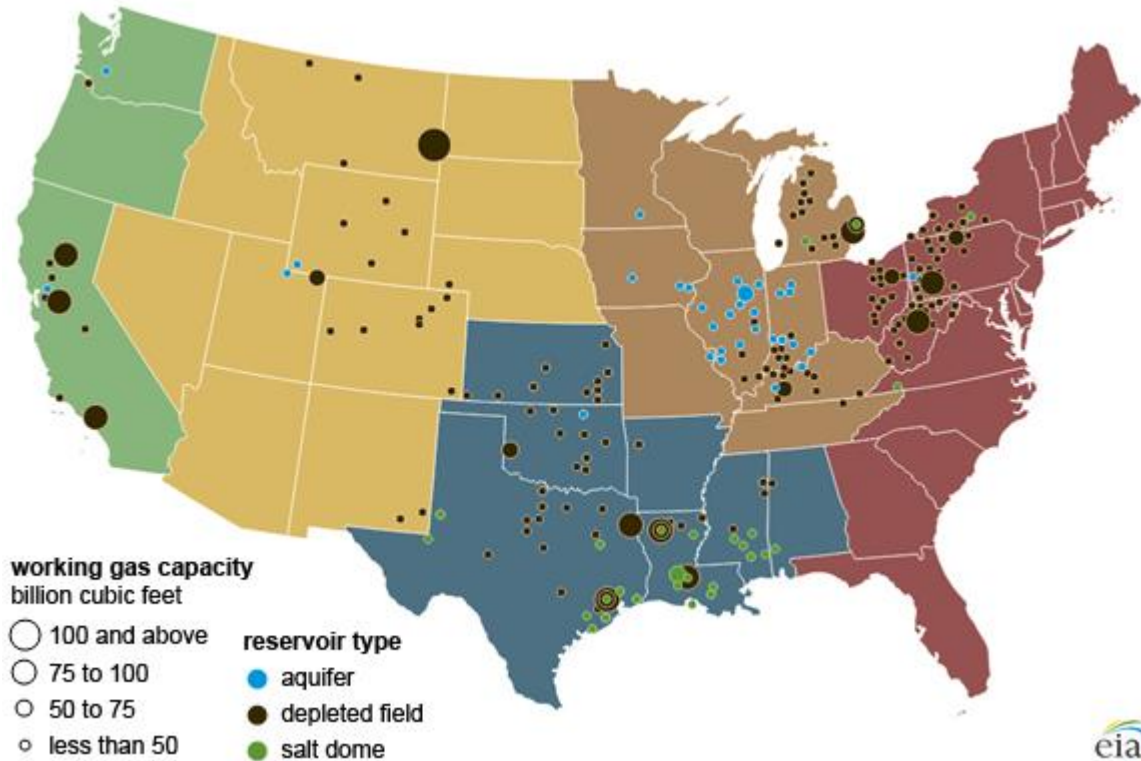
Regional S/D Models Storage Projection

Week Ending 11-Dec

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-17.9	0.7	-16.6	-116
East	-6.6	1.8	-4.7	-33
Midwest	-6.0	0.4	-5.3	-37
Mountain	2.8	-3.7	-0.8	-6
South Central	-7.6	2.4	-4.9	-34
Pacific	-0.6	-0.3	-0.9	-6

*Adjustment Factor is calculated based on historical regional deltas

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

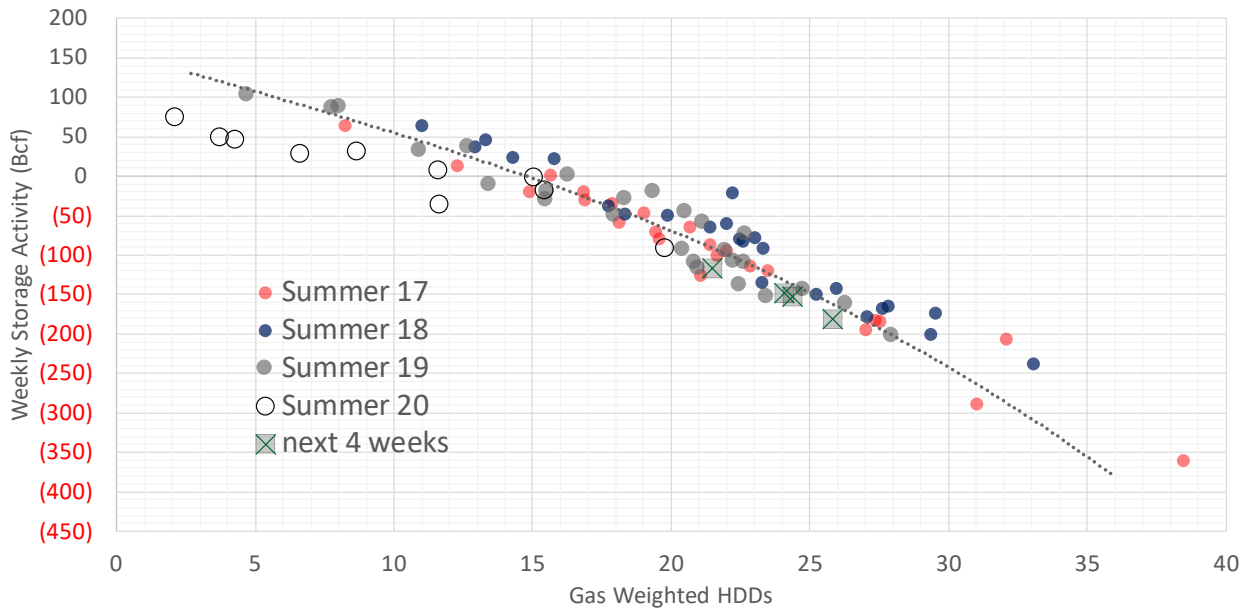


Weather Model Storage Projection

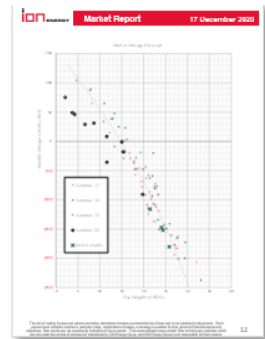
Next report
and beyond

Week Ending	Temp	Week Storage Projection
11-Dec	21.5	-116
18-Dec	24.4	-152
25-Dec	24.1	-147
01-Jan	25.9	-180

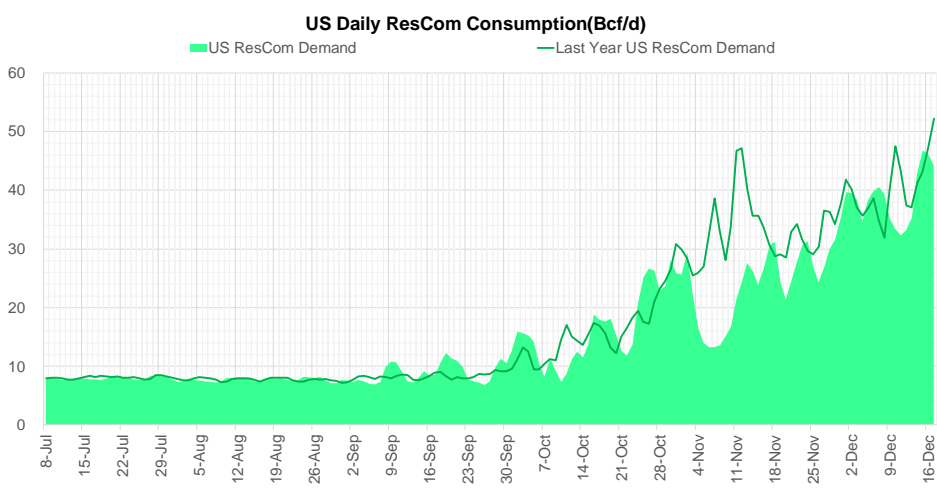
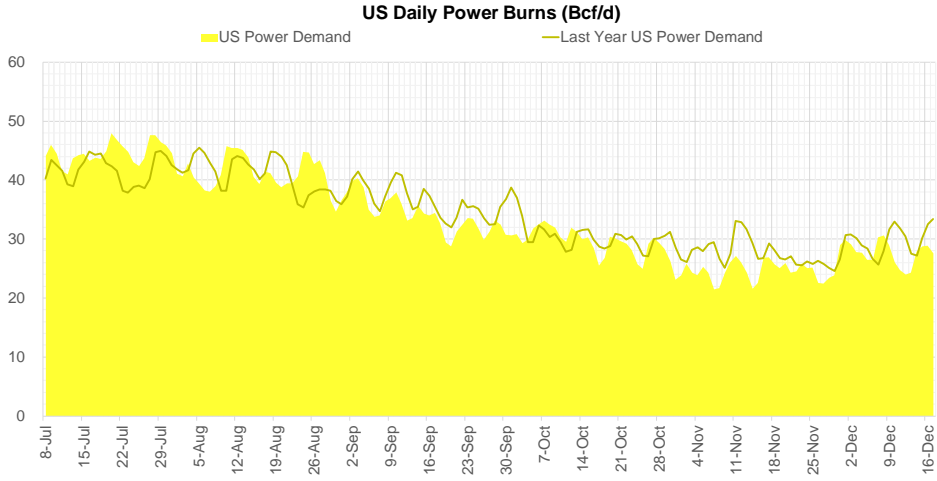
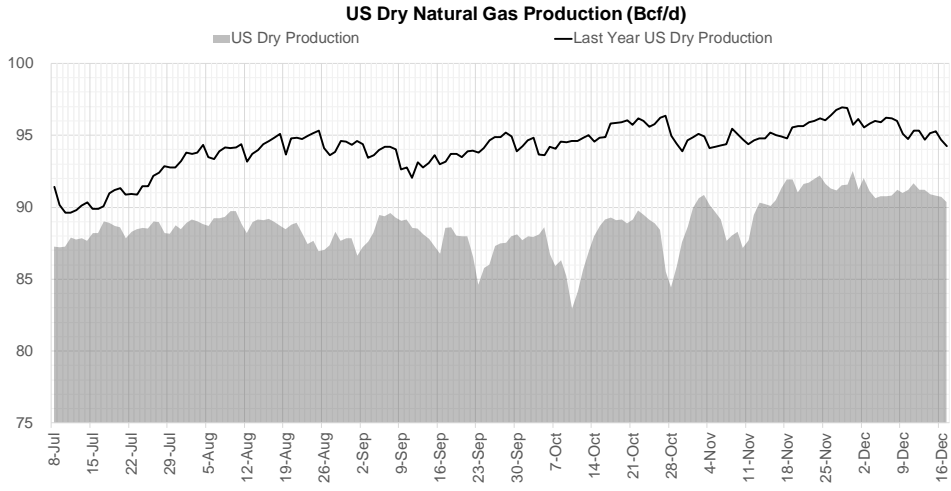
Winter Storage Forecast



Go to larger image



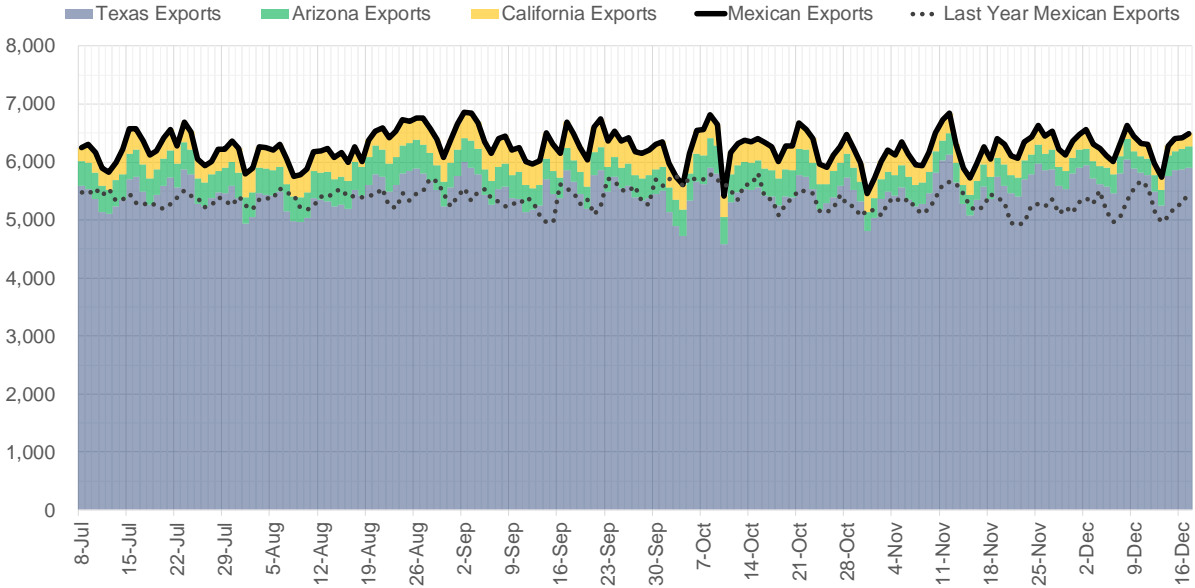
Supply – Demand Trends



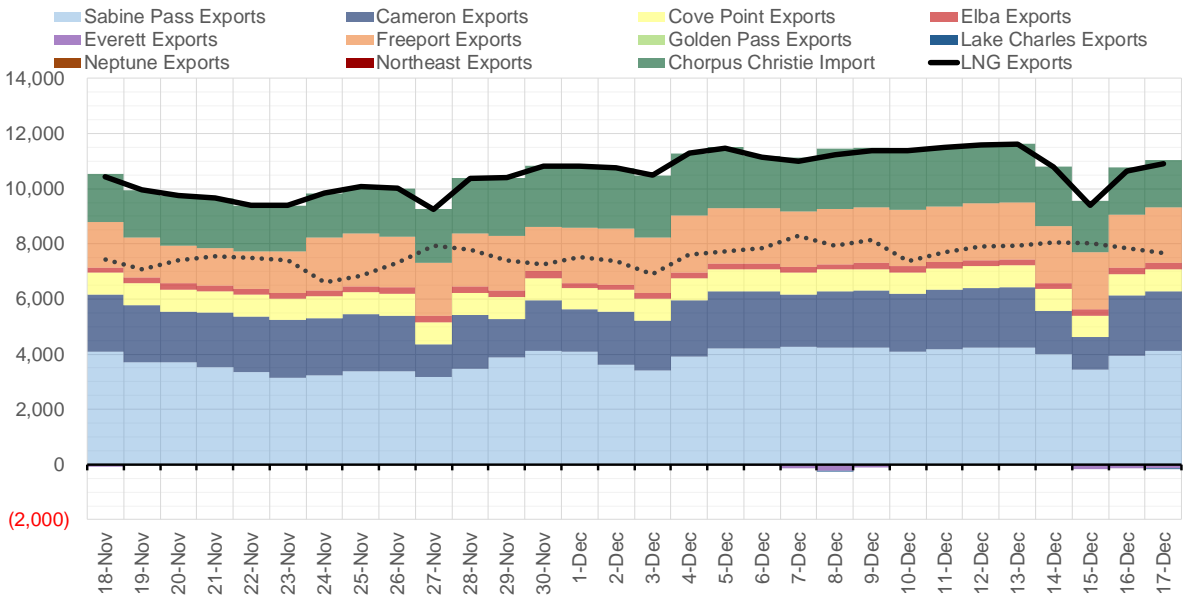
Source: Bloomberg

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Mexican Exports (MMcf/d)



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



Source: Bloomberg

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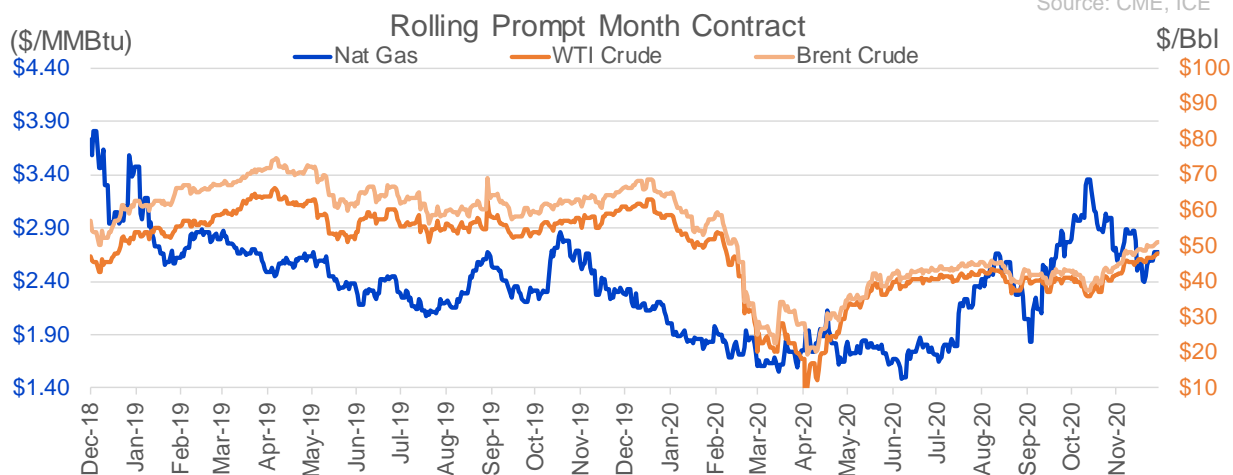
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

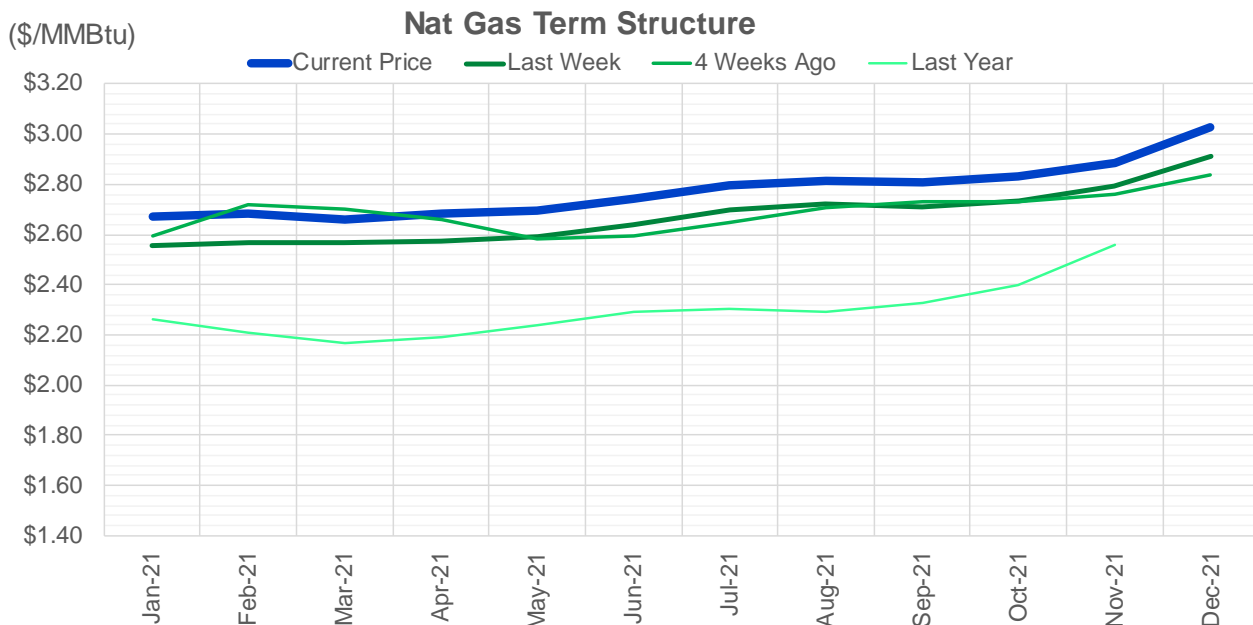
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
1	2021	C	3.00	11991	3	2021	P	2.00	42236
4	2021	C	3.00	11701	1	2021	C	3.50	40435
3	2021	C	3.50	11407	3	2021	C	5.00	37548
4	2021	C	3.25	10200	3	2021	C	6.00	35060
4	2021	C	4.25	5000	1	2021	P	2.50	33882
1	2021	C	2.80	3341	3	2021	C	4.00	33332
2	2021	C	3.50	2464	1	2021	C	3.00	31577
1	2021	C	2.85	2015	4	2021	C	3.25	30347
10	2021	P	2.00	2000	3	2021	C	3.00	29781
2	2021	C	3.00	1945	3	2021	C	3.25	28335
3	2021	C	4.00	1900	1	2021	C	4.50	27881
4	2021	C	4.00	1802	10	2021	C	4.00	27686
2	2021	P	2.25	1621	3	2021	C	4.50	26065
1	2021	C	2.90	1419	4	2021	C	4.00	25987
2	2021	C	4.50	1405	2	2021	P	2.25	25983
3	2021	C	5.00	1383	1	2021	C	5.00	25397
9	2021	C	2.75	1350	1	2021	P	2.25	25291
3	2021	C	6.00	1348	3	2021	C	3.50	25051
4	2021	P	2.25	1326	1	2021	C	4.00	24219
1	2021	C	2.95	1308	10	2021	C	3.25	24084
1	2021	C	2.75	1241	3	2021	P	2.50	23223
9	2021	C	3.25	1200	1	2021	C	3.75	22499
1	2021	C	2.65	1114	4	2021	C	3.00	21855
7	2021	C	4.00	1100	3	2021	C	7.00	21756
1	2021	P	2.50	1068	2	2021	C	4.00	21299
3	2021	C	3.00	1044	1	2021	C	6.00	21138
1	2021	C	3.50	1029	8	2021	C	4.00	21003
10	2021	P	2.75	1000	1	2021	C	2.75	20262
1	2021	P	2.60	996	2	2021	P	2.50	19930
6	2021	C	2.75	850	1	2021	P	2.00	19755
6	2021	P	2.55	850	10	2021	C	5.00	19595
1	2021	P	2.25	806	2	2021	C	3.50	19565
2	2021	P	2.75	753	4	2021	C	2.75	19361
1	2021	C	3.25	738	1	2021	C	3.25	18928
6	2021	C	3.25	700	4	2021	C	5.00	18653
2	2021	C	6.00	695	8	2021	P	2.25	18517
2	2021	C	4.00	653	5	2021	C	3.00	18162
3	2021	C	7.00	630	4	2021	P	2.00	16939
1	2021	P	2.30	594	2	2021	P	2.00	16835
1	2021	C	2.70	584	2	2021	C	3.00	16709
1	2021	P	2.40	526	6	2021	C	4.00	16601
10	2021	C	4.50	508	2	2021	C	5.00	16424
5	2021	C	3.00	500	4	2021	P	2.25	15113
10	2021	C	4.00	500	4	2021	C	3.50	15028
5	2021	P	2.25	475	5	2021	C	3.50	14778
1	2021	C	3.30	460	1	2021	P	2.75	14734
7	2021	C	2.75	450	2	2021	C	4.50	14653
10	2021	C	3.50	450	10	2021	C	3.00	14566
3	2021	P	2.50	436	1	2021	P	3.00	14154
					3	2021	P	2.25	14036.5

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
JAN 21	85935	97611	-11676	JAN 21	89533	89036	497.25
FEB 21	178007	171586	6421	FEB 21	74280	73928	352.5
MAR 21	243766	242274	1492	MAR 21	101146	100344	802
APR 21	101618	97383	4235	APR 21	85628	84082	1545.25
MAY 21	60879	61020	-141	MAY 21	76979	76681	298.5
JUN 21	39145	39247	-102	JUN 21	63569	63388	181
JUL 21	30681	29798	883	JUL 21	65116	64873	243.25
AUG 21	28884	28813	71	AUG 21	67370	67208	162
SEP 21	46570	46642	-72	SEP 21	62585	62419	166.5
OCT 21	97366	98104	-738	OCT 21	78029	77961	67.5
NOV 21	43550	43585	-35	NOV 21	51073	51019	54
DEC 21	42948	43178	-230	DEC 21	51963	51785	178
JAN 22	38613	39558	-945	JAN 22	50328	50196	132
FEB 22	24339	24194	145	FEB 22	38983	38947	35.75
MAR 22	27369	26300	1069	MAR 22	40633	40452	180.25
APR 22	25557	25202	355	APR 22	39494	39417	77.5
MAY 22	13033	12961	72	MAY 22	33529	33325	204
JUN 22	6772	6720	52	JUN 22	31657	31564	92.5
JUL 22	5878	5733	145	JUL 22	33244	33079	165.25
AUG 22	5103	5083	20	AUG 22	32064	31891	172.75
SEP 22	4552	4546	6	SEP 22	31553	31461	91.5
OCT 22	9298	9166	132	OCT 22	37034	37295	-261
NOV 22	6409	6384	25	NOV 22	31619	31541	77.25
DEC 22	6937	6903	34	DEC 22	34164	34077	87.5
JAN 23	4443	4344	99	JAN 23	16111	16125	-14.5
FEB 23	1330	1330	0	FEB 23	14653	14651	1.5
MAR 23	2230	2740	-510	MAR 23	14229	14217	12
APR 23	2748	2618	130	APR 23	13614	13548	65.25
MAY 23	1768	1707	61	MAY 23	12696	12622	74.25
JUN 23	557	486	71	JUN 23	12745	12642	103.5





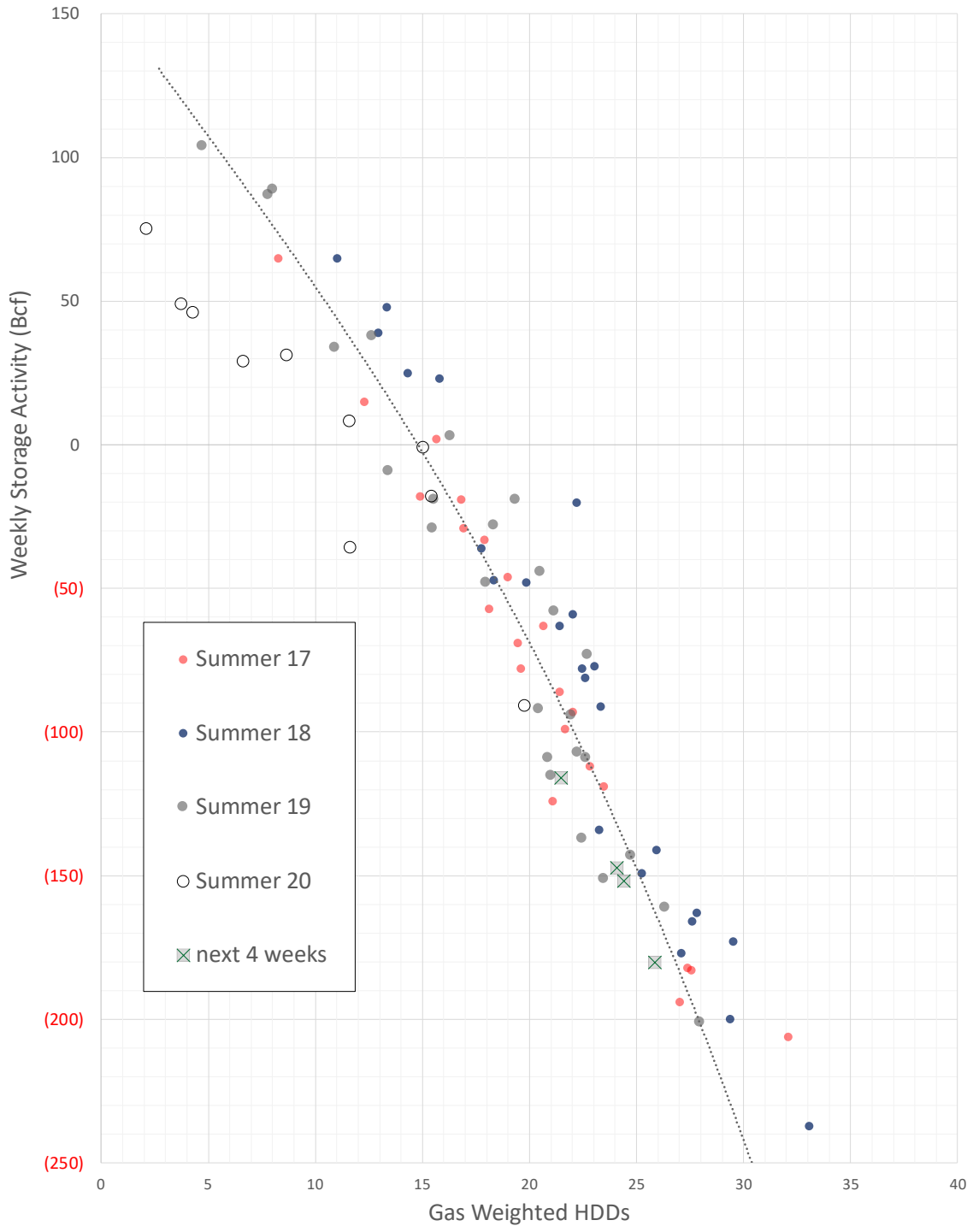
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Current Price	\$2.672	\$2.681	\$2.662	\$2.683	\$2.694	\$2.740	\$2.796	\$2.816	\$2.807	\$2.831	\$2.885	\$3.026
Last Week	\$2.553	\$2.570	\$2.565	\$2.573	\$2.593	\$2.641	\$2.700	\$2.722	\$2.712	\$2.733	\$2.792	\$2.911
vs. Last Week	\$0.119	\$0.111	\$0.097	\$0.110	\$0.101	\$0.099	\$0.096	\$0.094	\$0.095	\$0.098	\$0.093	\$0.115
4 Weeks Ago	\$2.592	\$2.720	\$2.703	\$2.659	\$2.584	\$2.597	\$2.645	\$2.706	\$2.731	\$2.728	\$2.761	\$2.839
vs. 4 Weeks Ago	\$0.080	-\$0.039	-\$0.041	\$0.024	\$0.110	\$0.143	\$0.151	\$0.110	\$0.076	\$0.103	\$0.124	\$0.187
Last Year	\$2.273	\$2.265	\$2.207	\$2.168	\$2.191	\$2.241	\$2.293	\$2.304	\$2.294	\$2.325	\$2.396	\$2.559
vs. Last Year	\$0.399	\$0.416	\$0.455	\$0.515	\$0.503	\$0.499	\$0.503	\$0.512	\$0.513	\$0.506	\$0.489	\$0.467

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	10.02	4.67	-5.35
TETCO M3	\$/MMBtu	5.06	3.30	-1.76
FGT Zone 3	\$/MMBtu	5.53	2.58	-2.95
Zone 6 NY	\$/MMBtu	5.53	3.92	-1.62
Chicago Citygate	\$/MMBtu	2.54	2.49	-0.05
Michcon	\$/MMBtu	2.49	2.33	-0.16
Columbia TCO Pool	\$/MMBtu	2.32	2.06	-0.26
Ventura	\$/MMBtu	2.58	2.72	0.14
Rockies/Opal	\$/MMBtu	3.44	2.33	-1.11
El Paso Permian Basin	\$/MMBtu	2.50	2.34	-0.16
Socal Citygate	\$/MMBtu	4.76	3.20	-1.56
Malin	\$/MMBtu	3.41	2.98	-0.43
Houston Ship Channel	\$/MMBtu	2.66	2.54	-0.12
Henry Hub Cash	\$/MMBtu	2.63	2.39	-0.24
AECO Cash	C\$/GJ	2.17	2.04	-0.14
Station2 Cash	C\$/GJ	2.12	3.28	1.16
Dawn Cash	C\$/GJ	2.53	2.37	-0.16

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	0.011	▼ -0.009	▲ 0.147	▲ 0.422
NatGas Mar21/Apr21	\$/MMBtu	0.021	▲ 0.013	▼ -0.054	▼ -0.232
NatGas Oct21/Nov21	\$/MMBtu	0.054	▼ -0.005	▼ -0.024	▼ -0.013
NatGas Apr21/Oct21	\$/MMBtu	0.148	▲ 0.328	▲ 0.189	▼ -0.184
WTI Crude	\$/Bbl	48.02	▲ 1.240	▲ 6.280	▼ -13.200
Brent Crude	\$/Bbl	51.27	▲ 1.020	▲ 7.070	▼ -15.270
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	148.60	▲ 5.030	▲ 21.530	▼ -54.350
Propane, Mt. Bel	cents/Gallon	0.61	▲ 0.022	▲ 0.077	▲ 0.102
Ethane, Mt. Bel	cents/Gallon	0.20	▼ -0.002	▼ -0.020	▲ 0.020
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	▼ -4.000
Coal, ILB	\$/MMBtu	1.32			

Winter Storage Forecast



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