

## **Market Report**

## **14 November 2022**

	Cı	urrent	Δ fro	m YD	Δ from 7D Avg		
Nat Gas Prompt	\$	6.25	<b>\$</b>	0.37	<b>\$</b>	0.13	

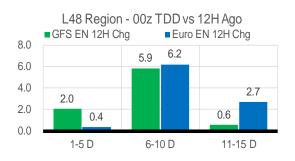
	С	urrent	Δ from YD		m 7D vg
WTI Prompt	\$	87.78	<b>\$</b> (1.18)	<b>~</b> \$	(0.8)

	_	urront	Δ from YD	Δ from 7D			
	urrent		A	vg			
Brent	Ф	04.96	<b>\$</b> (1.13)	<b>2</b>	(0.5)		
Prompt	Φ	94.00	Ψ Φ (1.13)	• φ	(0.5)		

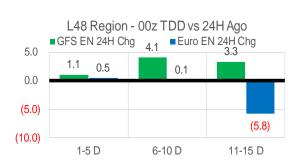
### Page Menu

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	101.3	▼ -0.10	<b>a</b> 0.57

	Current	Δ from YD	Δ from 7D Avg
US ResComm	36.6	<b>a</b> 0.14	<b>1</b> 2.27

	Current	Δ from YD	Δ from 7D Avg		
Net LNG Exports	12.0	<b>a</b> 0.27	<b>a</b> 0.41		

	Current	Δ from YD	Δ from 7D Avg		
US Power Burns	29.7	<b>-</b> 0.78	-0.03		

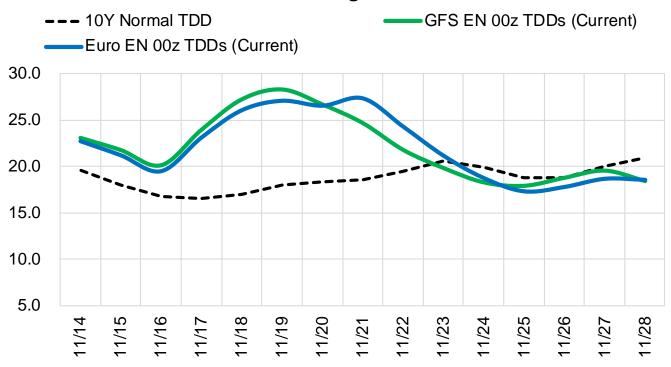
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	6.6	<b>a</b> 0.11	<b>1.57</b>

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.2	<b>-</b> 0.05	▼ -0.18



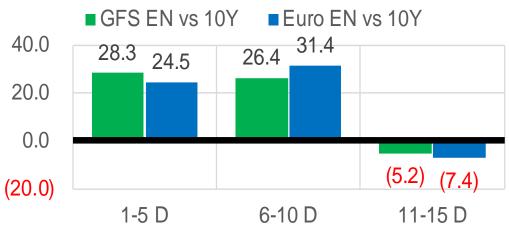
## Short-term Weather Model Outlooks (00z)





## Vs. 10Y Normal





Source: WSI, Bloomberg



## **Market Report**

### **Daily Balances**

## Lower 48 Component Models

	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	DoD	vs. 7D
Lower 48 Dry Production	100.7	100.4	100.9	101.0	101.0	101.4	101.3	▼ -0.1	<b>0.4</b>
Canadian Imports	4.0	4.1	4.5	6.2	6.1	6.5	6.6	<b>▲ 0.1</b>	<b>1.4</b>
L48 Power	30.1	29.2	28.9	29.3	29.0	30.5	29.7	▼ -0.8	<b>a</b> 0.2
L48 Residential & Commercial	22.0	20.9	18.4	23.9	30.1	36.5	36.6	<b>0.1</b>	<b>11.3</b>
L48 Industrial	23.4	22.6	21.9	22.3	22.4	22.4	22.0	<b>-</b> 0.4	<b>-</b> 0.5
L48 Lease and Plant Fuel	5.6	5.6	5.6	5.6	5.6	5.7	5.6	▼ -0.1	▼ 0.0
L48 Pipeline Distribution	3.0	2.9	2.7	3.1	3.4	3.9	3.8	▼ 0.0	<b>0.7</b>
L48 Regional Gas Consumption	84.1	81.2	77.6	84.3	90.6	98.8	97.7	▼ -1.1	<b>11.6</b>
Net LNG Delivered	11.71	10.50	11.04	11.88	12.76	11.75	12.02	<b>0.3</b>	<b>0.4</b>
Total Mexican Exports	6.7	6.7	6.7	6.5	6.3	6.3	6.2	▼ 0.0	▼ -0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	2.3	6.0	10.1	4.5	-2.5	-8.9	-8.0		

EIA Storage Week Balances								
_	LY				LW	Current		
	12-Nov	14-Oct	21-Oct	28-Oct	4-Nov	11-Nov	WoW	vs. LY
Lower 48 Dry Production	96.5	101.7	100.4	101.1	101.0	100.2	▼ -0.8	<b>3.7</b>
Canadian Imports	5.1	5.5	6.1	5.3	4.9	4.2	▼ -0.8	▼-0.9
L48 Power	28.2	30.7	30.9	28.9	29.5	29.1	▼-0.5	0.8
L48 Residential & Commercial	22.2	14.7	20.9	15.9	17.7	17.8	<b>0.1</b>	-4.3
L48 Industrial	22.4	20.3	20.0	21.1	21.2	22.7	<b>1.5</b>	0.3
L48 Lease and Plant Fuel	5.4	5.7	5.6	5.6	5.6	5.6	▼ 0.0	0.2
L48 Pipeline Distribution	2.9	2.8	3.2	2.8	2.8	2.7	▼ -0.1	-0.2
L48 Regional Gas Consumption	81.0	74.1	80.6	74.4	76.9	77.9	<b>1.0</b>	▼-3.2
Net LNG Exports	11.2	11.0	11.5	11.4	11.9	11.4	▼ -0.5	<b>0.2</b>
Total Mexican Exports	6.2	6.6	6.7	6.4	6.3	6.2	▼ -0.2	▼-0.1
Implied Daily Storage Activity	3.2	15.6	7.7	14.3	10.8	8.9	-1.9	5.7
EIA Reported Daily Storage Activity	3.7	15.9	7.4	15.3	11.3			
Daily Model Error	-0.6	-0.3	0.2	-1.0	-0.5			

Monthly Balances	2V= 4 = 0	LY					MTD		
	2Yr Ago Nov-20	Nov-21	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	MoM	vs. LY
Lower 48 Dry Production	91.2	96.4	97.8	98.2	100.6	101.3	100.5	▼-0.8	<b>4.0</b>
Canadian Imports	4.6	5.3	5.9	5.4	5.9	5.7	4.7	▼-1.0	▼ -0.6
L48 Power	25.7	29.3	44.8	43.8	37.0	30.2	29.3	▼-0.8	▲ 0.0
L48 Residential & Commercial	24.4	28.2	8.2	7.8	8.9	16.6	20.2	<b>3.6</b>	▼ -8.0
L48 Industrial	22.5	23.3	19.4	19.7	20.5	20.6	22.3	<b>1.7</b>	<b>▼</b> -1.0
L48 Lease and Plant Fuel	5.0	5.4	5.5	5.5	5.5	5.7	5.6	▼-0.1	<b>a</b> 0.2
L48 Pipeline Distribution	2.7	3.3	3.1	3.0	2.8	2.9	2.9	▼ 0.0	▼ -0.5
L48 Regional Gas Consumption	80.3	89.5	81.0	79.9	74.7	75.9	80.3	<b>4.4</b>	▼ -9.2
Net LNG Exports	10.1	11.4	10.9	11.0	11.5	11.3	11.6	<b>0.3</b>	<b>0.2</b>
Total Mexican Exports	6.1	6.1	7.0	6.9	6.7	6.6	6.2	▼-0.3	<b>0.1</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-0.7	-5.3	4.8	5.8	13.6	13.2	7.0		
Daily Model Error					-0.5				

Source: Bloomberg, analytix.ai



## **Daily** Average Generation Data

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

	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	DoD	vs. 7D
NRC Nuclear Daily Output	76.3	76.6	77.2	78.2	79.2	79.2	79.2	0.0	1.4
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	28.6	28.3	27.7	26.7	25.7	25.7	25.7	0.0	-1.4
NRC % Nuclear Cap Utilization	77.6	77.9	78.5	79.5	80.5	80.5	80.5	0.0	1.4

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

	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11- <b>N</b> ov	12-Nov	DoD	vs. 7D
CALI Wind	2791	2511	2837	2792	691	689	1518	829	-534
TEXAS Wind	12252	8692	8841	8841	12321	17077	8082	-8995	-3255
US Wind	47654	54238	59162	37047	68086	68805	26070	-42734	-29762

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

	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	DoD	vs. 7D
US Wind	47654	54238	59162	37047	68086	68805	26070	-42734	-29762
US Solar	10492	10061	9907	7643	10593	8632	11280	2648	1725
US Petroleum	960	1065	1035	1068	983	983	950	-33	-66
US Other	8804	10633	9812	8382	10084	9980	8428	-1552	-1188
US Coal	46615	69274	67364	43775	65473	68554	59239	-9316	-937
US Nuke	68943	80517	81337	68591	82886	83117	73377	-9741	-4189
US Hydro	19444	24329	24609	23031	24481	25672	21928	-3744	-1667
US Gas	124885	173513	168550	117577	151708	153695	136187	-17507	-12134

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai



**US Wind** 

**US Solar** 

US Other

**US Coal** 

**US Nuke** 

US Hydro

**US Gas** 

**US Petroleum** 

**Nuclear Generation Weekly Average - GWh (NRC)** 

## **Storage Week** Average Generation Data

	12-Nov	14-Oct	21-Oct	28-Oct	4-Nov	11- <b>N</b> ov	WoW	WoW Bcf/d
								Impact
NRC Nuclear Daily Output	79.8	76.2	74.4	74.1	75.8	77.2	1.4	-0.3
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	25.1	28.7	30.5	30.7	29.1	27.7	-1.4	
NRC % Nuclear Cap Utilization	81.1	77.5	75.6	75.4	77.1	78.5	1.4	
Wind Generation Weekly Av	erage - MWI	h (EIA)						
Wind Generation Weekly Av	erage - MWI	h (EIA)						
Wind Generation Weekly Av		` '						WoW
Wind Generation Weekly Av	rerage - MWI 12-Nov	14-Oct	21-Oct	28-Oct	4-Nov	11- <b>N</b> ov	WoW	Bcf/d
Wind Generation Weekly Av		` '	21-Oct	<b>28-Oct</b>	<b>4-Nov</b>	11-Nov	<b>WoW</b> 585	_
	12-Nov	14-Oct						Bcf/d Impact
CALI Wind	12-Nov	14-Oct	944	1974	1641	2226	585	Bcf/d Impact -0.1
CALI Wind TEXAS Wind	<b>12-Nov</b> 1805 12032	14-Oct 1087 7842	944 9710	1974 17228	1641 10904	2226 12095	585 1192	Bcf/d Impact -0.1 -0.2
CALI Wind TEXAS Wind	<b>12-Nov</b> 1805 12032	14-Oct 1087 7842	944 9710	1974 17228	1641 10904	2226 12095	585 1192 13506	Bcf/d Impact -0.1 -0.2
CALI Wind TEXAS Wind	12-Nov 1805 12032 50985	14-Oct 1087 7842 41063	944 9710	1974 17228	1641 10904	2226 12095 58205	585 1192 13506	Bcf/d Impact -0.1 -0.2

See National Wind and Nuclear daily charts

14-Oct

41063

14503

842

11273

76322

77235

20001

170286

21-Oct

45195

14347

1054

11285

79517

76583

19318

162314

28-Oct

64747

13756

933

9085

69841

77718

19097

148302

4-Nov

44699

11428

990

10014

75078

79723

21591

157761

11-Nov

58205

10108

1004

9611

60368

77521

22650

146373

WoW

13506

-1319

14

-403

-14710

-2202

1059

-11387

12-Nov

50985

10016

1025

8202

77960

84321

26027

146676

Source: Bloomberg, analytix.ai

WoW

Bcf/d Impact

-2.5

0.2

0.0

0.1

2.8

**0.4** -0.2

-2.1



## **Monthly** Average Generation Data

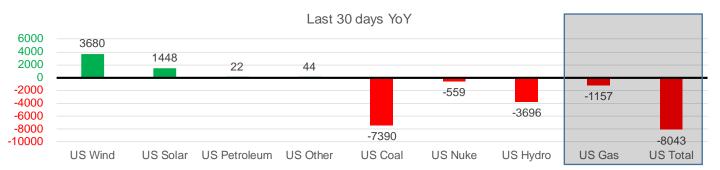
Nuclear Generation Monthly Average - GWh (NRC)											
2Yr Ago LY MTD											
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY		
NRC Nuclear Daily Output	76.6	75.1	90.5	86.2	76.1	77.4	75.9	1.4	0.8		
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0		
NRC Nuclear Outage	28.2	29.8	14.3	18.7	28.8	27.4	29.0	-1.4	-0.8		
NRC % Nuclear Cap Utilization	77.9	76.4	92.1	87.7	77.4	78.7	77.2	1.4	0.8		

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

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
CALI Wind	1271	1647	2028	1608	1239	2149	1650	911	4
TEXAS Wind	10090	11538	8440	7993	9916	12391	12192	2475	654
US Wind	41800	47422	33222	38270	43698	53771	51103	10073	3680

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

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	41800	47422	33222	38270	43698	53771	51103	<b>▼</b> -2667.9	<b>3680</b>
US Solar	7425	10553	16962	16163	14158	10388	12002	<b>1613.3</b>	<b>1448</b>
US Petroleum	846	968	1251	864	899	989	990	<b>1</b>	<b>22</b>
US Other	8911	9672	10597	10512	10500	9535	9716	<b>181</b>	<b>44</b>
US Coal	87749	77108	117203	92002	75808	62344	69718	<b>~</b> 7374	<b>▼ -7390</b>
US Nuke	80210	78289	92976	89062	78133	77510	77730	<b>220</b>	<b>▼</b> -559
US Hydro	27562	24796	30192	25203	19926	22928	21099	<b>▼</b> -1829	▼ -3696
US Gas	146409	152964	233739	200120	162323	146631	151807	<b>4893</b>	<b>▼</b> -1157
US Total	399659	401995	535696	470764	405765	383892	393952	<b>12453</b>	▼ -8043



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai



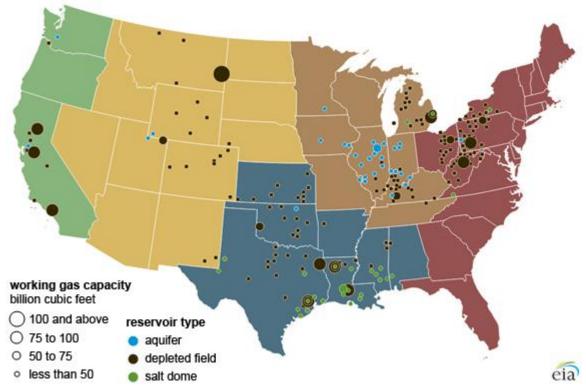
## Regional S/D Models Storage Projection

Week Ending 11-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	9.8	-0.6	9.3	65
East	0.1	2.5	2.7	19
Midwest	2.4	0.4	2.8	20
Mountain	4.1	-4.2	0.0	0
South Central	3.9	8.0	4.7	33
Pacific	-0.7	-0.2	-0.9	-6

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

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



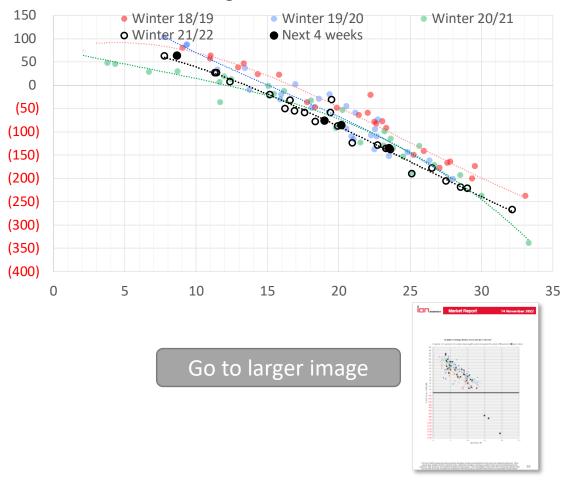


## Weather Model Storage Projection

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
11-Nov	8.6	65
18-Nov	20.2	-85
25-Nov	23.5	-134
02-Dec	19.0	-75

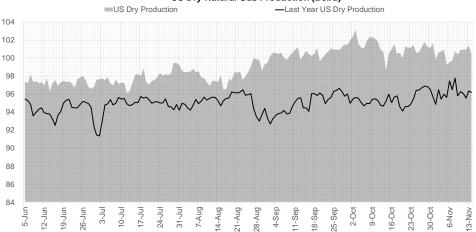
### Weather Storage Model - Next 4 Week Forecast



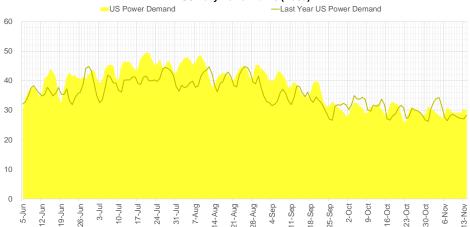


### Supply - Demand Trends

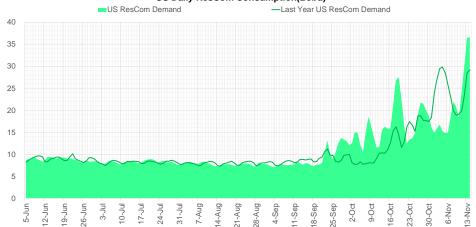
#### US Dry Natural Gas Production (Bcf/d)



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



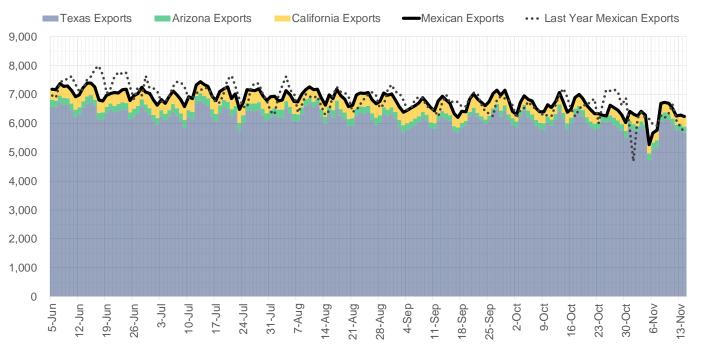
#### US Daily ResCom Consumption(Bcf/d)



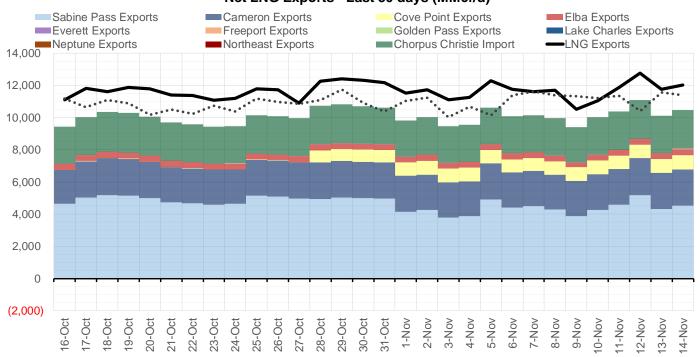
Source: Bloomberg



### Mexican Exports (MMcf/d)



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



Source: Bloomberg



## **Market Report**

# Nat Gas Options Volume and Open Interest CME and ICE Combined

	CONTRACT	PUT/CALL	STRIKE	CUMULATIVE	CONTRACT	CONTRACT	PUT/CALL	STRIKE	CUMULATIVE OI
MONTH	YEAR			VOL	MONTH	YEAR			
12	2022	Р	4.00	7281	12	2022	Р	4.00	46513
12	2022	Р	5.00	4656	12	2022	Р	5.00	41310
12	2022	С	10.00	4316	12	2022	С	10.00	33311
12	2022	С	8.00	4011	5	2023	Р	2.00	31267
12	2022	Р	4.50	2547	12	2022	Р	4.50	30444
12	2022	С	9.65	2500	12	2022	Р	6.00	28611
1	2023	Р	4.25	2409	10	2023	Р	3.00	27915
1	2023	Р	4.00	2223	12	2022	Р	3.50	26126
12	2022	Р	4.75	2158	4	2023	Р	3.00	24998
12	2022	Р	3.75	2001	1	2023	С	10.00	24658
12	2022	С	7.50	1861	1	2023	Р	5.00	24559
12	2022	P	5.50	1817	3	2023	С	10.00	24014
3	2023	C	10.00	1362	4	2023	Р	2.00	23617
3	2023	P	4.00	1175	3	2023	Р	4.00	23077
12	2022	C	6.25	1124	10	2023	Р	2.00	22763
3	2023	P	5.00	1051	12	2022	С	6.00	22601
12	2022	C	9.00	1035	4	2023	Р	3.50	21806
2	2023	Ċ	12.00	1001	5	2023	Р	3.00	21558
3	2023	P	5.50	1000	2	2023	С	10.00	21311
4	2023	P	3.25	1000	12	2022	С	8.00	21260
4	2023	P	3.50	1000	6	2023	Р	3.00	20815
5	2023	P	3.25	1000	12	2022	С	7.00	20654
5	2023	P	3.50	1000	10	2023	Р	2.50	20455
6	2023	P	3.25		12	2022	Р	3.00	20059
				1000	6	2023	Р	2.00	19924
6	2023	P	3.50	1000	7	2023	Р	3.00	19890
7	2023	P P	3.25	1000	8	2023	Р	3.00	19866
7	2023	P P	3.50	1000	9	2023	Р	3.00	19790
8	2023	•	3.25	1000	10	2023	Р	4.00	19576
8	2023	P	3.50	1000	1	2023	Р	4.00	19331
9	2023	P	3.25	1000	8	2023	Р	2.00	19187
9	2023	P	3.50	1000	9	2023	Р	2.00	19138
10	2023	P	3.25	1000	12	2022	Р	4.75	19133
10	2023	P	3.50	1000	1	2023	Р	3.00	19109
12	2022	P	6.00	911	7	2023	Р	2.00	18987
12	2022	С	7.00	867	3	2023	Р	3.00	18925
1	2023	Р	5.00	833	3	2023	С	20.00	18920
4	2023	Р	2.50	800	4	2023	Р	4.00	18845
5	2023	Р	2.50	800	6	2023	Р	3.50	18560
6	2023	Р	2.50	800	12	2022	С	5.00	18360
7	2023	Р	2.50	800	12	2022	Р	5.50	18276
8	2023	Р	2.50	800	5	2023	Р	3.50	18145
9	2023	Р	2.50	800	5	2023	Р	4.00	17426
10	2023	Р	2.50	800	10	2023	Р	3.50	17158
2	2023	С	7.00	750	9	2023	Р	4.00	17156
1	2023	Р	3.75	714	6	2023	Р	4.00	17143
1	2023	Р	3.25	700	8	2023	Р	3.50	16736
1	2023	С	10.00	679	7	2023	Р	3.50	16604
7	2023	С	8.00	665	9	2023	Р	3.50	16594
9	2023	Р	1.50	651	2	2023	<b>C</b> Source	8	16559
							Source	: CME, ICE	

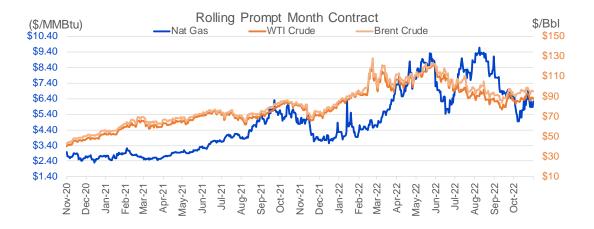


## Nat Gas Futures Open Interest

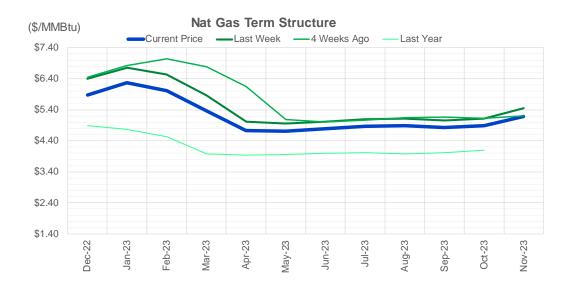
CME and ICE Combined

CME Harmille	ub Eutomaa (4)		A COL	ICE Henry Hub Futures Contract Equivalent (10,000 MM						
CME Henry H				ICE Henry F			No. 1			
250.00	Current	Prior	Daily Change	250.00	Current	Prior	Daily Change			
DEC 22	62842	65560	-2718	DEC 22	89210	87926	1283			
JAN 23	158735	156039	2696	JAN 23	76669	76900	-231			
FEB 23	64171	65113	-942	FEB 23	67295	67131	163			
MAR 23	96395	97661	-1266	MAR 23	61301	61394	-93			
APR 23	83437	82688	749	APR 23	57487	57506	-19			
MAY 23	91542	91076	466	MAY 23	59354	59050	304			
JUN 23	24114	24522	-408	JUN 23	49430	50116	-686			
JUL 23	31851	31745	106	JUL 23	50096	49906	190			
AUG 23	27716	27497	219	AUG 23	47859	47819	40			
SEP 23	30317	29882	435	SEP 23	46108	46133	-24			
OCT 23	50006	51168	-1162	OCT 23	60638	60918	-280			
NOV 23	20812	21072	-260	NOV 23	48128	48020	109			
DEC 23	28560	29134	-574	DEC 23	43533	43307	226			
JAN 24	34395	34554	-159	JAN 24	46557	46359	198			
FEB 24	12056	12043	13	FEB 24	30623	30569	54			
MAR 24	23729	23737	-8	MAR 24	38490	38451	38			
APR 24	22585	22579	6	APR 24	31532	31253	279			
MAY 24	10160	10166	-6	MAY 24	30746	30661	85			
JUN 24	3495	3483	12	JUN 24	27182	27071	111			
JUL 24	4898	4892	6	JUL 24	26172	26065	107			
AUG 24	4557	4528	29	AUG 24	25344	25454	-110			
SEP 24	3264	3270	-6	SEP 24	25493	25380	113			
OCT 24	10111	9754	357	OCT 24	29518	29902	-384			
NOV 24	4886	4901	-15	NOV 24	26485	26485	0			
DEC 24	8751	8761	-10	DEC 24	30301	30300	1			
JAN 25	19170	18822	348	JAN 25	25056	24740	316			
FEB 25	1817	1817	0	FEB 25	15704	15711	-7			
MAR 25	6377	6371	6	MAR 25	17838	17801	37			
APR 25	6502	6502	0	APR 25	16435	16401	34			
MAY 25	2749	2749	0	MAY 25	15672	15667	5			

Source: CME, ICE







	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
<b>Current Price</b>	\$5.879	\$6.263	\$6.022	\$5.369	\$4.728	\$4.712	\$4.787	\$4.868	\$4.880	\$4.824	\$4.879	\$5.176
Last Week	\$6.400	\$6.754	\$6.529	\$5.873	\$5.018	\$4.961	\$5.025	\$5.094	\$5.106	\$5.055	\$5.111	\$5.446
vs. Last Week	-\$0.521	-\$0.491	-\$0.507	-\$0.504	-\$0.290	-\$0.249	-\$0.238	-\$0.226	-\$0.226	-\$0.231	-\$0.232	-\$0.270
4 Weeks Ago	\$6.453	\$6.827	\$7.043	\$6.793	\$6.144	\$5.088	\$4.999	\$5.070	\$5.145	\$5.155	\$5.122	\$5.196
vs. 4 Weeks Ago	-\$0.574	-\$0.564	-\$1.021	-\$1.424	-\$1.416	-\$0.376	-\$0.212	-\$0.202	-\$0.265	-\$0.331	-\$0.243	-\$0.020
Last Year	\$4.791	\$4.880	\$4.775	\$4.529	\$3.986	\$3.929	\$3.960	\$4.005	\$4.009	\$3.987	\$4.014	\$4.092
vs. Last Year	\$1.088	\$1.383	\$1.247	\$0.840	\$0.742	\$0.783	\$0.827	\$0.863	\$0.871	\$0.837	\$0.865	\$1.084

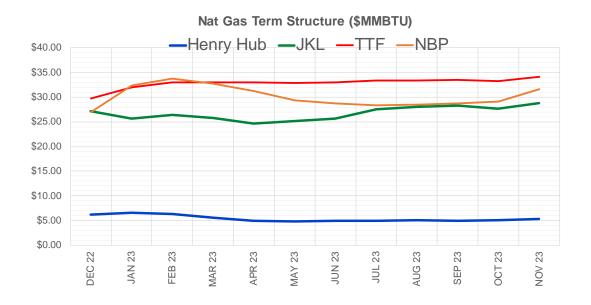
	11.20	Cash	Prompt	Cash to	
	Units	Settled	Settle	Prompt	
AGT Citygate	\$/MMBtu	2.39	17.91	15.52	
TETCO M3	\$/MMBtu	3.03	7.96	4.93	
FGT Zone 3	\$/MMBtu	3.86	6.83	2.97	
Zone 6 NY	\$/MMBtu	3.86	8.58	4.72	
Chicago Citygate	\$/MMBtu	5.00	6.61	1.60	
Michcon	\$/MMBtu	4.72	6.04	1.32	
Columbia TCO Pool	\$/MMBtu	3.58	5.72	2.14	
Ventura	\$/MMBtu	3.76	7.03	3.27	
Rockies/Opal	\$/MMBtu	7.30	6.65	-0.65	
El Paso Permian Basin	\$/MMBtu	3.25	5.20	1.95	
Socal Citygate	\$/MMBtu	9.92	8.44	-1.47	
Malin	\$/MMBtu	7.90	7.75	-0.16	
Houston Ship Channel	\$/MMBtu	3.73	6.04	2.31	
Henry Hub Cash	\$/MMBtu	4.73	5.95	1.22	
AECO Cash	C\$/GJ	4.05	4.75	0.70	
Station2 Cash	C\$/GJ	3.44	9.16	5.72	
Dawn Cash	C\$/GJ	4.56	6.20	1.65	

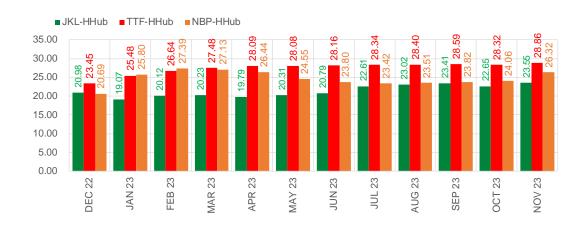
Source: CME, Bloomberg



						4 Weeks		
					VS	s. 4 Weeks		
	Units	Current Price	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		0.000
NatGas Oct21/Jan22	\$/MMBtu	-1.817		0.000		0.000		-0.856
NatGas Apr22/Oct22	\$/MMBtu	1.532		0.000		0.000		1.504
WTI Crude	\$/Bbl	88.96		-3.650		3.350		8.170
Brent Crude	\$/Bbl	95.99		-2.580		4.360		13.820
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	355.53		-35.950	$\blacksquare$	-42.490		115.160
Propane, Mt. Bel	cents/Gallon	0.88		-0.005		0.045		-0.447
Ethane, Mt. Bel	cents/Gallon	0.40		-0.001	▼	-0.027		-0.009
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						



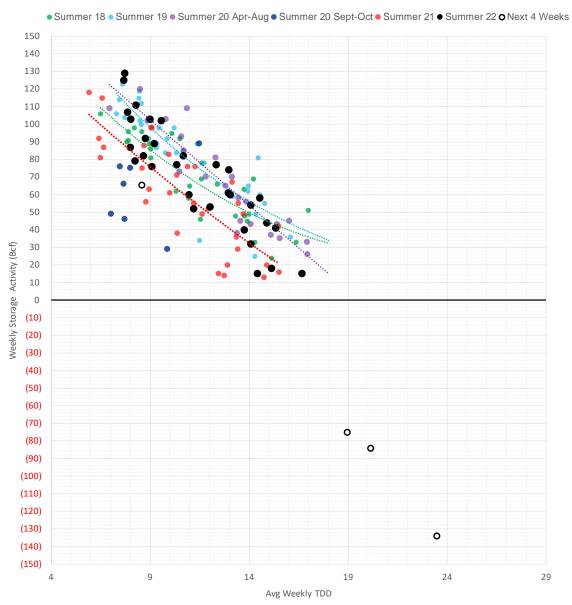




	DEC 22	JAN 23	FEB 23	MAR 23	APR 23	<b>MAY 23</b>	JUN 23	JUL 23	AUG 23	SEP 23	OCT 23	NOV 23
Henry Hub	\$6.245	\$6.590	\$6.326	\$5.602	\$4.872	\$4.835	\$4.917	\$4.994	\$5.005	\$4.941	\$5.000	\$5.299
JKL	\$27.225	\$25.655	\$26.450	\$25.835	\$24.660	\$25.140	\$25.710	\$27.605	\$28.020	\$28.355	\$27.650	\$28.845
JKL-HHub	\$20.980	\$19.065	\$20.124	\$20.233	\$19.788	\$20.305	\$20.793	\$22.611	\$23.015	\$23.414	\$22.650	\$23.546
TTF	\$29.694	\$32.069	\$32.966	\$33.080	\$32.960	\$32.910	\$33.076	\$33.334	\$33.407	\$33.527	\$33.323	\$34.157
TTF-HHub	\$23.449	\$25.479	\$26.640	\$27.478	\$28.088	\$28.075	\$28.159	\$28.340	\$28.402	\$28.586	\$28.323	\$28.858
NBP	\$26.931	\$32.394	\$33.715	\$32.736	\$31.314	\$29.380	\$28.717	\$28.415	\$28.513	\$28.760	\$29.063	\$31.623
NBP-HHub	\$20.686	\$25.804	\$27.389	\$27.134	\$26.442	\$24.545	\$23.800	\$23.421	\$23.508	\$23.819	\$24.063	\$26.324



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





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

