

11 October 2022



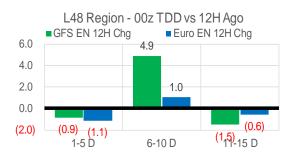
| | C | urrent | Δ from YD | | m 7D vg |
|---------------|----|--------|------------------|-------------|------------|
| WTI Prompt | \$ | 89.72 | \$ (1.41) | ~ \$ | (0.5) |

| | С | urrent | Δ from YD | | m 7D |
|-----------------|----|-------------|------------------|-------------|-------|
| Duant | | G. 1 G 1 10 | | A | vg |
| Brent Prompt | \$ | 94.85 | \$ (1.34) | * \$ | (8.0) |

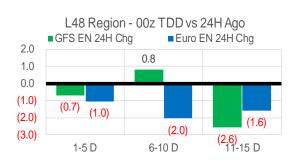
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Vs. 12H Ago



Vs. 24H Ago



| | Current | Δ from YD | Δ from 7D Avg |
|----------------------|---------|----------------|------------------|
| US Dry Production | 100.7 | ▼ -1.74 | ▼ -1.47 |

| ۲ | | | | |
|---|---------------|---------|----------------|------------------|
| | | Current | Δ from YD | Δ from 7D Avg |
| | US ResComm | 11.4 | ▼ -2.64 | ▼ -3.29 |

| | Current | Δ from YD | Δ from 7D Avg |
|--------------------|---------|---------------|------------------|
| Net LNG Exports | 10.6 | a 0.11 | ▼ -0.18 |

| | Current | Δ from YD | Δ from 7D Avg |
|-------------------|---------|---------------|------------------|
| US Power Burns | 31.4 | a 0.35 | a 0.67 |

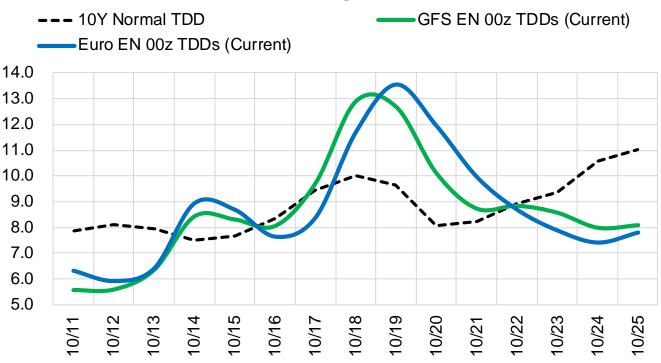
| | Current | Δ from YD | Δ from 7D Avg |
|---------------------|---------|-----------|------------------|
| Canadian Imports | 5.5 | ▲ 0.32 | ▼ -0.16 |

| | Current | Δ from YD | Δ from 7D Avg |
|--------------------|---------|---------------|------------------|
| Mexican Exports | 6.2 | - 0.40 | ▼ -0.41 |



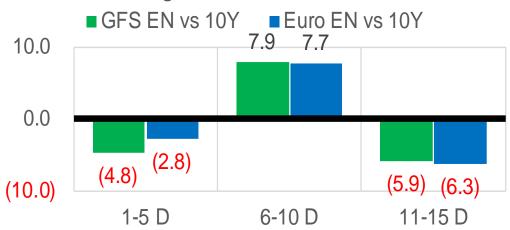
Short-term Weather Model Outlooks (00z)





Vs. 10Y Normal

L48 Region - 00z TDD vs 10Y Normal



Source: WSI, Bloomberg



Lower 48 Component Models

Daily Balances

| | 5-Oct | 6-Oct | 7-Oct | 8-Oct | 9-Oct | 10-Oct | 11-Oct | DoD | vs. 7D |
|--|-------|-------|-------|-------|-------|--------|--------|---------------|---------------|
| Lower 48 Dry Production | 101.5 | 101.5 | 102.3 | 102.8 | 102.7 | 102.5 | 100.7 | ▼ -1.7 | ▼ -1.5 |
| Canadian Imports | 5.8 | 5.6 | 5.5 | 5.8 | 5.8 | 5.2 | 5.5 | 0.3 | ▼ -0.1 |
| L48 Power | 32.3 | 31.3 | 30.5 | 28.6 | 28.8 | 31.0 | 31.4 | 0.4 | 1.0 |
| L48 Residential & Commercial | 12.4 | 10.7 | 15.1 | 18.7 | 16.5 | 14.0 | 11.4 | ▼ -2.6 | ▼ -3.2 |
| L48 Industrial | 21.1 | 21.1 | 21.8 | 21.8 | 21.6 | 21.4 | 21.3 | ▼ -0.1 | - 0.1 |
| L48 Lease and Plant Fuel | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.6 | ▼ -0.1 | ▼ -0.1 |
| L48 Pipeline Distribution | 2.8 | 2.6 | 2.8 | 2.9 | 2.8 | 2.8 | 2.6 | ▼ -0.1 | ▼ -0.1 |
| L48 Regional Gas Consumption | 74.3 | 71.4 | 76.0 | 77.8 | 75.4 | 75.0 | 72.3 | ▼ -2.7 | ▼ -2.6 |
| Net LNG Delivered | 10.40 | 10.17 | 10.94 | 11.27 | 11.42 | 10.46 | 10.57 | ▲ 0.1 | ▼ -0.2 |
| Total Mexican Exports | 6.8 | 6.7 | 6.6 | 6.4 | 6.3 | 6.6 | 6.2 | ▼ -0.4 | ▼ -0.4 |
| Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error | 15.8 | 18.8 | 14.3 | 13.2 | 15.4 | 15.6 | 17.1 | | |

| EIA Storage Week Balances | | | | | | | | |
|-------------------------------------|-------|-------|--------|--------|--------|---------|------------|--------------|
| _ | LY | | | | LW | Current | | |
| | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW | vs. LY |
| Lower 48 Dry Production | 95.3 | 100.9 | 101.0 | 100.8 | 101.6 | 102.3 | 0.7 | ▲ 7.1 |
| Canadian Imports | 5.3 | 5.9 | 5.6 | 6.1 | 6.2 | 6.0 | ▼-0.2 | 0.7 |
| L48 Power | 32.9 | 41.1 | 37.9 | 37.0 | 31.5 | 30.5 | ▼-1.1 | -2.5 |
| L48 Residential & Commercial | 8.2 | 7.6 | 8.0 | 8.2 | 11.9 | 13.1 | 1.2 | 4.9 |
| L48 Industrial | 23.6 | 21.4 | 20.9 | 21.3 | 20.2 | 21.0 | 0.9 | -2.6 |
| L48 Lease and Plant Fuel | 5.3 | 5.6 | 5.6 | 5.6 | 5.6 | 5.7 | 0.1 | 0.4 |
| L48 Pipeline Distribution | 2.5 | 3.0 | 2.8 | 2.8 | 2.7 | 2.7 | 0.0 | 0.1 |
| L48 Regional Gas Consumption | 72.6 | 78.7 | 75.1 | 74.9 | 71.8 | 73.0 | 1.1 | 0.4 |
| Net LNG Exports | 9.9 | 11.3 | 11.3 | 11.5 | 11.8 | 11.0 | ▼ -0.8 | 1.1 |
| Total Mexican Exports | 6.5 | 6.6 | 6.7 | 6.6 | 6.9 | 6.6 | ▼ -0.3 | △ 0.1 |
| Implied Daily Storage Activity | 11.5 | 10.2 | 13.4 | 14.0 | 17.2 | 17.7 | 0.5 | 6.2 |
| EIA Reported Daily Storage Activity | 11.6 | 11.0 | 14.7 | 14.7 | 18.4 | | | |
| Daily Model Error | 0.0 | -0.8 | -1.3 | -0.7 | -1.2 | | | |

| Monthly Balances | 2Yr Ago | LY | | | | | MTD | | |
|--|---------|--------|--------|--------|--------|--------|--------|------------|--------------|
| | Oct-20 | Oct-21 | Jun-22 | Jul-22 | Aug-22 | Sep-22 | Oct-22 | MoM | vs. LY |
| Lower 48 Dry Production | 88.5 | 95.5 | 97.3 | 97.7 | 99.1 | 101.1 | 102.5 | 1.4 | 7.0 |
| Canadian Imports | 4.3 | 5.4 | 5.7 | 5.9 | 5.4 | 5.9 | 5.8 | ▼-0.1 | 0.4 |
| L48 Power | 30.6 | 30.4 | 38.3 | 44.3 | 43.1 | 36.8 | 30.3 | ▼-6.6 | ▼-0.1 |
| L48 Residential & Commercial | 15.5 | 12.6 | 8.9 | 8.3 | 8.0 | 9.0 | 14.3 | 5.3 | 1.7 |
| L48 Industrial | 22.7 | 21.7 | 19.1 | 19.8 | 21.1 | 21.0 | 21.3 | 0.3 | - 0.4 |
| L48 Lease and Plant Fuel | 4.8 | 5.3 | 5.5 | 5.5 | 5.5 | 5.6 | 5.7 | 0.1 | 0.4 |
| L48 Pipeline Distribution | 2.5 | 2.7 | 2.9 | 3.1 | 3.0 | 2.8 | 2.7 | ▼-0.1 | 0.1 |
| L48 Regional Gas Consumption | 76.1 | 72.7 | 74.6 | 81.0 | 80.8 | 75.2 | 74.3 | ▼ -0.9 | 1.7 |
| Net LNG Exports | 8.0 | 10.6 | 11.2 | 10.9 | 11.0 | 11.5 | 10.9 | ▼-0.6 | 0.3 |
| Total Mexican Exports | 6.0 | 6.6 | 7.1 | 7.0 | 6.9 | 6.7 | 6.6 | ▼-0.1 | ▼ -0.1 |
| Implied Daily Storage Activity EIA Reported Daily Storage Activity | 2.7 | 11.0 | 10.0 | 4.7 | 5.8 | 13.6 | 16.5 | | |
| Daily Model Error | | | | | 0.0 | | | | |



Daily Average Generation Data

Nuclear Generation Daily Average - GWh (NRC)

| | 3-Oct | 4-Oct | 5-Oct | 6-Oct | 7-Oct | 8-Oct | 9-Oct | DoD | vs. 7D |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-----|--------|
| NRC Nuclear Daily Output | 79.7 | 80.8 | 81.3 | 80.3 | 80.4 | 80.4 | 80.4 | 0.0 | -0.1 |
| NRC Nuclear Max Capacity | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 0.0 | 0.0 |
| NRC Nuclear Outage | 25.2 | 24.1 | 23.6 | 24.6 | 24.5 | 24.5 | 24.5 | 0.0 | 0.1 |
| NRC % Nuclear Cap Utilization | 81.1 | 82.2 | 82.6 | 81.7 | 81.7 | 81.7 | 81.7 | 0.0 | -0.1 |

Wind Generation Daily Average - MWh (EIA)

| | 3-Oct | 4-Oct | 5-Oct | 6-Oct | 7-Oct | 8-Oct | 9-Oct | DoD | vs. 7D |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|-------------|
| CALI Wind | 1633 | 1077 | 913 | 944 | 849 | 721 | 1017 | 295 | -6 |
| TEXAS Wind US Wind | 5616 34235 | 6402 25876 | 5625 18800 | 2846 26688 | 5814 28793 | 5767 26289 | 4410 27018 | -1356 729 | -935 238 |

Generation Daily Average - MWh (EIA)

| | 3-Oct | 4-Oct | 5-Oct | 6-Oct | 7-Oct | 8-Oct | 9-Oct | DoD | vs. 7D |
|--------------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| US Wind | 34235 | 25876 | 18800 | 26688 | 28793 | 26289 | 27018 | 729 | 238 |
| US Solar | 14298 | 15325 | 15180 | 15248 | 13635 | 13430 | 13747 | 316 | -773 |
| US Petroleum | 759 | 850 | 765 | 455 | 413 | 502 | 770 | 268 | 146 |
| US Other | 10646 | 10673 | 10494 | 10391 | 10664 | 10397 | 10576 | 179 | 32 |
| US Coal | 74706 | 76643 | 80744 | 80895 | 78090 | 72596 | 71656 | -940 | -5623 |
| US Nuke | 81026 | 81914 | 82186 | 81485 | 76599 | 72444 | 71770 | -673 | -7505 |
| US Hydro | 21982 | 21964 | 22518 | 21243 | 20386 | 18289 | 17842 | -447 | -3222 |
| US Gas | 176075 | 185799 | 188968 | 183170 | 161941 | 148419 | 146818 | -1601 | -27244 |

See National Wind and Nuclear daily charts



Storage Week Average Generation Data

| | | | | | | | | WoW |
|-------------------------------|--------------|--------------|--------------|---------------|---------------|--------------|-----------------------|-------------------------------|
| | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW | Bcf/d |
| | | - | _ | _ | _ | | | Impact |
| NRC Nuclear Daily Output | 82.1 | 87.5 | 86.0 | 86.7 | 84.9 | 80.5 | -4.4 | 0.8 |
| NRC Nuclear Max Capacity | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 0.0 | |
| NRC Nuclear Outage | 22.7 | 17.4 | 18.9 | 18.1 | 20.0 | 24.4 | 4.4 | |
| NRC % Nuclear Cap Utilization | 83.5 | 88.9 | 87.4 | 88.2 | 86.4 | 81.9 | -4.5 | |
| | | · /=- ^> | | | | | | |
| Wind Generation Weekly Ave | erage - MWI | h (EIA) | | | | | | |
| | | , , | | | | | | |
| | | , , | | | | | | WoW |
| | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW | WoW Bcf/d |
| | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW | |
| CALI Wind | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW 162 | Bcf/d |
| CALI Wind TEXAS Wind | | • | • | • | • | | | Bcf/d Impact |
| | 1099 | 1285 | 2033 | 1941 | 1208 | 1370 | 162 | Bcf/d Impact 0.0 |
| TEXAS Wind | 1099 4890 | 1285 4092 | 2033 8875 | 1941 11580 | 1208 8083 | 1370 6160 | 162 -1923 | Bcf/d Impact 0.0 0.4 |
| TEXAS Wind | 1099 4890 | 1285 4092 | 2033 8875 | 1941 11580 | 1208 8083 | 1370 6160 | 162 -1923 -7898 | Bcf/d Impact 0.0 0.4 |

| Generation | VVCCKIY | Average | IALAALI | (-17) |
|------------|---------|---------|---------|-------|
| | | | | |
| | | | | |

Nuclear Generation Weekly Average - GWh (NRC)

| | | | | | LY | Current | | |
|--------------|--------|--------|--------|--------|--------|---------|-------|------------------------|
| | 8-Oct | 9-Sep | 16-Sep | 23-Sep | 30-Sep | 7-Oct | WoW | WoW Bcf/d Impact |
| US Wind | 20468 | 27253 | 37396 | 47947 | 40601 | 32703 | -7898 | 1.5 |
| US Solar | 11296 | 16138 | 14887 | 17244 | 16635 | 15257 | -1378 | 0.3 |
| US Petroleum | 949 | 1105 | 1029 | 1010 | 379 | 664 | 286 | -0.1 |
| US Other | 10985 | 9948 | 10065 | 10826 | 11151 | 10588 | -564 | 0.1 |
| US Coal | 100817 | 105981 | 91209 | 92461 | 77587 | 75007 | -2580 | 0.5 |
| US Nuke | 83696 | 89638 | 88711 | 89298 | 86646 | 84503 | -2143 | 0.4 |
| US Hydro | 24553 | 27950 | 25849 | 23537 | 23101 | 21639 | -1462 | 0.3 |
| US Gas | 179856 | 227619 | 201189 | 197536 | 171899 | 170991 | -907 | -0.2 |

See National Wind and Nuclear daily charts



Monthly Average Generation Data

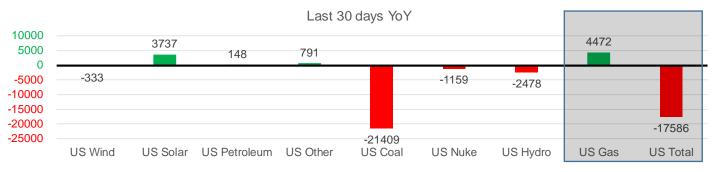
| Nuclear Generation Monthly Average - GWh (NRC) | | | | | | | | | | |
|--|-----------------|-----------------|--------|--------|--------|--------|-----------------|--------------------|---------------------|--|
| | 2Yr Ago | LY | | | MTD | | | | | |
| | Same 30 days | Same 30 days | Jul-22 | Aug-22 | Sep-22 | Oct-22 | Last 30 days | MoM (MTD vs LY) | Last 30 days YoY | |
| NRC Nuclear Daily Output | 84.6 | 83.6 | 90.6 | 90.5 | 86.2 | 80.4 | 83.7 | -5.9 | 0.1 | |
| NRC Nuclear Max Capacity | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 104.9 | 0.0 | 0.0 | |
| NRC Nuclear Outage | 20.3 | 21.3 | 14.3 | 14.3 | 18.7 | 24.5 | 21.2 | 5.9 | -0.1 | |
| NRC % Nuclear Cap Utilization | 86.0 | 85.0 | 92.1 | 92.1 | 87.7 | 81.7 | 85.1 | -6.0 | 0.1 | |

Wind Generation Monthly Average - MWh (EIA)

| | 2Yr Ago | LY | | | | MTD | | | |
|------------|------------------------------|----------------|--------|--------|--------|--------|-----------------|--------------------|---------------------|
| | Same 30 Same 30 Same 30 Same | ame 30 days | Jul-22 | Aug-22 | Sep-22 | Oct-22 | Last 30 days | MoM (MTD vs LY) | Last 30 days YoY |
| CALI Wind | 1490 | 2045 | 2719 | 2028 | 1608 | 1160 | 1547 | -448 | -498 |
| TEXAS Wind | 7064 | 9408 | 11765 | 8440 | 7993 | 5446 | 8194 | -2547 | -1215 |
| US Wind | 33194 | 38667 | 39701 | 33222 | 38111 | 29015 | 38333 | -9096 | -333 |

Generation Monthly Average - MWh (EIA)

| | 2Yr Ago | ĹY | | | | MTD | | | |
|--------------|-----------------|-----------------|--------|--------|--------|--------|-----------------|--------------------|---------------------|
| | Same 30 days | Same 30 days | Jul-22 | Aug-22 | Sep-22 | Oct-22 | Last 30 days | MoM (MTD vs LY) | Last 30 days YoY |
| US Wind | 33194 | 38667 | 39701 | 33222 | 38111 | 29015 | 38333 | 9318.4 | ▼ -333 |
| US Solar | 9073 | 12203 | 18599 | 16965 | 16179 | 14526 | 15940 | 1413.5 | 3737 |
| US Petroleum | 987 | 571 | 1252 | 1253 | 864 | 669 | 720 | 5 0 | 148 |
| US Other | 8114 | 9948 | 10142 | 10543 | 10489 | 10550 | 10739 | 189 | ~ 791 |
| US Coal | 78429 | 102649 | 119788 | 117200 | 92001 | 74200 | 81240 | ~ 7040 | ▼-21409 |
| US Nuke | 87818 | 85952 | 92883 | 92976 | 89052 | 77794 | 84793 | 6999 | ▼ -1159 |
| US Hydro | 25243 | 24838 | 34227 | 30121 | 25197 | 19912 | 22360 | 2449 | ▼ -2478 |
| US Gas | 170982 | 173071 | 235752 | 233741 | 199964 | 161572 | 177543 | 27459 | 4472 |
| US Total | 412069 | 447995 | 551815 | 535704 | 470451 | 388292 | 430409 | 45599 | ▼-17586 |



See National Wind and Nuclear daily charts



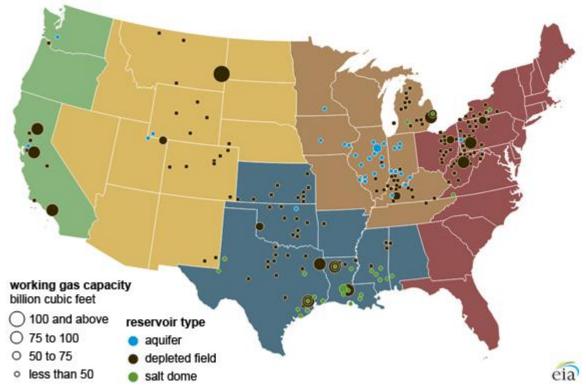
Regional S/D Models Storage Projection

Week Ending 7-Oct

| | Daily Raw Storage | Daily Adjustment Factor | Daily Average Storage Activity (Adjusted) * | Weekly Adjusted Storage Activity |
|---------------|----------------------|-------------------------------|---|---|
| L48 | 18.9 | 0.0 | 18.8 | 132 |
| | | | | |
| East | 0.7 | 2.4 | 3.1 | 22 |
| Midwest | 4.8 | 0.5 | 5.3 | 37 |
| Mountain | 5.4 | -4.3 | 1.1 | 8 |
| South Central | 7.0 | 1.7 | 8.7 | 61 |
| Pacific | 0.9 | -0.3 | 0.5 | 4 |

^{*}Adjustment Factor is calcuated based on historical regional deltas

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



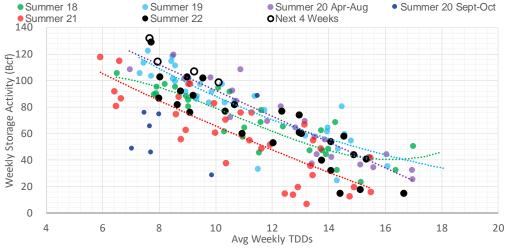


Weather Model Storage Projection

| Next report |
|-------------|
| and beyond |

| Week Ending | GWDDs | Week Storage Projection |
|-------------|-------|----------------------------|
| 07-Oct | 7.7 | 132 |
| 14-Oct | 8.0 | 114 |
| 21-Oct | 10.1 | 98 |
| 28-Oct | 9.3 | 107 |

Weather Storage Model - Next 4 Week Forecast



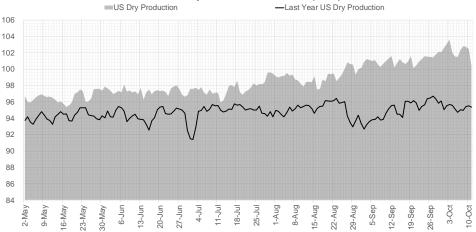
Go to larger image



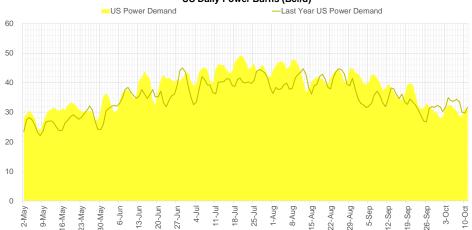


Supply - Demand Trends

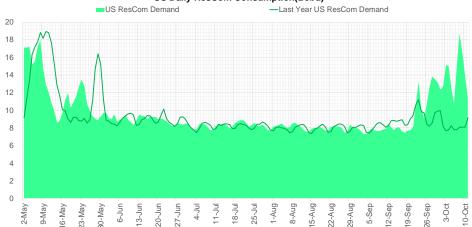
US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)



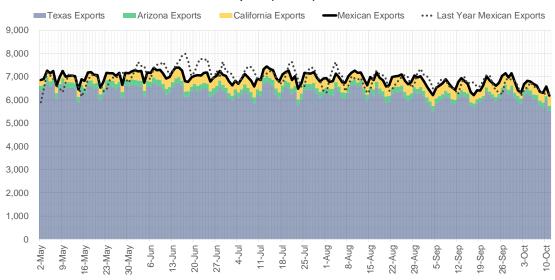
US Daily ResCom Consumption(Bcf/d)

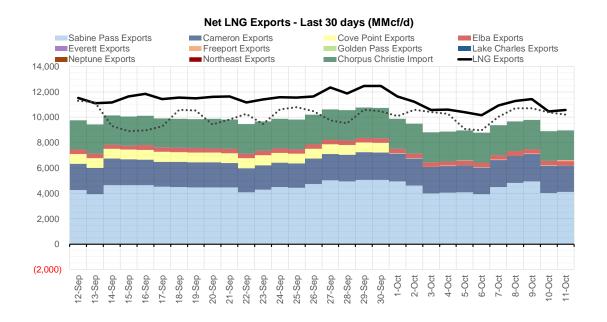


Source: Bloomberg



Mexican Exports (MMcf/d)





Source: Bloomberg



Nat Gas Options Volume and Open Interest CME and ICE Combined

| CONTRACT MONTH | CONTRACT YEAR | PUT/CALL | STRIKE | CUMULATIVE VOL | CONTRACT MONTH | CONTRACT YEAR | PUT/CALL | STRIKE | CUMULATIVE OI |
|-------------------|------------------|----------|--------|-------------------|-------------------|------------------|----------|--------------|----------------|
| 11 | 2022 | С | 10.00 | 7667 | 3 | 2023 | С | 10.00 | 26603 |
| 11 | 2022 | P | 5.75 | 5722 | 12 | 2022 | P | 4.00 | 26602 |
| 11 | 2022 | P | 5.65 | 5075 | 11 | 2022 | Р | 6.00 | 25775 |
| 11 | 2022 | P | 5.50 | 4345 | 12 | 2022 | Р | 5.00 | 25402 |
| 11 | 2022 | Ċ | 9.00 | 3945 | 11 | 2022 | C | 10.00 | 24848 |
| 11 | 2022 | č | 8.00 | 3754 | 11 | 2022 | P | 4.00 | 24546 |
| 11 | 2022 | P | 5.25 | 2702 | 12 | 2022 | P | 6.00 | 24164 |
| 11 | 2022 | Р | 6.00 | 2434 | 5 | 2023 | Р | 2.00 | 22592 |
| 12 | 2022 | Р | 5.00 | 2360 | 11 | 2022 | Р | 5.00 | 21396 |
| 3 | 2023 | Р | 4.00 | 1650 | 4 | 2023 | Р | 3.00 | 20819 |
| 11 | 2022 | Р | 6.50 | 1623 | 10 | 2023 | Р | 3.00 | 20504 |
| 12 | 2022 | P | 5.50 | 1338 | 3 | 2023 | Р | 4.00 | 19905 |
| 3 | 2023 | P | 3.00 | 1100 | 3 | 2023 | С | 20.00 | 19447 |
| 4 | 2023 | Р | 4.00 | 1100 | 1 | 2023 | С | 10.00 | 19308 |
| 5 | 2023 | Р | 4.00 | 1100 | 10 | 2023 | Р | 2.50 | 18850 |
| 6 | 2023 | P | 4.00 | 1100 | 11 | 2022 | С | 8.00 | 18302 |
| 7 | 2023 | Р | 4.00 | 1100 | 12 | 2022 | С | 5.00 | 18227 |
| 8 | 2023 | P | 4.00 | 1100 | 4 | 2023 | Р | 3.50 | 17966 |
| 9 | 2023 | P | 4.00 | 1100 | 10 | 2023 | Р | 4.00 | 17896 |
| 10 | 2023 | P | 4.00 | 1100 | 1 | 2023 | Р | 4.00 | 17456 |
| 12 | 2022 | P | 3.50 | 1053 | 11 | 2022 | С | 12.00 | 17427 |
| 11 | 2022 | C | 7.00 | 1002 | 6 | 2023 | Р | 3.00 | 17380 |
| 12 | 2022 | C | 9.00 | 981 | 3 | 2023 | P - | 3.00 | 17261 |
| 2 | 2023 | Р | 6.00 | 965 | 11 | 2022 | P | 5.50 | 17202 |
| 12 | 2022 | С | 8.00 | 947 | 5 | 2023 | P | 3.00 | 17183 |
| 2 | 2023 | C | 15.00 | 877 | 12 | 2022 | С | 10.00 | 17150 |
| 12 | 2022 | Р | 6.50 | 876 | 2 | 2023 | С | 10.00 | 17088 |
| 11 | 2022 | С | 11.00 | 852 | 12 5 | 2022 | P P | 5.50 | 16690 |
| 1 | 2023 | Р | 6.00 | 816 | | 2023 2023 | P P | 3.50 | 16690 |
| 11 | 2022 | С | 8.25 | 810 | 3 2 | 2023 | C | 2.75 9.00 | 16450 16254 |
| 12 | 2023 | Р | 4.00 | 800 | 4 | 2023 | P | 9.00 4.00 | 16248 |
| 4 | 2023 | Р | 3.00 | 750 | 9 | 2023 | P | 4.00 | 16196 |
| 5 | 2023 | Р | 3.00 | 750 | 12 | 2023 | C | 4.00 | 16195 |
| 6 | 2023 | Р | 3.00 | 750 | 11 | 2022 | P | 6.50 | 15787 |
| 7 | 2023 | Р | 3.00 | 750 | 11 | 2022 | Ċ | 4.00 | 15757 |
| 8 | 2023 | Р | 3.00 | 750 | 8 | 2023 | P | 3.50 | 15747 |
| 9 | 2023 | Р | 3.00 | 750 | 6 | 2023 | P | 3.50 | 15740 |
| 10 | 2023 | Р | 3.00 | 750 | 10 | 2023 | P | 3.50 | 15734 |
| 11 | 2022 | С | 7.50 | 719 | 7 | 2023 | Р | 3.50 | 15715 |
| 3 | 2023 | С | 20.00 | 718 | 9 | 2023 | Р | 3.50 | 15705 |
| 12 | 2022 | С | 10.00 | 695 | 1 | 2023 | Р | 5.00 | 15509 |
| 11 | 2022 | Р | 5.00 | 692 | 10 | 2023 | P | 2.00 | 15503 |
| 3 | 2023 | Р | 6.00 | 690 | 7 | 2023 | Р | 3.00 | 15490 |
| 1 | 2023 | Р | 4.00 | 655 | 4 | 2023 | Р | 2.00 | 15353 |
| 2 | 2023 | С | 7.50 | 651 | 8 | 2023 | P | 3.00 | 15290 |
| 2 | 2023 | Р | 4.00 | 651 | 9 | 2023 | P | 3.00 | 15290 |
| 12 | 2022 | Р | 5.80 | 571 | 7 | 2023 | P | 4.00 | 15184 |
| 12 | 2022 | Р | 6.00 | 569 | 12 | 2022 | Р | 7.00 | 15072 |
| 1 | 2023 | Р | 2.75 | 500 | 5 | 2023 | P | 4 | 14843 |
| | | | | | | | Source | e: CME, ICE | |

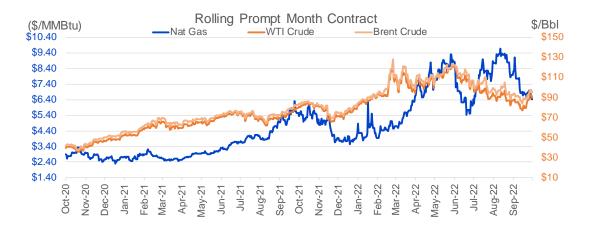


Nat Gas Futures Open Interest

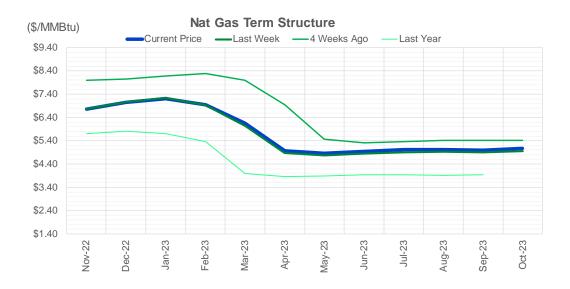
CME and ICE Combined

| CME Henry Hub Futures (10,000 MMBtu) ICE Henry Hub Futures Contract Equivalent (10,000 MM | | | | | | | | | | |
|--|---------|--------|--------------|-------------|---------|-------|--------------|--|--|--|
| CIME Henry F | | | | ICE Henry I | | | | | | |
| | Current | Prior | Daily Change | | Current | Prior | Daily Change | | | |
| NOV 22 | 131060 | 139270 | -8210 | NOV 22 | 66526 | 66606 | -81 | | | |
| DEC 22 | 70878 | 71021 | -143 | DEC 22 | 76067 | 75311 | 756 | | | |
| JAN 23 | 101123 | 98882 | 2241 | JAN 23 | 71099 | 70795 | 304 | | | |
| FEB 23 | 48105 | 46128 | 1977 | FEB 23 | 65173 | 65389 | -216 | | | |
| MAR 23 | 80957 | 79682 | 1275 | MAR 23 | 57408 | 57812 | -405 | | | |
| APR 23 | 77197 | 77453 | -256 | APR 23 | 54889 | 54424 | 465 | | | |
| MAY 23 | 83482 | 82593 | 889 | MAY 23 | 55381 | 55272 | 109 | | | |
| JUN 23 | 24423 | 24313 | 110 | JUN 23 | 46040 | 45798 | 242 | | | |
| JUL 23 | 27658 | 27056 | 602 | JUL 23 | 46434 | 46374 | 60 | | | |
| AUG 23 | 20668 | 20812 | -144 | AUG 23 | 44723 | 44717 | 6 | | | |
| SEP 23 | 25135 | 24598 | 537 | SEP 23 | 41728 | 41468 | 260 | | | |
| OCT 23 | 56083 | 56612 | -529 | OCT 23 | 55259 | 54864 | 396 | | | |
| NOV 23 | 21557 | 21303 | 254 | NOV 23 | 47175 | 47217 | -42 | | | |
| DEC 23 | 19485 | 18125 | 1360 | DEC 23 | 40431 | 40499 | -68 | | | |
| JAN 24 | 31667 | 30453 | 1214 | JAN 24 | 44004 | 43348 | 656 | | | |
| FEB 24 | 9142 | 9226 | -84 | FEB 24 | 30826 | 30848 | -22 | | | |
| MAR 24 | 19467 | 20105 | -638 | MAR 24 | 35989 | 36223 | -235 | | | |
| APR 24 | 17849 | 18199 | -350 | APR 24 | 29850 | 29905 | -55 | | | |
| MAY 24 | 8301 | 8344 | -43 | MAY 24 | 28330 | 28338 | -8 | | | |
| JUN 24 | 2975 | 2957 | 18 | JUN 24 | 25713 | 25706 | 8 | | | |
| JUL 24 | 3999 | 4026 | -27 | JUL 24 | 25242 | 25249 | -8 | | | |
| AUG 24 | 3813 | 3813 | 0 | AUG 24 | 24994 | 24986 | 8 | | | |
| SEP 24 | 2433 | 2402 | 31 | SEP 24 | 24689 | 24681 | 8 | | | |
| OCT 24 | 8812 | 8842 | -30 | OCT 24 | 29035 | 28796 | 239 | | | |
| NOV 24 | 4968 | 4969 | -1 | NOV 24 | 26061 | 26046 | 15 | | | |
| DEC 24 | 8210 | 8211 | -1 | DEC 24 | 29951 | 29935 | 16 | | | |
| JAN 25 | 17430 | 17421 | 9 | JAN 25 | 23245 | 23288 | -43 | | | |
| FEB 25 | 1651 | 1649 | 2 | FEB 25 | 15816 | 15814 | 2 | | | |
| MAR 25 | 5159 | 5159 | 0 | MAR 25 | 17971 | 18056 | -85 | | | |
| APR 25 | 5276 | 5278 | -2 | APR 25 | 16315 | 16342 | -27 | | | |

Source: CME, ICE







| | Nov-22 | Dec-22 | Jan-23 | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Oct-23 |
|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Current Price | \$6.748 | \$7.047 | \$7.203 | \$6.940 | \$6.161 | \$4.976 | \$4.872 | \$4.950 | \$5.027 | \$5.032 | \$4.993 | \$5.065 |
| Last Week | \$6.766 | \$7.065 | \$7.247 | \$6.937 | \$6.028 | \$4.887 | \$4.784 | \$4.848 | \$4.914 | \$4.924 | \$4.894 | \$4.965 |
| vs. Last Week | -\$0.018 | -\$0.018 | -\$0.044 | \$0.003 | \$0.133 | \$0.089 | \$0.088 | \$0.102 | \$0.113 | \$0.108 | \$0.099 | \$0.100 |
| 4 Weeks Ago | \$7.996 | \$8.044 | \$8.183 | \$8.278 | \$7.989 | \$6.953 | \$5.469 | \$5.319 | \$5.366 | \$5.417 | \$5.430 | \$5.413 |
| vs. 4 Weeks Ago | -\$1.248 | -\$0.997 | -\$0.980 | -\$1.338 | -\$1.828 | -\$1.977 | -\$0.597 | -\$0.369 | -\$0.339 | -\$0.385 | -\$0.437 | -\$0.348 |
| Last Year | \$5.565 | \$5.710 | \$5.806 | \$5.701 | \$5.370 | \$3.996 | \$3.854 | \$3.891 | \$3.931 | \$3.936 | \$3.916 | \$3.948 |
| vs. Last Year | \$1.183 | \$1.337 | \$1.397 | \$1.239 | \$0.791 | \$0.980 | \$1.018 | \$1.059 | \$1.096 | \$1.096 | \$1.077 | \$1.117 |

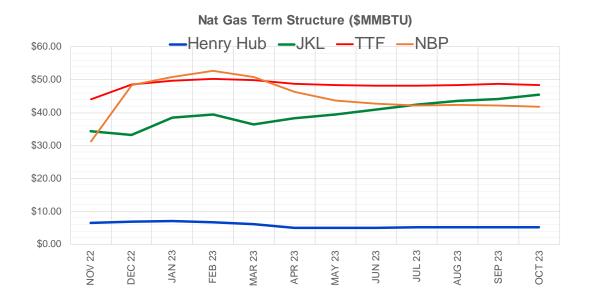
| | Units | Cash Settled | Prompt | Cash to |
|-----------------------|----------|-----------------|--------|---------|
| | | | Settle | Prompt |
| AGT Citygate | \$/MMBtu | 6.24 | 10.34 | 4.10 |
| TETCO M3 | \$/MMBtu | 5.30 | 6.00 | 0.70 |
| FGT Zone 3 | \$/MMBtu | 5.45 | 7.10 | 1.65 |
| Zone 6 NY | \$/MMBtu | 5.45 | 6.17 | 0.72 |
| Chicago Citygate | \$/MMBtu | 5.53 | 5.98 | 0.45 |
| Michcon | \$/MMBtu | 5.59 | 5.83 | 0.24 |
| Columbia TCO Pool | \$/MMBtu | 5.28 | 5.57 | 0.29 |
| Ventura | \$/MMBtu | 5.38 | 6.07 | 0.69 |
| Rockies/Opal | \$/MMBtu | 5.40 | 5.73 | 0.33 |
| El Paso Permian Basin | \$/MMBtu | 3.50 | 4.02 | 0.52 |
| Socal Citygate | \$/MMBtu | 7.61 | 6.32 | -1.29 |
| Malin | \$/MMBtu | 5.00 | 6.15 | 1.15 |
| Houston Ship Channel | \$/MMBtu | 5.56 | 6.21 | 0.65 |
| Henry Hub Cash | \$/MMBtu | 6.25 | 5.61 | -0.64 |
| AECO Cash | C\$/GJ | 2.04 | 4.01 | 1.97 |
| Station2 Cash | C\$/GJ | 2.08 | 6.80 | 4.72 |
| Dawn Cash | C\$/GJ | 5.69 | 6.08 | 0.39 |

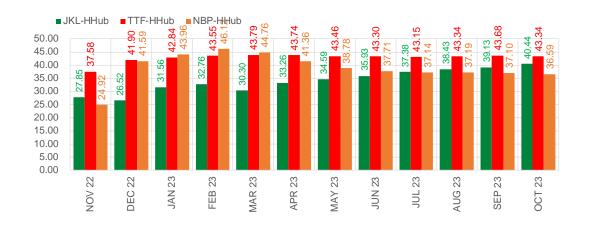
Source: CME, Bloomberg



| | | | | | VS | s. 4 Weeks | | |
|-------------------------|--------------|----------------------|-----|-----------|----|------------|----|--------------|
| | Units | Current Price | VS. | Last Week | | Ago | VS | s. Last Year |
| NatGas Jul21/Oct21 | \$/MMBtu | 2.224 | | 0.000 | | 0.000 | | 0.000 |
| NatGas Oct21/Nov21 | \$/MMBtu | 0.361 | | 0.000 | | 0.000 | | 0.857 |
| NatGas Oct21/Jan22 | \$/MMBtu | -1.817 | | 0.000 | | 0.000 | | -1.573 |
| NatGas Apr22/Oct22 | \$/MMBtu | 1.532 | | 0.000 | • | -1.381 | | 1.550 |
| WTI Crude | \$/Bbl | 91.13 | | 7.500 | | 3.350 | | 10.610 |
| Brent Crude | \$/BbI | 96.19 | | 7.330 | | 2.190 | | 12.540 |
| Fuel Oil, NY Harbour 1% | \$/Bbl | 97.18 | | 0.000 | | 0.000 | | 0.000 |
| Heating Oil | cents/Gallon | 391.47 | | 54.560 | | 31.160 | | 139.970 |
| Propane, Mt. Bel | cents/Gallon | 0.88 | | 0.025 | ~ | -0.172 | | -0.591 |
| Ethane, Mt. Bel | cents/Gallon | 0.42 | | 0.026 | • | -0.094 | | -0.013 |
| Coal, PRB | \$/MTon | 12.30 | | 0.000 | | 0.000 | | 0.000 |
| Coal, PRB | \$/MMBtu | 0.70 | | | | | | |
| Coal, ILB | \$/MTon | 31.05 | | 0.000 | | 0.000 | | 0.000 |
| Coal, ILB | \$/MMBtu | 1.32 | | | | | | |



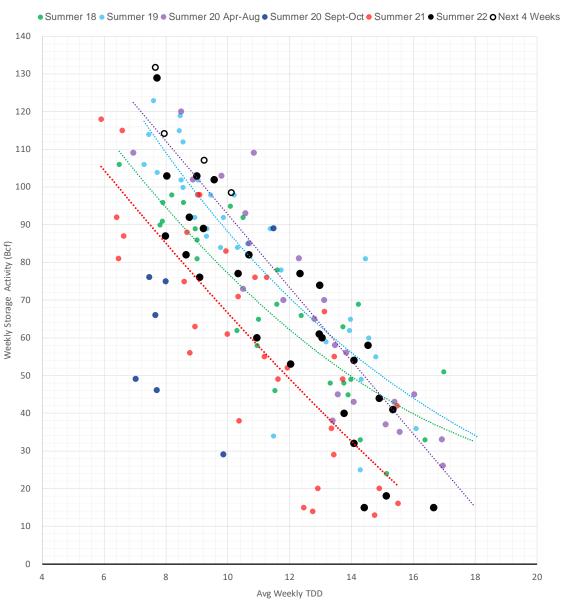




| NOV 22 | DEC 22 | JAN 23 | FEB 23 | MAR 23 | APR 23 | MAY 23 | JUN 23 | JUL 23 | AUG 23 | SEP 23 | OCT 23 |
|----------|---|--|---|--|---|--|--|---|--|---|--|
| \$6.411 | \$6.766 | \$6.954 | \$6.690 | \$6.044 | \$4.991 | \$4.900 | \$4.975 | \$5.070 | \$5.095 | \$5.062 | \$5.117 |
| \$34.260 | \$33.285 | \$38.515 | \$39.450 | \$36.345 | \$38.255 | \$39.490 | \$40.905 | \$42.450 | \$43.525 | \$44.190 | \$45.555 |
| \$27.849 | \$26.519 | \$31.561 | \$32.760 | \$30.301 | \$33.264 | \$34.590 | \$35.930 | \$37.380 | \$38.430 | \$39.128 | \$40.438 |
| \$43.988 | \$48.664 | \$49.795 | \$50.237 | \$49.837 | \$48.733 | \$48.355 | \$48.279 | \$48.223 | \$48.431 | \$48.743 | \$48.454 |
| \$37.577 | \$41.898 | \$42.841 | \$43.547 | \$43.793 | \$43.742 | \$43.455 | \$43.304 | \$43.153 | \$43.336 | \$43.681 | \$43.337 |
| \$31.335 | \$48.351 | \$50.915 | \$52.811 | \$50.804 | \$46.354 | \$43.676 | \$42.680 | \$42.209 | \$42.284 | \$42.159 | \$41.709 |
| \$24.924 | \$41.585 | \$43.961 | \$46.121 | \$44.760 | \$41.363 | \$38.776 | \$37.705 | \$37.139 | \$37.189 | \$37.097 | \$36.592 |
| | \$6.411 \$34.260 \$27.849 \$43.988 \$37.577 \$31.335 | \$6.411 \$6.766 \$34.260 \$33.285 \$27.849 \$26.519 \$43.988 \$48.664 \$37.577 \$41.898 \$31.335 \$48.351 | \$6.411 \$6.766 \$6.954 \$34.260 \$33.285 \$38.515 \$27.849 \$26.519 \$31.561 \$43.988 \$48.664 \$49.795 \$37.577 \$41.898 \$42.841 \$31.335 \$48.351 \$50.915 | \$6.411 \$6.766 \$6.954 \$6.690 \$34.260 \$33.285 \$38.515 \$39.450 \$27.849 \$26.519 \$31.561 \$32.760 \$43.988 \$48.664 \$49.795 \$50.237 \$37.577 \$41.898 \$42.841 \$43.547 \$31.335 \$48.351 \$50.915 \$52.811 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$4.900 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$39.490 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$34.590 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$48.355 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$43.455 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 \$43.676 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$4.900 \$4.975 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$39.490 \$40.905 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$34.590 \$35.930 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$48.355 \$48.279 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$43.455 \$43.304 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 \$43.676 \$42.680 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$4.900 \$4.975 \$5.070 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$39.490 \$40.905 \$42.450 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$34.590 \$35.930 \$37.380 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$48.355 \$48.279 \$48.223 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$43.455 \$43.304 \$43.153 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 \$43.676 \$42.680 \$42.209 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$4.900 \$4.975 \$5.070 \$5.095 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$39.490 \$40.905 \$42.450 \$43.525 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$34.590 \$35.930 \$37.380 \$38.430 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$48.355 \$48.279 \$48.223 \$48.431 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$43.455 \$43.304 \$43.153 \$43.336 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 \$43.676 \$42.680 \$42.209 \$42.284 | \$6.411 \$6.766 \$6.954 \$6.690 \$6.044 \$4.991 \$4.900 \$4.975 \$5.070 \$5.095 \$5.062 \$34.260 \$33.285 \$38.515 \$39.450 \$36.345 \$38.255 \$39.490 \$40.905 \$42.450 \$43.525 \$44.190 \$27.849 \$26.519 \$31.561 \$32.760 \$30.301 \$33.264 \$34.590 \$35.930 \$37.380 \$38.430 \$39.128 \$43.988 \$48.664 \$49.795 \$50.237 \$49.837 \$48.733 \$48.355 \$48.279 \$48.223 \$48.431 \$48.743 \$37.577 \$41.898 \$42.841 \$43.547 \$43.793 \$43.742 \$43.455 \$43.304 \$43.153 \$43.336 \$43.681 \$31.335 \$48.351 \$50.915 \$52.811 \$50.804 \$46.354 \$43.676 \$42.680 \$42.209 \$42.284 \$42.159 |



Weather Storage Model - Next 4 Week Forecast





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