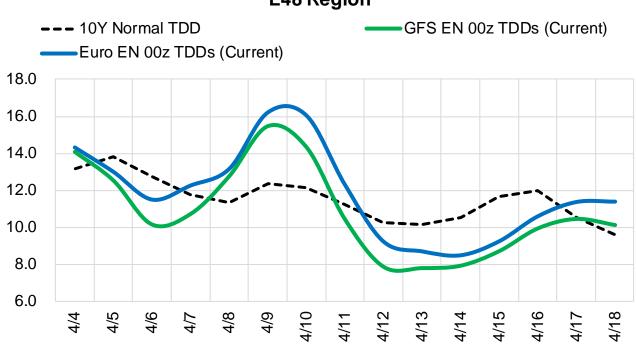


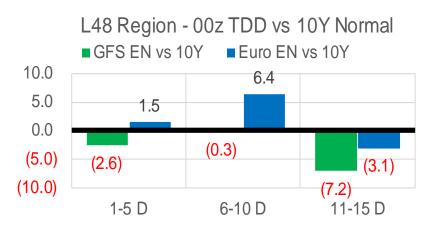


Short-term Weather Model Outlooks (00z)



L48 Region

Vs. 10Y Normal



Source: WSI, Bloomberg

Market Report

Daily Balances

	29-Mar	30-Mar	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr	DoD	vs. 7D
Lower 48 Dry Production	95.7	96.6	96.9	97.1	95.6	96.5	96.4	v -0.1	▼ 0.0
Canadian Imports	6.1	5.6	5.4	6.1	5.4	5.4	5.0	▼ -0.4	▼ -0.6
L48 Power	27.4	27.1	27.4	26.0	24.8	25.1	25.8	a 0.8	▼ -0.4
L48 Residential & Commercial	33.1	25.2	24.4	27.6	26.3	25.3	24.2	T -1.1	▼ -2.8
L48 Industrial	22.2	21.7	22.0	22.4	22.1	21.9	21.8	▼ -0.1	v -0.3
L48 Lease and Plant Fuel	5.2	5.3	5.3	5.3	5.2	5.3	5.2	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	3.1	2.7	2.7	3.0	2.8	2.8	2.8	▼ 0.0	— -0.1
L48 Regional Gas Consumption	90.9	82.0	81.7	84.3	81.3	80.3	79.8	T-0.5	▼ -3.6
Net LNG Delivered	11.94	12.95	13.24	12.35	13.36	13.00	12.38	— -0.6	v -0.4
Total Mexican Exports	6.6	6.2	6.3	6.5	5.5	6.1	6.1	▼ 0.0	v -0.1
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-7.7	1.0	1.1	0.1	0.8	2.5	3.2		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	25-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	WoW	vs. 4W
Lower 48 Dry Production	94.4	94.2	94.8	93.9	95.4	96.0	0.6	▲ 1.4
Canadian Imports	6.4	5.9	5.2	5.2	4.8	5.7	0.9	0.4
L48 Power	28.7	29.4	27.6	27.3	25.5	26.9	1 .4	— -0.6
L48 Residential & Commercial	41.1	38.1	33.2	31.5	23.4	29.7	6 .3	T -1.9
L48 Industrial	25.4	23.1	22.7	20.7	20.8	20.9	0.1	- 0.9
L48 Lease and Plant Fuel	5.2	5.1	5.2	5.1	5.2	5.2	▲ 0.0	a 0.1
L48 Pipeline Distribution	3.3	3.3	3.2	3.1	2.6	2.9	0 .4	- 0.1
L48 Regional Gas Consumption	103.6	99.1	91.8	87.7	77.5	85.7	8.2	▼ -3.3
Net LNG Exports	11.7	12.5	12.8	12.9	13.0	13.1	0.1	0.3
Total Mexican Exports	6.1	6.4	6.6	6.6	6.5	6.3	▼ -0.2	▼-0.2
Implied Daily Storage Activity	-20.6	-17.9	-11.2	-7.9	3.2	-3.3	-6.6	
EIA Reported Daily Storage Activity Daily Model Error	-19.9 -0.8	-17.7 -0.2	-11.3 0.1	-7.3 -0.6	3.7 -0.5			

Monthly Balances

	2Yr Ago	LY					MTD		
	Apr-20	Apr-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	МоМ	vs. LY
Lower 48 Dry Production	92.7	92.5	96.1	93.6	93.6	95.0	96.4	1.3	3.9
Canadian Imports	4.0	4.7	4.8	6.7	6.6	5.2	5.6	0.4	1.0
L48 Power	25.6	25.0	28.7	31.4	29.0	26.9	25.3	T -1.6	a 0.3
L48 Residential & Commercial	20.5	19.6	33.9	48.6	42.7	29.6	26.4	▼ -3.1	6.8
L48 Industrial	20.4	21.4	22.5	25.5	25.3	21.6	22.1	A 0.5	A 0.8
L48 Lease and Plant Fuel	5.0	5.0	5.3	5.1	5.1	5.2	5.3	0.1	a 0.2
L48 Pipeline Distribution	2.4	2.5	3.2	3.8	3.4	2.9	2.9	▼ -0.1	0 .4
L48 Regional Gas Consumption	74.0	73.5	93.6	114.4	105.5	86.2	82.0	▼ -4.2	8.5
Net LNG Exports	8.2	11.5	12.1	12.4	12.4	12.9	12.9	▲ 0.0	1.4
Total Mexican Exports	4.8	6.7	6.2	6.3	6.2	6.5	6.0	▼ -0.5	▼ -0.7
Implied Daily Storage Activity EIA Reported Daily Storage Activity	9.7	5.5	-11.0	-32.8	-23.8	-5.3	1.1		
Daily Model Error									

Source: Bloomberg, analytix.ai



4 April 2022

Daily Average Generation Data

Nuclear Generation Daily Average - GWh (NRC)

ENERGY

	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	1-Apr	2-Apr	DoD	vs. 7D
NRC Nuclear Daily Output	79.5	78.9	78.4	79.1	78.8	78.8	78.8	0.0	-0.2
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	25.4	26.0	26.5	25.8	26.1	26.1	26.1	0.0	0.2
NRC % Nuclear Cap Utilization	80.9	80.2	79.7	80.4	80.1	80.1	80.1	0.0	-0.2

Wind Generation Daily Average - MWh (EIA)

	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	1-Apr	2-Apr	DoD	vs.7D
CALI Wind	2509	2184	4353	3257	3143	1540	2615	1075	-216
TEXAS Wind	17889	19121	23399	17439	6087	19130	6752	-12378	-10426
US Wind	55353	61756	84046	77952	51776	54654	41469	-13184	-22786

Generation Daily Average - MWh (EIA)

	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	1-Apr	2-Apr	DoD	vs.7D
US Wind	55353	61756	84046	77952	51776	54654	41469	-13184	-22786
US Solar	16513	13367	13004	12777	13676	15296	16062	766	1957
US Petroleum	952	1148	1411	1089	858	915	934	20	-128
US Other	6961	7638	7361	7090	6865	6905	6875	-30	-262
US Coal	77220	84131	75804	74209	79600	79898	81276	1378	2799
US Nuke	83667	83307	82890	83107	82852	82646	79972	-2673	-3106
US Hydro	30215	35484	34304	33861	33739	34254	30530	-3724	-3113
US Gas	122902	145908	136267	132911	143416	132768	130649	-2119	-5047

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

Storage Week Average Generation Data

Nuclear Generation Weekly Average - GWh (NRC)

	25-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	86.9	85.8	82.3	80.9	80.9	79.3	-1.6	0.3
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	18.0	19.1	22.5	23.9	24.0	25.5	1.6	
NRC % Nuclear Cap Utilization	88.3	87.2	83.7	82.3	82.3	80.7	-1.6	

Wind Generation Weekly Average - MWh (EIA)

	25-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	WoW	WoW Bcf/d Impact
CALI Wind	2049	815	2602	2297	2037	2643	606	-0.1
TEXAS Wind	13068	6269	14469	17742	16108	14530	-1578	0.3
US Wind	60313	36019	56828	63171	62107	61695	-411	0.1
							-1%	
						-0.1		

Generation Weekly Average - MWh (EIA)

	25-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	WoW	WoW Bcf/d Impact
US Wind	60313	36019	56828	63171	62107	61695	-411	0.1
US Solar	11899	13922	12600	13807	13675	14841	1166	-0.2
US Petroleum	2961	3130	1742	961	864	1048	184	0.0
US Other	8211	7512	6628	7113	7737	7291	-446	0.1
US Coal	99888	103399	86717	86035	72503	77700	5197	-0.9
US Nuke	91458	90157	86449	84775	84027	83506	-521	0.1
US Hydro	33214	32196	34570	34871	33230	33457	227	0.0
US Gas	147276	158688	140400	137079	124819	134421	9602	1.7

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

est.



Monthly Average Generation Data

Nuclear Generation Monthly Average - GWh (NRC)

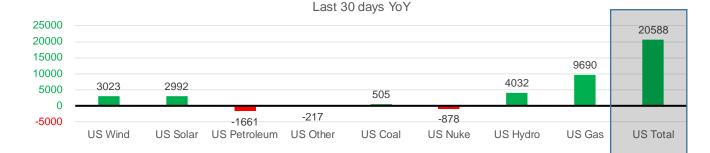
	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Jan-22	Feb-22	Mar-22	Apr-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
NRC Nuclear Daily Output	81.3	80.4	90.2	87.6	81.3	78.8	80.4	-2.5	-0.1
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0
NRC Nuclear Outage	23.6	24.4	14.7	17.3	23.6	26.1	24.5	2.5	0.1
NRC % Nuclear Cap Utilization	82.7	81.8	91.7	89.0	82.7	80.1	81.7	-2.6	-0.1

Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Jan-22	Feb-22	Mar-22	Apr-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
CALI Wind	1794	2515	1244	1559	2250	2346	2292	96	-224
TEXAS Wind	10226	14279	11355	12294	14837	9846	14706	-4991	427
US Wind	38660	55060	51045	56539	58520	44765	58083	-13755	3023

Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Jan-22	Feb-22	Mar-22	Apr-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	38660	55060	51045	56539	58520	44765	58083	1 3317.7	3023
US Solar	7823	11186	9476	12088	13823	15871	14178	▼-1692.5	2992
US Petroleum	3191	2724	5021	3451	1335	929	1063	A 134	T -1661
US Other	7195	7432	8792	8832	7142	6883	7215	a 333	-217
US Coal	65948	80423	117971	106588	82269	80932	80928	▼ -4	505
US Nuke	83971	84822	95259	92280	85157	80641	83945	3 304	-878
US Hydro	31677	29614	34040	32213	33923	31461	33646	🔺 2185	4032
US Gas	150160	124954	164024	152058	135470	131179	134644	A 17577	4 9690
US Total	386815	394921	485812	464578	419453	393292	415510	A 21836	20588



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

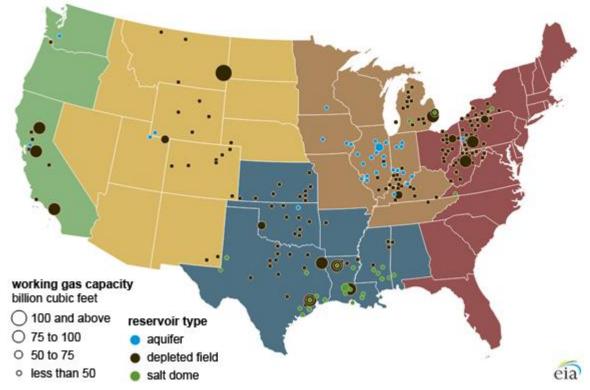


Regional S/D Models Storage Projection

Week Ending	1-Apr			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
<u>L</u> 48	-2.9	0.1	-2.8	-20
East	-5.2	1.8	-3.5	-24
Midwest	-2.2	-0.7	-3.0	-21
Mountain	3.6	-3.2	0.4	3
South Central	0.4	2.1	2.5	17
Pacific	0.5	0.2	0.7	5

*Adjustment Factor is calcuated based on historical regional deltas

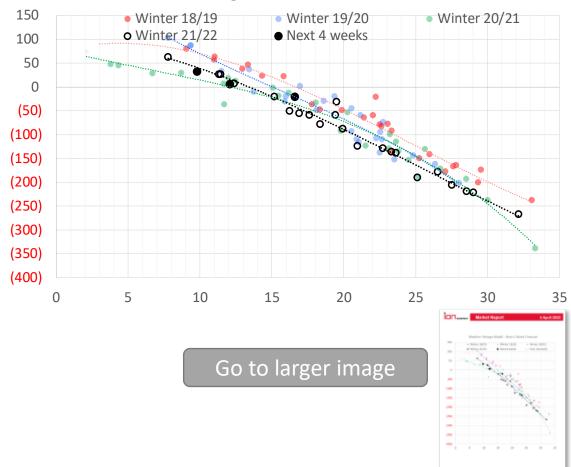
U.S. underground natural gas storage facilities by type (July 2015)



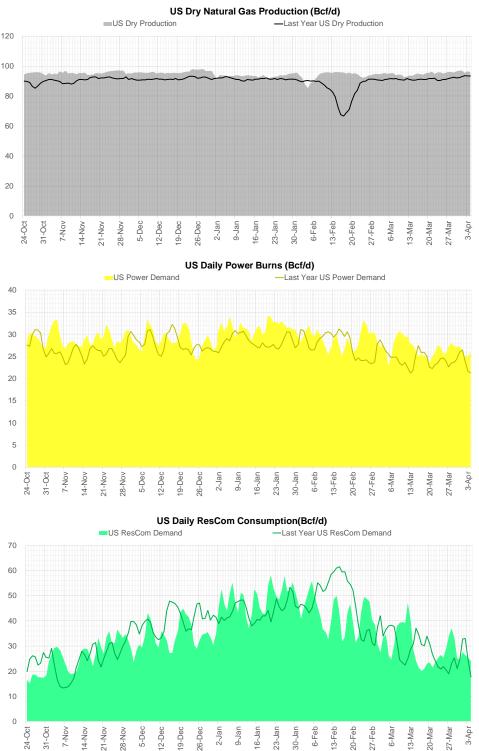
Weather Model Storage Projection

Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
01-Apr	17	-20
08-Apr	12	7
15-Apr	10	33
22-Apr	#N/A	#N/A

Weather Storage Model - Next 4 Week Forecast

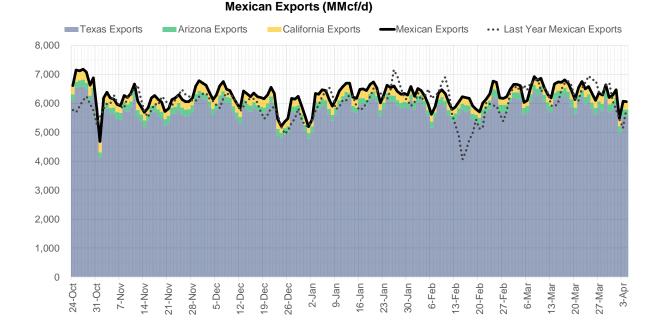


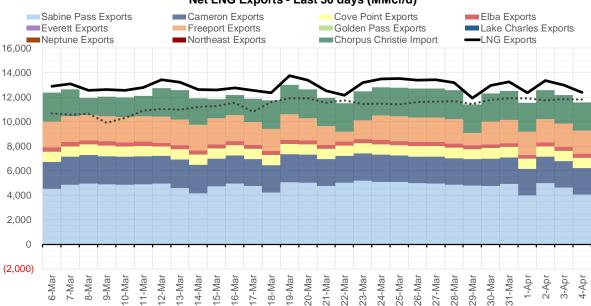




Source: Bloomberg







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

Source: Bloomberg

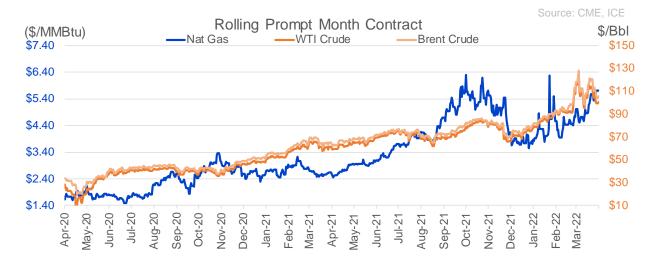


Nat Gas Options Volume and Open Interest CME and ICE Combined

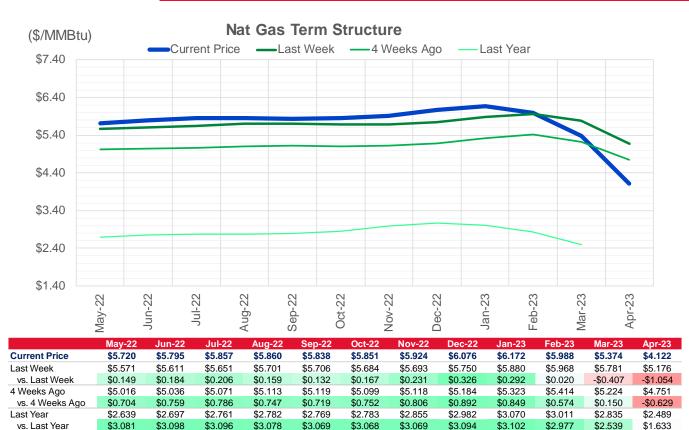
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2022	С	10.00	9027	8	2022	С	10.00	40835
8	2022	С	10.50	8542	8	2022	С	10.50	39000
5	2022	Р	4.50	6006	10	2022	С	6.00	28889
5	2022	Р	5.00	5955	5	2022	Р	4.00	27462
7	2022	С	10.00	4120	10	2022	С	5.00	27210
7	2022	С	7.00	4046	5	2022	С	6.00	25325
9	2022	С	10.00	3925	9	2022	С	6.00	23530
2	2023	С	11.00	3800	5	2022	Р	3.00	22661
2	2023	С	12.00	3800	6	2022	С	6.00	22481
6	2022	С	10.00	3359	5	2022	С	5.00	21940
5	2022	Р	5.25	3157	5	2022	Р	4.50	21718
9	2022	С	12.00	3132	8	2022	С	6.00	21626
1	2025	С	6.00	2950	10	2022	Р	3.00	20875
2	2025	С	6.00	2950	7	2022	С	6.00	19898
3	2025	С	6.00	2950	5	2022	Р	2.50	19874
4	2025	С	6.00	2950	5	2022	С	7.00	19048
5	2025	С	6.00	2950	6	2022	Р	4.00	19014
6	2025	С	6.00	2950	5	2022	Р	3.50	18203
7	2025	С	6.00	2950	6	2022	С	5.00	17823
8	2025	С	6.00	2950	12	2022	С	5.00	17771
9	2025	С	6.00	2950	5	2022	Р	2.75	17685
10	2025	С	6.00	2950	7	2022	Р	3.25	17514
11	2025	С	6.00	2950	10	2022	Р	2.50	17361
12	2025	С	6.00	2950	6	2022	P	3.00	17220
5	2022	С	6.00	2534	8	2022	C P	7.00	17003
6	2022	С	7.00	2497	10	2022		4.00	16353
6	2022	Р	4.50	2418	9	2022	C P	7.00	16269
5	2022	С	7.00	2244	5 6	2022 2022	P	3.75 3.50	16065 15949
5	2022	С	8.00	2164		2022 2023	P C	3.50 6.00	
1	2025	С	8.00	2150	1 9	2023	P	2.50	15769 15366
2	2025	С	8.00	2150	9	2022 2023	P C	2.50 5.00	
3	2025	C	8.00	2150	10	2023	c	5.00 7.00	15290 15082
4	2025	C	8.00	2150	9	2022 2022	P	2.75	14933
5	2025	С	8.00	2150	9 10	2022	P	2.75	14933
6	2025	С	8.00	2150	10	2022	P	3.50	14622
7	2025	С	8.00	2150	7	2022	P	3.50	14022
8	2025	С	8.00	2150	12	2022	C	6.00	14508
9	2025	C	8.00	2150	8	2022	P	3.00	14300
10	2025	C	8.00	2150	6	2022	P	3.75	14166
11	2025	C	8.00	2150	6	2022	c	7.00	13812
12	2025	C	8.00	2150	5	2022	c	3.00	13733
6	2022	С	8.50	2005	7	2022	c	5.00	13727
10	2022	č	7.00	1931	7	2022	P	3.00	13688
9	2022	C	8.00	1644	6	2022	P	3.25	13517
5	2022	P	5.50	1638	6	2022	C	3.00	13438
7	2022	C	8.50	1629	6	2022	c	4.50	13371
5	2022	P	4.75	1562	5	2022	c	4.00	13258
5	2022	C	10.00	1559	7	2022	c	8.00	13248
6	2022	č	8.00	1398	7	2022			
-					•		Source	e: CME, ICE	

Nat Gas Futures Open Interest CME and ICE Combined

CME Henry H	lub Futures (1			ICE Henry	Hub Futures Cont		alent (10,000 MM		
	Current	Prior	Daily Change		Current	Prior	Daily Change		
MAY 22	232417	233643	-1226	MAY 22	81785	84922	-3137		
JUN 22	76926	75595	1331	JUN 22	66377	68624	-2247		
JUL 22	100985	102935	-1950	JUL 22	68666	68673	-7		
AUG 22	44574	46316	-1742	AUG 22	60318	60176	143		
SEP 22	75406	74793	613	SEP 22	65299	64960	340		
OCT 22	87190	80001	7189	OCT 22	71391	72471	-1079		
NOV 22	44348	44189	159	NOV 22	53421	53298	123		
DEC 22	44837	47040	-2203	DEC 22	59653	59194	459		
JAN 23	65394	65950	-556	JAN 23	67654	67289	365		
FEB 23	20462	20318	144	FEB 23	46757	46470	287		
MAR 23	40613	40288	325	MAR 23	52002	51838	164		
APR 23	52823	50743	2080	APR 23	51100	50642	458		
MAY 23	31655	28919	2736	MAY 23	45329	44796	533		
JUN 23	18007	17108	899	JUN 23	41997	41532	465		
JUL 23	15683	14354	1329	JUL 23	41595	40927	668		
AUG 23	11582	10961	621	AUG 23	41155	40546	609		
SEP 23	15225	14725	500	SEP 23	41056	40375	681		
OCT 23	33303	30799	2504	OCT 23	46092	44822	1270		
NOV 23	11977	11563	414	NOV 23	41137	41294	-157		
DEC 23	14030	13694	336	DEC 23	36824	36604	220		
JAN 24	20524	20258	266	JAN 24	34774	33304	1469		
FEB 24	4659	4559	100	FEB 24	23759	23457	302		
MAR 24	15511	15227	284	MAR 24	29694	29387	306		
APR 24	10689	10629	60	APR 24	22395	22171	224		
MAY 24	2537	2514	23	MAY 24	21199	20841	358		
JUN 24	1646	1646	0	JUN 24	21213	20989	224		
JUL 24	1641	1637	4	JUL 24	21939	21703	236		
AUG 24	2978	2978	0	AUG 24	22105	21869	236		
SEP 24	1321	1322	-1	SEP 24	20668	20437	231		
OCT 24	6695	6595	100	OCT 24	22561	22307	253		



Market Report



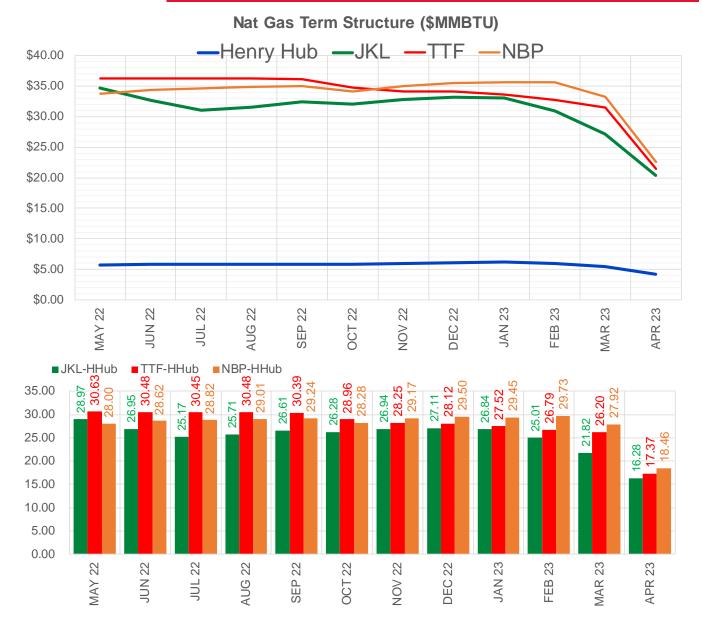
		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	5.35	5.28	-0.07
TETCO M3	\$/MMBtu	5.25	4.72	-0.53
FGT Zone 3	\$/MMBtu	5.15	5.54	0.39
Zone 6 NY	\$/MMBtu	5.15	4.66	-0.49
Chicago Citygate	\$/MMBtu	5.39	5.27	-0.13
Michcon	\$/MMBtu	5.39	5.30	-0.09
Columbia TCO Pool	\$/MMBtu	5.15	4.83	-0.32
Ventura	\$/MMBtu	4.89	5.11	0.22
Rockies/Opal	\$/MMBtu	5.16	4.97	-0.19
El Paso Permian Basin	\$/MMBtu	4.64	4.54	-0.11
Socal Citygate	\$/MMBtu	5.36	5.30	-0.06
Malin	\$/MMBtu	4.78	5.01	0.23
Houston Ship Channel	\$/MMBtu	5.42	5.21	-0.21
Henry Hub Cash	\$/MMBtu	5.39	5.11	-0.28
AECO Cash	C\$/GJ	4.57	4.10	-0.47
Station2 Cash	C\$/GJ	4.60	4.79	0.19
Dawn Cash	C\$/GJ	5.40	5.33	-0.07

Source: CME, Bloomberg



				vs. 4 Weeks	
	Units	Current Price	vs. Last Week	Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	0.000	a 0.000	a 2.202
NatGas Oct21/Nov21	\$/MMBtu	0.361	0.000	a 0.000	a 0.289
NatGas Oct21/Jan22	\$/MMBtu	-1.817	0.000	0.000	-2.104
NatGas Apr22/Oct22	\$/MMBtu	0.515	a 0.393	a 0.413	0.475
WTI Crude	\$/Bbl	99.27	- 14.630	- 16.410	37.820
Brent Crude	\$/Bbl	104.39	▼ -16.260	- 13.720	4 39.530
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	0.000	0.000	0.000
Heating Oil	cents/Gallon	342.40	▼ -69.060	-35.230	1 59.240
Propane, Mt. Bel	cents/Gallon	1.37	-0.080	-0.231	0.426
Ethane, Mt. Bel	cents/Gallon	0.44	a 0.010	a 0.009	a 0.216
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

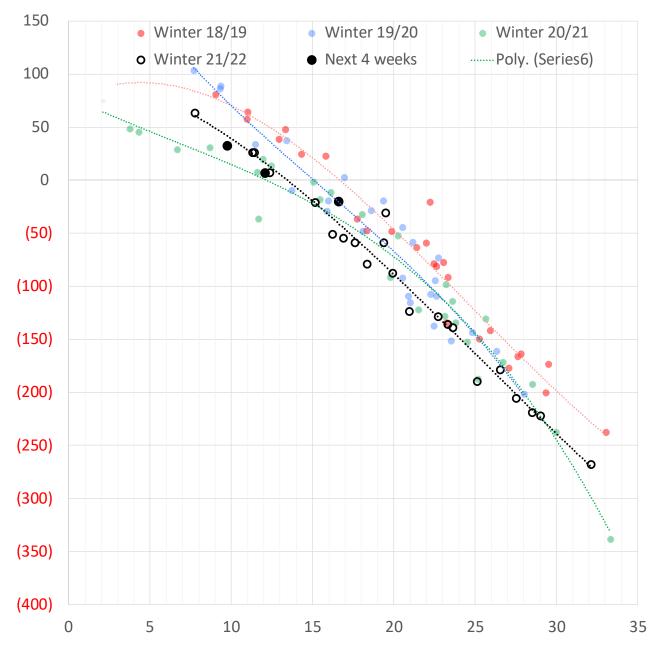


	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22	OCT 22	NOV 22	DEC 22	JAN 23	FEB 23	MAR 23	APR 23
Henry Hub	\$5.719	\$5.797	\$5.865	\$5.861	\$5.812	\$5.852	\$5.895	\$6.048	\$6.182	\$5.978	\$5.375	\$4.133
JKL	\$34.690	\$32.750	\$31.035	\$31.570	\$32.425	\$32.135	\$32.830	\$33.160	\$33.020	\$30.985	\$27.195	\$20.415
JKL-HHub	\$28.971	\$26.953	\$25.170	\$25.709	\$26.613	\$26.283	\$26.935	\$27.112	\$26.838	\$25.007	\$21.820	\$16.282
TTF	\$36.344	\$36.275	\$36.310	\$36.340	\$36.202	\$34.809	\$34.148	\$34.169	\$33.703	\$32.768	\$31.570	\$21.501
TTF-HHub	\$30.625	\$30.478	\$30.445	\$30.479	\$30.390	\$28.957	\$28.253	\$28.121	\$27.521	\$26.790	\$26.195	\$17.368
NBP	\$33.718	\$34.421	\$34.685	\$34.870	\$35.047	\$34.133	\$35.069	\$35.545	\$35.628	\$35.710	\$33.297	\$22.597
NBP-HHub	\$27.999	\$28.624	\$28.820	\$29.009	\$29.235	\$28.281	\$29.174	\$29.497	\$29.446	\$29.732	\$27.922	\$18.464

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.

4 April 2022

Weather Storage Model - Next 4 Week Forecast



Market Report

ENERGY

4 April 2022

