# University of MN
## Monthly Metrics
## February 2024

Energy Management oversees the operation of mechanical, electrical, and civil utilities systems for the Twin Cities campus. This set of monthly metrics provides measurement of the group's three core principles:

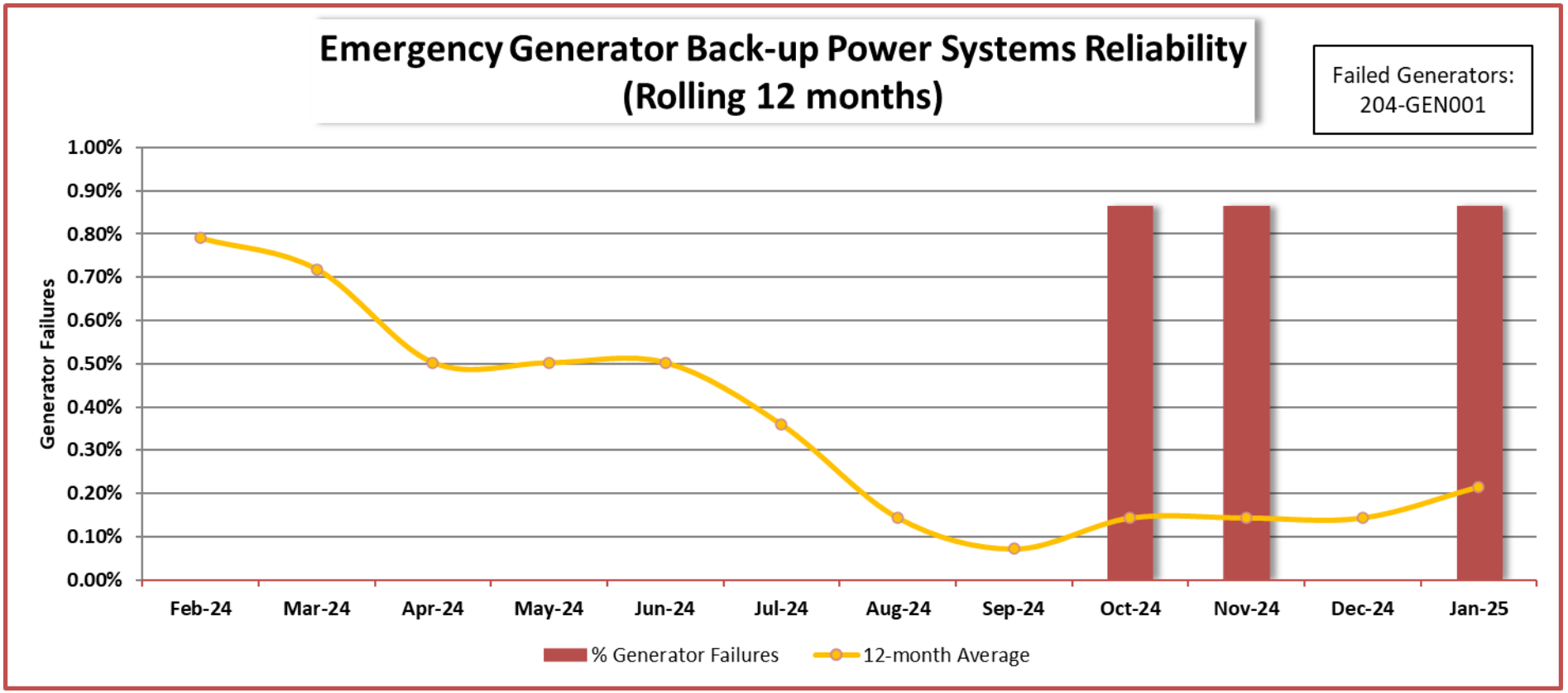
1) Reliability
2) Sustainability
3) Cost-effectiveness

# Unplanned Service Loss Events

| | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 @ 7 of 12 | FY25 Target |
|---|---|---|---|---|---|---|---|---|
| **CHILLED WATER** | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Root-Caused to UMN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** |
| **ELECTRIC** | | | | | | | | |
| Total | 10 | 6 | 6 | 9 | 12 | 10 | 8 | |
| Root-Caused to UMN | 5 | 4 | 2 | 3 | 3 | 4 | 2 | **3** |
| **STEAM** | | | | | | | | |
| Total | 6 | 2 | 3 | 1 | 0 | 0 | 0 | |
| Root-Caused to UMN | 1 | 2 | 3 | 0 | 0 | 0 | 0 | **2** |
| **WATER** | | | | | | | | |
| Total | 1 | 1 | 1 | 1 | 0 | 0 | 0 | |
| Root-Caused to UMN | 0 | 1 | 1 | 0 | 0 | 0 | 0 | **1** |

This chart shows the number of unplanned utility outages on campus each year. Some outages are out of University control, such as actions of our utility provider or acts of nature. Energy Management sets targets each year for number of outages that are caused by our work.

## RELIABILITY

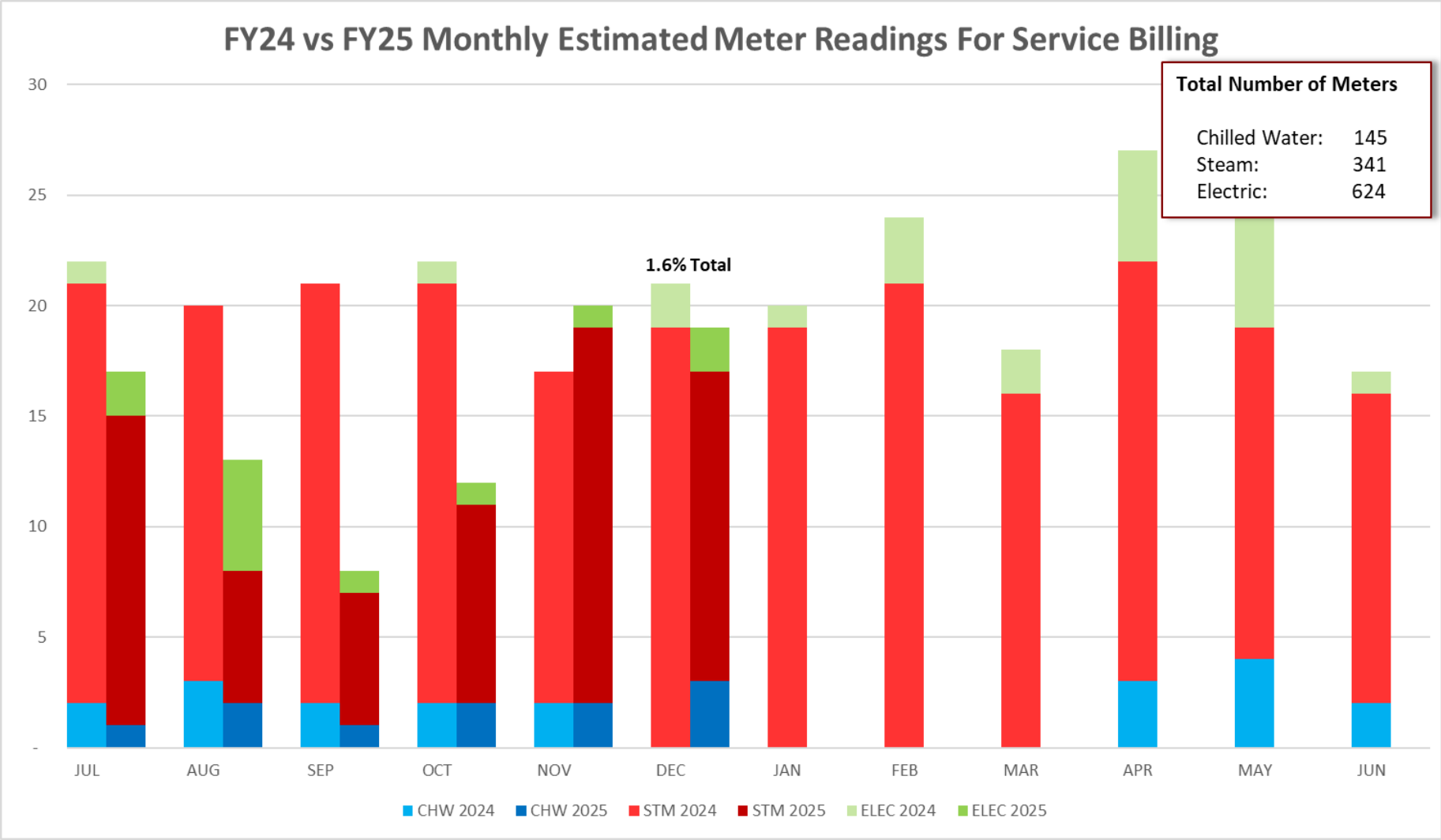



| | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monthly Failures | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.86% | 0.86% | 0.00% | 0.86% |
| 12-month Average | 0.79% | 0.72% | 0.50% | 0.50% | 0.50% | 0.36% | 0.14% | 0.07% | 0.14% | 0.14% | 0.14% | 0.22% |

In the event of a power outage, the campus has a number of emergency generators standing by to power essential systems. Energy Management tests them monthly to ensure they are properly maintained and ready for service.

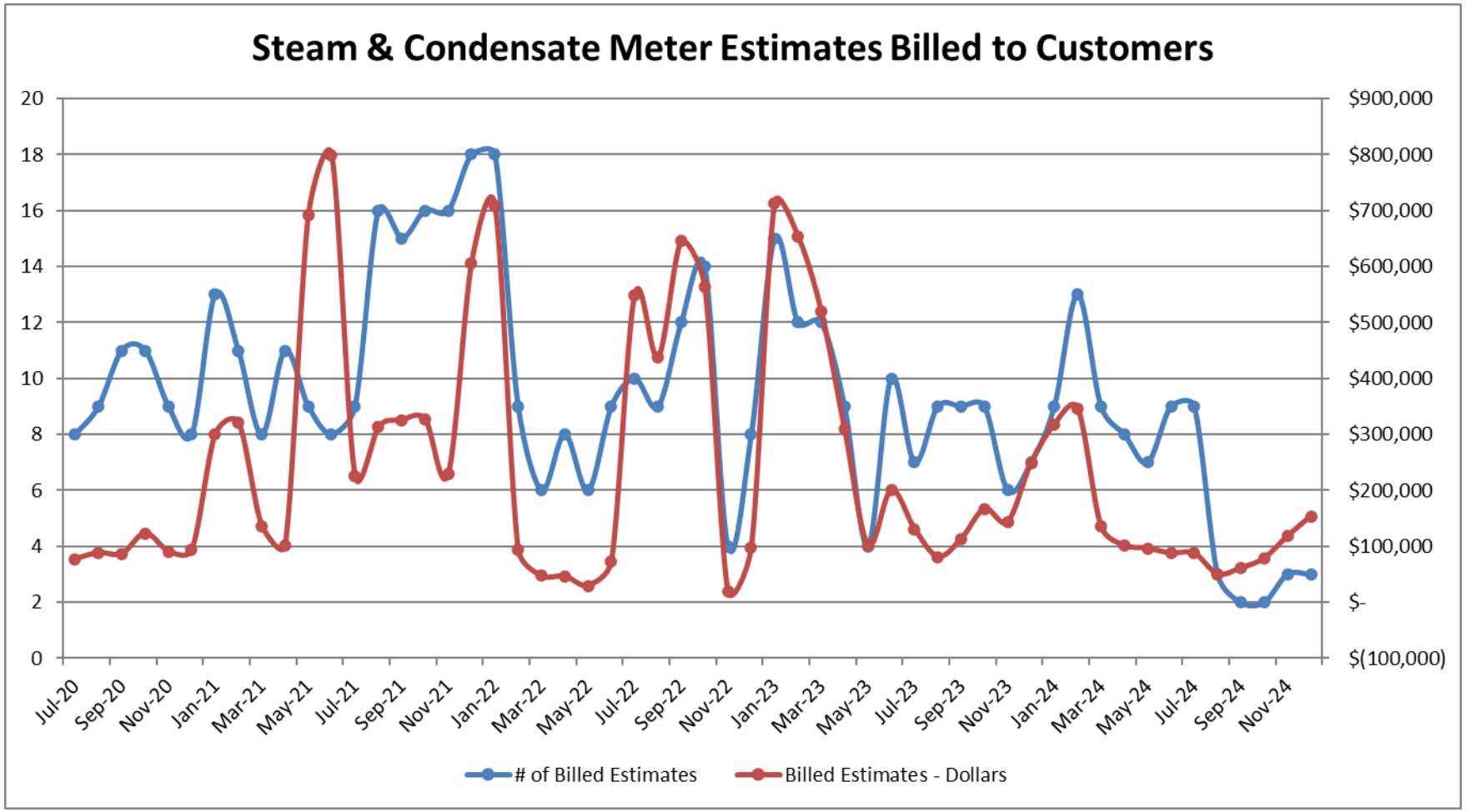
## RELIABILITY

EM maintains nearly 1200 energy meters throughout campus, which are used to collect building energy consumption data. This measure of the metering system's health shows how many meters are malfunctioning compared to the previous year.




| Period: | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | Apr-25 | May-25 | Jun-25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Read Inventory: | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 | 1469 |
| Estimated Readings: | 17 | 13 | 8 | 12 | 24 | 20 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Monthly Estimates: | 1.2% | 0.9% | 0.5% | 0.8% | 1.6% | 1.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

**RELIABILITY**




Steam and condensate meters are more likely to malfunction than other types of utility meters, since they have mechanical parts and operate in extreme environments. Where possible, EM employs additional meters to achieve metering redundancy. This graph shows the percentage of buildings where there is no redundancy for a malfunctioning meter and we are forced to bill using estimated usage.

**RELIABILITY**

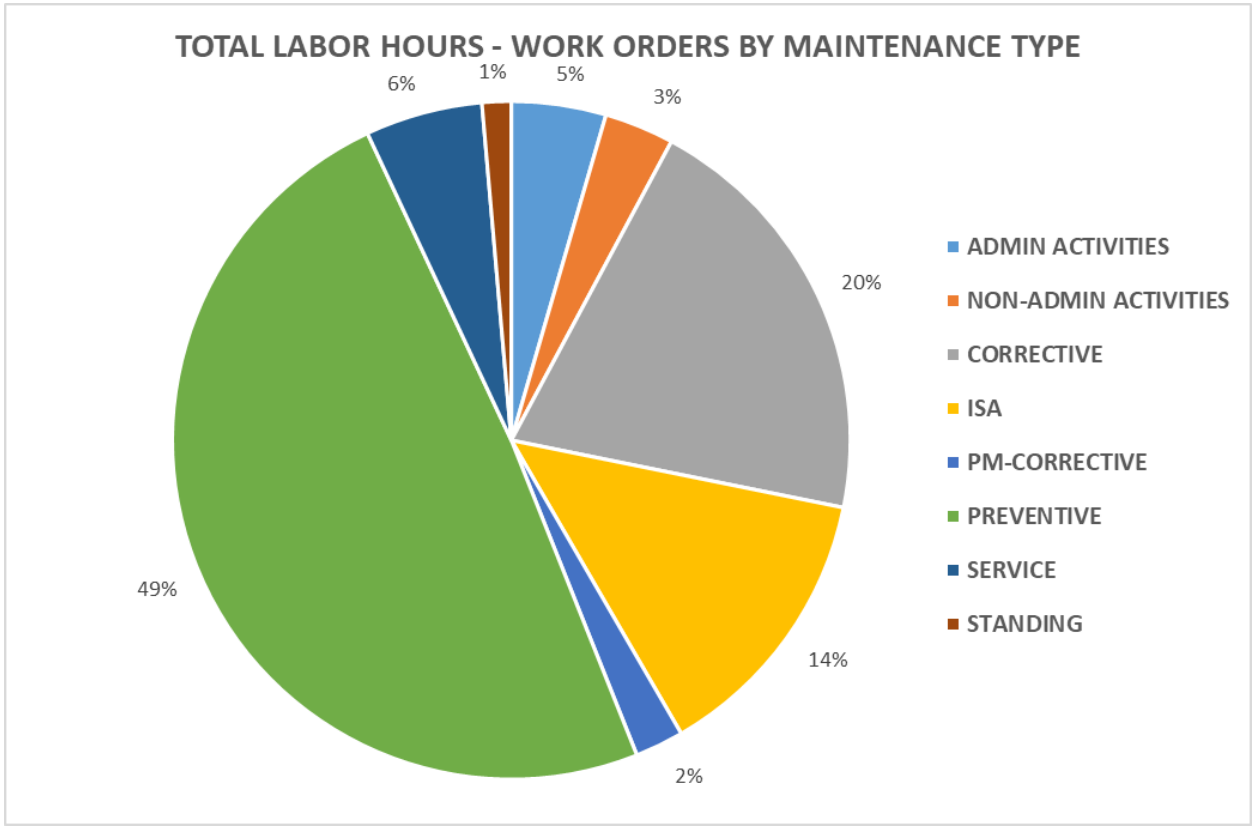
# JANUARY 2025

## TOTAL MONTHLY LABOR HOURS BY CREW AND MAINTENANCE TYPE

Energy Management crews play a number of different roles in the operation and maintenance of campus utility system.

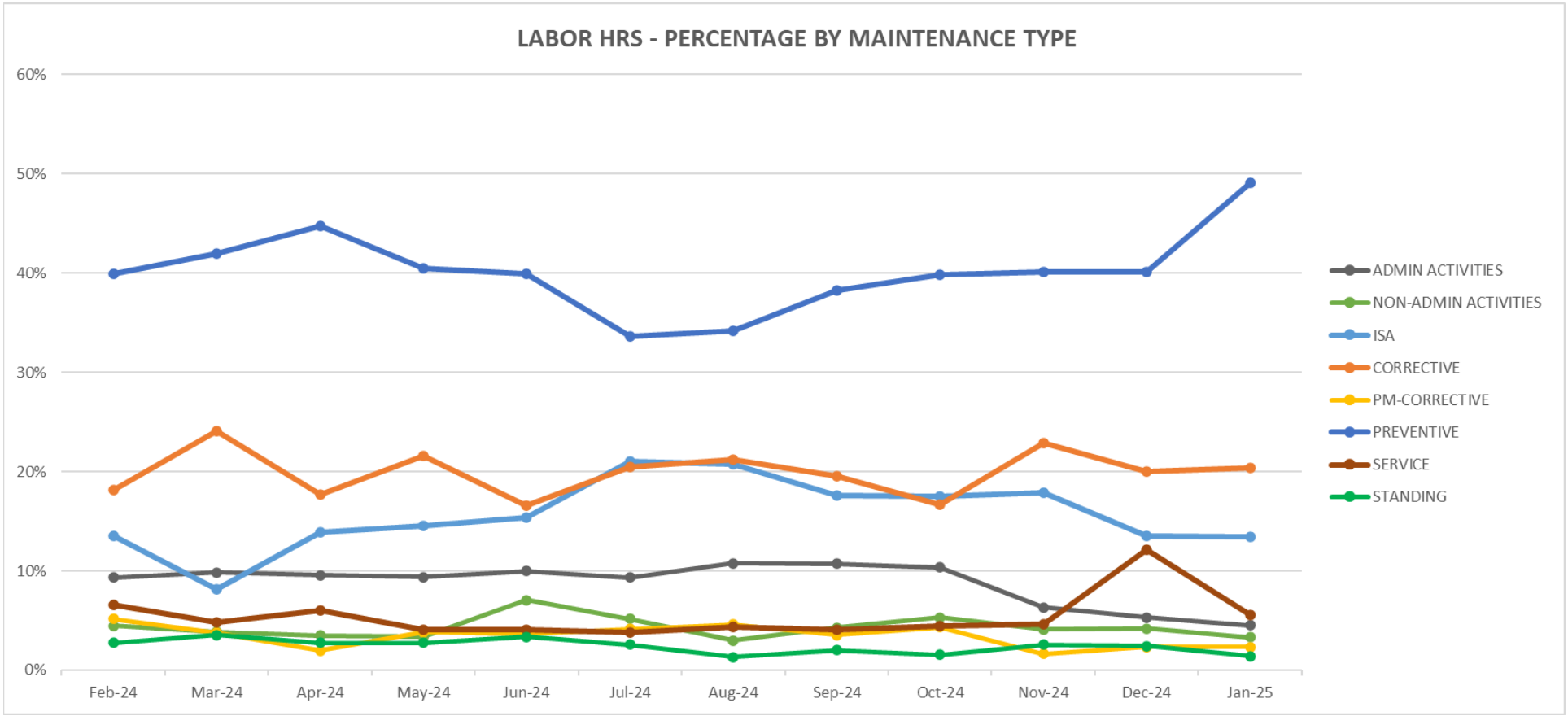
These charts show the total labor hours worked by each crew for the month and which types of work they performed.

| | CHILLED WATER | ELECTRIC | EMELEC | STEAM | WATER & SEWER | TOTAL | % |
|---|---|---|---|---|---|---|---|
| ADMIN ACTIVITIES | 28 | 203 | 85 | 10 | 173 | **497** | **5%** |
| NON-ADMIN ACTIVITIES | 10 | 52 | 220 | 3 | 81 | **365** | **3%** |
| CORRECTIVE | 246 | 342 | 727 | 909 | 17 | **2,240** | **20%** |
| ISA | | 680 | 657 | 125 | 20 | **1,481** | **13%** |
| PM-CORRECTIVE | 21 | 215 | 19 | | | **255** | **2%** |
| PREVENTIVE | 958 | 1,714 | 5 | 2,478 | 245 | **5,400** | **49%** |
| SERVICE | 21 | 5 | 248 | 125 | 217 | **616** | **6%** |
| STANDING | 1 | 106 | 38 | 8 | | **153** | **1%** |
| TOTAL | **1,284** | **3,317** | **1,996** | **3,658** | **752** | **11,006** | **100%** |



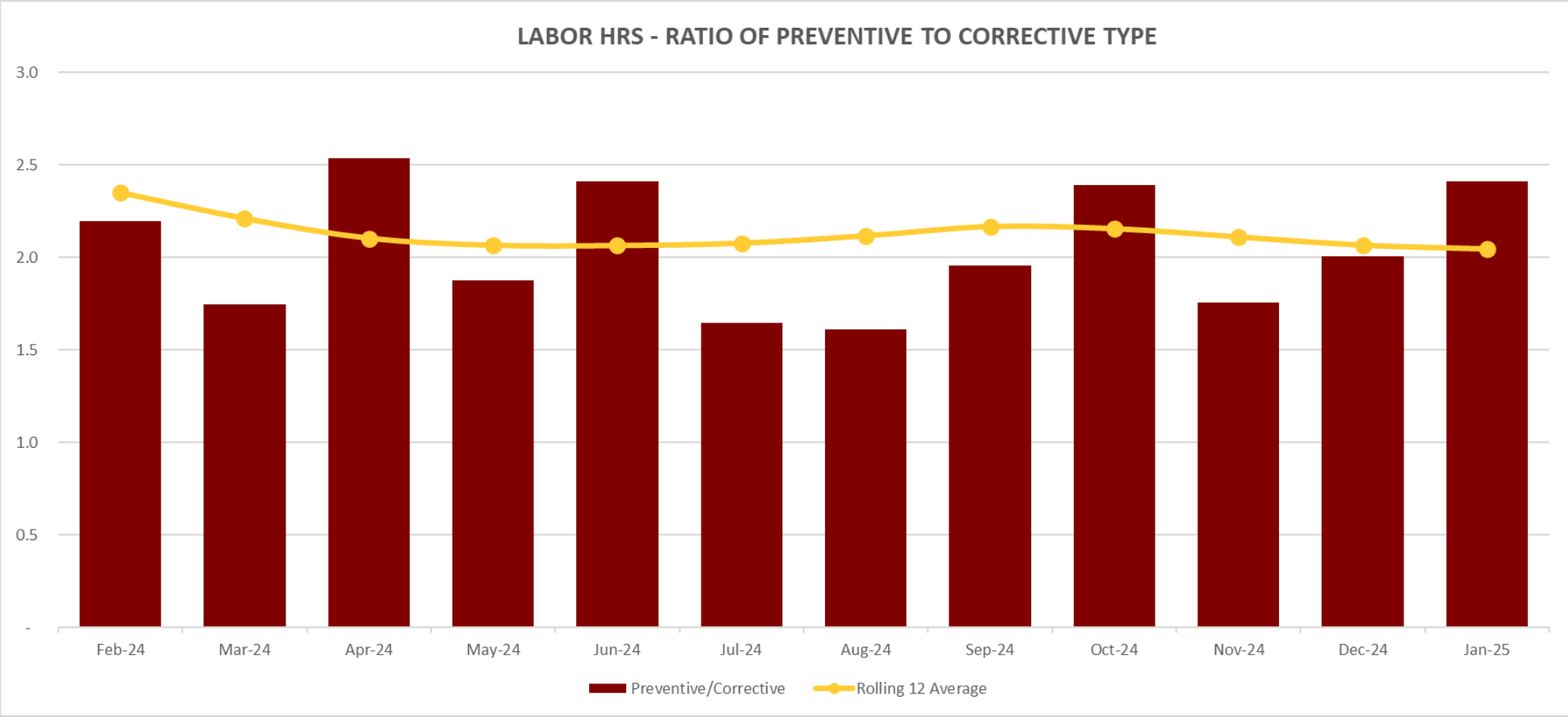
# RELIABILITY

Different work happens at different times of the year. This graph shows the ebb and flow of work devoted to each maintenance type over the most recent 12-month period.



# RELIABILITY

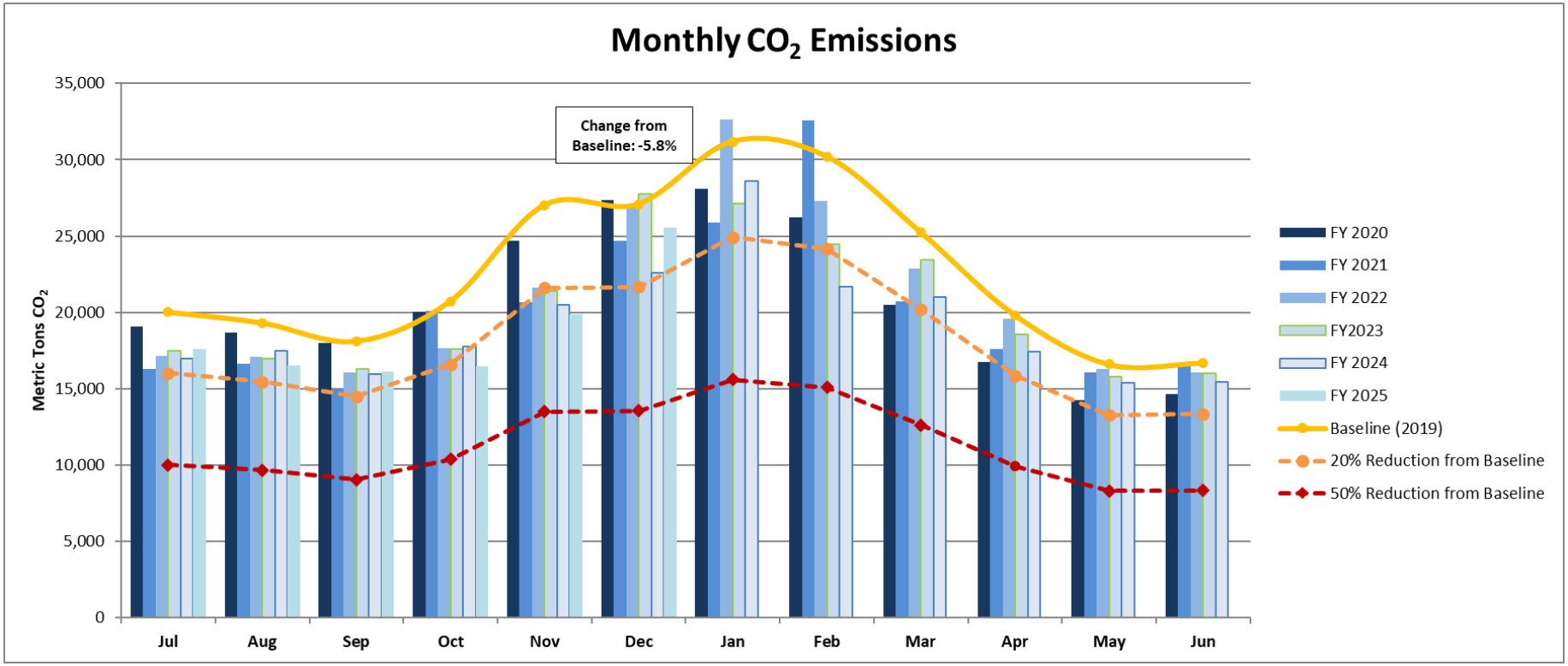
When operating and maintaining equipment, a good rule of thumb is to have a ratio of preventive labor hours to corrective maintenance hours equal to 2. This indicates that you are taking care of your equipment in a robust way, catching small problems during maintenance before they become big ones that cost more time and money to resolve.




## LABOR HRS - CORRECTIVE vs PREVENTIVE

| | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preventive/Corrective | 2.2 | 1.7 | 2.5 | 1.9 | 2.4 | 1.6 | 1.6 | 2.0 | 2.4 | 1.8 | 2.0 | 2.4 |
| Rolling 12 Average | 2.3 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 |

# SUSTAINABILITY




**Monthly Emissions (Metric Tons $CO_2$):**

| FY | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | 20,028 | 19,326 | 18,127 | 20,743 | 27,030 | 27,098 | 31,182 | 30,204 | 25,248 | 19,833 | 16,610 | 16,701 |
| 2020 | 19,093 | 18,688 | 18,009 | 20,029 | 24,667 | 27,357 | 28,101 | 26,235 | 20,485 | 16,771 | 14,262 | 14,630 |
| 2021 | 16,282 | 16,618 | 14,999 | 20,092 | 20,668 | 24,682 | 25,878 | 32,580 | 20,714 | 17,573 | 16,089 | 16,639 |
| 2022 | 17,170 | 17,077 | 16,062 | 17,635 | 21,622 | 26,930 | 32,618 | 27,321 | 22,880 | 19,566 | 16,277 | 16,091 |
| 2023 | 17,482 | 16,953 | 16,321 | 17,581 | 21,385 | 27,763 | 27,113 | 24,473 | 23,433 | 18,551 | 15,811 | 15,988 |
| 2024 | 17,003 | 17,484 | 15,955 | 17,797 | 20,476 | 22,601 | 28,595 | 21,674 | 21,027 | 17,452 | 15,367 | 15,468 |
| 2025 | 17,578 | 16,545 | 16,105 | 16,483 | 19,898 | 25,524 | | | | | | |

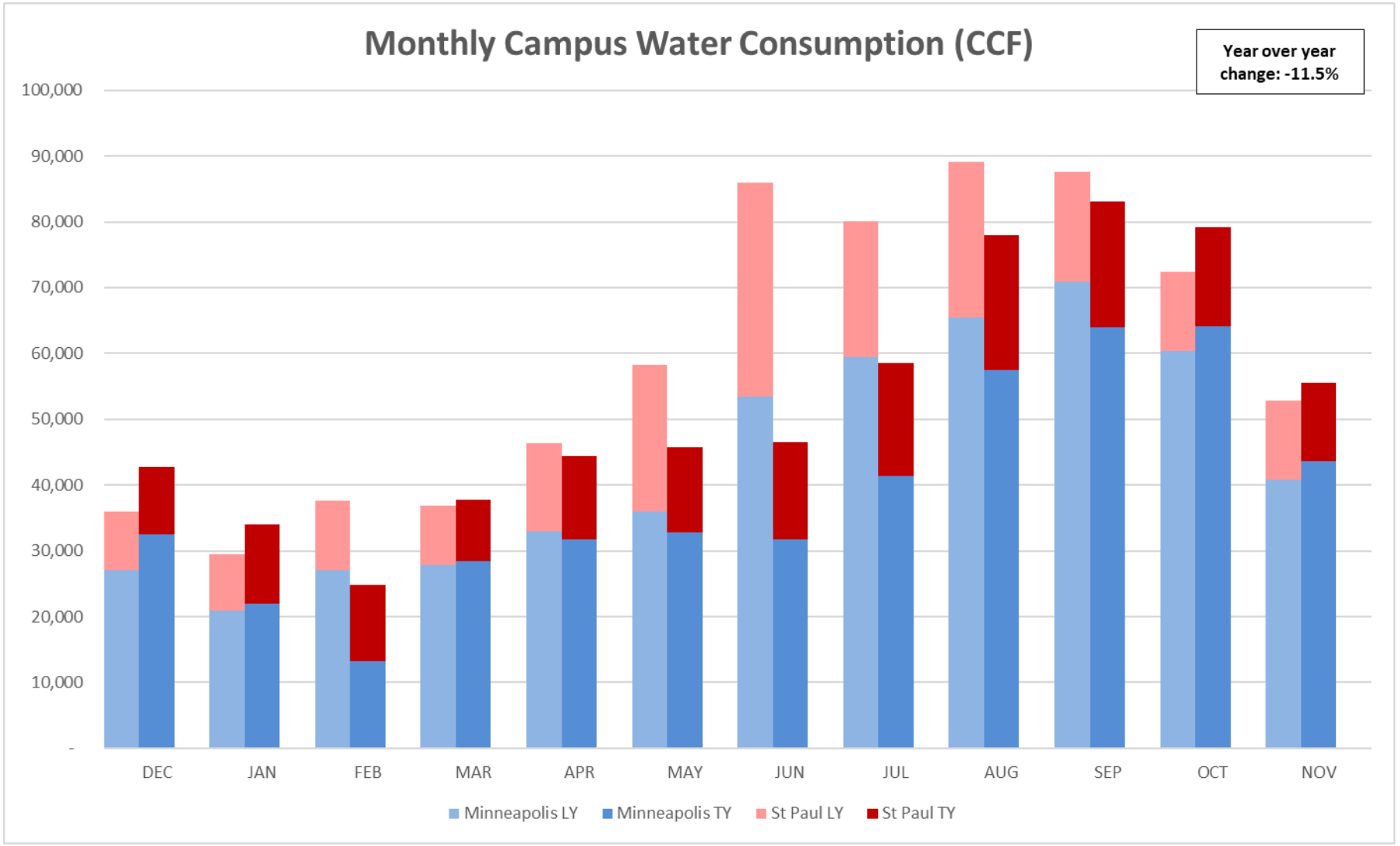
**Change from Baseline:**

| FY | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2020 | -4.67% | -3.30% | -0.65% | -3.44% | -8.74% | 0.95% | -9.88% | -13.14% | -18.86% | -15.44% | -14.14% | -12.40% |
| 2021 | -18.70% | -14.01% | -17.26% | -3.14% | -23.54% | -8.92% | -17.01% | 7.87% | -17.96% | -11.39% | -3.14% | -0.37% |
| 2022 | -14.27% | -11.63% | -11.39% | -14.98% | -20.01% | -0.62% | 4.61% | -9.55% | -9.38% | -1.35% | -2.01% | -3.65% |
| 2023 | -12.71% | -12.28% | -9.97% | -15.25% | -20.89% | 2.45% | -13.05% | -18.97% | -7.19% | -6.46% | -4.81% | -4.26% |
| 2024 | -15.10% | -9.53% | -11.98% | -14.20% | -24.25% | -16.60% | -8.29% | -28.24% | -16.72% | -12.01% | -7.49% | -7.38% |
| 2025 | -12.23% | -14.39% | -11.15% | -20.54% | -26.39% | -5.81% | | | | | | |

EM actively works to reduce emissions and meet University targets for carbon reduction. This chart shows monthly carbon emissions and how they have changed since the baseline year of 2019.

## SUSTAINABILITY

We seek to be good stewards of our natural resources and use them wisely. This shows monthly water consumption for the Minneapolis and St Paul campuses vs the previous year.




**Change from LY:**

| | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minneapolis | 19.71% | 5.26% | -51.17% | 1.95% | -3.50% | -8.66% | -40.63% | -30.23% | -12.37% | -9.87% | 6.27% | 6.99% |
| St Paul | 16.39% | 40.42% | 10.02% | 4.77% | -6.32% | -41.97% | -54.38% | -17.46% | -12.76% | 14.89% | 23.71% | -1.59% |
| **Total** | **18.89%** | **15.43%** | **-34.05%** | **2.64%** | **-4.32%** | **-21.47%** | **-45.84%** | **-26.93%** | **-12.47%** | **-5.15%** | **9.20%** | **5.04%** |

# SUSTAINABILITY

This shows total campus energy usage, separated by utility type, compared to the baseline year of 2009. It is weather-normalized to remove variations due to weather fluctuations.

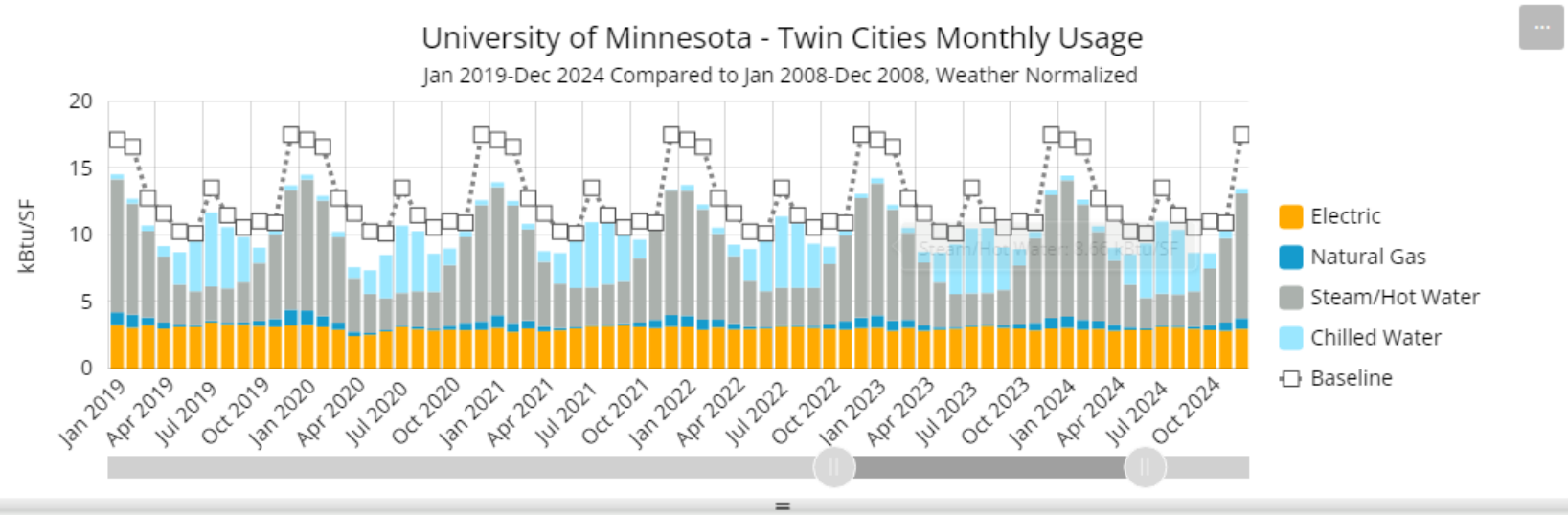
All Organizations / Higher Ed

## University of Minnesota - Twin Cities

26,951,196 gross bldg sf

Dashboard | Data | Metrics | **Visualizations** | Improvements | Reports

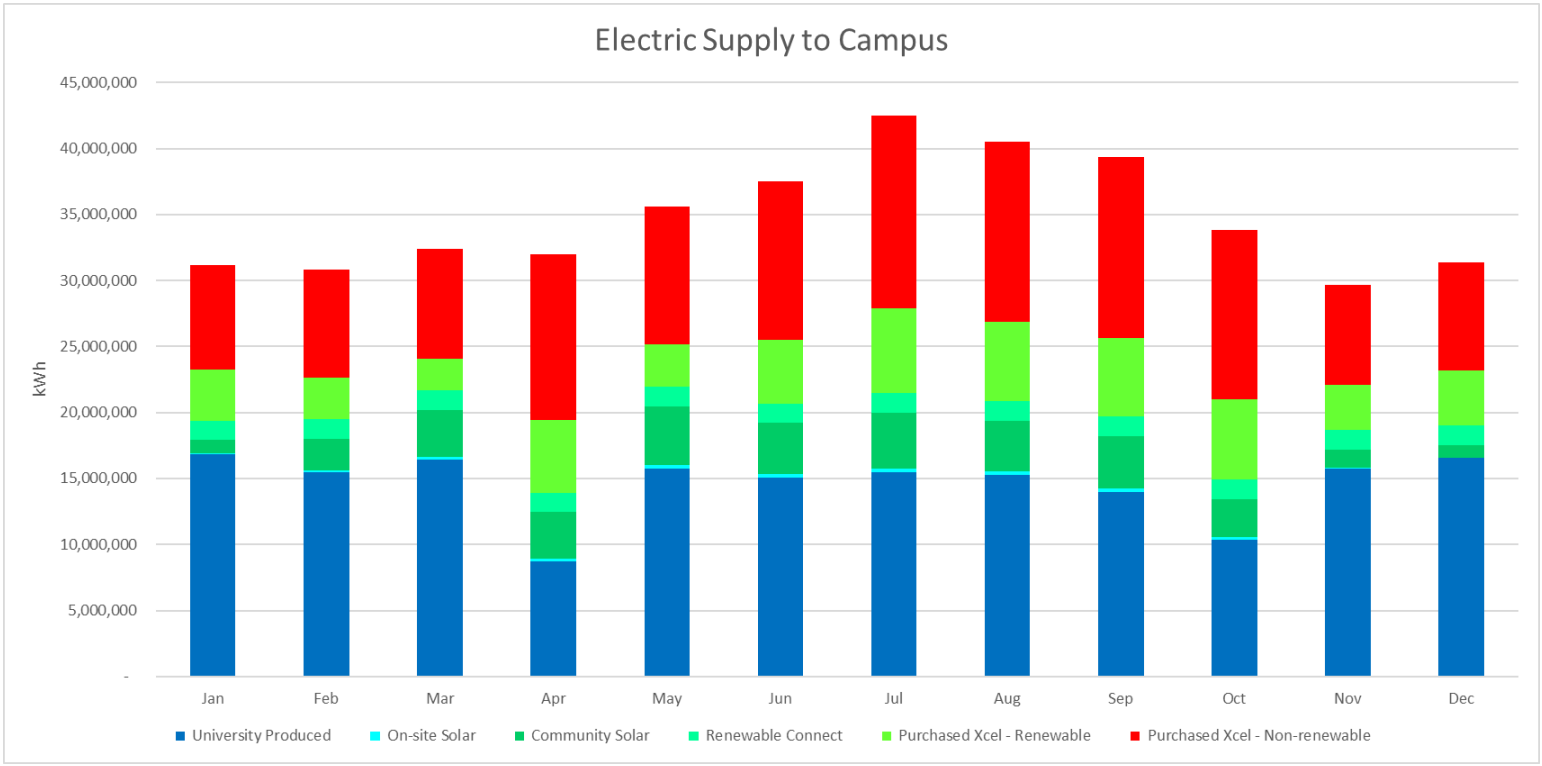
› Visualization Options  Templates: Custom Report



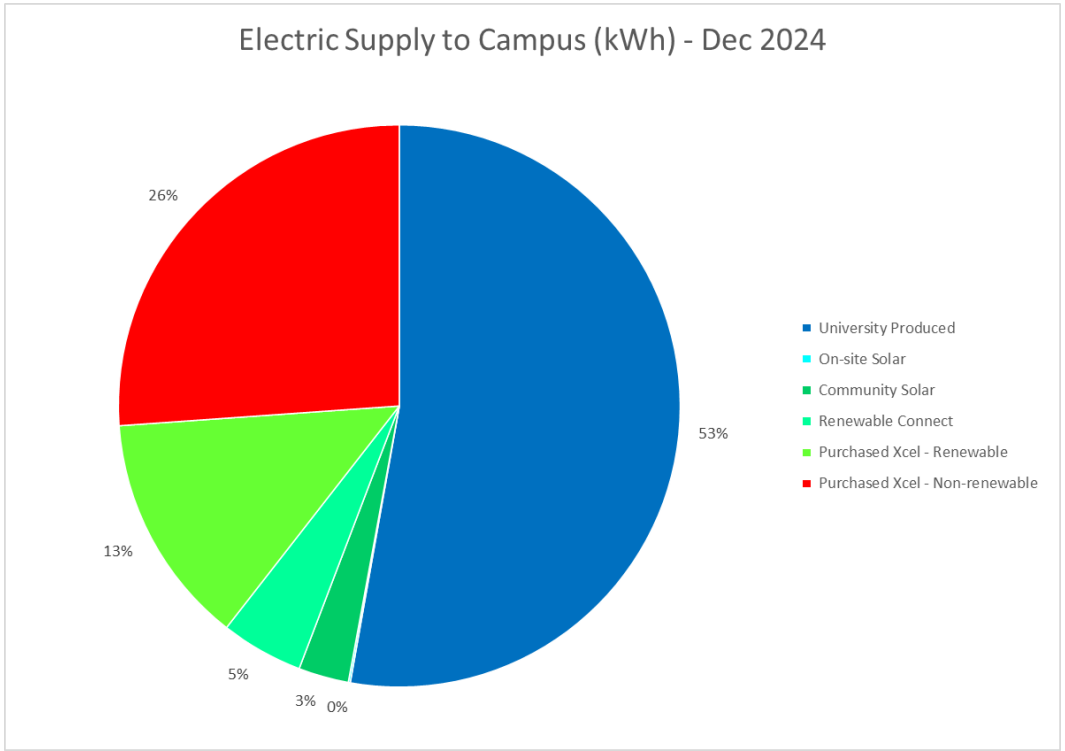

› Annual Summary

| Period | Days | % Complete | SF | *Actual (kBtu/SF) | *Baseline (kBtu/SF) | Change | % Change |
|---|---|---|---|---|---|---|---|
| Jan 2019-Dec 2019 | 365 | 99.8% | 26,761,275 | 131.16 | 154.08 | -22.92 | -14.88% |
| Jan 2020-Dec 2020 | 366 | 100% | 26,879,883 | 123.10 | 154.08 | -30.99 | -20.11% |
| Jan 2021-Dec 2021 | 365 | 100% | 26,958,123 | 130.77 | 154.08 | -23.31 | -15.13% |
| Jan 2022-Dec 2022 | 365 | 100% | 26,951,196 | 129.55 | 154.08 | -24.54 | -15.92% |
| Jan 2023-Dec 2023 | 365 | 100% | 26,951,196 | 126.91 | 154.08 | -27.18 | -17.64% |
| Jan 2024-Dec 2024 | 366 | 99.8% | 26,951,196 | 127.69 | 154.08 | -26.39 | -17.13% |

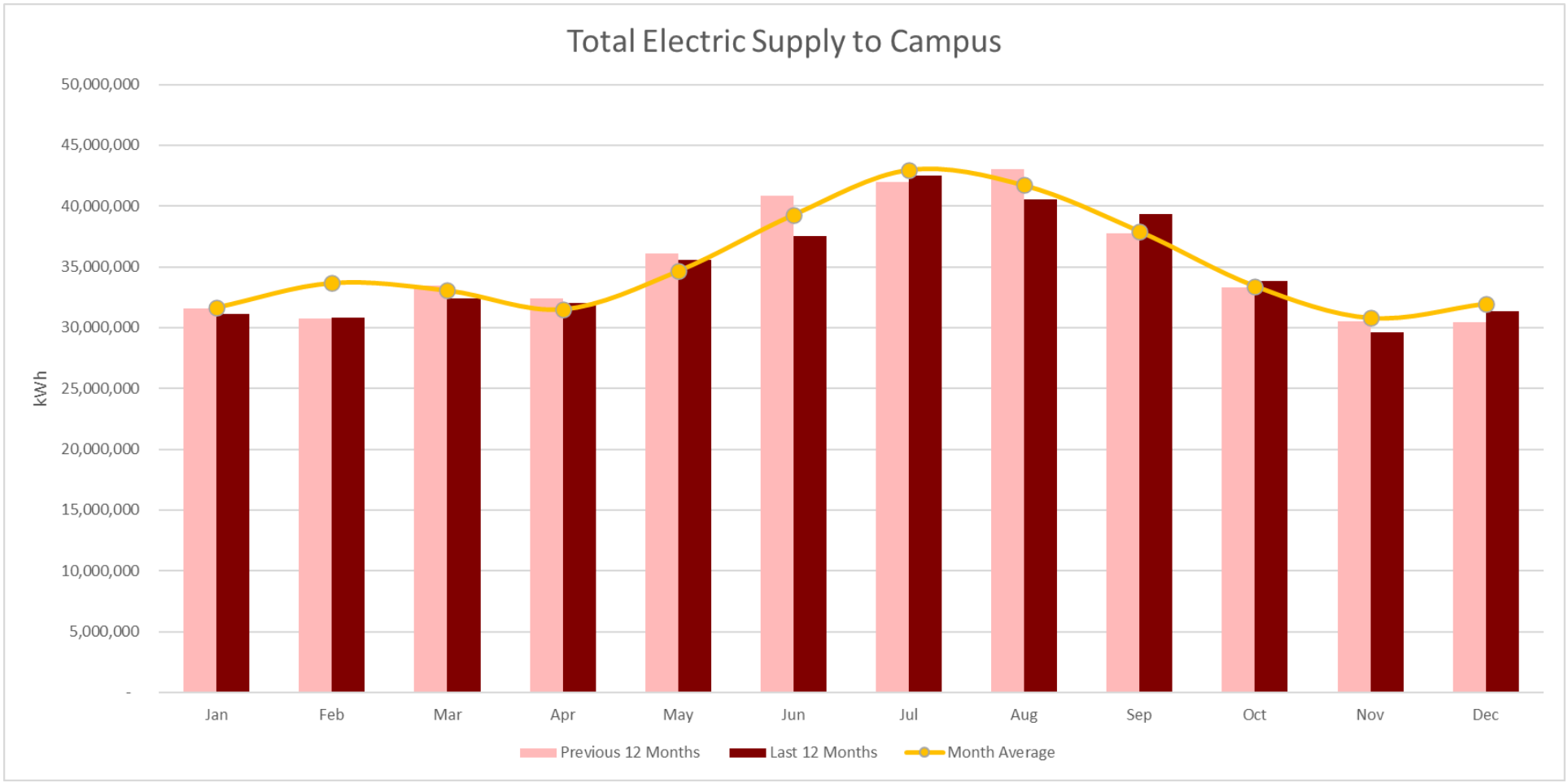
# SUSTAINABILITY




The University continually explores new ways to provide energy using sustainable methods. These charts show monthly electricity supplied to campus, broken out by its manner of production.



# COST EFFECTIVENESS




The cheapest and most sustainable energy is that which isn't used! This chart shows the total amount of electricity supplied to campus over the past 12 months, compared to the previous year.

# COST EFFECTIVENESS

## Chilled Water Production Utilities by Fiscal Year

| | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 @6 of 12 |
|---|---|---|---|---|---|---|---|
| **CHW PRODUCTION (TON-HRS)** | **50,462,692** | **53,449,008** | **60,759,336** | **62,643,652** | **63,124,518** | **59,234,830** | **41,889,848** |
| **ELECTRIC (KWH)** | **30,366,204** | **29,371,048** | **32,606,006** | **36,581,795** | **36,126,272** | **33,490,740** | **25,726,961** |
| ELECTRIC (kW/Ton) | 0.602 | 0.550 | 0.537 | 0.584 | 0.572 | 0.565 | 0.614 |
| **STEAM (KLB)** | **67,873** | **78,530** | **93,967** | **85,629** | **85,503** | **110,565** | **73,230** |
| STEAM (kLb/Ton) | 0.0013 | 0.0015 | 0.0015 | 0.0014 | 0.0014 | 0.0019 | 0.0017 |
| **WATER (CCF)** | **113,830** | **103,774** | **95,975** | **128,293** | **122,790** | **136,681** | **107,517** |
| WATER (CCF/Ton) | 0.00226 | 0.00194 | 0.00158 | 0.00205 | 0.00195 | 0.00231 | 0.00257 |
| **CHW CONSUMPTION (TON-HRS)** | **45,653,168** | **46,478,654** | **49,132,181** | **55,760,246** | **56,130,182** | **53,268,428** | **36,702,716** |
| **% Billed Through** | **90.5%** | **87.0%** | **80.9%** | **89.0%** | **88.9%** | **89.9%** | **87.6%** |

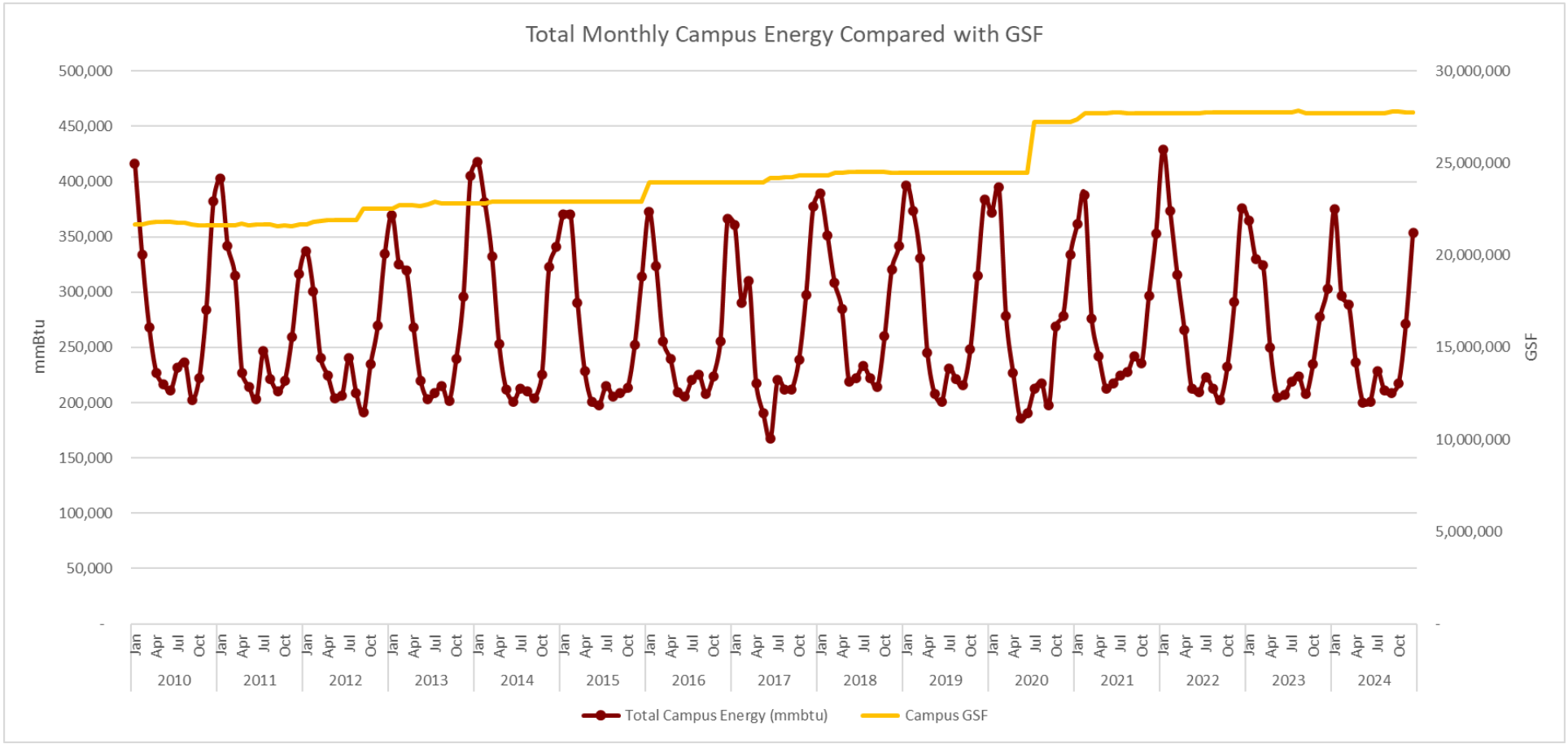
## Twin Cities Utility Plant Production by Fiscal Year

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 @6 of 12 |
|---|---|---|---|---|---|---|---|---|
| **FUEL (mmBtu)** | 3,423,722 | 3,412,151 | 3,125,091 | 3,401,086 | 3,525,578 | 3,409,177 | 3,234,658 | 1,510,211 |
| **STEAM OUTPUT (kLbs)** | 1,852,760 | 1,844,541 | 1,785,216 | 1,837,425 | 1,903,993 | 1,781,511 | 1,679,619 | 774,343 |
| **METERED CONSUMPTION (kLbs)** | 1,708,061 | 1,723,162 | 1,626,020 | 1,736,174 | 1,806,859 | 1,739,295 | 1,563,553 | 726,661 |
| **% BILLED THROUGH** | **92.2%** | **93.4%** | **91.1%** | **94.5%** | **94.9%** | **97.6%** | **93.1%** | **97.6%** |
| **COGEN GROSS (mWh)** | 172,417 | 165,435 | 135,566 | 173,988 | 180,902 | 184,007 | 180,868 | 87,411 |

EM produces all of the chilled water for cooling and steam for heating the campus, as well as a sizeable portion of the electricity used. These tables show the utilities used to do this, as well as measures of the efficiency of the systems.

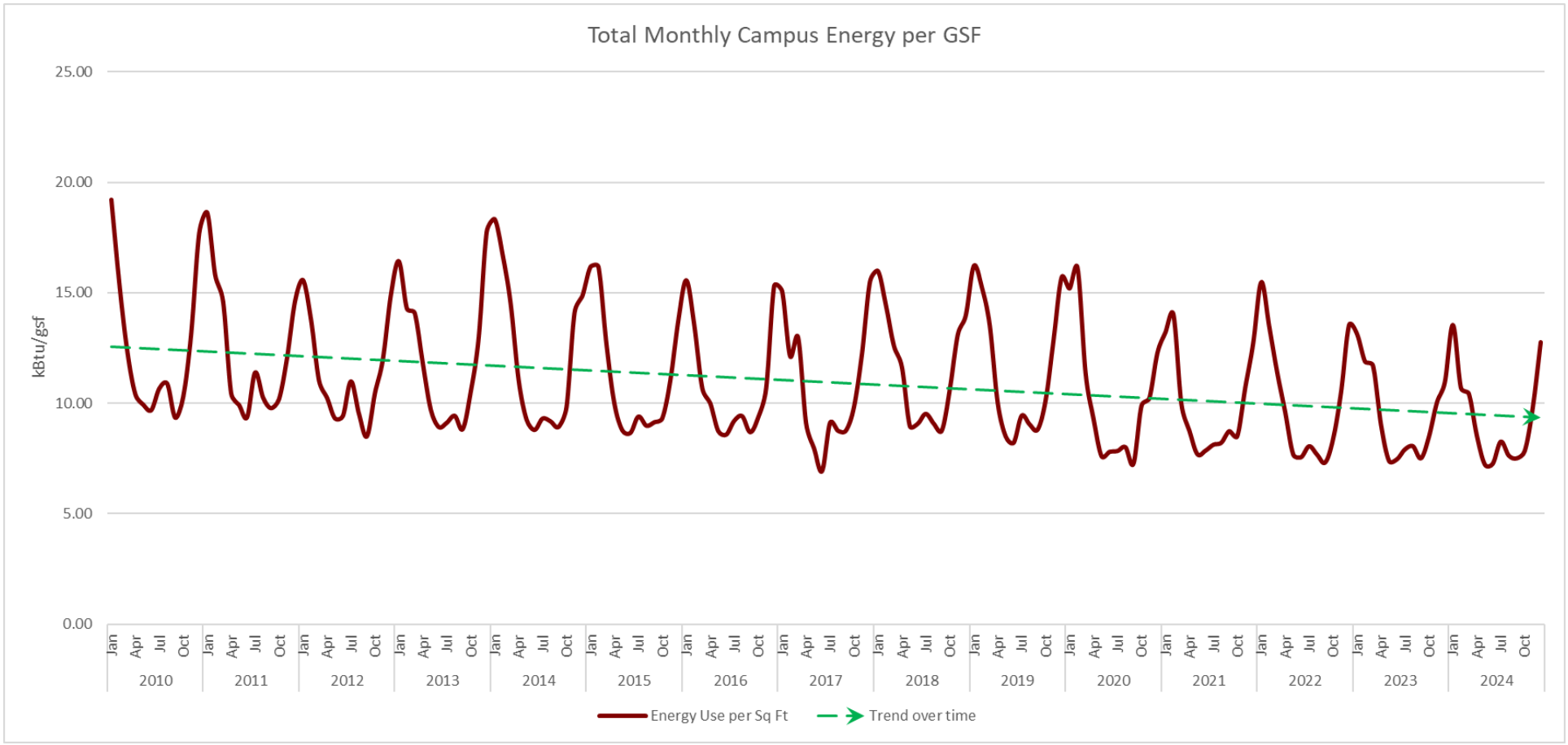
# COST EFFECTIVENESS

Energy Management's efforts to conserve energy are complicated by the continued growth of the University. With new buildings being erected and old ones experiencing extensive renovation, it is useful to see the trend in energy usage in concert with the increasing square footage of campus.



# COST EFFECTIVENESS

This similar chart shows the ratio of campus energy usage to square footage. It shows clearly that, even though the campus is growing, Energy Management continues to find ways to reduce energy consumption.



# COST EFFECTIVENESS

## Rolling 12 Month Energy Use Intensity (EUI) - Top and Bottom Performing Outliers per District

| District | Bldg # | Building | GSF | Actual EUI (kbtu/ft2/yr) | Expected EUI (kbtu/ft2/yr) | Actual as a Percent of Expected | Code EUI (kbtu/ft2/yr) | Actual as a Percent of Code |
|---|---|---|---|---|---|---|---|---|
| East Bank | 125 | Shepherd Laboratories | 98,540 | 125 | 438 | 29% | 118 | 106% |
| | 003 | Pattee Hall | 28,998 | 48 | 163 | 30% | 69 | 70% |
| | 191 | MAST Laboratory | 9,537 | 129 | 369 | 35% | 63 | 206% |
| | 161 | Telecommunications Building | 16,805 | 658 | 550 | 120% | 275 | 239% |
| | 149 | Microbiology Research Facility | 89,936 | 259 | 203 | 128% | 886 | 29% |
| | 049 | Tate Laboratory Of Physics | 260,608 | 162 | 116 | 140% | 196 | 83% |
| Health Sciences | 115 | Children's Rehabilitation Center | 70,851 | 95 | 196 | 49% | 105 | 91% |
| | 193 | 717 Delaware St SE | 201,333 | 118 | 231 | 51% | 159 | 74% |
| | 111 | Diehl Hall | 199,723 | 161 | 260 | 62% | 168 | 96% |
| | 147 | Weaver-Densford Hall | 195,438 | 213 | 229 | 93% | 186 | 114% |
| | 032 | Jackson Hall | 150,394 | 275 | 291 | 94% | 214 | 128% |
| | 144 | Phillips-Wangensteen Building | 580,141 | 252 | 237 | 106% | 152 | 165% |
| HRA | 067 | Field House | 89,186 | 19 | 73 | 26% | 72 | 27% |
| | 181 | Ridder Arena/Baseline Tennis | 367,813 | 29 | 106 | 27% | 98 | 29% |
| | 169 | Recreation and Wellness Center | 307,048 | 40 | 118 | 34% | 122 | 33% |
| | 052 | Pioneer Hall | 316,336 | 83 | 77 | 107% | 141 | 59% |
| | 126 | Keeler Apartments | 98,900 | 24 | 18 | 137% | 95 | 26% |
| | 182 | McNamara | 107,927 | 127 | 69 | 185% | 59 | 214% |
| St Paul | 392 | Sheep Research | 8,165 | 8 | 26 | 31% | 11 | 73% |
| | 420 | Continuing Education & Conference Center | 72,140 | 42 | 116 | 37% | 114 | 37% |
| | 432 | Plant Growth Facilities-West (432) | 9,244 | 124 | 330 | 38% | 566 | 22% |
| | 399 | Cereal Rust Lab | 33,127 | 164 | 111 | 147% | 434 | 38% |
| | 455 | Swine Research Facility | 10,559 | 310 | 85 | 365% | 31 | 1,000% |
| | 409 | Veterinary Isolation Facility | 31,843 | 364 | 63 | 576% | 270 | 135% |
| West Bank | 207 | Willey Hall | 120,464 | 36 | 132 | 27% | 116 | 31% |
| | 209 | Rarig Center | 173,139 | 58 | 193 | 30% | 92 | 64% |
| | 241 | Regis Center for Art - East | 102,035 | 104 | 260 | 40% | 242 | 43% |
| | 058 | St Anthony Falls Laboratory | 65,342 | 158 | 160 | 99% | 295 | 54% |
| | 171 | Community University Health Care Center | 17,855 | 197 | 183 | 107% | 186 | 106% |
| | 135 | Urban Research & Outreach Center | 22,528 | 69 | 28 | 248% | 100 | 69% |

Note 1 - Actual based on JAN 24 - DEC 24 meter readings

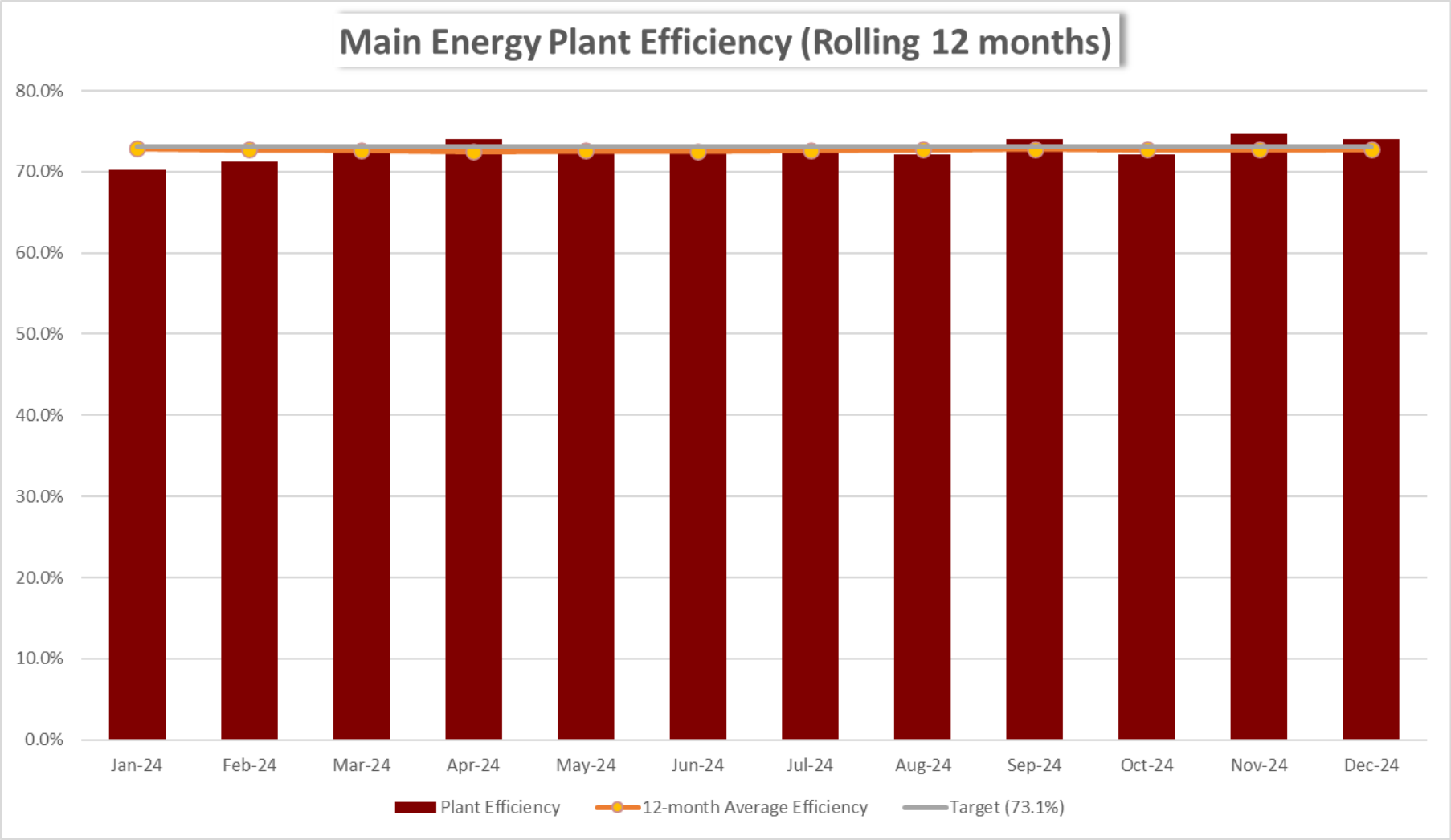
Note 2 - Expected based on JAN 09 - DEC 09 weather and energy data

Note 3 - Code based on current State Energy Code

| | |
|---|---|
| <95% | <95% |
| 96-110% | 96-110% |
| >110% | >110% |

Each building has challenges to conserving energy and using our resources effectively. This table shows how much energy an individual building uses, how much we expect it to use based on the type of building it is, and how much it should use, were it built to current energy standards. We showcase six buildings per District, three that perform well, given what we expect, and three that do not.

# COST EFFECTIVENESS

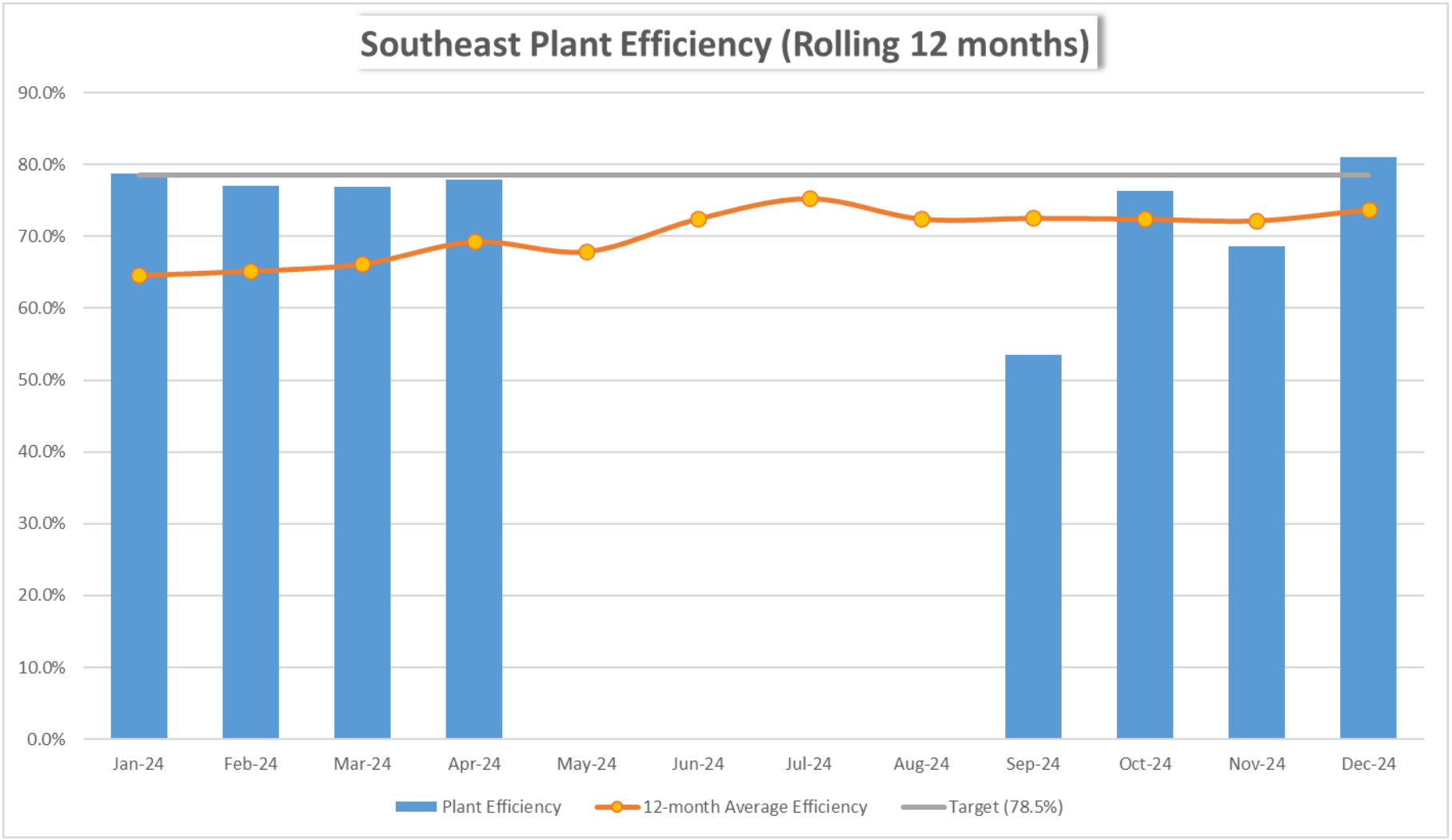



**MAIN ENERGY PLANT EFFICIENCY**

| | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Plant Efficiency** | 70.2% | 71.2% | 72.4% | 74.0% | 72.5% | 72.5% | 73.3% | 72.1% | 74.1% | 72.2% | 74.6% | 74.0% |
| **Rolling 12 Average** | 72.9% | 72.7% | 72.7% | 72.5% | 72.6% | 72.6% | 72.7% | 72.7% | 72.8% | 72.7% | 72.7% | 72.8% |

It is important to run our utility plants as efficiently as possible. This chart measures how much energy on a monthly basis was brought into the Main Energy Plant, and how much flowed out, expressed as a percentage.

# COST EFFECTIVENESS

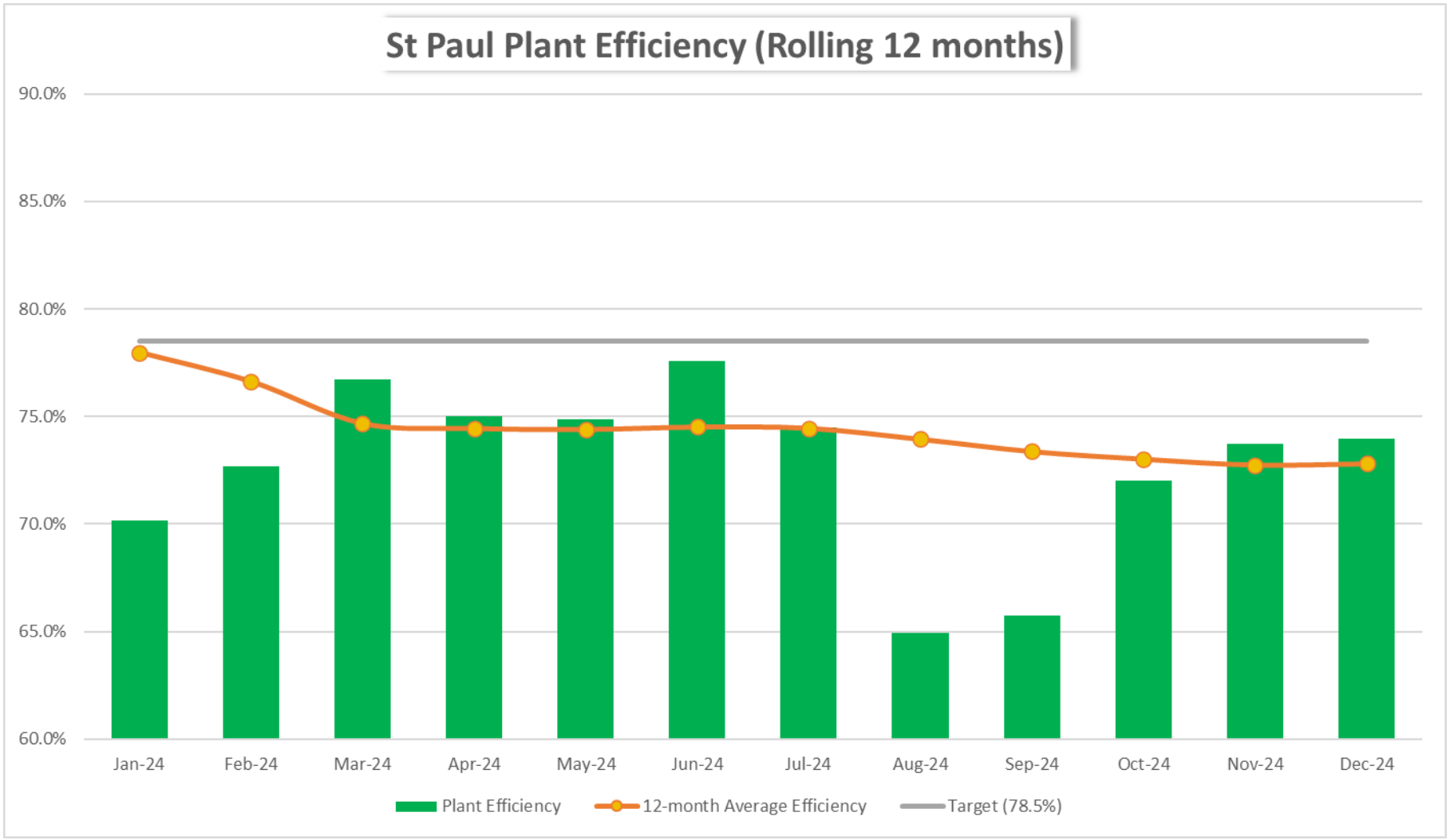



**SOUTHEAST PLANT EFFICIENCY**

| | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Plant Efficiency** | 78.8% | 77.0% | 76.8% | 77.9% | 0.0% | 0.0% | 0.0% | 0.0% | 53.5% | 76.4% | 68.6% | 81.0% |
| **Rolling 12 Average** | 64.6% | 65.2% | 66.2% | 69.3% | 67.9% | 72.5% | 75.3% | 72.5% | 72.5% | 72.4% | 72.2% | 73.7% |

It is important to run our utility plants as efficiently as possible. This chart measures how much energy on a monthly basis was brought into the Southeast Steam Plant, and how much flowed out, expressed as a percentage.

# COST EFFECTIVENESS

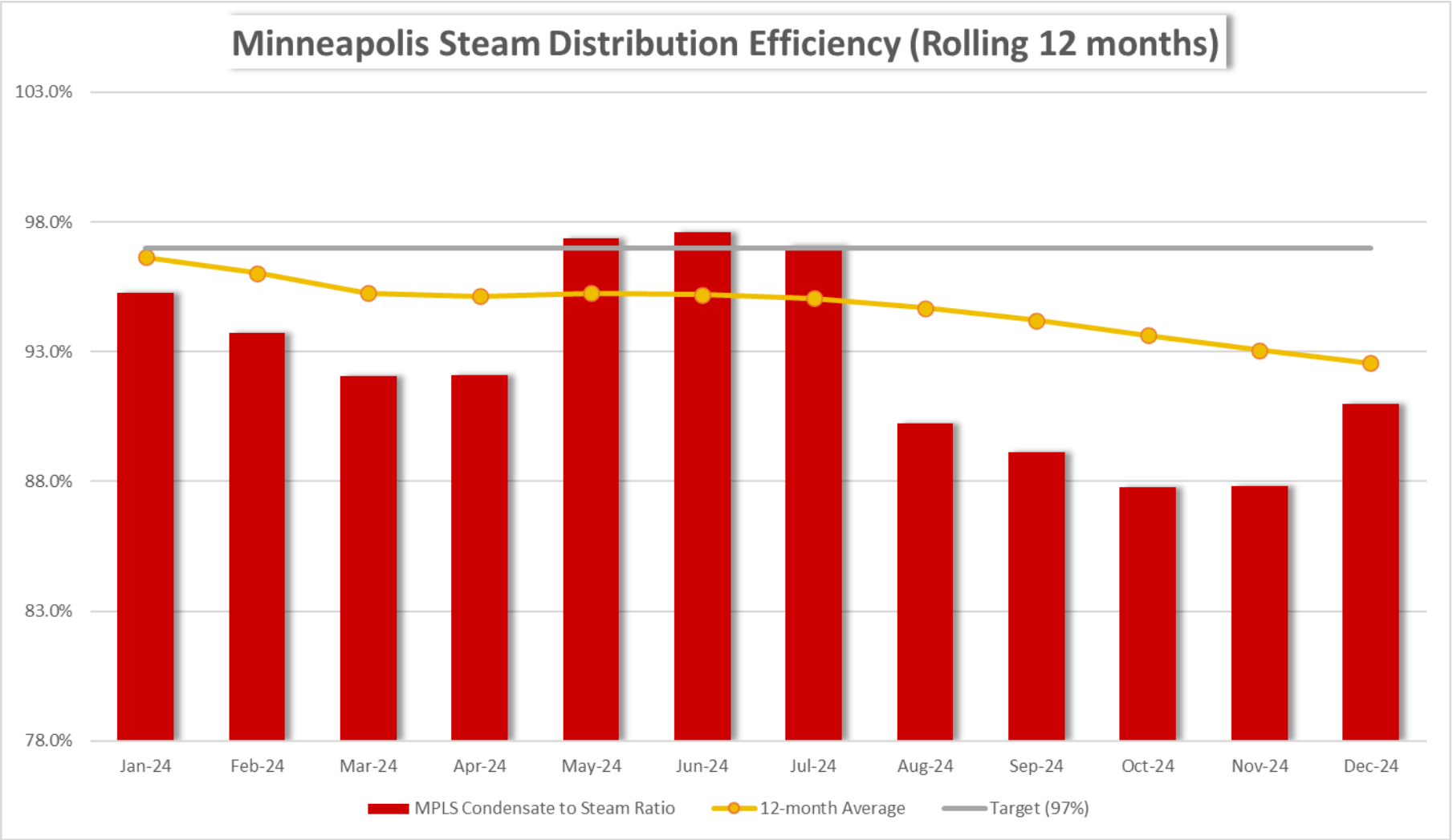



**ST PAUL PLANT EFFICIENCY**

| | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Plant Efficiency** | 70.1% | 72.7% | 76.7% | 75.0% | 74.9% | 77.6% | 74.5% | 64.9% | 65.7% | 72.0% | 73.7% | 73.9% |
| **Rolling 12 Average** | 78.0% | 76.6% | 74.7% | 74.4% | 74.4% | 74.5% | 74.5% | 73.9% | 73.4% | 73.0% | 72.8% | 72.8% |

It is important to run our utility plants as efficiently as possible. This chart measures how much energy on a monthly basis was brought into the St Paul Steam Plant, and how much flowed out, expressed as a percentage.

# COST EFFECTIVENESS

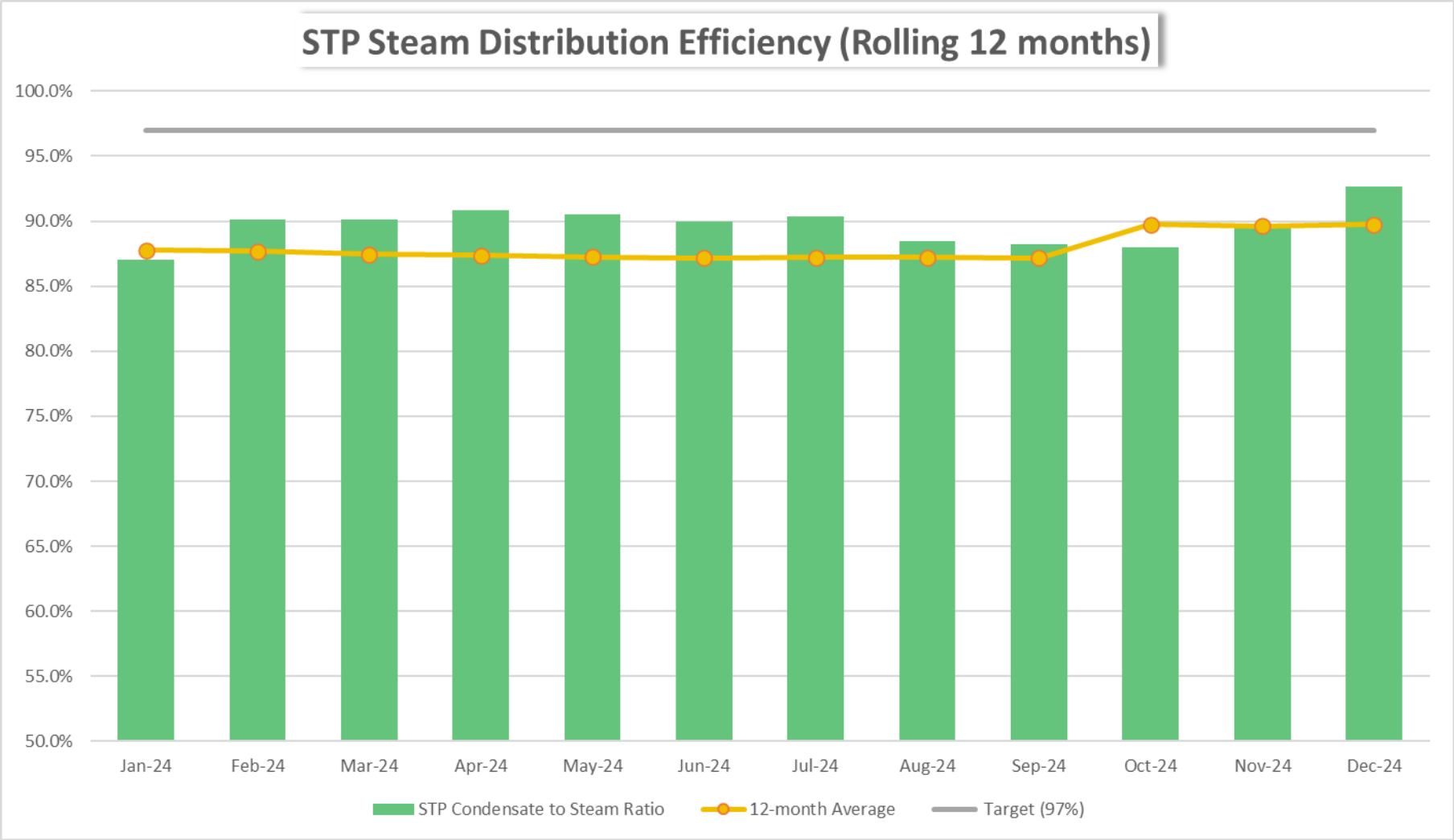



**MINNEAPOLIS STEAM DISTRIBUTION EFFICIENCY**

| | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COND to STM Ratio | 95.3% | 93.7% | 92.1% | 92.1% | 97.4% | 97.6% | 97.1% | 90.2% | 89.1% | 87.8% | 87.8% | 91.0% |
| Rolling 12 Average | 96.6% | 96.0% | 95.3% | 95.1% | 95.3% | 95.2% | 95.0% | 94.7% | 94.2% | 93.6% | 93.1% | 92.6% |

It is important to run our distribution systems as efficiently as possible. This chart measures how much condensate was returned vs how much steam left the Minneapolis energy plants.

# COST EFFECTIVENESS




**ST PAUL STEAM DISTRIBUTION EFFICIENCY**

| | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COND to STM Ratio** | 87.0% | 90.1% | 90.1% | 90.9% | 90.5% | 90.0% | 90.4% | 88.5% | 88.2% | 88.0% | 89.8% | 92.6% |
| **Rolling 12 Average** | 87.8% | 87.7% | 87.4% | 87.4% | 87.3% | 87.2% | 87.2% | 87.2% | 87.2% | 89.7% | 89.6% | 89.8% |

It is important to run our distribution systems as efficiently as possible. This chart measures how much condensate was returned vs how much steam left the St Paul energy plant.