

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 3.02	▼ \$ (0.02)	▲ \$ 0.10

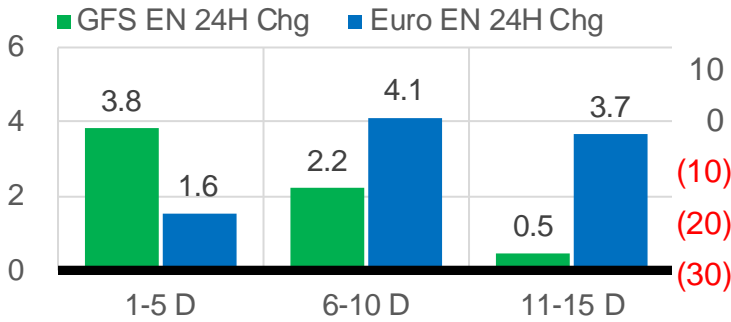
	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 41.17	▼ \$ (0.28)	▲ \$ 2.1

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 43.55	▼ \$ (0.25)	▲ \$ 2.3

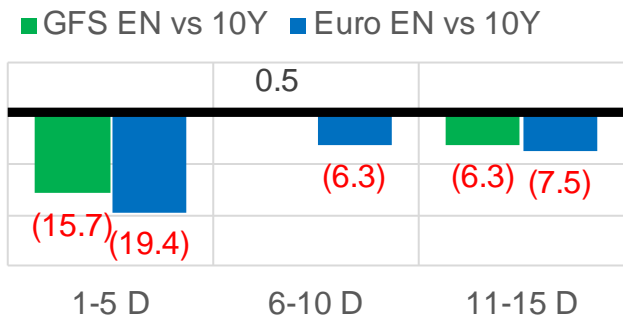
Page Menu

- [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](#)

L48 Region - 00z TDD vs 24H Ago



L48 Region - 00z TDD vs 10Y N



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	89.4	▲ 0.91	▲ 0.35

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	26.5	▼ -0.22	▲ 2.40

	Current	Δ from YD	Δ from 7D Avg
US ResComm	24.1	▲ 2.20	▲ 8.32

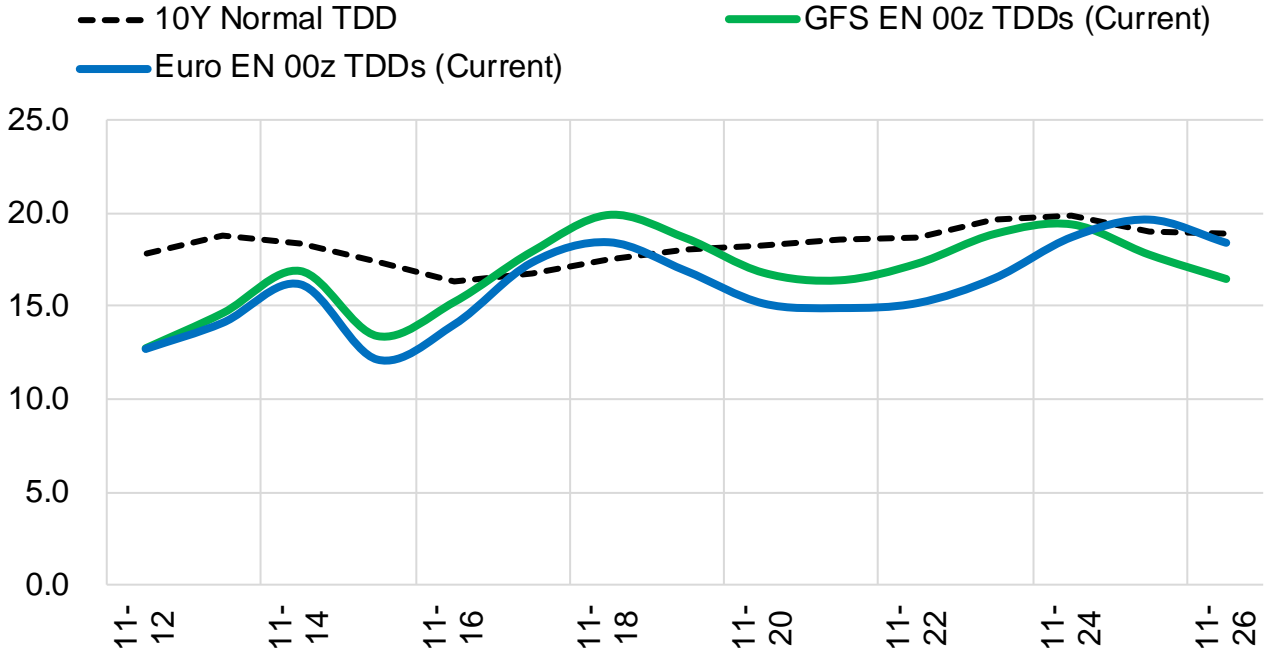
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.0	▲ 0.04	▲ 1.33

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	10.6	▲ 0.01	▲ 0.32

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.7	▲ 0.03	▲ 0.39

Short-term Weather Model Outlooks (00z)

L48 Region



Source: WSI , Bloomberg

Lower 48 Component Models

Daily Balances

	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	DoD	vs. 7D
Lower 48 Dry Production	90.0	88.5	88.8	89.1	88.0	88.5	89.4	▲ 0.9	▲ 0.6
Canadian Imports	2.9	3.2	3.2	3.3	4.7	5.0	5.0	▲ 0.0	▲ 1.3
L48 Power	24.4	21.5	21.6	24.2	25.0	26.8	26.5	▼ -0.2	▲ 2.6
L48 Residential & Commercial	13.7	13.7	14.1	15.4	17.2	21.9	24.1	▲ 2.2	▲ 8.1
L48 Industrial	24.6	25.0	25.4	25.6	25.2	25.3	24.5	▼ -0.8	▼ -0.7
L48 Lease and Plant Fuel	5.0	4.9	4.9	4.9	4.9	4.9	4.9	▲ 0.1	▲ 0.0
L48 Pipeline Distribution	1.8	1.6	1.7	1.8	2.0	2.3	2.4	▲ 0.1	▲ 0.5
L48 Regional Gas Consumption	69.5	66.8	67.7	71.9	74.2	81.1	82.4	▲ 1.4	▲ 10.6
Net LNG Delivered	10.08	10.25	10.53	10.00	10.42	10.62	10.63	▲ 0.0	▲ 0.3
Total Mexican Exports	6.4	6.0	5.9	6.2	6.6	6.6	6.7	▲ 0.0	▲ 0.4
Implied Daily Storage Activity	7.0	8.7	7.8	4.3	1.4	-4.9	-5.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	2-Oct	9-Oct	16-Oct	23-Oct	30-Oct	6-Nov	WoW	vs. 4W
Lower 48 Dry Production	88.2	88.1	86.7	90.0	88.2	90.5	▲ 2.3	▲ 2.2
Canadian Imports	3.9	4.5	4.0	3.6	4.8	4.9	▲ 0.0	▲ 0.6
L48 Power	30.7	31.0	30.5	28.6	28.1	24.8	▼ -3.3	▼ -4.8
L48 Residential & Commercial	9.3	13.4	11.4	16.8	23.3	23.5	▲ 0.3	▲ 7.3
L48 Industrial	22.3	21.4	21.8	22.4	24.2	24.2	▲ 0.0	▲ 1.7
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.9	4.8	5.0	▲ 0.1	▲ 0.1
L48 Pipeline Distribution	2.0	2.2	2.1	2.2	2.5	2.3	▼ -0.2	▲ 0.0
L48 Regional Gas Consumption	69.1	72.8	70.6	75.0	83.0	79.8	▼ -3.2	▲ 4.5
Net LNG Exports	6.8	7.5	6.9	8.0	9.2	10.2	▲ 1.0	▲ 2.3
Total Mexican Exports	6.3	6.2	6.2	6.3	6.2	6.0	▼ -0.2	▼ -0.3
Implied Daily Storage Activity	9.9	6.2	7.0	4.2	-5.4	-0.7	4.7	
EIA Reported Daily Storage Activity	10.7	6.6	7.0	4.1	-5.1			
Daily Model Error	-0.8	-0.4	0.0	0.0	-0.2			

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	89.8	▲ 1.5	▼ -5.5
Canadian Imports	4.1	4.5	4.4	4.9	3.8	4.3	4.2	▼ 0.0	▼ -0.3
L48 Power	25.4	27.5	43.7	40.7	33.3	29.3	24.5	▼ -4.8	▼ -3.0
L48 Residential & Commercial	32.9	32.8	7.9	7.7	8.5	16.8	19.2	▲ 2.3	▼ -13.6
L48 Industrial	24.4	24.1	19.3	20.8	21.2	22.6	24.7	▲ 2.1	▲ 0.6
L48 Lease and Plant Fuel	5.0	5.3	4.9	5.0	4.9	4.9	5.0	▲ 0.1	▼ -0.3
L48 Pipeline Distribution	2.6	2.8	2.4	2.4	2.1	2.3	2.0	▼ -0.2	▼ -0.8
L48 Regional Gas Consumption	90.3	92.5	78.3	76.4	69.9	75.8	75.4	▼ -0.4	▼ -17.1
Net LNG Exports	4.3	7.2	3.3	4.0	5.9	8.0	10.3	▲ 2.3	▲ 3.1
Total Mexican Exports	4.8	5.3	6.1	6.3	6.4	6.2	6.2	▲ 0.0	▲ 1.0
Implied Daily Storage Activity	-7.2	-5.1	4.9	6.8	10.3	2.6	2.1		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

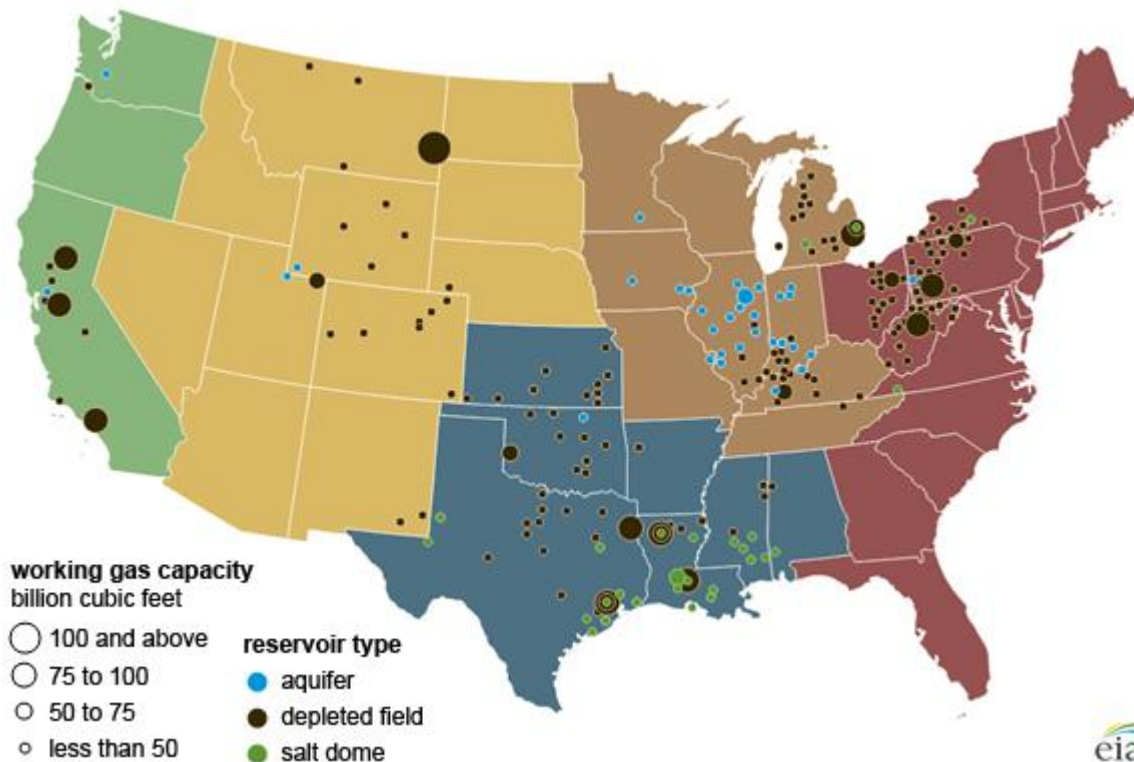
Regional S/D Models Storage Projection

Week Ending 6-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-1.0	0.4	-0.5	-4
East	-3.1	2.1	-1.0	-7
Midwest	-0.3	1.4	1.1	8
Mountain	4.1	-3.1	1.0	7
South Central	-2.0	-0.1	-2.1	-15
Pacific	0.4	0.2	0.5	4

*Adjustment Factor is calculated based on historical regional deltas

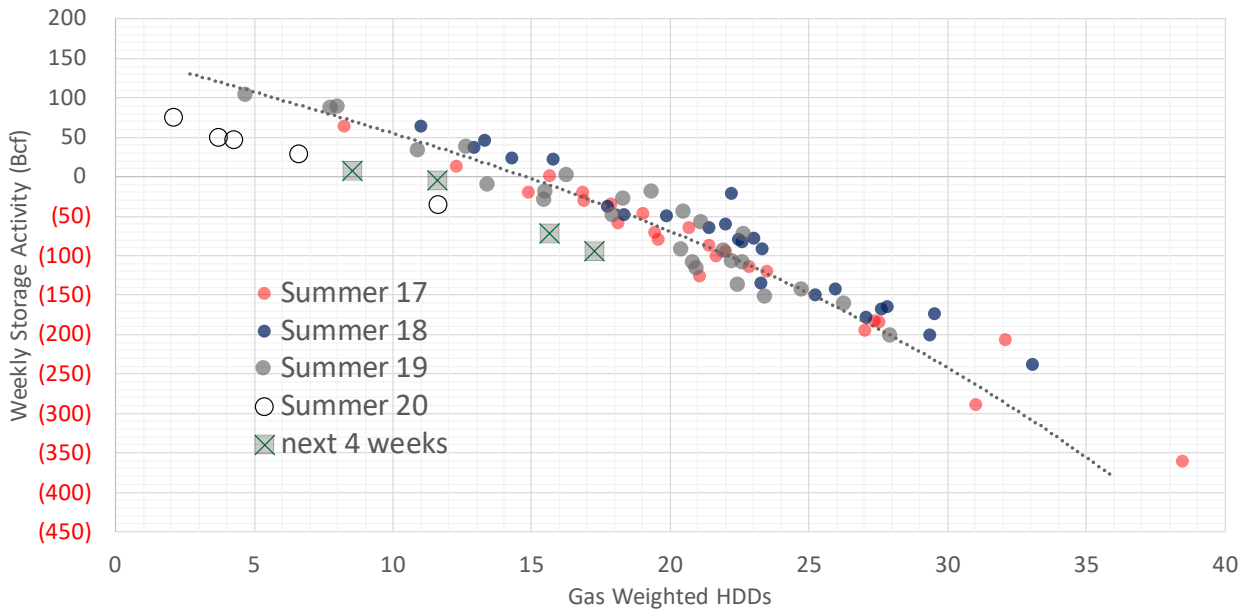
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

Next report and beyond		
Week Ending	Temp	Week Storage Projection
06-Nov	11.6	-4
13-Nov	8.5	8
20-Nov	15.7	-71
27-Nov	17.3	-94

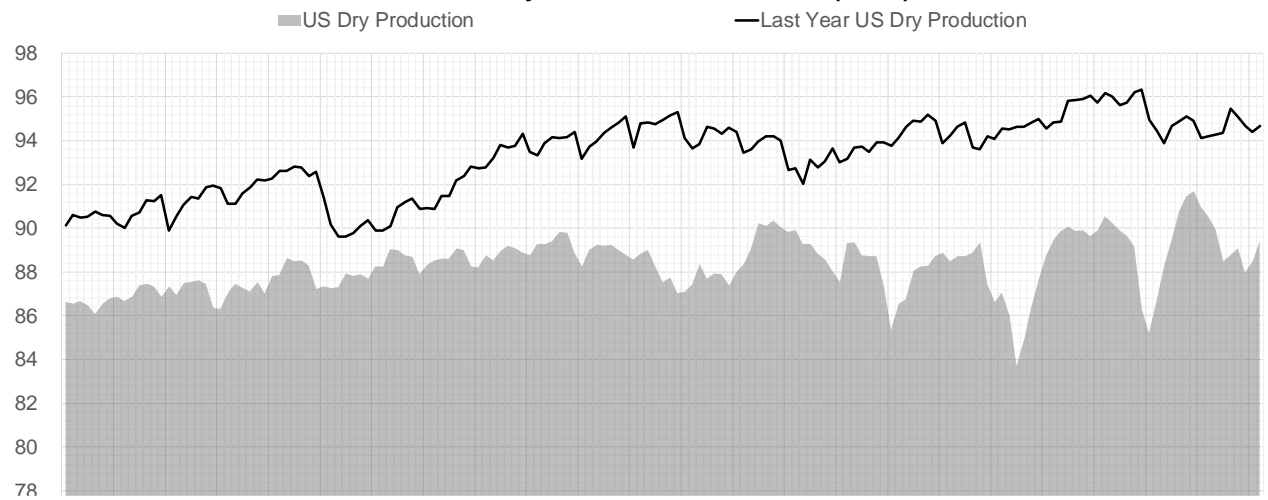
Winter Storage Forecast



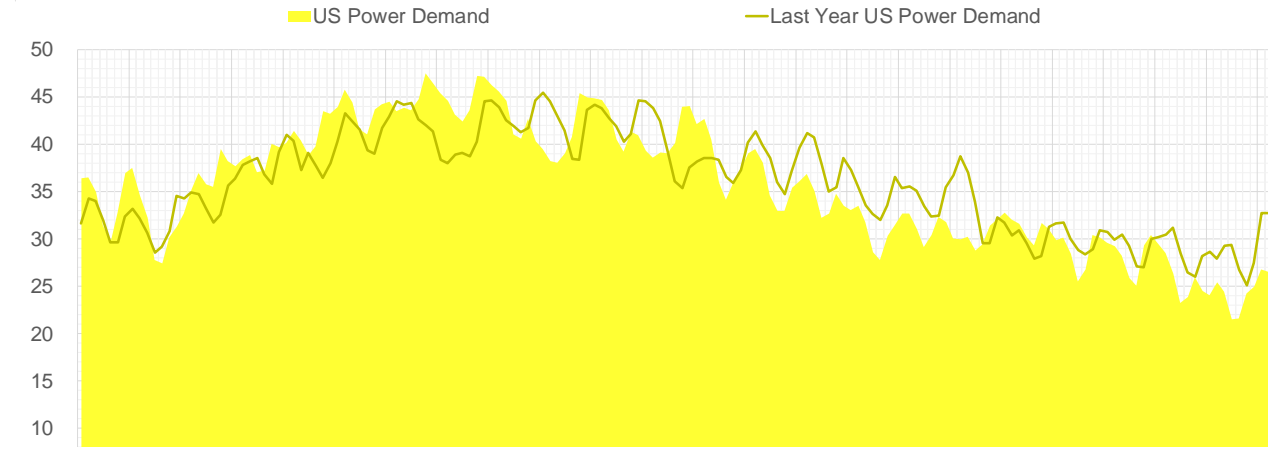
[Go to larger image](#)



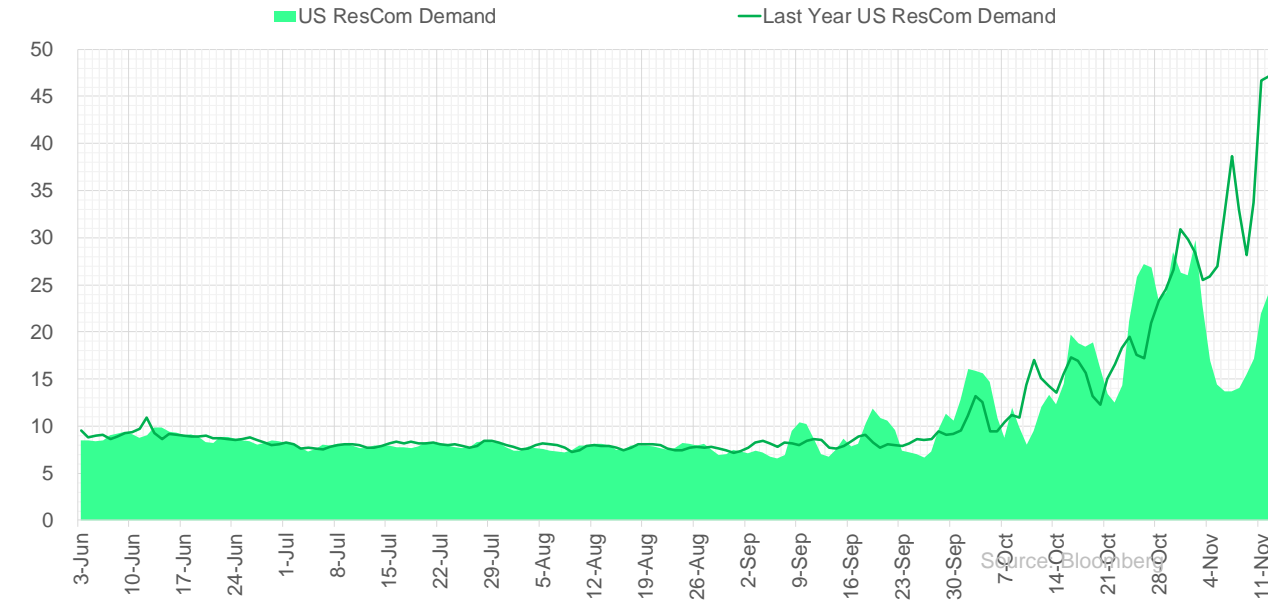
Supply – Demand Trends US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

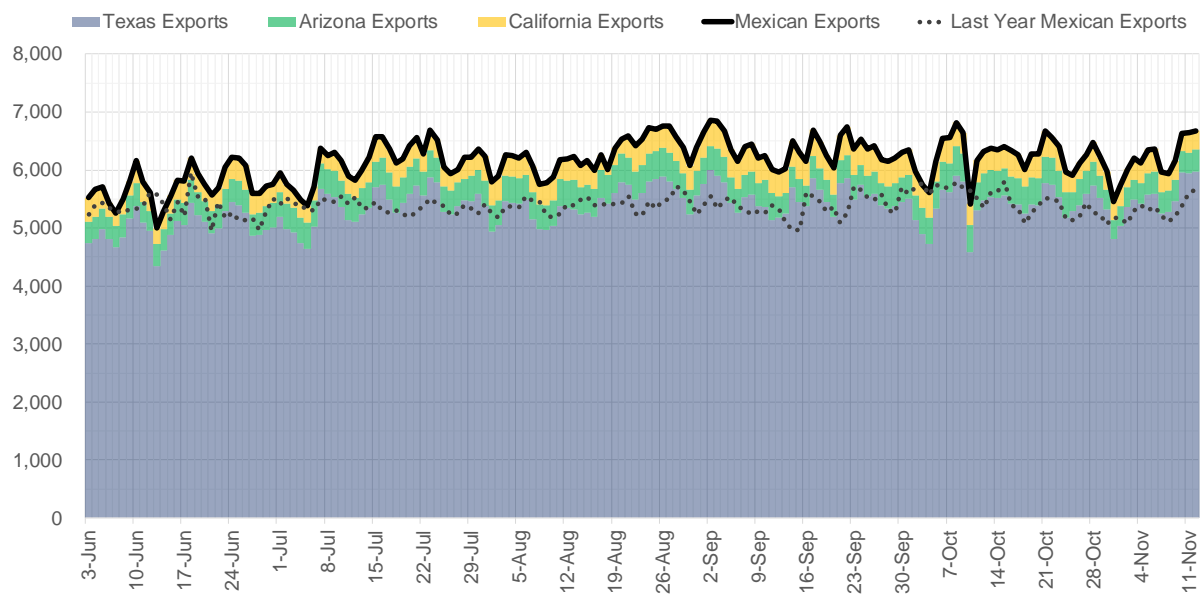


US Daily ResCom Consumption (Bcf/d)

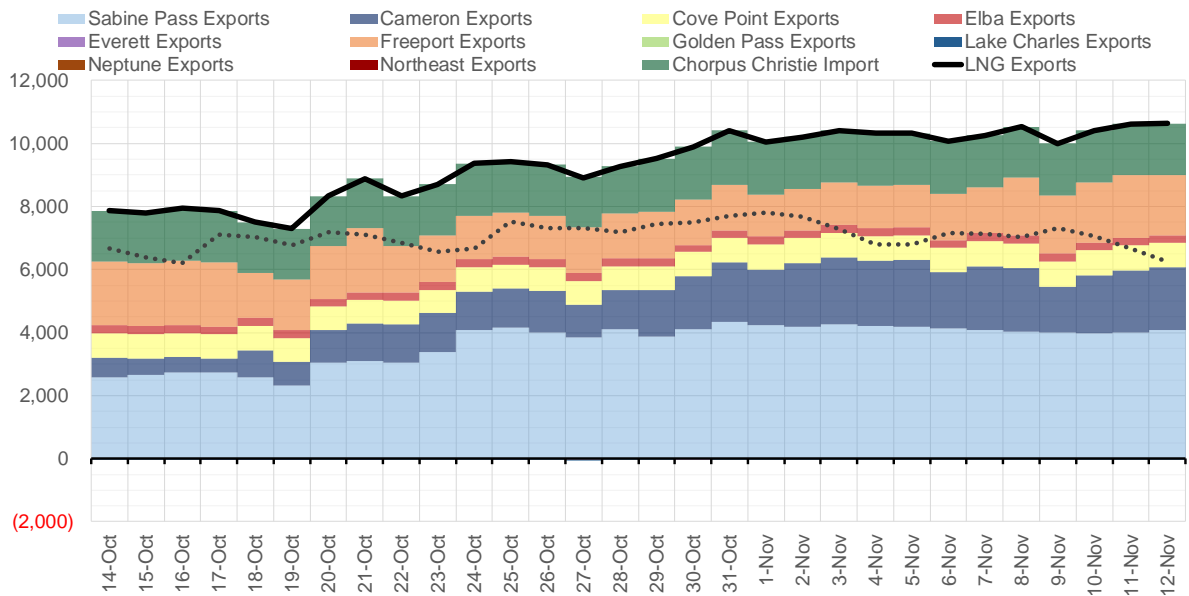


Source: Bloomberg

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.

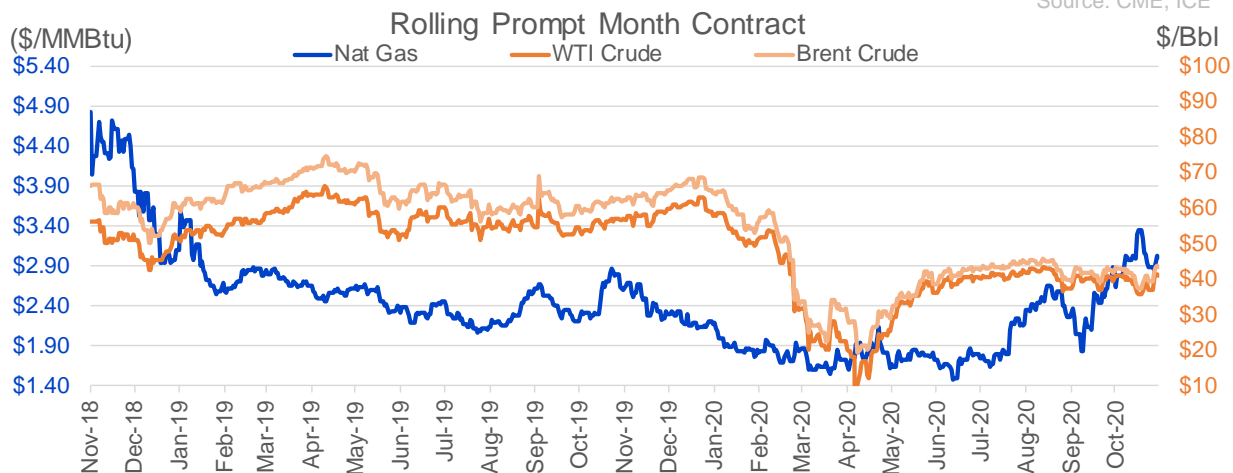
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

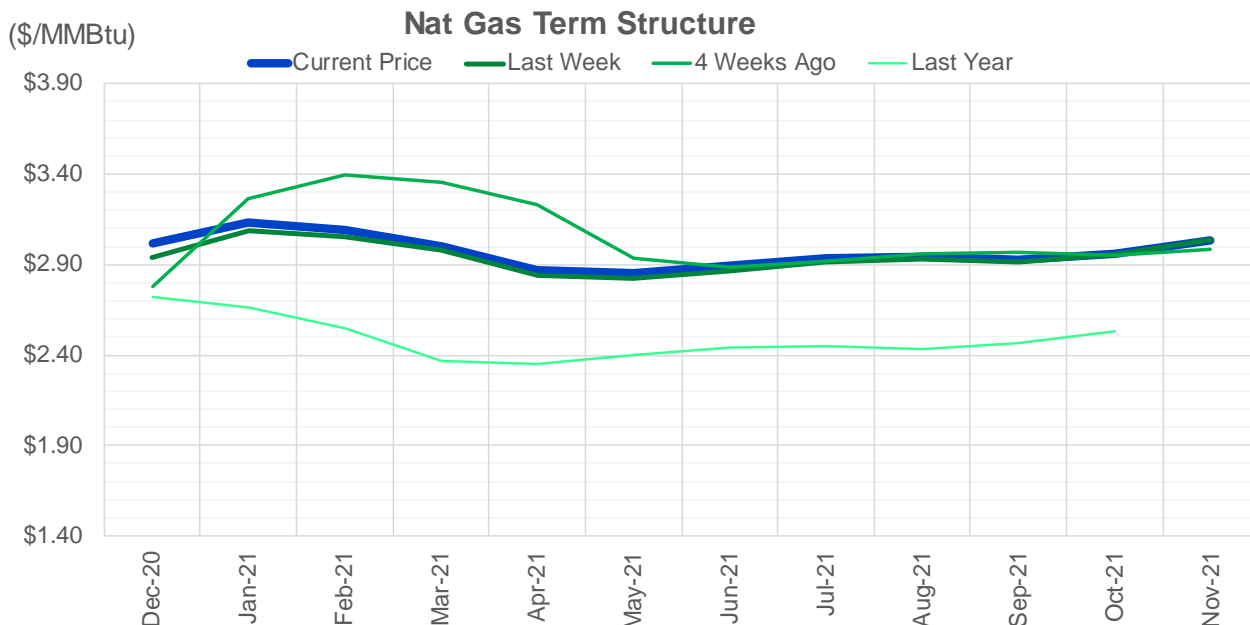
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
12	2020	P	2.70	14915	3	2021	P	2.00	38188
12	2020	C	3.25	11711	4	2021	C	4.00	33070
12	2020	C	3.50	10399	12	2020	P	2.00	32760
12	2020	P	2.50	10046	3	2021	C	4.00	32714
12	2020	C	4.00	6913	1	2021	C	3.50	31080
12	2020	P	2.90	6703	1	2021	C	4.50	29804
2	2021	P	2.50	5613	3	2021	C	3.25	29600
12	2020	P	2.75	5433	10	2021	C	4.00	28665
2	2021	P	2.25	4909	3	2021	C	6.00	27586
1	2021	C	4.00	4521	10	2021	C	3.25	27135
4	2021	C	4.00	4300	4	2021	C	5.00	26848
1	2021	C	3.50	4084	1	2021	P	2.50	26295
12	2020	P	3.00	4050	12	2020	C	4.00	26091
1	2021	P	2.75	3906	12	2020	P	2.50	25987
12	2020	C	3.30	3225	12	2020	C	3.50	25589
1	2021	P	2.50	3212	3	2021	C	5.00	24352
4	2021	C	3.25	2903	3	2021	C	7.00	24176
1	2021	C	4.25	2822	12	2020	C	3.75	24137
12	2020	C	4.50	2784	12	2020	P	2.75	22815
2	2021	C	5.00	2767	3	2021	C	4.50	22726
5	2021	P	2.50	2650	3	2021	C	3.50	22158
12	2021	C	4.00	2650	1	2021	C	3.75	21916
12	2020	P	2.65	2649	1	2021	C	6.00	21159
1	2021	C	4.50	2636	2	2021	P	2.25	21047
1	2021	P	3.00	2527	3	2021	C	3.00	20785
12	2020	P	2.40	2426	1	2021	C	4.00	20448
4	2021	P	2.25	2400	12	2020	C	4.50	20416
3	2021	C	4.00	2215	1	2021	C	5.00	19548
1	2021	C	3.60	2112	8	2021	C	4.00	19505
12	2020	C	3.00	1889	1	2021	C	3.00	19284
12	2020	P	2.60	1887	12	2020	P	3.00	18366
1	2021	C	3.75	1745	3	2021	P	2.50	18285
1	2021	P	2.25	1709	2	2021	C	3.50	18036
12	2020	C	4.25	1567	2	2021	C	5.00	17955
4	2021	P	2.00	1500	8	2021	P	2.25	17792
5	2021	P	2.00	1500	1	2021	P	2.25	17606
10	2021	P	2.00	1450	1	2021	P	2.00	17605
6	2021	C	4.00	1425	12	2020	C	3.00	17380
1	2021	C	5.00	1414	2	2021	C	4.00	17016
2	2021	C	4.00	1358	10	2021	C	5.00	16953
3	2021	C	6.00	1355	2	2021	P	2.50	16914
12	2020	P	2.80	1304	2	2021	C	4.50	16318
6	2021	P	2.00	1250	12	2020	C	5.00	15830
7	2021	P	2.00	1250	4	2021	C	3.00	15729
8	2021	P	2.00	1250	4	2021	C	3.25	15611
9	2021	P	2.00	1250	12	2020	C	3.25	15400
6	2021	P	2.25	1150	10	2021	C	3.00	15115
2	2021	C	3.80	1016	1	2021	C	3.25	14849
2	2021	C	3.75	1002	12	2020	P	1.50	14450
					5	2021	C	3.5	14157

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	119222	130956	-11734	DEC 20	72808	72522	286
JAN 21	255989	244603	11386	JAN 21	91229	92135	-905.75
FEB 21	97512	98252	-740	FEB 21	66762	66118	644.25
MAR 21	146939	143565	3374	MAR 21	89341	89159	181.75
APR 21	82041	80354	1687	APR 21	71262	71777	-514.25
MAY 21	62591	61303	1288	MAY 21	71979	71690	289.5
JUN 21	34394	34121	273	JUN 21	58074	58007	66.75
JUL 21	31803	31356	447	JUL 21	60843	61070	-226.5
AUG 21	29196	29357	-161	AUG 21	64724	64880	-156.25
SEP 21	38212	37977	235	SEP 21	58391	58381	10.25
OCT 21	99467	98081	1386	OCT 21	69224	69058	166.25
NOV 21	37673	37531	142	NOV 21	53955	54048	-92.25
DEC 21	30868	30905	-37	DEC 21	48392	48082	310
JAN 22	30119	29595	524	JAN 22	46372	46433	-61
FEB 22	22956	23433	-477	FEB 22	37533	37510	22.5
MAR 22	25771	25793	-22	MAR 22	41115	40946	168.75
APR 22	25891	25605	286	APR 22	41314	40985	329.5
MAY 22	10712	10594	118	MAY 22	30386	30187	198.75
JUN 22	5536	5481	55	JUN 22	29939	29715	224.5
JUL 22	4531	4312	219	JUL 22	31187	30836	351
AUG 22	3464	3619	-155	AUG 22	29883	29443	439.25
SEP 22	3738	3577	161	SEP 22	29606	29381	224.75
OCT 22	5674	5631	43	OCT 22	34353	33771	581.5
NOV 22	4502	4440	62	NOV 22	29305	29245	60
DEC 22	4892	4744	148	DEC 22	31708	31594	113.75
JAN 23	4416	4333	83	JAN 23	14917	14952	-35
FEB 23	1057	1046	11	FEB 23	13908	13879	29.25
MAR 23	2331	2305	26	MAR 23	13622	13932	-310
APR 23	1762	1557	205	APR 23	13010	12849	161
MAY 23	447	445	2	MAY 23	11639	11491	148.5





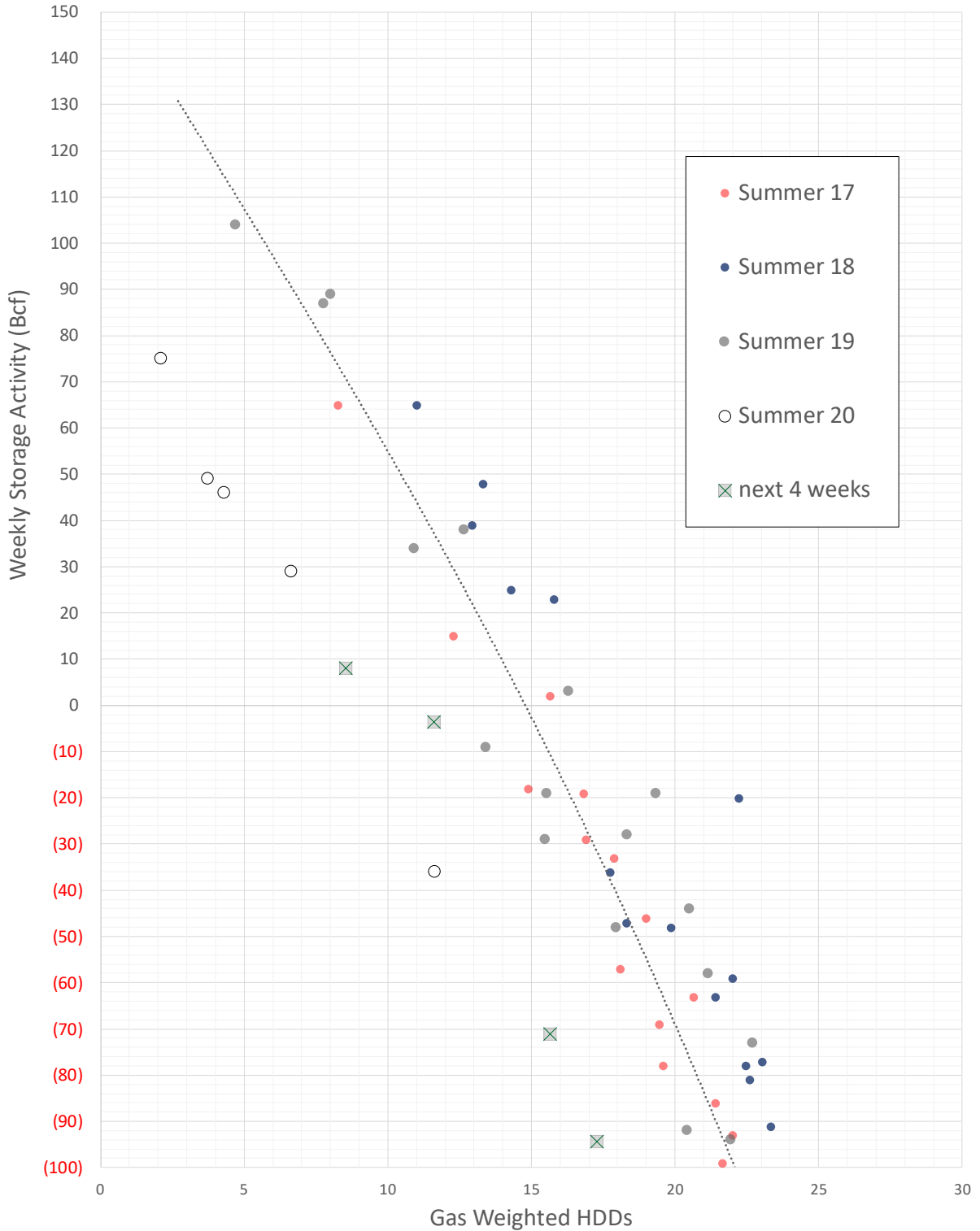
	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Current Price	\$3.016	\$3.129	\$3.089	\$3.001	\$2.868	\$2.850	\$2.891	\$2.935	\$2.942	\$2.925	\$2.958	\$3.030
Last Week	\$2.942	\$3.084	\$3.058	\$2.977	\$2.844	\$2.825	\$2.866	\$2.916	\$2.930	\$2.917	\$2.958	\$3.041
vs. Last Week	\$0.074	\$0.045	\$0.031	\$0.024	\$0.024	\$0.025	\$0.025	\$0.019	\$0.012	\$0.008	\$0.000	-\$0.011
4 Weeks Ago	\$2.775	\$3.261	\$3.396	\$3.355	\$3.235	\$2.934	\$2.890	\$2.918	\$2.957	\$2.966	\$2.952	\$2.982
vs. 4 Weeks Ago	\$0.241	-\$0.132	-\$0.307	-\$0.354	-\$0.367	-\$0.084	\$0.001	\$0.017	-\$0.015	-\$0.041	\$0.006	\$0.048
Last Year	\$2.647	\$2.719	\$2.666	\$2.549	\$2.370	\$2.353	\$2.396	\$2.443	\$2.452	\$2.437	\$2.464	\$2.528
vs. Last Year	\$0.369	\$0.410	\$0.423	\$0.452	\$0.498	\$0.497	\$0.495	\$0.492	\$0.490	\$0.488	\$0.494	\$0.502

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	0.95	4.77	3.82
TETCO M3	\$/MMBtu	1.49	3.03	1.54
FGT Zone 3	\$/MMBtu	1.47	2.97	1.50
Zone 6 NY	\$/MMBtu	1.47	3.49	2.02
Chicago Citygate	\$/MMBtu	2.56	2.90	0.34
Michcon	\$/MMBtu	2.53	2.67	0.14
Columbia TCO Pool	\$/MMBtu	1.76	2.22	0.46
Ventura	\$/MMBtu	2.51	3.06	0.55
Rockies/Opal	\$/MMBtu	3.37	2.95	-0.42
El Paso Permian Basin	\$/MMBtu	2.48	2.63	0.15
Socal Citygate	\$/MMBtu	4.29	3.84	-0.45
Malin	\$/MMBtu	3.36	3.62	0.26
Houston Ship Channel	\$/MMBtu	2.86	2.88	0.02
Henry Hub Cash	\$/MMBtu	2.75	2.76	0.01
AECO Cash	C\$/GJ	2.32	2.28	-0.04
Station2 Cash	C\$/GJ	1.85	4.80	2.95
Dawn Cash	C\$/GJ	2.50	2.75	0.25

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	-0.261	▼ -0.021	▲ 0.201	▲ 0.207
NatGas Mar21/Apr21	\$/MMBtu	-0.133	▲ 0.000	▼ -0.434	▼ -0.412
NatGas Oct21/Nov21	\$/MMBtu	0.072	▼ -0.011	▲ 0.015	▲ 0.008
NatGas Apr21/Oct21	\$/MMBtu	0.090	▼ -0.036	▼ -0.324	▼ -0.327
WTI Crude	\$/Bbl	41.17	▲ 2.380	▲ 0.210	▼ -15.600
Brent Crude	\$/Bbl	43.55	▲ 2.620	▲ 0.390	▼ -18.730
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	123.92	▲ 6.960	▲ 5.050	▼ -67.870
Propane, Mt. Bel	cents/Gallon	0.56	▼ -0.004	▲ 0.031	▲ 0.030
Ethane, Mt. Bel	cents/Gallon	0.22	▼ -0.007	▲ 0.006	▲ 0.022
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.