

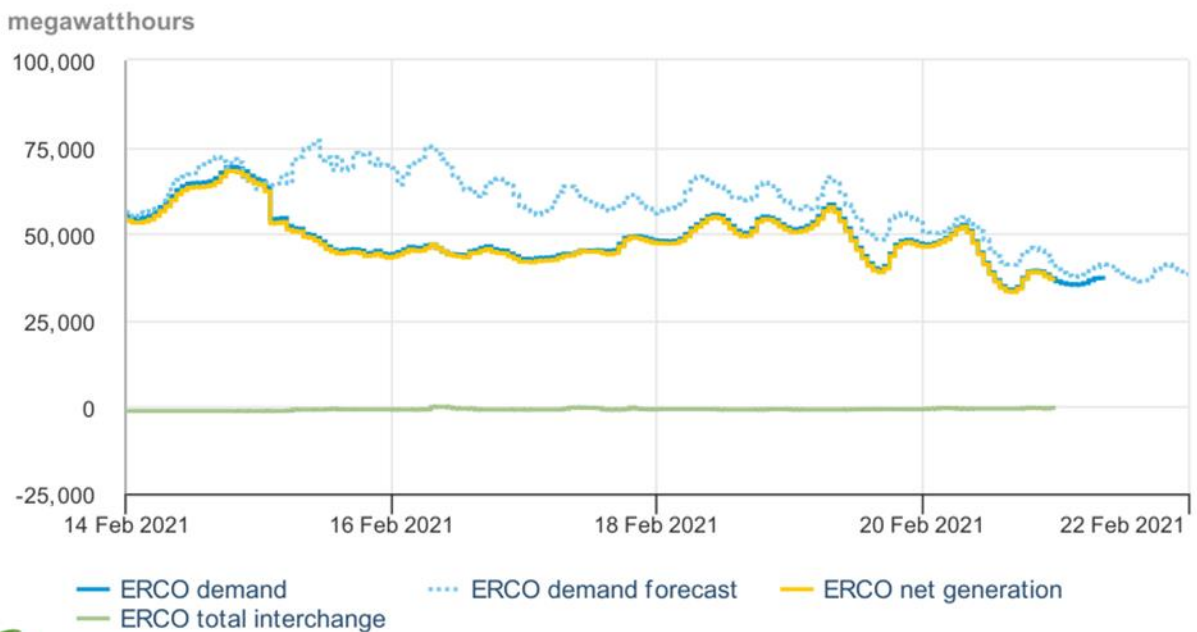
What a week, especially for the folks in Texas. On Friday, things started nearing normal and weather turn warmer, and power was restored to most of Texas.

Around noon on Friday, the ERCOT officials lifted emergency conditions and said they were completely back to normal operations as of now. That being said, ERCOT acknowledged last week that it came within "seconds" or "minutes" of losing control of the grid, with the potential for a catastrophic meltdown that could take weeks or months to reverse. ERCOT is coming under fierce criticism from Texas Governor Greg Abbott and others.

We are hearing that ERCOT never assessed the risk of well freeze-offs, even though freeze-offs do occur in Texas each year when the weather is not nearly as harsh. Big oversight.

The chart below from the EIA shows events of the past week in the ERCOT power region. There was a severe mismatch was between generation and the ERCOT demand forecast – hence the lengthy blackouts. As of this morning, things are near normal. Poweroutage.us shows a total of 175,000 households without power across the country. Texas now only has 31,000 outages.

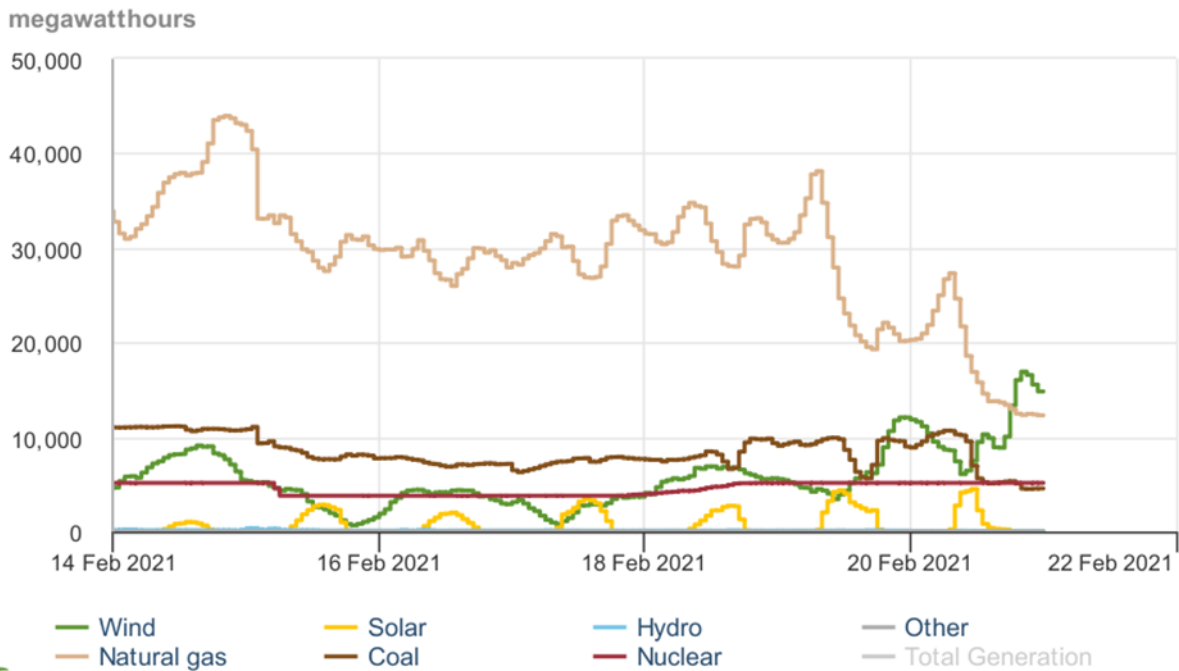
Electric Reliability Council of Texas, Inc. (ERCOT) electricity overview (demand, forecast demand, net generation, and total interchange) 2/14/2021 – 2/21/2021, Central Time



Source: U.S. Energy Information Administration

Here is a look at the generation stack last week. As can be seen, the lack of wind and poor availability of natural gas (well and midstream freeze-offs + de-energized processing facilities due to power outages) was the cause of the blackouts. Starting Friday, the power system was better balanced with dropping demand and based plants (wind, nuke, and coal) returning. Yesterday, we saw coal and wind resuming (with the warming temps) giving natgas gen some relief.

Electric Reliability Council of Texas, Inc. (ERCOT) electricity generation by energy source 2/14/2021 – 2/21/2021, Central Time



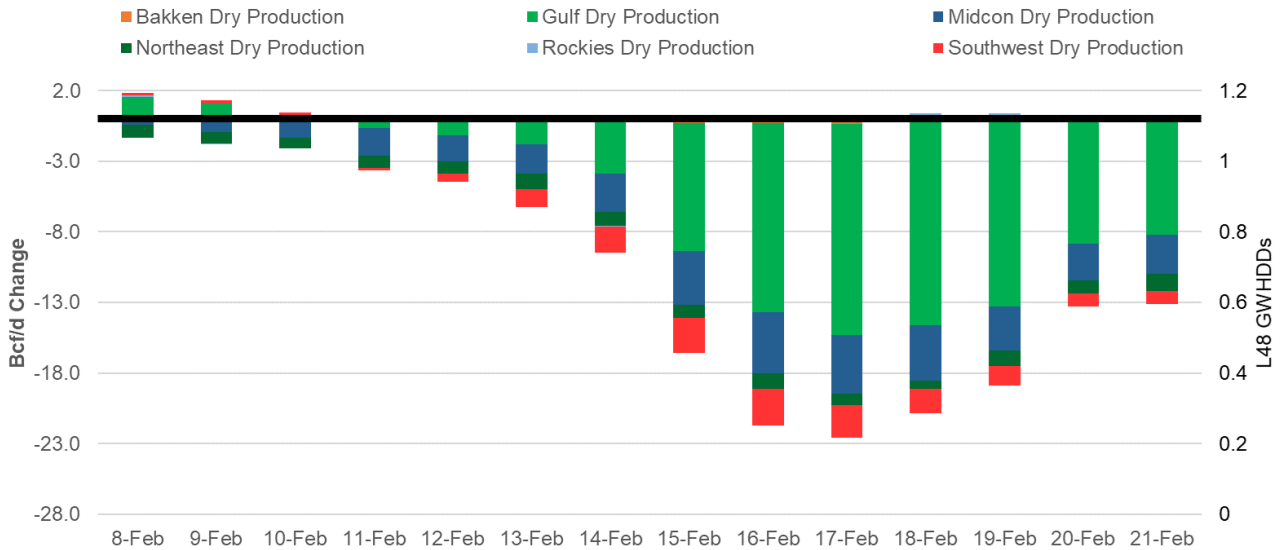
 Source: U.S. Energy Information Administration

EIA ERCOT hourly data can be found [here](#)

Production freeze-offs won't be well understood until this upcoming storage report, and that is because most of the production (unlike other states) is received onto intrastate pipelines in Texas. The visibility of daily production is not as transparent as we have in other regions like the Northeast. The peak level appears to be about 22-23 Bcf/d on Feb 17th, and the recovery has been slow. The latest BNEF numbers for today show current production in the L48 at 79 Bcf/d, which still puts 12-13 Bcf/d of production offline. The recovery of production this week will be important.

Since TX production is not fully visible, our belief is that the freeze-offs are not as deep as indicated by the numbers reported by all the vendors.

Production changes from Jan Average

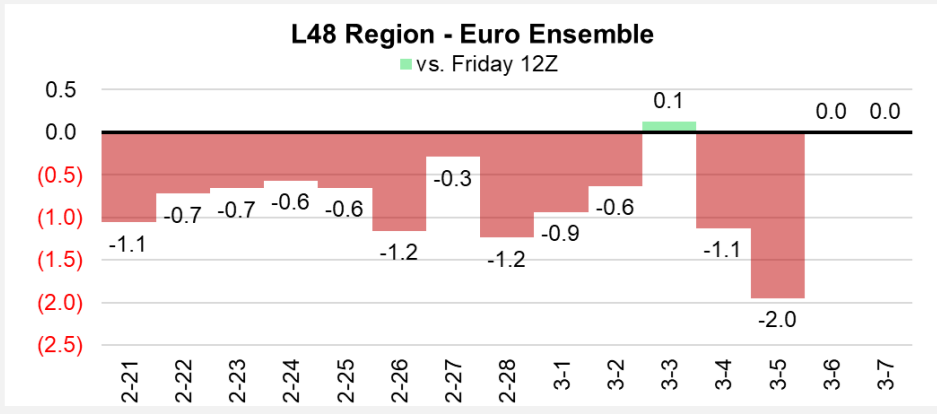
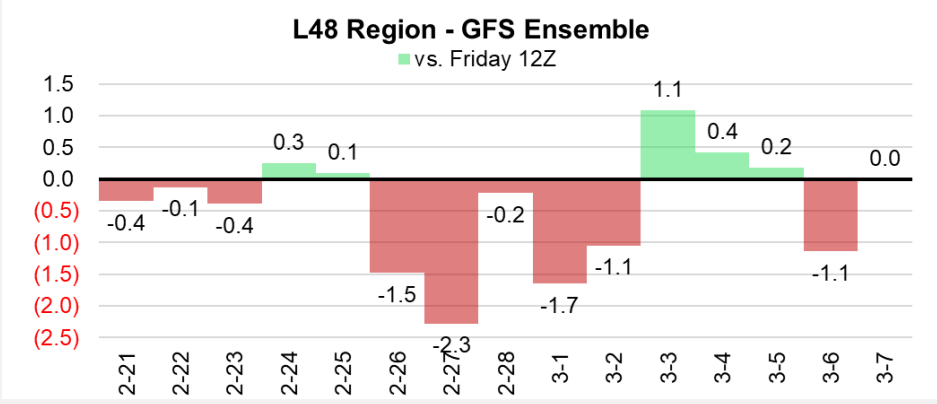


Finally, let's look at where the short-term weather outlook stands. As of the current runs, we are to expect warmer weather through Mar 7 and winter activity to stay on a more northerly track.

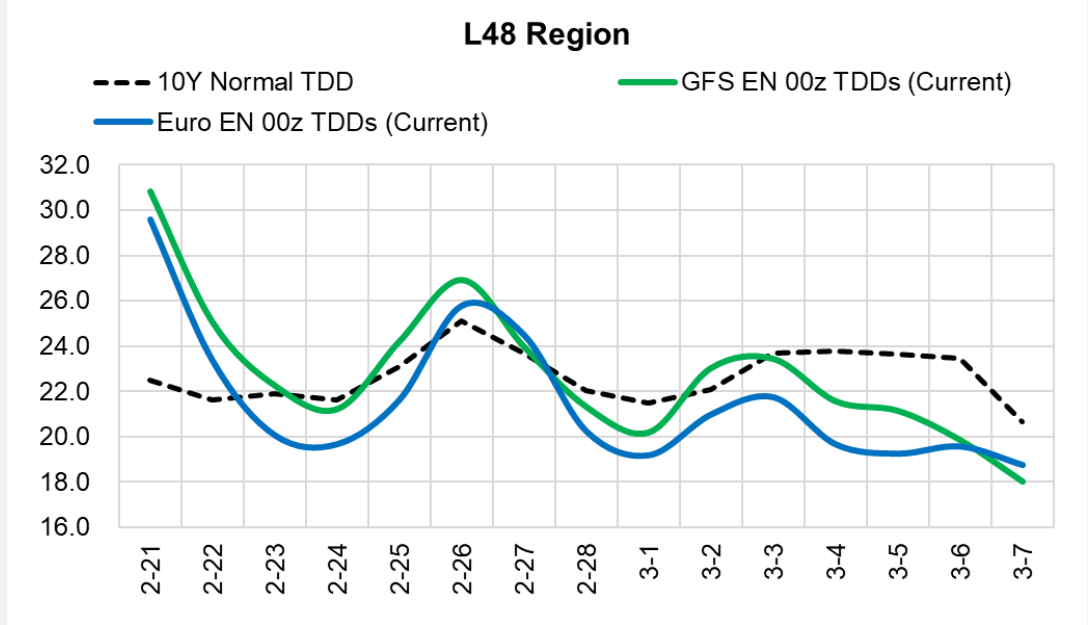
This from BAMWX

"We are anticipating more of a La Nina-like atmospheric pattern to take hold late February into early March. Essentially what this means is more "clashing of airmasses" pattern with a better thermal gradient (ridge of high pressure) East. What this likely results in is a more northerly track with wintry weather across the Upper-Midwest and Great Lakes, while increasing the threat for rainfall and even strong storm opportunities to open Meteorological spring from the Deep South, Ohio Valley and points east," said BAMWX's Kirk Heinz.

Here are the changes in the GFS Ensemble and Euro Ensemble since the Friday 12z run. Both showing a bearish trend. [GFS Ensemble: -7 GWHDDS, Euro Ensemble: -11 GWHDDS]



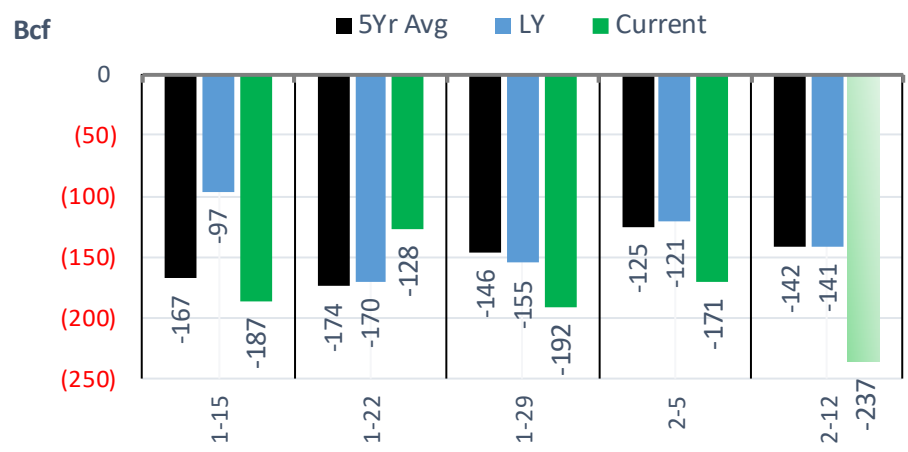
Here is how the 15D forecast looks in comparison to the 10Y Normal:



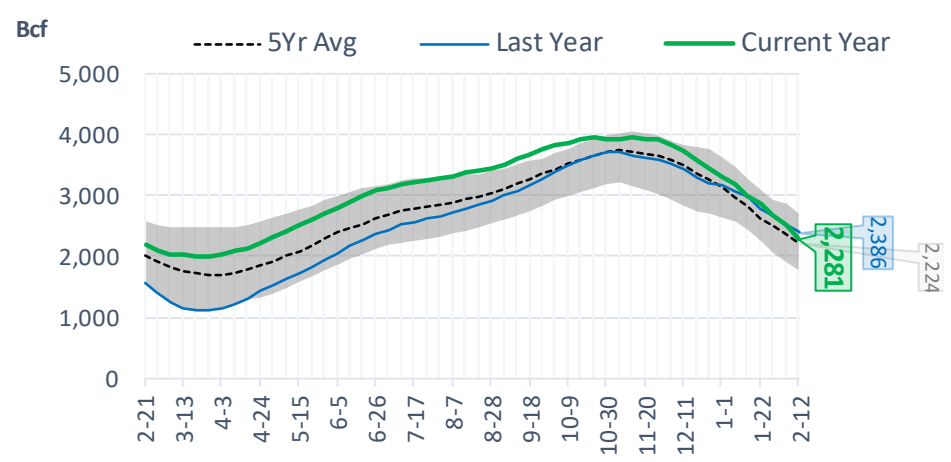
The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are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

EIA Storage Report

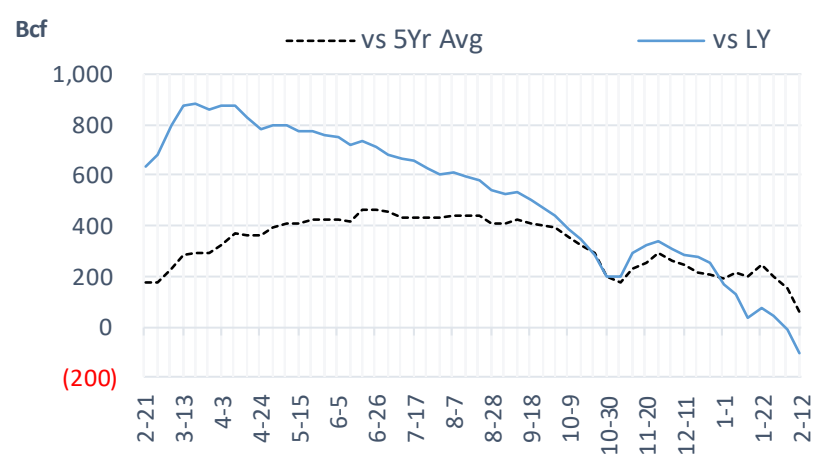
Total Lower 48 YoY Weekly Change



Total Lower 48 Storage Levels



Total Lower 48 LY Surplus/Deficit

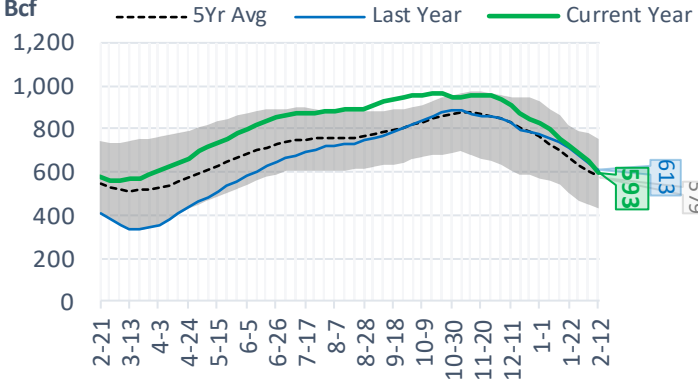


The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are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

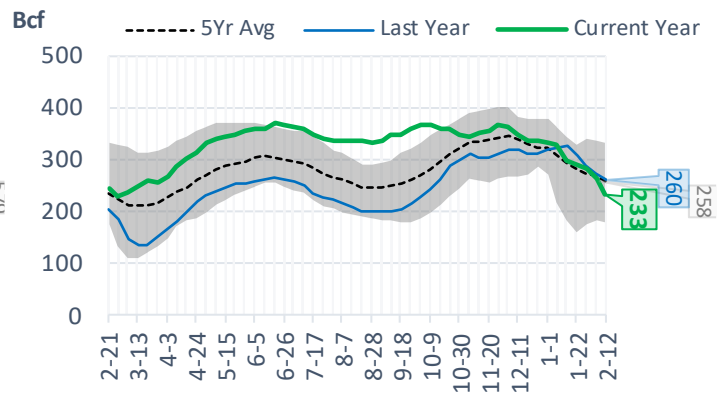
Natural Gas Storage Stats - Last 5 Weeks

Week Ending	Current 12-Feb	Week - 1 5-Feb	Week - 2 29-Jan	Week - 3 22-Jan	Week - 4 15-Jan	Week - 5 8-Jan
Total Lower 48 Storage Level	2281	2518	2689	2881	3009	3196
Weekly Change	-237	-171	-192	-128	-187	-134
vs LY	-105	-9	+41	+78	+36	+126
vs 5Yr Avg	+57	+152	+198	+244	+198	+218
S. Central Salt Storage Level	233	261	281	288	296	327
Weekly Change	-28	-20	-7	-8	-31	-6
vs LY	-27	-11	-5	-18	-30	+6
vs 5Yr Avg	-25	-8	+9	+8	+3	+19
S. Central NonSalt Storage Level	593	654	689	726	755	799
Weekly Change	-61	-35	-37	-29	-44	-31
vs LY	-20	+13	+18	+17	+13	+38
vs 5Yr Avg	+14	+50	+60	+64	+56	+67
Midwest Storage Level	589	666	719	780	828	879
Weekly Change	-77	-53	-61	-48	-51	-44
vs LY	-66	-37	-16	+4	+3	+18
vs 5Yr Avg	+11	+40	+49	+62	+55	+50
East Storage Level	485	529	582	641	679	726
Weekly Change	-44	-53	-59	-38	-47	-39
vs LY	-54	-48	-27	-14	-23	-1
vs 5Yr Avg	+3	+4	+20	+36	+26	+29
Mountain Storage Level	137	150	158	170	176	188
Weekly Change	-13	-8	-12	-6	-12	-8
vs LY	+17	+21	+20	+25	+22	+26
vs 5Yr Avg	+12	+18	+18	+22	+20	+23
Pacific Storage Level	244	257	261	275	275	278
Weekly Change	-13	-4	-14	0	-3	-4
vs LY	+45	+53	+51	+62	+51	+40
vs 5Yr Avg	+41	+48	+43	+50	+39	+30

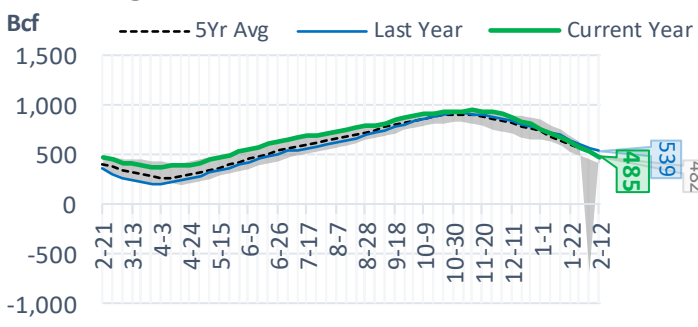
NonSalt Storage Levels



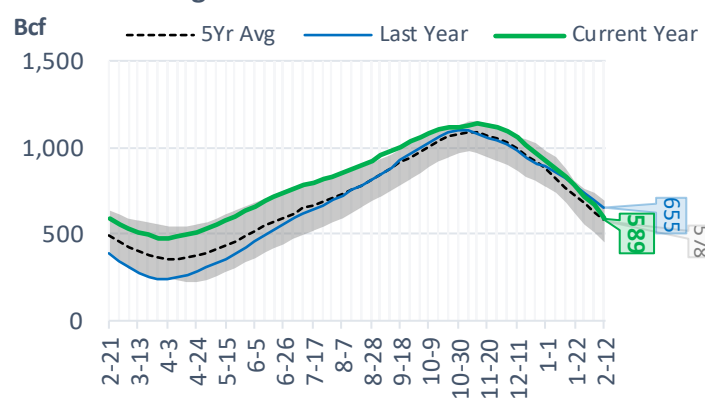
Salt Storage Levels



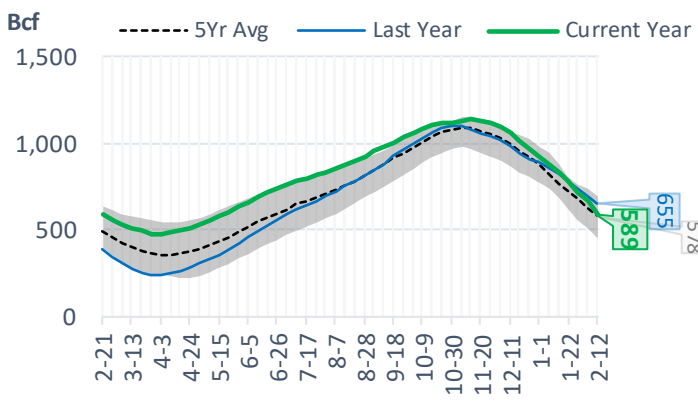
East Storage Levels



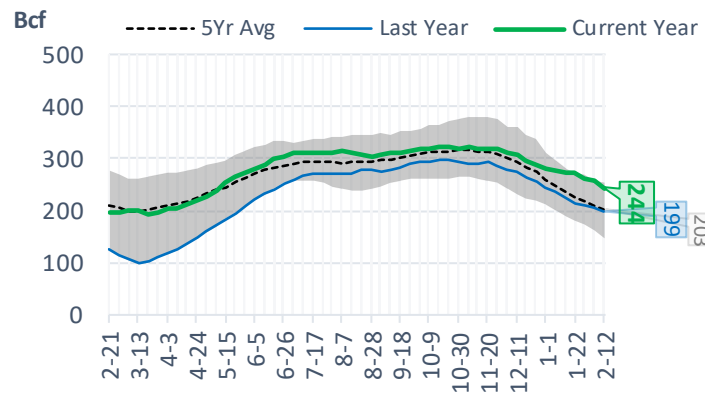
Midwest Storage Levels



Midwest Storage Levels



Pacific Storage Levels



EIA Storage Week Balances

	15-Jan	22-Jan	29-Jan	5-Feb	12-Feb	19-Feb	WoW	vs. 4W
Lower 48 Dry Production	91.2	91.5	91.8	91.8	91.3	77.4	▼-13.9	▼-14.2
Canadian Imports	6.2	5.9	6.4	6.3	6.3	7.8	▲1.5	▲1.5
L48 Power	30.2	27.8	28.7	28.9	28.8	30.2	▲1.5	▲1.7
L48 Residential & Commercial	45.6	41.6	47.5	46.6	52.3	59.2	▲6.9	▲12.2
L48 Industrial	23.3	22.3	25.0	23.0	24.5	23.7	▼-0.8	▲0.0
L48 Lease and Plant Fuel	5.0	5.0	5.1	5.1	5.0	4.3	▼-0.8	▼-0.8
L48 Pipeline Distribution	3.4	3.1	3.5	3.4	3.6	4.0	▲0.4	▲0.6
L48 Regional Gas Consumption	107.6	99.9	109.7	106.9	114.2	121.4	▲7.2	▲13.7
Net LNG Exports	10.6	10.4	10.0	10.7	10.7	4.9	▼-5.8	▼-5.6
Total Mexican Exports	6.1	6.1	6.6	6.2	6.4	5.0	▼-1.4	▼-1.3
Implied Daily Storage Activity	-26.9	-19.0	-28.1	-25.7	-33.7	-46.2	-12.5	
EIA Reported Daily Storage Activity	-26.7	-18.3	-27.4	-24.4	-33.9			
Daily Model Error	-0.2	-0.7	-0.6	-1.2	0.2			

Monthly Balances

	2Yr Ago Feb-19	LY Feb-20	Dec-17	Jan-18	Dec-20	Jan-21	MTD Feb-21	MoM	vs. LY
Lower 48 Dry Production	87.9	93.6	78.6	77.0	91.9	91.7	84.7	▼-7.1	▲7.7
Canadian Imports	4.9	5.3	5.6	5.9	5.8	6.3	6.9	▲0.6	▲1.0
L48 Power	27.5	30.2	25.2	25.3	28.1	28.7	29.1	▲0.4	▲3.8
L48 Residential & Commercial	45.3	40.2	42.8	48.9	40.0	44.4	53.0	▲8.6	▲4.1
L48 Industrial	23.6	25.2	24.8	23.8	24.0	23.4	23.6	▲0.2	▼-0.2
L48 Lease and Plant Fuel	4.9	5.2	4.7	4.3	5.1	5.1	4.7	▼-0.4	▲0.3
L48 Pipeline Distribution	3.3	3.2	2.7	3.2	3.1	3.3	3.7	▲0.4	▲0.5
L48 Regional Gas Consumption	104.5	104.0	100.1	105.5	100.3	104.9	114.1	▲9.2	▲8.6
Net LNG Exports	4.1	8.5	3.0	2.2	11.0	10.5	8.1	▼-2.4	▲5.9
Total Mexican Exports	4.9	5.2	4.1	4.2	5.8	6.2	5.8	▼-0.4	▲1.6
Implied Daily Storage Activity	-20.8	-18.8	-22.8	-29.1	-19.5	-23.5	-36.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

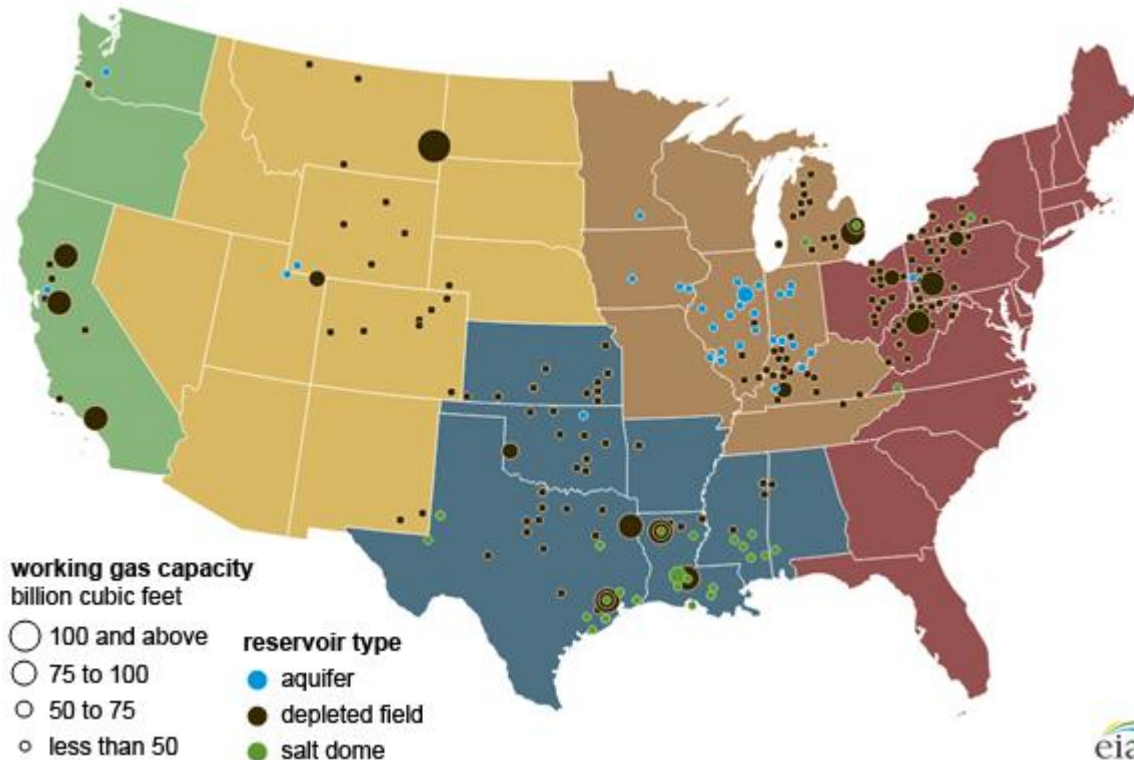
Regional S/D Models Storage Projection

Week Ending 19-Feb

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-46.4	0.7	-45.7	-320
East	-12.0	3.2	-8.7	-61
Midwest	-11.2	-0.7	-11.9	-83
Mountain	-0.2	-3.6	-3.8	-27
South Central	-20.3	1.8	-18.6	-130
Pacific	-2.7	0.0	-2.7	-19

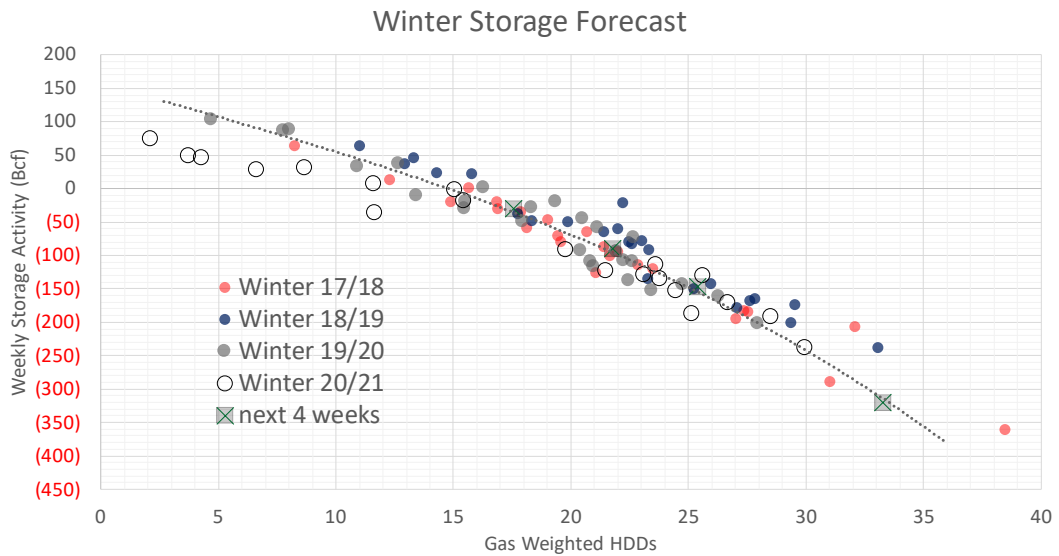
*Adjustment Factor is calculated based on historical regional deltas

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



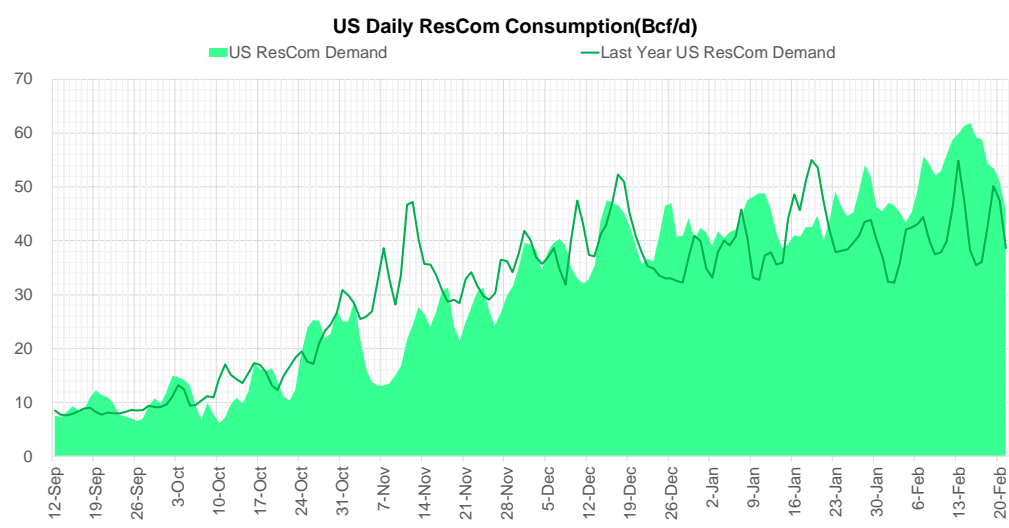
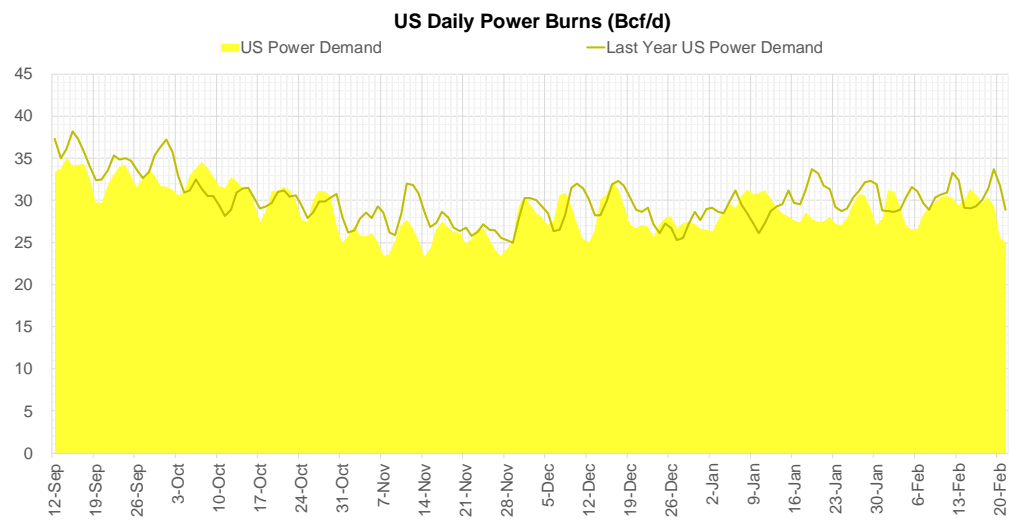
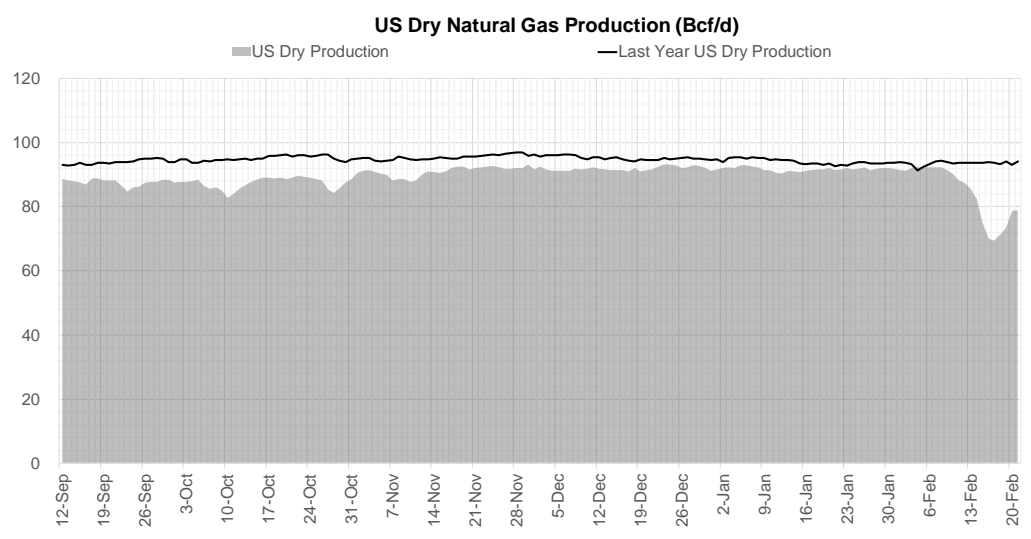
Weather Model Storage Projection

Next report and beyond		
Week Ending	Temp	Week Storage Projection
26-Feb	25.4	-146
05-Mar	21.8	-89
12-Mar	17.6	-29



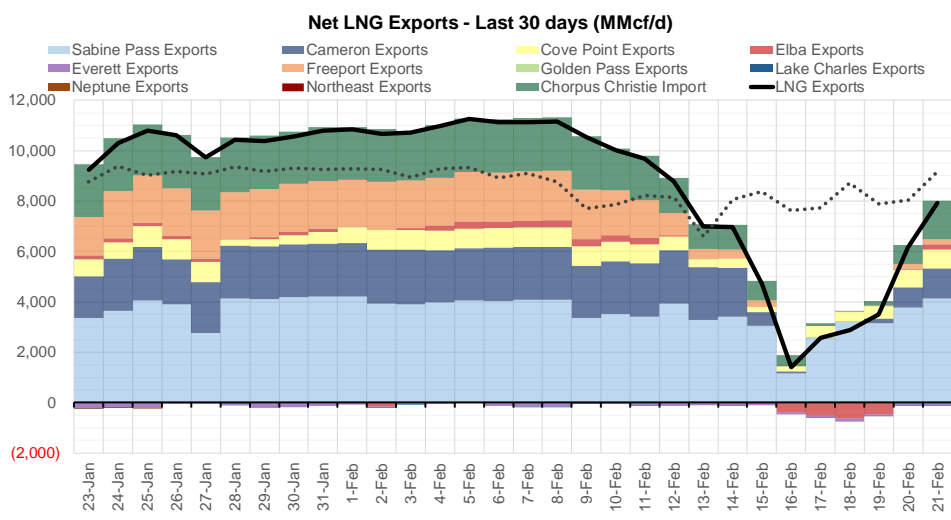
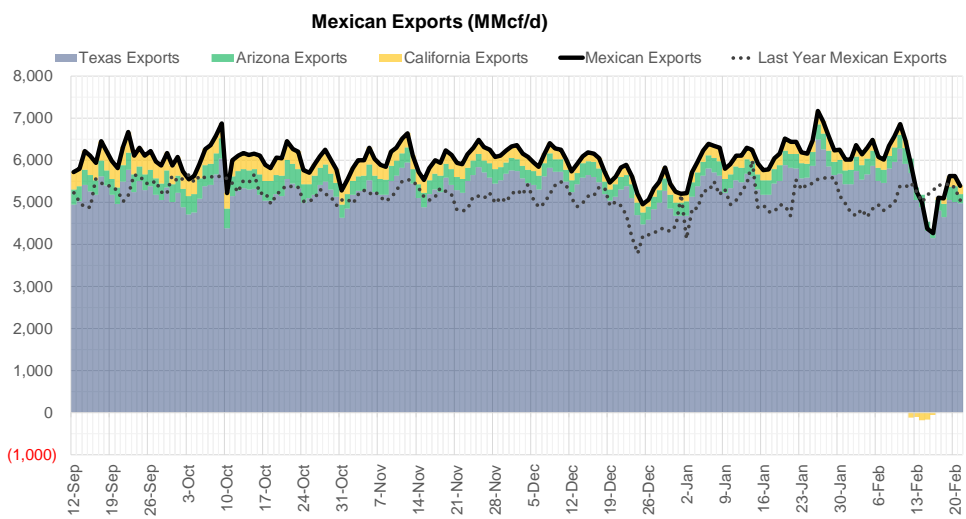
Note: this is not our official end of season forecast. This chart signifies where storage levels end with 10-year normal weather and current market tightness relative to last year

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.



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

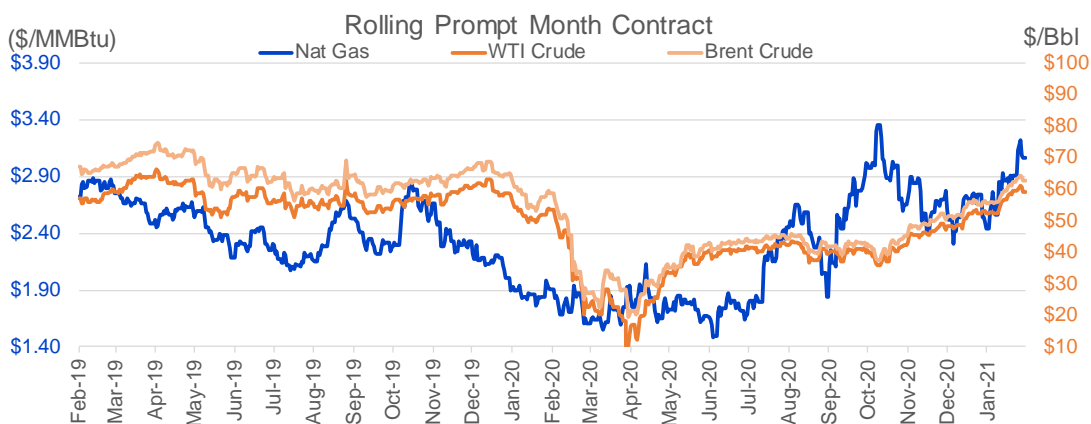
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
3	2021	C	3.50	16481	3	2021	C	4.00	54880
3	2021	C	3.25	12630	4	2021	C	3.00	54572
3	2021	C	3.75	9819	4	2021	C	4.00	45199
3	2021	C	4.00	7632	3	2021	P	2.00	44158
4	2021	C	4.00	5822	3	2021	C	3.50	43178
4	2021	C	4.50	5280	3	2021	C	3.00	38255
3	2021	P	2.80	4532	3	2021	C	3.25	34862
3	2021	P	3.00	4510	3	2021	C	5.00	33543
4	2021	P	2.75	4265	3	2021	P	2.50	32976
4	2021	P	2.50	4075	3	2021	C	4.50	32675
3	2021	C	3.90	3552	10	2021	C	4.00	32136
9	2021	P	1.90	3302	4	2021	P	2.50	29517
3	2021	C	5.00	3174	4	2021	C	3.25	27839
3	2021	P	2.75	3165	4	2021	P	2.00	27623
3	2021	P	2.60	3092	10	2021	C	3.25	26826
3	2021	P	2.90	2887	3	2021	C	6.00	23511
4	2021	P	2.70	2448	3	2021	P	2.25	22569
6	2021	C	3.50	2406	6	2021	C	4.00	22303
3	2021	C	3.15	2186	4	2021	C	2.75	21959
6	2021	P	2.50	2090	4	2021	C	3.50	21476
9	2021	P	2.00	2051	5	2021	P	2.50	21101
3	2021	C	4.75	2043	10	2021	C	5.00	20906
4	2021	C	3.25	2013	4	2021	P	2.25	20856
4	2021	C	3.50	1945	3	2021	C	7.00	20610
3	2021	P	2.95	1909	5	2021	C	3.00	20407
5	2021	C	3.50	1848	8	2021	P	2.25	20228
3	2021	P	3.10	1768	8	2021	C	4.00	19980
3	2021	C	3.20	1761	4	2021	C	5.00	19556
3	2021	C	4.25	1633	8	2021	C	3.50	19135
4	2021	P	2.40	1493	7	2021	C	4.00	18990
3	2021	C	3.60	1472	5	2021	C	3.50	18761
3	2021	C	4.50	1470	10	2021	C	3.50	18739
3	2021	C	3.10	1280	3	2021	P	2.75	18277
4	2021	P	2.25	1174	5	2021	P	2.00	18173
4	2021	P	2.90	1171	10	2021	P	2.00	18157
3	2021	P	2.85	1126	5	2021	C	4.00	18121
3	2021	C	3.00	1114	4	2022	C	3.00	17656
4	2021	C	3.00	1036	10	2021	C	3.00	16998
3	2021	C	3.30	1017	5	2021	C	3.25	16890
4	2021	P	2.35	1006	12	2021	C	4.00	16833
5	2021	C	3.05	1002	5	2021	P	2.25	16515
4	2021	P	1.90	1001	3	2021	C	3.75	16434
5	2021	C	3.15	1001	9	2021	P	2.00	16236
5	2021	P	2.95	1001	11	2021	C	4.00	16200
5	2021	P	3.05	1001	6	2021	P	2.50	15909
4	2021	P	1.60	1000	6	2021	P	2.00	15877
5	2021	P	1.60	1000	3	2021	P	2.10	15866
5	2021	P	1.90	1000	10	2021	P	2.50	15657
6	2021	P	1.60	1000	3	2021	C	3.15	15474
					3	2021	C	2.75	14876.75

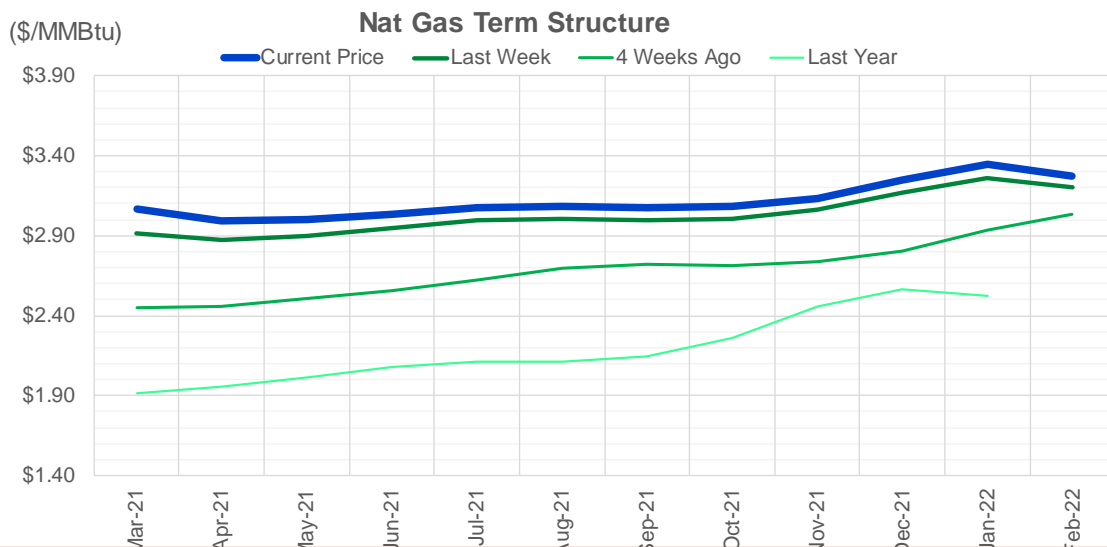
Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, ICE and Nasdaq 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
MAR 21	40248	58476	-18228	MAR 21	78265	85764	-7499
APR 21	178682	171216	7466	APR 21	93563	90755	2809
MAY 21	204140	202966	1174	MAY 21	95328	95021	307
JUN 21	72587	73103	-516	JUN 21	69884	69806	79
JUL 21	66724	64104	2620	JUL 21	73230	73320	-90
AUG 21	45318	43220	2098	AUG 21	76179	76195	-17
SEP 21	88020	87102	918	SEP 21	69335	69537	-202
OCT 21	132394	132850	-456	OCT 21	92031	90654	1377
NOV 21	50467	51553	-1086	NOV 21	55526	55566	-40
DEC 21	47683	47734	-51	DEC 21	56655	56817	-162
JAN 22	58840	56380	2460	JAN 22	54295	53541	754
FEB 22	24957	24743	214	FEB 22	39608	39454	155
MAR 22	39513	39410	103	MAR 22	43479	43140	340
APR 22	36647	36497	150	APR 22	43147	42732	415
MAY 22	18470	18176	294	MAY 22	36321	36193	127
JUN 22	12200	11944	256	JUN 22	34537	34425	113
JUL 22	8043	7964	79	JUL 22	34908	34816	92
AUG 22	7409	7251	158	AUG 22	33771	33656	115
SEP 22	8726	8534	192	SEP 22	34744	34631	113
OCT 22	24105	24044	61	OCT 22	40165	40041	124
NOV 22	8401	7857	544	NOV 22	31999	31826	173
DEC 22	8319	7871	448	DEC 22	37047	36916	131
JAN 23	5630	5477	153	JAN 23	19527	19455	72
FEB 23	2227	2140	87	FEB 23	17701	17635	66
MAR 23	3654	3586	68	MAR 23	19780	19718	62
APR 23	4871	4864	7	APR 23	15812	15877	-66
MAY 23	2871	2870	1	MAY 23	15032	14961	72
JUN 23	834	834	0	JUN 23	14419	14353	66
JUL 23	921	921	0	JUL 23	14090	14051	39
AUG 23	677	677	0	AUG 23	14432	14393	39

Source: CME, ICE






	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
Current Price	\$3.069	\$2.991	\$3.001	\$3.038	\$3.079	\$3.087	\$3.073	\$3.084	\$3.135	\$3.252	\$3.343	\$3.272
Last Week	\$2.912	\$2.876	\$2.900	\$2.945	\$2.993	\$3.007	\$2.994	\$3.006	\$3.059	\$3.173	\$3.261	\$3.199
vs. Last Week	\$0.157	\$0.115	\$0.101	\$0.093	\$0.086	\$0.080	\$0.079	\$0.078	\$0.076	\$0.079	\$0.082	\$0.073
4 Weeks Ago	\$2.446	\$2.456	\$2.503	\$2.557	\$2.623	\$2.694	\$2.721	\$2.712	\$2.735	\$2.801	\$2.935	\$3.030
vs. 4 Weeks Ago	\$0.623	\$0.535	\$0.498	\$0.481	\$0.456	\$0.393	\$0.352	\$0.372	\$0.400	\$0.451	\$0.408	\$0.242
Last Year	\$1.905	\$1.917	\$1.959	\$2.010	\$2.077	\$2.109	\$2.112	\$2.148	\$2.262	\$2.455	\$2.562	\$2.527
vs. Last Year	\$1.164	\$1.074	\$1.042	\$1.028	\$1.002	\$0.978	\$0.961	\$0.936	\$0.873	\$0.797	\$0.781	\$0.745

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	0.524	▲ 0.115	▲ 0.488	▲ 0.899
NatGas Mar21/Apr21	\$/MMBtu	-0.078	▼ -0.042	▼ -0.031	▼ -0.323
NatGas Oct21/Nov21	\$/MMBtu	0.051	▼ -0.002	▼ -0.015	▼ -0.018
NatGas Apr21/Oct21	\$/MMBtu	0.093	▲ 0.632	▲ 0.361	▼ -0.206
WTI Crude	\$/Bbl	59.24	▼ -0.230	▲ 6.970	▲ 5.860
Brent Crude	\$/Bbl	62.91	▲ 0.480	▲ 7.500	▲ 4.410
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	182.29	▲ 5.150	▲ 24.690	▲ 13.630
Propane, Mt. Bel	cents/Gallon	0.92	▲ 0.036	▲ 0.048	▲ 0.514
Ethane, Mt. Bel	cents/Gallon	0.27	▼ -0.008	▲ 0.038	▲ 0.126
Coal, PRB	\$/Mton	12.30	▲ 0.000	▲ 0.000	▲ 0.050
Coal, PRB	\$/MMBtu	0.70			

Source: CME, Bloomberg

Baker Hughes Rig Counts

Rotary Rig Count						Baker Hughes 
2/19/2021						
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago	
Oil	305	-1	306	-374	679	
Gas	91	1	90	-19	110	
Miscellaneous	1	0	1	-1	2	
Directional	16	-2	18	-29	45	
Horizontal	357	1	356	-357	714	
Vertical	24	1	23	-8	32	
Canada Breakout	This Week	+/-	Last Week	+/-	Year Ago	
Oil	100	-1	101	-69	169	
Gas	72	-3	75	-3	75	
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago	
Ardmore Woodford	0	0	0	-5	5	
Arkoma Woodford	0	0	0	-1	1	
Barnett	1	0	1	0	1	
Cana Woodford	9	0	9	-10	19	
DJ-Niobrara	7	0	7	-12	19	
Eagle Ford	29	0	29	-41	70	
Granite Wash	0	0	0	-2	2	
Haynesville	46	0	46	4	42	
Marcellus	30	0	30	-8	38	
Mississippian	0	0	0	-2	2	
Permian	204	1	203	-205	409	
Utica	7	0	7	-4	11	
Williston	14	1	13	-39	53	