

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 3.70	▲ \$ 0.04	▼ \$ (0.44)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 71.60	▲ \$ 2.11	▲ \$ 5.0

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 74.98	▲ \$ 1.90	▲ \$ 4.7

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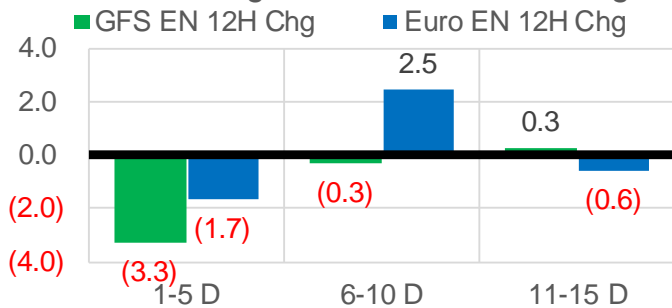
[Nat Gas Options Volume and Open Interest](#)

[Nat Gas Futures Open Interest](#)

[Price Summary](#)

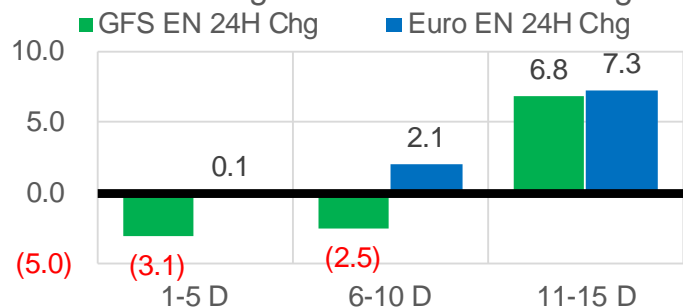
### Vs. 12H Ago

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	96.3	▼ -0.46	▼ -0.13

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	31.2	▲ 2.68	▲ 3.42

	Current	Δ from YD	Δ from 7D Avg
US ResComm	40.7	▲ 6.61	▲ 10.38

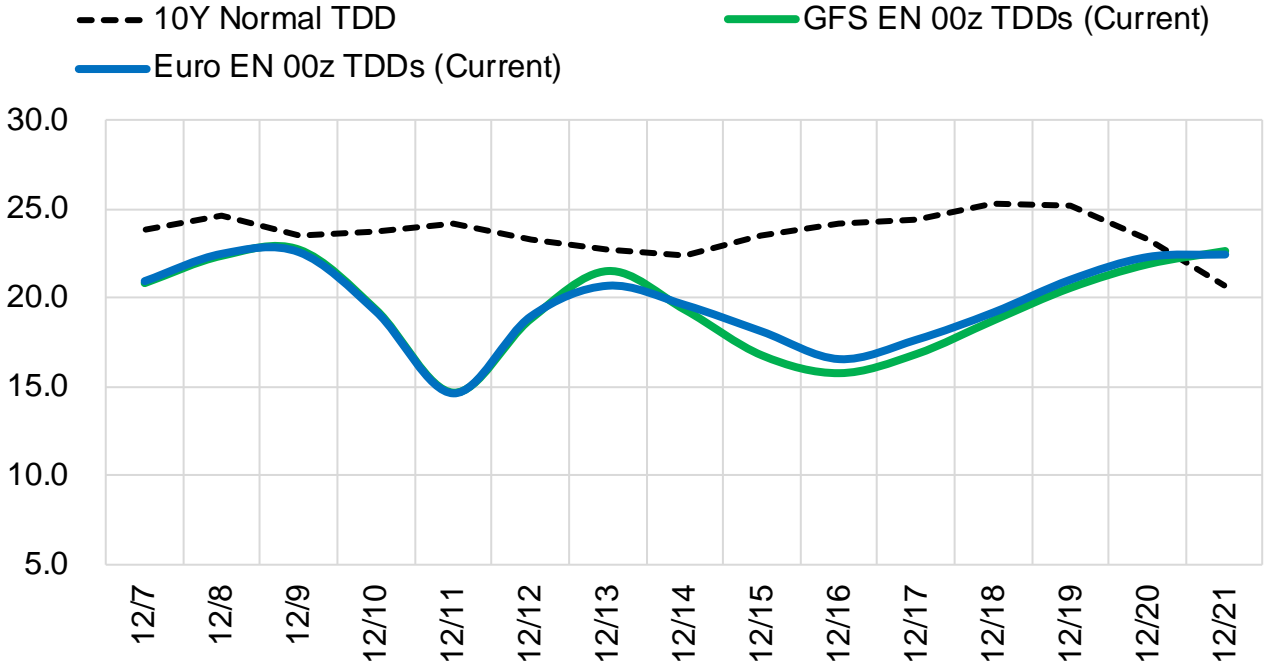
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.2	▲ 0.27	▲ 0.09

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.2	▼ -0.92	▼ -0.59

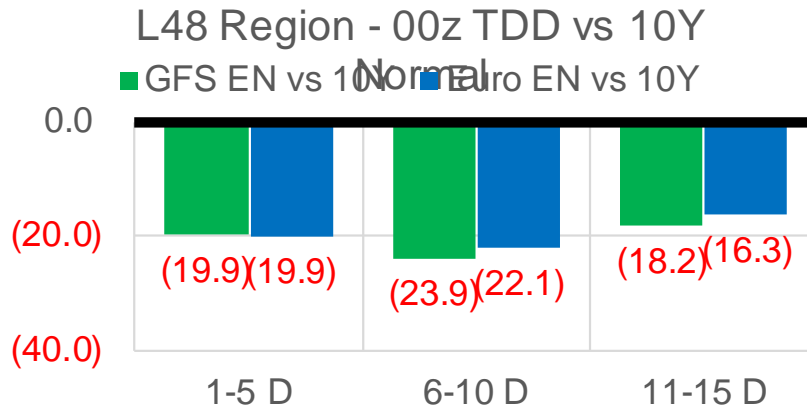
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▼ -0.11	▼ -0.13

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

### L48 Region



## Vs. 10Y Normal



Source: WSI , Bloomberg

## Lower 48 Component Models

### Daily Balances

	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>96.2</b>	<b>96.0</b>	<b>96.7</b>	<b>96.7</b>	<b>96.8</b>	<b>96.7</b>	<b>96.3</b>	▼-0.5	▼-0.3
<b>Canadian Imports</b>	<b>5.3</b>	<b>4.9</b>	<b>5.0</b>	<b>5.1</b>	<b>5.0</b>	<b>5.0</b>	<b>5.2</b>	▲0.3	▲0.2
L48 Power	29.1	27.7	27.0	26.0	25.6	28.5	31.2	▲2.7	▲3.9
L48 Residential & Commercial	29.7	24.6	29.2	31.2	29.8	34.1	40.7	▲6.6	▲10.9
L48 Industrial	21.8	21.6	22.1	22.4	22.4	23.1	23.5	▲0.4	▲1.3
L48 Lease and Plant Fuel	5.2	5.2	5.2	5.2	5.3	5.2	5.2	▼0.0	▼0.0
L48 Pipeline Distribution	2.9	2.6	2.8	2.9	2.8	3.1	3.6	▲0.5	▲0.7
<b>L48 Regional Gas Consumption</b>	<b>88.8</b>	<b>81.7</b>	<b>86.4</b>	<b>87.7</b>	<b>85.9</b>	<b>94.1</b>	<b>104.3</b>	▲10.1	▲16.8
<b>Net LNG Delivered</b>	<b>11.22</b>	<b>11.02</b>	<b>12.12</b>	<b>12.41</b>	<b>12.40</b>	<b>12.17</b>	<b>11.25</b>	▼-0.9	▼-0.6
<b>Total Mexican Exports</b>	<b>6.6</b>	<b>6.6</b>	<b>6.7</b>	<b>6.1</b>	<b>6.1</b>	<b>6.5</b>	<b>6.4</b>	▼-0.1	▼-0.1
<b>Implied Daily Storage Activity</b>	<b>-5.1</b>	<b>1.6</b>	<b>-3.5</b>	<b>-4.5</b>	<b>-2.6</b>	<b>-11.1</b>	<b>-20.4</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

### EIA Storage Week Balances

	29-Oct	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>94.5</b>	<b>95.1</b>	<b>95.9</b>	<b>95.1</b>	<b>96.2</b>	<b>96.9</b>	▲0.7	▲1.4
<b>Canadian Imports</b>	<b>5.6</b>	<b>5.5</b>	<b>5.1</b>	<b>4.9</b>	<b>5.5</b>	<b>5.6</b>	▲0.0	▲0.3
L48 Power	29.0	29.6	27.5	27.8	29.2	28.8	▼-0.4	▲0.3
L48 Residential & Commercial	18.0	24.3	23.6	28.0	33.3	33.2	▼0.0	▲6.0
L48 Industrial	19.6	21.2	21.4	23.1	22.4	22.1	▼-0.3	▲0.1
L48 Lease and Plant Fuel	5.1	5.2	5.2	5.2	5.2	5.3	▲0.0	▲0.1
L48 Pipeline Distribution	2.5	2.9	2.7	3.0	3.3	3.3	▼-0.1	▲0.3
<b>L48 Regional Gas Consumption</b>	<b>74.2</b>	<b>83.2</b>	<b>80.4</b>	<b>87.0</b>	<b>93.5</b>	<b>92.7</b>	▼-0.8	▲6.7
<b>Net LNG Exports</b>	<b>10.8</b>	<b>10.9</b>	<b>11.2</b>	<b>11.1</b>	<b>11.7</b>	<b>11.8</b>	▲0.1	▲0.6
<b>Total Mexican Exports</b>	<b>6.9</b>	<b>6.1</b>	<b>6.2</b>	<b>6.1</b>	<b>6.0</b>	<b>6.4</b>	▲0.4	▲0.3
<b>Implied Daily Storage Activity</b>	<b>8.3</b>	<b>0.4</b>	<b>3.2</b>	<b>-4.2</b>	<b>-9.5</b>	<b>-8.5</b>	1.1	
<b>EIA Reported Daily Storage Activity</b>	<b>9.0</b>	<b>1.0</b>	<b>3.7</b>	<b>-3.0</b>	<b>-8.4</b>			
<b>Daily Model Error</b>	<b>-0.7</b>	<b>-0.6</b>	<b>-0.5</b>	<b>-1.2</b>	<b>-1.1</b>			

### Monthly Balances

	2Yr Ago Dec-19	LY Dec-20	Aug-21	Sep-21	Oct-21	Nov-21	MTD Dec-21	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>95.9</b>	<b>91.6</b>	<b>94.0</b>	<b>93.4</b>	<b>94.0</b>	<b>95.9</b>	<b>96.5</b>	▲0.7	▲5.0
<b>Canadian Imports</b>	<b>4.5</b>	<b>5.8</b>	<b>5.1</b>	<b>5.1</b>	<b>5.4</b>	<b>5.3</b>	<b>5.0</b>	▼-0.3	▼-0.8
L48 Power	29.3	28.0	40.1	33.0	30.2	28.8	27.3	▼-1.4	▼-0.6
L48 Residential & Commercial	39.1	40.3	7.9	8.7	13.2	29.6	29.8	▲0.2	▼-10.5
L48 Industrial	24.6	23.4	21.5	20.3	20.3	22.2	22.2	▼0.0	▼-1.2
L48 Lease and Plant Fuel	5.2	5.0	5.1	5.1	5.1	5.2	5.2	▲0.0	▲0.3
L48 Pipeline Distribution	3.4	3.4	2.6	2.3	2.3	3.1	2.9	▼-0.3	▼-0.6
<b>L48 Regional Gas Consumption</b>	<b>101.6</b>	<b>100.0</b>	<b>77.2</b>	<b>69.4</b>	<b>71.3</b>	<b>88.9</b>	<b>87.4</b>	▼-1.5	▼-12.6
<b>Net LNG Exports</b>	<b>7.8</b>	<b>11.0</b>	<b>10.5</b>	<b>10.3</b>	<b>10.6</b>	<b>11.4</b>	<b>11.9</b>	▲0.5	▲0.9
<b>Total Mexican Exports</b>	<b>4.9</b>	<b>5.8</b>	<b>6.9</b>	<b>6.7</b>	<b>6.6</b>	<b>6.1</b>	<b>6.5</b>	▲0.3	▲0.6
<b>Implied Daily Storage Activity</b>	<b>-13.8</b>	<b>-19.5</b>	<b>4.6</b>	<b>12.1</b>	<b>10.9</b>	<b>-5.2</b>	<b>-4.2</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)

	29-Nov	30-Nov	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	DoD	vs. 7D
NRC Nuclear Daily Output	88.5	87.8	86.8	86.5	87.4	87.5	88.1	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	16.4	17.0	18.1	18.4	17.5	17.4	16.8	-0.6	-0.7
NRC % Nuclear Cap Utilization	90.0	89.3	88.3	87.9	88.9	89.0	89.6	0.6	0.7

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

	29-Nov	30-Nov	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	DoD	vs. 7D
CALI Wind	269	464	369	263	623	704	602	-102	153
TEXAS Wind	10349	12257	5946	7886	12447	7675	18043	10369	8616
US Wind	49428	45422	45656	47349	45523	38852	68903	30051	23531

### Generation Daily Average - MWh (EIA)

	29-Nov	30-Nov	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	DoD	vs. 7D
US Wind	49428	45422	45656	47349	45523	38852	68903	30051	23531
US Solar	10543	10205	9193	12016	10287	9198	9883	686	-357
US Petroleum	3235	3960	2306	2963	3276	2798	2104	-694	-985
US Other	8517	8949	8615	8581	8158	7987	8226	239	-242
US Coal	86307	87557	82813	78513	78031	78431	71330	-7101	-10612
US Nuke	93372	92512	91851	91591	92126	92072	93159	1087	905
US Hydro	27823	28458	28222	26996	29954	27383	26818	-565	-1321
<b>US Gas</b>	<b>164802</b>	<b>168505</b>	<b>166005</b>	<b>151901</b>	<b>149896</b>	<b>146527</b>	<b>126220</b>	<b>-20308</b>	<b>-31720</b>

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

## Storage Week Average Generation Data

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

	29-Oct	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	71.6	72.2	79.8	83.9	86.1	87.8	1.7	-0.3
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	33.3	32.7	25.1	21.0	18.8	17.1	-1.7	
NRC % Nuclear Cap Utilization	0.1	0.1	0.1	0.1	0.1	0.1	0.0	

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

	29-Oct	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	WoW	WoW Bcf/d Impact
CALI Wind	2314	1669	1805	862	1496	363	-1134	0.2
TEXAS Wind	15462	8472	12032	13655	14691	8733	-5958	1.1
US Wind	53896	35306	51002	58367	56260	47211	-9049	1.6
					-2107.9			
					-4%			

### Generation Weekly Average - MWh (EIA)

	29-Oct	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	WoW	WoW Bcf/d Impact
US Wind	53896	35306	51002	58367	56260	47211	-9049	1.6
US Solar	10154	9994	10015	10068	9086	9986	900	-0.2
US Petroleum	2815	3517	2532	2555	3342	3167	-176	0.0
US Other	10211	9302	8205	7849	8442	8513	71	0.0
US Coal	75231	80024	77955	77863	82301	82289	-12	0.0
US Nuke	74294	76091	84337	88331	91252	92817	1564	-0.3
US Hydro	23806	25818	25395	26227	27835	26766	-1069	0.2
<b>US Gas</b>	<b>154007</b>	<b>160442</b>	<b>145214</b>	<b>145263</b>	<b>148206</b>	<b>154612</b>	<b>6406</b>	<b>-1.2</b>

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	Sep-21	Oct-21	Nov-21	Dec-21			
NRC Nuclear Daily Output	87.5	84.5	87.1	75.5	82.7	87.5	85.6	4.7	1.1
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	17.4	20.3	17.8	29.4	22.2	17.4	19.2	-4.7	-1.1
NRC % Nuclear Cap Utilization	89.0	86.0	88.6	76.8	84.1	88.9	87.1	4.8	1.1

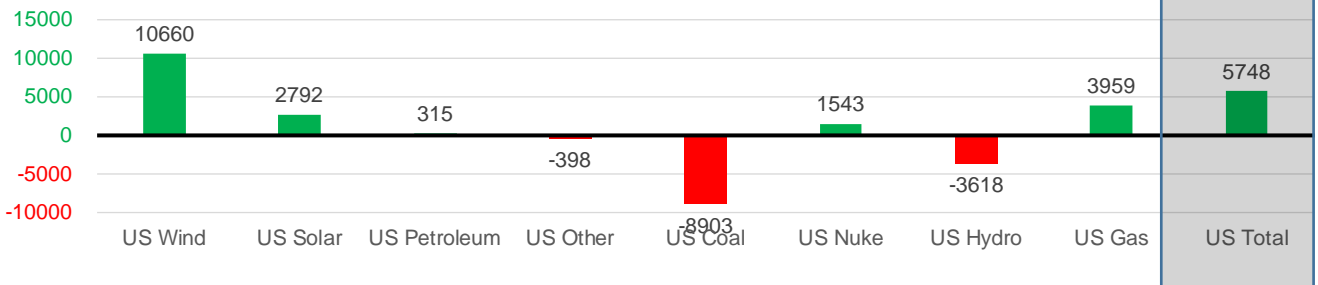
### Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY	MTD				Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
	Same 30 days	Same 30 days	Sep-21	Oct-21	Nov-21	Dec-21			
CALI Wind	776	1141	1964	1765	1252	538	951	-715	-189
TEXAS Wind	8994	10095	9213	11565	11869	12583	12831	715	2737
US Wind	37906	43769	39362	43118	49974	54870	54429	4896	10660

### 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	Sep-21	Oct-21	Nov-21	Dec-21			
US Wind	37906	43769	39362	43118	49974	54870	54429	▼ -440.6	▲ 10660
US Solar	4773	7018	13345	11056	9652	10049	9811	▼ -238.5	▲ 2792
US Petroleum	2289	2543	2517	3239	3045	2522	2858	▲ 336	▲ 315
US Other	7951	8604	9021	11109	8444	8288	8206	▼ -83	▼ -398
US Coal	99914	88287	109915	84411	80844	75968	79384	▲ 3415	▼ -8903
US Nuke	95226	88950	90072	77089	87404	92445	90493	▼ -1952	▲ 1543
US Hydro	27655	30602	25622	24078	26588	27573	26984	▼ -589	▼ -3618
<b>US Gas</b>	<b>149220</b>	<b>142153</b>	<b>173566</b>	<b>159042</b>	<b>151387</b>	<b>141856</b>	<b>146112</b>	<b>▲ 448</b>	<b>▲ 3959</b>
<b>US Total</b>	<b>424924</b>	<b>412428</b>	<b>463578</b>	<b>413298</b>	<b>417784</b>	<b>411833</b>	<b>418176</b>	<b>▲ 1337</b>	<b>▲ 5748</b>

Last 30 days YoY



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

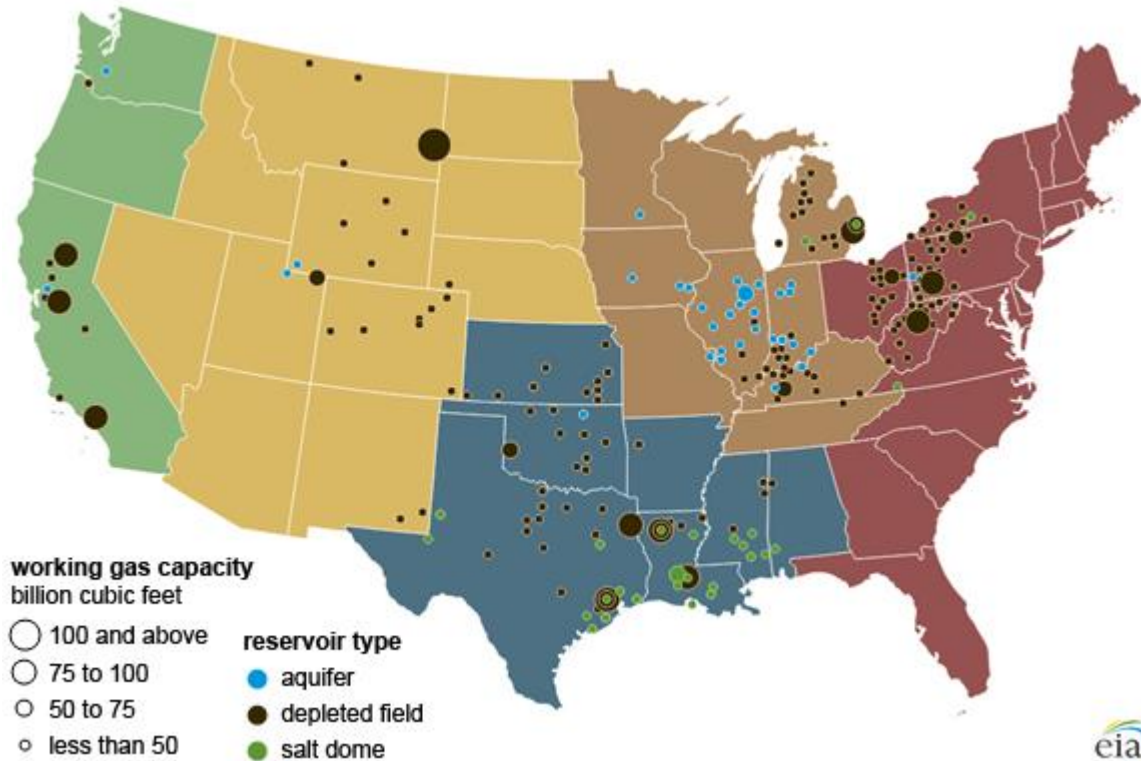
### Regional S/D Models Storage Projection

Week Ending 3-Dec

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-8.7	1.2	-7.5	-53
East	-5.3	1.7	-3.7	-26
Midwest	-3.5	0.3	-3.2	-23
Mountain	3.3	-3.6	-0.2	-2
South Central	-4.2	2.9	-1.2	-9
Pacific	0.9	-0.1	0.8	6

\*Adjustment Factor is calculated based on historical regional deltas

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

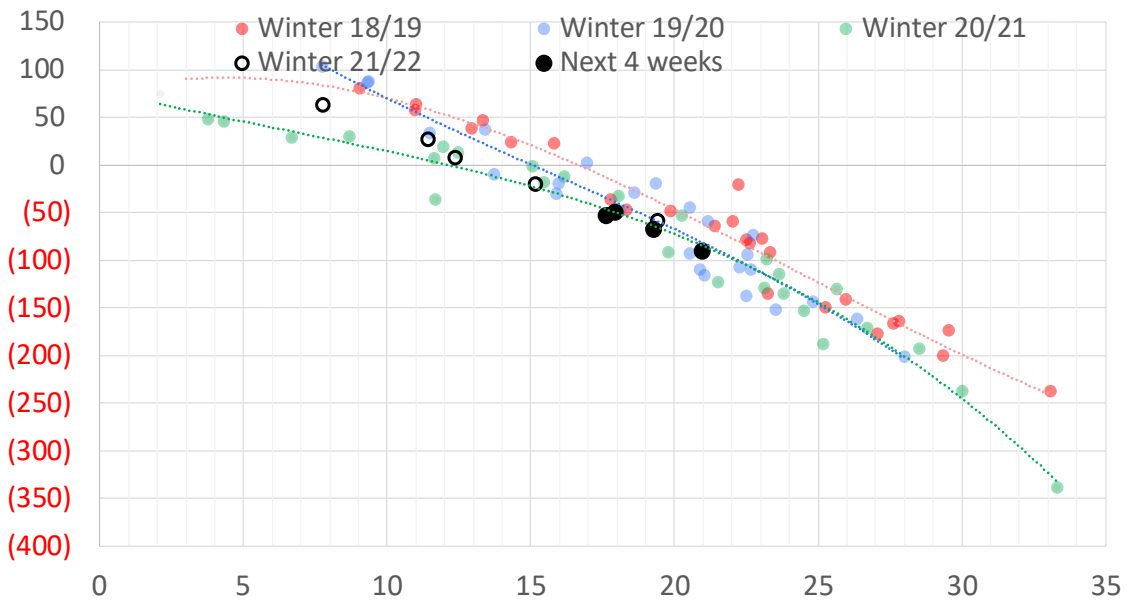


## Weather Model Storage Projection

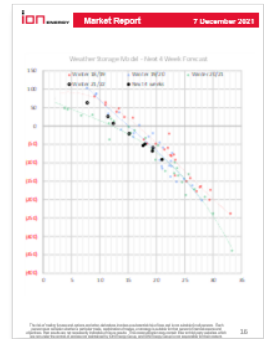
Next report  
and beyond

Week Ending	GWDDs	Week Storage Projection
03-Dec	18	-53
10-Dec	19	-67
17-Dec	18	-49
24-Dec	21	-90

Weather Storage Model - Next 4 Week Forecast

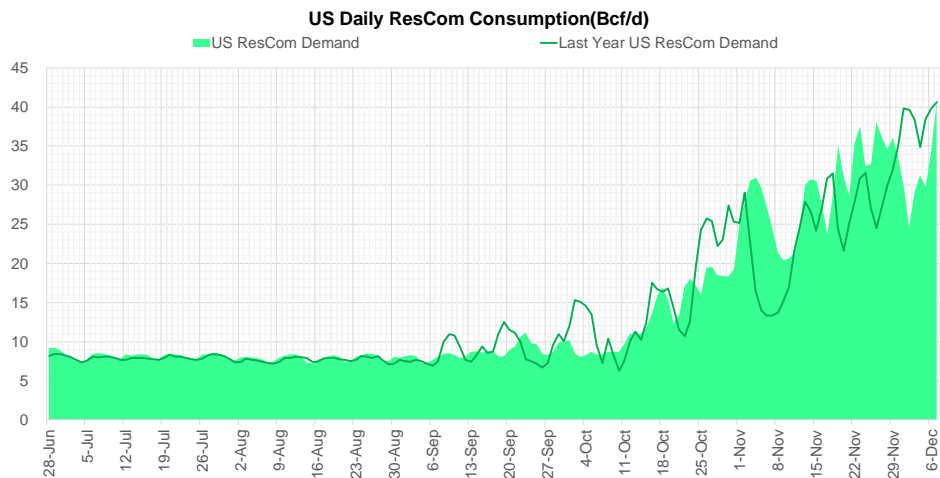
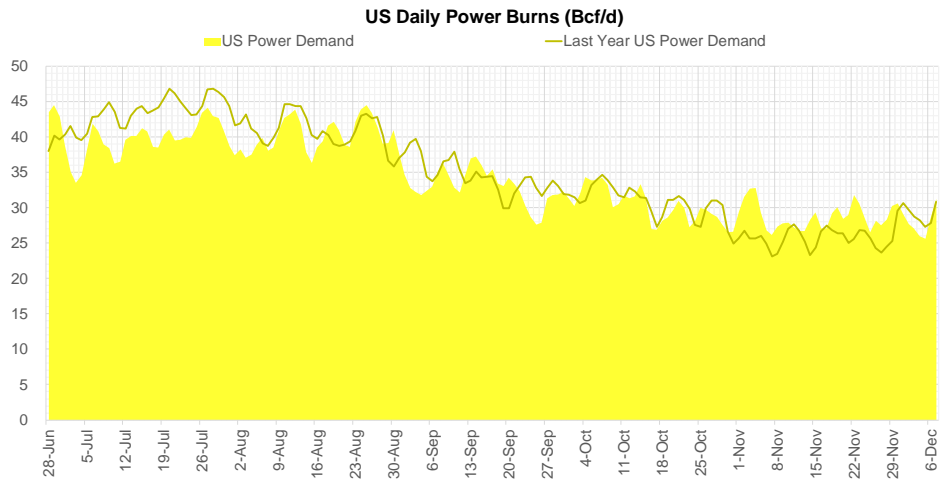
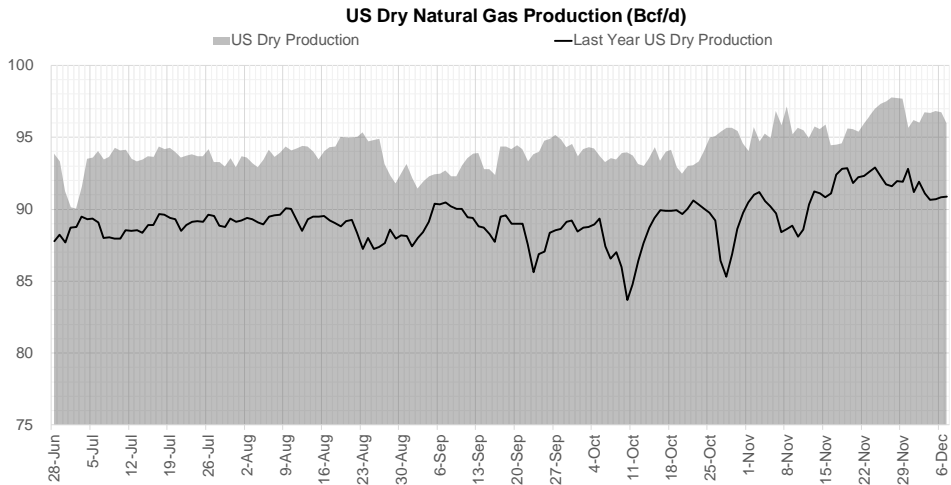


Go to larger image





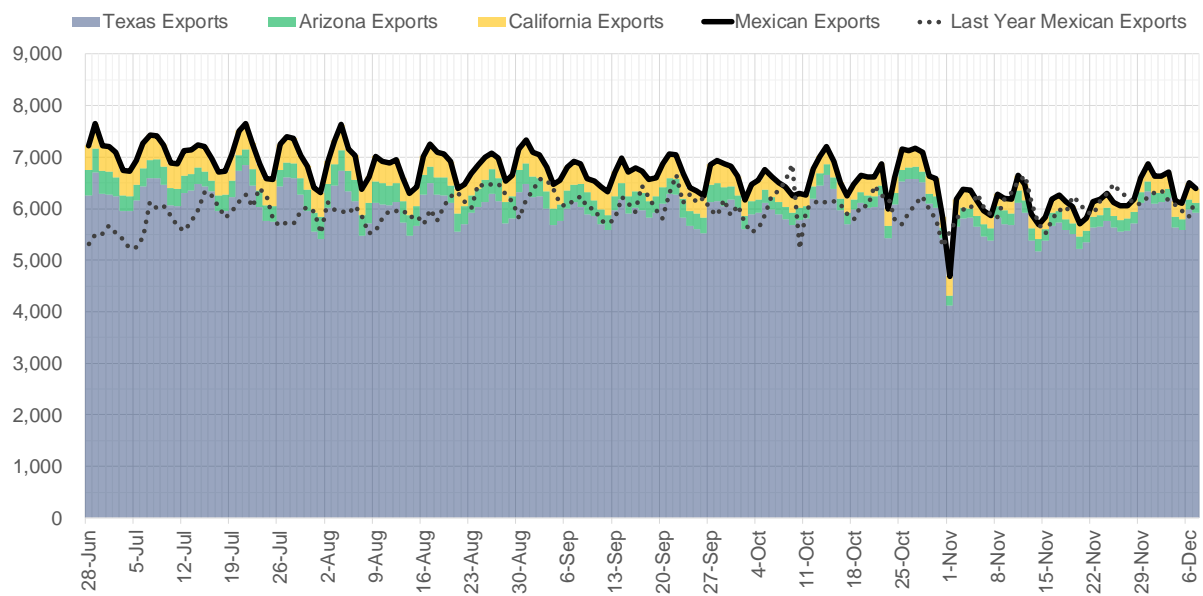
## Supply – Demand Trends



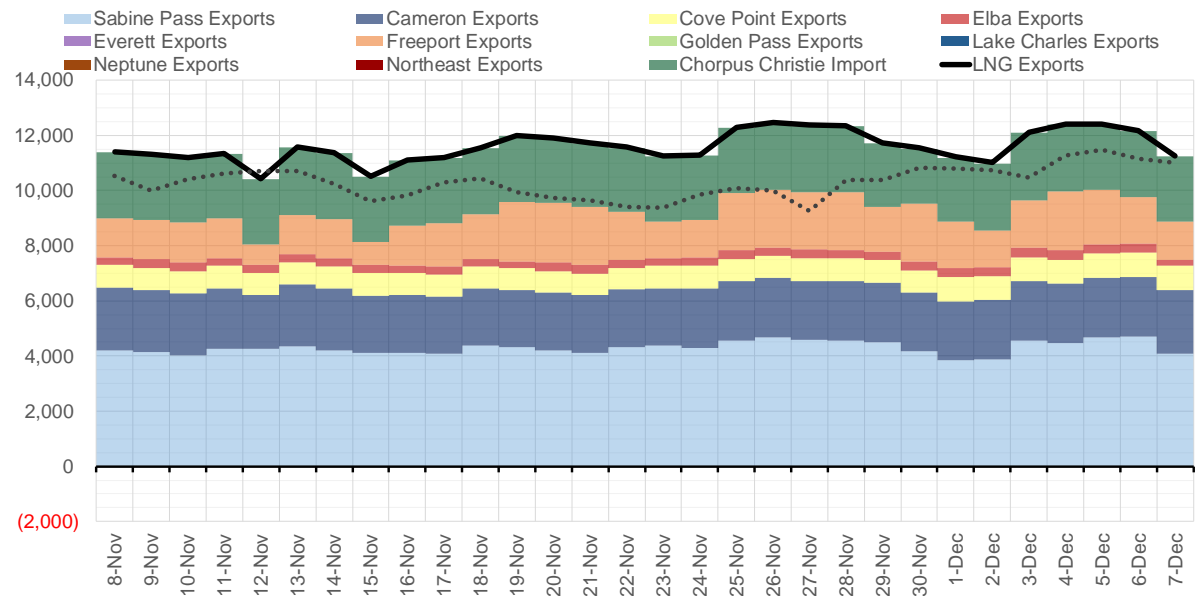
Source: Bloomberg

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.

### 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.

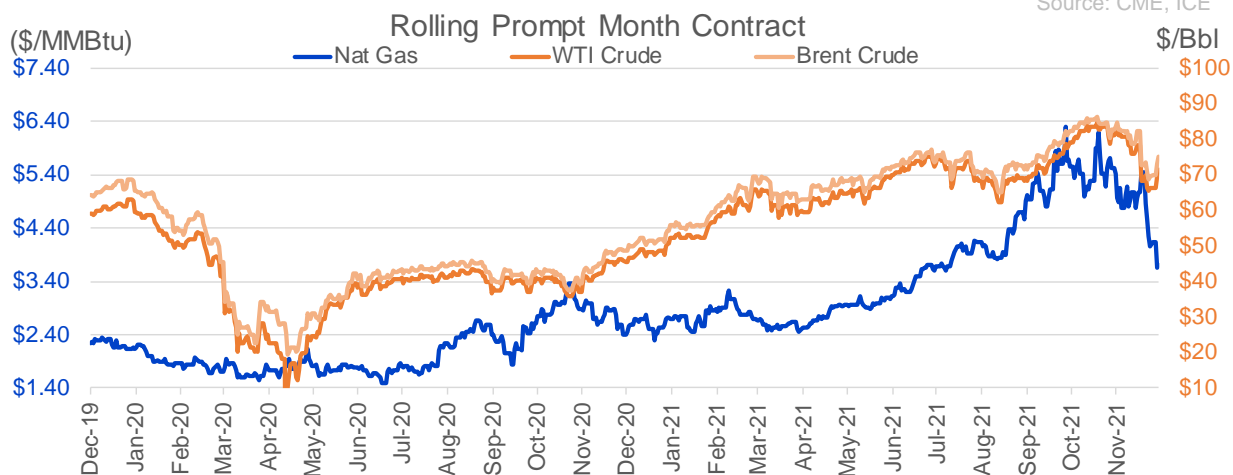
## Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

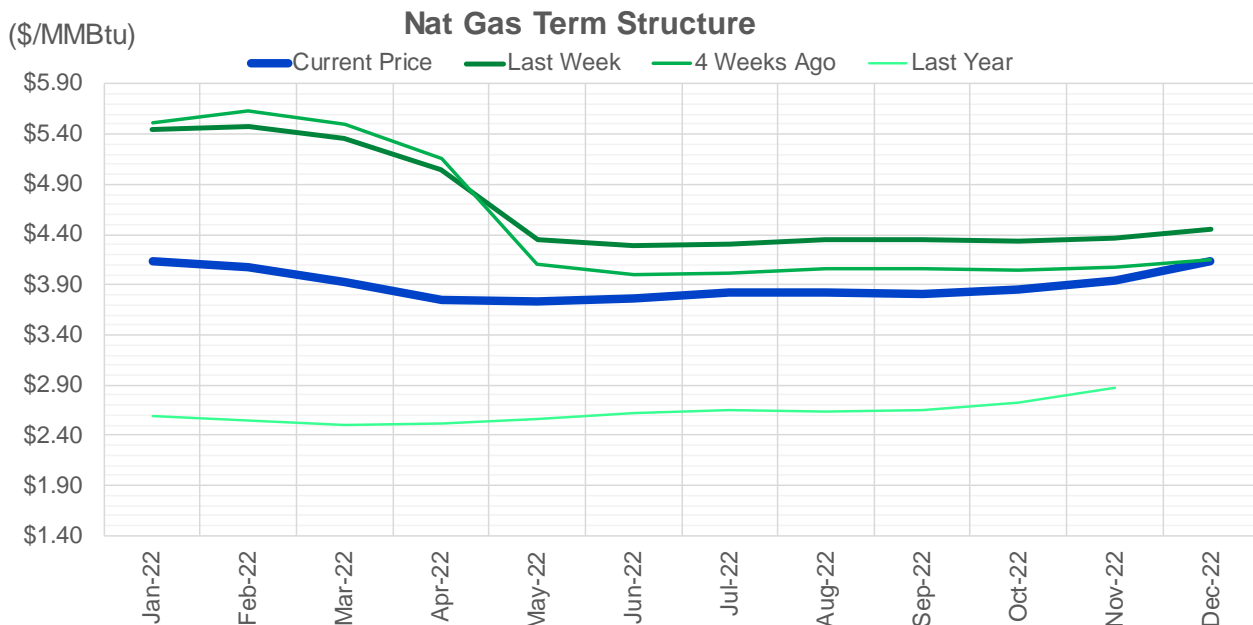
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
1	2022	C	4.00	9474	3	2022	C	10.00	34491
1	2022	P	3.50	9375	1	2022	P	4.00	26723
1	2022	C	4.50	9027	3	2022	C	8.00	25046
3	2022	P	2.25	4631	1	2022	C	6.00	23994
1	2022	C	4.40	4533	3	2022	C	5.00	23684
1	2022	P	3.25	3998	1	2022	P	2.75	23328
1	2022	P	3.00	3986	1	2022	C	5.00	23117
3	2022	P	3.50	3967	1	2022	P	3.00	22251
1	2022	C	4.25	3825	3	2022	P	2.50	21077
2	2022	C	4.00	3582	2	2022	C	5.00	21064
2	2022	C	4.25	3258	12	2022	C	5.00	20449
3	2022	C	4.00	2890	4	2022	C	3.00	19710
3	2022	P	2.50	2878	1	2022	P	3.50	19373
3	2022	P	3.00	2657	3	2022	P	3.00	19304
2	2022	P	3.50	2617	3	2022	C	6.00	19293
1	2022	C	3.75	2535	1	2022	C	10.00	18198
1	2022	C	5.00	2333	1	2022	C	7.00	17920
3	2022	P	2.00	2283	4	2022	C	5.00	17691
2	2022	C	10.00	2123	1	2022	C	4.00	17485
3	2022	C	4.25	2043	2	2022	P	3.50	16957
2	2022	C	5.00	1890	2	2022	C	6.00	16680
3	2022	C	3.50	1768	3	2022	P	4.00	16324
10	2022	P	2.00	1600	3	2022	C	4.00	16275
1	2022	P	3.40	1514	3	2022	P	3.50	16060
1	2022	P	2.75	1496	2	2022	P	4.00	15650
4	2022	C	5.00	1441	4	2022	P	2.50	15389
4	2022	C	6.00	1401	2	2022	C	4.00	14913
2	2022	P	3.25	1361	6	2022	C	5.00	14857
5	2022	C	5.00	1350	5	2022	C	5.00	14833
6	2022	C	5.00	1350	3	2022	C	7.00	14824
7	2022	C	5.00	1350	1	2022	P	3.25	14343
7	2022	C	6.00	1350	1	2022	C	4.50	13832
8	2022	C	5.00	1350	2	2022	C	10.00	13829
9	2022	C	5.00	1350	5	2022	C	3.00	13733
10	2022	C	5.00	1350	1	2022	C	8.00	13592
4	2022	C	4.00	1316	3	2022	P	5.00	13558
3	2022	C	6.00	1260	1	2022	C	5.50	13478
5	2022	C	6.00	1250	6	2022	C	3.00	13438
6	2022	C	6.00	1250	12	2022	C	4.50	13422
8	2022	C	6.00	1250	12	2022	C	5.25	13263
9	2022	C	6.00	1250	7	2022	C	3.00	13230
10	2022	C	6.00	1250	8	2022	C	3.00	13226
2	2022	C	11.00	1153	9	2022	C	3.00	13225
3	2022	C	5.00	1144	3	2022	C	3.00	13177
1	2022	C	5.50	1134	10	2022	C	3.00	13114
2	2022	C	6.00	1099	5	2022	P	3.00	13053
2	2022	C	5.50	1032	1	2022	P	4.50	12907
1	2022	C	6.00	1027	1	2022	C	6.10	12497
4	2022	P	4.00	1000	8	2022	C	5.00	12325
					3	2022	C	5.5	12169.75

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
JAN 22	243183	240267	2916	JAN 22	101492	101151	341
FEB 22	77273	82378	-5105	FEB 22	70542	72481	-1940
MAR 22	168709	165762	2947	MAR 22	85432	83909	1523
APR 22	103009	113847	-10838	APR 22	73763	74739	-976
MAY 22	121922	126425	-4503	MAY 22	71204	71438	-234
JUN 22	48394	48636	-242	JUN 22	53483	53955	-472
JUL 22	45540	43177	2363	JUL 22	56838	56613	225
AUG 22	32194	33555	-1361	AUG 22	54676	54909	-233
SEP 22	39071	39067	4	SEP 22	55921	56194	-273
OCT 22	80161	81965	-1804	OCT 22	63184	63170	14
NOV 22	34679	34651	28	NOV 22	48893	48455	439
DEC 22	28343	28756	-413	DEC 22	52279	51266	1013
JAN 23	45087	46153	-1066	JAN 23	44362	43704	658
FEB 23	12165	12241	-76	FEB 23	34897	34373	524
MAR 23	26916	27467	-551	MAR 23	39269	38895	374
APR 23	18407	19445	-1038	APR 23	39465	39602	-137
MAY 23	13025	13080	-55	MAY 23	35584	35367	217
JUN 23	9746	9610	136	JUN 23	31876	31886	-10
JUL 23	7127	7268	-141	JUL 23	31648	31570	78
AUG 23	5084	5096	-12	AUG 23	32574	32499	76
SEP 23	6731	6673	58	SEP 23	31016	30941	75
OCT 23	10556	11095	-539	OCT 23	35323	35105	218
NOV 23	6004	5967	37	NOV 23	34141	33993	148
DEC 23	8935	8373	562	DEC 23	32256	31447	809
JAN 24	6171	5551	620	JAN 24	21964	21717	247
FEB 24	1469	1464	5	FEB 24	15926	15745	181
MAR 24	9071	9096	-25	MAR 24	21537	20878	659
APR 24	4714	4704	10	APR 24	15139	14889	250
MAY 24	2030	2050	-20	MAY 24	15840	15751	89
JUN 24	927	927	0	JUN 24	16214	16150	64





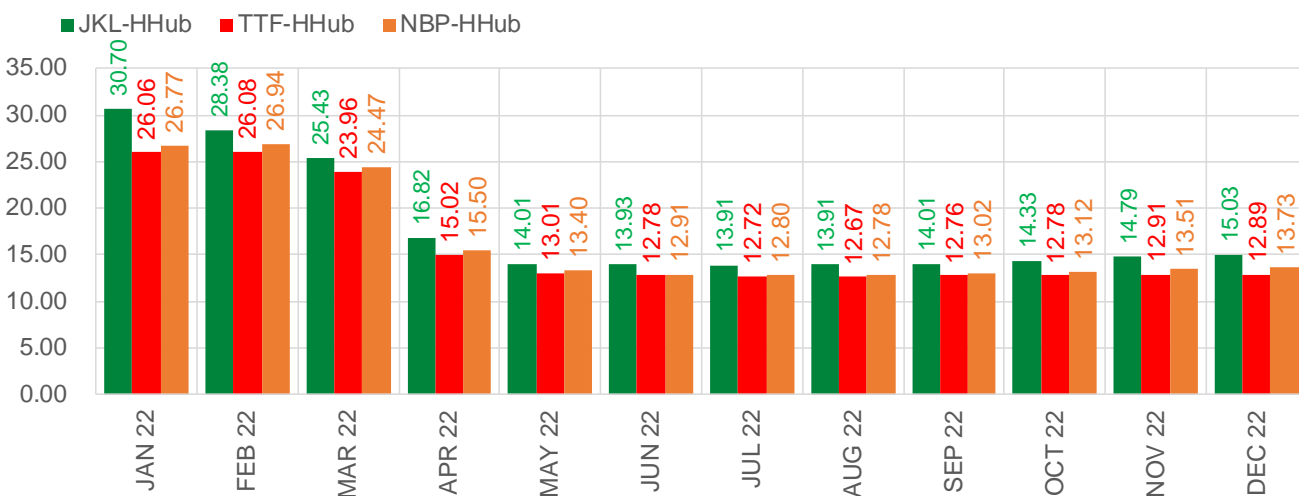
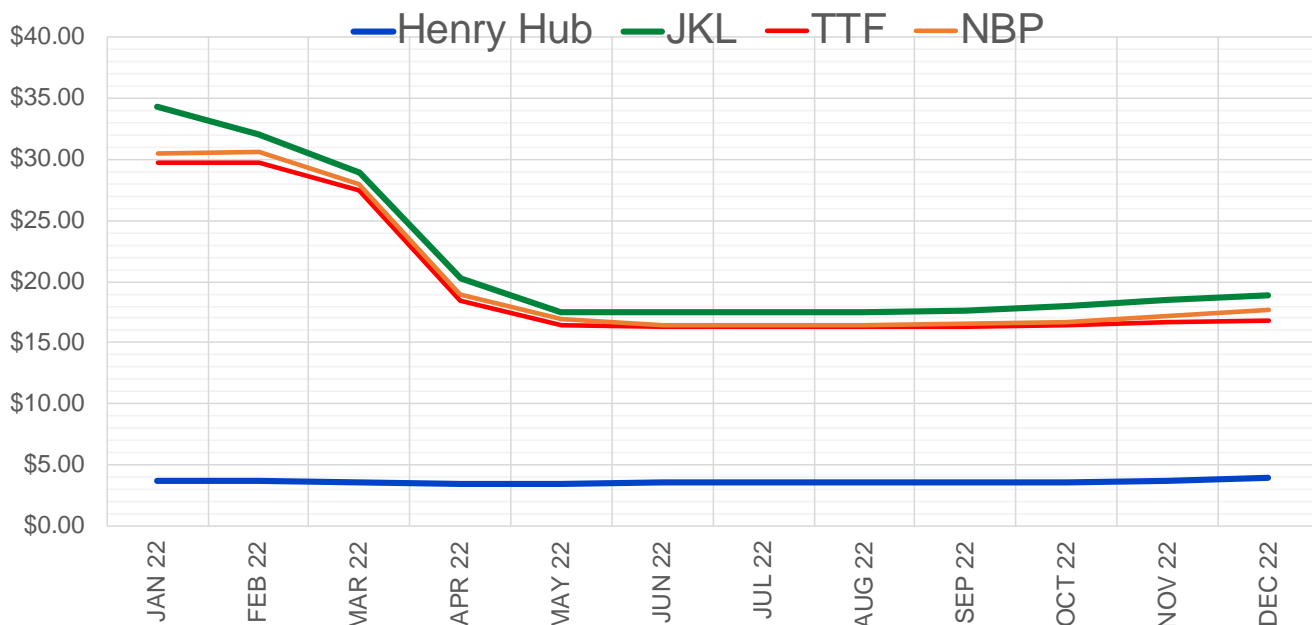
	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
<b>Current Price</b>	<b>\$4.132</b>	<b>\$4.073</b>	<b>\$3.921</b>	<b>\$3.751</b>	<b>\$3.727</b>	<b>\$3.766</b>	<b>\$3.817</b>	<b>\$3.829</b>	<b>\$3.815</b>	<b>\$3.851</b>	<b>\$3.948</b>	<b>\$4.136</b>
Last Week	\$5.447	\$5.477	\$5.364	\$5.044	\$4.352	\$4.285	\$4.310	\$4.346	\$4.350	\$4.330	\$4.367	\$4.454
vs. Last Week	-\$1.315	-\$1.404	-\$1.443	-\$1.293	-\$0.625	-\$0.519	-\$0.493	-\$0.517	-\$0.535	-\$0.479	-\$0.419	-\$0.318
4 Weeks Ago	\$5.516	\$5.626	\$5.494	\$5.161	\$4.102	\$3.996	\$4.021	\$4.060	\$4.065	\$4.045	\$4.072	\$4.146
vs. 4 Weeks Ago	-\$1.384	-\$1.553	-\$1.573	-\$1.410	-\$0.375	-\$0.230	-\$0.204	-\$0.231	-\$0.250	-\$0.194	-\$0.124	-\$0.010
Last Year	\$2.575	\$2.586	\$2.551	\$2.508	\$2.517	\$2.563	\$2.623	\$2.645	\$2.635	\$2.659	\$2.732	\$2.871
vs. Last Year	\$1.557	\$1.487	\$1.370	\$1.243	\$1.210	\$1.203	\$1.194	\$1.184	\$1.180	\$1.192	\$1.216	\$1.265

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	7.65	19.66	12.01
TETCO M3	\$/MMBtu	3.71	9.18	5.47
FGT Zone 3	\$/MMBtu	3.72	5.02	1.30
Zone 6 NY	\$/MMBtu	3.72	10.26	6.54
Chicago Citygate	\$/MMBtu	3.47	5.30	1.83
Michcon	\$/MMBtu	3.45	4.61	1.16
Columbia TCO Pool	\$/MMBtu	3.17	4.45	1.28
Ventura	\$/MMBtu	3.69	6.08	2.39
Rockies/Opal	\$/MMBtu	4.08	5.10	1.02
El Paso Permian Basin	\$/MMBtu	3.42	4.93	1.51
Socal Citygate	\$/MMBtu	6.29	5.74	-0.55
Malin	\$/MMBtu	3.92	5.58	1.66
Houston Ship Channel	\$/MMBtu	3.60	5.16	1.56
Henry Hub Cash	\$/MMBtu	3.64	4.77	1.13
AECO Cash	C\$/GJ	2.87	3.57	0.70
Station2 Cash	C\$/GJ	2.84	5.98	3.14
Dawn Cash	C\$/GJ	3.79	4.75	0.96

Source: CME, Bloomberg

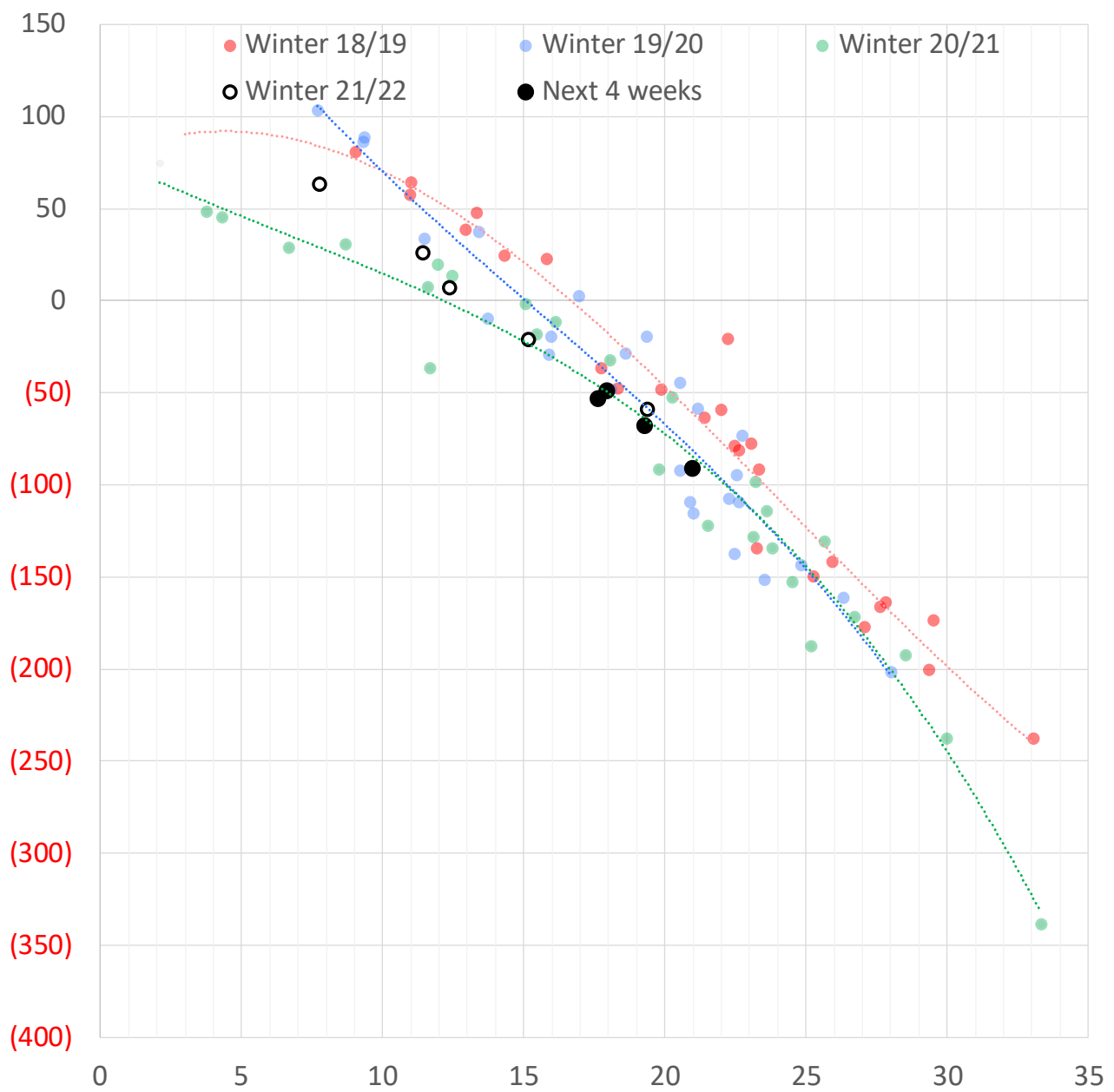
	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	▲ 0.000	▲ 0.000	▲ 2.174
NatGas Oct21/Nov21	\$/MMBtu	0.361	▲ 0.000	▲ 0.000	▲ 0.283
NatGas Oct21/Jan22	\$/MMBtu	-2.184	▼ -1.197	▼ -1.848	▼ -2.511
NatGas Apr22/Oct22	\$/MMBtu	0.145	▲ 0.086	▲ 0.165	▲ 0.079
WTI Crude	\$/Bbl	69.49	▼ -0.460	▼ -12.440	▲ 23.730
Brent Crude	\$/Bbl	73.08	▼ -0.360	▼ -10.350	▲ 24.290
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	217.12	▲ 1.910	▼ -29.590	▲ 77.200
Propane, Mt. Bel	cents/Gallon	1.01	▼ -0.259	▼ -0.381	▲ 0.410
Ethane, Mt. Bel	cents/Gallon	0.33	▼ -0.072	▼ -0.096	▲ 0.148
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)



	JAN 22	FEB 22	MAR 22	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22	OCT 22	NOV 22	DEC 22
<b>Henry Hub</b>	\$3.698	\$3.663	\$3.558	\$3.465	\$3.474	\$3.520	\$3.577	\$3.588	\$3.571	\$3.610	\$3.713	\$3.903
<b>JKL</b>	\$34.395	\$32.045	\$28.985	\$20.280	\$17.485	\$17.450	\$17.485	\$17.500	\$17.585	\$17.940	\$18.500	\$18.935
<b>JKL-HHub</b>	\$30.697	\$28.382	\$25.427	\$16.815	\$14.011	\$13.930	\$13.908	\$13.912	\$14.014	\$14.330	\$14.787	\$15.032
<b>TTF</b>	\$29.754	\$29.741	\$27.519	\$18.489	\$16.480	\$16.295	\$16.297	\$16.257	\$16.327	\$16.385	\$16.623	\$16.788
<b>TTF-HHub</b>	\$26.056	\$26.078	\$23.961	\$15.024	\$13.006	\$12.775	\$12.720	\$12.669	\$12.756	\$12.775	\$12.910	\$12.885
<b>NBP</b>	\$30.471	\$30.601	\$28.026	\$18.968	\$16.876	\$16.428	\$16.374	\$16.371	\$16.594	\$16.734	\$17.226	\$17.630
<b>NBP-HHub</b>	\$26.773	\$26.938	\$24.468	\$15.503	\$13.402	\$12.908	\$12.797	\$12.783	\$13.023	\$13.124	\$13.513	\$13.727

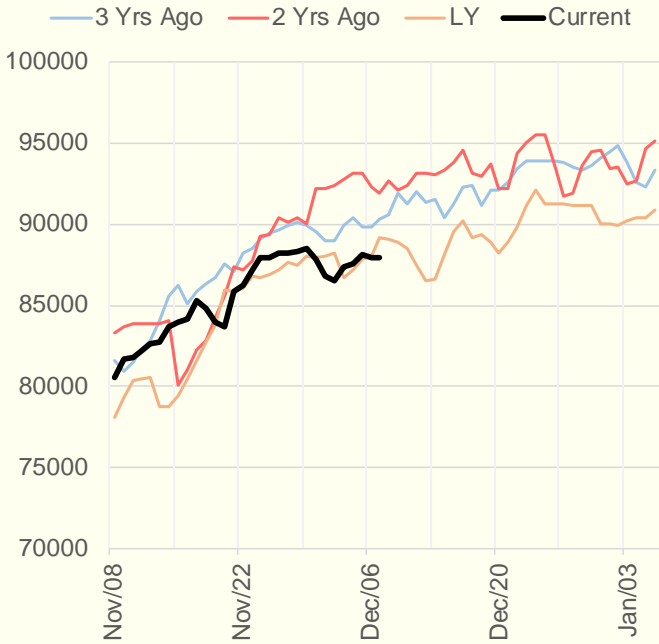
### Weather Storage Model - Next 4 Week Forecast



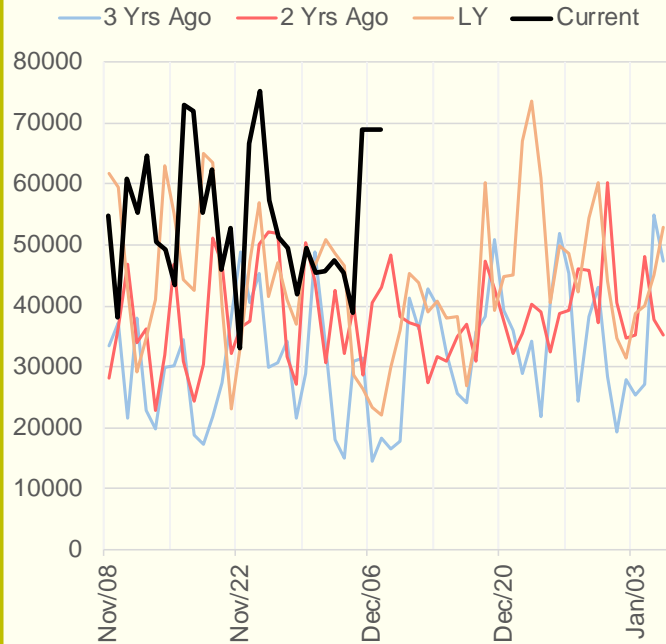
The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are 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.



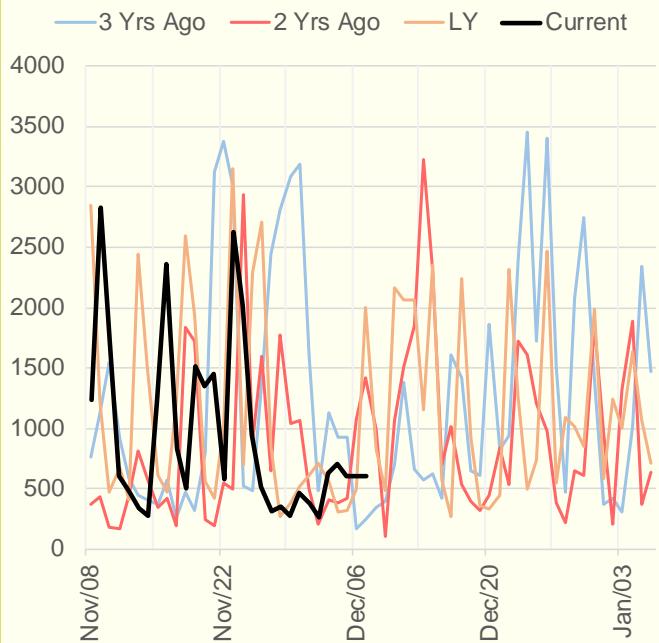
### NRC Nuclear Daily Output



### US Wind



### CALI Wind



### TEXAS Wind

