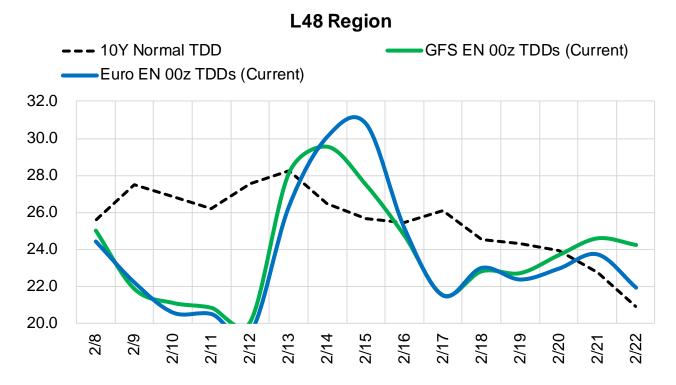


The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are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

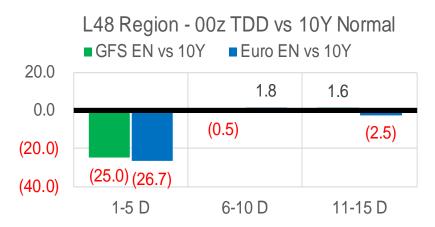
1



Short-term Weather Model Outlooks (00z)



Vs. 10Y Normal



Source: WSI, Bloomberg

ENERGY

Market Report

8 February 2022

Daily Balances

	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	DoD	vs. 7D
Lower 48 Dry Production	93.1	88.9	86.4	89.6	91.1	92.6	94.5	▲ 1.9	4.2
Canadian Imports	7.2	7.7	8.4	8.0	7.9	7.7	6.0	▼ -1.7	▼ -1.8
L48 Power	29.0	30.3	31.4	29.3	29.1	30.7	29.5	▼-1.2	▼ -0.5
L48 Residential & Commercial	44.3	48.5	52.6	55.4	49.4	45.8	42.2	▼ -3.6	▼ -7.2
L48 Industrial	27.9	28.7	28.6	28.2	26.9	26.4	25.6	8.0-	▼ -2.2
L48 Lease and Plant Fuel	5.1	4.9	4.7	4.9	5.0	5.1	5.1	A 0.1	0.2
L48 Pipeline Distribution	3.5	3.7	4.0	4.0	3.7	3.6	3.4	T -0.2	- 0.4
L48 Regional Gas Consumption	109.8	116.2	121.4	121.9	114.1	111.6	105.8	🗢 -5.8	▼ -10.0
Net LNG Delivered	12.20	12.71	12.71	12.66	12.91	12.69	11.52	T -1.2	💌 -1.1
Total Mexican Exports	6.5	6.5	6.2	6.0	5.8	6.0	6.4	0.4	0.2
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	-28.2	-38.8	-45.6	-43.0	-33.8	-30.0	-23.3		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	31-Dec	7-Jan	14-Jan	21-Jan	28-Jan	4-Feb	WoW	vs. 4W
Lower 48 Dry Production	98.4	95.0	95.0	94.7	94.5	94.6	0.1	T -0.2
Canadian Imports	4.2	5.7	6.5	7.0	7.1	7.1	▼ 0.0	0.5
L48 Power	26.3	29.8	30.4	30.3	32.1	29.7	- 2.3	— -0.9
L48 Residential & Commercial	31.8	42.9	46.3	47.1	52.8	48.2	▼ -4.6	a 0.9
L48 Industrial	23.7	27.3	26.8	28.0	27.6	30.6	3 .0	3 .2
L48 Lease and Plant Fuel	5.3	5.2	5.2	5.2	5.2	5.2	0.0	• 0.0
L48 Pipeline Distribution	2.9	3.5	3.7	3.8	4.1	3.7	▼ -0.4	▼ 0.0
L48 Regional Gas Consumption	90.1	108.7	112.4	114.3	121.7	117.4	▼ -4.3	3.1
Net LNG Exports	12.3	11.9	12.3	12.9	12.5	12.1	-0.4	V -0.3
Total Mexican Exports	5.8	5.9	6.3	6.4	6.5	6.4	▼ -0.1	0.1
Implied Daily Storage Activity	-5.5	-25.9	-29.5	-32.0	-39.0	-34.2	4.8	
EIA Reported Daily Storage Activity Daily Model Error	-4.4 -1.1	-25.6 -0.3	-29.4 -0.1	-31.3 -0.7	-38.3 -0.8			

Monthly Balances

	2Yr Ago	LY					MTD		
	Feb-20	Feb-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	MoM	vs. LY
Lower 48 Dry Production	94.2	84.3	94.3	95.6	96.9	94.9	90.9	▼ -4.0	6.6
Canadian Imports	5.3	6.4	5.4	5.3	4.8	6.7	7.7	0.9	1.3
L48 Power	30.2	27.6	30.5	29.1	28.4	30.7	29.7	T -1.1	2 .0
L48 Residential & Commercial	40.6	48.1	12.4	27.1	32.6	48.3	48.1	T -0.2	0 .0
L48 Industrial	25.1	21.1	21.1	24.3	25.1	27.7	27.8	A 0.1	6 .7
L48 Lease and Plant Fuel	5.1	4.6	5.2	5.2	5.3	5.2	5.0	▼ -0.2	0 .4
L48 Pipeline Distribution	3.5	3.6	2.4	2.9	3.0	3.8	3.7	▼ -0.2	a 0.1
L48 Regional Gas Consumption	104.5	104.9	71.6	88.7	94.4	115.8	114.2	▼ -1.6	9.2
Net LNG Exports	8.5	8.4	10.6	11.4	12.1	12.4	12.5	0.2	4.1
Total Mexican Exports	5.2	5.7	6.6	6.1	6.1	6.3	6.2	-0.1	0.5
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	-18.7	-28.4	10.9	-5.3	-11.0	-32.9	-34.3		

Source: Bloomberg, analytix.ai

Daily Average Generation Data

Nuclear Generation Daily Average - GWh (NRC)

ENERGY

	31-Jan	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	DoD	vs. 7D
NRC Nuclear Daily Output	89.6	89.8	89.8	88.9	89.1	89.1	89.1	0.0	-0.3
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0
NRC Nuclear Outage	15.2	15.1	15.1	15.9	15.8	15.8	15.8	0.0	0.3
NRC % Nuclear Cap Utilization	91.1	91.3	91.3	90.4	90.6	90.6	90.6	0.0	-0.3

Wind Generation Daily Average - MWh (EIA)

	31-Jan	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	DoD	vs.7D
CALI Wind	2063	2981	2314	902	1100	859	1126	267	-577
TEXAS Wind	9531	11667	17189	17096	10235	11192	12798	1606	-20
US Wind	53483	69323	68889	59921	47886	47075	47210	135	-10553

Generation Daily Average - MWh (EIA)

	31-Jan	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	DoD	vs.7D
US Wind	53483	69323	68889	59921	47886	47075	47210	135	-10553
US Solar	9719	10241	9003	9088	10603	6933	6895	-39	-2370
US Petroleum	6204	3935	2815	2483	4488	3892	3144	-748	-825
US Other	9694	9237	8820	8848	8820	3150	2882	-268	-5213
US Coal	126900	111832	111587	119598	124583	62615	57793	-4822	-51726
US Nuke	94831	95004	94396	93772	93644	34681	33926	-754	-50461
US Hydro	30930	30704	31439	31327	24218	21261	20969	-292	-7344
US Gas	155445	142674	148163	164836	178343	87770	76928	-10842	-69277

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

Storage Week Average Generation Data

Nuclear Generation Weekly Average - GWh (NRC)

	31-Dec	7-Jan	14-Jan	21-Jan	28-Jan	4-Feb	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	92.1	91.3	90.6	89.7	89.7	89.5	-0.2	0.0
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	12.8	13.6	14.3	15.1	15.2	15.4	0.2	
NRC % Nuclear Cap Utilization	0.1	0.1	0.1	0.1	0.1	0.1	0.0	

Wind Generation Weekly Average - MWh (EIA)

	31-Dec	7-Jan	14-Jan	21-Jan	28-Jan	4-Feb	WoW	WoW Bcf/d Impact
CALI Wind	2591	1603	1266	1273	1580	1627	48	0.0
TEXAS Wind	13891	13603	10192	15630	7185	12223	5038	-0.9
US Wind	53057	57109	50735	55686	45244	53913	8669	-1.6
					-10441.9			
					-19%			

Generation Weekly Average - MWh (EIA)

								VVOVV
	31-Dec	7-Jan	14-Jan	21-Jan	28-Jan	4-Feb	WoW	Bcf/d
								Impact
US Wind	53057	57109	50735	55686	45244	53913	8669	-1.6
US Solar	6957	8468	9389	8609	10087	10208	121	0.0
US Petroleum	3084	3038	4915	5260	5993	4672	-1320	0.2
US Other	7592	8303	8254	8109	9663	9521	-142	0.0
US Coal	79940	94949	115154	117883	130576	124856	-5720	1.0
US Nuke	97123	96362	95713	94657	94693	94661	-32	0.0
US Hydro	31298	34608	34189	34484	34128	31781	-2346	0.4
US Gas	136242	154375	161872	156867	177830	159127	-18703	

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

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Monthly Average Generation Data

Nuclear Generation Monthly Average - GWh (NRC)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Nov-21	Dec-21	Jan-22	Feb-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
NRC Nuclear Daily Output	94.3	91.6	82.8	90.3	90.2	89.2	89.7	-0.9	-1.9
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0
NRC Nuclear Outage	10.6	13.2	22.0	14.6	14.7	15.6	15.2	0.9	1.9
NRC % Nuclear Cap Utilization	95.9	93.2	84.2	91.8	91.7	90.7	91.2	-1.0	-2.0

Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Nov-21	Dec-21	Jan-22	Feb-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
CALI Wind	1446	1281	1224	1585	1364	1442	1334	78	54
TEXAS Wind	9822	11028	11678	12927	11355	13222	11015	1867	-13
US Wind	34338	45102	49838	54810	51169	54340	49576	3171	4474

Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Nov-21	Dec-21	Jan-22	Feb-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	34338	45102	49838	54810	51169	54340	49576	▼-4764.5	4474
US Solar	5594	7338	9688	7376	9459	8319	9293	4 974.3	1955
US Petroleum	3647	2710	3022	3135	5021	3381	4984	1603	2274
US Other	8769	7740	8445	8222	8786	5940	8098	2158	358
US Coal	80891	115756	80906	81617	118040	87949	114790	a 26841	-966
US Nuke	95433	96946	87558	95449	95259	64159	86759	A 22599	▼-10188
US Hydro	34456	33037	26649	30826	34102	25232	31605	6373	T -1431
US Gas	158004	150241	151991	152627	163983	119071	154489	4 55785	4248
US Total	434123	457376	418455	434177	485942	369901	460077	116334	2702



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

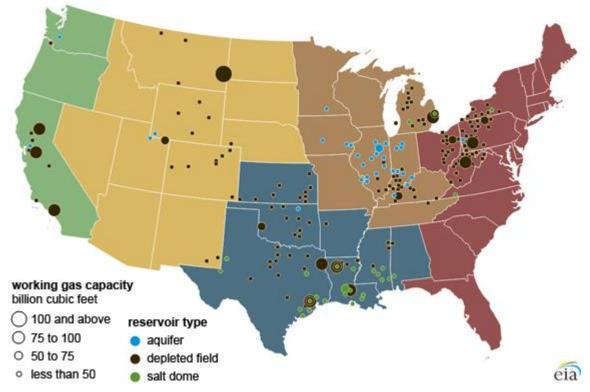


Regional S/D Models Storage Projection

Week Ending	4-Feb			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
<u>L</u> 48	-34.3	0.7	-33.6	-235
East	-10.5	2.4	-8.1	-57
Midwest	-9.9	-1.1	-11.0	-77
Mountain	1.4	-3.1	-1.7	-12
South Central	-13.9	2.9	-11.0	-77
Pacific	-1.4	-0.4	-1.7	-12

*Adjustment Factor is calcuated based on historical regional deltas

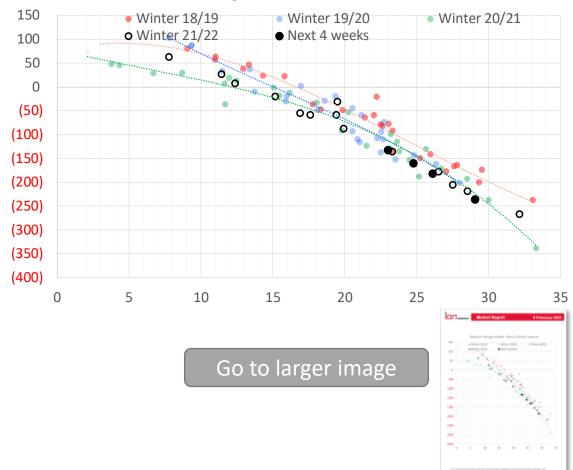
U.S. underground natural gas storage facilities by type (July 2015)



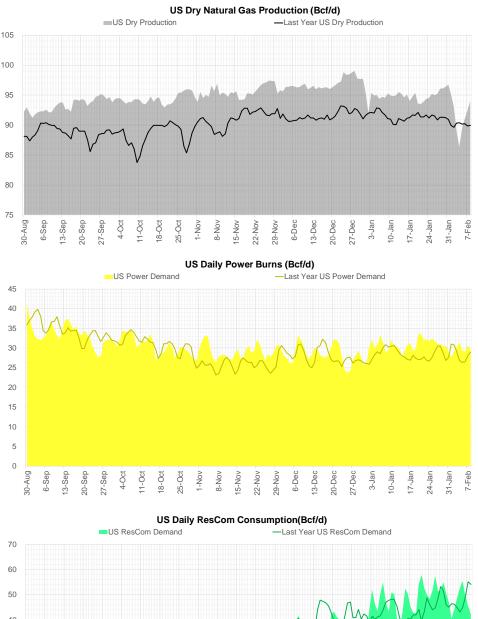
Weather Model Storage Projection

Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
04-Feb	29	-235
11-Feb	26	-181
18-Feb	25	-160
25-Feb	23	-132

Weather Storage Model - Next 4 Week Forecast



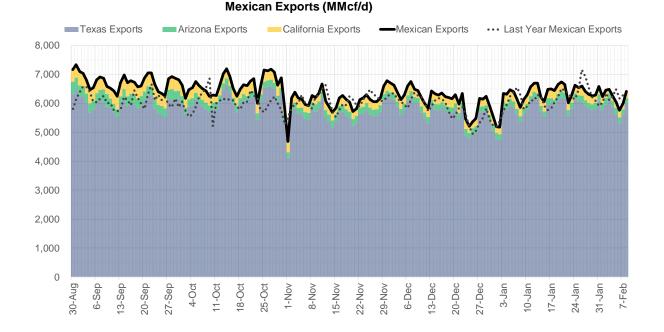


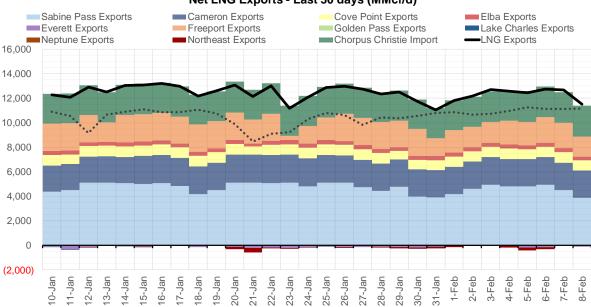


Mm 40 30 20 10 0 30-Aug 6-Sep 13-Sep 20-Sep 27-Sep 18-Oct 25-Oct 7-Feb 4-Oct 1-Nov 15-Nov 22-Nov 29-Nov 13-Dec 20-Dec 27-Dec 10-Jan 17-Jan 24-Jan 31-Jan 11-Oct 8-Nov 6-Dec 3-Jan

Source: Bloomberg







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

Source: Bloomberg



Market Report

8 February 2022

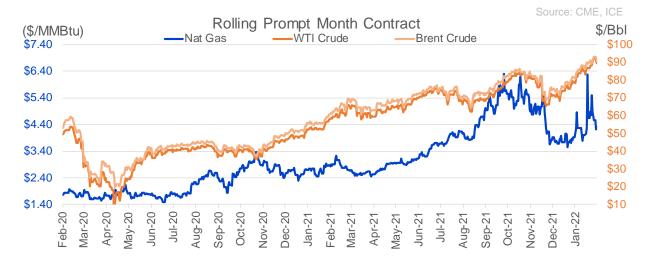
Nat Gas Options Volume and Open Interest CME and ICE Combined

ICE Data not updated today

CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	ITRACT ONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
3	2022	Р	4.00	9185	3	2022	Р	3.00	42659
3	2022	Р	3.75	6648	3	2022	С	10.00	41965
3	2022	Р	3.50	5719	3	2022	Р	4.00	39647
4	2022	Р	4.00	3838	3	2022	С	5.00	33992
3	2022	С	6.00	3733	3	2022	Р	3.50	32800
4	2022	С	5.50	3634	3	2022	С	6.00	28644
3	2022	С	5.00	3558	3	2022	С	8.00	25948
4	2022	C	5.00	3498	3	2022	Р	2.50	24084
5	2022	Р	4.00	3260	10	2022	С	6.00	24019
3	2022	С	4.50	3037	4	2022	Р	3.00	23894
4	2022	С	4.75	2946	3	2022	Р	4.50	23833
4	2022	Р	3.75	2908	3	2022	Р	3.75	23723
4	2022	Р	3.50	2493	3	2022	С	4.00	23210
4	2022	С	4.50	2461	3	2022	С	7.00	21585
5	2022	С	7.00	2422	3	2022	Р	3.25	19825
3	2022	Р	4.50	2261	4	2022	С	3.00	19711
4	2022	С	6.00	2235	4	2022	С	5.00	19492
3	2022	Р	4.25	2166	6	2022	С	5.00	19367
3	2022	Р	3.25	2157	3	2022	Р	3.90	18815
5	2022	Р	3.75	1881	6	2022	С	6.00	18608
4	2022	С	8.00	1830	3	2022	С	4.50	18523
3	2022	С	7.00	1814	10	2022	С	5.00	18475
5	2022	С	6.00	1720	4	2022	Р	4.00	17877
4	2022	Р	3.00	1669	5	2022	P P	3.00	17420
3	2022	Р	3.00	1649	4 5	2022		2.50	17372
3	2022	С	4.75	1641	5 6	2022 2022	C P	5.00	17132
3	2022	С	5.50	1588	ь 12	2022	P C	3.00 5.00	17109 16026
7	2022	Р	3.00	1525	4	2022	c	5.00 6.00	15634
7	2022	Р	2.75	1350	3	2022	P	5.00	15486
10	2022	С	6.00	1296	5	2022	P	2.50	15437
10	2022	С	7.00	1271	10	2022	P	3.00	15402
7	2022	С	8.00	1250	5	2022	C	6.00	15122
6	2022	Р	3.75	1151	3	2022	P	2.00	14981
5	2022	С	5.00	1085	3	2022	c	5.50	14211
6	2022	Р	3.50	1066	4	2022	P	3.50	14206
3	2022	Р	4.10	1020	10	2022	P	2.00	13921
4	2022	С	7.00	1007	3	2022	P	2.25	13916
7	2022	С	6.50	1000	3	2022	P	2.75	13866
9	2022	С	5.50	1000	4	2022	C	4.00	13829
3	2022	Р	4.40	982	9	2022	C	6.00	13808
3	2022	С	4.00	943	4	2022	P	3.25	13736
3	2022	С	5.75	887	5	2022	C	3.00	13733
8	2022	С	5.00	850	5	2022	P	3.50	13711
3	2022	С	4.25	765	6	2022	С	3.00	13438
4	2022	С	4.60	759	5	2022	P	4.00	13338
6	2022	Р	4.00	740	3	2022	С	3.50	13281
3	2022	С	8.00	726	3	2022	C	3.00	13270
8	2022	С	5.25	700	12	2022	С	6.25	13254
5	2022	С	4.50	696	7	2022	C	e: CME, ICE	13230
							Sourc	e: CIVIE, ICE	

8 February 2022

		ICE Data not					
	up	dated today					
CME Henry	Hub Futures (1)		Ind ICE Com		lub Futures Cont	tract Equiva	ent (10 000 MM
	Current	Prior	, Daily Change		Current	Prior	Daily Change
MAR 22	210577	240391	-29814	MAR 22	95273	96400	-1127
APR 22	101238	97787	3451	APR 22	81094	79966	1129
MAY 22	148453	144620	3833	MAY 22	77772	77246	527
JUN 22	66483	65394	1089	JUN 22	70550	70122	428
JUL 22	68961	66418	2543	JUL 22	64762	64269	492
AUG 22	41965	41028	937	AUG 22	60299	60627	-328
SEP 22	56290	54328	1962	SEP 22	61303	61241	62
OCT 22	76447	81901	-5454	OCT 22	68943	68403	540
NOV 22	38293	38247	46	NOV 22	55089	54841	248
DEC 22	40334	40061	273	DEC 22	63700	63426	274
JAN 23	58373	58230	143	JAN 23	54252	54271	-19
FEB 23	20569	20498	71	FEB 23	43914	43746	167
MAR 23	37622	37543	79	MAR 23	47193	47485	-292
APR 23	34984	36092	-1108	APR 23	47224	47201	23
MAY 23	20850	20759	91	MAY 23	40165	40128	37
JUN 23	12580	12481	99	JUN 23	37758	37926	-168
JUL 23	11272	11333	-61	JUL 23	37281	37365	-84
AUG 23	7594	7457	137	AUG 23	36662	36543	120
SEP 23	10406	10605	-199	SEP 23	36590	36683	-93
OCT 23	16552	16390	162	OCT 23	40651	40771	-120
NOV 23	10150	10196	-46	NOV 23	39892	39823	69
DEC 23	13410	13885	-475	DEC 23	34251	34188	63
JAN 24	11870	10866	1004	JAN 24	25929	25867	62
FEB 24	2674	2578	96	FEB 24	18841	18854	-13
MAR 24	12264	12192	72	MAR 24	24660	24665	-5
APR 24	6430	6420	10	APR 24	18261	18234	27
MAY 24	2339	2324	15	MAY 24	17960	17986	-26
JUN 24	1015	1015	0	JUN 24	17876	17876	0
JUL 24	632	632	0	JUL 24	18500	18526	-26
AUG 24	745	745	0	AUG 24	18344	18389	-46



vs. Last Year

\$1.709

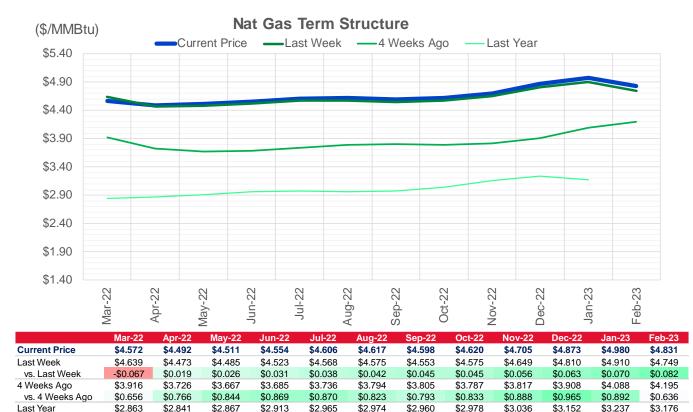
\$1.651

\$1.644

\$1.641

\$1.641

Market Report



		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	13.77	11.91	-1.86
TETCO M3	\$/MMBtu	4.73	5.13	0.40
FGT Zone 3	\$/MMBtu	13.60	5.00	-8.60
Zone 6 NY	\$/MMBtu	13.60	5.39	-8.21
Chicago Citygate	\$/MMBtu	4.10	4.91	0.81
Michcon	\$/MMBtu	4.17	4.79	0.62
Columbia TCO Pool	\$/MMBtu	4.90	4.42	-0.48
Ventura	\$/MMBtu	4.01	5.00	0.99
Rockies/Opal	\$/MMBtu	4.94	4.54	-0.40
El Paso Permian Basin	\$/MMBtu	3.57	4.34	0.77
Socal Citygate	\$/MMBtu	4.06	4.66	0.60
Malin	\$/MMBtu	5.07	4.54	-0.53
Houston Ship Channel	\$/MMBtu	5.12	4.76	-0.35
Henry Hub Cash	\$/MMBtu	4.37	4.70	0.33
AECO Cash	C\$/GJ	3.46	4.06	0.60
Station2 Cash	C\$/GJ	3.51	4.42	0.91
Dawn Cash	C\$/GJ	4.20	5.13	0.93

\$1.643

\$1.638

\$1.669

\$1.721

\$1.642

\$1.743

\$1.655

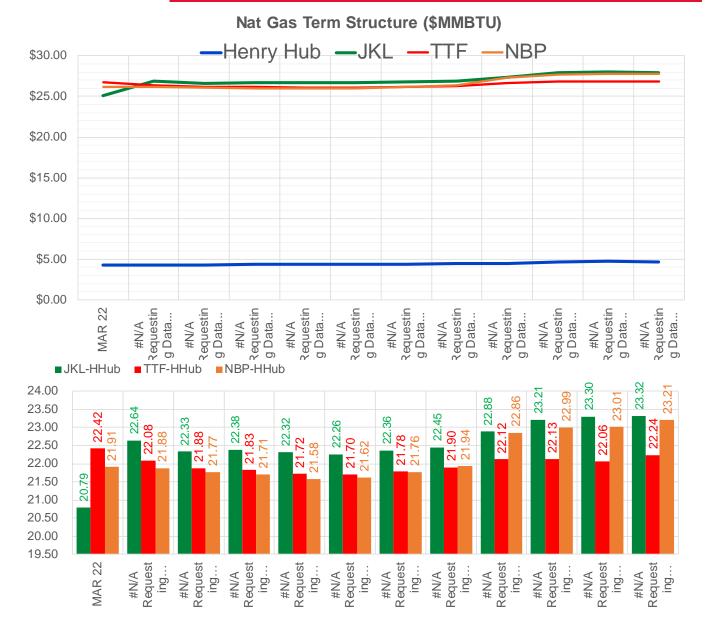
Source: CME, Bloomberg



					V	s. 4 Weeks		
	Units	Current Price	vs.	Last Week		Ago	vs	. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224		0.000		0.000		2.207
NatGas Oct21/Nov21	\$/MMBtu	0.361		0.000		0.000		0.305
NatGas Oct21/Jan22	\$/MMBtu	-1.817		0.000		0.000	$\mathbf{}$	-2.066
NatGas Apr22/Oct22	\$/MMBtu	0.138		0.068		-0.010		0.131
WTI Crude	\$/Bbl	91.32		3.170		13.090		33.350
Brent Crude	\$/Bbl	92.69		1.480		11.820		32.130
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	285.54		9.620		36.780		110.760
Propane, Mt. Bel	cents/Gallon	1.25		0.082		0.126		0.372
Ethane, Mt. Bel	cents/Gallon	0.39		0.015		0.029		0.128
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						

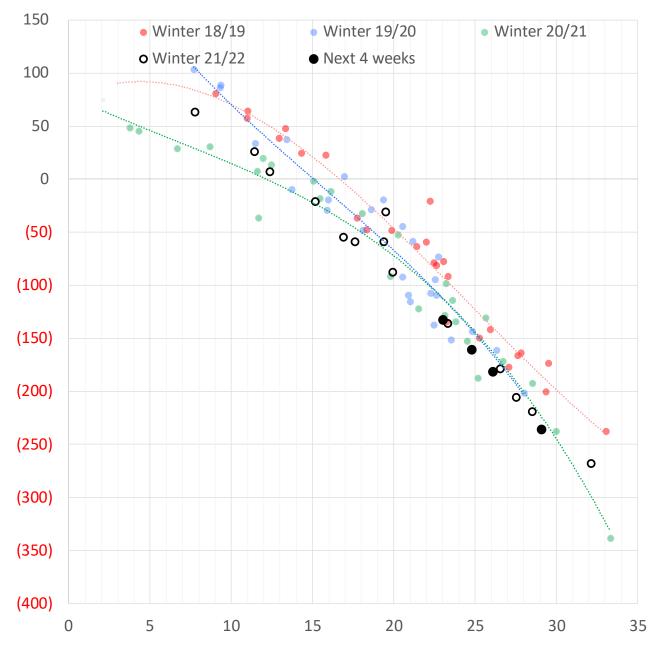
Market Report

8 February 2022



	MAR 22	#N/A										
Henry Hub	\$4.311	\$4.277	\$4.306	\$4.328	\$4.391	\$4.401	\$4.386	\$4.406	\$4.497	\$4.680	\$4.760	\$4.619
JKL	\$25.100	\$26.915	\$26.640	\$26.710	\$26.710	\$26.665	\$26.750	\$26.860	\$27.380	\$27.885	\$28.060	\$27.935
JKL-HHub	\$20.789	\$22.638	\$22.334	\$22.382	\$22.319	\$22.264	\$22.364	\$22.454	\$22.883	\$23.205	\$23.300	\$23.316
TTF	\$26.733	\$26.357	\$26.187	\$26.155	\$26.109	\$26.103	\$26.169	\$26.307	\$26.618	\$26.809	\$26.818	\$26.857
TTF-HHub	\$22.422	\$22.080	\$21.881	\$21.827	\$21.718	\$21.702	\$21.783	\$21.901	\$22.121	\$22.129	\$22.058	\$22.238
NBP	\$26.221	\$26.159	\$26.071	\$26.035	\$25.969	\$26.021	\$26.149	\$26.345	\$27.352	\$27.673	\$27.772	\$27.826
NBP-HHub	\$21.910	\$21.882	\$21.765	\$21.707	\$21.578	\$21.620	\$21.763	\$21.939	\$22.855	\$22.993	\$23.012	\$23.207

Weather Storage Model - Next 4 Week Forecast



Market Report

ENERGY

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