

### 20 October 2022

	Cı	ırrent	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$	5.52	<b>\$</b> 0.05	<b>\$</b> (0.67)

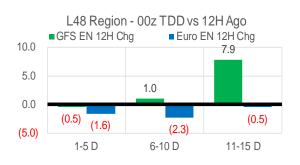
	Currer	t Δ from YD	Δ from 7[ Avg	)
WTI Prompt	\$ 87.3	33 📤 \$ 1.78	J	6

	С	urrent	Δ fro	m YD	Δ fror Αν	n 7D /g
Brent Prompt	\$	93.81	<b>\$</b>	1.40	<b>\$</b>	1.9

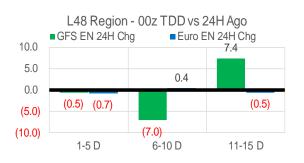
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Nat Gas Futures Open Interest
Price Summary

### Vs. 12H Ago



### Vs. 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	100.2	<b>-</b> 0.39	<b>▼</b> -0.34

	Current	Δ from YD	Δ from 7D Avg
US ResComm	22.3	▼ -5.06	<b>2.30</b>

	Current	Δ from YD	Δ from 7D Avg		
Net LNG Exports	11.9	<b>▼</b> -0.11	<b>a</b> 0.50		

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	30.9	<b>-</b> 0.89	<b>a</b> 0.18

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.9	▼ -0.25	<b>-</b> 0.05

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▼ -0.24	<b>▼</b> -0.13



5.0

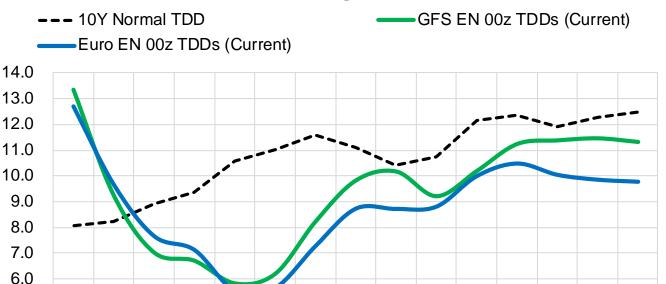
10/20

10/21

10/22

### Short-term Weather Model Outlooks (00z)





## Vs. 10Y Normal

10/27

10/26

0/25

10/24

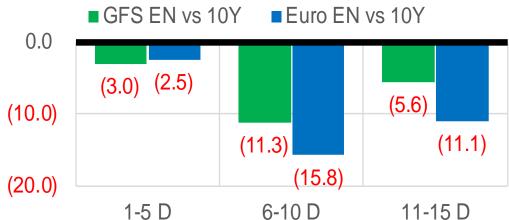
10/23



10/28

10/29

10/30



Source: WSI, Bloomberg

10/31 11/1 11/2



## Lower 48 Component Models

#### **Daily Balances**

	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	DoD	vs. 7D
Lower 48 Dry Production	98.6	100.7	101.1	101.5	100.4	100.5	100.2	▼ -0.4	▼ -0.3
Canadian Imports	5.7	6.0	5.9	6.3	6.4	6.2	5.9	▼ -0.3	▼ -0.1
L48 Power	30.1	28.5	28.5	31.5	32.7	31.8	30.9	▼ -0.9	<b>0.4</b>
L48 Residential & Commercial	16.5	15.9	16.0	21.4	26.8	27.3	22.3	▼ -5.1	<b>1.6</b>
L48 Industrial	18.9	18.3	17.9	18.3	19.0	19.8	20.2	<b>0.4</b>	<b>1.5</b>
L48 Lease and Plant Fuel	5.5	5.6	5.6	5.7	5.6	5.6	5.5	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.9	2.7	2.7	3.3	3.7	3.6	3.3	▼ -0.4	<b>0.1</b>
L48 Regional Gas Consumption	73.9	71.1	70.9	80.0	87.8	88.2	82.2	▼ -6.0	<b>3.6</b>
Net LNG Delivered	11.25	11.00	11.12	11.81	11.59	12.03	11.92	▼ -0.1	<b>0.5</b>
Total Mexican Exports	6.7	6.4	6.3	6.3	6.7	6.7	6.4	▼ -0.2	▼ -0.1
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	12.5	18.1	18.8	9.6	0.7	-0.1	5.6		

EIA Storage Week Balances								
_	LY				LW	Current		
	15-Oct	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	WoW	vs. LY
Lower 48 Dry Production	95.2	100.8	100.6	101.4	102.2	101.9	▼ -0.3	<b>6.7</b>
Canadian Imports	5.0	5.6	6.1	6.2	6.0	5.5	▼ -0.5	<b>0.6</b>
L48 Power	31.6	37.9	37.0	31.6	30.6	30.7	<b>0.1</b>	-0.9
L48 Residential & Commercial	9.2	8.0	8.2	11.9	13.0	14.8	<b>1.8</b>	5.7
L48 Industrial	21.9	20.9	21.3	20.0	20.9	21.0	<b>0.1</b>	-1.0
L48 Lease and Plant Fuel	5.3	5.6	5.6	5.6	5.7	5.7	▼ 0.0	0.4
L48 Pipeline Distribution	2.5	2.8	2.8	2.7	2.7	2.8	<b>0.1</b>	0.3
L48 Regional Gas Consumption	70.6	75.1	74.9	71.8	72.9	75.0	<b>2.1</b>	<b>4.4</b>
Net LNG Exports	10.7	11.3	11.5	11.8	11.0	11.0	▼ -0.1	<b>0.3</b>
Total Mexican Exports	6.6	6.7	6.6	6.9	6.7	6.5	▼-0.1	▼ 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	12.3 13.1 -0.9	13.3 14.7 -1.4	13.8 14.7 -0.9	17.1 18.4 -1.3	17.5 17.9 -0.3	14.8	-2.7	2.6

	2Yr Ago	LY					MTD		
	Oct-20	Oct-21	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	MoM	vs. LY
Lower 48 Dry Production	88.5	95.5	97.3	97.7	98.9	100.9	101.5	<b>0.6</b>	<b>▲</b> 6.1
Canadian Imports	4.3	5.4	5.7	5.9	5.4	5.9	5.8	▼-0.1	<b>0.5</b>
L48 Power	30.6	30.4	38.3	44.3	43.1	36.9	30.7	<b>▼</b> -6.2	<b>0.2</b>
L48 Residential & Commercial	15.5	12.6	8.9	8.3	8.0	9.0	16.1	<b>7.1</b>	<b>3.5</b>
L48 Industrial	22.7	21.7	19.1	19.8	21.1	20.9	20.0	<b>▼</b> -1.0	<b>▼</b> -1.7
L48 Lease and Plant Fuel	4.8	5.3	5.5	5.5	5.5	5.6	5.7	<b>0.1</b>	<b>0.3</b>
L48 Pipeline Distribution	2.5	2.7	2.9	3.1	3.0	2.8	2.9	<b>0.0</b>	<b>0.2</b>
L48 Regional Gas Consumption	76.1	72.7	74.6	81.0	80.8	75.2	75.3	<b>0.1</b>	<b>2.6</b>
Net LNG Exports	8.0	10.6	11.2	10.9	11.0	11.5	11.1	▼-0.4	<b>0.5</b>
Total Mexican Exports	6.0	6.6	7.1	7.0	6.9	6.7	6.6	▼ -0.1	▼ 0.0
Implied Daily Storage Activity	2.7	11.0	10.0	4.7	5.7	13.5	14.4		
EIA Reported Daily Storage Activity Daily Model Error					0.0				

Source: Bloomberg, analytix.ai



## **Daily** Average Generation Data

#### **Nuclear Generation Daily Average - GWh (NRC)**

	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	DoD	vs. 7D
NRC Nuclear Daily Output	75.4	75.4	75.4	75.0	73.8	73.4	74.0	0.6	-0.7
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	29.5	29.5	29.5	29.9	31.0	31.4	30.8	-0.6	0.7
NRC % Nuclear Cap Utilization	76.7	76.7	76.6	76.3	75.1	74.7	75.3	0.6	-0.7

#### Wind Generation Daily Average - MWh (EIA)

	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	DoD	vs. 7D
CALI Wind	1728	1164	1017	2216	1665	380	476	96	-886
TEXAS Wind	10956	5357	10237	14879	12443	10262	4803	-5460	-5887
US Wind	56873	47090	51137	52724	51464	49288	35436	-13853	-15994

#### **Generation Daily Average - MWh (EIA)**

	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	DoD	vs. 7D
US Wind	56873	47090	51137	52724	51464	49288	35436	-13853	-15994
US Solar	13357	13466	15515	13541	12594	11681	13773	2092	414
US Petroleum	1090	1133	1074	923	901	990	910	-80	-108
US Other	11637	11252	12429	11505	13778	12591	9873	-2718	-2325
US Coal	74131	74573	74865	73468	74091	78193	85090	6897	10203
US Nuke	76416	76490	76262	75816	74566	74489	77722	3234	2049
US Hydro	20228	21563	20153	16905	17217	16999	19762	2762	917
US Gas	174853	177448	161046	148756	144362	161583	170993	9410	9652

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai



**US Nuke** 

US Hydro

**US Gas** 

## **Storage Week** Average Generation Data

Nuclear Generation Weekly Average - GWh (NRC)											
	15-Oct	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	WoW	WoW Bcf/d Impact			
NRC Nuclear Daily Output	76.5	86.0	86.7	84.9	80.5	76.2	-4.3	8.0			
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0				
NRC Nuclear Outage	28.3	18.9	18.1	20.0	24.4	28.7	4.3				
NRC % Nuclear Cap Utilization	77.8	87.4	88.2	86.4	81.9	77.5	-4.4				
Wind Generation Weekly Average - MWh (EIA)											
	15-Oct	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	WoW	WoW Bcf/d Impact			
CALI Wind	2400	2033	1941	1208	1370	1086	-284	0.1			
TEXAS Wind	15396	8875	11580	8083	6160	7842	1682	-0.3			
US Wind	49918	37401	47953	40606	32707	41059	8352	-1.6			
							26%				
						0.3					
Generation Weekly Average - M	Wh (EIA)	)									
, ,	` '				LY	Current					
								WoW			
	15-Oct	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	WoW	Bcf/d			
								Impact			
US Wind	49918	37401	47953	40606	32707	41059	8352	-1.6			
US Solar	10533	14887	17244	16636	15452	14351	-1101	0.2			
US Petroleum	727	1029	1010	379	664	842	178	0.0			
US Other	12239	10065	10826	11151	10786	11177	391	-0.1			
US Coal	89840	91209	92461	77592	75016	76160	1145	-0.2			

See National Wind and Nuclear daily charts

88711

25849

201189

89298

23537

197536

86649

23101

171818

84500

21913

171099

77060

24716

165326

Source: Bloomberg, analytix.ai

77235

19990

169993

-7265

-1922

-1106

1.4

0.4

-0.2

## **Monthly** Average Generation Data

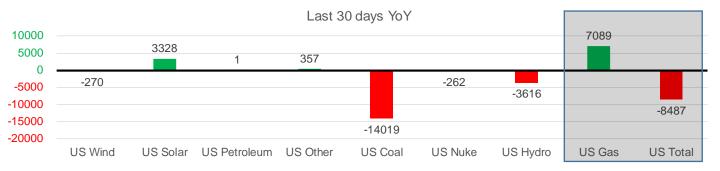
Nuclear Generation Monthly Average - GWh (NRC)											
-	2Yr Ago	LY				MTD					
	Same 30 days	Same 30 days	Jul-22	Aug-22	Sep-22	Oct-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY		
NRC Nuclear Daily Output	80.0	80.3	90.6	90.5	86.2	76.8	79.5	-9.4	-0.7		
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0		
NRC Nuclear Outage	24.8	24.6	14.3	14.3	18.7	28.1	25.3	9.4	0.7		
NRC % Nuclear Cap Utilization	81.4	81.6	92.1	92.1	87.7	78.1	80.9	-9.6	-0.8		

#### Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY				MTD			
	Same 30 S days	Same 30 days	Jul-22	Aug-22	Sep-22	Oct-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
CALI Wind	1499	1796	2719	2028	1608	1122	1198	-486	-598
TEXAS Wind	9182	10568	11765	8440	7993	7611	7727	-382	-2841
US Wind	39094	40446	39701	33222	38117	39068	40176	951	-270

#### **Generation Monthly Average - MWh (EIA)**

	2Yr Ago	ĹY				MTD			
	Same 30 days	Same 30 days	Jul-22	Aug-22	Sep-22	Oct-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	39094	40446	39701	33222	38117	39068	40176	<b>1107.8</b>	▼ -270
US Solar	9172	11811	18599	16965	16179	14398	15139	<b>~</b> 741.2	<b>3328</b>
US Petroleum	891	724	1252	1253	864	833	726	<b>▼</b> -107	<u> </u>
US Other	7994	10754	10142	10543	10489	11141	11111	<b>▼</b> -30	<b>357</b>
US Coal	74835	92368	119788	117200	92002	76981	78349	<b>1368</b>	<b>▼-14019</b>
US Nuke	83342	82000	92883	92976	89052	78315	81738	<b>3423</b>	<b>▼</b> -262
US Hydro	25021	24686	34227	30121	25202	19955	21071	<b>1116</b>	▼ -3616
US Gas	167648	163883	235752	233741	199945	167295	170973	<b>~</b> 7619	<b>~</b> 7089
US Total	406226	426587	551815	535704	470440	408067	418100	<b>14129</b>	<b>▼</b> -8487



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai



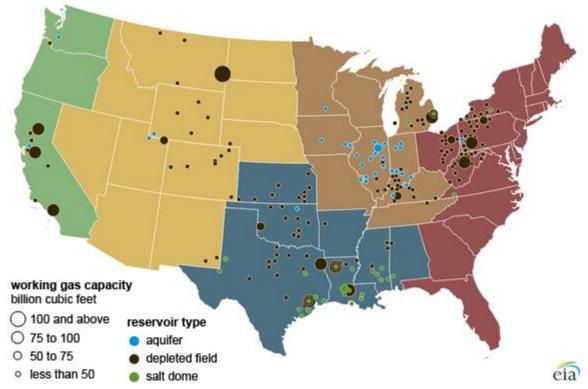
### Regional S/D Models Storage Projection

Week Ending 14-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	16.0	-0.4	15.6	109
East	1.2	2.6	3.8	27
Midwest	3.9	0.4	4.3	30
Mountain	4.8	-4.4	0.4	3
South Central	5.7	1.5	7.1	50
Pacific	0.4	-0.5	-0.1	0

<sup>\*</sup>Adjustment Factor is calcuated based on historical regional deltas

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



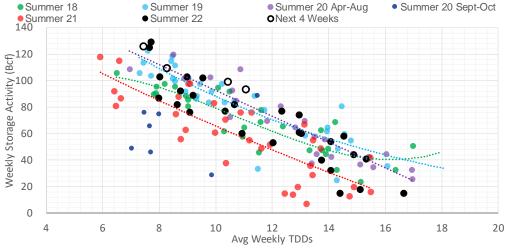


### Weather Model Storage Projection

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
14-Oct	8.3	109
21-Oct	11.1	93
28-Oct	7.5	125
04-Nov	10.4	99

#### Weather Storage Model - Next 4 Week Forecast



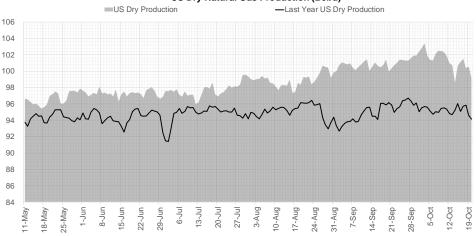
Go to larger image



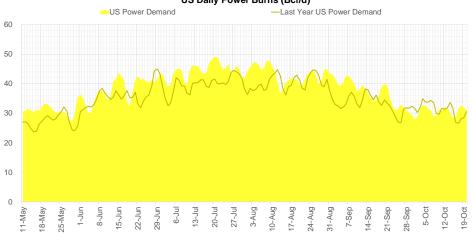


### Supply - Demand Trends

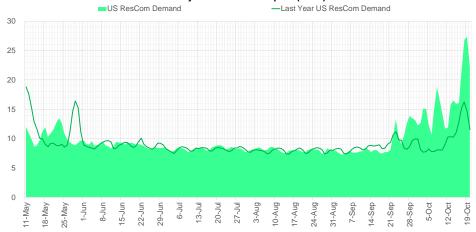
#### US Dry Natural Gas Production (Bcf/d)



#### US Daily Power Burns (Bcf/d)



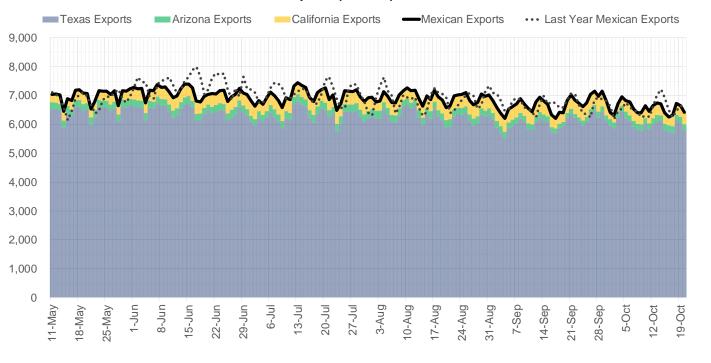
#### US Daily ResCom Consumption(Bcf/d)



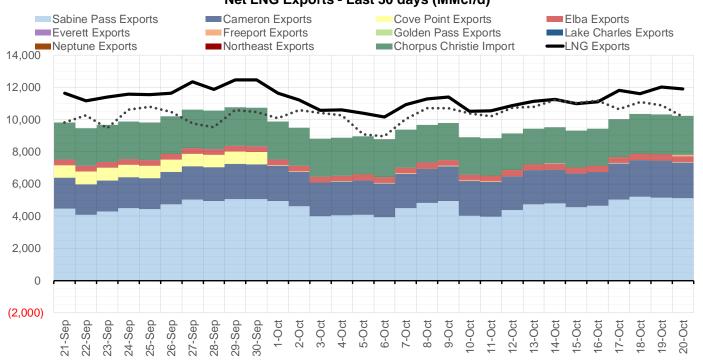
Source: Bloomberg



#### **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	PUT/CALL	STRIKE	CUMULATIVE	CONTRA		PUT/CALL	STRIKE	CUMULATIVE OI
MONTH	YEAR			VOL	MONT	H YEAR			
11	2022	С	6.50	11812	12	2022	Р	5.00	29055
11	2022	С	6.25	6249	12	2022	Р	4.00	27214
11	2022	С	5.75	5861	11	2022	С	10.00	26934
11	2022	С	6.00	5096	11	2022	Р	4.00	26846
11	2022	Р	5.25	4626	11	2022	Р	6.00	24846
11	2022	Р	5.00	4532	12	2022	Р	6.00	24500
11	2022	С	5.50	4364	3	2023	С	10.00	23861
11	2022	Р	5.50	4032	5	2023	Р	2.00	23387
11	2022	Р	4.50	3943	1	2023	С	10.00	21484
2	2023	С	10.00	3010	10	2023	Р	3.00	21444
11	2022	Р	4.00	2957	4	2023	Р	3.00	21368
4	2023	С	6.00	2920	11	2022	P	5.00	21241
3	2023	Р	4.00	2667	11	2022	С	8.00	20293
1	2023	С	10.00	2617	3	2023	Р	4.00	19878
11	2022	С	7.00	2560	4	2023	Р	3.50	19546
5	2023	Р	2.50	2500	1	2023	Р	4.00	19441
5	2023	Р	2.00	2425	11	2022	Р	5.50	19339
2	2023	С	15.00	2327	3	2023	С	20.00	19031
3	2023	P	3.25	2300	10	2023	Р	2.50	18800
12	2022	P	4.50	2249	10	2023	Р	4.00	18726
1	2023	C	15.00	2152	3	2023	Р	3.00	18245
11	2022	Ċ	5.65	2100	12	2022	С	5.00	18223
11	2022	Č	8.00	1987	2	2023	С	10.00	17550
12	2022	P	5.00	1699	11	2022	С	12.00	17519
12	2022	P	4.00	1639	6	2023	Р	3.00	17160
1	2023	P	3.75	1239	5	2023	Р	3.50	17119
10	2023	P	3.73	1225	12	2022	С	10.00	17042
10	2023	P	3.25	1220	5	2023	Р	3.00	16913
12	2023	C	9.50	1167	12	2022	Р	5.50	16849
12	2022	P	9.50	1150	4	2023	Р	4.00	16728
12	2022				9	2023	Р	4.00	16576
		C C	10.00	1080	3	2023	Р	2.75	16470
12 11	2022	C	6.00	1074	4	2023	Р	2.00	16423
	2022		6.75	1066	2	2023	С	9.00	16395
12	2023	C P	5.00	1050	6	2023	Р	3.50	16384
11	2022		5.40	1035	10	2023	Р	3.50	16238
3	2023	P	2.00	900	12	2022	С	4.00	16195
12	2022	P	5.55	892	8	2023	Р	3.50	16076
4	2023	С	7.00	840	7	2023	Р	3.50	16044
11	2022	P	5.20	804	9	2023	Р	3.50	16034
11	2022	P	6.50	776	1	2023	Р	5.00	16015
3	2023	Р	5.00	775	11	2022	Р	6.50	15911
10	2023	С	6.00	770	10	2023	Р	2.00	15773
12	2022	P	6.00	759	11	2022	С	4.00	15755
12	2022	С	7.00	758	7	2023	Р	3.00	15505
11	2022	Р	4.75	751	7	2023	Р	4.00	15434
3	2023	С	10.00	726	6	2023	Р	4.00	15376
11	2022	Р	5.10	710	8	2023	Р	3.00	15355
12	2022	С	8.00	709	9	2023	Р	3.00	15255
2	2023	Р	4.50	700	12	2022	P	: CME, ICE	15246.5
							Source	: CIVIE, ICE	



## Nat Gas Futures Open Interest

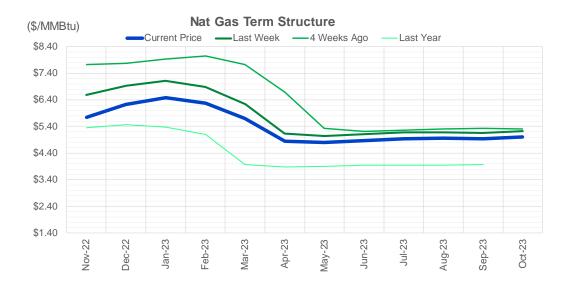
CME and ICE Combined

OME Harmal	CME Henry Hub Futures (10,000 MMBtu)  ICE Henry Hub Futures Contract Equivalent (10,000 MM											
CIVIE Henry F				ICE Henry I								
1101/100	Current	Prior	Daily Change	1101100	Current	Prior	Daily Change					
NOV 22	48812	56099	-7287	NOV 22	75742	74559	1183					
DEC 22	89033	86840	2193	DEC 22	77949	77540	409					
JAN 23	127909	122566	5343	JAN 23	72996	72016	980					
FEB 23	53750	53233	517	FEB 23	66969	66551	419					
MAR 23	91601	89547	2054	MAR 23	60342	59680	662					
APR 23	77124	77429	-305	APR 23	55762	55916	-154					
MAY 23	84669	83969	700	MAY 23	56559	56511	48					
JUN 23	24563	24484	79	JUN 23	47634	47210	425					
JUL 23	30199	29842	357	JUL 23	47974	47499	475					
AUG 23	20873	20874	-1	AUG 23	45916	45463	453					
SEP 23	29305	29041	264	SEP 23	43391	42836	555					
OCT 23	52490	52512	-22	OCT 23	56513	55874	640					
NOV 23	23136	23265	-129	NOV 23	47695	47553	143					
DEC 23	26092	24998	1094	DEC 23	40358	40306	52					
JAN 24	34519	34303	216	JAN 24	44852	44345	508					
FEB 24	10284	9962	322	FEB 24	30998	30919	79					
MAR 24	21120	20841	279	MAR 24	35361	35334	28					
APR 24	19731	19111	620	APR 24	30804	30709	95					
MAY 24	8403	8387	16	MAY 24	28737	28434	304					
JUN 24	3105	3138	-33	JUN 24	26099	26038	61					
JUL 24	4050	4002	48	JUL 24	25549	25451	98					
AUG 24	3999	3916	83	AUG 24	25304	25209	95					
SEP 24	2469	2492	-23	SEP 24	24914	24823	91					
OCT 24	8701	8681	20	OCT 24	28901	28688	213					
NOV 24	4913	4914	-1	NOV 24	26208	26190	18					
DEC 24	8575	8276	299	DEC 24	30119	30094	26					
JAN 25	17714	17627	87	JAN 25	23222	23206	17					
FEB 25	1720	1718	2	FEB 25	15622	15709	-87					
MAR 25	5292	5315	-23	MAR 25	18007	18008	-2					
APR 25	5436	5336	100	APR 25	16372	16384	-12					

Source: CME, ICE







	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
<b>Current Price</b>	\$5.745	\$6.237	\$6.493	\$6.286	\$5.693	\$4.849	\$4.792	\$4.866	\$4.945	\$4.962	\$4.933	\$5.008
Last Week	\$6.596	\$6.928	\$7.114	\$6.876	\$6.239	\$5.136	\$5.040	\$5.109	\$5.179	\$5.184	\$5.149	\$5.221
vs. Last Week	-\$0.851	-\$0.691	-\$0.621	-\$0.590	-\$0.546	-\$0.287	-\$0.248	-\$0.243	-\$0.234	-\$0.222	-\$0.216	-\$0.213
4 Weeks Ago	\$7.717	\$7.772	\$7.932	\$8.046	\$7.729	\$6.688	\$5.335	\$5.206	\$5.259	\$5.313	\$5.324	\$5.303
vs. 4 Weeks Ago	-\$1.972	-\$1.535	-\$1.439	-\$1.760	-\$2.036	-\$1.839	-\$0.543	-\$0.340	-\$0.314	-\$0.351	-\$0.391	-\$0.295
Last Year	\$5.088	\$5.350	\$5.465	\$5.379	\$5.095	\$3.976	\$3.872	\$3.911	\$3.954	\$3.957	\$3.938	\$3.971
vs. Last Year	\$0.657	\$0.887	\$1.028	\$0.907	\$0.598	\$0.873	\$0.920	\$0.955	\$0.991	\$1.005	\$0.995	\$1.037

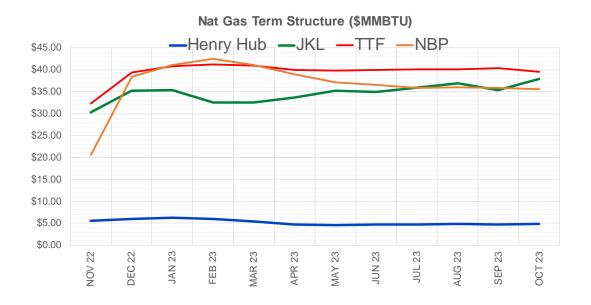
	Halla	Cash	Prompt	Cash to	
	Units	Settled	Settle	Prompt	
AGT Citygate	\$/MMBtu	5.65	10.03	4.38	
TETCO M3	\$/MMBtu	5.07	6.12	1.05	
FGT Zone 3	\$/MMBtu	5.15	6.76	1.61	
Zone 6 NY	\$/MMBtu	5.15	6.20	1.05	
Chicago Citygate	\$/MMBtu	5.20	6.11	0.91	
Michcon	\$/MMBtu	5.10	5.98	0.88	
Columbia TCO Pool	\$/MMBtu	4.92	5.59	0.67	
Ventura	\$/MMBtu	5.22	6.23	1.01	
Rockies/Opal	\$/MMBtu	5.14	5.76	0.62	
El Paso Permian Basin	\$/MMBtu	4.71	2.79	-1.92	
Socal Citygate	\$/MMBtu	7.46	6.34	-1.12	
Malin	\$/MMBtu	4.95	6.07	1.12	
Houston Ship Channel	\$/MMBtu	4.99	5.83	0.84	
Henry Hub Cash	\$/MMBtu	5.92	5.73	-0.19	
AECO Cash	C\$/GJ	2.47	4.36	1.89	
Station2 Cash	C\$/GJ	1.75	6.54	4.79	
Dawn Cash	C\$/GJ	5.15	5.99	0.84	

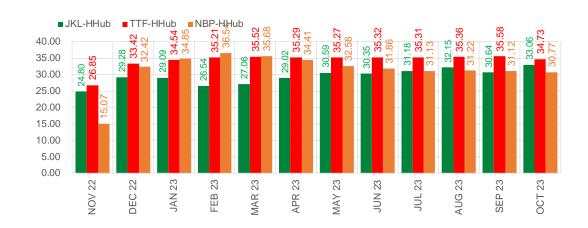
Source: CME, Bloomberg



					V	s. 4 Weeks		
	Units	<b>Current Price</b>	vs.	Last Week		Ago	VS	s. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224		0.000		0.000		0.000
NatGas Oct21/Nov21	\$/MMBtu	0.361		0.000		0.000		1.032
NatGas Oct21/Jan22	\$/MMBtu	-1.817		0.000		0.000		-1.538
NatGas Apr22/Oct22	\$/MMBtu	1.532		0.000	•	-0.911		1.547
WTI Crude	\$/Bbl	85.55		-1.720		2.610		1.680
Brent Crude	\$/BbI	92.41		-0.040		2.580		6.590
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	390.43		-2.850		57.050		131.200
Propane, Mt. Bel	cents/Gallon	0.85		-0.012	~	-0.168		-0.622
Ethane, Mt. Bel	cents/Gallon	0.40		-0.023	•	-0.079		-0.028
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						



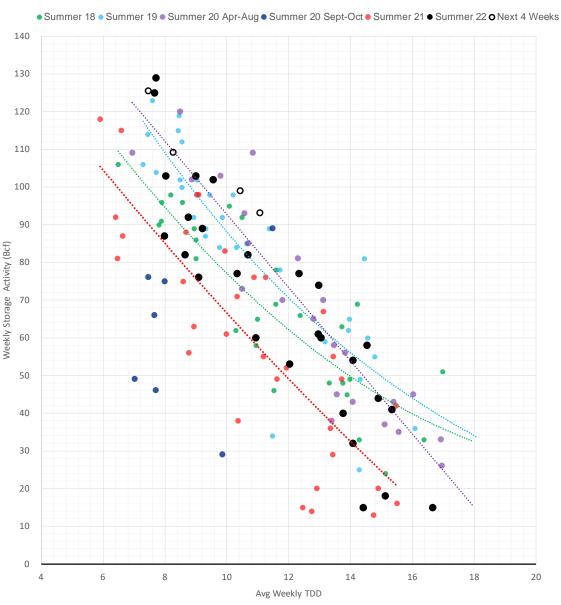




	NOV 22	<b>DEC 22</b>	JAN 23	FEB 23	MAR 23	APR 23	MAY 23	JUN 23	JUL 23	AUG 23	SEP 23	OCT 23
Henry Hub	\$5.516	\$5.972	\$6.245	\$6.039	\$5.450	\$4.636	\$4.584	\$4.663	\$4.747	\$4.772	\$4.753	\$4.821
JKL	\$30.315	\$35.250	\$35.335	\$32.575	\$32.510	\$33.655	\$35.170	\$35.010	\$35.925	\$36.925	\$35.395	\$37.880
JKL-HHub	\$24.799	\$29.278	\$29.090	\$26.536	\$27.060	\$29.019	\$30.586	\$30.347	\$31.178	\$32.153	\$30.642	\$33.059
TTF	\$32.366	\$39.394	\$40.784	\$41.248	\$40.969	\$39.925	\$39.856	\$39.980	\$40.060	\$40.136	\$40.333	\$39.549
TTF-HHub	\$26.850	\$33.422	\$34.539	\$35.209	\$35.519	\$35.289	\$35.272	\$35.317	\$35.313	\$35.364	\$35.580	\$34.728
NBP	\$20.586	\$38.393	\$41.097	\$42.580	\$41.125	\$39.049	\$37.166	\$36.526	\$35.872	\$35.992	\$35.875	\$35.591
NBP-HHub	\$15.070	\$32.421	\$34.852	\$36.541	\$35.675	\$34.413	\$32.582	\$31.863	\$31.125	\$31.220	\$31.122	\$30.770



#### Weather Storage Model - Next 4 Week Forecast





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