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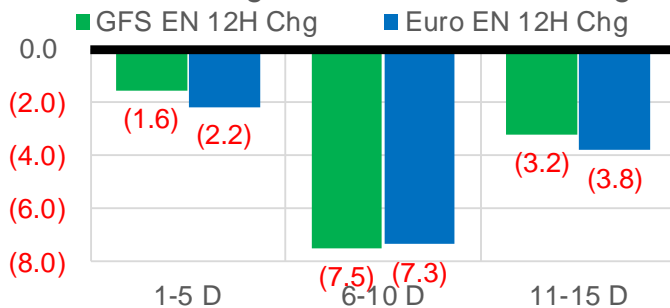
	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 3.67	▼ \$ (0.10)	▼ \$ (0.17)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 70.87	▼ \$ (1.51)	▼ \$ (0.6)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 73.57	▼ \$ (1.45)	▼ \$ (1.1)

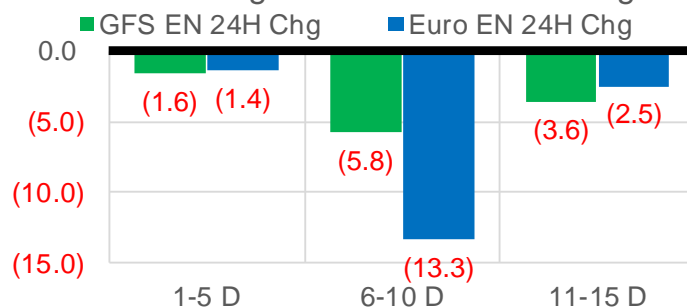
### Vs. 12H Ago

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	98.0	▲ 1.66	▲ 1.48

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	26.6	▼ -0.40	▼ -1.61

	Current	Δ from YD	Δ from 7D Avg
US ResComm	32.3	▲ 4.59	▲ 0.78

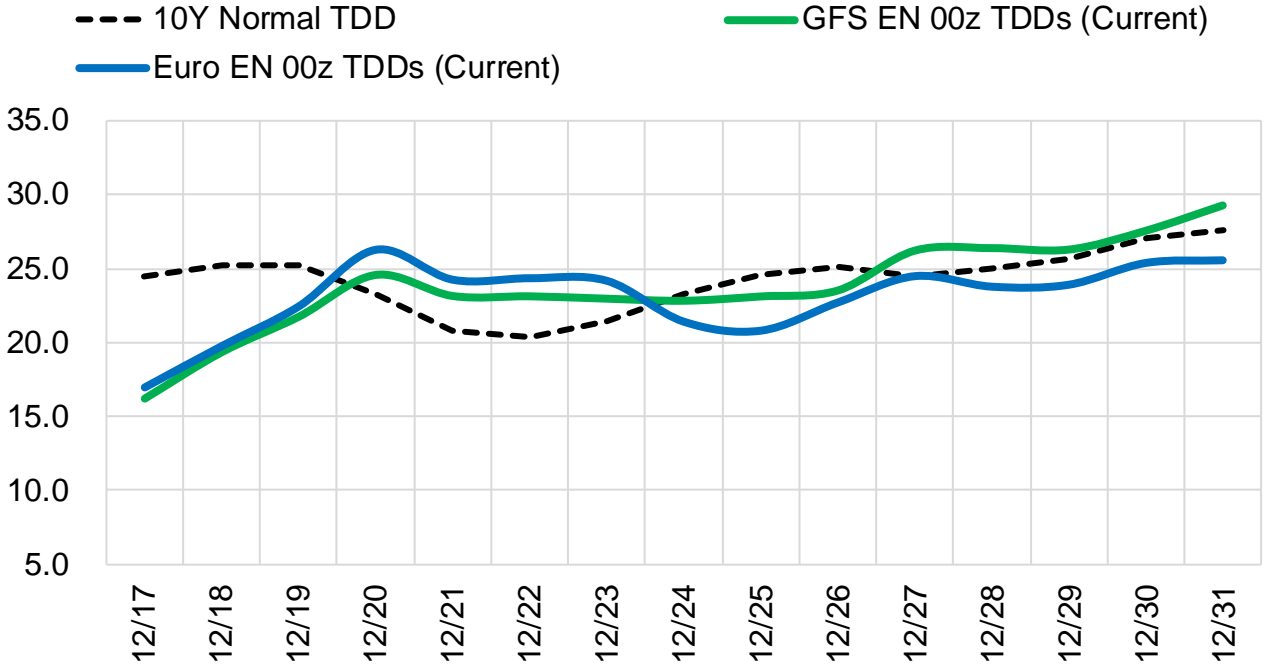
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.7	▼ -0.14	▼ -0.83

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	12.6	▲ 0.48	▲ 0.70

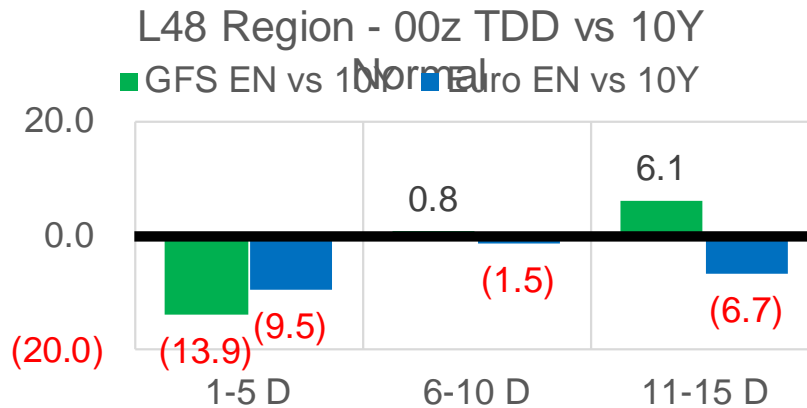
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.3	▼ -0.02	▲ 0.12

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

### L48 Region



## Vs. 10Y Normal



Source: WSI , Bloomberg

## Lower 48 Component Models

### Daily Balances

	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>96.2</b>	<b>96.5</b>	<b>96.8</b>	<b>96.1</b>	<b>96.4</b>	<b>96.3</b>	<b>96.7</b>	▲ 0.4	▲ 0.3
<b>Canadian Imports</b>	<b>4.6</b>	<b>4.8</b>	<b>4.9</b>	<b>4.9</b>	<b>4.3</b>	<b>3.9</b>	<b>3.7</b>	▼ -0.1	▼ -0.8
L48 Power	27.1	27.9	29.9	29.4	28.2	27.0	26.6	▼ -0.4	▼ -1.6
L48 Residential & Commercial	30.0	36.5	35.0	32.5	27.3	27.7	32.3	▲ 4.6	▲ 0.8
L48 Industrial	24.1	24.7	24.9	24.5	23.7	24.0	24.5	▲ 0.4	▲ 0.1
L48 Lease and Plant Fuel	5.2	5.2	5.3	5.2	5.2	5.2	5.3	▲ 0.1	▲ 0.1
L48 Pipeline Distribution	2.9	3.2	3.2	3.1	2.8	2.7	2.9	▲ 0.2	▼ 0.0
<b>L48 Regional Gas Consumption</b>	<b>89.2</b>	<b>97.6</b>	<b>98.3</b>	<b>94.7</b>	<b>87.2</b>	<b>86.7</b>	<b>91.6</b>	▲ 4.9	▼ -0.7
<b>Net LNG Delivered</b>	<b>12.24</b>	<b>12.44</b>	<b>11.82</b>	<b>11.29</b>	<b>11.41</b>	<b>12.09</b>	<b>12.57</b>	▲ 0.5	▲ 0.7
<b>Total Mexican Exports</b>	<b>6.0</b>	<b>5.8</b>	<b>6.2</b>	<b>6.2</b>	<b>6.3</b>	<b>6.3</b>	<b>6.3</b>	▼ 0.0	▲ 0.1
<b>Implied Daily Storage Activity</b>	<b>-6.6</b>	<b>-14.6</b>	<b>-14.7</b>	<b>-11.2</b>	<b>-4.2</b>	<b>-4.9</b>	<b>-10.0</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

### EIA Storage Week Balances

	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>95.9</b>	<b>95.1</b>	<b>96.2</b>	<b>96.9</b>	<b>96.8</b>	<b>96.5</b>	▼ -0.3	▲ 0.2
<b>Canadian Imports</b>	<b>5.1</b>	<b>4.9</b>	<b>5.5</b>	<b>5.6</b>	<b>5.3</b>	<b>4.6</b>	▼ -0.7	▼ -0.7
L48 Power	27.5	27.8	29.2	28.8	29.1	28.2	▼ -0.9	▼ -0.5
L48 Residential & Commercial	23.6	28.0	33.3	33.2	35.5	31.5	▼ -4.0	▼ -1.0
L48 Industrial	21.4	23.1	22.4	22.5	23.8	24.2	▲ 0.5	▲ 1.3
L48 Lease and Plant Fuel	5.2	5.2	5.2	5.3	5.2	5.2	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.7	3.0	3.3	3.3	3.2	3.0	▼ -0.2	▼ -0.2
<b>L48 Regional Gas Consumption</b>	<b>80.3</b>	<b>87.0</b>	<b>93.5</b>	<b>93.1</b>	<b>96.9</b>	<b>92.2</b>	▼ -4.7	▼ -0.4
<b>Net LNG Exports</b>	<b>11.2</b>	<b>11.1</b>	<b>11.7</b>	<b>11.8</b>	<b>12.0</b>	<b>11.9</b>	▼ -0.2	▲ 0.2
<b>Total Mexican Exports</b>	<b>6.2</b>	<b>6.0</b>	<b>6.0</b>	<b>6.4</b>	<b>6.4</b>	<b>6.1</b>	▼ -0.3	▼ -0.1
<b>Implied Daily Storage Activity</b>	<b>3.2</b>	<b>-4.2</b>	<b>-9.6</b>	<b>-8.8</b>	<b>-13.3</b>	<b>-9.2</b>	4.2	
<b>EIA Reported Daily Storage Activity</b>	<b>3.7</b>	<b>-3.0</b>	<b>-8.4</b>	<b>-8.4</b>	<b>-12.6</b>			
<b>Daily Model Error</b>	<b>-0.5</b>	<b>-1.2</b>	<b>-1.1</b>	<b>-0.4</b>	<b>-0.7</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>93.5</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>4.9</b>	▼ -0.4	▼ -0.8
L48 Power	29.3	28.0	40.1	33.0	30.2	28.8	28.6	▼ -0.1	▲ 0.7
L48 Residential & Commercial	39.1	40.3	7.9	8.7	13.2	29.6	32.7	▲ 3.2	▼ -7.6
L48 Industrial	24.6	23.4	21.5	20.3	20.3	22.3	23.8	▲ 1.5	▲ 0.4
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	3.1	▼ 0.0	▼ -0.3
<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>93.4</b>	▲ 4.5	▼ -6.6
<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>6.3</b>	▲ 0.2	▲ 0.5
<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>-5.3</b>	<b>-10.1</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)

	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	DoD	vs. 7D
NRC Nuclear Daily Output	89.0	88.0	87.7	88.6	90.4	91.5	92.0	0.5	2.8
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	15.9	16.9	17.1	16.3	14.5	13.4	12.9	-0.5	-2.8
NRC % Nuclear Cap Utilization	90.5	89.4	89.2	90.1	91.9	93.0	93.5	0.5	2.9

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

	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	DoD	vs. 7D
CALI Wind	3273	1265	534	1183	2594	3065	1464	-1601	-521
TEXAS Wind	16815	19964	12023	16870	14446	17778	21984	4207	5668
US Wind	65750	70856	67833	76589	56970	69287	78461	9175	10580

### Generation Daily Average - MWh (EIA)

	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	DoD	vs. 7D
US Wind	65750	70856	67833	76589	56970	69287	78461	9175	10580
US Solar	7641	6956	8739	9182	7086	6027	7008	982	-597
US Petroleum	3225	2990	2413	2208	3295	2743	2390	-353	-423
US Other	8508	8450	8108	8077	8679	8340	8201	-139	-160
US Coal	86634	76804	71574	71292	85267	82854	72345	-10509	-6726
US Nuke	93844	92063	92253	93982	95984	96938	96884	-54	2706
US Hydro	31880	31008	28255	28388	31996	30607	30372	-236	16
<b>US Gas</b>	<b>168188</b>	<b>155367</b>	<b>134624</b>	<b>134090</b>	<b>164277</b>	<b>152034</b>	<b>144790</b>	<b>-7244</b>	<b>-6640</b>

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

## Storage Week Average Generation Data

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

	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	79.8	83.9	86.1	87.8	88.0	90.0	2.1	-0.4
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	25.1	21.0	18.8	17.1	16.9	14.9	-2.1	
NRC % Nuclear Cap Utilization	0.1	0.1	0.1	0.1	0.1	0.1	0.0	

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

	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec	WoW	WoW Bcf/d Impact
CALI Wind	1805	862	1496	363	1263	1653	389	-0.1
TEXAS Wind	12032	13655	14691	8733	12216	17864	5649	-1.0
US Wind	51002	58367	56260	47210	51469	71208	19739	-3.6
					4258.8			
					9%			

### Generation Weekly Average - MWh (EIA)

	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec	WoW	WoW Bcf/d Impact
US Wind	51002	58367	56260	47210	51469	71208	19739	<b>-3.6</b>
US Solar	10015	10068	9086	9918	7962	7430	-532	<b>0.1</b>
US Petroleum	2532	2555	3342	3166	3441	2633	-808	<b>0.1</b>
US Other	8205	7849	8442	8483	8412	8294	-118	0.0
US Coal	77955	77863	82301	82287	82671	76069	-6602	1.2
US Nuke	84337	88331	91252	92816	92927	94998	2071	<b>-0.4</b>
US Hydro	25422	26216	27837	26777	29623	30142	520	-0.1
<b>US Gas</b>	<b>145215</b>	<b>145263</b>	<b>148208</b>	<b>155286</b>	<b>159297</b>	<b>147139</b>	<b>-12158</b>	2.2

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	90.9	87.4	87.1	75.5	82.7	88.9	88.0			
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	14.0	17.5	17.8	29.4	22.2	16.0	16.9	-6.2	-0.6		
NRC % Nuclear Cap Utilization	92.4	88.9	88.6	76.8	84.1	90.4	89.5	6.3	0.6		

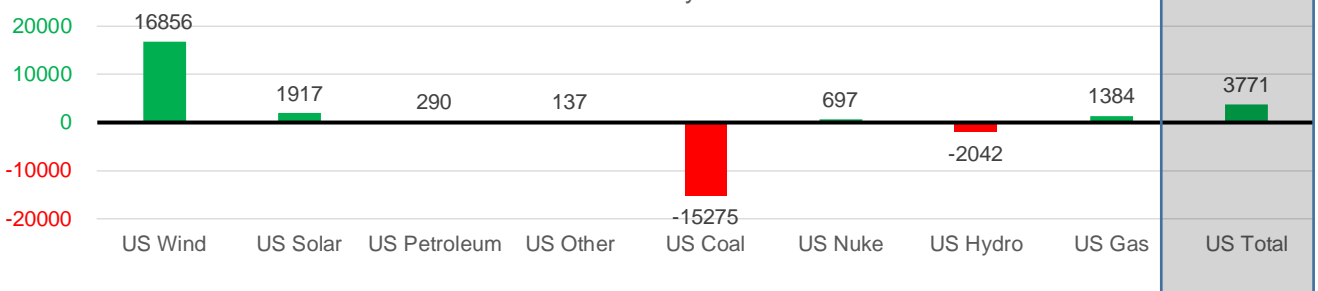
### Wind Generation Monthly Average - MWh (EIA)

	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	1089	1219	1964	1765	1252	1324	1180			
TEXAS Wind	9184	10059	9213	11565	11869	14493	13633	2624	3574		
US Wind	38397	40368	39362	43142	49974	60601	57224	10627	16856		

### 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	38397	40368	39362	43142	49974	60601	57224			
US Solar	4409	6639	13345	11059	9690	7903	8556	▲653.6	▲1917		
US Petroleum	2481	2826	2517	3239	3045	2951	3116	▲165	▲290		
US Other	8607	8245	9021	11109	8435	8375	8382	▲7	▲137		
US Coal	97233	95751	109915	84433	80848	79101	80476	▲1376	▼-15275		
US Nuke	97878	92300	90072	77089	87404	93871	92997	▼-874	▲697		
US Hydro	28539	30669	25622	24078	26593	29647	28627	▼-1020	▼-2042		
<b>US Gas</b>	<b>152361</b>	<b>150786</b>	<b>173566</b>	<b>159045</b>	<b>151462</b>	<b>153543</b>	<b>152169</b>	<b>▼-3070</b>	<b>▲1384</b>		
<b>US Total</b>	<b>430005</b>	<b>427979</b>	<b>463578</b>	<b>413350</b>	<b>417925</b>	<b>436049</b>	<b>431751</b>	<b>▼-2763</b>	<b>▲3771</b>		

Last 30 days YoY



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

## Regional S/D Models Storage Projection

Week Ending 17-Dec

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-9.4	1.1	-8.3	-58
East	-3.2	2.3	-0.9	-6
Midwest	-3.2	0.1	-3.0	-21
Mountain	1.8	-3.4	-1.5	-11
South Central	-3.8	2.5	-1.3	-9
Pacific	-1.1	-0.5	-1.6	-11

\*Adjustment Factor is calculated based on historical regional deltas

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

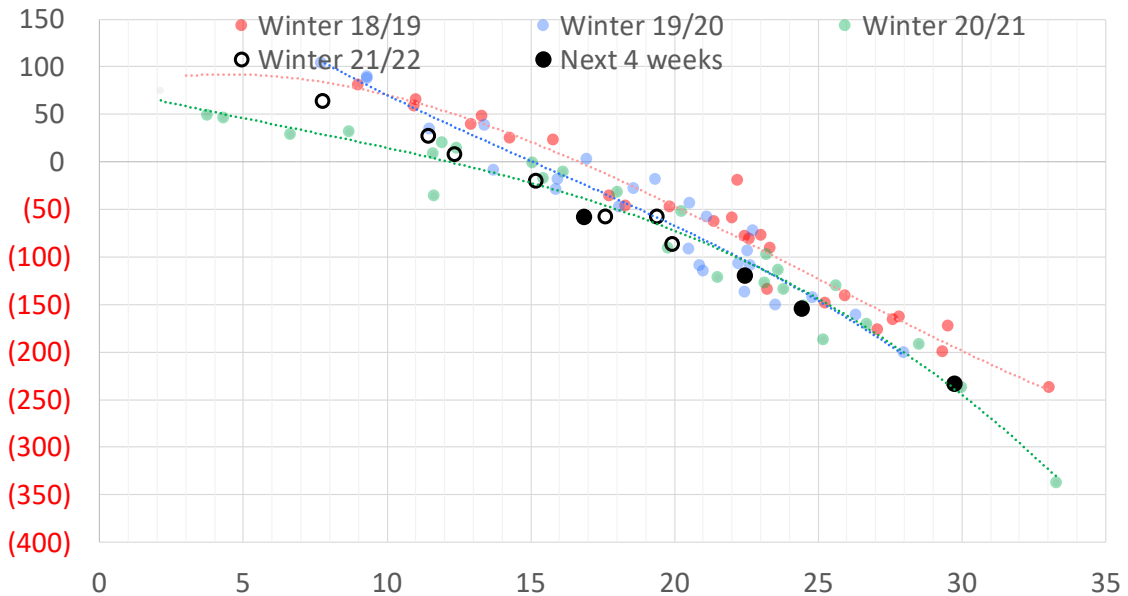


## Weather Model Storage Projection

Next report  
and beyond

Week Ending	GWDDs	Week Storage Projection
17-Dec	17	-58
24-Dec	22	-120
31-Dec	24	-155
07-Jan	30	-234

Weather Storage Model - Next 4 Week Forecast

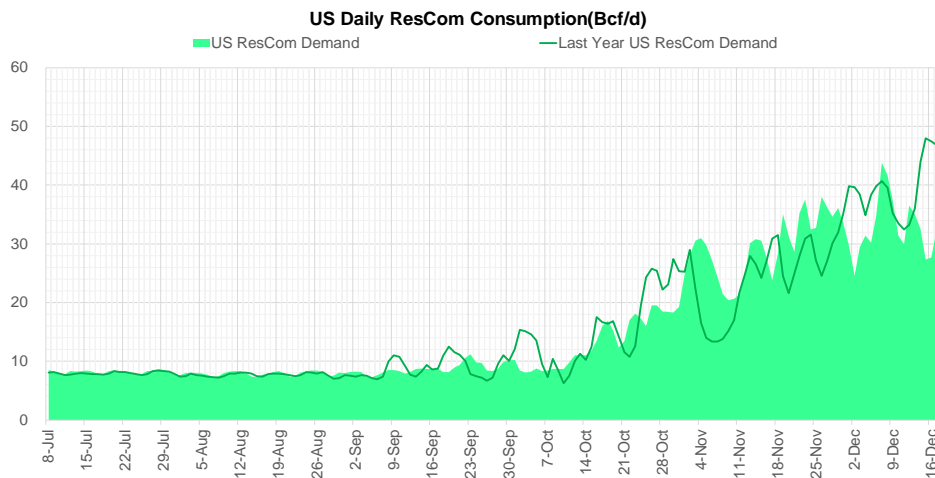
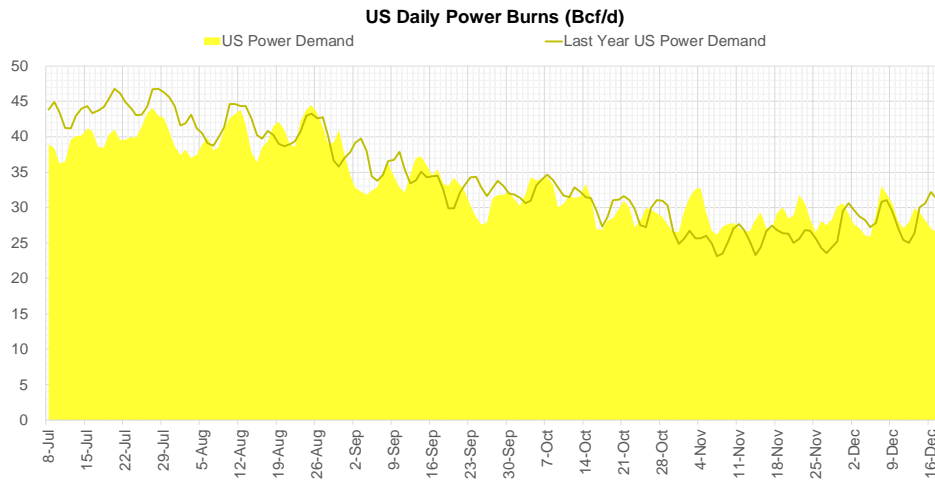
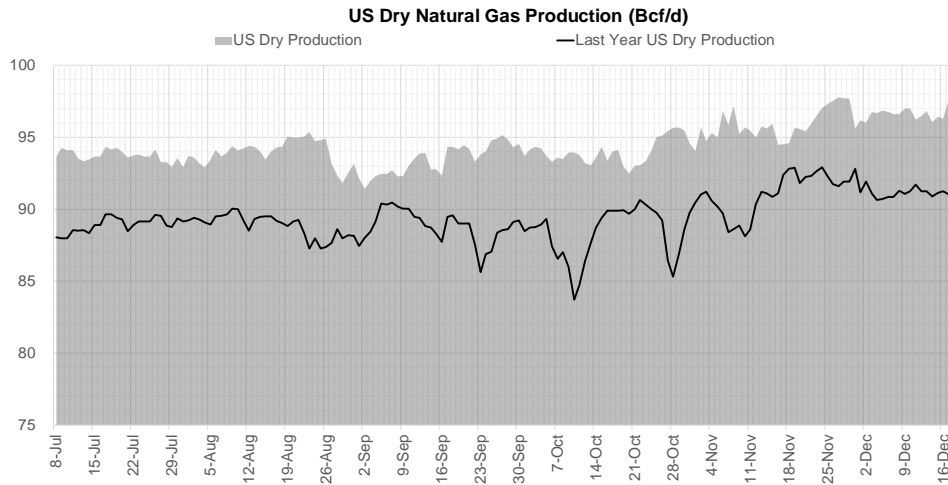


Go to larger image





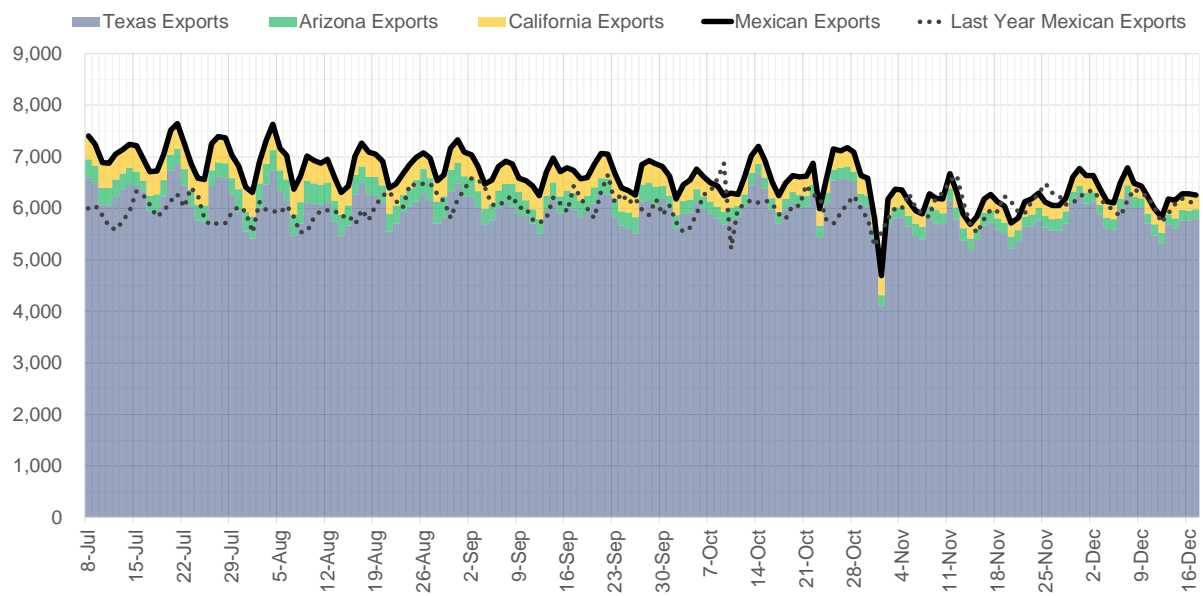
## Supply – Demand Trends



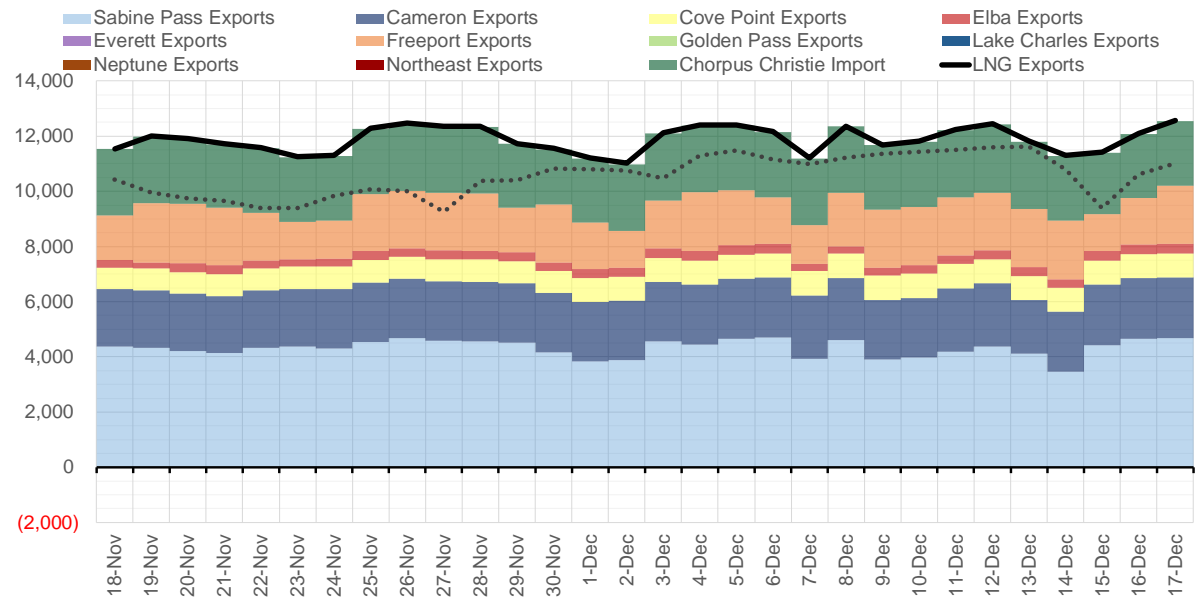
Source: Bloomberg

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### 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.

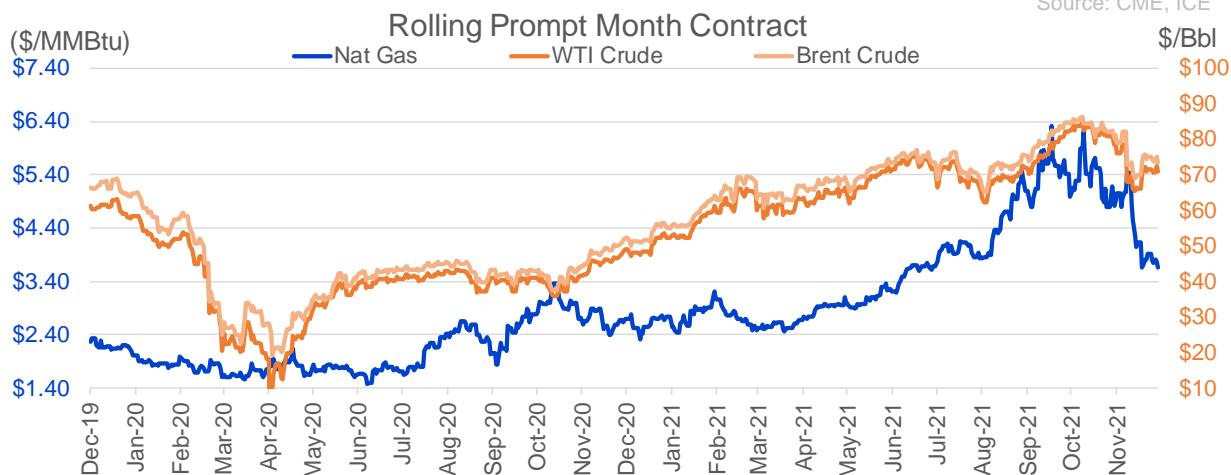
## Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
1	2022	C	4.00	5774	3	2022	C	10.00	36441
1	2022	C	4.50	5387	1	2022	C	4.00	28861
1	2022	C	4.25	5165	1	2022	P	3.00	27272
3	2022	C	7.00	2451	1	2022	P	4.00	26887
1	2022	P	3.50	1767	3	2022	C	8.00	25755
3	2022	C	4.00	1590	3	2022	C	5.00	25056
1	2022	P	2.75	1540	1	2022	C	5.00	24706
2	2022	C	6.00	1014	1	2022	P	2.75	23364
4	2022	C	5.00	839	1	2022	C	6.00	23061
1	2022	P	4.00	788	2	2022	C	5.00	22855
1	2022	C	5.00	760	3	2022	C	6.00	20881
3	2022	C	5.00	729	1	2022	P	3.50	20699
1	2022	P	3.75	681	4	2022	C	5.00	20381
1	2022	P	3.25	669	12	2022	C	5.00	20297
3	2022	P	3.50	658	3	2022	P	2.50	20146
3	2022	C	8.00	600	4	2022	C	3.00	19710
2	2022	C	7.00	582	3	2022	C	4.00	18974
2	2022	P	3.00	573	1	2022	C	10.00	18356
2	2022	P	3.50	547	1	2022	C	7.00	17695
3	2022	C	10.00	537	3	2022	P	4.00	17649
1	2022	C	4.20	520	1	2022	C	4.50	17556
3	2022	C	12.00	500	2	2022	C	4.00	17545
11	2023	P	3.00	475	2	2022	C	6.00	17524
12	2023	P	3.00	475	2	2022	P	3.50	17441
1	2022	C	4.10	470	1	2022	P	3.25	17386
3	2022	P	2.50	453	3	2022	P	3.50	17273
1	2022	C	4.75	452	3	2022	P	3.00	17220
2	2022	C	4.50	444	2	2022	P	4.00	15803
3	2022	C	6.50	437	5	2022	C	5.00	15498
2	2022	C	5.00	409	4	2022	P	2.50	15492
1	2022	C	3.90	398	3	2022	C	7.00	15460
3	2022	P	3.00	373	10	2022	C	5.00	15416
2	2022	C	5.50	355	6	2022	C	5.00	15392
4	2022	P	3.50	350	10	2022	C	6.00	14275
2	2022	P	3.75	345	2	2022	P	3.00	14028
1	2022	C	4.30	312	2	2022	C	5.50	13785
2	2022	C	6.50	308	2	2022	C	10.00	13737
1	2022	C	4.60	305	5	2022	C	3.00	13733
2	2022	C	7.50	304	3	2022	P	5.00	13507
2	2022	C	4.00	295	1	2022	C	8.00	13468
1	2022	C	3.75	291	6	2022	C	3.00	13438
1	2022	C	3.85	287	10	2022	P	2.00	13297
1	2022	P	3.85	287	12	2022	C	4.50	13274
3	2022	P	2.00	283	7	2022	C	3.00	13230
4	2025	P	2.25	265	8	2022	C	3.00	13226
5	2025	P	2.25	265	9	2022	C	3.00	13225
6	2025	P	2.25	265	3	2022	C	3.00	13178
7	2025	P	2.25	265	8	2022	C	5.00	13168
8	2025	P	2.25	265	10	2022	C	3.00	13114
					12	2022	C	5.25	13113

Source: CME, ICE

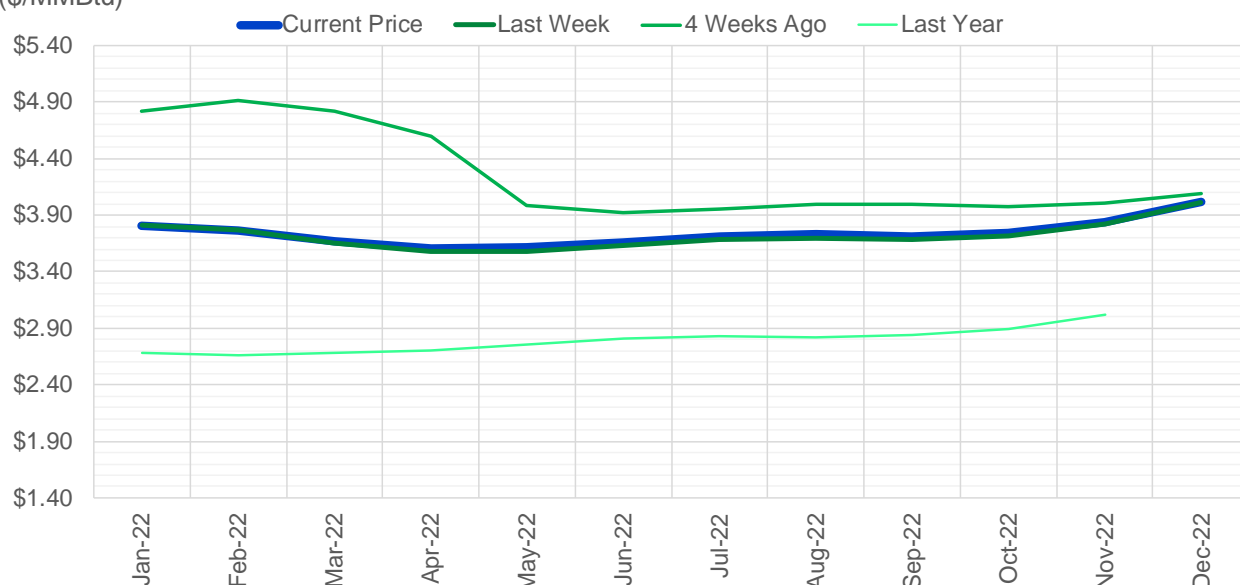
## Nat Gas Futures Open Interest CME, and ICE Combined

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	75657	85656	-9999	JAN 22	88505	93109	-4604
FEB 22	113597	107852	5745	FEB 22	76765	75904	860
MAR 22	247145	244566	2579	MAR 22	91290	89843	1447
APR 22	87047	85229	1818	APR 22	71797	71882	-86
MAY 22	113523	114401	-878	MAY 22	70473	70959	-487
JUN 22	52282	51322	960	JUN 22	54715	54757	-42
JUL 22	42234	40610	1624	JUL 22	58744	58492	252
AUG 22	32633	32582	51	AUG 22	55287	55190	97
SEP 22	45672	45475	197	SEP 22	56332	56380	-48
OCT 22	74991	75231	-240	OCT 22	63994	64213	-219
NOV 22	34865	35118	-253	NOV 22	50750	50400	350
DEC 22	33358	33000	358	DEC 22	59015	58422	593
JAN 23	38999	40528	-1529	JAN 23	46626	46049	577
FEB 23	11642	11854	-212	FEB 23	35990	35758	232
MAR 23	26184	26815	-631	MAR 23	40671	40424	247
APR 23	19347	19450	-103	APR 23	39975	40929	-954
MAY 23	13058	13152	-94	MAY 23	35803	35780	23
JUN 23	10005	9952	53	JUN 23	32232	32171	61
JUL 23	7458	7512	-54	JUL 23	31699	31637	62
AUG 23	4733	4700	33	AUG 23	32712	32635	78
SEP 23	7279	7278	1	SEP 23	31182	31128	54
OCT 23	11753	11411	342	OCT 23	35689	35538	151
NOV 23	6090	6067	23	NOV 23	35060	35008	52
DEC 23	8806	8818	-12	DEC 23	32335	32297	38
JAN 24	6929	6936	-7	JAN 24	23485	23463	22
FEB 24	1577	1570	7	FEB 24	16357	16358	-1
MAR 24	9185	9185	0	MAR 24	22253	22208	46
APR 24	4438	4438	0	APR 24	15585	15579	6
MAY 24	2058	2058	0	MAY 24	16023	16009	13
JUN 24	929	929	0	JUN 24	16414	16362	52



(\$/MMBtu)

### Nat Gas Term Structure



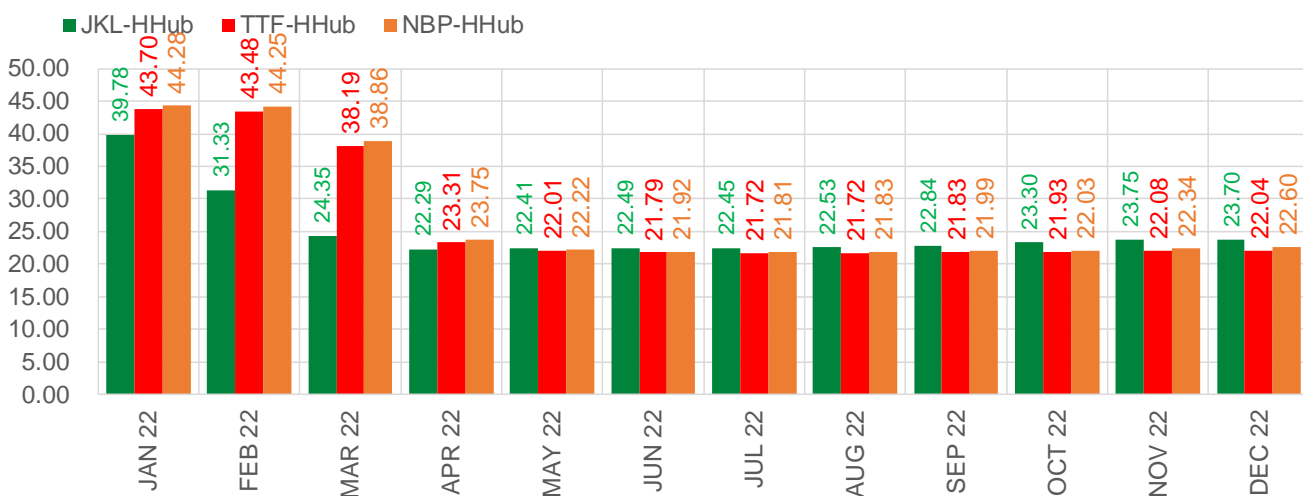
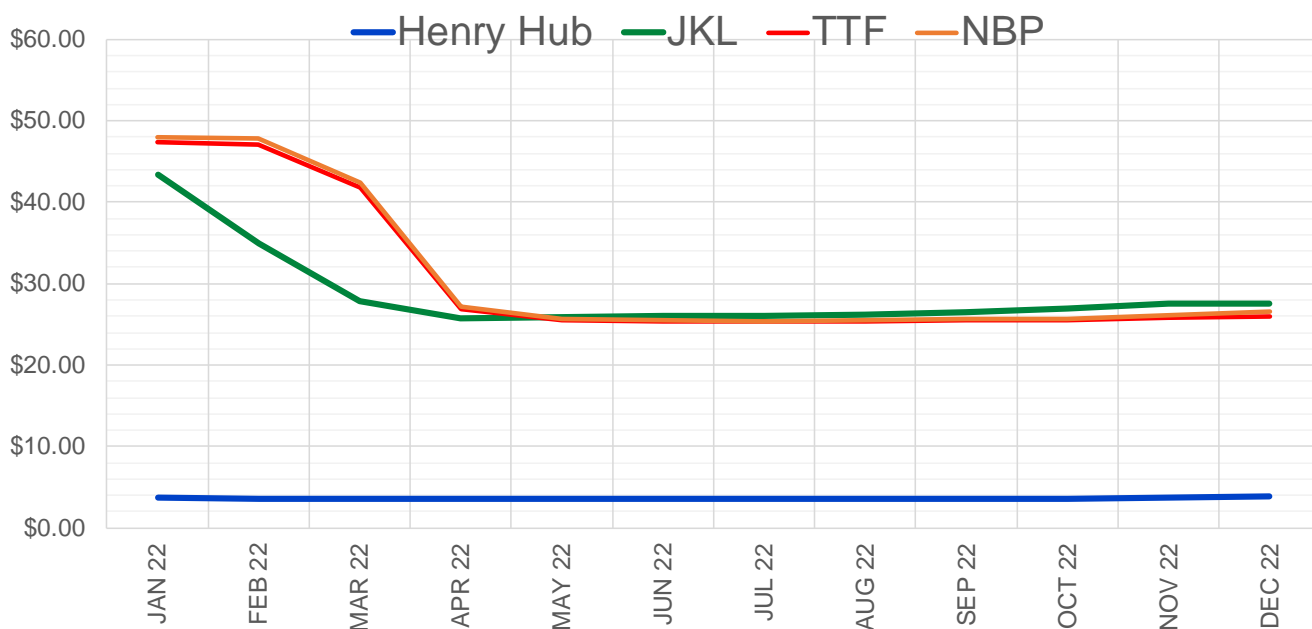
	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
<b>Current Price</b>	<b>\$3.802</b>	<b>\$3.761</b>	<b>\$3.668</b>	<b>\$3.602</b>	<b>\$3.614</b>	<b>\$3.660</b>	<b>\$3.711</b>	<b>\$3.727</b>	<b>\$3.714</b>	<b>\$3.745</b>	<b>\$3.842</b>	<b>\$4.013</b>
Last Week	\$3.815	\$3.774	\$3.658	\$3.575	\$3.583	\$3.628	\$3.680	\$3.695	\$3.684	\$3.721	\$3.823	\$4.015
vs. Last Week	-\$0.013	-\$0.013	\$0.010	\$0.027	\$0.031	\$0.032	\$0.031	\$0.032	\$0.030	\$0.024	\$0.019	-\$0.002
4 Weeks Ago	\$4.816	\$4.914	\$4.824	\$4.593	\$3.986	\$3.923	\$3.951	\$3.993	\$3.998	\$3.978	\$4.007	\$4.090
vs. 4 Weeks Ago	-\$1.014	-\$1.153	-\$1.156	-\$0.991	-\$0.372	-\$0.263	-\$0.240	-\$0.266	-\$0.284	-\$0.233	-\$0.165	-\$0.077
Last Year	\$2.677	\$2.681	\$2.665	\$2.687	\$2.705	\$2.751	\$2.807	\$2.827	\$2.816	\$2.838	\$2.894	\$3.016
vs. Last Year	\$1.125	\$1.080	\$1.003	\$0.915	\$0.909	\$0.909	\$0.904	\$0.900	\$0.898	\$0.907	\$0.948	\$0.997

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	4.00	17.69	13.69
TETCO M3	\$/MMBtu	2.97	6.64	3.67
FGT Zone 3	\$/MMBtu	2.90	3.87	0.97
Zone 6 NY	\$/MMBtu	2.90	7.59	4.69
Chicago Citygate	\$/MMBtu	3.61	4.09	0.48
Michcon	\$/MMBtu	3.58	3.55	-0.03
Columbia TCO Pool	\$/MMBtu	3.44	3.32	-0.11
Ventura	\$/MMBtu	3.59	4.66	1.07
Rockies/Opal	\$/MMBtu	5.11	3.97	-1.14
El Paso Permian Basin	\$/MMBtu	3.40	3.89	0.49
Socal Citygate	\$/MMBtu	6.46	5.84	-0.62
Malin	\$/MMBtu	5.08	4.63	-0.45
Houston Ship Channel	\$/MMBtu	3.62	4.09	0.47
Henry Hub Cash	\$/MMBtu	3.67	3.66	-0.01
AECO Cash	C\$/GJ	3.41	2.98	-0.43
Station2 Cash	C\$/GJ	3.39	5.27	1.88
Dawn Cash	C\$/GJ	3.70	3.71	0.00

Source: CME, Bloomberg

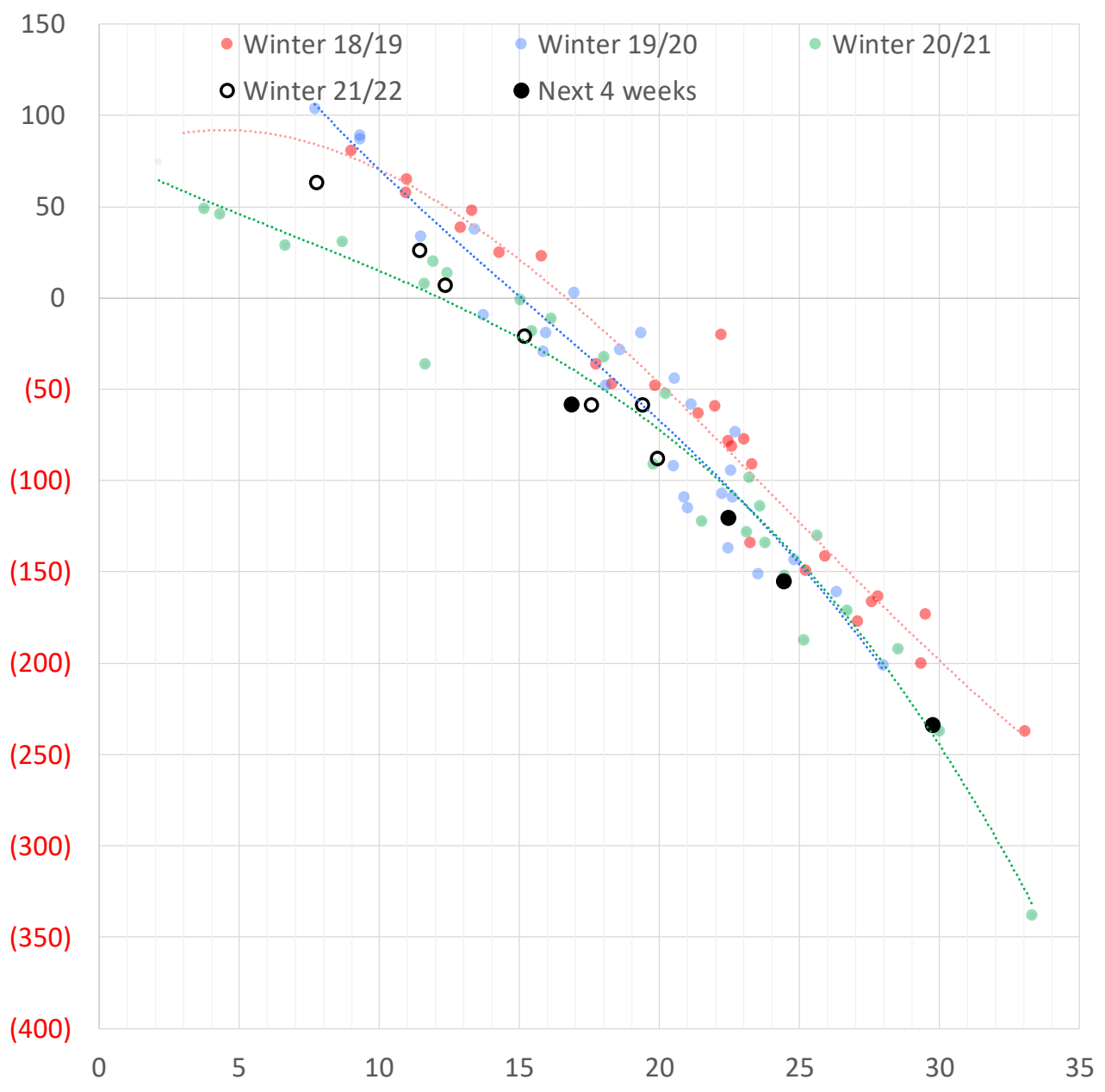
	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	▲ 0.000	▲ 0.000	▲ 2.192
NatGas Oct21/Nov21	\$/MMBtu	0.361	▲ 0.000	▲ 0.000	▲ 0.301
NatGas Oct21/Jan22	\$/MMBtu	-2.075	▼ -0.048	▼ -1.229	▼ -2.364
NatGas Apr22/Oct22	\$/MMBtu	0.149	▼ -0.008	▲ 0.132	▲ 0.118
WTI Crude	\$/Bbl	72.38	▲ 1.440	▼ -6.630	▲ 24.020
Brent Crude	\$/Bbl	75.02	▲ 0.600	▼ -6.220	▲ 23.520
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	226.63	▲ 1.600	▼ -11.770	▲ 77.110
Propane, Mt. Bel	cents/Gallon	1.04	▲ 0.023	▼ -0.225	▲ 0.404
Ethane, Mt. Bel	cents/Gallon	0.33	▼ -0.004	▼ -0.066	▲ 0.137
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>	\$3.668	\$3.627	\$3.541	\$3.494	\$3.509	\$3.558	\$3.609	\$3.627	\$3.618	\$3.634	\$3.754	\$3.912
<b>JKL</b>	\$43.445	\$34.955	\$27.895	\$25.785	\$25.920	\$26.050	\$26.055	\$26.160	\$26.455	\$26.935	\$27.500	\$27.610
<b>JKL-HHHub</b>	\$39.777	\$31.328	\$24.354	\$22.291	\$22.411	\$22.492	\$22.446	\$22.533	\$22.837	\$23.301	\$23.746	\$23.698
<b>TTF</b>	\$47.371	\$47.103	\$41.731	\$26.799	\$25.521	\$25.347	\$25.330	\$25.346	\$25.450	\$25.559	\$25.834	\$25.948
<b>TTF-HHHub</b>	\$43.703	\$43.476	\$38.190	\$23.305	\$22.012	\$21.789	\$21.721	\$21.719	\$21.832	\$21.925	\$22.080	\$22.036
<b>NBP</b>	\$47.947	\$47.880	\$42.400	\$27.241	\$25.724	\$25.476	\$25.422	\$25.454	\$25.607	\$25.663	\$26.095	\$26.512
<b>NBP-HHHub</b>	\$44.279	\$44.253	\$38.859	\$23.747	\$22.215	\$21.918	\$21.813	\$21.827	\$21.989	\$22.029	\$22.341	\$22.600

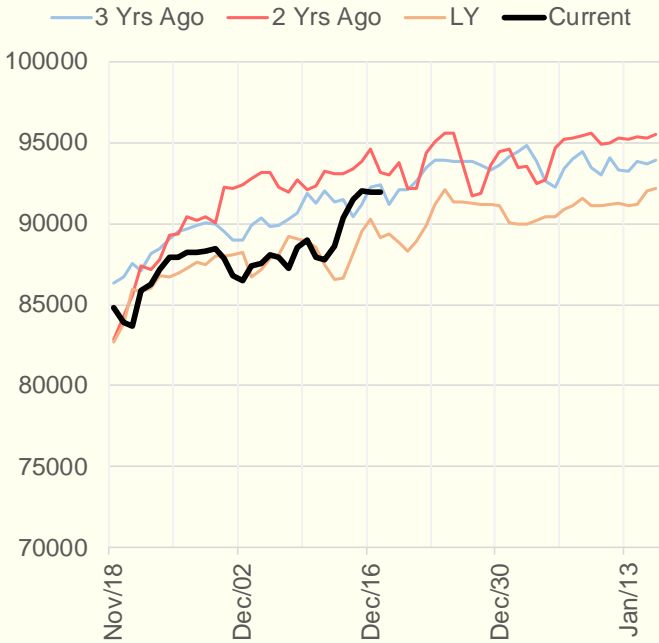
## Weather Storage Model - Next 4 Week Forecast



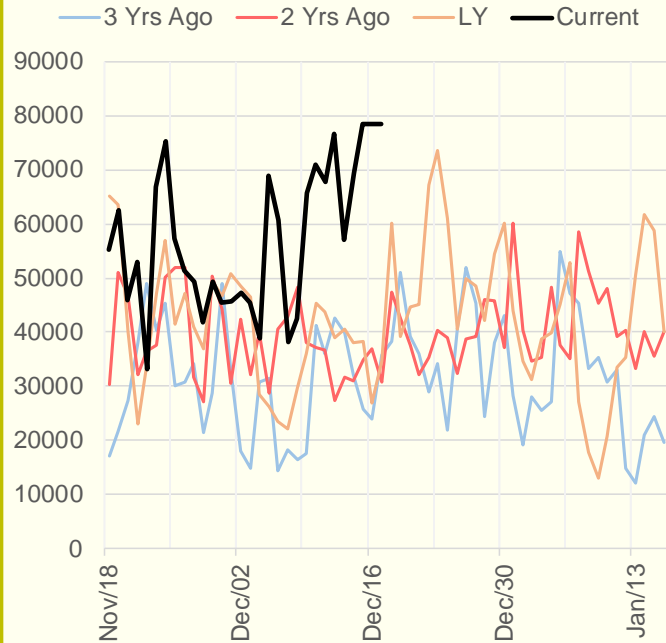
The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are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



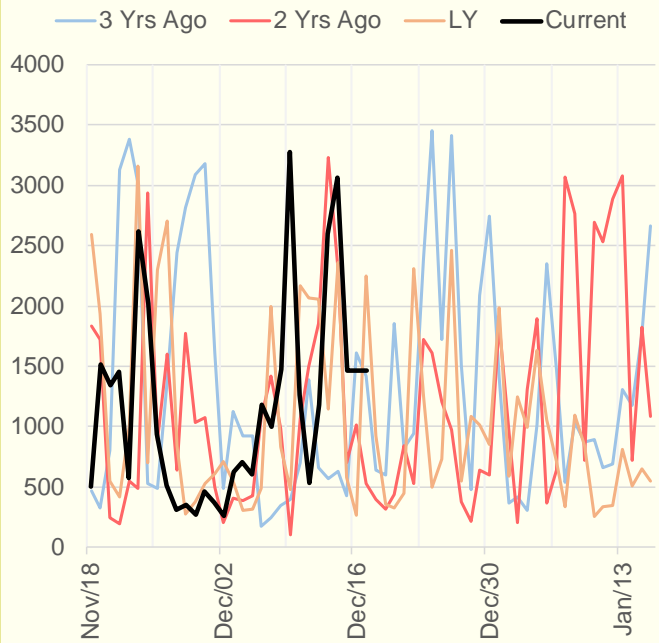
### NRC Nuclear Daily Output



### US Wind



### CALI Wind



### TEXAS Wind

