

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.73	▼ \$ (0.05)	▲ \$ 0.03

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 47.04	▲ \$ 0.02	▼ \$ (1.3)

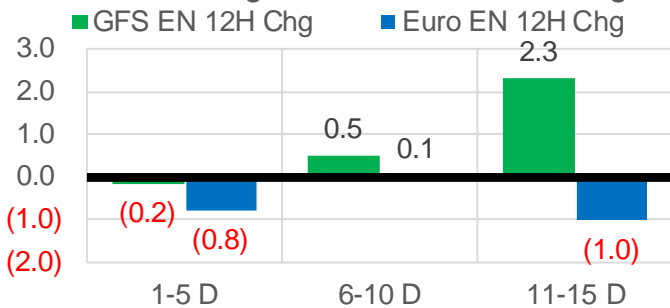
	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 50.12	▲ \$ 0.04	▼ \$ (1.4)

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](#)

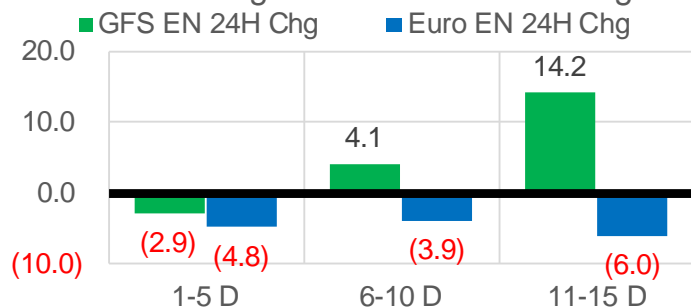
Vs. 12H Ago

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	91.8	▼ -0.09	▲ 0.77

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	25.3	▼ -0.32	▼ -3.14

	Current	Δ from YD	Δ from 7D Avg
US ResComm	36.8	▼ -0.18	▼ -5.23

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.3	▼ -0.18	▼ -0.92

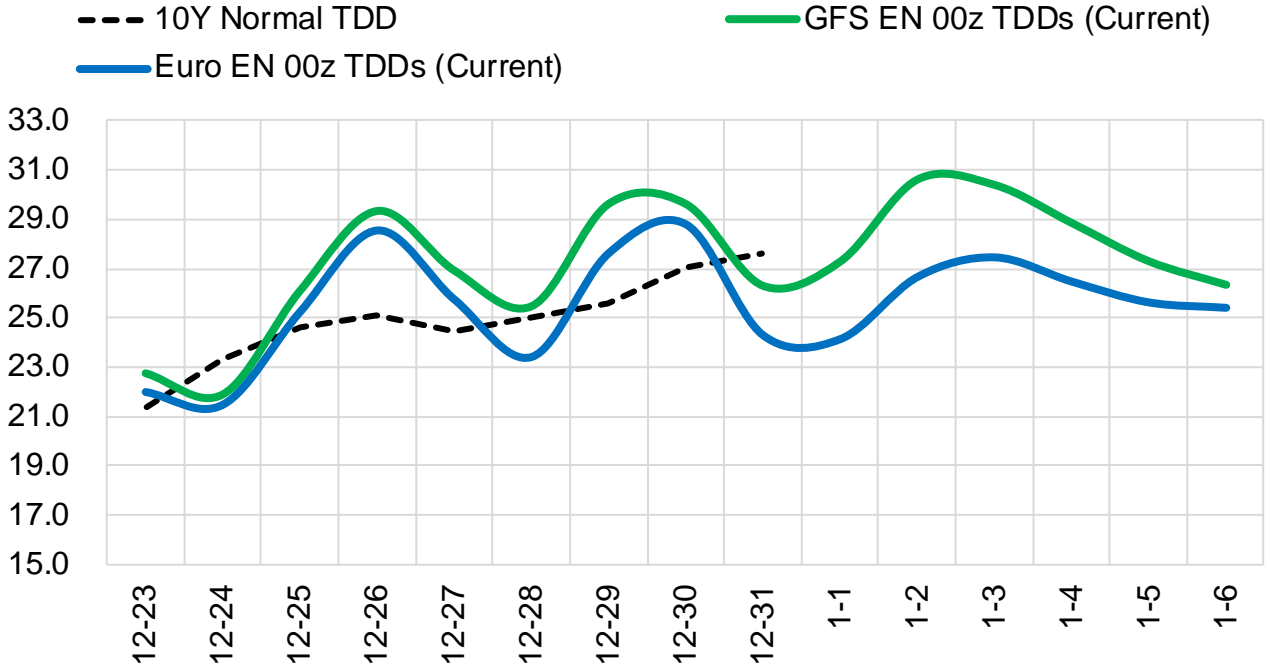
	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.5	▲ 0.30	▲ 0.70

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.9	▼ -0.30	▼ -0.17

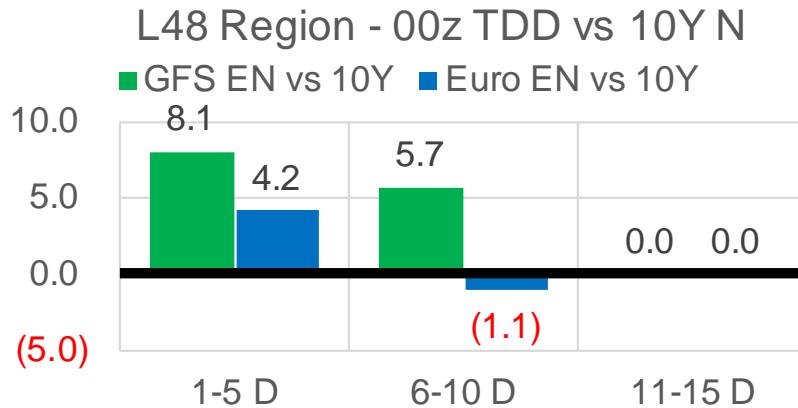
The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are 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.

Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI , Bloomberg

Lower 48 Component Models

Daily Balances

	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec	23-Dec	DoD	vs. 7D
Lower 48 Dry Production	90.4	91.6	90.7	90.9	90.9	91.9	91.8	▼-0.1	▲0.7
Canadian Imports	6.8	6.3	6.2	6.0	5.9	5.4	5.3	▼-0.2	▼-0.8
L48 Power	32.1	29.1	26.9	26.1	26.7	25.6	25.3	▼-0.3	▼-2.5
L48 Residential & Commercial	46.7	45.4	42.7	39.4	35.7	37.0	36.8	▼-0.2	▼-4.4
L48 Industrial	25.2	24.6	23.7	23.2	22.7	22.7	22.5	▼-0.2	▼-1.2
L48 Lease and Plant Fuel	5.0	5.1	5.0	5.0	5.0	5.1	5.1	▼0.0	▲0.0
L48 Pipeline Distribution	3.6	3.4	3.2	3.0	2.9	2.9	2.8	▼0.0	▼-0.3
L48 Regional Gas Consumption	112.5	107.6	101.5	96.6	93.1	93.2	92.5	▼-0.8	▼-8.3
Net LNG Delivered	11.01	10.62	10.55	10.67	10.78	11.17	11.47	▲0.3	▲0.7
Total Mexican Exports	6.3	6.2	5.6	5.6	6.0	6.2	5.9	▼-0.3	▼-0.1
Implied Daily Storage Activity	-32.6	-26.5	-20.7	-16.0	-13.1	-13.2	-12.7		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	13-Nov	20-Nov	27-Nov	4-Dec	11-Dec	18-Dec	WoW	vs. 4W
Lower 48 Dry Production	88.2	90.9	91.6	91.6	90.9	91.0	▲0.1	▼-0.3
Canadian Imports	3.9	5.1	4.5	5.3	5.9	5.8	▼-0.1	▲0.6
L48 Power	24.4	24.7	24.8	26.5	28.1	28.4	▲0.2	▲2.3
L48 Residential & Commercial	16.8	27.2	26.7	34.4	37.2	40.8	▲3.6	▲9.5
L48 Industrial	24.0	23.4	22.2	24.2	24.1	25.2	▲1.1	▲1.8
L48 Lease and Plant Fuel	4.9	5.0	5.1	5.1	5.0	5.0	▲0.0	▼0.0
L48 Pipeline Distribution	1.9	2.4	2.4	2.8	3.0	3.2	▲0.2	▲0.5
L48 Regional Gas Consumption	72.0	82.7	81.1	93.0	97.5	102.6	▲5.1	▲14.1
Net LNG Exports	10.4	10.2	9.7	10.4	11.3	10.9	▼-0.3	▲0.5
Total Mexican Exports	6.3	6.1	6.3	6.4	6.3	6.2	▼-0.1	▼-0.1
Implied Daily Storage Activity	3.4	-2.9	-1.0	-12.9	-18.3	-23.0	-4.7	
EIA Reported Daily Storage Activity	4.4	-2.6	-0.1	-13.0	-17.4			
Daily Model Error	-1.0	-0.3	-0.9	0.1	-0.8			

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	91.1	▲0.6	▼-4.1
Canadian Imports	4.8	4.5	4.9	3.8	4.3	4.6	5.9	▲1.2	▲1.4
L48 Power	24.5	28.9	41.0	34.0	29.4	24.6	27.9	▲3.3	▼-1.0
L48 Residential & Commercial	39.3	39.1	7.7	8.8	16.2	24.2	39.2	▲15.0	▲0.1
L48 Industrial	22.4	24.4	20.3	19.2	22.2	23.2	24.3	▲1.2	▼-0.1
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	3.1	▲0.8	▼0.0
L48 Regional Gas Consumption	93.9	100.8	76.3	69.1	74.9	79.3	99.5	▲20.2	▼-1.2
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	6.2	▼0.0	▲1.2
Implied Daily Storage Activity	-10.7	-13.9	6.8	10.2	2.7	-0.6	-19.7		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

Regional S/D Models Storage Projection

Week Ending 18-Dec

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-23.3	0.7	-22.6	-158
East	-6.7	1.7	-5.0	-35
Midwest	-7.8	0.8	-7.0	-49
Mountain	2.0	-3.8	-1.8	-13
South Central	-9.5	2.3	-7.1	-50
Pacific	-1.3	-0.3	-1.6	-11

*Adjustment Factor is calculated based on historical regional deltas

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

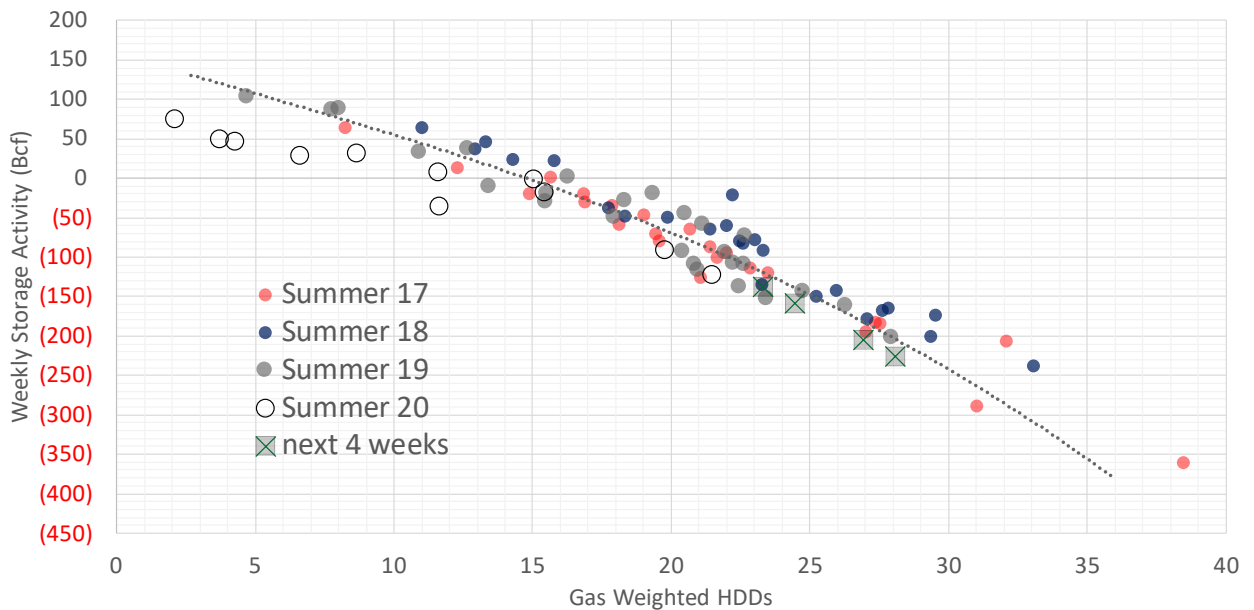


Weather Model Storage Projection

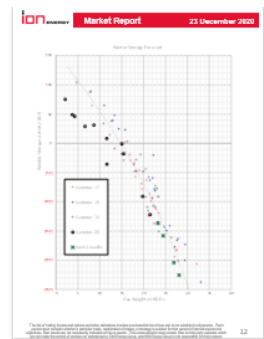
Next report
and beyond

Week Ending	Temp	Week Storage Projection
18-Dec	24.5	-158
25-Dec	23.3	-137
01-Jan	26.9	-204
08-Jan	28.1	-225

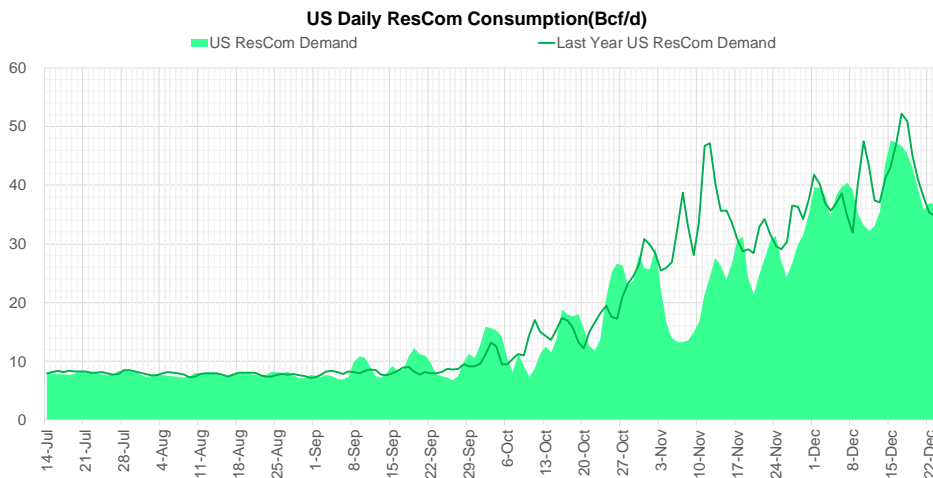
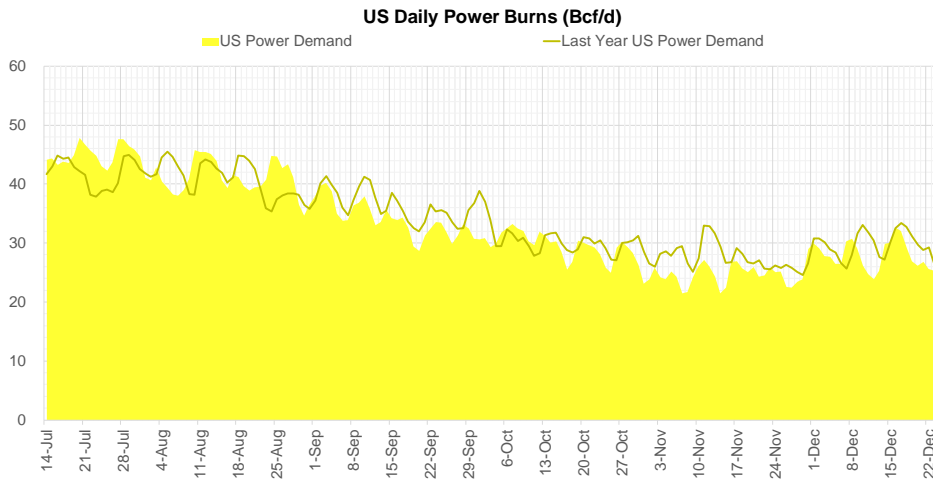
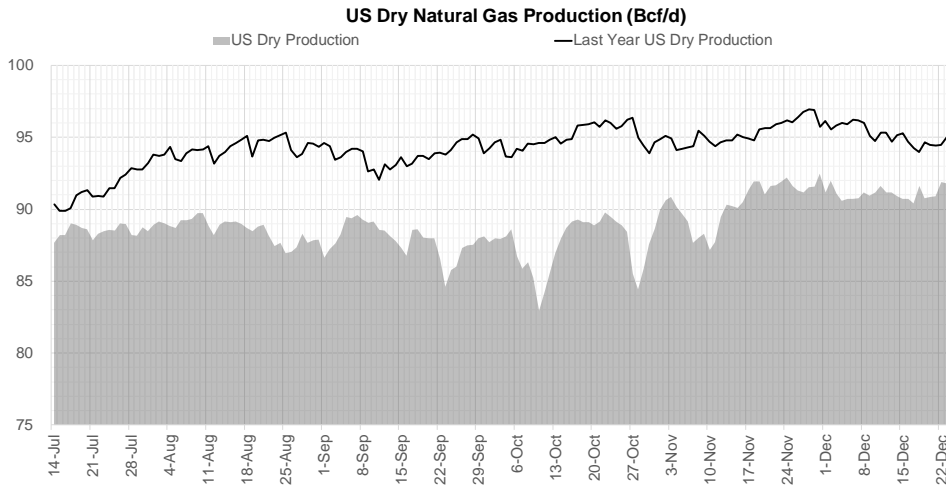
Winter Storage Forecast



Go to larger image



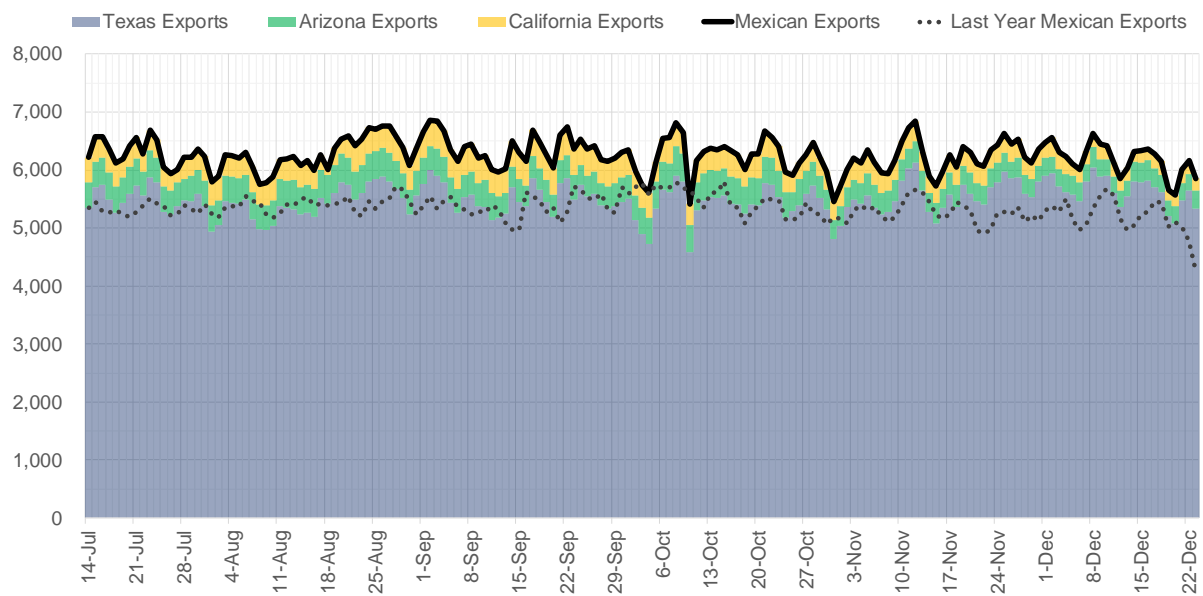
Supply – Demand Trends



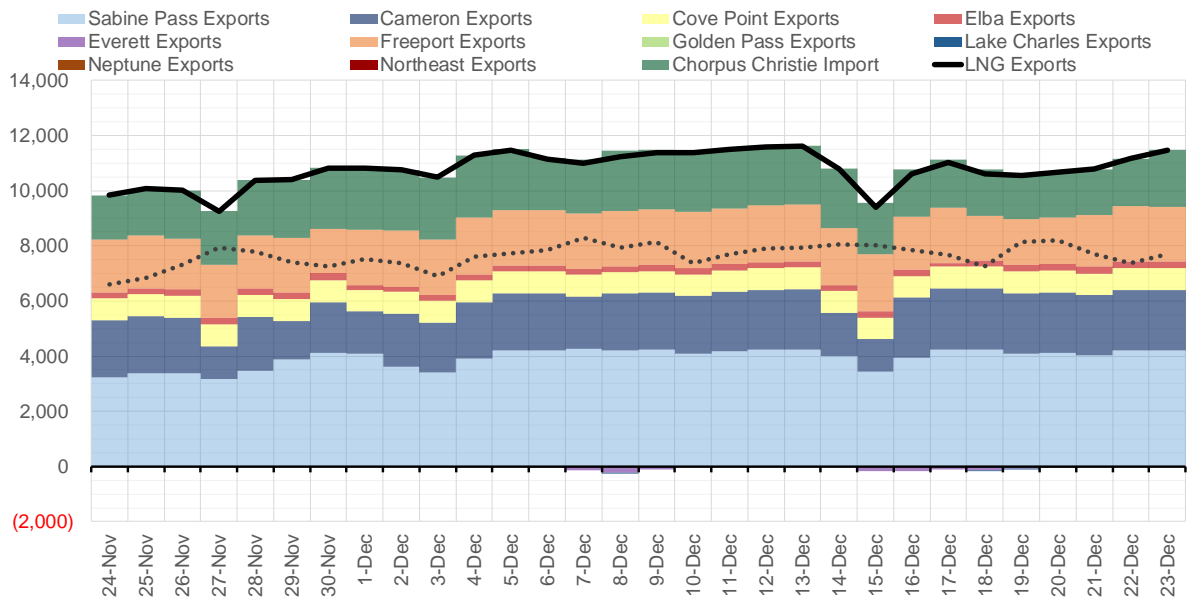
Source: Bloomberg

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.

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.

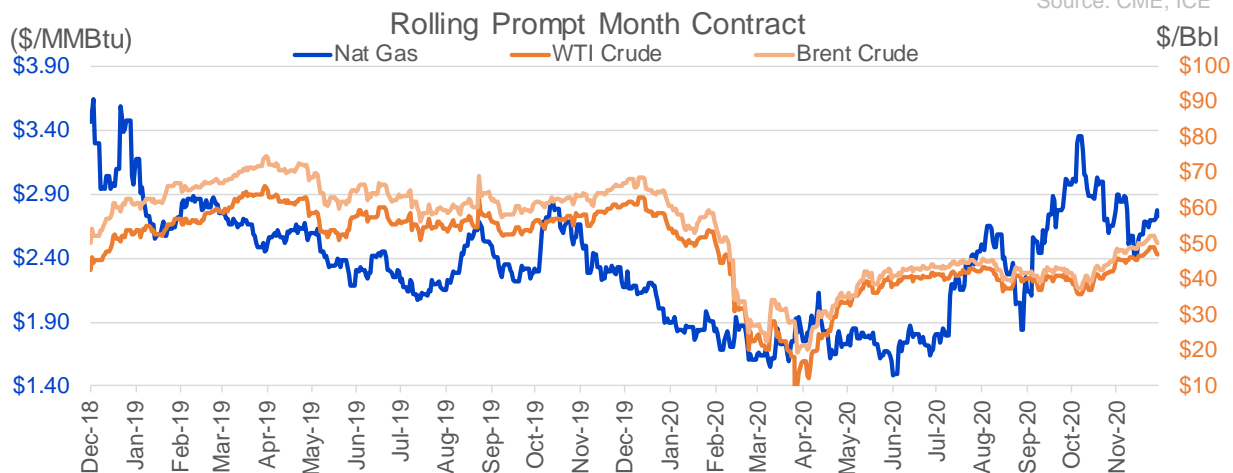
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

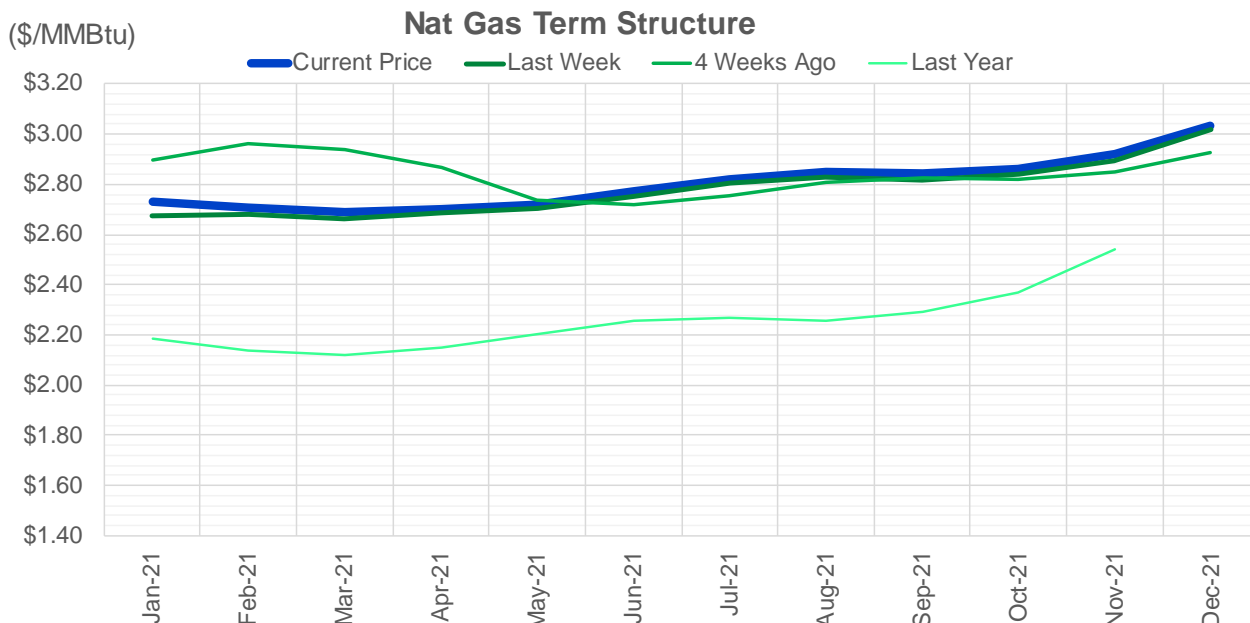
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
1	2021	C	3.00	7607	1	2021	C	3.50	43539
2	2021	C	4.00	7052	3	2021	P	2.00	42652
1	2021	P	2.50	6605	3	2021	C	4.00	41605
2	2021	C	3.25	6086	3	2021	C	5.00	40470
1	2021	P	2.75	4023	1	2021	C	3.00	38588
2	2021	C	3.75	3539	4	2021	C	3.00	38418
2	2021	C	3.00	2946	3	2021	C	6.00	36833
1	2021	C	2.85	2784	1	2021	P	2.50	34693
1	2021	P	2.65	2627	3	2021	C	3.50	34221
2	2021	P	2.40	2569	1	2021	P	2.25	31050
1	2021	P	2.60	2553	3	2021	C	3.25	29906
1	2021	C	2.90	2427	2	2021	P	2.25	28544
1	2021	C	2.95	2408	1	2021	C	4.50	27881
1	2021	C	2.80	2235	3	2021	C	3.00	27733
1	2021	C	3.25	2205	10	2021	C	4.00	27466
2	2021	C	3.50	2128	4	2021	C	4.00	26947
3	2021	C	4.00	2050	3	2021	C	4.50	26621
1	2021	C	2.75	1995	1	2021	C	5.00	25396
2	2021	C	2.75	1805	1	2021	P	2.00	24775
2	2021	C	4.25	1766	1	2021	C	4.00	24203
2	2021	P	2.20	1711	10	2021	C	3.25	24184
2	2021	P	2.50	1461	3	2021	P	2.50	22544
3	2021	P	2.00	1214	1	2021	C	3.75	22496
1	2021	P	2.55	1190	2	2021	C	4.00	21974
3	2021	C	3.50	1176	3	2021	C	7.00	21606
4	2021	C	2.75	1097	4	2021	C	3.25	21438
3	2021	C	2.75	886	1	2021	C	6.00	21138
1	2021	C	2.70	885	1	2021	C	3.25	20990
1	2021	C	3.10	880	8	2021	C	4.00	20978
1	2021	P	2.70	804	2	2021	P	2.50	20869
4	2021	P	2.50	787	10	2021	C	5.00	19595
5	2021	P	2.50	780	4	2021	C	2.75	19536
6	2021	P	2.50	780	2	2021	C	3.50	19293
1	2021	C	2.65	727	4	2021	C	5.00	18653
4	2021	C	3.00	713	1	2021	C	2.75	18427
1	2021	C	3.15	693	8	2021	P	2.25	18417
2	2021	C	2.50	604	5	2021	C	3.00	18297
3	2021	P	2.50	572	2	2021	C	3.00	17426
10	2021	P	2.25	550	4	2021	P	2.00	17065
1	2021	C	3.50	514	2	2021	P	2.00	16729
2	2021	P	2.45	508	6	2021	C	4.00	16551
1	2021	P	2.90	504	2	2021	C	5.00	16530
1	2021	C	2.60	458	2	2021	C	4.50	15810
4	2021	C	4.00	455	1	2021	P	2.75	15790
1	2021	P	2.40	422	4	2021	P	2.25	15223
4	2021	P	2.75	400	5	2021	C	3.50	15069
5	2021	P	2.25	400	10	2021	P	2.00	14692
2	2021	P	2.00	354	10	2021	C	3.00	14166
5	2021	C	4.00	350	1	2021	P	3.00	14143
					5	2021	C	3.25	13974

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	31417	48079	-16662	JAN 21	77717	82927	-5209.75
FEB 21	204236	201276	2960	FEB 21	84696	80139	4557.75
MAR 21	253221	248293	4928	MAR 21	99048	99470	-422.25
APR 21	104406	103920	486	APR 21	86139	86636	-497.75
MAY 21	61217	61357	-140	MAY 21	77312	77165	147
JUN 21	40506	39878	628	JUN 21	64087	63678	408.75
JUL 21	32230	32485	-255	JUL 21	66012	65657	354.75
AUG 21	28398	28259	139	AUG 21	68028	67749	279.25
SEP 21	46634	46429	205	SEP 21	63273	62832	441.75
OCT 21	102065	99157	2908	OCT 21	78331	78112	219
NOV 21	41738	41617	121	NOV 21	51499	51507	-7.25
DEC 21	43396	42890	506	DEC 21	52617	52348	269.25
JAN 22	40779	39862	917	JAN 22	51214	50975	239
FEB 22	24126	24226	-100	FEB 22	39192	39033	159.25
MAR 22	26667	26749	-82	MAR 22	41186	40818	368.25
APR 22	24164	24606	-442	APR 22	38945	38784	161
MAY 22	12996	13231	-235	MAY 22	33700	33545	154.5
JUN 22	6759	6863	-104	JUN 22	32009	31841	168
JUL 22	5695	5819	-124	JUL 22	33433	33411	22.5
AUG 22	5209	5191	18	AUG 22	32505	32435	69.5
SEP 22	4566	4548	18	SEP 22	31902	31727	175.5
OCT 22	9428	9385	43	OCT 22	37643	37408	234.75
NOV 22	6380	6420	-40	NOV 22	31719	31696	23
DEC 22	7100	6967	133	DEC 22	34359	34346	13
JAN 23	4413	4430	-17	JAN 23	16752	16394	357.5
FEB 23	1373	1373	0	FEB 23	15283	15131	152
MAR 23	1748	1746	2	MAR 23	14566	14431	135.25
APR 23	3408	3393	15	APR 23	14113	13858	255.75
MAY 23	1771	1781	-10	MAY 23	13144	12943	201.25
JUN 23	573	563	10	JUN 23	13202	12999	203





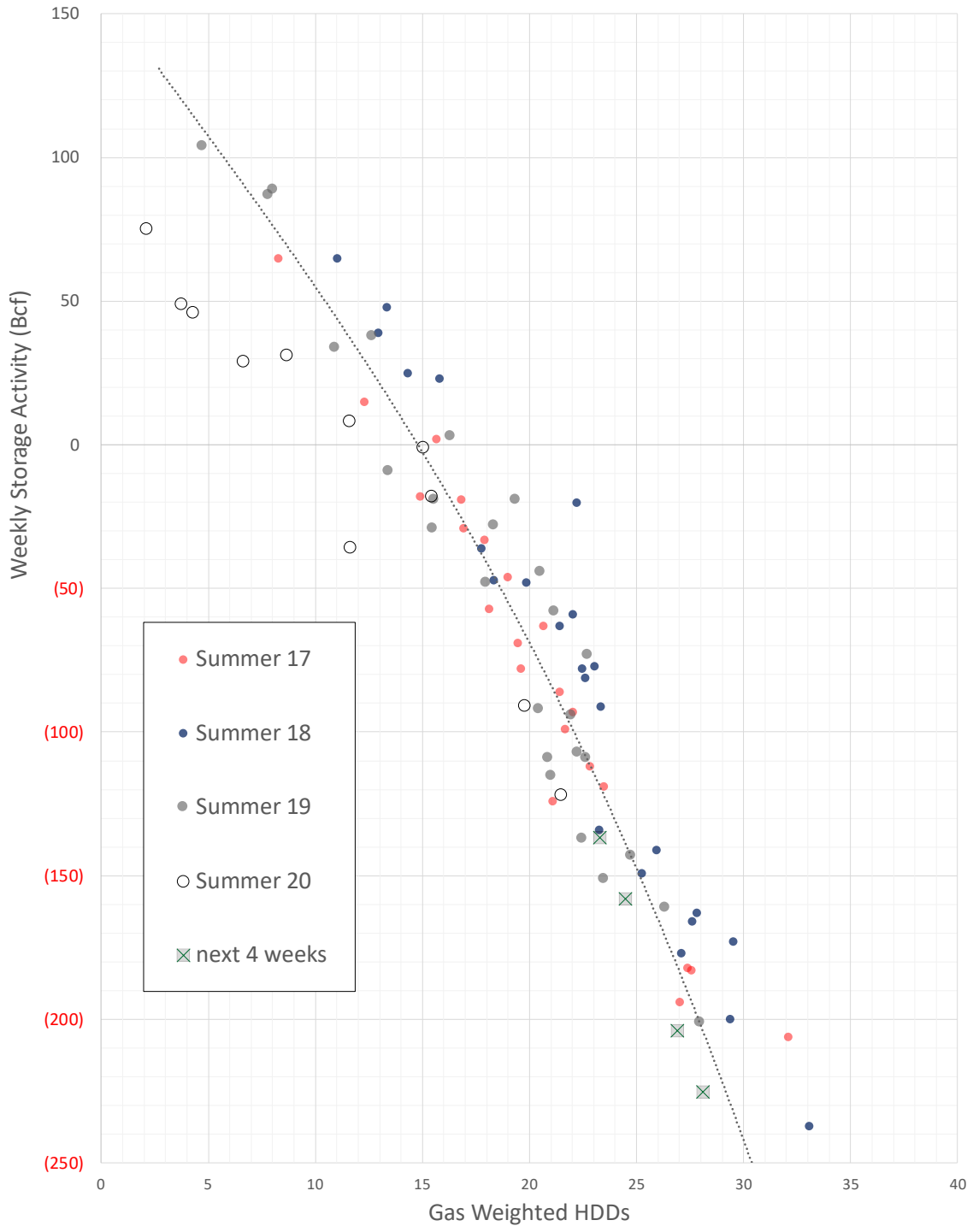
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Current Price	\$2.731	\$2.709	\$2.690	\$2.703	\$2.718	\$2.772	\$2.821	\$2.852	\$2.841	\$2.864	\$2.922	\$3.035
Last Week	\$2.677	\$2.681	\$2.665	\$2.687	\$2.705	\$2.751	\$2.807	\$2.827	\$2.816	\$2.838	\$2.894	\$3.016
vs. Last Week	\$0.054	\$0.028	\$0.025	\$0.016	\$0.013	\$0.021	\$0.014	\$0.025	\$0.025	\$0.026	\$0.028	\$0.019
4 Weeks Ago	\$2.896	\$2.961	\$2.936	\$2.865	\$2.734	\$2.718	\$2.754	\$2.807	\$2.827	\$2.822	\$2.851	\$2.924
vs. 4 Weeks Ago	-\$0.165	-\$0.252	-\$0.246	-\$0.162	-\$0.016	\$0.054	\$0.067	\$0.045	\$0.014	\$0.042	\$0.071	\$0.111
Last Year	\$2.172	\$2.187	\$2.138	\$2.123	\$2.151	\$2.205	\$2.258	\$2.269	\$2.259	\$2.291	\$2.369	\$2.542
vs. Last Year	\$0.559	\$0.522	\$0.552	\$0.580	\$0.567	\$0.567	\$0.563	\$0.583	\$0.582	\$0.573	\$0.553	\$0.493

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	3.35	5.75	2.40
TETCO M3	\$/MMBtu	2.67	3.92	1.25
FGT Zone 3	\$/MMBtu	2.73	2.68	-0.05
Zone 6 NY	\$/MMBtu	2.73	4.28	1.55
Chicago Citygate	\$/MMBtu	2.60	2.63	0.03
Michcon	\$/MMBtu	2.60	2.49	-0.11
Columbia TCO Pool	\$/MMBtu	2.50	2.20	-0.30
Ventura	\$/MMBtu	2.60	2.85	0.25
Rockies/Opal	\$/MMBtu	3.29	2.53	-0.76
El Paso Permian Basin	\$/MMBtu	2.60	2.49	-0.11
Socal Citygate	\$/MMBtu	4.53	3.35	-1.19
Malin	\$/MMBtu	3.32	3.25	-0.07
Houston Ship Channel	\$/MMBtu	2.74	2.71	-0.03
Henry Hub Cash	\$/MMBtu	2.65	2.53	-0.12
AECO Cash	C\$/GJ	2.18	2.10	-0.08
Station2 Cash	C\$/GJ	2.13	3.35	1.22
Dawn Cash	C\$/GJ	2.61	2.53	-0.08

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	-0.028	▼ -0.038	▲ 0.199	▲ 0.369
NatGas Mar21/Apr21	\$/MMBtu	0.013	▼ -0.009	▼ -0.118	▼ -0.233
NatGas Oct21/Nov21	\$/MMBtu	0.058	▲ 0.002	▼ -0.015	▼ -0.012
NatGas Apr21/Oct21	\$/MMBtu	0.161	▲ 0.322	▲ 0.051	▼ -0.160
WTI Crude	\$/Bbl	47.04	▼ -0.780	▲ 1.330	▼ -14.070
Brent Crude	\$/Bbl	50.12	▼ -0.960	▲ 1.510	▼ -17.080
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	146.70	▼ -1.090	▲ 8.040	▼ -56.930
Propane, Mt. Bel	cents/Gallon	0.64	▲ 0.022	▲ 0.089	▲ 0.132
Ethane, Mt. Bel	cents/Gallon	0.20	▲ 0.006	▼ -0.015	▲ 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	▼ -4.000
Coal, ILB	\$/MMBtu	1.32			

Winter Storage Forecast



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.