University of MN
Monthly Metrics
August 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

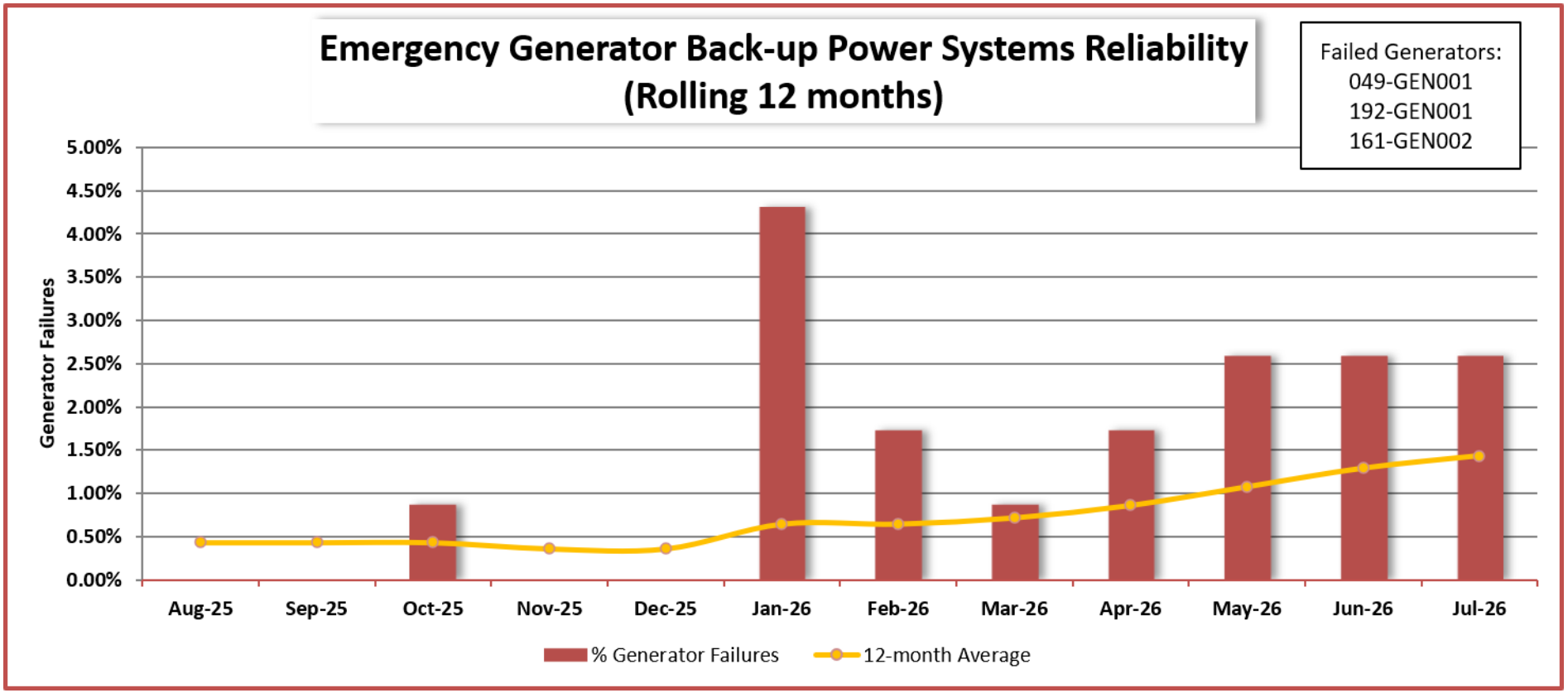
RELIABILITY

Unplanned Service Loss Events

	FY21	FY22	FY23	FY24	FY25	FY26	FY27 1@12	FY27 Target
CHILLED WATER								
Total	0	0	0	0	3	0	0	
Root-Caused to UMN	0	0	0	0	3	0	0	**2**
ELECTRIC								
Total	6	9	12	10	11	9	2	
Root-Caused to UMN	2	3	3	4	1	2	1	**3**
STEAM								
Total	3	1	0	0	1	0	0	
Root-Caused to UMN	3	0	0	0	1	0	0	**2**
WATER								
Total	1	1	0	0	0	0	0	
Root-Caused to UMN	1	0	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

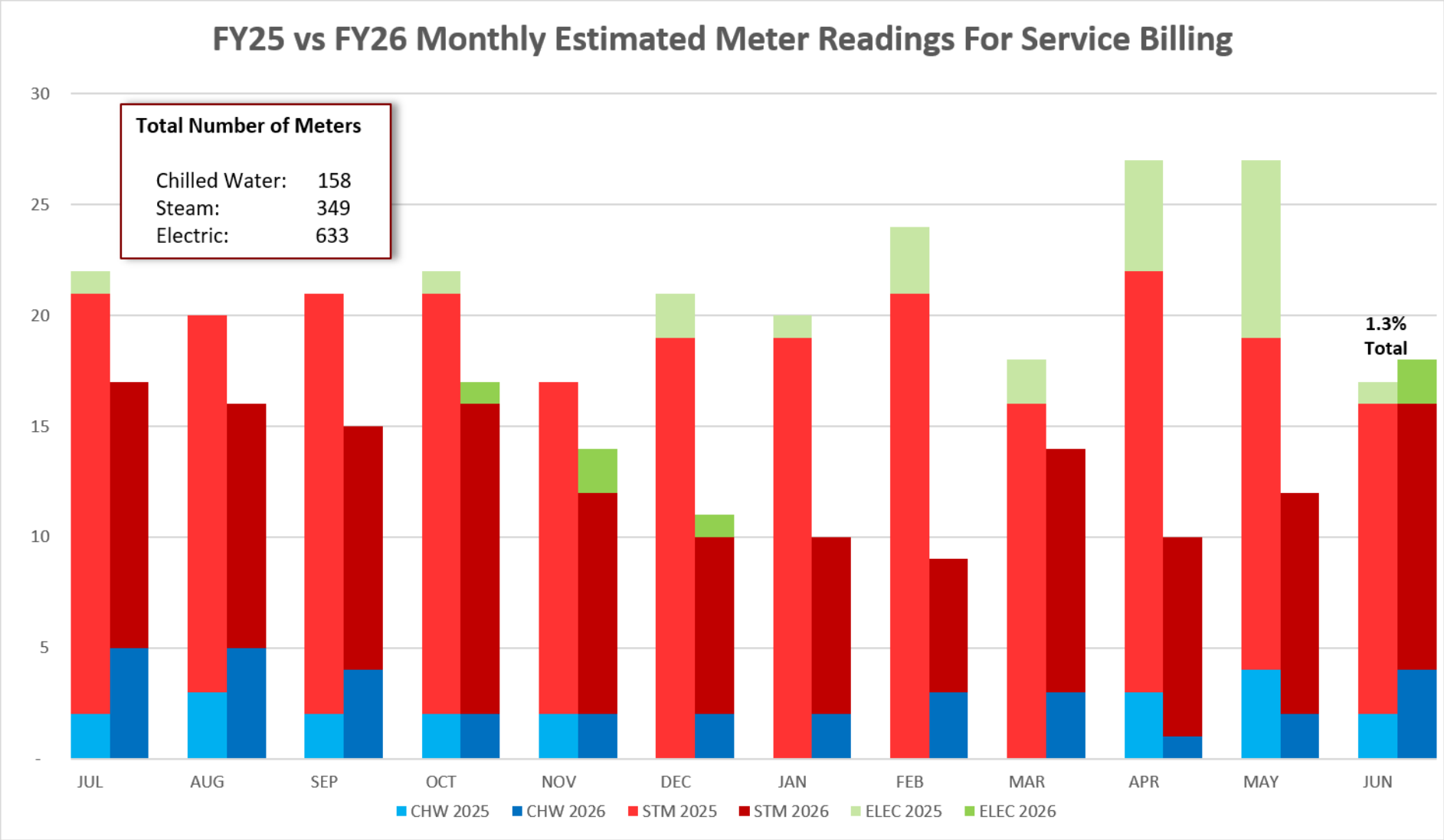


	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Monthly Failures	0.36%	0.00%	0.00%	0.86%	0.00%	0.00%	4.30%	1.72%	0.86%	1.72%	2.59%	2.59%
12-month Average	0.43%	0.43%	0.43%	0.43%	0.36%	0.36%	0.65%	0.65%	0.72%	0.86%	1.08%	1.29%

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.

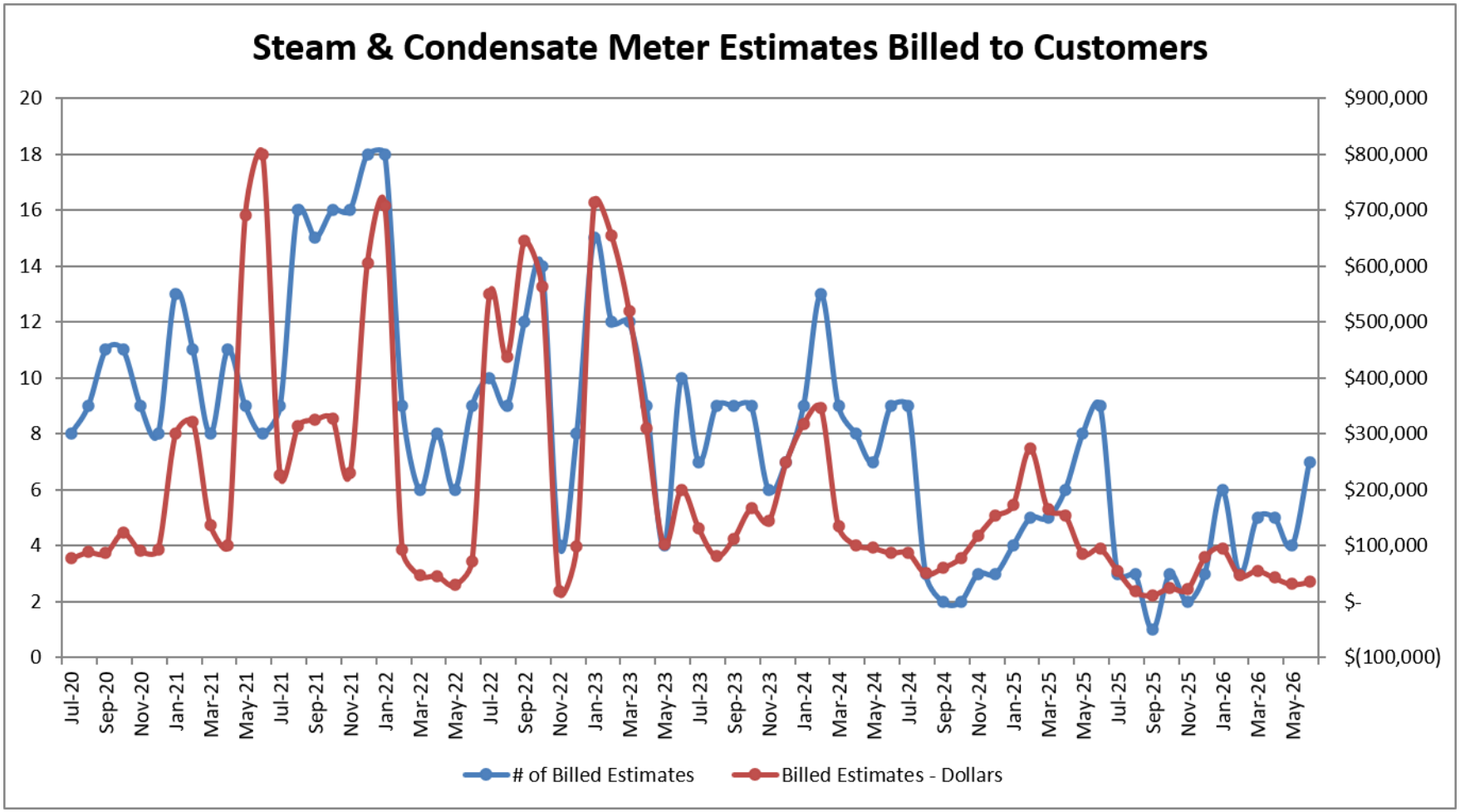
RELIABILITY

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	12	16	11	12	19
% Monthly Estimates:	1.1%	1.1%	1.0%	1.1%	0.9%	0.9%	0.9%	0.8%	1.1%	0.7%	0.8%	1.3%

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

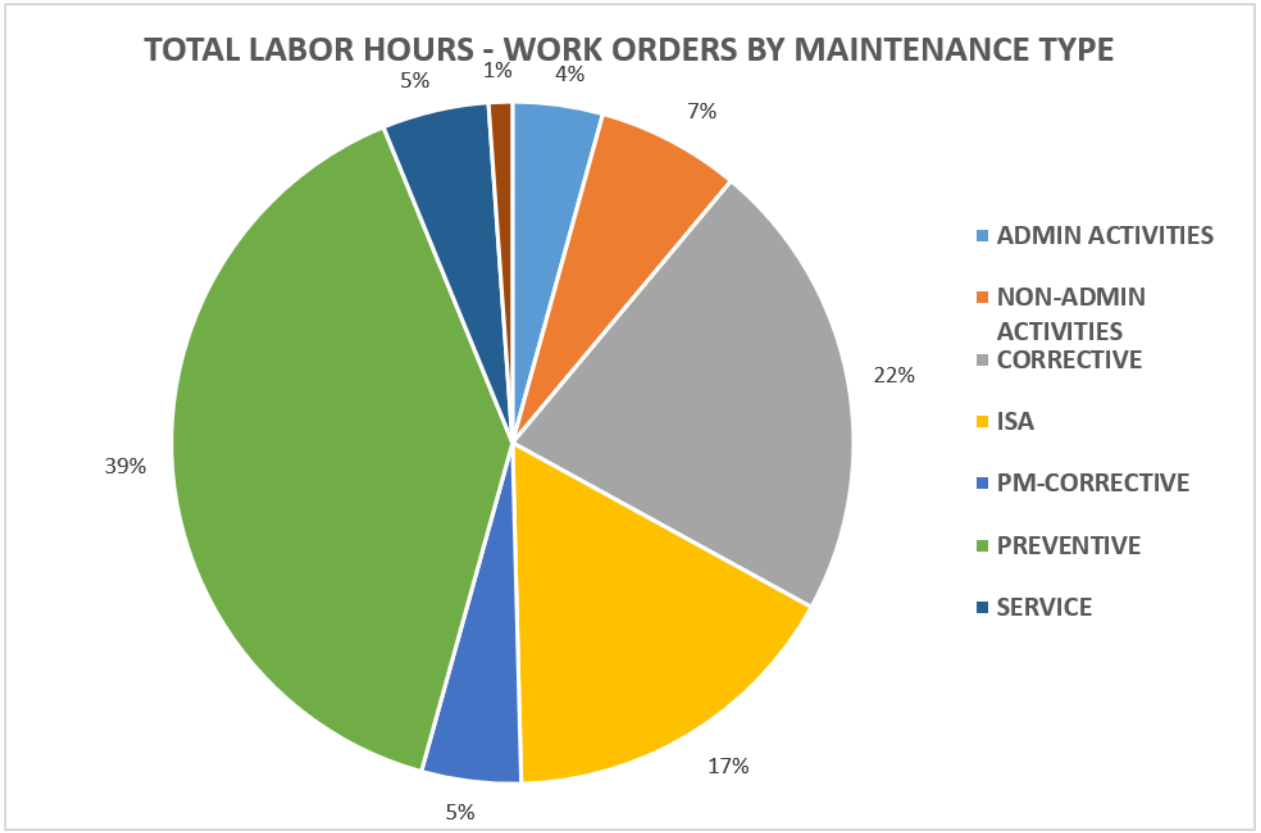
JULY 2026

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.

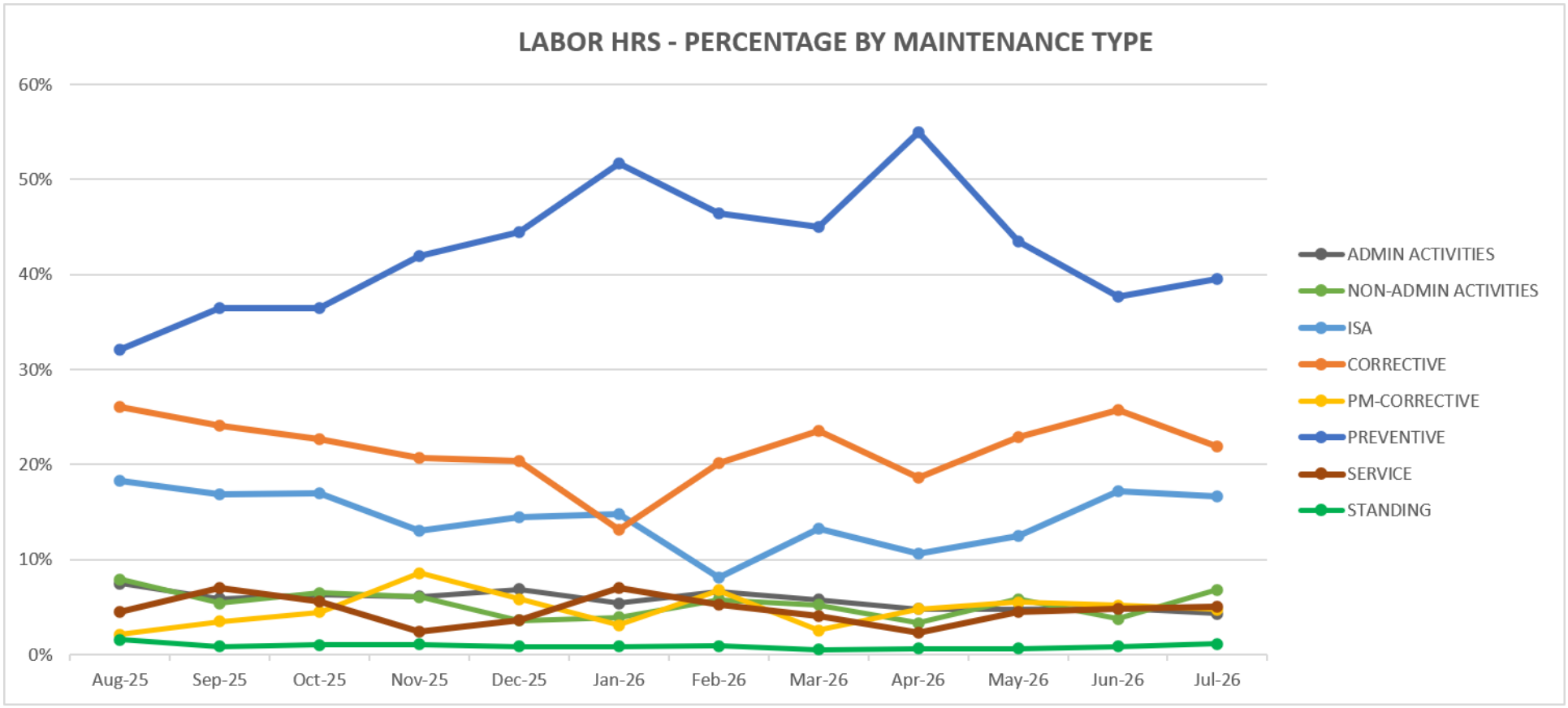
These charts show the total labor hours worked by each crew for the month and which types of work they performed.

	CHILLED WATER	ELECTRIC	EMELEC	STEAM	WATER & SEWER	TOTAL	%
ADMIN ACTIVITIES	19	145	126	70	88	**447**	**4%**
NON-ADMIN ACTIVITIES	9	321	279	18	85	**711**	**7%**
CORRECTIVE	430	472	419	934	39	**2,293**	**22%**
ISA	0	757	387	574	17	**1,735**	**17%**
PM-CORRECTIVE	10	231	11	135	107	**493**	**5%**
PREVENTIVE	720	1,112	88	1,945	267	**4,131**	**40%**
SERVICE	3	9	413	17	87	**529**	**5%**
STANDING	0	118	0	0	0	**118**	**1%**
TOTAL	**1,190**	**3,164**	**1,721**	**3,692**	**688**	**10,455**	**100%**



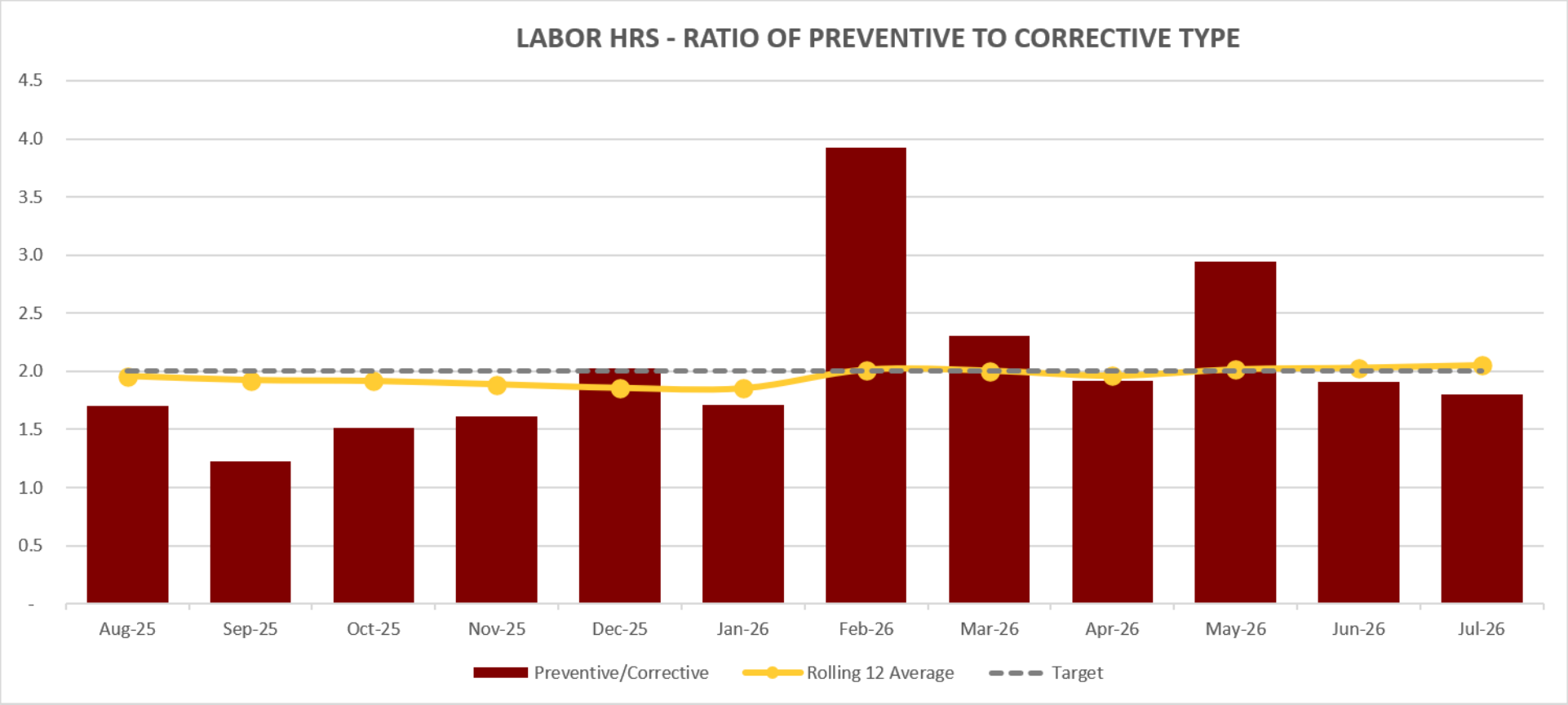
RELIABILITY

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

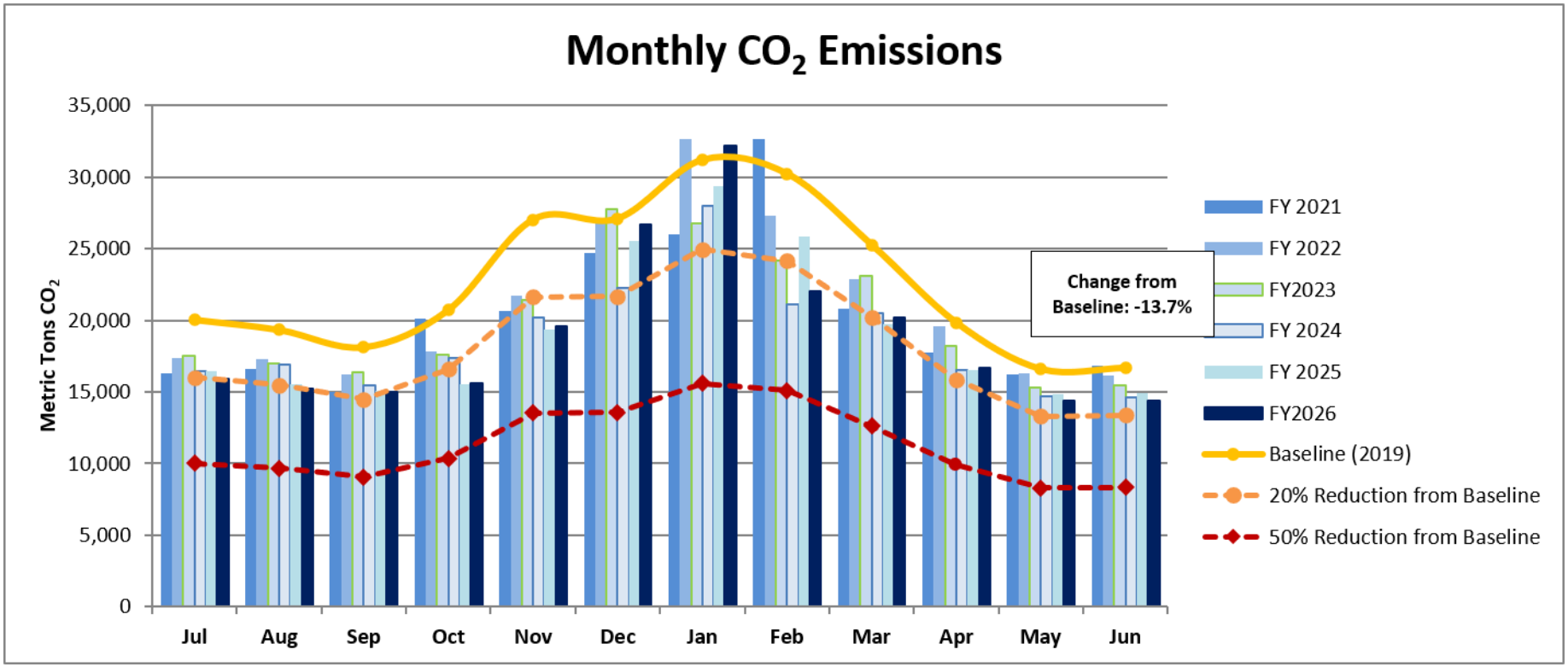
When operating and maintaining equipment, a good rule of thumb is to have a ratio of preventive labor hours to corrective maintenance hours equal to 2. This indicates that you are taking care of your equipment in a robust way, catching small problems during maintenance before they become big ones that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



LABOR HRS - CORRECTIVE vs PREVENTIVE

	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
Preventive/Corrective	1.7	1.2	1.5	1.6	2.0	1.7	3.9	2.3	1.9	2.9	1.9	1.8
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	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0

SUSTAINABILITY



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	25,988	32,687	20,821	17,732	16,217	16,841
2022	17,385	17,287	16,247	17,834	21,752	27,059	32,630	27,335	22,892	19,581	16,292	16,109
2023	17,504	16,973	16,339	17,596	21,397	27,775	26,769	24,146	23,099	18,226	15,310	15,473
2024	16,477	16,909	15,470	17,355	20,160	22,293	27,984	21,084	20,469	16,512	14,657	14,594
2025	16,485	15,522	15,082	15,499	19,327	25,580	29,355	25,821	19,740	16,540	14,858	14,912
2026	15,901	15,197	15,010	15,629	19,586	26,692	32,199	22,058	20,190	16,678	14,406	14,406

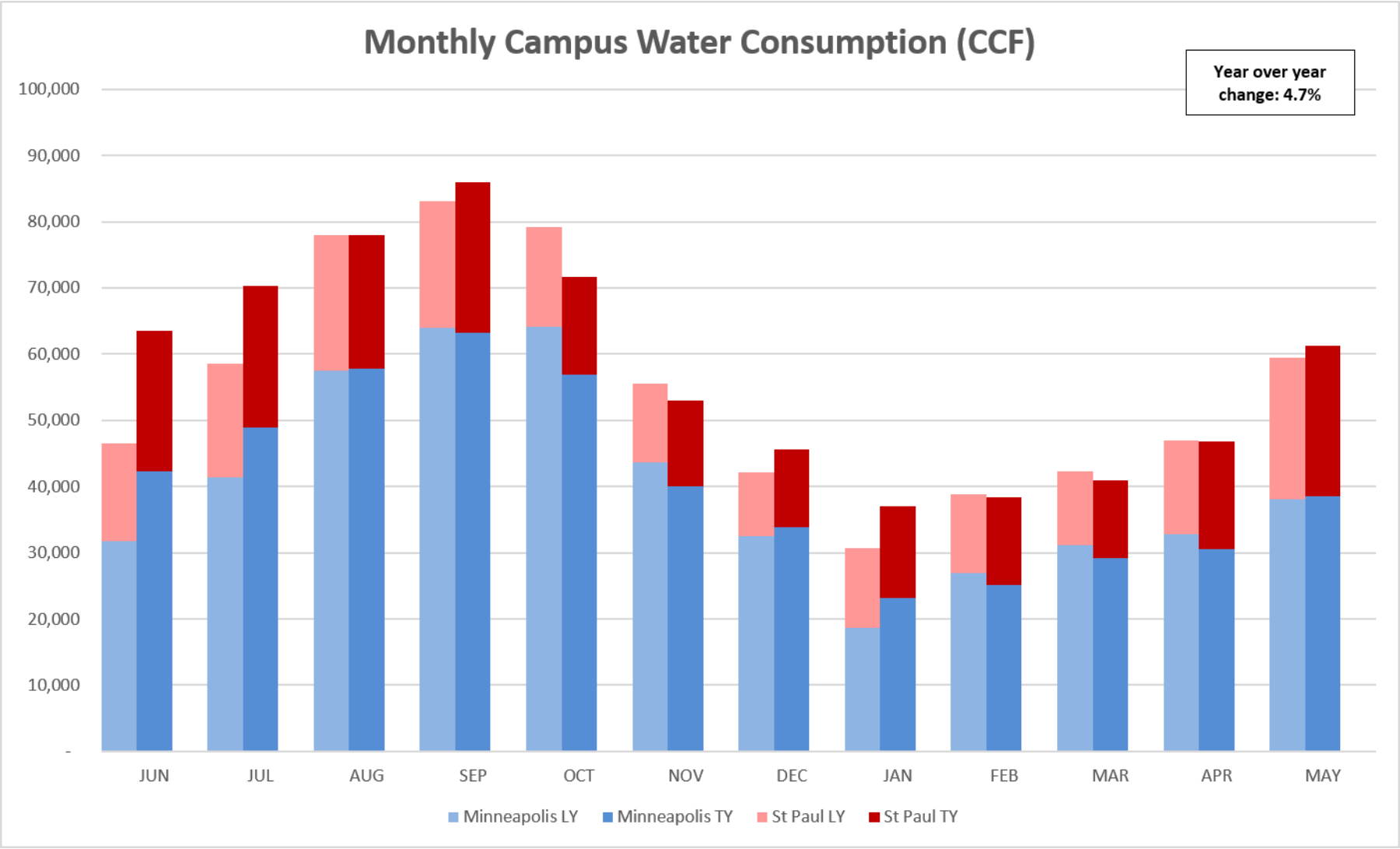
Change from Baseline:

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%	-16.66%	8.22%	-17.53%	-10.59%	-2.37%	0.84%
2022	-13.20%	-10.55%	-10.37%	-14.03%	-19.53%	-0.15%	4.64%	-9.50%	-9.33%	-1.27%	-1.92%	-3.54%
2023	-12.61%	-12.17%	-9.87%	-15.17%	-20.84%	2.50%	-14.15%	-20.06%	-8.51%	-8.10%	-7.83%	-7.35%
2024	-17.73%	-12.51%	-14.66%	-16.34%	-25.42%	-17.73%	-10.26%	-30.19%	-18.93%	-16.75%	-11.76%	-12.61%
2025	-17.69%	-19.68%	-16.80%	-25.28%	-28.50%	-5.60%	-5.86%	-14.51%	-21.81%	-16.60%	-10.55%	-10.71%
2026	-20.61%	-21.36%	-17.20%	-24.66%	-27.54%	-1.50%	3.26%	-26.97%	-20.03%	-15.91%	-13.27%	-13.74%

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.



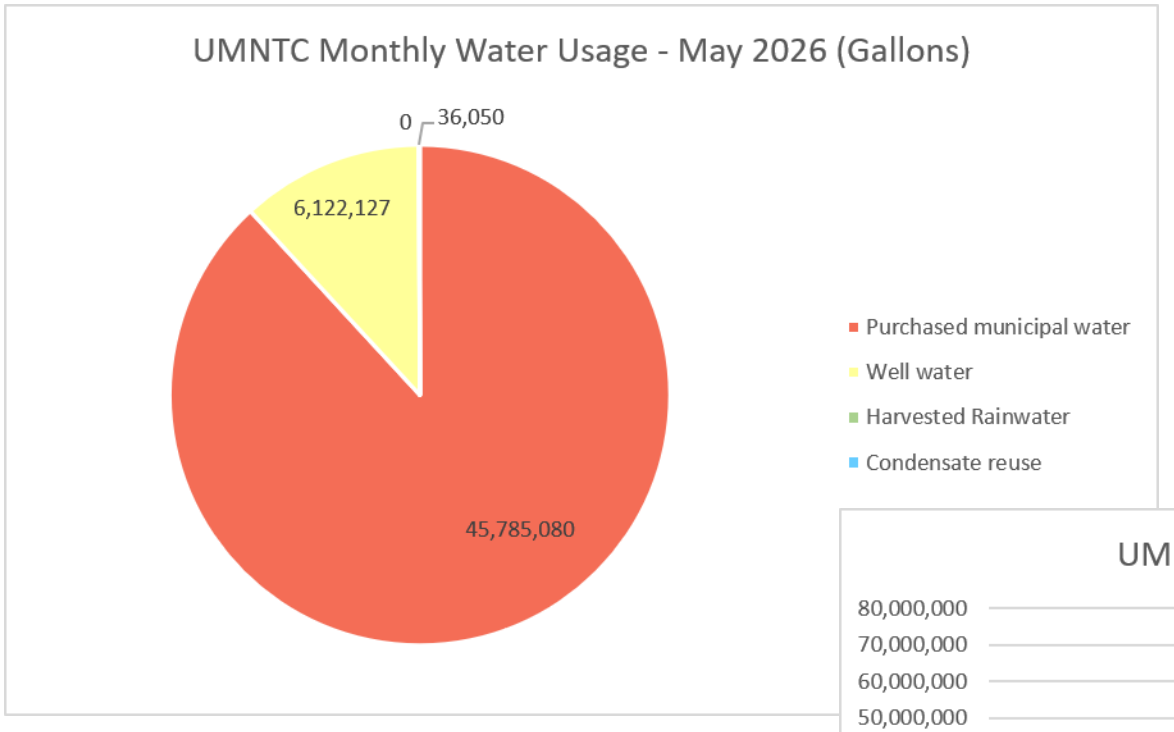
Change from LY:

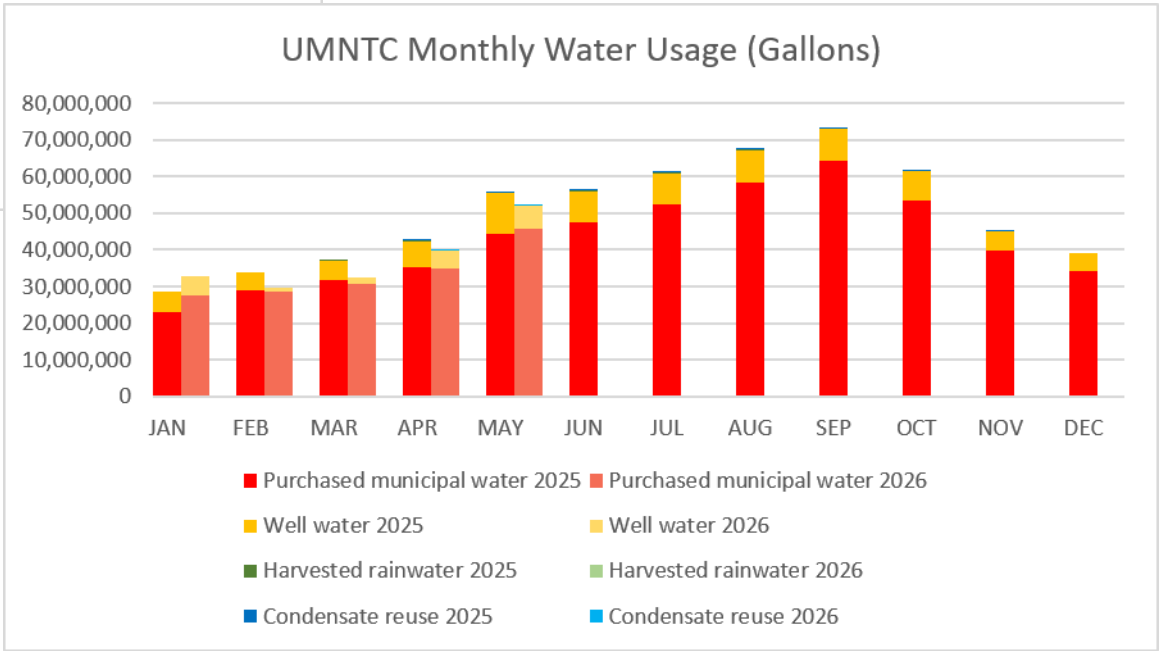
	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Minneapolis	33.46%	18.02%	0.69%	-1.18%	-11.28%	-8.23%	4.22%	24.13%	-7.02%	-6.15%	-6.61%	1.16%
St Paul	42.94%	24.81%	-2.01%	18.28%	-1.70%	9.54%	21.98%	14.52%	11.05%	5.25%	14.15%	6.30%
Total	**36.48%**	**20.00%**	**-0.02%**	**3.31%**	**-9.46%**	**-4.44%**	**8.24%**	**20.34%**	**-1.50%**	**-3.14%**	**-0.35%**	**3.01%**

SUSTAINABILITY

Twin Cities Campus Monthly Water Usage

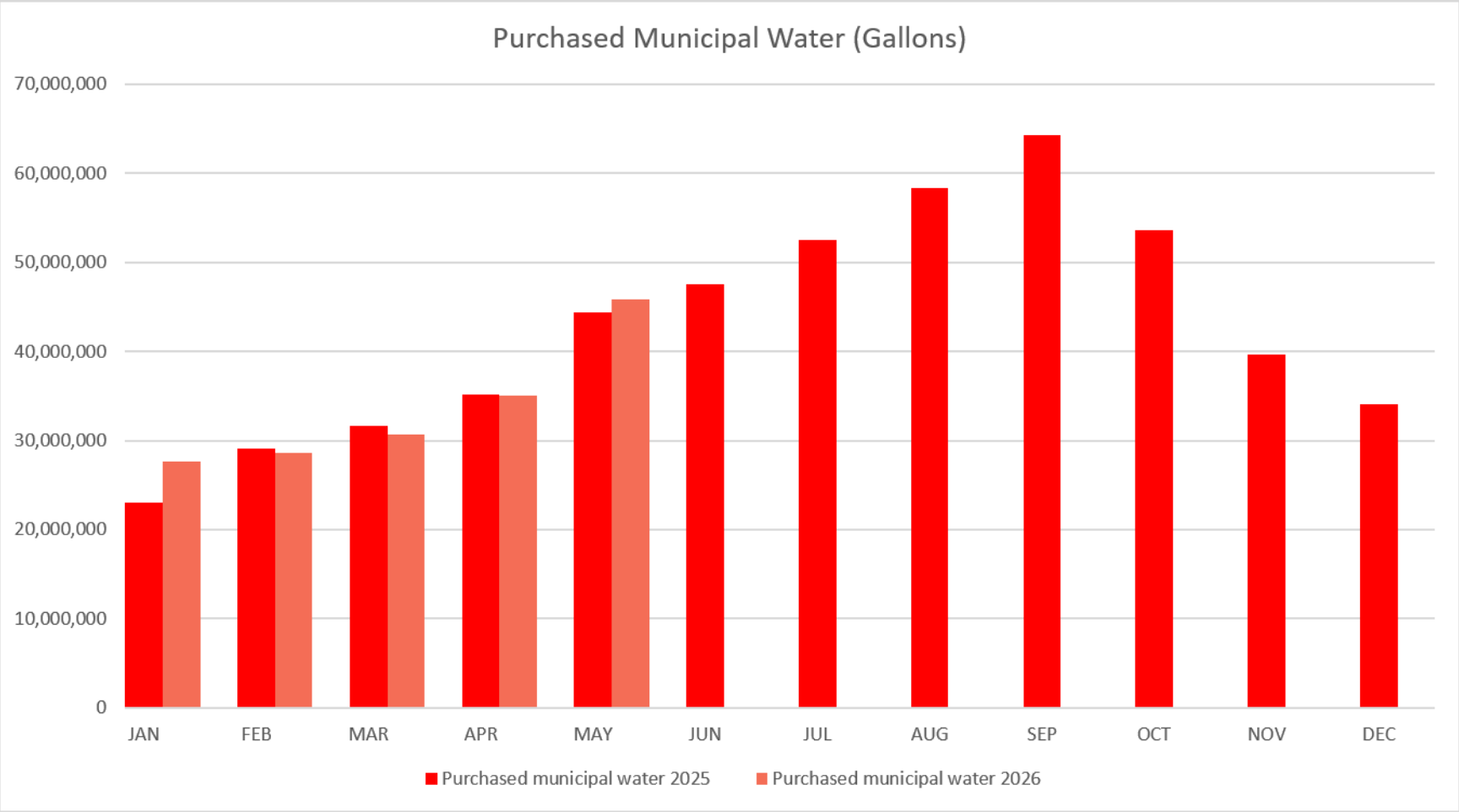
Purchased municipal water is sourced from the Mississippi River, where it is withdrawn, used, treated, and returned downstream to the river. In contrast, groundwater withdrawn for non-irrigation purposes is permanently removed from the watershed. Harvested sources such as rainwater and cooling coil condensate—resources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





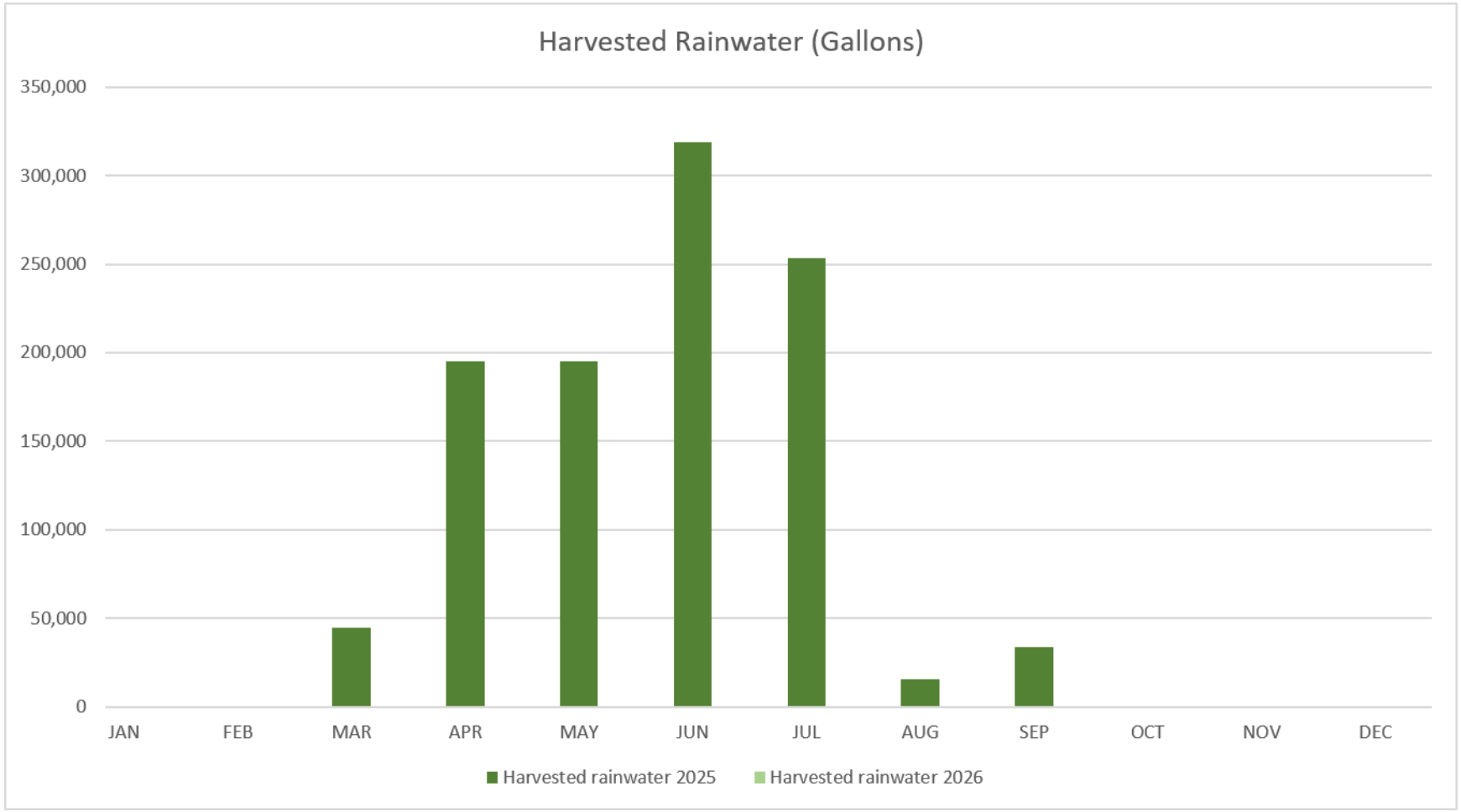
SUSTAINABILITY

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



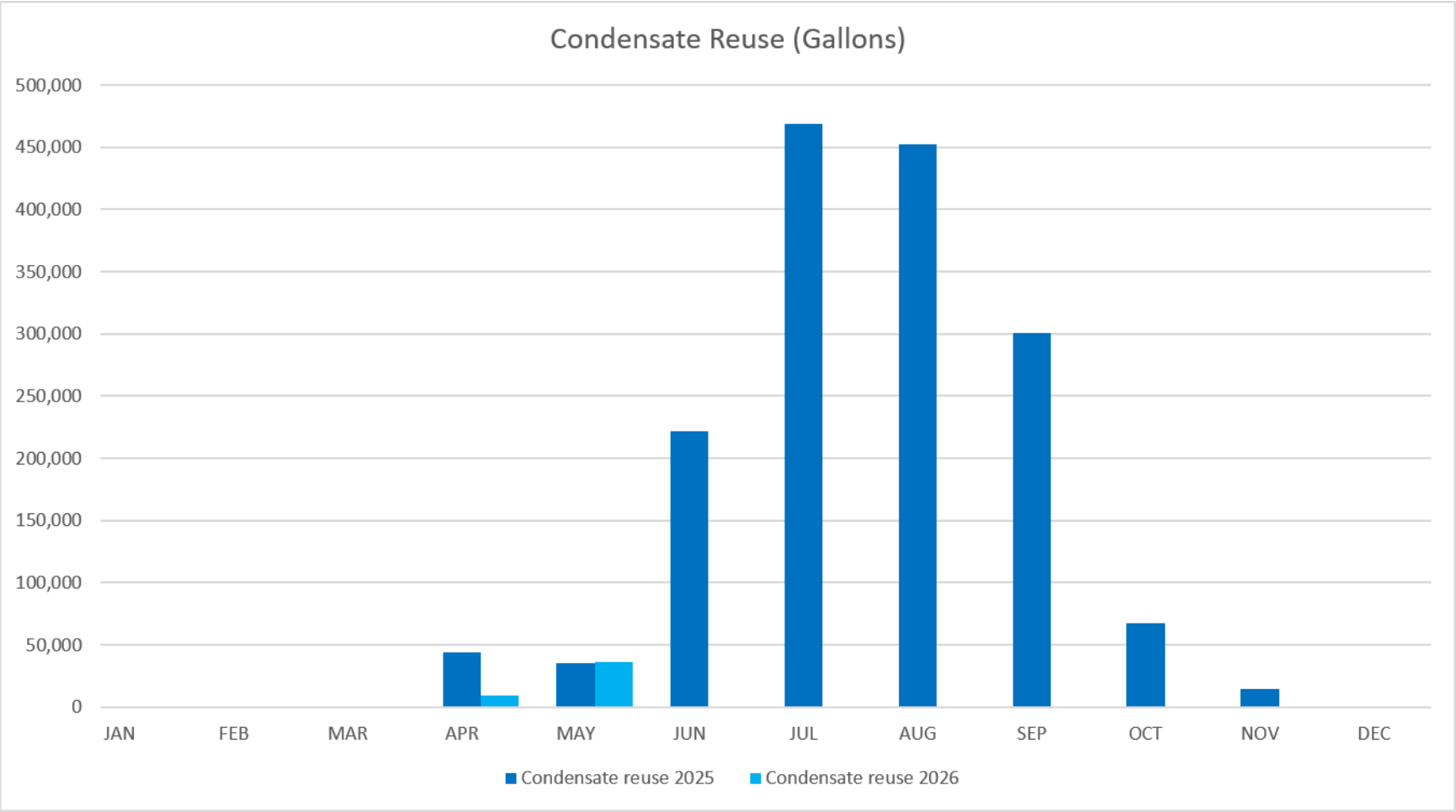
SUSTAINABILITY

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

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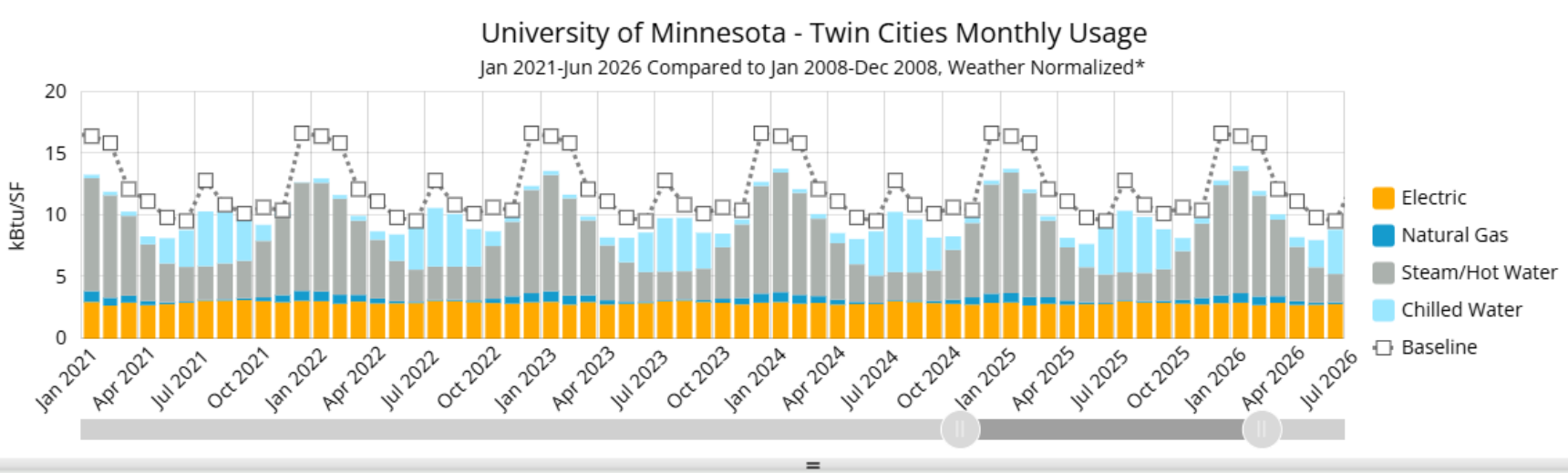
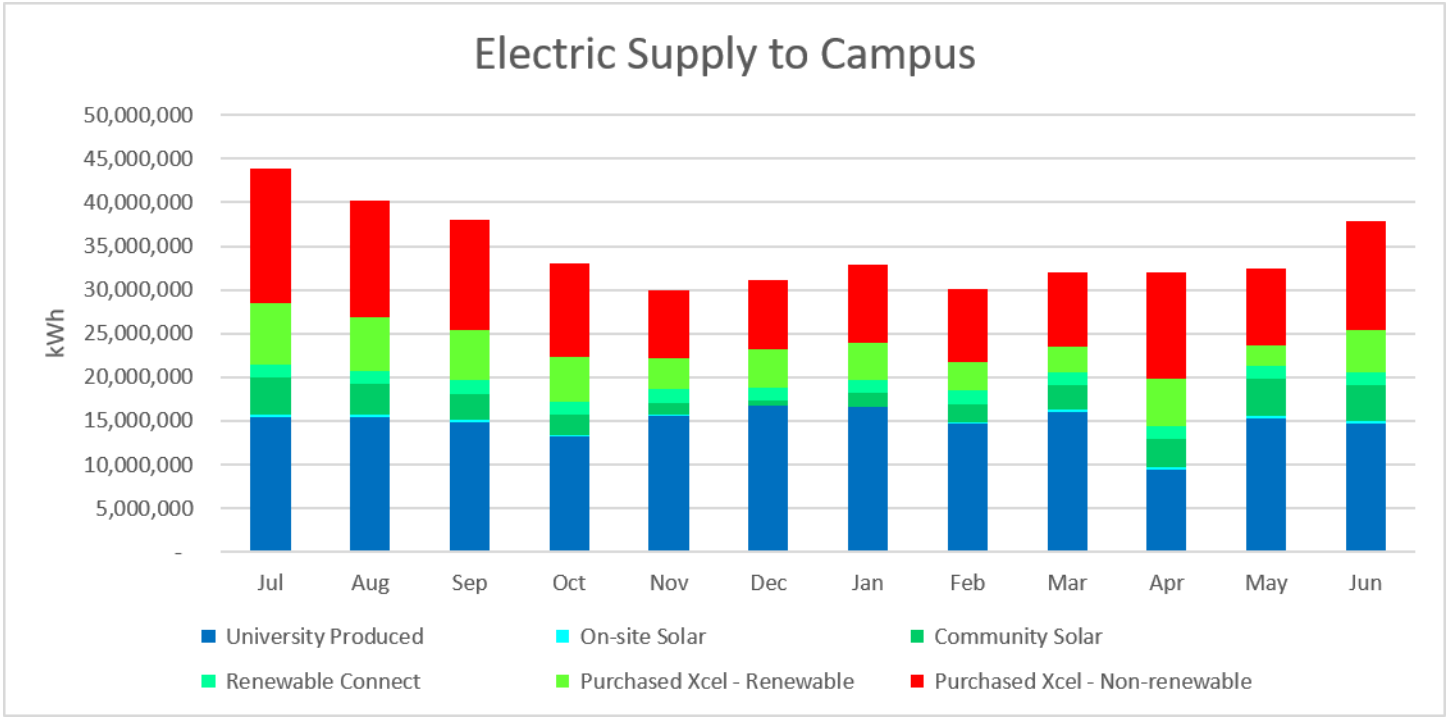


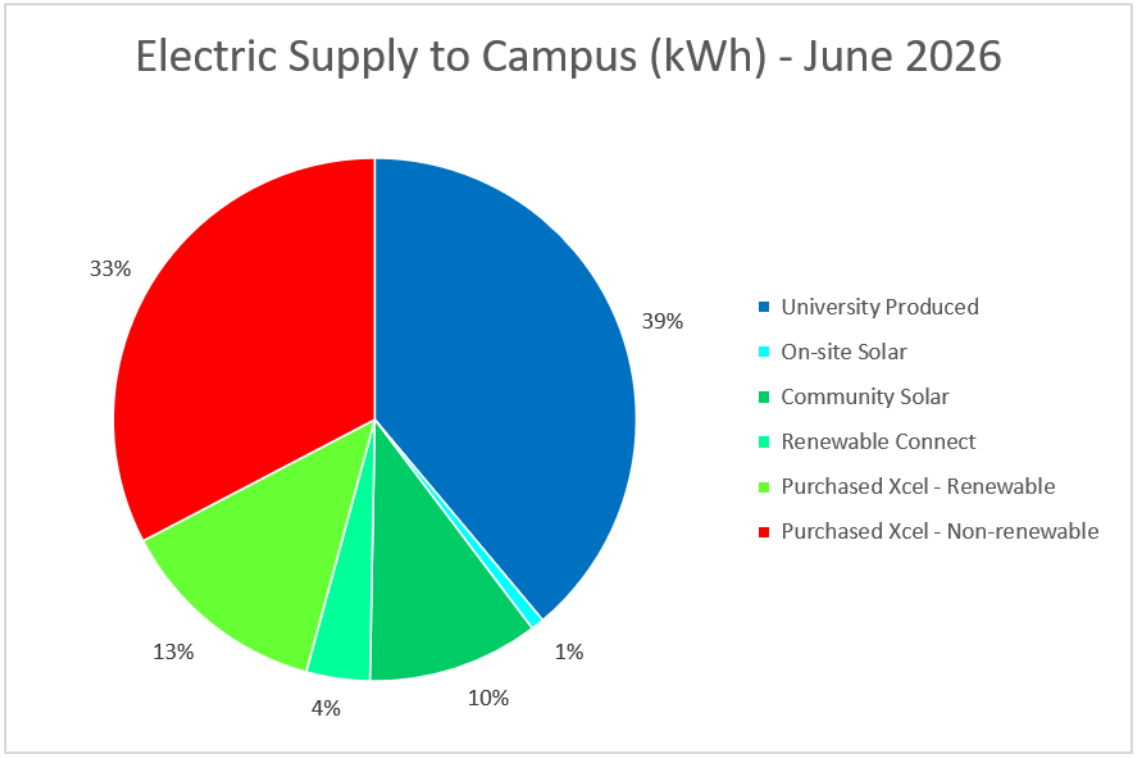
› Annual Summary

Period	Days	% Complete	SF	*Actual (kBtu/SF)	*Baseline (kBtu/SF)	Change	% Change
Jan 2021-Dec 2021	365	100%	27,923,736	123.46	146.70	-23.23	-15.84%
Jan 2022-Dec 2022	365	100%	27,916,809	121.79	146.70	-24.91	-16.98%
Jan 2023-Dec 2023	365	100%	27,931,432	119.46	146.70	-27.24	-18.57%
Jan 2024-Dec 2024	366	100%	28,004,544	120.73	146.70	-25.97	-17.70%
Jan 2025-Dec 2025	365	100%	28,005,803	120.76	146.70	-25.94	-17.68%
Jan 2026-Jun 2026	181	99.8%	28,016,296	61.21	75.03	-13.82	-18.42%

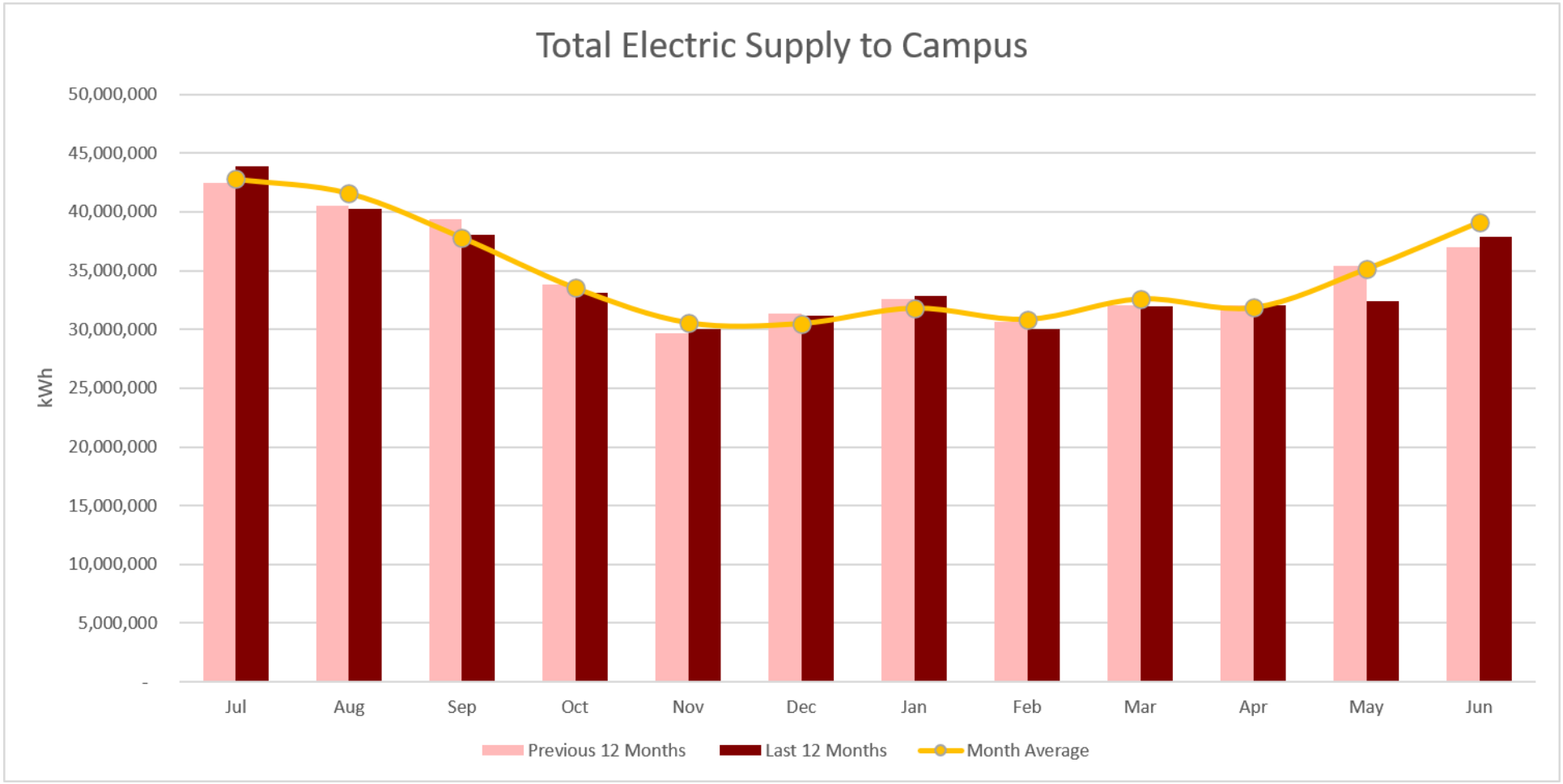
SUSTAINABILITY



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 @12 of 12
CHW PRODUCTION (TON-HRS)	**53,449,008**	**60,759,336**	**62,643,652**	**63,124,518**	**59,234,830**	**60,901,036**	**62,364,540**
ELECTRIC (KWH)	**29,371,048**	**32,606,006**	**36,581,795**	**36,126,272**	**33,490,740**	**36,621,550**	**38,135,801**
ELECTRIC (kW/Ton)	0.550	0.537	0.584	0.572	0.565	0.601	0.611
STEAM (KLB)	**78,530**	**93,967**	**85,629**	**85,503**	**110,565**	**106,886**	**106,119**
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**	**120,057**
WATER (CCF/Ton)	0.00194	0.00158	0.00205	0.00195	0.00231	0.00215	0.00193
CHW CONSUMPTION (TON-HRS)	**46,478,654**	**49,132,181**	**55,760,246**	**56,130,182**	**53,268,428**	**54,138,138**	**58,210,177**
% Billed Through	**87.0%**	**80.9%**	**89.0%**	**88.9%**	**89.9%**	**88.9%**	**93.3%**

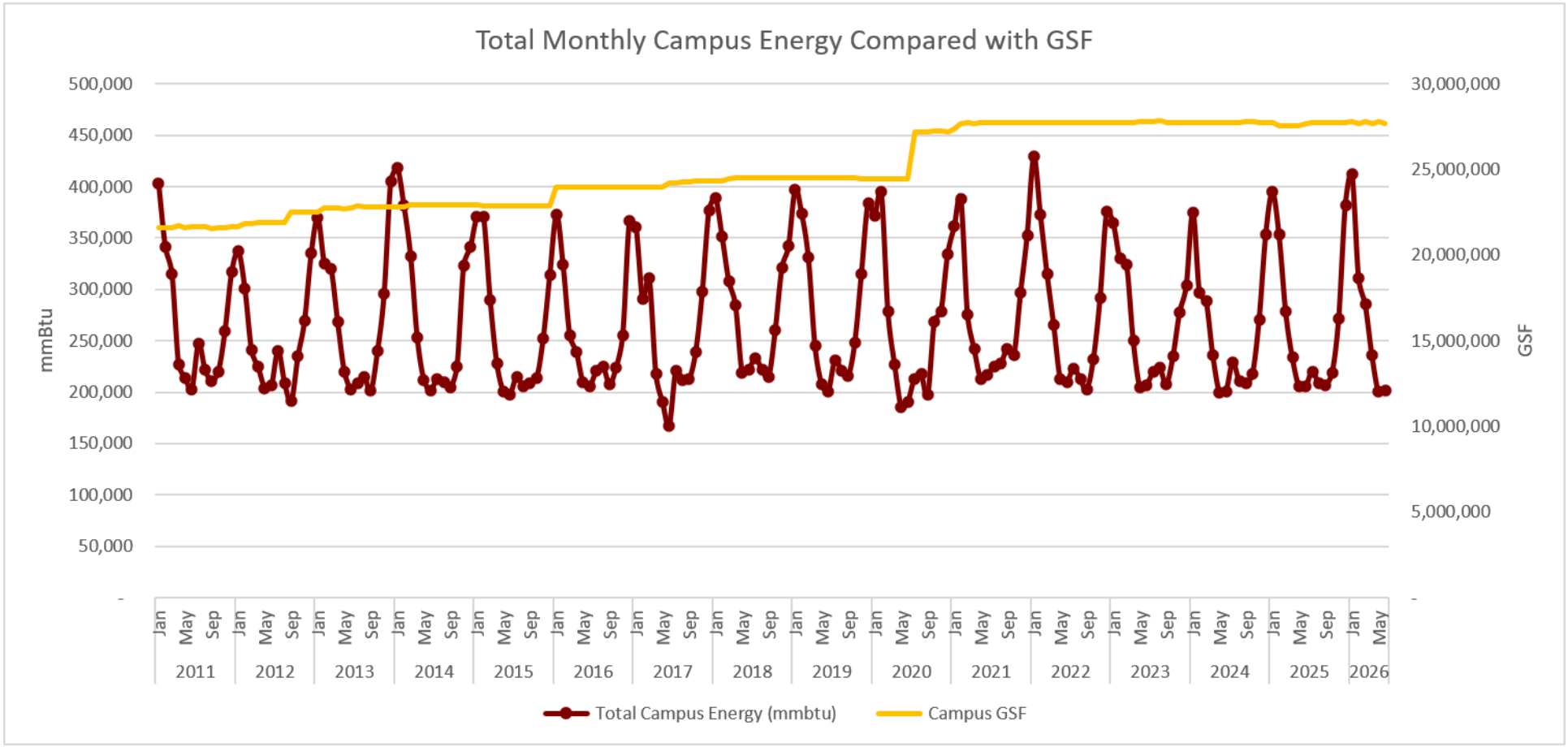
Twin Cities Utility Plant Production by Fiscal Year

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26 @12 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	3,373,144
STEAM OUTPUT (kLbs)	1,844,541	1,785,216	1,837,425	1,903,993	1,781,511	1,679,619	1,755,500	1,768,203
METERED CONSUMPTION (kLbs)	1,723,162	1,626,020	1,736,174	1,806,859	1,739,295	1,563,553	1,684,644	1,685,951
% BILLED THROUGH	**93.4%**	**91.1%**	**94.5%**	**94.9%**	**97.6%**	**93.1%**	**96.0%**	**95.3%**
COGEN GROSS (mWh)	165,435	135,566	173,988	180,902	184,007	180,868	177,943	178,099

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.

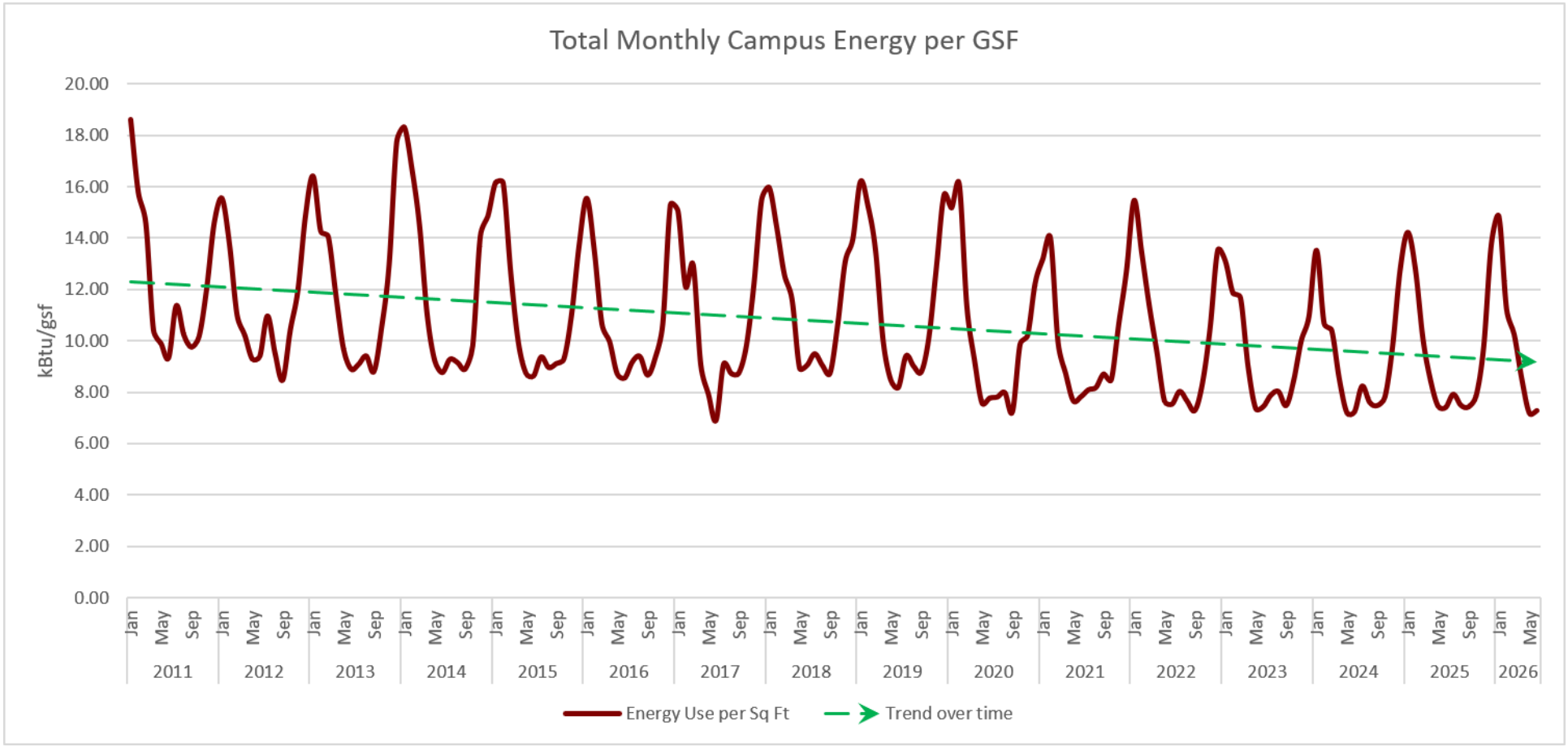
COST EFFECTIVENESS

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	123	438	28%	118	105%
	191	MAST Laboratory	9,537	121	369	33%	63	194%
	019	Campbell Hall	80,495	67	163	41%	79	85%
	051	Fraser Hall	142,835	116	82	141%	57	202%
	049	Tate Laboratory Of Physics	260,608	171	116	147%	196	87%
	057	Nolte Center	33,212	100	67	150%	106	94%
Health Sciences	115	Children's Rehabilitation Center	70,851	110	196	56%	105	105%
	142	Moos Tower	699,694	171	287	59%	183	94%
	111	Diehl Hall	199,723	161	260	62%	168	96%
	074	Mayo Building	906,810	167	169	98%	128	130%
	144	Phillips-Wangensteen Building	580,141	240	237	101%	152	158%
	172	Weisman Art Museum	79,540	97	66	148%	117	83%
HRA	067	Field House	89,186	21	73	28%	72	29%
	181	Ridder Arena/Baseline Tennis	367,813	36	106	34%	98	37%
	169	Recreation and Wellness Center	307,048	44	118	37%	122	36%
	052	Pioneer Hall	316,336	81	77	105%	141	57%
	126	Keeler Apartments	82,854	32	18	179%	95	34%
	182	McNamara	107,927	131	69	191%	59	222%
St Paul	342	St Paul Gymnasium	78,237	65	206	32%	159	41%
	392	Sheep Research	8,165	8	26	32%	11	75%
	420	Continuing Education & Conference Center	72,140	40	116	35%	114	35%
	345	Agronomy Seed House	8,718	142	94	151%	41	350%
	455	Swine Research Facility	10,559	339	85	398%	31	1,091%
	409	Veterinary Isolation Facility	31,843	388	63	614%	270	144%
West Bank	207	Willey Hall	120,464	43	132	32%	116	37%
	241	Regis Center for Art - East	102,035	102	260	39%	242	42%
	209	Rarig Center	173,139	80	193	41%	92	87%
	058	St Anthony Falls Laboratory	65,342	161	160	101%	295	55%
	171	Community University Health Care Center	17,855	198	183	108%	186	107%
	135	Urban Research & Outreach Center	22,528	63	28	225%	100	63%

Note 1 - Actual based on JUL 25 - JUN 26 meter readings

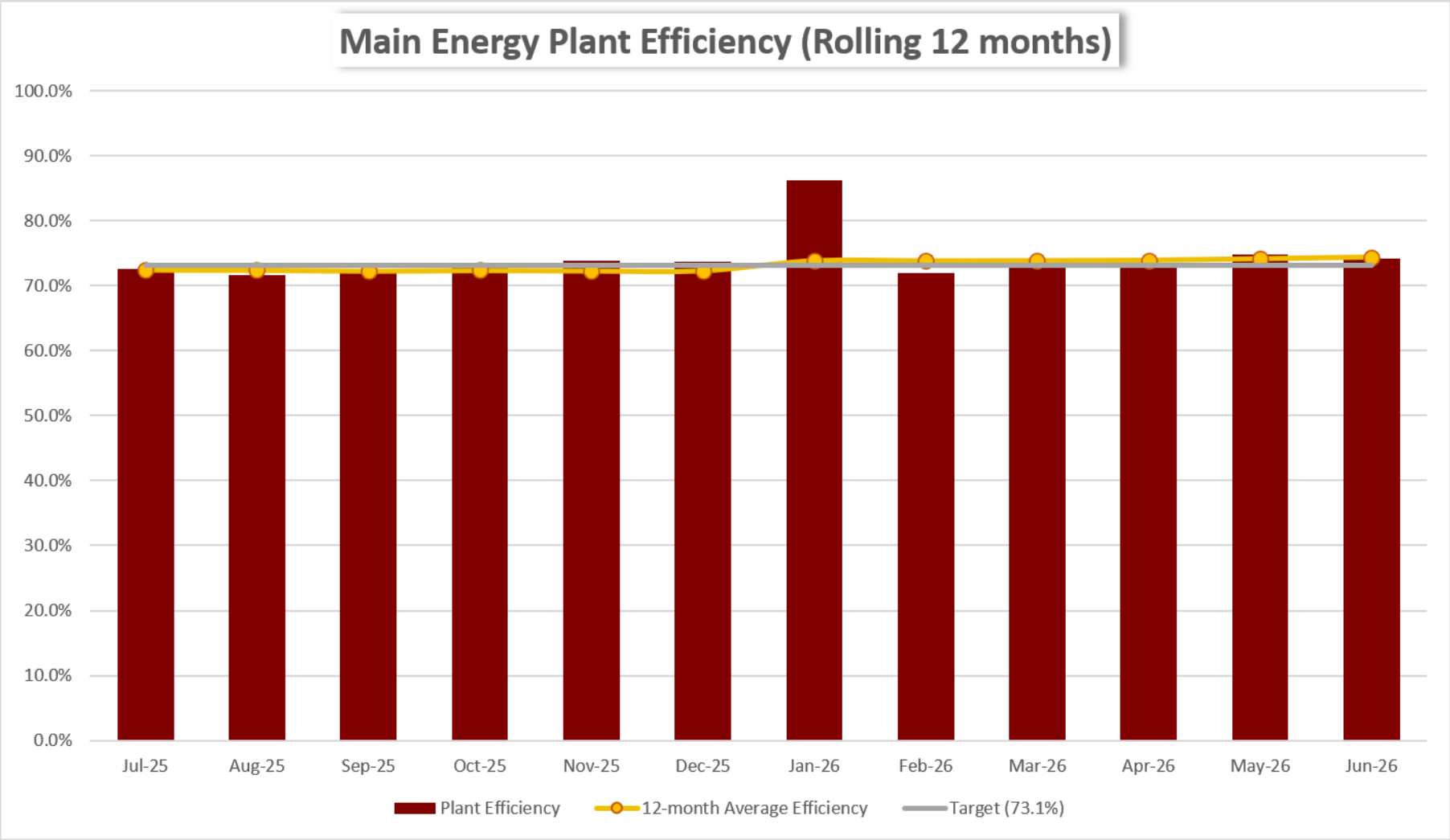
Note 2 - Expected based on JAN 09 - DEC 09 weather and energy data

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

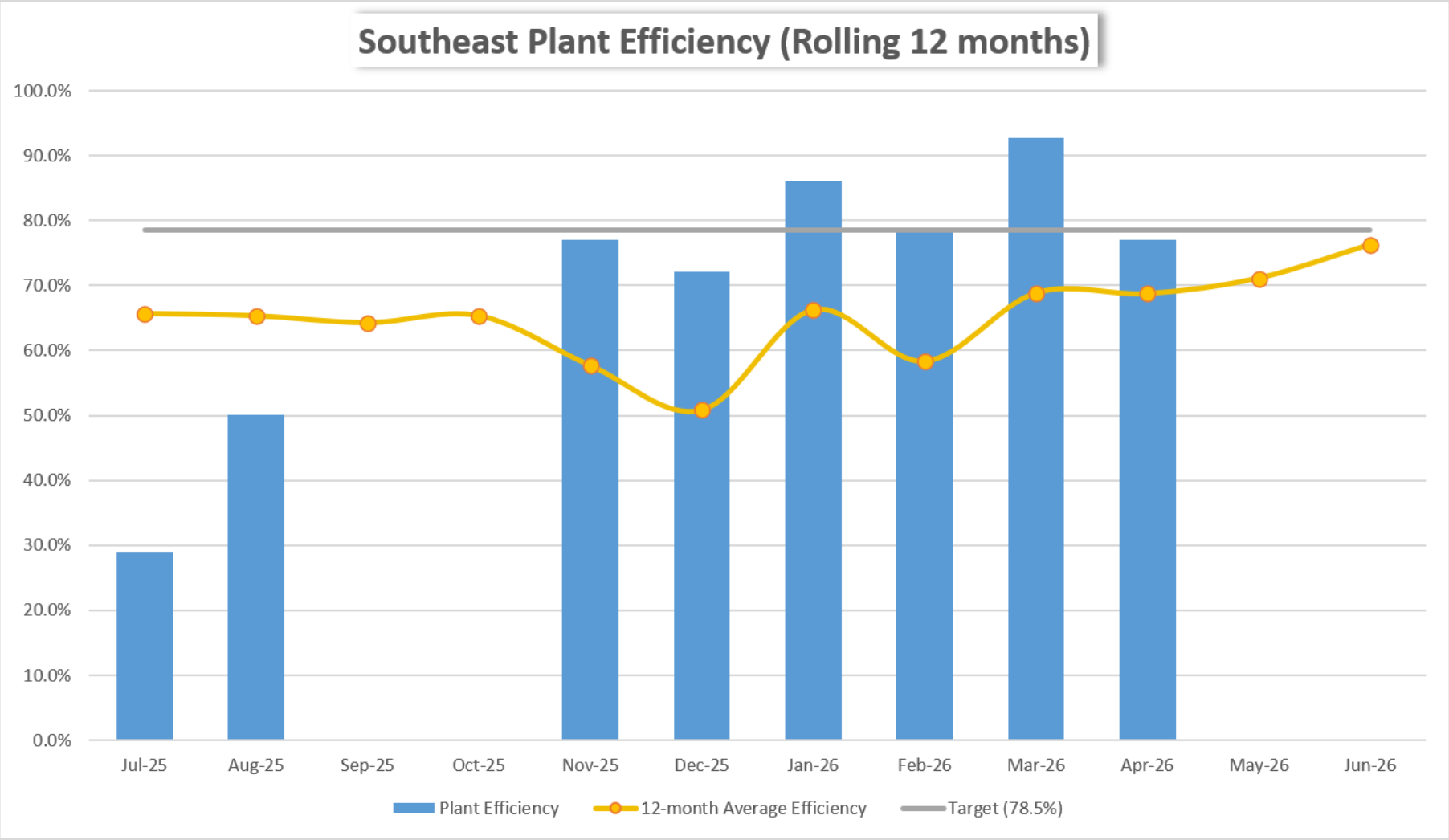


MAIN ENERGY PLANT EFFICIENCY

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Plant Efficiency	72.5%	71.7%	72.6%	73.2%	73.9%	73.6%	86.1%	71.9%	74.0%	73.6%	74.7%	74.2%
Rolling 12 Average	72.4%	72.4%	72.3%	72.3%	72.3%	72.3%	73.8%	73.8%	73.8%	73.9%	74.1%	74.3%

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

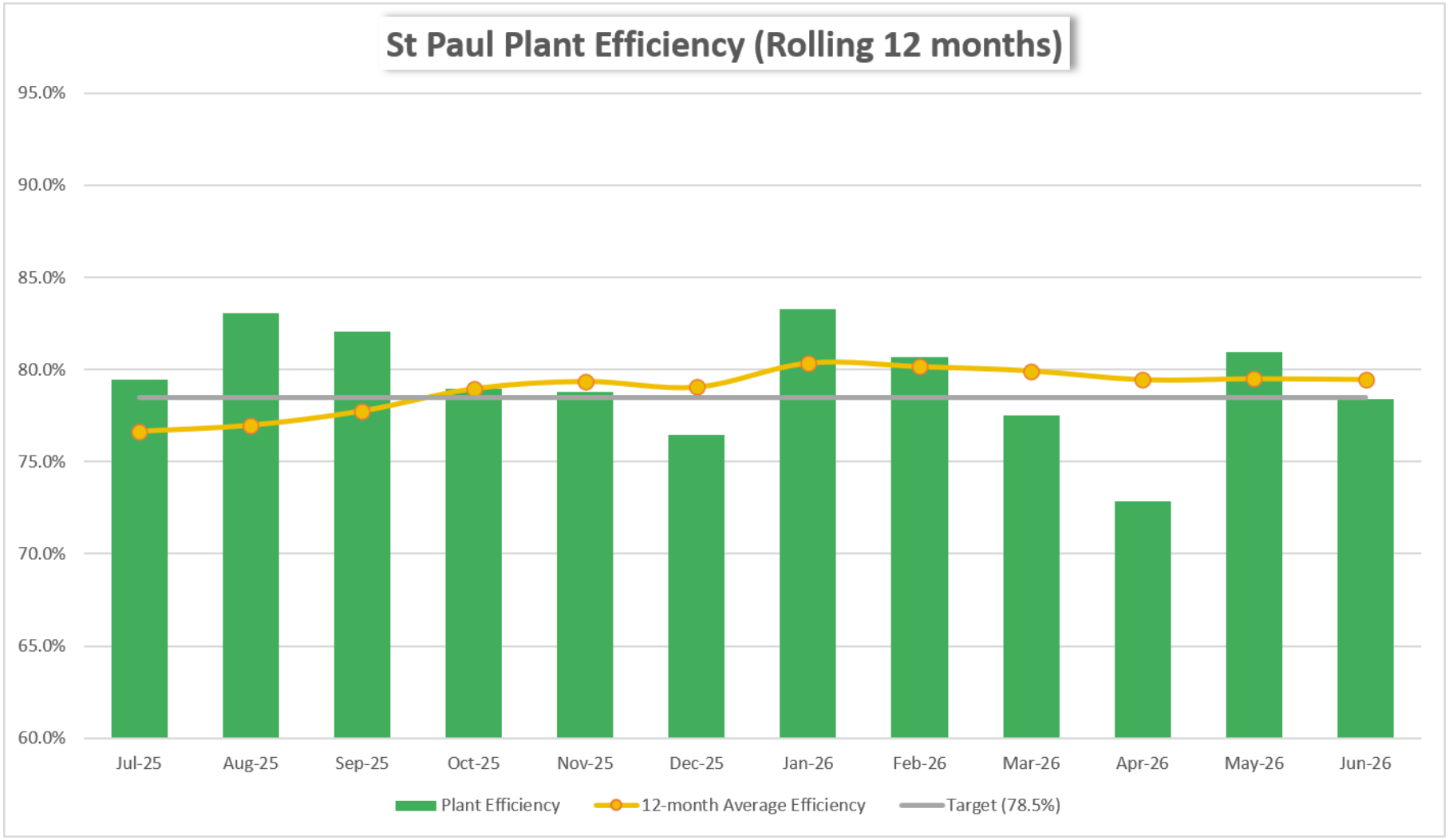


SOUTHEAST PLANT EFFICIENCY

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Plant Efficiency	29.0%	50.0%	0.0%	0.0%	77.0%	72.1%	86.1%	78.4%	92.7%	77.1%	0.0%	0.0%
Rolling 12 Average	65.7%	65.3%	64.3%	65.3%	57.7%	50.8%	66.2%	58.3%	68.8%	68.7%	71.1%	76.3%

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

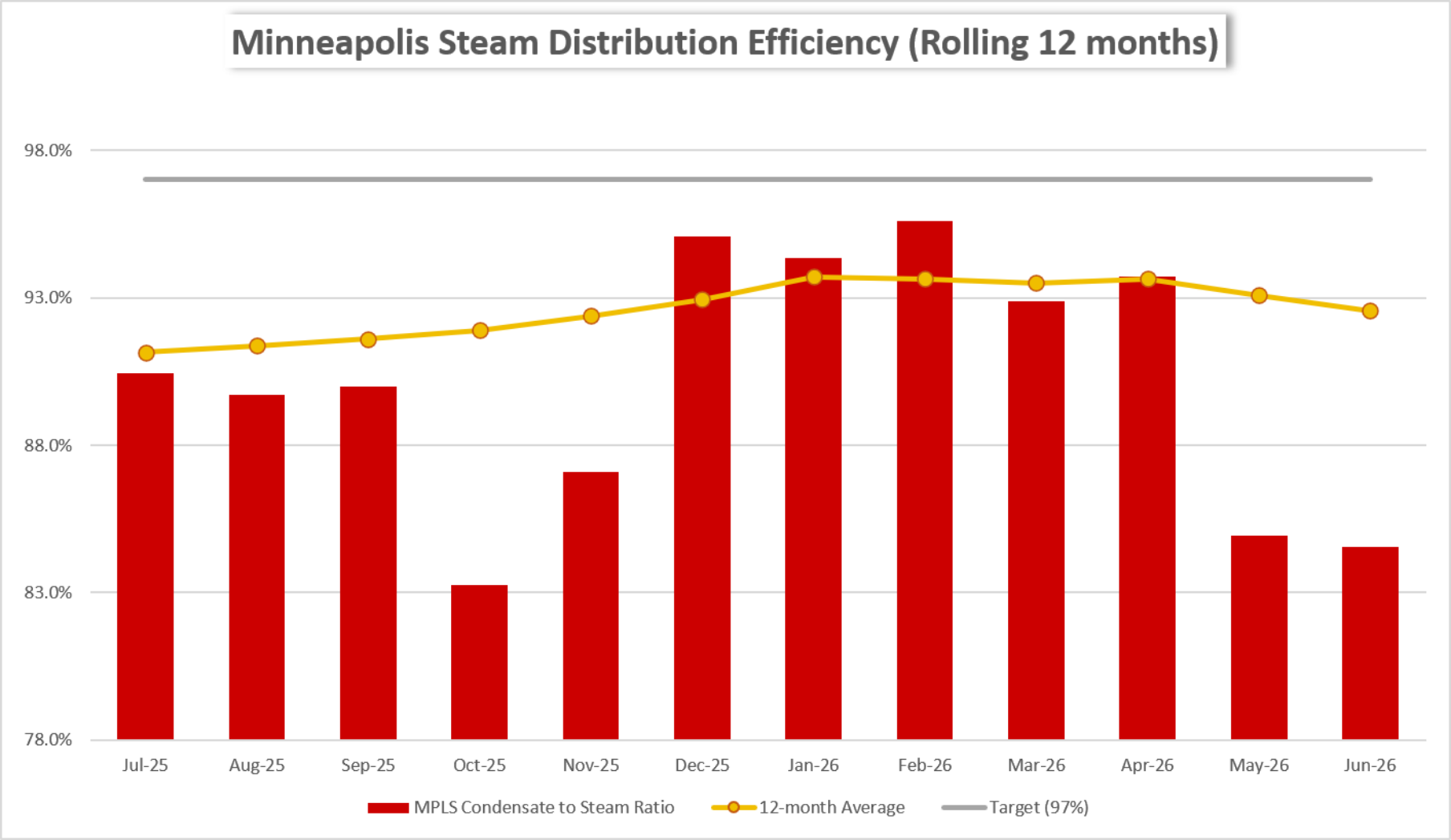


ST PAUL PLANT EFFICIENCY

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Plant Efficiency	79.4%	83.1%	82.1%	78.9%	78.8%	76.4%	83.3%	80.7%	77.5%	72.9%	80.9%	78.4%
Rolling 12 Average	76.6%	77.0%	77.7%	79.0%	79.3%	79.0%	80.4%	80.2%	79.9%	79.4%	79.5%	79.5%

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

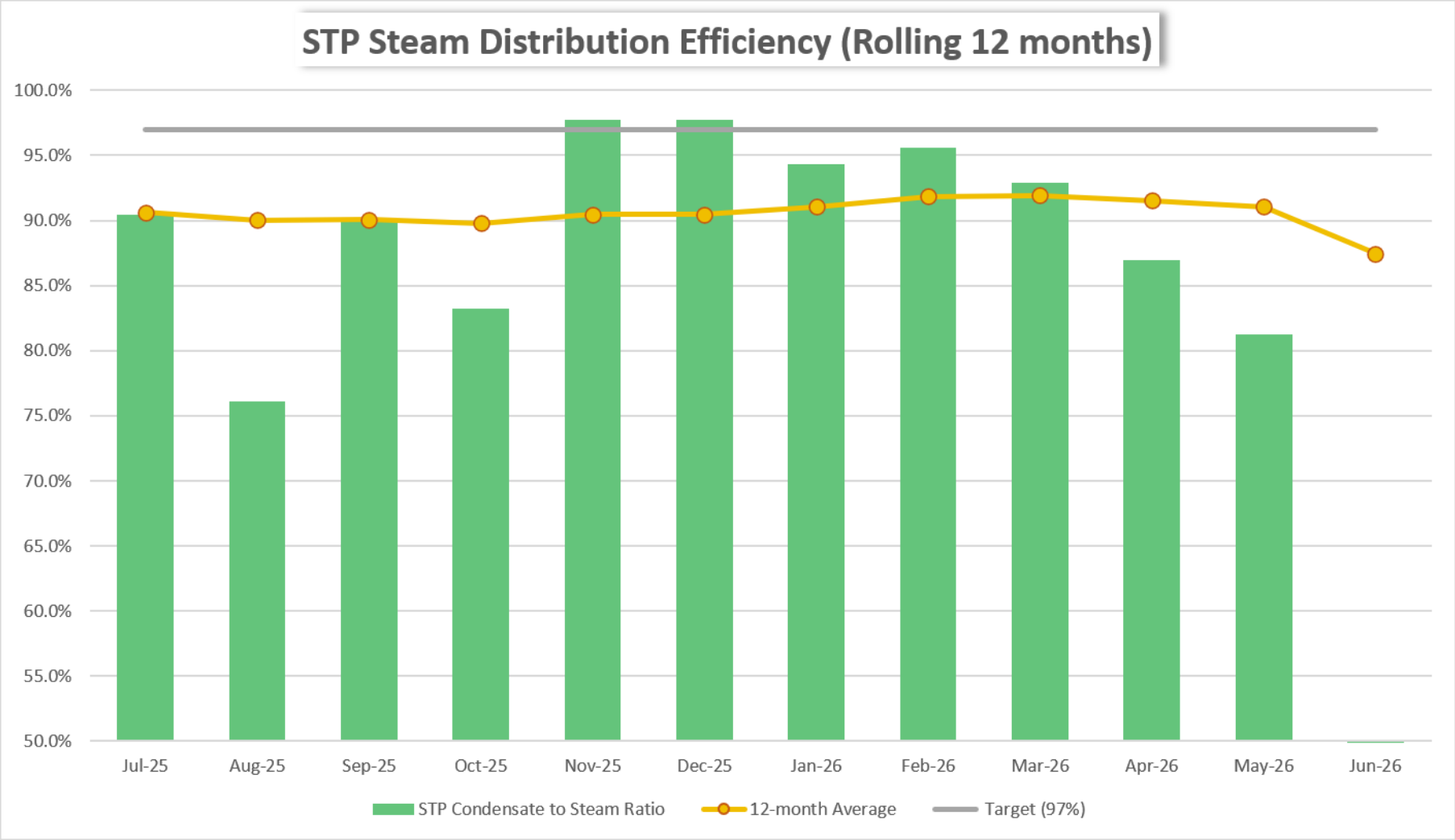


MINNEAPOLIS STEAM DISTRIBUTION EFFICIENCY

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
COND to STM Ratio	90.4%	89.7%	90.0%	83.3%	87.1%	95.1%	94.4%	95.6%	92.9%	93.7%	84.9%	84.6%
Rolling 12 Average	91.2%	91.4%	91.6%	91.9%	92.4%	92.9%	93.7%	93.6%	93.5%	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

	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
COND to STM Ratio	90.4%	76.1%	90.0%	83.3%	97.8%	97.8%	94.4%	95.6%	92.9%	86.9%	81.2%	0.2%
Rolling 12 Average	90.6%	90.0%	90.1%	89.8%	90.5%	90.5%	91.1%	91.8%	91.9%	91.5%	91.0%	87.5%

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.