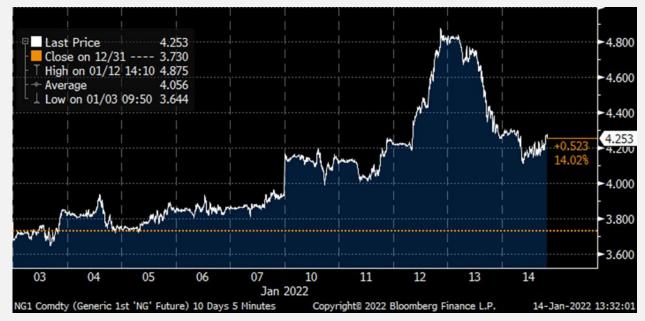
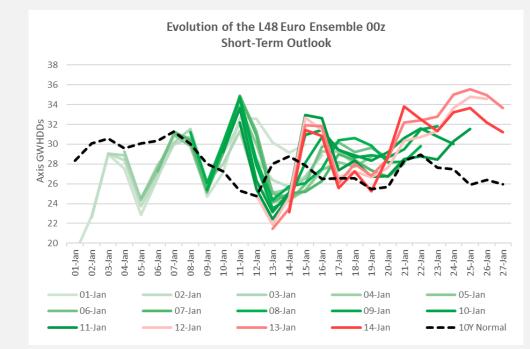
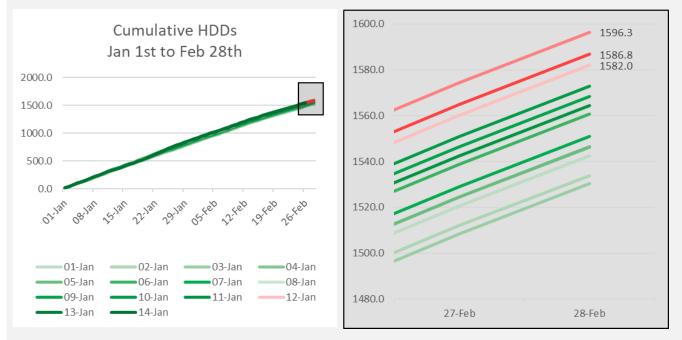
U.S. natural gas futures have had a volatile start to the year with frigid weather strengthening heating demand and traders rushing to unwind bearish bets. February futures had wild rollercoaster ride this week.



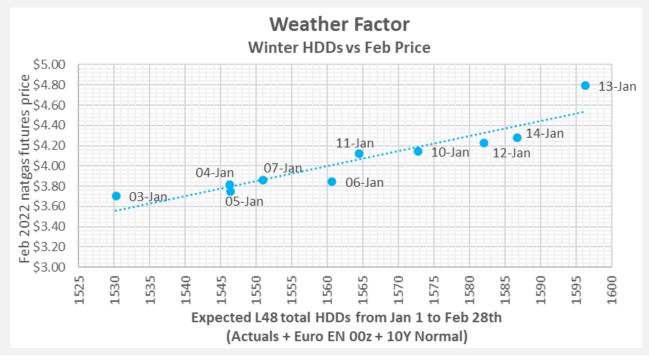
Weather is in full control at the moment. The daily changes in the 15-day forecast are continuously moving prices. Here is the evolution of the 00z Euro Ensemble since Jan 1st. As can be seen this past week we shot up a lot cooler on the back end of the forecast which looked to put fear into how Feb will turn out (more on that later).



As we have done in the past, we matched up the actuals, 15-day forecast, and 10Y normal to come up with the cumulative GWHDD over a period of time. This time we have chosen the period of Jan 1st to Feb 28th. As can be seen, the range of cumulative GWHDDs during the time frame ranges from 1530 GWHDDs on Jan 3rd to 1596 GWHDDs on Jan 13th.

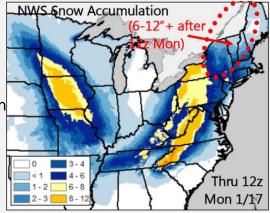


With each weather move, we saw price respond accordingly. This chart show the cumulative GWHDDs (Jan 1 to Feb 28) vs. daily closing Feb contract price.

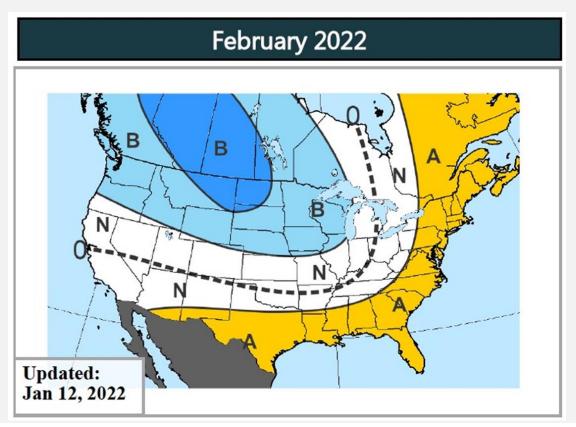


We end this section with some commentary and Feb outlook from Maxar Weather (posted on <u>enelyst.com</u> this past wee):

A wave of low pressure currently over the Central Plains will bring a swath of moderate to heavy snow to areas of the western Midwest today, with 6-12" possible centered over lowa. The storm will strengthen as it dives into the Southeast tomorrow before tracking up the East Coast on Sunday into Monday, bringing significant snow and ice hazards to areas of the South and Mid-Atlantic.

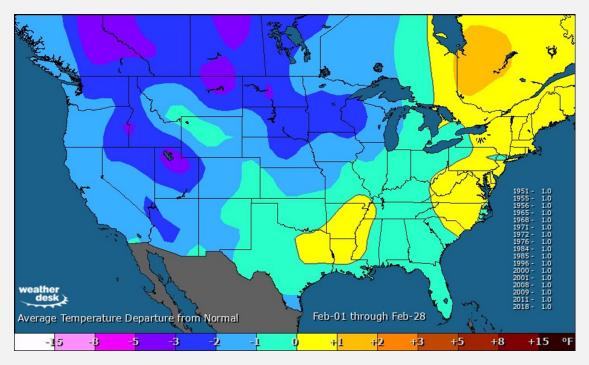


We ultimately expect the pattern to take on –PNA characteristics, given the oceanic support from La Niña and the broader North Pacific –PDO. The 11-15 Day changes in the Pacific may be hinting that the onset of this transition. The –PNA correlates warm from the South to Mid-Atlantic and cold from the Northwest to North-Central, and this is echoed in our February outlook in which no changes were made this week.

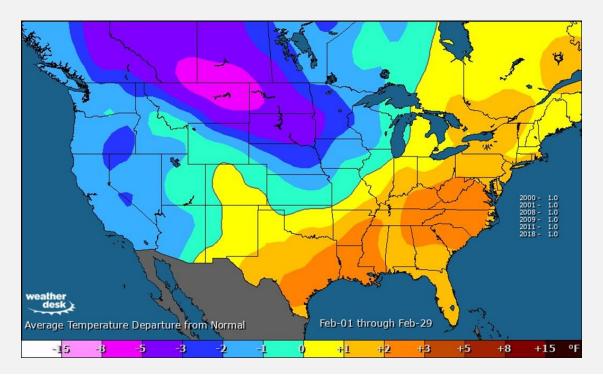


# 

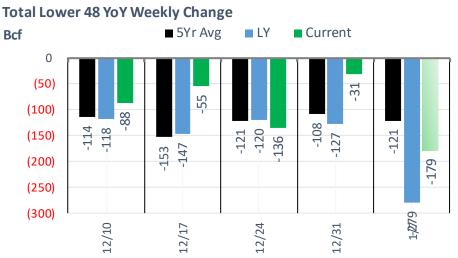
Regarding colder than normal Januarys and what followed in February. Of the 17 La Niñas back to 1950, five turned warmer than normal in February and the other 12 colder:



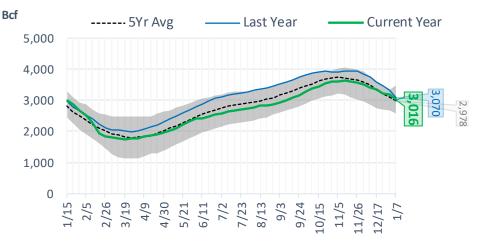
When narrowing this list of analogs to 2000+, there's more of a split with three colder and three warmer than normal Februarys:



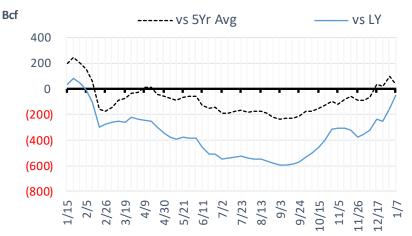
### **EIA Storage Report**



#### **Total Lower 48 Storage Levels**



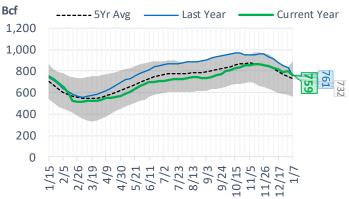
#### Total Lower 48 LY Surplus/Deficit



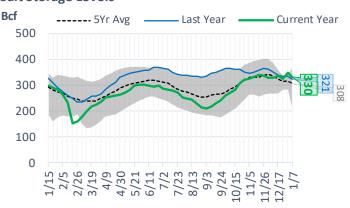
## Natural Gas Storage Stats - Last 5 Weeks

|                                  | Current      | Week - 1 | Week - 2 | Week - 3 | Week - 4 | Week - 5 |
|----------------------------------|--------------|----------|----------|----------|----------|----------|
| Week Ending                      | 7-Jan        | 31-Dec   | 24-Dec   | 17-Dec   | 10-Dec   | 3-Dec    |
| Total Lower 48 Storage Level     | 3016         | 3195     | 3226     | 3362     | 3417     | 3505     |
| Weekly Change                    | -179         | -31      | -136     | -55      | -88      | -59      |
| vs LY                            | -54          | -154     | -250     | -234     | -326     | -356     |
| vs 5Yr Avg                       | +38          | +96      | +19      | +34      | -64      | -90      |
| S. Central Salt Storage Level    | 330          | 347      | 326      | 334      | 328      | 328      |
| Weekly Change                    | -17          | +21      | -8       | +6       | 0        | -7       |
| vs LY                            | +9           | +14      | -8       | -5       | -22      | -34      |
| vs 5Yr Avg                       | +22          | +32      | +11      | +13      | -7       | -14      |
| S. Central NonSalt Storage Level | 759          | 796      | 790      | 820      | 829      | 842      |
| Weekly Change                    | -37          | +6       | -30      | -9       | -13      | -9       |
| vs LY                            | -2           | -37      | -62      | -55      | -83      | -95      |
| vs 5Yr Avg                       | +27          | +47      | +21      | +27      | +3       | -8       |
| Midwest Storage Level            | 835          | 893      | 918      | 963      | 982      | 1019     |
| Weekly Change                    | -58          | -25      | -45      | -19      | -37      | -24      |
| vs LY                            | - <b>2</b> 6 | -37      | -61      | -58      | -82      | -80      |
| vs 5Yr Avg                       | +6           | +20      | +5       | +10      | -18      | -17      |
| East Storage Level               | 730          | 767      | 777      | 809      | 818      | 843      |
| Weekly Change                    | -37          | -10      | -32      | -9       | -25      | -24      |
| vs LY                            | +3           | -4       | -38      | -40      | -68      | -75      |
| vs 5Yr Avg                       | +33          | +39      | +19      | +18      | -12      | -16      |
| Mountain Storage Level           | 159          | 172      | 180      | 188      | 199      | 206      |
| Weekly Change                    | -13          | -8       | -8       | -11      | -7       | 0        |
| vs LY                            | -3           | -25      | -25      | -26      | -25      | -27      |
| vs 5Yr Avg                       | -6           | -6       | -7       | -7       | -6       | -7       |
| Pacific Storage Level            | 204          | 219      | 235      | 247      | 261      | 266      |
| Weekly Change                    | -15          | -16      | -12      | -14      | -5       | +3       |
| vs LY                            | -34          | -64      | -55      | -50      | -46      | -47      |
| vs 5Yr Avg                       | -44          | -37      | -30      | -29      | -24      | -28      |



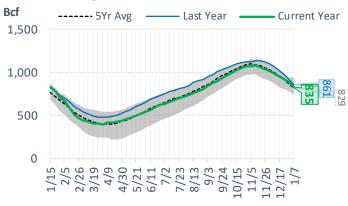


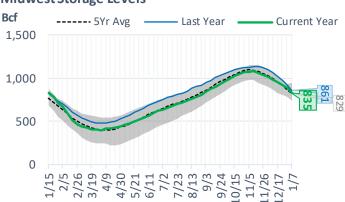
Salt Storage Levels



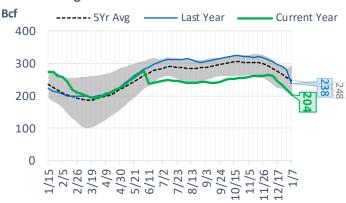


#### **Midwest Storage Levels**





#### **Pacific Storage Levels**



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.

#### Midwest Storage Levels

#### **EIA Storage Week Balances**

| 10-Dec         | 17-Dec  | 24-Dec  | 31-Dec   | 7-Jan  | 14-Jan  | WoW  | vs. 4W   |
|----------------|---|---|--|--|---|--|--|
| 96.6           | 96.4  | 96.7  | 98.7   | 95.4   | 95.4  | ▼ 0.0  | ▼-1.4  |
| 5.3            | 4.6   | 5.0   | 4.2  | 5.7  | 6.6   | <b>A</b> 0.9   | <b>1.7</b>   |
| 29.1           | 28.4  | 29.9  | 26.4   | 29.9   | 30.3  | <b>0</b> .4  | <b>1.6</b>   |
| 35.4           | 31.4  | 40.3  | 33.4   | 44.3   | 47.2  | <b>2</b> .9  | <b>4</b> 9.9   |
| 23.7           | 23.7  | 24.0  | 22.2   | 26.1   | 25.6  | <b>-</b> 0.6   | <b>1.6</b>   |
| 5.2            | 5.2   | 5.2   | 5.4  | 5.2  | 5.2   | <b>0.0</b>   | ▼ 0.0  |
| 3.2            | 3.0   | 3.5   | 3.0  | 3.6  | 3.8   | <b>a</b> 0.1   | <b>0.5</b>   |
| 96.7           | 91.7  | 103.0   | 90.4   | 109.1  | 112.0   | <b>2.9</b>   | <b>13.5</b>  |
| 12.0           | 11.9  | 12.7  | 12.3   | 11.9   | 12.3  | <b>0.4</b>   | <b>0.2</b>   |
| 6.4            | 6.2   | 6.1   | 5.8  | 5.9  | 6.3   | <b>0.4</b>   | <b>0.3</b>   |
| -13.2<br>-12.6 | -8.8<br>-7.9  | -20.0<br>-19.4  | -5.5<br>-4.4   | -25.9<br>-25.6   | -28.8   | -2.9   |  |
|                | 96.6<br>5.3<br>29.1<br>35.4<br>23.7<br>5.2<br>3.2<br>96.7<br>12.0<br>6.4<br>-13.2 | 96.6 96.4   5.3 4.6   29.1 28.4   35.4 31.4   23.7 23.7   5.2 5.2   3.2 3.0   96.7 91.7   12.0 11.9   6.4 6.2   -13.2 -8.8   -12.6 -7.9 | 96.6 96.4 96.7   5.3 4.6 5.0   29.1 28.4 29.9   35.4 31.4 40.3   23.7 23.7 24.0   5.2 5.2 5.2   3.2 3.0 3.5   96.7 91.7 103.0   12.0 11.9 12.7   6.4 6.2 6.1   -13.2 -8.8 -20.0   -12.6 -7.9 -19.4 | 96.6 96.4 96.7 98.7   5.3 4.6 5.0 4.2   29.1 28.4 29.9 26.4   35.4 31.4 40.3 33.4   23.7 23.7 24.0 22.2   5.2 5.2 5.4 3.0   3.2 3.0 3.5 3.0   96.7 91.7 103.0 90.4   12.0 11.9 12.7 12.3   6.4 6.2 6.1 5.8   -13.2 -8.8 -20.0 -5.5   -12.6 -7.9 -19.4 -4.4 | 96.6 96.4 96.7 98.7 95.4   5.3 4.6 5.0 4.2 5.7   29.1 28.4 29.9 26.4 29.9   35.4 31.4 40.3 33.4 44.3   23.7 23.7 24.0 22.2 26.1   5.2 5.2 5.4 5.2 3.6   96.7 91.7 103.0 90.4 109.1   12.0 11.9 12.7 12.3 11.9   6.4 6.2 6.1 5.8 5.9   -13.2 -8.8 -20.0 -5.5 -25.9   -12.6 -7.9 -19.4 -4.4 -25.6 | 96.6 96.4 96.7 98.7 95.4 95.4   5.3 4.6 5.0 4.2 5.7 6.6   29.1 28.4 29.9 26.4 29.9 30.3   35.4 31.4 40.3 33.4 44.3 47.2   23.7 23.7 24.0 22.2 26.1 25.6   5.2 5.2 5.2 5.4 5.2 5.2   3.2 3.0 3.5 3.0 3.6 3.8   96.7 91.7 103.0 90.4 109.1 112.0   12.0 11.9 12.7 12.3 11.9 12.3   6.4 6.2 6.1 5.8 5.9 6.3   -13.2 -8.8 -20.0 -5.5 -25.9 -28.8   -12.6 -7.9 -19.4 -4.4 -25.6 | 96.696.496.798.795.495.4 $\checkmark$ 0.05.34.65.04.25.76.60.929.128.429.926.429.930.30.435.431.440.333.444.347.22.923.723.724.022.226.125.6 $\checkmark$ 0.03.25.25.25.45.25.2 $\diamond$ 0.03.23.03.53.03.63.80.196.791.7103.090.4109.1112.02.912.011.912.712.311.912.3 $\diamond$ 0.46.46.26.15.85.96.3 $\diamond$ 0.4-13.2-8.8-20.0-5.5-25.9-28.8-2.9-12.6-7.9-19.4-4.4-25.6-25.9-28.8 |

#### **Monthly Balances**

|  | <u></u>           |              |        |        |        |        |               |               |              |
|--|-------------------|--------------|--------|--------|--------|--------|---------------|---------------|--------------|
|  | 2Yr Ago<br>Jan-20 | LY<br>Jan-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 | MTD<br>Jan-22 | МоМ           | vs. LY       |
| Lower 48 Dry Production  | 94.6              | 91.4         | 93.4   | 94.3   | 95.9   | 97.1   | 95.2          | <b>-1.9</b>   | <b>3.8</b>   |
| Canadian Imports   | 4.8               | 6.3          | 5.1    | 5.4    | 5.3    | 4.8    | 6.3           | <b>1.5</b>    | ▼ 0.0        |
| L48 Power  | 29.9              | 28.3         | 33.1   | 30.5   | 28.8   | 28.4   | 30.5          | <b>2</b> .1   | <b>A</b> 2.2 |
| L48 Residential & Commercial   | 41.7              | 44.0         | 8.8    | 12.5   | 29.4   | 34.4   | 46.9          | <b>12.4</b>   | <b>2</b> .9  |
| L48 Industrial   | 24.5              | 23.8         | 20.2   | 21.0   | 22.4   | 23.3   | 26.0          | <b>2</b> .7   | <b>A</b> 2.2 |
| L48 Lease and Plant Fuel   | 5.1               | 5.0          | 5.1    | 5.2    | 5.2    | 5.3    | 5.2           | <b>T</b> -0.1 | <b>a</b> 0.2 |
| L48 Pipeline Distribution  | 3.6               | 3.5          | 2.3    | 2.4    | 3.1    | 3.1    | 3.8           | <b>a</b> 0.6  | <b>a</b> 0.2 |
| L48 Regional Gas Consumption   | 104.8             | 104.6        | 69.4   | 71.5   | 88.9   | 94.5   | 112.3         | <b>17.8</b>   | <b>7.7</b>   |
| Net LNG Exports  | 8.4               | 10.5         | 10.3   | 10.6   | 11.4   | 12.1   | 12.1          | <b>0.0</b>    | <b>1.6</b>   |
| Total Mexican Exports  | 5.1               | 6.2          | 6.7    | 6.6    | 6.1    | 6.1    | 6.2           | ▲ 0.0         | ▲ 0.0        |
| Implied Daily Storage Activity<br>EIA Reported Daily Storage Activity<br>Daily Model Error | -18.9             | -23.5        | 12.1   | 11.0   | -5.2   | -11.0  | -29.2         |               |              |

Source: Bloomberg, analytix.ai

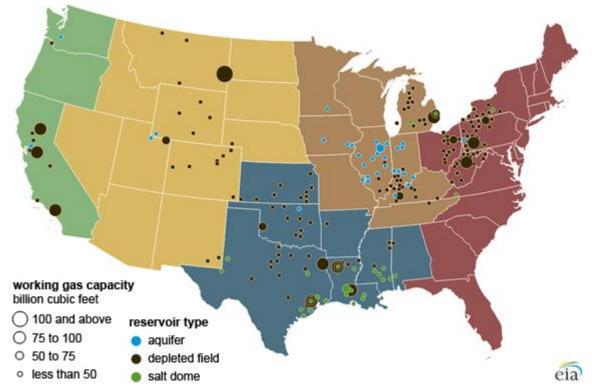


### Regional S/D Models Storage Projection

Week Ending 14-Jan Daily Weekly Average Daily Adjusted Storage Daily Raw Adjustment Activity Storage Storage (Adjusted) \* Activity Factor L48 -28.1 -197 -29.0 0.9 -11.2 2.5 East -8.8 -61 Midwest -7.9 0.1 -7.8 -55 2.0 -2.9 -1.0 -7 Mountain 2.0 South Central -11.6 -9.6 -67 Pacific -0.2 -0.8 -0.9 -6

\*Adjustment Factor is calcuated based on historical regional deltas

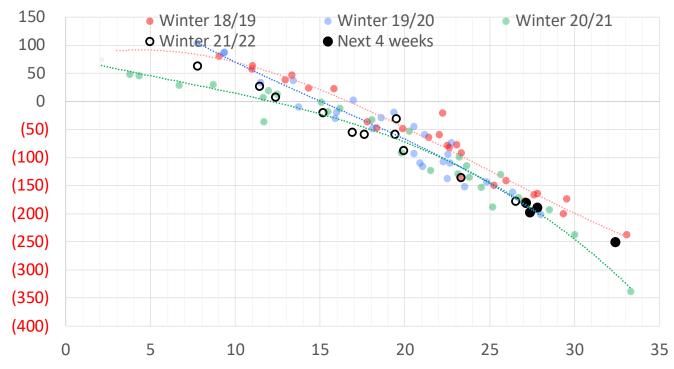
#### U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

| Next report<br>and beyond |       |                            |
|---------------------------|-------|----------------------------|
| Week Ending               | GWDDs | Week Storage<br>Projection |
| 14-Jan                    | 27    | -197                       |
| 21-Jan                    | 28    | -189                       |
| 28-Jan                    | 32    | -250                       |
| 04-Feb                    | 27    | -181                       |

Weather Storage Model - Next 4 Week Forecast

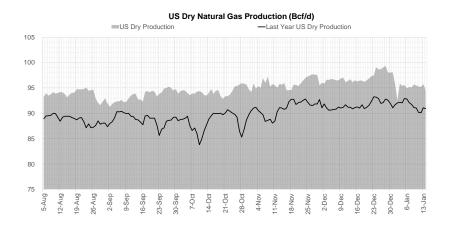


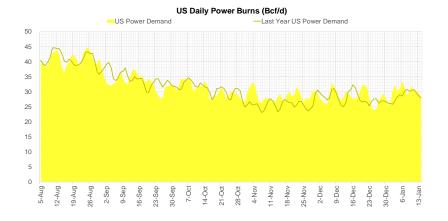
# Note: this is not our official end of season forecast. This chart signifies where storage levels end with 10-year normal weather and current market tightness relative to last year



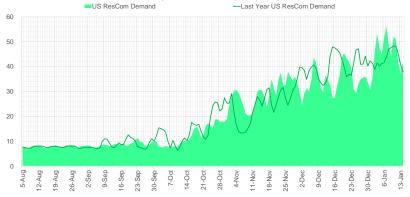
ENERGY

### Supply – Demand Trends



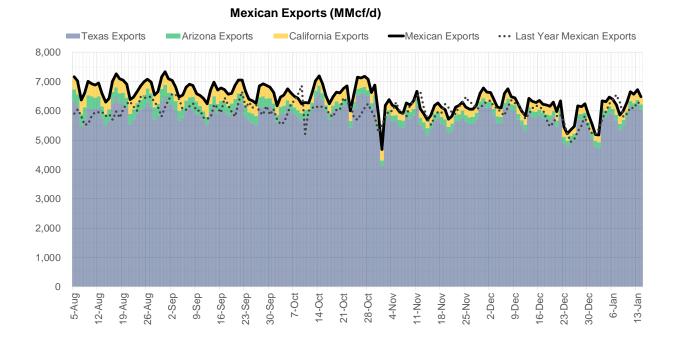


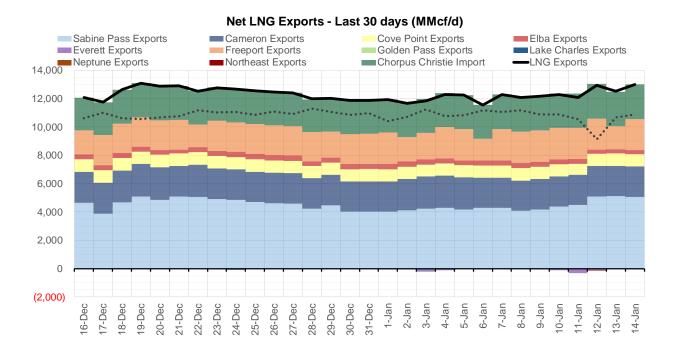
US Daily ResCom Consumption(Bcf/d)



Source: Bloomberg







Source: Bloomberg



# Nat Gas Options Volume and Open Interest

CME, ICE and Nasdaq Combined

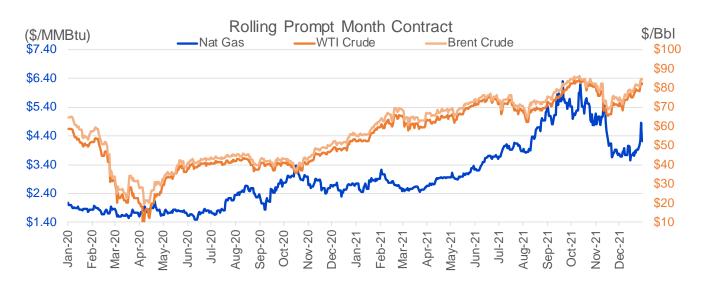
| CONTRACT<br>MONTH | CONTRACT<br>YEAR | PUT/CALL | STRIKE | CUMULATIVE<br>VOL | CONTRACT<br>MONTH | CONTRACT<br>YEAR | PUT/CALL | STRIKE       | CUMULATIVE OI  |
|-------------------|------------------|----------|--------|-------------------|-------------------|------------------|----------|--------------|----------------|
| 2                 | 2022             | С        | 5.00   | 6743              | 3                 | 2022             | С        | 10.00        | 34315          |
| 2                 | 2022             | С        | 6.00   | 6249              | 3                 | 2022             | С        | 5.00         | 34183          |
| 3                 | 2022             | Р        | 3.00   | 4283              | 3                 | 2022             | С        | 8.00         | 28283          |
| 3                 | 2022             | Р        | 3.75   | 4030              | 2                 | 2022             | С        | 4.00         | 27712          |
| 3                 | 2022             | С        | 6.00   | 3786              | 2                 | 2022             | С        | 5.00         | 24956          |
| 3                 | 2022             | С        | 4.00   | 3574              | 3                 | 2022             | С        | 4.00         | 24788          |
| 3                 | 2022             | С        | 5.00   | 3143              | 2                 | 2022             | Р        | 3.50         | 21724          |
| 2                 | 2022             | С        | 4.50   | 3114              | 3                 | 2022             | Р        | 2.50         | 21492          |
| 3                 | 2022             | Р        | 2.75   | 3030              | 2                 | 2022             | С        | 6.00         | 21164          |
| 2                 | 2022             | Р        | 4.00   | 2836              | 12                | 2022             | С        | 5.00         | 20932          |
| 2                 | 2022             | С        | 7.00   | 2724              | 3                 | 2022             | P        | 3.00         | 20550          |
| 3                 | 2022             | Р        | 4.00   | 2688              | 2                 | 2022             | Р        | 4.00         | 20075          |
| 2                 | 2022             | Р        | 3.75   | 2585              | 10                | 2022             | С        | 6.00         | 19780          |
| 2                 | 2022             | Р        | 4.25   | 2554              | 4                 | 2022             | С        | 3.00         | 19710          |
| 3                 | 2022             | Р        | 3.25   | 2368              | 4                 | 2022             | С        | 5.00         | 19579          |
| 3                 | 2022             | Р        | 3.50   | 2231              | 3                 | 2022             | C<br>P   | 6.00         | 18897          |
| 2                 | 2022             | С        | 5.50   | 2103              | 3<br>5            | 2022             | P        | 4.00         | 17178          |
| 2                 | 2022             | С        | 4.75   | 2037              |                   | 2022             | P        | 3.00         | 17069          |
| 2                 | 2022             | Р        | 3.35   | 2008              | 3<br>6            | 2022<br>2022     | P<br>C   | 3.50<br>5.00 | 16783<br>16690 |
| 2                 | 2022             | С        | 6.50   | 1870              | 6<br>4            | 2022             | P        | 5.00<br>2.50 | 16463          |
| 2                 | 2022             | С        | 5.75   | 1812              | 4                 | 2022             | F<br>C   | 2.50<br>7.00 | 16413          |
| 4                 | 2022             | С        | 6.00   | 1780              | 4                 | 2022             | P        | 3.00         | 16193          |
| 3                 | 2022             | С        | 7.50   | 1743              | 4                 | 2022             | Р<br>С   | 3.00<br>4.50 | 16093          |
| 2                 | 2022             | С        | 5.25   | 1697              | 2<br>10           | 2022             | c        | 4.50<br>5.00 | 15453          |
| 2                 | 2022             | С        | 8.00   | 1624              | 3                 | 2022             | P        | 2.00         | 14985          |
| 2                 | 2022             | С        | 4.25   | 1583              | 2                 | 2022             | P        | 3.00         | 14870          |
| 4                 | 2022             | С        | 5.00   | 1574              | 3                 | 2022             | C        | 4.50         | 14843          |
| 5                 | 2022             | С        | 7.00   | 1554              | 2                 | 2022             | c        | 10.00        | 14444          |
| 4                 | 2022             | С        | 7.00   | 1550              | 2                 | 2022             | P        | 3.75         | 14095          |
| 6                 | 2022             | С        | 7.00   | 1550              | 2                 | 2022             | C        | 4.25         | 14044          |
| 7                 | 2022             | С        | 7.00   | 1550              | 10                | 2022             | P        | 2.00         | 13921          |
| 8                 | 2022             | С        | 7.00   | 1550              | 3                 | 2022             | P        | 2.25         | 13917          |
| 9                 | 2022             | С        | 7.00   | 1550              | 4                 | 2022             | C        | 4.00         | 13905          |
| 10                | 2022             | С        | 7.00   | 1550              | 2                 | 2022             | C        | 8.00         | 13749          |
| 5                 | 2022             | С        | 6.00   | 1522              | 5                 | 2022             | c        | 3.00         | 13733          |
| 2                 | 2022             | Р        | 4.50   | 1499              | 5                 | 2022             | C        | 5.00         | 13664          |
| 10                | 2022             | С        | 6.00   | 1475              | 5                 | 2022             | Р        | 2.50         | 13598          |
| 3                 | 2022             | С        | 4.50   | 1412              | 3                 | 2022             | Р        | 5.00         | 13591          |
| 6                 | 2022             | С        | 6.00   | 1275              | 10                | 2022             | Р        | 3.00         | 13531          |
| 7                 | 2022             | С        | 6.00   | 1275              | 2                 | 2022             | С        | 7.00         | 13463          |
| 8                 | 2022             | С        | 6.00   | 1275              | 6                 | 2022             | С        | 3.00         | 13438          |
| 9                 | 2022             | С        | 6.00   | 1275              | 12                | 2022             | С        | 4.50         | 13307          |
| 10                | 2022             | Р        | 3.00   | 1275              | 2                 | 2022             | С        | 5.50         | 13305          |
| 3                 | 2022             | С        | 8.00   | 1250              | 3                 | 2022             | С        | 3.00         | 13267          |
| 4                 | 2022             | Р        | 4.00   | 1212              | 12                | 2022             | С        | 5.25         | 13263          |
| 5                 | 2022             | С        | 4.50   | 1200              | 3                 | 2022             | С        | 3.50         | 13245          |
| 3                 | 2022             | С        | 7.00   | 1188              | 7                 | 2022             | С        | 3.00         | 13230          |
| 10                | 2022             | Р        | 3.50   | 1140              | 8                 | 2022             | С        | 3.00         | 13226          |
| 3                 | 2022             | С        | 10.00  | 1120              | 9                 | 2022             | С        | 3            | 13225          |

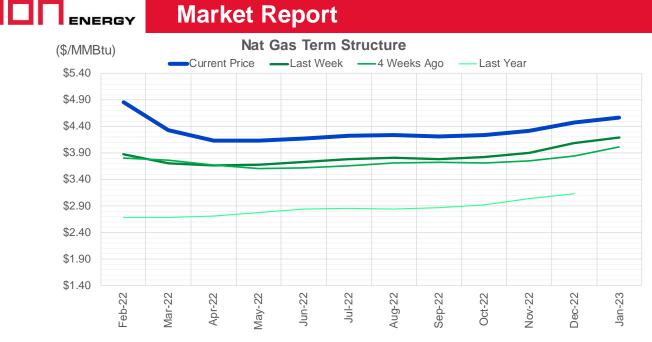
Source: CME, Nasdaq, ICE

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

| CME Henry Hu | ub Futures (1) | 0,000 MMBt | u)           | ICE Henry I | Hub Futures Con | tract Equiva | lent (10.000 MN |
|--------------|----------------|------------|--------------|-------------|-----------------|--------------|-----------------|
|              | Current        | Prior      | Daily Change | <b>,</b>    | Current         | Prior        | Daily Change    |
| FEB 22       | 73755          | 86453      | -12698       | FEB 22      | 76211           | 78252        | -2041           |
| MAR 22       | 270397         | 272457     | -2060        | MAR 22      | 92287           | 89961        | 2327            |
| APR 22       | 85828          | 88719      | -2891        | APR 22      | 74211           | 74627        | -416            |
| MAY 22       | 111180         | 115893     | -4713        | MAY 22      | 69306           | 67311        | 1996            |
| JUN 22       | 59903          | 59014      | 889          | JUN 22      | 56458           | 54986        | 1473            |
| JUL 22       | 59774          | 58790      | 984          | JUL 22      | 60047           | 59660        | 388             |
| AUG 22       | 37689          | 37096      | 593          | AUG 22      | 56662           | 55728        | 934             |
| SEP 22       | 48876          | 49039      | -163         | SEP 22      | 57469           | 56791        | 678             |
| OCT 22       | 83530          | 82042      | 1488         | OCT 22      | 62272           | 62180        | 92              |
| NOV 22       | 36636          | 36336      | 300          | NOV 22      | 51962           | 51762        | 200             |
| DEC 22       | 38483          | 37928      | 555          | DEC 22      | 61272           | 60657        | 615             |
| JAN 23       | 50840          | 49103      | 1737         | JAN 23      | 49375           | 49421        | -46             |
| FEB 23       | 15195          | 14594      | 601          | FEB 23      | 38960           | 38000        | 960             |
| MAR 23       | 30785          | 30360      | 425          | MAR 23      | 43934           | 42473        | 1460            |
| APR 23       | 31325          | 29533      | 1792         | APR 23      | 45058           | 44015        | 1043            |
| MAY 23       | 16545          | 16322      | 223          | MAY 23      | 37867           | 36874        | 993             |
| JUN 23       | 10849          | 10859      | -10          | JUN 23      | 35597           | 34187        | 1410            |
| JUL 23       | 9915           | 9442       | 473          | JUL 23      | 34984           | 33527        | 1457            |
| AUG 23       | 6581           | 6386       | 195          | AUG 23      | 34668           | 33693        | 975             |
| SEP 23       | 9220           | 9368       | -148         | SEP 23      | 34407           | 33004        | 1403            |
| OCT 23       | 13082          | 12281      | 801          | OCT 23      | 37579           | 36616        | 963             |
| NOV 23       | 8549           | 8284       | 265          | NOV 23      | 37150           | 36637        | 513             |
| DEC 23       | 10730          | 10017      | 713          | DEC 23      | 34010           | 33679        | 331             |
| JAN 24       | 7038           | 6643       | 395          | JAN 24      | 24033           | 23734        | 300             |
| FEB 24       | 1787           | 1777       | 10           | FEB 24      | 17446           | 17164        | 281             |
| MAR 24       | 10094          | 10088      | 6            | MAR 24      | 23366           | 23104        | 262             |
| APR 24       | 5569           | 5568       | 1            | APR 24      | 16521           | 16204        | 317             |
| MAY 24       | 2077           | 2069       | 8            | MAY 24      | 16906           | 16562        | 343             |
| JUN 24       | 921            | 921        | 0            | JUN 24      | 17041           | 16728        | 313             |
| JUL 24       | 563            | 563        | 0            | JUL 24      | 17655           | 17332        | 324             |

Source: CME, ICE





|                 | Feb-22  | Mar-22  | Apr-22  | May-22  | Jun-22  | Jul-22  | Aug-22  | Sep-22  | Oct-22  | Nov-22  | Dec-22  | Jan-23  |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Current Price   | \$4.857 | \$4.327 | \$4.134 | \$4.132 | \$4.176 | \$4.229 | \$4.236 | \$4.214 | \$4.236 | \$4.314 | \$4.480 | \$4.570 |
| Last Week       | \$3.882 | \$3.710 | \$3.666 | \$3.683 | \$3.733 | \$3.789 | \$3.804 | \$3.789 | \$3.818 | \$3.909 | \$4.086 | \$4.193 |
| vs. Last Week   | \$0.975 | \$0.617 | \$0.468 | \$0.449 | \$0.443 | \$0.440 | \$0.432 | \$0.425 | \$0.418 | \$0.405 | \$0.394 | \$0.377 |
| 4 Weeks Ago     | \$3.802 | \$3.761 | \$3.668 | \$3.602 | \$3.614 | \$3.660 | \$3.711 | \$3.727 | \$3.714 | \$3.745 | \$3.842 | \$4.013 |
| vs. 4 Weeks Ago | \$1.055 | \$0.566 | \$0.466 | \$0.530 | \$0.562 | \$0.569 | \$0.525 | \$0.487 | \$0.522 | \$0.569 | \$0.638 | \$0.557 |
| Last Year       | \$2.727 | \$2.689 | \$2.688 | \$2.707 | \$2.770 | \$2.843 | \$2.860 | \$2.848 | \$2.868 | \$2.922 | \$3.043 | \$3.129 |
| vs. Last Year   | \$2.130 | \$1.638 | \$1.446 | \$1.425 | \$1.406 | \$1.386 | \$1.376 | \$1.366 | \$1.368 | \$1.392 | \$1.437 | \$1.441 |

|                         |              |                      |                | vs. 4 Weeks     |                 |
|-------------------------|--------------|----------------------|----------------|-----------------|-----------------|
|                         | Units        | <b>Current Price</b> | vs. Last Week  | Ago             | vs. Last Year   |
| NatGas Jul21/Oct21      | \$/MMBtu     | 2.224                | <b>a</b> 0.000 | <b>a</b> 0.000  | <b>a</b> 2.197  |
| NatGas Oct21/Nov21      | \$/MMBtu     | 0.361                | <b>0.000</b>   | <b>a</b> 0.000  | <b>a</b> 0.303  |
| NatGas Oct21/Jan22      | \$/MMBtu     | -1.817               | <b>a</b> 0.000 | <b>a</b> 0.258  | -2.091          |
| NatGas Apr22/Oct22      | \$/MMBtu     | 0.148                | -0.008         | -0.001          | <b>a</b> 0.127  |
| WTICrude                | \$/Bbl       | 82.12                | <b>2.660</b>   | <b>9.740</b>    | <b>28.550</b>   |
| Brent Crude             | \$/Bbl       | 84.47                | <b>a</b> 2.480 | <b>9.450</b>    | <b>a</b> 28.050 |
| Fuel Oil, NY Harbour 1% | \$/Bbl       | 97.18                | <b>0.000</b>   | ▲ 0.000         | <b>a</b> 0.000  |
| Heating Oil             | cents/Gallon | 260.85               | <b>1</b> 3.080 | <b>4</b> 34.220 | <b>4</b> 98.910 |
| Propane, Mt. Bel        | cents/Gallon | 1.15                 | <b>a</b> 0.045 | <b>a</b> 0.112  | <b>a</b> 0.232  |
| Ethane, Mt. Bel         | cents/Gallon | 0.37                 | <b>a</b> 0.017 | <b>a</b> 0.040  | <b>a</b> 0.137  |
| Coal, PRB               | \$/MTon      | 12.30                | <b>0.000</b>   | <b>0.000</b>    | <b>a</b> 0.000  |
| Coal, PRB               | \$/MMBtu     | 0.70                 |                |                 |                 |

#### Source: CME, Bloomberg

### **Baker Hughes Rig Counts**

|   | Rotary Rig<br>1/14/202                                       |   |   | Baker   | Hughes ≽   |
|---|--|---|---|---|--|
|   | 1/17/20/   | LL  |   |   |  |
| U.S. Breakout Information   | This Week  | +/-   | Last Week   | +/-   | Year Ago   |
|   |  |   |   |   |  |
| Oil   | 492  | 11  | 481   | 205   | 287  |
| Gas   | 109  | 2   | 107   | 24  | 85   |
| Miscellaneous   | 0  | 0   | 0   | -1  | 1  |
|   |  |   |   |   |  |
| Directional   | 35   | 2   | 33  | 13  | 22   |
| Horizontal  | 541  | 9   | 532   | 209   | 332  |
| Vertical  | 25   | 2   | 23  | 6   | 19   |
|   |  |   |   |   |  |
| Canada Breakout   | This Week  | +/-   | Last Week   | +/-   | Year Ago   |
|   |  |   |   |   |  |
| Oil   |  |   |   |   |  |
|   | 121  | 43  | 78  | 31  | 90   |
| Gas   | 70   | 7   | 63  | -1  | 71   |
|   |  |   |   |   |  |
| Gas<br>Major Basin Variances  | 70<br>This Week  | 7+/-  | 63<br>Last Week   | -1<br>+/-   | 71<br>Year Ago   |
| Gas<br>Major Basin Variances<br>Ardmore Woodford  | 70<br>This Week<br>1   | 7<br>+/-<br>0   | 63<br>Last Week   | -1<br>+/-<br>1                                      | 71<br>Year Ago<br>0  |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford   | 70<br>This Week<br>1<br>2                                    | 7<br>+/-<br>0<br>0                                    | 63<br>Last Week<br>1<br>2   | -1<br>+/-<br>1<br>2                                 | 71<br>Year Ago<br>0<br>0                                   |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford  | 70<br>This Week<br>1<br>2<br>26                              | 7<br>+/-<br>0<br>0<br>0                               | 63<br>Last Week<br>1<br>2<br>26                                       | -1<br>+/-<br>1<br>2<br>16                           | 71<br>Year Ago<br>0<br>0<br>10                             |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara   | 70<br>This Week<br>1<br>2<br>26<br>12                        | 7<br>+/-<br>0<br>0                                    | 63<br>Last Week<br>1<br>2<br>26<br>12                                 | -1<br>+/-<br>1<br>2<br>16<br>5                      | 71<br>Year Ago<br>0<br>0<br>10<br>7                        |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford   | 70<br>This Week<br>1<br>2<br>26                              | 7<br>+/-<br>0<br>0<br>0                               | 63<br>Last Week<br>1<br>2<br>26                                       | -1<br>+/-<br>1<br>2<br>16                           | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28                  |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford<br>Granite Wash                             | 70<br>This Week<br>1<br>2<br>26<br>12<br>50<br>4             | 7<br>+/-<br>0<br>0<br>0<br>0<br>0                     | 63<br>Last Week<br>1<br>2<br>26<br>12                                 | -1<br>+/-<br>1<br>2<br>16<br>5<br>22<br>4           | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28<br>0             |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford   | 70<br>This Week<br>1<br>26<br>12<br>50                       | 7<br>+/-<br>0<br>0<br>0<br>0<br>0<br>6<br>0<br>3      | 63<br>Last Week<br>1<br>2<br>26<br>12<br>44                           | -1<br>+/-<br>1<br>2<br>16<br>5<br>22                | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28                  |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford<br>Granite Wash                             | 70<br>This Week<br>1<br>2<br>26<br>12<br>50<br>4             | 7<br>+/-<br>0<br>0<br>0<br>0<br>0<br>6<br>0           | 63<br>Last Week<br>1<br>2<br>26<br>12<br>44<br>44<br>4                | -1<br>+/-<br>1<br>2<br>16<br>5<br>22<br>4           | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28<br>0             |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford<br>Granite Wash<br>Haynesville              | 70<br>This Week<br>1<br>2<br>26<br>12<br>50<br>4<br>52       | 7<br>+/-<br>0<br>0<br>0<br>0<br>0<br>6<br>0<br>3      | 63<br>Last Week<br>1<br>2<br>26<br>12<br>44<br>4<br>4<br>49           | -1<br>+/-<br>1<br>2<br>16<br>5<br>22<br>4<br>8      | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28<br>0<br>44       |
| Gas<br>Major Basin Variances<br>Ardmore Woodford<br>Arkoma Woodford<br>Cana Woodford<br>DJ-Niobrara<br>Eagle Ford<br>Granite Wash<br>Haynesville<br>Marcellus | 70<br>This Week<br>1<br>2<br>26<br>12<br>50<br>4<br>52<br>31 | 7<br>+/-<br>0<br>0<br>0<br>0<br>0<br>6<br>0<br>3<br>2 | 63<br>Last Week<br>1<br>2<br>26<br>12<br>44<br>4<br>4<br>4<br>9<br>29 | -1<br>+/-<br>1<br>2<br>16<br>5<br>22<br>4<br>8<br>1 | 71<br>Year Ago<br>0<br>0<br>10<br>7<br>28<br>0<br>44<br>30 |