University of MN
Monthly Metrics
March 2026

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

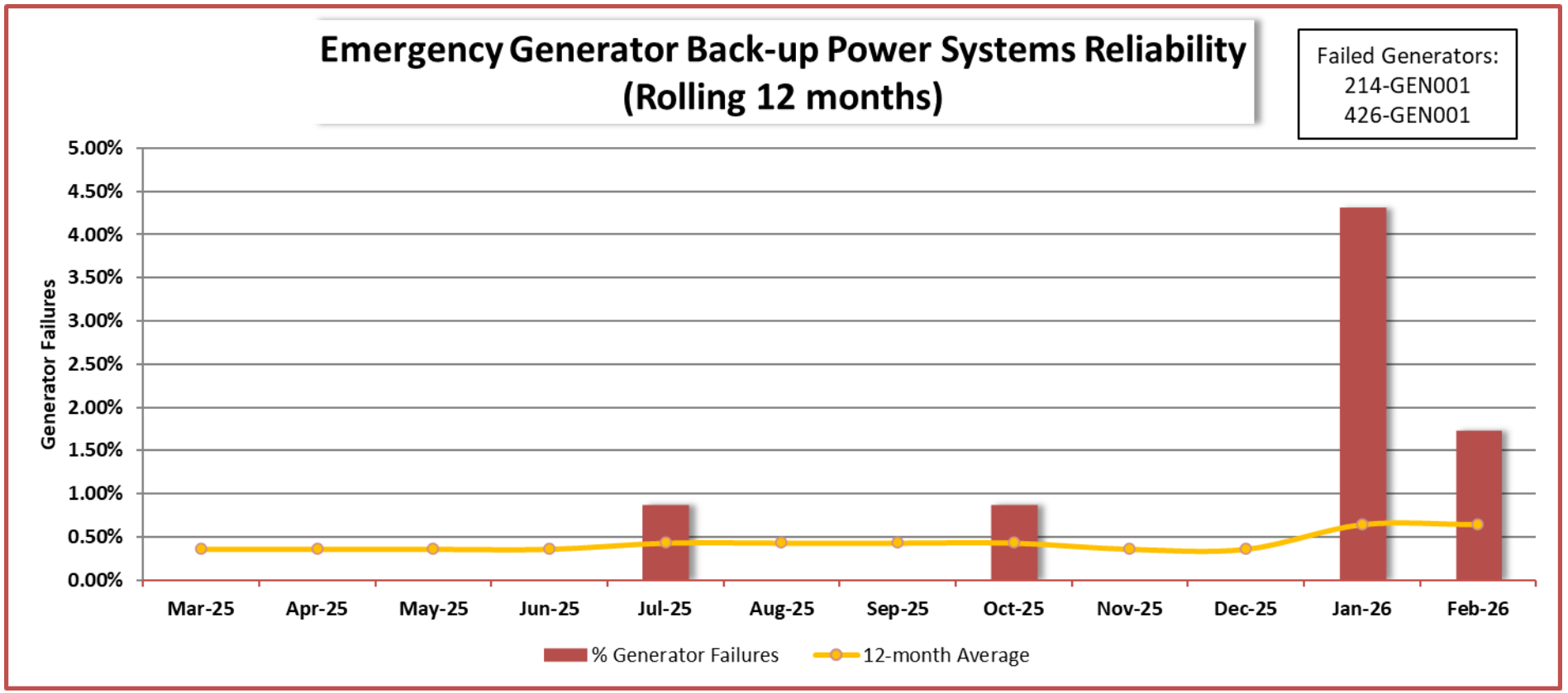
RELIABILITY

Unplanned Service Loss Events

	FY20	FY21	FY22	FY23	FY24	FY25	FY26 @ 8 of 12	FY26 Target
CHILLED WATER								
Total	0	0	0	0	0	3	0	
Root-Caused to UMN	0	0	0	0	0	3	0	**2**
ELECTRIC								
Total	6	6	9	12	10	11	6	
Root-Caused to UMN	4	2	3	3	4	1	2	**3**
STEAM								
Total	2	3	1	0	0	1	0	
Root-Caused to UMN	2	3	0	0	0	1	0	**2**
WATER								
Total	1	1	1	0	0	0	0	
Root-Caused to UMN	1	1	0	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

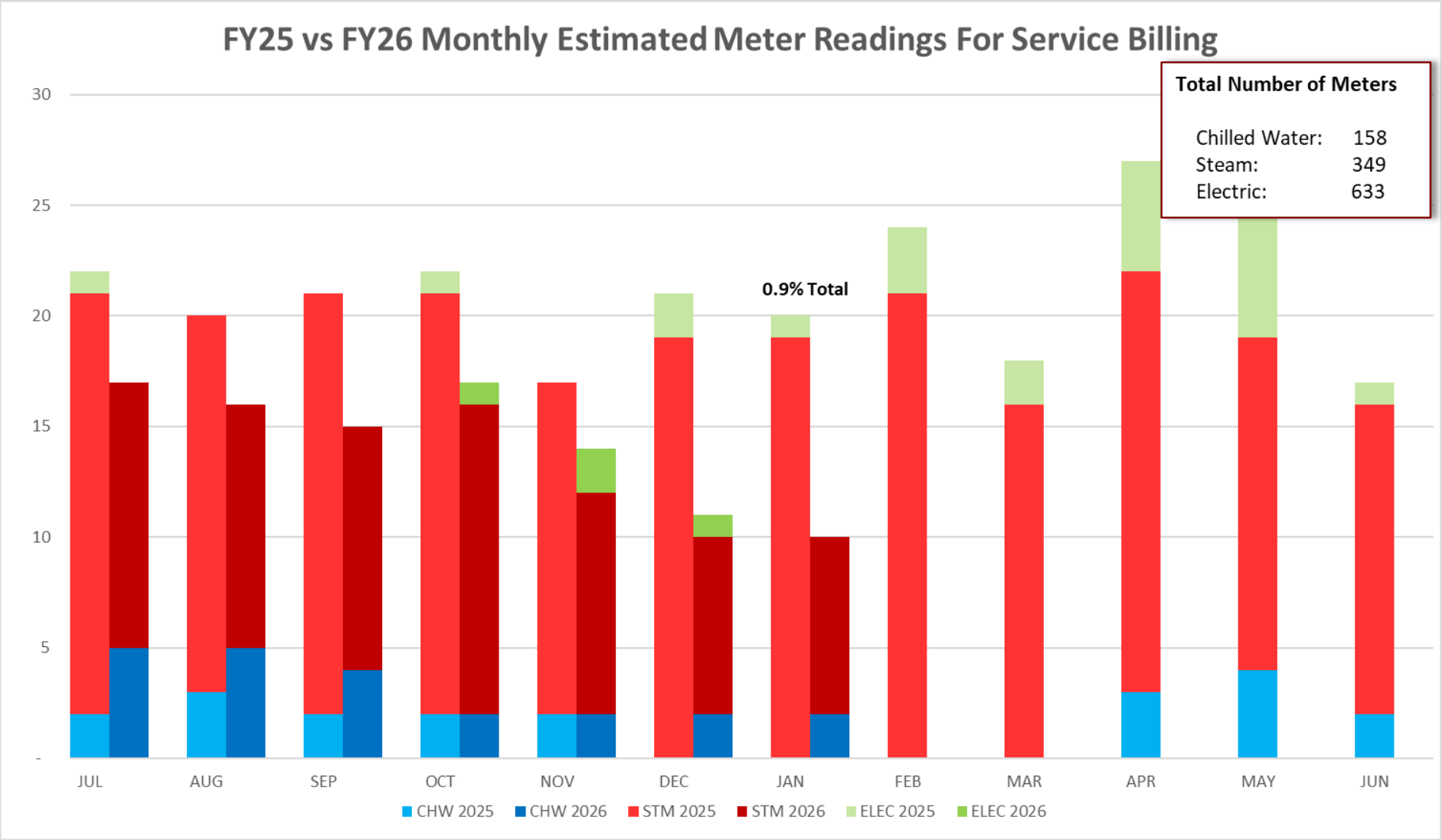


	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26
Monthly Failures	0.00%	0.00%	0.00%	0.00%	0.36%	0.00%	0.00%	0.86%	0.00%	0.00%	4.30%	1.72%
12-month Average	0.36%	0.36%	0.36%	0.36%	0.43%	0.43%	0.43%	0.43%	0.36%	0.36%	0.65%	0.65%

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.

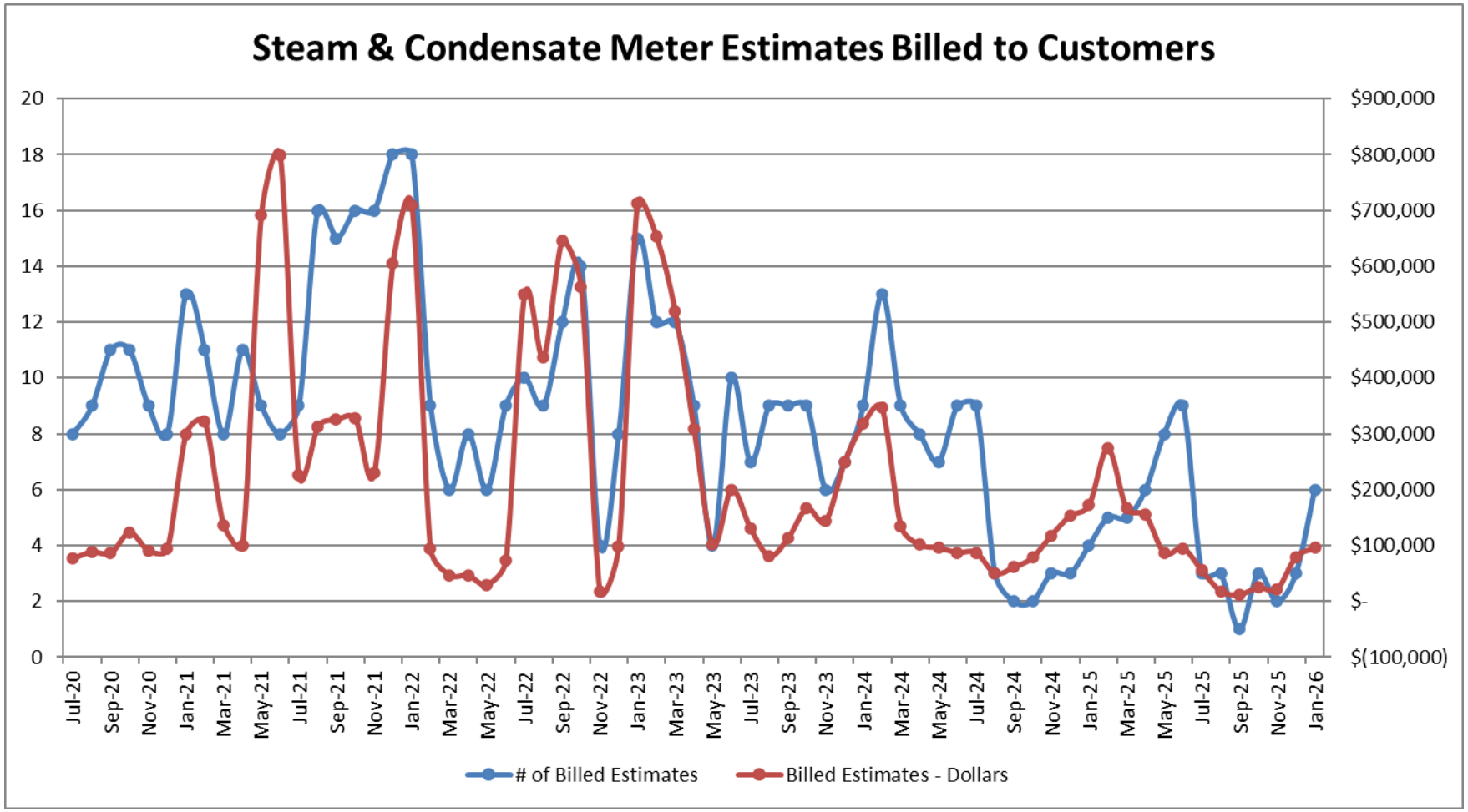
RELIABILITY

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-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Meter Read Inventory:	1507	1507	1507	1507	1507	1507	1507	1507	1507	1507	1507	1507
Estimated Readings:	17	16	15	17	14	13	14	0	0	0	0	0
% Monthly Estimates:	1.1%	1.1%	1.0%	1.1%	0.9%	0.9%	0.9%	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

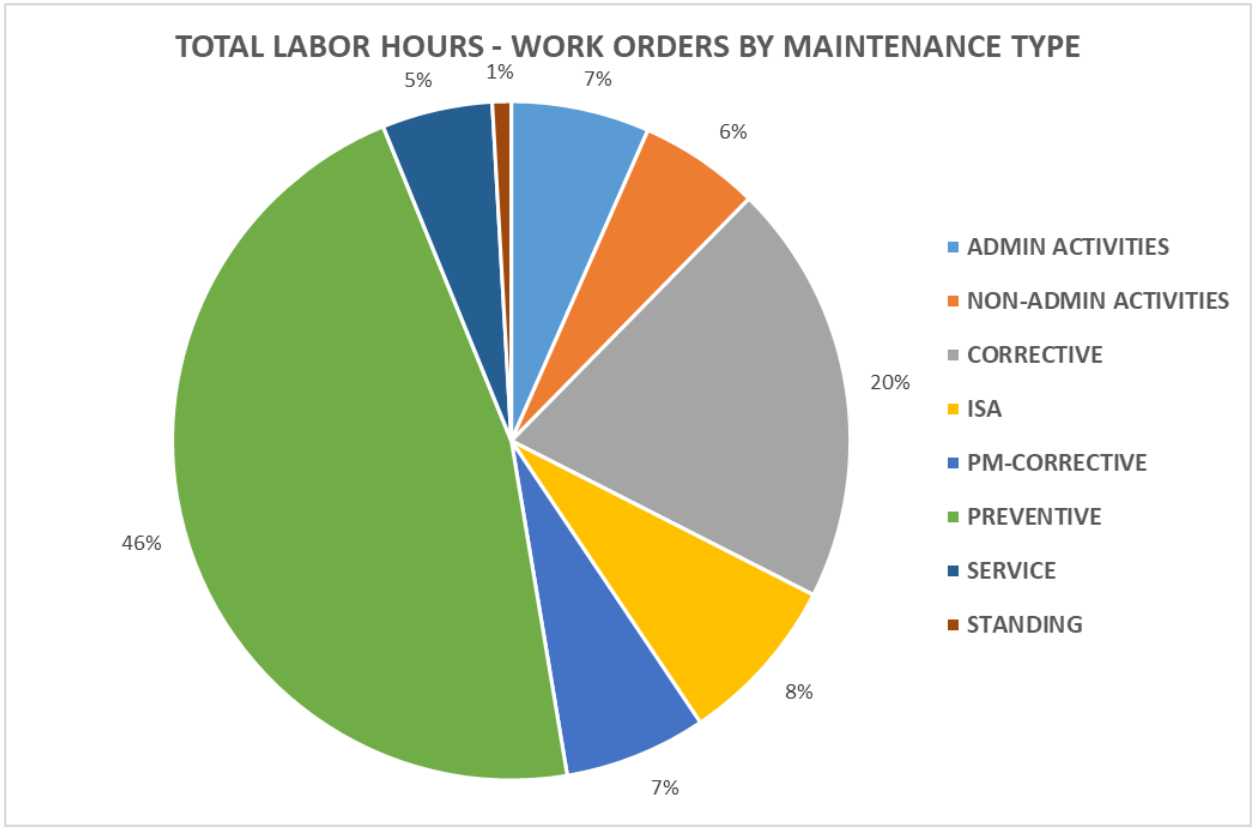
FEBRUARY 2026

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.

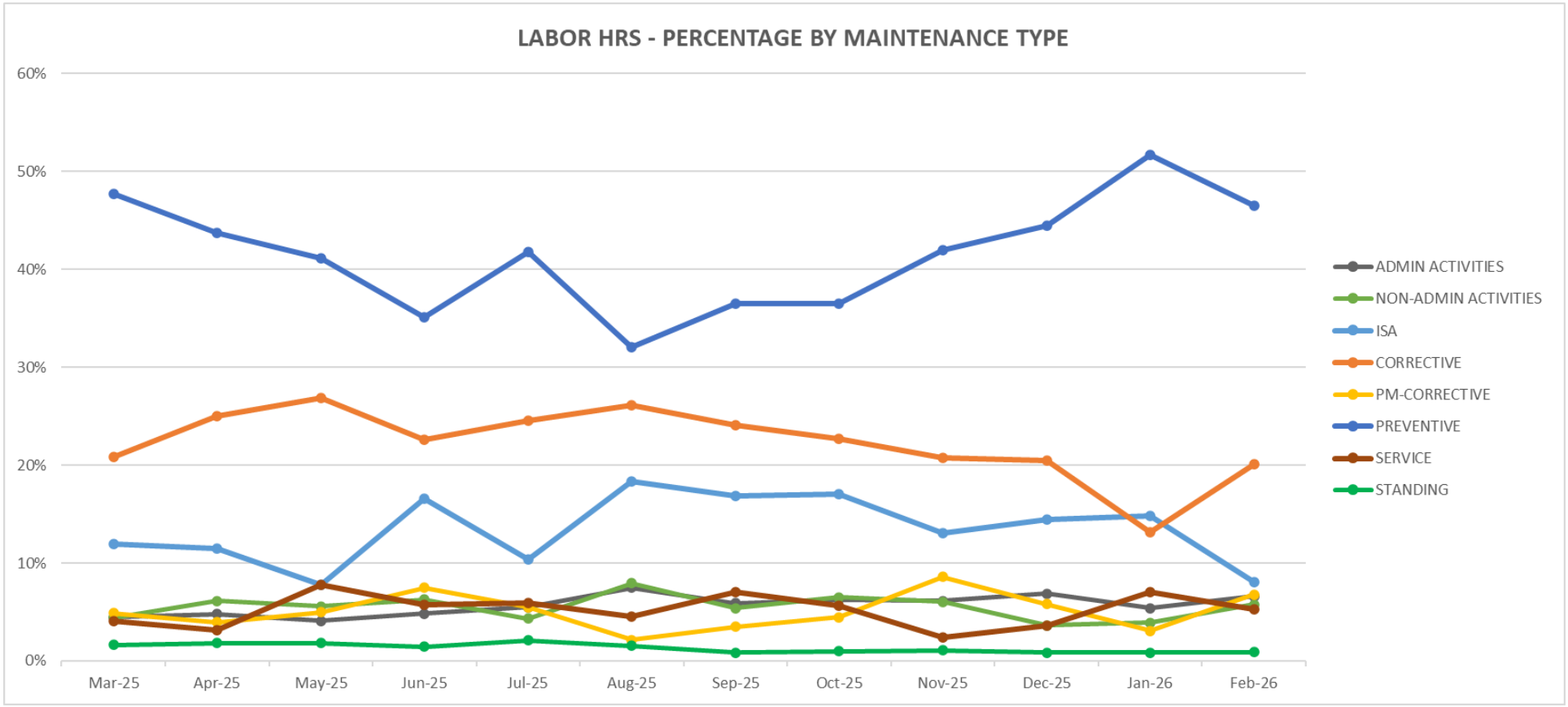
TOTAL MONTHLY LABOR HOURS BY CREW AND MAINTENANCE TYPE

	CHILLED WATER	ELECTRIC	EMELEC	STEAM	WATER & SEWER	TOTAL	%
ADMIN ACTIVITIES	21	249	148	67	147	**631**	**7%**
NON-ADMIN ACTIVITIES	7	245	232	2	66	**551**	**6%**
CORRECTIVE	219	386	411	858	51	**1,924**	**20%**
ISA	0	332	411	31	0	**773**	**8%**
PM-CORRECTIVE	181	313	0	144	10	**647**	**7%**
PREVENTIVE	851	1,373	80	2,016	120	**4,439**	**46%**
SERVICE	0	9	273	30	193	**504**	**5%**
STANDING	0	86	0	0	0	**86**	**1%**
TOTAL	**1,277**	**2,991**	**1,554**	**3,146**	**586**	**9,554**	**100%**



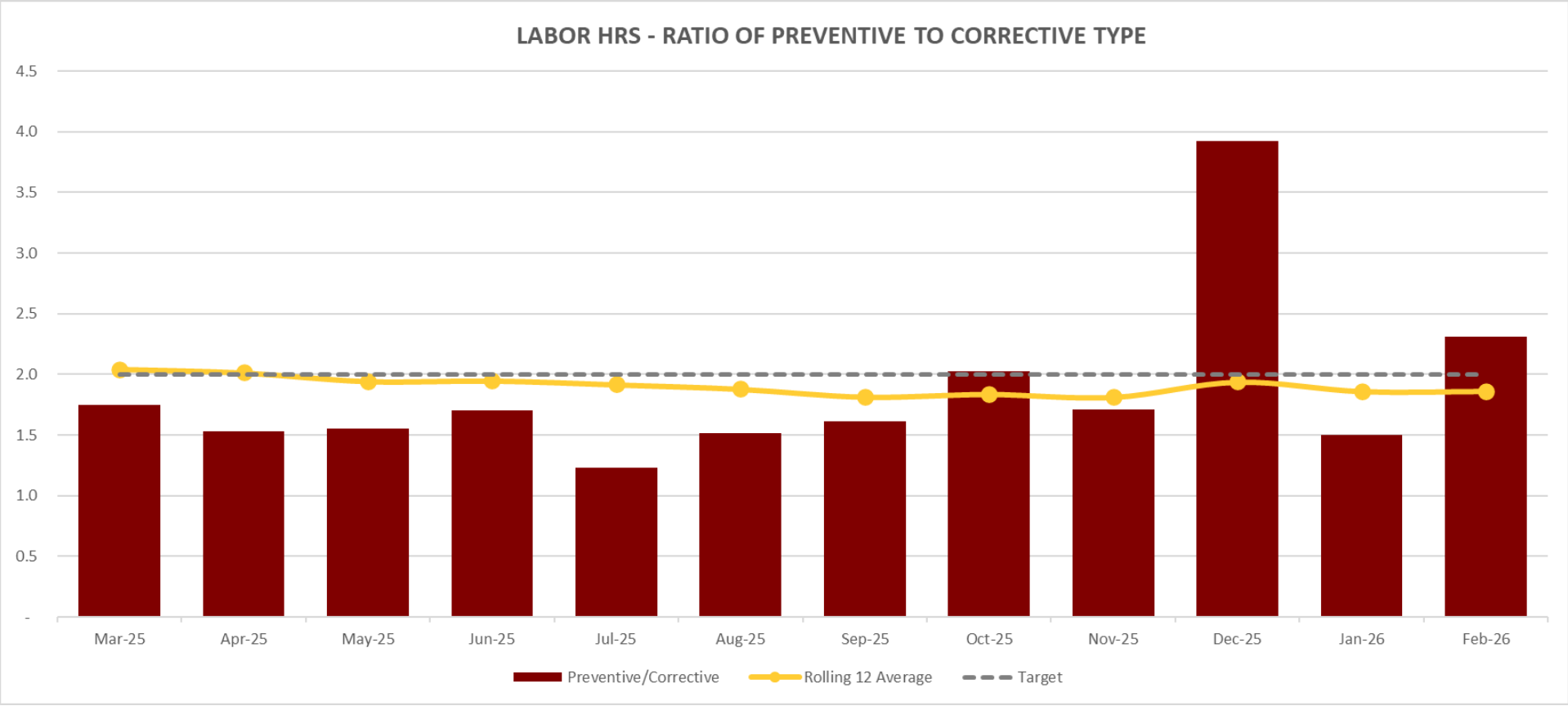
RELIABILITY

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

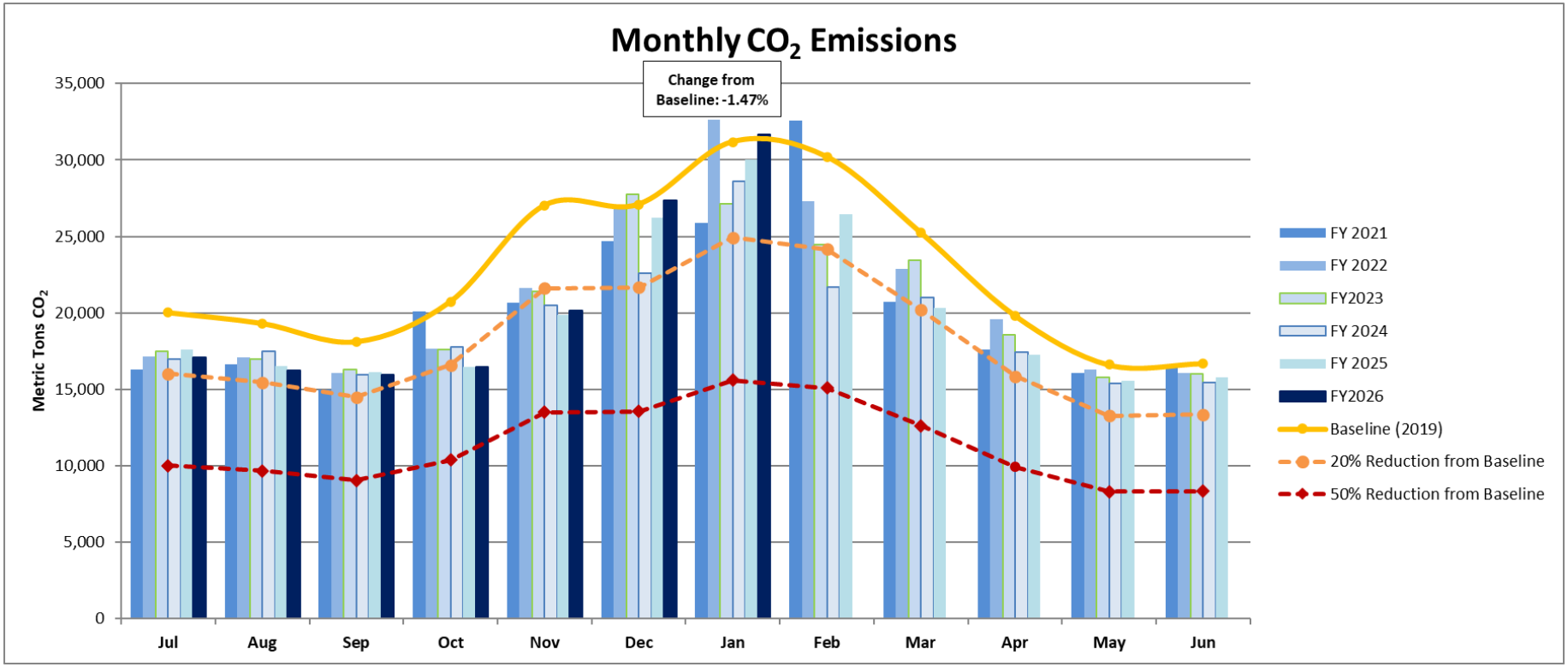
When operating and maintaining equipment, a good rule of thumb is to have a ratio of preventive labor hours to corrective maintenance hours equal to 2. This indicates that you are taking care of your equipment in a robust way, catching small problems during maintenance before they become big ones that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



LABOR HRS - CORRECTIVE vs PREVENTIVE

	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26
Preventive/Corrective	1.8	1.5	1.6	1.7	1.2	1.5	1.6	2.0	1.7	3.9	1.5	2.3
Target	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Rolling 12 Average	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9

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
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	26,227	30,018	26,464	20,320	17,273	15,575	15,788
2026	17,063	16,211	15,970	16,456	20,179	27,331	31,640					

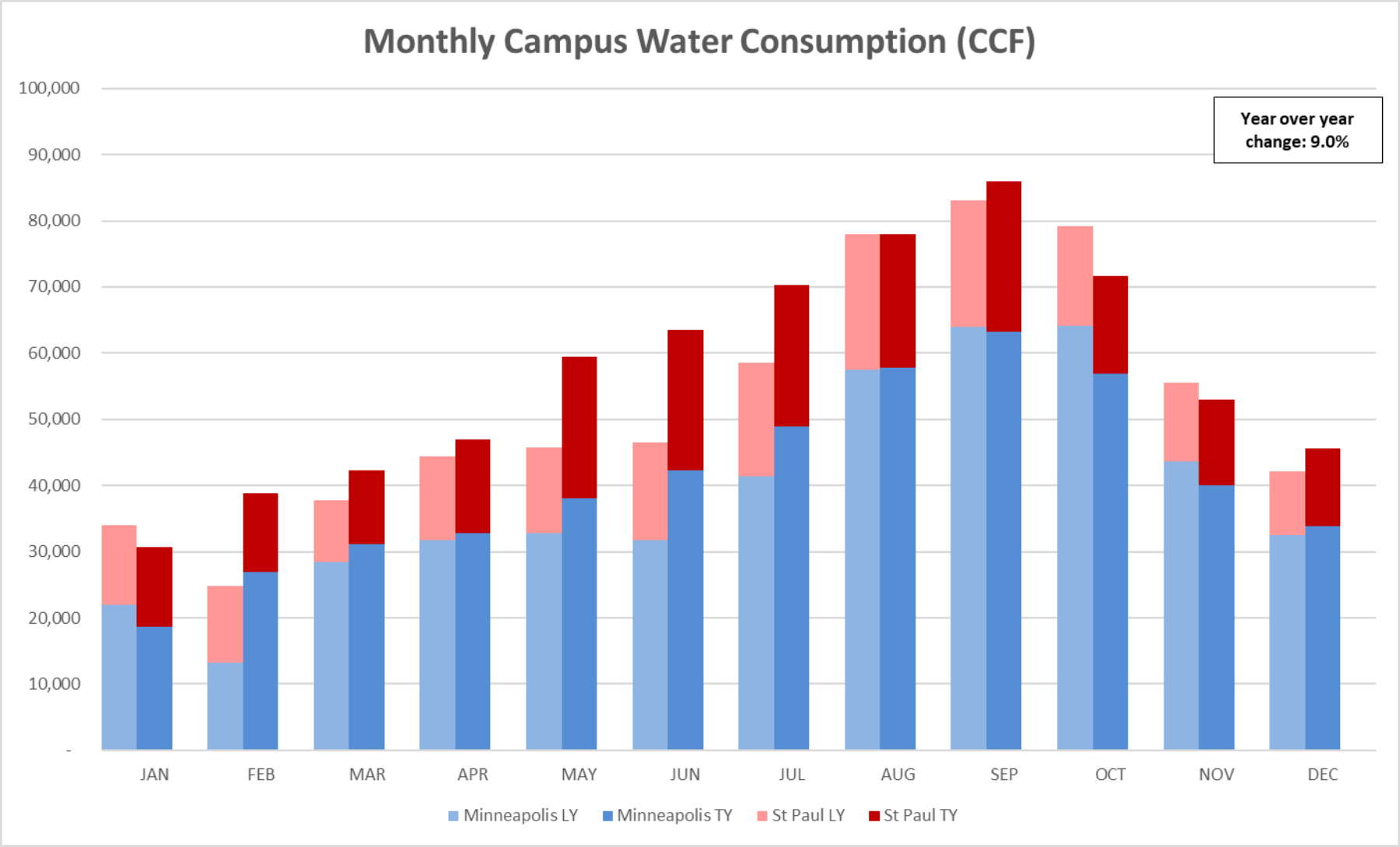
Change from Baseline:

FY	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
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%	-3.22%	-3.73%	-12.38%	-19.52%	-12.91%	-6.24%	-5.46%
2026	-14.81%	-16.12%	-11.90%	-20.66%	-25.35%	0.86%	1.47%					

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.



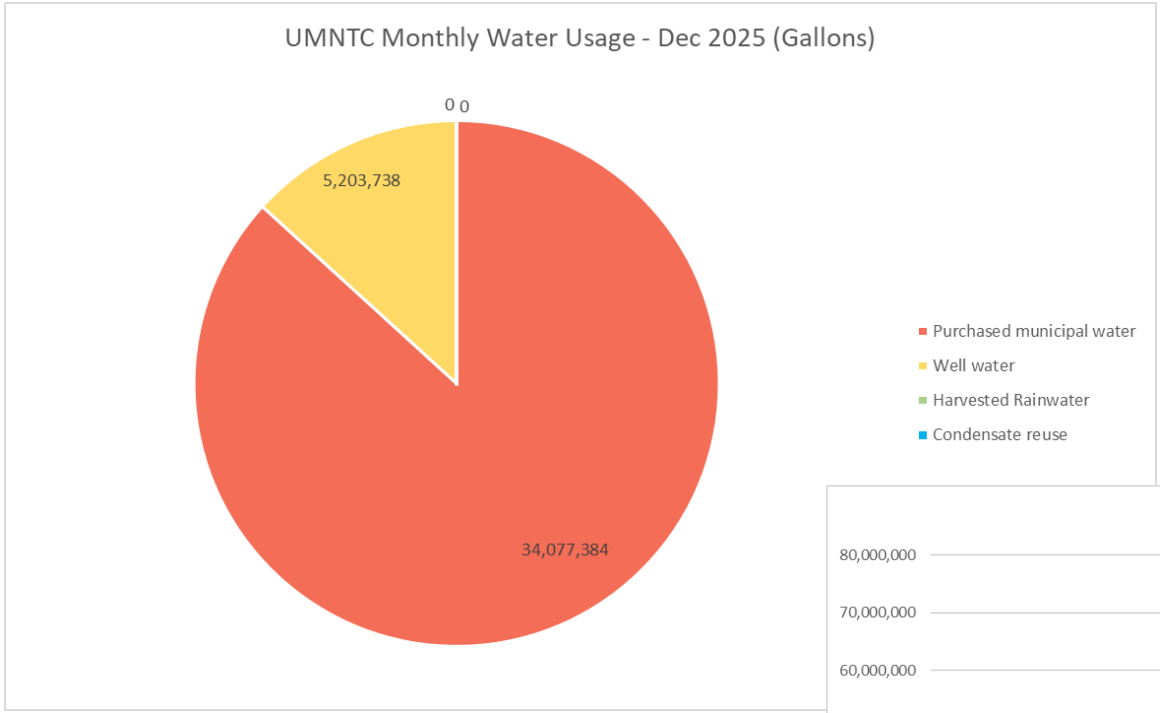
Change from LY:

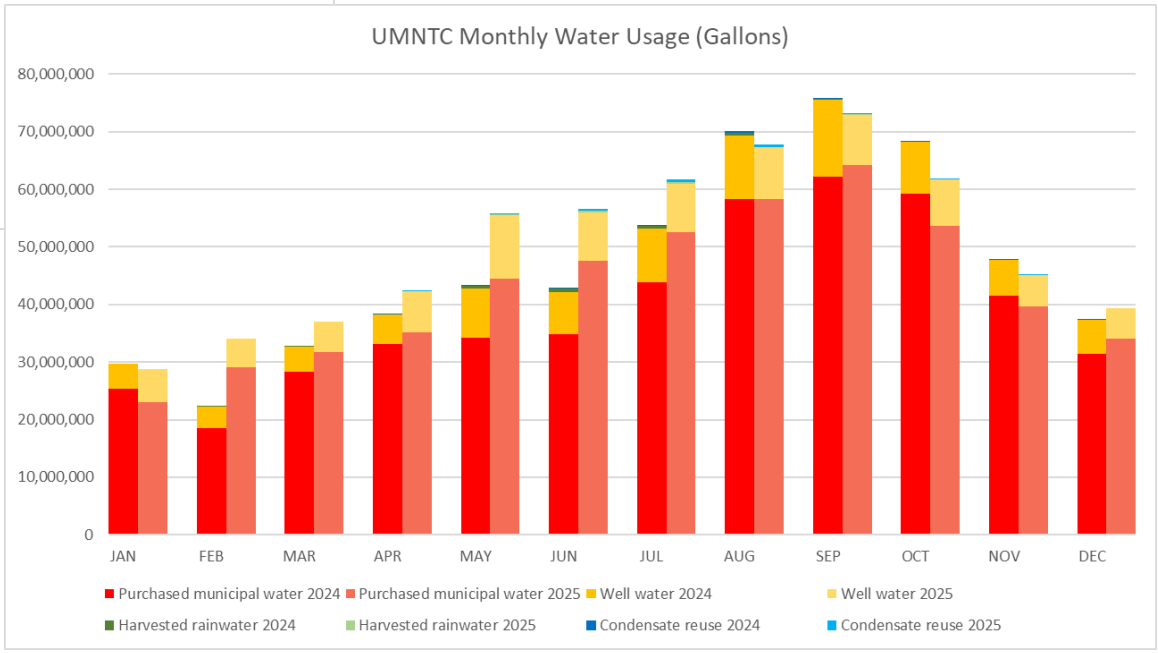
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Minneapolis	-15.50%	104.54%	9.81%	3.29%	16.01%	33.46%	18.02%	0.69%	-1.18%	-11.28%	-8.23%	4.22%
St Paul	1.25%	2.75%	18.06%	12.30%	64.34%	42.94%	24.81%	-2.01%	18.28%	-1.70%	9.54%	21.98%
Total	**-9.60%**	**57.02%**	**11.88%**	**5.85%**	**29.74%**	**36.48%**	**20.00%**	**-0.02%**	**3.31%**	**-9.46%**	**-4.44%**	**8.24%**

SUSTAINABILITY

Twin Cities Campus Monthly Water Usage

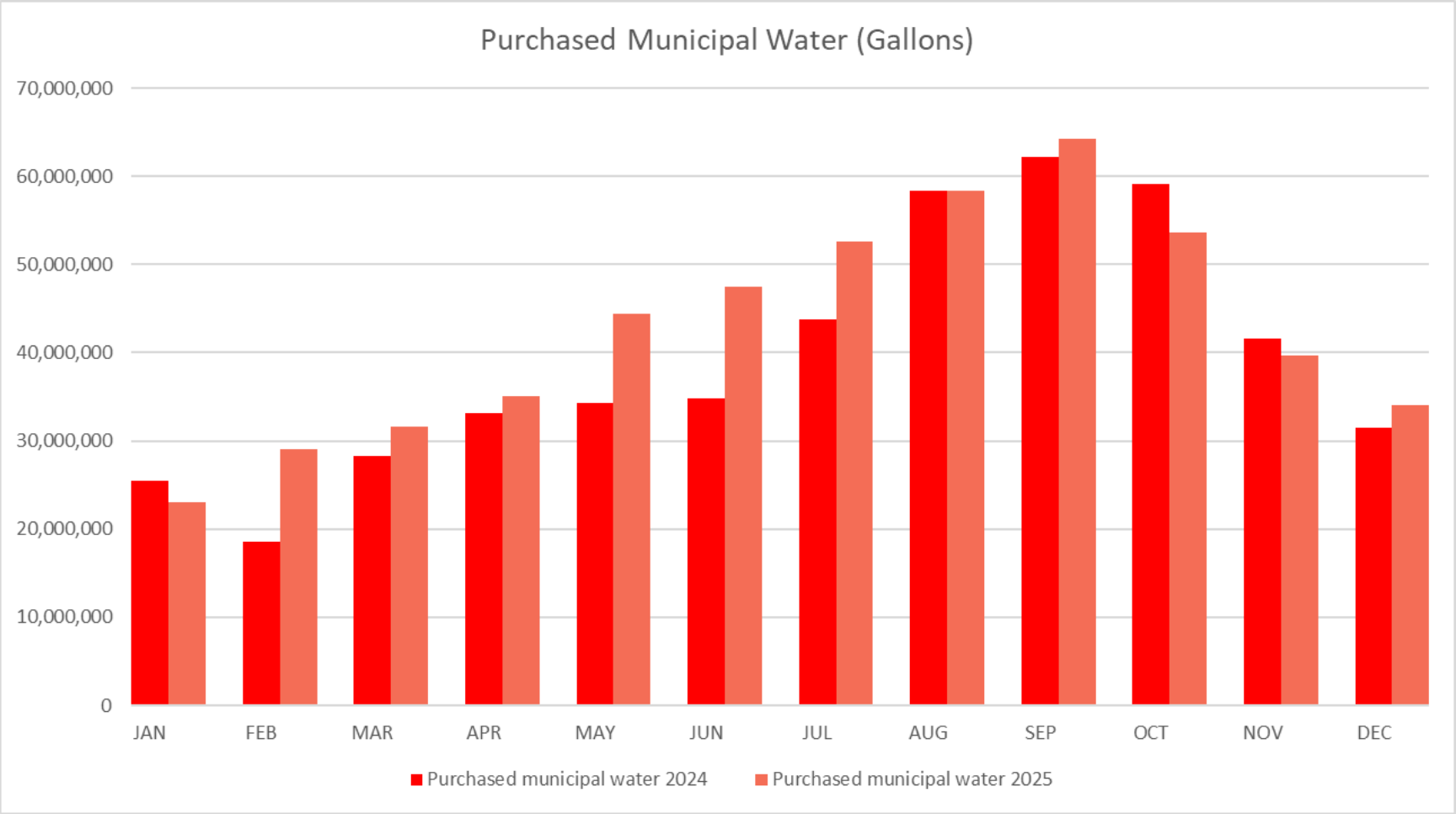
Purchased municipal water is sourced from the Mississippi River, where it is withdrawn, used, treated, and returned downstream to the river. In contrast, groundwater withdrawn for non-irrigation purposes is permanently removed from the watershed. Harvested sources such as rainwater and cooling coil condensate—resources that are usually considered wastewater - help reduce the need for purchased water and preserves groundwater.





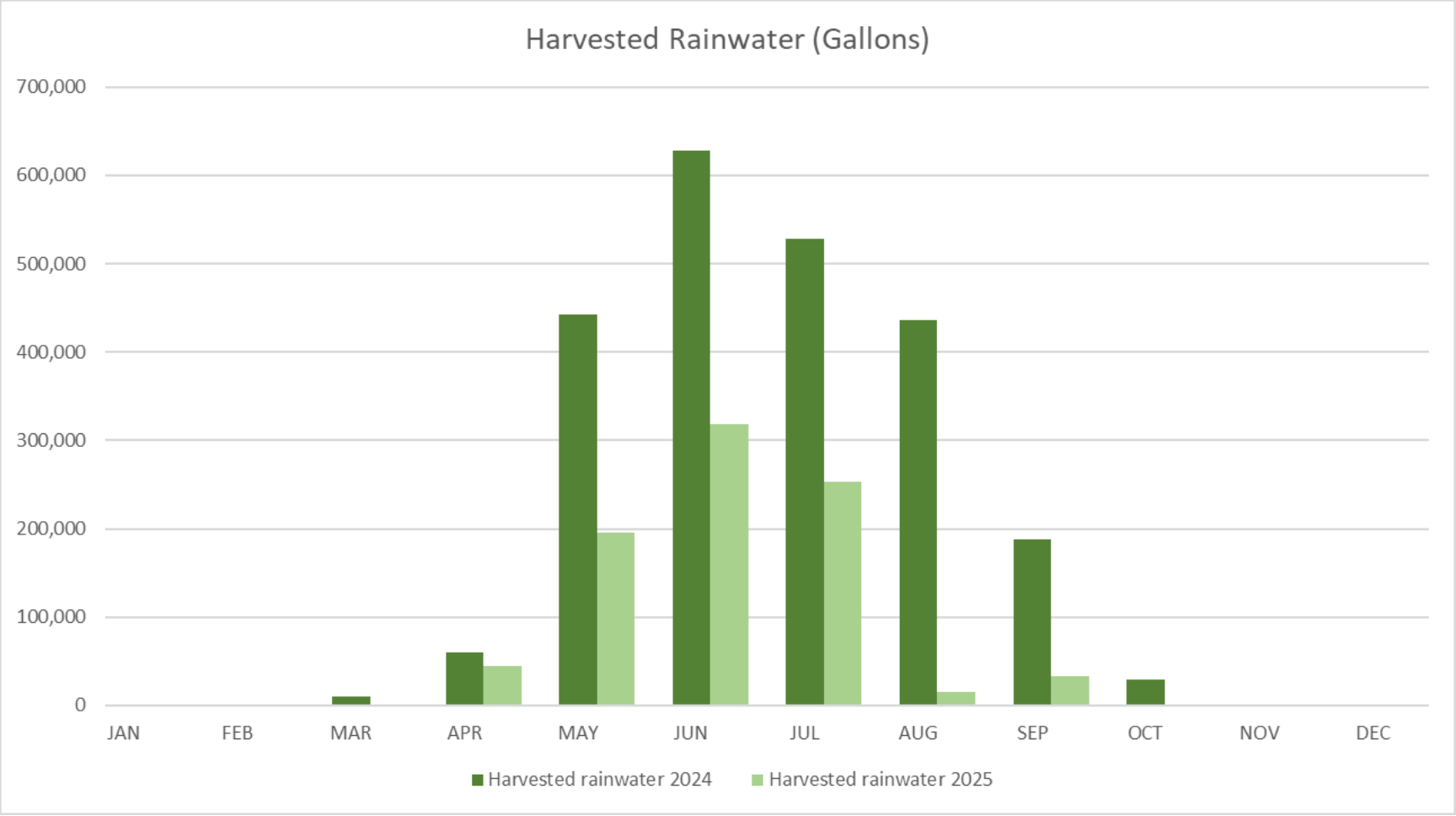
SUSTAINABILITY

The primary source of domestic water on campus is water purchased from the cities of Minneapolis and Saint Paul.



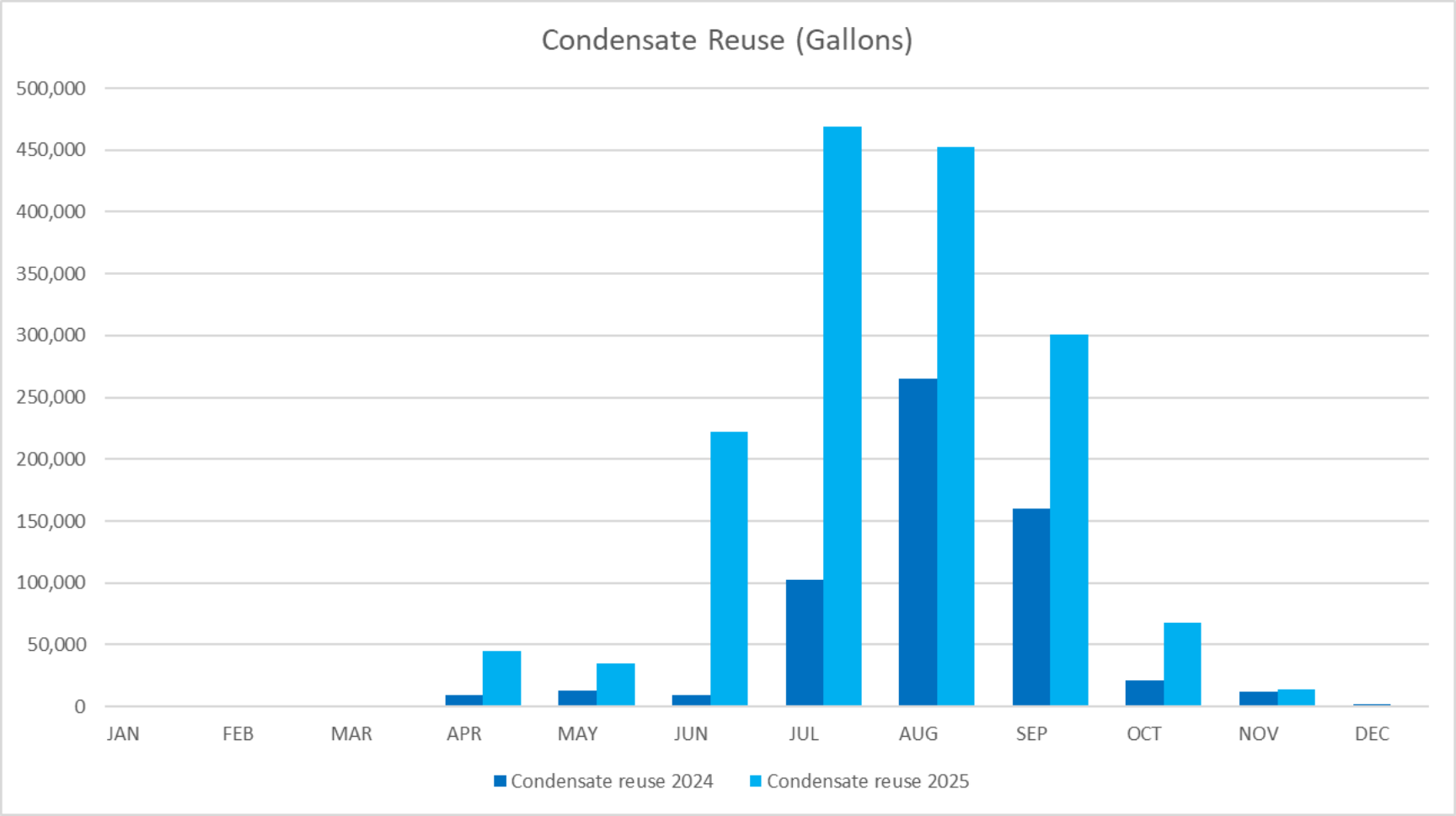
SUSTAINABILITY

Campus rainwater collection systems reduce both the volume and peak flow rate of urban runoff entering the Mississippi River, helping to improve its overall quality. Campus harvested rainwater are used to flush toilets, fill cooling towers, and provide landscape irrigation.



SUSTAINABILITY

Collecting water that comes from condensation on cooling coils and using it in cooling towers, reduces the amount of purchased water and lowers the overall monthly water bill.



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

27,922,174 gross bldg sf

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

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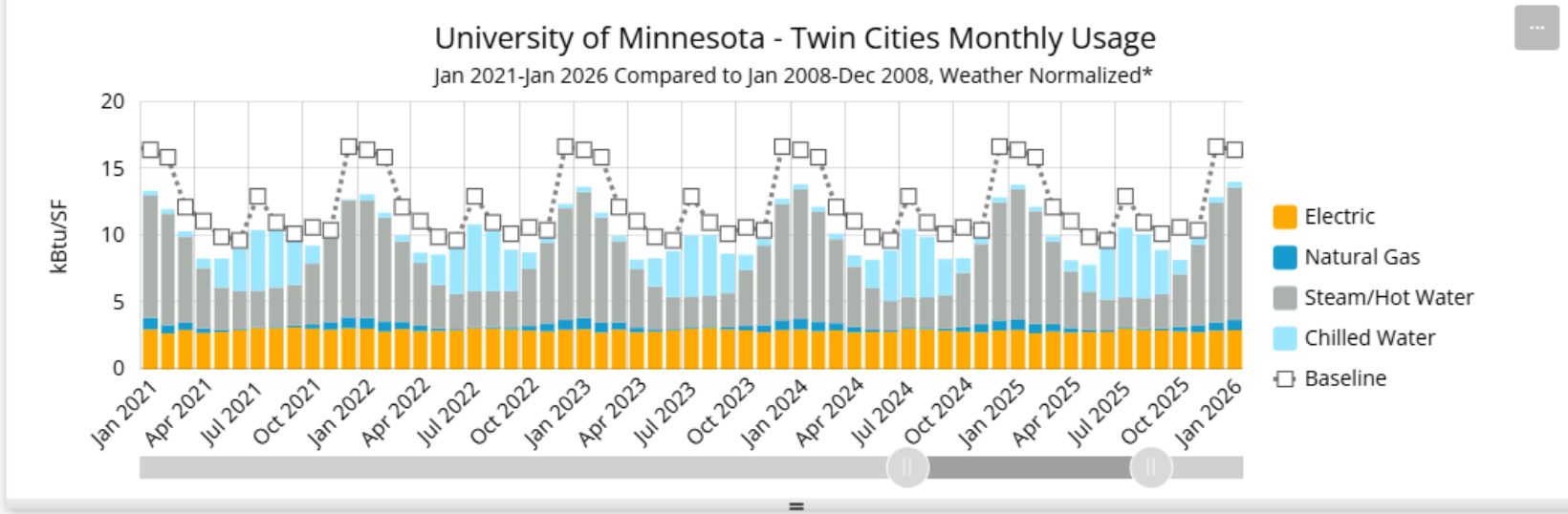
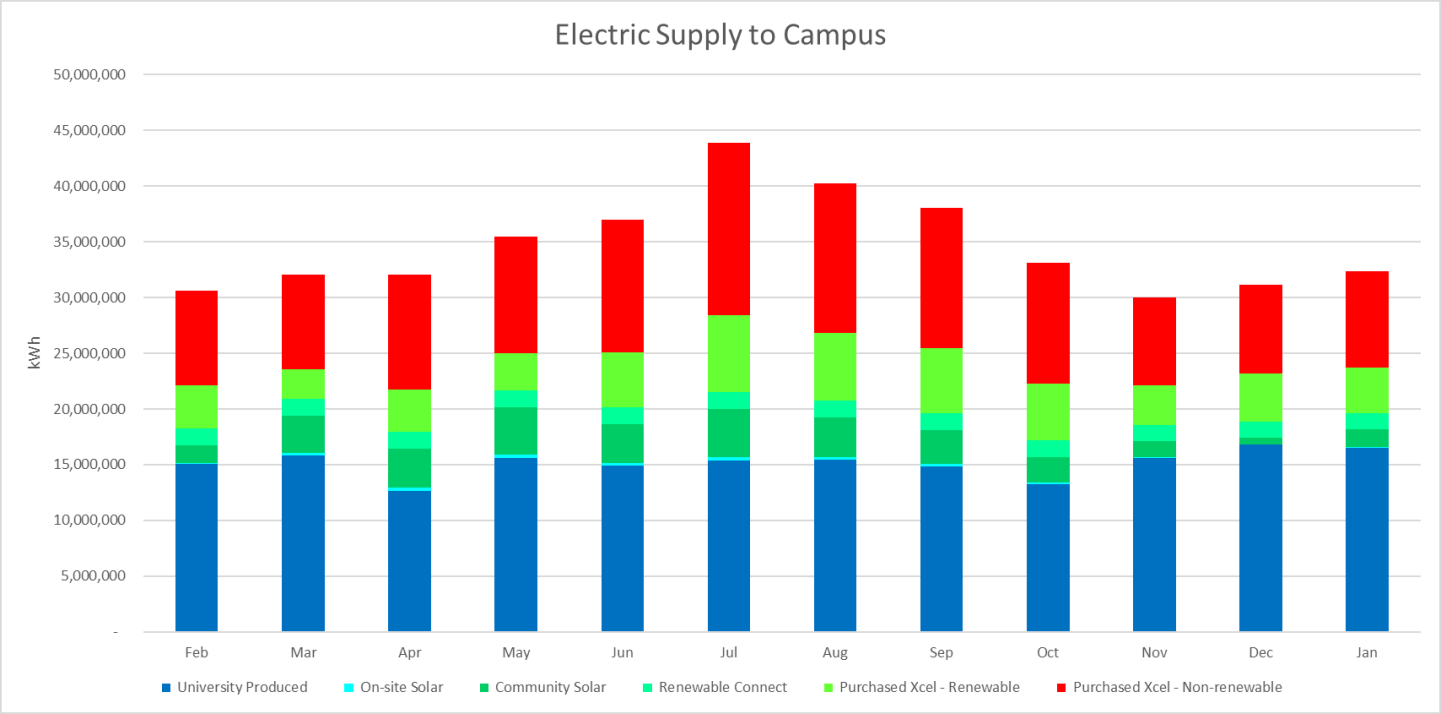


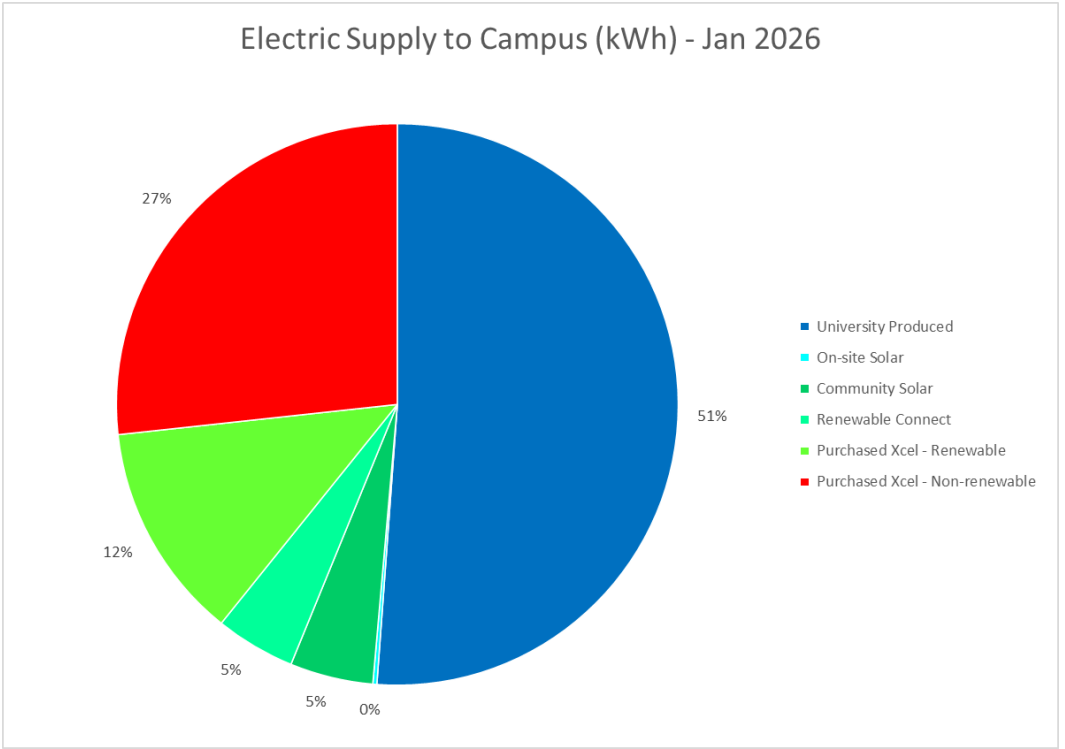
Annual Summary

Period	Days	% Complete	SF	*Actual (kBtu/SF)	*Baseline (kBtu/SF)	Change	% Change
Jan 2021-Dec 2021	365	100%	27,917,349	124.31	147.07	-22.76	-15.47%
Jan 2022-Dec 2022	365	100%	27,910,422	123.01	147.07	-24.06	-16.36%
Jan 2023-Dec 2023	365	100%	27,910,422	120.67	147.07	-26.40	-17.95%
Jan 2024-Dec 2024	366	100%	27,910,422	121.75	147.07	-25.32	-17.21%
Jan 2025-Dec 2025	365	100%	27,911,681	121.82	147.07	-25.25	-17.17%
Jan 2026	31	99.8%	27,922,174	14.05	16.44	-2.39	-14.53%

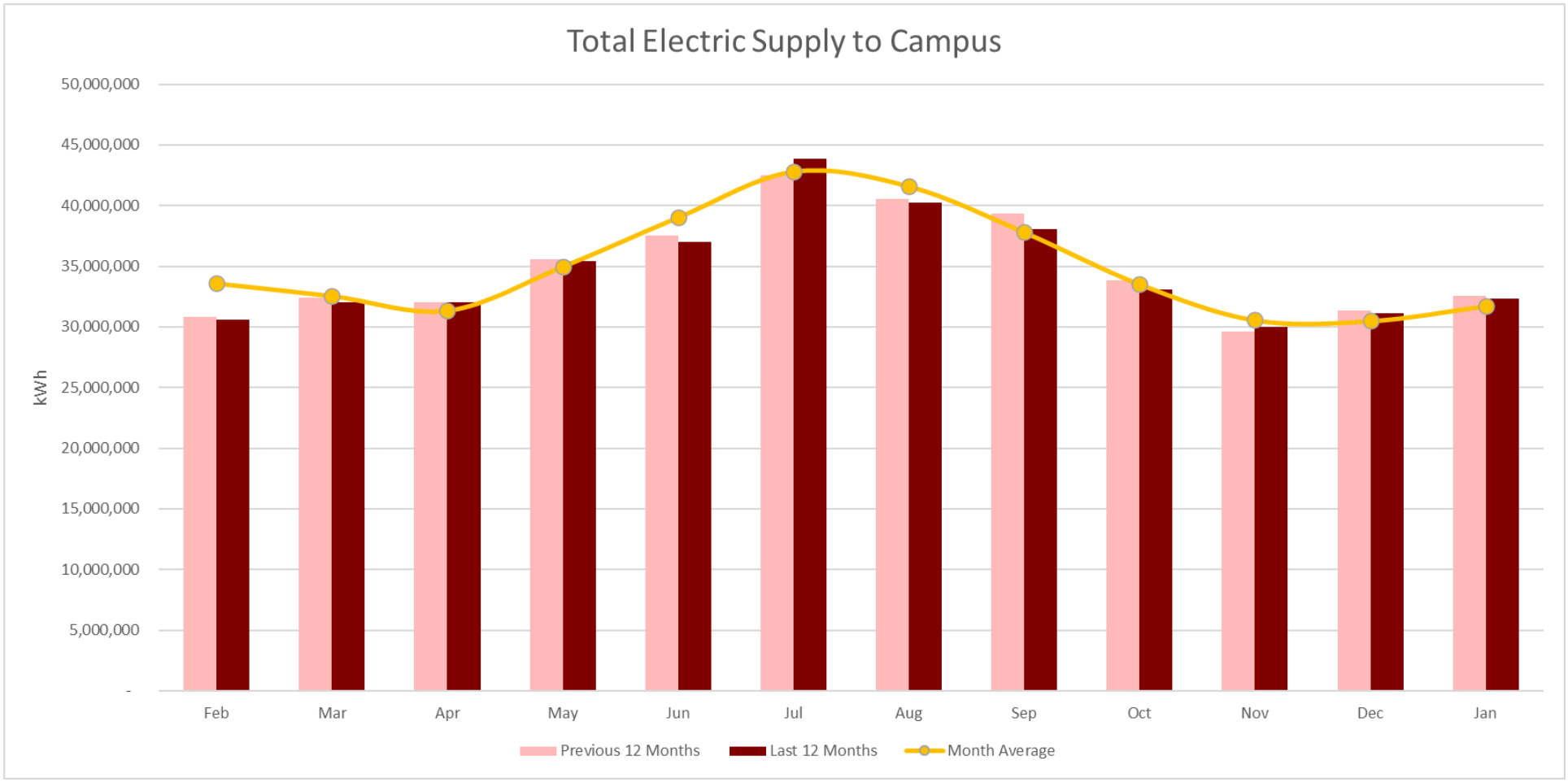
SUSTAINABILITY



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

	FY20	FY21	FY22	FY23	FY24	FY25	FY26 @7 of 12
CHW PRODUCTION (TON-HRS)	**53,449,008**	**60,759,336**	**62,643,652**	**63,124,518**	**59,234,830**	**60,901,036**	**42,908,015**
ELECTRIC (KWH)	**29,371,048**	**32,606,006**	**36,581,795**	**36,126,272**	**33,490,740**	**36,621,550**	**26,660,335**
ELECTRIC (kW/Ton)	0.550	0.537	0.584	0.572	0.565	0.601	0.621
STEAM (KLB)	**78,530**	**93,967**	**85,629**	**85,503**	**110,565**	**106,886**	**71,656**
STEAM (kLb/Ton)	0.0015	0.0015	0.0014	0.0014	0.0019	0.0018	0.0017
WATER (CCF)	**103,774**	**95,975**	**128,293**	**122,790**	**136,681**	**130,709**	**93,273**
WATER (CCF/Ton)	0.00194	0.00158	0.00205	0.00195	0.00231	0.00215	0.00217
CHW CONSUMPTION (TON-HRS)	**46,478,654**	**49,132,181**	**55,760,246**	**56,130,182**	**53,268,428**	**54,138,138**	**39,718,925**
% Billed Through	**87.0%**	**80.9%**	**89.0%**	**88.9%**	**89.9%**	**88.9%**	**92.6%**

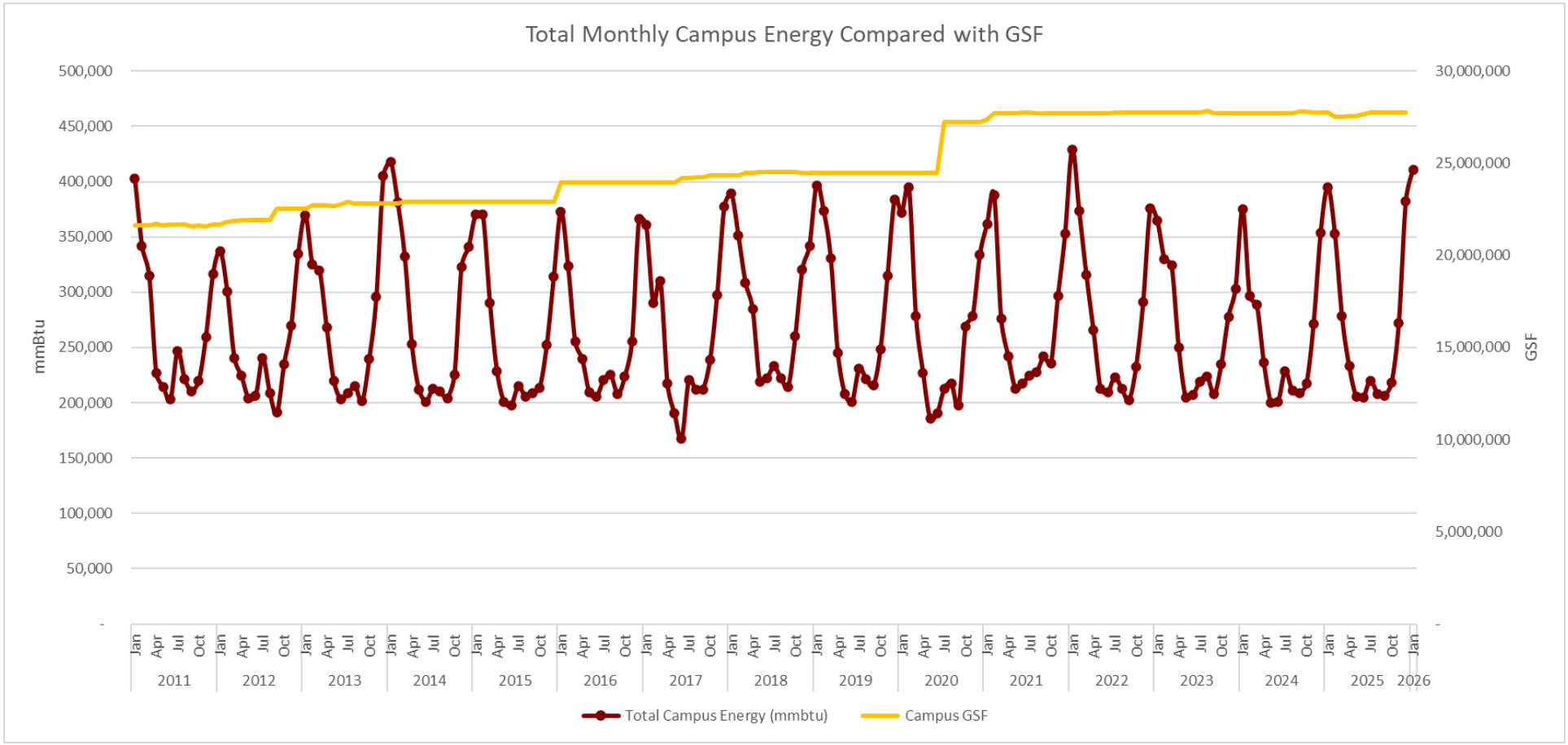
Twin Cities Utility Plant Production by Fiscal Year

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26 @7 of 12
FUEL (mmBtu)	3,412,151	3,125,091	3,401,086	3,525,578	3,409,177	3,234,658	3,350,163	2,054,609
STEAM OUTPUT (kLbs)	1,844,541	1,785,216	1,837,425	1,903,993	1,781,511	1,679,619	1,755,500	1,072,824
METERED CONSUMPTION (kLbs)	1,723,162	1,626,020	1,736,174	1,806,859	1,739,295	1,563,553	1,684,644	1,012,348
% BILLED THROUGH	**93.4%**	**91.1%**	**94.5%**	**94.9%**	**97.6%**	**93.1%**	**96.0%**	**94.4%**
COGEN GROSS (mWh)	165,435	135,566	173,988	180,902	184,007	180,868	177,943	107,823

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.

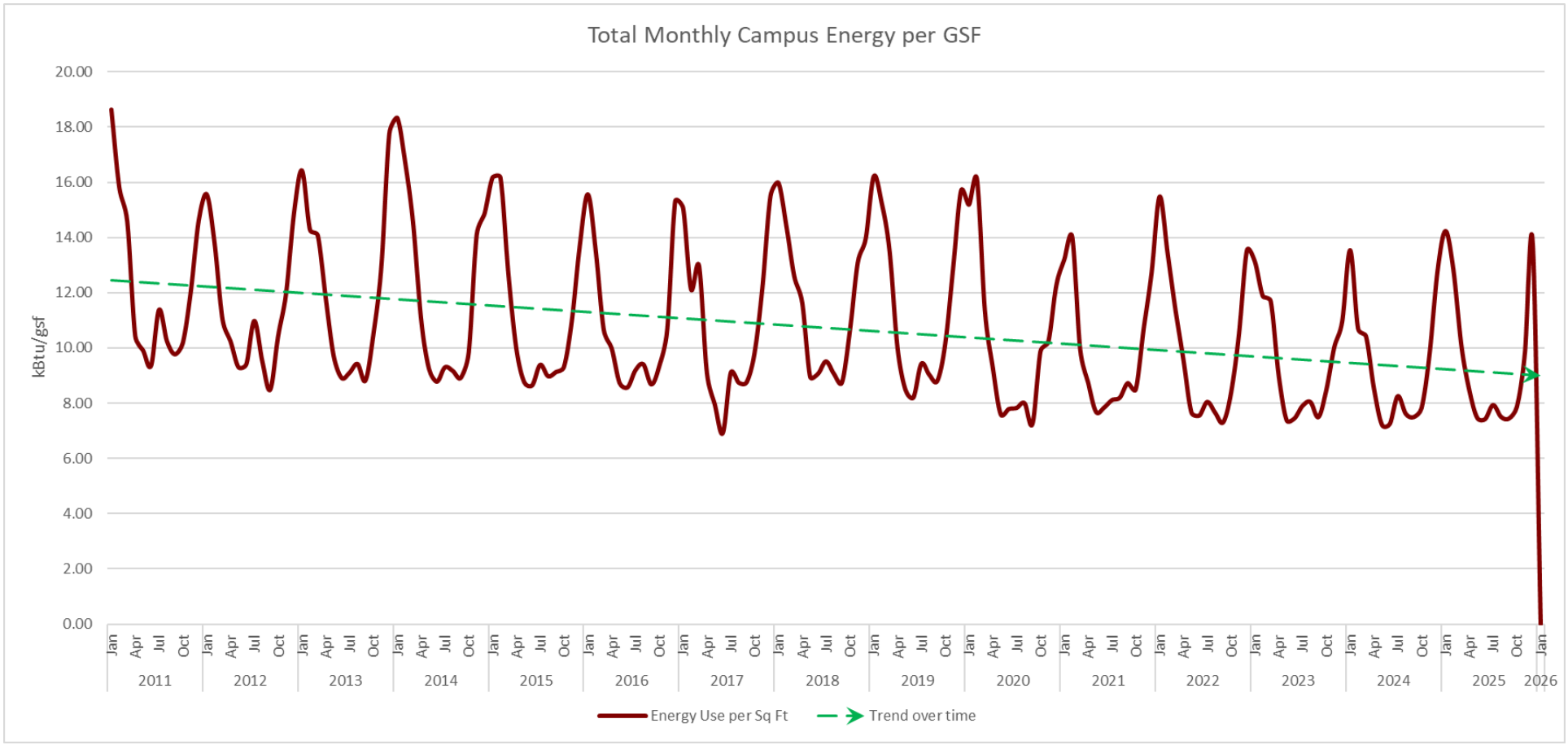
COST EFFECTIVENESS

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	98,776	122	438	28%	118	103%
	191	MAST Laboratory	9,537	128	369	35%	63	204%
	019	Campbell Hall	80,495	69	163	42%	79	87%
	149	Microbiology Research Facility	89,936	265	203	131%	886	30%
	049	Tate Laboratory Of Physics	260,608	169	116	145%	196	86%
	057	Nolte Center	33,212	99	67	149%	106	93%
Health Sciences	115	Children's Rehabilitation Center	70,851	110	196	56%	105	104%
	142	Moos Tower	699,694	178	287	62%	183	98%
	111	Diehl Hall	199,723	166	260	64%	168	98%
	032	Jackson Hall	150,394	302	291	104%	214	141%
	144	Phillips-Wangensteen Building	580,141	248	237	105%	152	163%
	172	Weisman Art Museum	79,540	99	66	150%	117	84%
HRA	067	Field House	89,186	25	73	34%	72	34%
	181	Ridder Arena/Baseline Tennis	367,813	36	106	34%	98	37%
	169	Recreation and Wellness Center	307,048	45	118	38%	122	37%
	126	Keeler Apartments	82,854	32	18	182%	95	34%
	182	McNamara	107,927	131	69	190%	59	221%
	138	Siebert Stadium	8,142	100	28	365%	144	70%
St Paul	342	St Paul Gymnasium	78,237	68	206	33%	159	43%
	392	Sheep Research	8,165	9	26	34%	11	78%
	425	Farm and Grounds Maintenance Building	16,936	86	243	35%	199	43%
	411	Biological Sciences	207,115	205	139	148%	225	91%
	455	Swine Research Facility	10,559	345	85	405%	31	1,110%
	409	Veterinary Isolation Facility	31,843	393	63	621%	270	145%
West Bank	207	Willey Hall	120,464	40	132	31%	116	35%
	241	Regis Center for Art - East	102,035	103	260	39%	242	42%
	209	Rarig Center	173,139	82	193	43%	92	90%
	058	St Anthony Falls Laboratory	65,342	164	160	103%	295	55%
	171	Community University Health Care Center	17,855	203	183	111%	186	109%
	135	Urban Research & Outreach Center	22,528	66	28	235%	100	65%

Note 1 - Actual based on FEB 25 - JAN 26 meter readings

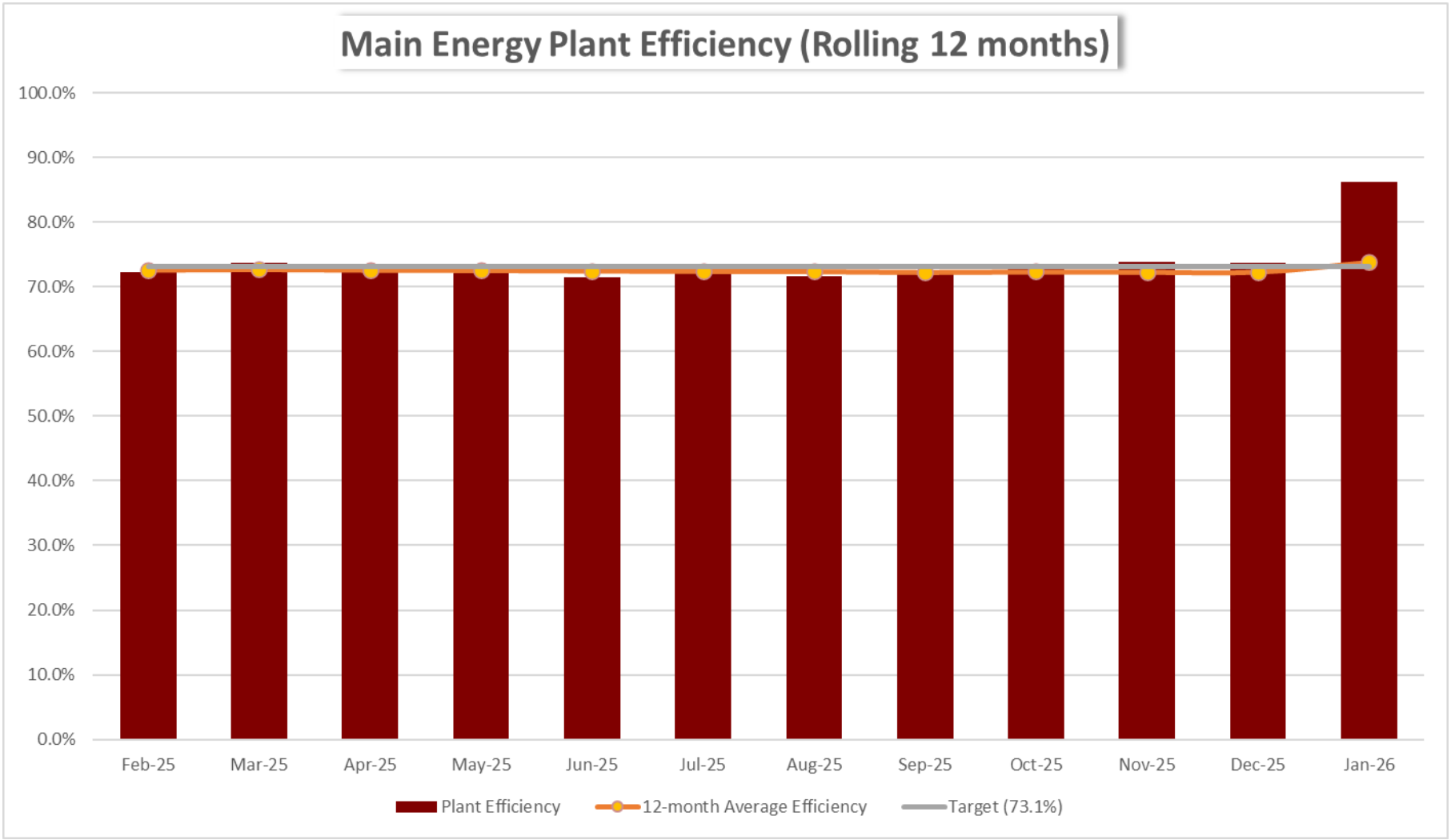
Note 2 - Expected based on JAN 09 - DEC 09 weather and energy data

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

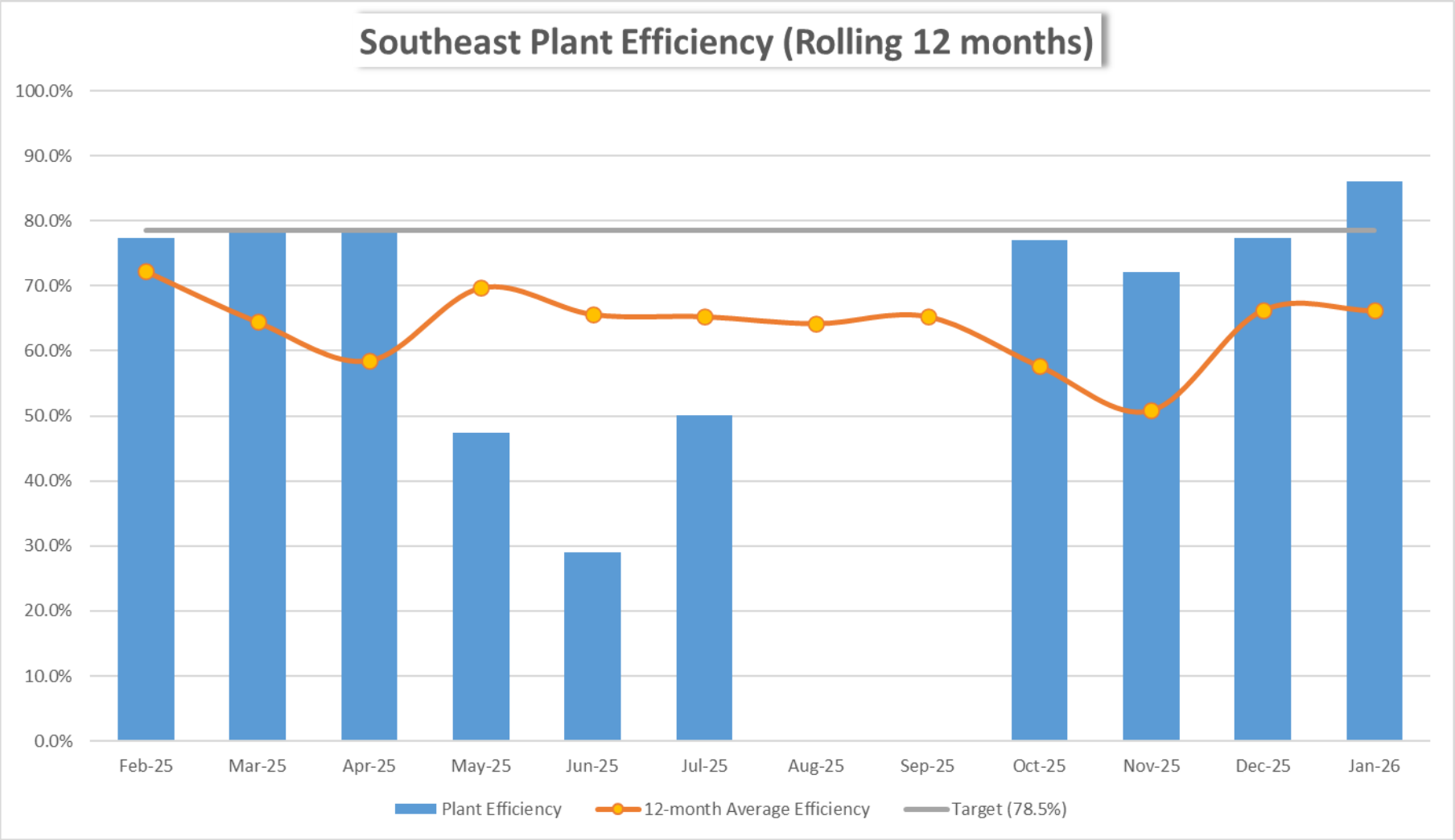


MAIN ENERGY PLANT EFFICIENCY

	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
Plant Efficiency	72.2%	73.6%	72.7%	72.1%	71.5%	72.5%	71.7%	72.6%	73.2%	73.9%	73.6%	86.1%
Rolling 12 Average	72.6%	72.7%	72.6%	72.6%	72.5%	72.4%	72.4%	72.3%	72.3%	72.3%	72.3%	73.8%

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

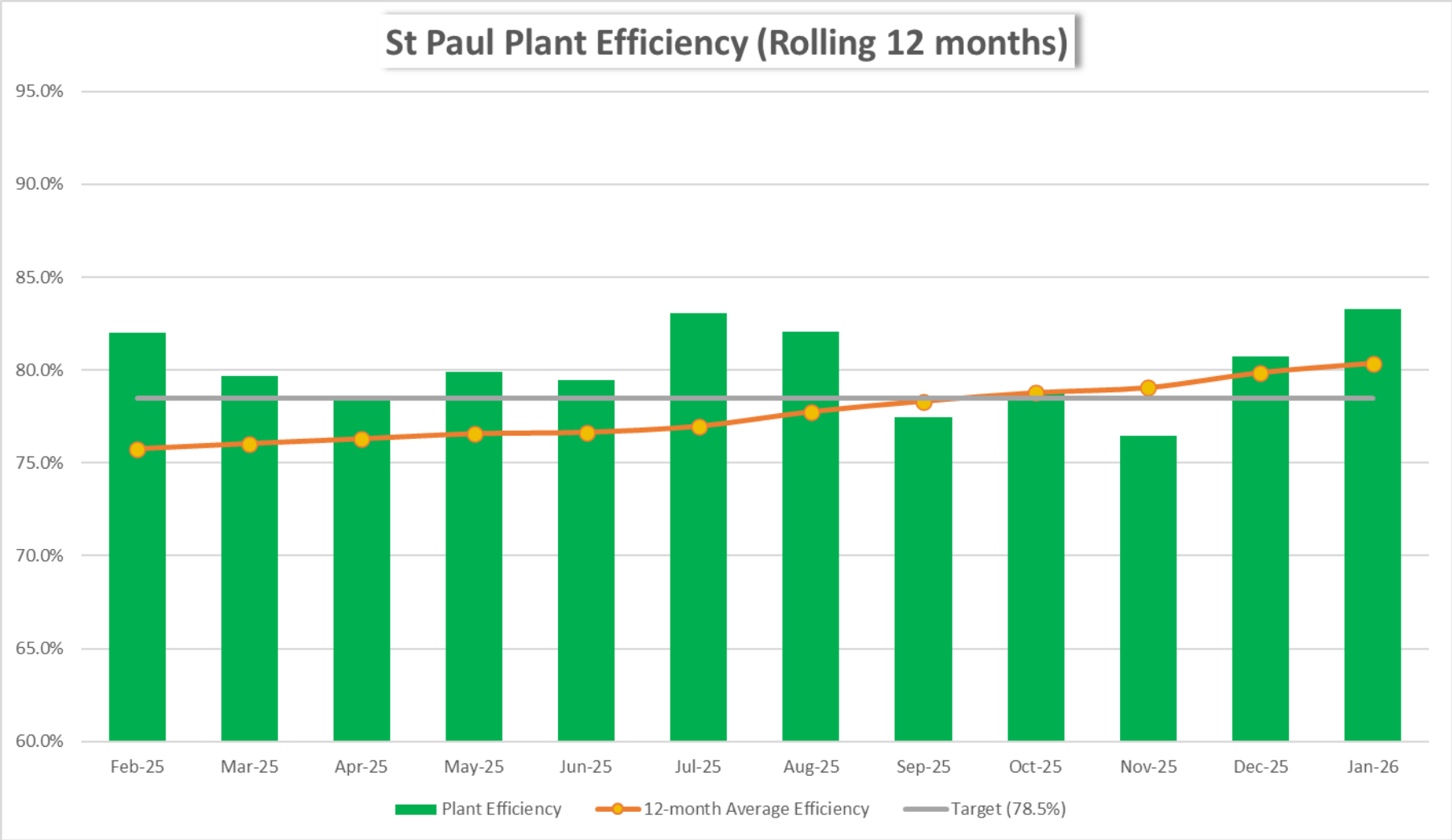


SOUTHEAST PLANT EFFICIENCY

	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
Plant Efficiency	75.8%	77.4%	78.7%	78.1%	47.4%	29.0%	50.0%	0.0%	0.0%	77.0%	72.1%	86.1%
Rolling 12 Average	72.2%	72.3%	64.5%	58.5%	69.7%	65.7%	65.3%	64.3%	65.3%	57.7%	50.8%	66.2%

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

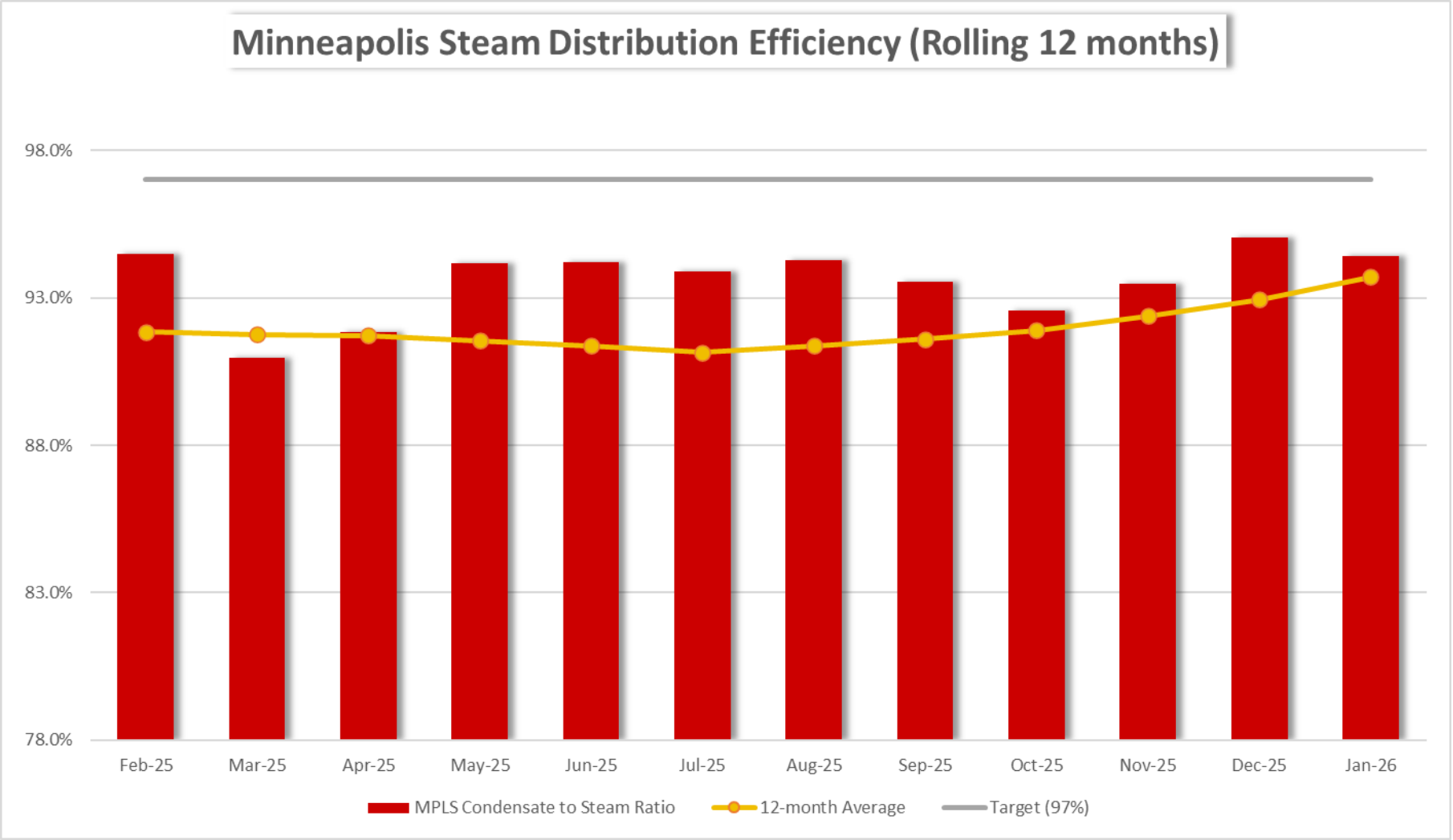


ST PAUL PLANT EFFICIENCY

	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
Plant Efficiency	80.1%	82.0%	79.7%	78.4%	79.9%	79.4%	83.1%	82.1%	78.9%	78.8%	76.4%	83.3%
Rolling 12 Average	74.5%	75.7%	76.0%	76.3%	77.9%	76.6%	77.0%	77.7%	79.0%	79.3%	79.0%	80.4%

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

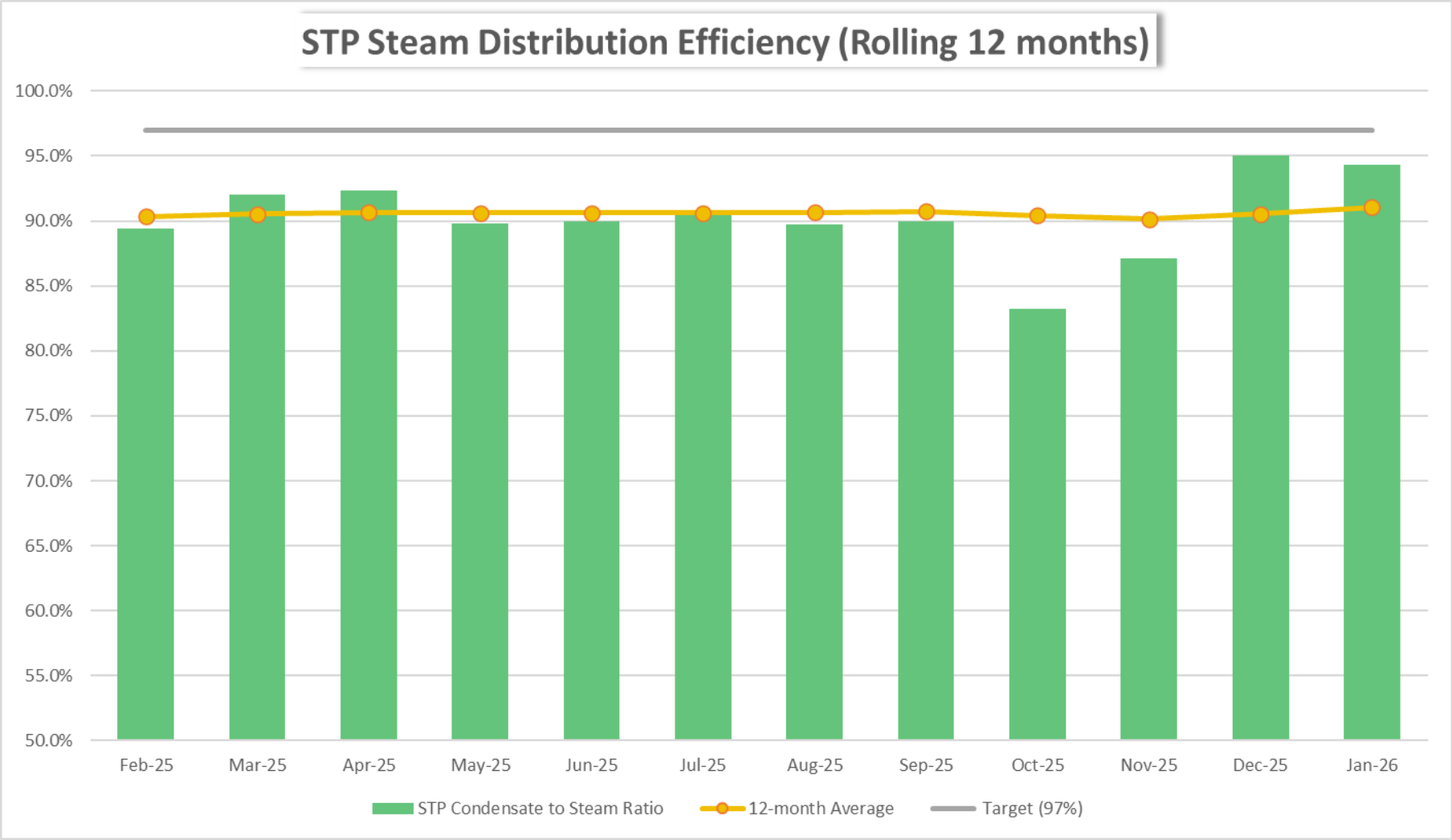


MINNEAPOLIS STEAM DISTRIBUTION EFFICIENCY

	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
COND to STM Ratio	89.3%	94.5%	91.0%	91.8%	94.2%	94.2%	93.9%	94.3%	93.6%	92.6%	93.5%	94.4%
Rolling 12 Average	91.7%	91.8%	91.7%	91.7%	91.6%	91.4%	91.2%	91.4%	91.6%	91.9%	92.4%	93.7%

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

	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26
COND to STM Ratio	89.4%	92.0%	92.4%	77.6%	90.0%	90.4%	76.1%	90.0%	83.3%	97.8%	97.8%	94.4%
Rolling 12 Average	90.3%	90.5%	90.7%	89.8%	90.6%	90.6%	90.0%	90.1%	89.8%	90.5%	90.5%	91.1%

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.