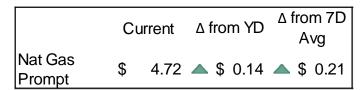


2 March 2022



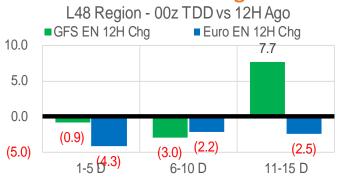
	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 110.89	\$ 7.48	\$ 16.8

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 112.67	\$ 7.70	\$ 13.3

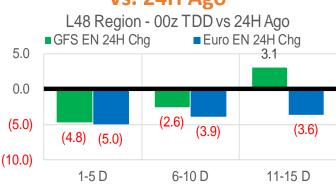
Page Menu

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



Vs. 24H Ago



Current		Δ from YD	Δ from 7D Avg		
US Dry Production	95.1	a 0.11	1.48		

	Current	Δ from YD	Δ from 7D Avg		Current	Δ from YD	A from 7D
S Dry oduction	95.1	0.11	1.48	US Power Burns	26.0	▼ -1.22	▼ -3.37

	Current	Δ from YD	Δ from 7D Avg
US ResComm	29.4	▼ -1.63	▼ -13.77

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.7	▼ -0.48	▼ -1.48

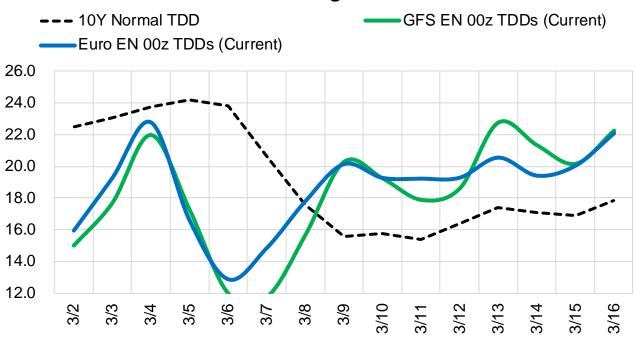
	Current		Δ from 7D Avg		
Net LNG Exports	11.8	0.03	▼ -0.25		

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.5	▼ -0.03	0.04

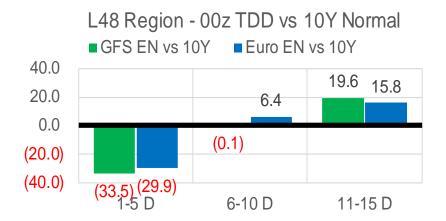


Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI, Bloomberg



Lower 48 Component Models

Daily Balances

	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	1-Mar	2-Mar	DoD	vs. 7D
Lower 48 Dry Production	91.9	92.7	93.9	94.0	94.6	94.9	95.1	▲ 0.1	1.4
Canadian Imports	6.9	6.8	6.0	6.2	6.1	5.2	4.7	▼ -0.5	▼ -1.5
L48 Power	31.6	30.7	28.8	29.2	29.1	27.3	26.0	▼-1.2	▼ -3.4
L48 Residential & Commercial	50.0	49.5	48.1	40.8	39.0	31.1	29.4	▼ -1.6	▼ -13.6
L48 Industrial	27.1	26.5	25.6	24.4	23.7	22.5	22.5	0.0	▼ -2.4
L48 Lease and Plant Fuel	5.0	5.1	5.1	5.1	5.2	5.2	5.1	▼ 0.0	0.0
L48 Pipeline Distribution	3.9	3.8	3.6	3.3	3.2	3.0	2.9	▼ -0.1	- 0.6
L48 Regional Gas Consumption	117.6	115.4	111.2	102.8	100.2	89.0	86.0	▼ -3.0	▼ -20.0
Net LNG Delivered	11.50	12.12	13.14	12.76	12.48	11.79	11.82	▲ 0.0	▼ -0.5
Total Mexican Exports	6.5	6.9	6.4	6.0	6.3	6.5	6.5	▼ 0.0	a 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-36.7	-35.0	-30.9	-21.4	-18.2	-7.1	-4.5		
Daily Model Error									

EIA Storage Week Balances

	21-Jan	28-Jan	4-Feb	11-Feb	18-Feb	25-Feb	WoW	vs. 4W
Lower 48 Dry Production	94.1	93.9	93.8	91.5	95.5	94.2	▼-1.3	0.5
Canadian Imports	7.0	7.1	7.1	7.1	6.2	6.4	▲ 0.1	▼-0.6
L48 Power	30.2	31.9	29.7	29.4	26.8	27.2	0.4	▼ -2.3
L48 Residential & Commercial	47.8	53.5	49.0	45.8	40.3	41.4	1.1	▼ -5.8
L48 Industrial	26.9	26.4	27.0	24.6	26.2	26.8	0.6	0.7
L48 Lease and Plant Fuel	5.2	5.1	5.1	5.0	5.2	5.1	▼ -0.1	0.0
L48 Pipeline Distribution	3.8	4.1	3.8	3.5	3.2	3.2	0.1	▼ -0.4
L48 Regional Gas Consumption	113.8	121.1	114.6	108.3	101.6	103.7	2.0	▼-7.7
Net LNG Exports	12.9	12.5	12.1	12.4	13.0	11.7	▼-1.3	▼-0.8
Total Mexican Exports	6.4	6.5	6.4	6.1	6.0	6.1	▲ 0.0	▼-0.2
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-32.0 -31.3	-39.0 -38.3	-32.2 -31.7	-28.2 -27.1	-18.9 -18.4	-20.9	-2.0	
Daily Model Error	-0.7	-0.7	-0.5	-1.1	-0.5			

Monthly Balances									
•	2Yr Ago	LY					MTD		
	Mar-20	Mar-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	MoM	vs. LY
Lower 48 Dry Production	94.2	91.3	95.7	96.2	94.3	93.5	94.9	1.4	3.6
Canadian Imports	4.1	4.8	5.3	4.8	6.7	6.6	5.2	▼-1.4	0.5
L48 Power	28.3	24.5	29.2	28.5	30.7	28.1	27.3	▼-0.9	2.8
L48 Residential & Commercial	27.6	28.9	28.4	33.8	49.1	43.0	31.1	▼ -12.0	2.2
L48 Industrial	22.3	19.3	23.0	22.9	26.4	25.8	22.5	▼ -3.3	3.2
L48 Lease and Plant Fuel	5.1	5.0	5.3	5.3	5.2	5.1	5.2	0.1	0.2
L48 Pipeline Distribution	2.9	2.8	2.9	3.2	3.9	3.4	3.0	▼ -0.3	0.3
L48 Regional Gas Consumption	86.2	80.4	88.8	93.7	115.2	105.4	89.0	▼-16.4	8.6
Net LNG Exports	8.5	11.1	11.4	12.1	12.4	12.4	11.8	▼-0.6	▲ 0.6
Total Mexican Exports	5.4	6.5	6.1	6.2	6.3	6.2	6.5	0.3	▼ 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-1.9	-2.0	-5.3	-11.0	-32.9	-23.9	-7.1		
Daily Model Error									



Daily Average Generation Data

Nuclear Generation Daily Average - GWh (NRC)

	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	DoD	vs. 7D
NRC Nuclear Daily Output	85.9	86.6	86.5	86.5	86.2	85.4	86.1	0.7	-0.1
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	19.0	18.3	18.4	18.3	18.6	19.5	18.8	-0.7	0.1
NRC % Nuclear Cap Utilization	87.3	88.0	88.0	88.0	87.7	86.8	87.6	0.7	-0.1

Wind Generation Daily Average - MWh (EIA)

	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	DoD	vs. 7D
CALI Wind	3469	3049	997	675	779	693	1131	438	-479
TEXAS Wind	18395	13541	2951	7249	3272	5990	7368	1378	-1198
US Wind	75655	50792	22996	26549	35987	37569	44996	7427	3405

Generation Daily Average - MWh (EIA)

	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	DoD	vs. 7D
US Wind	75655	50792	22996	26549	35987	37569	44996	7427	3405
US Solar	10115	9533	10912	13237	12251	12107	14054	1947	2695
US Petroleum	2528	4100	4473	4362	2786	2610	3088	477	-389
US Other	7706	7945	8732	8838	7737	7416	7497	81	-565
US Coal	94575	107463	118924	120078	108018	103162	103172	11	-5531
US Nuke	90502	90894	91156	91123	90550	90127	90742	615	17
US Hydro	33578	33449	33427	33738	31597	29390	31961	2571	-569
US Gas	127406	165288	197780	188624	172836	151975	153446	1471	-13872

See National Wind and Nuclear daily charts



US Petroleum

US Other

US Coal

US Nuke

US Hydro

US Gas

Nuclear Generation Weekly Average - GWh (NRC)

Storage Week Average Generation Data

								WoW
	21-Jan	28-Jan	4-Feb	11-Feb	18-Feb	25-Feb	WoW	Bcf/d
								Impact
NRC Nuclear Daily Output	89.7	89.7	89.5	87.6	88.2	86.9	-1.3	0.2
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	15.1	15.2	15.4	17.3	16.7	18.0	1.3	
NRC % Nuclear Cap Utilization	91.2	91.2	91.0	89.1	89.7	88.3	-1.3	
Wind Generation Weekly Ave	rage - MW	h (EIA)						
								WoW
	21-Jan	28-Jan	4-Feb	11-Feb	18-Feb	25-Feb	WoW	Bcf/d
								Impact
CALI Wind	1273	1580	1627	1156	2105	2261	156	0.0
TEXAS Wind	15630	7185	12223	9259	16874	13068	-3806	0.7
US Wind	55686	45244	53914	53944	63320	60528	-2791	0.5
					9375.6		1.1	
					17%		8.0	
Generation Weekly Average -	MWh (EIA	.)					1.0	
	•	•				est.		
								WoW
	21-Jan	28-Jan	4-Feb	11-Feb	18-Feb	25-Feb	WoW	Bcf/d
								Impact
US Wind	55686	45244	53914	53944	63320	60528	-2791	0.5
US Solar	8609	10087	10460	12288	12314	11668	-646	0.1

See National Wind and Nuclear daily charts

-1166

-1042

-1821

-1300

0.2 0.2

0.3

0.2

-0.2



NRC % Nuclear Cap Utilization

Market Report

90.3

91.4

Monthly Average Generation Data

Nuclear Generation Monthly Average - GWh (NRC)											
	2Yr Ago	LY	•			MTD					
	Same 30 days	Same 30 days	Dec-21	Jan-22	Feb-22	Mar-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY		
NRC Nuclear Daily Output	89.9	88.8	90.3	90.2	87.6	86.5	87.5	-1.1	-1.3		
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	15.0	16.1	14.6	14.7	17.3	18.4	17.4	1.1	1.3		

91.7

89.0

91.8

Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Dec-21	Jan-22	Feb-22	Mar-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
CALI Wind	1351	1956	1585	1364	1719	1131	1680	-588	-276
TEXAS Wind	10411	8941	12927	11355	12294	7368	11966	-4926	3025
US Wind	39648	40331	54810	51165	56706	44996	55926	-11710	15595

Generation Monthly Average - MWh (EIA)

, , ,	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Dec-21	Jan-22	Feb-22	Mar-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	39648	40331	54810	51165	56706	44996	55926	1 0929.7	15595
US Solar	6865	8556	7376	9476	11968	14054	12107	▼ -1947.0	3551
US Petroleum	3296	3129	3135	5021	3449	3088	3425	337	296
US Other	6684	7577	8222	8792	8763	7497	8679	1182	1102
US Coal	78525	128163	81617	118026	106657	103172	106425	3252	▼-21738
US Nuke	90705	93804	95449	95259	92275	90742	92173	1431	▼ -1630
US Hydro	36476	32328	30826	34109	32219	31961	32202	241	▼ -126
US Gas	163941	152383	152627	164026	151909	153446	152012	15426	▼ -371
US Total	424588	464464	434177	485998	464498	449679	463510	19922	▼ -954



See National Wind and Nuclear daily charts



Regional S/D Models Storage Projection

Week Ending 25-Feb

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-20.8	0.6	-20.3	-142
East	-7.2	2.5	-4.7	-33
Midwest	-6.8	-0.3	-7.1	-50
Mountain	2.6	-3.7	-1.1	-8
South Central	-8.2	2.8	-5.4	-38
Pacific	-1.2	-0.7	-1.9	-13

^{*}Adjustment Factor is calcuated based on historical regional deltas

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





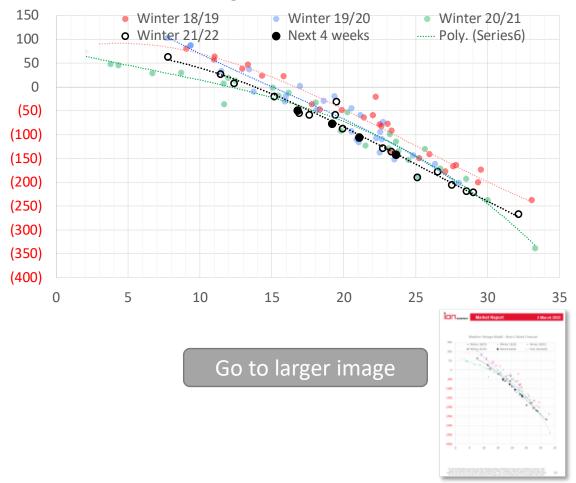
Weather Model Storage Projection

Market Report

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
25-Feb	24	-142
04-Mar	21	-105
11-Mar	17	-48
18-Mar	19	-76

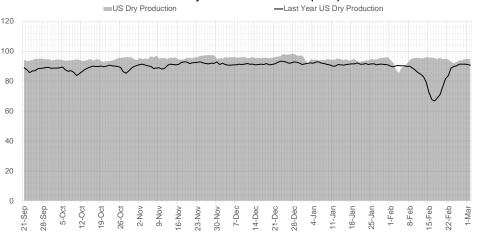
Weather Storage Model - Next 4 Week Forecast



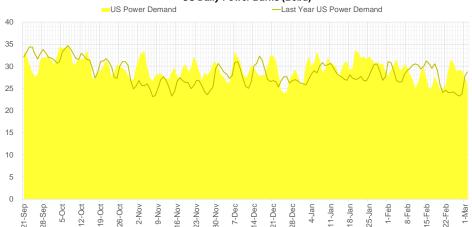


Supply - Demand Trends

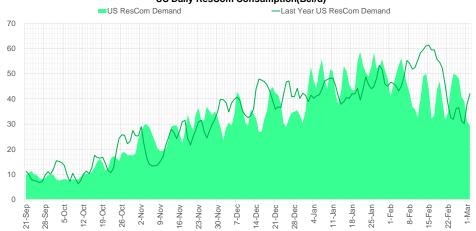
US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)



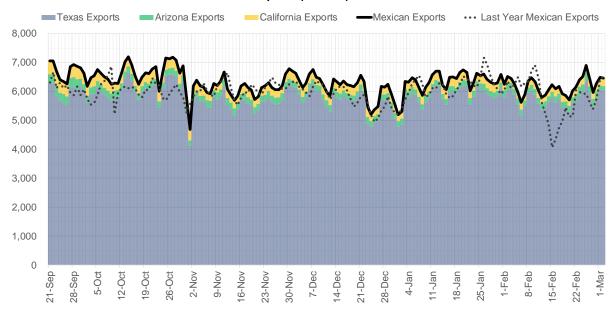
US Daily ResCom Consumption(Bcf/d)



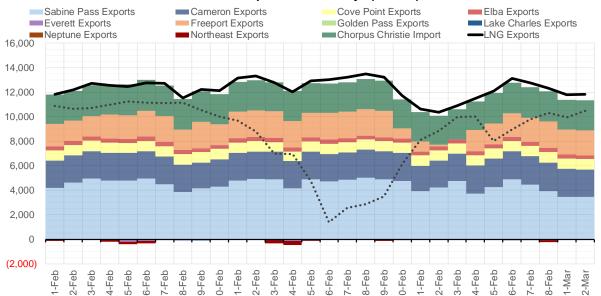
Source: Bloomberg



Mexican Exports (MMcf/d)



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



Source: Bloomberg



Nat Gas Options Volume and Open Interest CME and ICE Combined

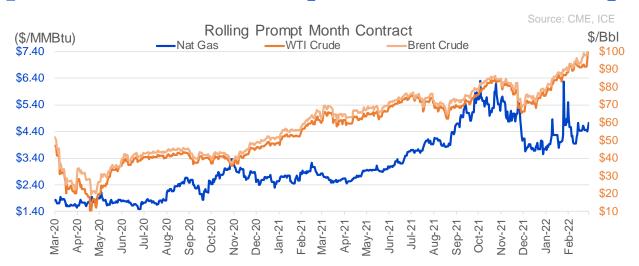
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
4	2022	Р	3.50	7881	4	2022	Р	3.50	31724
4	2022	C	5.00	4089	4	2022	P	3.00	30337
10	2022	P	1.75	3300	10	2022	C	6.00	28552
4	2022	P	4.00	2920	4	2022	Č	5.00	25725
4	2022	C	5.50	2375	10	2022	Ċ	5.00	25004
6	2022	Č	5.00	1974	5	2022	P	3.00	22450
4	2022	C	6.00	1820	6	2022	Ċ	6.00	21915
4	2022	P	3.75	1820	5	2022	Č	5.00	21732
6	2022	C	6.00	1819	4	2022	Č	6.00	21530
7	2022	P	3.75	1772	4	2022	P	3.75	21117
7	2022	P	3.75	1622	4	2022	P	4.00	20909
					5	2022	P	2.50	19902
9	2022	С	6.00	1513	5	2022	C	6.00	19115
8	2022	С	6.00	1460	6	2022	Č	5.00	18876
4	2022	С	4.75	1398	4	2022	Č	4.50	18611
8	2022	P	3.75	1277	10	2022	P	3.00	18423
10	2022	С	6.00	1229	6	2022	Р	3.00	18058
8	2022	С	7.00	1227	8	2022	C	6.00	17867
4	2022	C	5.25	1192	9	2022	Č	6.00	17747
8	2022	P	4.50	1150	4	2022	č	3.00	17511
12	2022	С	6.00	1116	5	2022	P	2.75	17389
4	2022	Р	4.50	1086	4	2022	P	2.50	17236
5	2022	Р	4.00	1085	12	2022	C	5.00	17036
8	2022	Р	4.00	1082	4	2022	Ċ	4.75	17003
1	2025	С	3.50	1000	4	2022	č	5.50	16889
1	2025	С	4.50	1000	7	2022	Č	6.00	16742
1	2025	Р	2.50	1000	7	2022	P	3.25	16536
2	2025	С	3.50	1000	4	2022	Р	4.50	15780
2	2025	С	4.50	1000	8	2022	Р	3.00	15041
2	2025	Р	2.50	1000	4	2022	Р	3.25	15015
3	2025	С	3.50	1000	4	2022	C	8.00	14973
3	2025	С	4.50	1000	7	2022	P	3.00	14884
3	2025	Р	2.50	1000	10	2022	C	7.00	14786
4	2025	С	3.50	1000	1	2023	Č	5.00	14679
4	2025	С	4.50	1000	7	2022	Ċ	5.00	14478
4	2025	Р	2.50	1000	5	2022	P	4.00	14197
5	2025	С	3.50	1000	10	2022	Р	2.00	14121
5	2025	С	4.50	1000	9	2022	P	3.00	13924
5	2025	Р	2.50	1000	6	2022	C	4.50	13881
6	2025	С	3.50	1000	5	2022	Ċ	3.00	13733
6	2025	С	4.50	1000	12	2022	Ċ	6.25	13633
6	2025	Р	2.50	1000	5	2022	P	3.50	13629
7	2025	С	3.50	1000	6	2022	C	3.00	13438
7	2025	С	4.50	1000	5	2022	Č	4.00	13433
7	2025	Р	2.50	1000	4	2022	Č	4.00	13395
8	2025	С	3.50	1000	7	2022	Ċ	3.00	13230
8	2025	C	4.50	1000	8	2022	Č	3.00	13226
8	2025	P	2.50	1000	9	2022	č	3.00	13225
9	2025	C	3.50	1000	6	2022	P	3.50	13181
9	2025	Č	4.50	1000	5	2022			
-		-					Source	: CME, ICE	



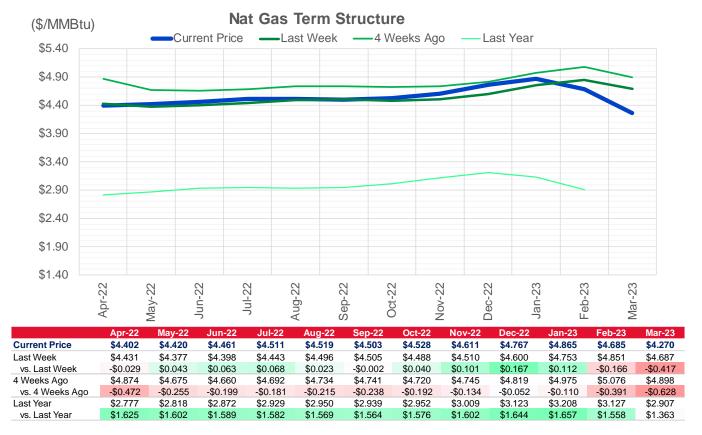
Nat Gas Futures Open Interest

CME and ICE Combined

CME Henry Hub Futures (10,000 MMBtu) ICE Henry Hub Futures Contract Equivalent (10,000 MM									
CME Henry				ICE Henry F			· · · · · · · · · · · · · · · · · · ·		
	Current	Prior	Daily Change		Current	Prior	Daily Change		
APR 22	134443	141262	-6819	APR 22	85171	85901	-730		
MAY 22	190916	189117	1799	MAY 22	80615	80827	-213		
JUN 22	72715	71457	1258	JUN 22	72061	72104	-43		
JUL 22	85410	85017	393	JUL 22	66093	66689	-596		
AUG 22	45567	44426	1141	AUG 22	61565	61781	-216		
SEP 22	69946	69529	417	SEP 22	62826	62995	-169		
OCT 22	86202	84284	1918	OCT 22	70891	70022	869		
NOV 22	45240	45396	-156	NOV 22	55765	55685	80		
DEC 22	43910	42253	1657	DEC 22	65801	65506	295		
JAN 23	62447	61393	1054	JAN 23	60891	60174	717		
FEB 23	22843	22480	363	FEB 23	45732	45624	109		
MAR 23	41708	42432	-724	MAR 23	50190	49757	433		
APR 23	36831	36018	813	APR 23	48146	48117	29		
MAY 23	23283	23382	-99	MAY 23	42852	42749	103		
JUN 23	12643	12313	330	JUN 23	39598	39471	127		
JUL 23	10391	10350	41	JUL 23	39387	39248	139		
AUG 23	7150	7192	-42	AUG 23	39125	39101	25		
SEP 23	10997	10992	5	SEP 23	38464	38329	135		
OCT 23	23182	22486	696	OCT 23	42820	42726	94		
NOV 23	10703	10588	115	NOV 23	40646	40665	-20		
DEC 23	14057	13930	127	DEC 23	35391	35438	-47		
JAN 24	15123	14925	198	JAN 24	28793	28725	69		
FEB 24	3321	3277	44	FEB 24	19840	19764	77		
MAR 24	13603	13480	123	MAR 24	25918	25763	156		
APR 24	6792	7196	-404	APR 24	19958	19822	136		
MAY 24	2291	2291	0	MAY 24	18951	18801	150		
JUN 24	1074	1073	1	JUN 24	18708	18568	141		
JUL 24	866	866	0	JUL 24	19529	19459	70		
AUG 24	985	985	0	AUG 24	19204	19178	26		
SEP 24	1128	1128	0	SEP 24	18952	18827	125		







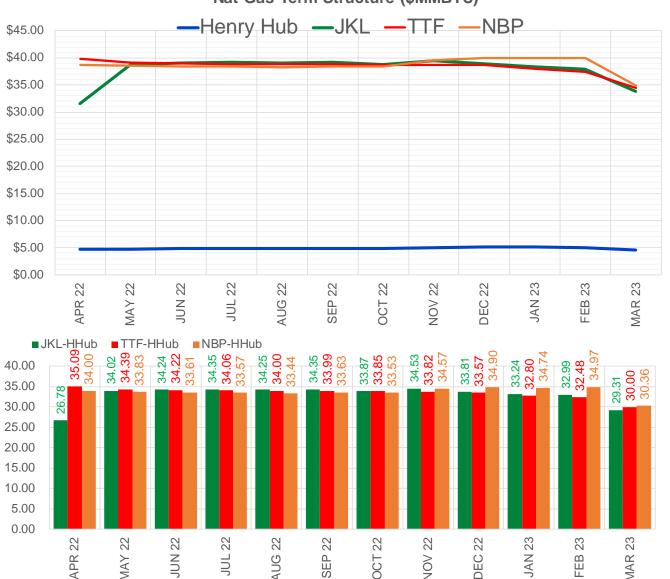
		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	5.15	8.25	3.10
TETCO M3	\$/MMBtu	4.03	4.17	0.14
FGT Zone 3	\$/MMBtu	4.02	4.61	0.59
Zone 6 NY	\$/MMBtu	4.02	4.18	0.16
Chicago Citygate	\$/MMBtu	4.25	4.50	0.25
Michcon	\$/MMBtu	4.34	4.40	0.06
Columbia TCO Pool	\$/MMBtu	3.92	3.88	-0.04
Ventura	\$/MMBtu	4.20	4.59	0.39
Rockies/Opal	\$/MMBtu	3.90	4.16	0.26
El Paso Permian Basin	\$/MMBtu	3.94	3.92	-0.02
Socal Citygate	\$/MMBtu	4.37	4.28	-0.09
Malin	\$/MMBtu	3.85	4.18	0.33
Houston Ship Channel	\$/MMBtu	4.27	4.30	0.03
Henry Hub Cash	\$/MMBtu	4.34	4.28	-0.06
AECO Cash	C\$/GJ	3.74	3.70	-0.04
Station2 Cash	C\$/GJ	3.68	4.05	0.37
Dawn Cash	C\$/GJ	4.38	4.53	0.15

Source: CME, Bloomberg

				vs. 4 Weeks	
	Units	Current Price	vs. Last Weel		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	a 0.304
NatGas Oct21/Jan22	\$/MMBtu	-1.817	0.000	0.000	▼ -2.071
NatGas Apr22/Oct22	\$/MMBtu	0.128	▼ 0.000	0.029	0.096
WTI Crude	\$/Bbl	103.41	11.060	15.210	43.660
Brent Crude	\$/Bbl	104.97	8.130	15.810	42.270
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	0.000	0.000	0.000
Heating Oil	cents/Gallon	315.11	33.230	4 0.990	134.300
Propane, Mt. Bel	cents/Gallon	1.46	0.141	0.158	0.493
Ethane, Mt. Bel	cents/Gallon	0.41	0.017	- 0.019	0.192
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			



Nat Gas Term Structure (\$MMBTU)



	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22	OCT 22	NOV 22	DEC 22	JAN 23	FEB 23	MAR 23
Henry Hub	\$4.717	\$4.743	\$4.783	\$4.842	\$4.844	\$4.820	\$4.847	\$4.932	\$5.077	\$5.174	\$4.972	\$4.528
JKL	\$31.500	\$38.765	\$39.020	\$39.195	\$39.095	\$39.170	\$38.715	\$39.460	\$38.890	\$38.415	\$37.965	\$33.835
JKL-HHub	\$26.783	\$34.022	\$34.237	\$34.353	\$34.251	\$34.350	\$33.868	\$34.528	\$33.813	\$33.241	\$32.993	\$29.307
TTF	\$39.811	\$39.134	\$39.006	\$38.899	\$38.845	\$38.814	\$38.696	\$38.756	\$38.643	\$37.971	\$37.451	\$34.523
TTF-HHub	\$35.094	\$34.391	\$34.223	\$34.057	\$34.001	\$33.994	\$33.849	\$33.824	\$33.566	\$32.797	\$32.479	\$29.995
NBP	\$38.721	\$38.568	\$38.389	\$38.414	\$38.285	\$38.449	\$38.374	\$39.501	\$39.978	\$39.913	\$39.941	\$34.887
NBP-HHub	\$34.004	\$33.825	\$33.606	\$33.572	\$33.441	\$33.629	\$33.527	\$34.569	\$34.901	\$34.739	\$34.969	\$30.359



Weather Storage Model - Next 4 Week Forecast

