

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](#)

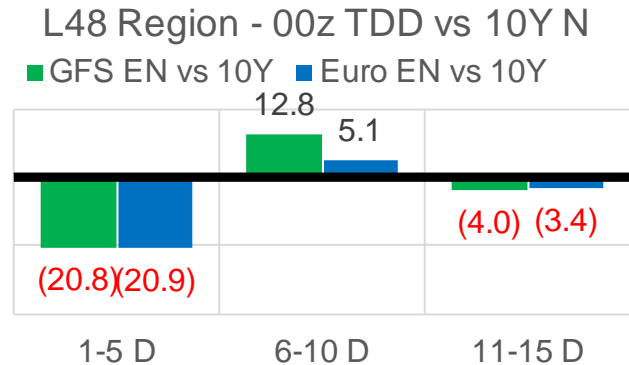
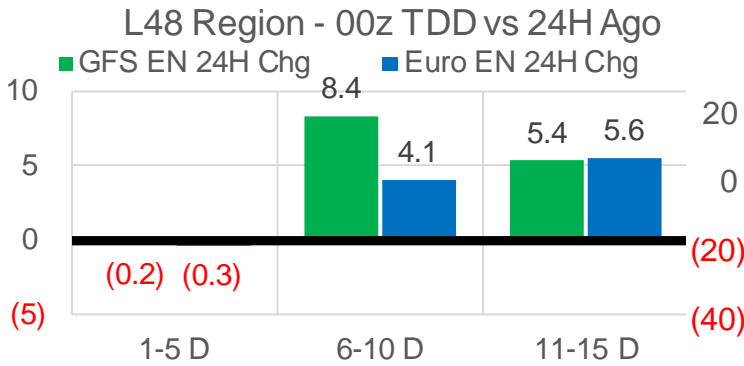
[Nat Gas Futures Open Interest](#)

[Price Summary](#)

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.74 ▲	\$ 0.03 ▲	\$ 0.08

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 43.63 ▲	\$ 0.57 ▲	\$ 1.6

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 46.55 ▲	\$ 0.49 ▲	\$ 1.8



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	92.7 ▼	-0.12 ▼	0.26 ▲

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	25.7 ▲	0.44 ▲	0.39 ▲

	Current	Δ from YD	Δ from 7D Avg
US ResComm	31.6 ▲	0.66 ▲	4.12 ▲

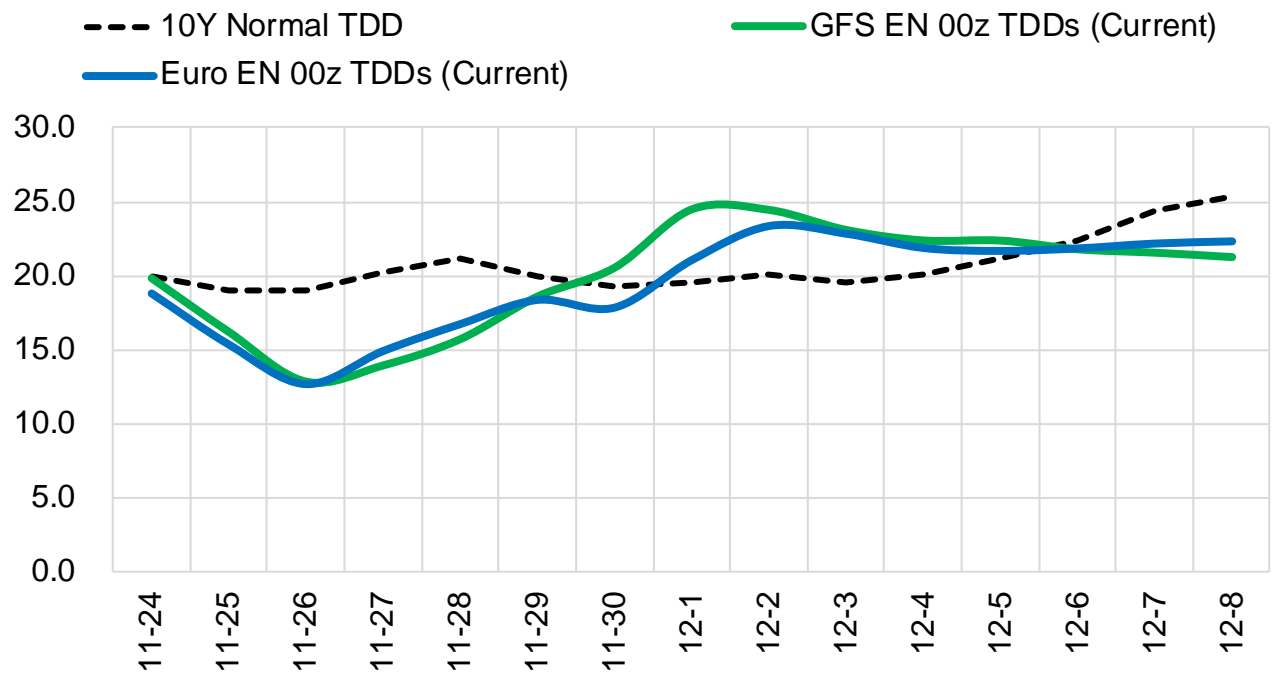
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.9 ▲	0.36 ▲	0.22 ▲

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	10.1 ▲	0.71 ▲	0.28 ▲

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4 ▲	0.12 ▲	0.21 ▲

Short-term Weather Model Outlooks (00z)

L48 Region



Source: WSI , 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.

Lower 48 Component Models

Daily Balances

	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	DoD	vs. 7D
Lower 48 Dry Production	92.7	92.7	91.8	92.4	92.5	92.8	92.7	▼ -0.1	▲ 0.2
Canadian Imports	5.3	4.3	4.3	4.4	4.4	4.6	4.9	▲ 0.4	▲ 0.4
L48 Power	25.8	25.1	26.0	24.4	24.5	25.3	25.7	▲ 0.4	▲ 0.6
L48 Residential & Commercial	31.6	24.5	21.6	25.0	27.9	30.9	31.6	▲ 0.7	▲ 4.7
L48 Industrial	24.9	23.5	22.7	22.3	21.9	21.9	21.6	▼ -0.3	▼ -1.3
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.1	5.1	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.7	2.3	2.2	2.3	2.4	2.6	2.7	▲ 0.1	▲ 0.2
L48 Regional Gas Consumption	90.0	80.6	77.7	79.1	81.9	85.9	86.8	▲ 0.8	▲ 4.2
Net LNG Delivered	10.44	9.95	9.74	9.65	9.39	9.40	10.11	▲ 0.7	▲ 0.4
Total Mexican Exports	6.1	6.2	6.4	6.2	6.2	6.3	6.4	▲ 0.1	▲ 0.2
Implied Daily Storage Activity	-8.5	0.3	2.3	1.9	-0.7	-4.3	-5.7		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	16-Oct	23-Oct	30-Oct	6-Nov	13-Nov	20-Nov	WoW	vs. 4W
Lower 48 Dry Production	86.7	90.0	88.1	90.4	89.0	91.7	▲ 2.7	▲ 2.3
Canadian Imports	4.0	3.6	4.8	4.9	3.9	5.1	▲ 1.2	▲ 0.8
L48 Power	30.5	28.5	28.1	24.8	24.5	24.6	▲ 0.1	▼ -1.8
L48 Residential & Commercial	11.4	16.8	23.3	23.6	17.2	27.5	▲ 10.4	▲ 7.3
L48 Industrial	21.9	22.4	24.2	23.2	24.3	25.1	▲ 0.8	▲ 1.6
L48 Lease and Plant Fuel	4.8	4.9	4.8	5.0	4.9	5.1	▲ 0.1	▲ 0.1
L48 Pipeline Distribution	2.1	2.2	2.5	2.3	1.9	2.4	▲ 0.5	▲ 0.2
L48 Regional Gas Consumption	70.6	75.0	82.9	78.8	72.9	84.8	▲ 11.9	▲ 7.4
Net LNG Exports	6.9	8.0	9.2	10.2	10.4	10.2	▼ -0.2	▲ 0.7
Total Mexican Exports	6.2	6.3	6.2	6.0	6.3	6.1	▼ -0.3	▼ -0.1
Implied Daily Storage Activity	7.0	4.2	-5.3	0.3	3.3	-4.2	-7.5	
EIA Reported Daily Storage Activity	7.0	4.1	-5.1	1.1	4.4			
Daily Model Error	0.0	0.1	-0.2	-0.9	-1.1			

Monthly Balances

	2Yr Ago Nov-18	LY Nov-19	Jul-20	Aug-20	Sep-20	Oct-20	MTD Nov-20	MoM	vs. LY
Lower 48 Dry Production	88.1	95.3	88.3	88.6	88.6	88.3	90.9	▲ 2.7	▼ -4.3
Canadian Imports	4.1	4.5	4.4	4.9	3.8	4.3	4.6	▲ 0.3	▲ 0.0
L48 Power	25.5	27.6	43.8	40.6	33.3	29.2	24.7	▼ -4.5	▼ -2.8
L48 Residential & Commercial	32.9	32.8	7.9	7.7	8.5	16.8	23.3	▲ 6.5	▼ -9.4
L48 Industrial	24.4	24.0	19.3	20.8	21.1	22.5	23.8	▲ 1.3	▼ -0.2
L48 Lease and Plant Fuel	5.0	5.3	4.9	5.0	4.9	4.9	5.0	▲ 0.2	▼ -0.2
L48 Pipeline Distribution	2.6	2.8	2.4	2.4	2.1	2.3	2.2	▼ 0.0	▼ -0.6
L48 Regional Gas Consumption	90.3	92.5	78.3	76.4	69.8	75.7	79.2	▲ 3.5	▼ -13.3
Net LNG Exports	4.3	7.2	3.3	4.0	5.9	8.0	10.1	▲ 2.1	▲ 2.9
Total Mexican Exports	4.8	5.3	6.1	6.3	6.4	6.2	6.2	▼ 0.0	▲ 0.9
Implied Daily Storage Activity	-7.2	-5.1	4.9	6.8	10.2	2.6	0.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

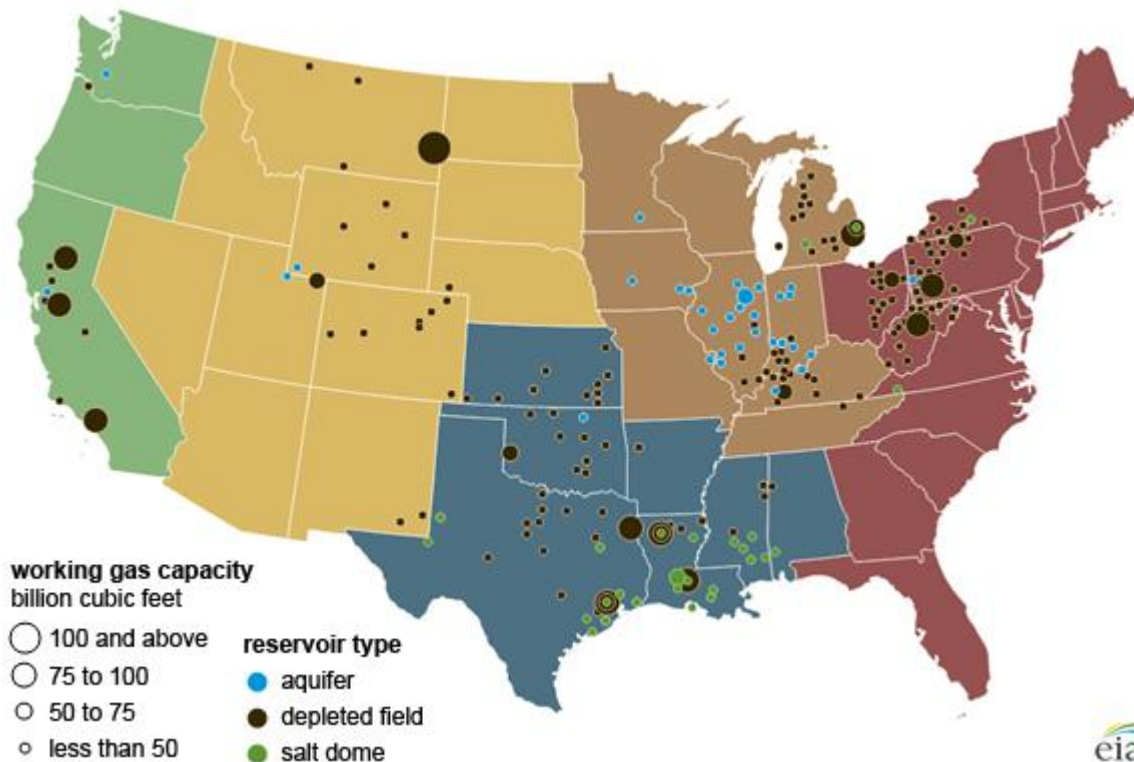
Regional S/D Models Storage Projection

Week Ending 20-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-4.4	1.1	-3.3	-22
East	-4.8	1.7	-3.1	-21
Midwest	-1.5	0.7	-0.8	-6
Mountain	3.4	-3.5	-0.2	-1
South Central	-1.7	2.0	0.4	4
Pacific	0.2	0.2	0.4	3

*Adjustment Factor is calculated based on historical regional deltas

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

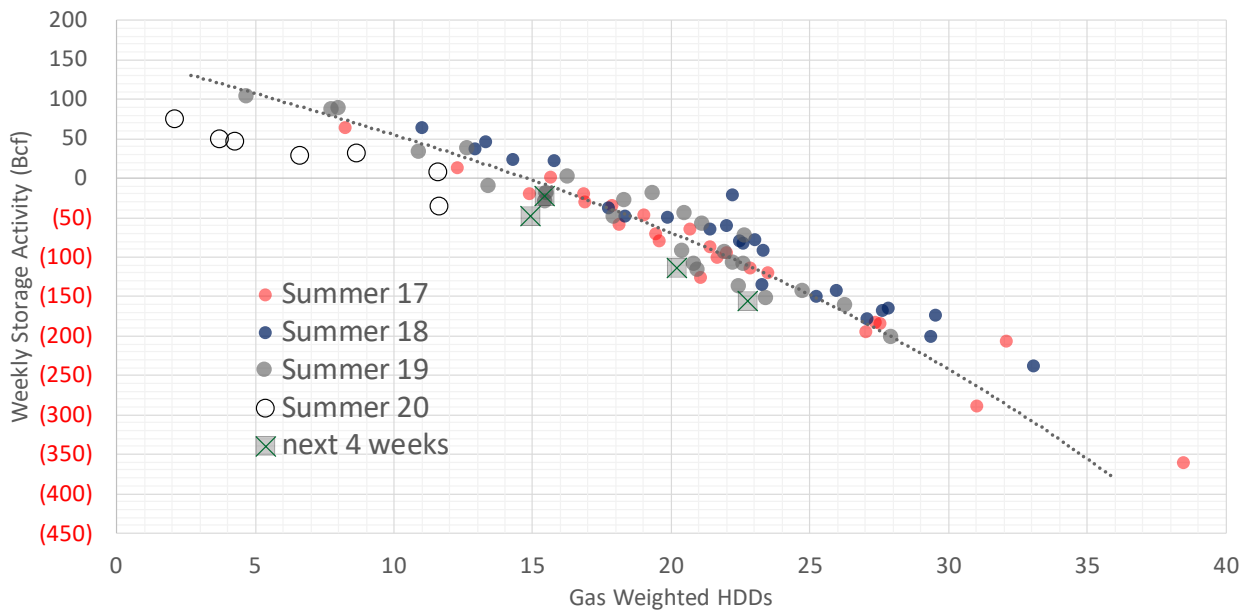


Weather Model Storage Projection

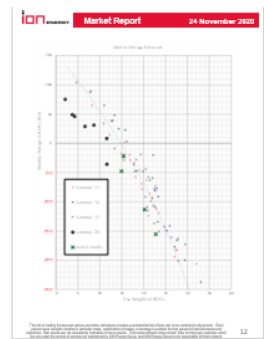
Next report
and beyond

Week Ending	Temp	Week Storage Projection
20-Nov	15.4	-22
27-Nov	15.0	-48
04-Dec	20.2	-113
11-Dec	22.8	-156

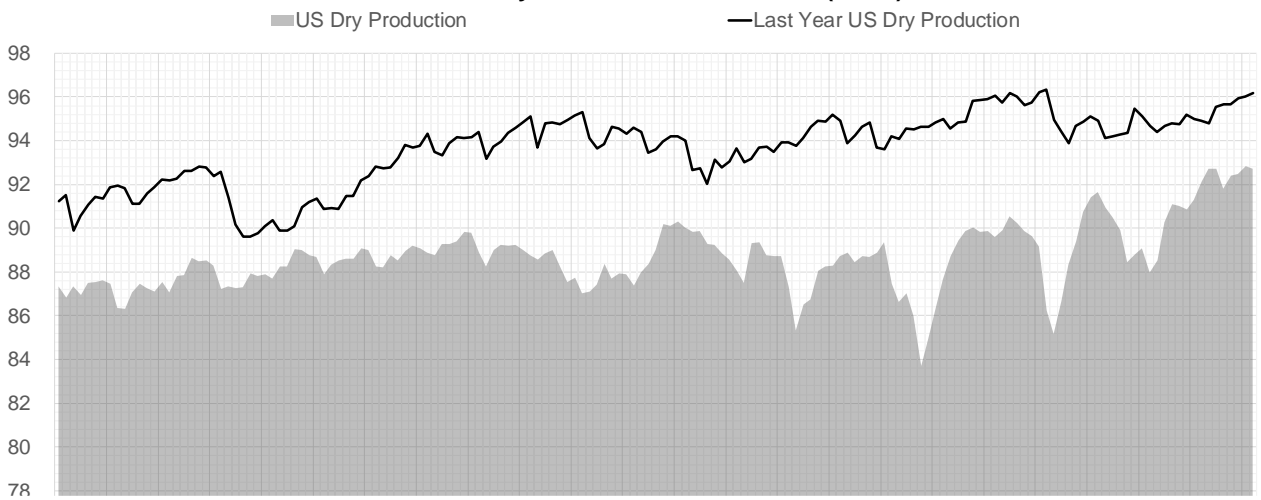
Winter Storage Forecast



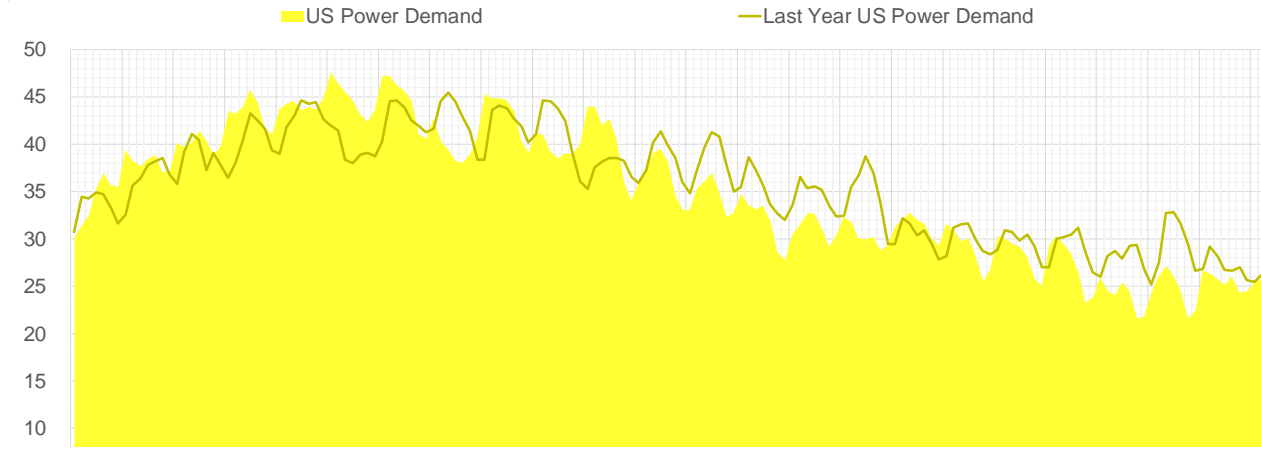
Go to larger image



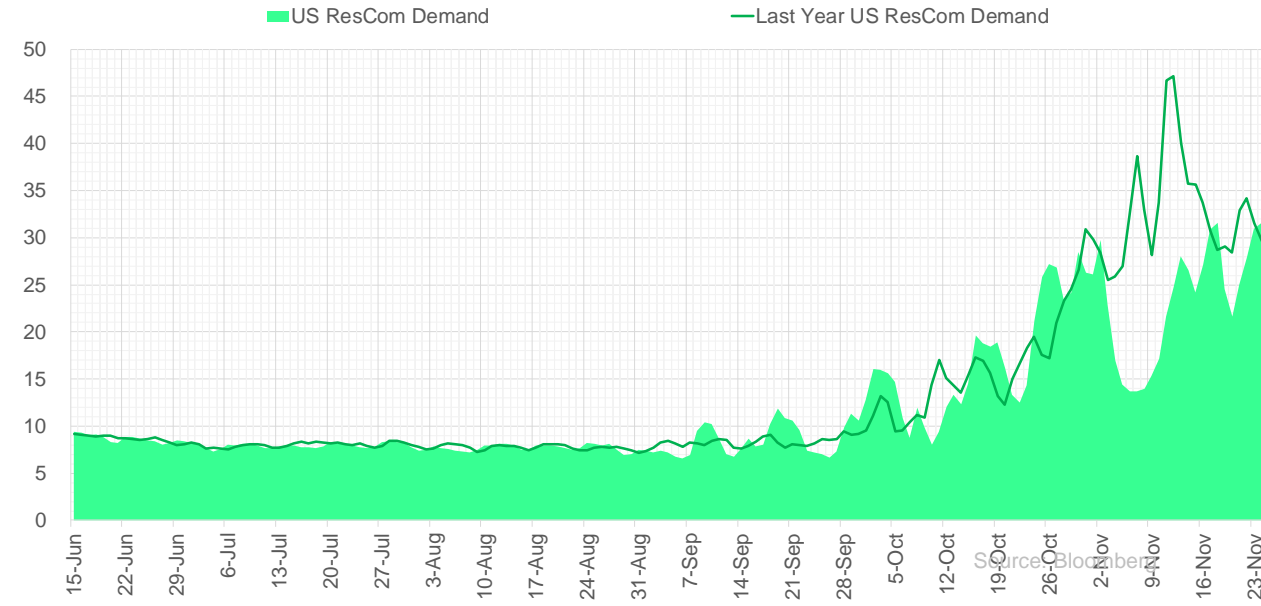
Supply – Demand Trends US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

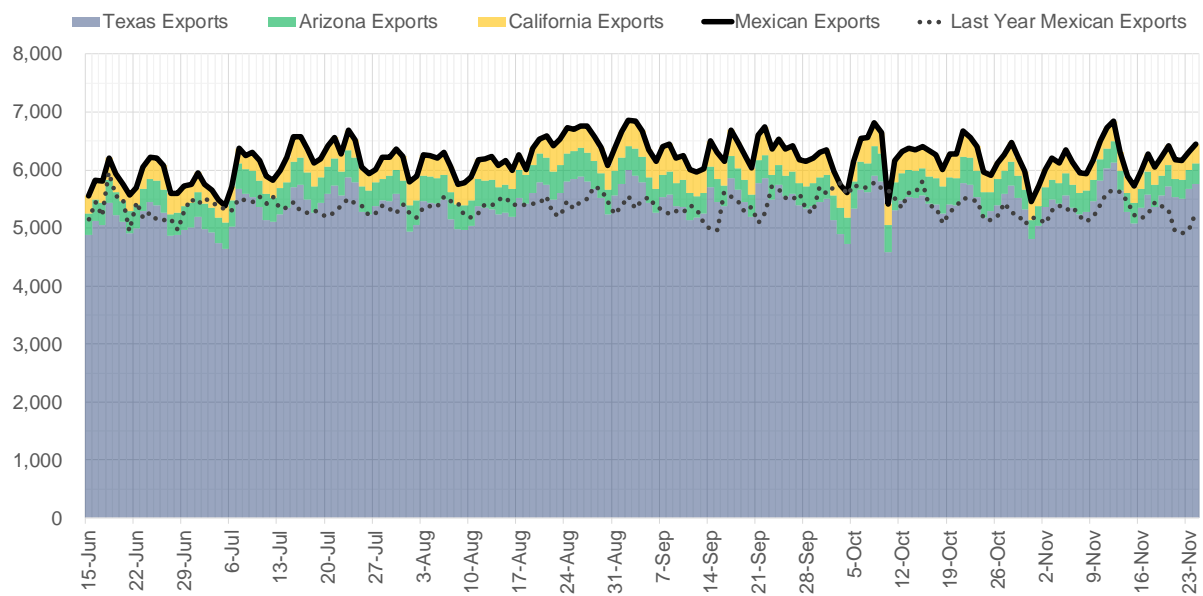


US Daily ResCom Consumption (Bcf/d)

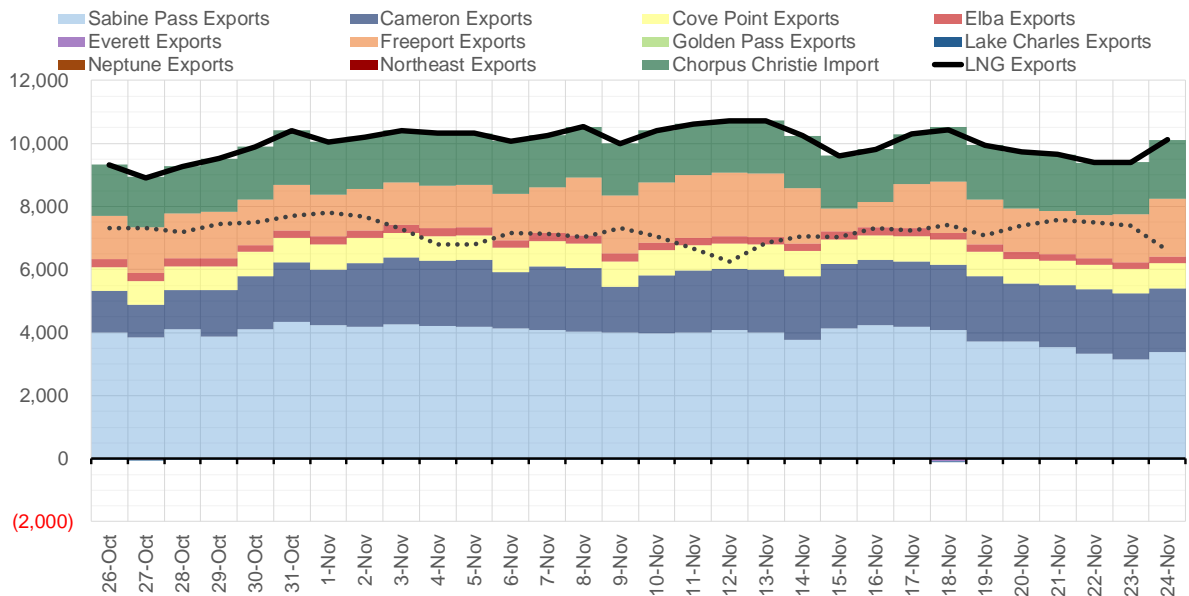


Source: Bloomberg

Mexican Exports (MMcf/d)



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



Source: Bloomberg

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.

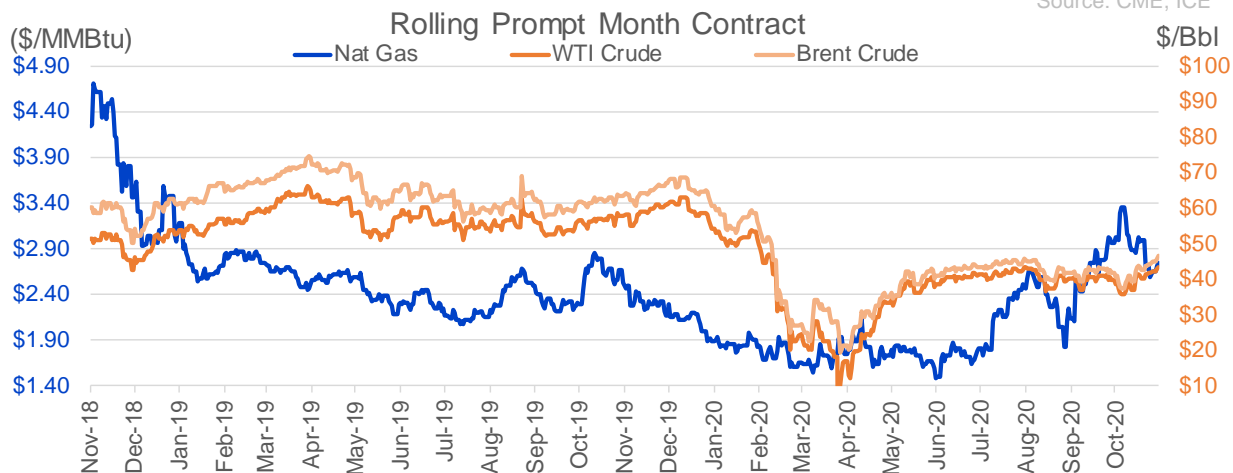
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

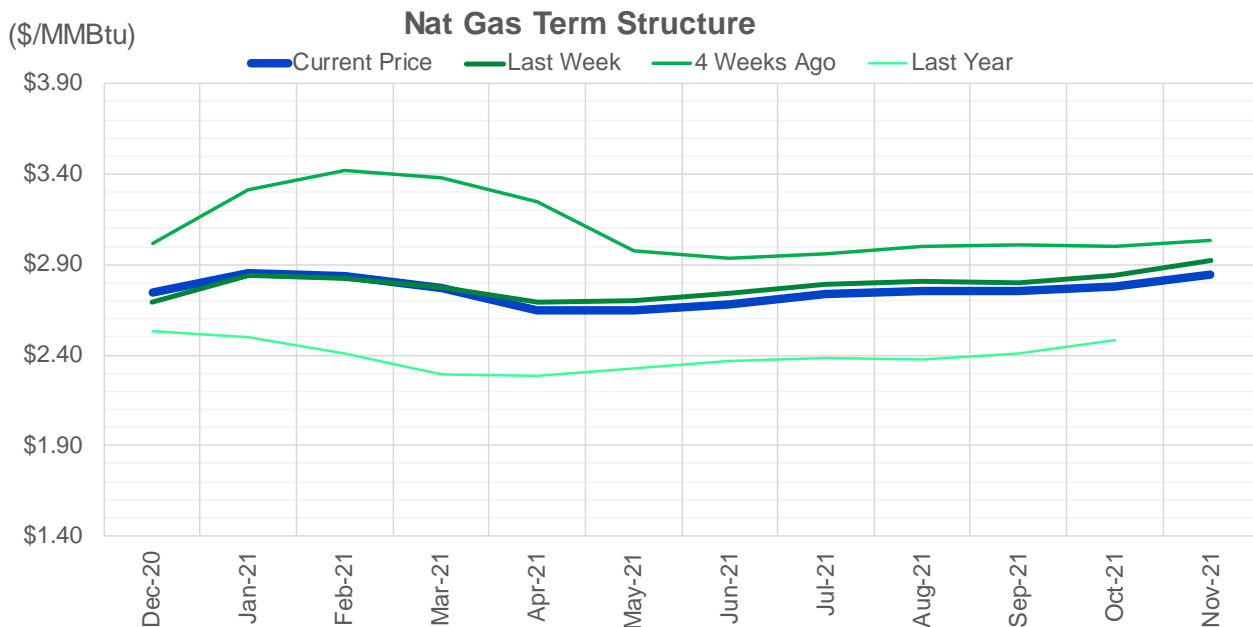
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
4	2021	C	4.00	9500	3	2021	P	2.00	41233
4	2021	C	3.50	9055	4	2021	C	4.00	39397
12	2020	P	2.70	5383	3	2021	C	4.00	38607
12	2020	C	2.75	5363	12	2020	P	2.00	31799
12	2020	C	2.80	5160	1	2021	C	3.50	29557
12	2020	C	2.70	3619	1	2021	P	2.50	29294
12	2020	P	2.50	3522	1	2021	C	4.50	28972
1	2021	C	4.00	3283	3	2021	C	3.25	28698
12	2020	P	2.60	2928	10	2021	C	4.00	28585
4	2021	C	2.75	2500	12	2020	C	3.75	27068
12	2020	P	2.65	2149	12	2020	C	3.50	25817
2	2021	P	2.50	2070	3	2021	C	6.00	25782
2	2021	P	2.25	2005	12	2020	C	4.00	25109
2	2021	P	2.00	2004	10	2021	C	3.25	24996
12	2020	C	2.85	1950	2	2021	P	2.25	24861
12	2020	P	2.55	1642	1	2021	C	5.00	24438
3	2022	C	3.50	1600	3	2021	C	7.00	23678
3	2021	C	3.25	1551	3	2021	C	3.00	23247
4	2021	C	2.60	1500	12	2020	C	3.00	22864
12	2020	P	2.90	1489	3	2021	C	4.50	22605
2	2021	C	3.50	1484	12	2020	C	4.50	22276
2	2021	P	2.75	1433	1	2021	C	3.75	22213
4	2021	C	3.25	1420	1	2021	C	4.00	22192
10	2021	C	3.75	1228	3	2021	C	3.50	22126
10	2021	P	2.20	1228	3	2021	P	2.50	21918
1	2021	C	4.50	1195	3	2021	C	5.00	21626
6	2021	P	2.25	1150	2	2021	C	3.50	21207
9	2021	P	2.25	1150	1	2021	C	6.00	21130
5	2021	P	2.25	1062	12	2020	P	2.75	20936
4	2021	P	2.25	1050	1	2021	C	3.00	20859
7	2021	P	2.25	1050	12	2020	C	3.25	20116
8	2021	P	2.25	1050	8	2021	C	4.00	19519
10	2021	P	2.25	1050	4	2021	C	3.25	19304
1	2021	C	3.50	1043	2	2021	C	4.00	19290
3	2021	C	3.50	1001	8	2021	P	2.25	19192
2	2021	P	1.75	1000	2	2021	P	2.50	18967
1	2021	P	2.80	966	4	2021	C	5.00	18828
12	2020	C	2.95	964	12	2020	P	3.00	18519
1	2021	P	2.50	955	5	2021	C	3.00	18158
12	2020	C	2.65	944	10	2021	C	5.00	17973
3	2022	P	2.25	900	1	2021	P	2.25	17878
1	2021	C	3.15	873	4	2021	C	3.00	17142
1	2021	P	2.60	834	1	2021	P	2.00	17010
1	2021	C	3.40	811	2	2021	C	5.00	16633
1	2021	C	3.25	792	2	2021	C	4.50	16358
1	2022	C	3.50	750	12	2020	P	2.50	15977
2	2022	C	3.50	750	12	2020	C	5.00	15828
6	2021	P	2.50	740	10	2021	C	3.00	15314
1	2021	P	2.75	735	4	2021	P	2.00	15226
					5	2021	C	3.5	14813

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	FOR JUNE 26	Current	Prior	Daily Change
DEC 20	17987	23677	-5690	DEC 20	66187	66146	40.75
JAN 21	303193	303149	44	JAN 21	99155	97650	1504.5
FEB 21	95779	95648	131	FEB 21	69133	68970	162.25
MAR 21	190628	187178	3450	MAR 21	86901	86494	407.75
APR 21	83301	83117	184	APR 21	69797	70123	-326
MAY 21	60332	60287	45	MAY 21	71941	72050	-109
JUN 21	36401	36238	163	JUN 21	59163	59141	21.75
JUL 21	30677	30618	59	JUL 21	61701	61750	-49.25
AUG 21	27354	28470	-1116	AUG 21	63990	64079	-89.75
SEP 21	41735	43445	-1710	SEP 21	57915	57809	106.75
OCT 21	96657	96822	-165	OCT 21	71915	70445	1470.25
NOV 21	40436	40385	51	NOV 21	51811	51967	-156
DEC 21	33398	32977	421	DEC 21	49495	49379	116.25
JAN 22	30911	30154	757	JAN 22	48702	48523	178.5
FEB 22	22984	22432	552	FEB 22	38701	38635	66.5
MAR 22	25418	25271	147	MAR 22	41425	41353	71.5
APR 22	23067	23145	-78	APR 22	39781	39808	-27
MAY 22	11985	11769	216	MAY 22	31701	31658	43
JUN 22	6404	6253	151	JUN 22	30578	30545	33
JUL 22	5749	5720	29	JUL 22	32520	32468	52.25
AUG 22	4781	4700	81	AUG 22	31166	31091	74.5
SEP 22	4181	4121	60	SEP 22	30661	30620	40.5
OCT 22	7941	7796	145	OCT 22	34913	34964	-51
NOV 22	5269	5361	-92	NOV 22	31505	31414	91.5
DEC 22	5617	5446	171	DEC 22	33847	33763	84.25
JAN 23	4800	4800	0	JAN 23	15049	15060	-11.25
FEB 23	1133	1140	-7	FEB 23	14008	14019	-10.5
MAR 23	2556	2556	0	MAR 23	13909	13915	-6.25
APR 23	2368	2368	0	APR 23	13077	13072	4.75
MAY 23	451	451	0	MAY 23	12195	12136	59





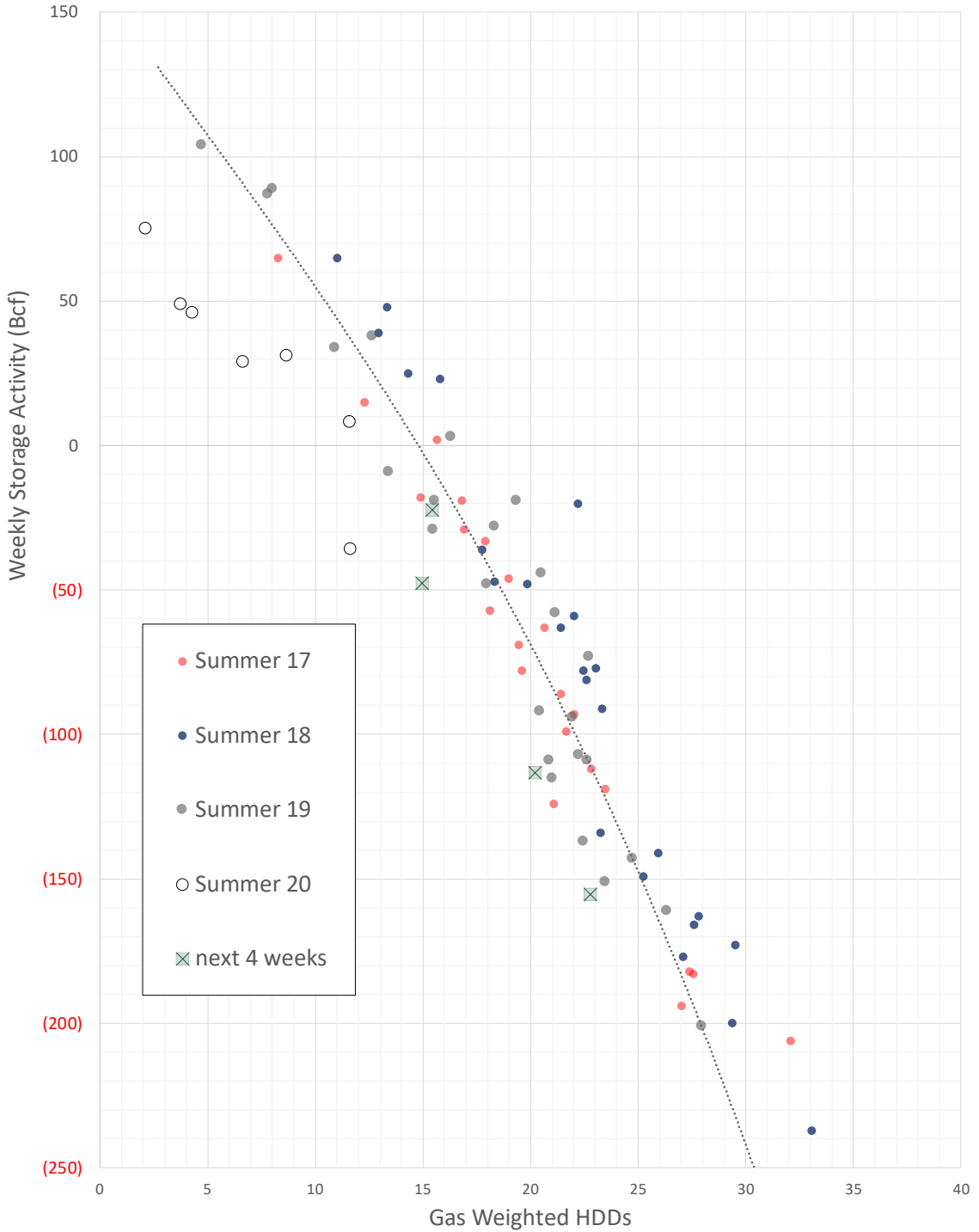
	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Current Price	\$2.744	\$2.853	\$2.833	\$2.770	\$2.650	\$2.643	\$2.682	\$2.736	\$2.756	\$2.751	\$2.779	\$2.847
Last Week	\$2.692	\$2.844	\$2.826	\$2.777	\$2.691	\$2.697	\$2.740	\$2.793	\$2.811	\$2.801	\$2.837	\$2.921
vs. Last Week	\$0.052	\$0.009	\$0.007	-\$0.007	-\$0.041	-\$0.054	-\$0.058	-\$0.057	-\$0.055	-\$0.050	-\$0.058	-\$0.074
4 Weeks Ago	\$3.019	\$3.311	\$3.424	\$3.376	\$3.247	\$2.973	\$2.933	\$2.962	\$3.002	\$3.012	\$2.999	\$3.032
vs. 4 Weeks Ago	-\$0.275	-\$0.458	-\$0.591	-\$0.606	-\$0.597	-\$0.330	-\$0.251	-\$0.226	-\$0.246	-\$0.261	-\$0.220	-\$0.185
Last Year	\$2.470	\$2.533	\$2.501	\$2.410	\$2.289	\$2.283	\$2.323	\$2.369	\$2.386	\$2.377	\$2.410	\$2.480
vs. Last Year	\$0.274	\$0.320	\$0.332	\$0.360	\$0.361	\$0.360	\$0.359	\$0.367	\$0.370	\$0.374	\$0.369	\$0.367

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	3.26	3.94	0.68
TETCO M3	\$/MMBtu	2.09	2.42	0.33
FGT Zone 3	\$/MMBtu	2.20	2.72	0.52
Zone 6 NY	\$/MMBtu	2.20	2.95	0.75
Chicago Citygate	\$/MMBtu	2.24	2.50	0.26
Michcon	\$/MMBtu	2.23	2.44	0.21
Columbia TCO Pool	\$/MMBtu	2.07	1.99	-0.09
Ventura	\$/MMBtu	2.19	2.56	0.37
Rockies/Opal	\$/MMBtu	3.10	2.53	-0.58
El Paso Permian Basin	\$/MMBtu	2.00	2.33	0.33
Socal Citygate	\$/MMBtu	3.97	3.24	-0.73
Malin	\$/MMBtu	2.93	3.11	0.18
Houston Ship Channel	\$/MMBtu	2.25	2.64	0.39
Henry Hub Cash	\$/MMBtu	2.23	2.45	0.22
AECO Cash	C\$/GJ	2.06	2.17	0.11
Station2 Cash	C\$/GJ	1.99	3.89	1.90
Dawn Cash	C\$/GJ	2.24	2.46	0.22

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	-0.203	▼ -0.050	▲ 0.248	▲ 0.240
NatGas Mar21/Apr21	\$/MMBtu	-0.120	▼ -0.034	▼ -0.394	▼ -0.386
NatGas Oct21/Nov21	\$/MMBtu	0.068	▼ -0.016	▲ 0.006	▲ 0.000
NatGas Apr21/Oct21	\$/MMBtu	0.129	▲ 0.122	▼ -0.263	▼ -0.261
WTI Crude	\$/Bbl	43.63	▲ 2.200	▲ 4.060	▼ -14.780
Brent Crude	\$/Bbl	46.55	▲ 2.800	▲ 5.350	▼ -17.720
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	133.70	▲ 9.790	▲ 17.930	▼ -62.360
Propane, Mt. Bel	cents/Gallon	0.54	▼ -0.008	▲ 0.020	▲ 0.012
Ethane, Mt. Bel	cents/Gallon	0.22	▼ -0.004	▼ 0.000	▲ 0.018
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▼ -0.050
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500
Coal, ILB	\$/MMBtu	1.32			

Winter Storage 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.