

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 4.98 ▲	\$ 0.19 ▲	\$ 0.00

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 76.24 ▼	\$ (0.51) ▼	\$ (1.4)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 79.58 ▼	\$ (0.12) ▼	\$ (0.5)

### Page Menu

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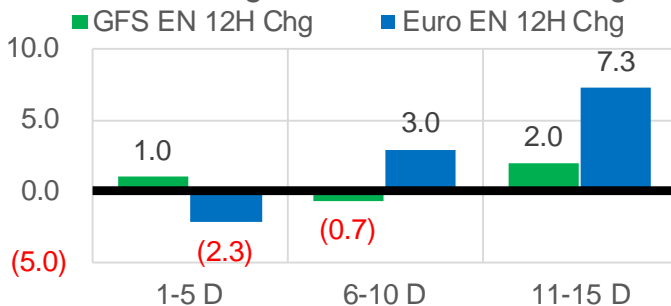
[Nat Gas Options Volume and Open Interest](#)

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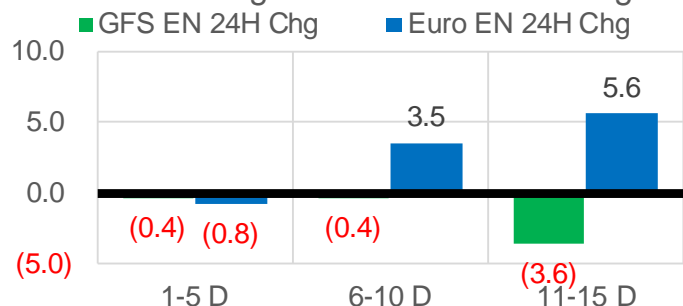
### Vs. 12H Ago

L48 Region - 00z TDD vs 12H Ago



### Vs. 24H Ago

L48 Region - 00z TDD vs 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	97.6 ▲	0.47	1.27

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	27.5 ▼	-0.01	0.43

	Current	Δ from YD	Δ from 7D Avg
US ResComm	36.2 ▲	1.94	6.52

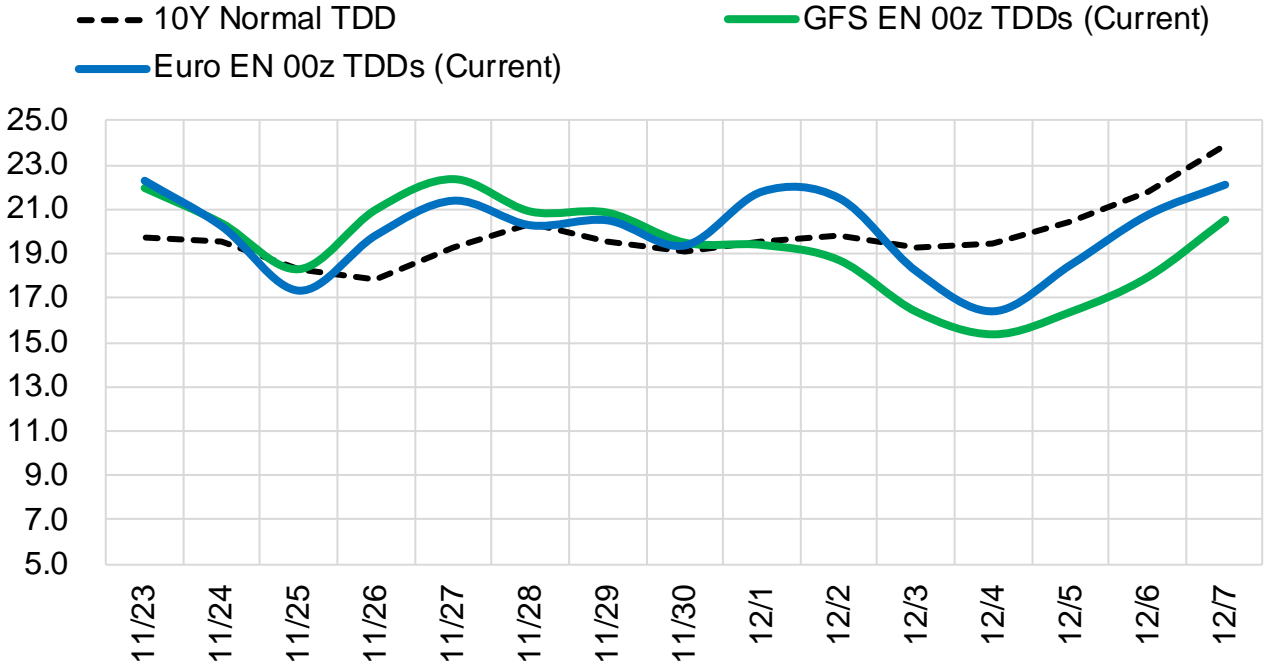
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.9 ▲	0.21	0.73

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.3 ▼	-0.30	-0.31

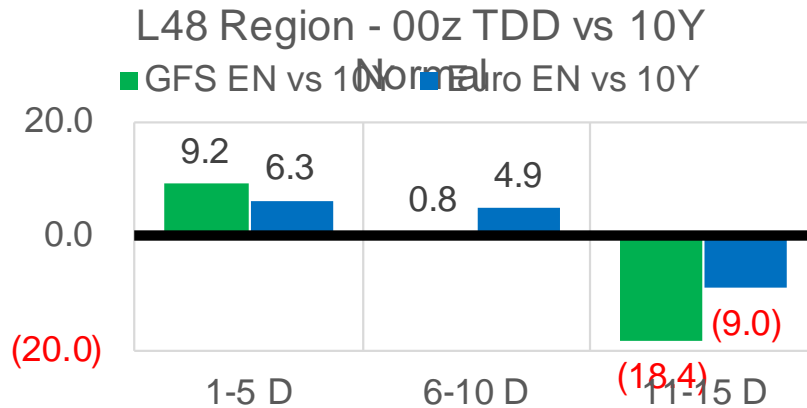
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.1 ▼	-0.07	0.11

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

### L48 Region



## Vs. 10Y Normal



Source: WSI , Bloomberg

## Lower 48 Component Models

### Daily Balances

	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>95.7</b>	<b>96.0</b>	<b>96.9</b>	<b>96.6</b>	<b>96.5</b>	<b>97.2</b>	<b>97.6</b>	▲ 0.5	▲ 1.2
<b>Canadian Imports</b>	<b>4.4</b>	<b>4.8</b>	<b>5.1</b>	<b>5.4</b>	<b>5.6</b>	<b>5.6</b>	<b>5.9</b>	▲ 0.2	▲ 0.7
L48 Power	27.3	27.2	27.4	26.0	25.9	27.5	27.5	▼ 0.0	▲ 0.6
L48 Residential & Commercial	23.6	28.1	34.9	31.0	28.1	34.2	36.2	▲ 1.9	▲ 6.2
L48 Industrial	25.5	26.4	26.9	26.2	25.9	26.5	26.3	▼ -0.2	▲ 0.1
L48 Lease and Plant Fuel	5.2	5.2	5.3	5.3	5.3	5.3	5.3	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.7	3.0	3.3	3.0	2.9	3.3	3.4	▲ 0.1	▲ 0.4
<b>L48 Regional Gas Consumption</b>	<b>84.4</b>	<b>89.9</b>	<b>97.7</b>	<b>91.5</b>	<b>88.0</b>	<b>96.8</b>	<b>98.6</b>	▲ 1.8	▲ 7.2
<b>Net LNG Delivered</b>	<b>11.20</b>	<b>11.54</b>	<b>12.00</b>	<b>11.90</b>	<b>11.76</b>	<b>11.57</b>	<b>11.27</b>	▼ -0.3	▼ -0.4
<b>Total Mexican Exports</b>	<b>6.2</b>	<b>6.1</b>	<b>6.1</b>	<b>5.8</b>	<b>5.6</b>	<b>6.2</b>	<b>6.1</b>	▼ -0.1	▲ 0.1
<b>Implied Daily Storage Activity</b>	<b>-1.6</b>	<b>-6.8</b>	<b>-13.8</b>	<b>-7.2</b>	<b>-3.3</b>	<b>-11.8</b>	<b>-12.5</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

### EIA Storage Week Balances

	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	19-Nov	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>94.7</b>	<b>94.6</b>	<b>95.7</b>	<b>96.3</b>	<b>97.2</b>	<b>96.5</b>	▼ -0.7	▲ 0.5
<b>Canadian Imports</b>	<b>5.0</b>	<b>5.6</b>	<b>5.6</b>	<b>5.5</b>	<b>5.1</b>	<b>4.9</b>	▼ -0.2	▼ -0.6
L48 Power	31.7	29.0	29.0	29.5	27.3	27.2	▼ -0.2	▼ -1.5
L48 Residential & Commercial	9.5	13.9	17.7	24.1	23.4	27.9	▲ 4.5	▲ 8.1
L48 Industrial	21.5	20.5	20.9	22.8	23.0	25.8	▲ 2.8	▲ 4.0
L48 Lease and Plant Fuel	5.2	5.1	5.2	5.2	5.3	5.3	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.2	2.3	2.5	2.9	2.7	2.9	▲ 0.2	▲ 0.3
<b>L48 Regional Gas Consumption</b>	<b>70.2</b>	<b>70.8</b>	<b>75.4</b>	<b>84.5</b>	<b>81.7</b>	<b>89.1</b>	▲ 7.3	▲ 11.0
<b>Net LNG Exports</b>	<b>10.7</b>	<b>10.8</b>	<b>10.8</b>	<b>10.9</b>	<b>11.2</b>	<b>11.1</b>	▼ -0.1	▲ 0.2
<b>Total Mexican Exports</b>	<b>6.6</b>	<b>6.6</b>	<b>6.9</b>	<b>6.1</b>	<b>6.2</b>	<b>6.0</b>	▼ -0.1	▼ -0.4
<b>Implied Daily Storage Activity</b>	<b>12.2</b>	<b>12.0</b>	<b>8.3</b>	<b>0.4</b>	<b>3.1</b>	<b>-4.9</b>	<b>-8.0</b>	
<b>EIA Reported Daily Storage Activity</b>	<b>13.1</b>	<b>12.4</b>	<b>9.0</b>	<b>1.0</b>	<b>3.7</b>			
<b>Daily Model Error</b>	<b>-0.9</b>	<b>-0.5</b>	<b>-0.7</b>	<b>-0.6</b>	<b>-0.6</b>			

### Monthly Balances

	2Yr Ago Nov-19	LY Nov-20	Jul-21	Aug-21	Sep-21	Oct-21	MTD Nov-21	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>96.2</b>	<b>91.1</b>	<b>93.6</b>	<b>94.2</b>	<b>94.4</b>	<b>95.1</b>	<b>96.7</b>	▲ 1.6	▲ 5.6
<b>Canadian Imports</b>	<b>4.5</b>	<b>4.6</b>	<b>5.2</b>	<b>5.1</b>	<b>5.1</b>	<b>5.4</b>	<b>5.2</b>	▼ -0.2	▲ 0.6
L48 Power	27.5	25.7	39.4	40.1	33.1	30.3	27.9	▼ -2.4	▲ 2.2
L48 Residential & Commercial	32.8	24.4	8.1	7.8	7.7	12.9	27.7	▲ 14.8	▲ 3.3
L48 Industrial	24.9	22.4	21.2	21.9	22.1	21.7	24.7	▲ 3.0	▲ 2.3
L48 Lease and Plant Fuel	5.2	5.0	5.1	5.1	5.2	5.2	5.3	▲ 0.1	▲ 0.3
L48 Pipeline Distribution	3.0	2.7	2.5	2.6	2.2	2.3	3.0	▲ 0.7	▲ 0.3
<b>L48 Regional Gas Consumption</b>	<b>93.5</b>	<b>80.2</b>	<b>76.3</b>	<b>77.5</b>	<b>70.3</b>	<b>72.4</b>	<b>88.5</b>	▲ 16.1	▲ 8.3
<b>Net LNG Exports</b>	<b>7.2</b>	<b>10.1</b>	<b>10.8</b>	<b>10.5</b>	<b>10.3</b>	<b>10.6</b>	<b>11.2</b>	▲ 0.6	▲ 1.1
<b>Total Mexican Exports</b>	<b>5.2</b>	<b>6.1</b>	<b>7.1</b>	<b>6.9</b>	<b>6.7</b>	<b>6.6</b>	<b>6.0</b>	▼ -0.6	▼ 0.0
<b>Implied Daily Storage Activity</b>	<b>-5.1</b>	<b>-0.7</b>	<b>4.6</b>	<b>4.6</b>	<b>12.2</b>	<b>10.9</b>	<b>-3.9</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

Source: Bloomberg, analytix.ai

## Daily Average Generation Data

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

	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	DoD	vs. 7D
NRC Nuclear Daily Output	84.0	84.1	85.2	84.8	83.9	83.7	85.8	2.1	1.6
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	20.9	20.7	19.6	20.1	21.0	21.2	19.0	-2.1	-1.6
NRC % Nuclear Cap Utilization	85.4	85.6	86.7	86.2	85.3	85.1	87.3	2.2	1.6

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

	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	DoD	vs. 7D
CALI Wind	1244	2362	832	498	1518	1346	1455	109	155
TEXAS Wind	10264	20787	19938	12471	15108	15689	14406	-1283	-1304
US Wind	43525	73118	72121	55234	62388	46096	52882	6786	-5865

### Generation Daily Average - MWh (EIA)

	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	DoD	vs. 7D
US Wind	43525	73118	72121	55234	62388	46096	52882	6786	-5865
US Solar	10356	8701	9419	8543	8691	9187	7457	-1730	-1692
US Petroleum	3233	2436	1950	3020	3602	3230	2616	-614	-296
US Other	7895	7860	8050	7866	8367	8123	8066	-58	39
US Coal	84359	77806	74593	78618	77043	84724	79966	-4758	442
US Nuke	88332	89358	89575	89059	88391	88819	90828	2009	1906
US Hydro	26951	27274	27262	27921	28617	26378	25616	-762	-1785
<b>US Gas</b>	<b>162238</b>	<b>140863</b>	<b>137919</b>	<b>149820</b>	<b>155812</b>	<b>147932</b>	<b>134072</b>	<b>-13860</b>	<b>-15025</b>

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

## Storage Week Average Generation Data

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

	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	19-Nov	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	76.5	73.6	71.6	72.2	79.8	83.9	4.1	-0.7
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	28.3	31.2	33.3	32.7	25.1	21.0	-4.1	
NRC % Nuclear Cap Utilization	0.1	0.1	0.1	0.1	0.1	0.1	0.0	

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

	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	19-Nov	WoW	WoW Bcf/d Impact
CALI Wind	2400	1270	2314	1669	1805	862	-943	0.2
TEXAS Wind	15396	10729	15462	8472	12032	13655	1624	-0.3
US Wind	49918	43721	49870	32116	51002	58367	7364	-1.3
					18886.8			
					59%			

### Generation Weekly Average - MWh (EIA)

	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	19-Nov	WoW	WoW Bcf/d Impact
US Wind	49918	43721	49870	32116	51002	58367	7364	-1.3
US Solar	10530	12209	10138	9979	10015	9872	-144	0.0
US Petroleum	3224	3092	2815	3517	2532	2555	23	0.0
US Other	12221	12109	10196	9288	8202	7890	-312	0.1
US Coal	89841	74017	73355	77392	77955	77805	-150	0.0
US Nuke	77046	73748	73713	75510	84337	88331	3994	-0.7
US Hydro	24699	23105	23540	25530	25395	26226	831	-0.1
<b>US Gas</b>	<b>162707</b>	<b>150057</b>	<b>152802</b>	<b>159071</b>	<b>145190</b>	<b>144795</b>	<b>-395</b>	0.1

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

## Monthly Average Generation Data

### Nuclear Generation Monthly Average - GWh (NRC)

	2Yr Ago	LY	MTD				Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
	Same 30 days	Same 30 days	Aug-21	Sep-21	Oct-21	Nov-21			
NRC Nuclear Daily Output	82.6	79.2	91.5	87.2	75.5	81.0	78.7	5.5	-0.5
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	22.2	25.6	13.4	17.7	29.4	23.9	26.2	-5.5	0.5
NRC % Nuclear Cap Utilization	84.0	80.6	93.0	88.7	76.8	82.4	80.0	5.6	-0.5

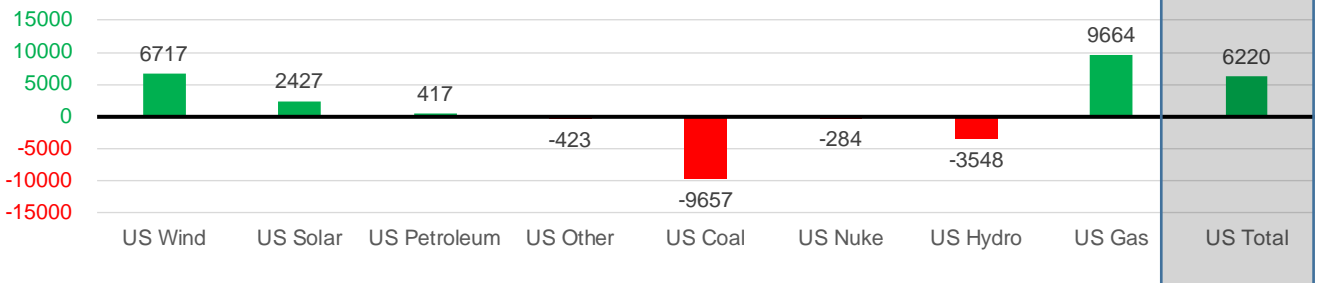
### Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY	MTD				Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
	Same 30 days	Same 30 days	Aug-21	Sep-21	Oct-21	Nov-21			
CALI Wind	637	1234	2442	2020	1765	1410	1491	-356	257
TEXAS Wind	8488	9735	9901	9400	11565	12171	12719	606	2984
US Wind	33969	43316	35830	40223	40991	49332	50033	8341	6717

### Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY	MTD				Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
	Same 30 days	Same 30 days	Aug-21	Sep-21	Oct-21	Nov-21			
US Wind	33969	43316	35830	40223	40991	49332	50033	▲ 700.8	▲ 6717
US Solar	5868	7200	13787	13382	11044	9397	9628	▲ 230.4	▲ 2427
US Petroleum	2842	2453	4484	2452	3238	2859	2871	▲ 12	▲ 417
US Other	8057	8953	9928	9008	11099	8382	8531	▲ 149	▼ -423
US Coal	101691	87360	137655	110037	82735	79758	77704	▼ -2054	▼ -9657
US Nuke	89769	83126	94062	90146	76700	85508	82842	▼ -2665	▼ -284
US Hydro	26721	29197	28533	25665	23895	26193	25649	▼ -544	▼ -3548
<b>US Gas</b>	<b>149894</b>	<b>139434</b>	<b>210824</b>	<b>173538</b>	<b>158237</b>	<b>149605</b>	<b>149098</b>	▼ -4171	▲ 9664
<b>US Total</b>	<b>419083</b>	<b>401601</b>	<b>534937</b>	<b>464626</b>	<b>410686</b>	<b>411564</b>	<b>407822</b>	▼ -9042	▲ 6220

Last 30 days YoY



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

### Regional S/D Models Storage Projection

Week Ending 19-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-5.2	0.8	-4.4	-30
East	-1.9	0.4	-1.4	-10
Midwest	-2.6	0.9	-1.6	-11
Mountain	2.9	-3.4	-0.5	-4
South Central	-3.8	3.0	-0.7	-5
Pacific	0.1	-0.1	0.0	0

\*Adjustment Factor is calculated based on historical regional deltas

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

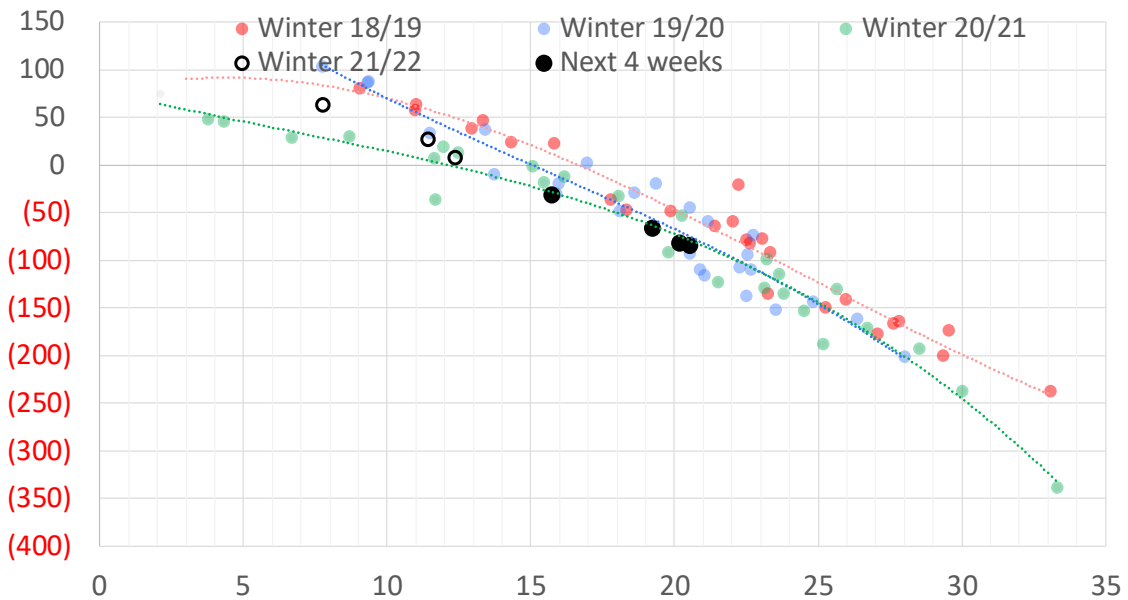


## Weather Model Storage Projection

Next report  
and beyond

Week Ending	GWDDs	Week Storage Projection
19-Nov	15.7	-30
26-Nov	19	-65
03-Dec	20	-81
10-Dec	21	-84

Weather Storage Model - Next 4 Week Forecast

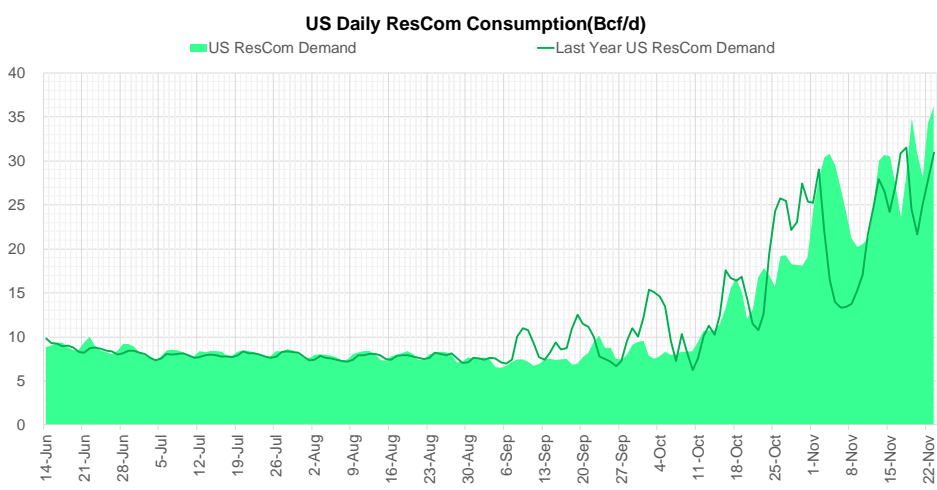
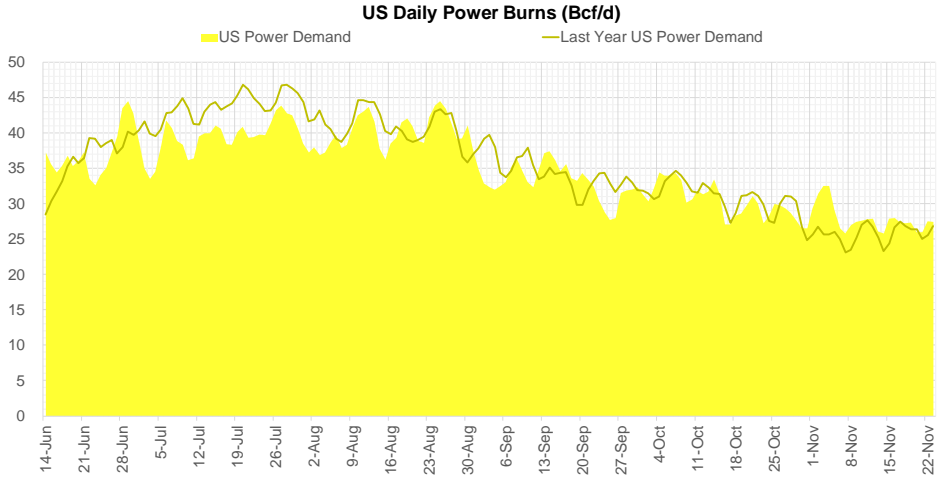
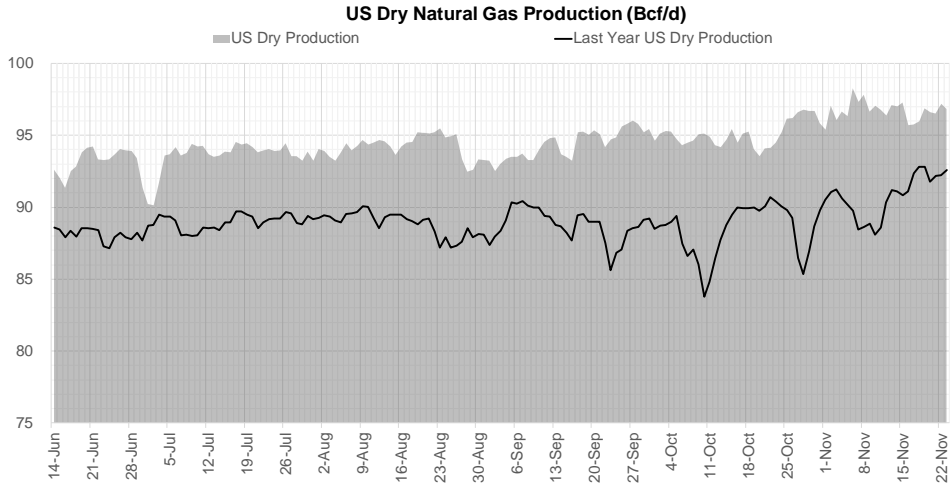


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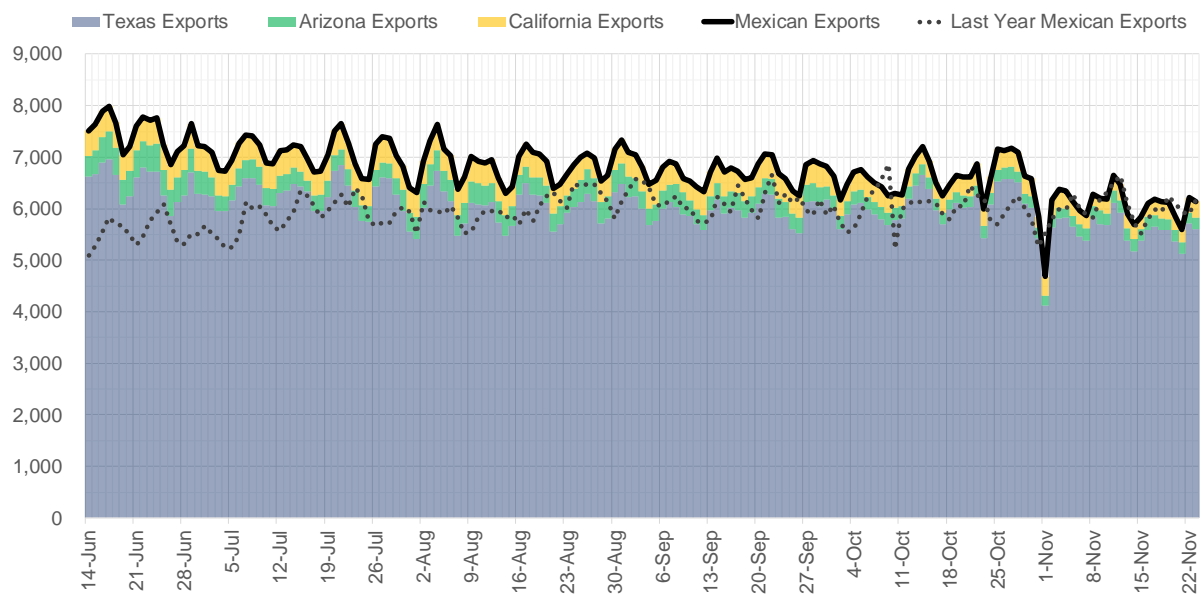


## Supply – Demand Trends

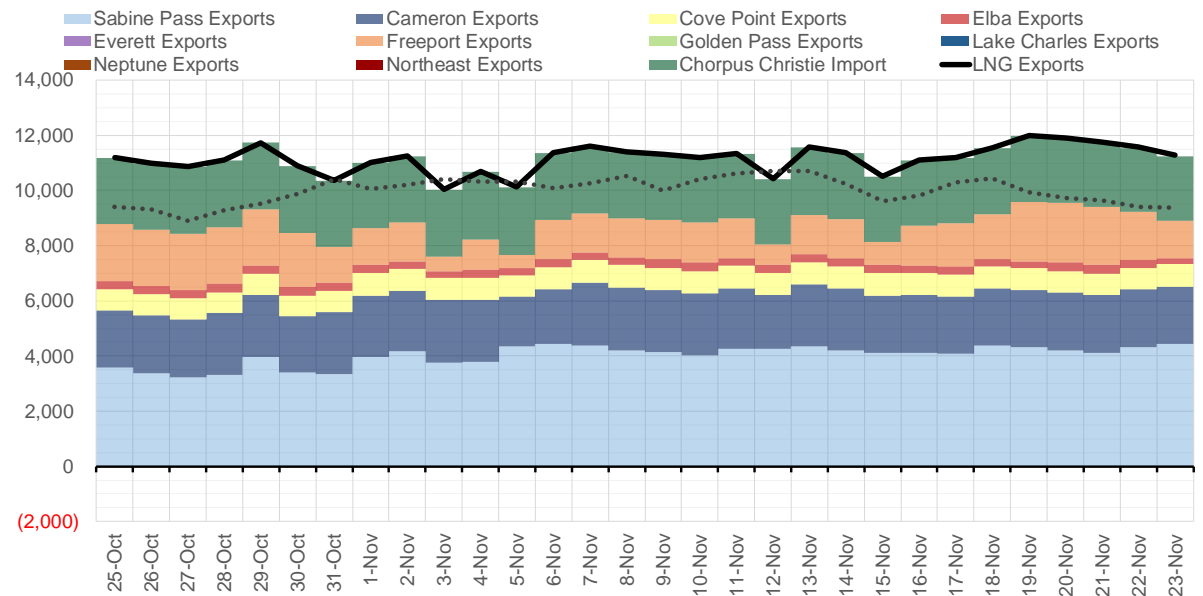


Source: Bloomberg

### Mexican Exports (MMcf/d)



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



Source: Bloomberg

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.

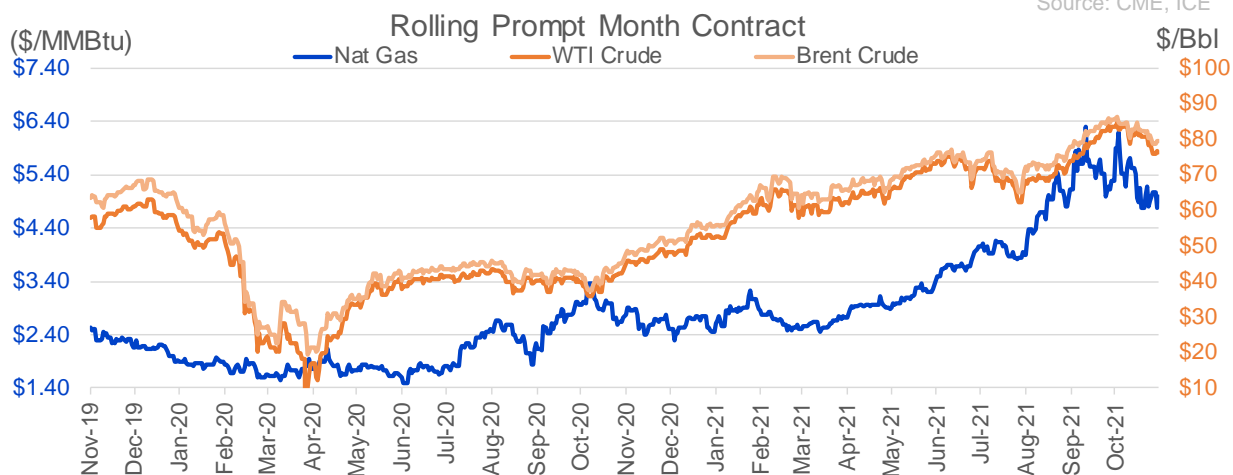
## Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

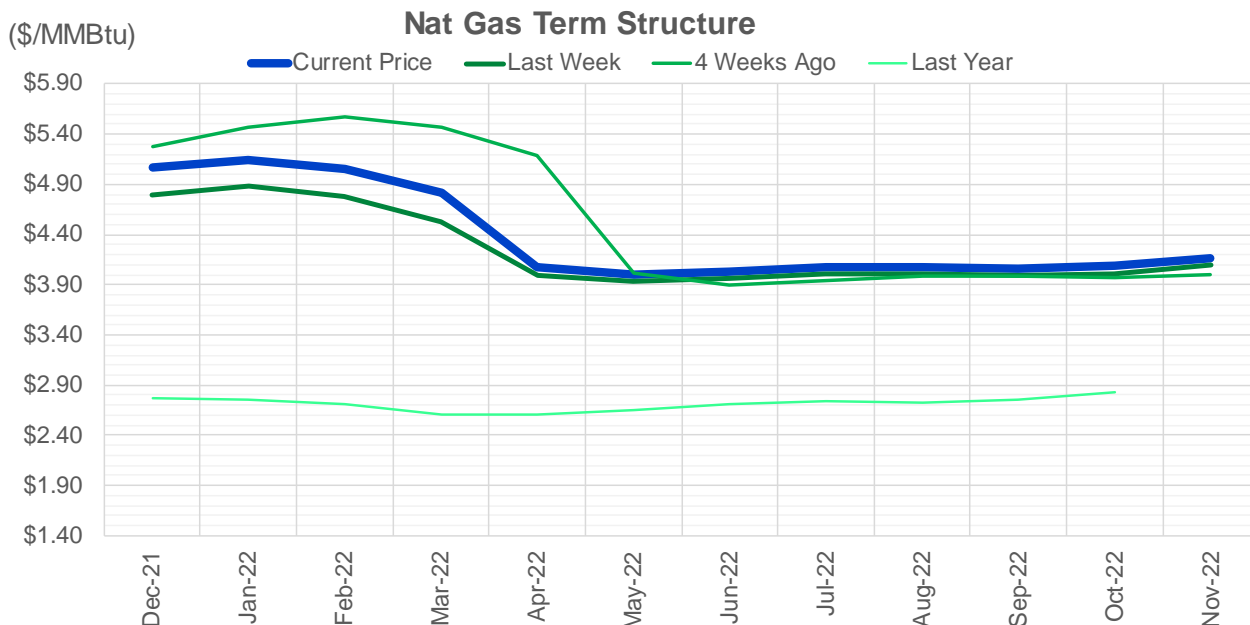
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
12	2021	C	5.00	3315	12	2021	P	2.75	54612
12	2021	P	4.75	2866	12	2021	P	4.00	43726
3	2022	C	6.00	2452	12	2021	P	3.00	39984
12	2021	P	4.50	2425	12	2021	P	2.50	39420
1	2022	C	10.00	2195	3	2022	C	10.00	35198
12	2021	P	2.75	2000	12	2021	P	3.50	33464
12	2021	P	4.00	1839	12	2021	C	6.00	26077
3	2022	C	7.00	1676	12	2021	P	4.25	26020
1	2022	C	6.00	1607	3	2022	C	8.00	25964
3	2022	C	10.00	1584	12	2021	P	5.00	24852
12	2021	C	5.50	1581	12	2021	C	7.00	23347
12	2021	C	5.25	1507	1	2022	P	2.75	23233
12	2021	C	5.40	1357	1	2022	C	6.00	23061
1	2022	C	12.00	1315	3	2022	C	5.00	22668
2	2022	C	6.00	1303	1	2022	P	3.00	22597
12	2021	C	5.75	1233	12	2021	C	4.00	22526
12	2021	P	4.25	1232	12	2021	C	8.00	20718
12	2021	C	4.90	1180	4	2022	C	3.00	19710
4	2023	P	2.75	1125	3	2022	P	2.50	18839
3	2023	P	2.75	1050	1	2022	C	5.00	18644
1	2022	P	4.25	1049	1	2022	C	7.00	18440
12	2021	P	2.50	1000	3	2022	P	3.50	18287
12	2021	P	3.00	1000	3	2022	C	6.00	17812
5	2022	C	3.90	1000	1	2022	P	3.50	17712
5	2022	P	3.90	1000	2	2022	C	5.00	17670
12	2021	C	4.75	901	3	2022	P	4.00	17432
12	2021	P	4.70	889	12	2021	P	4.50	16944
3	2022	P	4.50	872	12	2021	P	2.00	16834
3	2022	C	9.00	833	4	2022	C	5.00	16773
12	2021	C	4.85	822	12	2021	C	5.00	16721
12	2021	P	4.80	749	3	2022	P	3.00	16544
1	2022	P	4.50	708	12	2022	C	5.00	16047
12	2021	C	5.20	705	3	2022	C	4.00	15506
12	2021	P	4.65	587	12	2021	C	5.50	15426
3	2022	P	5.00	565	1	2022	P	4.00	15275
1	2022	C	8.00	556	4	2022	P	2.50	15264
1	2022	P	4.00	555	2	2022	P	3.50	15228
12	2021	P	5.00	554	1	2022	C	10.00	14862
1	2023	P	3.50	550	2	2022	C	6.00	14706
2	2023	P	3.50	550	1	2022	C	4.00	14369
3	2023	P	3.50	550	1	2022	C	8.00	14195
3	2022	C	15.00	501	3	2022	P	5.00	13957
11	2022	P	2.50	500	3	2022	C	7.00	13753
1	2022	C	7.00	481	5	2022	C	3.00	13733
12	2021	P	4.60	442	12	2021	C	15.00	13491
2	2022	C	10.00	414	6	2022	C	3.00	13438
2	2022	C	5.50	402	12	2022	C	4.50	13317
1	2022	C	5.90	401	12	2022	C	5.25	13263
12	2021	C	5.10	395	7	2022	C	3.00	13230
					8	2022	C	3	13226

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			
	Current	Prior	Daily Change		Current	Prior	Daily Change
DEC 21	24013	40024	-16011	DEC 21	81066	83865	-2799
JAN 22	264189	263050	1139	JAN 22	101028	92246	8781
FEB 22	78983	79322	-339	FEB 22	70845	69520	1324
MAR 22	166393	166396	-3	MAR 22	79211	78373	838
APR 22	118055	116582	1473	APR 22	75908	75443	465
MAY 22	137050	138743	-1693	MAY 22	72519	72861	-343
JUN 22	44990	44894	96	JUN 22	54652	54946	-294
JUL 22	43262	42629	633	JUL 22	56285	56661	-377
AUG 22	31962	31920	42	AUG 22	54632	54948	-316
SEP 22	37690	37710	-20	SEP 22	55681	55894	-212
OCT 22	87483	89396	-1913	OCT 22	62043	62199	-156
NOV 22	35265	35575	-310	NOV 22	47480	47459	21
DEC 22	27490	27242	248	DEC 22	50640	50345	295
JAN 23	34674	32658	2016	JAN 23	40697	40671	26
FEB 23	11446	11659	-213	FEB 23	33356	33353	4
MAR 23	26588	25948	640	MAR 23	37372	37353	19
APR 23	19099	18266	833	APR 23	39401	39330	72
MAY 23	10956	10369	587	MAY 23	35165	35232	-66
JUN 23	9077	9164	-87	JUN 23	31573	31527	46
JUL 23	6559	6288	271	JUL 23	31388	31414	-26
AUG 23	5020	4971	49	AUG 23	32456	32461	-5
SEP 23	6656	6591	65	SEP 23	30651	30663	-12
OCT 23	10682	10575	107	OCT 23	34262	34274	-12
NOV 23	5505	5487	18	NOV 23	33669	33643	26
DEC 23	8493	8472	21	DEC 23	31182	31155	27
JAN 24	5080	5076	4	JAN 24	20466	20434	33
FEB 24	1450	1450	0	FEB 24	15340	15345	-6
MAR 24	8700	8694	6	MAR 24	20492	20483	8
APR 24	4868	4868	0	APR 24	14490	14483	7
MAY 24	1998	1996	2	MAY 24	15055	15055	0





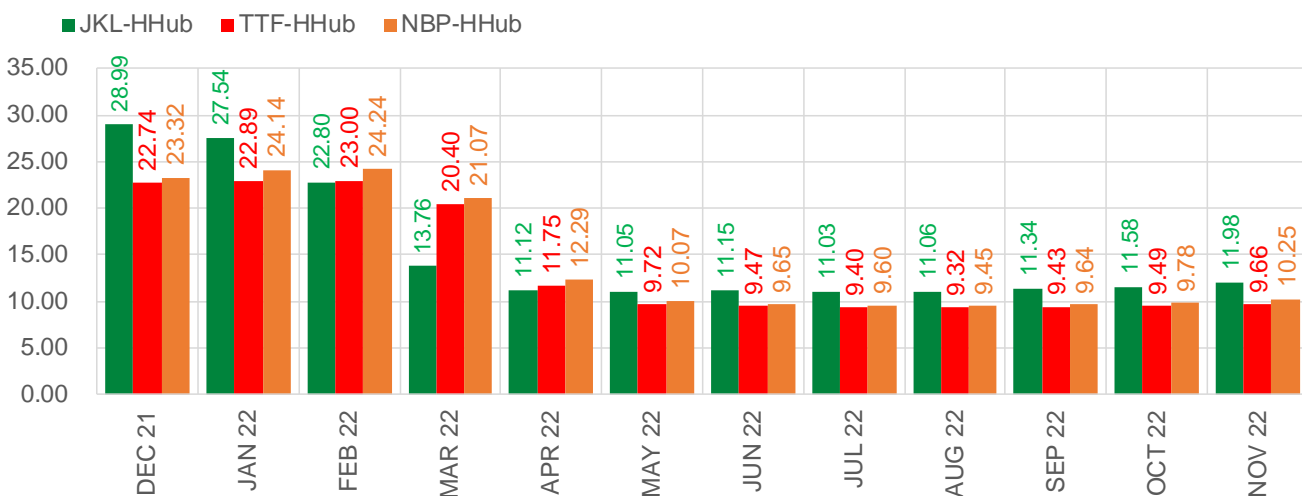
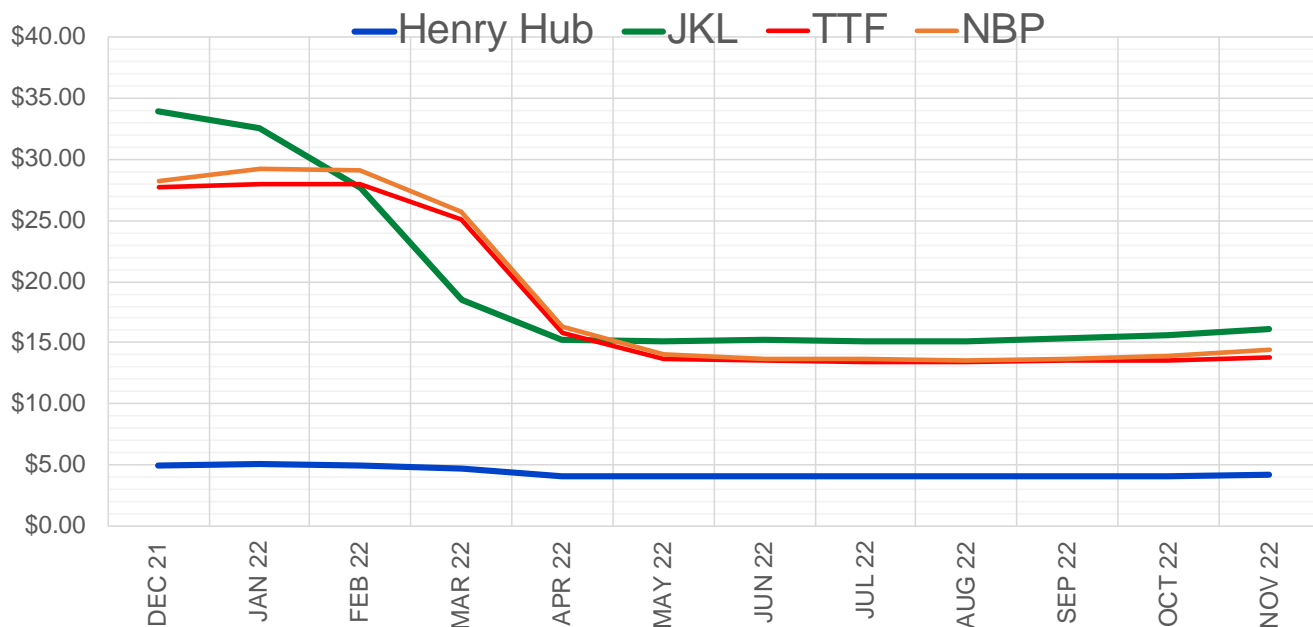
	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
<b>Current Price</b>	<b>\$5.065</b>	<b>\$5.145</b>	<b>\$5.052</b>	<b>\$4.818</b>	<b>\$4.078</b>	<b>\$4.004</b>	<b>\$4.031</b>	<b>\$4.071</b>	<b>\$4.076</b>	<b>\$4.056</b>	<b>\$4.084</b>	<b>\$4.164</b>
Last Week	\$4.791	\$4.880	\$4.775	\$4.529	\$3.986	\$3.929	\$3.960	\$4.005	\$4.009	\$3.987	\$4.014	\$4.092
vs. Last Week	\$0.274	\$0.265	\$0.277	\$0.289	\$0.092	\$0.075	\$0.071	\$0.066	\$0.067	\$0.069	\$0.070	\$0.072
4 Weeks Ago	\$5.280	\$5.461	\$5.565	\$5.473	\$5.187	\$4.012	\$3.904	\$3.940	\$3.980	\$3.984	\$3.965	\$3.996
vs. 4 Weeks Ago	-\$0.215	-\$0.316	-\$0.513	-\$0.655	-\$1.109	-\$0.008	\$0.127	\$0.131	\$0.096	\$0.072	\$0.119	\$0.168
Last Year	\$2.650	\$2.770	\$2.755	\$2.709	\$2.608	\$2.608	\$2.652	\$2.710	\$2.734	\$2.732	\$2.762	\$2.836
vs. Last Year	\$2.415	\$2.375	\$2.297	\$2.109	\$1.470	\$1.396	\$1.379	\$1.361	\$1.342	\$1.324	\$1.322	\$1.328

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	12.73	12.42	-0.31
TETCO M3	\$/MMBtu	6.51	6.26	-0.25
FGT Zone 3	\$/MMBtu	7.38	5.17	-2.21
Zone 6 NY	\$/MMBtu	7.38	6.81	-0.57
Chicago Citygate	\$/MMBtu	4.52	5.26	0.74
Michcon	\$/MMBtu	4.56	4.82	0.26
Columbia TCO Pool	\$/MMBtu	4.47	4.54	0.07
Ventura	\$/MMBtu	4.51	5.55	1.04
Rockies/Opal	\$/MMBtu	5.14	5.08	-0.05
El Paso Permian Basin	\$/MMBtu	4.26	5.01	0.75
Socal Citygate	\$/MMBtu	6.73	5.82	-0.91
Malin	\$/MMBtu	5.90	5.62	-0.28
Houston Ship Channel	\$/MMBtu	4.42	5.21	0.79
Henry Hub Cash	\$/MMBtu	4.79	4.91	0.12
AECO Cash	C\$/GJ	3.20	4.20	1.00
Station2 Cash	C\$/GJ	3.24	5.92	2.68
Dawn Cash	C\$/GJ	4.58	4.93	0.35

Source: CME, Bloomberg

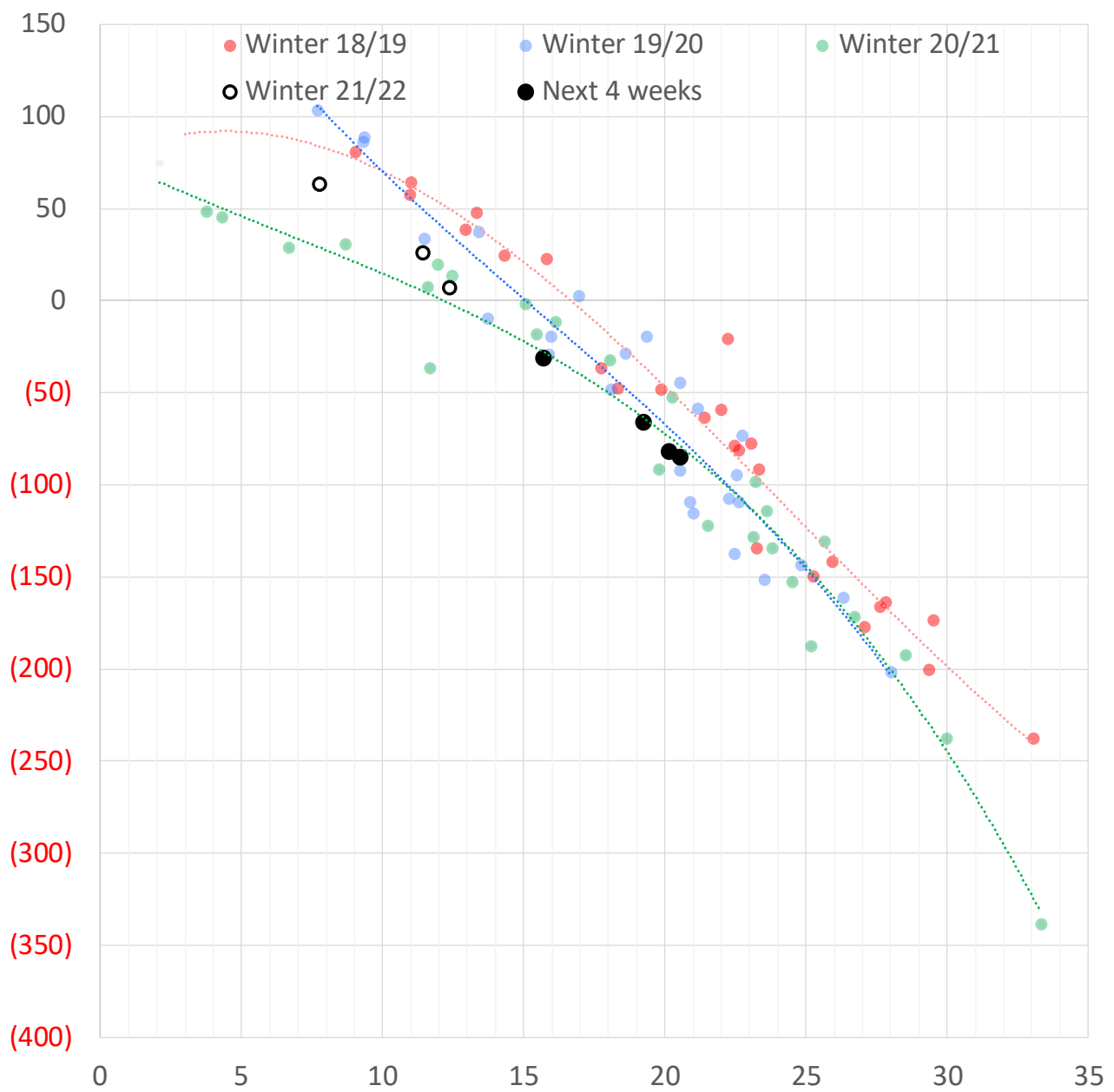
	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	▲ 0.000	▲ 0.000	▲ 2.176
NatGas Oct21/Nov21	\$/MMBtu	0.361	▲ 0.000	▲ 0.304	▲ 0.289
NatGas Oct21/Jan22	\$/MMBtu	-0.980	▼ -0.243	▼ -1.288	▼ -1.295
NatGas Apr22/Oct22	\$/MMBtu	0.024	▲ 0.015	▲ 0.081	▼ -0.034
WTI Crude	\$/Bbl	76.75	▼ -4.130	▼ -7.010	▲ 33.690
Brent Crude	\$/Bbl	79.70	▼ -2.350	▼ -6.290	▲ 33.640
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	232.54	▼ -7.270	▼ -23.930	▲ 101.490
Propane, Mt. Bel	cents/Gallon	1.25	▼ -0.042	▼ -0.195	▲ 0.709
Ethane, Mt. Bel	cents/Gallon	0.40	▼ -0.007	▼ -0.037	▲ 0.185
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)



	DEC 21	JAN 22	FEB 22	MAR 22	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22	OCT 22	NOV 22
<b>Henry Hub</b>	\$4.983	\$5.059	\$4.940	\$4.697	\$4.070	\$3.998	\$4.028	\$4.075	\$4.083	\$4.061	\$4.087	\$4.168
<b>JKL</b>	\$33.970	\$32.595	\$27.740	\$18.455	\$15.190	\$15.050	\$15.180	\$15.100	\$15.145	\$15.400	\$15.665	\$16.145
<b>JKL-HHub</b>	\$28.987	\$27.536	\$22.800	\$13.758	\$11.120	\$11.052	\$11.152	\$11.025	\$11.062	\$11.339	\$11.578	\$11.977
<b>TTF</b>	\$27.718	\$27.946	\$27.936	\$25.097	\$15.824	\$13.716	\$13.502	\$13.471	\$13.401	\$13.494	\$13.580	\$13.828
<b>TTF-HHub</b>	\$22.735	\$22.887	\$22.996	\$20.400	\$11.754	\$9.718	\$9.474	\$9.396	\$9.318	\$9.433	\$9.493	\$9.660
<b>NBP</b>	\$28.305	\$29.199	\$29.178	\$25.770	\$16.355	\$14.072	\$13.677	\$13.673	\$13.535	\$13.700	\$13.866	\$14.416
<b>NBP-HHub</b>	\$23.322	\$24.140	\$24.238	\$21.073	\$12.285	\$10.074	\$9.649	\$9.598	\$9.452	\$9.639	\$9.779	\$10.248

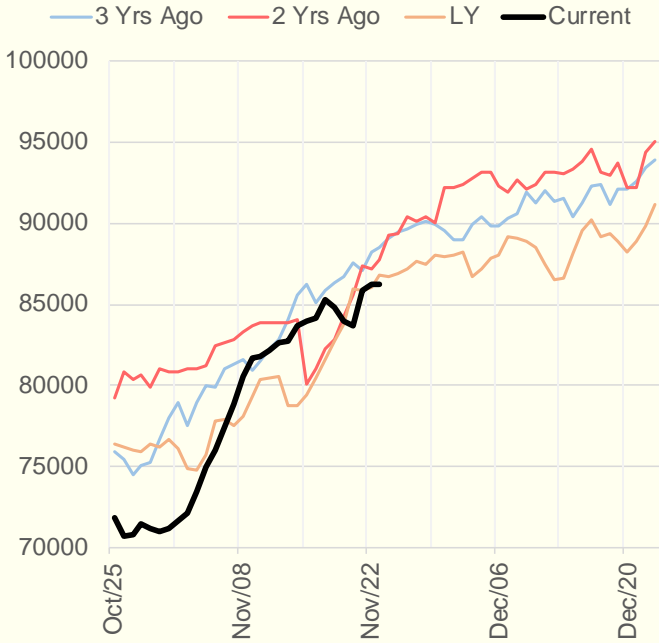
### Weather Storage Model - Next 4 Week Forecast



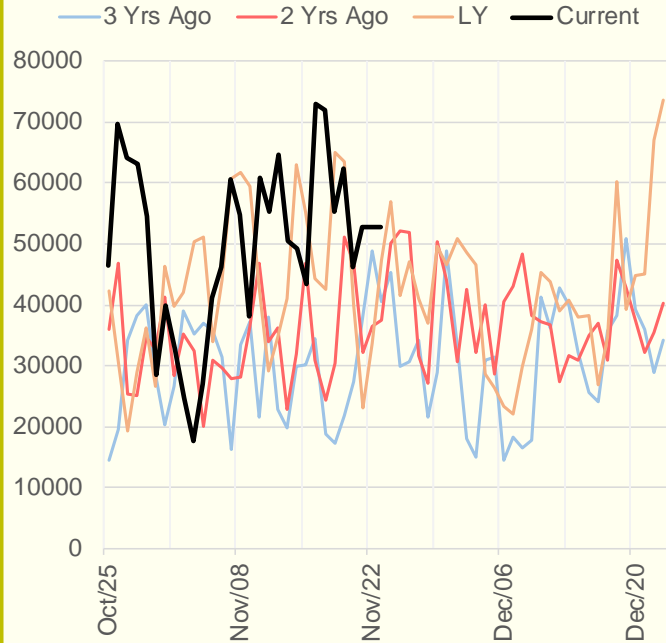
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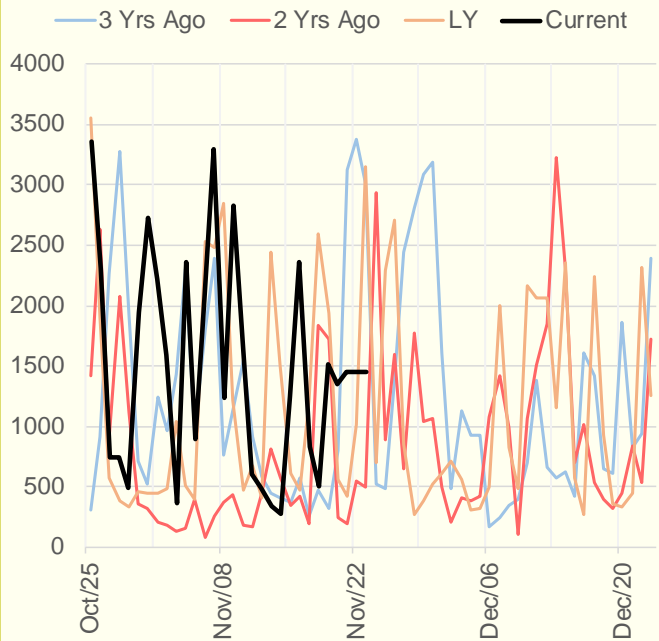
### NRC Nuclear Daily Output



### US Wind



### CALI Wind



### TEXAS Wind

