

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.81 ▲	\$ 0.02 ▲	\$ 0.07 ▲

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 62.33 ▲	\$ 0.42 ▲	\$ 0.4 ▲

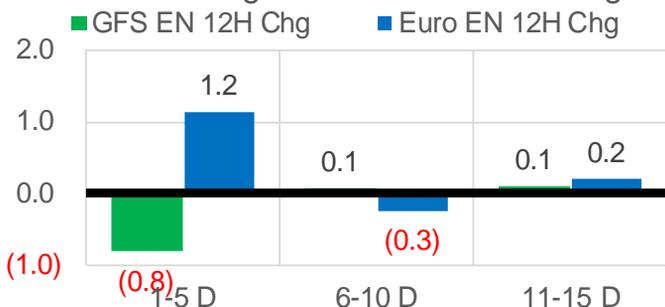
	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 66.03 ▲	\$ 0.38 ▲	\$ 0.1 ▲

Page Menu

- [Short-term Weather Model Outlooks](#)
- [Lower 48 Component Models](#)
- [Regional S/D Models Storage Projection](#)
- [Weather Model Storage Projection](#)
- [Supply – Demand Trends](#)
- [Nat Gas Options Volume and Open Interest](#)
- [Nat Gas Futures Open Interest](#)
- [Price Summary](#)

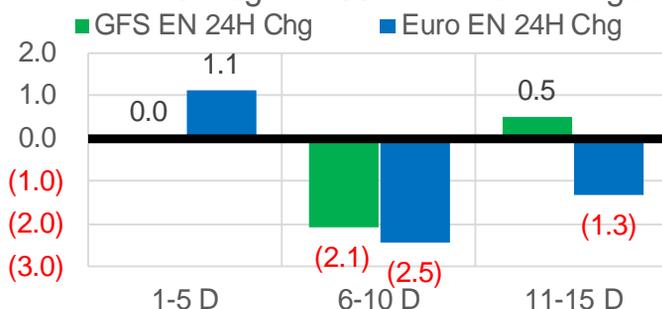
Vs. 12H Ago

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	88.8 ▼	-2.21 ▼	-2.06 ▼

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	26.9 ▲	1.07 ▲	0.77 ▲

	Current	Δ from YD	Δ from 7D Avg
US ResComm	13.3 ▼	-5.01 ▼	-9.41 ▼

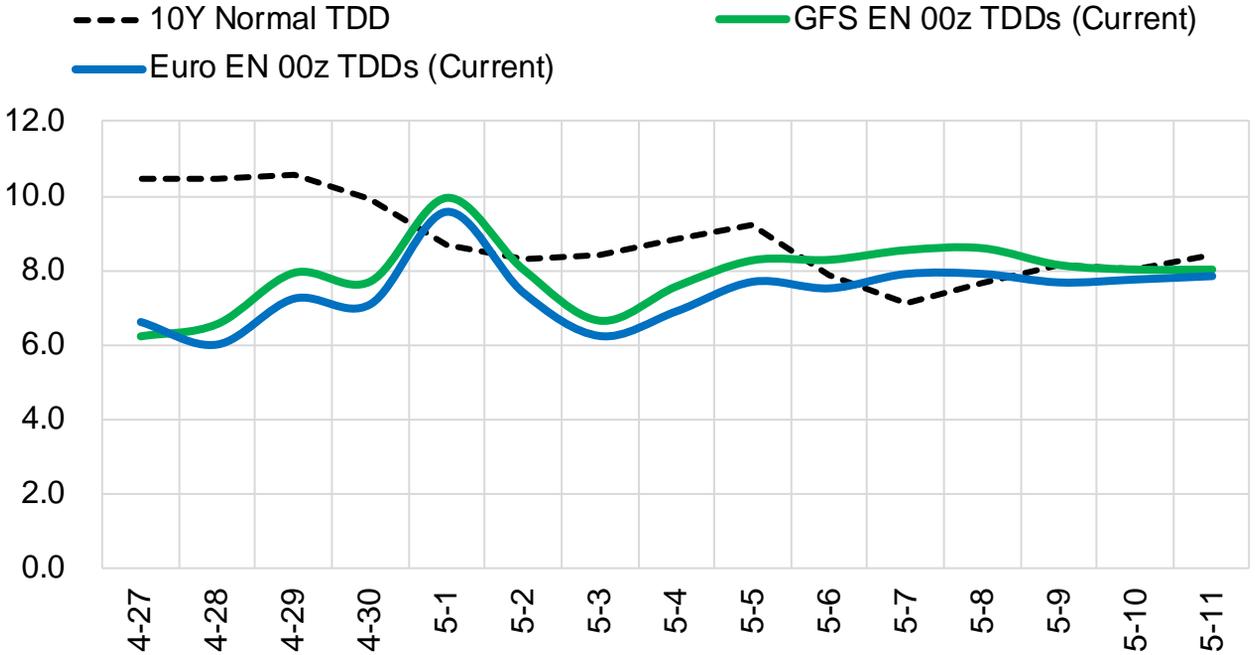
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.4 ▼	-0.09 ▼	-0.59 ▼

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.5 ▼	-0.07 ▼	-0.02 ▼

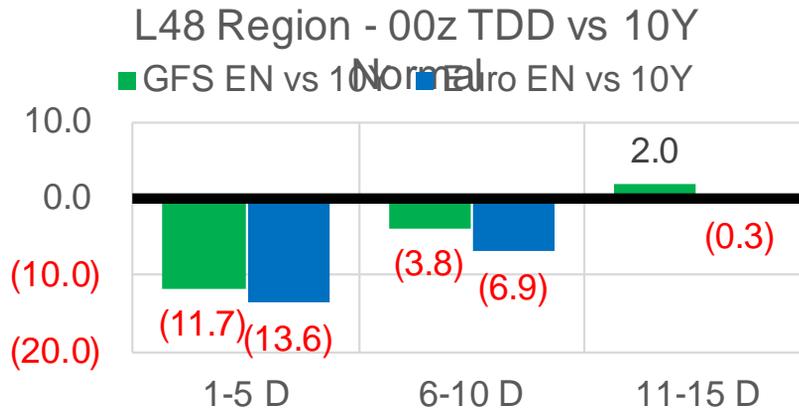
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.6 ▲	0.21 ▲	0.04 ▲

Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI , Bloomberg

Lower 48 Component Models

Daily Balances

	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	DoD	vs. 7D
Lower 48 Dry Production	90.5	90.9	91.6	91.1	91.2	91.0	88.8	▼-2.2	▼-2.2
Canadian Imports	5.8	5.7	4.5	4.3	4.5	4.5	4.4	▼-0.1	▼-0.5
L48 Power	27.6	26.7	25.6	25.1	25.1	25.9	26.9	▲1.1	▲0.9
L48 Residential & Commercial	29.0	28.9	21.5	18.3	20.0	18.3	13.3	▼-5.0	▼-9.3
L48 Industrial	20.0	20.1	19.7	19.7	20.0	19.9	19.3	▼-0.7	▼-0.6
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.0	4.9	▼-0.1	▼-0.1
L48 Pipeline Distribution	2.8	2.7	2.3	2.1	2.2	2.2	2.0	▼-0.2	▼-0.4
L48 Regional Gas Consumption	84.3	83.4	74.2	70.3	72.3	71.3	66.4	▼-4.9	▼-9.6
Net LNG Delivered	11.69	11.02	11.57	11.60	11.79	11.58	11.51	▼-0.1	▼0.0
Total Mexican Exports	6.6	6.7	7.0	6.4	6.3	6.4	6.6	▲0.2	▲0.1
Implied Daily Storage Activity	-6.2	-4.6	3.3	7.1	5.3	6.2	8.6		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	19-Mar	26-Mar	2-Apr	9-Apr	16-Apr	23-Apr	WoW	vs. 4W
Lower 48 Dry Production	91.8	92.0	92.5	92.1	91.4	90.6	▼-0.8	▼-1.4
Canadian Imports	5.0	4.5	4.5	4.2	4.3	5.3	▲1.1	▲1.0
L48 Power	24.9	24.1	24.6	23.2	24.6	25.9	▲1.2	▲1.7
L48 Residential & Commercial	30.3	24.9	23.2	18.5	18.5	23.9	▲5.5	▲2.6
L48 Industrial	21.2	20.3	21.2	21.5	22.0	19.8	▼-2.3	▼-1.5
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.0	5.0	▼0.0	▼-0.1
L48 Pipeline Distribution	2.6	2.3	2.3	2.1	2.1	2.5	▲0.3	▲0.3
L48 Regional Gas Consumption	84.0	76.7	76.5	70.3	72.3	77.0	▲4.7	▲3.1
Net LNG Exports	11.2	11.6	11.7	11.5	11.4	11.6	▲0.2	▲0.1
Total Mexican Exports	6.3	6.6	6.4	6.2	7.3	6.8	▼-0.5	▲0.2
Implied Daily Storage Activity	-4.7	1.6	2.4	8.2	4.7	0.6	-4.1	
EIA Reported Daily Storage Activity	-4.6	2.0	2.9	8.7	5.4			
Daily Model Error	-0.2	-0.4	-0.5	-0.5	-0.7			

Monthly Balances

	2Yr Ago Apr-19	LY Apr-20	Dec-20	Jan-21	Feb-21	Mar-21	MTD Apr-21	MoM	vs. LY
Lower 48 Dry Production	89.1	91.9	91.0	90.5	85.1	92.0	91.3	▼-0.7	▲0.8
Canadian Imports	4.6	4.0	5.8	6.3	6.4	4.7	4.6	▼-0.1	▼-1.7
L48 Power	24.6	25.6	28.0	28.1	27.8	25.0	24.9	▼-0.1	▼-3.3
L48 Residential & Commercial	19.1	20.5	40.0	43.8	47.7	28.3	20.4	▼-7.9	▼-23.4
L48 Industrial	21.4	19.8	23.3	23.5	22.1	20.1	20.9	▲0.8	▼-2.6
L48 Lease and Plant Fuel	4.9	5.1	5.0	5.1	4.7	5.1	5.0	▼0.0	▼0.0
L48 Pipeline Distribution	2.2	2.3	3.1	3.2	3.4	2.5	2.2	▼-0.3	▼-1.0
L48 Regional Gas Consumption	72.3	73.2	99.4	103.7	105.7	81.0	73.4	▼-7.6	▼-30.3
Net LNG Exports	4.5	8.2	11.0	10.5	8.4	11.1	11.5	▲0.4	▲1.0
Total Mexican Exports	4.7	4.8	5.8	6.2	5.7	6.5	6.7	▲0.2	▲0.5
Implied Daily Storage Activity	12.3	9.6	-19.5	-23.5	-28.3	-1.9	4.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

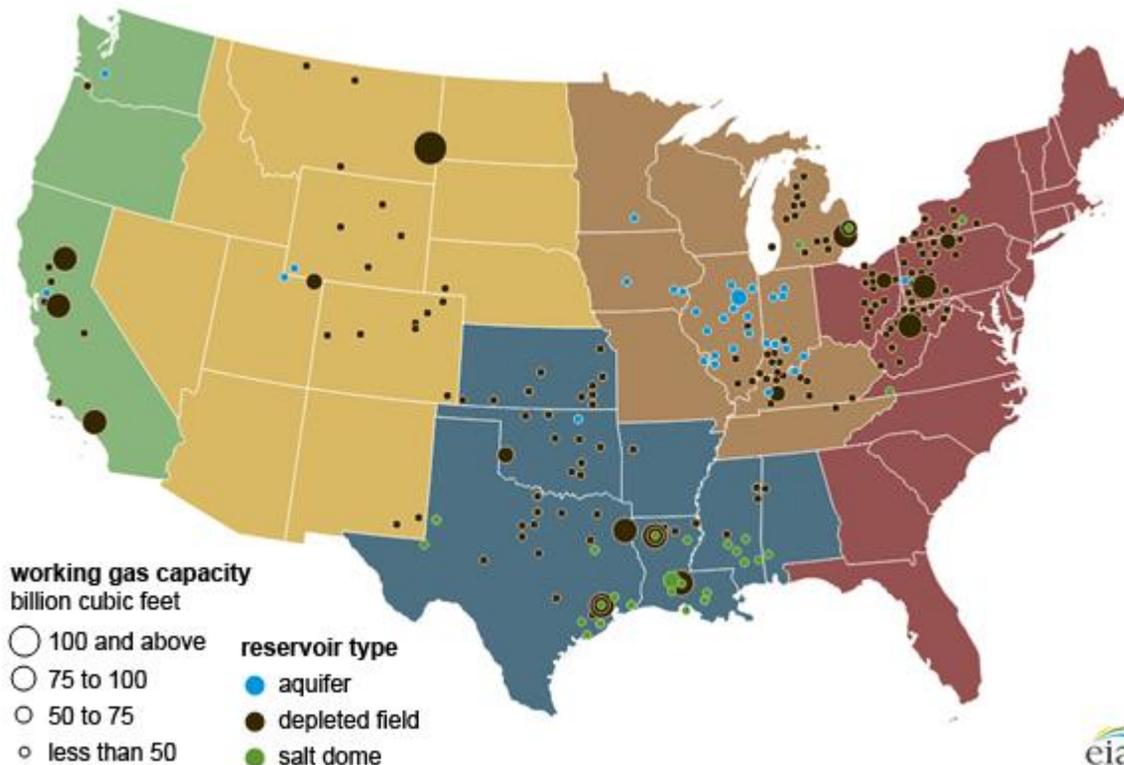
Regional S/D Models Storage Projection

Week Ending 23-Apr

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	0.3	0.9	1.2	8
East	-2.5	1.8	-0.6	-4
Midwest	0.2	-0.3	-0.2	-1
Mountain	3.3	-2.9	0.4	3
South Central	-2.4	2.7	0.3	2
Pacific	1.7	-0.4	1.3	9

*Adjustment Factor is calculated based on historical regional deltas

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

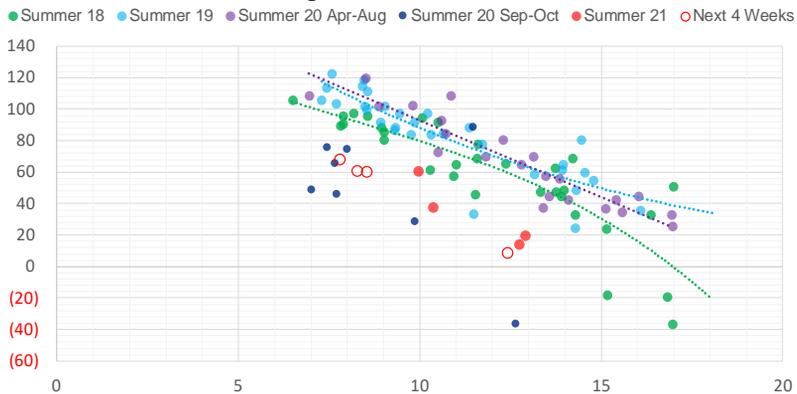


Weather Model Storage Projection

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
23-Apr	12.5	8
30-Apr	8.6	60
07-May	7.8	68
14-May	8.3	60

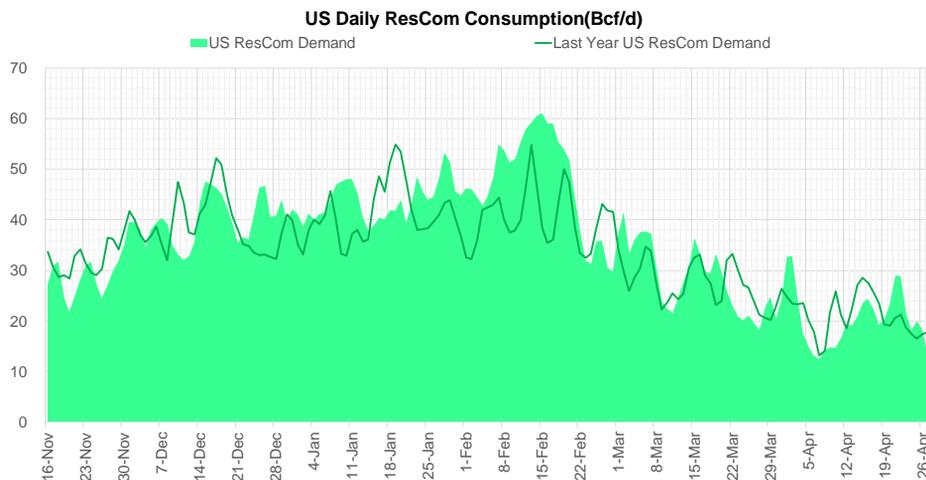
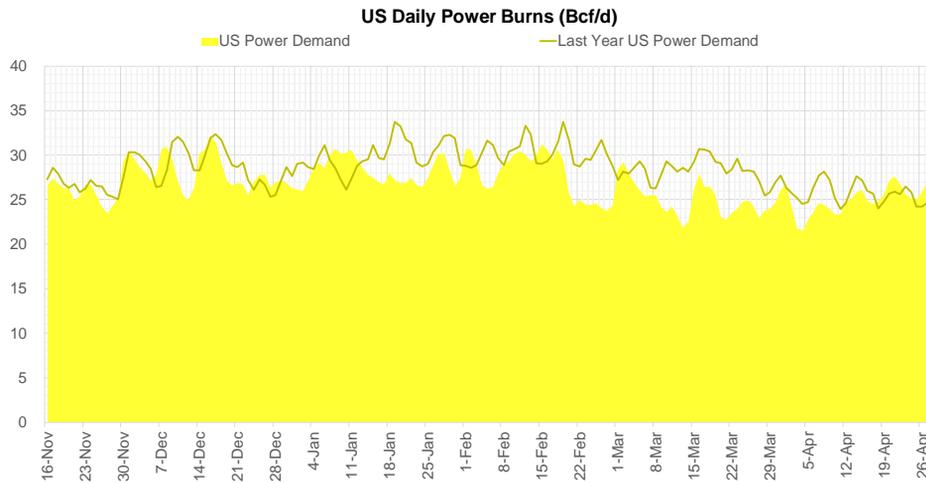
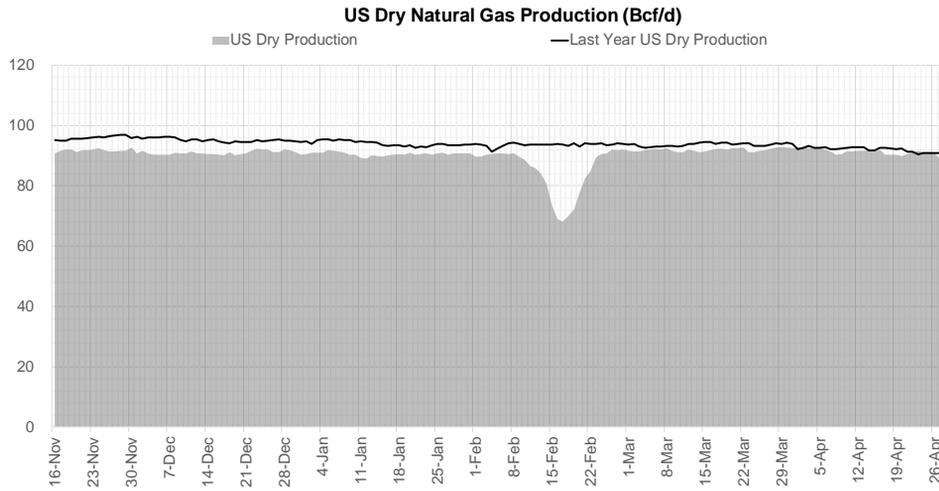
Weather Storage Model - Next 4 Week Forecast



Go to larger image



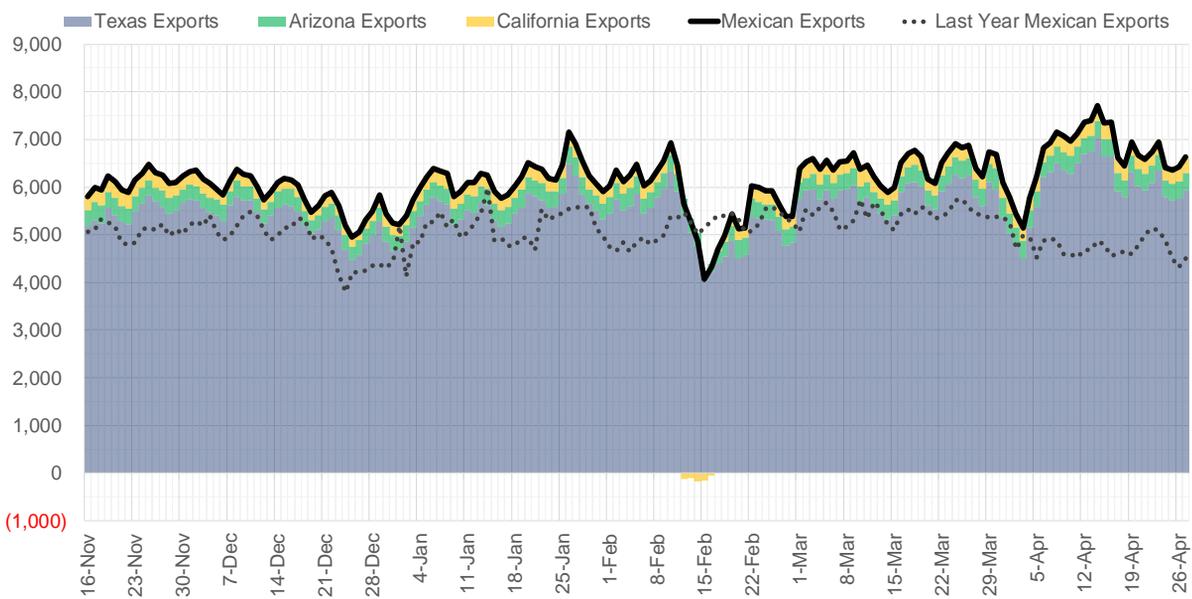
Supply – Demand Trends



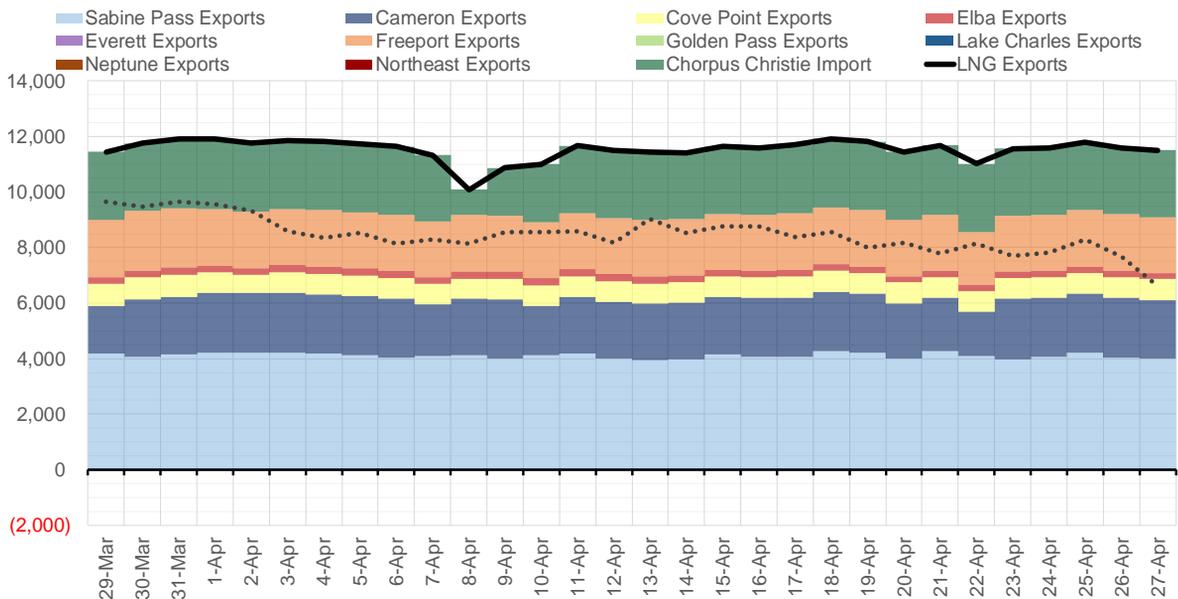
Source: Bloomberg

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Mexican Exports (MMcf/d)



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



Source: Bloomberg

The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

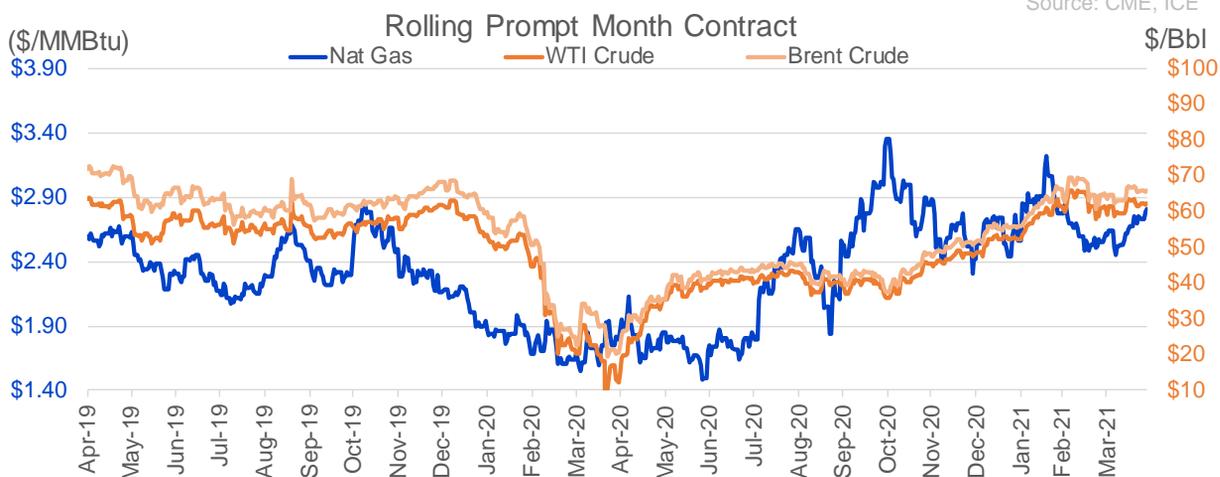
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

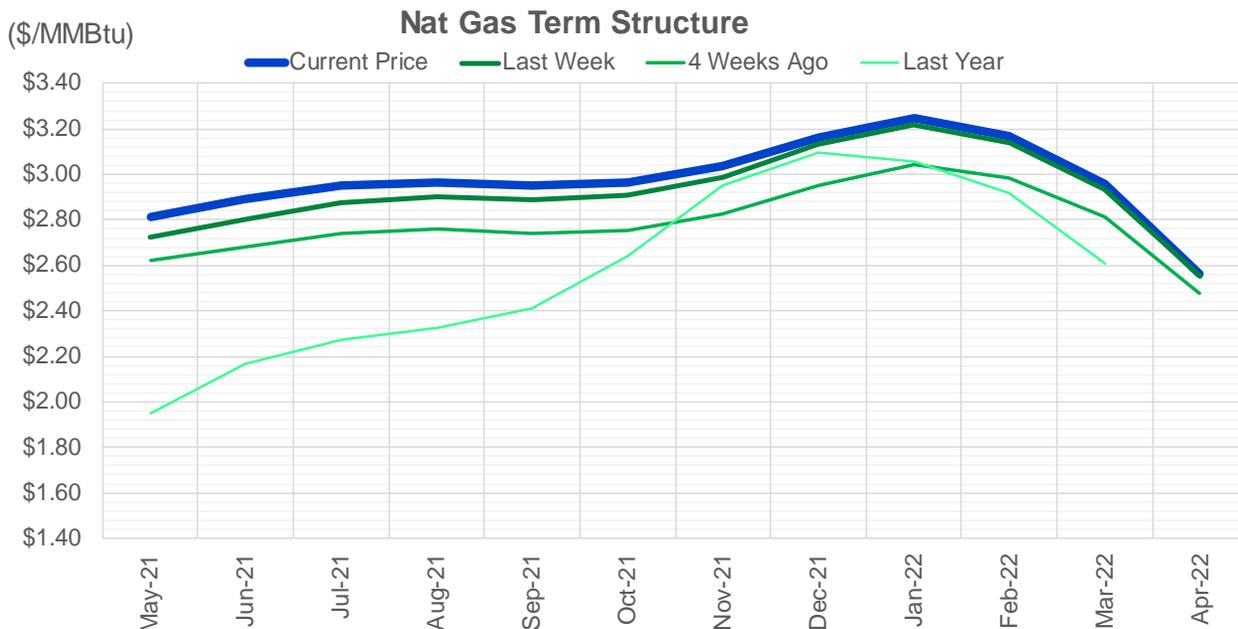
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
6	2021	C	3.00	8684	10	2021	C	4.00	39290
6	2021	P	2.50	4626	5	2021	C	3.00	34141
5	2021	P	2.70	3976	8	2021	C	4.00	33065
6	2021	P	2.65	3716	5	2021	P	2.50	30981
5	2021	C	2.80	2837	10	2021	C	3.25	30758
7	2021	P	2.25	2600	6	2021	C	3.00	30706
5	2021	P	2.60	2578	6	2021	P	2.50	30212
6	2021	C	2.90	2505	7	2021	C	4.00	28248
5	2021	C	2.85	2284	8	2021	C	3.50	28158
5	2021	C	2.75	2176	6	2021	C	4.00	27953
10	2021	C	4.00	2050	10	2021	C	5.00	26685
7	2021	C	3.50	2019	5	2021	C	3.50	25933
5	2021	P	2.65	1869	5	2021	P	2.00	25423
5	2021	P	2.75	1830	5	2021	C	3.25	24854
6	2021	P	2.70	1815	5	2021	C	4.00	24706
6	2021	C	2.95	1522	8	2021	C	3.25	24663
5	2021	C	2.90	1471	5	2021	P	2.25	24000
7	2021	C	3.25	1376	7	2021	C	3.25	23573
7	2021	P	2.50	1252	10	2021	C	3.50	22633
6	2021	P	2.75	1186	6	2021	C	3.25	22352
8	2021	C	4.00	1000	5	2021	C	2.75	20620
10	2021	C	5.00	950	10	2021	P	2.50	20564
5	2021	P	2.80	932	10	2021	C	3.00	20283
6	2021	C	3.15	914	6	2021	C	3.50	19998
5	2021	C	2.70	827	8	2021	P	2.50	19440
8	2021	C	3.25	707	6	2021	P	2.25	19268
7	2021	P	2.75	686	5	2021	P	2.40	19266
6	2021	P	2.60	674	10	2021	P	2.25	19077
6	2021	P	2.80	633	9	2021	C	3.50	19014
10	2021	C	3.75	606	4	2022	C	3.00	18974
10	2021	C	3.50	605	8	2021	P	2.25	18890
8	2021	C	2.90	593	7	2021	C	3.50	18671
6	2021	C	3.20	560	10	2021	P	2.00	18310
9	2021	P	2.50	552	9	2021	P	2.00	17819
7	2021	P	2.00	504	7	2021	P	2.50	17538
6	2021	C	2.80	504	6	2021	P	2.65	17214
9	2021	C	3.25	500	6	2021	P	2.00	17061
9	2021	C	3.50	500	12	2021	C	4.00	16790
9	2021	P	2.25	500	11	2021	C	4.00	16676
10	2021	C	4.50	500	9	2021	C	3.25	15655
7	2021	C	3.00	428	6	2021	C	3.75	15649
7	2021	C	3.75	418	8	2021	C	3.00	15556
10	2021	P	2.50	410	7	2021	P	2.00	15536
3	2022	P	2.50	400	6	2021	C	2.75	15507
6	2021	C	3.25	387	8	2021	P	2.00	15255
7	2021	P	2.85	379	7	2021	C	3.00	15009
7	2021	C	2.85	374	5	2021	P	2.60	14975
5	2021	C	2.95	371	3	2022	C	4.00	14537
6	2021	C	3.50	371	9	2021	C	4.00	14302
					6	2021	P	2.55	14052

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
MAY 21	15847	22199	-6352	MAY 21	78116	78229	-114
JUN 21	200748	197549	3199	JUN 21	83543	80331	3212
JUL 21	188275	188086	189	JUL 21	88116	88471	-355
AUG 21	75984	75518	466	AUG 21	79226	79061	165
SEP 21	109437	109482	-45	SEP 21	69108	68839	269
OCT 21	126424	125739	685	OCT 21	84998	85086	-89
NOV 21	66431	65225	1206	NOV 21	60319	60008	311
DEC 21	46848	46059	789	DEC 21	59389	59285	104
JAN 22	69308	68807	501	JAN 22	64269	63846	424
FEB 22	23012	22936	76	FEB 22	46770	46663	108
MAR 22	44320	43488	832	MAR 22	51754	51374	380
APR 22	50221	49487	734	APR 22	47615	47367	248
MAY 22	26964	26925	39	MAY 22	41531	41011	520
JUN 22	14912	14927	-15	JUN 22	39741	39610	131
JUL 22	9522	9504	18	JUL 22	39576	39380	197
AUG 22	8702	8731	-29	AUG 22	38500	38262	238
SEP 22	9138	9142	-4	SEP 22	39226	39090	136
OCT 22	22016	21997	19	OCT 22	45043	44557	487
NOV 22	10734	10759	-25	NOV 22	35185	35028	157
DEC 22	10233	9665	568	DEC 22	39360	39303	58
JAN 23	5082	5576	-494	JAN 23	22036	21920	116
FEB 23	2658	2659	-1	FEB 23	20657	20600	56
MAR 23	4837	4831	6	MAR 23	22163	22125	38
APR 23	5498	5493	5	APR 23	18254	18188	66
MAY 23	4422	4436	-14	MAY 23	18184	18061	122
JUN 23	957	957	0	JUN 23	16722	16633	89
JUL 23	1076	1076	0	JUL 23	16643	16651	-8
AUG 23	753	753	0	AUG 23	16805	16825	-20
SEP 23	641	641	0	SEP 23	16204	16227	-23
OCT 23	1716	1716	0	OCT 23	16858	16853	5





	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Current Price	\$2.810	\$2.890	\$2.948	\$2.964	\$2.949	\$2.965	\$3.038	\$3.164	\$3.248	\$3.167	\$2.959	\$2.562
Last Week	\$2.727	\$2.803	\$2.874	\$2.902	\$2.887	\$2.905	\$2.984	\$3.130	\$3.218	\$3.142	\$2.936	\$2.550
vs. Last Week	\$0.083	\$0.087	\$0.074	\$0.062	\$0.062	\$0.060	\$0.054	\$0.034	\$0.030	\$0.025	\$0.023	\$0.012
4 Weeks Ago	\$2.623	\$2.681	\$2.741	\$2.757	\$2.742	\$2.756	\$2.825	\$2.954	\$3.045	\$2.987	\$2.812	\$2.479
vs. 4 Weeks Ago	\$0.187	\$0.209	\$0.207	\$0.207	\$0.207	\$0.209	\$0.213	\$0.210	\$0.203	\$0.180	\$0.147	\$0.083
Last Year	\$1.794	\$1.948	\$2.170	\$2.270	\$2.324	\$2.412	\$2.642	\$2.952	\$3.093	\$3.054	\$2.918	\$2.610
vs. Last Year	\$1.016	\$0.942	\$0.778	\$0.694	\$0.625	\$0.553	\$0.396	\$0.212	\$0.155	\$0.113	\$0.041	-\$0.048

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	2.66	2.25	-0.41
TETCO M3	\$/MMBtu	2.32	2.05	-0.27
FGT Zone 3	\$/MMBtu	2.45	2.77	0.32
Zone 6 NY	\$/MMBtu	2.45	1.97	-0.48
Chicago Citygate	\$/MMBtu	2.57	2.64	0.07
Michcon	\$/MMBtu	2.60	2.63	0.02
Columbia TCO Pool	\$/MMBtu	2.34	2.23	-0.11
Ventura	\$/MMBtu	2.56	2.58	0.02
Rockies/Opal	\$/MMBtu	2.86	2.52	-0.34
El Paso Permian Basin	\$/MMBtu	2.45	2.58	0.13
Socal Citygate	\$/MMBtu	3.78	2.74	-1.04
Malin	\$/MMBtu	2.75	2.69	-0.06
Houston Ship Channel	\$/MMBtu	2.73	2.78	0.05
Henry Hub Cash	\$/MMBtu	2.69	2.60	-0.09
AECO Cash	C\$/GJ	2.31	2.20	-0.11
Station2 Cash	C\$/GJ	2.02	2.54	0.52
Dawn Cash	C\$/GJ	2.62	2.62	0.00

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.017	▼ -0.014	▲ 0.002	▲ 0.024
NatGas Oct21/Nov21	\$/MMBtu	0.073	▼ -0.006	▲ 0.004	▲ 0.031
NatGas Oct21/Jan22	\$/MMBtu	0.283	▼ -0.030	▼ -0.006	▲ 0.001
NatGas Apr22/Oct22	\$/MMBtu	0.021	▼ -0.014	▼ -0.020	▼ -0.019
WTI Crude	\$/Bbl	62.33	▼ -0.110	▲ 1.780	▲ 49.990
Brent Crude	\$/Bbl	66.03	▼ -0.540	▲ 1.890	▲ 45.570
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	190.00	▲ 1.990	▲ 11.080	▲ 126.920
Propane, Mt. Bel	cents/Gallon	0.81	▲ 0.015	▼ -0.112	▲ 0.486
Ethane, Mt. Bel	cents/Gallon	0.23	▲ 0.002	▲ 0.017	▲ 0.105
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.000
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▲ 0.000
Coal, ILB	\$/MMBtu	1.32			

Weather Storage Model - Next 4 Week Forecast

● Summer 18
 ● Summer 19
 ● Summer 20 Apr-Aug
 ● Summer 20 Sept-Oct
 ● Summer 21
 ○ Next 4 Weeks

