

# State Facilities Energy GHG CO<sub>2</sub>e Emissions

Fiscal Year 2023 Review Report  
Final Report June 18, 2024

Facilities include:

Universities of Wisconsin  
Department of Administration  
Department of Corrections  
Department of Health Services  
Department of Veterans Affairs  
Department of Public Instruction  
Department of Natural Resources  
Department of Transportation

# Wisconsin Office of Energy Innovation

---

## State Facilities Energy GHG CO2e Emissions Accounting and Tracking

Universities of Wisconsin  
Department of Administration  
Department of Corrections  
Department of Health Services  
Department of Public Instruction  
Department of Veterans Affairs  
Department of Natural Resources  
Department of Transportation

**Final Draft Report for Fiscal Year 2023**  
June 18, 2024

# Acknowledgements

---

This report was prepared for the Wisconsin Office of Energy Innovation with supporting documentation provided by the following agencies:

- Universities of Wisconsin
- Department of Administration
- Department of Corrections
- Department of Health Services
- Department of Public Instruction
- Department of Veterans Affairs
- Department of Natural Resources
- Department of Transportation

Agency and facility energy coordinators deserve special mention not only for supplying needed data, but more importantly, for being personally involved in the energy conservation programs that have achieved the results documented on the following pages.

This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the State Energy Program Award Number DE-EE0008669.

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Energy information and CO<sub>2</sub>e emission factors were compiled, and report prepared, by Innovative Business Engineering, McFarland, Wisconsin.

# Table of Contents - State Facilities Energy GHG CO2e Emissions

---

- Green House Gas Summary .....4
- Introduction - GHG-CO2e Measures .....5
- Statewide GHG-CO2e Summary .....7
- Agency GHG-CO2e Summaries..... 10
  - Universities of Wisconsin (UWS) ..... 10
  - Department of Administration (DOA) ..... 39
  - Department of Corrections (DOC) ..... 58
  - Department of Health Services (DHS) ..... 80
  - Department of Public Instruction (DPI) ..... 88
  - Department of Veterans Affairs (DVA) ..... 93
  - Department of Natural Resources (DNR) ..... 96
  - Department of Transportation (DOT) ..... 103
- Appendix A - GHG-CO2e Calculation Methodology and Emission Factors ..... 112
- Appendix B - Renewable Energy Policy and Purchases ..... 116
- Appendix C - Photovoltaic System Funding Guidelines ..... 124
- Appendix D - Facility and Building CO2e Analysis Reports ..... 127
- Appendix E - 2023 Wisconsin Act 121 Electric Vehicle Charging Stations ..... 135

# Green House Gas Summary

Energy use in commercial and industrial buildings in the United States contribute 45 percent of national emissions of the greenhouse gases (GHGs) that are linked to global climate change. GHGs are emitted to the atmosphere from the burning of fossil fuels to produce heat, air conditioning and power for buildings. Electricity consumption in these buildings is responsible for roughly three-quarters of these GHGs, with the remainder resulting from burning natural gas and petroleum products. Of primary GHGs, carbon dioxide (CO<sub>2</sub>) represents more than 99% of the total greenhouse gas emissions from fuels combusted by commercial, industrial, and electricity production sources, with other GHG CH<sub>4</sub> and N<sub>2</sub>O together representing less than 1% from the same sources.

The State Energy Report has been expanded to include greenhouse gas accounting to record, track, and communicate the GHG emissions and renewables associated with the energy use of state buildings. This report is for building energy use only and does not include other GHG associated with refrigerants, fertilizers, agriculture animals, air travel, athletic travel, reimbursed mileage from trips taken for business, etc. The methodology for calculating building energy use GHG emissions was designed to be consistent with the Greenhouse Gas Protocol developed by the World Resources Institute and World Business Council for Sustainable Development, and as such is compatible with the accounting, inventory and reporting requirements of Environmental Protection Agency's (EPA's) programs. GHGs monitoring and reporting are required for large facilities under new EPA regulations and the Clean Air Act (CAA) as a result of the 2007 United States Supreme Court's decision.

The GHG pounds of carbon dioxide equivalents (CO<sub>2</sub>e) per gross square foot (lb CO<sub>2</sub>e/GSF) are used for accounting and reporting facility GHG emission rates. Greater energy efficiency and developing new noncombustible renewable resources are essential for reducing greenhouse gases and solving this global challenge:

Agency Name	FY05 Thermal CO <sub>2</sub> e lb/GSF/Yr	FY05 Electric CO <sub>2</sub> e lb/GSF/Yr	FY05 Base CO <sub>2</sub> e lb/GSF/Yr	FY23 Weather Adj Thermal Btu/GSF/Yr	FY23 Weather Adj Elect w/Renew Credits Btu/GSF/Yr	FY23 Weather Adjusted Btu/GSF/Yr	FY23 % Change from FY05 Base
Universities of Wisconsin	25.70	27.80	53.50	13.11	12.36	25.47	-52.39%
Department of Administration	16.27	31.65	47.92	8.85	10.63	19.48	-59.35%
Department of Corrections	18.17	24.55	42.73	14.15	11.84	25.99	-39.18%
Department of Health Services	30.11	18.88	48.99	16.69	9.92	26.62	-45.67%
Department of Public Instruction	8.72	12.68	21.40	8.99	5.55	14.54	-32.06%
Department of Veterans Affairs	18.34	22.00	40.34	19.19	8.71	27.90	-30.85%
Department of Natural Resources	8.24	21.92	30.16	6.69	8.93	15.62	-48.20%
Department of Transportation	7.55	22.57	30.12	4.44	9.91	14.36	-52.34%
Above Statewide Totals	24.13	26.84	50.97	13.17	11.98	25.16	-50.65%
<b>With Renewable Electric Credits</b>							

The success of the state's energy management and GHG reduction efforts are directly dependent on efforts of the many people who operate and maintain the central plants and distribution systems, fuel procurement staffs and those managers and occupants of individual buildings. The Division of State Facilities has the lead role in developing and overseeing these efforts.

The GHG CO<sub>2</sub>e Emissions and Energy Use in State Facilities Reports are updated from time-to-time to reflect updated utility data, accounting data, renewable energy purchases, Wisconsin utilities' emission factors and state agency building information/area (Gross Square Feet) input. Please refer to <https://psc.wi.gov/Pages/ServiceType/OEI/WisconsinEnergyStatistics.aspx> for the latest and updated GHG CO<sub>2</sub>e Emissions and Energy Use in State Facilities Reports.

# Introduction - GHG-CO<sub>2</sub>e Measures

---

## BACKGROUND

The 2020 Governor's Task Force on Climate Change Report directives included that State agencies work collaboratively to accurately report emissions, inform other reporting and carbon tracking efforts, monitor progress, and provide data in decision-making to help Wisconsin reach its goals. Select agencies to track electricity consumption and GHG emissions to measure the progress of carbon-reduction strategies and help inform agencies and decision-makers regarding progress in Wisconsin's emissions-reduction goals. In order to understand the effects of GHG emissions on air quality and human health, there needs to be recurring reports and studies on these effects. Providing clear and consistent carbon data metrics, including data regarding electricity consumption and emissions on an hourly basis, will assist in tracking carbon emissions and identifying opportunities for energy reductions or shifting energy consumption to less-carbon-intensive time frames. These reports are also useful for any measurement towards progress of goals related to GHG emissions. This will also allow statewide agencies and decision-makers to collaborate to make better-informed decisions on how to reduce emissions. Without these data, reports, and studies it would be hard to measure progress and see if implemented policies have yielded the intended impacts. The State Energy and Facilities Energy GHG CO<sub>2</sub>e Emissions Reports were developed to track State of Wisconsin facilities' energy consumption, renewable energy use and GHG emissions to measure and help inform agencies regarding progress in Wisconsin's energy conservation, renewable energy use and emissions-reduction goals.

Beginning in FY2021, the State Facilities Energy GHG CO<sub>2</sub>e Emissions Report was developed to present greenhouse gas (GHG) accounting and tracking for the largest State of Wisconsin owned and operated facilities. These facilities account for the majority of energy consumed and GHG emission buildings owned by the State of Wisconsin. Statewide, agency, and individual facility GHG and CO<sub>2</sub>e-equivalents emission rates are presented. Values for each agency reflect buildings owned but not necessarily occupied by that agency. Agencies addressed in this report include the following: Department of Public Instruction (DPI), Universities of Wisconsin (UWS), Department of Health Services (DHS), Department of Corrections (DOC), Department of Veterans Affairs (DVA), the Department of Administration (DOA), Department of Natural Resources (DNR); and Department of Transportation (DOT).

## GHG CO<sub>2</sub>e ACCOUNTING AND TRACKING

The greenhouse gas accounting and tracking were designed to record, track, and communicate the GHG emissions associated with the energy use of state buildings. The methodology for calculating GHG emissions was designed to be consistent with the Greenhouse Gas Protocol developed by the World Resources Institute and World Business Council for Sustainable Development, and as such is compatible with the accounting, inventory and reporting requirements of Environmental Protection Agency's (EPA) Climate Leaders program.

The methodology to determine a building's total GHG emissions accounts for all CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions associated with the building's energy use. This inventory includes GHG emissions from both fossil fuel consumed on-site (referred to as direct emissions), as well as GHG emissions generated off-site at power plants that deliver heat, cooling or electricity to the building (referred to as indirect emissions). To determine the direct emissions from on-site combusted fuels, the calculations utilize fuel analysis approach. This calculation is based on fuel-specific factors for heating value, carbon content, and carbon oxidation factor. Indirect emissions from district energy consumption (heating and cooling) use a similar approach. Indirect emissions from electricity consumption determined as Wisconsin base year data from utility owners and operators, who report emissions monitoring system data to EPA and U.S. Energy Information Administration (EIA <https://www.eia.gov/electricity/state/wisconsin/>).

State monitored greenhouse gas emissions are broken down into two categories:

- 1) Electricity Indirect GHG Emissions, which represents CO2e resulting from the consumption of grid- based electricity purchased from a utility, site electricity consumption is multiplied by the average electricity production output emission rates of the electricity grid serving the building or cogeneration system. Coal generated electricity has a very high CO2e emission rate, whereas solar and wind renewable generated electricity have zero CO2e emission rates; and
- 2) Thermal or Fossil Fuel Direct GHG Emissions, which includes coal, gas, oil, purchased steam, tire- derived fuel, and renewable wood/paper fuel pellets used in central plants or in building boilers to generate steam and other resources such as hot water, chilled water, electricity, and compressed air. Direct greenhouse gas emissions in CO2e, each fuel is assigned a heating content, carbon content, a carbon oxidation factor, and a standard carbon to CO2 ratio to arrive at an emissions factor expressed in mass of CO2 per unit of fuel energy. Measured (billed or metered) site energy consumption is then multiplied by the applicable GHG CO2e emission factor.

All GHGs are converted to units of CO2e/GSF/year. The conversion also removes any variation in GHG use over time caused by changes in the size of an individual facility. Similar to energy use, weather has a significant impact upon facility GHG emissions and considered when evaluating GHG rates.

According to the EPA, states lead by example by establishing energy management and GHG reduction programs within their own buildings and operations. These efforts save money on energy bills, lower GHG emissions, and demonstrate the feasibility and benefits of clean energy technologies and strategies to the larger market. This program, if properly implemented, should provide operational cost savings for the State government and lower its carbon and broader environmental footprint. State agencies will realize significant direct energy and GHG reductions from State government operations and buildings. Indirect impacts include the energy and GHG reductions from municipalities and other jurisdictions that can learn from the State’s example and take similar action. Also, if the State acts as a leader and shares the benefits of its actions with others, it can encourage and catalyze others’ actions, resulting in greater renewable energy use and emission reductions.

State agencies own and operate electric vehicle charging stations located at facilities detailed herein. The electric use and costs of charging stations may be metered with building energy use and included in State Facilities Energy and GHG CO2e Emissions Reports. Appendix E contains 2023 Wisconsin Act 121 relating to electric vehicle charging stations. Under Act 121, a state agency may own, operate, manage, or lease an electric vehicle charging station at which a charger is available to the public if the state agency makes all chargers available for public use free of any charge. It is recommended that the State’s Fuel and Utilities accounting be modified to meter and track charging station electricity kwh use and amount credited to “7500000 Electricity” and charge to “8050000 Fuels for Vehicle Use” highlighted in yellow in the table located to the right. The associated charging station electric energy use be subtracted from the building energy use for State Facilities Energy and GHG CO2e Emissions.

<b>Sub-Categories</b>		
<b>Fiscal Year: 2023</b>		
<b>Category Name: Fuel and Utilities</b>		
<b>Subcategory Code</b>	<b>Subcategory Name</b>	<b>Amount</b>
8000000	Coal	\$294,626.56
7530000	Cooling (Chilled Water/Air)	\$89,710.51
7500000	Electricity	\$112,376,251.46
8058000	Federal Excise Tax - Fuel Purc	\$1,261.23
8055000	Fuel for Aircraft Use	\$538,599.88
8010000	Fuel Oil	\$2,238,580.68
8020000	Fuel Pellets & Other Fuels	\$1,461,001.35
8050000	Fuels for Vehicle Use	\$14,729,463.79
7510000	Gas - Utility Furnished	\$129,256,803.39
7520000	Heating (Steam or Hot H2O/Air)	\$2,615,666.88
7560000	Utility Sales Credit	\$6,105.36
7540000	Water & Sewage	\$30,379,849.58
<b>Total:</b>		<b>\$293,987,920.67</b>

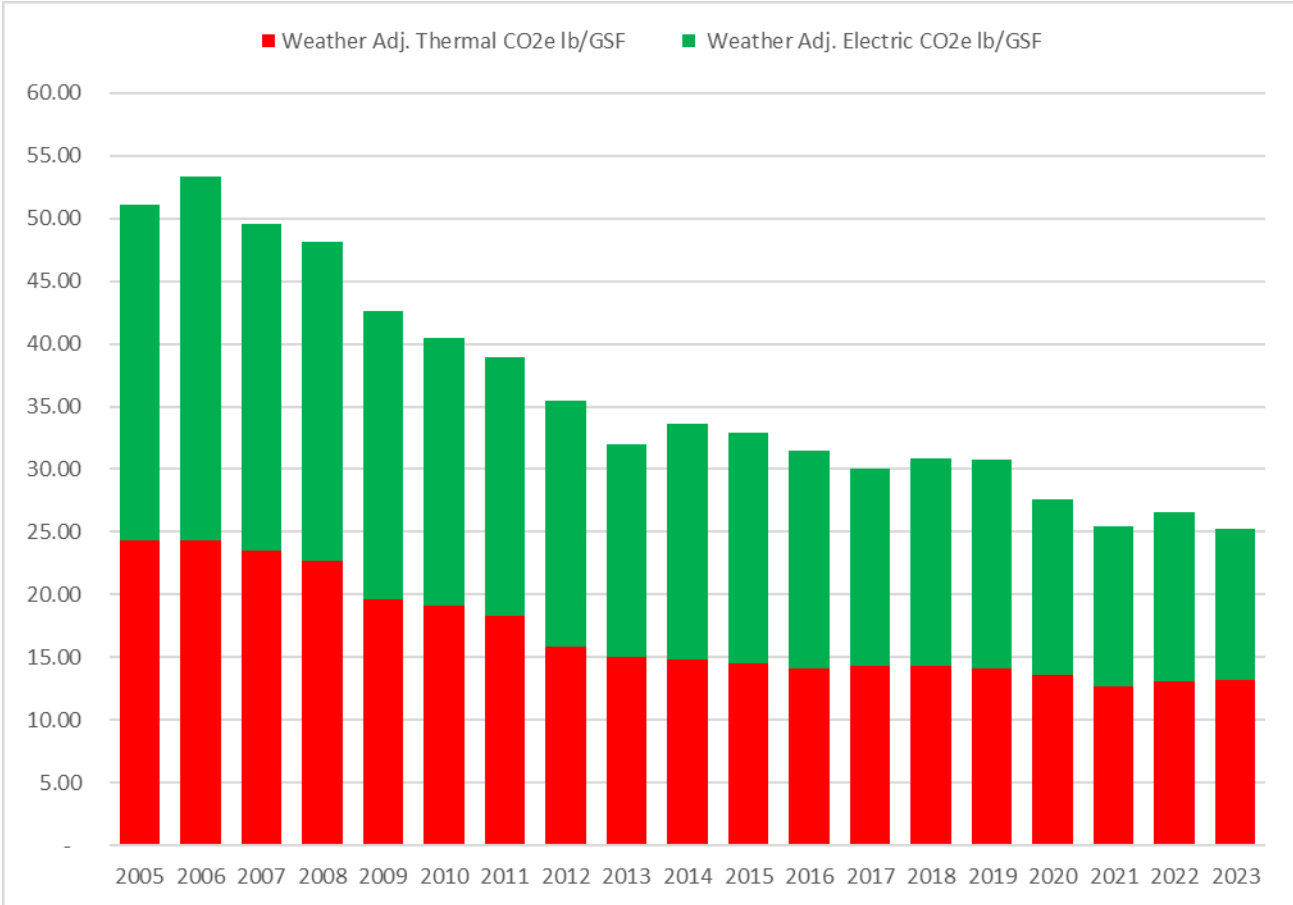
# Statewide GHG CO2e Emissions



## SCOPE

Includes the major facilities in eight state agencies. Agencies and facilities are discussed individually in this report.

## State of Wisconsin Facilities GHG CO2e Ibs/GSF:

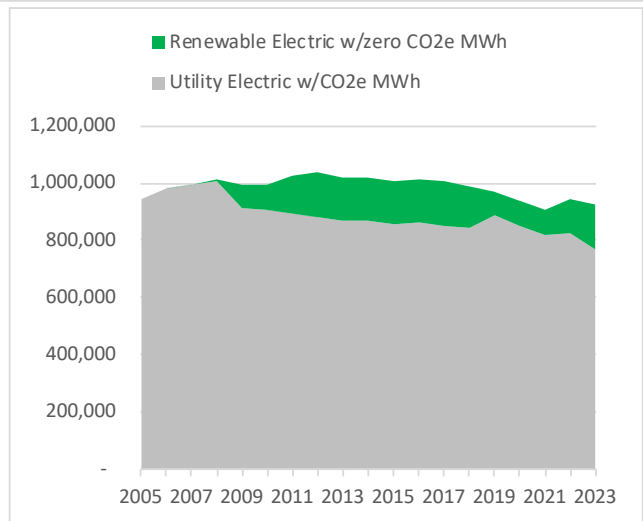
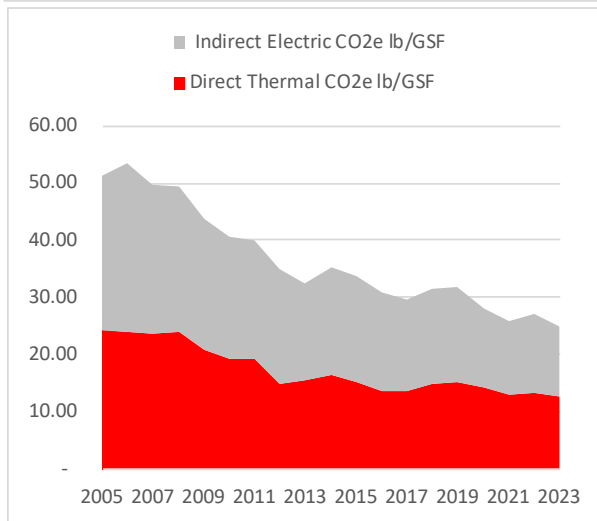
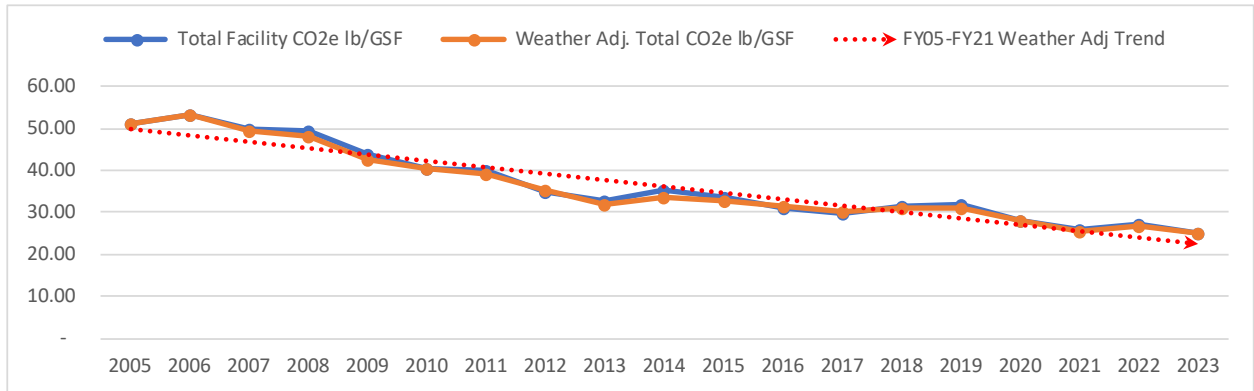




**State of Wisconsin Facilities CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	64,753,150	24.30	26.84	51.14	0.0%	47.05	24.30	26.84	51.14	0.0%
2006	65,405,533	24.13	29.19	53.32	4.3%	48.17	24.32	29.03	53.35	4.3%
2007	66,508,886	23.67	26.07	49.74	-2.7%	47.10	23.53	26.02	49.55	-3.1%
2008	67,703,290	23.95	25.51	49.46	-3.3%	45.46	22.72	25.40	48.13	-5.9%
2009	68,186,861	20.78	22.96	43.74	-14.5%	44.84	19.65	22.95	42.60	-16.7%
2010	68,774,525	19.26	21.35	40.62	-20.6%	46.76	19.10	21.42	40.52	-20.8%
2011	69,655,003	19.25	20.72	39.97	-21.8%	45.88	18.30	20.63	38.93	-23.9%
2012	71,400,599	14.97	19.88	34.85	-31.9%	50.67	15.85	19.60	35.45	-30.7%
2013	72,698,283	15.63	16.97	32.60	-36.3%	46.20	15.08	16.93	32.01	-37.4%
2014	73,275,335	16.56	18.85	35.41	-30.8%	43.28	14.83	18.78	33.62	-34.3%
2015	73,553,273	15.25	18.41	33.66	-34.2%	44.80	14.48	18.45	32.92	-35.6%
2016	74,064,464	13.60	17.45	31.05	-39.3%	48.89	14.16	17.35	31.51	-38.4%
2017	74,080,246	13.80	15.90	29.71	-41.9%	49.21	14.31	15.70	30.01	-41.3%
2018	73,838,150	14.86	16.61	31.47	-38.5%	46.05	14.30	16.58	30.88	-39.6%
2019	74,054,921	15.15	16.65	31.80	-37.8%	45.20	14.43	16.65	31.09	-39.2%
2020	74,749,271	14.19	13.99	28.18	-44.9%	46.24	13.86	14.00	27.86	-45.5%
2021	75,060,520	12.99	12.92	25.91	-49.3%	46.25	12.67	12.83	25.50	-50.1%
2022	74,879,851	13.25	13.74	26.99	-47.2%	47.32	13.11	13.51	26.62	-47.9%
2023	75,112,842	12.87	12.09	24.96	-51.2%	48.63	13.24	11.99	25.23	-50.7%

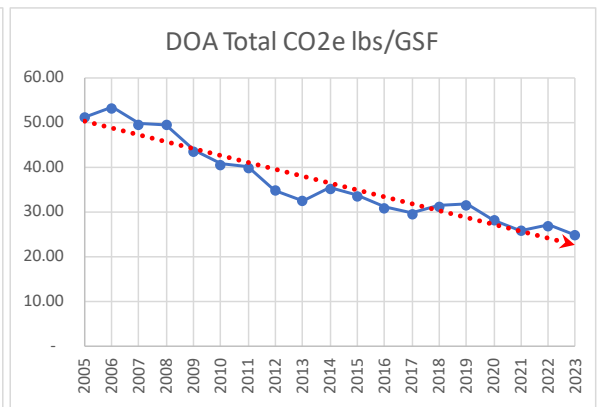
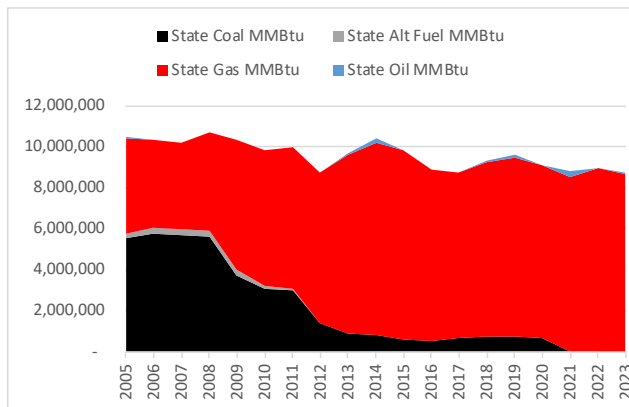
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



State of Wisconsin Facilities Boiler Plant Fuel and Electric Use CO2e Emissions

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	State Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOA Total CO2e lbs/GSF
2005	64,753,150	47.05	943,007,467	-	943,007,467	1.84	788,327	713,690	1,502,017	51.14
2006	65,405,533	48.17	978,993,362	-	978,993,362	1.95	865,924	715,969	1,581,894	53.32
2007	66,508,886	47.10	991,423,587	-	991,423,587	1.75	786,529	713,959	1,500,488	49.74
2008	67,703,290	45.46	1,010,329,614	6,666,666	1,003,662,948	1.72	783,492	735,375	1,518,866	49.46
2009	68,186,861	44.84	995,237,761	84,524,854	910,712,907	1.72	710,106	642,723	1,352,829	43.74
2010	68,774,525	46.76	997,044,412	92,312,991	904,731,421	1.62	666,045	600,977	1,267,022	40.62
2011	69,655,003	45.88	1,028,178,243	135,021,334	893,156,909	1.62	654,689	608,049	1,262,738	39.97
2012	71,400,599	50.67	1,039,127,278	156,399,996	882,727,282	1.61	643,840	484,739	1,128,579	34.85
2013	72,698,283	46.20	1,019,490,726	151,802,336	867,688,390	1.42	559,666	515,304	1,074,971	32.60
2014	73,275,335	43.28	1,019,343,048	150,629,785	868,713,263	1.59	626,526	550,470	1,176,996	35.41
2015	73,553,273	44.80	1,007,539,802	148,641,976	858,897,826	1.58	614,383	508,734	1,123,116	33.66
2016	74,064,464	48.89	1,013,784,449	150,854,007	862,930,441	1.50	586,345	456,849	1,043,194	31.05
2017	74,080,246	49.21	1,004,851,794	154,379,500	850,472,295	1.39	534,288	463,869	998,157	29.71
2018	73,838,150	46.05	985,057,955	138,527,203	846,530,752	1.45	556,387	497,714	1,054,101	31.47
2019	74,054,921	45.20	971,051,987	86,392,660	884,659,327	1.39	559,377	508,762	1,068,139	31.80
2020	74,749,271	46.24	937,846,191	89,859,818	847,986,373	1.23	474,261	481,115	955,376	28.18
2021	75,060,520	46.25	905,635,884	89,492,473	816,143,411	1.19	439,793	442,242	882,035	25.91
2022	74,879,851	47.32	946,476,664	120,542,926	825,933,737	1.25	466,798	450,063	916,861	26.99
2023	75,112,842	48.63	927,356,178	160,793,179	766,562,999	1.19	412,033	438,466	850,499	24.96

Fiscal Year	State Net Thermal MMBtu	State Plant Reports MMBtu w/Sales	State Coal MMBtu	State Alt Fuel MMBtu	State Gas MMBtu	State Oil MMBtu	State Plant Reports MMBtu w/Sales	State Boiler Fuel Based Emissions lbs	State Boiler Fuel Emissions lb/MMBtu	State Net Thermal MMBtu CO2e Metric Tons
2005	9,627,884	10,461,758	5,527,975	255,718	4,648,047	32,643	10,461,758	775,503	163.42	713,690
2006	9,490,154	10,313,947	5,788,845	272,553	4,253,597	12,242	10,313,947	778,119	166.32	715,969
2007	9,438,163	10,167,593	5,714,337	301,660	4,190,091	13,989	10,167,593	769,138	166.77	713,959
2008	9,877,723	10,671,193	5,647,716	247,778	4,823,932	15,808	10,671,193	794,447	164.13	735,375
2009	9,533,903	10,371,582	3,747,017	279,026	6,299,401	49,769	10,371,582	699,195	148.62	642,723
2010	9,158,590	9,809,569	3,091,927	146,496	6,572,933	3,688	9,809,569	643,693	144.66	600,977
2011	9,322,847	9,945,865	3,020,757	81,218	6,840,287	5,918	9,945,865	648,683	143.79	608,049
2012	8,140,719	8,731,815	1,400,609	22,812	7,292,854	17,337	8,731,815	519,936	131.27	484,739
2013	9,074,368	9,656,357	886,813	23,113	8,722,971	23,460	9,656,357	548,354	125.19	515,304
2014	9,720,379	10,392,109	832,622	2,907	9,381,286	175,421	10,392,109	588,510	124.85	550,470
2015	9,162,906	9,833,600	598,727	3,977	9,228,144	2,752	9,833,600	545,971	122.40	508,734
2016	8,245,024	8,878,213	515,338	1,820	8,358,549	2,505	8,878,213	491,933	122.16	456,849
2017	8,239,588	8,717,656	685,733	-	8,039,084	2,257	8,717,656	490,783	124.12	463,869
2018	8,835,486	9,299,500	728,942	-	8,551,211	27,664	9,299,500	523,853	124.19	497,714
2019	9,004,382	9,578,448	737,327	-	8,718,611	132,613	9,578,448	541,197	124.56	508,762
2020	8,547,932	9,098,923	705,055	-	8,397,268	9,524	9,098,923	512,127	124.09	481,115
2021	8,233,976	8,837,639	-	-	8,556,962	280,793	8,837,639	474,665	118.41	442,242
2022	8,476,484	8,966,110	-	-	8,954,865	11,245	8,966,110	476,060	117.06	450,063
2023	8,233,908	8,751,676	-	-	8,672,880	78,796	8,751,676	466,037	117.40	438,466



# Wisconsin Agency GHG CO2e Emissions

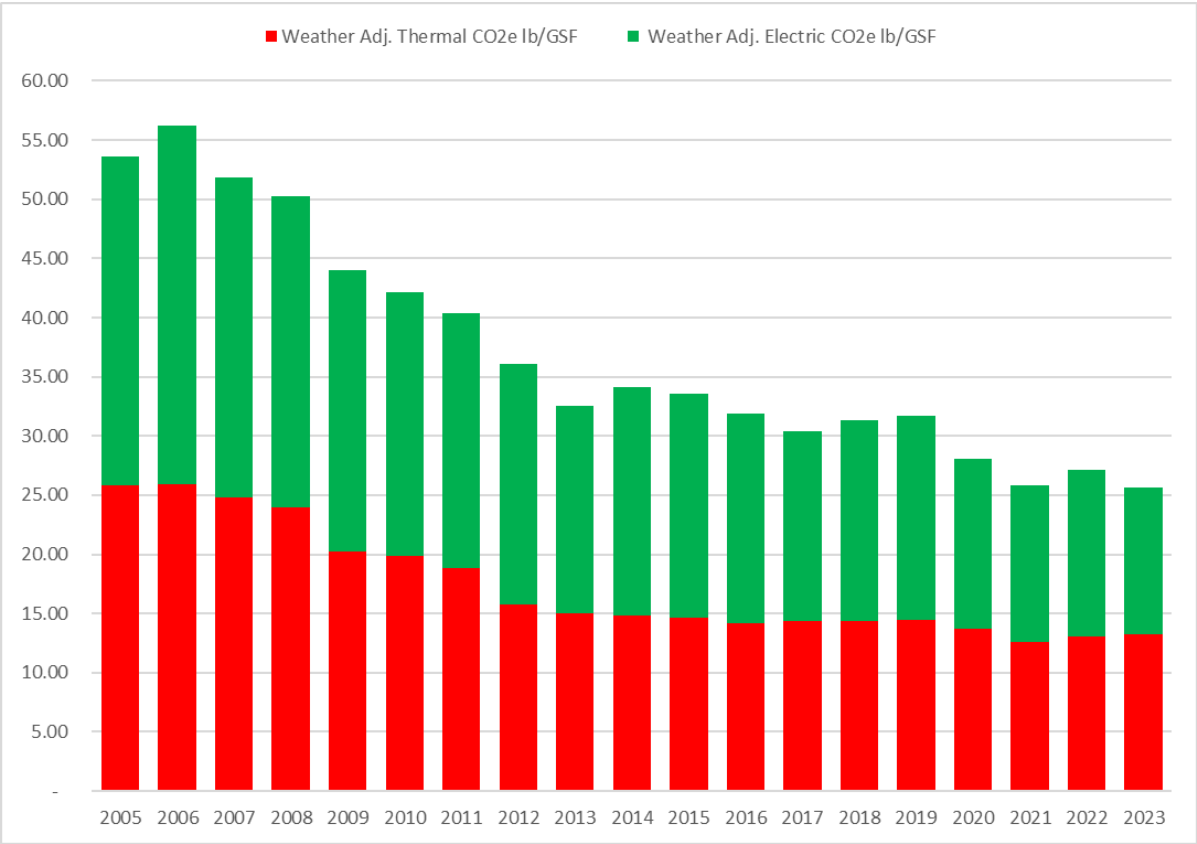


## SCOPE

Includes 13-four year university campuses: UW-Eau Claire; UW-Green Bay; UW-La Crosse; UW-Madison; UW-Milwaukee; UW-Oshkosh; UW-Parkside; UW-Platteville; UW-River Falls; UW-Stevens Point; UW-Stout; UW-Superior; and UW-Whitewater.

Also, includes 13 two-year college campuses: UW-Platteville, Baraboo Sauk County; UW-Eau Claire, Barron County; UW-Oshkosh, Fond du Lac; UW-Oshkosh, Fox Cities; UW-Green Bay, Manitowoc; UW-Stevens Point, Wausau; UW-Green Bay, Marinette; UW-Stevens Point, Wausau; UW-Platteville, Richland; UW-Whitewater, Rock County; UW-Green Bay, Sheboygan; UW-Milwaukee, Washington County; and UW-Milwaukee, Waukesha.

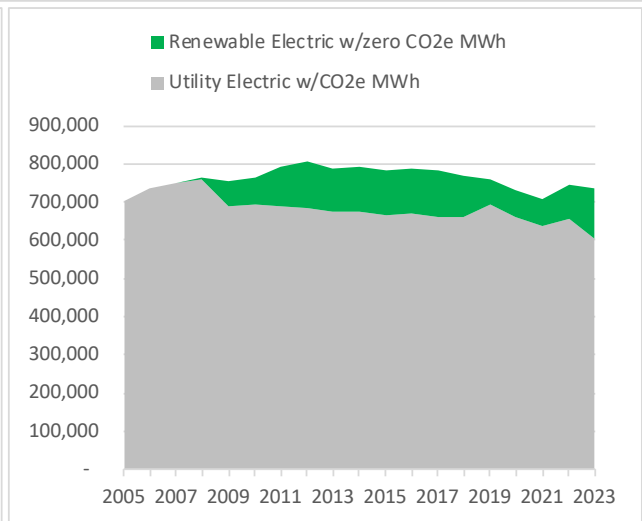
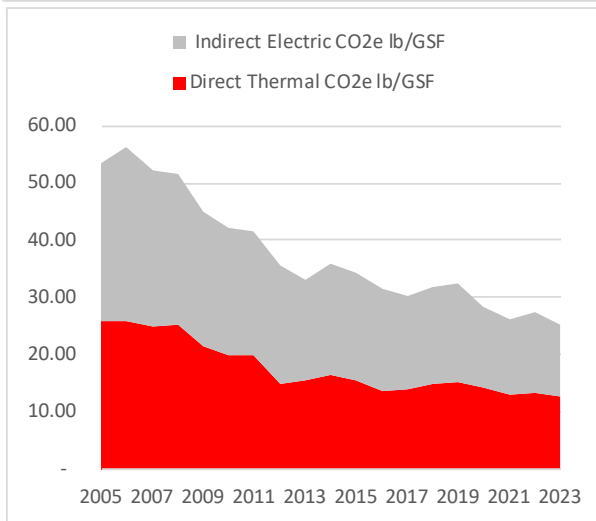
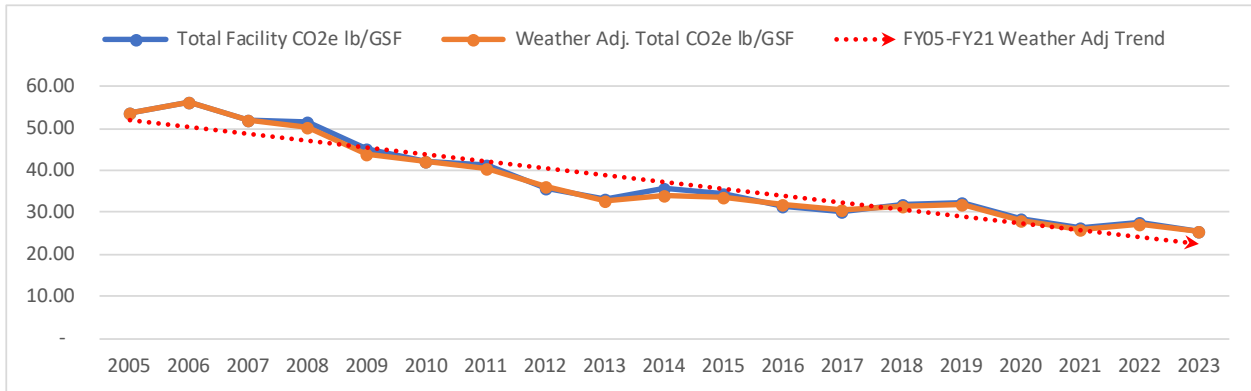
## University of Wisconsin Facilities GHG CO2e Ibs/GSF:



## Universities of Wisconsin CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	46,655,255	25.82	27.80	53.62	0.0%	46.46	25.82	27.80	53.62	0.0%
2006	47,261,328	25.76	30.42	56.18	4.8%	47.79	25.92	30.26	56.19	4.8%
2007	48,307,694	24.99	27.09	52.08	-2.9%	46.78	24.81	27.04	51.86	-3.3%
2008	49,502,098	25.26	26.37	51.64	-3.7%	44.96	23.97	26.30	50.27	-6.2%
2009	50,134,229	21.41	23.68	45.09	-15.9%	44.28	20.26	23.71	43.97	-18.0%
2010	50,622,897	20.01	22.25	42.26	-21.2%	46.42	19.83	22.33	42.15	-21.4%
2011	51,475,349	19.81	21.64	41.45	-22.7%	45.32	18.81	21.59	40.40	-24.7%
2012	53,330,388	14.94	20.64	35.58	-33.6%	50.17	15.77	20.31	36.08	-32.7%
2013	54,571,090	15.56	17.53	33.10	-38.3%	45.57	15.02	17.50	32.53	-39.3%
2014	55,395,590	16.56	19.33	35.89	-33.1%	42.62	14.79	19.30	34.09	-36.4%
2015	55,807,601	15.40	18.86	34.27	-36.1%	44.32	14.62	18.90	33.52	-37.5%
2016	56,318,792	13.59	17.86	31.45	-41.3%	48.46	14.15	17.75	31.89	-40.5%
2017	56,334,574	13.90	16.27	30.17	-43.7%	48.80	14.38	16.06	30.44	-43.2%
2018	56,143,320	14.90	17.00	31.90	-40.5%	45.60	14.33	16.99	31.32	-41.6%
2019	56,125,576	15.17	17.21	32.38	-39.6%	44.74	14.46	17.22	31.68	-40.9%
2020	56,819,926	14.17	14.33	28.51	-46.8%	43.45	13.74	14.36	28.10	-47.6%
2021	57,131,175	13.02	13.28	26.29	-51.0%	43.55	12.58	13.21	25.79	-51.9%
2022	56,998,506	13.23	14.32	27.55	-48.6%	46.87	13.09	14.06	27.15	-49.4%
2023	57,231,497	12.81	12.56	25.37	-52.7%	49.03	13.20	12.44	25.64	-52.2%

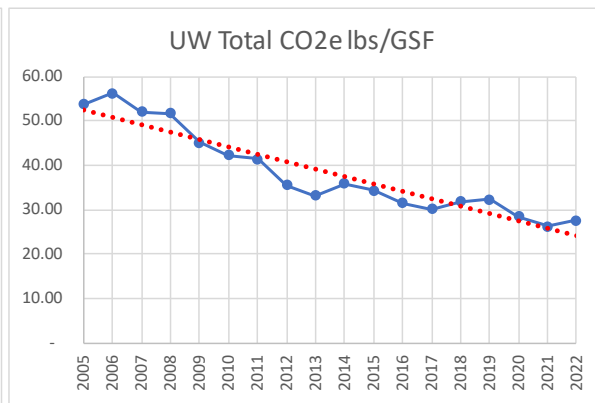
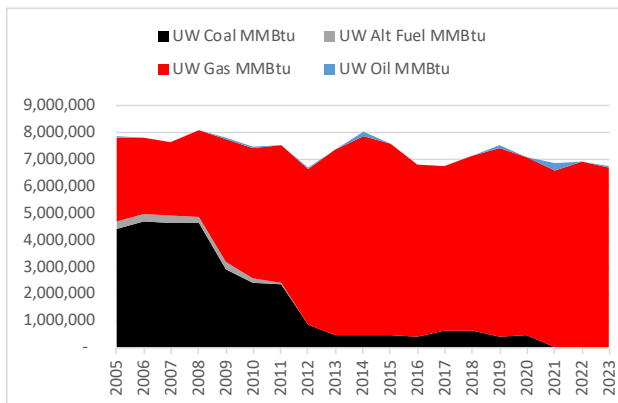
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**Universities of Wisconsin Boiler Plant Fuel and Electric Use CO2e Emissions**

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	UW Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	UW Total CO2e lbs/GSF
2005	46,655,255	46.46	703,803,290	-	703,803,290	1.84	588,359	546,387	1,134,746	53.62
2006	47,261,328	47.79	737,261,746	-	737,261,746	1.95	652,112	552,228	1,204,340	56.18
2007	48,307,694	46.78	748,272,247	-	748,272,247	1.75	593,629	547,599	1,141,228	52.08
2008	49,502,098	44.96	763,676,445	5,080,668	758,595,777	1.72	592,184	567,279	1,159,464	51.64
2009	50,134,229	44.28	754,963,413	64,416,402	690,547,011	1.72	538,437	486,945	1,025,382	45.09
2010	50,622,897	46.42	764,438,048	70,351,730	694,086,317	1.62	510,973	459,482	970,454	42.26
2011	51,475,349	45.32	792,235,745	102,899,759	689,335,987	1.62	505,287	462,555	967,842	41.45
2012	53,330,388	50.17	805,469,665	120,881,557	684,588,108	1.61	499,322	361,400	860,723	35.58
2013	54,571,090	45.57	790,218,376	117,328,025	672,890,350	1.42	434,020	385,227	819,247	33.10
2014	55,395,590	42.62	791,243,627	117,867,807	673,375,821	1.59	485,647	416,099	901,746	35.89
2015	55,807,601	44.32	783,989,771	116,386,667	667,603,104	1.58	477,547	389,884	867,431	34.27
2016	56,318,792	48.46	790,026,489	118,420,442	671,606,047	1.50	456,344	347,128	803,472	31.45
2017	56,334,574	48.80	782,342,340	120,580,532	661,761,808	1.39	415,736	355,255	770,991	30.17
2018	56,143,320	45.60	767,821,625	109,118,522	658,703,103	1.45	432,936	379,535	812,471	31.90
2019	56,125,576	44.74	760,301,234	67,462,276	692,838,958	1.39	438,087	386,264	824,352	32.38
2020	56,819,926	43.45	730,850,048	70,365,494	660,484,554	1.23	369,395	365,314	734,710	28.51
2021	57,131,175	43.55	708,039,188	69,619,570	638,419,618	1.19	344,024	337,339	681,363	26.29
2022	56,998,506	46.87	746,064,447	91,154,763	654,909,684	1.25	370,139	342,144	712,283	27.55
2023	57,231,497	49.03	734,648,366	127,931,682	606,716,684	1.19	326,114	332,485	658,599	25.37

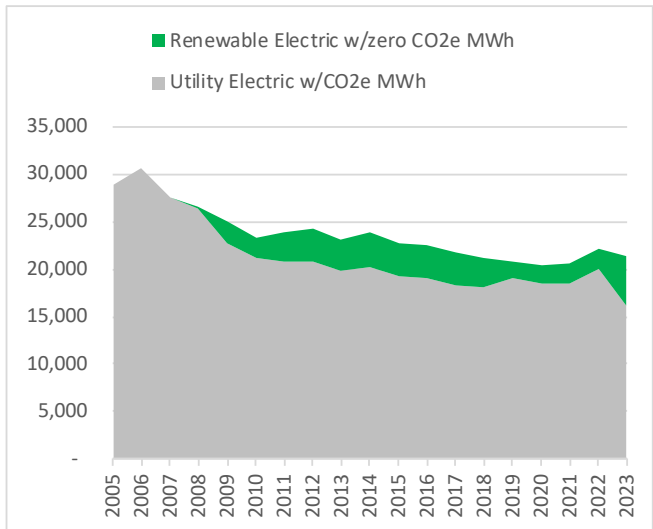
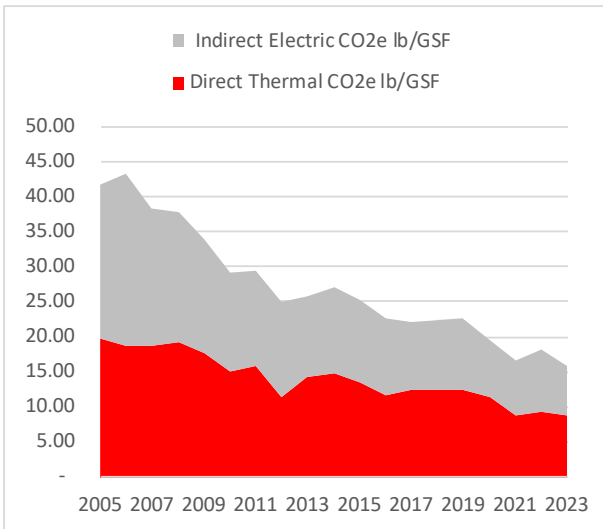
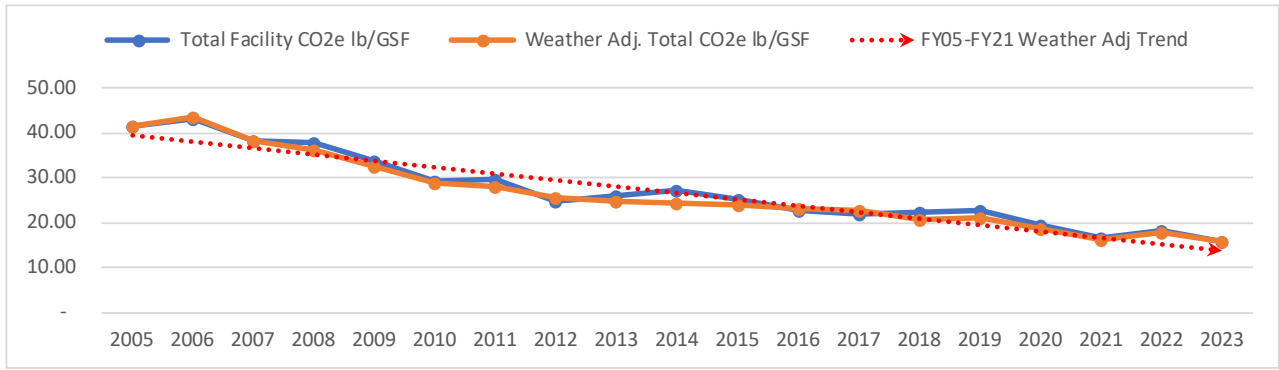
Fiscal Year	UW Net Thermal MMBtu	UW Plant Reports MMBtu w/Sales	UW Coal MMBtu	UW Alt Fuel MMBtu	UW Gas MMBtu	UW Oil MMBtu	UW Plant Reports MMBtu w/Sales	UW Boiler Fuel Based Emissions lbs	UW Boiler Fuel Emissions lb/MMBtu	UW Net Thermal MMBtu CO2e Metric Tons
2005	7,242,061	7,859,747	4,425,097	246,898	3,156,067	31,780	7,859,747	592,990	166.33	546,387
2006	7,172,490	7,795,920	4,703,414	253,689	2,835,684	4,299	7,795,920	600,227	169.74	552,228
2007	7,096,796	7,652,224	4,647,336	280,942	2,717,514	12,463	7,652,224	590,457	170.11	547,599
2008	7,469,384	8,077,888	4,647,416	227,276	3,189,942	15,119	8,077,888	613,494	167.44	567,279
2009	7,165,793	7,822,938	2,942,000	257,192	4,574,979	48,982	7,822,938	531,601	149.81	486,945
2010	6,959,551	7,451,174	2,434,412	131,107	4,883,116	2,539	7,451,174	491,940	145.55	459,482
2011	7,054,671	7,524,614	2,351,253	58,157	5,110,390	4,814	7,524,614	493,368	144.55	462,555
2012	6,190,954	6,685,026	873,614	2,347	5,791,967	17,099	6,685,026	390,242	128.70	361,400
2013	6,929,966	7,394,687	452,315	1,316	6,919,240	21,815	7,394,687	411,060	122.55	385,227
2014	7,445,914	8,055,897	477,467	1,214	7,404,938	172,279	8,055,897	450,187	123.20	416,099
2015	7,030,929	7,601,027	450,093	1,813	7,148,077	1,044	7,601,027	421,498	122.25	389,884
2016	6,259,649	6,795,021	402,465	1,820	6,389,171	1,564	6,795,021	376,817	122.26	347,128
2017	6,258,200	6,736,269	607,550	-	6,134,998	1,649	6,736,269	382,394	125.15	355,255
2018	6,695,236	7,159,250	625,406	-	6,515,859	23,058	7,159,250	405,838	124.97	379,535
2019	6,938,651	7,512,716	429,010	-	6,971,282	112,425	7,512,716	418,222	122.73	386,264
2020	6,553,842	7,104,832	468,477	-	6,630,255	6,104	7,104,832	396,027	122.89	365,314
2021	6,264,090	6,867,753	110	-	6,600,405	267,238	6,867,753	369,848	118.73	337,339
2022	6,444,158	6,933,784	-	-	6,925,717	8,067	6,933,784	368,140	117.05	342,144
2023	6,238,535	6,756,303	-	-	6,680,650	75,652	6,756,303	360,079	117.50	332,485



### UW-Eau Claire CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,438,217	19.70	21.87	41.58	0.0%	45.85	19.70	21.87	41.58	0.0%
2006	2,436,936	18.69	24.46	43.15	3.8%	47.80	19.38	24.22	43.60	4.9%
2007	2,436,936	18.58	19.77	38.35	-7.8%	46.32	18.62	19.65	38.27	-8.0%
2008	2,436,936	19.11	18.62	37.72	-9.3%	43.27	17.49	18.55	36.03	-13.3%
2009	2,436,936	17.65	16.08	33.73	-18.9%	42.97	16.20	16.15	32.35	-22.2%
2010	2,436,963	14.93	14.13	29.06	-30.1%	45.29	14.57	14.14	28.71	-30.9%
2011	2,436,963	15.72	13.75	29.47	-29.1%	43.68	14.31	13.73	28.04	-32.6%
2012	2,452,457	11.35	13.56	24.92	-40.1%	49.02	12.22	13.48	25.70	-38.2%
2013	2,452,457	14.38	11.45	25.82	-37.9%	43.85	13.15	11.44	24.60	-40.8%
2014	2,634,457	14.82	12.24	27.05	-34.9%	41.37	12.36	12.15	24.51	-41.1%
2015	2,634,457	13.53	11.57	25.10	-39.6%	43.42	12.49	11.59	24.08	-42.1%
2016	2,634,457	11.70	10.85	22.54	-45.8%	47.61	12.35	10.78	23.14	-44.4%
2017	2,634,457	12.40	9.64	22.04	-47.0%	47.08	12.90	9.60	22.50	-45.9%
2018	2,634,457	12.33	9.96	22.29	-46.4%	42.94	10.70	10.05	20.74	-50.1%
2019	2,634,457	12.55	10.03	22.59	-45.7%	42.23	11.10	10.07	21.17	-49.1%
2020	2,785,457	11.26	8.17	19.43	-53.3%	41.35	10.12	8.41	18.53	-55.4%
2021	2,785,457	8.72	7.91	16.63	-60.0%	41.67	7.89	8.11	16.00	-61.5%
2022	2,801,457	9.27	8.93	18.19	-56.2%	44.82	8.88	8.94	17.82	-57.1%
2023	2,729,192	8.80	6.99	15.79	-62.0%	45.80	8.71	6.98	15.69	-62.3%

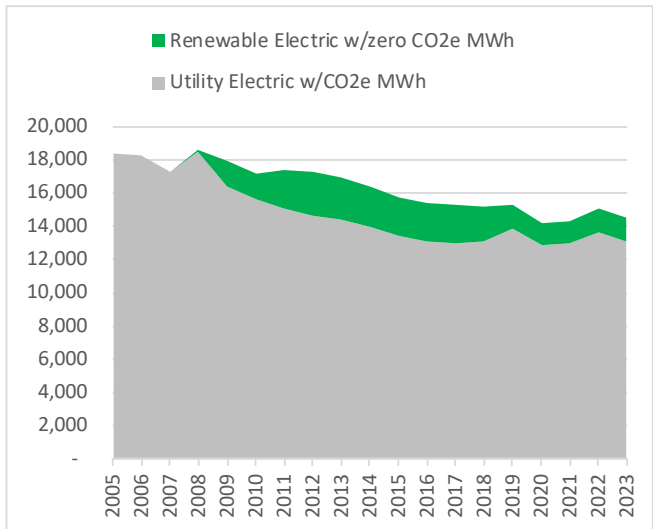
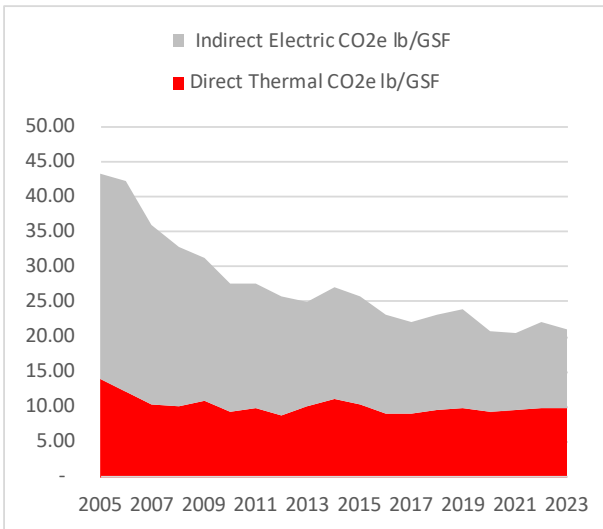
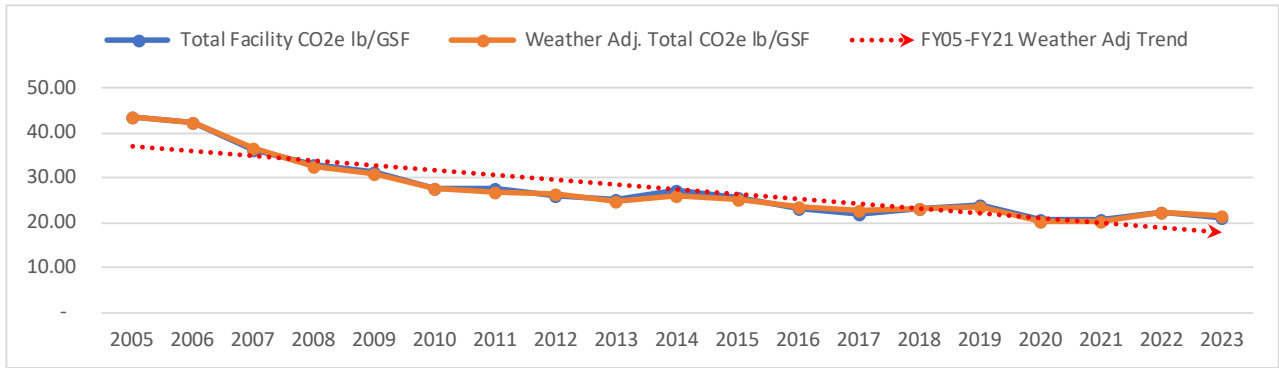
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Green Bay CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,157,746	14.08	29.27	43.35	0.0%	45.92	14.08	29.27	43.35	0.0%
2006	1,179,796	12.05	30.10	42.15	-2.8%	47.27	12.45	29.80	42.24	-2.6%
2007	1,179,796	10.44	25.60	36.05	-16.9%	46.64	10.81	25.58	36.39	-16.1%
2008	1,386,055	9.98	22.90	32.88	-24.2%	45.02	9.63	22.80	32.44	-25.2%
2009	1,386,055	10.98	20.38	31.35	-27.7%	43.47	10.31	20.48	30.79	-29.0%
2010	1,386,055	9.27	18.26	27.53	-36.5%	45.99	9.30	18.31	27.60	-36.3%
2011	1,386,055	9.87	17.58	27.45	-36.7%	44.59	9.43	17.52	26.95	-37.8%
2012	1,386,055	8.85	17.01	25.86	-40.4%	49.86	9.67	16.77	26.44	-39.0%
2013	1,386,055	10.17	14.83	24.99	-42.3%	45.29	10.00	14.82	24.82	-42.7%
2014	1,386,055	11.09	15.99	27.08	-37.5%	41.95	9.93	15.94	25.87	-40.3%
2015	1,386,055	10.43	15.28	25.70	-40.7%	43.98	9.95	15.32	25.28	-41.7%
2016	1,386,055	9.04	14.17	23.21	-46.5%	48.11	9.59	14.08	23.67	-45.4%
2017	1,386,055	9.10	12.97	22.06	-49.1%	48.65	9.82	12.87	22.69	-47.7%
2018	1,386,055	9.56	13.64	23.20	-46.5%	45.77	9.54	13.63	23.17	-46.6%
2019	1,386,055	9.93	13.97	23.90	-44.9%	44.89	9.64	13.99	23.63	-45.5%
2020	1,386,058	9.28	11.44	20.73	-52.2%	42.93	8.65	11.71	20.36	-53.0%
2021	1,386,058	9.54	11.08	20.62	-52.4%	43.28	9.03	11.20	20.24	-53.3%
2022	1,386,058	9.91	12.24	22.15	-48.9%	46.75	10.03	12.11	22.14	-48.9%
2023	1,386,058	9.78	11.22	20.99	-51.6%	47.58	10.25	11.17	21.42	-50.6%

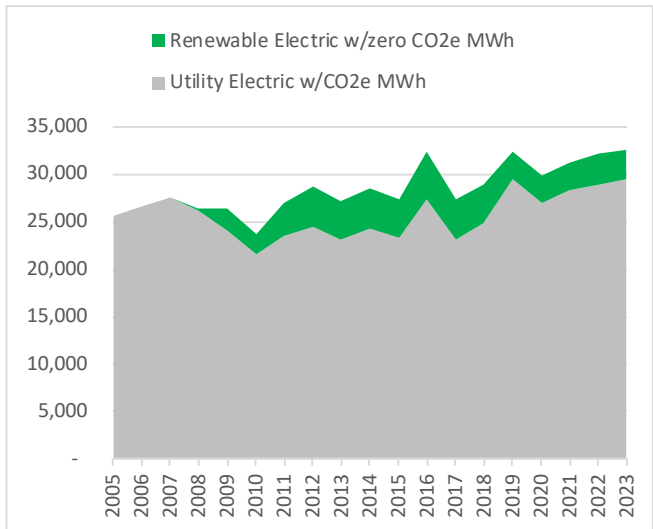
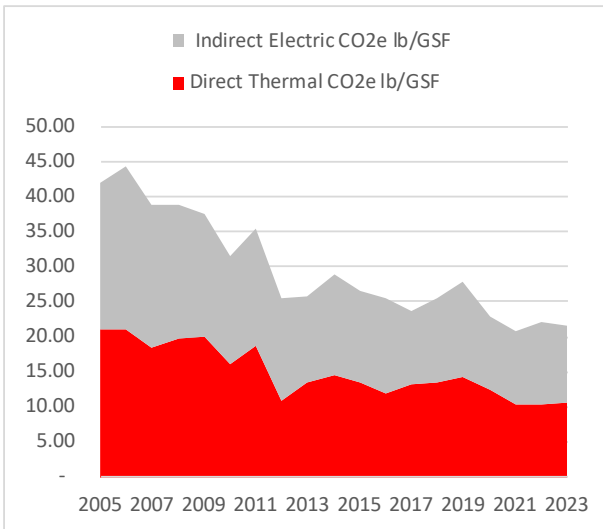
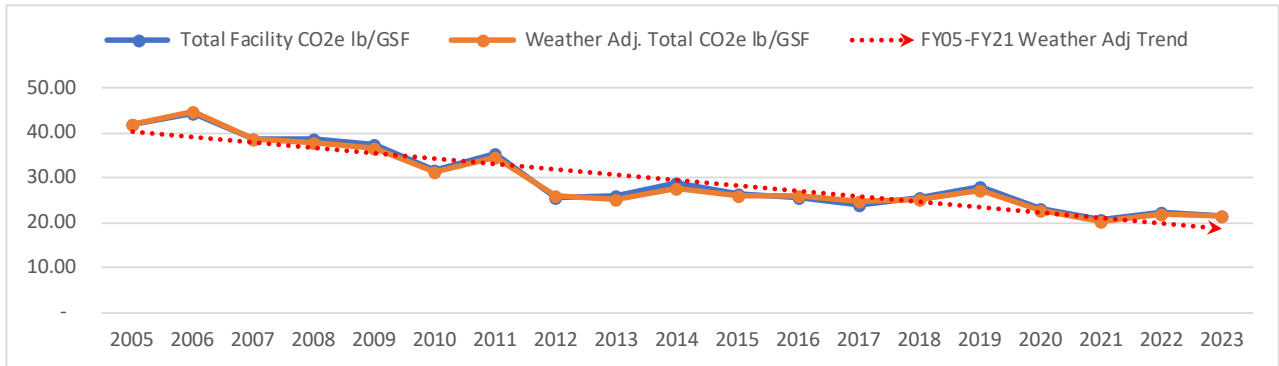
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-La Crosse CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,260,874	21.17	20.79	41.97	0.0%	48.43	21.17	20.79	41.97	0.0%
2006	2,206,741	20.94	23.46	44.39	5.8%	49.77	21.59	23.19	44.78	6.7%
2007	2,371,272	18.44	20.33	38.77	-7.6%	48.69	18.49	20.25	38.74	-7.7%
2008	2,371,272	19.64	19.05	38.69	-7.8%	46.15	18.66	19.10	37.76	-10.0%
2009	2,371,272	20.04	17.47	37.51	-10.6%	45.85	18.89	17.62	36.51	-13.0%
2010	2,261,088	16.07	15.43	31.49	-25.0%	47.43	15.63	15.45	31.08	-26.0%
2011	2,261,088	18.75	16.71	35.46	-15.5%	46.70	17.97	16.66	34.63	-17.5%
2012	2,677,906	10.78	14.66	25.44	-39.4%	51.77	11.68	14.37	26.05	-37.9%
2013	2,677,906	13.54	12.30	25.84	-38.4%	46.71	12.99	12.28	25.27	-39.8%
2014	2,677,906	14.57	14.37	28.94	-31.0%	44.97	13.21	14.23	27.44	-34.6%
2015	2,797,642	13.40	13.10	26.49	-36.9%	47.28	13.08	13.04	26.11	-37.8%
2016	3,008,972	11.79	13.65	25.44	-39.4%	51.01	12.54	13.33	25.88	-38.3%
2017	3,008,972	13.10	10.67	23.76	-43.4%	51.61	14.09	10.53	24.61	-41.4%
2018	3,008,972	13.50	11.94	25.44	-39.4%	48.62	13.45	11.85	25.30	-39.7%
2019	3,008,972	14.26	13.63	27.89	-33.5%	47.03	13.54	13.55	27.09	-35.5%
2020	3,207,814	12.52	10.39	22.92	-45.4%	48.33	12.46	10.34	22.81	-45.7%
2021	3,220,082	10.39	10.40	20.79	-50.5%	45.16	9.78	10.64	20.42	-51.3%
2022	3,069,582	10.38	11.75	22.13	-47.3%	48.90	10.35	11.51	21.86	-47.9%
2023	3,209,701	10.67	10.86	21.52	-48.7%	49.34	10.81	10.72	21.52	-48.7%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

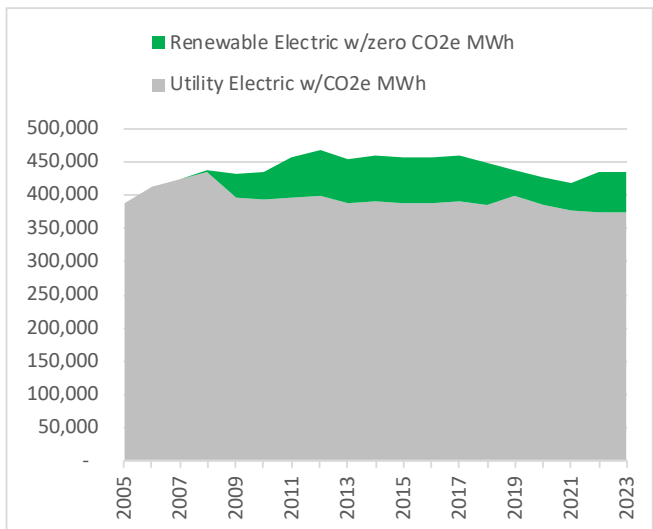
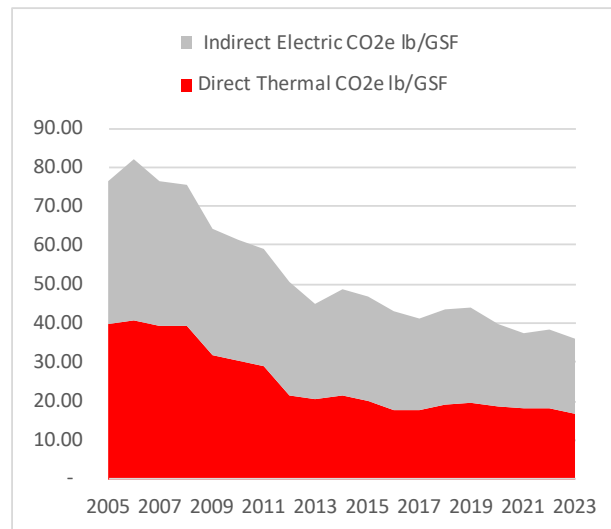
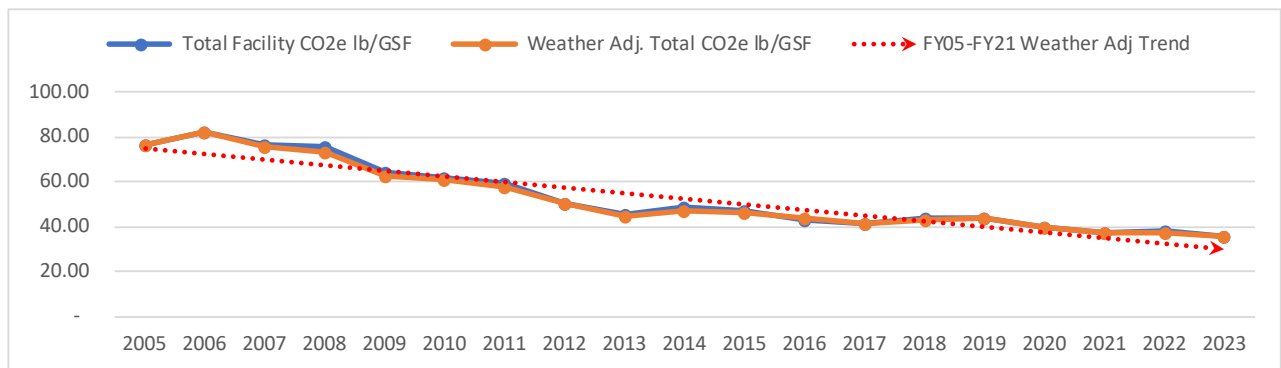




### UW-Madison CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	19,207,711	39.58	37.09	76.67	0.0%	48.12	39.58	37.09	76.67	0.0%
2006	19,361,692	40.90	41.40	82.30	7.3%	48.65	40.79	41.24	82.03	7.0%
2007	19,913,817	39.44	37.12	76.56	-0.1%	47.46	38.87	37.09	75.95	-0.9%
2008	20,578,984	39.25	36.27	75.51	-1.5%	46.19	37.32	36.14	73.46	-4.2%
2009	20,979,443	31.72	32.39	64.12	-16.4%	45.66	30.23	32.39	62.62	-18.3%
2010	20,678,457	30.40	30.94	61.34	-20.0%	47.10	29.97	31.10	61.07	-20.3%
2011	21,120,379	28.84	30.39	59.23	-22.7%	46.81	27.49	30.30	57.79	-24.6%
2012	22,153,550	21.49	28.90	50.39	-34.3%	51.51	22.29	28.39	50.68	-33.9%
2013	22,362,671	20.49	24.63	45.12	-41.1%	47.29	19.92	24.60	44.53	-41.9%
2014	22,810,139	21.61	27.29	48.90	-36.2%	44.58	19.57	27.30	46.86	-38.9%
2015	22,931,250	20.03	26.71	46.74	-39.0%	45.84	19.17	26.75	45.93	-40.1%
2016	22,931,250	17.85	25.36	43.21	-43.6%	49.68	18.36	25.19	43.56	-43.2%
2017	22,947,032	17.83	23.48	41.31	-46.1%	49.72	18.07	23.17	41.24	-46.2%
2018	22,755,778	19.14	24.42	43.56	-43.2%	46.66	18.42	24.40	42.82	-44.1%
2019	22,738,034	19.64	24.44	44.09	-42.5%	45.88	18.85	24.52	43.37	-43.4%
2020	22,871,102	18.74	20.81	39.56	-48.4%	48.25	18.75	20.67	39.42	-48.6%
2021	23,025,678	18.16	19.40	37.56	-51.0%	48.83	17.96	19.08	37.04	-51.7%
2022	23,025,678	18.00	20.23	38.23	-50.1%	48.67	17.63	19.85	37.48	-51.1%
2023	23,091,606	16.70	19.16	35.86	-53.2%	49.08	16.97	18.98	35.95	-53.1%

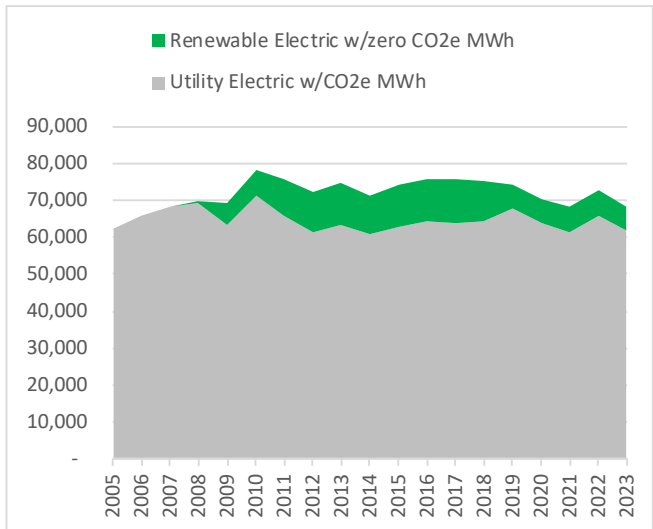
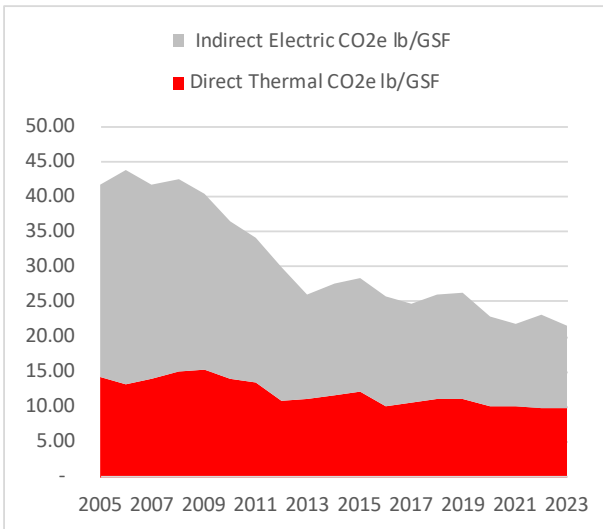
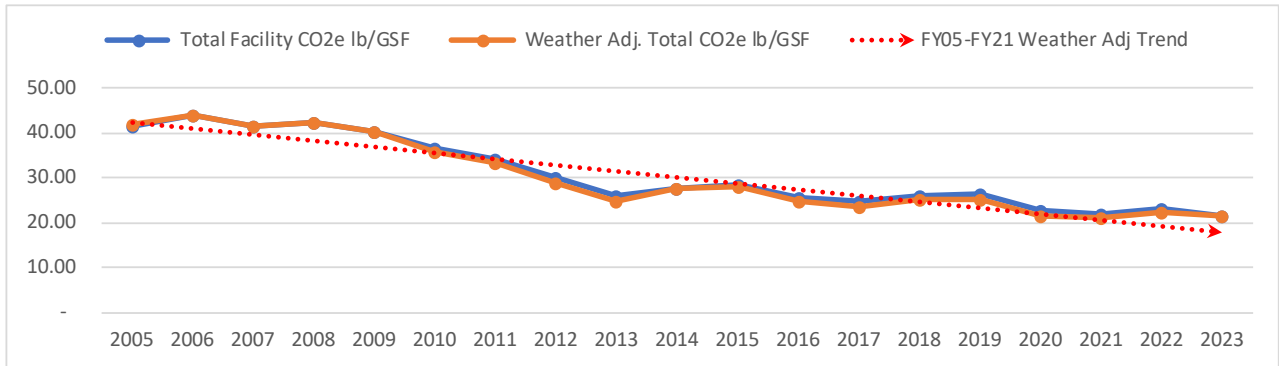
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Milwaukee CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	4,190,131	14.17	27.52	41.69	0.0%	48.47	14.17	27.53	41.70	0.0%
2006	4,190,131	13.24	30.62	43.86	5.2%	50.11	13.25	30.64	43.89	5.2%
2007	4,324,831	13.92	27.65	41.57	-0.3%	48.88	13.92	27.67	41.59	-0.3%
2008	4,320,806	14.95	27.53	42.48	1.9%	47.87	14.96	27.54	42.49	1.9%
2009	4,344,925	15.37	25.00	40.37	-3.2%	47.26	15.38	25.01	40.39	-3.2%
2010	5,124,577	13.94	22.49	36.43	-12.6%	49.10	13.29	22.50	35.79	-14.2%
2011	5,124,577	13.38	20.75	34.14	-18.1%	48.17	12.75	20.76	33.51	-19.6%
2012	5,124,577	10.81	19.24	30.05	-27.9%	52.24	9.40	19.24	28.64	-31.3%
2013	6,026,992	11.02	14.97	25.99	-37.7%	48.26	9.62	14.97	24.59	-41.0%
2014	6,032,861	11.55	16.01	27.56	-33.9%	45.20	11.73	16.02	27.75	-33.5%
2015	6,078,866	12.06	16.35	28.40	-31.9%	46.08	11.85	16.35	28.20	-32.4%
2016	6,208,809	10.20	15.49	25.69	-38.4%	50.51	9.30	15.50	24.80	-40.5%
2017	6,208,809	10.49	14.24	24.73	-40.7%	51.99	9.45	14.24	23.69	-43.2%
2018	6,208,809	11.11	15.02	26.13	-37.3%	48.73	10.29	15.02	25.31	-39.3%
2019	6,208,809	11.09	15.22	26.31	-36.9%	47.88	10.00	15.22	25.23	-39.5%
2020	6,204,204	10.18	12.66	22.84	-45.2%	46.54	8.66	12.66	21.32	-48.9%
2021	6,204,204	10.09	11.78	21.87	-47.5%	47.13	9.13	11.79	20.91	-49.9%
2022	6,204,204	9.83	13.22	23.06	-44.7%	50.90	9.04	13.23	22.27	-46.6%
2023	6,204,204	9.70	11.81	21.52	-48.4%	51.09	9.71	11.82	21.53	-48.4%

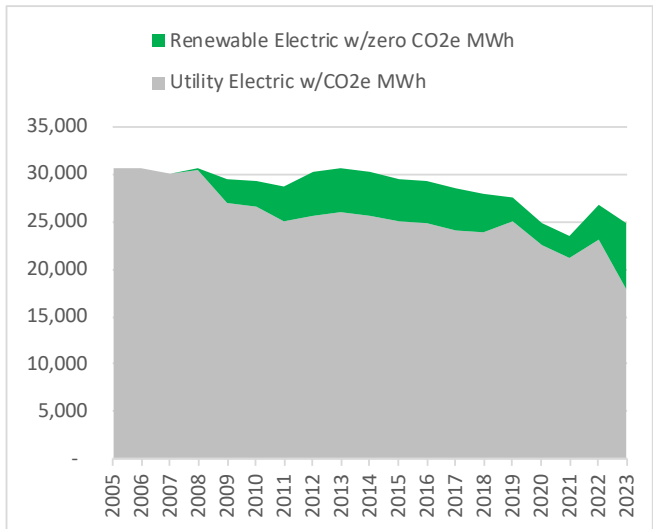
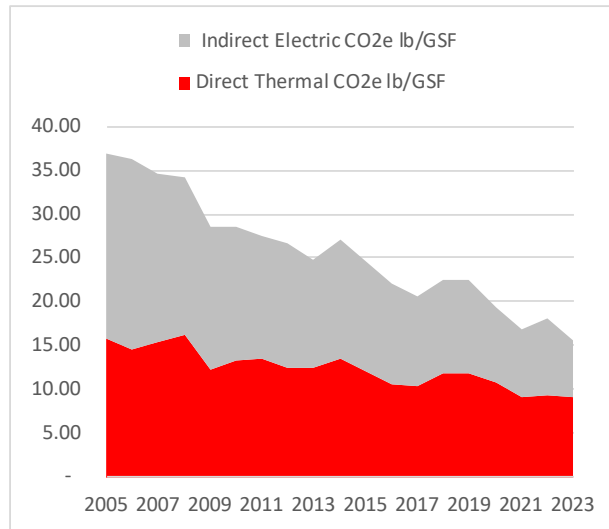
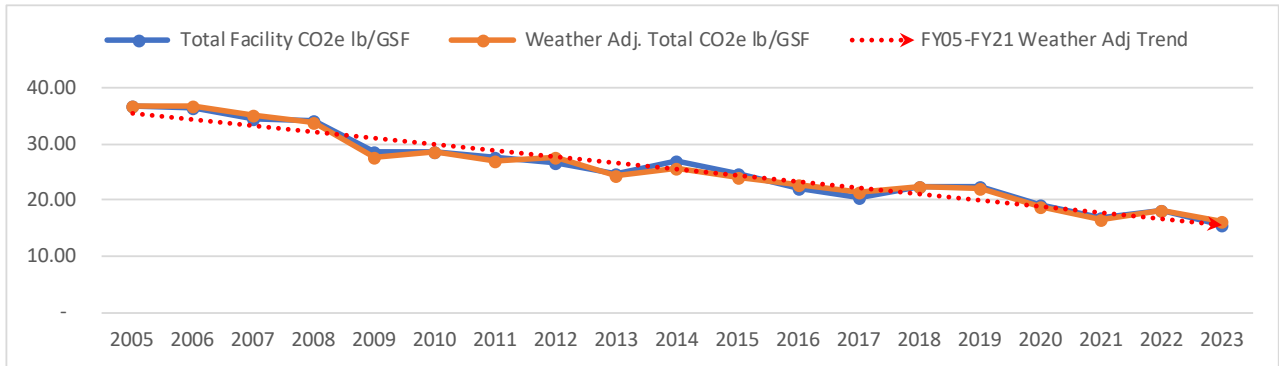
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Oshkosh CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,674,233	15.71	21.10	36.81	0.0%	45.92	15.71	21.10	36.81	0.0%
2006	2,746,643	14.61	21.74	36.35	-1.3%	47.27	15.18	21.59	36.77	-0.1%
2007	2,753,951	15.43	19.11	34.54	-6.2%	46.64	15.95	19.08	35.03	-4.8%
2008	2,889,527	16.17	18.06	34.24	-7.0%	45.02	15.71	18.16	33.87	-8.0%
2009	2,855,351	12.34	16.23	28.57	-22.4%	43.47	11.46	16.32	27.78	-24.5%
2010	2,826,573	13.27	15.28	28.55	-22.4%	45.99	13.39	15.31	28.70	-22.0%
2011	2,892,390	13.59	13.98	27.57	-25.1%	44.59	12.99	14.03	27.02	-26.6%
2012	2,892,390	12.37	14.24	26.62	-27.7%	49.86	13.73	14.05	27.78	-24.5%
2013	3,001,171	12.35	12.35	24.70	-32.9%	45.29	12.09	12.35	24.45	-33.6%
2014	3,001,171	13.54	13.61	27.15	-26.3%	41.95	11.92	13.68	25.60	-30.5%
2015	3,126,330	12.01	12.61	24.62	-33.1%	43.98	11.37	12.65	24.02	-34.7%
2016	3,259,189	10.57	11.43	22.00	-40.2%	48.11	11.31	11.35	22.65	-38.5%
2017	3,259,189	10.35	10.21	20.57	-44.1%	48.65	11.38	10.10	21.48	-41.6%
2018	3,259,189	11.77	10.61	22.38	-39.2%	45.77	11.71	10.60	22.31	-39.4%
2019	3,259,189	11.87	10.70	22.56	-38.7%	44.89	11.57	10.67	22.24	-39.6%
2020	3,288,596	10.87	8.41	19.28	-47.6%	42.93	10.07	8.63	18.70	-49.2%
2021	3,288,596	9.19	7.65	16.84	-54.3%	43.28	8.77	7.73	16.50	-55.2%
2022	3,288,596	9.29	8.77	18.06	-50.9%	46.75	9.42	8.68	18.10	-50.8%
2023	3,288,596	9.02	6.47	15.49	-57.9%	51.09	9.82	6.36	16.18	-56.0%

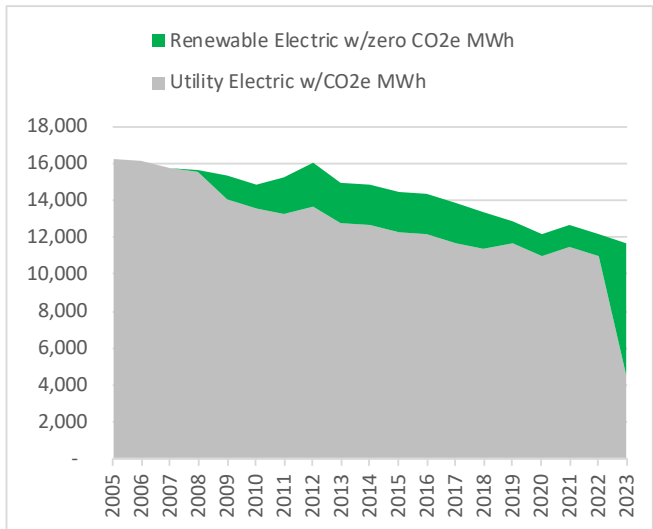
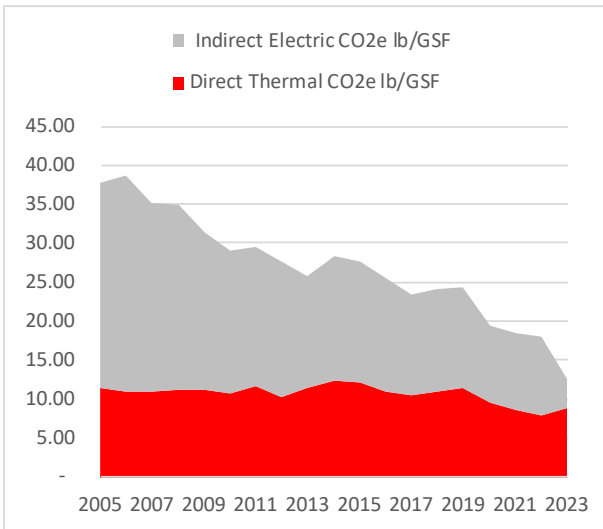
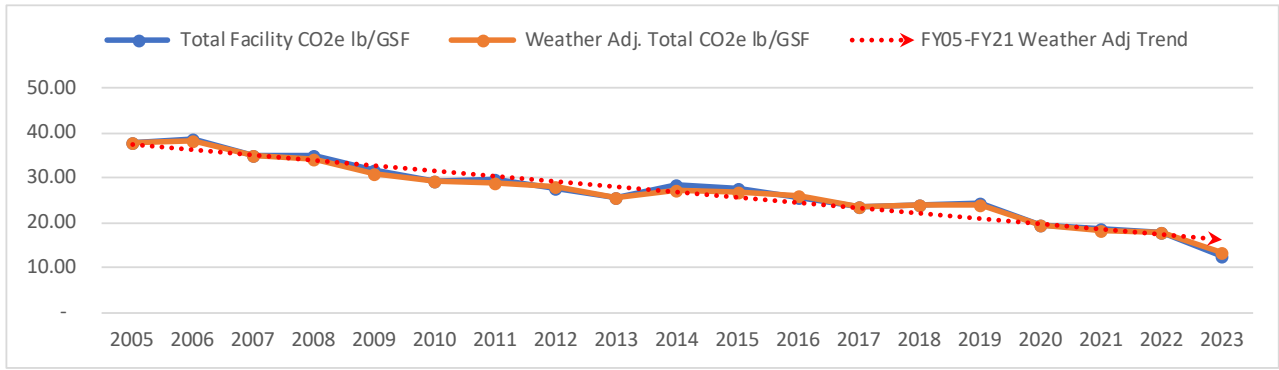
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Parkside CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,132,766	11.38	26.40	37.77	0.0%	48.47	11.38	26.40	37.77	0.0%
2006	1,135,611	10.87	27.71	38.58	2.1%	50.11	11.13	27.20	38.33	1.5%
2007	1,135,611	10.86	24.30	35.16	-6.9%	48.88	10.91	24.08	34.99	-7.4%
2008	1,135,611	11.27	23.56	34.83	-7.8%	47.87	10.91	23.30	34.22	-9.4%
2009	1,191,207	11.21	20.30	31.50	-16.6%	47.26	10.72	20.18	30.90	-18.2%
2010	1,190,505	10.69	18.43	29.12	-22.9%	49.10	10.88	18.40	29.28	-22.5%
2011	1,190,505	11.65	17.95	29.60	-21.6%	48.17	11.32	17.68	29.00	-23.2%
2012	1,262,322	10.15	17.40	27.55	-27.1%	52.24	10.96	16.97	27.94	-26.0%
2013	1,262,322	11.40	14.34	25.74	-31.9%	48.26	11.24	14.20	25.44	-32.7%
2014	1,262,322	12.44	15.94	28.38	-24.9%	45.20	11.22	15.79	27.00	-28.5%
2015	1,262,322	12.23	15.36	27.59	-27.0%	46.08	11.50	15.48	26.98	-28.6%
2016	1,262,322	11.02	14.48	25.50	-32.5%	50.51	11.59	14.24	25.83	-31.6%
2017	1,262,322	10.50	12.84	23.34	-38.2%	51.99	11.32	12.32	23.63	-37.4%
2018	1,262,322	10.89	13.11	24.00	-36.5%	48.73	10.85	12.96	23.81	-37.0%
2019	1,262,322	11.52	12.92	24.44	-35.3%	47.88	11.29	12.74	24.03	-36.4%
2020	1,374,576	9.61	9.84	19.45	-48.5%	46.54	9.23	10.06	19.29	-48.9%
2021	1,374,576	8.60	9.89	18.48	-51.1%	47.13	8.33	10.01	18.34	-51.5%
2022	1,374,576	8.00	9.98	17.98	-52.4%	50.90	8.34	9.66	18.00	-52.4%
2023	1,374,576	8.76	3.92	12.68	-66.4%	51.09	9.47	3.88	13.35	-64.7%

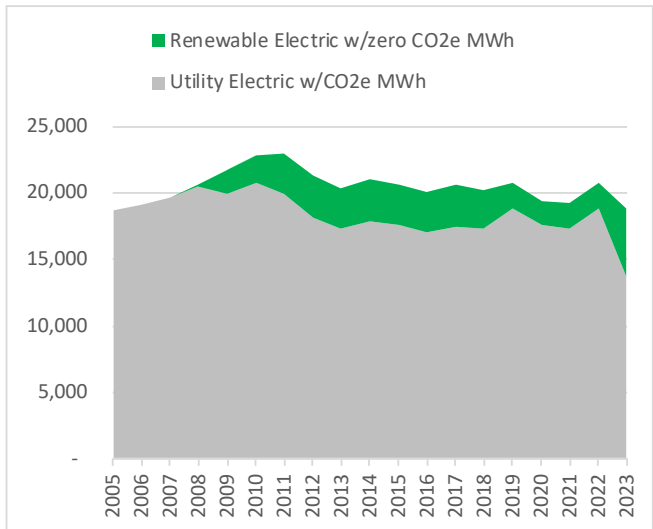
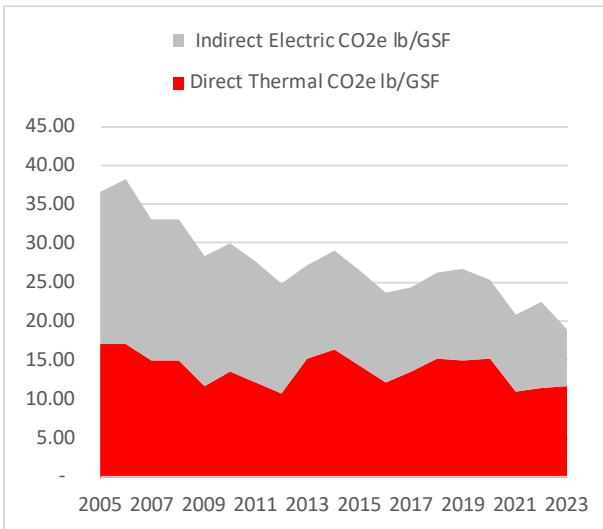
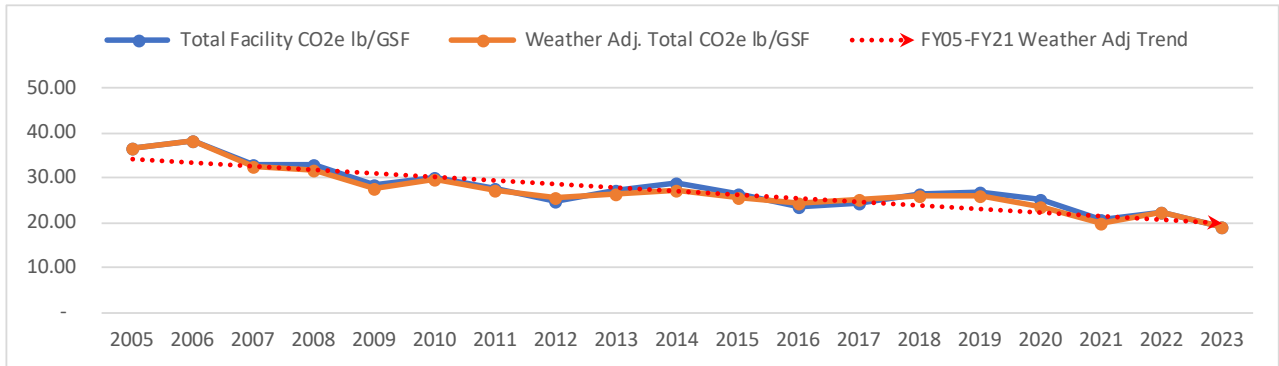
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Platteville CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,767,380	17.13	19.45	36.58	0.0%	46.84	17.13	19.45	36.58	0.0%
2006	1,754,450	17.00	21.20	38.19	4.4%	47.39	17.17	21.15	38.32	4.7%
2007	1,905,950	14.99	18.00	32.99	-9.8%	46.26	14.71	17.97	32.68	-10.6%
2008	1,951,401	15.02	18.05	33.06	-9.6%	44.24	13.72	18.05	31.77	-13.2%
2009	2,051,105	11.66	16.69	28.35	-22.5%	44.25	10.73	16.74	27.46	-24.9%
2010	2,051,105	13.61	16.40	30.01	-17.9%	45.47	13.04	16.49	29.53	-19.3%
2011	2,070,851	12.15	15.58	27.73	-24.2%	46.21	11.70	15.53	27.23	-25.6%
2012	2,070,851	10.72	14.04	24.76	-32.3%	51.40	12.00	13.73	25.73	-29.7%
2013	2,070,851	15.23	11.89	27.13	-25.8%	46.61	14.69	11.75	26.44	-27.7%
2014	2,244,485	16.32	12.66	28.99	-20.8%	43.20	14.55	12.54	27.09	-25.9%
2015	2,244,485	14.20	12.32	26.52	-27.5%	44.37	13.12	12.35	25.48	-30.3%
2016	2,244,485	12.15	11.38	23.53	-35.7%	48.82	13.03	11.29	24.32	-33.5%
2017	2,244,485	13.58	10.79	24.37	-33.4%	49.01	14.29	10.67	24.97	-31.8%
2018	2,244,485	15.12	11.18	26.30	-28.1%	45.93	14.60	11.20	25.80	-29.5%
2019	2,244,485	15.03	11.73	26.76	-26.8%	44.97	14.20	11.71	25.91	-29.2%
2020	2,132,462	15.07	10.16	25.23	-31.0%	43.71	13.52	10.19	23.71	-35.2%
2021	2,132,462	11.05	9.68	20.73	-43.3%	43.00	10.08	9.89	19.96	-45.4%
2022	2,134,293	11.40	10.97	22.37	-38.8%	46.88	11.28	10.85	22.14	-39.5%
2023	2,233,502	11.55	7.29	18.84	-48.5%	47.70	11.77	7.19	18.96	-48.2%

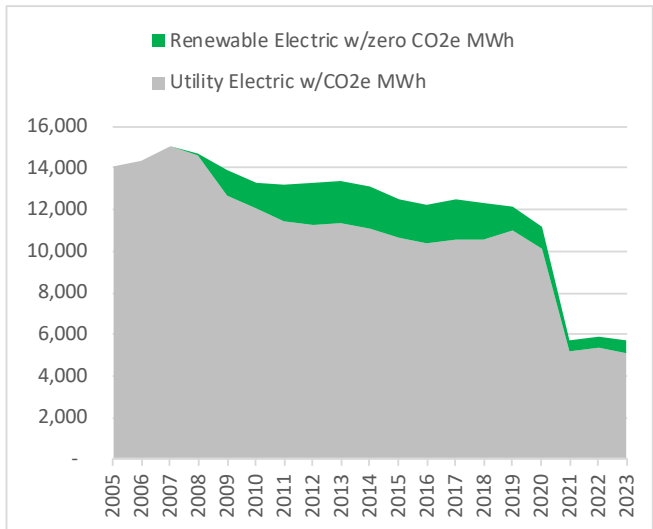
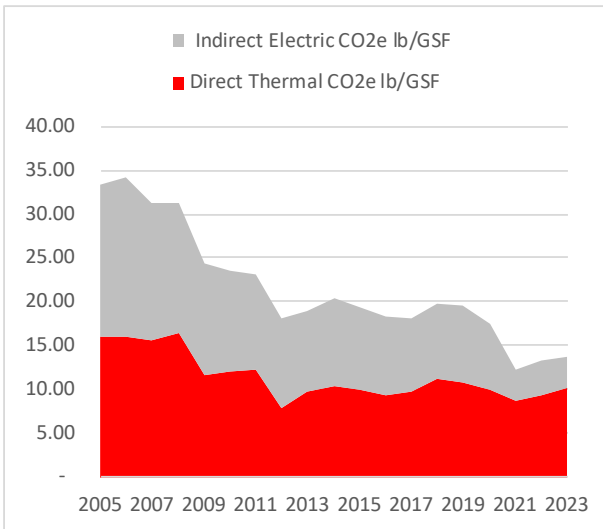
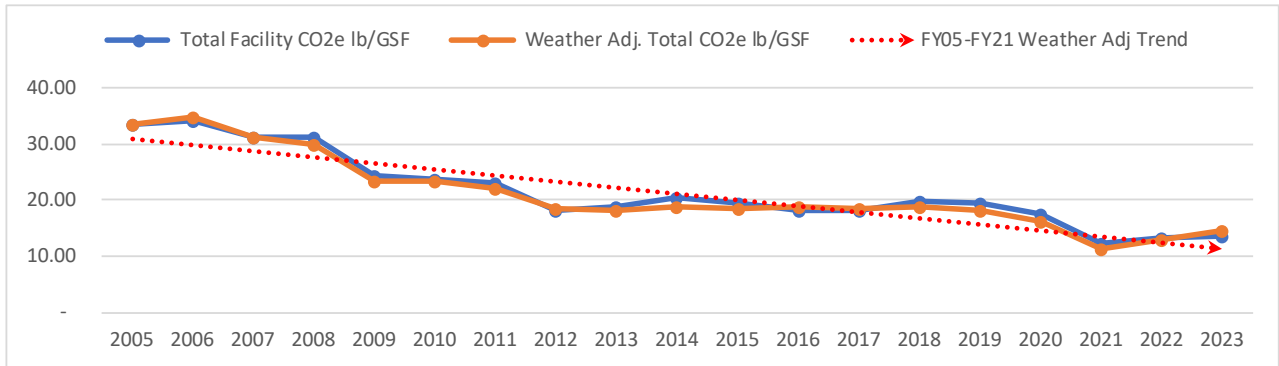
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-River Falls CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,493,198	16.10	17.33	33.44	0.0%	45.85	16.10	17.33	33.44	0.0%
2006	1,539,790	15.97	18.21	34.18	2.2%	47.80	16.69	18.16	34.85	4.2%
2007	1,685,846	15.58	15.62	31.20	-6.7%	46.32	15.45	15.63	31.09	-7.0%
2008	1,683,720	16.39	14.96	31.35	-6.2%	43.27	14.87	15.05	29.92	-10.5%
2009	1,686,708	11.51	12.95	24.46	-26.8%	42.97	10.39	13.11	23.50	-29.7%
2010	1,686,708	12.02	11.59	23.61	-29.4%	45.29	11.68	11.60	23.28	-30.4%
2011	1,686,708	12.17	10.97	23.14	-30.8%	43.68	10.91	11.11	22.02	-34.1%
2012	1,766,458	7.79	10.27	18.06	-46.0%	49.02	8.24	10.21	18.45	-44.8%
2013	1,769,312	9.77	9.14	18.91	-43.4%	43.85	8.96	9.18	18.15	-45.7%
2014	1,769,312	10.37	9.99	20.36	-39.1%	41.37	8.60	10.13	18.73	-44.0%
2015	1,769,312	9.96	9.46	19.42	-41.9%	43.42	9.09	9.50	18.59	-44.4%
2016	1,769,312	9.42	8.78	18.20	-45.6%	47.61	9.94	8.74	18.69	-44.1%
2017	1,769,312	9.78	8.28	18.06	-46.0%	47.08	10.10	8.26	18.36	-45.1%
2018	1,769,312	11.20	8.65	19.85	-40.6%	42.94	9.91	8.74	18.65	-44.2%
2019	1,769,312	10.80	8.70	19.49	-41.7%	42.23	9.56	8.75	18.31	-45.2%
2020	1,684,447	10.03	7.41	17.44	-47.8%	41.35	8.84	7.42	16.27	-51.4%
2021	1,684,447	8.64	3.65	12.29	-63.3%	41.67	7.58	3.74	11.32	-66.2%
2022	1,684,447	9.30	3.93	13.24	-60.4%	44.82	8.84	3.95	12.79	-61.7%
2023	1,684,447	10.05	3.60	13.64	-59.2%	51.09	11.00	3.58	14.58	-56.4%

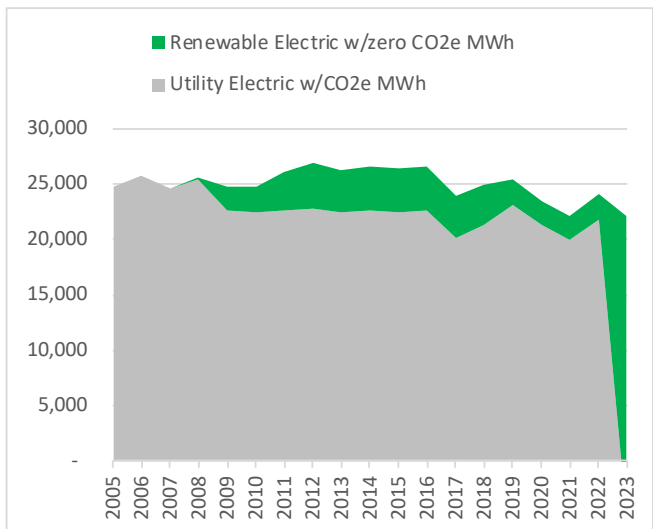
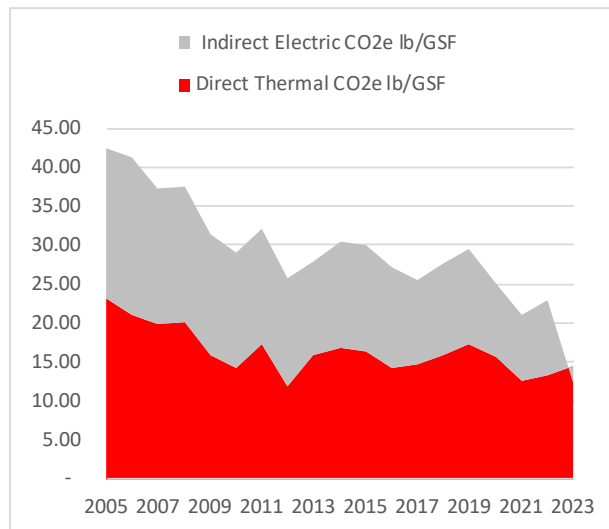
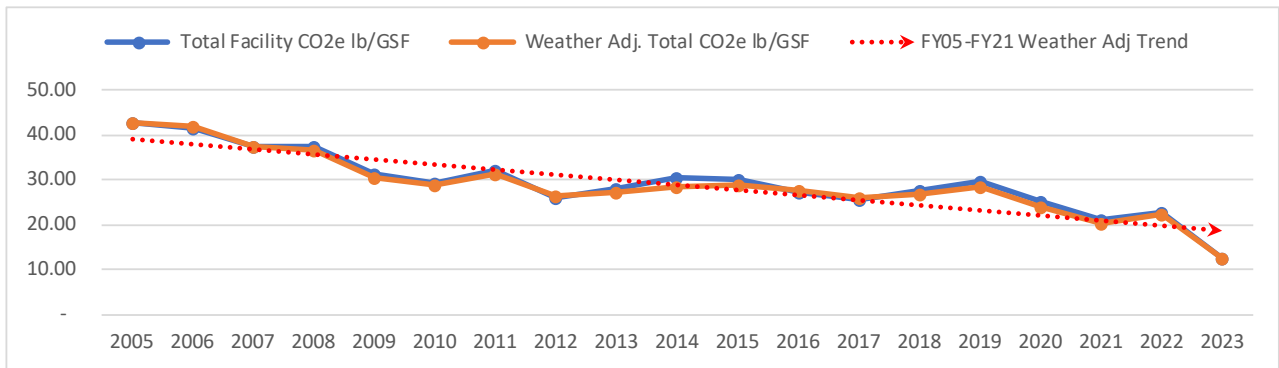
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Stevens Point CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,335,965	23.10	19.47	42.56	0.0%	46.04	23.10	19.47	42.56	0.0%
2006	2,460,496	20.94	20.39	41.33	-2.9%	47.49	21.54	20.33	41.87	-1.6%
2007	2,460,496	19.86	17.49	37.35	-12.2%	46.81	20.06	17.48	37.54	-11.8%
2008	2,493,729	20.01	17.49	37.50	-11.9%	44.51	19.05	17.54	36.60	-14.0%
2009	2,493,729	15.89	15.58	31.47	-26.1%	43.51	14.83	15.72	30.55	-28.2%
2010	2,453,362	14.32	14.81	29.13	-31.6%	45.49	14.13	14.83	28.96	-32.0%
2011	2,463,548	17.31	14.86	32.16	-24.4%	43.59	16.14	14.96	31.10	-26.9%
2012	2,629,769	11.92	13.95	25.87	-39.2%	49.50	12.73	13.76	26.49	-37.8%
2013	2,629,769	15.78	12.10	27.88	-34.5%	44.37	14.95	12.14	27.08	-36.4%
2014	2,629,769	16.81	13.69	30.50	-28.3%	41.62	14.84	13.71	28.55	-32.9%
2015	2,629,769	16.41	13.49	29.90	-29.7%	43.36	15.31	13.53	28.84	-32.2%
2016	2,629,769	14.36	12.87	27.23	-36.0%	47.34	14.95	12.82	27.77	-34.8%
2017	2,629,769	14.80	10.62	25.42	-40.3%	47.13	15.32	10.59	25.91	-39.1%
2018	2,629,769	15.96	11.74	27.71	-34.9%	44.30	15.13	11.79	26.91	-36.8%
2019	2,629,769	17.29	12.28	29.57	-30.5%	43.35	16.19	12.33	28.52	-33.0%
2020	2,806,271	15.76	9.32	25.08	-41.1%	41.63	14.38	9.51	23.88	-43.9%
2021	2,806,271	12.51	8.44	20.94	-50.8%	41.73	11.49	8.68	20.16	-52.6%
2022	2,806,271	13.22	9.65	22.88	-46.3%	44.68	12.79	9.66	22.45	-47.3%
2023	2,806,271	14.45	(2.01)	12.44	-70.8%	45.80	14.46	(2.02)	12.44	-70.8%

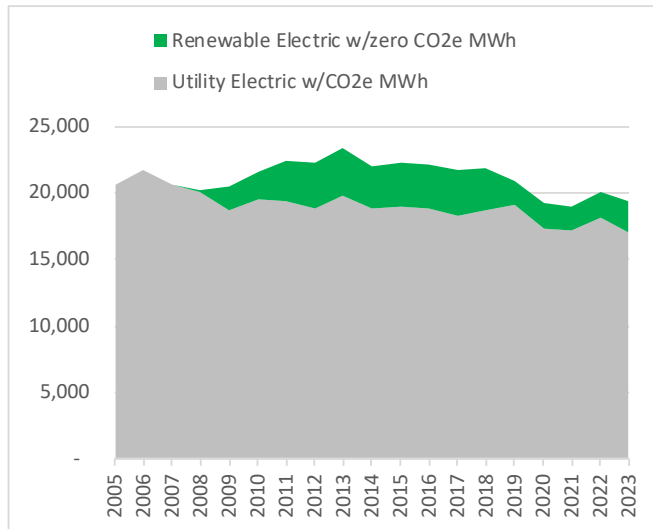
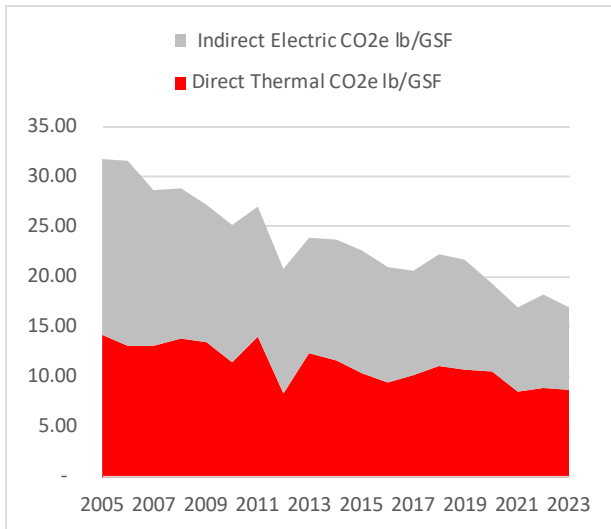
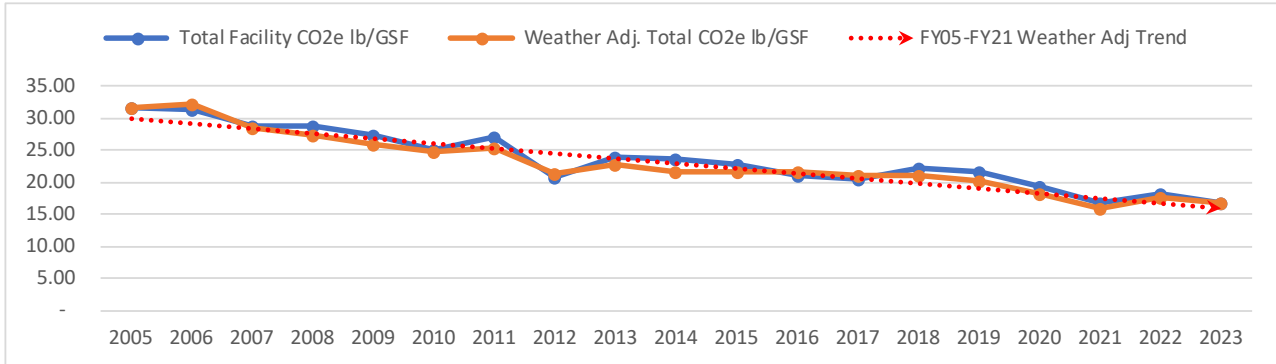
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Stout CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,162,886	14.13	17.60	31.73	0.0%	45.85	14.13	17.60	31.73	0.0%
2006	2,307,775	13.08	18.39	31.47	-0.8%	47.80	13.71	18.37	32.08	1.1%
2007	2,308,975	13.03	15.65	28.68	-9.6%	46.32	12.87	15.64	28.51	-10.2%
2008	2,308,426	13.89	15.01	28.89	-8.9%	43.27	12.35	15.02	27.38	-13.7%
2009	2,326,439	13.40	13.80	27.20	-14.3%	42.97	11.95	13.87	25.83	-18.6%
2010	2,326,439	11.51	13.66	25.17	-20.7%	45.29	11.23	13.66	24.88	-21.6%
2011	2,433,320	13.99	12.91	26.90	-15.2%	43.68	12.48	12.95	25.42	-19.9%
2012	2,443,351	8.29	12.43	20.72	-34.7%	49.02	8.76	12.45	21.21	-33.2%
2013	2,446,059	12.27	11.54	23.81	-25.0%	43.85	11.16	11.51	22.67	-28.6%
2014	2,448,864	11.56	12.19	23.75	-25.2%	41.37	9.57	11.92	21.49	-32.3%
2015	2,448,864	10.42	12.22	22.64	-28.6%	43.42	9.44	12.15	21.58	-32.0%
2016	2,452,414	9.51	11.49	21.00	-33.8%	47.61	10.08	11.52	21.60	-31.9%
2017	2,452,414	10.21	10.36	20.57	-35.2%	47.08	10.62	10.35	20.97	-33.9%
2018	2,452,414	11.10	11.08	22.18	-30.1%	42.94	9.76	11.18	20.94	-34.0%
2019	2,452,414	10.76	10.84	21.60	-31.9%	42.23	9.37	10.77	20.15	-36.5%
2020	2,456,060	10.61	8.71	19.31	-39.1%	41.35	9.32	8.76	18.08	-43.0%
2021	2,456,060	8.53	8.31	16.84	-46.9%	41.67	7.60	8.27	15.87	-50.0%
2022	2,456,060	8.94	9.21	18.15	-42.8%	44.82	8.50	9.17	17.67	-44.3%
2023	2,456,060	8.66	8.21	16.87	-46.8%	45.80	8.54	8.23	16.77	-47.1%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

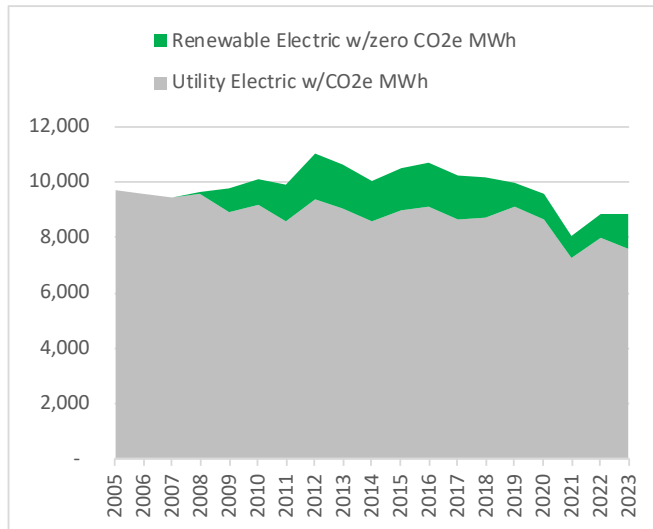
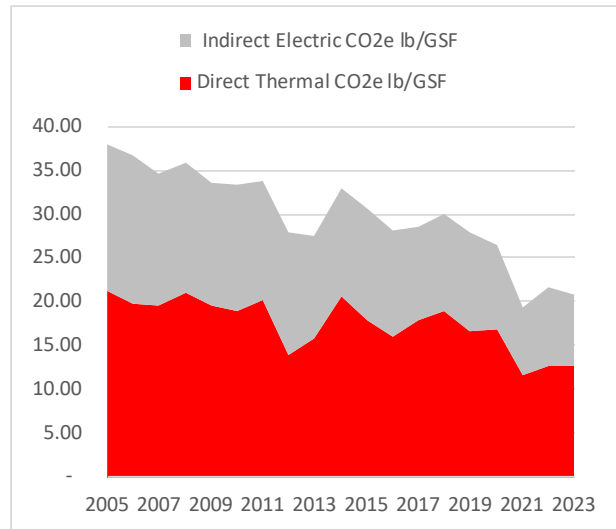
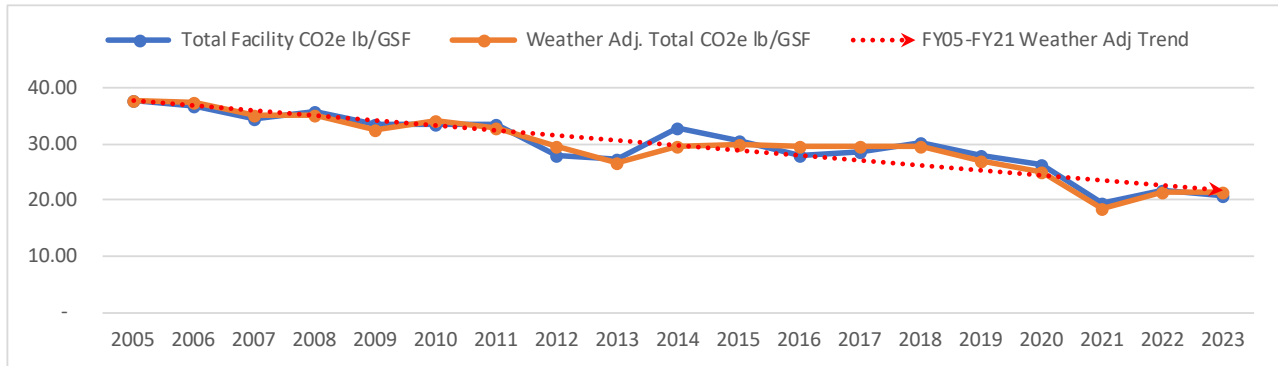




## UW-Superior CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,076,728	21.21	16.64	37.86	0.0%	41.25	21.21	16.64	37.86	0.0%
2006	1,100,416	19.74	16.99	36.73	-3.0%	43.07	20.36	17.07	37.42	-1.1%
2007	1,100,416	19.59	15.02	34.61	-8.6%	42.62	20.14	15.11	35.25	-6.9%
2008	1,100,416	20.97	14.97	35.95	-5.0%	40.59	20.28	14.97	35.25	-6.9%
2009	1,100,416	19.55	13.96	33.51	-11.5%	39.54	18.56	13.90	32.46	-14.3%
2010	1,032,741	19.03	14.37	33.39	-11.8%	42.44	19.71	14.42	34.14	-9.8%
2011	1,032,741	20.24	13.44	33.68	-11.0%	40.77	19.57	13.42	32.99	-12.9%
2012	1,086,193	14.00	13.86	27.87	-26.4%	45.72	15.39	14.07	29.46	-22.2%
2013	1,088,749	15.69	11.78	27.47	-27.4%	40.13	14.82	11.74	26.56	-29.8%
2014	1,101,473	20.57	12.36	32.93	-13.0%	37.72	17.33	12.29	29.61	-21.8%
2015	1,101,473	17.90	12.82	30.72	-18.8%	40.35	17.01	12.78	29.79	-21.3%
2016	1,120,382	15.99	12.13	28.12	-25.7%	44.19	17.26	12.19	29.45	-22.2%
2017	1,120,382	17.84	10.69	28.53	-24.6%	43.72	18.90	10.74	29.64	-21.7%
2018	1,120,382	18.83	11.27	30.10	-20.5%	39.93	18.27	11.25	29.52	-22.0%
2019	1,120,382	16.55	11.33	27.88	-26.4%	39.56	15.62	11.29	26.91	-28.9%
2020	1,111,812	16.78	9.60	26.38	-30.3%	38.27	15.37	9.66	25.03	-33.9%
2021	1,107,876	11.54	7.81	19.35	-48.9%	38.57	10.70	7.82	18.52	-51.1%
2022	1,107,876	12.74	8.97	21.71	-42.6%	41.05	12.54	8.89	21.43	-43.4%
2023	1,107,876	12.63	8.08	20.71	-45.3%	51.09	13.47	8.09	21.56	-43.0%

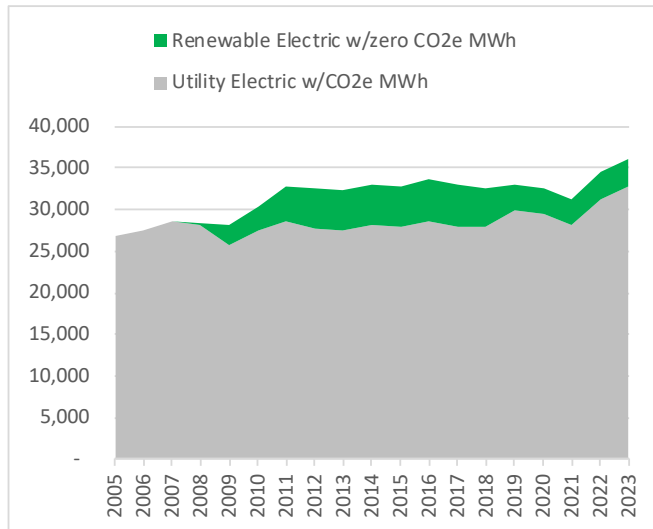
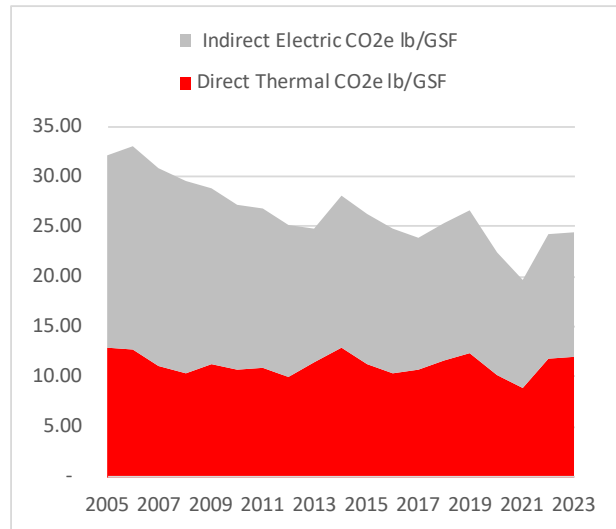
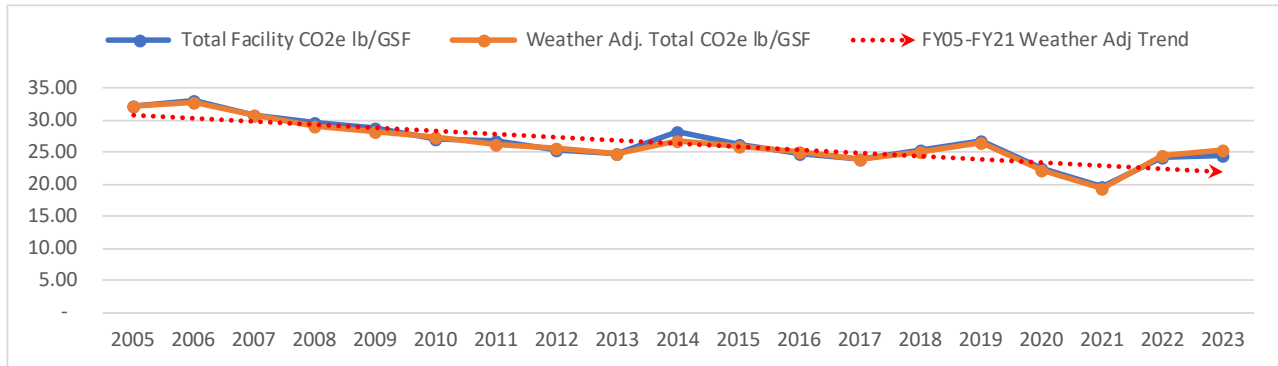
*CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.*



## UW-Whitewater CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,558,663	12.90	19.25	32.15	0.0%	48.47	12.90	19.25	32.15	0.0%
2006	2,642,094	12.70	20.37	33.07	2.9%	50.11	12.27	20.39	32.66	1.6%
2007	2,531,040	11.08	19.77	30.85	-4.0%	48.88	11.03	19.72	30.75	-4.4%
2008	2,535,623	10.37	19.12	29.48	-8.3%	47.87	9.88	19.04	28.91	-10.1%
2009	2,535,623	11.23	17.51	28.74	-10.6%	47.26	10.75	17.45	28.20	-12.3%
2010	2,714,423	10.65	16.45	27.10	-15.7%	49.10	10.81	16.43	27.23	-15.3%
2011	2,922,323	10.97	15.76	26.73	-16.9%	48.17	10.45	15.70	26.15	-18.7%
2012	2,930,608	10.02	15.19	25.21	-21.6%	52.24	10.51	14.97	25.48	-20.7%
2013	2,942,875	11.53	13.33	24.86	-22.7%	48.26	11.31	13.31	24.62	-23.4%
2014	2,942,875	12.86	15.19	28.05	-12.8%	45.20	11.68	15.14	26.82	-16.6%
2015	2,942,875	11.27	14.96	26.23	-18.4%	46.08	10.82	15.06	25.88	-19.5%
2016	2,942,875	10.30	14.53	24.83	-22.8%	50.51	10.57	14.41	24.98	-22.3%
2017	2,942,875	10.67	13.18	23.84	-25.8%	51.99	10.89	12.90	23.79	-26.0%
2018	2,942,875	11.56	13.72	25.28	-21.4%	48.73	11.24	13.74	24.98	-22.3%
2019	2,942,875	12.44	14.20	26.63	-17.2%	47.88	12.22	14.22	26.45	-17.7%
2020	2,965,821	10.08	12.27	22.35	-30.5%	46.54	9.86	12.46	22.32	-30.6%
2021	3,114,162	8.86	10.75	19.62	-39.0%	47.13	8.58	10.70	19.29	-40.0%
2022	3,114,162	11.72	12.47	24.19	-24.8%	50.90	12.25	12.19	24.44	-24.0%
2023	3,114,162	12.06	12.45	24.51	-23.8%	51.09	12.99	12.21	25.20	-21.6%

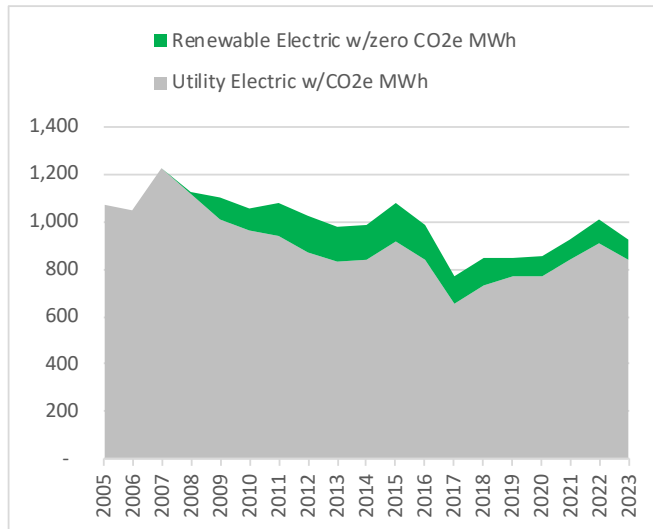
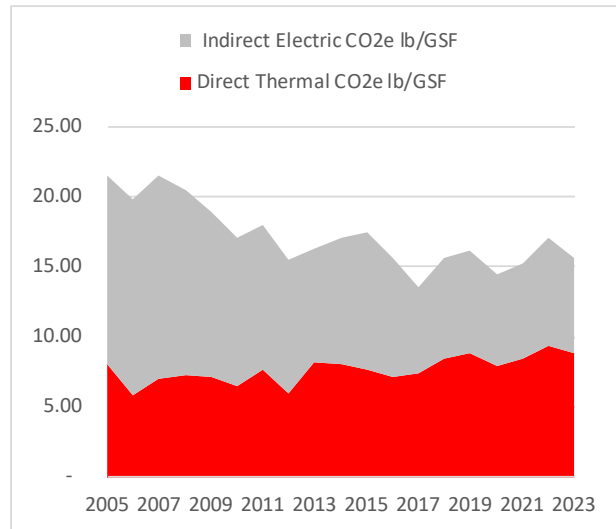
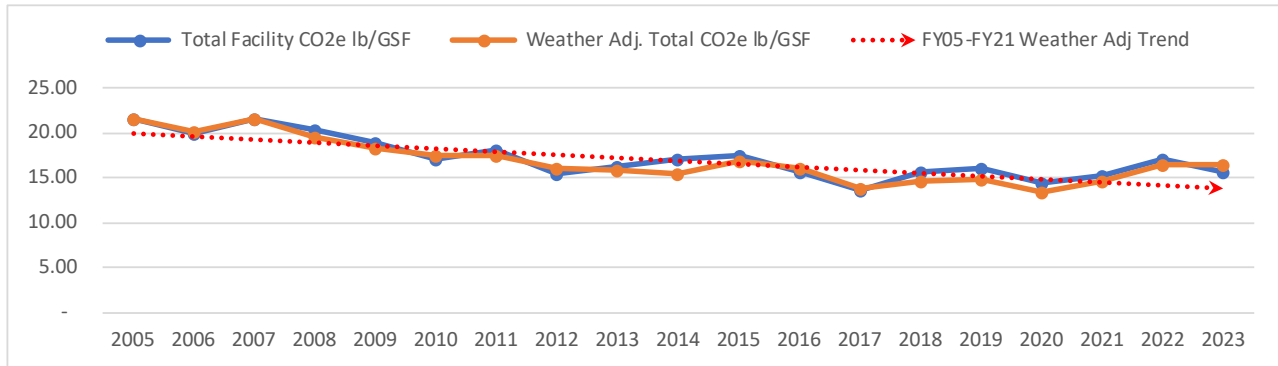
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Eau Claire, Barron CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	146,683	8.07	13.48	21.55	0.0%	44.26	8.07	13.48	21.55	0.0%
2006	146,683	5.88	13.97	19.84	-7.9%	45.56	6.00	14.14	20.15	-6.5%
2007	146,683	6.97	14.58	21.55	0.0%	44.50	6.99	14.60	21.59	0.2%
2008	146,683	7.28	13.14	20.42	-5.2%	42.10	6.28	13.30	19.59	-9.1%
2009	146,683	7.12	11.79	18.91	-12.2%	42.50	6.36	11.85	18.20	-15.5%
2010	146,683	6.47	10.61	17.08	-20.7%	45.38	6.85	10.57	17.42	-19.1%
2011	146,683	7.69	10.31	18.00	-16.5%	43.50	7.17	10.31	17.48	-18.9%
2012	146,683	5.95	9.53	15.48	-28.1%	47.63	6.49	9.60	16.10	-25.3%
2013	146,683	8.14	8.07	16.21	-24.8%	42.87	7.78	8.04	15.82	-26.6%
2014	146,683	8.05	9.07	17.12	-20.6%	39.97	6.24	9.12	15.36	-28.7%
2015	146,683	7.60	9.86	17.46	-18.9%	42.20	7.10	9.80	16.90	-21.6%
2016	146,683	7.13	8.55	15.68	-27.2%	46.23	7.53	8.51	16.05	-25.5%
2017	146,683	7.38	6.15	13.53	-37.2%	45.86	7.73	6.16	13.89	-35.5%
2018	146,683	8.40	7.19	15.59	-27.7%	42.67	7.43	7.16	14.59	-32.3%
2019	146,683	8.83	7.30	16.13	-25.1%	41.78	7.68	7.23	14.91	-30.8%
2020	146,683	7.95	6.49	14.44	-33.0%	39.87	6.86	6.62	13.48	-37.5%
2021	146,683	8.40	6.79	15.19	-29.5%	40.53	7.61	6.97	14.59	-32.3%
2022	146,683	9.32	7.74	17.06	-20.8%	43.09	8.83	7.59	16.42	-23.8%
2023	146,683	8.82	6.78	15.60	-27.6%	51.09	9.71	6.75	16.47	-23.6%

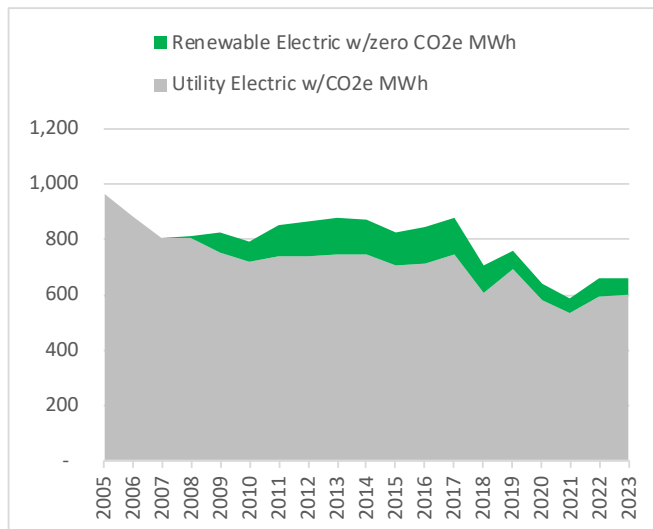
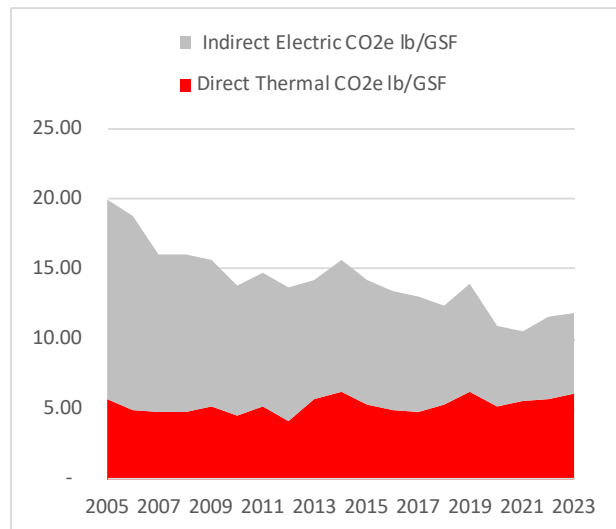
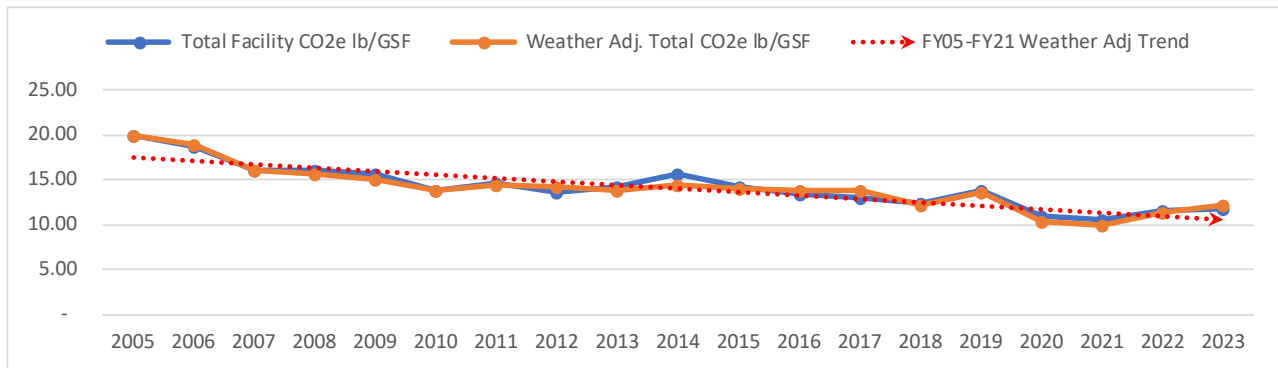
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Green Bay, Manitowoc CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	125,045	5.70	14.21	19.90	0.0%	45.92	5.70	14.21	19.90	0.0%
2006	125,045	4.97	13.77	18.74	-5.8%	47.27	5.09	13.78	18.87	-5.2%
2007	125,045	4.77	11.21	15.98	-19.7%	46.64	4.85	11.24	16.09	-19.2%
2008	125,045	4.84	11.12	15.96	-19.8%	45.02	4.46	11.25	15.71	-21.0%
2009	125,045	5.20	10.38	15.58	-21.7%	43.47	4.59	10.42	15.01	-24.6%
2010	125,045	4.54	9.31	13.84	-30.5%	45.99	4.66	9.19	13.85	-30.4%
2011	125,045	5.13	9.54	14.66	-26.3%	44.59	4.68	9.63	14.31	-28.1%
2012	125,045	4.17	9.46	13.63	-31.5%	49.86	4.77	9.49	14.26	-28.4%
2013	125,045	5.64	8.47	14.12	-29.1%	45.29	5.31	8.46	13.76	-30.8%
2014	125,045	6.19	9.44	15.64	-21.4%	41.95	5.02	9.41	14.42	-27.5%
2015	125,045	5.36	8.89	14.24	-28.4%	43.98	5.10	8.86	13.96	-29.9%
2016	125,045	4.86	8.57	13.43	-32.5%	48.11	5.18	8.55	13.73	-31.0%
2017	125,045	4.82	8.24	13.06	-34.4%	48.65	5.40	8.30	13.70	-31.2%
2018	125,045	5.35	7.04	12.39	-37.7%	45.77	5.03	7.04	12.07	-39.4%
2019	125,045	6.20	7.70	13.89	-30.2%	44.89	5.89	7.71	13.60	-31.7%
2020	125,045	5.19	5.72	10.91	-45.2%	42.93	4.53	5.73	10.26	-48.4%
2021	125,045	5.51	5.05	10.55	-47.0%	43.28	4.93	5.02	9.96	-50.0%
2022	125,045	5.67	5.94	11.61	-41.6%	46.75	5.54	5.89	11.44	-42.5%
2023	125,045	6.12	5.67	11.78	-40.8%	47.58	6.47	5.68	12.16	-38.9%

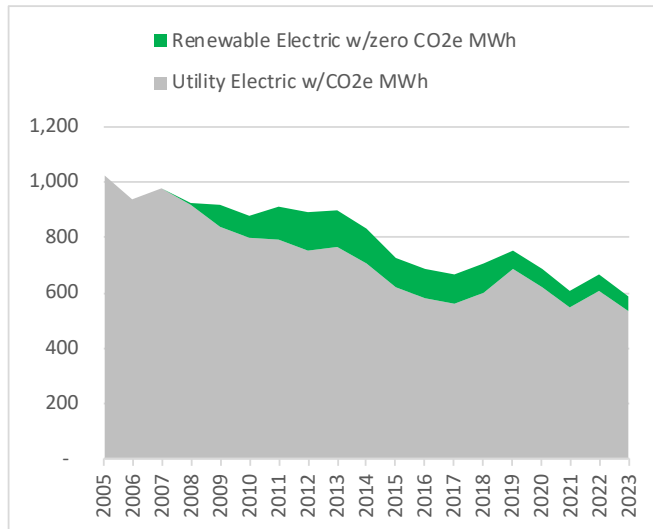
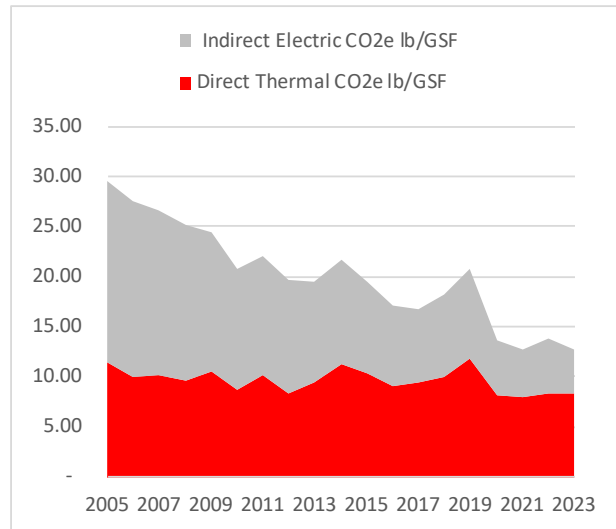
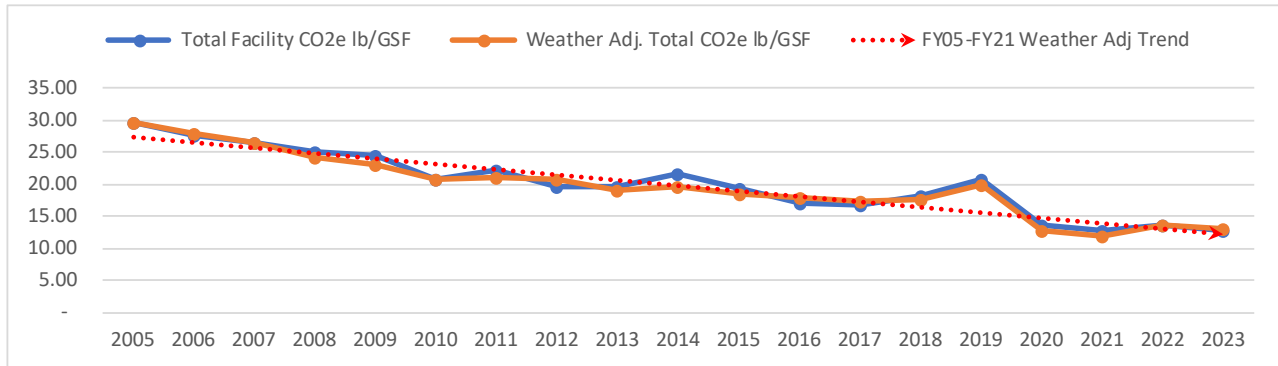
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Green Bay, Marinette CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	103,778	11.46	18.13	29.59	0.0%	45.92	11.46	18.13	29.59	0.0%
2006	103,778	9.90	17.64	27.55	-6.9%	47.27	10.10	17.68	27.78	-6.1%
2007	103,778	10.09	16.45	26.54	-10.3%	46.64	10.07	16.47	26.54	-10.3%
2008	102,740	9.69	15.40	25.09	-15.2%	45.02	8.99	15.31	24.30	-17.9%
2009	102,740	10.47	14.00	24.46	-17.3%	43.47	9.13	13.93	23.05	-22.1%
2010	107,988	8.77	12.00	20.77	-29.8%	45.99	8.81	11.90	20.71	-30.0%
2011	107,988	10.22	11.87	22.09	-25.3%	44.59	9.31	11.86	21.17	-28.5%
2012	107,988	8.36	11.24	19.60	-33.8%	49.86	9.18	11.44	20.61	-30.3%
2013	107,988	9.42	10.08	19.50	-34.1%	45.29	8.89	10.04	18.92	-36.0%
2014	107,988	11.19	10.43	21.62	-26.9%	41.95	9.35	10.21	19.56	-33.9%
2015	107,988	10.42	9.03	19.45	-34.3%	43.98	9.55	9.05	18.60	-37.1%
2016	107,988	9.10	8.06	17.16	-42.0%	48.11	9.73	8.06	17.78	-39.9%
2017	107,988	9.51	7.22	16.72	-43.5%	48.65	10.23	7.23	17.46	-41.0%
2018	107,988	10.05	8.09	18.14	-38.7%	45.77	9.57	8.01	17.59	-40.6%
2019	107,988	11.83	8.85	20.68	-30.1%	44.89	11.11	8.79	19.90	-32.8%
2020	139,818	8.19	5.45	13.64	-53.9%	42.93	7.22	5.47	12.70	-57.1%
2021	139,818	8.02	4.66	12.68	-57.1%	43.28	7.41	4.59	12.00	-59.4%
2022	139,818	8.35	5.39	13.74	-53.6%	46.75	8.33	5.36	13.70	-53.7%
2023	139,818	8.25	4.53	12.78	-56.8%	47.58	8.65	4.52	13.17	-55.5%

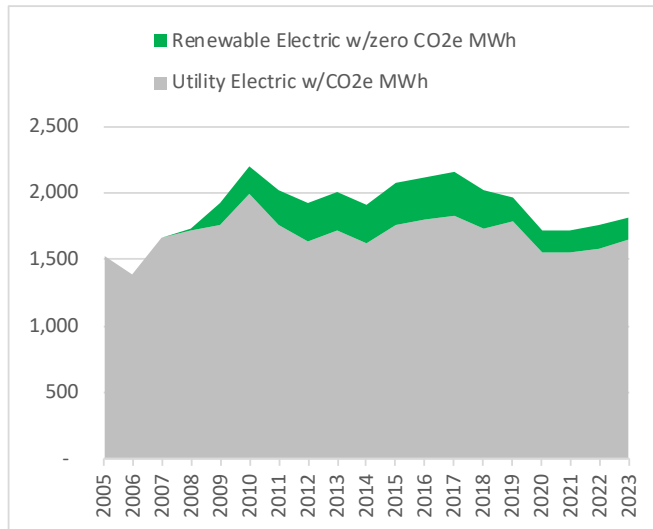
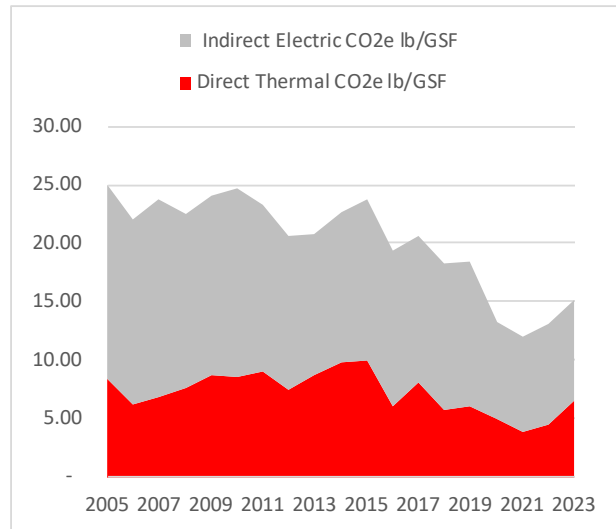
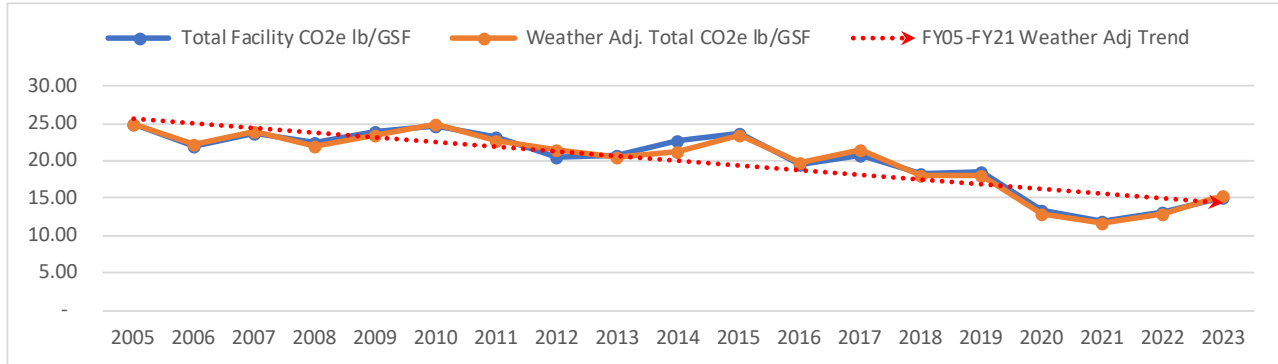
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Green Bay, Sheboygan CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	170,927	8.44	16.51	24.96	0.0%	45.92	8.44	16.51	24.96	0.0%
2006	170,927	6.13	15.89	22.02	-11.8%	47.27	6.35	15.77	22.12	-11.4%
2007	170,927	6.80	16.97	23.77	-4.8%	46.64	6.88	17.01	23.89	-4.3%
2008	197,727	7.55	14.94	22.49	-9.9%	45.02	7.10	14.78	21.88	-12.3%
2009	197,727	8.75	15.28	24.03	-3.7%	43.47	8.19	15.28	23.47	-5.9%
2010	200,918	8.58	16.14	24.73	-0.9%	45.99	8.67	16.24	24.91	-0.2%
2011	200,918	9.09	14.18	23.26	-6.8%	44.59	8.64	13.93	22.57	-9.6%
2012	200,918	7.47	13.13	20.60	-17.5%	49.86	8.37	13.07	21.44	-14.1%
2013	200,918	8.68	12.13	20.80	-16.6%	45.29	8.35	12.10	20.45	-18.1%
2014	200,918	9.81	12.87	22.69	-9.1%	41.95	8.61	12.61	21.22	-15.0%
2015	200,918	9.91	13.83	23.74	-4.9%	43.98	9.56	13.88	23.45	-6.1%
2016	200,918	6.03	13.42	19.44	-22.1%	48.11	6.38	13.29	19.68	-21.2%
2017	200,918	8.06	12.61	20.66	-17.2%	48.65	8.84	12.50	21.34	-14.5%
2018	200,918	5.77	12.50	18.27	-26.8%	45.77	5.68	12.43	18.10	-27.5%
2019	200,918	6.06	12.40	18.46	-26.1%	44.89	5.86	12.27	18.13	-27.4%
2020	228,544	4.91	8.39	13.29	-46.7%	42.93	4.37	8.63	13.00	-47.9%
2021	228,544	3.82	8.11	11.93	-52.2%	43.28	3.50	8.21	11.71	-53.1%
2022	228,544	4.42	8.64	13.06	-47.7%	46.75	4.43	8.43	12.86	-48.5%
2023	228,544	6.54	8.55	15.09	-39.5%	47.58	6.87	8.48	15.35	-38.5%

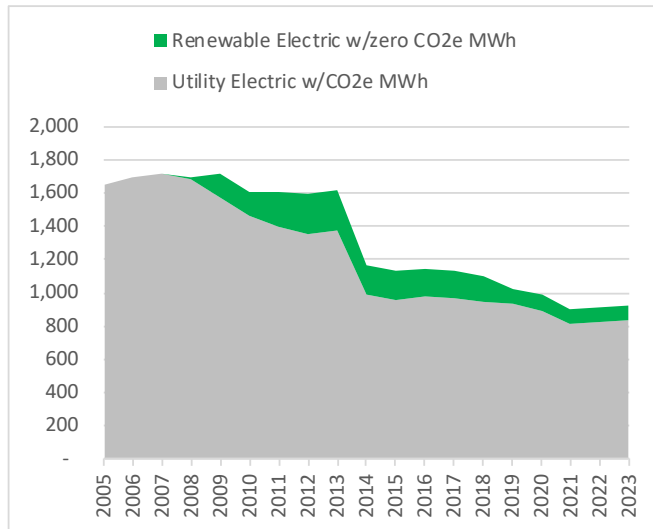
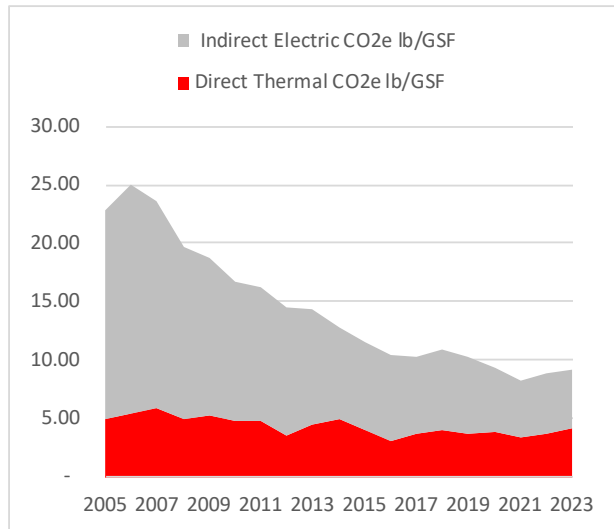
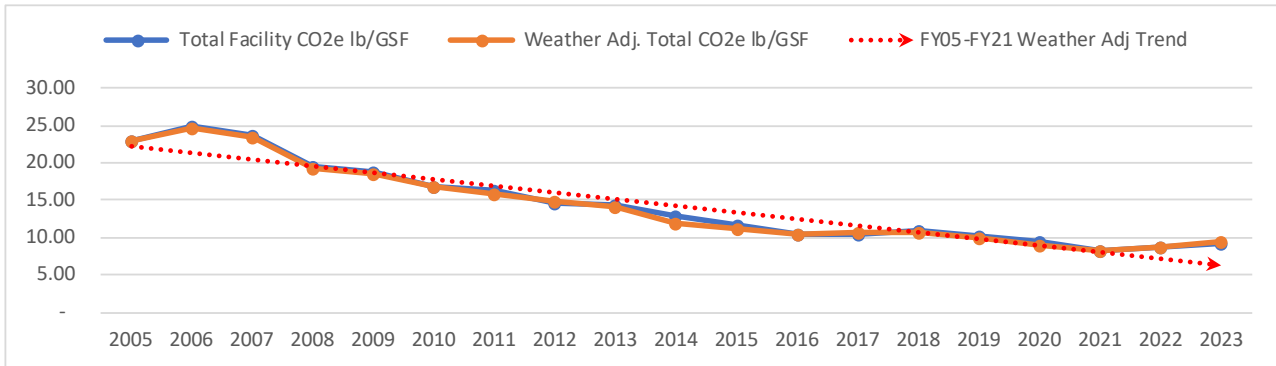
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Milwaukee, Washington CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	169,454	4.94	17.89	22.82	0.0%	48.47	4.94	17.89	22.82	0.0%
2006	169,454	5.47	19.52	24.99	9.5%	50.11	5.58	19.14	24.73	8.3%
2007	169,454	5.95	17.70	23.65	3.6%	48.88	5.90	17.53	23.43	2.7%
2008	198,558	5.02	14.60	19.62	-14.1%	47.87	4.74	14.55	19.29	-15.5%
2009	198,558	5.19	13.60	18.79	-17.7%	47.26	4.73	13.69	18.42	-19.3%
2010	199,038	4.79	11.90	16.69	-26.9%	49.10	4.82	11.89	16.71	-26.8%
2011	199,038	4.86	11.35	16.21	-29.0%	48.17	4.53	11.33	15.85	-30.5%
2012	199,038	3.58	10.95	14.53	-36.4%	52.24	4.01	10.85	14.87	-34.9%
2013	199,038	4.49	9.84	14.33	-37.2%	48.26	4.24	9.84	14.08	-38.3%
2014	199,038	4.88	7.94	12.82	-43.8%	45.20	4.09	7.84	11.93	-47.7%
2015	199,038	3.98	7.62	11.60	-49.2%	46.08	3.56	7.61	11.17	-51.1%
2016	199,038	3.04	7.34	10.38	-54.5%	50.51	3.25	7.27	10.52	-53.9%
2017	199,038	3.65	6.70	10.35	-54.7%	51.99	4.19	6.47	10.66	-53.3%
2018	199,038	3.98	6.85	10.83	-52.6%	48.73	3.91	6.82	10.72	-53.0%
2019	199,038	3.74	6.51	10.25	-55.1%	47.88	3.52	6.49	10.00	-56.2%
2020	199,117	3.83	5.53	9.36	-59.0%	46.54	3.43	5.61	9.04	-60.4%
2021	199,117	3.37	4.86	8.24	-63.9%	47.13	3.25	4.88	8.12	-64.4%
2022	199,117	3.64	5.15	8.79	-61.5%	50.90	3.76	5.06	8.83	-61.3%
2023	199,117	4.12	4.99	9.11	-60.1%	51.09	4.58	4.92	9.51	-58.3%

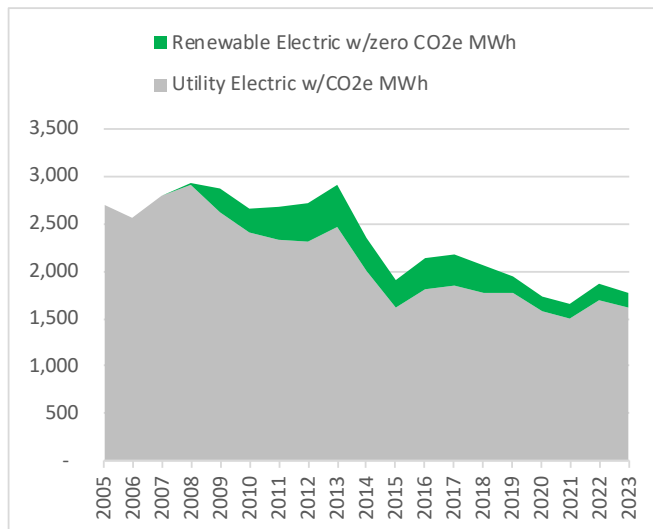
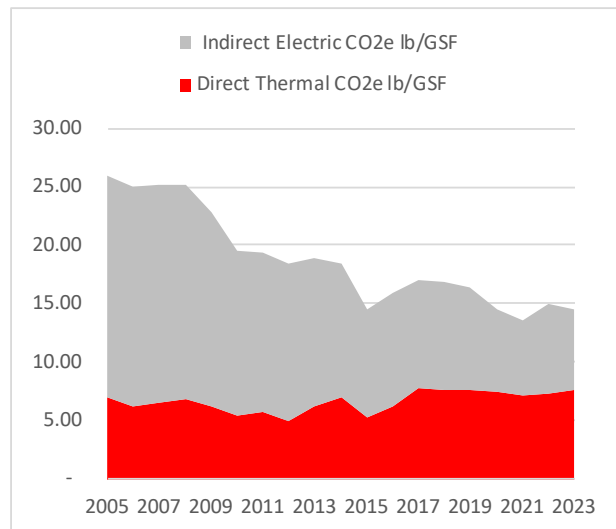
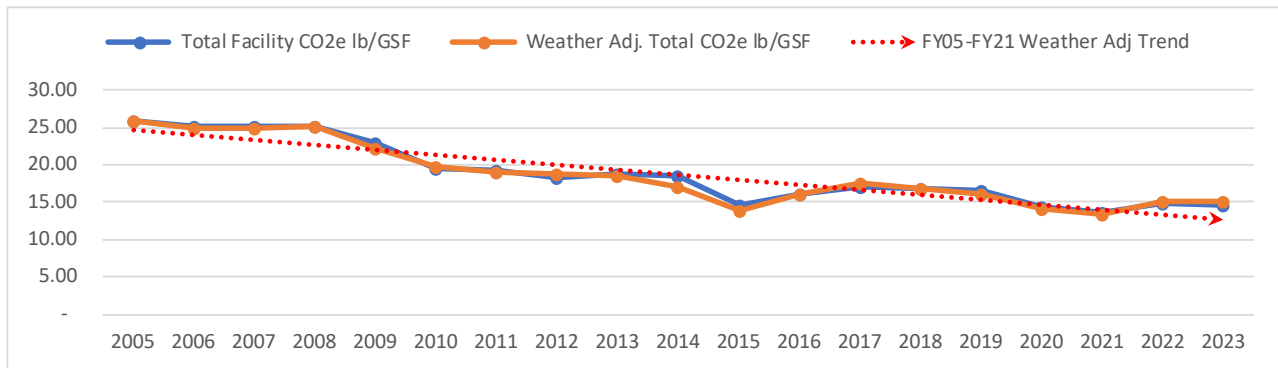
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Milwaukee, Waukesha CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	263,050	6.99	18.90	25.89	0.0%	48.47	6.99	18.90	25.89	0.0%
2006	263,050	6.16	18.91	25.07	-3.2%	50.11	6.34	18.67	25.01	-3.4%
2007	263,050	6.53	18.57	25.10	-3.0%	48.88	6.47	18.47	24.93	-3.7%
2008	272,406	6.86	18.36	25.22	-2.6%	47.87	6.71	18.44	25.14	-2.9%
2009	272,406	6.27	16.55	22.83	-11.8%	47.26	5.79	16.51	22.31	-13.8%
2010	277,016	5.35	14.12	19.47	-24.8%	49.10	5.54	14.09	19.64	-24.2%
2011	277,016	5.75	13.59	19.34	-25.3%	48.17	5.44	13.49	18.93	-26.9%
2012	277,016	5.00	13.38	18.38	-29.0%	52.24	5.62	13.23	18.86	-27.2%
2013	277,016	6.21	12.67	18.87	-27.1%	48.26	5.89	12.57	18.47	-28.7%
2014	277,016	7.01	11.43	18.45	-28.7%	45.20	5.92	11.23	17.15	-33.8%
2015	277,016	5.24	9.24	14.48	-44.0%	46.08	4.73	9.22	13.94	-46.1%
2016	277,016	6.18	9.78	15.96	-38.4%	50.51	6.48	9.70	16.18	-37.5%
2017	277,016	7.82	9.23	17.05	-34.1%	51.99	8.53	8.94	17.47	-32.5%
2018	277,016	7.67	9.21	16.88	-34.8%	48.73	7.65	9.19	16.83	-35.0%
2019	277,016	7.59	8.88	16.47	-36.4%	47.88	7.35	8.78	16.13	-37.7%
2020	277,016	7.44	7.00	14.44	-44.2%	46.54	7.12	7.08	14.21	-45.1%
2021	277,016	7.14	6.43	13.57	-47.6%	47.13	6.91	6.47	13.38	-48.3%
2022	277,016	7.36	7.60	14.96	-42.2%	50.90	7.74	7.47	15.21	-41.3%
2023	277,016	7.60	6.90	14.50	-44.0%	51.09	8.22	6.85	15.07	-41.8%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

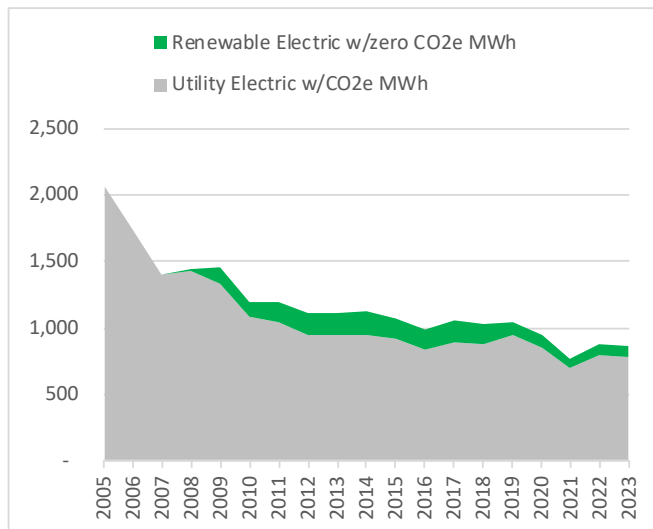
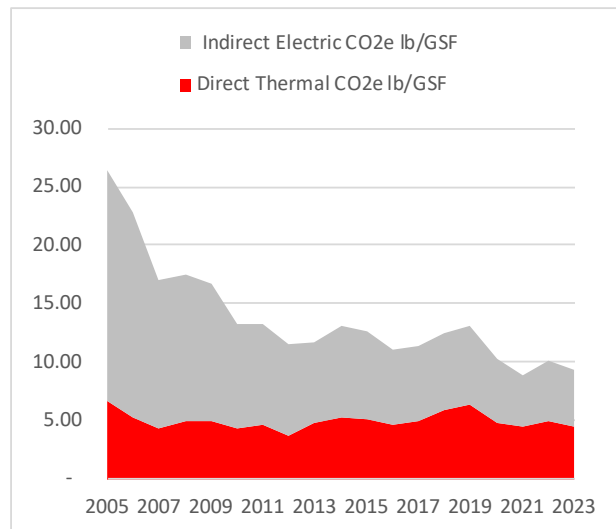
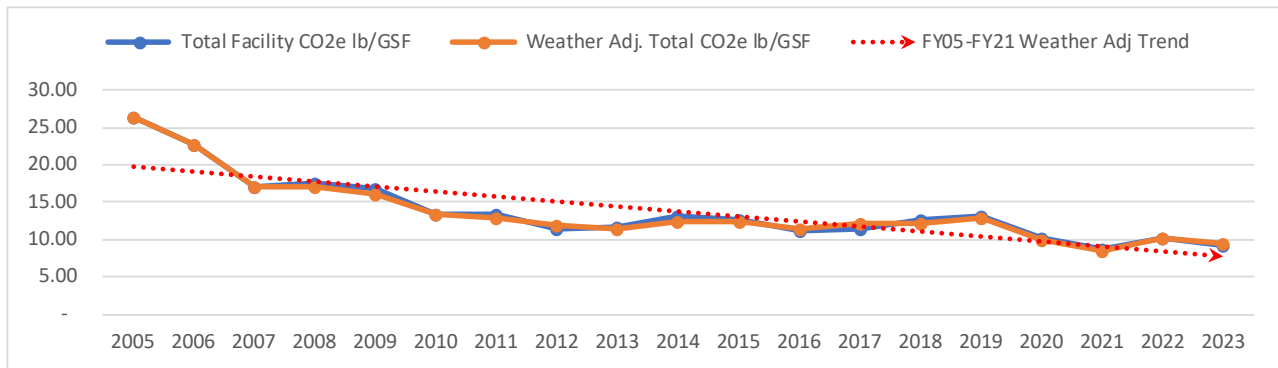




## UW-Oshkosh, Fond du Lac CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	194,077	6.75	19.63	26.38	0.0%	45.92	6.75	19.63	26.38	0.0%
2006	194,077	5.26	17.49	22.74	-13.8%	47.27	5.38	17.30	22.68	-14.0%
2007	194,077	4.31	12.69	17.00	-35.6%	46.64	4.40	12.72	17.11	-35.1%
2008	194,077	4.87	12.66	17.53	-33.5%	45.02	4.48	12.62	17.10	-35.2%
2009	194,077	5.01	11.76	16.77	-36.4%	43.47	4.39	11.71	16.10	-39.0%
2010	194,077	4.25	9.04	13.29	-49.6%	45.99	4.32	9.00	13.32	-49.5%
2011	194,077	4.61	8.66	13.27	-49.7%	44.59	4.24	8.65	12.89	-51.1%
2012	194,077	3.66	7.87	11.52	-56.3%	49.86	4.19	7.79	11.98	-54.6%
2013	194,077	4.73	6.97	11.70	-55.6%	45.29	4.53	6.95	11.48	-56.5%
2014	194,077	5.23	7.81	13.04	-50.6%	41.95	4.49	7.90	12.39	-53.0%
2015	194,077	5.16	7.45	12.61	-52.2%	43.98	4.90	7.41	12.31	-53.3%
2016	194,077	4.62	6.46	11.08	-58.0%	48.11	4.93	6.43	11.37	-56.9%
2017	194,077	5.00	6.40	11.40	-56.8%	48.65	5.72	6.45	12.16	-53.9%
2018	194,077	5.94	6.59	12.53	-52.5%	45.77	5.69	6.53	12.23	-53.7%
2019	194,077	6.31	6.80	13.12	-50.3%	44.89	6.12	6.75	12.88	-51.2%
2020	194,077	4.81	5.42	10.23	-61.2%	42.93	4.44	5.51	9.95	-62.3%
2021	194,077	4.52	4.27	8.79	-66.7%	43.28	4.18	4.35	8.53	-67.7%
2022	194,077	4.98	5.10	10.08	-61.8%	46.75	4.99	5.09	10.08	-61.8%
2023	194,077	4.53	4.76	9.29	-64.8%	47.58	4.76	4.73	9.48	-64.1%

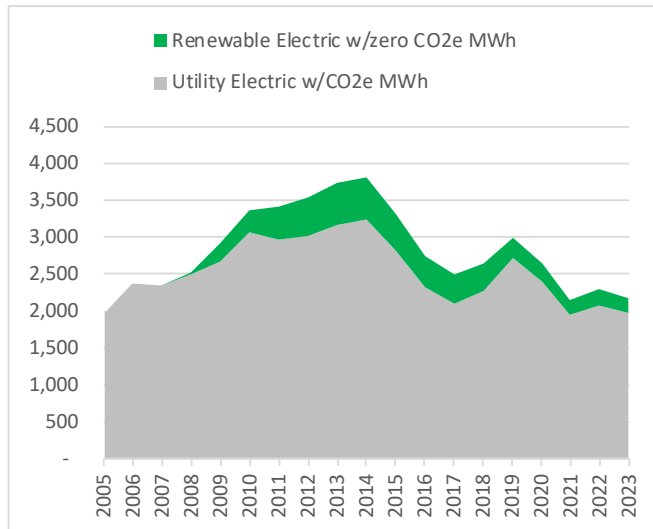
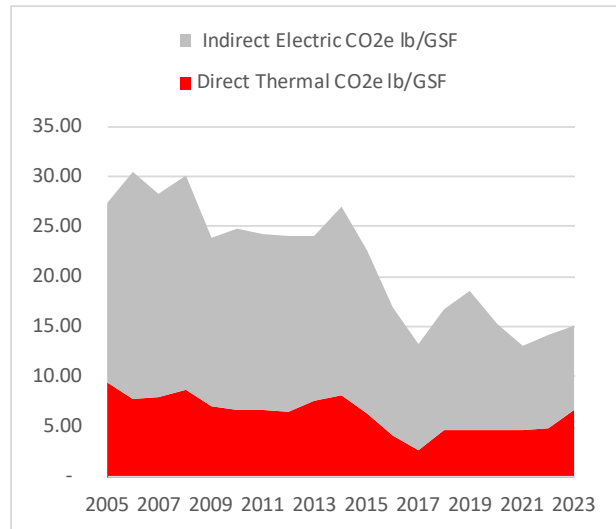
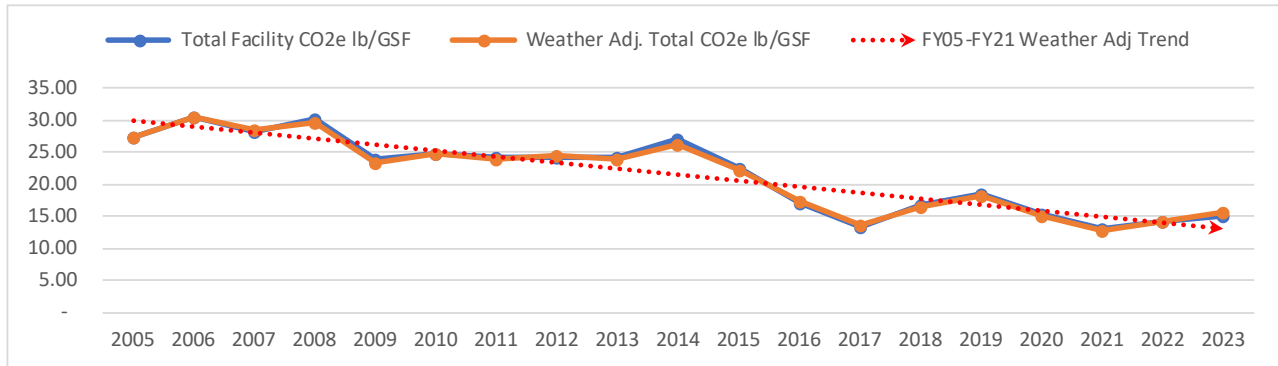
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Oshkosh, Fox Cities CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	203,270	9.45	17.91	27.36	0.0%	45.92	9.45	17.91	27.36	0.0%
2006	203,270	7.70	22.70	30.40	11.1%	47.27	7.92	22.51	30.42	11.2%
2007	203,270	8.06	20.18	28.24	3.2%	46.64	8.20	20.16	28.36	3.7%
2008	202,478	8.73	21.32	30.05	9.8%	45.02	8.23	21.37	29.59	8.2%
2009	272,978	6.99	16.88	23.87	-12.7%	43.47	6.33	17.10	23.43	-14.3%
2010	274,078	6.61	18.12	24.74	-9.6%	45.99	6.63	18.20	24.82	-9.3%
2011	274,078	6.72	17.55	24.27	-11.3%	44.59	6.29	17.48	23.77	-13.1%
2012	274,078	6.41	17.64	24.06	-12.1%	49.86	7.10	17.29	24.39	-10.9%
2013	274,078	7.68	16.46	24.14	-11.7%	45.29	7.55	16.45	24.00	-12.3%
2014	274,078	8.15	18.83	26.98	-1.4%	41.95	7.39	18.74	26.13	-4.5%
2015	274,078	6.30	16.24	22.54	-17.6%	43.98	6.01	16.24	22.25	-18.6%
2016	274,078	4.20	12.74	16.94	-38.1%	48.11	4.51	12.70	17.21	-37.1%
2017	274,078	2.60	10.67	13.27	-51.5%	48.65	2.95	10.59	13.54	-50.5%
2018	274,078	4.72	11.98	16.69	-39.0%	45.77	4.48	11.97	16.46	-39.8%
2019	274,078	4.68	13.89	18.56	-32.1%	44.89	4.33	13.87	18.20	-33.5%
2020	277,988	4.61	10.61	15.22	-44.4%	42.93	4.12	11.01	15.14	-44.7%
2021	277,988	4.75	8.34	13.08	-52.2%	43.28	4.36	8.46	12.83	-53.1%
2022	277,988	4.92	9.32	14.23	-48.0%	46.75	4.89	9.19	14.08	-48.5%
2023	277,988	6.72	8.41	15.14	-44.7%	47.58	7.19	8.30	15.49	-43.4%

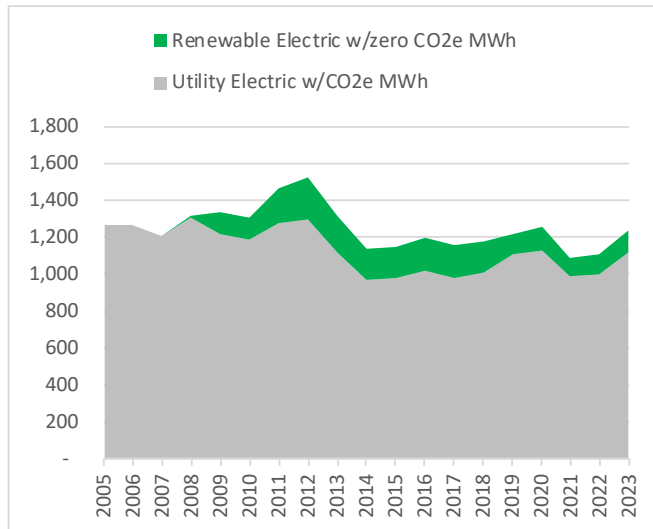
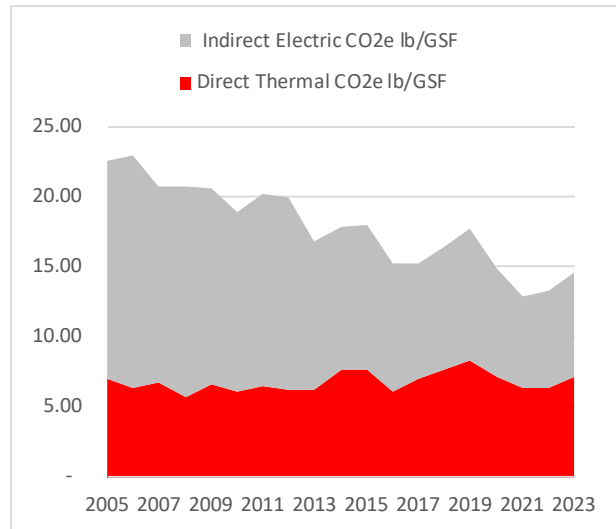
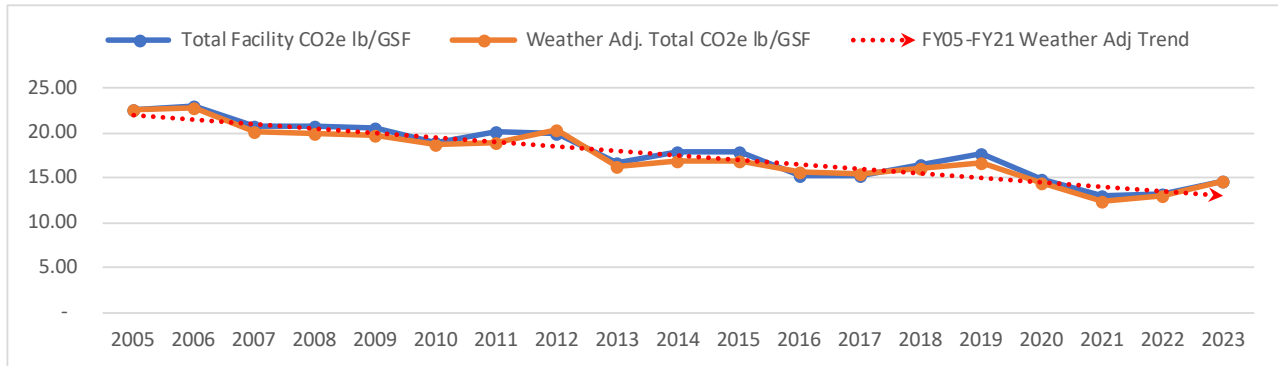
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Platteville, Baraboo CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	150,015	7.03	15.52	22.55	0.0%	48.12	7.03	15.52	22.55	0.0%
2006	150,015	6.41	16.49	22.89	1.5%	48.65	6.44	16.35	22.79	1.1%
2007	150,015	6.68	14.05	20.73	-8.1%	47.46	6.22	14.00	20.23	-10.3%
2008	150,015	5.69	14.99	20.68	-8.3%	46.19	4.95	14.97	19.92	-11.7%
2009	150,015	6.58	13.96	20.54	-8.9%	45.66	5.73	13.99	19.72	-12.6%
2010	151,015	6.13	12.78	18.90	-16.2%	47.10	5.90	12.79	18.69	-17.1%
2011	151,015	6.53	13.64	20.17	-10.6%	46.81	5.53	13.40	18.93	-16.1%
2012	151,015	6.16	13.81	19.97	-11.5%	51.51	6.68	13.65	20.33	-9.9%
2013	151,015	6.21	10.52	16.73	-25.8%	47.29	5.75	10.41	16.16	-28.4%
2014	151,015	7.65	10.22	17.87	-20.8%	44.58	6.60	10.23	16.83	-25.4%
2015	151,015	7.71	10.22	17.93	-20.5%	45.84	6.80	10.14	16.94	-24.9%
2016	165,615	6.07	9.20	15.27	-32.3%	49.68	6.40	9.16	15.55	-31.0%
2017	165,615	6.99	8.19	15.18	-32.7%	49.72	7.26	8.08	15.34	-32.0%
2018	165,615	7.59	8.83	16.42	-27.2%	46.66	7.11	8.84	15.95	-29.3%
2019	165,615	8.34	9.33	17.67	-21.7%	45.88	7.37	9.32	16.69	-26.0%
2020	179,291	7.10	7.79	14.89	-34.0%	44.43	6.49	8.01	14.49	-35.7%
2021	179,291	6.34	6.55	12.89	-42.8%	43.38	5.56	6.76	12.32	-45.4%
2022	179,291	6.28	6.97	13.25	-41.3%	48.04	6.07	6.89	12.96	-42.5%
2023	179,291	7.16	7.40	14.56	-35.4%	48.64	7.16	7.39	14.55	-35.5%

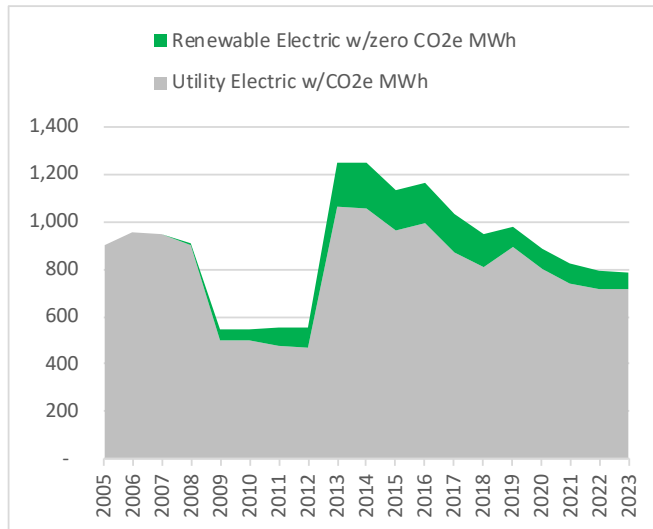
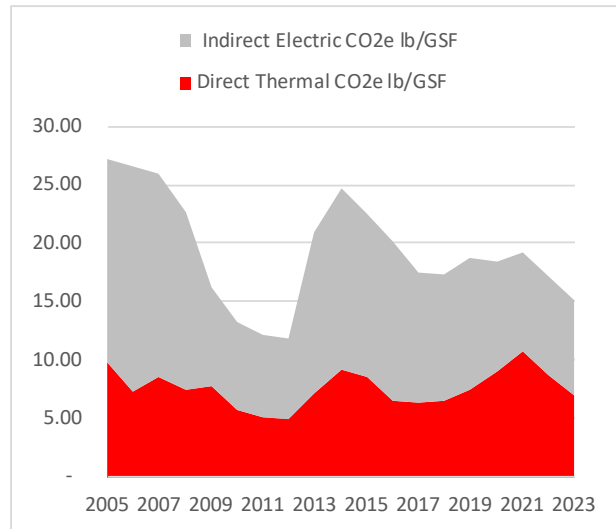
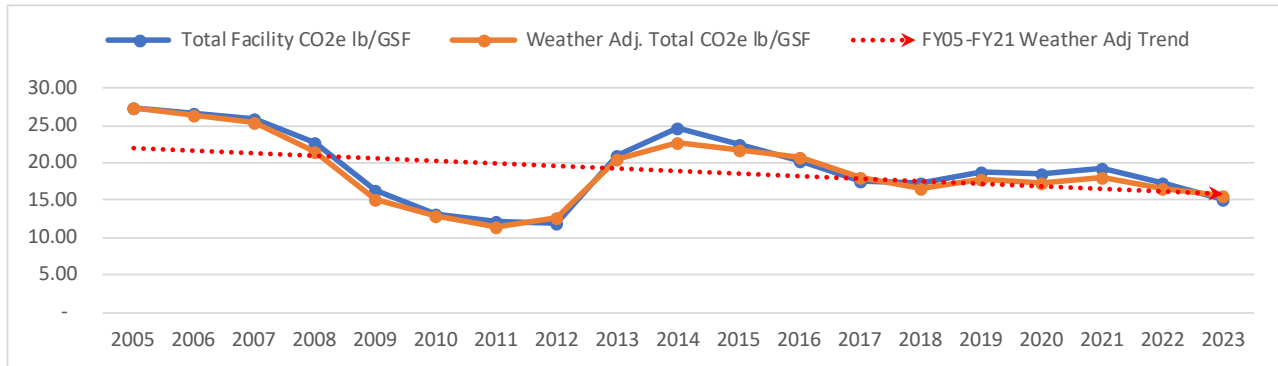
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Platteville, Richland CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	95,461	9.83	17.40	27.23	0.0%	46.84	9.83	17.40	27.23	0.0%
2006	95,461	7.23	19.42	26.65	-2.1%	47.39	7.10	19.29	26.39	-3.1%
2007	95,461	8.55	17.36	25.92	-4.8%	46.26	8.28	17.20	25.48	-6.4%
2008	101,990	7.41	15.24	22.65	-16.8%	44.24	6.42	15.04	21.46	-21.2%
2009	101,900	7.79	8.48	16.27	-40.3%	44.25	6.76	8.41	15.17	-44.3%
2010	108,760	5.77	7.44	13.21	-51.5%	45.47	5.34	7.44	12.78	-53.1%
2011	108,760	5.07	7.14	12.21	-55.2%	46.21	4.48	7.05	11.53	-57.7%
2012	108,760	4.91	6.95	11.86	-56.5%	51.40	5.65	6.98	12.64	-53.6%
2013	108,760	7.09	13.86	20.95	-23.1%	46.61	6.68	13.71	20.39	-25.1%
2014	108,760	9.17	15.47	24.64	-9.5%	43.20	7.53	15.13	22.66	-16.8%
2015	108,760	8.60	13.94	22.55	-17.2%	44.37	7.82	14.01	21.83	-19.8%
2016	108,760	6.57	13.64	20.22	-25.8%	48.82	7.11	13.60	20.71	-24.0%
2017	108,760	6.40	11.10	17.50	-35.8%	49.01	7.08	10.87	17.94	-34.1%
2018	108,760	6.51	10.82	17.32	-36.4%	45.93	5.78	10.70	16.48	-39.5%
2019	108,760	7.40	11.41	18.81	-30.9%	44.97	6.50	11.33	17.83	-34.5%
2020	104,825	9.03	9.41	18.44	-32.3%	43.71	7.82	9.45	17.26	-36.6%
2021	104,825	10.77	8.41	19.17	-29.6%	43.00	9.44	8.53	17.98	-34.0%
2022	104,825	8.66	8.52	17.18	-36.9%	46.88	8.23	8.41	16.64	-38.9%
2023	104,825	7.06	8.07	15.13	-44.5%	51.09	7.68	7.98	15.67	-42.5%

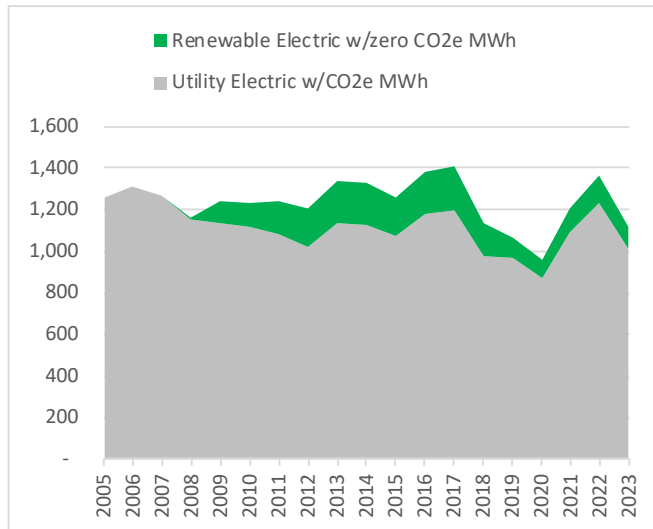
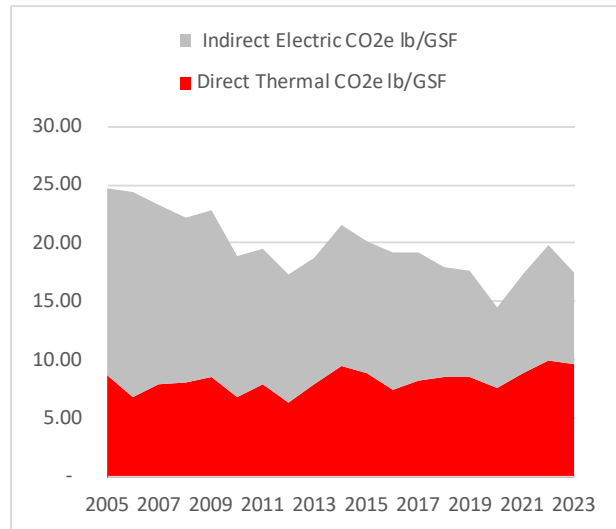
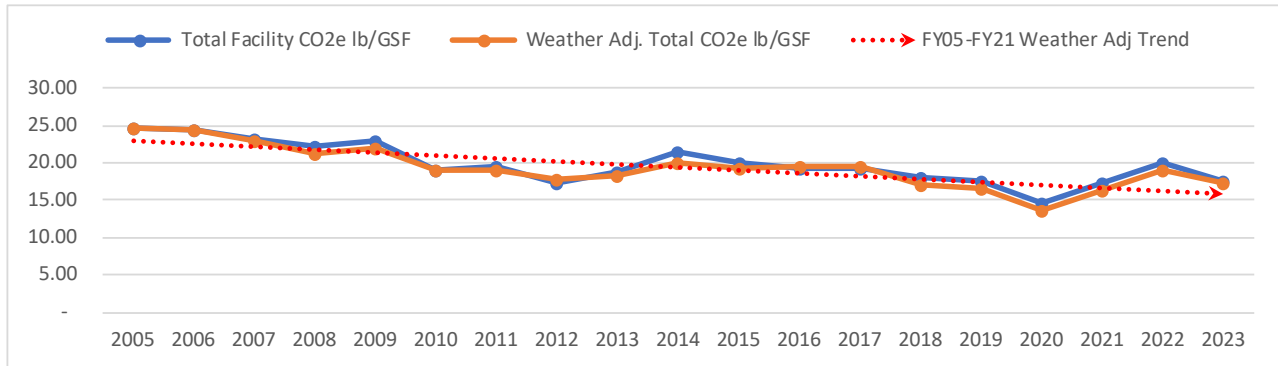
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**UW-Stevens Point, Marshfield CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	145,016	8.68	16.02	24.70	0.0%	44.26	8.68	16.02	24.70	0.0%
2006	145,016	6.85	17.57	24.42	-1.1%	45.56	6.92	17.50	24.42	-1.1%
2007	145,016	7.99	15.24	23.23	-6.0%	44.50	7.82	15.22	23.04	-6.7%
2008	141,598	8.14	14.00	22.14	-10.4%	42.10	7.06	14.05	21.11	-14.5%
2009	136,616	8.58	14.25	22.84	-7.5%	42.50	7.64	14.32	21.96	-11.1%
2010	149,996	6.91	12.06	18.97	-23.2%	45.38	7.09	12.00	19.09	-22.7%
2011	149,996	7.92	11.63	19.55	-20.9%	43.50	7.39	11.61	19.00	-23.1%
2012	149,996	6.37	10.98	17.35	-29.8%	47.63	6.83	10.96	17.79	-28.0%
2013	149,996	7.98	10.77	18.74	-24.1%	42.87	7.37	10.80	18.17	-26.4%
2014	149,996	9.55	11.98	21.52	-12.9%	39.97	7.99	12.03	20.02	-18.9%
2015	149,996	8.85	11.25	20.09	-18.7%	42.20	8.06	11.22	19.28	-21.9%
2016	149,996	7.46	11.75	19.21	-22.2%	46.23	7.89	11.69	19.59	-20.7%
2017	149,996	8.19	11.02	19.21	-22.2%	45.86	8.56	10.92	19.48	-21.1%
2018	149,996	8.52	9.40	17.92	-27.4%	42.67	7.75	9.30	17.04	-31.0%
2019	149,996	8.61	9.02	17.63	-28.6%	41.78	7.70	8.97	16.67	-32.5%
2020	153,555	7.54	6.96	14.50	-41.3%	39.87	6.46	7.17	13.64	-44.8%
2021	153,555	8.85	8.45	17.30	-30.0%	40.53	7.82	8.52	16.34	-33.8%
2022	153,555	9.90	10.01	19.92	-19.4%	43.09	9.24	9.85	19.09	-22.7%
2023	153,555	9.72	7.82	17.55	-29.0%	44.12	9.41	7.88	17.29	-30.0%

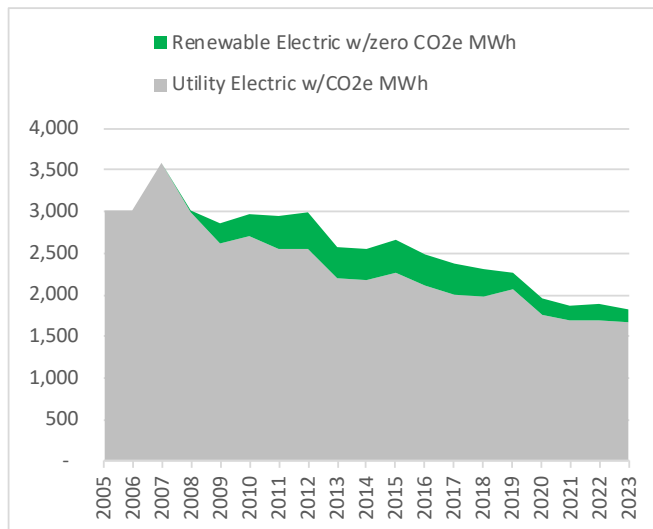
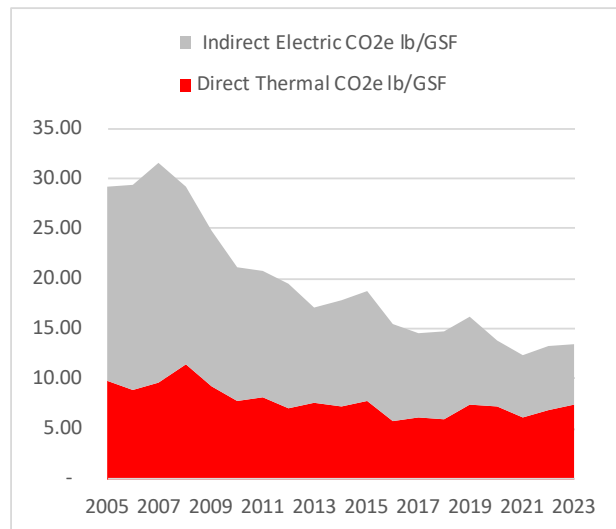
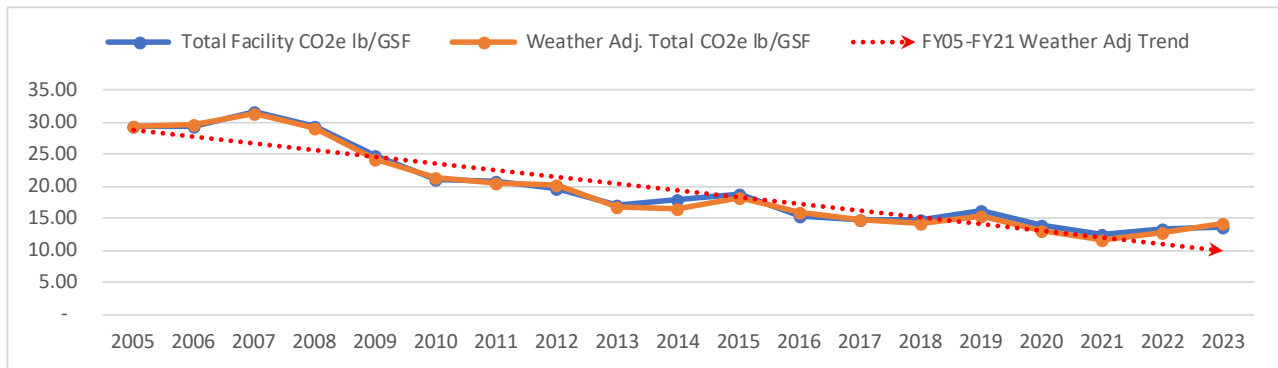
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Stevens Point, Wausau CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	286,421	9.77	19.44	29.21	0.0%	44.26	9.77	19.44	29.21	0.0%
2006	286,421	8.87	20.54	29.41	0.7%	45.56	9.13	20.41	29.54	1.1%
2007	286,421	9.63	21.89	31.52	7.9%	44.50	9.51	21.82	31.33	7.3%
2008	290,650	11.48	17.76	29.24	0.1%	42.10	11.03	17.92	28.95	-0.9%
2009	290,650	9.32	15.46	24.79	-15.1%	42.50	8.87	15.38	24.25	-17.0%
2010	327,695	7.77	13.39	21.16	-27.6%	45.38	8.08	13.35	21.44	-26.6%
2011	327,695	8.11	12.62	20.73	-29.0%	43.50	7.81	12.69	20.50	-29.8%
2012	327,695	7.02	12.49	19.51	-33.2%	47.63	7.72	12.32	20.04	-31.4%
2013	327,695	7.53	9.53	17.05	-41.6%	42.87	7.11	9.56	16.67	-42.9%
2014	327,695	7.31	10.56	17.87	-38.8%	39.97	5.97	10.51	16.48	-43.6%
2015	327,695	7.83	10.87	18.70	-36.0%	42.20	7.33	10.77	18.11	-38.0%
2016	327,695	5.83	9.62	15.45	-47.1%	46.23	6.26	9.52	15.78	-46.0%
2017	327,695	6.17	8.45	14.63	-49.9%	45.86	6.43	8.43	14.86	-49.1%
2018	327,695	5.90	8.76	14.67	-49.8%	42.67	5.33	8.70	14.03	-52.0%
2019	327,695	7.48	8.79	16.27	-44.3%	41.78	6.72	8.73	15.45	-47.1%
2020	327,695	7.19	6.64	13.83	-52.7%	39.87	6.36	6.77	13.14	-55.0%
2021	327,695	6.23	6.14	12.37	-57.7%	40.53	5.36	6.28	11.63	-60.2%
2022	327,695	6.86	6.46	13.32	-54.4%	43.09	6.33	6.44	12.77	-56.3%
2023	327,695	7.46	6.02	13.48	-53.9%	51.09	8.16	5.97	14.14	-51.6%

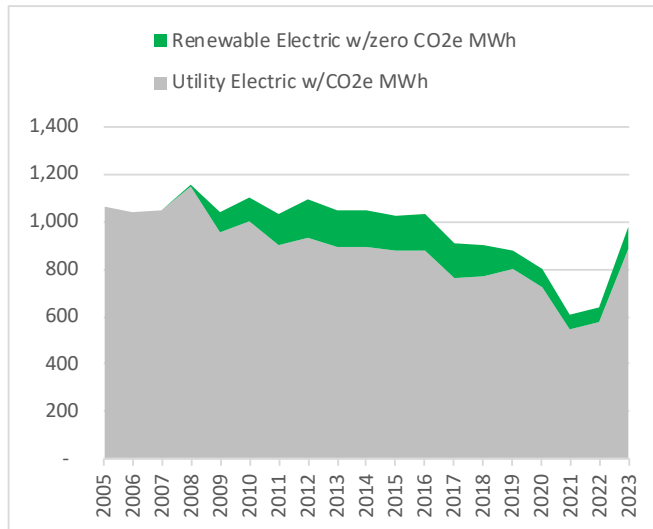
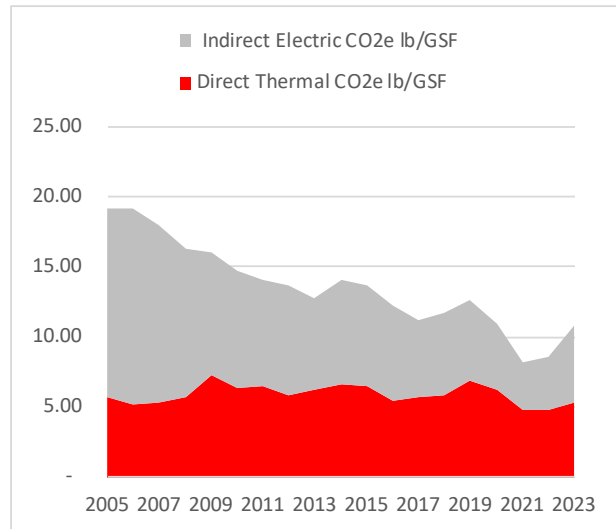
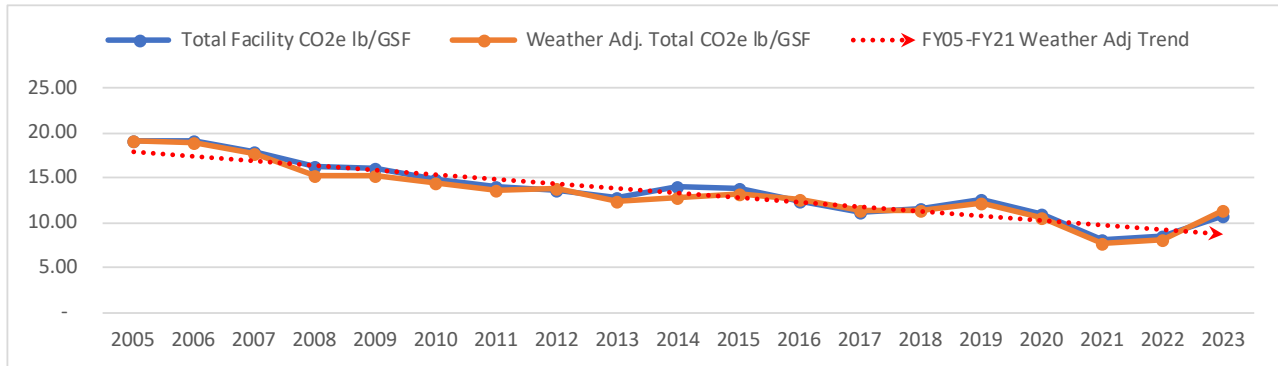
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Whitewater, Rock CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	145,560	5.67	13.48	19.15	0.0%	48.12	5.67	13.48	19.15	0.0%
2006	145,560	5.14	13.94	19.08	-0.4%	48.65	5.06	13.86	18.92	-1.2%
2007	145,560	5.36	12.62	17.98	-6.1%	47.46	5.08	12.57	17.66	-7.8%
2008	185,625	5.68	10.64	16.32	-14.8%	46.19	4.78	10.44	15.22	-20.5%
2009	185,625	7.23	8.81	16.05	-16.2%	45.66	6.32	8.86	15.18	-20.7%
2010	191,592	6.28	8.45	14.73	-23.1%	47.10	5.92	8.53	14.45	-24.5%
2011	191,592	6.45	7.58	14.03	-26.7%	46.81	6.01	7.51	13.52	-29.4%
2012	191,592	5.81	7.78	13.60	-29.0%	51.51	6.25	7.59	13.84	-27.7%
2013	191,592	6.15	6.61	12.76	-33.4%	47.29	5.76	6.55	12.31	-35.7%
2014	191,592	6.64	7.42	14.06	-26.6%	44.58	5.33	7.38	12.71	-33.6%
2015	191,592	6.51	7.20	13.70	-28.4%	45.84	5.94	7.27	13.21	-31.0%
2016	191,592	5.43	6.85	12.27	-35.9%	49.68	5.75	6.75	12.50	-34.7%
2017	191,592	5.64	5.53	11.17	-41.7%	49.72	5.96	5.36	11.32	-40.9%
2018	191,592	5.82	5.83	11.66	-39.1%	46.66	5.39	5.86	11.25	-41.2%
2019	191,592	6.85	5.81	12.66	-33.9%	45.88	6.37	5.80	12.17	-36.5%
2020	191,592	6.26	4.66	10.91	-43.0%	44.43	5.70	4.90	10.61	-44.6%
2021	191,592	4.78	3.39	8.17	-57.3%	43.38	4.11	3.57	7.68	-59.9%
2022	191,592	4.79	3.76	8.55	-55.4%	48.04	4.48	3.69	8.17	-57.4%
2023	191,592	5.29	5.47	10.76	-43.8%	51.09	5.84	5.42	11.26	-41.2%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



# Wisconsin Agency GHG CO2e Emissions



State of Wisconsin  
 Department of Administration

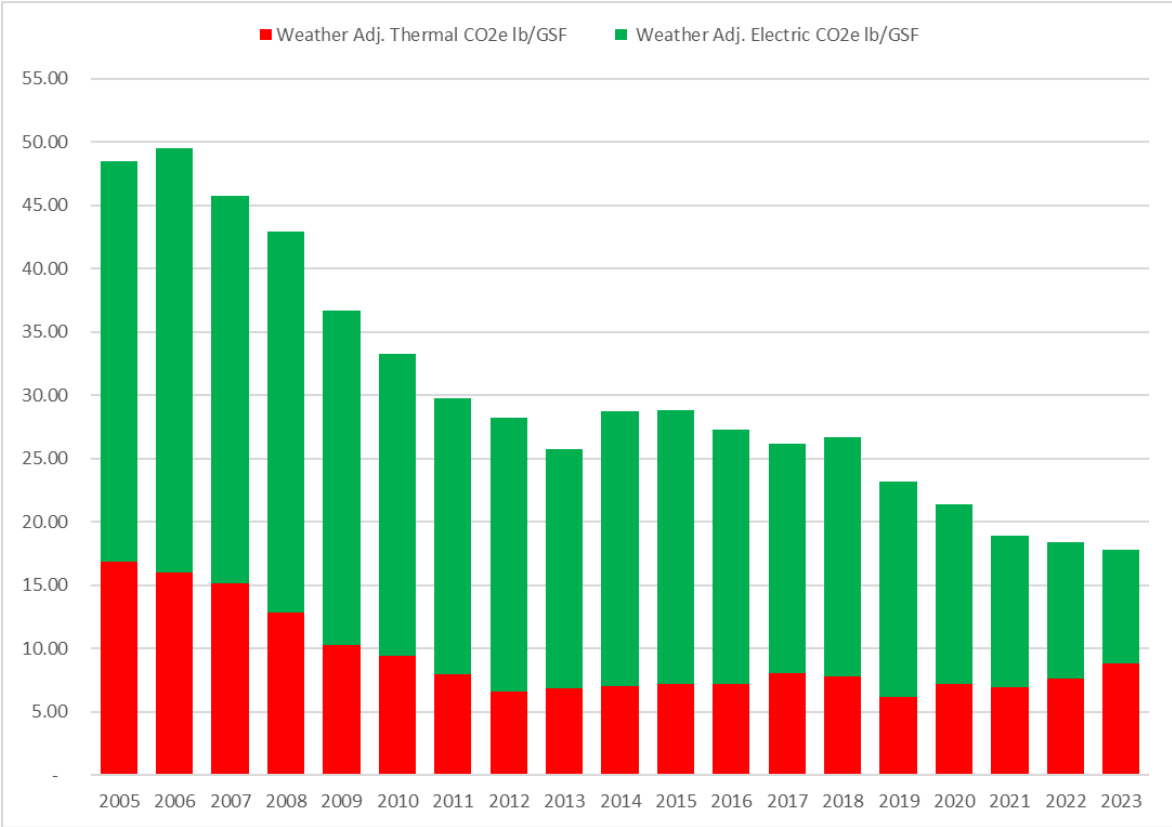
## SCOPE

CAPITOL COMPLEX - Capitol Heat & Power Plant, Dept. of Administration Office Building; Dept. of Health Services Office Building; Risser Justice Center; GEF 1, 2 and 3; and Wisconsin State Capitol.

HILL FARMS COMPLEX - Hill Farms D/E/L; and State Transportation Building

SEPARATED FACILITIES - Badger Road Office Building; Eau Claire Office Building; Green Bay Office Building; La Crosse Office Building; Milwaukee Office Building; Milwaukee SE Crime Lab; State Agriculture Building; State Revenue Building; Waukesha Office Building; Wisconsin Public Broadcasting Center Building; Wisconsin Rapids Office Building; Air Services; and Executive Residence.

## Wisconsin Department of Administration Facilities GHG CO2e lbs/GSF:

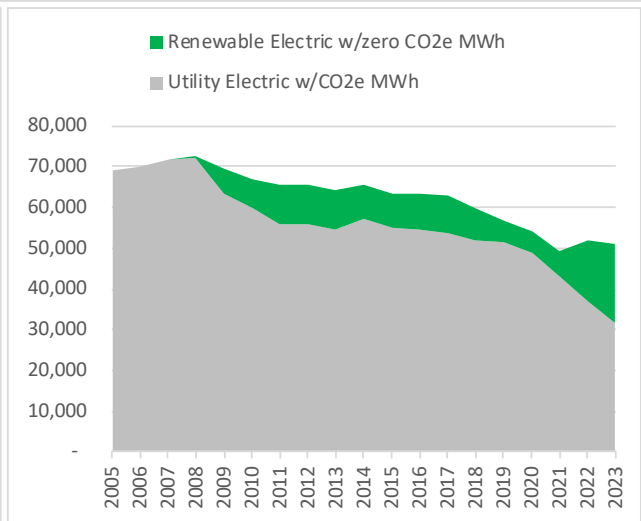
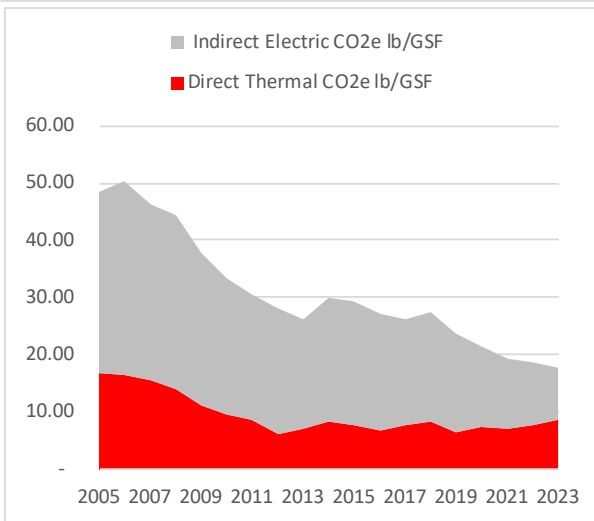
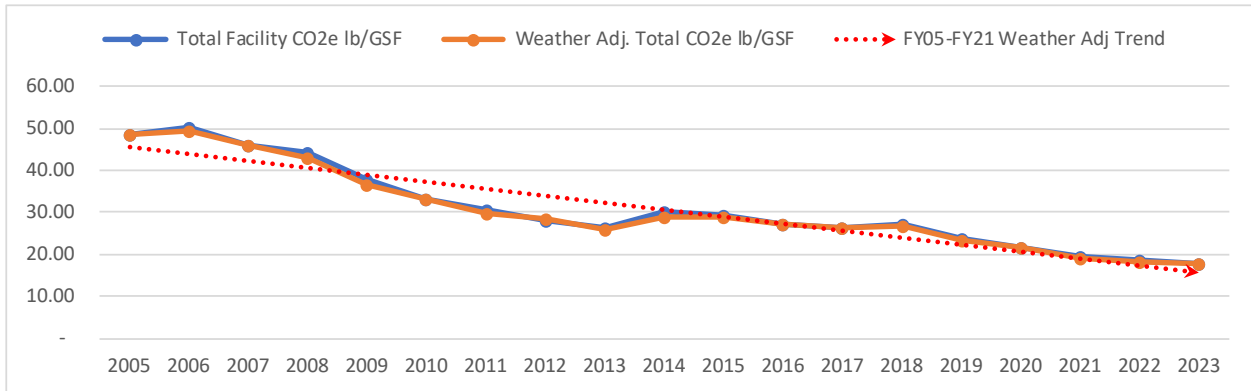




**Department of Administration CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	4,027,132	16.85	31.65	48.50	0.0%	47.71	16.85	31.65	48.50	0.0%
2006	4,027,132	16.52	33.76	50.28	3.7%	48.66	16.03	33.49	49.51	2.1%
2007	4,084,119	15.44	30.72	46.15	-4.8%	47.49	15.16	30.62	45.78	-5.6%
2008	4,084,119	14.02	30.35	44.37	-8.5%	46.02	12.88	30.06	42.94	-11.5%
2009	4,084,119	11.16	26.62	37.78	-22.1%	45.49	10.30	26.42	36.72	-24.3%
2010	4,084,119	9.56	23.79	33.35	-31.2%	47.20	9.41	23.87	33.28	-31.4%
2011	4,084,119	8.66	22.03	30.69	-36.7%	46.55	8.01	21.78	29.79	-38.6%
2012	4,084,119	6.16	22.01	28.17	-41.9%	51.20	6.63	21.64	28.27	-41.7%
2013	4,084,119	7.18	19.05	26.23	-45.9%	46.87	6.86	18.92	25.78	-46.8%
2014	4,166,958	8.22	21.86	30.08	-38.0%	44.12	7.08	21.70	28.77	-40.7%
2015	4,019,258	7.69	21.55	29.24	-39.7%	45.50	7.23	21.61	28.84	-40.5%
2016	4,019,258	6.90	20.28	27.18	-44.0%	49.49	7.22	20.11	27.33	-43.6%
2017	4,019,258	7.73	18.52	26.25	-45.9%	49.79	8.03	18.19	26.22	-45.9%
2018	3,968,416	8.31	19.02	27.33	-43.7%	46.63	7.83	18.90	26.73	-44.9%
2019	4,202,931	6.58	17.08	23.66	-51.2%	45.78	6.15	17.03	23.18	-52.2%
2020	4,202,931	7.26	14.27	21.52	-55.6%	48.14	7.25	14.18	21.43	-55.8%
2021	4,202,931	7.18	12.15	19.33	-60.2%	47.74	6.98	11.96	18.94	-61.0%
2022	4,202,931	7.80	10.99	18.79	-61.3%	48.04	7.67	10.74	18.40	-62.1%
2023	4,202,931	8.69	8.98	17.67	-63.6%	48.84	8.85	8.93	17.78	-63.3%

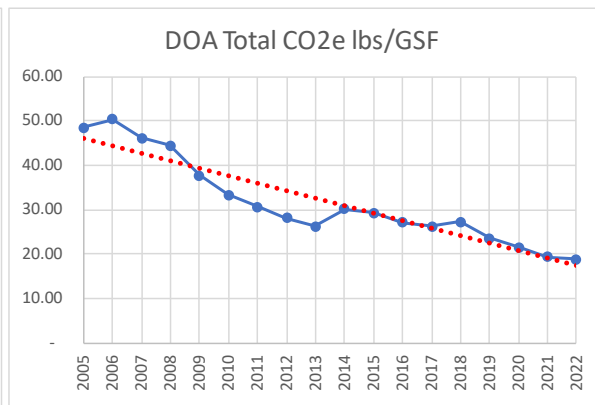
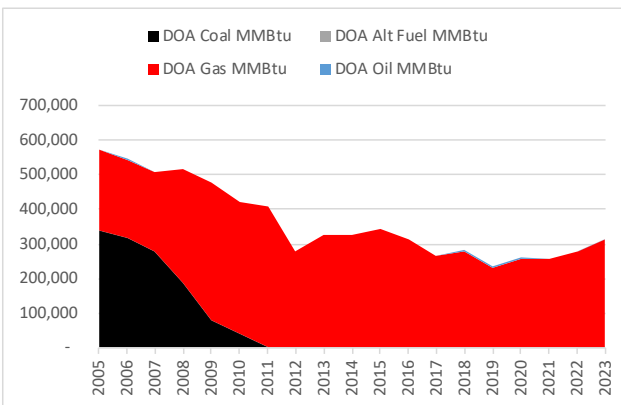
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



Department of Administration Boiler Plant Fuel and Electric Use CO2e Emissions

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DOA Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOA Total CO2e lbs/GSF
2005	4,027,132	47.71	69,167,003	-	69,167,003	1.84	57,822	30,779	88,601	48.50
2006	4,027,132	48.66	69,730,487	-	69,730,487	1.95	61,677	30,174	91,851	50.28
2007	4,084,119	47.49	71,730,275	-	71,730,275	1.75	56,906	28,596	85,502	46.15
2008	4,084,119	46.02	72,527,798	496,666	72,031,132	1.72	56,230	25,969	82,199	44.37
2009	4,084,119	45.49	69,552,909	6,297,098	63,255,811	1.72	49,322	20,666	69,988	37.78
2010	4,084,119	47.20	66,750,932	6,877,318	59,873,614	1.62	44,078	17,702	61,779	33.35
2011	4,084,119	46.55	65,739,826	10,059,089	55,680,737	1.62	40,814	16,042	56,856	30.69
2012	4,084,119	51.20	65,729,341	9,837,560	55,891,782	1.61	40,766	11,412	52,178	28.17
2013	4,084,119	46.87	64,271,547	9,548,367	54,723,180	1.42	35,297	13,304	48,601	26.23
2014	4,166,958	44.12	65,347,680	8,058,693	57,288,986	1.59	41,317	15,531	56,849	30.08
2015	4,019,258	45.50	63,550,371	8,621,235	54,929,136	1.58	39,292	14,023	53,314	29.24
2016	4,019,258	49.49	63,236,496	8,824,904	54,411,592	1.50	36,972	12,583	49,554	27.18
2017	4,019,258	49.79	62,974,849	9,217,165	53,757,684	1.39	33,772	14,084	47,856	26.25
2018	3,968,416	46.63	59,651,618	7,564,225	52,087,393	1.45	34,235	14,952	49,187	27.33
2019	4,202,931	45.78	56,853,956	5,357,204	51,496,752	1.39	32,562	12,542	45,104	23.66
2020	4,202,931	48.14	54,110,768	5,482,053	48,628,715	1.23	27,197	13,832	41,029	21.52
2021	4,202,931	47.74	49,209,710	6,224,716	42,984,994	1.19	23,163	13,681	36,844	19.33
2022	4,202,931	48.04	51,952,077	14,897,547	37,054,530	1.25	20,942	14,875	35,817	18.79
2023	4,202,931	48.84	50,914,862	19,050,047	31,864,815	1.19	17,128	16,564	33,692	17.67

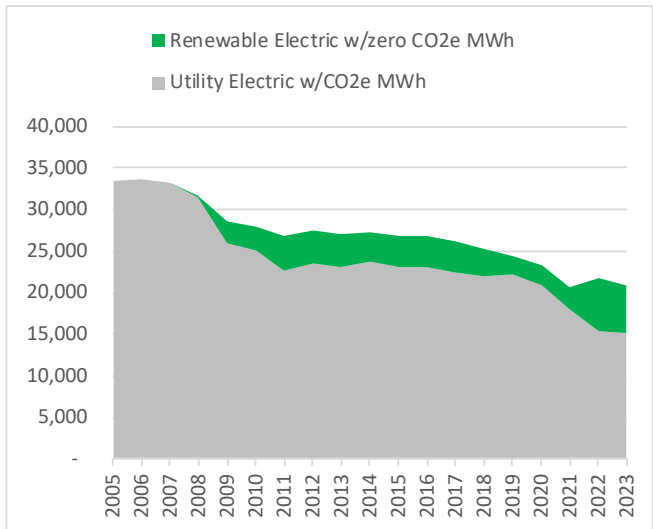
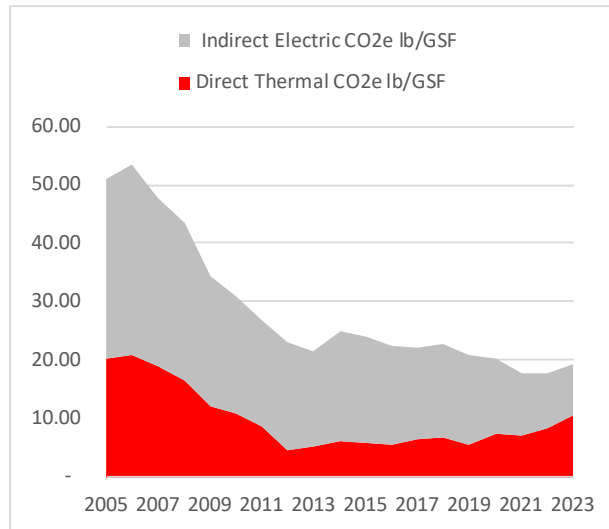
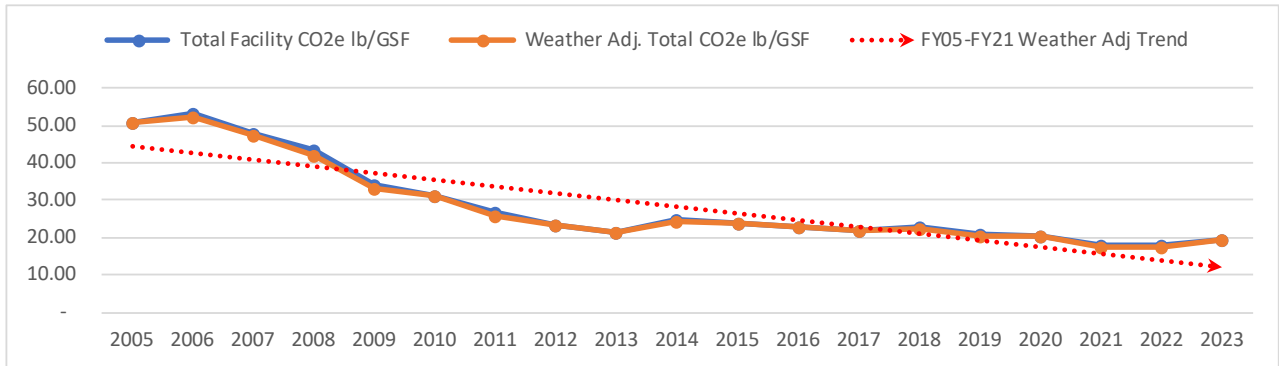
Fiscal Year	DOA Net Thermal MMBtu	DOA Plant Reports MMBtu w/Sales	DOA Coal MMBtu	DOA Alt Fuel MMBtu	DOA Gas MMBtu	DOA Oil MMBtu	DOA Plant Reports MMBtu w/Sales	DOA Boiler Fuel Based Emissions lbs	DOA Boiler Fuel Emissions lb/MMBtu	DOA Net Thermal MMBtu CO2e Metric Tons
2005	399,576	572,015	338,647	-	234,842	20	572,015	44,062	169.82	30,779
2006	391,988	546,642	318,718	-	222,357	7,397	546,642	42,079	169.71	30,174
2007	378,872	504,582	278,978	-	227,149	-	504,582	38,085	166.40	28,596
2008	382,500	515,326	187,663	-	329,315	-	515,326	34,987	149.68	25,969
2009	345,081	478,589	81,099	-	397,490	-	478,589	28,662	132.03	20,666
2010	311,148	422,433	40,115	-	382,318	-	422,433	24,033	125.42	17,702
2011	302,281	410,546	-	-	410,546	-	410,546	21,788	117.00	16,042
2012	215,032	279,968	-	-	279,968	-	279,968	14,858	117.00	11,412
2013	250,282	328,486	-	-	327,105	1,380	328,486	17,461	117.19	13,304
2014	292,475	327,340	-	-	326,813	527	327,340	17,383	117.07	15,531
2015	264,164	343,635	-	-	343,418	217	343,635	18,241	117.03	14,023
2016	237,049	311,886	-	-	311,734	152	311,886	16,555	117.02	12,583
2017	265,310	265,310	-	-	265,133	176	265,310	14,084	117.03	14,084
2018	280,966	280,966	-	-	278,926	2,041	280,966	14,952	117.32	14,952
2019	235,357	235,357	-	-	232,775	2,581	235,357	12,542	117.49	12,542
2020	259,972	259,972	-	-	258,238	1,734	259,972	13,832	117.30	13,832
2021	257,732	257,732	-	-	257,591	142	257,732	13,681	117.02	13,681
2022	280,241	280,241	-	-	280,108	133	280,241	14,875	117.02	14,875
2023	312,084	312,084	-	-	311,995	89	312,084	16,564	117.01	16,564



**DOA-Capitol Complex CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	2,013,307	20.29	30.70	50.99	0.0%	48.12	20.29	30.70	50.99	0.0%
2006	2,013,307	20.75	32.68	53.43	4.8%	48.65	19.61	32.53	52.14	2.3%
2007	2,013,307	18.99	28.82	47.80	-6.2%	47.46	18.73	28.75	47.47	-6.9%
2008	2,013,307	16.51	26.95	43.46	-14.8%	46.19	15.36	26.75	42.11	-17.4%
2009	2,013,307	12.09	22.23	34.32	-32.7%	45.66	11.23	22.04	33.27	-34.7%
2010	2,013,307	10.73	20.27	30.99	-39.2%	47.10	10.67	20.31	30.99	-39.2%
2011	2,013,307	8.58	18.19	26.77	-47.5%	46.81	7.98	17.99	25.97	-49.1%
2012	2,013,307	4.49	18.71	23.20	-54.5%	51.51	4.75	18.40	23.15	-54.6%
2013	2,013,307	5.32	16.26	21.58	-57.7%	47.29	5.16	16.10	21.27	-58.3%
2014	2,013,307	6.01	18.81	24.83	-51.3%	44.58	5.44	18.66	24.10	-52.7%
2015	2,013,307	5.75	18.12	23.87	-53.2%	45.84	5.53	18.18	23.71	-53.5%
2016	2,013,307	5.45	17.14	22.59	-55.7%	49.68	5.69	16.98	22.67	-55.5%
2017	2,013,307	6.60	15.38	21.98	-56.9%	49.72	6.76	15.10	21.86	-57.1%
2018	2,013,307	6.77	15.85	22.62	-55.6%	46.66	6.43	15.83	22.25	-56.4%
2019	2,013,307	5.47	15.35	20.83	-59.2%	45.88	5.21	15.36	20.57	-59.7%
2020	2,013,307	7.50	12.84	20.34	-60.1%	48.07	7.48	12.76	20.23	-60.3%
2021	2,013,307	7.15	10.66	17.80	-65.1%	47.61	6.96	10.45	17.40	-65.9%
2022	2,013,307	8.37	9.50	17.87	-65.0%	48.04	8.25	9.27	17.52	-65.6%
2023	2,013,307	10.38	8.94	19.32	-62.1%	48.64	10.50	8.89	19.39	-62.0%

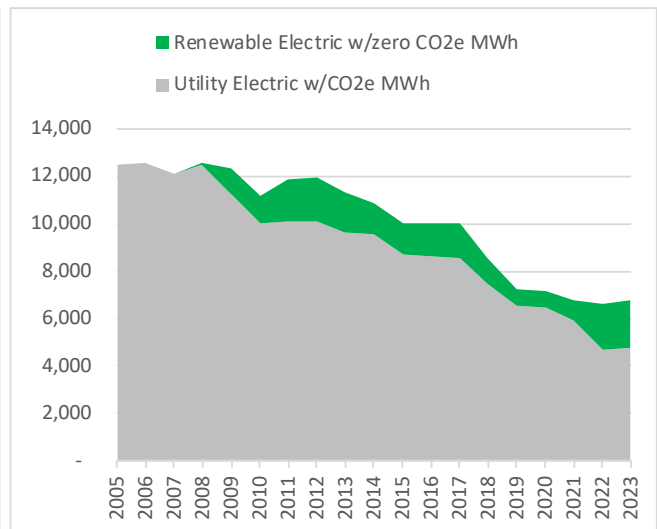
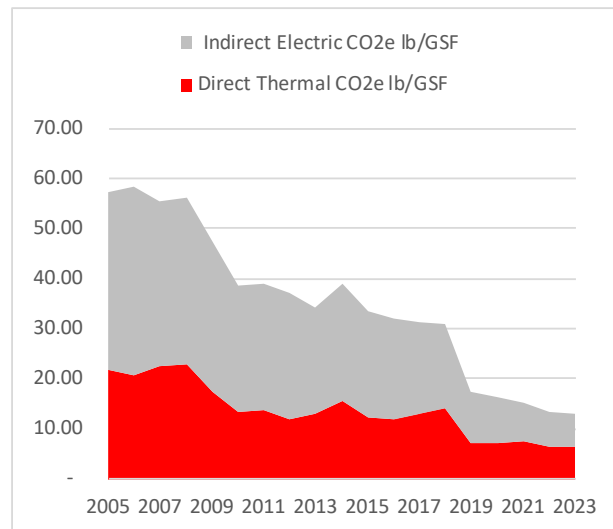
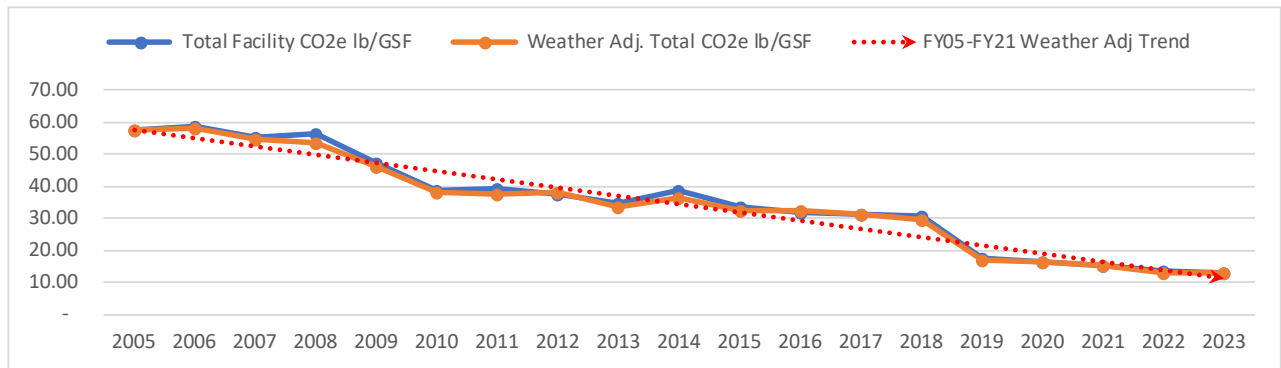
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-Hill Farms CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	644,904	21.65	35.61	57.26	0.0%	48.12	21.65	35.61	57.26	0.0%
2006	644,904	20.53	37.98	58.51	2.2%	48.65	20.74	37.58	58.32	1.8%
2007	644,904	22.51	32.79	55.29	-3.4%	47.46	22.04	32.73	54.77	-4.3%
2008	644,904	22.84	33.33	56.17	-1.9%	46.19	20.51	32.77	53.28	-7.0%
2009	644,904	17.43	29.95	47.37	-17.3%	45.66	16.16	29.65	45.81	-20.0%
2010	644,904	13.45	25.22	38.67	-32.5%	47.10	13.00	25.34	38.34	-33.0%
2011	644,904	13.80	25.24	39.03	-31.8%	46.81	12.54	24.71	37.25	-34.9%
2012	644,904	12.02	25.23	37.24	-35.0%	51.51	13.07	24.80	37.87	-33.9%
2013	644,904	13.19	21.18	34.37	-40.0%	47.29	12.50	21.02	33.51	-41.5%
2014	644,904	15.43	23.48	38.91	-32.0%	44.58	13.02	23.44	36.47	-36.3%
2015	644,904	12.12	21.19	33.31	-41.8%	45.84	11.16	21.20	32.36	-43.5%
2016	644,904	11.97	19.96	31.93	-44.2%	49.68	12.54	19.82	32.36	-43.5%
2017	644,904	12.91	18.29	31.21	-45.5%	49.72	13.50	17.91	31.41	-45.1%
2018	644,904	14.11	16.73	30.84	-46.1%	46.66	13.17	16.39	29.56	-48.4%
2019	879,419	7.10	10.37	17.47	-69.5%	45.88	6.67	10.37	17.04	-70.2%
2020	879,419	7.26	9.02	16.28	-71.6%	48.07	7.24	8.97	16.21	-71.7%
2021	879,419	7.37	7.98	15.35	-73.2%	47.61	7.09	7.88	14.97	-73.9%
2022	879,419	6.54	6.68	13.23	-76.9%	48.04	6.40	6.54	12.94	-77.4%
2023	879,419	6.41	6.44	12.85	-77.6%	48.64	6.51	6.41	12.92	-77.4%

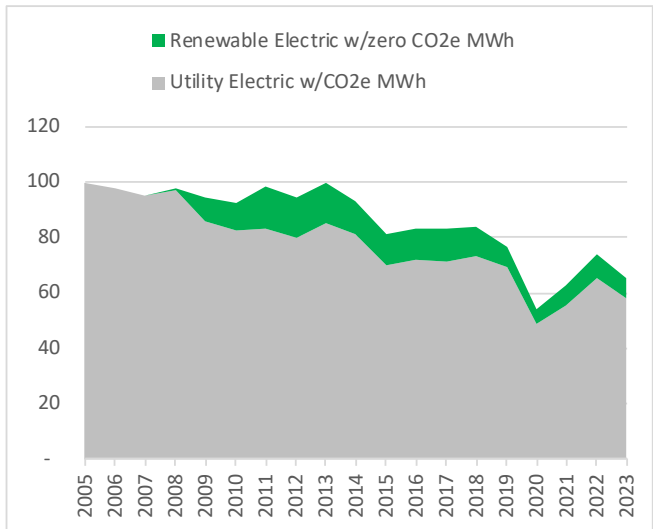
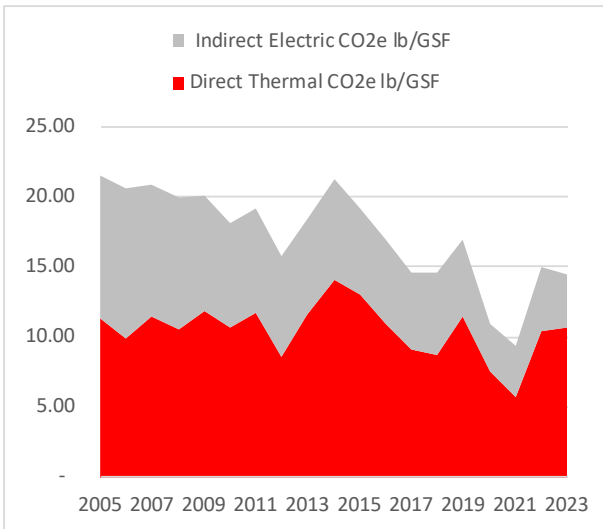
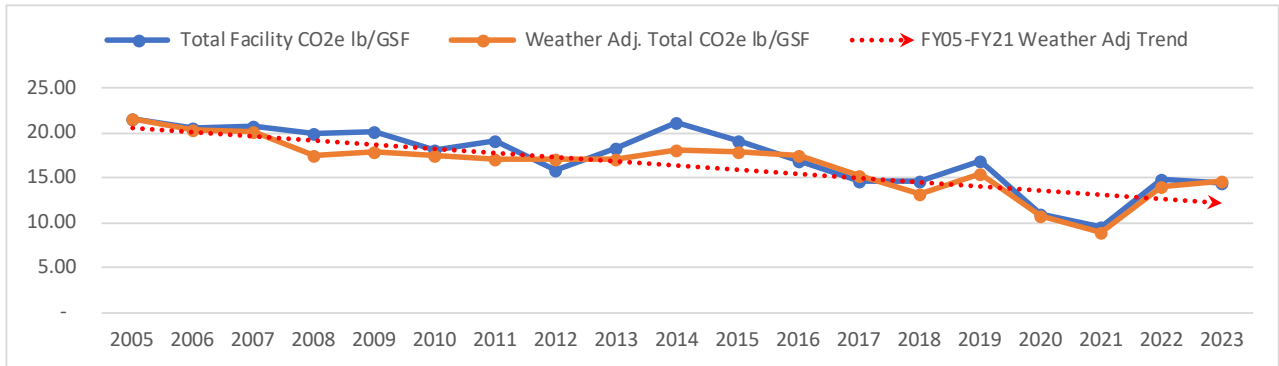
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Air Services CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	17,898	11.27	10.23	21.50	0.0%	48.12	11.27	10.23	21.50	0.0%
2006	17,898	9.86	10.67	20.53	-4.5%	48.65	9.68	10.67	20.36	-5.3%
2007	17,898	11.49	9.31	20.80	-3.2%	47.46	10.88	9.27	20.15	-6.3%
2008	17,898	10.59	9.34	19.92	-7.3%	46.19	8.34	9.21	17.55	-18.3%
2009	17,898	11.84	8.22	20.07	-6.7%	45.66	9.82	8.11	17.93	-16.6%
2010	17,898	10.61	7.50	18.11	-15.8%	47.10	10.08	7.47	17.55	-18.4%
2011	17,898	11.65	7.50	19.15	-10.9%	46.81	9.78	7.39	17.17	-20.1%
2012	17,898	8.59	7.19	15.77	-26.6%	51.51	9.73	7.29	17.02	-20.8%
2013	17,898	11.62	6.74	18.36	-14.6%	47.29	10.32	6.68	17.00	-20.9%
2014	17,898	14.02	7.23	21.25	-1.1%	44.58	10.82	7.19	18.01	-16.2%
2015	17,898	12.98	6.16	19.14	-11.0%	45.84	11.74	6.08	17.82	-17.1%
2016	17,898	10.95	5.99	16.94	-21.2%	49.68	11.39	6.03	17.41	-19.0%
2017	17,898	9.07	5.50	14.57	-32.2%	49.72	9.71	5.51	15.22	-29.2%
2018	17,898	8.71	5.92	14.63	-32.0%	46.66	7.32	5.84	13.17	-38.8%
2019	17,898	11.50	5.40	16.90	-21.4%	45.88	10.07	5.28	15.35	-28.6%
2020	17,898	7.50	3.36	10.86	-49.5%	48.07	7.36	3.34	10.70	-50.2%
2021	17,898	5.73	3.68	9.41	-56.2%	47.61	5.34	3.64	8.98	-58.2%
2022	17,898	10.35	4.57	14.91	-30.6%	48.04	9.62	4.40	14.02	-34.8%
2023	17,898	10.60	3.85	14.45	-32.8%	48.64	10.83	3.88	14.71	-31.6%

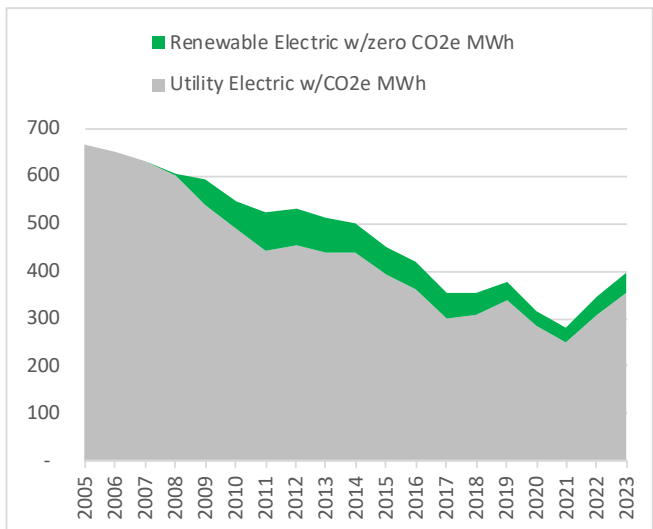
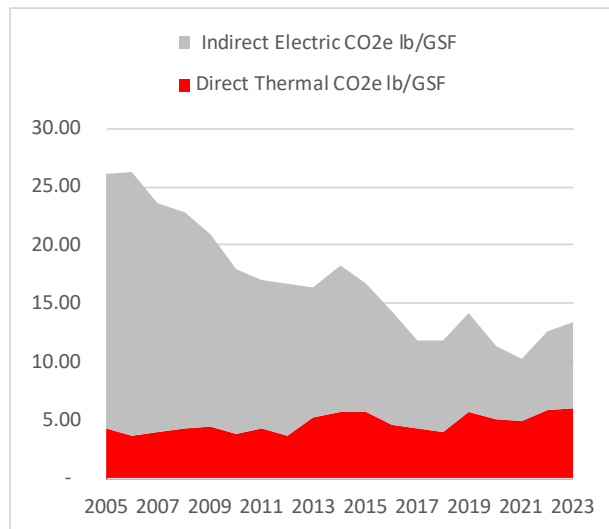
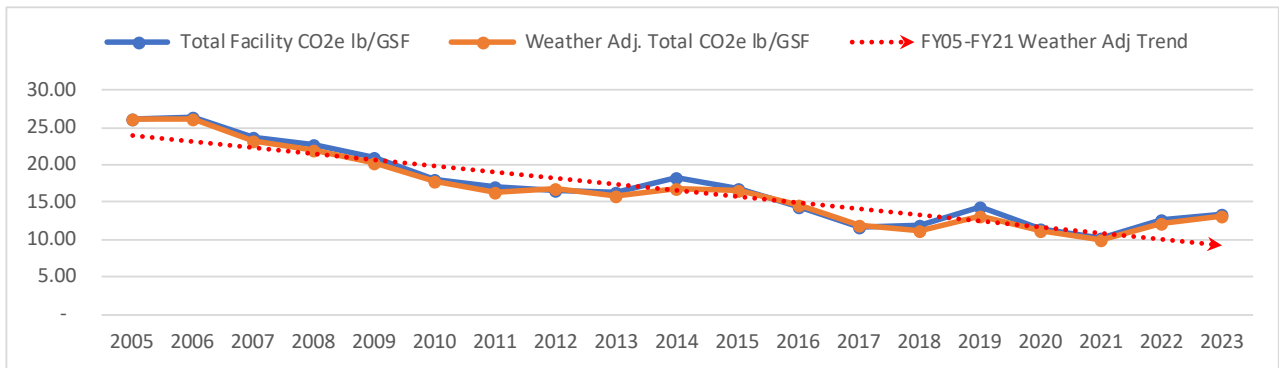
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Eau Claire SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	56,206	4.40	21.79	26.19	0.0%	45.85	4.40	21.79	26.19	0.0%
2006	56,206	3.77	22.51	26.28	0.3%	47.80	3.92	22.23	26.15	-0.2%
2007	56,206	3.99	19.64	23.63	-9.8%	46.32	3.79	19.32	23.11	-11.7%
2008	56,206	4.36	18.40	22.76	-13.1%	43.27	3.70	18.14	21.84	-16.6%
2009	56,206	4.43	16.47	20.90	-20.2%	42.97	3.78	16.40	20.18	-23.0%
2010	56,206	3.80	14.15	17.95	-31.4%	45.29	3.72	14.17	17.89	-31.7%
2011	56,206	4.34	12.75	17.08	-34.8%	43.68	3.73	12.60	16.33	-37.6%
2012	56,206	3.74	12.94	16.68	-36.3%	49.02	3.98	12.86	16.84	-35.7%
2013	56,206	5.30	11.06	16.36	-37.5%	43.85	4.81	10.97	15.79	-39.7%
2014	56,206	5.81	12.42	18.23	-30.4%	41.37	4.72	12.17	16.90	-35.5%
2015	56,206	5.78	10.96	16.74	-36.1%	43.42	5.53	10.94	16.47	-37.1%
2016	56,206	4.68	9.63	14.31	-45.4%	47.61	4.96	9.67	14.63	-44.1%
2017	56,206	4.34	7.43	11.78	-55.0%	47.08	4.54	7.40	11.93	-54.4%
2018	56,206	3.94	7.98	11.92	-54.5%	42.94	3.37	7.92	11.29	-56.9%
2019	56,206	5.80	8.44	14.24	-45.6%	42.23	4.59	8.43	13.01	-50.3%
2020	56,206	5.06	6.25	11.31	-56.8%	45.39	4.86	6.22	11.08	-57.7%
2021	56,206	4.95	5.32	10.26	-60.8%	47.24	4.83	5.20	10.03	-61.7%
2022	56,206	5.91	6.79	12.70	-51.5%	44.82	5.48	6.71	12.19	-53.4%
2023	56,206	5.99	7.45	13.44	-48.7%	45.80	5.81	7.28	13.09	-50.0%

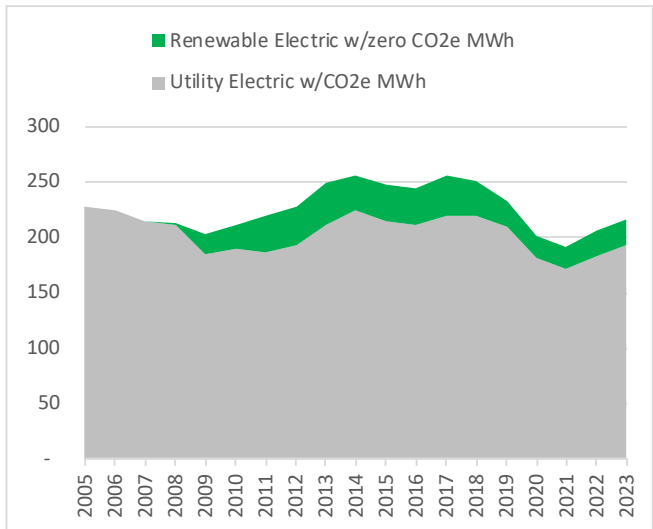
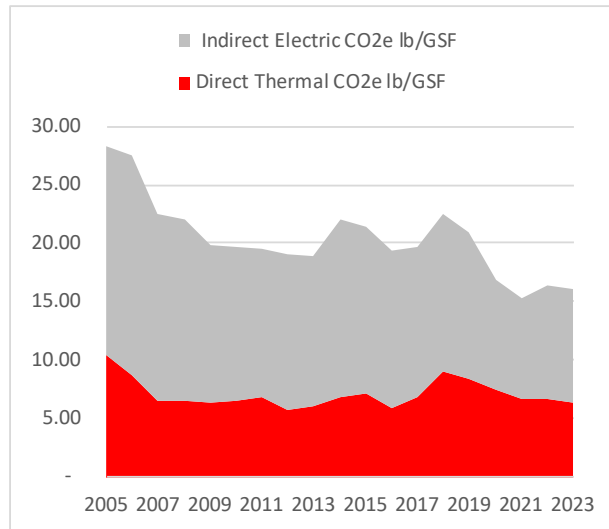
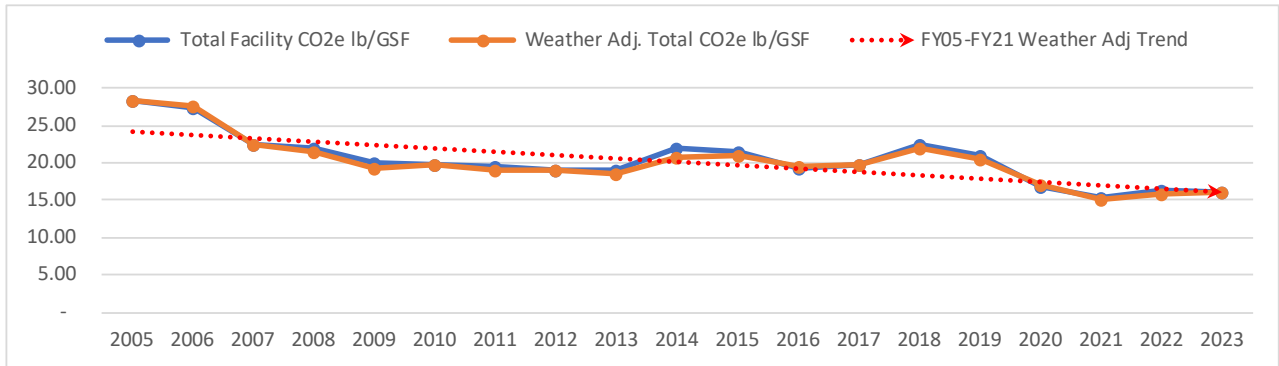
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Executive Residence CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	23,455	10.42	17.86	28.29	0.0%	48.12	10.42	17.86	28.29	0.0%
2006	23,455	8.75	18.71	27.47	-2.9%	48.65	8.95	18.53	27.49	-2.8%
2007	23,455	6.46	15.98	22.44	-20.7%	47.46	6.39	15.95	22.33	-21.0%
2008	23,455	6.55	15.46	22.01	-22.2%	46.19	6.14	15.25	21.40	-24.4%
2009	23,455	6.38	13.50	19.87	-29.7%	45.66	5.94	13.39	19.33	-31.7%
2010	23,455	6.59	13.13	19.72	-30.3%	47.10	6.50	13.24	19.74	-30.2%
2011	23,455	6.76	12.78	19.54	-30.9%	46.81	6.42	12.69	19.12	-32.4%
2012	23,455	5.76	13.25	19.01	-32.8%	51.51	6.12	13.00	19.13	-32.4%
2013	23,455	6.10	12.83	18.93	-33.1%	47.29	5.82	12.61	18.43	-34.9%
2014	23,455	6.84	15.18	22.02	-22.1%	44.58	6.09	14.63	20.71	-26.8%
2015	23,455	7.07	14.37	21.43	-24.2%	45.84	6.58	14.37	20.95	-25.9%
2016	23,455	5.88	13.45	19.33	-31.6%	49.68	6.14	13.29	19.43	-31.3%
2017	23,455	6.85	12.91	19.75	-30.2%	49.72	7.03	12.68	19.72	-30.3%
2018	23,455	8.99	13.57	22.55	-20.3%	46.66	8.51	13.42	21.93	-22.5%
2019	23,455	8.46	12.50	20.95	-25.9%	45.88	7.89	12.52	20.40	-27.9%
2020	23,455	7.39	9.53	16.92	-40.2%	48.07	7.46	9.48	16.94	-40.1%
2021	23,455	6.65	8.65	15.30	-45.9%	47.61	6.50	8.49	14.98	-47.0%
2022	23,455	6.61	9.74	16.34	-42.2%	48.04	6.41	9.44	15.84	-44.0%
2023	23,455	6.39	9.76	16.14	-42.9%	48.64	6.47	9.71	16.18	-42.8%

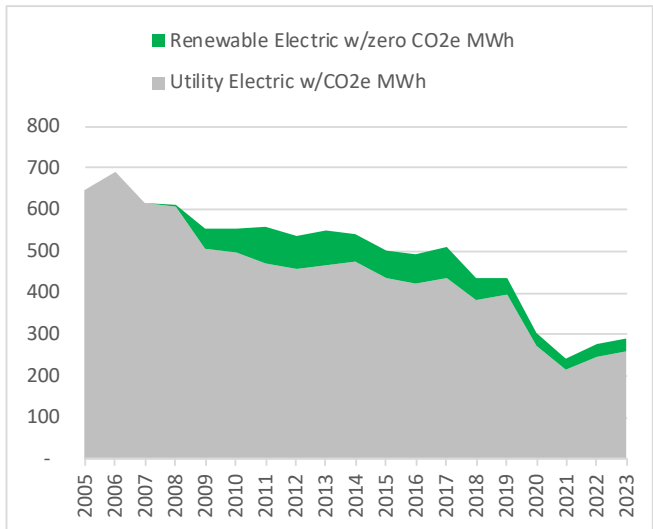
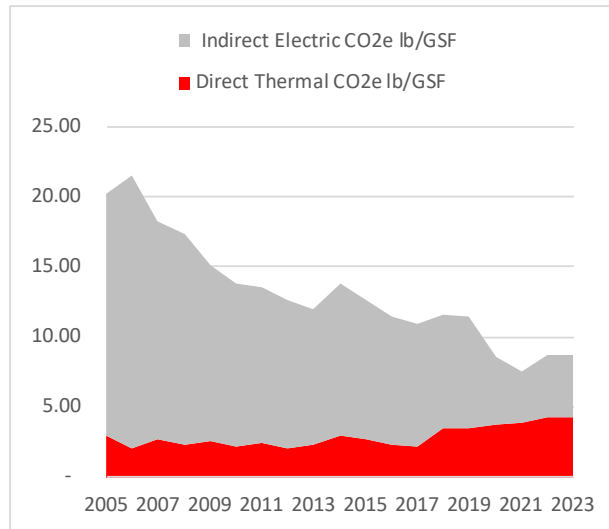
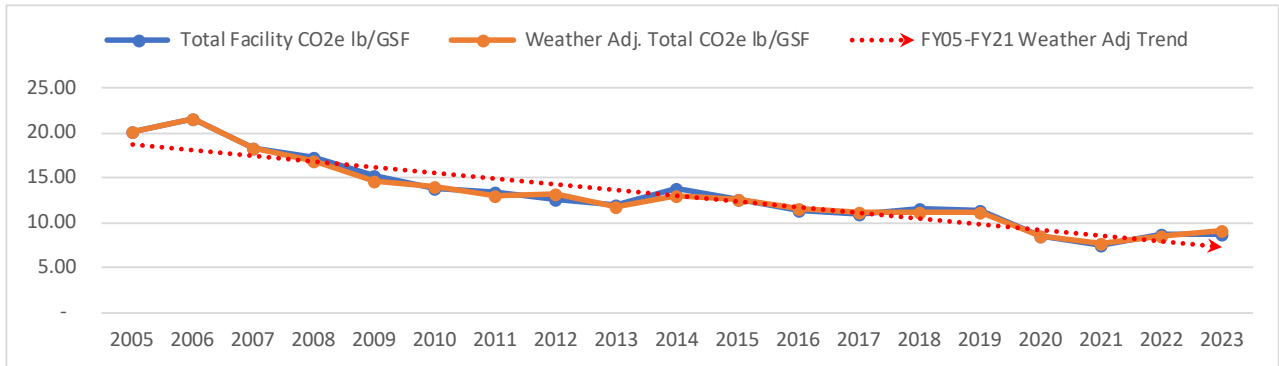
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Green Bay SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	69,206	2.94	17.26	20.20	0.0%	45.92	2.94	17.26	20.20	0.0%
2006	69,206	2.06	19.49	21.56	6.7%	47.27	2.13	19.39	21.52	6.5%
2007	69,206	2.63	15.58	18.21	-9.8%	46.64	2.71	15.60	18.31	-9.4%
2008	69,206	2.28	15.06	17.34	-14.2%	45.02	2.01	14.82	16.83	-16.7%
2009	69,206	2.58	12.56	15.14	-25.0%	43.47	2.22	12.38	14.60	-27.7%
2010	69,206	2.11	11.67	13.78	-31.8%	45.99	2.23	11.77	14.00	-30.7%
2011	69,206	2.44	11.04	13.48	-33.3%	44.59	2.21	10.86	13.07	-35.3%
2012	69,206	1.97	10.60	12.57	-37.8%	49.86	2.29	10.80	13.09	-35.2%
2013	69,206	2.34	9.61	11.95	-40.8%	45.29	2.20	9.56	11.76	-41.8%
2014	69,206	2.94	10.87	13.81	-31.6%	41.95	2.42	10.61	13.03	-35.5%
2015	69,206	2.69	9.91	12.60	-37.6%	43.98	2.62	9.89	12.51	-38.1%
2016	69,206	2.24	9.15	11.39	-43.6%	48.11	2.34	9.22	11.56	-42.8%
2017	69,206	2.12	8.74	10.86	-46.2%	48.65	2.49	8.73	11.22	-44.5%
2018	69,206	3.52	7.99	11.51	-43.0%	45.77	3.29	7.95	11.24	-44.4%
2019	69,206	3.46	7.97	11.43	-43.4%	44.89	3.22	7.97	11.18	-44.6%
2020	69,206	3.68	4.82	8.51	-57.9%	46.41	3.75	4.81	8.56	-57.6%
2021	69,206	3.87	3.67	7.54	-62.7%	47.28	4.10	3.64	7.74	-61.7%
2022	69,206	4.26	4.40	8.66	-57.1%	46.75	4.17	4.33	8.50	-57.9%
2023	69,206	4.21	4.43	8.64	-57.2%	51.09	4.74	4.41	9.15	-54.7%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

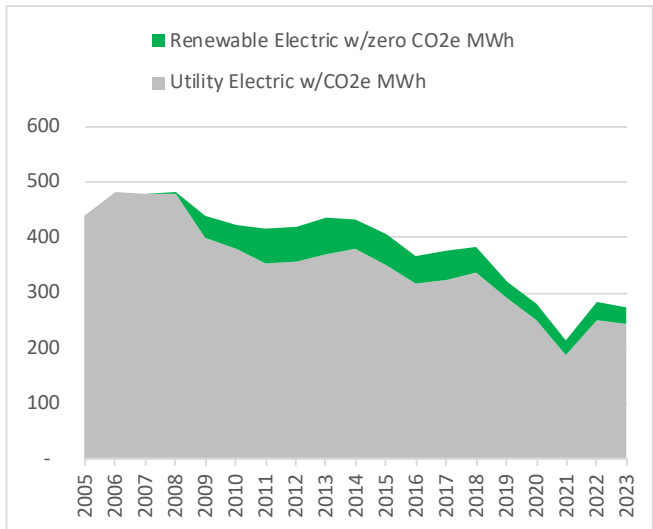
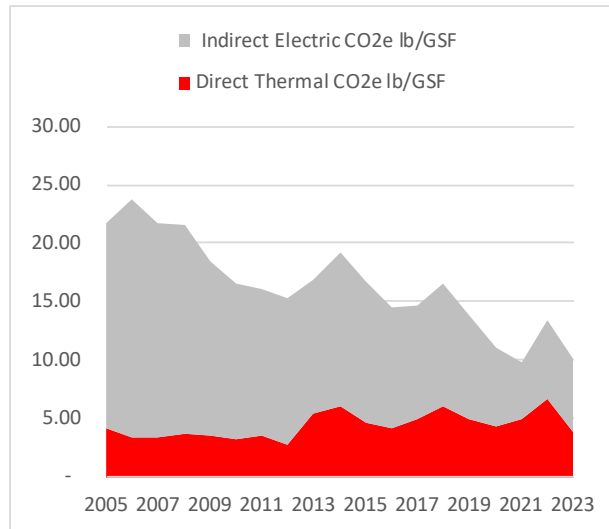
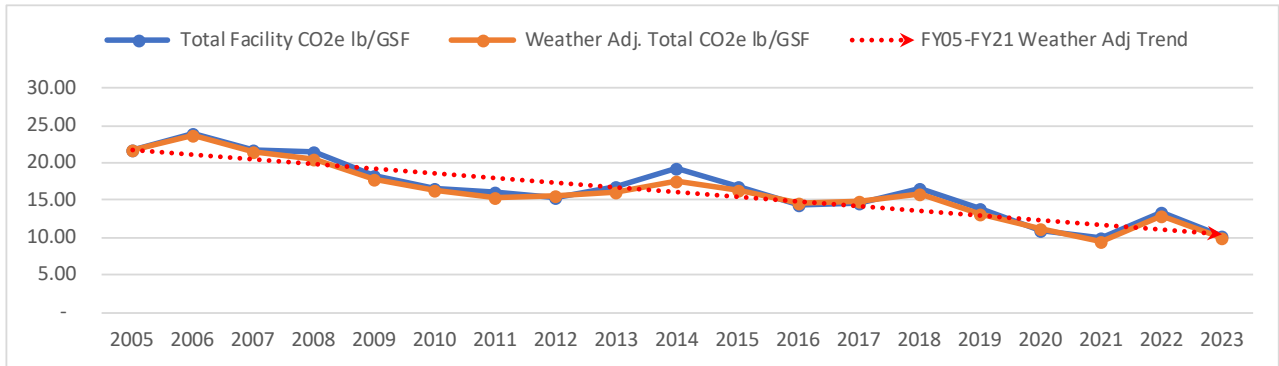




**DOA-La Crosse SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	45,965	4.09	17.55	21.64	0.0%	48.43	4.09	17.55	21.64	0.0%
2006	45,965	3.34	20.47	23.81	10.0%	49.77	3.32	20.24	23.56	8.8%
2007	45,965	3.45	18.22	21.67	0.1%	48.69	3.42	18.07	21.49	-0.7%
2008	45,965	3.63	17.89	21.52	-0.6%	46.15	3.10	17.40	20.50	-5.3%
2009	45,965	3.48	14.88	18.36	-15.1%	45.85	3.02	14.73	17.75	-18.0%
2010	45,965	3.21	13.41	16.61	-23.2%	47.43	3.02	13.38	16.39	-24.3%
2011	45,965	3.60	12.42	16.02	-26.0%	46.70	3.13	12.17	15.29	-29.3%
2012	45,965	2.76	12.51	15.27	-29.4%	51.77	3.08	12.47	15.55	-28.2%
2013	45,965	5.34	11.46	16.80	-22.4%	46.71	4.75	11.36	16.12	-25.5%
2014	45,965	6.03	13.12	19.15	-11.5%	44.97	4.92	12.67	17.59	-18.7%
2015	45,965	4.69	12.00	16.69	-22.9%	47.28	4.39	11.83	16.21	-25.1%
2016	45,965	4.14	10.31	14.45	-33.2%	51.01	4.47	10.11	14.58	-32.6%
2017	45,965	4.94	9.71	14.65	-32.3%	51.61	5.41	9.43	14.84	-31.5%
2018	45,965	5.98	10.56	16.54	-23.6%	48.62	5.67	10.05	15.72	-27.3%
2019	45,965	5.00	8.82	13.82	-36.2%	47.03	4.54	8.59	13.13	-39.4%
2020	45,965	4.26	6.74	10.99	-49.2%	52.40	4.72	6.36	11.08	-48.8%
2021	45,965	4.94	4.89	9.84	-54.5%	47.24	4.90	4.67	9.57	-55.8%
2022	45,965	6.60	6.82	13.42	-38.0%	48.90	6.41	6.56	12.97	-40.1%
2023	45,965	3.92	6.27	10.19	-52.9%	49.34	3.97	6.08	10.05	-53.6%

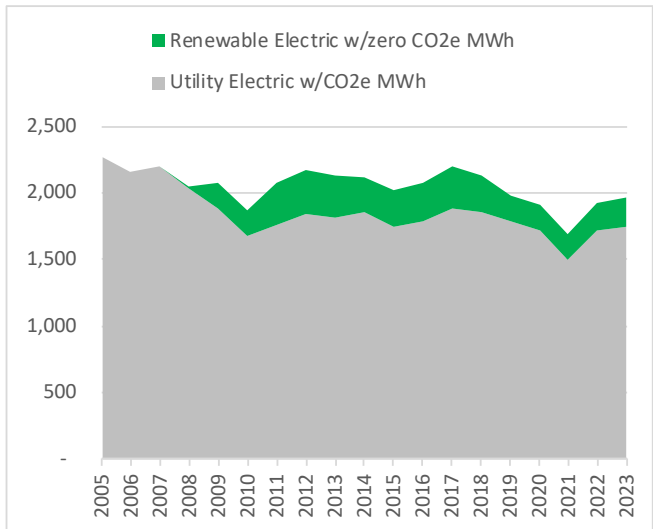
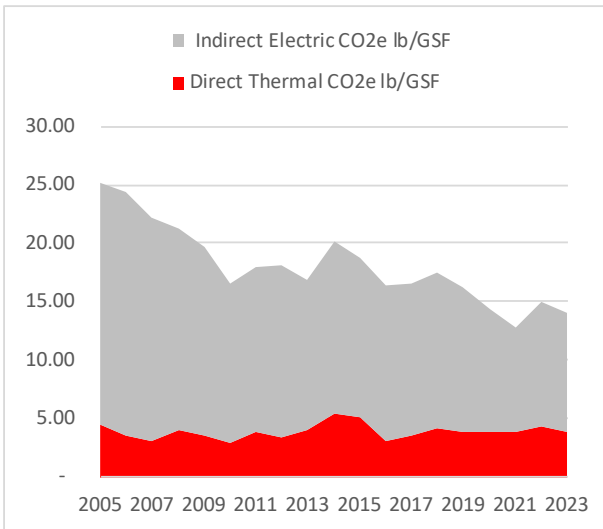
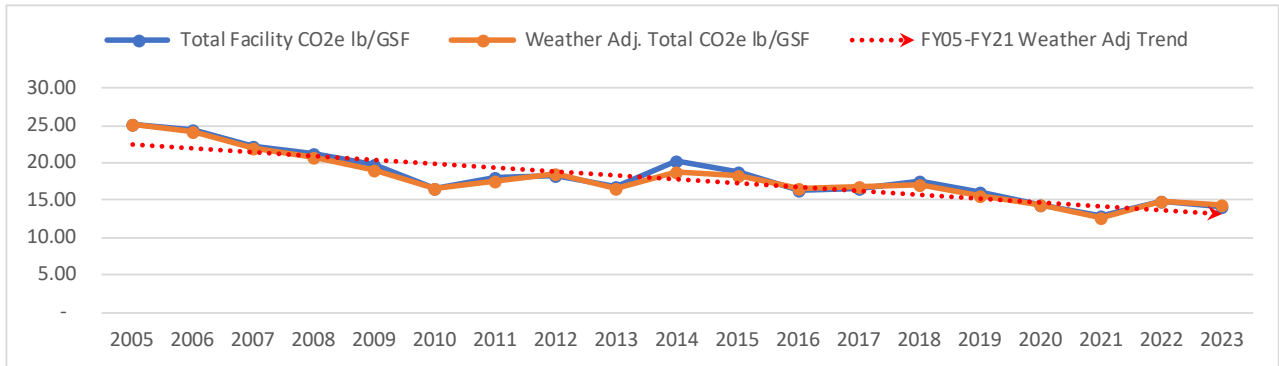
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Milwaukee SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	201,200	4.41	20.74	25.15	0.0%	48.47	4.41	20.74	25.15	0.0%
2006	201,200	3.52	20.87	24.39	-3.0%	50.11	3.57	20.52	24.09	-4.2%
2007	201,200	3.10	19.15	22.25	-11.5%	48.88	3.08	18.94	22.03	-12.4%
2008	201,200	3.95	17.37	21.33	-15.2%	47.87	3.62	17.07	20.69	-17.7%
2009	201,200	3.51	16.13	19.64	-21.9%	47.26	3.17	15.94	19.10	-24.0%
2010	201,200	2.90	13.57	16.47	-34.5%	49.10	2.90	13.56	16.46	-34.6%
2011	201,200	3.82	14.11	17.93	-28.7%	48.17	3.61	14.03	17.64	-29.8%
2012	201,200	3.45	14.74	18.19	-27.7%	52.24	3.92	14.61	18.53	-26.3%
2013	201,200	4.02	12.85	16.87	-32.9%	48.26	3.79	12.73	16.52	-34.3%
2014	201,200	5.48	14.71	20.19	-19.7%	45.20	4.49	14.33	18.82	-25.2%
2015	201,200	5.03	13.66	18.69	-25.7%	46.08	4.62	13.71	18.33	-27.1%
2016	201,200	3.13	13.28	16.40	-34.8%	50.51	3.39	13.19	16.58	-34.1%
2017	201,200	3.59	12.96	16.55	-34.2%	51.99	4.13	12.59	16.72	-33.5%
2018	201,200	4.09	13.39	17.48	-30.5%	48.73	3.95	13.09	17.04	-32.3%
2019	201,200	3.79	12.39	16.17	-35.7%	47.88	3.48	12.16	15.65	-37.8%
2020	201,200	3.83	10.52	14.36	-42.9%	49.85	3.93	10.49	14.41	-42.7%
2021	201,200	3.93	8.88	12.80	-49.1%	47.24	3.81	8.77	12.58	-50.0%
2022	201,200	4.30	10.61	14.91	-40.7%	50.90	4.38	10.42	14.80	-41.1%
2023	201,200	3.80	10.30	14.10	-43.9%	51.09	4.31	9.99	14.30	-43.1%

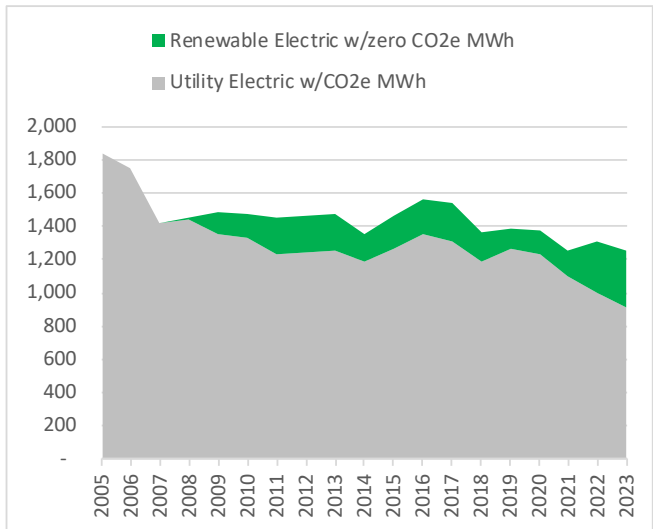
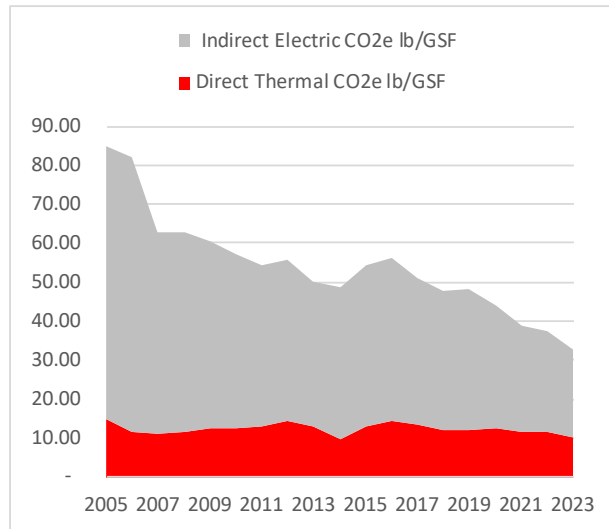
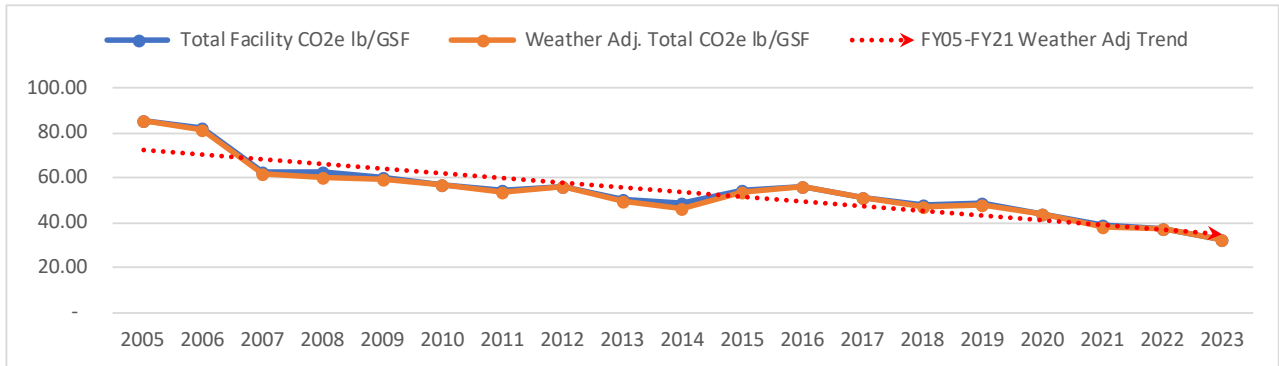
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Public Broadcasting CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	48,246	15.05	70.06	85.11	0.0%	48.12	15.05	70.06	85.11	0.0%
2006	48,246	11.47	70.76	82.23	-3.4%	48.65	11.36	69.81	81.16	-4.6%
2007	48,246	11.13	51.57	62.69	-26.3%	47.46	10.91	51.22	62.13	-27.0%
2008	48,246	11.46	51.34	62.80	-26.2%	46.19	10.43	49.45	59.88	-29.6%
2009	48,246	12.30	48.14	60.44	-29.0%	45.66	11.94	47.40	59.34	-30.3%
2010	48,246	12.58	44.62	57.20	-32.8%	47.10	12.31	44.63	56.94	-33.1%
2011	48,246	13.02	41.27	54.29	-36.2%	46.81	13.10	40.31	53.41	-37.2%
2012	48,246	14.31	41.49	55.81	-34.4%	51.51	14.64	41.31	55.95	-34.3%
2013	48,246	13.15	37.06	50.20	-41.0%	47.29	13.15	36.19	49.34	-42.0%
2014	48,246	9.87	39.01	48.88	-42.6%	44.58	9.38	36.76	46.13	-45.8%
2015	48,246	13.09	41.17	54.26	-36.2%	45.84	13.00	40.97	53.97	-36.6%
2016	48,246	14.29	41.84	56.13	-34.0%	49.68	14.30	41.64	55.95	-34.3%
2017	48,246	13.43	37.65	51.08	-40.0%	49.72	13.35	37.41	50.77	-40.4%
2018	48,246	12.02	35.63	47.65	-44.0%	46.66	11.92	35.43	47.36	-44.4%
2019	48,246	11.90	36.39	48.29	-43.3%	45.88	11.79	35.89	47.69	-44.0%
2020	48,246	12.59	31.48	44.07	-48.2%	48.07	12.59	31.28	43.87	-48.5%
2021	48,246	11.64	27.07	38.71	-54.5%	47.61	11.60	26.70	38.31	-55.0%
2022	48,246	11.67	25.80	37.47	-56.0%	48.04	11.66	25.36	37.03	-56.5%
2023	48,246	10.17	22.40	32.56	-61.7%	48.64	10.17	22.39	32.56	-61.7%

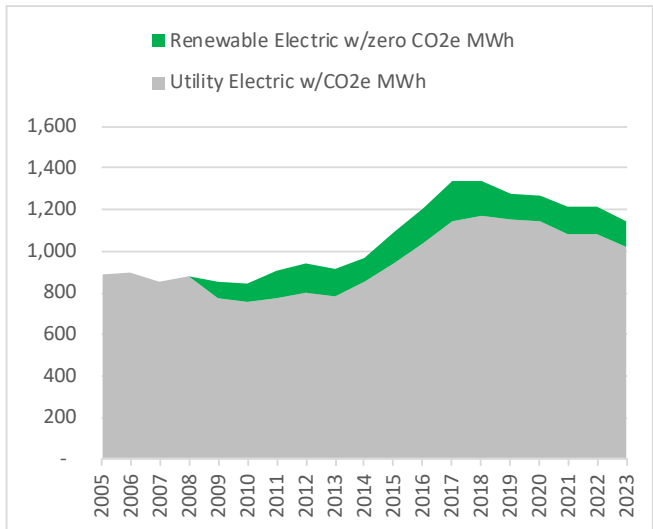
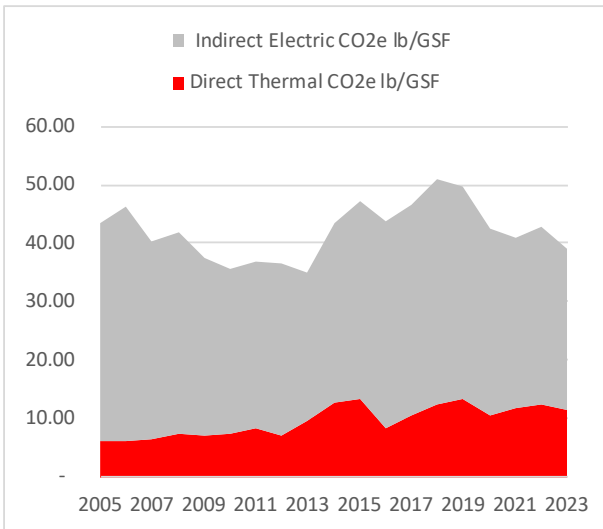
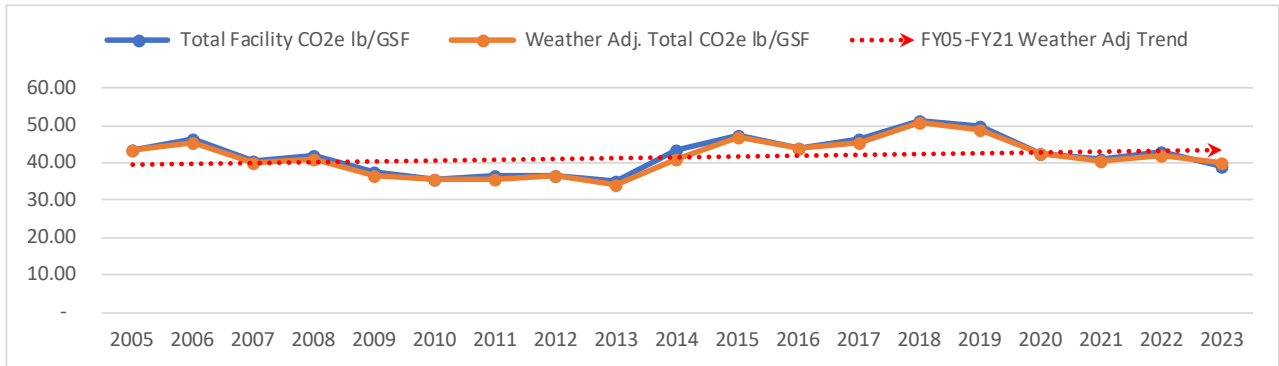
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-SE Crime Lab CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	43,935	6.01	37.34	43.35	0.0%	48.47	6.01	37.34	43.35	0.0%
2006	43,935	6.15	39.99	46.14	6.4%	50.11	6.45	38.98	45.44	4.8%
2007	43,935	6.40	34.04	40.44	-6.7%	48.88	6.29	33.72	40.01	-7.7%
2008	43,935	7.45	34.34	41.80	-3.6%	47.87	6.89	33.87	40.76	-6.0%
2009	43,935	7.23	30.25	37.48	-13.5%	47.26	6.50	30.10	36.60	-15.6%
2010	43,935	7.43	28.03	35.46	-18.2%	49.10	7.66	27.97	35.63	-17.8%
2011	43,935	8.45	28.31	36.76	-15.2%	48.17	7.86	27.85	35.71	-17.6%
2012	43,935	7.10	29.34	36.44	-15.9%	52.24	8.05	28.70	36.76	-15.2%
2013	43,935	9.61	25.30	34.91	-19.5%	48.26	9.10	25.06	34.16	-21.2%
2014	43,935	12.60	30.80	43.40	0.1%	45.20	10.14	30.79	40.93	-5.6%
2015	43,935	13.47	33.87	47.34	9.2%	46.08	12.59	34.25	46.83	8.0%
2016	43,935	8.41	35.37	43.78	1.0%	50.51	8.91	34.98	43.89	1.2%
2017	43,935	10.49	35.93	46.42	7.1%	51.99	11.12	34.44	45.56	5.1%
2018	43,935	12.54	38.50	51.04	17.7%	48.73	12.60	38.24	50.84	17.3%
2019	43,935	13.19	36.64	49.83	15.0%	47.88	12.71	36.05	48.75	12.5%
2020	43,935	10.41	32.06	42.47	-2.0%	49.85	10.79	31.77	42.56	-1.8%
2021	43,935	11.62	29.27	40.89	-5.7%	50.84	12.18	28.17	40.35	-6.9%
2022	43,935	12.30	30.56	42.86	-1.1%	50.90	12.66	29.25	41.91	-3.3%
2023	43,935	11.40	27.54	38.94	-10.2%	51.09	12.52	27.23	39.75	-8.3%

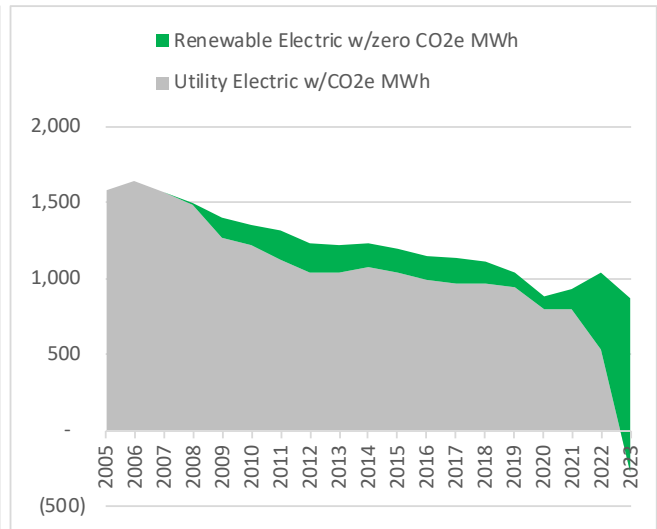
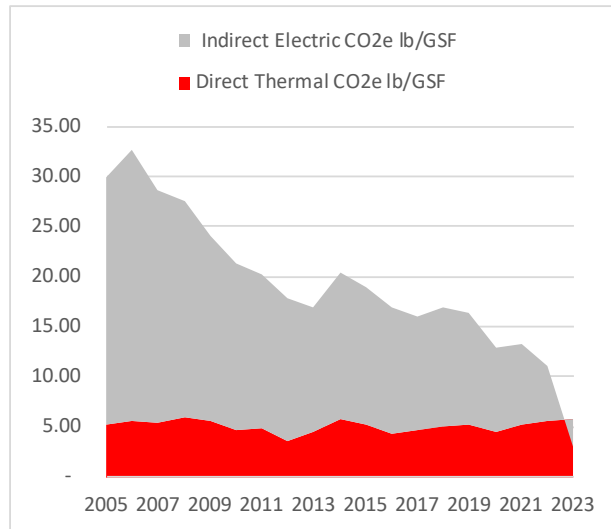
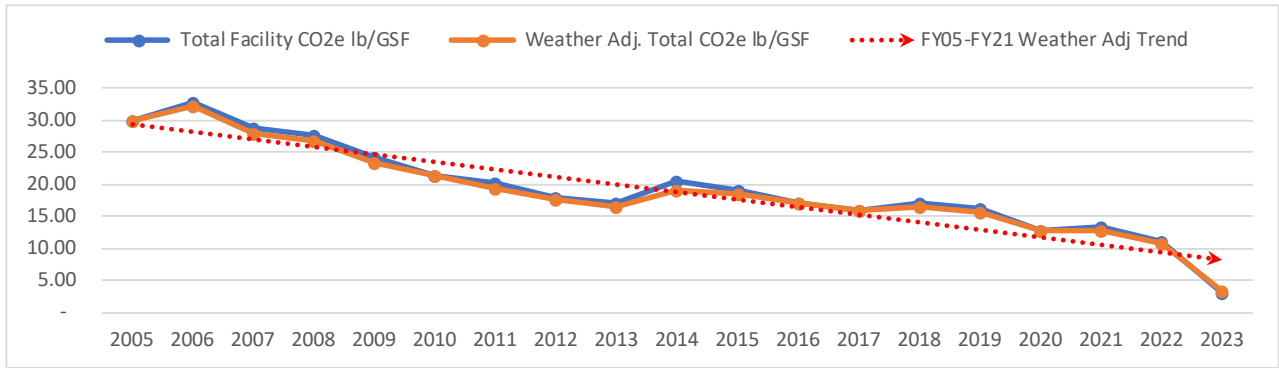
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-State Ag CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	118,011	5.24	24.72	29.95	0.0%	48.12	5.24	24.72	29.95	0.0%
2006	118,011	5.50	27.13	32.63	8.9%	48.65	5.43	26.79	32.22	7.6%
2007	118,011	5.37	23.25	28.62	-4.5%	47.46	4.89	23.08	27.97	-6.6%
2008	118,011	5.89	21.63	27.52	-8.1%	46.19	5.39	21.39	26.78	-10.6%
2009	118,011	5.63	18.50	24.14	-19.4%	45.66	4.87	18.43	23.30	-22.2%
2010	118,011	4.67	16.71	21.37	-28.6%	47.10	4.35	16.84	21.18	-29.3%
2011	118,011	4.86	15.33	20.19	-32.6%	46.81	4.30	15.00	19.29	-35.6%
2012	118,011	3.66	14.20	17.86	-40.4%	51.51	3.91	13.82	17.73	-40.8%
2013	118,011	4.51	12.50	17.01	-43.2%	47.29	4.16	12.33	16.49	-44.9%
2014	118,011	5.82	14.54	20.36	-32.0%	44.58	4.72	14.28	19.00	-36.6%
2015	118,011	5.17	13.81	18.98	-36.6%	45.84	4.58	13.83	18.40	-38.6%
2016	118,011	4.39	12.56	16.95	-43.4%	49.68	4.63	12.39	17.02	-43.2%
2017	118,011	4.61	11.35	15.96	-46.7%	49.72	4.82	11.15	15.97	-46.7%
2018	118,011	5.00	11.94	16.94	-43.4%	46.66	4.53	11.96	16.49	-44.9%
2019	118,011	5.21	11.11	16.31	-45.5%	45.88	4.59	11.05	15.64	-47.8%
2020	118,011	4.49	8.34	12.84	-57.1%	48.07	4.35	8.28	12.63	-57.8%
2021	118,011	5.17	8.09	13.25	-55.8%	47.61	4.83	7.83	12.66	-57.7%
2022	118,011	5.50	5.61	11.11	-62.9%	48.04	5.42	5.41	10.82	-63.9%
2023	118,011	5.83	(2.74)	3.08	-89.7%	48.64	5.94	(2.72)	3.22	-89.2%

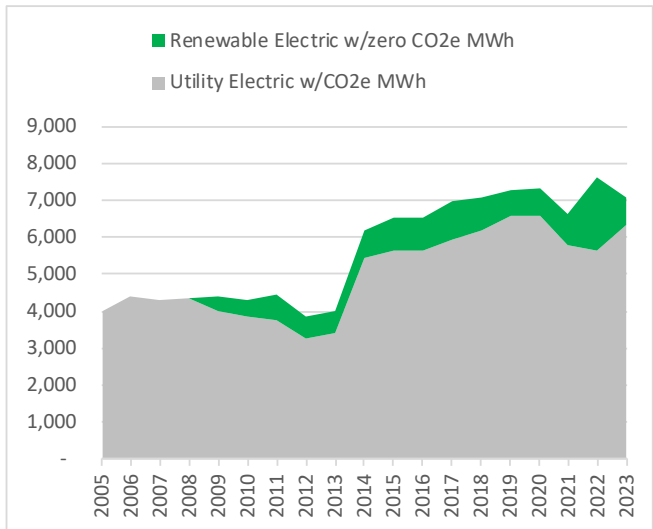
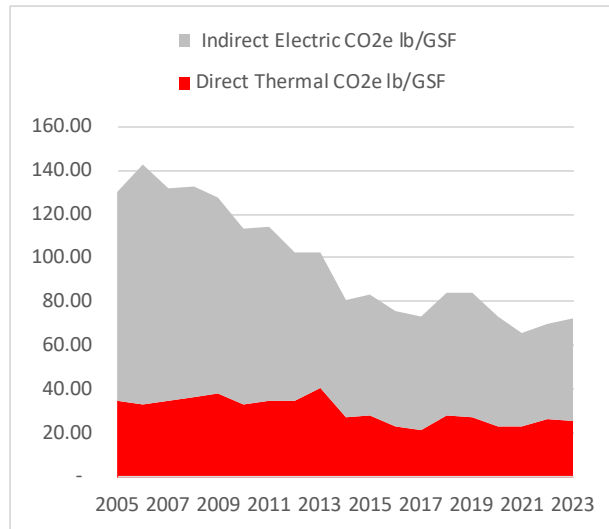
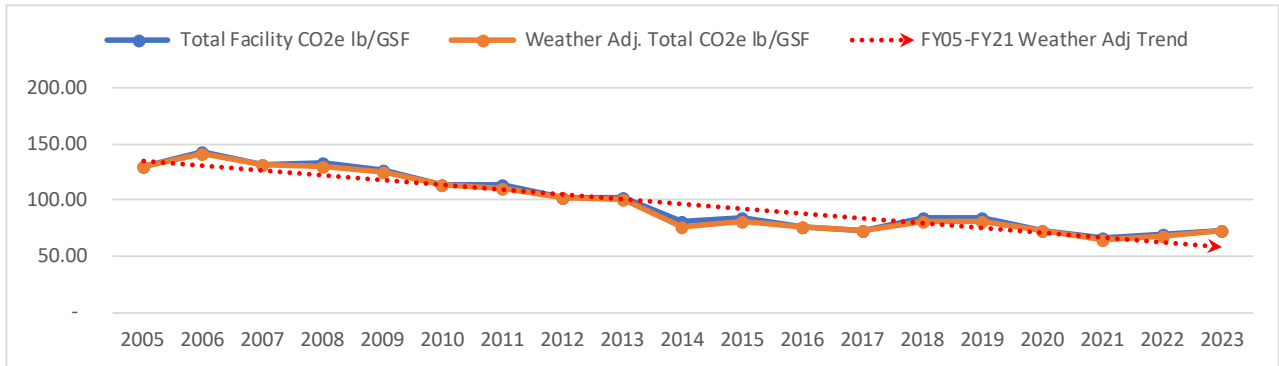
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-State Hygiene Lab CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	77,505	34.83	95.18	130.01	0.0%	48.12	34.83	95.18	130.01	0.0%
2006	77,505	32.76	110.20	142.96	10.0%	48.65	32.45	109.01	141.47	8.8%
2007	77,505	34.97	97.06	132.03	1.6%	47.46	34.39	96.71	131.10	0.8%
2008	77,505	36.36	96.42	132.77	2.1%	46.19	33.54	95.71	129.25	-0.6%
2009	77,505	38.24	88.94	127.18	-2.2%	45.66	35.41	88.99	124.39	-4.3%
2010	77,505	32.72	80.93	113.65	-12.6%	47.10	32.00	81.61	113.61	-12.6%
2011	77,505	35.11	78.81	113.92	-12.4%	46.81	33.20	77.68	110.88	-14.7%
2012	77,505	34.34	68.13	102.46	-21.2%	51.51	36.88	66.04	102.92	-20.8%
2013	77,505	40.43	62.41	102.84	-20.9%	47.29	38.81	62.48	101.29	-22.1%
2014	160,344	26.81	53.98	80.79	-37.9%	44.58	21.96	53.68	75.65	-41.8%
2015	160,344	28.02	55.61	83.63	-35.7%	45.84	25.74	55.83	81.57	-37.3%
2016	160,344	22.99	52.59	75.58	-41.9%	49.68	24.23	51.94	76.17	-41.4%
2017	160,344	21.64	51.42	73.07	-43.8%	49.72	22.41	50.11	72.52	-44.2%
2018	160,344	27.75	55.93	83.67	-35.6%	46.66	25.83	55.61	81.44	-37.4%
2019	160,344	26.96	57.24	84.20	-35.2%	45.88	24.44	57.01	81.45	-37.4%
2020	160,344	22.65	50.65	73.30	-43.6%	48.07	22.61	50.31	72.92	-43.9%
2021	160,344	23.22	42.77	66.00	-49.2%	47.61	22.37	42.36	64.73	-50.2%
2022	160,344	26.30	43.87	70.16	-46.0%	48.04	25.41	42.42	67.83	-47.8%
2023	160,344	25.63	46.66	72.30	-44.4%	48.64	26.02	46.34	72.36	-44.3%

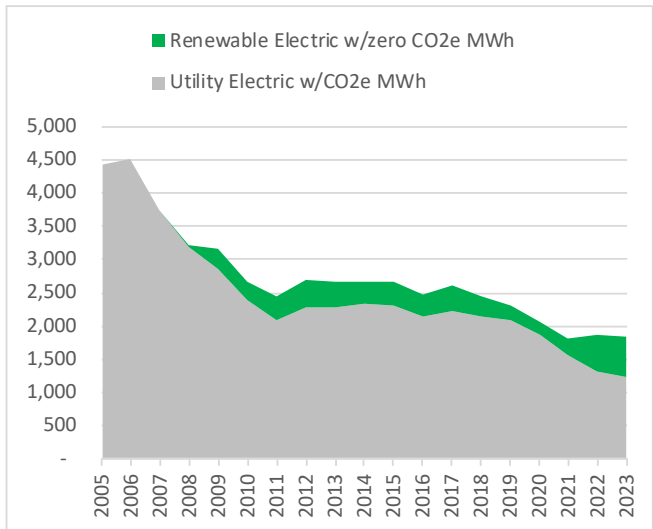
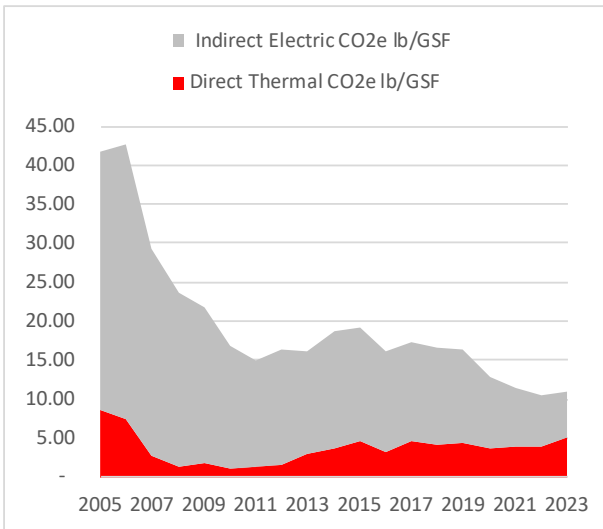
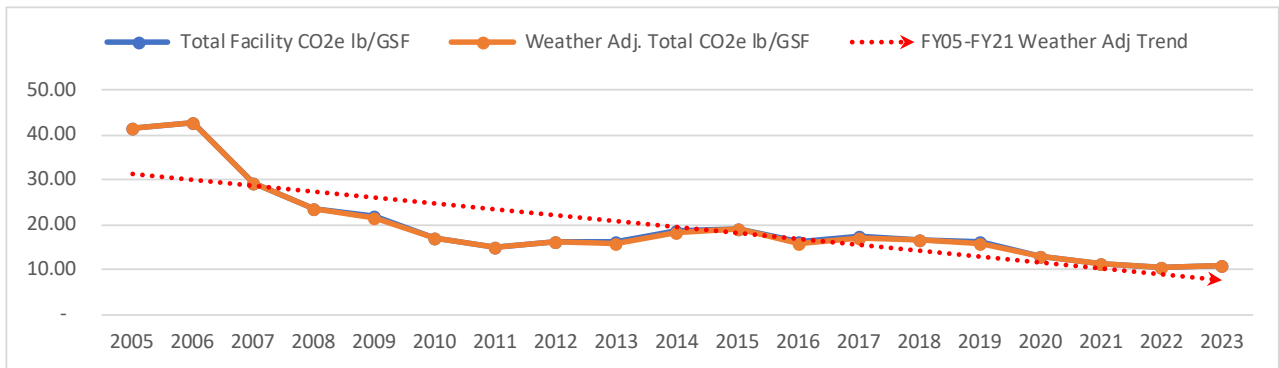
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-State Revenue CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	247,224	8.59	33.10	41.69	0.0%	48.12	8.59	33.10	41.69	0.0%
2006	247,224	7.31	35.48	42.79	2.6%	48.65	7.50	35.02	42.52	2.0%
2007	247,224	2.81	26.48	29.29	-29.7%	47.46	2.70	26.48	29.18	-30.0%
2008	247,224	1.36	22.28	23.64	-43.3%	46.19	1.15	22.17	23.32	-44.1%
2009	247,224	1.86	19.91	21.77	-47.8%	45.66	1.63	19.88	21.51	-48.4%
2010	247,224	1.18	15.65	16.83	-59.6%	47.10	1.15	15.75	16.90	-59.5%
2011	247,224	1.42	13.56	14.99	-64.1%	46.81	1.25	13.72	14.97	-64.1%
2012	247,224	1.49	14.88	16.36	-60.8%	51.51	1.61	14.57	16.18	-61.2%
2013	247,224	3.04	13.09	16.13	-61.3%	47.29	2.83	13.07	15.90	-61.9%
2014	247,224	3.69	15.07	18.76	-55.0%	44.58	3.16	15.13	18.29	-56.1%
2015	247,224	4.56	14.66	19.22	-53.9%	45.84	4.39	14.77	19.16	-54.0%
2016	247,224	3.08	12.93	16.01	-61.6%	49.68	3.17	12.77	15.94	-61.8%
2017	247,224	4.68	12.54	17.21	-58.7%	49.72	4.81	12.34	17.15	-58.9%
2018	247,224	4.09	12.50	16.59	-60.2%	46.66	3.99	12.53	16.52	-60.4%
2019	247,224	4.44	11.85	16.29	-60.9%	45.88	4.04	11.87	15.91	-61.8%
2020	247,224	3.60	9.28	12.88	-69.1%	48.07	3.60	9.23	12.83	-69.2%
2021	247,224	3.84	7.58	11.42	-72.6%	47.61	3.63	7.51	11.15	-73.3%
2022	247,224	3.97	6.59	10.56	-74.7%	48.04	3.95	6.46	10.41	-75.0%
2023	247,224	4.98	5.95	10.93	-73.8%	48.64	5.01	5.91	10.91	-73.8%

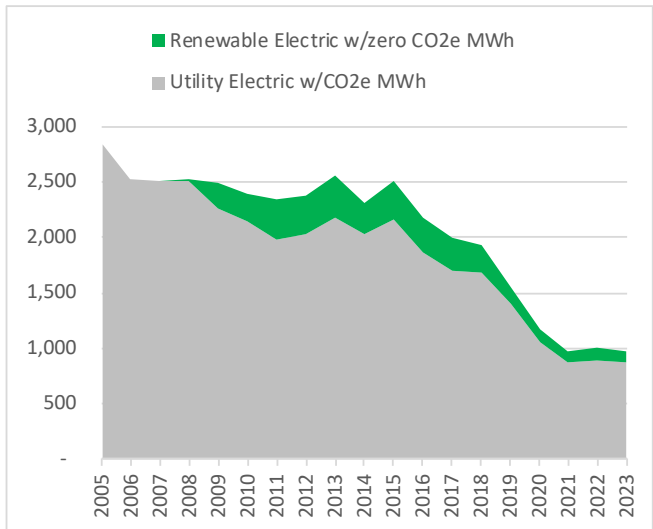
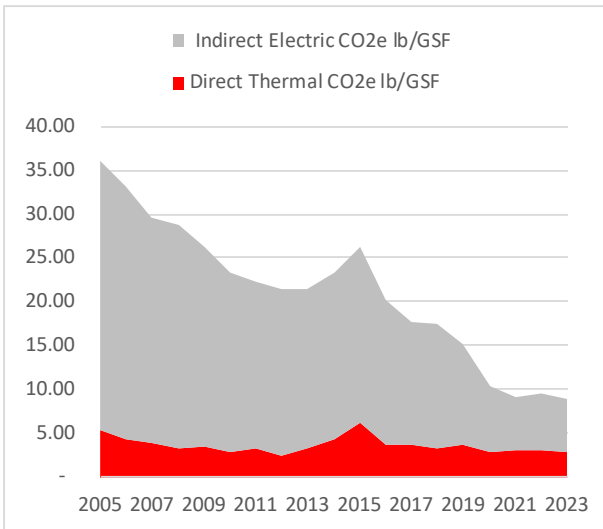
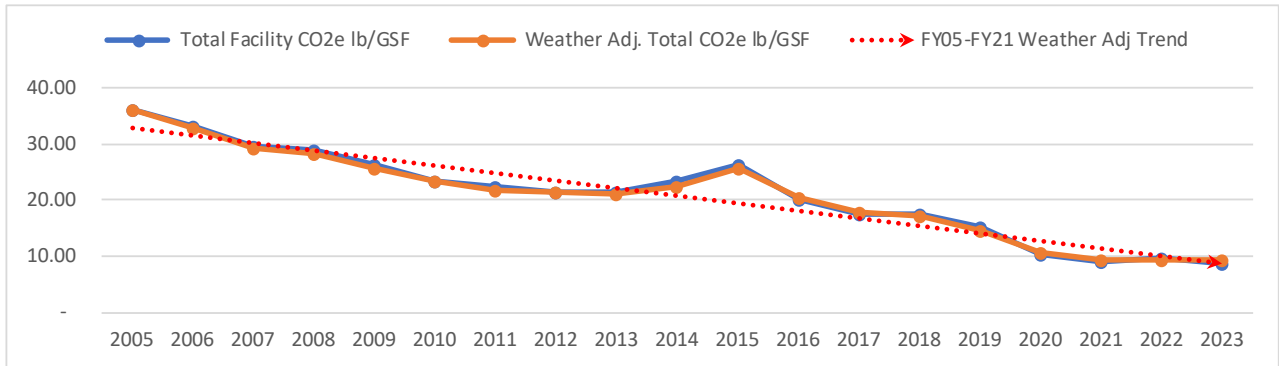
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOA-Waukesha SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	169,976	5.24	30.75	35.99	0.0%	48.47	5.24	30.75	35.99	0.0%
2006	169,976	4.26	28.90	33.16	-7.9%	50.11	4.31	28.53	32.84	-8.7%
2007	169,976	3.78	25.75	29.53	-17.9%	48.88	3.65	25.54	29.19	-18.9%
2008	169,976	3.33	25.46	28.79	-20.0%	47.87	3.07	25.14	28.21	-21.6%
2009	169,976	3.39	22.88	26.27	-27.0%	47.26	3.04	22.54	25.57	-28.9%
2010	169,976	2.90	20.43	23.33	-35.2%	49.10	2.90	20.47	23.37	-35.1%
2011	169,976	3.36	18.89	22.25	-38.2%	48.17	3.12	18.61	21.73	-39.6%
2012	169,976	2.32	19.14	21.46	-40.4%	52.24	2.59	18.91	21.51	-40.2%
2013	169,976	3.27	18.17	21.43	-40.4%	48.26	3.13	17.99	21.13	-41.3%
2014	169,976	4.38	18.97	23.35	-35.1%	45.20	3.55	18.70	22.25	-38.2%
2015	169,976	6.17	20.10	26.28	-27.0%	46.08	5.60	20.15	25.75	-28.4%
2016	169,976	3.77	16.48	20.25	-43.7%	50.51	4.02	16.36	20.38	-43.4%
2017	169,976	3.71	13.88	17.59	-51.1%	51.99	4.27	13.62	17.89	-50.3%
2018	169,976	3.16	14.41	17.56	-51.2%	48.73	3.03	14.25	17.28	-52.0%
2019	169,976	3.66	11.51	15.17	-57.8%	47.88	3.39	11.15	14.54	-59.6%
2020	169,976	2.85	7.60	10.46	-70.9%	49.85	2.90	7.65	10.55	-70.7%
2021	169,976	3.08	6.08	9.16	-74.5%	50.84	3.21	6.02	9.23	-74.4%
2022	169,976	3.02	6.53	9.55	-73.5%	50.90	3.04	6.41	9.45	-73.7%
2023	169,976	2.75	6.05	8.80	-75.6%	51.09	3.09	6.14	9.23	-74.4%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

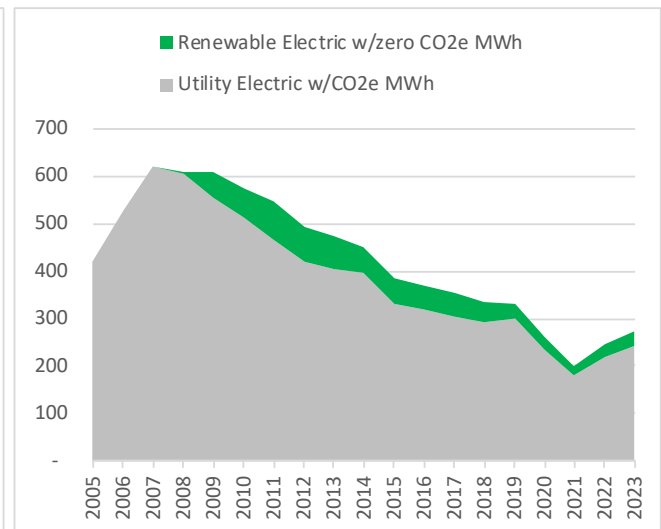
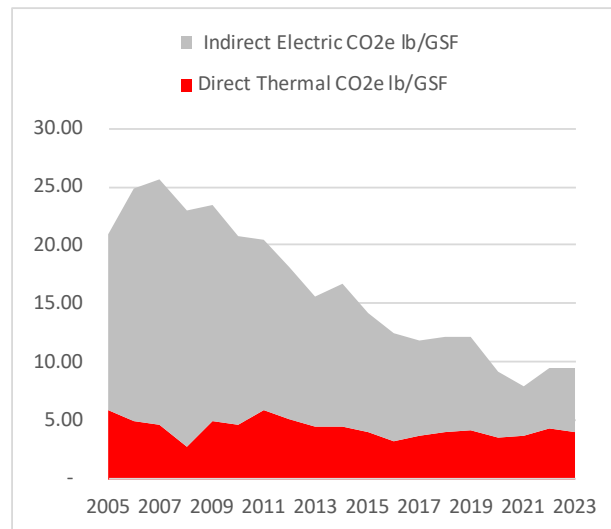
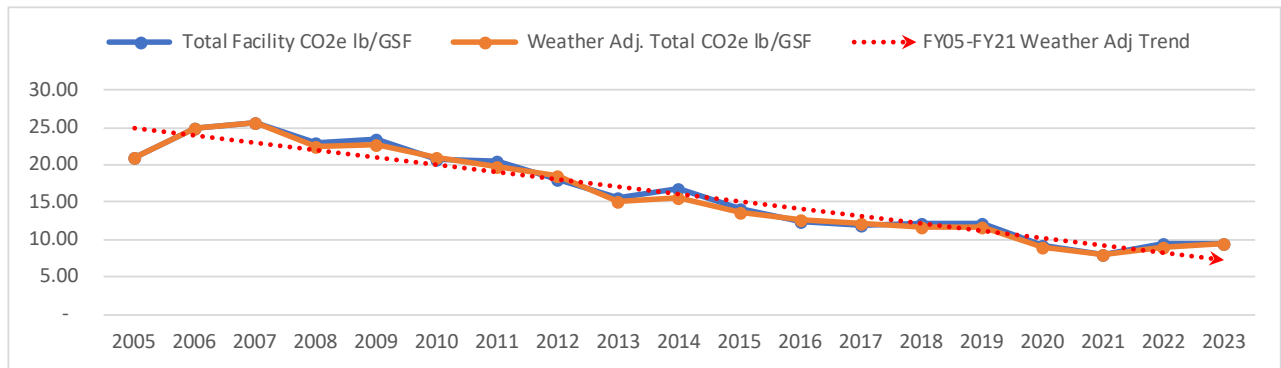




### DOA-WI Rapids SOB CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	51,552	5.89	15.03	20.91	0.0%	44.26	5.89	15.03	20.91	0.0%
2006	51,552	4.93	19.93	24.86	18.9%	45.56	4.99	19.82	24.81	18.7%
2007	51,552	4.60	21.04	25.64	22.6%	44.50	4.71	21.00	25.71	22.9%
2008	51,552	2.80	20.21	23.01	10.0%	42.10	2.26	20.11	22.37	7.0%
2009	51,552	4.94	18.44	23.38	11.8%	42.50	4.35	18.28	22.63	8.2%
2010	51,552	4.62	16.14	20.76	-0.7%	45.38	4.83	16.23	21.05	0.7%
2011	51,552	5.87	14.55	20.42	-2.4%	43.50	5.43	14.44	19.87	-5.0%
2012	51,552	5.07	13.03	18.10	-13.4%	47.63	5.56	12.99	18.55	-11.3%
2013	51,552	4.50	11.11	15.60	-25.4%	42.87	4.11	11.06	15.17	-27.5%
2014	51,552	4.53	12.19	16.73	-20.0%	39.97	3.59	11.91	15.50	-25.9%
2015	51,552	4.03	10.15	14.18	-32.2%	42.20	3.68	10.02	13.70	-34.5%
2016	51,552	3.18	9.25	12.43	-40.6%	46.23	3.37	9.35	12.72	-39.2%
2017	51,552	3.67	8.14	11.81	-43.5%	45.86	3.86	8.17	12.04	-42.5%
2018	51,552	3.94	8.26	12.20	-41.7%	42.67	3.52	8.14	11.65	-44.3%
2019	51,552	4.17	8.07	12.23	-41.5%	41.78	3.72	8.03	11.75	-43.8%
2020	51,552	3.60	5.58	9.18	-56.1%	43.78	3.45	5.55	9.01	-56.9%
2021	51,552	3.76	4.12	7.89	-62.3%	44.64	3.81	4.12	7.92	-62.1%
2022	51,552	4.25	5.27	9.52	-54.5%	43.09	3.88	5.17	9.05	-56.7%
2023	51,552	3.96	5.58	9.54	-54.4%	44.12	3.91	5.63	9.54	-54.4%

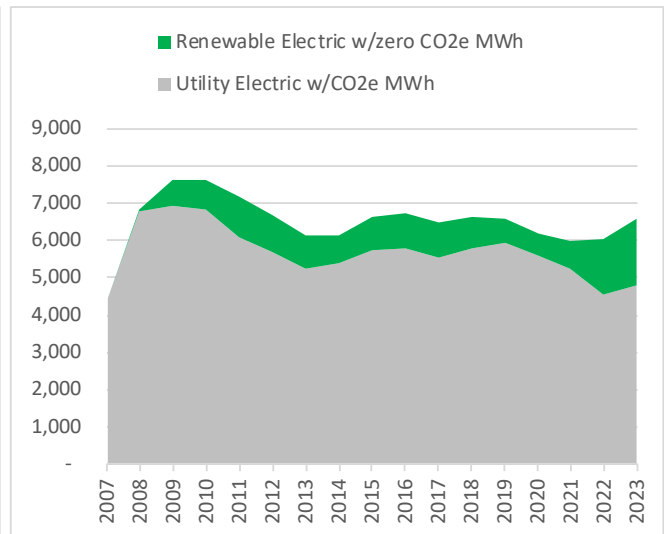
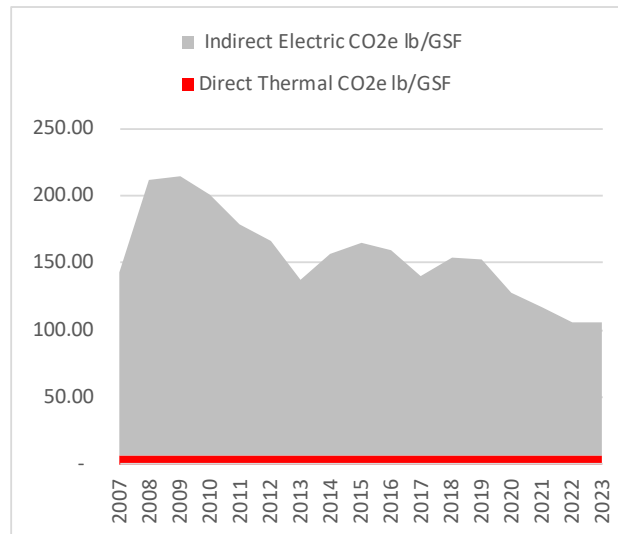
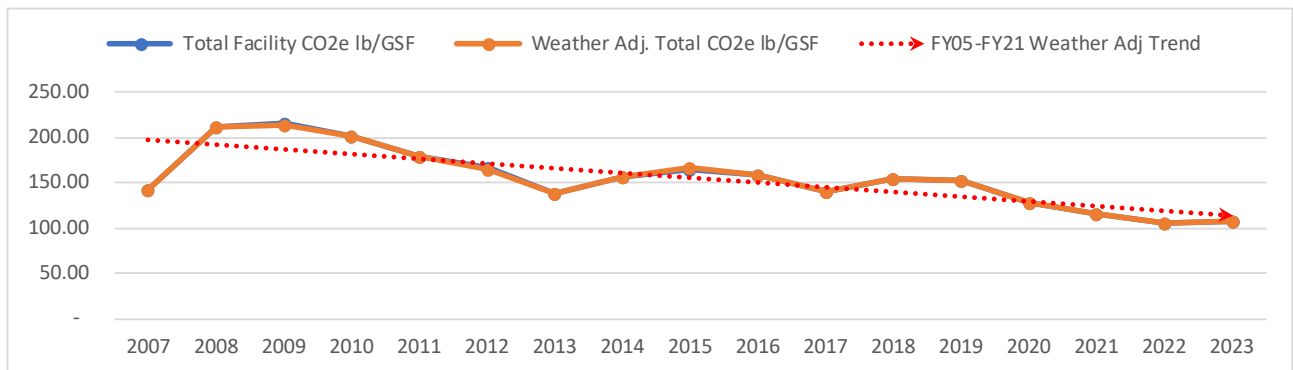
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Femrite Data Center CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2007	56,987	6.31	136.05	142.37		47.46	6.31	135.75	142.06	
2008	56,987	6.31	205.21	211.53		46.19	6.19	205.47	211.66	
2009	56,987	6.31	208.41	214.73		45.66	6.14	207.72	213.86	
2010	56,987	6.31	194.93	201.24		47.10	6.24	195.24	201.48	
2011	56,987	6.31	172.12	178.43		46.81	6.20	172.32	178.51	
2012	56,987	6.31	159.90	166.22		51.51	6.67	157.59	164.26	
2013	56,987	6.31	130.79	137.10		47.29	6.23	131.12	137.35	
2014	56,987	6.31	149.94	156.25		44.58	6.07	149.85	155.92	
2015	56,987	6.31	159.10	165.41		45.84	6.21	159.81	166.02	
2016	56,987	6.31	152.64	158.95		49.68	6.47	152.05	158.52	
2017	56,987	6.31	134.39	140.70		49.72	6.46	133.90	140.36	
2018	56,987	6.51	147.78	154.28		46.66	6.26	147.38	153.64	
2019	56,987	6.97	145.47	152.44		45.88	6.74	145.33	152.07	
2020	56,987	7.17	120.44	127.61		48.07	7.18	120.27	127.45	
2021	56,987	6.95	109.36	116.31		47.61	6.85	108.80	115.65	
2022	56,987	6.39	99.31	105.69		48.04	6.40	98.87	105.27	
2023	56,987	6.76	99.62	106.38		48.64	6.81	99.63	106.45	

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



# Wisconsin Agency GHG CO2e Emissions

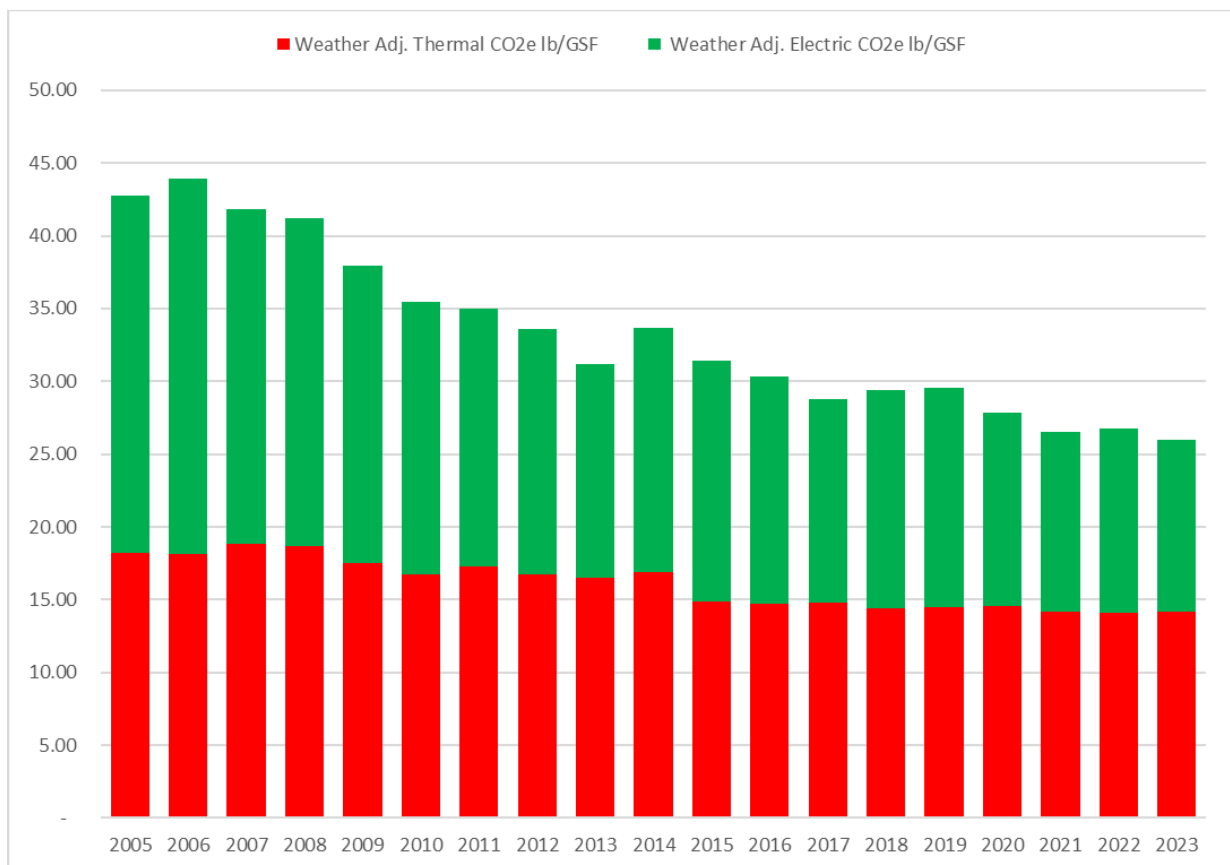
## Department of Corrections



### SCOPE

Facilities Included: Columbia Correctional Institution; Prairie du Chien Correctional; Ethan Allen School to FY14; Racine Correctional Institution; Fox Lake Correctional Institution; Racine Youthful Offender Facility; Green Bay Correctional Institution; Redgranite Correctional Institution; Jackson Correctional Institution; Stanley Correctional Institution; Kettle Moraine Correctional Institution; Sturtevant Transitional Facility; Lincoln Hills School; Taycheedah Correctional Institution; Milwaukee Secure Detention Facility; Waupun Complex, includes - Dodge Correctional Institution and Waupun Correctional Institution; New Lisbon Correctional Institution; Oak Hill Correctional Institution; Oshkosh Correctional Institution; and Wisconsin Secure Program Facility.

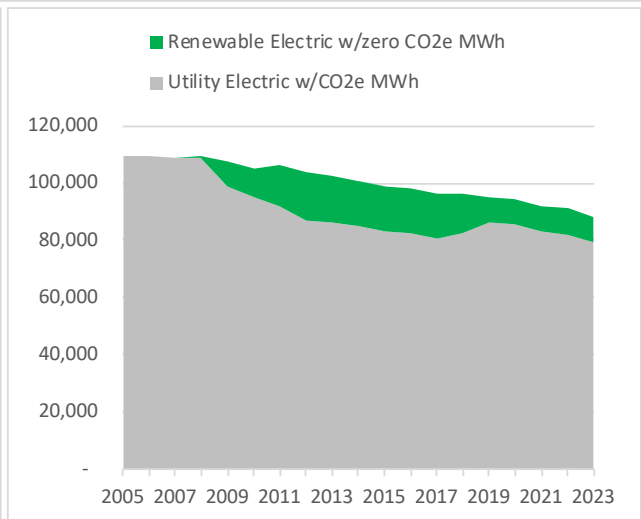
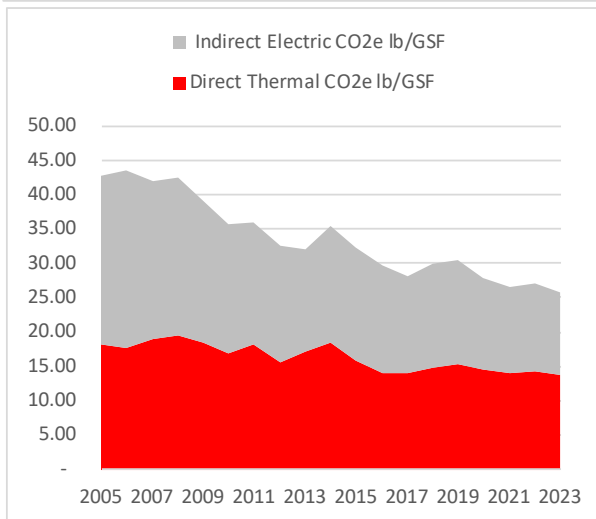
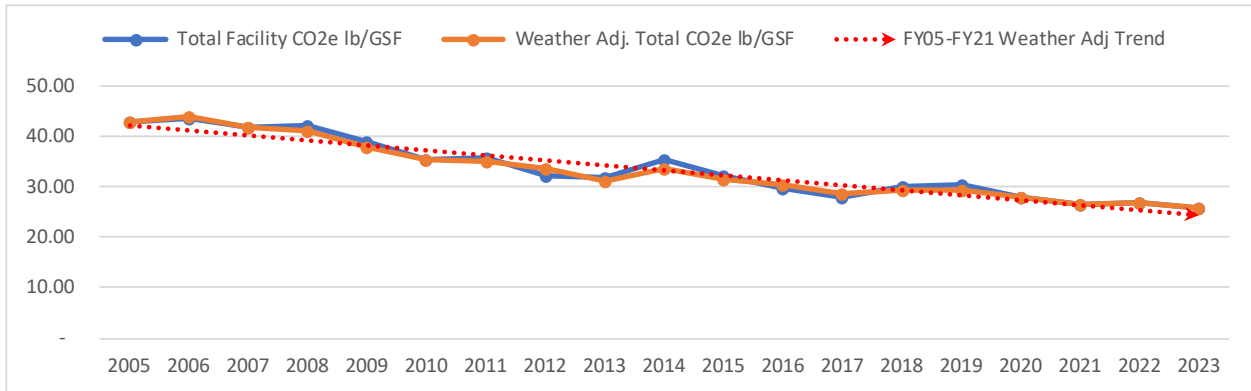
### Wisconsin Department of Corrections Facilities GHG CO2e lbs/GSF:



## Department of Corrections CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	8,230,122	18.21	24.55	42.76	0.0%	46.96	18.21	24.55	42.76	0.0%
2006	8,241,872	17.77	25.86	43.63	2.0%	48.07	18.14	25.78	43.92	2.7%
2007	8,241,872	18.83	23.07	41.90	-2.0%	47.01	18.82	23.02	41.84	-2.2%
2008	8,241,872	19.59	22.76	42.35	-1.0%	45.36	18.66	22.56	41.22	-3.6%
2009	8,241,872	18.51	20.60	39.11	-8.5%	44.77	17.51	20.46	37.97	-11.2%
2010	8,241,872	16.83	18.72	35.55	-16.9%	46.69	16.70	18.73	35.43	-17.2%
2011	8,269,898	18.06	17.92	35.98	-15.9%	45.90	17.32	17.70	35.02	-18.1%
2012	8,269,898	15.55	16.86	32.41	-24.2%	50.70	16.76	16.86	33.61	-21.4%
2013	8,269,898	17.10	14.79	31.89	-25.4%	46.22	16.50	14.70	31.20	-27.0%
2014	7,939,611	18.49	17.00	35.49	-17.0%	43.13	16.88	16.79	33.66	-21.3%
2015	7,939,611	15.71	16.55	32.25	-24.6%	44.62	14.87	16.52	31.40	-26.6%
2016	7,939,611	14.01	15.61	29.62	-30.7%	48.79	14.69	15.60	30.30	-29.2%
2017	7,939,611	14.03	14.06	28.09	-34.3%	49.18	14.79	13.97	28.76	-32.8%
2018	7,939,611	14.87	15.10	29.97	-29.9%	46.05	14.42	15.00	29.42	-31.2%
2019	7,939,611	15.19	15.19	30.38	-29.0%	45.19	14.46	15.12	29.58	-30.8%
2020	7,939,611	14.55	13.32	27.87	-34.8%	47.28	14.57	13.29	27.85	-34.9%
2021	7,939,611	14.03	12.48	26.51	-38.0%	47.29	14.18	12.35	26.53	-38.0%
2022	7,939,611	14.15	12.86	27.01	-36.8%	47.32	14.08	12.70	26.78	-37.4%
2023	7,939,611	13.84	11.85	25.69	-39.9%	48.19	14.15	11.84	25.99	-39.2%

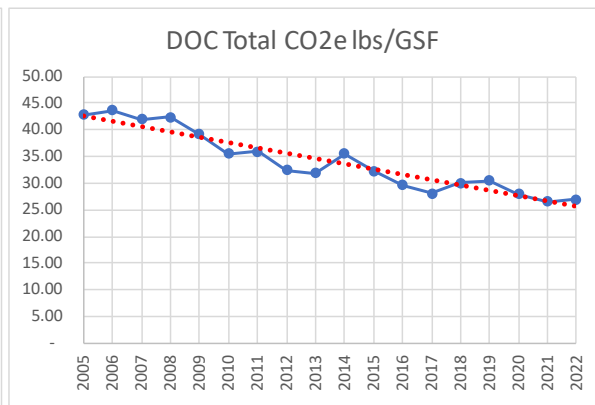
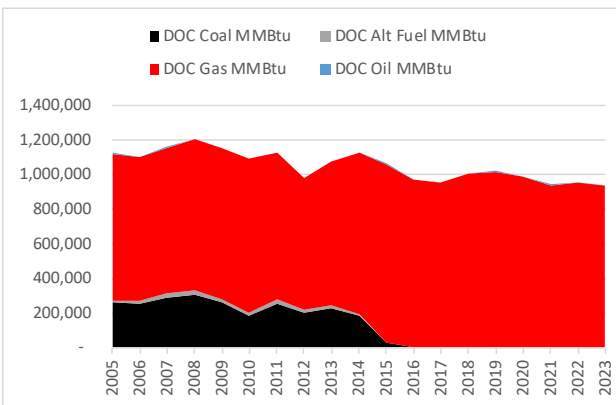
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



Department of Corrections Boiler Plant Fuel and Electric Use CO2e Emissions

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DOC Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOC Total CO2e lbs/GSF
2005	8,230,122	46.96	109,651,396	-	109,651,396	1.84	91,665	67,977	159,642	42.76
2006	8,241,872	48.07	109,301,074	-	109,301,074	1.95	96,677	66,428	163,105	43.63
2007	8,241,872	47.01	108,720,904	-	108,720,904	1.75	86,252	70,404	156,656	41.90
2008	8,241,872	45.36	109,716,385	714,000	109,002,385	1.72	85,091	73,239	158,330	42.35
2009	8,241,872	44.77	107,820,024	9,052,612	98,767,412	1.72	77,011	69,213	146,224	39.11
2010	8,241,872	46.69	104,929,036	9,886,721	95,042,315	1.62	69,968	62,936	132,904	35.55
2011	8,269,898	45.90	106,175,282	14,460,785	91,714,498	1.62	67,227	67,737	134,964	35.98
2012	8,269,898	50.70	103,665,088	16,953,760	86,711,328	1.61	63,245	58,340	121,585	32.41
2013	8,269,898	46.22	102,475,307	16,455,373	86,019,934	1.42	55,484	64,158	119,641	31.89
2014	7,939,611	43.13	100,923,141	16,057,135	84,866,006	1.59	61,206	66,590	127,796	35.49
2015	7,939,611	44.62	98,622,239	15,310,124	83,312,115	1.58	59,594	56,567	116,161	32.25
2016	7,939,611	48.79	97,936,710	15,206,090	82,730,620	1.50	56,214	50,450	106,664	29.62
2017	7,939,611	49.18	96,467,070	15,845,414	80,621,656	1.39	50,649	50,524	101,173	28.09
2018	7,939,611	46.05	96,376,737	13,632,673	82,744,064	1.45	54,384	53,566	107,950	29.97
2019	7,939,611	45.19	95,023,787	8,502,919	86,520,868	1.39	54,708	54,699	109,407	30.38
2020	7,939,611	47.28	94,680,804	8,900,332	85,780,472	1.23	47,975	52,394	100,369	27.87
2021	7,939,611	47.29	91,931,300	8,553,686	83,377,615	1.19	44,929	50,541	95,470	26.51
2022	7,939,611	47.32	91,019,480	9,081,660	81,937,820	1.25	46,309	50,967	97,276	27.01
2023	7,939,611	48.19	88,081,599	8,656,007	79,425,592	1.19	42,692	49,833	92,524	25.69

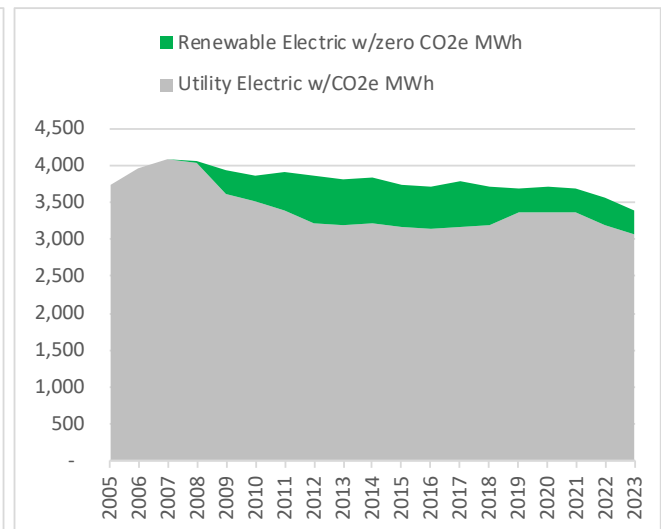
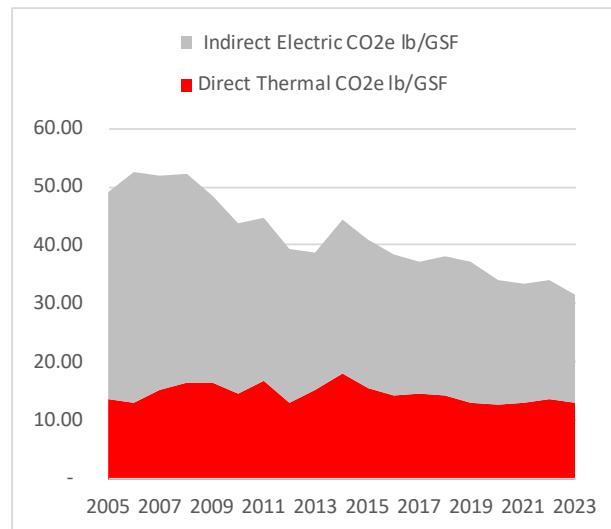
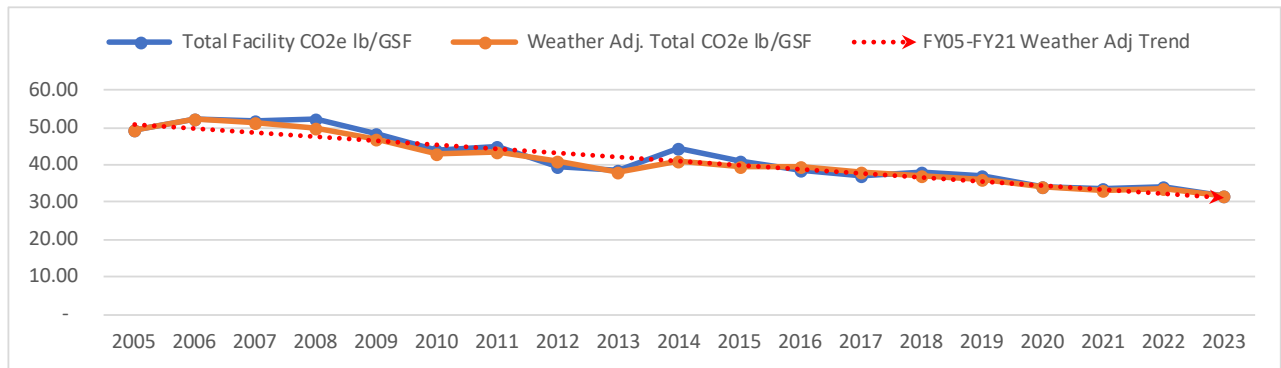
Fiscal Year	DOC Net Thermal MMBtu	DOC Plant Reports MMBtu w/Sales	DOC Coal MMBtu	DOC Alt Fuel MMBtu	DOC Gas MMBtu	DOC Oil MMBtu	DOC Plant Reports MMBtu w/Sales	DOC Boiler Fuel Based Emissions lbs	DOC Boiler Fuel Emissions lb/MMBtu	DOC Net Thermal MMBtu CO2e Metric Tons
2005	1,091,804	1,124,798	258,994	8,820	856,600	527	1,124,798	70,031	137.26	67,977
2006	1,068,849	1,104,509	254,413	18,864	830,923	312	1,104,509	68,644	137.02	66,428
2007	1,078,774	1,118,499	290,504	20,718	847,505	689	1,118,499	72,997	143.88	70,404
2008	1,105,560	1,148,954	309,266	20,502	873,785	425	1,148,954	76,114	146.05	73,239
2009	1,116,948	1,155,659	261,452	21,834	871,872	500	1,155,659	71,612	136.61	69,213
2010	1,053,672	1,091,764	184,611	15,390	890,847	917	1,091,764	65,211	131.68	62,936
2011	1,090,118	1,126,836	257,064	23,061	848,173	808	1,126,836	70,018	136.99	67,737
2012	952,186	981,428	204,176	19,961	758,085	238	981,428	60,132	135.08	58,340
2013	1,047,315	1,078,030	225,454	21,797	830,515	264	1,078,030	66,039	135.05	64,158
2014	1,113,552	1,132,416	188,422	1,694	939,863	2,565	1,132,416	67,718	131.83	66,590
2015	1,043,535	1,064,154	30,069	2,164	1,030,697	1,224	1,064,154	57,685	119.51	56,567
2016	950,393	972,857	-	-	972,225	632	972,857	51,643	117.03	50,450
2017	951,867	951,867	-	-	951,444	423	951,867	50,524	117.02	50,524
2018	1,008,654	1,008,654	10	-	1,006,859	1,785	1,008,654	53,566	117.08	53,566
2019	1,027,148	1,027,148	59	-	1,017,850	9,239	1,027,148	54,699	117.40	54,699
2020	986,903	986,903	59	-	986,037	806	986,903	52,394	117.04	52,394
2021	949,518	949,518	35	-	942,537	7,062	949,518	50,541	117.35	50,541
2022	959,942	959,942	-	-	958,816	1,126	959,942	50,967	117.05	50,967
2023	938,467	938,467	-	-	937,083	1,384	938,467	49,833	117.07	49,833



### DOC-Boscobel CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	195,000	13.80	35.41	49.21	0.0%	46.84	13.80	35.41	49.21	0.0%
2006	195,000	12.94	39.54	52.48	6.7%	47.39	12.69	39.35	52.04	5.8%
2007	195,000	15.27	36.65	51.91	5.5%	46.26	14.94	36.47	51.41	4.5%
2008	195,000	16.48	35.61	52.09	5.9%	44.24	14.54	35.24	49.78	1.2%
2009	195,000	16.53	31.81	48.34	-1.8%	44.25	15.07	31.73	46.80	-4.9%
2010	195,000	14.68	29.17	43.85	-10.9%	45.47	13.96	29.15	43.11	-12.4%
2011	195,000	16.68	28.04	44.73	-9.1%	46.21	15.88	27.54	43.43	-11.7%
2012	195,000	12.88	26.54	39.42	-19.9%	51.40	14.47	26.27	40.74	-17.2%
2013	195,000	15.36	23.36	38.72	-21.3%	46.61	14.88	23.08	37.96	-22.9%
2014	195,000	18.05	26.25	44.30	-10.0%	43.20	15.02	25.97	40.98	-16.7%
2015	195,000	15.47	25.58	41.05	-16.6%	44.37	14.18	25.53	39.71	-19.3%
2016	195,000	14.23	24.13	38.36	-22.0%	48.82	15.19	24.06	39.25	-20.2%
2017	195,000	14.69	22.41	37.10	-24.6%	49.01	15.75	22.21	37.96	-22.8%
2018	195,000	14.44	23.71	38.15	-22.5%	45.93	13.69	23.50	37.18	-24.4%
2019	195,000	13.14	24.00	37.14	-24.5%	44.97	12.21	23.87	36.08	-26.7%
2020	195,000	12.72	21.28	34.00	-30.9%	47.56	12.86	21.05	33.91	-31.1%
2021	195,000	12.99	20.44	33.43	-32.1%	47.24	13.06	20.17	33.24	-32.5%
2022	195,000	13.63	20.45	34.07	-30.8%	46.88	13.36	20.14	33.50	-31.9%
2023	195,000	13.00	18.59	31.59	-35.8%	47.70	13.31	18.49	31.80	-35.4%

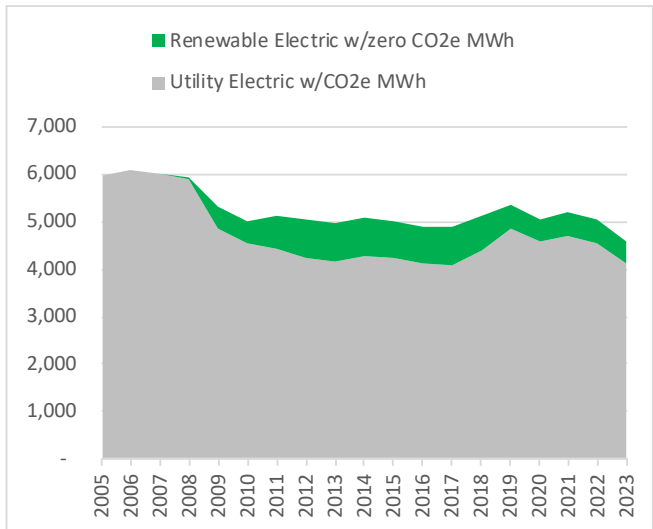
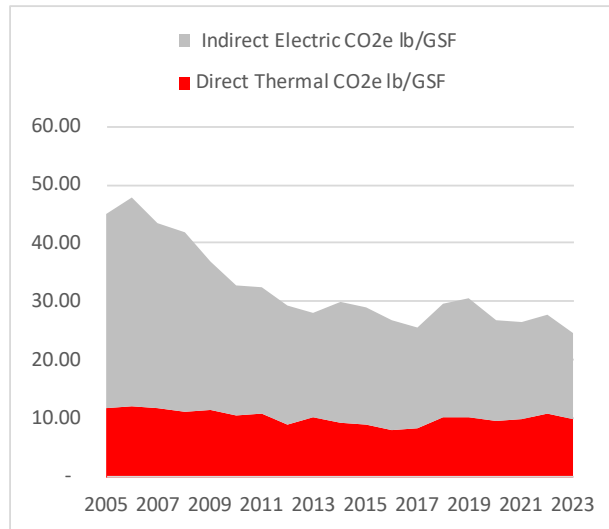
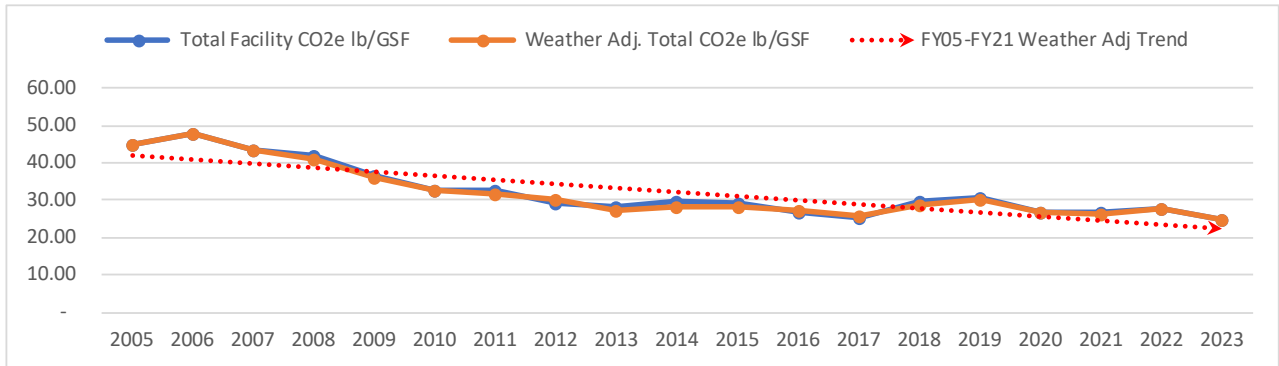
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOC-Columbia CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	330,807	11.84	33.26	45.10	0.0%	48.12	11.84	33.26	45.10	0.0%
2006	330,807	12.05	35.77	47.82	6.0%	48.65	12.17	35.54	47.71	5.8%
2007	330,807	11.62	31.70	43.32	-3.9%	47.46	11.61	31.60	43.21	-4.2%
2008	330,807	11.30	30.60	41.90	-7.1%	46.19	10.66	30.41	41.08	-8.9%
2009	330,807	11.45	25.28	36.73	-18.6%	45.66	10.82	25.08	35.90	-20.4%
2010	330,807	10.59	22.26	32.85	-27.2%	47.10	10.44	22.25	32.69	-27.5%
2011	330,807	10.97	21.58	32.54	-27.8%	46.81	10.43	21.28	31.70	-29.7%
2012	330,807	8.90	20.51	29.40	-34.8%	51.51	9.78	20.45	30.22	-33.0%
2013	330,807	10.23	17.87	28.10	-37.7%	47.29	9.75	17.65	27.40	-39.2%
2014	330,807	9.30	20.60	29.90	-33.7%	44.58	8.23	20.22	28.46	-36.9%
2015	330,807	8.84	20.22	29.05	-35.6%	45.84	8.14	20.24	28.38	-37.1%
2016	330,807	8.01	18.67	26.68	-40.8%	49.68	8.46	18.66	27.12	-39.9%
2017	330,807	8.33	17.12	25.45	-43.6%	49.72	8.71	17.01	25.72	-43.0%
2018	330,807	10.29	19.25	29.54	-34.5%	46.66	9.58	19.04	28.62	-36.5%
2019	330,807	10.23	20.48	30.71	-31.9%	45.88	9.58	20.41	29.99	-33.5%
2020	330,807	9.73	17.08	26.81	-40.6%	48.07	9.70	17.02	26.72	-40.8%
2021	330,807	9.80	16.86	26.67	-40.9%	47.61	9.64	16.67	26.31	-41.7%
2022	330,807	10.78	17.08	27.86	-38.2%	48.04	10.66	16.84	27.51	-39.0%
2023	330,807	9.96	14.74	24.70	-45.2%	48.64	10.10	14.73	24.83	-44.9%

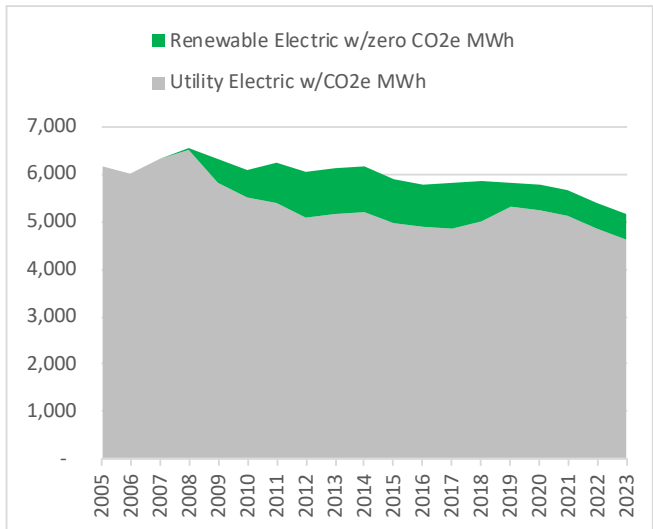
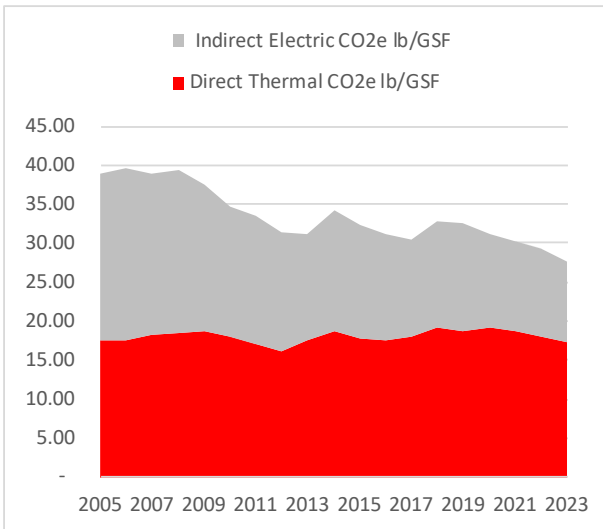
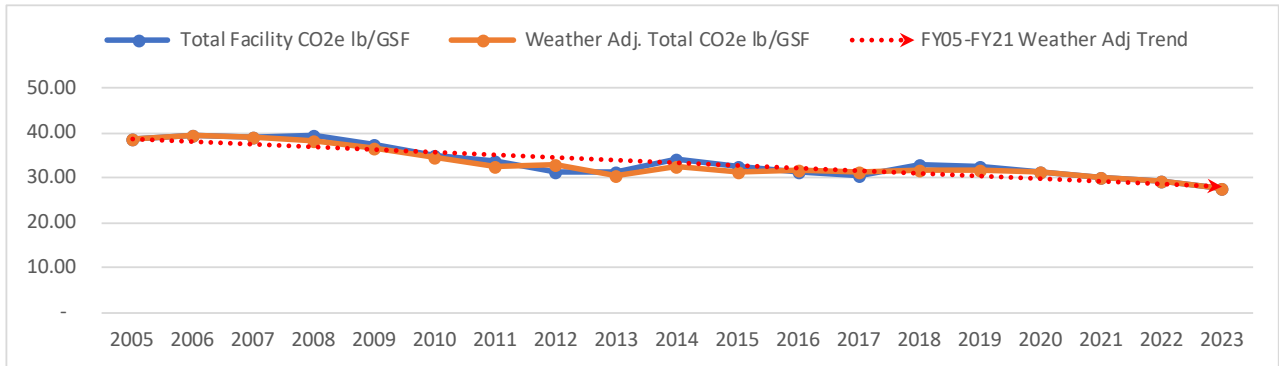
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Fox Lake CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	533,407	17.55	21.29	38.83	0.0%	48.12	17.55	21.29	38.83	0.0%
2006	533,407	17.56	21.99	39.55	1.8%	48.65	17.67	21.98	39.65	2.1%
2007	533,407	18.27	20.75	39.02	0.5%	47.46	18.28	20.63	38.91	0.2%
2008	533,407	18.53	20.94	39.47	1.7%	46.19	17.61	20.68	38.29	-1.4%
2009	533,407	18.79	18.68	37.47	-3.5%	45.66	18.10	18.50	36.60	-5.8%
2010	533,407	18.03	16.74	34.77	-10.5%	47.10	17.85	16.73	34.58	-10.9%
2011	533,407	17.16	16.37	33.53	-13.7%	46.81	16.49	16.15	32.64	-16.0%
2012	533,407	16.07	15.26	31.33	-19.3%	51.51	17.43	15.30	32.74	-15.7%
2013	533,407	17.50	13.73	31.23	-19.6%	47.29	16.95	13.59	30.54	-21.4%
2014	533,407	18.75	15.45	34.21	-11.9%	44.58	17.23	15.25	32.49	-16.3%
2015	533,407	17.73	14.72	32.45	-16.4%	45.84	16.71	14.64	31.35	-19.3%
2016	533,407	17.52	13.69	31.21	-19.6%	49.68	18.18	13.69	31.87	-17.9%
2017	533,407	17.91	12.61	30.52	-21.4%	49.72	18.58	12.56	31.14	-19.8%
2018	533,407	19.12	13.62	32.74	-15.7%	46.66	18.29	13.54	31.83	-18.0%
2019	533,407	18.66	13.83	32.50	-16.3%	45.88	17.82	13.77	31.58	-18.7%
2020	533,407	19.13	12.13	31.26	-19.5%	48.07	18.97	12.11	31.09	-20.0%
2021	533,407	18.81	11.41	30.22	-22.2%	47.61	18.61	11.32	29.93	-22.9%
2022	533,407	17.91	11.36	29.27	-24.6%	48.04	17.79	11.26	29.05	-25.2%
2023	533,407	17.28	10.29	27.58	-29.0%	48.64	17.44	10.30	27.74	-28.6%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

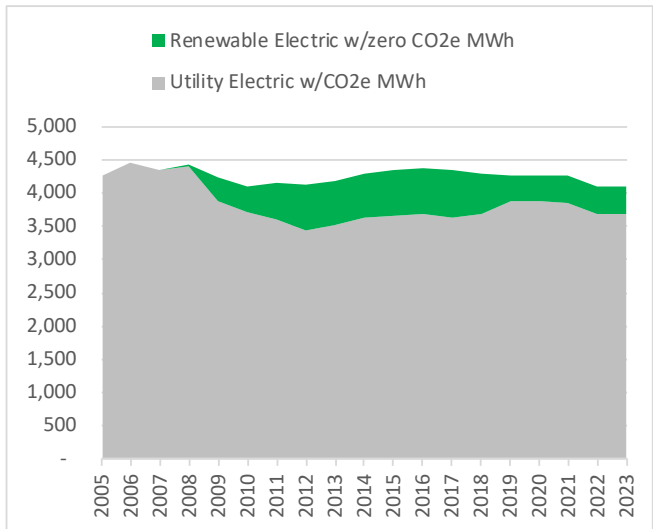
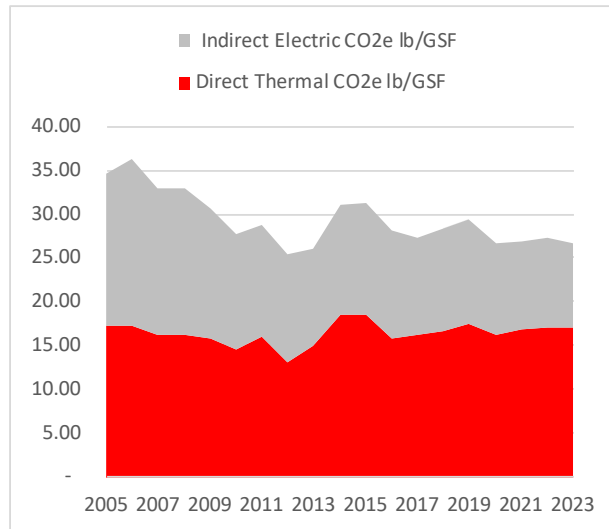
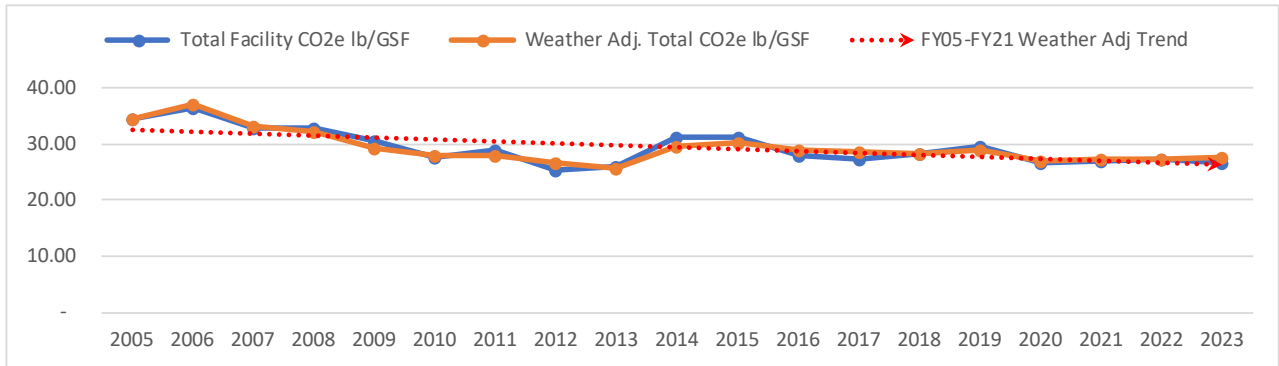




**DOC-Green Bay CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	453,750	17.18	17.33	34.51	0.0%	45.92	17.18	17.33	34.51	0.0%
2006	453,750	17.24	19.09	36.32	5.3%	47.27	17.98	19.09	37.07	7.4%
2007	453,750	16.31	16.72	33.03	-4.3%	46.64	16.63	16.73	33.35	-3.3%
2008	453,750	16.30	16.64	32.94	-4.6%	45.02	15.79	16.53	32.32	-6.3%
2009	453,750	15.89	14.69	30.58	-11.4%	43.47	14.71	14.60	29.31	-15.1%
2010	453,750	14.47	13.28	27.75	-19.6%	45.99	14.54	13.30	27.84	-19.3%
2011	453,750	16.00	12.78	28.79	-16.6%	44.59	15.29	12.75	28.03	-18.8%
2012	453,750	13.13	12.20	25.32	-26.6%	49.86	14.35	12.21	26.56	-23.0%
2013	453,750	14.99	10.99	25.98	-24.7%	45.29	14.61	10.97	25.58	-25.9%
2014	453,750	18.46	12.67	31.14	-9.8%	41.95	16.89	12.56	29.44	-14.7%
2015	453,750	18.50	12.75	31.25	-9.5%	43.98	17.64	12.72	30.35	-12.0%
2016	453,750	15.87	12.17	28.04	-18.7%	48.11	16.79	12.20	28.99	-16.0%
2017	453,750	16.12	11.11	27.23	-21.1%	48.65	17.39	11.15	28.54	-17.3%
2018	453,750	16.68	11.75	28.42	-17.6%	45.77	16.58	11.69	28.27	-18.1%
2019	453,750	17.51	11.92	29.44	-14.7%	44.89	16.93	11.89	28.82	-16.5%
2020	453,750	16.21	10.51	26.72	-22.6%	46.41	16.37	10.51	26.88	-22.1%
2021	453,750	16.76	10.10	26.86	-22.2%	47.28	17.33	10.06	27.39	-20.6%
2022	453,750	17.09	10.12	27.20	-21.2%	46.75	17.40	10.03	27.43	-20.5%
2023	453,750	16.97	9.64	26.60	-22.9%	51.09	17.94	9.67	27.61	-20.0%

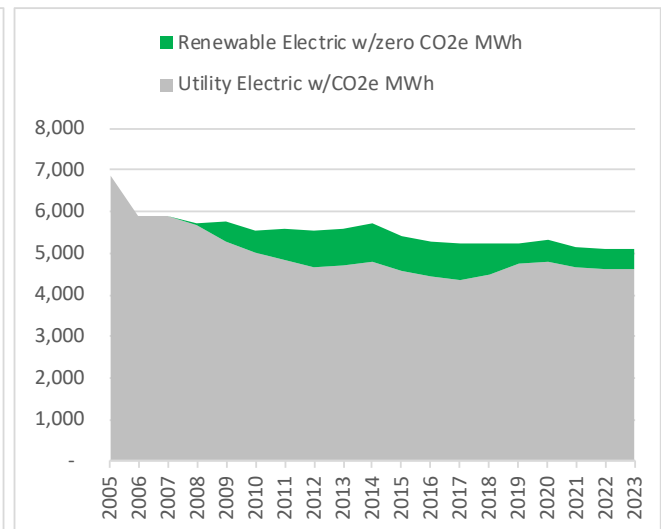
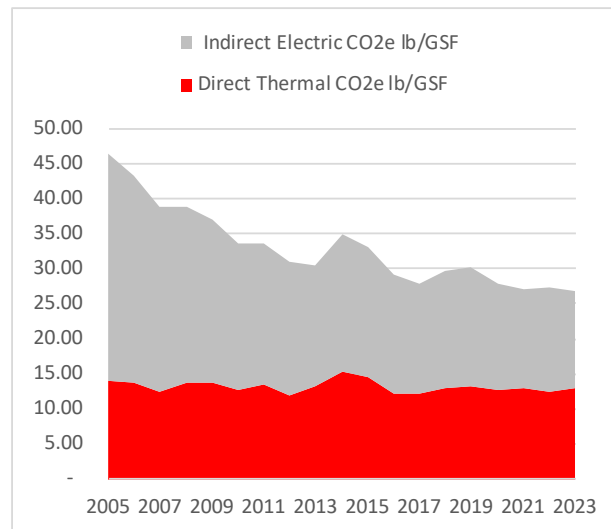
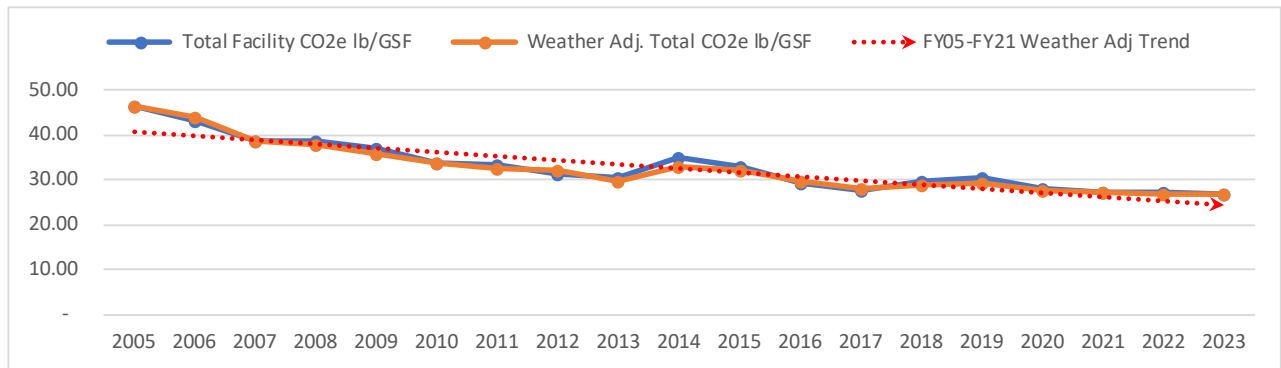
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Jackson CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	390,613	14.05	32.33	46.37	0.0%	45.85	14.05	32.33	46.37	0.0%
2006	390,613	13.68	29.53	43.20	-6.8%	47.80	14.29	29.45	43.74	-5.7%
2007	390,613	12.48	26.31	38.79	-16.3%	46.32	12.48	26.25	38.73	-16.5%
2008	390,613	13.64	25.05	38.69	-16.6%	43.27	12.77	24.89	37.67	-18.8%
2009	390,613	13.78	23.15	36.93	-20.4%	42.97	12.87	23.03	35.91	-22.6%
2010	390,613	12.77	20.91	33.68	-27.4%	45.29	12.65	20.91	33.57	-27.6%
2011	390,613	13.50	19.97	33.47	-27.8%	43.68	12.74	19.86	32.60	-29.7%
2012	390,613	11.95	19.16	31.10	-32.9%	49.02	12.72	19.20	31.92	-31.2%
2013	390,613	13.33	17.07	30.40	-34.4%	43.85	12.61	16.99	29.60	-36.2%
2014	390,613	15.25	19.52	34.77	-25.0%	41.37	13.74	19.26	33.00	-28.8%
2015	390,613	14.49	18.50	32.98	-28.9%	43.42	13.65	18.47	32.12	-30.7%
2016	390,613	12.09	17.08	29.16	-37.1%	47.61	12.66	17.10	29.75	-35.8%
2017	390,613	12.26	15.51	27.77	-40.1%	47.08	12.59	15.50	28.09	-39.4%
2018	390,613	13.00	16.68	29.68	-36.0%	42.94	12.14	16.61	28.74	-38.0%
2019	390,613	13.30	16.98	30.28	-34.7%	42.23	12.41	16.97	29.38	-36.6%
2020	390,613	12.63	15.19	27.82	-40.0%	45.39	12.52	15.18	27.70	-40.3%
2021	390,613	12.95	14.18	27.13	-41.5%	46.03	13.06	14.13	27.19	-41.4%
2022	390,613	12.53	14.69	27.23	-41.3%	44.82	12.13	14.62	26.75	-42.3%
2023	390,613	12.84	14.00	26.83	-42.1%	45.80	12.82	13.96	26.78	-42.2%

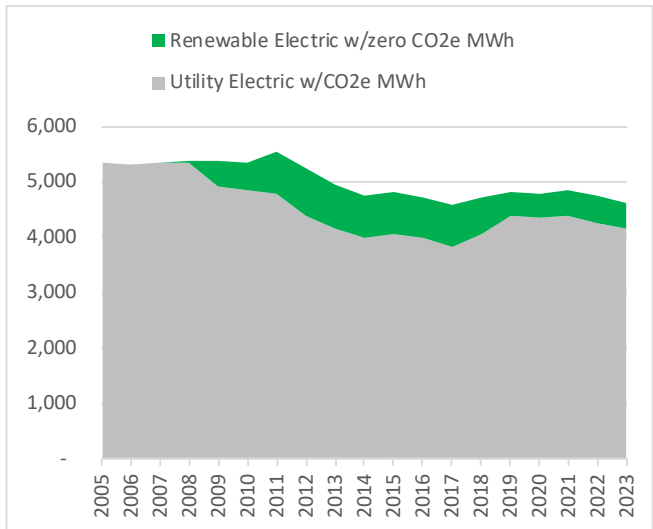
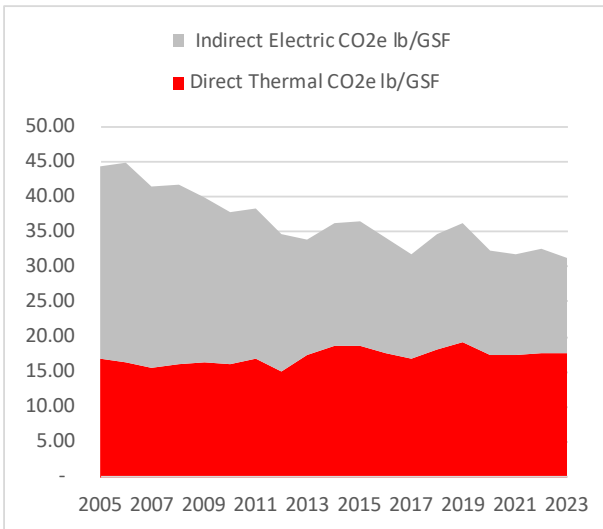
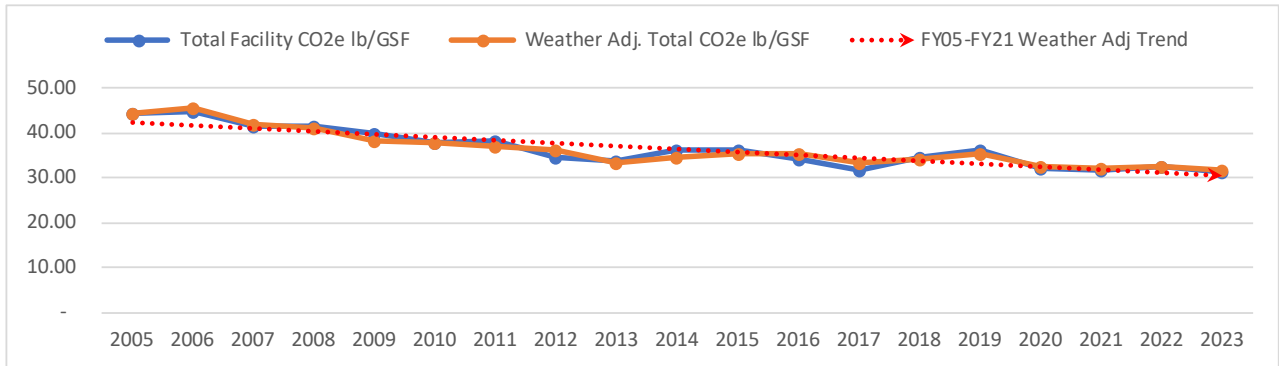
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOC-Kettle Moraine CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	361,612	16.90	27.27	44.17	0.0%	45.92	16.90	27.27	44.17	0.0%
2006	361,612	16.25	28.65	44.90	1.7%	47.27	16.90	28.83	45.74	3.6%
2007	361,612	15.49	25.87	41.36	-6.3%	46.64	15.95	26.00	41.95	-5.0%
2008	361,612	16.18	25.49	41.67	-5.7%	45.02	15.71	25.32	41.02	-7.1%
2009	361,612	16.45	23.45	39.89	-9.7%	43.47	15.39	22.99	38.38	-13.1%
2010	361,612	15.97	21.73	37.70	-14.6%	45.99	16.05	21.87	37.91	-14.2%
2011	361,612	16.90	21.34	38.24	-13.4%	44.59	16.03	21.01	37.04	-16.1%
2012	361,612	15.16	19.50	34.66	-21.5%	49.86	16.50	19.73	36.22	-18.0%
2013	361,612	17.45	16.32	33.77	-23.5%	45.29	16.98	16.26	33.24	-24.7%
2014	361,612	18.74	17.56	36.30	-17.8%	41.95	17.15	17.28	34.43	-22.0%
2015	361,612	18.60	17.76	36.37	-17.7%	43.98	17.82	17.68	35.49	-19.6%
2016	361,612	17.68	16.55	34.23	-22.5%	48.11	18.76	16.65	35.40	-19.8%
2017	361,612	16.99	14.70	31.69	-28.2%	48.65	18.41	14.89	33.31	-24.6%
2018	361,612	18.27	16.27	34.54	-21.8%	45.77	18.05	16.22	34.26	-22.4%
2019	361,612	19.13	16.96	36.09	-18.3%	44.89	18.47	16.88	35.35	-20.0%
2020	361,612	17.48	14.80	32.27	-26.9%	46.41	17.59	14.83	32.42	-26.6%
2021	361,612	17.27	14.43	31.69	-28.2%	47.28	17.67	14.44	32.11	-27.3%
2022	361,612	17.73	14.72	32.45	-26.5%	46.75	17.94	14.69	32.63	-26.1%
2023	361,612	17.60	13.60	31.20	-29.4%	47.58	18.15	13.68	31.83	-27.9%

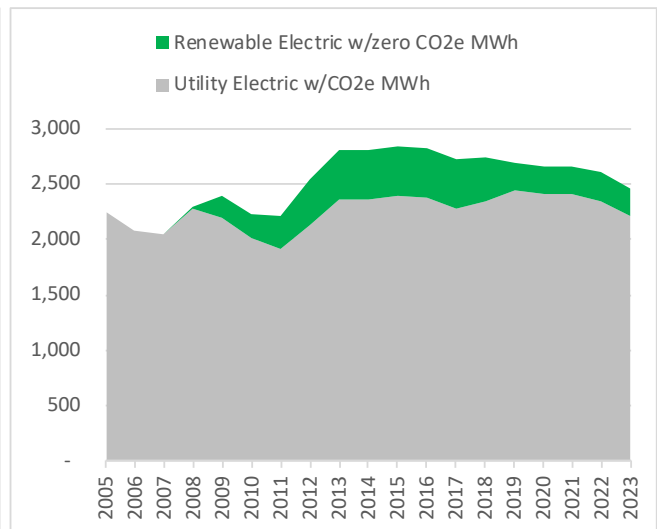
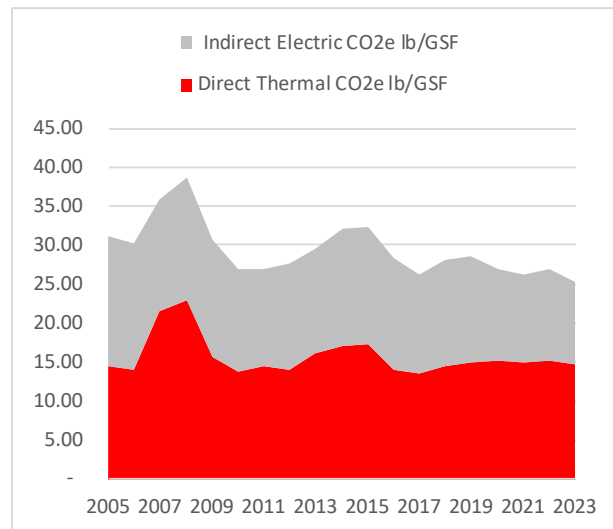
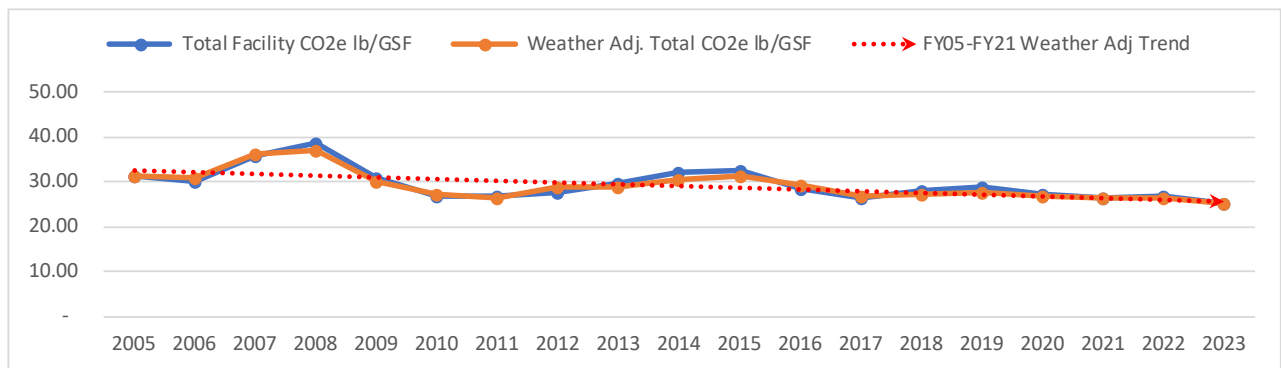
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Lincoln Hills CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	249,792	14.51	16.59	31.11	0.0%	44.26	14.51	16.59	31.11	0.0%
2006	249,792	13.90	16.28	30.19	-3.0%	45.56	14.39	16.32	30.71	-1.3%
2007	249,792	21.47	14.34	35.80	15.1%	44.50	21.67	14.32	36.00	15.7%
2008	249,792	22.93	15.73	38.65	24.3%	42.10	21.44	15.55	36.99	18.9%
2009	249,792	15.64	15.09	30.73	-1.2%	42.50	14.91	15.06	29.97	-3.7%
2010	249,792	13.72	13.11	26.83	-13.7%	45.38	14.17	13.15	27.32	-12.2%
2011	249,792	14.59	12.36	26.95	-13.3%	43.50	14.09	12.28	26.37	-15.2%
2012	249,792	13.92	13.69	27.61	-11.2%	47.63	15.12	13.78	28.90	-7.1%
2013	249,792	16.14	13.39	29.53	-5.1%	42.87	15.30	13.38	28.68	-7.8%
2014	249,792	17.14	15.04	32.17	3.4%	39.97	15.29	15.03	30.33	-2.5%
2015	249,792	17.23	15.13	32.36	4.0%	42.20	16.08	15.05	31.13	0.1%
2016	249,792	14.06	14.29	28.36	-8.8%	46.23	14.93	14.37	29.30	-5.8%
2017	249,792	13.55	12.65	26.20	-15.8%	45.86	14.16	12.68	26.84	-13.7%
2018	249,792	14.40	13.62	28.02	-9.9%	42.67	13.57	13.55	27.12	-12.8%
2019	249,792	14.99	13.63	28.62	-8.0%	41.78	13.91	13.57	27.49	-11.6%
2020	249,792	15.11	11.91	27.03	-13.1%	43.78	14.85	11.92	26.78	-13.9%
2021	249,792	14.85	11.46	26.31	-15.4%	44.64	14.95	11.44	26.39	-15.2%
2022	249,792	15.15	11.70	26.85	-13.7%	43.09	14.59	11.64	26.23	-15.7%
2023	249,792	14.76	10.50	25.26	-18.8%	44.12	14.65	10.54	25.18	-19.0%

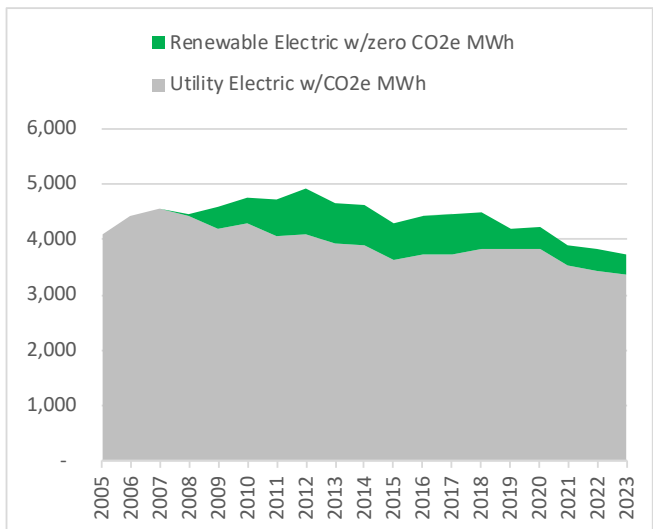
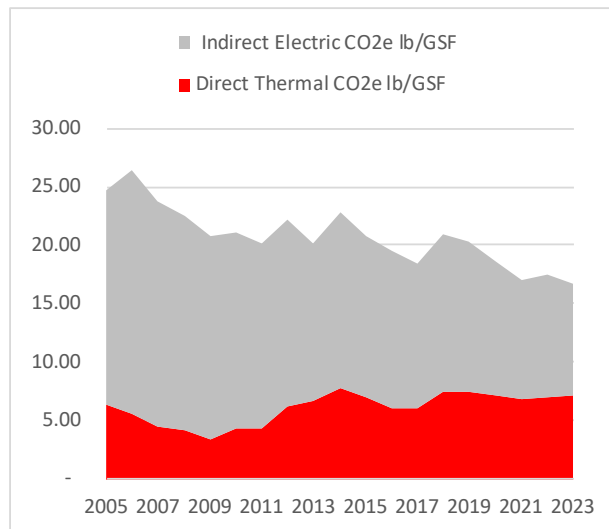
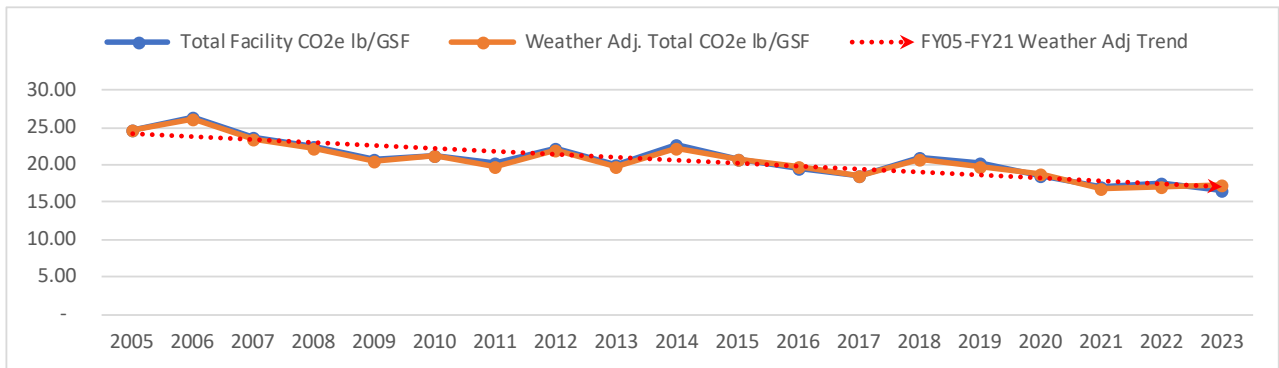
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-Milwaukee Secure CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	413,011	6.38	18.33	24.71	0.0%	48.47	6.38	18.33	24.71	0.0%
2006	413,011	5.55	20.87	26.42	6.9%	50.11	5.68	20.37	26.05	5.4%
2007	413,011	4.42	19.31	23.73	-4.0%	48.88	4.45	19.09	23.54	-4.7%
2008	413,011	4.09	18.47	22.56	-8.7%	47.87	3.93	18.24	22.17	-10.3%
2009	413,011	3.35	17.45	20.80	-15.8%	47.26	3.10	17.36	20.46	-17.2%
2010	413,011	4.26	16.88	21.14	-14.4%	49.10	4.33	16.79	21.12	-14.5%
2011	413,011	4.30	15.92	20.21	-18.2%	48.17	4.14	15.68	19.83	-19.8%
2012	413,011	6.14	15.97	22.11	-10.5%	52.24	6.54	15.33	21.87	-11.5%
2013	413,011	6.62	13.47	20.09	-18.7%	48.26	6.42	13.38	19.80	-19.8%
2014	413,011	7.82	14.93	22.74	-8.0%	45.20	7.19	14.90	22.10	-10.6%
2015	413,011	6.97	13.84	20.81	-15.8%	46.08	6.61	14.10	20.71	-16.2%
2016	413,011	6.04	13.56	19.60	-20.7%	50.51	6.53	13.32	19.85	-19.6%
2017	413,011	5.99	12.51	18.50	-25.1%	51.99	6.64	11.86	18.50	-25.1%
2018	413,011	7.41	13.48	20.88	-15.5%	48.73	7.40	13.29	20.69	-16.3%
2019	413,011	7.43	12.91	20.34	-17.7%	47.88	7.11	12.71	19.82	-19.8%
2020	413,011	7.16	11.44	18.59	-24.7%	49.85	7.51	11.21	18.72	-24.2%
2021	413,011	6.83	10.15	16.98	-31.3%	50.84	7.20	9.64	16.84	-31.9%
2022	413,011	7.05	10.39	17.44	-29.4%	50.90	7.28	9.71	16.99	-31.2%
2023	413,011	7.07	9.61	16.68	-32.5%	51.09	7.82	9.36	17.18	-30.5%

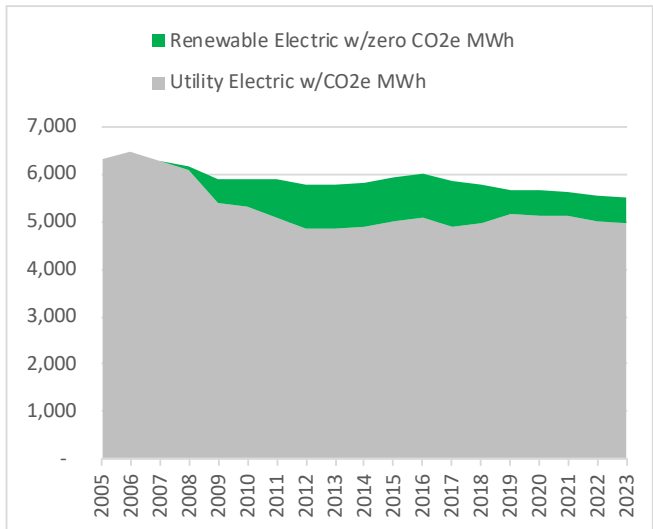
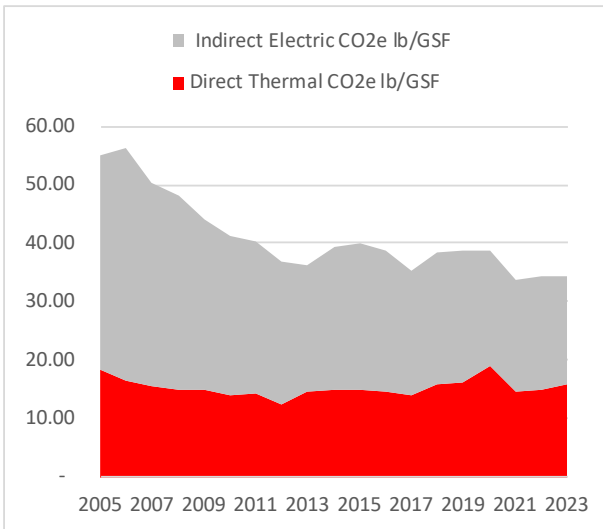
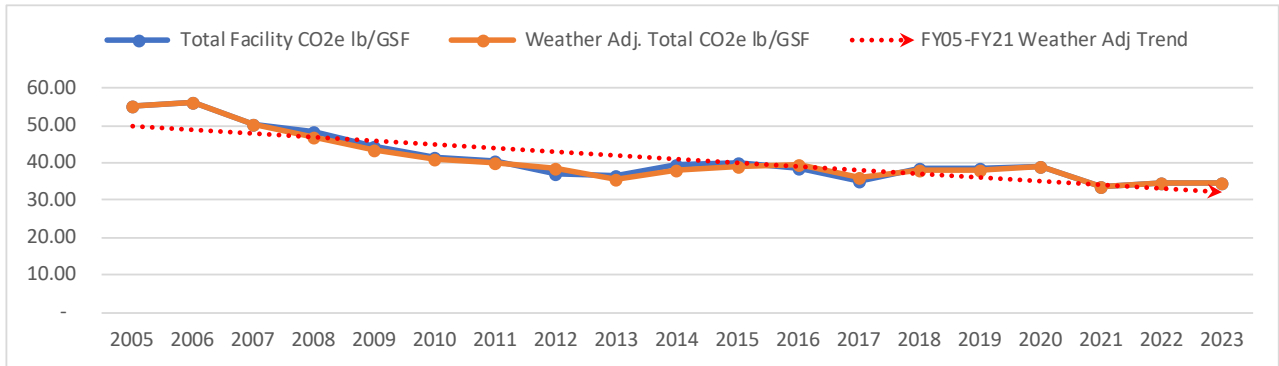
*CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.*



**DOC-New Lisbon CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	316,878	18.27	36.72	54.99	0.0%	46.84	18.27	36.72	54.99	0.0%
2006	316,878	16.41	39.87	56.28	2.3%	47.39	16.39	39.87	56.26	2.3%
2007	316,878	15.59	34.65	50.24	-8.6%	46.26	15.59	34.54	50.13	-8.8%
2008	316,878	15.04	33.14	48.18	-12.4%	44.24	14.20	32.87	47.07	-14.4%
2009	316,878	14.88	29.28	44.16	-19.7%	44.25	14.10	29.19	43.28	-21.3%
2010	316,878	14.09	27.28	41.38	-24.8%	45.47	13.84	27.22	41.05	-25.4%
2011	316,878	14.38	25.98	40.36	-26.6%	46.21	14.06	25.79	39.85	-27.5%
2012	316,878	12.33	24.59	36.91	-32.9%	51.40	13.64	24.66	38.29	-30.4%
2013	316,878	14.64	21.71	36.35	-33.9%	46.61	14.18	21.60	35.78	-34.9%
2014	316,878	14.77	24.54	39.31	-28.5%	43.20	13.66	24.32	37.98	-30.9%
2015	316,878	14.97	24.97	39.94	-27.4%	44.37	14.07	24.92	39.00	-29.1%
2016	316,878	14.73	23.99	38.71	-29.6%	48.82	15.47	23.99	39.46	-28.3%
2017	316,878	13.94	21.37	35.31	-35.8%	49.01	14.57	21.31	35.88	-34.8%
2018	316,878	15.83	22.67	38.50	-30.0%	45.93	15.33	22.56	37.89	-31.1%
2019	316,878	16.07	22.68	38.75	-29.5%	44.97	15.22	22.66	37.88	-31.1%
2020	316,878	18.97	19.92	38.89	-29.3%	47.56	19.04	19.83	38.87	-29.3%
2021	316,878	14.68	19.13	33.81	-38.5%	47.24	14.81	19.04	33.84	-38.5%
2022	316,878	14.85	19.61	34.47	-37.3%	46.88	14.81	19.57	34.39	-37.5%
2023	316,878	15.90	18.53	34.43	-37.4%	47.70	16.09	18.49	34.59	-37.1%

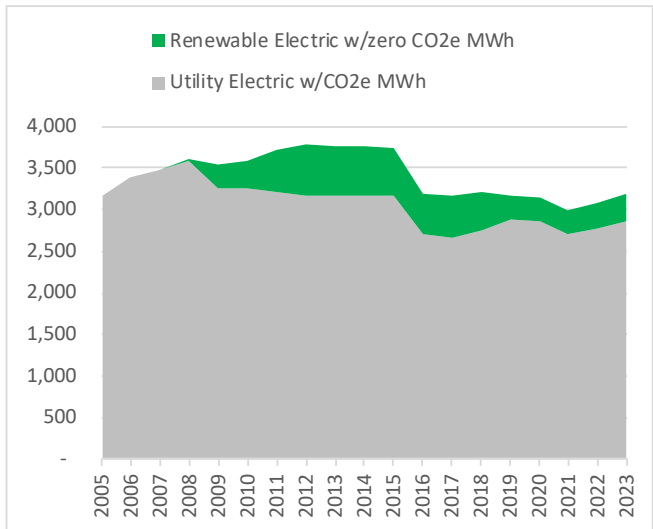
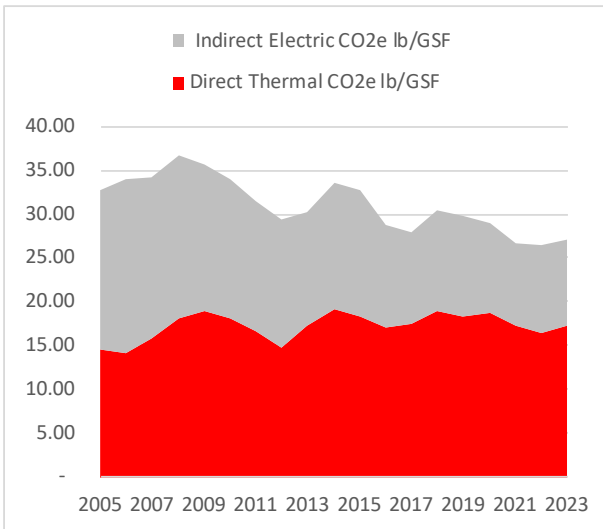
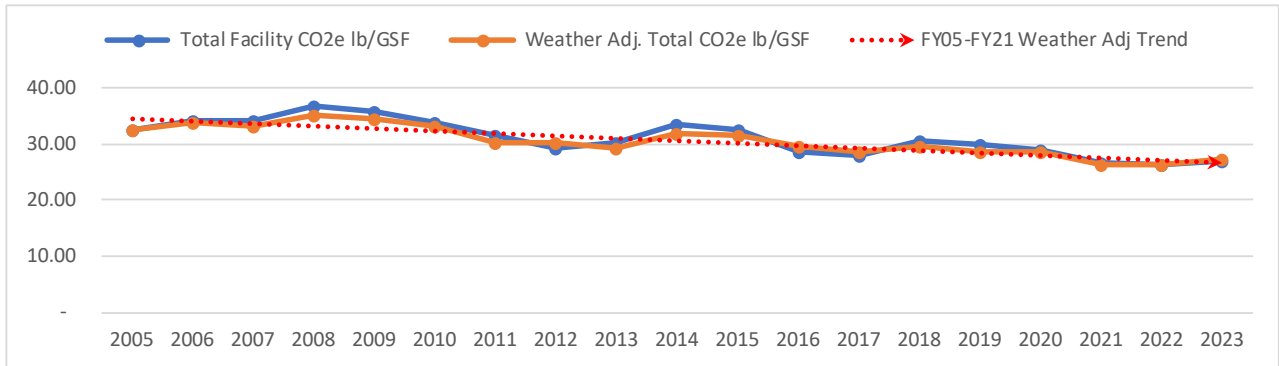
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Oakhill CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	319,630	14.47	18.22	32.68	0.0%	48.12	14.47	18.22	32.68	0.0%
2006	331,380	14.12	19.92	34.03	4.1%	48.65	14.02	19.89	33.91	3.8%
2007	331,380	15.79	18.33	34.12	4.4%	47.46	14.96	18.28	33.24	1.7%
2008	331,380	18.18	18.61	36.79	12.6%	46.19	16.90	18.38	35.28	7.9%
2009	331,380	18.88	16.87	35.75	9.4%	45.66	17.66	16.74	34.40	5.2%
2010	331,380	18.00	15.95	33.96	3.9%	47.10	17.31	15.95	33.26	1.8%
2011	348,153	16.57	14.90	31.46	-3.7%	46.81	15.53	14.75	30.28	-7.4%
2012	348,153	14.66	14.62	29.27	-10.4%	51.51	15.64	14.58	30.22	-7.5%
2013	348,153	17.27	12.92	30.19	-7.6%	47.29	16.41	12.84	29.25	-10.5%
2014	348,153	19.06	14.48	33.54	2.6%	44.58	17.36	14.38	31.73	-2.9%
2015	348,153	18.31	14.34	32.64	-0.1%	45.84	17.21	14.33	31.54	-3.5%
2016	348,153	17.13	11.62	28.75	-12.0%	49.68	17.88	11.57	29.45	-9.9%
2017	348,153	17.41	10.54	27.96	-14.5%	49.72	18.07	10.47	28.54	-12.7%
2018	348,153	18.96	11.48	30.44	-6.9%	46.66	17.98	11.47	29.45	-9.9%
2019	348,153	18.35	11.54	29.89	-8.6%	45.88	17.11	11.53	28.63	-12.4%
2020	348,153	18.77	10.10	28.87	-11.7%	48.07	18.66	10.08	28.73	-12.1%
2021	348,153	17.36	9.24	26.60	-18.6%	47.61	17.19	9.17	26.36	-19.3%
2022	348,153	16.52	9.94	26.46	-19.1%	48.04	16.49	9.88	26.37	-19.3%
2023	348,153	17.34	9.76	27.11	-17.1%	48.64	17.50	9.76	27.26	-16.6%

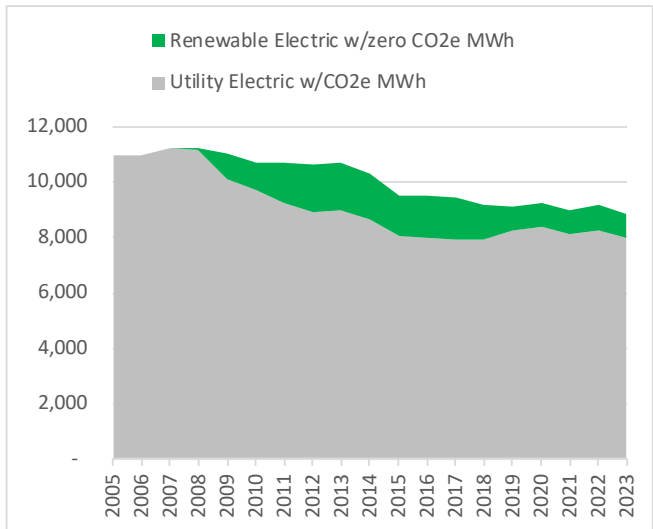
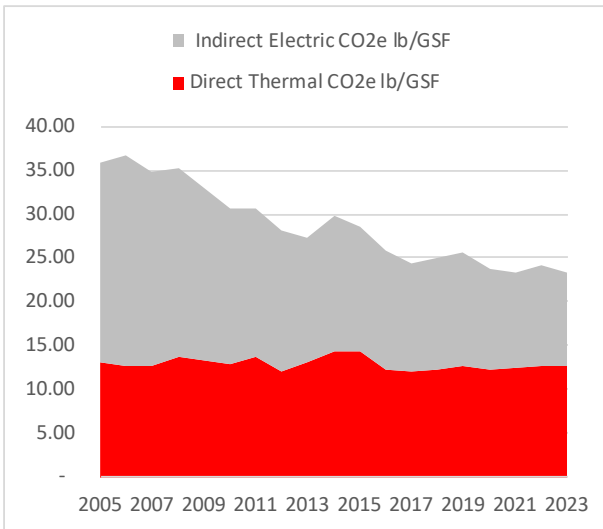
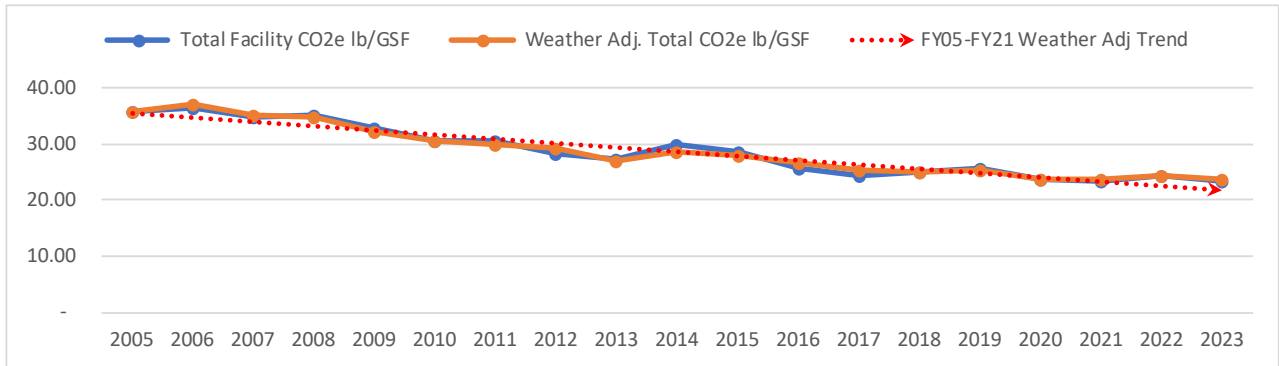
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-Oshkosh CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	890,187	13.13	22.74	35.87	0.0%	45.92	13.13	22.74	35.87	0.0%
2006	890,187	12.62	23.99	36.61	2.1%	47.27	13.07	23.96	37.03	3.2%
2007	890,187	12.76	21.99	34.74	-3.1%	46.64	13.03	22.00	35.04	-2.3%
2008	890,187	13.63	21.60	35.23	-1.8%	45.02	13.45	21.44	34.90	-2.7%
2009	890,187	13.39	19.52	32.91	-8.3%	43.47	12.81	19.39	32.21	-10.2%
2010	890,187	12.95	17.67	30.61	-14.7%	45.99	12.90	17.72	30.62	-14.6%
2011	890,187	13.80	16.81	30.62	-14.6%	44.59	13.35	16.70	30.05	-16.2%
2012	890,187	12.08	16.07	28.15	-21.5%	49.86	13.11	16.15	29.26	-18.4%
2013	890,187	13.01	14.31	27.32	-23.8%	45.29	12.70	14.28	26.98	-24.8%
2014	890,187	14.37	15.44	29.81	-16.9%	41.95	13.32	15.26	28.59	-20.3%
2015	890,187	14.26	14.20	28.46	-20.7%	43.98	13.66	14.20	27.86	-22.3%
2016	890,187	12.26	13.49	25.75	-28.2%	48.11	13.02	13.52	26.54	-26.0%
2017	890,187	11.99	12.27	24.26	-32.4%	48.65	12.99	12.19	25.19	-29.8%
2018	890,187	12.19	12.83	25.02	-30.2%	45.77	12.16	12.72	24.88	-30.6%
2019	890,187	12.70	12.95	25.65	-28.5%	44.89	12.42	12.93	25.34	-29.3%
2020	890,187	12.19	11.57	23.76	-33.8%	46.41	12.28	11.57	23.85	-33.5%
2021	890,187	12.54	10.84	23.38	-34.8%	47.28	12.88	10.76	23.64	-34.1%
2022	890,187	12.73	11.52	24.25	-32.4%	46.75	12.95	11.41	24.36	-32.1%
2023	890,187	12.64	10.64	23.28	-35.1%	47.58	13.09	10.63	23.72	-33.9%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

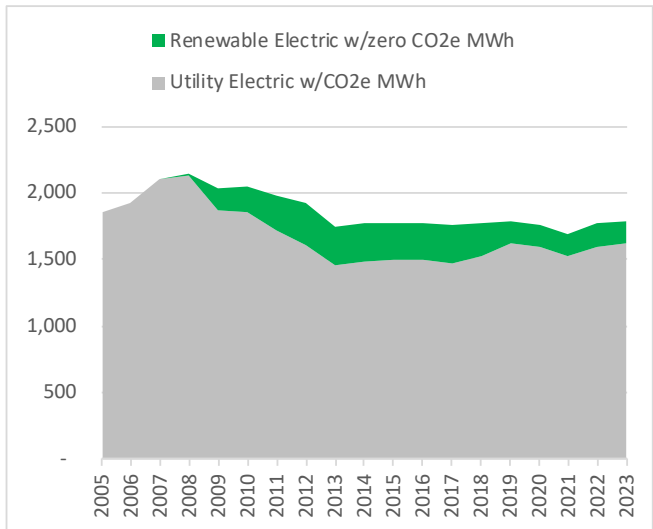
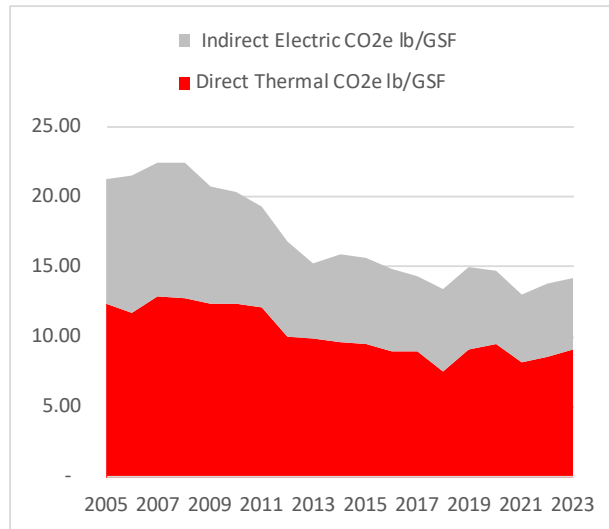
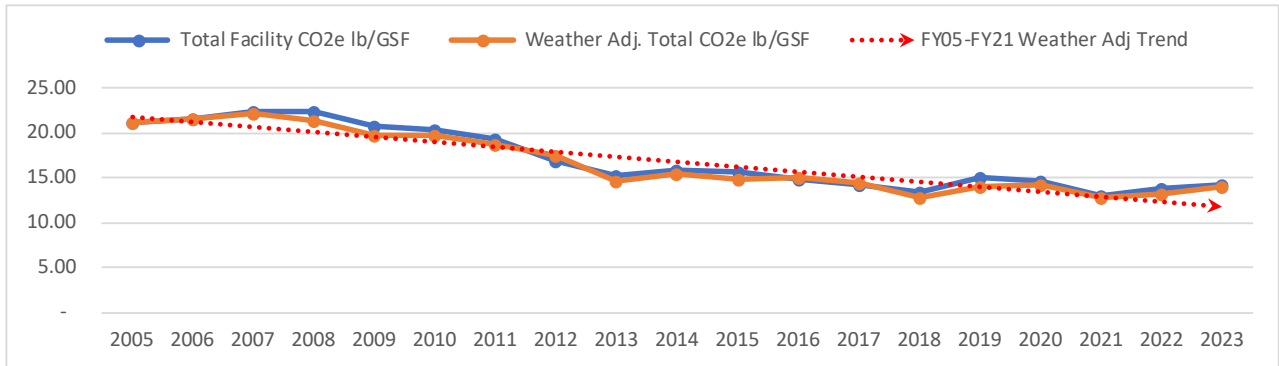




**DOC-Prairie du Chien CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	383,100	12.30	8.96	21.25	0.0%	46.84	12.30	8.96	21.25	0.0%
2006	383,100	11.68	9.81	21.49	1.1%	47.39	11.82	9.79	21.61	1.7%
2007	383,100	12.86	9.57	22.43	5.6%	46.26	12.62	9.53	22.15	4.2%
2008	383,100	12.80	9.59	22.39	5.4%	44.24	11.83	9.47	21.31	0.2%
2009	383,100	12.30	8.38	20.68	-2.7%	44.25	11.47	8.32	19.78	-6.9%
2010	383,100	12.39	7.88	20.27	-4.6%	45.47	11.93	7.86	19.78	-6.9%
2011	383,100	12.09	7.23	19.31	-9.1%	46.21	11.65	7.14	18.79	-11.6%
2012	383,100	10.03	6.77	16.80	-21.0%	51.40	10.65	6.83	17.48	-17.8%
2013	383,100	9.84	5.43	15.27	-28.2%	46.61	9.28	5.35	14.63	-31.2%
2014	383,100	9.67	6.17	15.84	-25.5%	43.20	9.38	6.07	15.45	-27.3%
2015	383,100	9.48	6.18	15.66	-26.3%	44.37	8.64	6.18	14.82	-30.3%
2016	383,100	8.96	5.88	14.84	-30.2%	48.82	9.21	5.85	15.06	-29.1%
2017	383,100	8.96	5.30	14.26	-32.9%	49.01	9.26	5.26	14.51	-31.7%
2018	383,100	7.58	5.75	13.33	-37.3%	45.93	7.09	5.70	12.79	-39.8%
2019	383,100	9.10	5.90	15.00	-29.4%	44.97	8.19	5.86	14.06	-33.9%
2020	383,100	9.50	5.14	14.64	-31.1%	47.56	9.18	5.09	14.27	-32.9%
2021	383,100	8.20	4.75	12.95	-39.1%	47.24	8.17	4.68	12.85	-39.5%
2022	383,100	8.61	5.18	13.79	-35.1%	46.88	8.09	5.12	13.21	-37.8%
2023	383,100	9.15	5.00	14.15	-33.4%	47.70	8.96	4.98	13.94	-34.4%

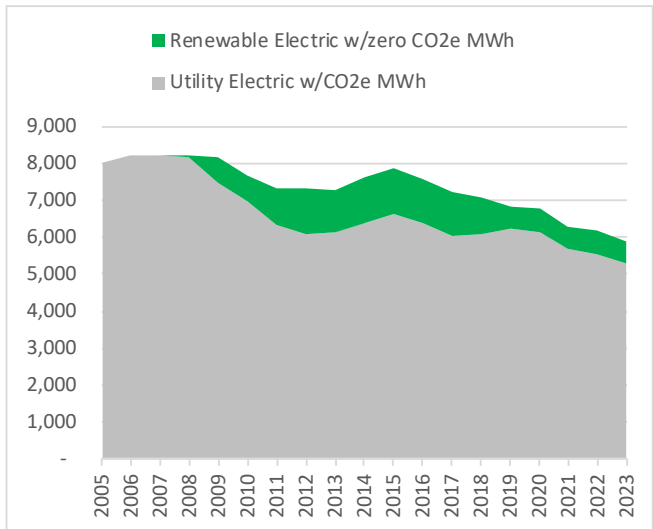
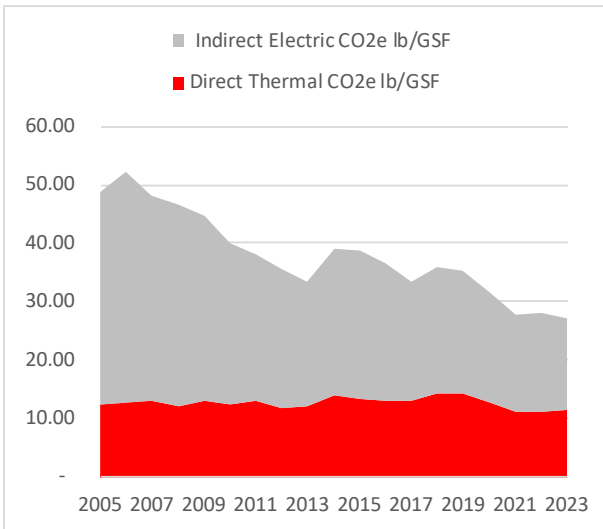
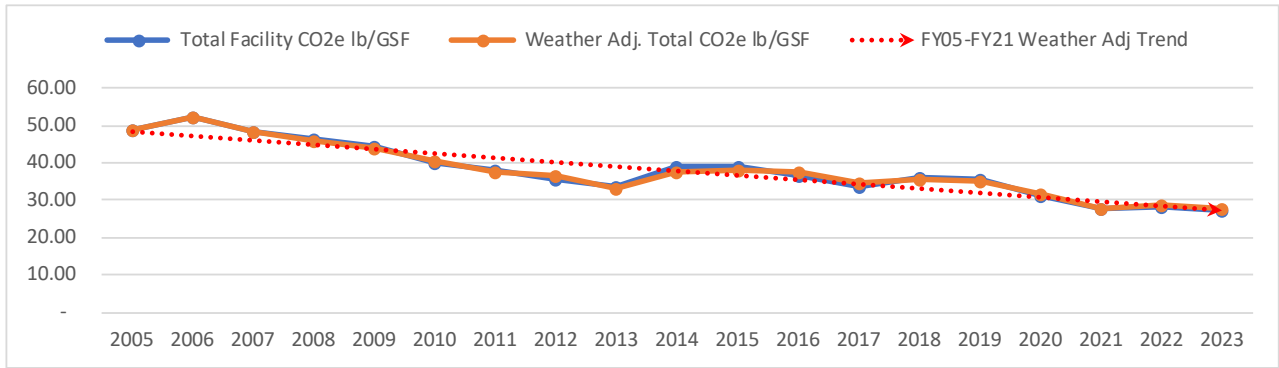
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Racine CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	409,046	12.53	36.23	48.76	0.0%	48.47	12.53	36.23	48.76	0.0%
2006	409,046	12.82	39.26	52.08	6.8%	50.11	13.27	39.06	52.33	7.3%
2007	409,046	12.95	35.19	48.15	-1.3%	48.88	13.12	35.12	48.24	-1.1%
2008	409,046	12.11	34.31	46.42	-4.8%	47.87	11.81	33.93	45.74	-6.2%
2009	409,046	13.15	31.41	44.56	-8.6%	47.26	12.62	31.20	43.83	-10.1%
2010	409,046	12.46	27.64	40.10	-17.8%	49.10	12.74	27.65	40.39	-17.2%
2011	409,046	13.05	25.04	38.08	-21.9%	48.17	12.77	24.75	37.52	-23.1%
2012	409,046	11.64	24.00	35.64	-26.9%	52.24	12.67	24.03	36.70	-24.7%
2013	409,046	12.21	21.28	33.49	-31.3%	48.26	12.06	21.18	33.24	-31.8%
2014	409,046	14.11	24.86	38.97	-20.1%	45.20	12.84	24.59	37.43	-23.2%
2015	409,046	13.20	25.63	38.82	-20.4%	46.08	12.40	25.55	37.95	-22.2%
2016	409,046	12.99	23.46	36.45	-25.2%	50.51	13.85	23.48	37.33	-23.4%
2017	409,046	12.97	20.48	33.45	-31.4%	51.99	14.01	20.37	34.38	-29.5%
2018	409,046	14.33	21.59	35.91	-26.3%	48.73	14.35	21.42	35.77	-26.6%
2019	409,046	14.18	21.20	35.38	-27.4%	47.88	13.88	21.05	34.93	-28.4%
2020	409,046	12.87	18.51	31.38	-35.7%	49.85	13.40	18.48	31.89	-34.6%
2021	409,046	11.15	16.55	27.71	-43.2%	47.24	11.29	16.37	27.66	-43.3%
2022	409,046	11.28	16.91	28.19	-42.2%	50.90	11.85	16.82	28.67	-41.2%
2023	409,046	11.59	15.40	27.00	-44.6%	51.09	12.52	15.44	27.96	-42.6%

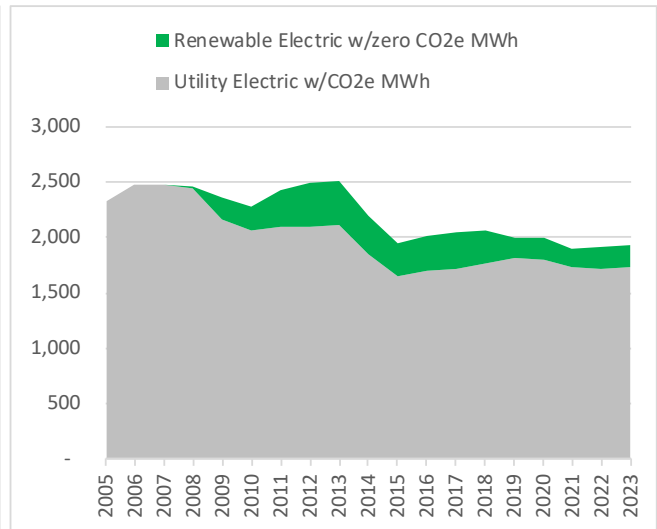
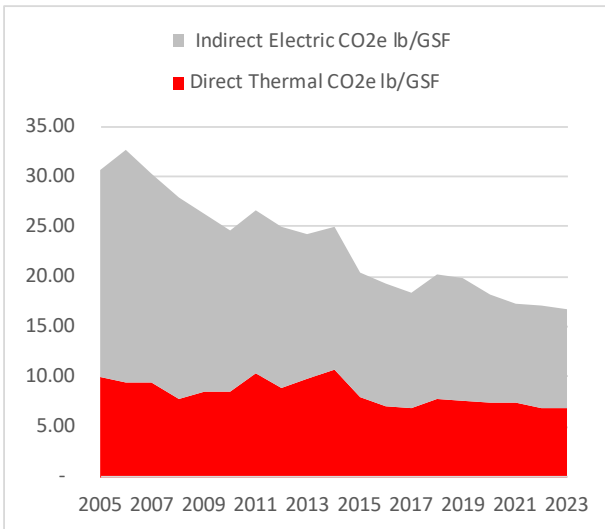
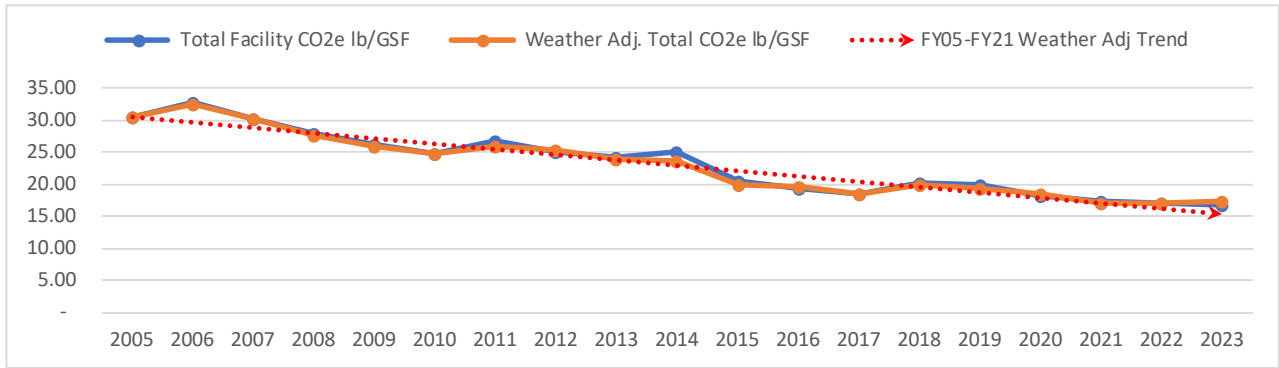
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Racine Youth CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	207,697	9.95	20.62	30.57	0.0%	48.47	9.95	20.62	30.57	0.0%
2006	207,697	9.41	23.29	32.70	7.0%	50.11	9.80	22.79	32.59	6.6%
2007	207,697	9.42	20.86	30.28	-1.0%	48.88	9.45	20.64	30.09	-1.6%
2008	207,697	7.73	20.24	27.97	-8.5%	47.87	7.56	19.95	27.50	-10.0%
2009	207,697	8.47	17.84	26.31	-14.0%	47.26	8.12	17.67	25.79	-15.6%
2010	207,697	8.52	16.17	24.69	-19.3%	49.10	8.56	16.12	24.68	-19.3%
2011	207,697	10.43	16.26	26.69	-12.7%	48.17	10.05	15.86	25.91	-15.3%
2012	207,697	8.79	16.17	24.97	-18.3%	52.24	9.55	15.78	25.33	-17.2%
2013	207,697	9.87	14.41	24.28	-20.6%	48.26	9.58	14.21	23.79	-22.2%
2014	207,697	10.76	14.16	24.92	-18.5%	45.20	9.82	13.84	23.66	-22.6%
2015	207,697	7.88	12.48	20.36	-33.4%	46.08	7.29	12.60	19.89	-34.9%
2016	207,697	7.08	12.24	19.32	-36.8%	50.51	7.59	12.13	19.72	-35.5%
2017	207,697	6.93	11.44	18.37	-39.9%	51.99	7.58	10.86	18.44	-39.7%
2018	207,697	7.83	12.37	20.20	-33.9%	48.73	7.83	12.12	19.95	-34.8%
2019	207,697	7.65	12.15	19.79	-35.3%	47.88	7.39	11.95	19.34	-36.7%
2020	207,697	7.45	10.72	18.16	-40.6%	49.85	7.73	10.60	18.32	-40.1%
2021	207,697	7.45	9.87	17.32	-43.4%	47.24	7.50	9.65	17.14	-43.9%
2022	207,697	6.84	10.33	17.18	-43.8%	50.90	7.20	9.85	17.06	-44.2%
2023	207,697	6.89	9.91	16.80	-45.1%	51.09	7.40	9.86	17.25	-43.6%

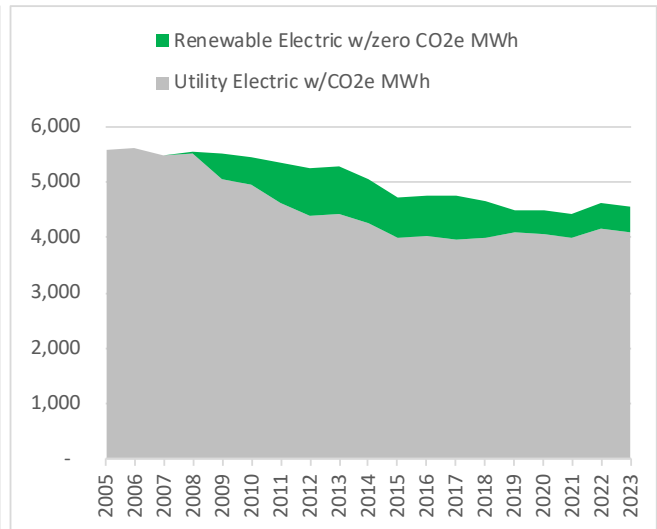
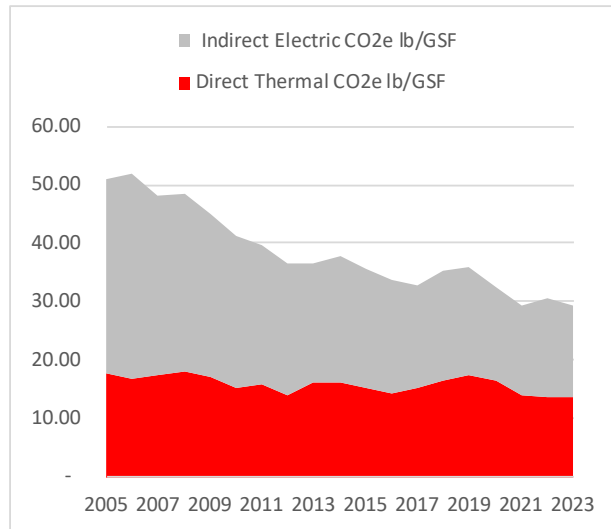
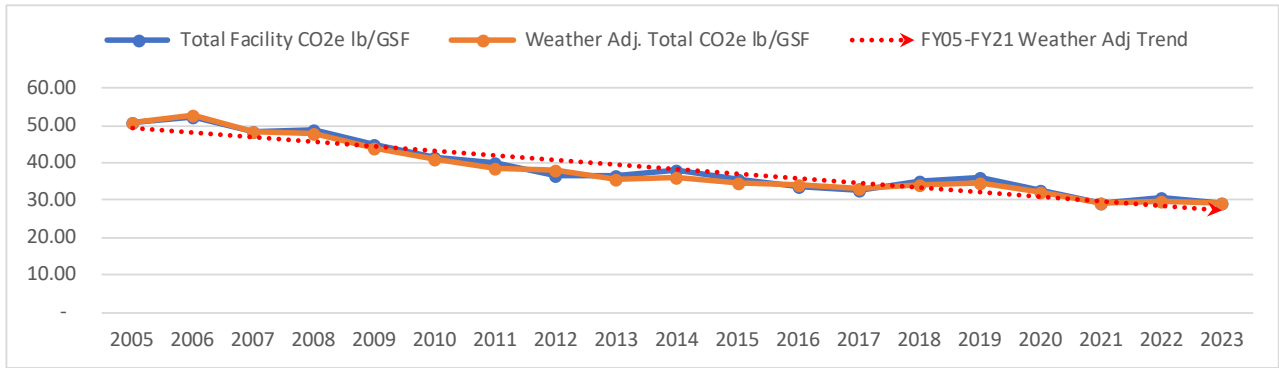
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOC-Redgranite CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	310,135	17.79	33.13	50.92	0.0%	46.04	17.79	33.13	50.92	0.0%
2006	310,135	16.80	35.21	52.01	2.1%	47.49	17.38	35.24	52.62	3.3%
2007	310,135	17.31	30.96	48.27	-5.2%	46.81	17.42	30.93	48.35	-5.1%
2008	310,135	18.08	30.49	48.57	-4.6%	44.51	17.33	30.29	47.62	-6.5%
2009	310,135	17.01	28.01	45.02	-11.6%	43.51	16.06	27.87	43.94	-13.7%
2010	310,135	15.38	25.85	41.23	-19.0%	45.49	15.12	25.75	40.88	-19.7%
2011	310,135	15.79	24.00	39.78	-21.9%	43.59	14.72	23.61	38.33	-24.7%
2012	310,135	13.82	22.81	36.63	-28.1%	49.50	14.87	23.00	37.87	-25.6%
2013	310,135	16.29	20.27	36.56	-28.2%	44.37	15.32	20.17	35.49	-30.3%
2014	310,135	16.09	21.76	37.84	-25.7%	41.62	14.32	21.54	35.86	-29.6%
2015	310,135	15.30	20.31	35.61	-30.1%	43.36	14.29	20.26	34.55	-32.2%
2016	310,135	14.29	19.44	33.73	-33.8%	47.34	14.71	19.48	34.19	-32.9%
2017	310,135	15.16	17.69	32.85	-35.5%	47.13	15.56	17.73	33.30	-34.6%
2018	310,135	16.50	18.64	35.14	-31.0%	44.30	15.65	18.58	34.23	-32.8%
2019	310,135	17.50	18.41	35.92	-29.5%	43.35	16.19	18.38	34.57	-32.1%
2020	310,135	16.42	16.19	32.61	-36.0%	45.35	16.00	16.20	32.20	-36.8%
2021	310,135	14.05	15.32	29.36	-42.3%	47.24	14.13	15.22	29.36	-42.4%
2022	310,135	13.79	16.65	30.44	-40.2%	44.68	13.23	16.59	29.81	-41.5%
2023	310,135	13.60	15.67	29.27	-42.5%	45.80	13.48	15.74	29.22	-42.6%

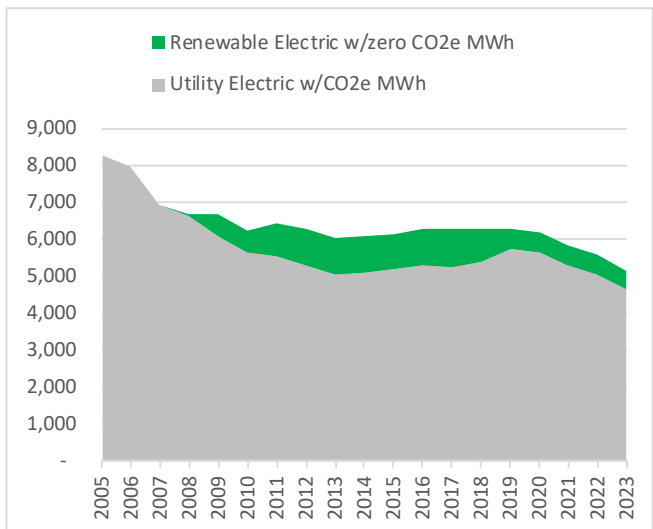
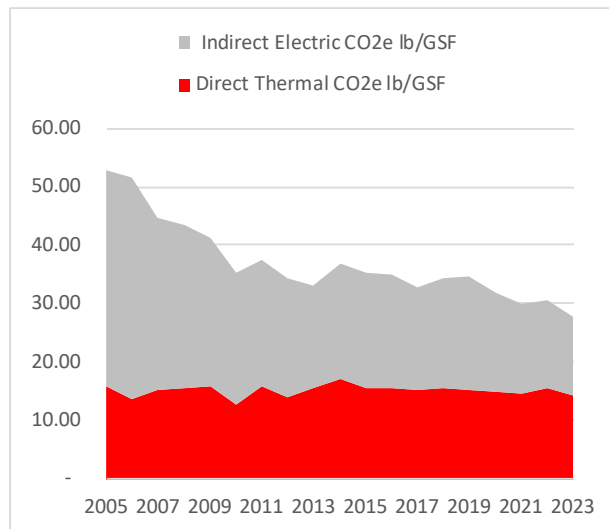
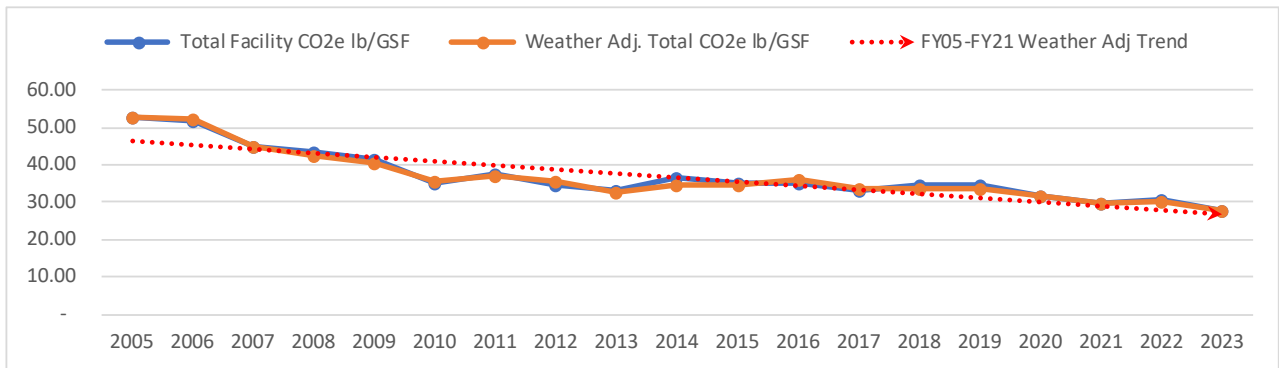
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Stanley CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	411,897	15.94	36.89	52.83	0.0%	44.26	15.94	36.89	52.83	0.0%
2006	411,897	13.81	37.82	51.63	-2.3%	45.56	14.25	37.79	52.05	-1.5%
2007	411,897	15.26	29.51	44.77	-15.3%	44.50	15.46	29.53	44.99	-14.8%
2008	411,897	15.57	27.80	43.38	-17.9%	42.10	14.75	27.47	42.22	-20.1%
2009	411,897	15.84	25.46	41.29	-21.8%	42.50	15.22	25.07	40.29	-23.7%
2010	411,897	12.83	22.32	35.16	-33.5%	45.38	13.24	22.58	35.82	-32.2%
2011	411,897	15.71	21.79	37.50	-29.0%	43.50	15.26	21.70	36.96	-30.0%
2012	411,897	13.90	20.59	34.49	-34.7%	47.63	15.00	20.75	35.75	-32.3%
2013	411,897	15.64	17.47	33.11	-37.3%	42.87	15.09	17.42	32.51	-38.5%
2014	411,897	16.97	19.76	36.73	-30.5%	39.97	15.02	19.44	34.46	-34.8%
2015	411,897	15.42	19.82	35.24	-33.3%	42.20	14.76	19.74	34.50	-34.7%
2016	411,897	15.64	19.31	34.96	-33.8%	46.23	16.50	19.39	35.89	-32.1%
2017	411,897	15.18	17.71	32.89	-37.7%	45.86	15.80	17.72	33.52	-36.6%
2018	411,897	15.42	18.98	34.40	-34.9%	42.67	14.76	18.85	33.61	-36.4%
2019	411,897	15.37	19.37	34.74	-34.2%	41.78	14.49	19.28	33.77	-36.1%
2020	411,897	15.05	16.84	31.89	-39.6%	43.78	14.93	16.86	31.79	-39.8%
2021	411,897	14.53	15.27	29.81	-43.6%	47.24	14.71	15.10	29.81	-43.6%
2022	411,897	15.49	15.20	30.69	-41.9%	43.09	15.10	15.07	30.17	-42.9%
2023	411,897	14.34	13.39	27.73	-47.5%	44.12	14.30	13.38	27.68	-47.6%

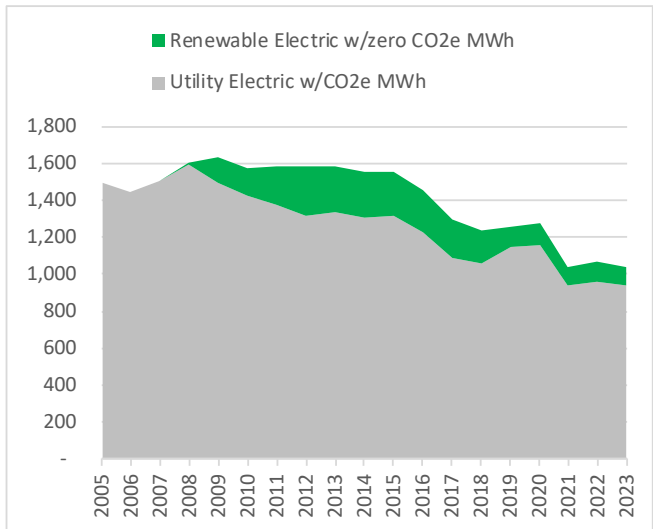
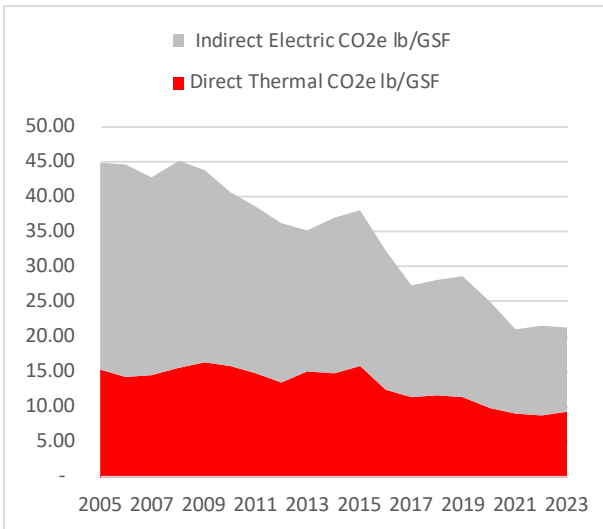
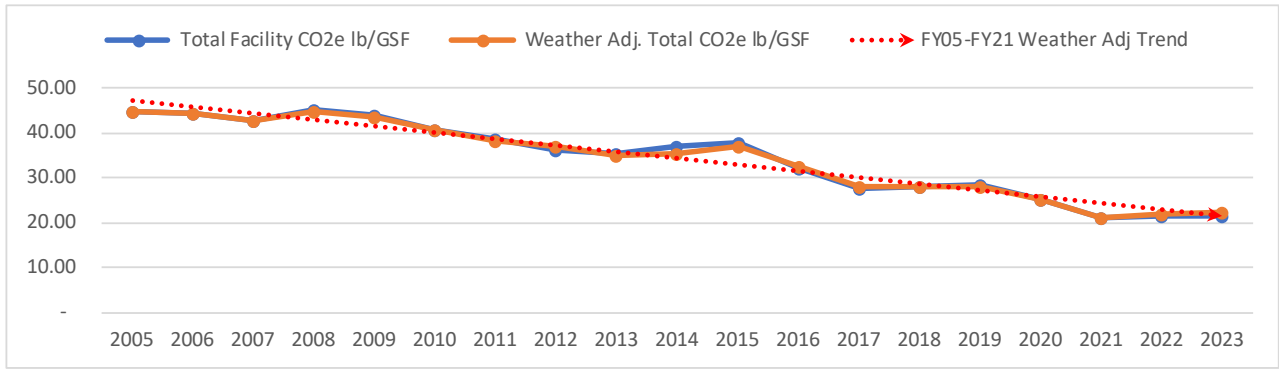
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Sturtevant CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	93,312	15.36	29.49	44.86	0.0%	48.47	15.36	29.49	44.86	0.0%
2006	93,312	14.36	30.13	44.49	-0.8%	50.11	14.35	29.84	44.20	-1.5%
2007	93,312	14.51	28.28	42.79	-4.6%	48.88	14.50	28.16	42.67	-4.9%
2008	93,312	15.69	29.34	45.02	0.4%	47.87	15.75	29.20	44.96	0.2%
2009	93,312	16.24	27.56	43.79	-2.4%	47.26	15.99	27.49	43.48	-3.1%
2010	93,312	15.95	24.79	40.74	-9.2%	49.10	16.13	24.75	40.88	-8.9%
2011	93,312	14.74	23.74	38.48	-14.2%	48.17	14.54	23.49	38.04	-15.2%
2012	93,312	13.48	22.76	36.24	-19.2%	52.24	14.48	22.54	37.02	-17.5%
2013	93,312	14.96	20.32	35.28	-21.3%	48.26	14.78	20.25	35.04	-21.9%
2014	93,312	14.79	22.21	37.00	-17.5%	45.20	13.33	22.04	35.37	-21.1%
2015	93,312	15.77	22.20	37.97	-15.4%	46.08	14.78	22.35	37.13	-17.2%
2016	93,312	12.48	19.69	32.17	-28.3%	50.51	13.17	19.54	32.70	-27.1%
2017	93,312	11.26	16.14	27.40	-38.9%	51.99	12.24	15.83	28.08	-37.4%
2018	93,312	11.71	16.43	28.14	-37.3%	48.73	11.76	16.27	28.03	-37.5%
2019	93,312	11.44	17.08	28.52	-36.4%	47.88	11.09	17.07	28.16	-37.2%
2020	93,312	9.72	15.28	25.00	-44.3%	49.85	10.11	15.23	25.34	-43.5%
2021	93,312	8.95	12.02	20.97	-53.3%	47.24	9.01	11.93	20.94	-53.3%
2022	93,312	8.76	12.81	21.57	-51.9%	50.90	9.12	12.69	21.82	-51.4%
2023	93,312	9.36	11.92	21.28	-52.6%	51.09	10.46	11.75	22.21	-50.5%

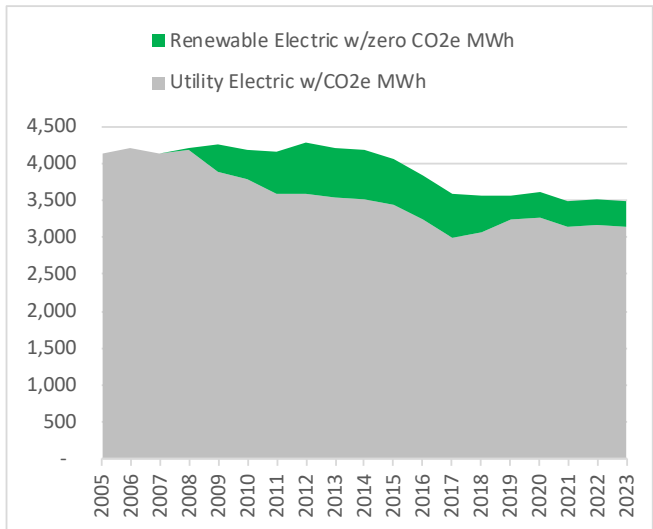
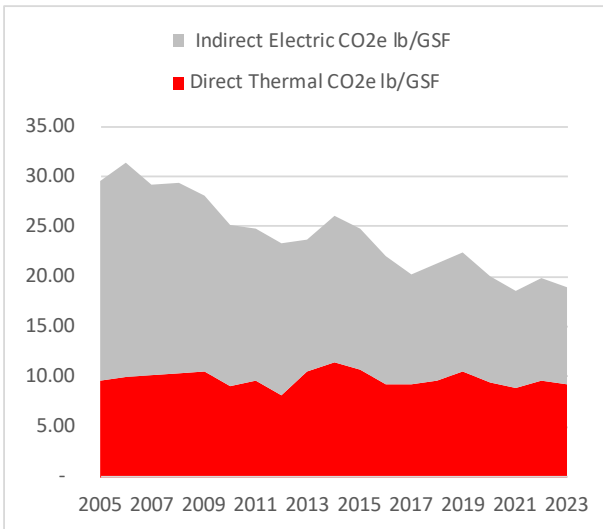
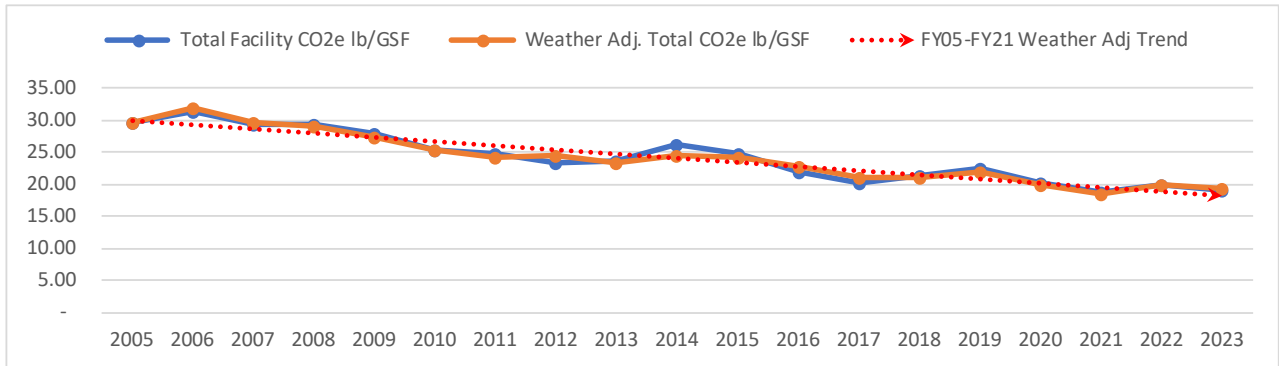
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOC-Taycheedah CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	380,940	9.60	20.00	29.60	0.0%	45.92	9.60	20.00	29.60	0.0%
2006	380,940	9.93	21.49	31.42	6.1%	47.27	10.45	21.51	31.96	8.0%
2007	380,940	10.23	18.96	29.19	-1.4%	46.64	10.47	19.01	29.48	-0.4%
2008	380,940	10.40	18.93	29.33	-0.9%	45.02	10.11	18.82	28.93	-2.3%
2009	380,940	10.49	17.54	28.04	-5.3%	43.47	9.70	17.52	27.22	-8.0%
2010	380,940	9.05	16.14	25.19	-14.9%	45.99	9.40	16.05	25.45	-14.0%
2011	380,940	9.59	15.20	24.79	-16.3%	44.59	9.05	15.09	24.14	-18.5%
2012	380,940	8.23	15.13	23.36	-21.1%	49.86	9.25	15.20	24.46	-17.4%
2013	380,940	10.50	13.21	23.71	-19.9%	45.29	10.02	13.19	23.21	-21.6%
2014	380,940	11.44	14.68	26.12	-11.8%	41.95	9.99	14.61	24.60	-16.9%
2015	380,940	10.63	14.23	24.86	-16.0%	43.98	10.05	14.21	24.26	-18.0%
2016	380,940	9.30	12.72	22.02	-25.6%	48.11	9.96	12.71	22.67	-23.4%
2017	380,940	9.26	10.88	20.14	-32.0%	48.65	10.16	10.86	21.02	-29.0%
2018	380,940	9.66	11.64	21.30	-28.1%	45.77	9.45	11.58	21.02	-29.0%
2019	380,940	10.45	11.89	22.34	-24.5%	44.89	9.99	11.87	21.86	-26.2%
2020	380,940	9.46	10.59	20.05	-32.3%	46.41	9.38	10.59	19.97	-32.5%
2021	380,940	8.82	9.84	18.66	-37.0%	47.24	8.81	9.75	18.56	-37.3%
2022	380,940	9.55	10.35	19.91	-32.8%	46.75	9.61	10.28	19.90	-32.8%
2023	380,940	9.17	9.80	18.98	-35.9%	47.58	9.52	9.79	19.32	-34.8%

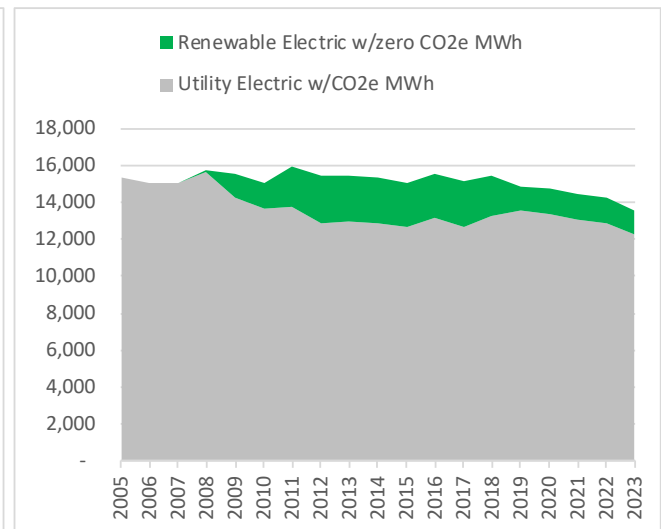
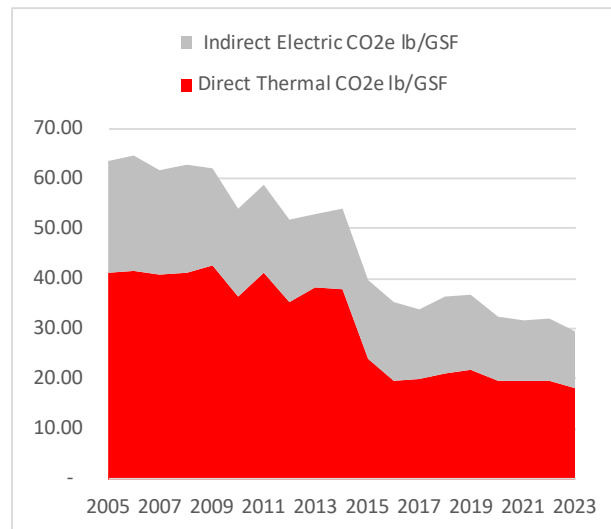
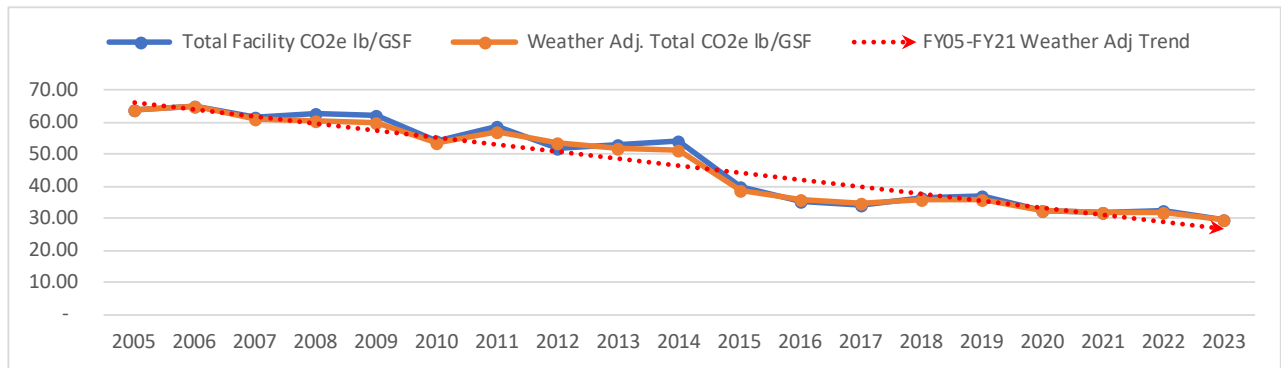
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Waupun CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,260,274	41.10	22.48	63.58	0.0%	48.12	41.10	22.48	63.58	0.0%
2006	1,260,274	41.41	23.27	64.68	1.7%	48.65	41.79	23.16	64.95	2.2%
2007	1,260,274	40.67	20.83	61.49	-3.3%	47.46	40.05	20.77	60.82	-4.3%
2008	1,260,274	41.27	21.30	62.57	-1.6%	46.19	39.19	21.16	60.35	-5.1%
2009	1,260,274	42.68	19.40	62.08	-2.4%	45.66	40.50	19.32	59.82	-5.9%
2010	1,260,274	36.52	17.58	54.10	-14.9%	47.10	35.89	17.59	53.49	-15.9%
2011	1,260,274	40.99	17.64	58.63	-7.8%	46.81	39.52	17.29	56.81	-10.7%
2012	1,260,274	35.50	16.45	51.95	-18.3%	51.51	37.30	16.40	53.70	-15.5%
2013	1,260,274	38.38	14.58	52.97	-16.7%	47.29	37.23	14.49	51.72	-18.7%
2014	1,260,274	37.85	16.29	54.13	-14.9%	44.58	35.11	16.00	51.11	-19.6%
2015	1,260,274	23.99	15.85	39.84	-37.3%	45.84	22.99	15.78	38.77	-39.0%
2016	1,260,274	19.66	15.62	35.29	-44.5%	49.68	20.28	15.61	35.89	-43.6%
2017	1,260,274	20.03	13.95	33.98	-46.6%	49.72	20.73	13.83	34.56	-45.7%
2018	1,260,274	21.16	15.21	36.37	-42.8%	46.66	20.53	15.12	35.64	-43.9%
2019	1,260,274	21.71	14.97	36.67	-42.3%	45.88	20.72	14.84	35.56	-44.1%
2020	1,260,274	19.53	13.04	32.57	-48.8%	48.07	19.54	13.01	32.55	-48.8%
2021	1,260,274	19.46	12.32	31.78	-50.0%	47.24	19.64	12.16	31.81	-50.0%
2022	1,260,274	19.51	12.69	32.20	-49.4%	48.04	19.14	12.47	31.61	-50.3%
2023	1,260,274	17.95	11.54	29.49	-53.6%	48.64	18.17	11.53	29.70	-53.3%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.





# Wisconsin Agency GHG CO2e Emissions

## Department of Health Services

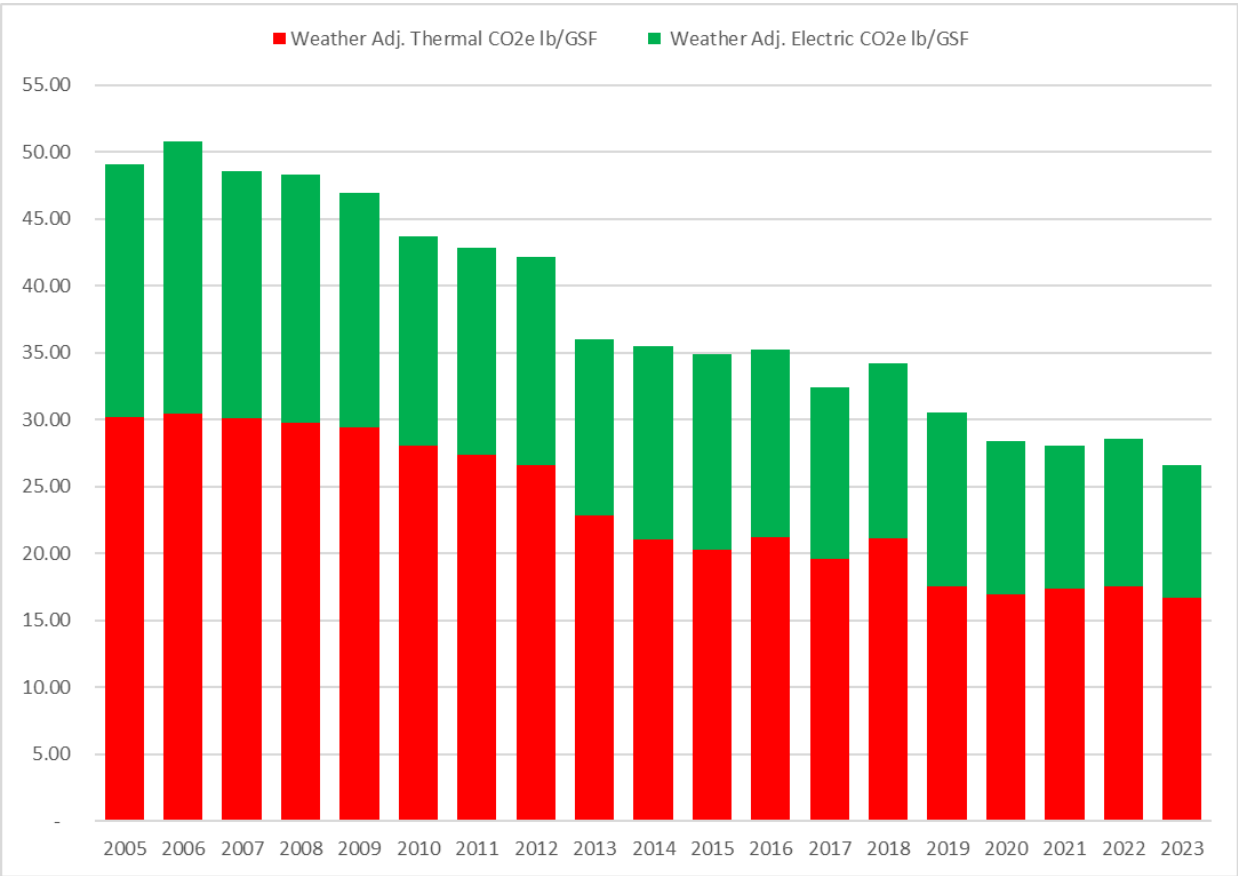


### SCOPE

Includes five facilities:

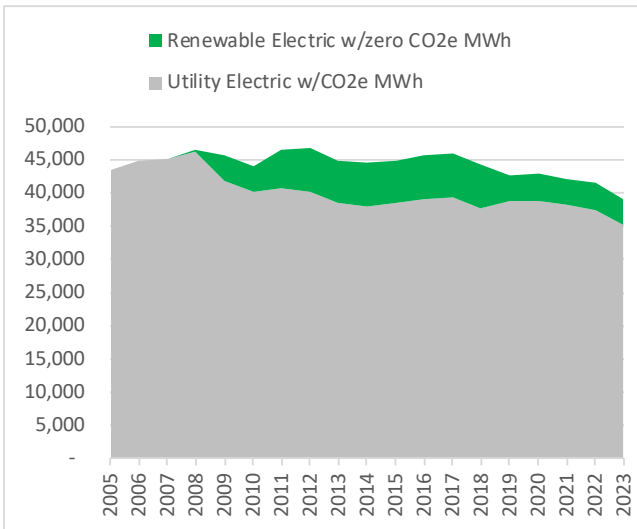
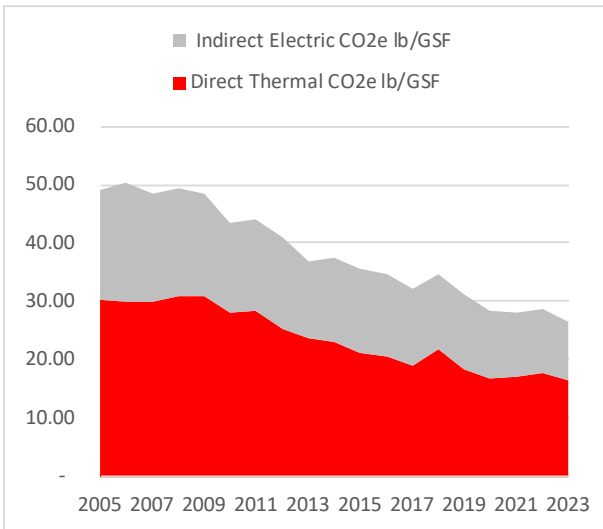
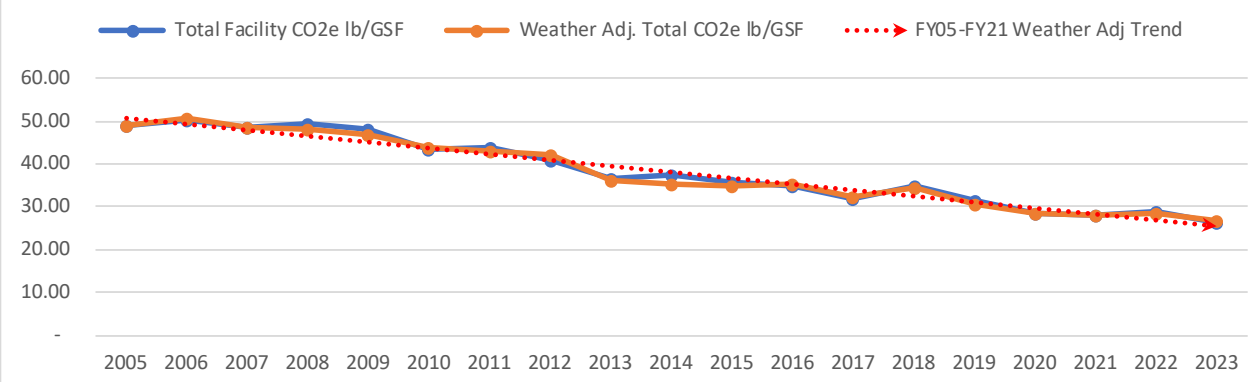
- 1. Mendota Complex - Mendota Mental Health Institute and Center Wisconsin Center;
- 2. Northern Center and Chippewa Valley CTF (DOC);
- 3. Sand Ridge Center;
- 4. Southern Center - Southern Oaks Girls School (DOC), Ellsworth Correctional Center (DOC), and facilities now operated by Department of Veterans Affairs; and
- 5. Winnebago Complex - Winnebago Mental Health Institute and Wisconsin Resources Center.

### Wisconsin Department of Health Services GHG CO2e lbs/GSF:



**Department of Health Services CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

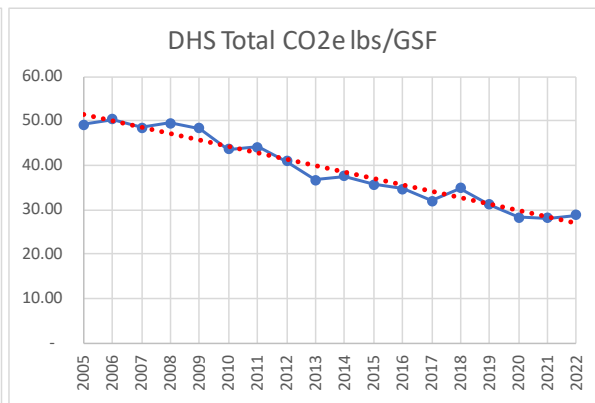
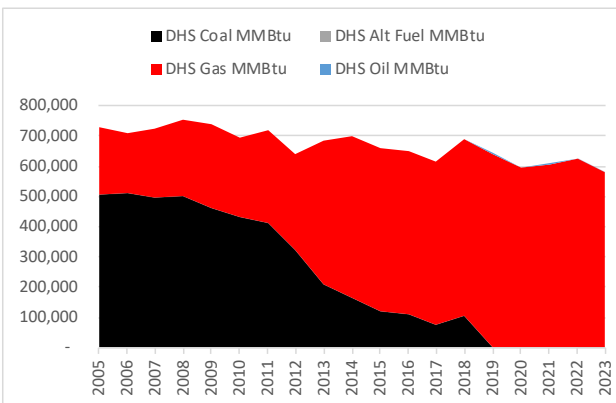
Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	4,247,798	30.22	18.88	49.10	0.0%	46.88	30.22	18.88	49.10	0.0%
2006	4,247,798	29.84	20.58	50.41	2.7%	48.27	30.45	20.36	50.81	3.5%
2007	4,247,798	29.95	18.52	48.48	-1.3%	47.22	30.12	18.43	48.55	-1.1%
2008	4,247,798	30.85	18.69	49.54	0.9%	45.37	29.78	18.53	48.31	-1.6%
2009	4,099,238	30.76	17.55	48.31	-1.6%	44.57	29.41	17.53	46.94	-4.4%
2010	4,198,234	28.08	15.50	43.58	-11.2%	46.59	28.10	15.57	43.67	-11.1%
2011	4,198,234	28.38	15.65	44.03	-10.3%	45.37	27.39	15.48	42.87	-12.7%
2012	4,088,791	25.20	15.76	40.96	-16.6%	50.43	26.61	15.55	42.16	-14.1%
2013	4,145,773	23.54	13.17	36.70	-25.3%	45.81	22.88	13.13	36.00	-26.7%
2014	4,145,773	22.99	14.56	37.56	-23.5%	42.94	21.08	14.41	35.49	-27.7%
2015	4,159,400	21.15	14.55	35.69	-27.3%	44.53	20.27	14.62	34.89	-28.9%
2016	4,159,400	20.61	14.04	34.65	-29.4%	48.65	21.25	13.96	35.21	-28.3%
2017	4,159,400	18.97	13.07	32.05	-34.7%	48.91	19.59	12.87	32.47	-33.9%
2018	4,159,400	21.66	13.15	34.81	-29.1%	45.68	21.16	13.06	34.22	-30.3%
2019	4,159,400	18.23	13.00	31.24	-36.4%	44.85	17.58	13.00	30.58	-37.7%
2020	4,159,400	16.80	11.52	28.32	-42.3%	47.02	16.92	11.47	28.39	-42.2%
2021	4,159,400	17.24	10.89	28.13	-42.7%	47.53	17.38	10.72	28.10	-42.8%
2022	4,159,400	17.60	11.18	28.78	-41.4%	47.04	17.60	10.95	28.54	-41.9%
2023	4,159,400	16.36	10.00	26.36	-46.3%	47.78	16.69	9.93	26.62	-45.8%



**Department of Health Services Boiler Plant Fuel and Electric Use CO2e Emissions**

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DHS Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DHS Total CO2e lbs/GSF
2005	4,247,798	46.88	43,522,885	-	43,522,885	1.84	36,384	58,224	94,608	49.10
2006	4,247,798	48.27	44,822,033	-	44,822,033	1.95	39,645	57,486	97,131	50.41
2007	4,247,798	47.22	44,981,559	-	44,981,559	1.75	35,685	57,716	93,401	48.48
2008	4,247,798	45.37	46,425,119	288,666	46,136,453	1.72	36,016	59,434	95,450	49.54
2009	4,099,238	44.57	45,509,209	3,659,923	41,849,286	1.72	32,631	57,189	89,819	48.31
2010	4,198,234	46.59	44,092,319	3,997,153	40,095,167	1.62	29,517	53,480	82,997	43.58
2011	4,198,234	45.37	46,500,802	5,846,424	40,654,378	1.62	29,800	54,046	83,846	44.03
2012	4,088,791	50.43	46,836,797	6,772,120	40,064,677	1.61	29,222	46,744	75,966	40.96
2013	4,145,773	45.81	44,955,338	6,573,041	38,382,297	1.42	24,757	44,258	69,015	36.70
2014	4,145,773	42.94	44,672,991	6,703,025	37,969,965	1.59	27,384	43,239	70,624	37.56
2015	4,159,400	44.53	44,765,285	6,391,605	38,373,680	1.58	27,449	39,894	67,343	35.69
2016	4,159,400	48.65	45,529,852	6,547,066	38,982,786	1.50	26,488	38,889	65,377	34.65
2017	4,159,400	48.91	45,995,789	6,737,420	39,258,369	1.39	24,663	35,799	60,463	32.05
2018	4,159,400	45.68	44,162,598	6,424,782	37,737,816	1.45	24,803	40,867	65,670	34.81
2019	4,159,400	44.85	42,742,545	3,947,718	38,794,827	1.39	24,530	34,402	58,932	31.24
2020	4,159,400	47.02	42,838,997	3,971,967	38,867,030	1.23	21,738	31,694	53,431	28.32
2021	4,159,400	47.53	42,100,848	3,964,899	38,135,948	1.19	20,550	32,530	53,081	28.13
2022	4,159,400	47.04	41,523,511	4,209,632	37,313,879	1.25	21,089	33,214	54,302	28.78
2023	4,159,400	47.78	39,126,176	4,012,328	35,113,848	1.19	18,874	30,866	49,740	26.36

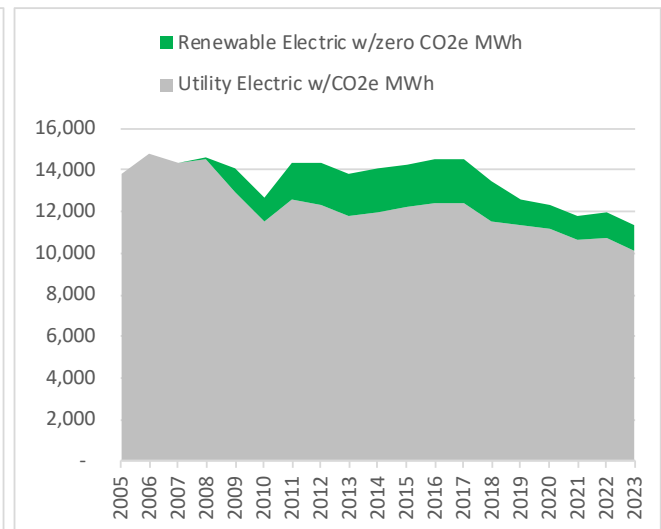
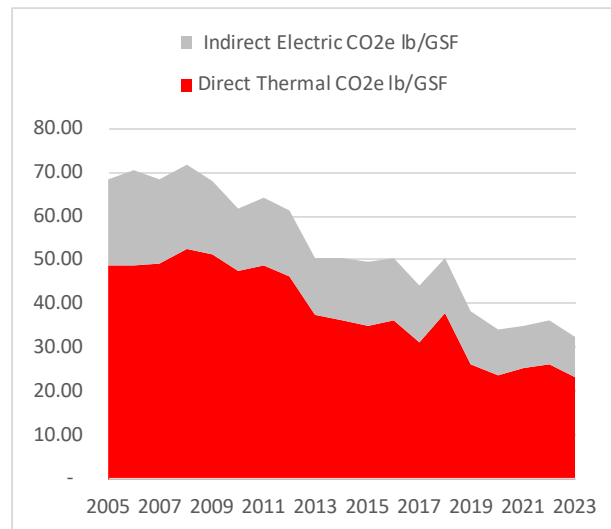
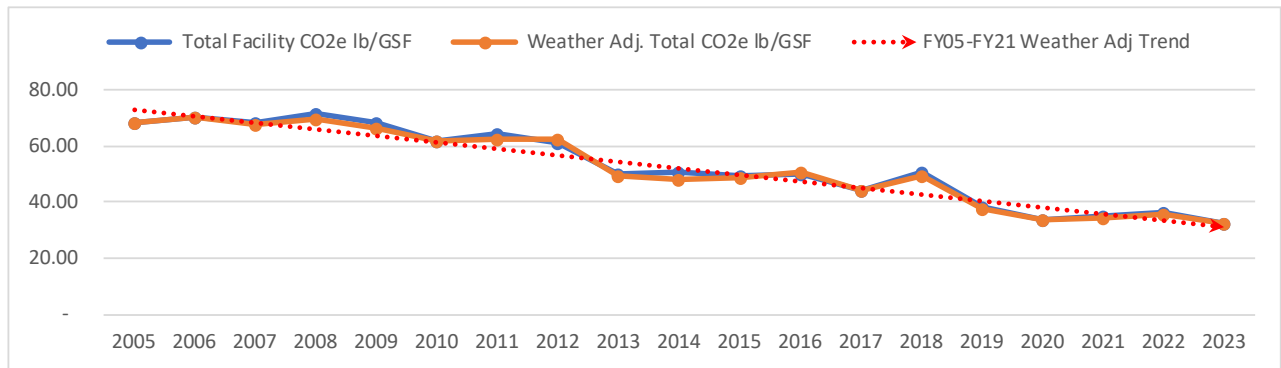
Fiscal Year	DHS Net Thermal MMBtu	DHS Plant Reports MMBtu w/Sales	DHS Coal MMBtu	DHS Alt Fuel MMBtu	DHS Gas MMBtu	DHS Oil MMBtu	DHS Plant Reports MMBtu w/Sales	DHS Boiler Fuel Based Emissions lbs	DHS Boiler Fuel Emissions lb/MMBtu	DHS Net Thermal MMBtu CO2e Metric Tons
2005	718,790	729,546	505,237	-	225,038	165	729,546	59,096	178.58	58,224
2006	690,119	699,959	512,299	-	197,917	34	699,959	58,306	183.64	57,486
2007	710,637	719,199	497,519	-	224,943	727	719,199	58,411	179.05	57,716
2008	737,301	746,048	503,370	-	248,079	98	746,048	60,139	177.72	59,434
2009	727,510	735,825	462,466	-	276,590	186	735,825	57,842	173.30	57,189
2010	678,947	688,925	432,788	-	261,573	40	688,925	54,266	173.65	53,480
2011	709,150	717,242	412,440	-	304,729	119	717,242	54,663	168.02	54,046
2012	636,498	639,344	322,819	504	316,785	-	639,344	46,953	161.91	46,744
2013	677,362	685,522	209,044	-	476,478	-	685,522	44,791	144.05	44,258
2014	689,803	697,821	166,733	-	531,087	-	697,821	43,742	138.19	43,239
2015	661,798	662,304	118,565	-	543,478	260	662,304	39,924	132.90	39,894
2016	647,214	647,730	112,873	-	534,700	157	647,730	38,920	132.47	38,889
2017	613,803	613,803	78,183	-	537,101	8	613,803	35,799	128.58	35,799
2018	687,983	687,983	103,580	-	586,868	780	687,983	40,867	130.96	40,867
2019	645,627	645,627	71	-	638,809	6,746	645,627	34,402	117.47	34,402
2020	596,815	596,815	71	-	595,863	880	596,815	31,694	117.08	31,694
2021	610,529	610,529	42	-	604,135	6,352	610,529	32,530	117.47	32,530
2022	625,133	625,133	-	-	623,263	1,870	625,133	33,214	117.13	33,214
2023	580,970	580,970	-	-	579,299	1,671	580,970	30,866	117.13	30,866



### DHS-Mendota CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,313,997	48.92	19.36	68.29	0.0%	48.12	48.92	19.36	68.29	0.0%
2006	1,313,997	48.59	21.90	70.49	3.2%	48.65	48.43	21.73	70.15	2.7%
2007	1,313,997	49.19	19.03	68.22	-0.1%	47.46	48.62	19.00	67.61	-1.0%
2008	1,313,997	52.60	18.99	71.59	4.8%	46.19	50.63	18.88	69.51	1.8%
2009	1,313,997	51.12	16.91	68.03	-0.4%	45.66	49.33	16.93	66.26	-3.0%
2010	1,313,997	47.66	14.19	61.85	-9.4%	47.10	47.23	14.28	61.51	-9.9%
2011	1,313,997	48.92	15.43	64.34	-5.8%	46.81	47.36	15.28	62.65	-8.3%
2012	1,313,997	46.41	15.06	61.47	-10.0%	51.51	47.58	14.85	62.42	-8.6%
2013	1,313,997	37.49	12.80	50.29	-26.4%	47.29	36.45	12.82	49.27	-27.8%
2014	1,313,997	36.06	14.50	50.56	-26.0%	44.58	33.70	14.36	48.06	-29.6%
2015	1,320,211	35.07	14.60	49.67	-27.3%	45.84	33.98	14.61	48.59	-28.8%
2016	1,320,211	36.20	14.08	50.28	-26.4%	49.68	36.50	14.05	50.54	-26.0%
2017	1,320,211	31.12	12.98	44.10	-35.4%	49.72	30.94	12.93	43.87	-35.8%
2018	1,320,211	37.81	12.65	50.46	-26.1%	46.66	36.83	12.62	49.45	-27.6%
2019	1,320,211	26.33	12.02	38.35	-43.8%	45.88	25.35	12.11	37.46	-45.2%
2020	1,320,211	23.62	10.40	34.03	-50.2%	48.07	23.59	10.37	33.96	-50.3%
2021	1,320,211	25.20	9.59	34.79	-49.1%	47.61	24.67	9.56	34.23	-49.9%
2022	1,320,211	26.04	10.16	36.20	-47.0%	48.04	25.56	10.08	35.64	-47.8%
2023	1,320,211	23.23	9.12	32.35	-52.6%	48.64	23.38	9.09	32.47	-52.5%

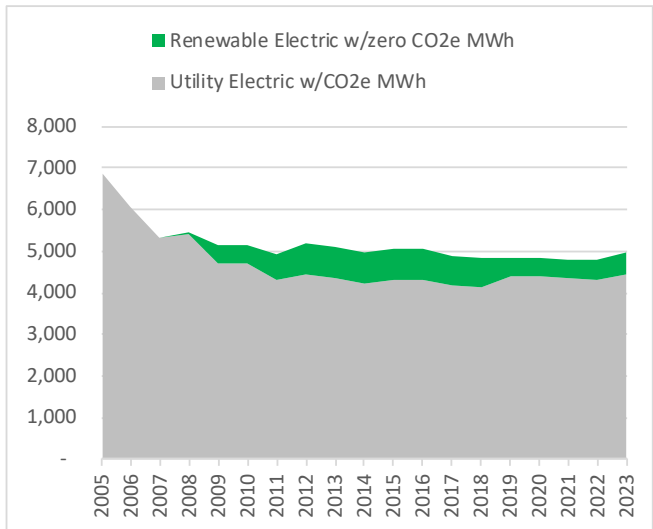
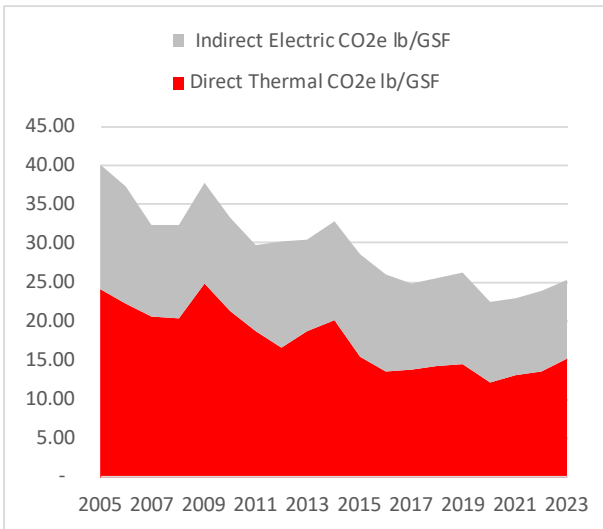
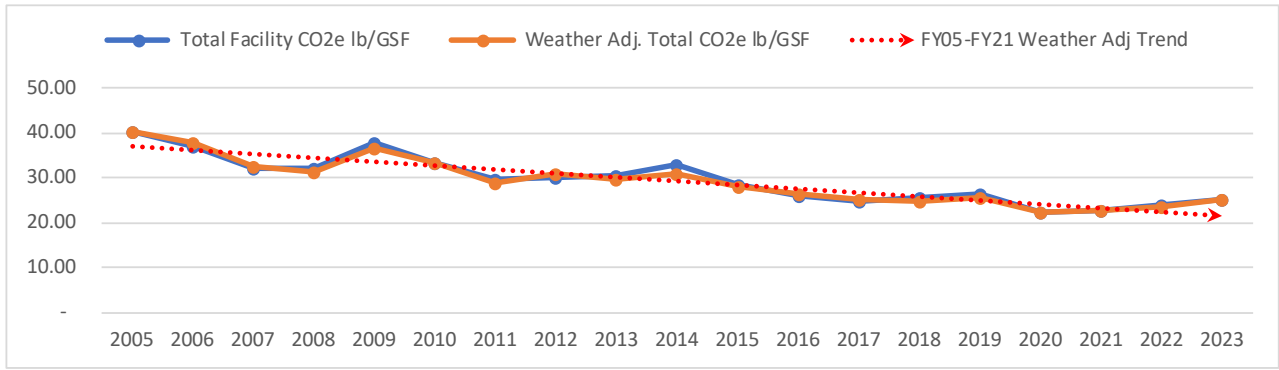
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Northern Center CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	792,392	24.23	15.98	40.21	0.0%	45.85	24.23	15.98	40.21	0.0%
2006	792,392	22.27	14.93	37.19	-7.5%	47.80	23.18	14.65	37.83	-5.9%
2007	792,392	20.49	11.79	32.29	-19.7%	46.32	20.81	11.67	32.48	-19.2%
2008	792,392	20.45	11.77	32.23	-19.9%	43.27	19.58	11.68	31.26	-22.3%
2009	632,669	24.92	12.80	37.72	-6.2%	42.97	23.55	12.85	36.39	-9.5%
2010	632,669	21.24	12.02	33.26	-17.3%	45.29	21.09	12.08	33.17	-17.5%
2011	632,669	18.80	11.04	29.84	-25.8%	43.68	17.65	10.98	28.63	-28.8%
2012	523,226	16.54	13.62	30.16	-25.0%	49.02	17.49	13.49	30.99	-22.9%
2013	523,226	18.62	11.81	30.43	-24.3%	43.85	17.68	11.87	29.55	-26.5%
2014	523,226	20.06	12.86	32.92	-18.1%	41.37	18.02	12.77	30.79	-23.4%
2015	523,226	15.50	13.03	28.53	-29.1%	43.42	14.73	13.08	27.81	-30.8%
2016	523,226	13.64	12.35	25.99	-35.4%	47.61	14.17	12.29	26.46	-34.2%
2017	523,226	13.79	11.05	24.84	-38.2%	47.08	14.08	10.94	25.02	-37.8%
2018	523,226	14.20	11.42	25.62	-36.3%	42.94	13.44	11.48	24.91	-38.0%
2019	523,226	14.52	11.73	26.25	-34.7%	42.23	13.62	11.86	25.48	-36.6%
2020	523,226	12.12	10.35	22.47	-44.1%	45.39	12.04	10.35	22.38	-44.3%
2021	523,226	12.96	9.90	22.86	-43.1%	46.03	12.97	9.78	22.75	-43.4%
2022	523,226	13.58	10.22	23.79	-40.8%	44.82	13.30	10.09	23.39	-41.8%
2023	523,226	15.14	10.07	25.21	-37.3%	45.80	15.08	9.99	25.07	-37.7%

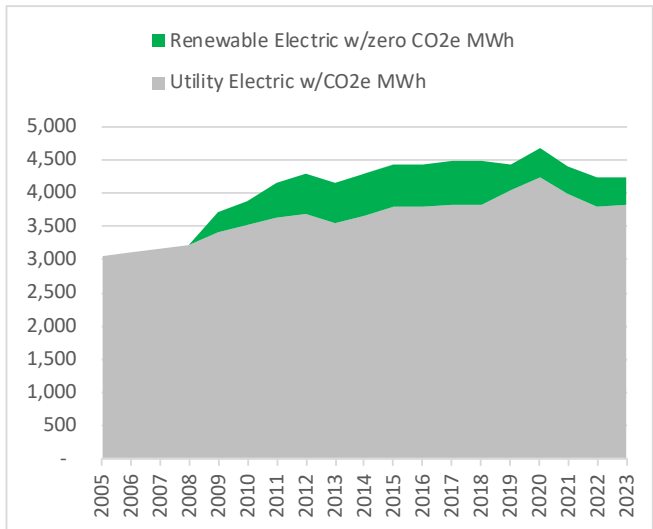
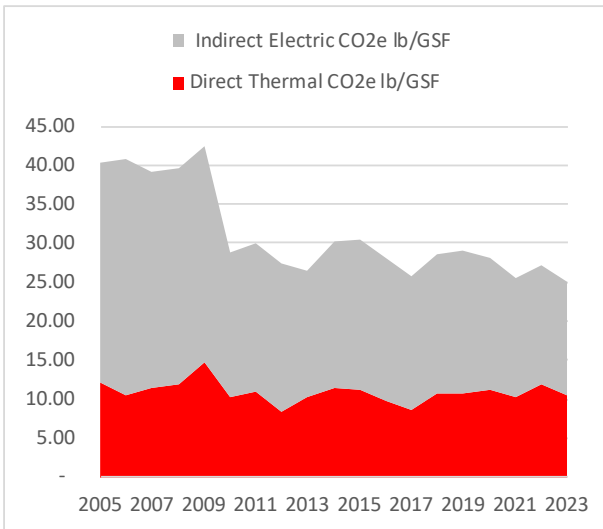
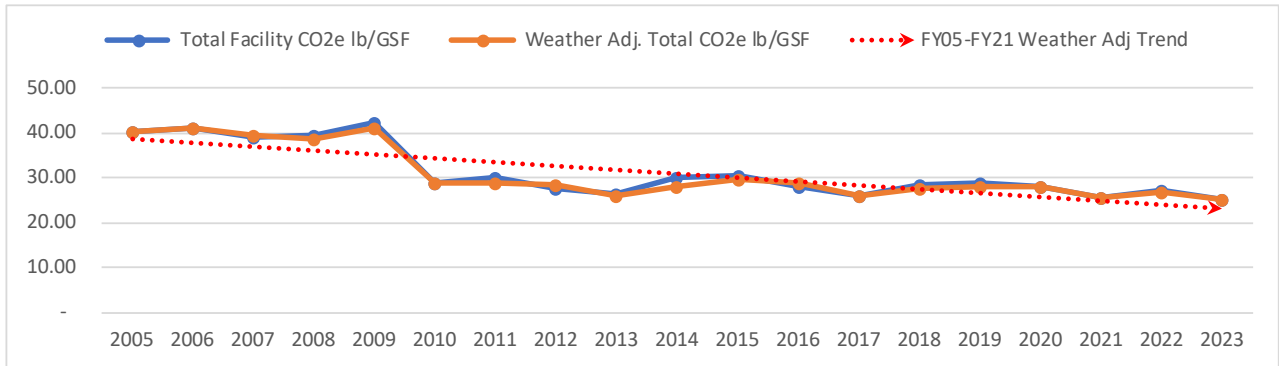
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Sand Ridge CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	198,669	12.03	28.22	40.25	0.0%	46.04	12.03	28.22	40.25	0.0%
2006	198,669	10.45	30.45	40.90	1.6%	47.49	10.74	30.49	41.23	2.4%
2007	198,669	11.36	27.72	39.07	-2.9%	46.81	11.56	27.71	39.27	-2.4%
2008	198,669	11.86	27.76	39.62	-1.6%	44.51	11.05	27.52	38.57	-4.2%
2009	209,832	14.60	27.87	42.47	5.5%	43.51	13.37	27.73	41.10	2.1%
2010	308,828	10.24	18.52	28.76	-28.5%	45.49	10.07	18.58	28.66	-28.8%
2011	308,828	10.91	19.02	29.93	-25.6%	43.59	9.97	18.88	28.84	-28.3%
2012	308,828	8.34	19.17	27.51	-31.7%	49.50	9.02	19.32	28.34	-29.6%
2013	308,828	10.18	16.34	26.52	-34.1%	44.37	9.60	16.27	25.87	-35.7%
2014	308,828	11.34	18.80	30.14	-25.1%	41.62	9.76	18.39	28.15	-30.1%
2015	308,828	11.19	19.35	30.54	-24.1%	43.36	10.37	19.45	29.81	-25.9%
2016	308,828	9.77	18.35	28.12	-30.1%	47.34	10.27	18.37	28.64	-28.8%
2017	308,828	8.70	17.14	25.84	-35.8%	47.13	9.02	17.11	26.13	-35.1%
2018	308,828	10.65	17.92	28.57	-29.0%	44.30	9.92	17.83	27.75	-31.0%
2019	308,828	10.81	18.18	29.00	-28.0%	43.35	10.00	18.14	28.14	-30.1%
2020	308,828	11.20	16.92	28.11	-30.1%	45.35	10.95	16.98	27.93	-30.6%
2021	308,828	10.21	15.29	25.50	-36.6%	45.89	10.21	15.16	25.37	-37.0%
2022	308,828	11.79	15.33	27.11	-32.6%	44.68	11.46	15.29	26.74	-33.5%
2023	308,828	10.48	14.63	25.11	-37.6%	45.80	10.51	14.76	25.27	-37.2%

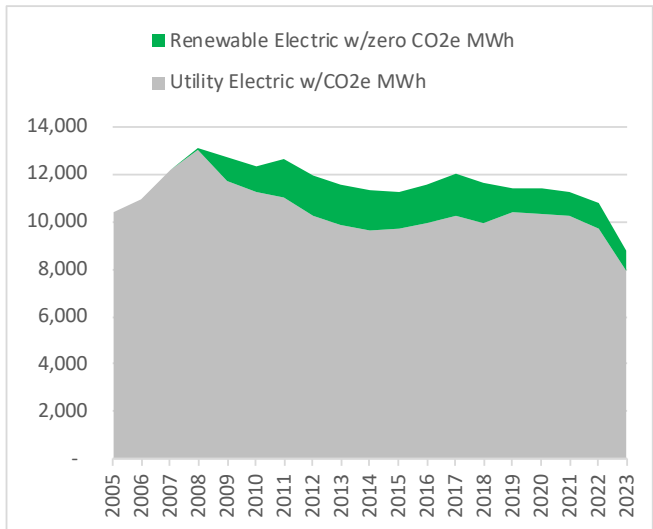
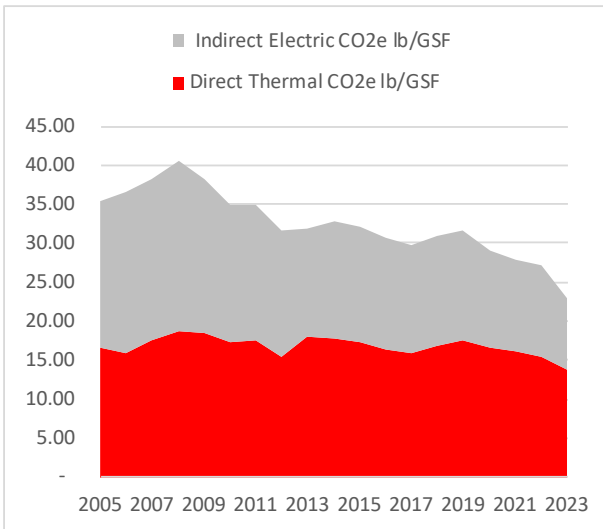
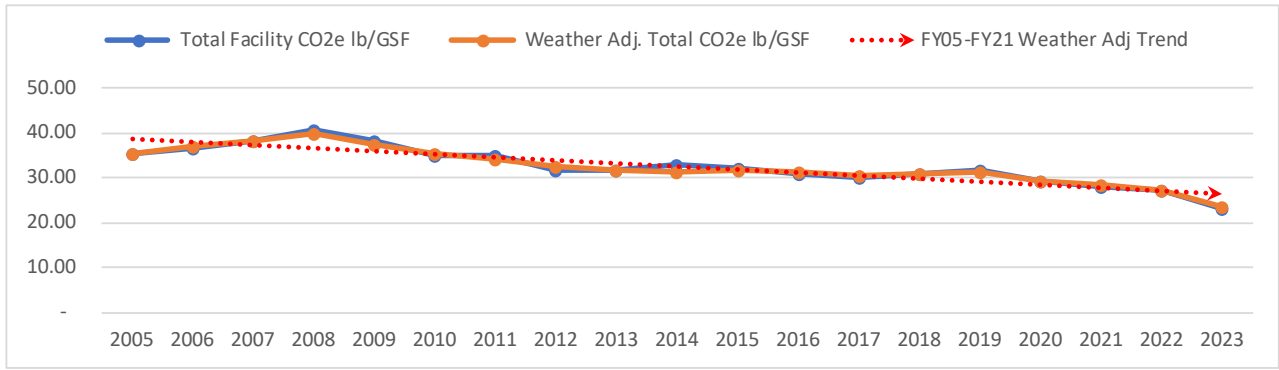
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Southern Center CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	1,023,235	16.70	18.72	35.42	0.0%	48.47	16.70	18.72	35.42	0.0%
2006	1,023,235	15.83	20.79	36.63	3.4%	50.11	16.50	20.45	36.95	4.3%
2007	1,023,235	17.51	20.77	38.28	8.1%	48.88	17.73	20.58	38.31	8.2%
2008	1,023,235	18.64	21.85	40.49	14.3%	47.87	18.18	21.55	39.73	12.2%
2009	1,023,235	18.50	19.62	38.11	7.6%	47.26	17.97	19.48	37.45	5.7%
2010	1,023,235	17.18	17.81	34.99	-1.2%	49.10	17.47	17.75	35.22	-0.6%
2011	1,023,235	17.45	17.41	34.86	-1.6%	48.17	17.17	17.04	34.22	-3.4%
2012	1,023,235	15.50	16.09	31.59	-10.8%	52.24	16.73	15.73	32.45	-8.4%
2013	1,023,235	18.11	13.71	31.83	-10.1%	48.26	17.92	13.58	31.50	-11.1%
2014	1,023,235	17.80	14.99	32.79	-7.4%	45.20	16.39	14.93	31.32	-11.6%
2015	1,023,235	17.25	14.90	32.15	-9.2%	46.08	16.42	15.06	31.48	-11.1%
2016	1,023,235	16.29	14.48	30.77	-13.1%	50.51	17.04	14.30	31.34	-11.5%
2017	1,023,235	16.00	13.86	29.86	-15.7%	51.99	17.13	13.34	30.47	-14.0%
2018	1,023,235	16.87	14.04	30.91	-12.8%	48.73	16.88	13.83	30.71	-13.3%
2019	1,023,235	17.50	14.11	31.61	-10.8%	47.88	17.22	13.97	31.19	-11.9%
2020	1,023,235	16.60	12.45	29.05	-18.0%	49.85	17.12	12.29	29.41	-17.0%
2021	1,023,235	16.02	11.85	27.87	-21.3%	50.84	16.82	11.47	28.29	-20.1%
2022	1,023,235	15.36	11.78	27.14	-23.4%	50.90	15.99	11.29	27.29	-23.0%
2023	1,023,235	13.77	9.15	22.92	-35.3%	51.09	14.38	8.97	23.36	-34.1%

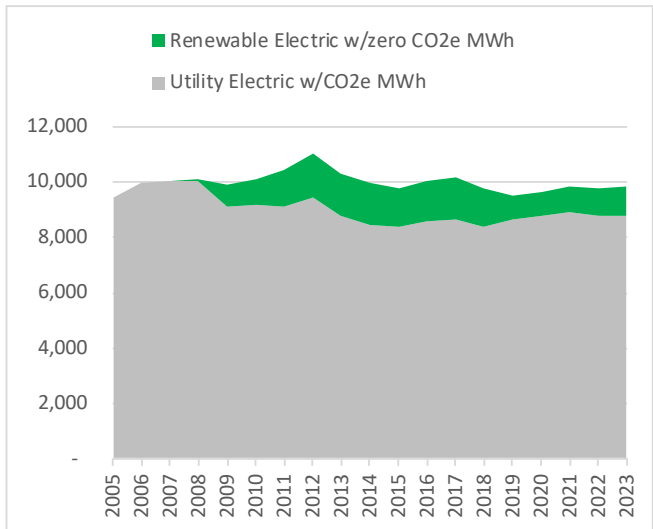
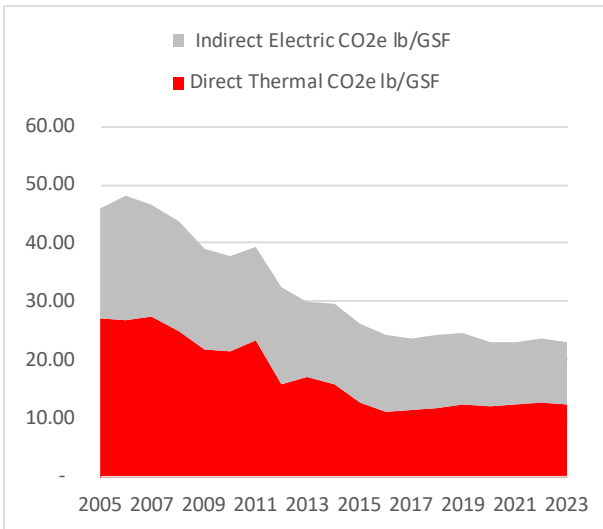
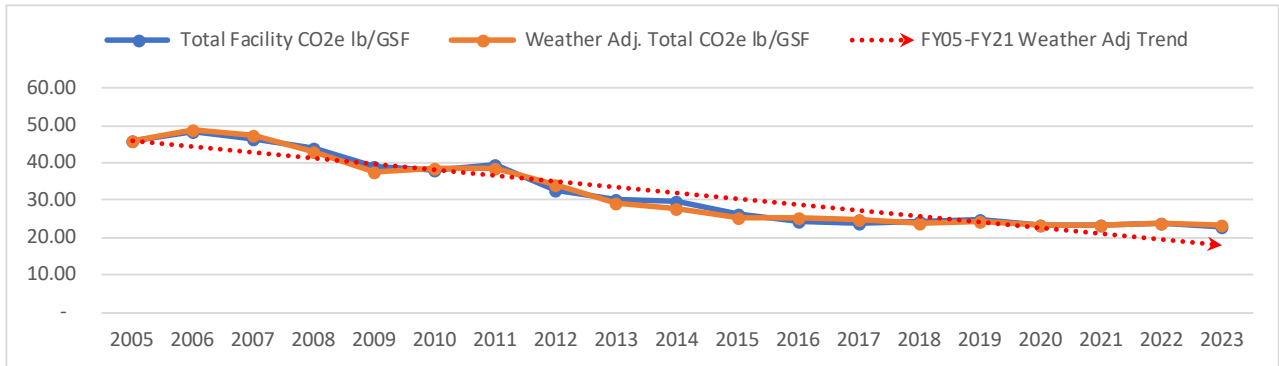
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Winnebago CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	919,505	27.11	18.86	45.97	0.0%	45.92	27.11	18.86	45.97	0.0%
2006	919,505	26.96	21.18	48.13	4.7%	47.27	28.01	21.02	49.03	6.7%
2007	919,505	27.39	19.10	46.49	1.1%	46.64	28.21	19.06	47.27	2.8%
2008	919,505	24.95	18.75	43.70	-4.9%	45.02	24.24	18.61	42.86	-6.8%
2009	919,505	21.95	17.07	39.02	-15.1%	43.47	20.42	17.10	37.52	-18.4%
2010	919,505	21.61	16.19	37.80	-17.8%	45.99	21.96	16.35	38.31	-16.7%
2011	919,505	23.34	16.05	39.39	-14.3%	44.59	22.48	15.97	38.46	-16.3%
2012	919,505	15.99	16.45	32.44	-29.4%	49.86	17.67	16.27	33.93	-26.2%
2013	976,487	17.13	12.80	29.94	-34.9%	45.29	16.61	12.75	29.36	-36.1%
2014	976,487	15.98	13.77	29.75	-35.3%	41.95	14.27	13.55	27.82	-39.5%
2015	983,900	12.63	13.43	26.05	-43.3%	43.98	12.03	13.48	25.51	-44.5%
2016	983,900	11.31	13.07	24.37	-47.0%	48.11	12.16	12.99	25.15	-45.3%
2017	983,900	11.54	12.19	23.73	-48.4%	48.65	12.69	12.01	24.70	-46.3%
2018	983,900	11.93	12.31	24.24	-47.3%	45.77	11.73	12.19	23.91	-48.0%
2019	983,900	12.45	12.21	24.66	-46.4%	44.89	12.04	12.17	24.21	-47.3%
2020	983,900	12.10	10.99	23.09	-49.8%	46.41	12.21	10.97	23.18	-49.6%
2021	983,900	12.32	10.79	23.11	-49.7%	47.28	12.78	10.59	23.37	-49.2%
2022	983,900	12.58	11.13	23.71	-48.4%	46.75	12.80	10.85	23.64	-48.6%
2023	983,900	12.33	10.59	22.93	-50.1%	47.58	12.91	10.51	23.42	-49.1%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.





# Wisconsin Agency GHG CO2e Emissions

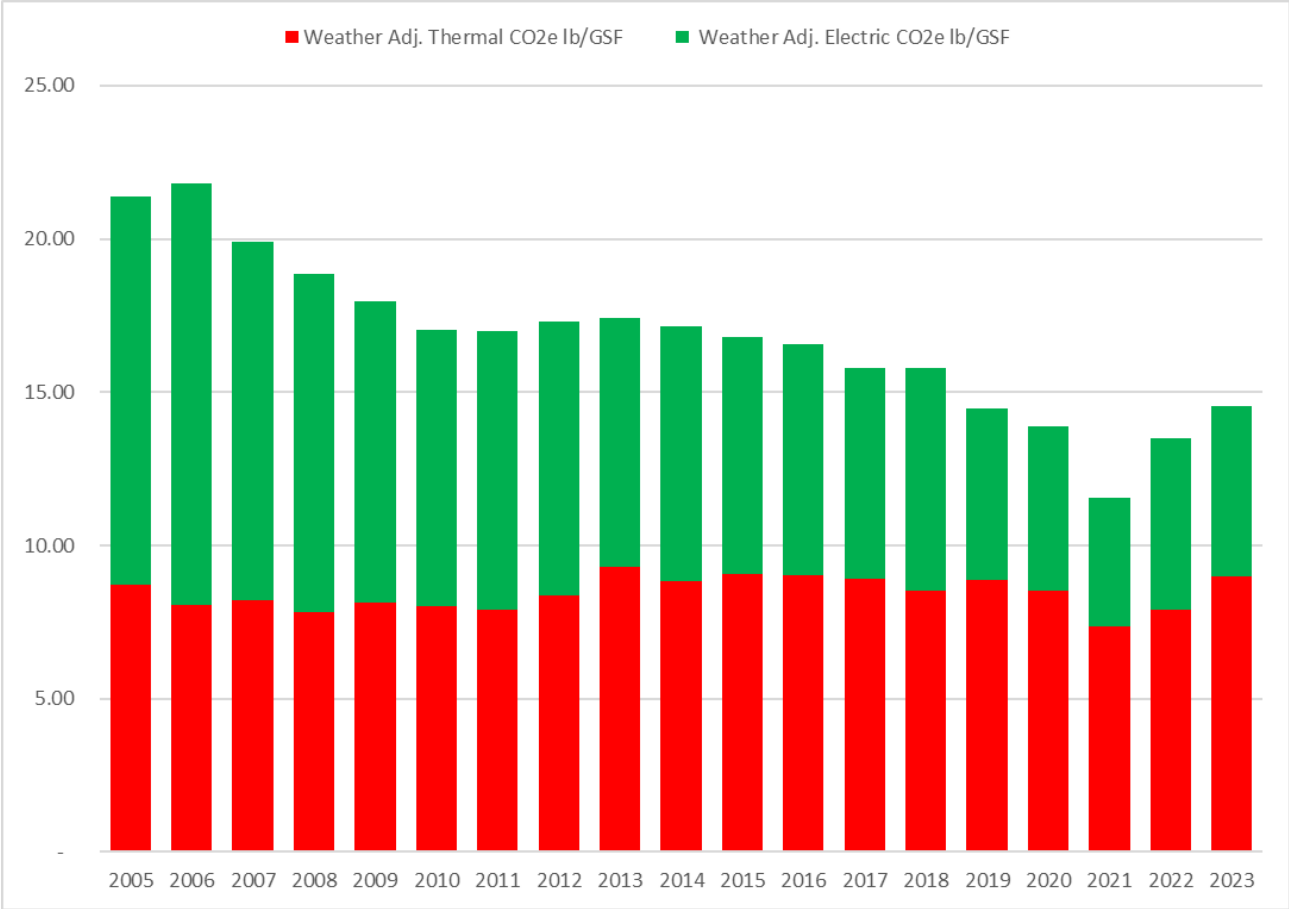
## Department of Public Instruction



### SCOPE

Includes the Wisconsin School for the Deaf (Delavan) and the Wisconsin School for the Blind and Visually Impaired (Janesville).

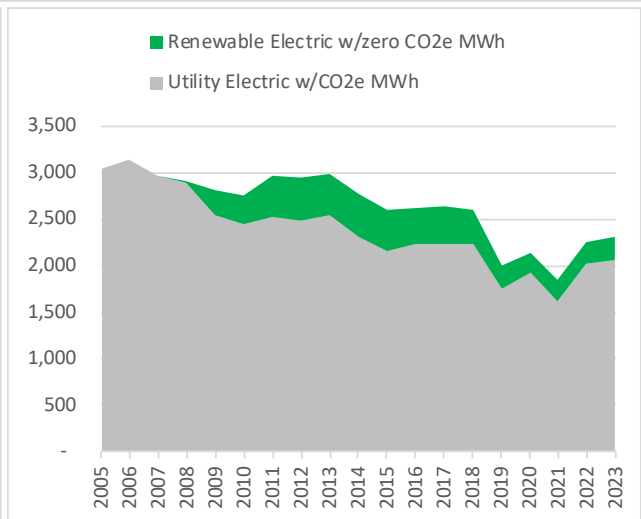
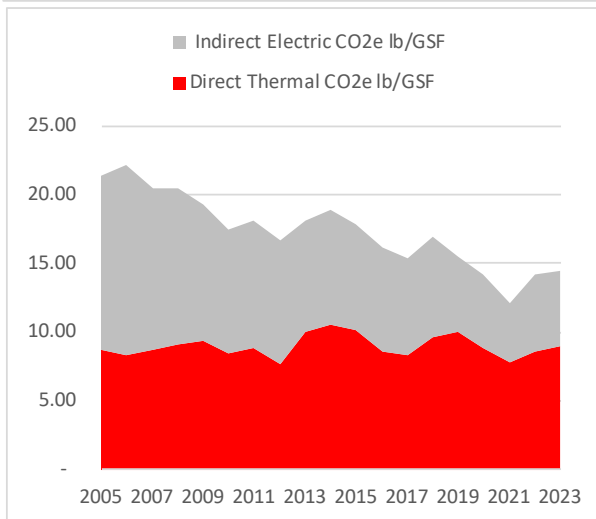
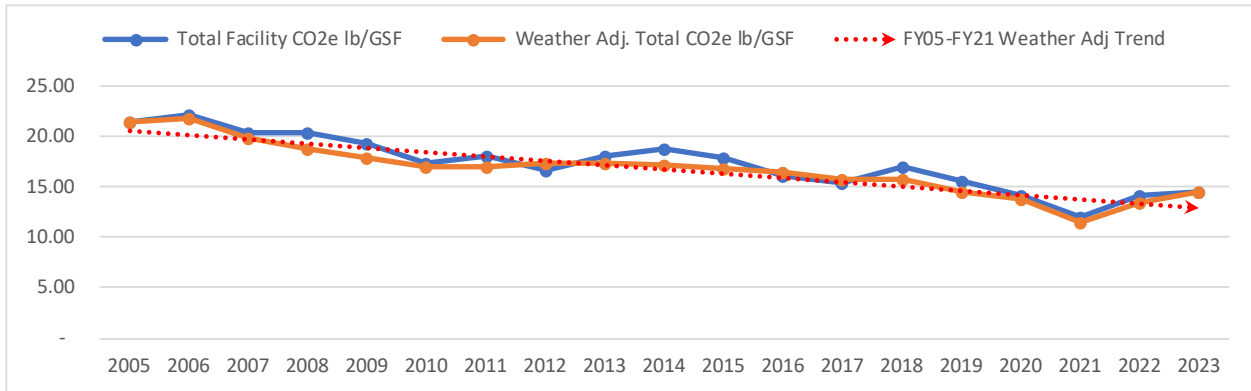
### Wisconsin Department of Public Instruction GHG CO2e lbs/GSF:



**Department of Public Instruction CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	441,183	8.72	12.68	21.40	0.0%	48.12	8.72	12.68	21.40	0.0%
2006	441,183	8.26	13.88	22.14	3.4%	48.65	8.07	13.74	21.81	1.9%
2007	441,183	8.66	11.73	20.39	-4.7%	47.46	8.22	11.68	19.89	-7.0%
2008	441,183	9.14	11.26	20.39	-4.7%	46.19	7.84	11.03	18.87	-11.8%
2009	441,183	9.37	9.89	19.26	-10.0%	45.66	8.14	9.82	17.96	-16.1%
2010	441,183	8.41	9.00	17.41	-18.6%	47.10	8.01	9.03	17.04	-20.4%
2011	441,183	8.80	9.25	18.05	-15.7%	46.81	7.91	9.09	17.00	-20.5%
2012	441,183	7.64	9.06	16.70	-21.9%	51.51	8.37	8.92	17.30	-19.2%
2013	441,183	9.97	8.17	18.14	-15.2%	47.29	9.30	8.10	17.40	-18.7%
2014	441,183	10.52	8.33	18.85	-11.9%	44.58	8.83	8.31	17.14	-19.9%
2015	441,183	10.16	7.72	17.87	-16.5%	45.84	9.08	7.72	16.80	-21.5%
2016	441,183	8.53	7.57	16.10	-24.8%	49.68	9.03	7.52	16.55	-22.6%
2017	441,183	8.37	6.98	15.35	-28.3%	49.72	8.90	6.90	15.79	-26.2%
2018	441,183	9.61	7.34	16.94	-20.8%	46.66	8.51	7.28	15.79	-26.2%
2019	441,183	9.98	5.56	15.54	-27.4%	45.88	8.88	5.57	14.45	-32.5%
2020	441,183	8.80	5.40	14.20	-33.7%	48.07	8.51	5.36	13.87	-35.2%
2021	441,183	7.75	4.33	12.08	-43.5%	47.61	7.34	4.23	11.57	-45.9%
2022	441,183	8.53	5.68	14.21	-33.6%	48.04	7.91	5.57	13.48	-37.0%
2023	441,183	8.94	5.54	14.48	-32.3%	48.64	9.00	5.55	14.55	-32.0%

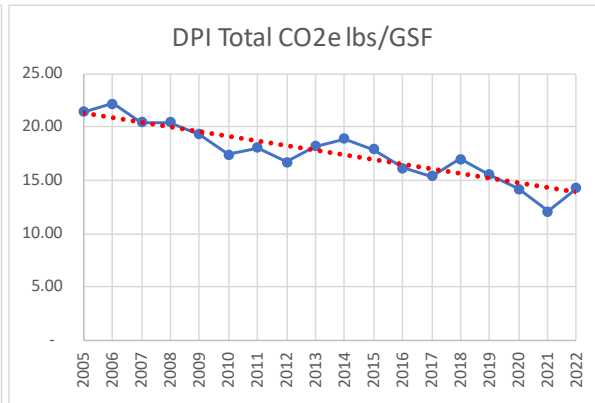
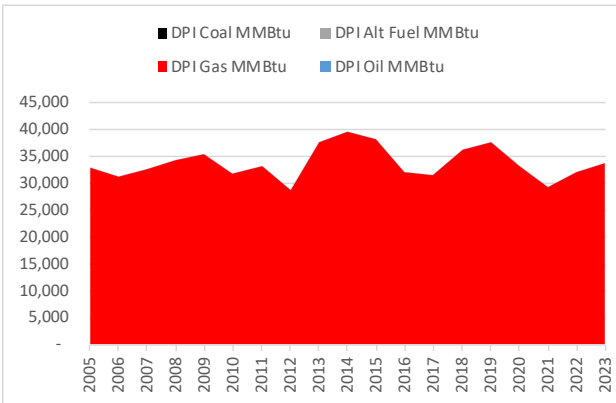
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**Department of Public Instruction Boiler Plant Fuel and Electric Use CO2e Emissions**

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DPI Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DPI Total CO2e lbs/GSF
2005	441,183	48.12	3,035,708	-	3,035,708	1.84	2,538	1,745	4,282	21.40
2006	441,183	48.65	3,140,249	-	3,140,249	1.95	2,778	1,652	4,430	22.14
2007	441,183	47.46	2,959,270	-	2,959,270	1.75	2,348	1,732	4,080	20.39
2008	441,183	46.19	2,907,980	22,000	2,885,980	1.72	2,253	1,828	4,081	20.39
2009	441,183	45.66	2,816,466	278,932	2,537,534	1.72	1,979	1,876	3,854	19.26
2010	441,183	47.10	2,752,309	304,633	2,447,676	1.62	1,802	1,682	3,484	17.41
2011	441,183	46.81	2,970,567	445,570	2,524,997	1.62	1,851	1,761	3,612	18.05
2012	441,183	51.51	2,940,301	453,560	2,486,741	1.61	1,814	1,529	3,343	16.70
2013	441,183	47.29	2,974,984	440,227	2,534,757	1.42	1,635	1,996	3,631	18.14
2014	441,183	44.58	2,763,596	451,889	2,311,707	1.59	1,667	2,105	3,772	18.85
2015	441,183	45.84	2,604,980	445,926	2,159,054	1.58	1,544	2,033	3,577	17.87
2016	441,183	49.68	2,621,051	392,221	2,228,830	1.50	1,514	1,708	3,222	16.10
2017	441,183	49.72	2,627,752	402,893	2,224,859	1.39	1,398	1,675	3,072	15.35
2018	441,183	46.66	2,600,248	366,591	2,233,658	1.45	1,468	1,922	3,390	16.94
2019	441,183	45.88	1,991,750	232,979	1,758,771	1.39	1,112	1,997	3,109	15.54
2020	441,183	48.07	2,145,181	214,416	1,930,765	1.23	1,080	1,761	2,841	14.20
2021	441,183	47.61	1,843,185	234,609	1,608,575	1.19	867	1,551	2,417	12.08
2022	441,183	48.04	2,260,253	249,091	2,011,162	1.25	1,137	1,708	2,844	14.21
2023	441,183	48.64	2,300,964	237,416	2,063,548	1.19	1,109	1,789	2,898	14.48

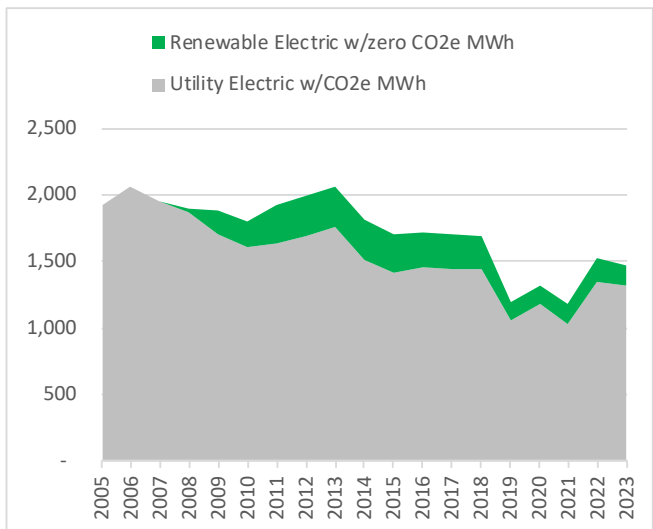
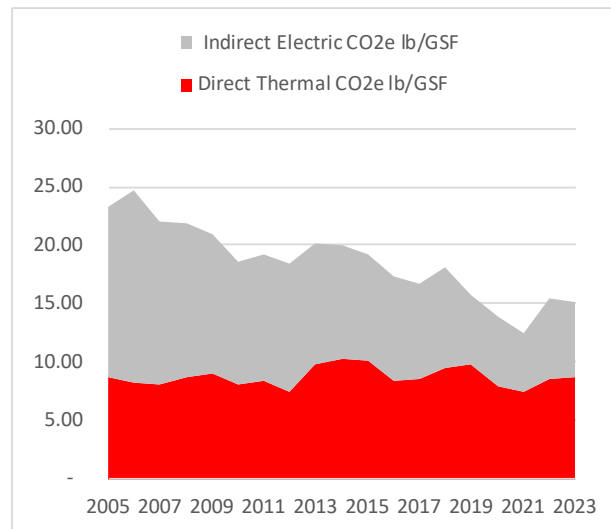
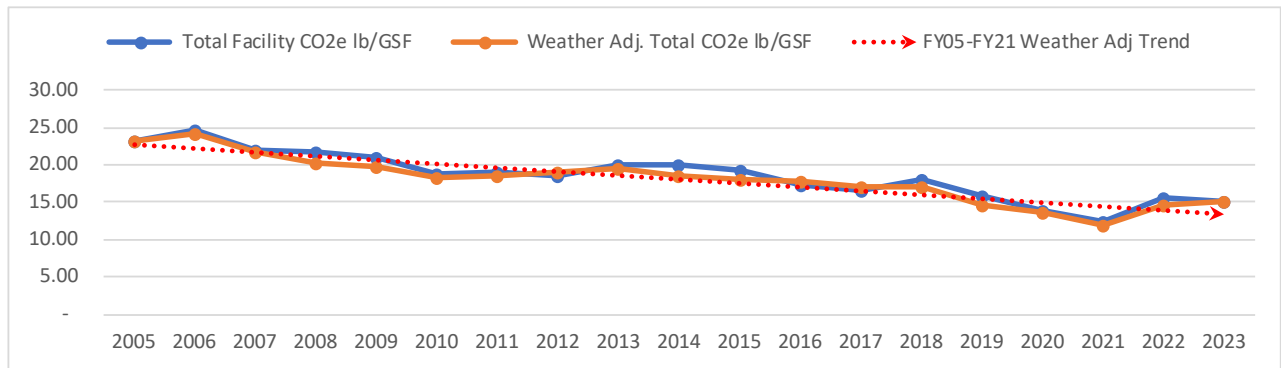
Fiscal Year	DPI Net Thermal MMBtu	DPI Plant Reports MMBtu w/Sales	DPI Coal MMBtu	DPI Alt Fuel MMBtu	DPI Gas MMBtu	DPI Oil MMBtu	DPI Plant Reports MMBtu w/Sales	DPI Boiler Fuel Based Emissions lbs	DPI Boiler Fuel Emissions lb/MMBtu	DPI Net Thermal MMBtu CO2e Metric Tons
2005	32,876	32,876	-	-	32,876	-	32,876	1,745	117.00	1,745
2006	31,122	31,331	-	-	31,294	36	31,331	1,663	117.05	1,652
2007	32,640	32,640	-	-	32,632	8	32,640	1,732	117.01	1,732
2008	34,448	34,448	-	-	34,448	0	34,448	1,828	117.00	1,828
2009	35,343	35,343	-	-	35,343	-	35,343	1,876	117.00	1,876
2010	31,694	31,694	-	-	31,694	-	31,694	1,682	117.00	1,682
2011	33,188	33,188	-	-	33,188	-	33,188	1,761	117.00	1,761
2012	28,806	28,806	-	-	28,806	-	28,806	1,529	117.00	1,529
2013	37,608	37,608	-	-	37,608	-	37,608	1,996	117.00	1,996
2014	39,663	39,663	-	-	39,663	-	39,663	2,105	117.00	2,105
2015	38,301	38,301	-	-	38,301	-	38,301	2,033	117.00	2,033
2016	32,176	32,176	-	-	32,176	-	32,176	1,708	117.00	1,708
2017	31,553	31,553	-	-	31,553	-	31,553	1,675	117.00	1,675
2018	36,220	36,220	-	-	36,220	-	36,220	1,922	117.00	1,922
2019	37,629	37,629	-	-	37,629	-	37,629	1,997	117.00	1,997
2020	33,183	33,183	-	-	33,183	-	33,183	1,761	117.00	1,761
2021	29,219	29,219	-	-	29,219	-	29,219	1,551	117.00	1,551
2022	32,180	32,180	-	-	32,180	-	32,180	1,708	117.00	1,708
2023	33,709	33,709	-	-	33,709	-	33,709	1,789	117.00	1,789



### DPI-Delavan CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	244,979	8.72	14.52	23.25	0.0%	48.12	8.72	14.52	23.25	0.0%
2006	244,979	8.24	16.47	24.70	6.3%	48.65	8.01	16.26	24.26	4.4%
2007	244,979	8.08	13.96	22.04	-5.2%	47.46	7.70	13.92	21.62	-7.0%
2008	244,979	8.64	13.18	21.82	-6.1%	46.19	7.42	12.93	20.35	-12.5%
2009	244,979	9.01	11.93	20.94	-9.9%	45.66	7.85	11.87	19.72	-15.2%
2010	244,979	8.04	10.61	18.65	-19.8%	47.10	7.64	10.64	18.27	-21.4%
2011	244,979	8.32	10.81	19.13	-17.7%	46.81	7.75	10.78	18.52	-20.3%
2012	244,979	7.38	11.10	18.48	-20.5%	51.51	8.15	10.87	19.03	-18.2%
2013	244,979	9.87	10.23	20.10	-13.5%	47.29	9.33	10.14	19.48	-16.2%
2014	244,979	10.22	9.85	20.07	-13.7%	44.58	8.58	9.89	18.48	-20.5%
2015	244,979	10.17	9.08	19.25	-17.2%	45.84	9.03	9.11	18.14	-22.0%
2016	244,979	8.35	8.94	17.29	-25.6%	49.68	8.83	8.88	17.71	-23.8%
2017	244,979	8.50	8.14	16.64	-28.4%	49.72	9.03	8.05	17.08	-26.5%
2018	244,979	9.50	8.56	18.06	-22.3%	46.66	8.46	8.51	16.97	-27.0%
2019	244,979	9.74	6.03	15.77	-32.2%	45.88	8.65	6.07	14.71	-36.7%
2020	244,979	7.90	5.98	13.88	-40.3%	48.07	7.61	5.93	13.54	-41.8%
2021	244,979	7.43	5.01	12.44	-46.5%	47.61	6.99	4.90	11.89	-48.8%
2022	244,979	8.62	6.87	15.49	-33.4%	48.04	7.91	6.72	14.62	-37.1%
2023	244,979	8.78	6.38	15.17	-34.8%	48.64	8.80	6.40	15.20	-34.6%

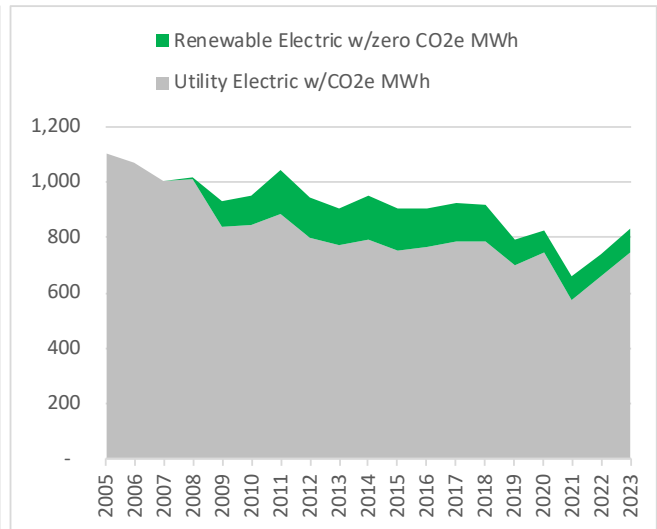
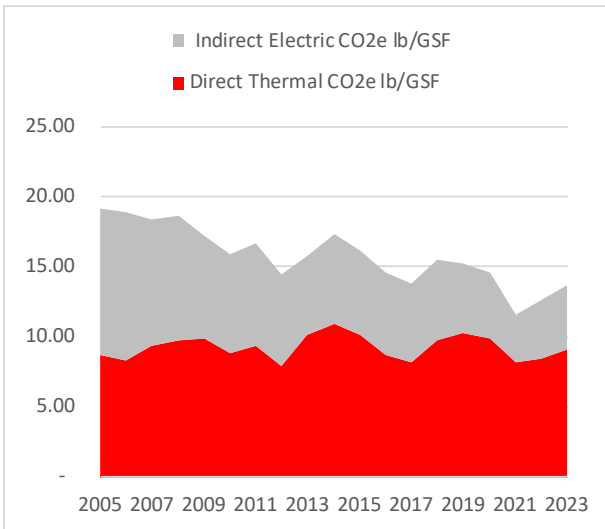
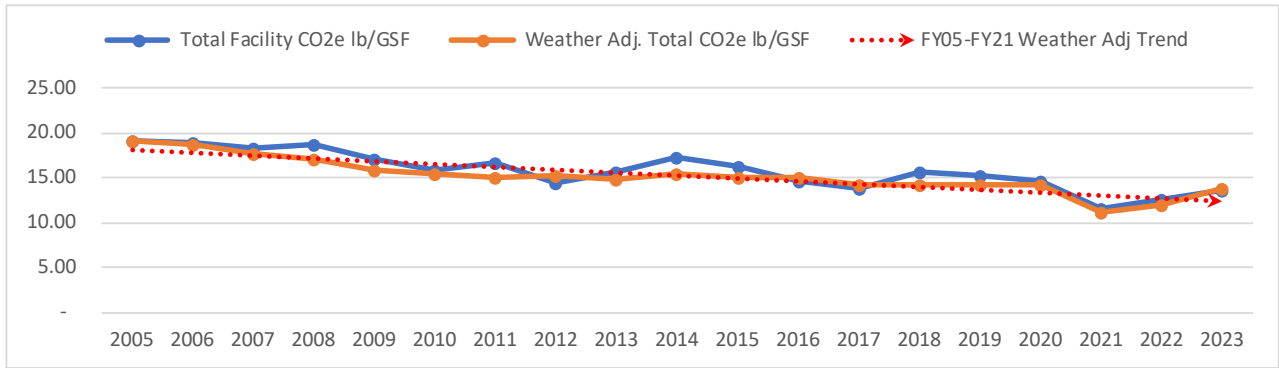
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DPI-Janesville CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	196,204	8.71	10.38	19.09	0.0%	48.12	8.71	10.38	19.09	0.0%
2006	196,204	8.28	10.65	18.93	-0.8%	48.65	8.15	10.60	18.75	-1.8%
2007	196,204	9.38	8.95	18.33	-4.0%	47.46	8.87	8.87	17.74	-7.1%
2008	196,204	9.75	8.86	18.61	-2.5%	46.19	8.36	8.65	17.01	-10.9%
2009	196,204	9.82	7.34	17.16	-10.1%	45.66	8.50	7.26	15.76	-17.4%
2010	196,204	8.87	7.00	15.86	-16.9%	47.10	8.48	7.03	15.50	-18.8%
2011	196,204	9.40	7.30	16.70	-12.5%	46.81	8.11	7.00	15.11	-20.9%
2012	196,204	7.96	6.52	14.48	-24.1%	51.51	8.65	6.49	15.14	-20.7%
2013	196,204	10.10	5.60	15.70	-17.8%	47.29	9.27	5.55	14.82	-22.4%
2014	196,204	10.89	6.44	17.33	-9.2%	44.58	9.14	6.34	15.48	-18.9%
2015	196,204	10.14	6.02	16.16	-15.3%	45.84	9.13	5.99	15.12	-20.8%
2016	196,204	8.76	5.86	14.62	-23.4%	49.68	9.28	5.83	15.11	-20.9%
2017	196,204	8.20	5.54	13.74	-28.0%	49.72	8.73	5.46	14.19	-25.7%
2018	196,204	9.73	5.81	15.54	-18.6%	46.66	8.58	5.73	14.31	-25.1%
2019	196,204	10.27	4.97	15.24	-20.2%	45.88	9.18	4.95	14.13	-26.0%
2020	196,204	9.92	4.67	14.60	-23.5%	48.07	9.64	4.64	14.28	-25.2%
2021	196,204	8.15	3.48	11.63	-39.1%	47.61	7.78	3.39	11.17	-41.5%
2022	196,204	8.43	4.19	12.62	-33.9%	48.04	7.92	4.13	12.06	-36.8%
2023	196,204	9.14	4.49	13.63	-28.6%	48.64	9.25	4.48	13.73	-28.1%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



# Wisconsin Agency GHG CO2e Emissions

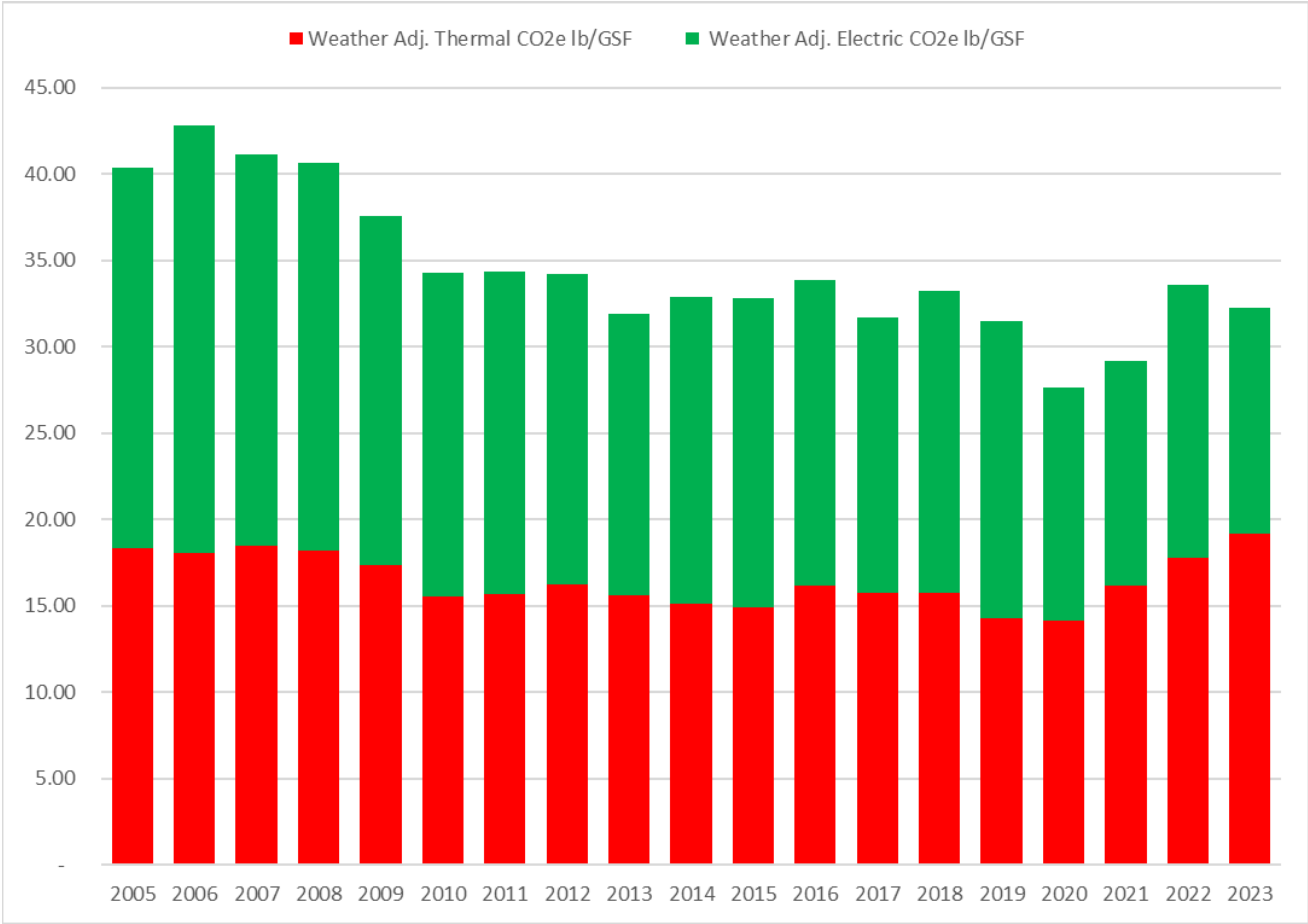


## SCOPE

Includes the Wisconsin Veterans Home at King the long term and rehabilitative care facility caring for veterans, a veteran's spouse, the surviving spouse of a veteran, and Gold Star Parents (parents who have lost a son or daughter in combat)

*Review Buildings Demolished and New Construction FY20-FY21*

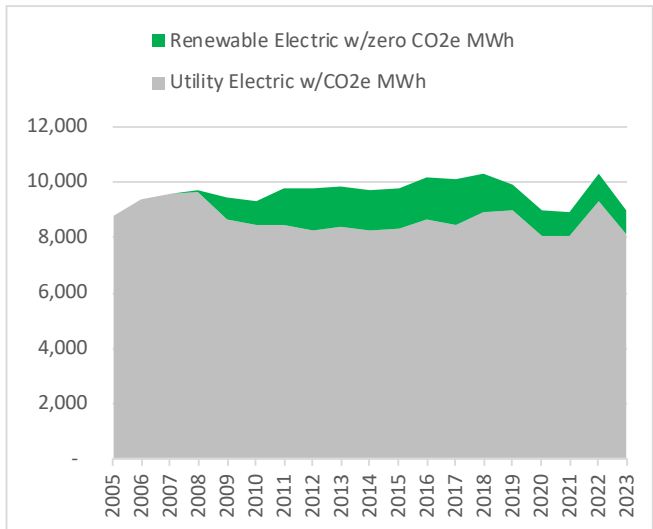
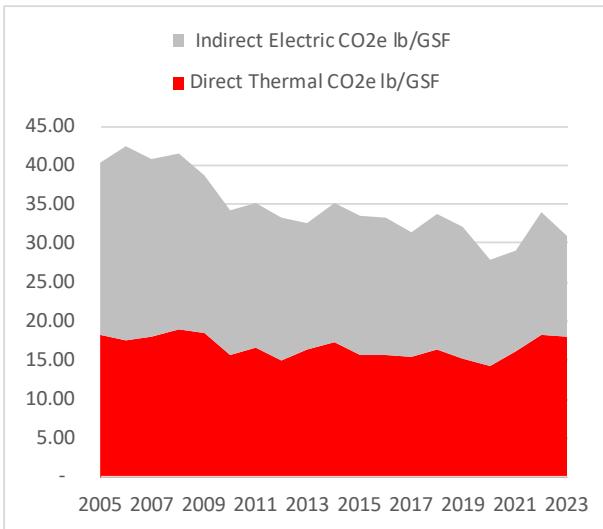
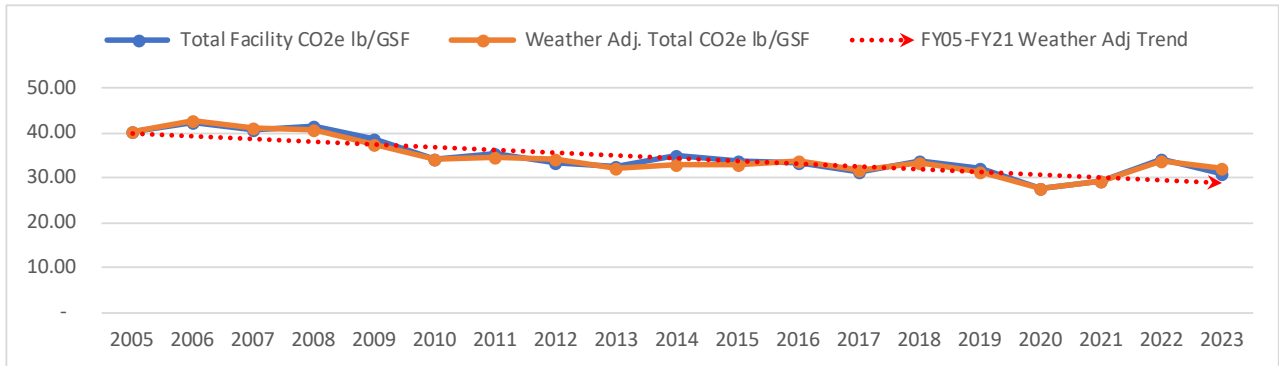
## Wisconsin Department of Veterans Affairs GHG CO2e lbs/GSF:



### DVA-King CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	733,728	18.34	22.00	40.34	0.0%	46.04	18.34	22.00	40.34	0.0%
2006	733,728	17.44	24.93	42.37	5.0%	47.49	18.09	24.75	42.84	6.2%
2007	733,728	18.05	22.74	40.79	1.1%	46.81	18.48	22.64	41.12	1.9%
2008	733,728	19.00	22.61	41.61	3.1%	44.51	18.22	22.41	40.63	0.7%
2009	733,728	18.45	20.25	38.70	-4.1%	43.51	17.34	20.24	37.58	-6.8%
2010	733,728	15.68	18.61	34.29	-15.0%	45.49	15.57	18.71	34.27	-15.0%
2011	733,728	16.65	18.63	35.27	-12.6%	43.59	15.67	18.67	34.34	-14.9%
2012	733,728	15.03	18.14	33.17	-17.8%	49.50	16.23	17.97	34.20	-15.2%
2013	733,728	16.38	16.23	32.61	-19.2%	44.37	15.65	16.25	31.90	-20.9%
2014	733,728	17.25	17.82	35.07	-13.1%	41.62	15.16	17.75	32.91	-18.4%
2015	733,728	15.74	17.80	33.54	-16.9%	43.36	14.90	17.94	32.84	-18.6%
2016	733,728	15.56	17.70	33.27	-17.5%	47.34	16.16	17.71	33.87	-16.1%
2017	733,728	15.32	15.99	31.31	-22.4%	47.13	15.76	15.94	31.70	-21.4%
2018	733,728	16.33	17.53	33.86	-16.1%	44.30	15.73	17.54	33.27	-17.5%
2019	733,728	15.11	17.06	32.17	-20.2%	43.35	14.32	17.15	31.47	-22.0%
2020	733,728	14.29	13.50	27.80	-31.1%	45.35	14.14	13.51	27.65	-31.5%
2021	733,728	16.13	13.03	29.15	-27.7%	45.89	16.20	12.95	29.15	-27.7%
2022	733,728	18.26	15.84	34.10	-15.5%	44.68	17.80	15.81	33.60	-16.7%
2023	733,728	17.97	13.07	31.04	-23.1%	51.09	19.19	13.11	32.30	-19.9%

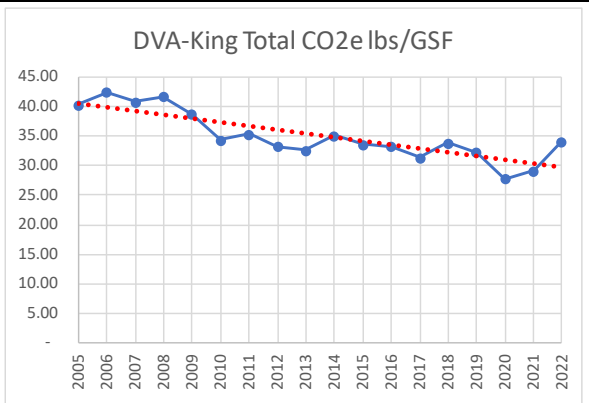
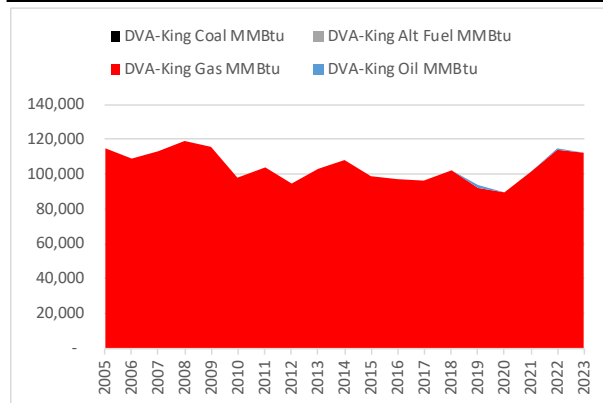
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DVA-King Boiler Plant Fuel and Electric Use CO2e Emissions

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DVA-King Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DVA-King Total CO2e lbs/GSF
2005	733,728	46.04	8,760,258	-	8,760,258	1.84	7,323	6,103	13,427	40.34
2006	733,728	47.49	9,380,643	-	9,380,643	1.95	8,297	5,803	14,101	42.37
2007	733,728	46.81	9,539,526	-	9,539,526	1.75	7,568	6,009	13,577	40.79
2008	733,728	44.51	9,703,983	64,666	9,639,317	1.72	7,525	6,325	13,850	41.61
2009	733,728	43.51	9,465,390	819,888	8,645,502	1.72	6,741	6,140	12,881	38.70
2010	733,728	45.49	9,310,393	895,436	8,414,957	1.62	6,195	5,217	11,412	34.29
2011	733,728	43.59	9,767,198	1,309,707	8,457,491	1.62	6,199	5,540	11,740	35.27
2012	733,728	49.50	9,780,670	1,501,440	8,279,230	1.61	6,039	5,001	11,040	33.17
2013	733,728	44.37	9,829,269	1,457,302	8,371,967	1.42	5,400	5,452	10,852	32.61
2014	733,728	41.62	9,713,958	1,491,235	8,222,723	1.59	5,930	5,742	11,672	35.07
2015	733,728	43.36	9,768,928	1,486,420	8,282,508	1.58	5,925	5,239	11,164	33.54
2016	733,728	47.34	10,134,052	1,463,284	8,670,768	1.50	5,892	5,180	11,072	33.27
2017	733,728	47.13	10,065,736	1,596,076	8,469,660	1.39	5,321	5,098	10,419	31.31
2018	733,728	44.30	10,296,737	1,420,410	8,876,327	1.45	5,834	5,436	11,270	33.86
2019	733,728	43.35	9,869,445	889,563	8,979,882	1.39	5,678	5,030	10,708	32.17
2020	733,728	45.35	8,961,309	925,556	8,035,753	1.23	4,494	4,757	9,251	27.80
2021	733,728	45.89	8,939,562	894,991	8,044,571	1.19	4,335	5,367	9,702	29.15
2022	733,728	44.68	10,277,509	950,235	9,327,275	1.25	5,272	6,076	11,348	34.10
2023	733,728	51.09	9,000,826	905,698	8,095,128	1.19	4,351	5,980	10,331	31.04

Fiscal Year	DVA-King Net Thermal MMBtu	DVA-King Plant Reports MMBtu w/Sales	DVA-King Coal MMBtu	DVA-King Alt Fuel MMBtu	DVA-King Gas MMBtu	DVA-King Oil MMBtu	DVA-King Plant Reports MMBtu w/Sales	DVA-King Boiler Fuel Based Emissions lbs	DVA-King Boiler Fuel Emissions lb/MMBtu	DVA-King Net Thermal MMBtu CO2e Metric Tons
2005	114,948	114,948	-	-	114,795	152	114,948	6,103	117.06	6,103
2006	109,291	109,291	-	-	109,127	164	109,291	5,803	117.07	5,803
2007	113,186	113,191	-	-	113,089	102	113,191	6,009	117.04	6,009
2008	119,116	119,116	-	-	118,949	167	119,116	6,325	117.06	6,325
2009	115,659	115,659	-	-	115,557	101	115,659	6,140	117.04	6,140
2010	98,240	98,241	-	-	98,049	193	98,241	5,218	117.09	5,217
2011	104,327	104,327	-	-	104,149	178	104,327	5,540	117.08	5,540
2012	94,241	94,241	-	-	94,241	-	94,241	5,001	117.00	5,001
2013	102,725	102,914	-	-	102,914	-	102,914	5,462	117.00	5,452
2014	108,179	108,179	-	-	108,129	50	108,179	5,742	117.02	5,742
2015	98,725	98,725	-	-	98,719	6	98,725	5,239	117.00	5,239
2016	97,607	97,607	-	-	97,607	-	97,607	5,180	117.00	5,180
2017	96,068	96,068	-	-	96,068	-	96,068	5,098	117.00	5,098
2018	102,424	102,424	-	-	102,424	-	102,424	5,436	117.00	5,436
2019	94,169	94,169	-	-	92,547	1,622	94,169	5,030	117.76	5,030
2020	89,637	89,637	-	-	89,637	-	89,637	4,757	117.00	4,757
2021	101,134	101,134	-	-	101,134	-	101,134	5,367	117.00	5,367
2022	114,471	114,471	-	-	114,421	50	114,471	6,076	117.02	6,076
2023	112,675	112,675	-	-	112,675	-	112,675	5,980	117.00	5,980





# Wisconsin Agency GHG CO2e Emissions

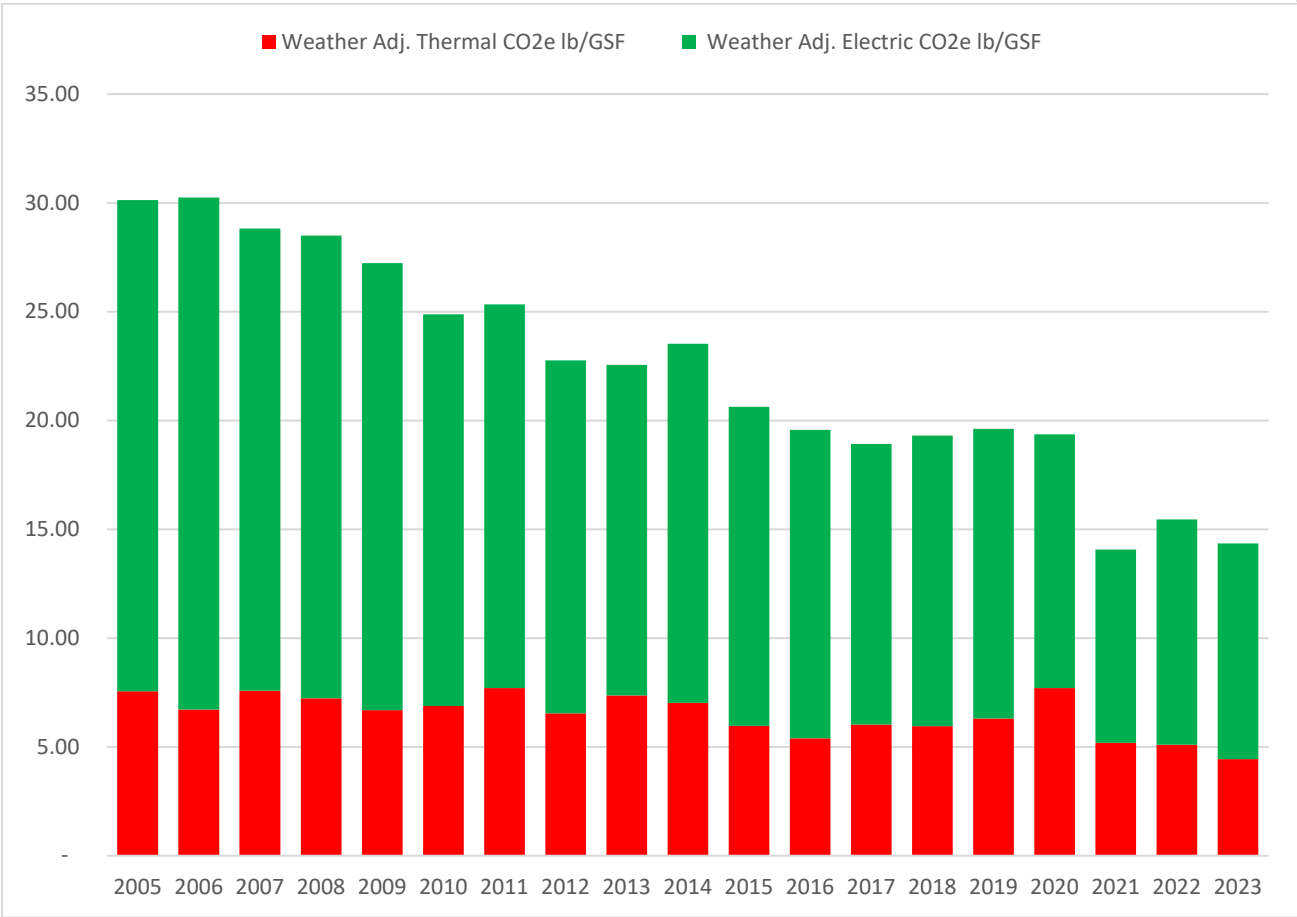
Department of Natural Resources



## SCOPE

Includes the larger Department of Natural Resources facilities: DNR-South Central Office Madison; DNR-Darwin Road Madison; DNR-Green Bay Office (New FY2106); DNR-Tomahawk and DNR-Southeast Office (Milwaukee).

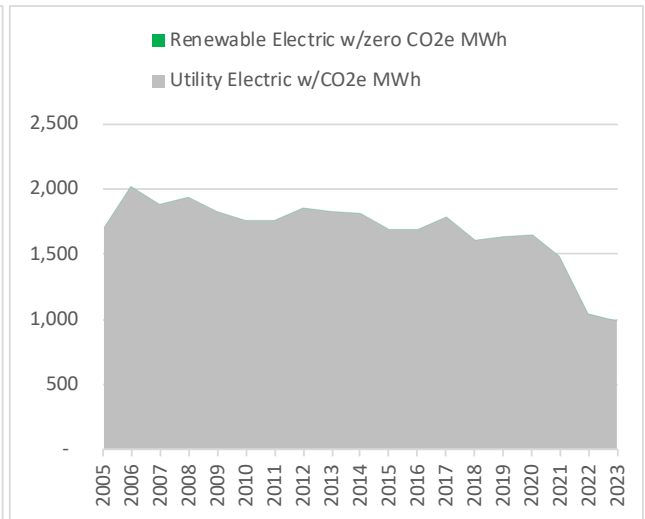
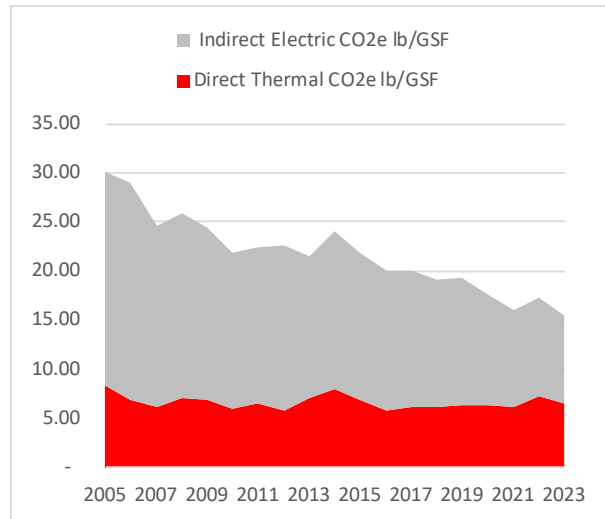
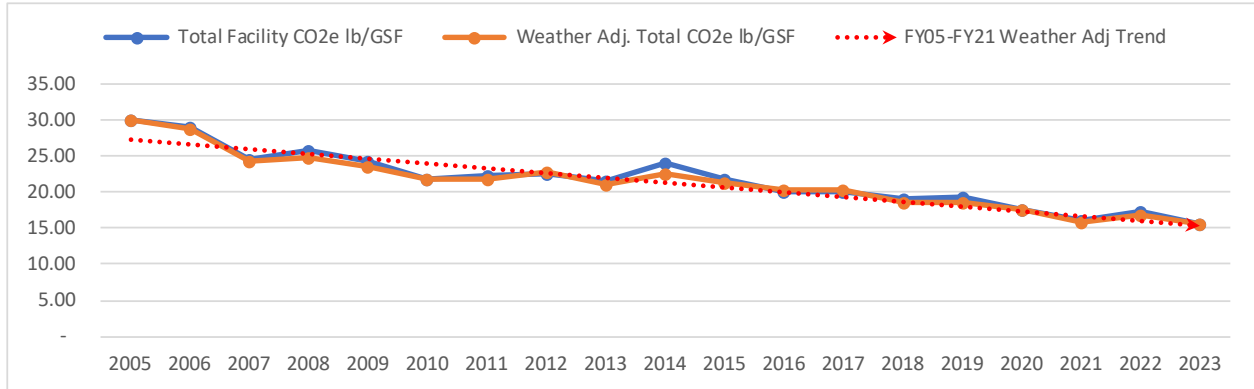
## Wisconsin Department of Natural Resources GHG CO2e lbs/GSF:



Department of Natural Resources CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	143,537	8.24	21.92	30.16	0.0%	47.25	8.24	21.92	30.16	0.0%
2006	178,097	6.89	22.08	28.97	-3.9%	48.05	7.06	21.85	28.91	-4.1%
2007	178,097	6.16	18.47	24.62	-18.4%	46.99	6.04	18.36	24.40	-19.1%
2008	178,097	7.12	18.77	25.88	-14.2%	45.48	6.42	18.45	24.87	-17.6%
2009	178,097	6.80	17.64	24.44	-19.0%	44.91	6.18	17.44	23.61	-21.7%
2010	178,097	5.94	16.00	21.95	-27.2%	46.93	5.91	16.01	21.92	-27.3%
2011	178,097	6.50	15.95	22.44	-25.6%	45.97	6.04	15.68	21.71	-28.0%
2012	178,097	5.78	16.79	22.57	-25.2%	50.55	6.26	16.61	22.87	-24.2%
2013	178,097	6.99	14.60	21.59	-28.4%	46.20	6.60	14.43	21.03	-30.3%
2014	178,097	7.91	16.16	24.07	-20.2%	43.25	6.76	15.87	22.63	-25.0%
2015	178,097	6.93	14.94	21.86	-27.5%	44.79	6.44	14.99	21.43	-28.9%
2016	178,097	5.79	14.23	20.02	-33.6%	48.84	6.19	14.21	20.40	-32.4%
2017	178,097	6.16	13.94	20.10	-33.4%	49.19	6.56	13.69	20.24	-32.9%
2018	178,097	6.05	13.10	19.15	-36.5%	46.10	5.66	12.93	18.60	-38.3%
2019	178,097	6.36	12.85	19.21	-36.3%	45.26	5.85	12.75	18.61	-38.3%
2020	178,097	6.29	11.41	17.70	-41.3%	47.24	6.31	11.38	17.69	-41.3%
2021	178,097	6.11	9.93	16.05	-46.8%	47.59	6.08	9.71	15.79	-47.6%
2022	130,097	7.19	10.06	17.25	-42.8%	46.48	6.92	9.87	16.79	-44.3%
2023	130,097	6.57	8.96	15.53	-48.5%	47.24	6.69	8.93	15.62	-48.2%

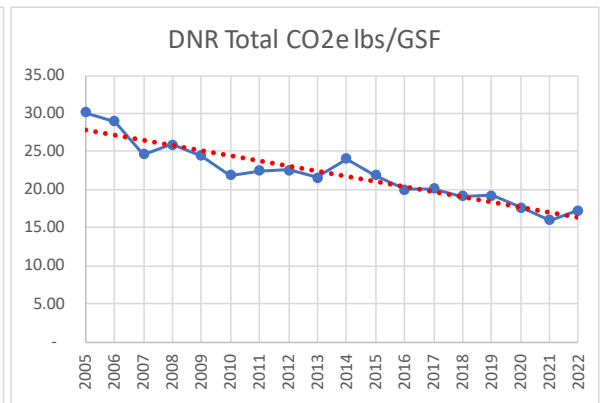
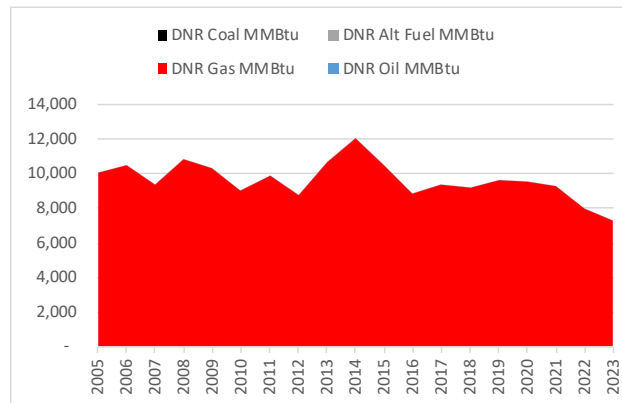
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



Department of Natural Resources Boiler Plant Fuel and Electric Use CO2e Emissions

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DNR Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DNR Total CO2e lbs/GSF
2005	143,537	47.25	1,706,818	-	1,706,818	1.84	1,427	537	1,964	30.16
2006	178,097	48.05	2,016,789	-	2,016,789	1.95	1,784	557	2,340	28.97
2007	178,097	46.99	1,880,259	-	1,880,259	1.75	1,492	498	1,989	24.62
2008	178,097	45.48	1,941,941	-	1,941,941	1.72	1,516	575	2,091	25.88
2009	178,097	44.91	1,827,454	-	1,827,454	1.72	1,425	549	1,974	24.44
2010	178,097	46.93	1,756,207	-	1,756,207	1.62	1,293	480	1,773	21.95
2011	178,097	45.97	1,757,585	-	1,757,585	1.62	1,288	525	1,813	22.44
2012	178,097	50.55	1,859,519	-	1,859,519	1.61	1,356	467	1,823	22.57
2013	178,097	46.20	1,827,967	-	1,827,967	1.42	1,179	565	1,744	21.59
2014	178,097	43.25	1,810,183	-	1,810,183	1.59	1,306	639	1,945	24.07
2015	178,097	44.79	1,687,042	-	1,687,042	1.58	1,207	559	1,766	21.86
2016	178,097	48.84	1,691,569	-	1,691,569	1.50	1,149	468	1,618	20.02
2017	178,097	49.19	1,792,646	-	1,792,646	1.39	1,126	497	1,623	20.10
2018	178,097	46.10	1,610,122	-	1,610,122	1.45	1,058	489	1,547	19.15
2019	178,097	45.26	1,641,904	-	1,641,904	1.39	1,038	514	1,552	19.21
2020	178,097	47.24	1,647,969	-	1,647,969	1.23	922	508	1,430	17.70
2021	178,097	47.59	1,489,231	-	1,489,231	1.19	802	494	1,296	16.05
2022	130,097	46.48	1,050,458	-	1,050,458	1.25	594	424	1,018	17.25
2023	130,097	47.24	983,742	-	983,742	1.19	529	387	916	15.53

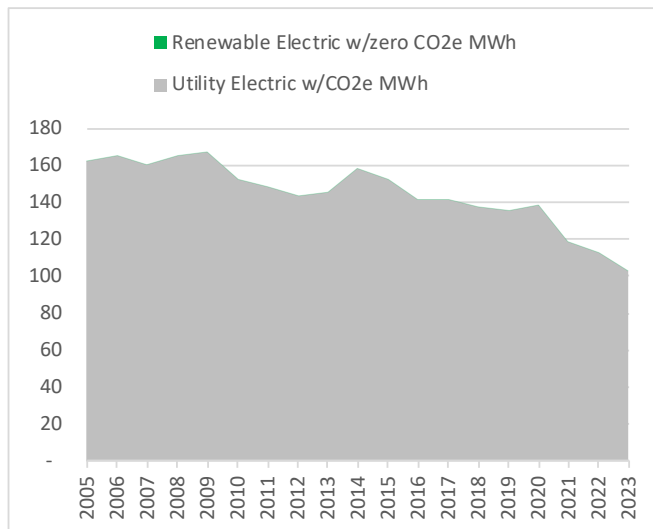
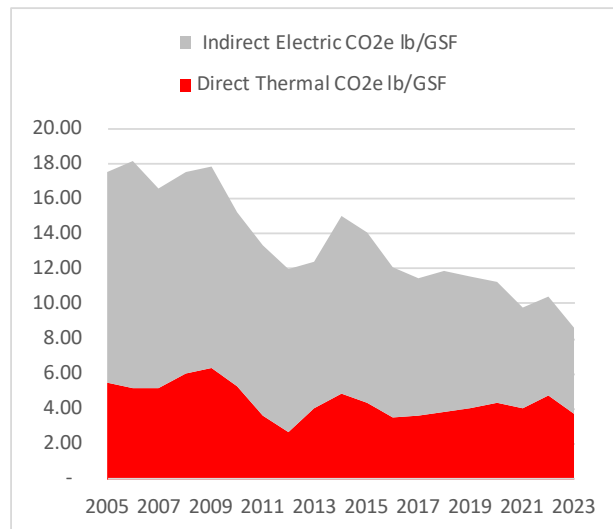
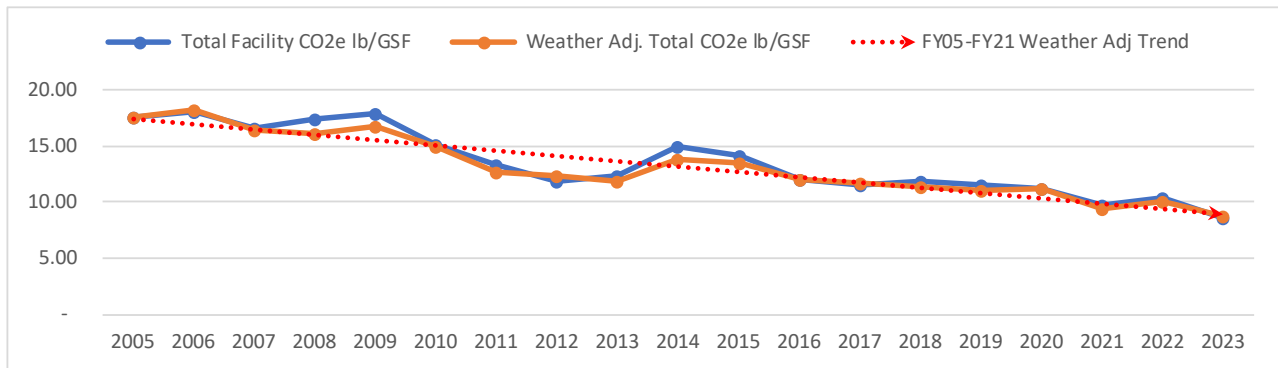
Fiscal Year	DNR Net Thermal MMBtu	DNR Plant Reports MMBtu w/Sales	DNR Coal MMBtu	DNR Alt Fuel MMBtu	DNR Gas MMBtu	DNR Oil MMBtu	DNR Plant Reports MMBtu w/Sales	DNR Boiler Fuel Based Emissions lbs	DNR Boiler Fuel Emissions lb/MMBtu	DNR Net Thermal MMBtu CO2e Metric Tons
2005	10,115	10,115	-	-	10,115	-	10,115	537	117.00	537
2006	10,487	10,487	-	-	10,487	-	10,487	557	117.00	557
2007	9,376	9,376	-	-	9,376	-	9,376	498	117.00	498
2008	10,831	10,831	-	-	10,831	-	10,831	575	117.00	575
2009	10,350	10,350	-	-	10,350	-	10,350	549	117.00	549
2010	9,043	9,043	-	-	9,043	-	9,043	480	117.00	480
2011	9,889	9,889	-	-	9,889	-	9,889	525	117.00	525
2012	8,795	8,795	-	-	8,795	-	8,795	467	117.00	467
2013	10,643	10,643	-	-	10,643	-	10,643	565	117.00	565
2014	12,042	12,042	-	-	12,042	-	12,042	639	117.00	639
2015	10,542	10,542	-	-	10,542	-	10,542	559	117.00	559
2016	8,821	8,821	-	-	8,821	-	8,821	468	117.00	468
2017	9,371	9,371	-	-	9,371	-	9,371	497	117.00	497
2018	9,212	9,212	-	-	9,212	-	9,212	489	117.00	489
2019	9,684	9,684	-	-	9,684	-	9,684	514	117.00	514
2020	9,581	9,581	-	-	9,581	-	9,581	508	117.00	508
2021	9,305	9,305	-	-	9,305	-	9,305	494	117.00	494
2022	7,997	7,997	-	-	7,997	-	7,997	424	117.00	424
2023	7,300	7,300	-	-	7,300	-	7,300	387	117.00	387



## DNR-Darwin Road CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	24,820	5.45	12.04	17.50	0.0%	48.12	5.45	12.04	17.50	0.0%
2006	24,820	5.13	13.01	18.15	3.7%	48.65	5.19	12.98	18.17	3.8%
2007	24,820	5.23	11.29	16.52	-5.6%	47.46	5.12	11.28	16.39	-6.3%
2008	24,820	6.01	11.46	17.47	-0.1%	46.19	4.75	11.37	16.12	-7.8%
2009	24,820	6.29	11.55	17.85	2.0%	45.66	5.14	11.58	16.72	-4.4%
2010	24,820	5.26	9.95	15.21	-13.1%	47.10	4.93	9.96	14.89	-14.9%
2011	24,820	3.66	9.70	13.35	-23.7%	46.81	3.08	9.54	12.62	-27.9%
2012	24,820	2.62	9.31	11.93	-31.8%	51.51	2.98	9.29	12.27	-29.9%
2013	24,820	4.03	8.36	12.40	-29.2%	47.29	3.57	8.30	11.86	-32.2%
2014	24,820	4.88	10.13	15.01	-14.2%	44.58	3.64	10.15	13.79	-21.2%
2015	24,820	4.38	9.69	14.07	-19.6%	45.84	3.90	9.65	13.54	-22.6%
2016	24,820	3.47	8.55	12.03	-31.3%	49.68	3.54	8.54	12.08	-31.0%
2017	24,820	3.56	7.89	11.45	-34.6%	49.72	3.79	7.84	11.63	-33.5%
2018	24,820	3.83	8.06	11.88	-32.1%	46.66	3.27	8.05	11.32	-35.3%
2019	24,820	3.99	7.60	11.60	-33.7%	45.88	3.45	7.60	11.05	-36.8%
2020	24,820	4.34	6.87	11.21	-35.9%	48.07	4.32	6.92	11.25	-35.7%
2021	24,820	4.05	5.68	9.73	-44.4%	47.61	3.77	5.60	9.37	-46.4%
2022	24,820	4.73	5.68	10.41	-40.5%	48.04	4.38	5.62	10.00	-42.9%
2023	24,820	3.74	4.91	8.65	-50.6%	48.64	3.81	4.89	8.70	-50.3%

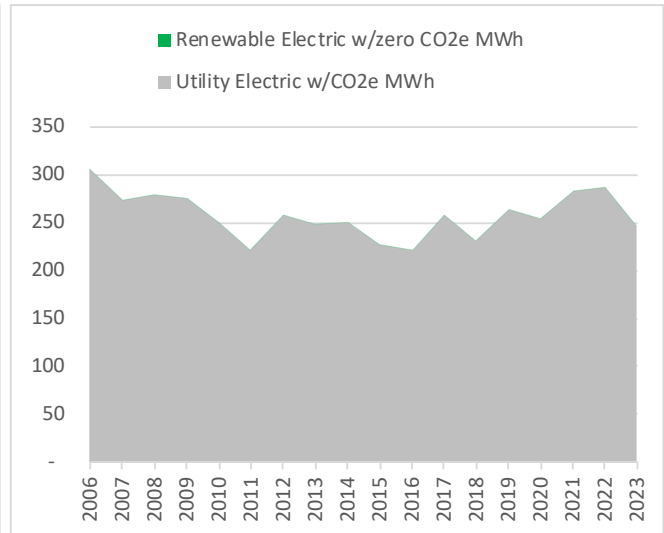
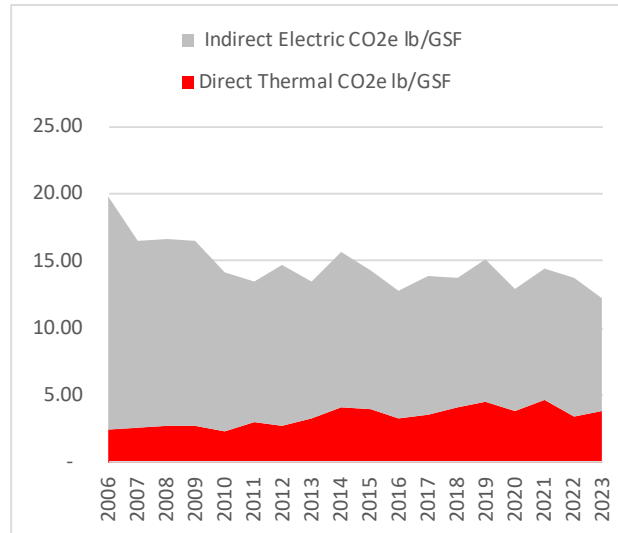
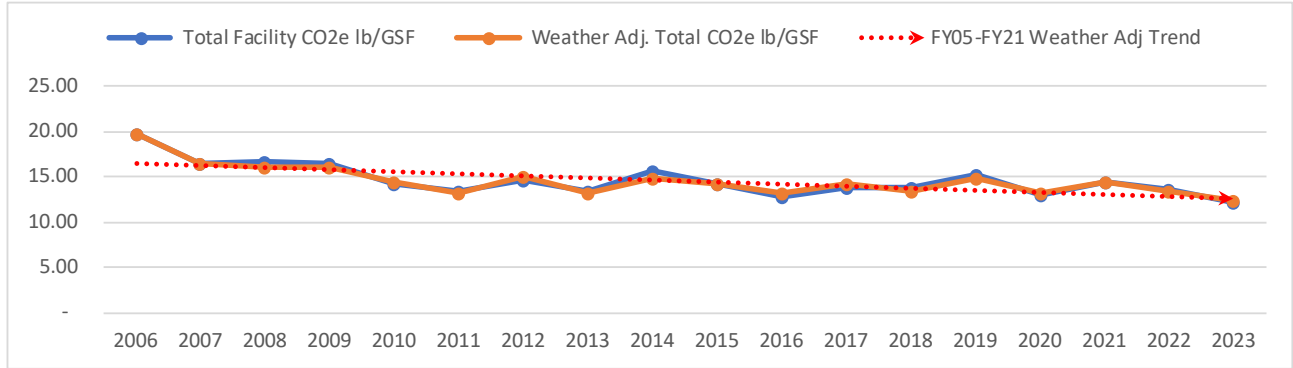
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-Green Bay CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2006	34,560	2.51	17.25	19.76		47.27	2.60	17.07	19.67	
2007	34,560	2.60	13.88	16.48		46.64	2.62	13.88	16.50	
2008	34,560	2.70	13.90	16.60		45.02	2.56	13.54	16.10	
2009	34,560	2.78	13.71	16.49		43.47	2.51	13.47	15.98	
2010	34,560	2.38	11.76	14.15		45.99	2.41	11.96	14.38	
2011	34,560	3.03	10.38	13.41		44.59	2.87	10.23	13.10	
2012	34,560	2.71	12.01	14.72		49.86	2.89	12.04	14.93	
2013	34,560	3.23	10.20	13.43		45.29	3.17	10.12	13.28	
2014	34,560	4.15	11.55	15.70		41.95	3.69	11.15	14.84	
2015	34,560	3.92	10.38	14.30		43.98	3.76	10.39	14.15	
2016	34,560	3.23	9.58	12.82		48.11	3.43	9.76	13.19	
2017	34,560	3.50	10.31	13.82		48.65	3.73	10.38	14.11	
2018	34,560	4.07	9.69	13.76		45.77	3.99	9.42	13.41	
2019	34,560	4.58	10.61	15.19		44.89	4.46	10.35	14.82	
2020	34,560	3.85	9.07	12.93		46.41	3.88	9.22	13.10	
2021	34,560	4.70	9.69	14.39		47.28	4.84	9.49	14.33	
2022	34,560	3.39	10.31	13.70		46.75	3.38	10.05	13.43	
2023	34,560	3.78	8.42	12.21		47.58	4.00	8.37	12.37	

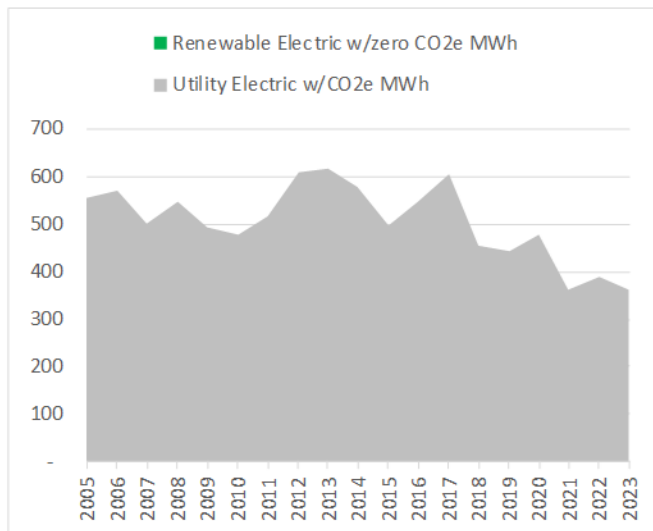
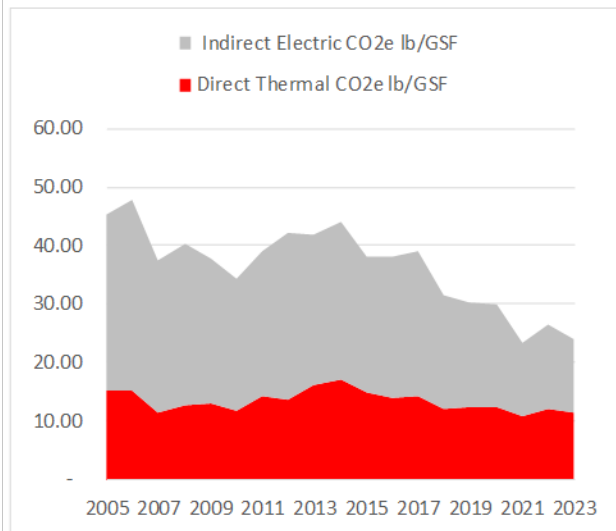
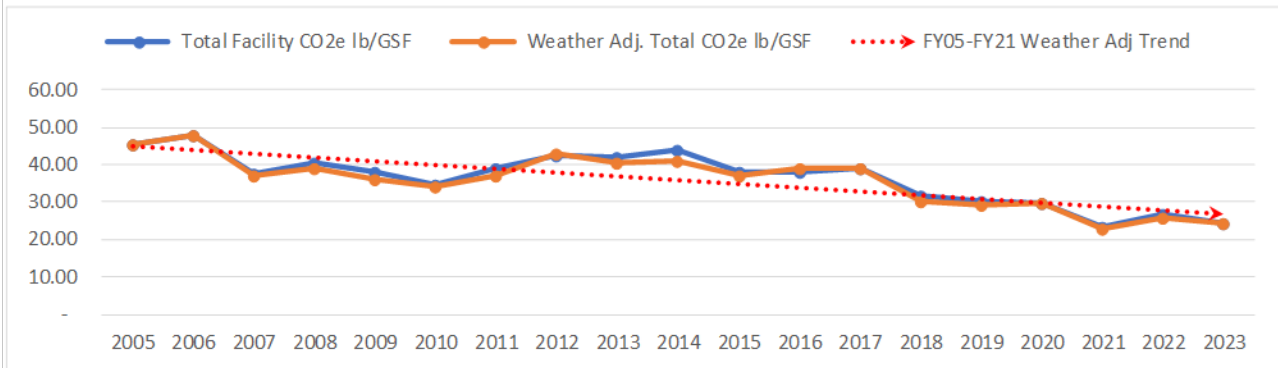
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-South Central CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	33,976	15.29	30.14	45.43	0.0%	48.12	15.29	30.14	45.43	0.0%
2006	33,976	15.16	32.71	47.87	5.4%	48.65	15.51	32.33	47.84	5.3%
2007	33,976	11.60	25.83	37.43	-17.6%	47.46	11.27	25.68	36.96	-18.7%
2008	33,976	12.72	27.64	40.35	-11.2%	46.19	11.81	27.07	38.87	-14.4%
2009	33,976	13.00	24.88	37.87	-16.6%	45.66	11.63	24.23	35.86	-21.1%
2010	33,976	11.68	22.79	34.47	-24.1%	47.10	11.26	22.73	33.99	-25.2%
2011	33,976	14.41	24.51	38.92	-14.3%	46.81	13.33	23.90	37.24	-18.0%
2012	33,976	13.51	28.75	42.26	-7.0%	51.51	14.60	28.22	42.82	-5.8%
2013	33,976	16.03	25.85	41.88	-7.8%	47.29	15.31	25.40	40.71	-10.4%
2014	33,976	17.04	26.99	44.03	-3.1%	44.58	14.84	26.23	41.06	-9.6%
2015	33,976	14.88	23.12	38.01	-16.3%	45.84	13.85	23.18	37.03	-18.5%
2016	33,976	13.89	24.07	37.95	-16.5%	49.68	14.92	24.05	38.97	-14.2%
2017	33,976	14.34	24.67	39.01	-14.1%	49.72	14.97	24.17	39.14	-13.9%
2018	33,976	12.05	19.38	31.44	-30.8%	46.66	11.30	19.09	30.39	-33.1%
2019	33,976	12.31	18.10	30.41	-33.1%	45.88	11.33	17.98	29.32	-35.5%
2020	33,976	12.48	17.33	29.81	-34.4%	48.07	12.50	17.11	29.61	-34.8%
2021	33,976	10.86	12.60	23.47	-48.3%	47.61	10.48	12.26	22.74	-49.9%
2022	33,976	12.23	14.28	26.52	-41.6%	48.04	12.00	13.91	25.91	-43.0%
2023	33,976	11.50	12.65	24.15	-46.9%	48.64	11.70	12.60	24.30	-46.5%

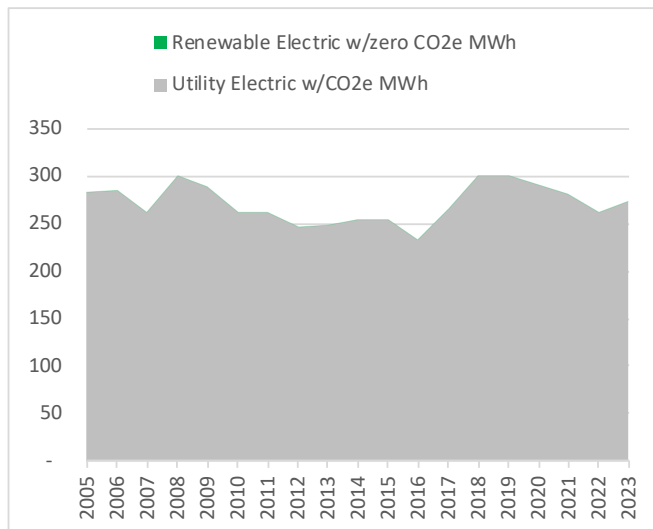
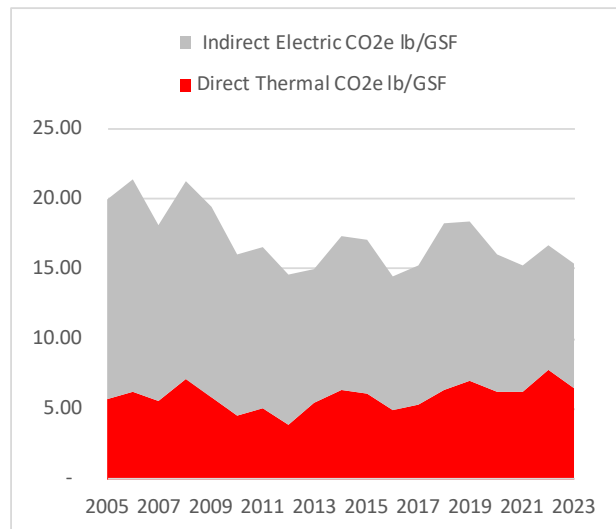
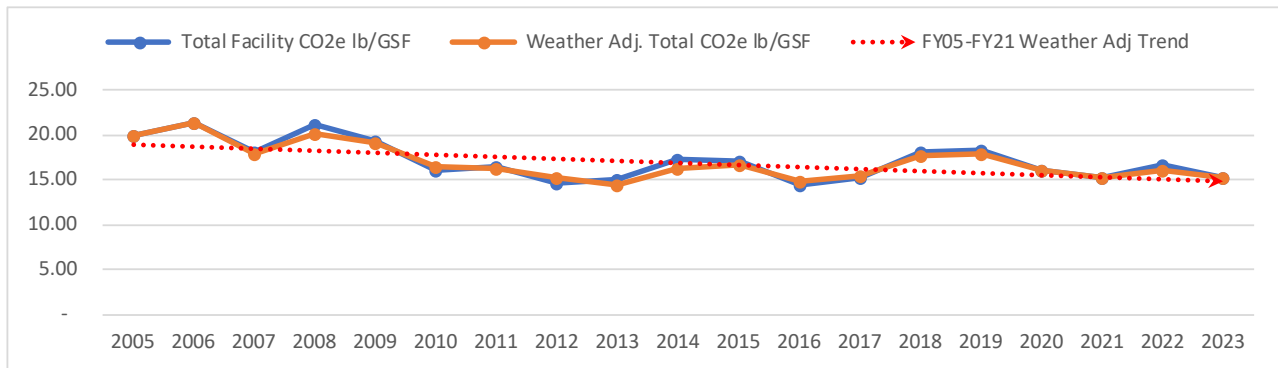
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-Tomahawk CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	36,741	5.71	14.17	19.88	0.0%	44.26	5.71	14.17	19.88	0.0%
2006	36,741	6.16	15.16	21.32	7.3%	45.56	6.20	15.19	21.39	7.6%
2007	36,741	5.59	12.45	18.03	-9.3%	44.50	5.51	12.45	17.96	-9.7%
2008	36,741	7.13	14.09	21.22	6.7%	42.10	6.13	14.04	20.17	1.5%
2009	36,741	5.84	13.53	19.37	-2.6%	42.50	5.59	13.50	19.09	-4.0%
2010	36,741	4.51	11.56	16.07	-19.2%	45.38	4.88	11.53	16.42	-17.4%
2011	36,741	5.07	11.47	16.54	-16.8%	43.50	4.73	11.47	16.20	-18.5%
2012	36,741	3.84	10.80	14.63	-26.4%	47.63	4.28	11.00	15.28	-23.1%
2013	36,741	5.36	9.62	14.98	-24.6%	42.87	4.77	9.57	14.34	-27.9%
2014	36,741	6.38	10.98	17.36	-12.7%	39.97	5.27	11.05	16.32	-17.9%
2015	36,741	6.14	10.89	17.02	-14.4%	42.20	5.82	10.85	16.67	-16.1%
2016	36,741	4.94	9.51	14.45	-27.3%	46.23	5.25	9.52	14.77	-25.7%
2017	36,741	5.23	10.05	15.28	-23.1%	45.86	5.45	10.07	15.52	-21.9%
2018	36,741	6.37	11.81	18.18	-8.5%	42.67	5.83	11.80	17.63	-11.3%
2019	36,741	6.98	11.41	18.39	-7.5%	41.78	6.39	11.48	17.87	-10.1%
2020	36,741	6.23	9.79	16.01	-19.4%	43.78	6.20	9.79	15.99	-19.6%
2021	36,741	6.16	9.06	15.22	-23.4%	44.64	6.15	9.05	15.20	-23.5%
2022	36,741	7.77	8.88	16.65	-16.2%	43.09	7.27	8.83	16.10	-19.0%
2023	36,741	6.53	8.79	15.32	-22.9%	44.12	6.52	8.81	15.32	-22.9%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



# Wisconsin Agency GHG CO2e Emissions

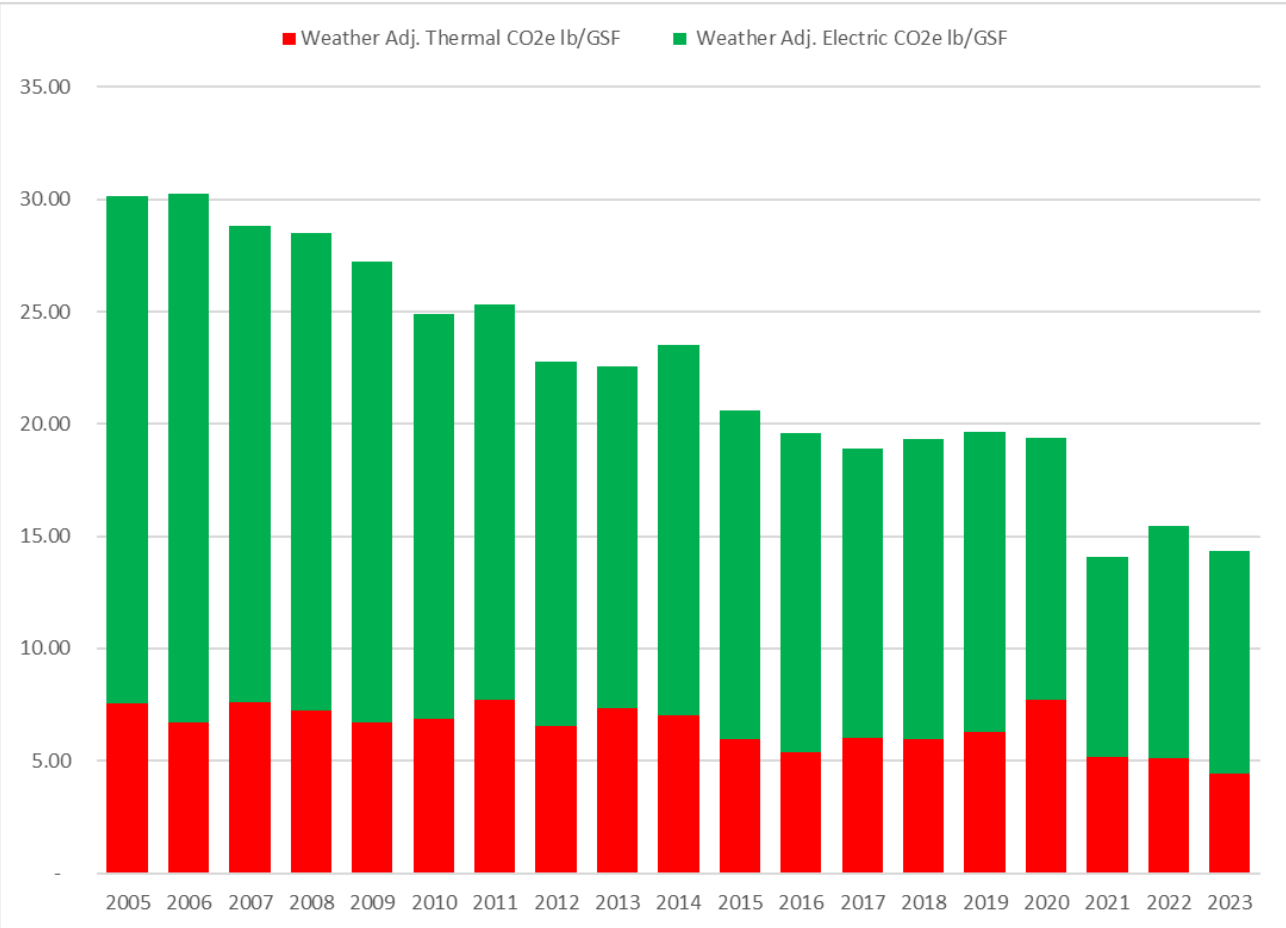
## Department of Transportation



### SCOPE

Includes the larger Department of Transportation facilities: DTD 1 Madison; DTD 1, Madison Lab; DTD 1, "A" Building Madison; DTD 1, "B" Building Madison; DTD 2, West Allis; and DTD 3, Green Bay.

### Wisconsin Department of Transportation GHG CO2e lbs/GSF:

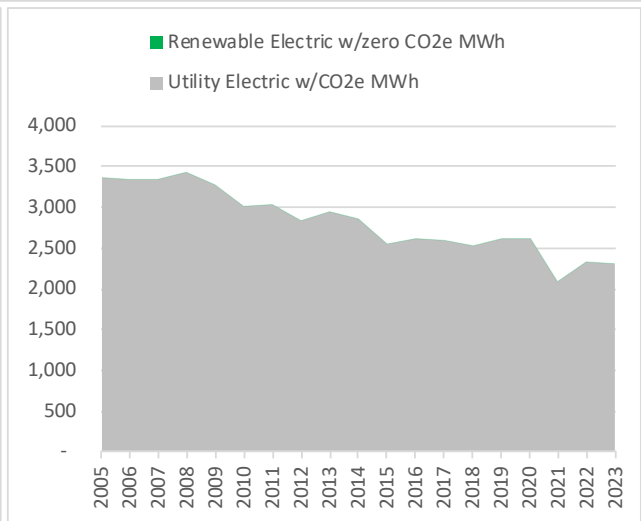
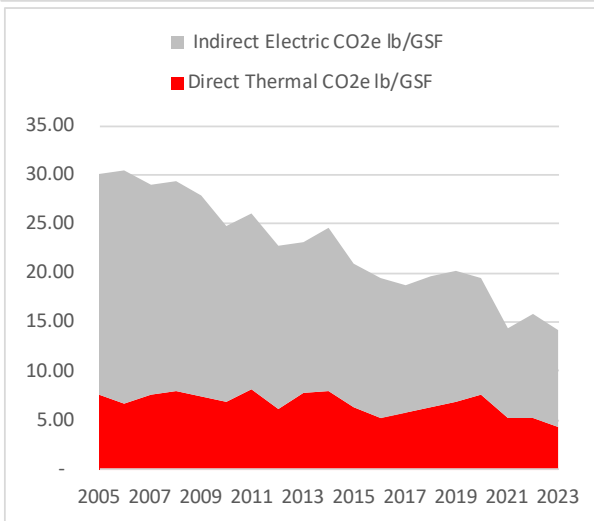
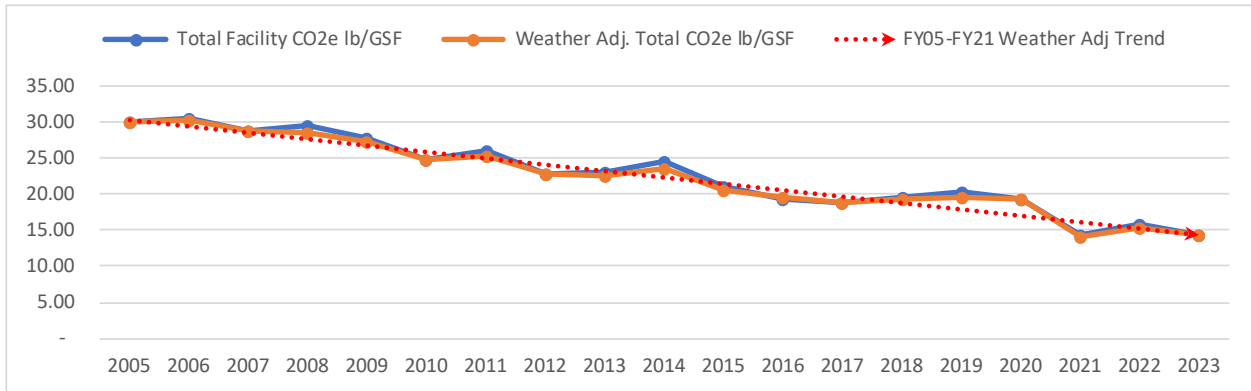




**Department of Transportation CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	274,395	7.55	22.57	30.12	0.0%	47.81	7.55	22.57	30.12	0.0%
2006	274,395	6.74	23.74	30.48	1.2%	48.67	6.72	23.53	30.25	0.4%
2007	274,395	7.63	21.29	28.91	-4.0%	47.56	7.59	21.23	28.83	-4.3%
2008	274,395	7.92	21.51	29.44	-2.3%	46.28	7.24	21.26	28.50	-5.4%
2009	274,395	7.34	20.57	27.91	-7.3%	45.56	6.69	20.54	27.23	-9.6%
2010	274,395	6.95	17.83	24.78	-17.7%	47.25	6.89	17.99	24.88	-17.4%
2011	274,395	8.20	17.85	26.05	-13.5%	46.66	7.71	17.63	25.34	-15.9%
2012	274,395	6.06	16.68	22.74	-24.5%	51.36	6.55	16.22	22.77	-24.4%
2013	274,395	7.87	15.23	23.10	-23.3%	47.12	7.37	15.18	22.55	-25.1%
2014	274,395	8.00	16.62	24.61	-18.3%	44.24	7.03	16.50	23.53	-21.9%
2015	274,395	6.36	14.66	21.02	-30.2%	45.57	5.97	14.65	20.62	-31.5%
2016	274,395	5.17	14.24	19.40	-35.6%	49.55	5.39	14.18	19.58	-35.0%
2017	274,395	5.72	13.05	18.77	-37.7%	49.92	6.02	12.90	18.92	-37.2%
2018	274,395	6.31	13.40	19.71	-34.6%	46.86	5.95	13.35	19.30	-35.9%
2019	274,395	6.87	13.35	20.22	-32.9%	46.05	6.31	13.31	19.62	-34.9%
2020	274,395	7.67	11.73	19.41	-35.6%	48.09	7.71	11.66	19.37	-35.7%
2021	274,395	5.31	9.02	14.33	-52.4%	48.09	5.19	8.88	14.07	-53.3%
2022	274,395	5.27	10.58	15.85	-47.4%	48.30	5.11	10.35	15.45	-48.7%
2023	274,395	4.34	9.93	14.27	-52.6%	48.87	4.44	9.91	14.36	-52.3%

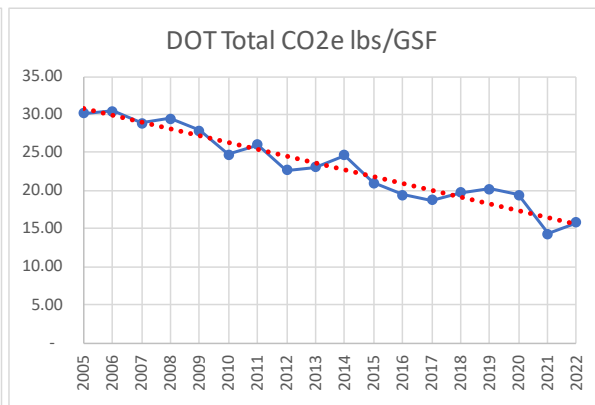
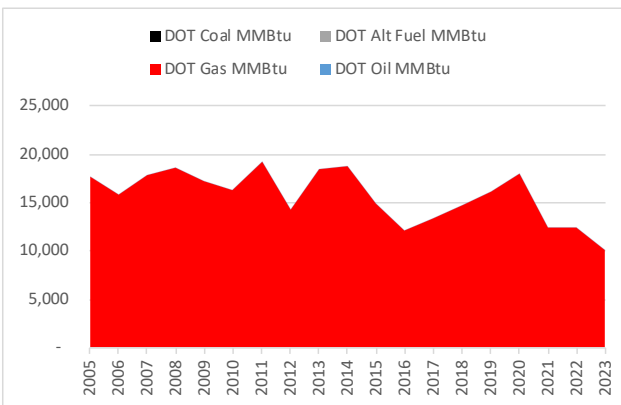
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**Department of Transportation Boiler Plant Fuel and Electric Use CO2e Emissions**

Fiscal Year	GSF	Average Temp	Total Electric kwh	Renewable Electric w/zero CO2e kwh	Utility Electric w/CO2e kwh	WI Electric Utility Emission Rate lb/kwh	Electric CO2e Emissions Metric Tons	DOT Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOT Total CO2e lbs/GSF
2005	274,395	47.81	3,360,109	-	3,360,109	1.84	2,809	940	3,749	30.12
2006	274,395	48.67	3,340,341	-	3,340,341	1.95	2,955	839	3,793	30.48
2007	274,395	47.56	3,339,547	-	3,339,547	1.75	2,649	949	3,598	28.91
2008	274,395	46.28	3,429,963	-	3,429,963	1.72	2,678	986	3,664	29.44
2009	274,395	45.56	3,282,895	-	3,282,895	1.72	2,560	914	3,474	27.91
2010	274,395	47.25	3,015,168	-	3,015,168	1.62	2,220	865	3,084	24.78
2011	274,395	46.66	3,031,237	-	3,031,237	1.62	2,222	1,020	3,242	26.05
2012	274,395	51.36	2,845,896	-	2,845,896	1.61	2,076	754	2,830	22.74
2013	274,395	47.12	2,937,939	-	2,937,939	1.42	1,895	980	2,875	23.10
2014	274,395	44.24	2,867,872	-	2,867,872	1.59	2,068	995	3,063	24.61
2015	274,395	45.57	2,551,187	-	2,551,187	1.58	1,825	791	2,616	21.02
2016	274,395	49.55	2,608,229	-	2,608,229	1.50	1,772	643	2,415	19.40
2017	274,395	49.92	2,585,613	-	2,585,613	1.39	1,624	712	2,336	18.77
2018	274,395	46.86	2,538,268	-	2,538,268	1.45	1,668	785	2,453	19.71
2019	274,395	46.05	2,627,366	-	2,627,366	1.39	1,661	855	2,517	20.22
2020	274,395	48.09	2,611,115	-	2,611,115	1.23	1,460	955	2,416	19.41
2021	274,395	48.09	2,082,858	-	2,082,858	1.19	1,122	661	1,783	14.33
2022	274,395	48.30	2,328,929	-	2,328,929	1.25	1,316	656	1,972	15.85
2023	274,395	48.87	2,299,642	-	2,299,642	1.19	1,236	540	1,776	14.27

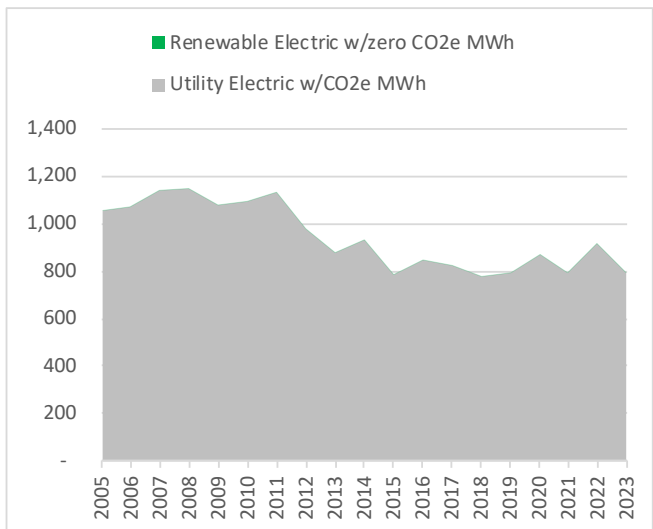
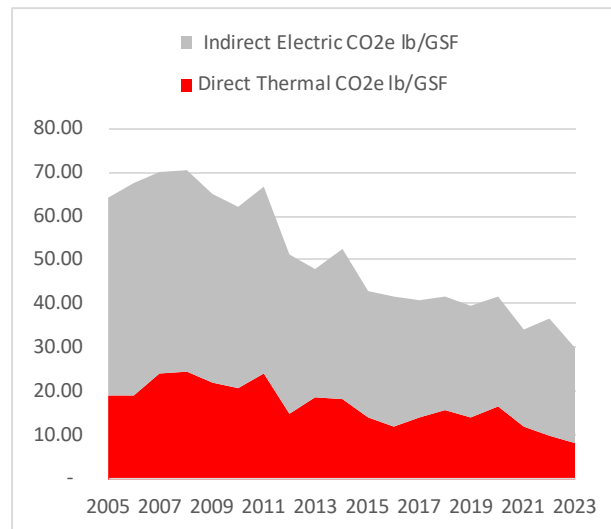
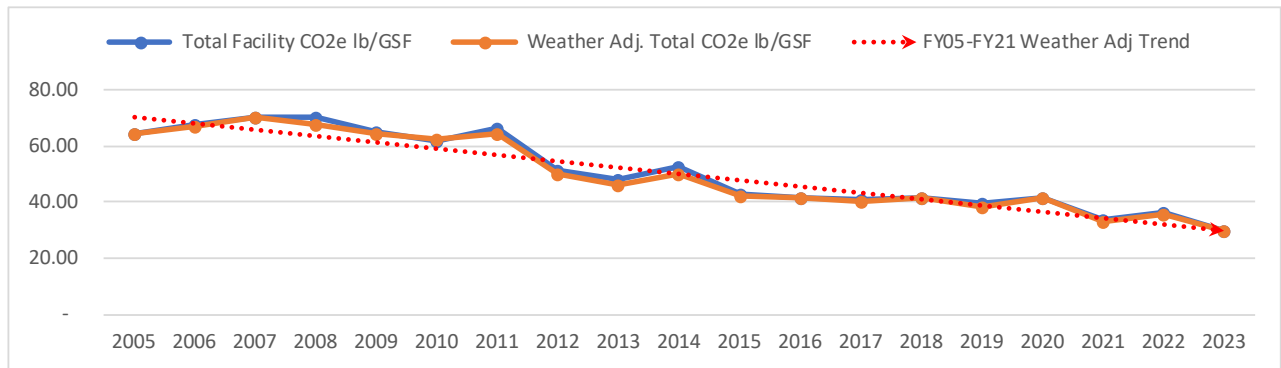
Fiscal Year	DOT Net Thermal MMBtu	DOT Plant Reports MMBtu w/Sales	DOT Coal MMBtu	DOT Alt Fuel MMBtu	DOT Gas MMBtu	DOT Oil MMBtu	DOT Plant Reports MMBtu w/Sales	DOT Boiler Fuel Based Emissions lbs	DOT Boiler Fuel Emissions lb/MMBtu	DOT Net Thermal MMBtu CO2e Metric Tons
2005	17,715	17,715	-	-	17,715	-	17,715	940	117.00	940
2006	15,808	15,808	-	-	15,808	-	15,808	839	117.00	839
2007	17,883	17,883	-	-	17,883	-	17,883	949	117.00	949
2008	18,584	18,584	-	-	18,584	-	18,584	986	117.00	986
2009	17,220	17,220	-	-	17,220	-	17,220	914	117.00	914
2010	16,294	16,294	-	-	16,294	-	16,294	865	117.00	865
2011	19,222	19,222	-	-	19,222	-	19,222	1,020	117.00	1,020
2012	14,207	14,207	-	-	14,207	-	14,207	754	117.00	754
2013	18,467	18,467	-	-	18,467	-	18,467	980	117.00	980
2014	18,751	18,751	-	-	18,751	-	18,751	995	117.00	995
2015	14,913	14,913	-	-	14,913	-	14,913	791	117.00	791
2016	12,115	12,115	-	-	12,115	-	12,115	643	117.00	643
2017	13,417	13,417	-	-	13,417	-	13,417	712	117.00	712
2018	14,790	14,790	-	-	14,790	-	14,790	785	117.00	785
2019	16,118	16,118	-	-	16,118	-	16,118	855	117.00	855
2020	18,000	18,000	-	-	18,000	-	18,000	955	117.00	955
2021	12,449	12,449	-	-	12,449	-	12,449	661	117.00	661
2022	12,363	12,363	-	-	12,363	-	12,363	656	117.00	656
2023	10,168	10,168	-	-	10,168	-	10,168	540	117.00	540



### DOT-DTD 1 Lab CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	43,000	19.04	45.14	64.18	0.0%	48.12	19.04	45.14	64.18	0.0%
2006	43,000	19.10	48.55	67.65	5.4%	48.65	19.07	47.72	66.79	4.1%
2007	43,000	23.90	46.22	70.12	9.3%	47.46	23.96	46.15	70.10	9.2%
2008	43,000	24.32	45.93	70.26	9.5%	46.19	23.12	44.76	67.88	5.8%
2009	43,000	21.83	43.13	64.96	1.2%	45.66	20.85	43.41	64.26	0.1%
2010	43,000	20.62	41.38	62.00	-3.4%	47.10	20.39	42.02	62.41	-2.8%
2011	43,000	24.20	42.41	66.61	3.8%	46.81	23.39	41.31	64.70	0.8%
2012	43,000	14.78	36.44	51.22	-20.2%	51.51	15.44	34.29	49.73	-22.5%
2013	43,000	18.74	29.07	47.82	-25.5%	47.29	17.36	28.69	46.05	-28.2%
2014	43,000	18.07	34.42	52.49	-18.2%	44.58	16.15	33.92	50.07	-22.0%
2015	43,000	14.00	28.86	42.86	-33.2%	45.84	13.46	28.98	42.44	-33.9%
2016	43,000	11.99	29.56	41.55	-35.3%	49.68	12.45	29.20	41.65	-35.1%
2017	43,000	14.12	26.53	40.65	-36.7%	49.72	14.36	25.91	40.27	-37.3%
2018	43,000	15.54	26.06	41.60	-35.2%	46.66	15.11	26.28	41.40	-35.5%
2019	43,000	14.07	25.61	39.68	-38.2%	45.88	12.58	25.82	38.40	-40.2%
2020	43,000	16.62	24.98	41.60	-35.2%	48.07	16.48	24.82	41.29	-35.7%
2021	43,000	12.08	21.82	33.90	-47.2%	47.61	11.82	21.53	33.35	-48.0%
2022	43,000	9.78	26.62	36.39	-43.3%	48.04	9.52	26.29	35.81	-44.2%
2023	43,000	8.09	21.86	29.95	-53.3%	48.64	8.09	21.76	29.85	-53.5%

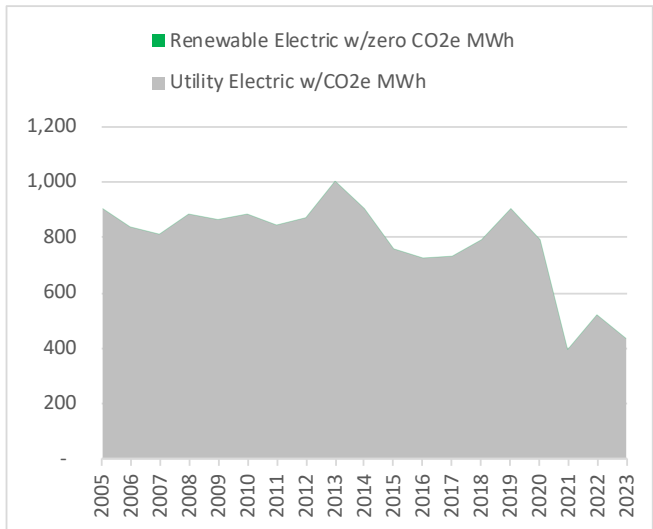
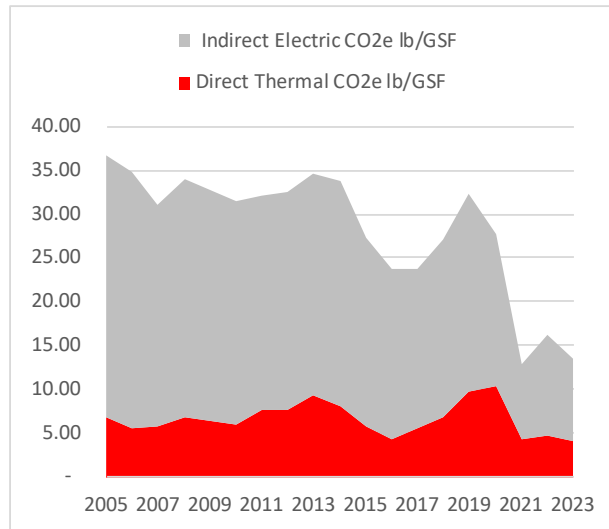
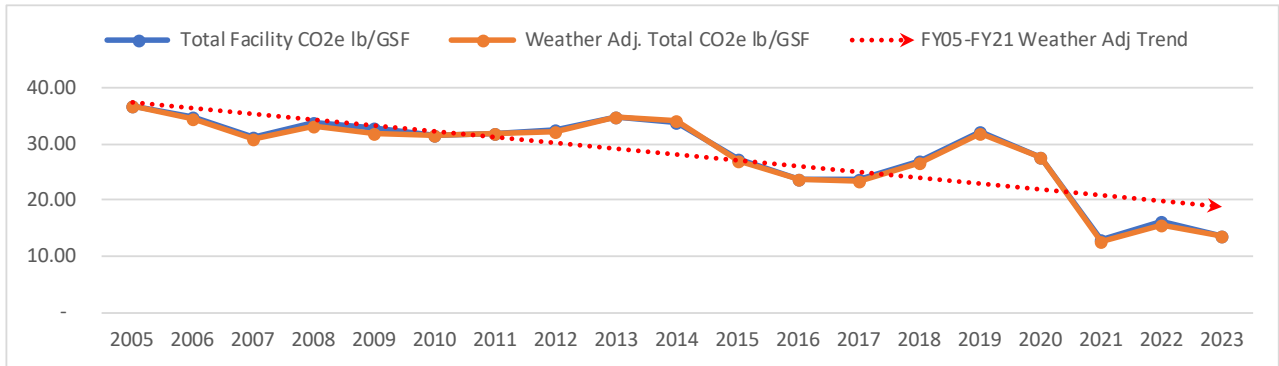
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



**DOT-DTD 1 Madison CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report**

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	56,000	6.85	29.79	36.65	0.0%	48.12	6.85	29.79	36.65	0.0%
2006	56,000	5.50	29.28	34.78	-5.1%	48.65	5.50	28.94	34.44	-6.0%
2007	56,000	5.71	25.41	31.13	-15.1%	47.46	5.60	25.34	30.95	-15.6%
2008	56,000	6.84	27.07	33.91	-7.5%	46.19	6.06	27.03	33.09	-9.7%
2009	56,000	6.30	26.47	32.77	-10.6%	45.66	5.43	26.40	31.83	-13.2%
2010	56,000	5.92	25.57	31.49	-14.1%	47.10	5.83	25.75	31.58	-13.8%
2011	56,000	7.57	24.43	32.00	-12.7%	46.81	7.32	24.50	31.82	-13.2%
2012	56,000	7.63	24.96	32.59	-11.1%	51.51	8.12	24.22	32.33	-11.8%
2013	56,000	9.22	25.47	34.69	-5.3%	47.29	8.95	25.79	34.75	-5.2%
2014	56,000	8.11	25.61	33.72	-8.0%	44.58	8.08	25.99	34.07	-7.0%
2015	56,000	5.82	21.42	27.23	-25.7%	45.84	5.46	21.49	26.95	-26.5%
2016	56,000	4.22	19.46	23.68	-35.4%	49.68	4.41	19.23	23.63	-35.5%
2017	56,000	5.55	18.09	23.64	-35.5%	49.72	5.66	17.75	23.41	-36.1%
2018	56,000	6.72	20.41	27.13	-26.0%	46.66	6.38	20.35	26.74	-27.0%
2019	56,000	9.72	22.52	32.24	-12.0%	45.88	9.14	22.65	31.79	-13.3%
2020	56,000	10.39	17.39	27.78	-24.2%	48.07	10.53	17.12	27.65	-24.5%
2021	56,000	4.38	8.44	12.81	-65.0%	47.61	4.18	8.31	12.49	-65.9%
2022	56,000	4.64	11.54	16.17	-55.9%	48.04	4.53	11.11	15.63	-57.3%
2023	56,000	4.17	9.27	13.45	-63.3%	48.64	4.23	9.22	13.45	-63.3%

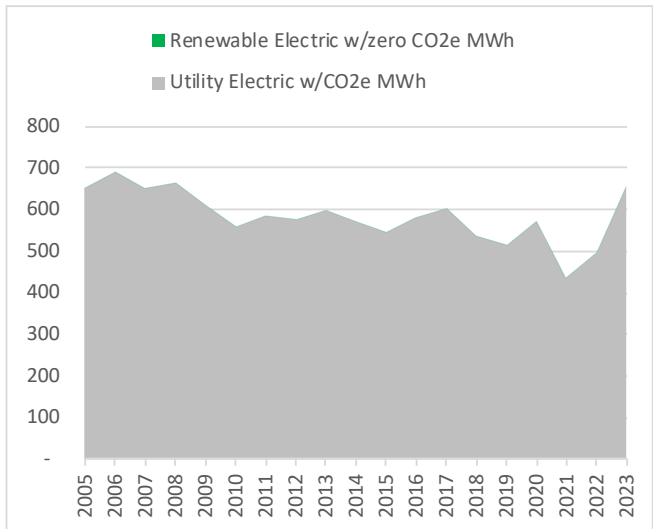
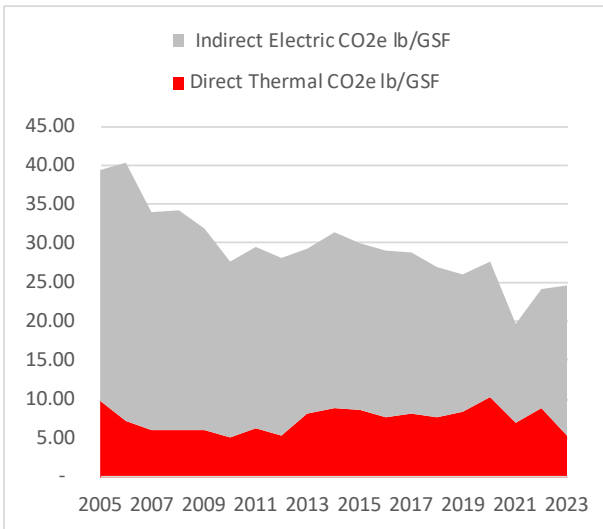
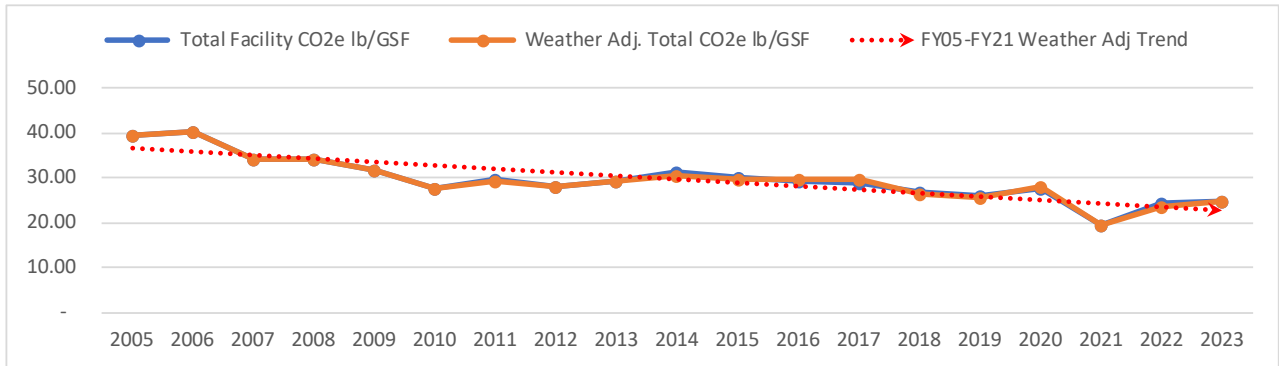
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-Green Bay CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	40,515	9.84	29.60	39.44	0.0%	45.92	9.84	29.60	39.44	0.0%
2006	40,515	7.08	33.15	40.23	2.0%	47.27	7.32	32.96	40.28	2.1%
2007	40,515	5.98	28.10	34.08	-13.6%	46.64	6.30	27.97	34.26	-13.1%
2008	40,515	6.08	28.13	34.21	-13.3%	45.02	5.87	28.12	33.99	-13.8%
2009	40,515	5.92	25.97	31.89	-19.2%	43.47	5.59	25.90	31.48	-20.2%
2010	40,515	5.12	22.45	27.57	-30.1%	45.99	5.26	22.47	27.73	-29.7%
2011	40,515	6.32	23.31	29.63	-24.9%	44.59	5.85	23.38	29.23	-25.9%
2012	40,515	5.23	22.78	28.02	-29.0%	49.86	5.93	22.17	28.10	-28.7%
2013	40,515	8.22	21.05	29.27	-25.8%	45.29	8.02	21.12	29.14	-26.1%
2014	40,515	8.88	22.51	31.39	-20.4%	41.95	8.01	22.56	30.57	-22.5%
2015	40,515	8.60	21.31	29.90	-24.2%	43.98	8.37	21.45	29.82	-24.4%
2016	40,515	7.55	21.52	29.06	-26.3%	48.11	7.99	21.49	29.47	-25.3%
2017	40,515	8.23	20.56	28.78	-27.0%	48.65	9.19	20.37	29.57	-25.0%
2018	40,515	7.66	19.21	26.87	-31.9%	45.77	7.51	18.92	26.44	-33.0%
2019	40,515	8.28	17.76	26.04	-34.0%	44.89	8.04	17.38	25.41	-35.6%
2020	40,515	10.29	17.35	27.64	-29.9%	46.41	10.52	17.29	27.81	-29.5%
2021	40,515	6.84	12.72	19.56	-50.4%	47.28	7.04	12.39	19.43	-50.7%
2022	40,515	8.80	15.34	24.14	-38.8%	46.75	8.72	14.83	23.55	-40.3%
2023	40,515	5.39	19.23	24.62	-37.6%	47.58	5.61	19.04	24.66	-37.5%

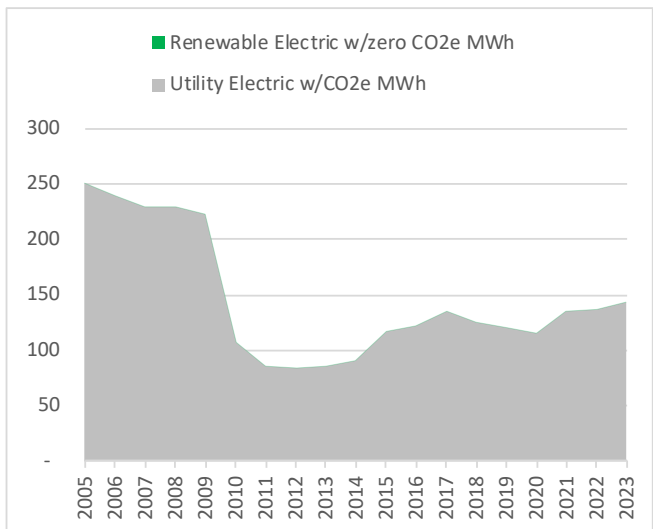
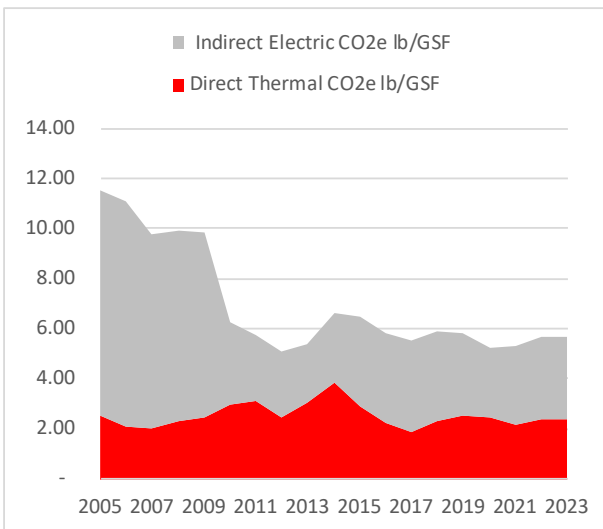
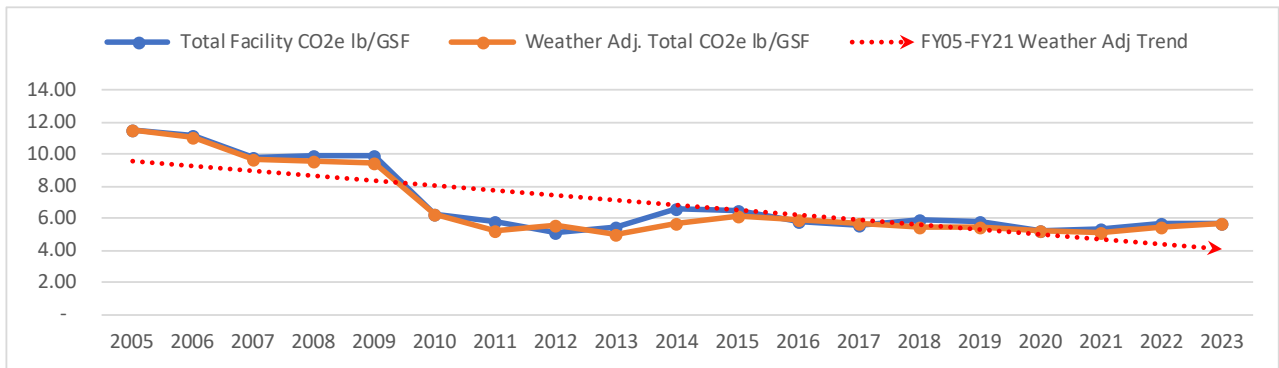
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-PIERSTORFF A CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	51,700	2.55	8.96	11.51	0.0%	48.12	2.55	8.96	11.51	0.0%
2006	51,700	2.09	9.03	11.12	-3.4%	48.65	2.00	8.99	10.99	-4.5%
2007	51,700	2.02	7.75	9.77	-15.1%	47.46	1.91	7.72	9.63	-16.3%
2008	51,700	2.29	7.63	9.92	-13.8%	46.19	1.91	7.62	9.53	-17.2%
2009	51,700	2.46	7.40	9.86	-14.4%	45.66	2.08	7.39	9.47	-17.7%
2010	51,700	2.93	3.35	6.29	-45.4%	47.10	2.89	3.35	6.24	-45.8%
2011	51,700	3.10	2.67	5.77	-49.9%	46.81	2.67	2.58	5.24	-54.5%
2012	51,700	2.44	2.64	5.07	-55.9%	51.51	2.76	2.74	5.50	-52.2%
2013	51,700	3.07	2.35	5.42	-53.0%	47.29	2.72	2.31	5.03	-56.3%
2014	51,700	3.85	2.77	6.62	-42.5%	44.58	2.96	2.73	5.69	-50.6%
2015	51,700	2.89	3.57	6.46	-43.9%	45.84	2.55	3.52	6.07	-47.3%
2016	51,700	2.25	3.56	5.81	-49.6%	49.68	2.34	3.59	5.93	-48.5%
2017	51,700	1.90	3.62	5.52	-52.1%	49.72	2.02	3.63	5.65	-50.9%
2018	51,700	2.34	3.53	5.87	-49.0%	46.66	1.93	3.49	5.41	-53.0%
2019	51,700	2.56	3.26	5.82	-49.4%	45.88	2.20	3.21	5.41	-53.0%
2020	51,700	2.49	2.73	5.22	-54.7%	48.07	2.44	2.73	5.17	-55.1%
2021	51,700	2.16	3.12	5.28	-54.1%	47.61	2.00	3.08	5.08	-55.9%
2022	51,700	2.42	3.29	5.70	-50.5%	48.04	2.20	3.25	5.45	-52.7%
2023	51,700	2.39	3.31	5.69	-50.6%	48.64	2.42	3.30	5.72	-50.3%

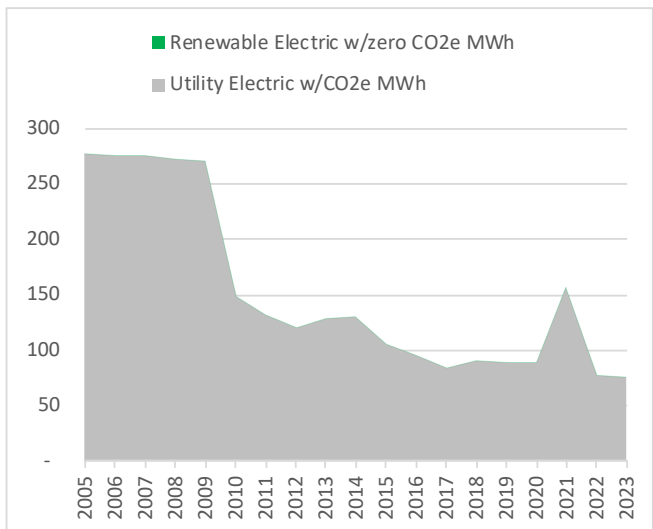
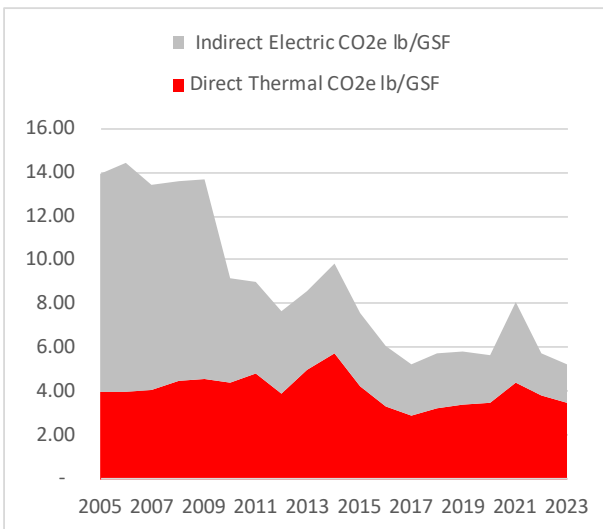
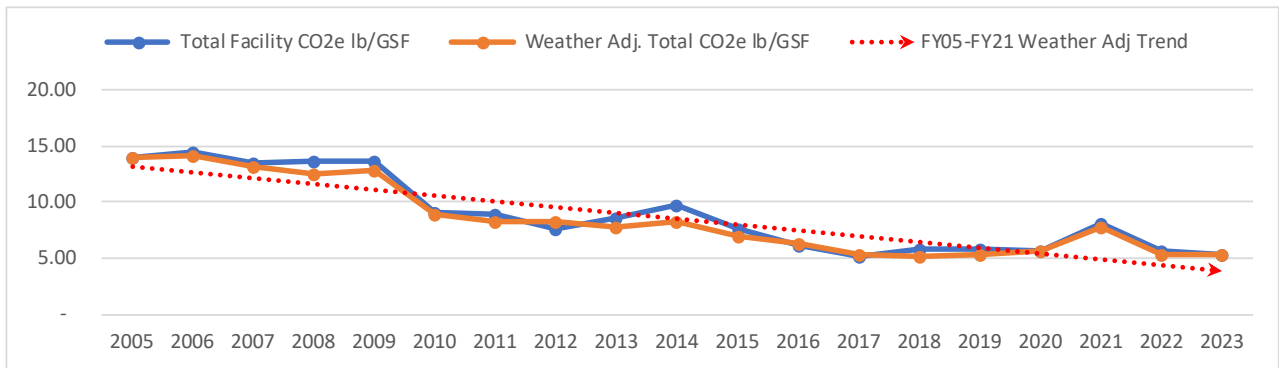
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-PIERSTORFF B CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	51,200	3.98	9.97	13.95	0.0%	48.12	3.98	9.97	13.95	0.0%
2006	51,200	3.99	10.46	14.45	3.6%	48.65	3.74	10.41	14.15	1.4%
2007	51,200	4.07	9.38	13.45	-3.6%	47.46	3.84	9.35	13.18	-5.5%
2008	51,200	4.46	9.16	13.61	-2.4%	46.19	3.50	9.06	12.56	-10.0%
2009	51,200	4.54	9.09	13.63	-2.3%	45.66	3.74	9.07	12.81	-8.2%
2010	51,200	4.42	4.72	9.14	-34.5%	47.10	4.25	4.74	8.99	-35.6%
2011	51,200	4.83	4.14	8.97	-35.7%	46.81	4.18	4.04	8.22	-41.1%
2012	51,200	3.88	3.80	7.68	-44.9%	51.51	4.34	3.84	8.18	-41.4%
2013	51,200	4.97	3.57	8.54	-38.8%	47.29	4.40	3.45	7.85	-43.7%
2014	51,200	5.74	4.07	9.81	-29.7%	44.58	4.37	3.96	8.33	-40.3%
2015	51,200	4.26	3.27	7.53	-46.0%	45.84	3.78	3.22	7.00	-49.9%
2016	51,200	3.30	2.80	6.10	-56.3%	49.68	3.42	2.81	6.23	-55.3%
2017	51,200	2.93	2.27	5.20	-62.7%	49.72	3.12	2.28	5.40	-61.3%
2018	51,200	3.19	2.55	5.74	-58.9%	46.66	2.65	2.50	5.15	-63.1%
2019	51,200	3.41	2.43	5.83	-58.2%	45.88	2.94	2.37	5.31	-61.9%
2020	51,200	3.50	2.13	5.64	-59.6%	48.07	3.47	2.13	5.60	-59.9%
2021	51,200	4.43	3.62	8.05	-42.3%	47.61	4.17	3.53	7.70	-44.8%
2022	51,200	3.82	1.87	5.69	-59.2%	48.04	3.52	1.86	5.37	-61.5%
2023	51,200	3.52	1.73	5.25	-62.4%	48.64	3.60	1.75	5.35	-61.7%

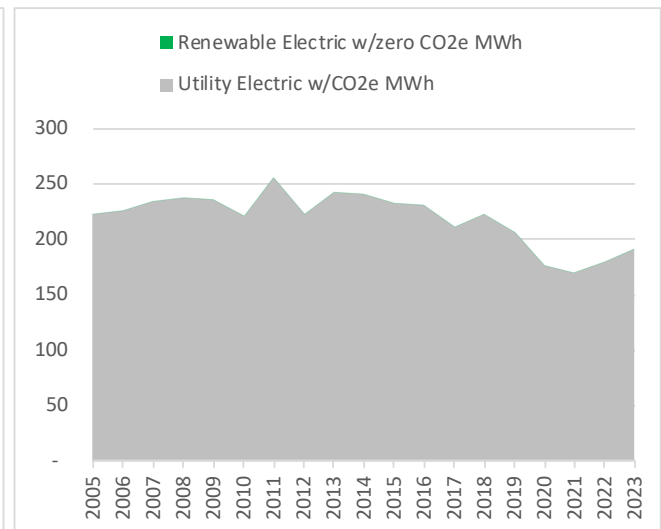
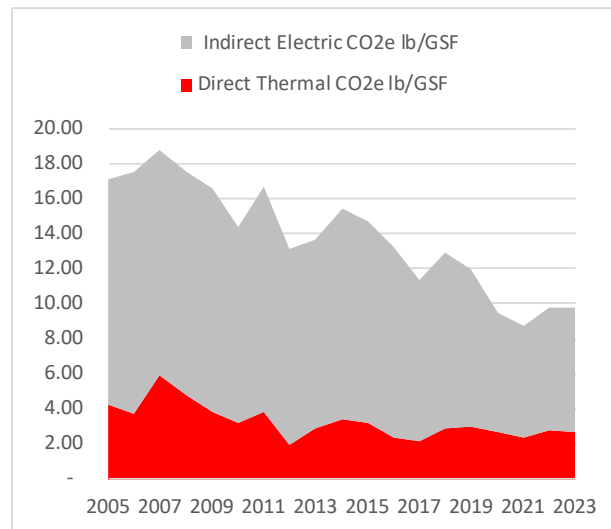
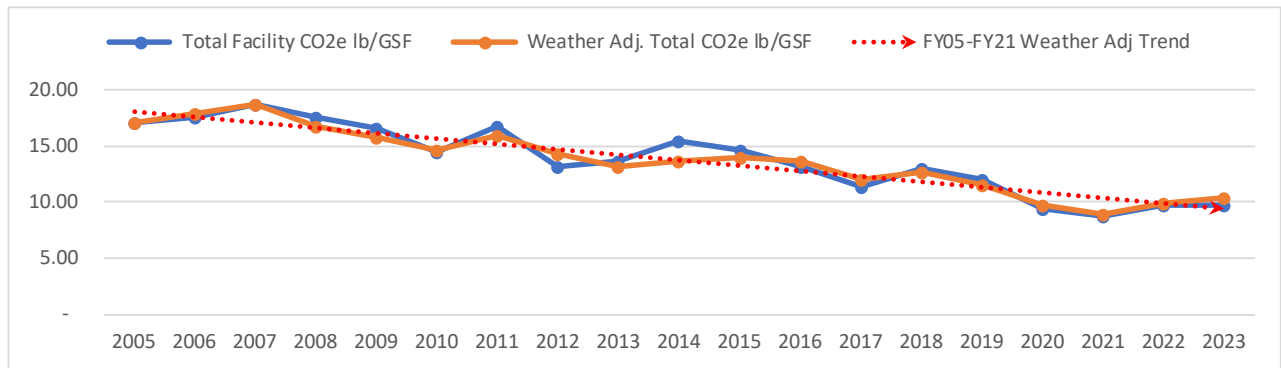
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-West Allis CO2e Emissions Fiscal Year 2023 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO2e lb/GSF	Indirect Electric CO2e lb/GSF	Total Facility CO2e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO2e lb/GSF	Weather Adj. Electric CO2e lb/GSF	Weather Adj. Total CO2e lb/GSF	Weather Adj. Total from Base
2005	31,980	4.25	12.82	17.07	0.0%	48.47	4.25	12.82	17.07	0.0%
2006	31,980	3.77	13.79	17.55	2.9%	50.11	3.89	14.06	17.95	5.2%
2007	31,980	5.92	12.85	18.77	9.9%	48.88	5.92	12.87	18.80	10.1%
2008	31,980	4.78	12.78	17.56	2.9%	47.87	4.26	12.45	16.71	-2.1%
2009	31,980	3.87	12.71	16.58	-2.8%	47.26	3.41	12.39	15.80	-7.4%
2010	31,980	3.23	11.18	14.41	-15.6%	49.10	3.35	11.31	14.66	-14.1%
2011	31,980	3.78	12.89	16.68	-2.3%	48.17	3.43	12.58	16.01	-6.2%
2012	31,980	1.97	11.17	13.14	-23.0%	52.24	2.27	11.99	14.26	-16.5%
2013	31,980	2.89	10.77	13.65	-20.0%	48.26	2.59	10.53	13.12	-23.1%
2014	31,980	3.45	11.95	15.40	-9.8%	45.20	2.54	11.12	13.66	-20.0%
2015	31,980	3.17	11.50	14.66	-14.1%	46.08	2.83	11.07	13.91	-18.5%
2016	31,980	2.34	10.85	13.18	-22.8%	50.51	2.43	11.25	13.68	-19.8%
2017	31,980	2.19	9.11	11.30	-33.8%	51.99	2.54	9.42	11.96	-29.9%
2018	31,980	2.85	10.10	12.95	-24.1%	48.73	2.69	9.97	12.65	-25.9%
2019	31,980	2.94	9.02	11.95	-30.0%	47.88	2.73	8.87	11.59	-32.1%
2020	31,980	2.64	6.82	9.46	-44.6%	49.85	2.73	6.96	9.69	-43.2%
2021	31,980	2.38	6.31	8.69	-49.1%	50.84	2.51	6.37	8.88	-47.9%
2022	31,980	2.80	7.01	9.80	-42.6%	50.90	2.85	6.97	9.82	-42.5%
2023	31,980	2.70	7.09	9.79	-42.6%	51.09	3.07	7.37	10.44	-38.8%

CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.





## Appendix A – GHG-CO2e Calculation Methodology and Emission Factors

The greenhouse gas accounting and tracking were designed to record, track, and communicate the GHG emissions and renewable energy use associated with the energy use of state buildings. The methodology to determine a building’s total GHG emissions accounts for all CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions associated with the building’s energy use. This inventory includes GHG emissions from both fossil fuel consumed on-site (referred to as direct emissions), as well as GHG emissions generated off-site at power plants that deliver heat, cooling or electricity to the building (referred to as indirect emissions).

**Calculating Direct GHG Emissions** - For direct greenhouse gas emissions in CO<sub>2</sub>e, each fuel is assigned a heating content, carbon content, a carbon oxidation factor, and a standard carbon to CO<sub>2</sub> ratio to arrive at an emissions factor expressed in mass of CO<sub>2</sub> per unit of fuel energy. CH<sub>4</sub> and N<sub>2</sub>O emissions factors are estimates derived for each fuel type using commercial end-use sector combustion technology, characteristics, and controls. Measured (billed or metered) site energy consumption is then multiplied by the following factors:

Direct Greenhouse Gas Emission Factors

Fuel Type	GHG CO <sub>2</sub> e lb/MMBtu
Coal	205.70
Natural Gas	117.00
Fuel Oil	173.70
Alternate Fuels (RDF, Paper, etc.)	91.90
Tire-Derived Fuels (TDF)	189.54

**Calculating Indirect GHG Emissions** - Similar to the calculations for direct emissions, emission factor values were used to determine indirect GHG emissions from purchased district energy. For purchased district steam used emissions factor and boiler efficiency, fuel mix, or fuel emissions factor values from the energy supplier. For purchased district chilled water, used the chilled water production method and factors calculated from the energy supplier. For indirect emissions resulting from the consumption of district energy, measured site energy consumption is multiplied by applicable factors. For indirect emissions resulting from the consumption of grid-based electricity purchased from a utility, site electricity consumption is multiplied by the average electricity production output emission rates calculations made by the Electric Power Systems and Reliability Team; Office of Electricity, Renewables, and Uranium Statistics; U.S. Energy Information Administration. These factors represent the average emissions from the grid connected electricity generation units (baseload, intermediate, and peaking), and are appropriate for developing a carbon footprint or emissions inventory. The emissions rate factor for Wisconsin grid-based purchases all years in this report were based on: 1) EIA lb/kwh for grid purchases; and 2) 0.00 lb/kwh for renewable purchases assuming from non-combustible wind and solar PV based resources. In this report, the GHG CO<sub>2</sub>e emissions credits associated with renewable energy use and purchases are based on replacing utility electricity CO<sub>2</sub>e lb/kwh and kwh with renewable energy kwh and 0.0 lb/kwh (zero GHG CO<sub>2</sub>e emissions for non-combustible renewables).

Since FY2005, State of Wisconsin facilities have reduced the rate of GHG CO<sub>2</sub>e emissions by 1) Increasing the share of electricity generated from renewable sources from wind and solar based resources; and 2) Lowering total electricity consumption and energy use through improvements in energy conservation and efficiency.

## Carbon Dioxide Emissions Coefficients by Fuel

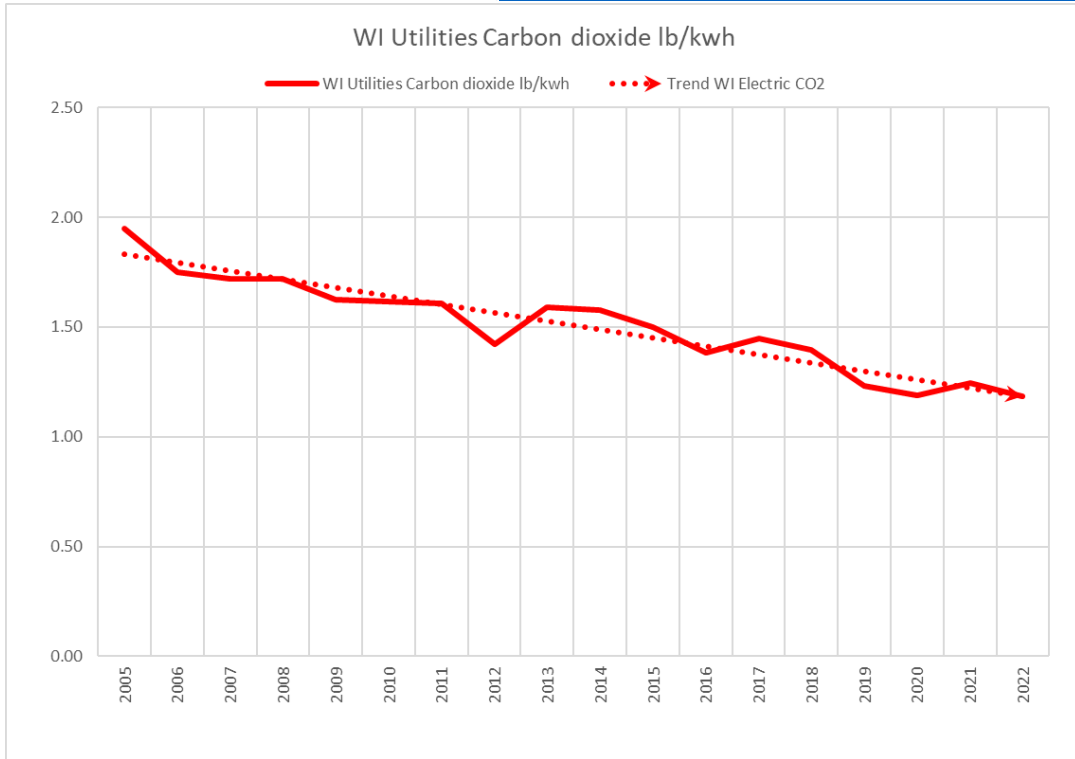
Carbon Dioxide (CO2) Factors:	Pounds CO2	Kilograms CO2	Pounds CO2	Kilograms CO2
	Volume or Mass	Volume or Mass	Million Btu	Per Million Btu
<b>For homes and businesses</b>				
Propane	12.70 gallon	5.76 gallon	139.05	63.07
Butane	14.80 gallon	6.71 gallon	143.20	64.95
Butane/Propane Mix	13.70 gallon	6.21 gallon	141.12	64.01
Home Heating and Diesel Fuel (Distillate)	22.40 gallon	10.16 gallon	161.30	73.16
Kerosene	21.50 gallon	9.75 gallon	159.40	72.30
Coal (All types)	4,631.50 short ton	2,100.82 short ton	210.20	95.35
Natural Gas	117.10 thousand cubic feet	53.12 thousand cubic feet	117.00	53.07
Gasoline	19.60 gallon	8.89 gallon	157.20	71.30
Residual Heating Fuel (Businesses only)	26.00 gallon	11.79 gallon	173.70	78.79
<b>Other transportation fuels</b>				
Jet Fuel	21.10 gallon	9.57 gallon	156.30	70.90
Aviation Gas	18.40 gallon	8.35 gallon	152.60	69.20
<b>Industrial fuels and others not listed above</b>				
Flared natural gas	120.70 thousand cubic feet	54.75 thousand cubic feet	120.60	54.70
Petroleum coke	32.40 gallon	14.70 gallon	225.10	102.10
Other petroleum & miscellaneous	22.09 gallon	10.02 gallon	160.10	72.62
<b>Nonfuel uses</b>				
Asphalt and Road Oil	26.34 gallon	11.95 gallon	166.70	75.61
Lubricants	23.62 gallon	10.72 gallon	163.60	74.21
Petrochemical Feedstocks	24.74 gallon	11.22 gallon	156.60	71.03
Special Naphthas (solvents)	20.05 gallon	9.10 gallon	160.50	72.80
Waxes	21.11 gallon	9.57 gallon	160.10	72.62
<b>Coals by type</b>				
Anthracite	5,685.00 short ton	2,578.68 short ton	228.60	103.70
Bituminous	4,931.30 short ton	2,236.80 short ton	205.70	93.30
Subbituminous	3,715.90 short ton	1,685.51 short ton	214.30	97.20
Lignite	2,791.60 short ton	1,266.25 short ton	215.40	97.70
Coke	6,239.68 short ton	2,830.27 short ton	251.60	114.12
<b>Other fuels</b>				
Geothermal (average all generation)	NA	NA	16.99	7.71
Municipal Solid Waste	5,771.00 short ton	2,617.68 short ton	91.90	41.69
Tire-derived fuel	6,160.00 short ton	2,794.13 short ton	189.54	85.97
Waste oil	924.0 barrel	419.12 barrel	210.00	95.25

Source: U.S. Energy Information Administration estimates.

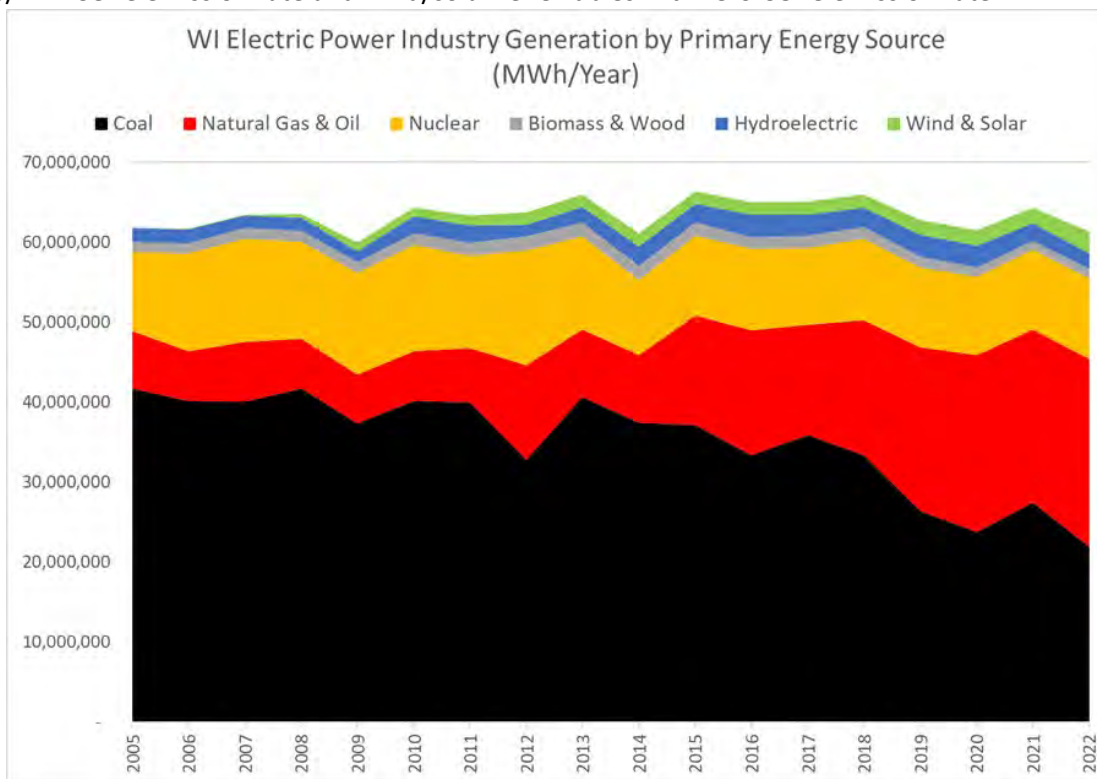
Note: To convert to carbon equivalents multiply by 12/44.

Coefficients may vary slightly with estimation method and across time.

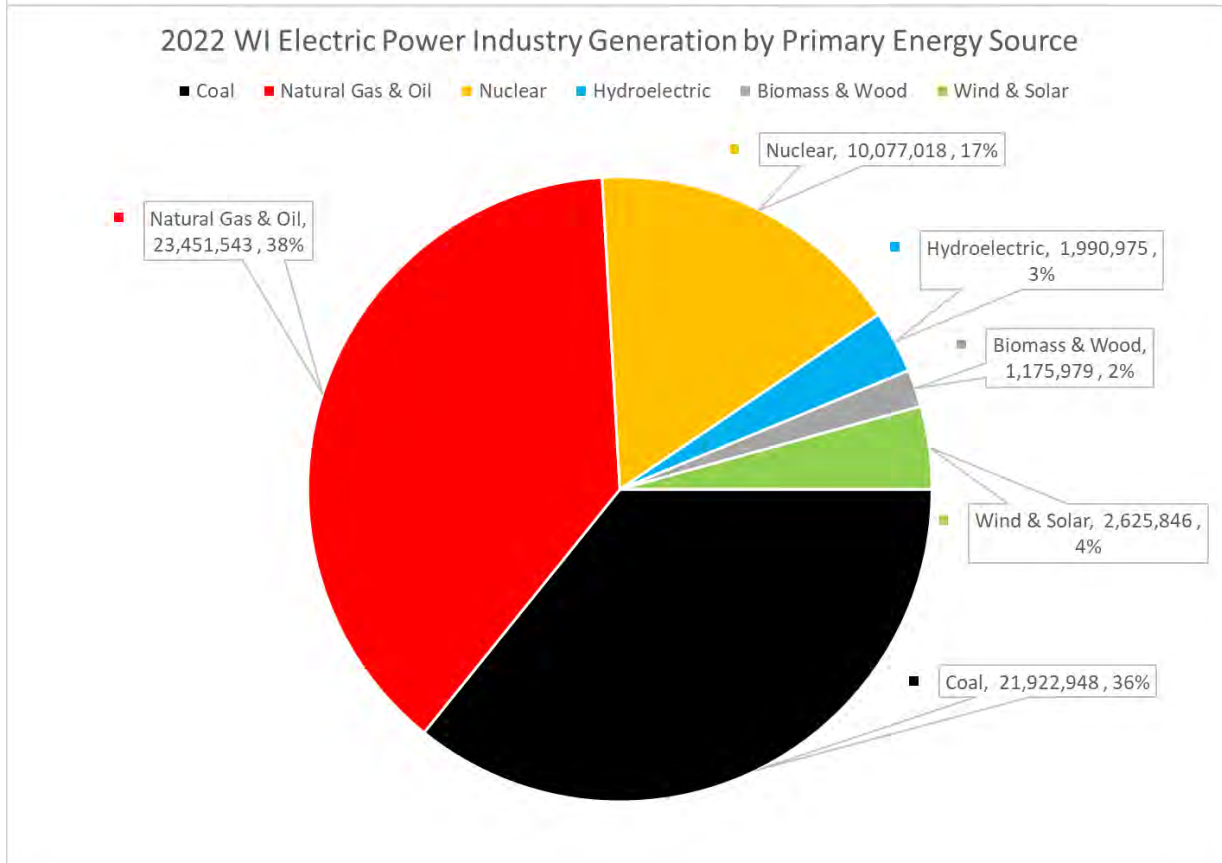
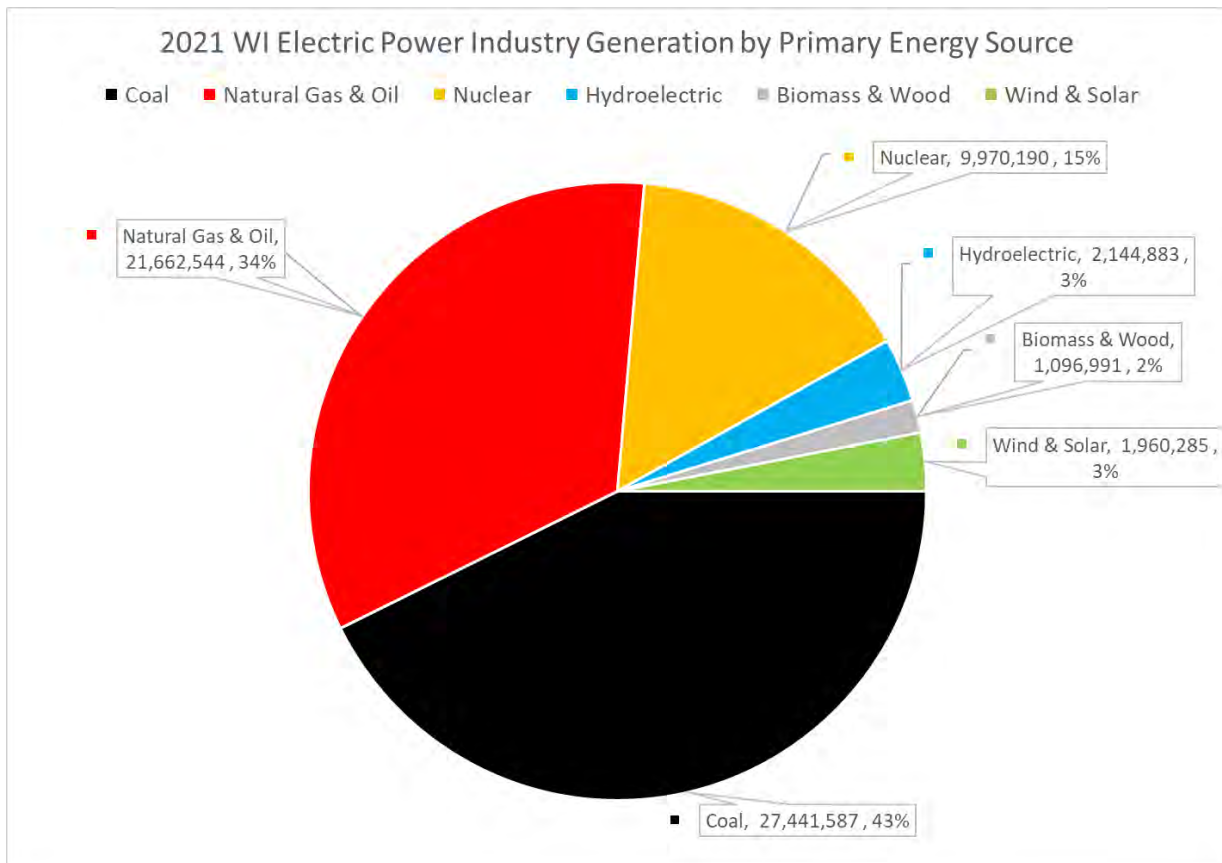
The emissions rate factor for Wisconsin power industry electricity used in this report were based on: 1) EIA lb/kwh for grid purchases; and 2) 0.00 lb/kwh for State Energy Report facilities renewable energy use and purchase assuming from non-combustible wind and solar PV based resources. The Wisconsin electric utility carbon dioxide lb/kwh used is summarized below (<https://www.eia.gov/electricity/state/wisconsin/>):



The Wisconsin power industry emissions are based on the historical primary energy sources are summarized below. The trends are reduced coal use with high lb/kwh CO2e emission rate replaced with natural gas with lower lb/kwh CO2e emission rate and wind/solar renewables with zero CO2e emission rate:



The Wisconsin power industry emissions are based on the 2021 and 2022 primary energy sources are summarized below:



## Appendix B - Renewable Energy Policy and Purchases

The data for Renewable Electricity with zero CO2e shown in the charts and included in the CO2 calculations include renewable electricity purchased for state agencies as directed by Wis. Stat. §16.75(12), and long-term contracts held by DOA and UW-Madison to purchase renewable electricity from the MGE O'Brien Solar Fields. These data do not comprehensively include renewable electricity generated by on-site renewable energy projects, purchases of Renewable Energy Credits (RECS), or Solar Thermal Agreements.

Wisconsin energy policy decisions are guided by Wis. Stat. §1.12: “In meeting energy demands, the policy of the state is that, to the extent cost effective and technically feasible, options be considered based on the following priorities, in the order listed:

- (a) Energy conservation and efficiency.
- (b) Noncombustible renewable energy resources.
- (c) Combustible renewable energy resources.
- (d) Nonrenewable combustible energy resources.”

For the purchase of renewable electricity, the state’s six largest state agencies are directed by Wis. Stat. § 16.75(12) which states the following goals:

1. The renewable percentage for total annual electric energy by December 31, 2007, is at least 10 percent.
2. The renewable percentage for total annual electric energy by December 31, 2011, is at least 20 percent.

Electric energy was purchased from the electric provider that serves the agency facility under arrangements with a term of 10 years or more and electric energy derived from renewable resources owned by the state and produced for use at State Agency facilities. Renewable energy purchases under these agreements are summarized below:

Fiscal Year	Total TOTAL UNITS	Total TOTAL COST	Total Cost \$/kwh
FY08	6,666,666	\$ 66,667	\$ 0.0100
FY09	84,524,854	\$ 1,449,850	\$ 0.0172
FY10	92,312,991	\$ 1,605,502	\$ 0.0174
FY11	135,021,334	\$ 3,094,235	\$ 0.0229
FY12	156,399,996	\$ 4,685,579	\$ 0.0300
FY13	151,802,336	\$ 4,367,188	\$ 0.0288
FY14	150,629,785	\$ 3,845,352	\$ 0.0255
FY15	148,641,976	\$ 4,742,512	\$ 0.0319
FY16	150,854,007	\$ 5,563,077	\$ 0.0369
FY17	154,379,500	\$ 5,389,162	\$ 0.0349
FY18	138,527,203	\$ 5,134,199	\$ 0.0371
FY19	86,392,660	\$ 3,937,375	\$ 0.0456
FY20	89,859,818	\$ 4,936,061	\$ 0.0549
FY21	86,892,378	\$ 5,068,265	\$ 0.0583
FY22	92,255,791	\$ 3,610,258	\$ 0.0391
FY23	87,931,810	\$ 4,019,187	\$ 0.0457

The above agency purchases are allocated based on the State Energy Report electric energy monitored facilities use and state agencies totals summarized on the following page.

Fiscal Year	Agency	DOA_TOTAL UNITS	DOA_TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DOC_TOTAL UNITS	DOC_TOTAL COST	Agency kwh	% Renewables
FY08	DOA	496,666	\$ 4,967	72,527,798	0.68%	FY08	DOC	714,000	\$ 7,140	109,716,385	0.65%
FY09	DOA	6,297,098	\$ 108,014	69,552,909	9.05%	FY09	DOC	9,052,612	\$ 155,279	107,820,024	8.40%
FY10	DOA	6,877,318	\$ 119,610	66,750,932	10.30%	FY10	DOC	9,886,721	\$ 171,949	104,929,036	9.42%
FY11	DOA	10,059,089	\$ 230,521	65,739,826	15.30%	FY11	DOC	14,460,785	\$ 331,393	106,175,282	13.62%
FY12	DOA	9,837,560	\$ 294,723	65,729,341	14.97%	FY12	DOC	16,953,760	\$ 507,917	103,665,088	16.35%
FY13	DOA	9,548,367	\$ 274,696	64,271,547	14.86%	FY13	DOC	16,455,373	\$ 473,403	102,475,307	16.06%
FY14	DOA	8,058,693	\$ 205,726	65,347,680	12.33%	FY14	DOC	16,057,135	\$ 409,915	100,923,141	15.91%
FY15	DOA	8,621,235	\$ 275,066	63,550,371	13.57%	FY15	DOC	15,310,124	\$ 488,479	98,622,239	15.52%
FY16	DOA	8,824,904	\$ 325,440	63,236,496	13.96%	FY16	DOC	15,206,090	\$ 560,758	97,936,710	15.53%
FY17	DOA	9,217,165	\$ 318,499	62,974,849	14.64%	FY17	DOC	15,845,414	\$ 547,539	96,467,070	16.43%
FY18	DOA	7,564,225	\$ 276,508	59,651,618	12.68%	FY18	DOC	13,632,673	\$ 498,734	96,376,737	14.15%
FY19	DOA	5,357,204	\$ 244,340	56,853,956	9.42%	FY19	DOC	8,502,919	\$ 387,530	95,023,787	8.95%
FY20	DOA	5,482,053	\$ 299,961	54,110,768	10.13%	FY20	DOC	8,900,332	\$ 489,415	94,680,804	9.40%
FY21	DOA	5,435,118	\$ 317,020	49,209,710	11.04%	FY21	DOC	8,553,686	\$ 498,920	91,931,300	9.30%
FY22	DOA	5,770,600	\$ 225,822	51,952,077	11.11%	FY22	DOC	9,081,660	\$ 355,394	91,019,480	9.98%
FY23	DOA	5,500,135	\$ 251,400	50,914,862	10.80%	FY23	DOC	8,656,007	\$ 395,649	88,081,599	9.83%

Fiscal Year	Agency	DHS_TOTAL UNITS	DHS_TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DPI_TOTAL UNITS	DPI_TOTAL COST	Agency kwh	% Renewables
FY08	DHS	288,666	\$ 2,887	46,425,119	0.62%	FY08	DPI	22,000	\$ 220	2,907,980	0.76%
FY09	DHS	3,659,923	\$ 62,778	45,509,209	8.04%	FY09	DPI	278,932	\$ 4,785	2,816,466	9.90%
FY10	DHS	3,997,153	\$ 69,518	44,092,319	9.07%	FY10	DPI	304,633	\$ 5,298	2,752,309	11.07%
FY11	DHS	5,846,424	\$ 133,980	46,500,802	12.57%	FY11	DPI	445,570	\$ 10,211	2,970,567	15.00%
FY12	DHS	6,772,120	\$ 202,886	46,836,797	14.46%	FY12	DPI	453,560	\$ 13,588	2,940,301	15.43%
FY13	DHS	6,573,041	\$ 189,099	44,955,338	14.62%	FY13	DPI	440,227	\$ 12,665	2,974,984	14.80%
FY14	DHS	6,703,025	\$ 171,118	44,672,991	15.00%	FY14	DPI	451,889	\$ 11,536	2,763,596	16.35%
FY15	DHS	6,391,605	\$ 203,928	44,765,285	14.28%	FY15	DPI	445,926	\$ 14,228	2,604,980	17.12%
FY16	DHS	6,547,066	\$ 241,438	45,529,852	14.38%	FY16	DPI	392,221	\$ 14,464	2,621,051	14.96%
FY17	DHS	6,737,420	\$ 232,812	45,995,789	14.65%	FY17	DPI	402,893	\$ 14,012	2,627,752	15.33%
FY18	DHS	6,424,782	\$ 235,418	44,162,598	14.55%	FY18	DPI	366,591	\$ 13,422	2,600,248	14.10%
FY19	DHS	3,947,718	\$ 179,897	42,742,545	9.24%	FY19	DPI	232,979	\$ 10,619	1,991,750	11.70%
FY20	DHS	3,971,967	\$ 217,099	42,838,997	9.27%	FY20	DPI	214,416	\$ 11,540	2,145,181	10.00%
FY21	DHS	3,964,899	\$ 231,265	42,100,848	9.42%	FY21	DPI	234,609	\$ 13,684	1,843,185	12.73%
FY22	DHS	4,209,632	\$ 164,736	41,523,511	10.14%	FY22	DPI	249,091	\$ 9,748	2,260,253	11.02%
FY23	DHS	4,012,328	\$ 183,396	39,126,176	10.25%	FY23	DPI	237,416	\$ 10,852	2,300,964	10.32%

Fiscal Year	Agency	DVA_TOTAL UNITS	DVA_TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	UW_TOTAL UNITS	UW_TOTAL COST	Agency kwh	% Renewables
FY08	DVA	64,666	\$ 647	9,703,983	0.67%	FY08	UW	5,080,668	\$ 50,807	763,676,445	0.67%
FY09	DVA	819,888	\$ 14,064	9,465,390	8.66%	FY09	UW	64,416,402	\$ 1,104,931	754,963,413	8.53%
FY10	DVA	895,436	\$ 15,573	9,310,393	9.62%	FY10	UW	70,351,730	\$ 1,223,553	764,438,048	9.20%
FY11	DVA	1,309,707	\$ 30,014	9,767,198	13.41%	FY11	UW	102,899,759	\$ 2,358,117	792,235,745	12.99%
FY12	DVA	1,501,440	\$ 44,982	9,780,670	15.35%	FY12	UW	120,881,557	\$ 3,621,484	805,469,665	15.01%
FY13	DVA	1,457,302	\$ 41,925	9,829,269	14.83%	FY13	UW	117,328,025	\$ 3,375,400	790,218,376	14.85%
FY14	DVA	1,491,235	\$ 38,069	9,713,958	15.35%	FY14	UW	117,867,807	\$ 3,008,988	791,243,627	14.90%
FY15	DVA	1,486,420	\$ 47,425	9,768,928	15.22%	FY15	UW	116,386,667	\$ 3,713,387	783,989,771	14.85%
FY16	DVA	1,463,284	\$ 53,962	10,134,052	14.44%	FY16	UW	118,420,442	\$ 4,367,016	790,026,489	14.99%
FY17	DVA	1,596,076	\$ 55,508	10,065,736	15.86%	FY17	UW	120,580,532	\$ 4,220,792	782,342,340	15.41%
FY18	DVA	1,420,410	\$ 115,246	10,296,737	13.79%	FY18	UW	109,118,522	\$ 3,994,871	767,821,625	14.21%
FY19	DVA	889,563	\$ 40,543	9,869,445	9.01%	FY19	UW	67,462,276	\$ 3,074,447	760,301,234	8.87%
FY20	DVA	925,556	\$ 50,841	8,961,309	10.33%	FY20	UW	70,365,494	\$ 3,867,206	730,850,048	9.63%
FY21	DVA	894,991	\$ 52,203	8,939,562	10.01%	FY21	UW	67,809,074	\$ 3,955,172	708,039,188	9.58%
FY22	DVA	950,235	\$ 37,186	10,277,509	9.25%	FY22	UW	71,994,574	\$ 2,817,373	746,064,447	9.65%
FY23	DVA	905,698	\$ 41,398	9,000,826	10.06%	FY23	UW	68,620,226	\$ 3,136,493	734,648,366	9.34%

## Additional Renewable Energy Resources and Purchases

The Wisconsin Department of Administration and UW-Madison negotiated long term contracts to purchase renewable energy O'Brien Solar Fields output from Madison Gas and Electric (MGE) under Renewable Energy Rider (RER). The summary of energy, costs and utility rate credits are:

Fiscal Year	DOA RER kWh	DOA RER Charge	DOA RER \$/KWh	DOA Retail Rate Credits	Rate Credit \$/kwh	DOA Net RER Retail Credit	RER Net Cost (Credit) \$/kwh
2021	819,710	\$ 52,461	\$ 0.0640	\$ (57,674)	\$ (0.0704)	\$ (5,212)	\$ (0.0064)
2022	8,475,202	\$ 542,413	\$ 0.0640	\$ (617,982)	\$ (0.0729)	\$ (75,569)	\$ (0.0089)
2023	9,098,482	\$ 582,303	\$ 0.0640	\$ (728,979)	\$ (0.0801)	\$ (146,677)	\$ (0.0161)
DOA Total	18,393,394	\$ 1,177,177	\$ 0.0640	\$ (1,404,635)	\$ (0.0764)	\$ (227,458)	\$ (0.0124)

Fiscal Year	UW RER kWh	UW RER Charge	UW RER \$/KWh	UW Sp-3 Rate Credits	Sp3 Rate Credit \$/kwh	UW Net RER Marginal Sp-3 Credit	RER Net Cost (Credit) \$/kwh
2021	1,733,266	\$ 100,529	\$ 0.0580	\$ (62,383)	\$ (0.0360)	\$ 38,146	\$ 0.0220
2022	19,043,022	\$ 1,104,495	\$ 0.0580	\$ (832,519)	\$ (0.0437)	\$ 271,976	\$ 0.0143
2023	17,818,983	\$ 1,033,501	\$ 0.0580	\$ (932,336)	\$ (0.0523)	\$ 101,165	\$ 0.0057
UW Total	38,595,271	\$ 2,238,526	\$ 0.0580	\$ (1,827,238)	\$ (0.0473)	\$ 411,287	\$ 0.0107

Highlights of the RER purchase agreements include:

1. Wisconsin Department of Administration MGE's Renewable Energy Rider and Dedicated Renewable Energy Facility Agreement:
  - 30-year agreement for 4,000 kW-AC (4,800 kW-DC) of capacity from the Project and is thereby obligated to purchase the associated pro-rata energy produced.
  - During the first full year of operation, approximately 7,900,000 kWh is forecasted to be generated in coincidence with the Customer's energy usage.
  - Customer shall receive ownership of all Renewable Energy Certificates ("RECs").
  - The Customer did not buy down energy rate with one-time fixed amount contribution.
  - The matching portion of the renewable energy supplied to the Customer account(s) listed on Exhibit B shall be billed to each account at the rate of \$0.064 per kWh. This rate will not increase during the duration of the agreement. Unlike the SP-3, DOA variable energy rates include energy fixed costs that are not in the current Cg-2 rates \$5,300 per year service costs.
  - RER energy credits are based on the applicable account rates schedules coincident energy kwh purchases displaced at variable rate schedule energy rates.
  - The Customer shall receive a coincident on-peak capacity credit in accordance with the coincident on-peak demand reduction. This credit rate of \$0.23882 per kW per day (the "Coincident On-Peak Demand Reduction Credit Rate").
2. UW-Madison MGE's Renewable Energy Rider and Dedicated Renewable Energy Facility Agreement:
  - 30-year agreement for 10,000 kW-AC (12,570 kW-DC) of capacity from the Project and is thereby obligated to purchase the associated pro-rata energy produced.
  - During the first full year of operation, approximately 19,750,000 kWh is forecasted to be generated in coincidence with the Customer's energy usage.
  - Customer shall receive ownership of all Renewable Energy Certificates ("RECs").
  - The Customer shall be billed a one-time fixed amount of \$1,500,000 on the first Customer bill under this Agreement. The \$1.5 million "bought-down" from \$0.064 per kWh without initial one-time fixed amount to UW's \$0.058 per kWh.
  - The matching portion of the renewable energy supplied to the Customer shall be billed to each account at the rate of \$0.058 per kWh. This rate will not increase during the duration of the agreement.

- RER energy credits are based on the Sp-3 coincident energy kwh purchases displaced at Sp-3 marginal energy rates. SP-3 lower marginal energy rates exclude energy fixed costs that are included in the current \$12.5 million per year grid connection and customer service costs.
- The Customer shall receive a coincident on-peak capacity credit in accordance with the coincident on-peak demand reduction. This credit rate of \$0.23882 per kW per day (the “Coincident On-Peak Demand Reduction Credit Rate”).

The Building Commission Sustainable Facilities Policy, and Division of State Facilities (DSF) Sustainable Facilities Standards prescribe sustainable requirements for state construction and leased facilities that apply to all DSF projects without exception, regardless of size or budget. The fundamental purpose is to improve the overall quality and usability of state owned and leased facilities and optimize monetary, material, environmental and human resources. Consistent with the Sustainability Standards and in addition 16.75(12) renewable resources requirements, state agencies and facilities are encouraged to develop and use grid-source “green” electricity purchases and on-site renewable energy technologies.

Additional UW-System renewables included in the FY2023 detailed on the following page:

		Capacity (kW - please convert if any other unit) - Actual FY23 or Estimated Anticipated for future projects	per year - please convert if any other unit) - Actual FY23 or Estimated Anticipated for future projects
UW-Green Bay	Green Bay	-	19,900
UW-Madison	Madison	2,336.00	3,038,402
UW-Milwaukee	Milwaukee	162.78	163,266
UW-Oshkosh	Oshkosh	434.00	3,139,137
UW-Parkside	Parkside	4,276.10	6,068,200
UW-Platteville	Platteville	2,405.00	3,405,000
UW-River Falls	River Falls	87.66	38,516
UW-Stevens Point	Stevens Point	170.00	347,018
UW-Stout	Stout	459.30	503,583
UW-Superior	Superior	440.00	494,000
UW-Whitewater	Whitewater	34.20	45,000
		10,805.04	17,262,022



Data from UW-System for UW campus renewable systems and purchases:

Include with FY2023 Renewables	Okay to publish in FY23 Energy Use in State Facilities Report? (If no KW or KWH data, will only publish the campus and name; won't publish future projects)	Agency	Campus	Project Name	Type	Capacity (kW - please convert if any other unit) - Actual FY23 or Estimated	Generation (kWh per year - please convert if any other unit) - Actual FY23 or Estimated
						Anticipated for future projects	Anticipated for future projects
0	TRUE	UW	Eau Claire	McIntyre Library Solar Array	Solar PV - on site	15.84	
0	TRUE	UW	Green Bay	Brown County STEM Center	Solar PV	108.00	
0	TRUE	UW	La Crosse	Recreational Eagle Center	Solar	40.00	
Included	TRUE	UW	Madison	O'brien Solar Fields	Solar	10,000.00	19,163,970
Y	TRUE	UW	Madison	Gordon Dining	Solar	35.00	51,863
Y	TRUE	UW	Madison	Arboretum Visitor Center	Solar	25.00	29,716
Y	TRUE	UW	Madison	Wisconsin Energy Institute #1 (Fronius)	Solar	19.00	25,275
Y	TRUE	UW	Madison	Wisconsin Energy Institute #2 (SunPower)	Solar	7.00	6,548
Y	TRUE	UW	Milwaukee	Bolton Hall	Solar	15.80	18,784
Y	TRUE	UW	Milwaukee	Cambridge Commons	Solar	30.36	21,826
Y	TRUE	UW	Milwaukee	(USR)	Solar	50.00	54,352
Y	TRUE	UW	Milwaukee	Innovation Campus	Solar	23.85	25,926
Y	TRUE	UW	Milwaukee	Golda Meir Library	Solar	27.60	30,003
Y	TRUE	UW	Milwaukee	USR Microgrid	Wind	15.17	12,375
Y	TRUE	UW	Oshkosh	Biodigester (BD1)	Digester gas/CHP	370.00	2,020,462
Y	TRUE	UW	Oshkosh	Biodigester (BD3)	Digester gas/CHP	64.00	345,797
0	TRUE	UW	Oshkosh	Tennis Courts PV	Solar	2.90	
0	TRUE	UW	Oshkosh	Sage Hall roof fixed PV	Solar	39.70	
0	TRUE	UW	Oshkosh	Pole-mounts PV Sage	Solar	7.50	
0	TRUE	UW	Oshkosh	Student Success Center	Solar	19.70	
Y	TRUE	UW	Parkside	Solar Tracker and two roof mounts	Solar	26.10	28,030
Y	TRUE	UW	Platteville	Solar array	Solar	2,400.00	3,400,000
Y	TRUE	UW	Platteville	Solar array	Solar	5.00	5,000
0	TRUE	UW	Platteville	Solar array	Solar	1.00	
0	TRUE	UW	Platteville	Wind turbine	Wind	20.00	-
Y	TRUE	UW	River Falls	Solar thermal collectors	Solar thermal	61.20	3,516
Y	TRUE	UW	River Falls	Community Solar	Solar	11.66	14,000
0	TRUE	UW	River Falls	Green Energy Blocks		-	-
Y	TRUE	UW	River Falls	Utility-maintained RECS	PV	14.80	21,000
Y	TRUE	UW	Stevens Point	Multi-building with energy retrofits	Solar	170.00	347,000
0	TRUE	UW	Stevens Point	Treehaven	Solar	20.00	
0	TRUE	UW	Stevens Point	Schmeckle Reserve	Solar	13.30	
Y	TRUE	UW	Stout	Price Commons Second phase	Solar	48.80	52,367
Y	TRUE	UW	Stout	Price Commons First phase	Solar	10.50	11,216
Y	TRUE	UW	Whitewater	Hyland Hall	Solar	34.20	45,000
total						21,122.98	36,425,992

Certificate below for UW-Stevens Point for FY2023 purchased and retired 24,516 MWh as per the contract with reference number 705574.

The position has the following data:

Trade date: 2024-02-23

Production year: 2022

Price: 1.7000USD

Delivery date: 23 Feb - 31 Mar 2024



**North American Renewables Registry Certificate of Retirement**

APX, Inc., in its capacity as operator and administrator of the North American Renewables Registry (NAR), hereby confirms that the following Renewable Energy Certificates ("RECs") have been retired in NAR on behalf of:

**University of Wisconsin - Stevens Point**


**Total RECs Retired: 24,516**

**Retiring NAR Account Holder:** STX Commodities LLC

**Retirement Reason Details:** Retired on behalf of University of Wisconsin - Stevens Point for FY 2023 electricity consumption

Vintage Year	Project Type	Retirement Date	Quantity
2023	Solar	March 28, 2024	24,516

The North American Renewables Registry is an online platform to issue, serialize and track REC. NAR meets RE100 best practices guidelines and CDP standards for procuring and reporting purchases of renewable energy. The Registry is developed and managed by APX, leveraging more than 15 years of experience in environmental markets. For more information: [www.apx.com](http://www.apx.com)



In addition to 16.75(12) and O'Brien Solar renewable resources, the following are sample of additional facility on-site renewable energy projects and renewable energy purchases:

- State Fair Park 30 kW Solar Photo-Voltaic (PV) System – as of 1/7/2011 generated more than 61,406kWh. Enough energy to power 5 homes for 1 year and avoided greenhouse gases by use of renewable energy equal to 122,075 lbs. of CO<sub>2</sub>, 255 lbs. of NO<sub>x</sub> and 491 lbs. of SO<sub>2</sub> (acid rain emissions). Refer to:
  - <http://view2.fatspaniel.net/PV2Web/merge?&view=PV/standard/Simple&eid=276835>
- UW-Milwaukee 15 kW Solar Photo-Voltaic (PV) System – as of 1/7/2011 generated more than 34,707kWh. Enough energy to power 3 homes for 1 year and avoided greenhouse gases by use of renewable energy equal to 68,998 lbs. of CO<sub>2</sub>, 144 lbs. of NO<sub>x</sub> and 277 lbs. of SO<sub>2</sub>. SO<sub>2</sub> is also associated with acid rain emissions. See:
  - <http://view2.fatspaniel.net/PV2Web/merge?&view=PV/standard/Simple&eid=276720>
- UW-Parkside 26 kW Solar Photo-Voltaic (PV) System – as of 1/10/2011 generated more than 58,119kWh. Enough energy to power 6 homes for 1 year and avoided greenhouse gases by use of renewable energy equal to 115,541 lbs. of CO<sub>2</sub>, 242 lbs. of NO<sub>x</sub> and 465 lbs. of SO<sub>2</sub>. SO<sub>2</sub> is also associated with acid rain emissions. See:
  - [http://www.we-energies.com/residential/energyeff/WeEnergies\\_Parkside.swf](http://www.we-energies.com/residential/energyeff/WeEnergies_Parkside.swf)
- Four Off-the-Grid Campuses Green Energy Purchases from Student Fees - UW-Green Bay, UW-Oshkosh, UW-River Falls and UW-Stevens Point that included multi-year purchases:
  - UW-GBY- Purchases 1,480 blocks of 100 KWH per month - WPS-Nature-Wise.
  - UW-OSH - Purchases 2,888 blocks of 100 KWH per month - WPS-Nature-Wise.
  - UW-RVF - Purchases 1,412 blocks of 300 KWH per month - RVF-Green-e Energy.
  - UW-STP- Purchases 3,417 blocks of 100 KWH per month - WPS-Nature-Wise.
- Solar Thermal Agreement Installations – under agreements delivered hot water solar thermal energy is purchased for state facilities. The projects underway include UW La Crosse Academic, UWStevens Point Residence Hall, UW Madison Gordon Commons, UW Oshkosh Academic installing thermal solar systems that were part of a bid package not done under the Solar Thermal Agreement and are in addition to the projects on the following page.

Facility	Building	Collector Size/No.	Total Collector SqFt	Storage Size/No.	Total Storage Gallons	Annual Therms Delivered
Oakhill Correctional	A/B	24-4x10	960	3-318	954	2,238
Thompson Correctional	Main Bldg.	16-4x10	640	3-200	600	1,547
UW Oshkosh	Taylor Hall	16-4x10	640	4-200	800	1,040
	Albee Hall	64-4x10	2,560	Pool		6,154
	Blackhawk Commons	24-4x10	960	3-318	954	1,502
	Heating Plant	16-4x10	640	2-318	636	1,529
Oregon Correctional	Main Bldg.	24-4x10	960	4-200	800	2,215
Totals			7,360			16,225

- UW-Madison on-site solar PV renewable energy systems and FY2022 behind the electric utility meter kwh generation include:

**WEI Solar:**

Mo-Year	Period -	SunPower Unit (kWh)	Fronius Unit (kWh)
	Custom Jul 1 2020 - Jun 30 2021		
Jul-21	2021-07	701	2891.79
Aug-21	2021-08	701	2875.24
Sep-21	2021-09	701	2720.47
Oct-21	2021-10	701	1757.18
Nov-21	2021-11	701	1606.06
Dec-21	2021-12	193	1025.33
Jan-22	2022-01	208	1417.7
Feb-22	2022-02	417	1810.19
Mar-22	2022-03	518	1100.91
Apr-22	2022-04	621	2132.72
May-22	2022-05	760	2501.53
Jun-22	2022-06	968	3052.26

Not Part of Campus Load

**Arboretum Solar**

Period -	SunPeak Unit (kWh)
2021-07	2,950
2021-08	2,770
2021-09	3,200
2021-10	2,160
2021-11	2,110
2021-12	1,500
2022-01	2,130
2022-02	2,440
2022-03	2,470
2022-04	2,440
2022-05	2,620
2022-06	3,140

**Gordon\_Solar - Housing**

Period -	SunPeak Unit (kWh)
2021-07	5,150
2021-08	4,900
2021-09	4,140
2021-10	2,450
2021-11	2,000
2021-12	1,150
2022-01	678
2022-02	2,330
2022-03	3,140
2022-04	4,510
2022-05	5,860
2022-06	7,420

## Appendix C – Photovoltaic System Funding Guidelines

---

A photovoltaic (PV) system is a form of renewable energy which uses solar cells to convert sunlight into electricity. PV systems are one of the fastest growing forms of renewable energy. Opportunities exist at State of Wisconsin facilities to install PV systems for production of electricity, education and research.

The State of Wisconsin supports agency efforts to utilize renewable technologies. The Department of Administration, Division of Facilities Development (DFD) is issuing this guidance document and establishing economic criteria to assist agencies in determining funding options for photovoltaic projects.

### Steps to Follow

1. Contact the Department of Administration, Division of Facilities Development to determine if energy conservation funding is available. If unavailable, the Agency may elect to proceed with the project funding it entirely with Agency funds.
2. The Agency shall contact Focus on Energy and the local utility company to determine available incentives. Incentive programs are subject to change, so make sure the information is up to date.
3. The Agency shall perform a solar electric site assessment to determine the technical feasibility for installing the PV system. Information on site assessments can be found on the Focus on Energy web site at: <http://www.focusonenergy.com/Renewable/Renewable-Energy-Site-Assessment.aspx>

The estimated AC kWhr production from the PV system must be calculated using one of the following websites or software programs (or equal).

- PVWatts
  - PV-Design Pro PVsyst
  - Solar Pathfinder Assistant
4. The Agency shall evaluate the economics as part of the site assessment. The economic evaluation must include all project costs, including engineering fees, construction costs, on-going maintenance and the cost to replace the inverter once at year 10 of the system's life. Any costs for structural modifications to the building must be included in the overall PV project costs. These items would include structural bracing, roof modifications, extension of existing roof warranty, penetrations into the building envelope, etc.

To be eligible for energy conservation funds, the overall payback period for a project may not exceed 20 years with debt service and inflation included (or a simple payback of years without debt service and inflation). Payback analysis is calculated with the debt service on 5.25% State energy bond financing and an energy inflation rate of 3.0% included. The energy bond and interest rate may be adjusted at any time by the DOA Capital Finance Office to match current economic conditions. The bond and interest rates shall be approved by DOA Capital Finance Office at least every two years in conjunction with the DOA biennial capital budget schedule.

If the payback period exceeds the energy conservation funding limitation, the Agency may contribute funds to buy down the amount of energy conservation funding contribution.

5. If the Agency decides to proceed, the Agency shall submit a project request to the Division of Facilities Development. The project request should include a copy of the site assessment report including the economic analysis.

For projects less than \$150,000, the Agency will submit a small project request to DFD. For projects over \$150,000, the agency submits the project for Building Commission approval.

6. For PV systems that are part of a larger overall project, energy conservation funding may be available if the system meets payback guidelines and is identified as a funding candidate at the time of project request. The Agency must first identify the PV system cost so DFD can determine if funds are available. A payback analysis must be prepared and approved by DFD before energy conservation funds can be submitted for Building Commission authorization.
7. Upon completion of the construction phase, the Agency shall review the operation and maintenance manuals, and take part in training.
8. After substantial completion, the Agency becomes responsible for maintenance of installed systems and equipment. Annually for the duration of the investment recovery period, the Agency shall prepare a performance measurement and verification report to validate energy savings and payback. Actual measurement data shall be used and is preferred over calculated or stipulated savings.

\* \* \* \* \*

**RENEWABLE ENERGY RESOURCES  
FORM**

<b>PROJECT:</b>		<b>PROJECT NO.:</b>	
<b>LOCATION:</b>		<b>DATE:</b>	

RENEWABLE RESOURCE	REVIEWED		APPLICABLE		EXPLANATION & APPLICATION	DISCOUNTED ENERGY PAYBACK CALC.		
	YES	NO	YES	NO		YES	NO	YEARS
<b>1. SOLAR THERMAL</b>								
<b>2. SOLAR PHOTOVOLTAIC</b>								
<b>3. GEOTHERMAL</b>								
<b>4. BIOMASS</b>								
<b>5. WIND POWER</b>								
<b>6. FUEL CELL USING RENEWABLE FUEL</b>								
<b>7. TIDAL OR WAVE ACTION</b>								
<b>8. HYDROELECTRIC</b>								

## Appendix D – Facility and Building CO2e Analysis Reports

---

The State Energy and GHG Emissions Report services include review and benchmarking analysis of individual facilities and buildings' energy use and renewable resources. Benchmarking is the process of accounting for and comparing a metered energy use and calculated building's current GHG emissions performance with its historical GHG and trends. Benchmarking is used to compare performance over time to evaluate energy use changes and renewable resources:

- Results from Energy Conservation Measures.
- Fuel Switching, Coal Use Elimination & Use of Renewable Fuels.
- Measure Renewable Energy Solar PV & Purchase Contributions.
- Wisconsin Utilities Electric Generation Coal Elimination, Fuel Switching, Efficiency Improvements and Renewable Resource Utilization.

GHG CO2e per Gross Square Feet Intensity (CO2e lb/GSF) and renewable energy use benchmarks are used to compare GHG to similar facilities and measure the year-to-year changes in energy use and associated calculated CO2e from conservation and renewable energy use efforts. Monitored CO2e emissions associated with building energy consumption electricity and thermal energy.

Attached are sample GHG analysis and data reports provided for facility and building energy and sustainability managers:

- Facility Electric CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green (Total 56.1% reduction from FY05 Baseline).
- Facility Thermal CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green (Total 46.7% reduction from FY05 Baseline).
- Facility % Renewable Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green (Total 19.5% electric renewables in FY2023).
- Summary Total State and UW Facility Renewables.



Facility Electric CO2e lb/(GSF Benchmark Heat Mapping Color Coding (Red/High and Green Best) - M&V Goal trend from Red/Yellow to Green.

Agency	Agency-Facility	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Change FY05-FY23
DHS	DHS-Mendota	19.4	21.9	19.0	19.0	16.9	14.2	15.4	15.1	12.8	14.5	14.6	14.1	13.0	12.6	12.0	10.4	9.6	10.1	9.1	-52.9%
DHS	DHS-Northern Center	16.0	14.9	11.8	11.8	12.8	12.0	11.0	13.6	11.8	12.9	13.0	12.3	11.0	11.4	11.7	10.4	9.9	10.2	10.1	-37.0%
DHS	DHS-Sand Ridge	28.2	30.5	27.7	27.8	27.9	18.5	19.0	19.2	16.3	18.8	19.4	18.3	17.1	17.9	18.2	16.9	15.3	15.3	14.6	-48.2%
DHS	DHS-Southern Center	18.7	20.8	20.8	21.9	19.6	17.8	17.4	16.1	13.7	15.0	14.9	14.5	13.9	14.0	14.1	12.4	11.8	11.8	9.2	-51.1%
DHS	DHS-Winnepago	18.9	21.2	19.1	18.8	17.1	16.2	16.0	16.5	12.8	13.8	13.4	13.1	12.2	12.3	12.2	11.0	10.8	11.1	10.6	-43.8%
DNR	DNR-Darwin Road	12.0	13.0	11.3	11.5	11.6	9.9	9.7	9.3	8.4	10.1	9.7	8.6	7.9	8.1	7.6	6.9	5.7	5.7	4.9	-59.3%
DNR	DNR-Green Bay	17.3	13.9	13.9	13.9	13.7	11.8	10.4	12.0	10.2	11.6	10.4	9.6	10.3	9.7	10.6	9.1	9.7	10.3	8.4	
DNR	DNR-SE Milwaukee	27.1	28.0	24.9	23.3	21.6	20.8	20.6	20.2	16.8	18.9	18.2	17.2	15.1	14.7	14.6	12.5	11.1			
DNR	DNR-South Central	30.1	32.7	25.8	27.6	24.9	22.8	24.5	28.7	25.8	27.0	23.1	24.1	24.7	19.4	18.1	17.3	12.6	14.3	12.7	-58.0%
DNR	DNR-Tomahawk	14.2	15.2	12.4	14.1	13.5	11.6	11.5	10.8	9.6	11.0	10.9	9.5	10.0	11.8	11.4	9.8	9.1	8.9	8.8	-37.9%
DOA	DOA-Air-Services	10.2	10.7	9.3	9.3	8.2	7.5	7.5	7.2	6.7	7.2	6.2	6.0	5.5	5.9	5.4	3.4	3.4	4.6	3.8	-62.4%
DOA	DOA-Capitol Complex	30.7	32.7	28.8	27.0	22.2	20.3	18.2	18.7	16.3	18.8	18.1	17.1	15.4	15.8	15.4	12.8	10.7	9.8	8.9	-70.9%
DOA	DOA-Eau Claire SOB	21.8	22.5	19.6	18.4	16.5	14.2	12.7	12.9	11.1	12.4	11.0	9.6	7.4	8.0	8.4	6.3	5.3	6.8	7.4	-65.8%
DOA	DOA-Executive Residence	17.9	18.7	16.0	15.5	13.5	13.1	12.8	13.3	12.8	15.2	14.4	13.5	12.9	13.6	12.5	9.5	8.7	9.8	9.8	-45.4%
DOA	DOA-Green Bay SOB	17.3	19.5	15.6	15.1	12.6	11.7	11.0	10.6	9.6	10.9	9.9	9.1	8.7	8.0	8.0	4.8	3.7	4.4	4.4	-74.3%
DOA	DOA-Hill Farms	35.6	38.0	32.8	33.3	29.9	25.2	25.2	25.2	21.2	23.5	21.2	20.0	18.3	16.7	10.4	9.0	8.0	6.6	6.4	-81.9%
DOA	DOA-La Crosse SOB	17.6	20.5	18.2	17.9	14.9	13.4	12.4	12.5	11.5	13.1	12.0	10.3	9.7	10.6	8.8	6.7	4.9	6.8	6.3	-64.3%
DOA	DOA-Milwaukee SOB	20.7	20.9	19.2	17.4	16.1	13.6	14.1	14.7	12.9	14.7	13.7	13.3	13.0	13.4	12.4	10.5	8.9	10.6	10.3	-50.3%
DOA	DOA-Public Broadcasting	70.1	70.8	51.6	51.3	48.1	44.6	41.3	41.5	37.1	39.0	41.2	41.8	37.6	35.6	36.4	31.5	27.1	24.5	22.4	-68.0%
DOA	DOA-SE Crime Lab	37.3	40.0	34.0	34.3	30.3	28.0	28.3	29.3	25.3	30.8	33.9	35.4	35.9	38.5	36.6	32.1	29.3	30.7	27.5	-26.3%
DOA	DOA-State Ag	24.7	27.1	23.2	21.6	18.5	16.7	15.3	14.2	12.5	14.5	13.8	12.6	11.3	11.9	11.1	8.3	8.1	(3.4)	(2.7)	-111.1%
DOA	DOA-State Hygiene Lab	95.2	110.2	97.1	96.4	88.9	80.9	78.8	68.1	62.4	54.0	55.6	52.6	51.4	55.9	57.2	50.6	42.8	52.9	46.7	-51.0%
DOA	DOA-State Revenue	33.1	35.5	26.5	22.3	19.9	15.7	13.6	14.9	13.1	15.1	14.7	12.9	12.5	12.5	11.8	9.3	7.6	6.4	5.9	-82.0%
DOA	DOA-Waukesha SOB	30.7	28.9	25.7	25.5	22.9	20.4	18.9	19.1	18.2	19.0	20.1	16.5	13.9	14.4	11.5	7.6	6.1	6.6	6.0	-80.3%
DOA	DOA-WI Rapids SOB	15.0	19.9	21.0	20.2	18.4	16.1	14.5	13.0	11.1	12.2	10.2	9.2	8.1	8.3	8.1	5.6	4.1	5.3	5.6	-62.9%
DOA	DOA-Femrite Data Center		136.1	205.2	208.4	194.9	172.1	159.9	130.8	149.9	159.1	152.6	134.4	147.8	145.5	120.4	109.4	96.5	99.6		
DOC	DOC-Boscobel	35.4	39.5	36.6	35.6	31.8	29.2	28.0	26.5	23.4	26.2	25.6	24.1	22.4	23.7	24.0	21.3	20.4	20.5	18.6	-47.5%
DOC	DOC-Columbia	33.3	35.8	31.7	30.6	25.3	22.3	21.6	20.5	17.9	20.6	20.2	18.7	17.1	19.2	20.5	17.1	16.9	17.1	14.7	-55.7%
DOC	DOC-Fox Lake	21.3	22.0	20.8	20.9	18.7	16.7	16.4	15.3	13.7	15.5	14.7	13.7	12.6	13.6	13.8	12.1	11.4	11.4	10.3	-51.6%
DOC	DOC-Green Bay	17.3	19.1	16.7	16.6	14.7	13.3	12.8	12.2	11.0	12.7	12.7	12.2	11.1	11.7	11.9	10.5	10.1	10.1	9.6	-44.4%
DOC	DOC-Jackson	32.3	29.5	26.3	25.0	23.1	20.9	20.0	19.2	17.1	19.5	18.5	17.1	15.5	16.7	17.0	15.2	14.2	14.7	14.0	-56.7%
DOC	DOC-Kettle Moraine	27.3	28.6	25.9	25.5	23.4	21.7	21.3	19.5	16.3	17.6	17.8	16.5	14.7	16.3	17.0	14.8	14.4	14.7	13.6	-50.1%
DOC	DOC-Lincoln Hills	16.6	16.3	14.3	15.7	15.1	13.1	12.4	13.7	13.4	15.0	15.1	14.3	12.7	13.6	13.6	11.9	11.5	11.7	10.5	-36.7%
DOC	DOC-Milwaukee Secure	18.3	20.9	19.3	18.5	17.4	16.9	15.9	16.0	13.5	14.9	13.8	13.6	12.5	13.5	12.9	11.4	10.2	10.4	9.6	-47.6%
DOC	DOC-New Lisbon	36.7	39.9	34.6	33.1	29.3	27.3	26.0	24.6	21.7	24.5	25.0	24.0	21.4	22.7	22.7	19.9	19.1	19.6	18.5	-49.5%
DOC	DOC-Oakhill	18.2	19.9	18.3	18.6	16.9	16.0	14.9	14.6	12.9	14.5	14.3	11.6	10.5	11.5	11.5	10.1	9.2	10.0	9.8	-46.4%
DOC	DOC-Oshkosh	22.7	24.0	22.0	21.6	19.5	17.7	16.8	16.1	14.3	15.4	14.2	13.5	12.3	12.8	13.0	11.6	10.8	11.5	10.6	-53.2%
DOC	DOC-Prairie du Chien	9.0	9.8	9.6	9.6	8.4	7.9	7.2	6.8	5.4	6.2	6.2	5.9	5.3	5.7	5.9	5.1	4.7	5.2	5.0	-44.2%
DOC	DOC-Racine	36.2	39.3	35.2	34.3	31.4	27.6	25.0	24.0	21.3	24.9	25.6	23.5	20.5	21.6	21.2	18.5	16.6	16.9	15.4	-57.5%
DOC	DOC-Racine Youth	20.6	23.3	20.9	20.2	17.8	16.2	16.3	16.2	14.4	14.2	12.5	12.2	11.4	12.4	12.1	10.7	9.9	10.3	9.9	-52.0%

Facility Electric CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

Agency	Agency-Facility	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Change FY05-FY23
DOC	DOC-Redgranite	33.1	35.2	31.0	30.5	28.0	25.8	24.0	22.8	20.3	21.8	20.3	19.4	17.7	18.6	18.4	16.2	15.3	16.7	15.7	-52.7%
DOC	DOC-Stanley	36.9	37.8	29.5	27.8	25.5	22.3	21.8	20.6	17.5	19.8	19.8	19.3	17.7	19.0	19.4	16.8	15.3	15.2	13.4	-63.7%
DOC	DOC-Sturtevant	29.5	30.1	28.3	29.3	27.6	24.8	23.7	22.8	20.3	22.2	22.2	19.7	16.1	16.4	17.1	15.3	12.0	12.8	11.9	-59.6%
DOC	DOC-Taycheedah	20.0	21.5	19.0	18.9	17.5	16.1	15.2	15.1	13.2	14.7	14.2	12.7	10.9	11.6	11.9	10.6	9.8	10.4	9.8	-51.0%
DOC	DOC-Waupun	22.5	23.3	20.8	21.3	19.4	17.6	17.6	16.5	14.6	16.3	15.9	15.6	13.9	15.2	15.0	13.0	12.3	12.7	11.5	-48.7%
DOT	DOT-DTD 1 Lab	45.1	48.5	46.2	45.9	43.1	41.4	42.4	36.4	29.1	34.4	28.9	29.6	26.5	26.1	25.6	25.0	21.8	26.6	21.9	-51.6%
DOT	DOT-DTD 1 Madison	29.8	29.3	25.4	27.1	26.5	25.6	24.4	25.0	25.5	25.6	21.4	19.5	18.1	20.4	22.5	17.4	8.4	11.5	9.3	-68.9%
DOT	DOT-Green Bay	29.6	33.1	28.1	28.1	26.0	22.5	23.3	22.8	21.1	22.5	21.3	21.5	20.6	19.2	17.8	17.3	12.7	15.3	19.2	-35.0%
DOT	DOT-PIERSTORFFA	9.0	9.0	7.7	7.6	7.4	3.4	2.7	2.6	2.3	2.8	3.6	3.6	3.6	3.5	3.3	2.7	3.1	3.3	3.3	-63.1%
DOT	DOT-PIERSTORFFB	10.0	10.5	9.4	9.2	9.1	4.7	4.1	3.8	3.6	4.1	3.3	2.8	2.3	2.5	2.4	2.1	3.6	1.9	1.7	-82.6%
DOT	DOT-West Allis	12.8	13.8	12.8	12.8	12.7	11.2	12.9	11.2	10.8	11.9	11.5	10.8	9.1	10.1	9.0	6.8	6.3	7.0	7.1	-44.7%
DPI	DPI-Delavan	14.5	16.5	14.0	13.2	11.9	10.6	10.8	11.1	10.2	9.8	9.1	8.9	8.1	8.6	6.0	6.0	5.0	6.9	6.4	-56.1%
DPI	DPI-Janesville	10.4	10.7	8.9	8.9	7.3	7.0	7.3	6.5	5.6	6.4	6.0	5.9	5.5	5.8	5.0	4.7	3.5	4.2	4.5	-56.7%
DVA	DVA-King	22.0	24.9	22.7	22.6	20.3	18.6	18.6	18.1	16.2	17.8	17.8	17.7	16.0	17.5	17.1	13.5	13.0	15.7	13.1	-40.6%
UW	UW-Eau Claire	21.9	24.5	19.8	18.6	16.1	14.1	13.7	13.6	11.4	12.2	11.6	10.8	9.6	10.0	10.0	8.2	7.9	7.4	7.0	-68.0%
UW	UW-Green Bay	29.3	30.1	25.6	22.9	20.4	18.3	17.6	17.0	14.8	16.0	15.3	14.2	13.0	13.6	14.0	11.4	11.1	12.3	11.2	-61.7%
UW	UW-La Crosse	20.8	23.5	20.3	19.1	17.5	15.4	16.7	14.7	12.3	14.4	13.1	13.6	10.7	11.9	13.6	10.4	10.4	11.8	10.9	-47.8%
UW	UW-Madison	37.1	41.4	37.1	36.3	32.4	30.9	30.4	28.9	24.6	27.3	26.7	25.4	23.5	24.4	24.4	20.8	19.4	20.2	19.2	-48.4%
UW	UW-Milwaukee	27.5	30.6	27.6	27.5	25.0	22.5	20.8	19.2	15.0	16.0	16.3	15.5	14.2	15.0	15.2	12.7	11.8	13.2	11.8	-57.1%
UW	UW-Oshkosh	21.1	21.7	19.1	18.1	16.2	15.3	14.0	14.2	12.4	13.6	12.6	11.4	10.2	10.6	10.7	8.4	7.6	7.3	6.5	-69.4%
UW	UW-Parkside	26.4	27.7	24.3	23.6	20.3	18.4	18.0	17.4	14.3	15.9	15.4	14.5	12.8	13.1	12.9	9.8	9.9	4.3	3.9	-85.1%
UW	UW-Platteville	19.4	21.2	18.0	18.0	16.7	16.4	15.6	14.0	11.9	12.7	12.3	11.4	10.8	11.2	11.7	10.2	9.7	8.9	7.3	-62.5%
UW	UW-River Falls	17.3	18.2	15.6	15.0	12.9	11.6	11.0	10.3	9.1	10.0	9.5	8.8	8.3	8.6	8.7	7.4	3.6	3.9	3.6	-79.3%
UW	UW-Stevens Point	19.5	20.4	17.5	17.5	15.6	14.8	14.9	14.0	12.1	13.7	13.5	12.9	10.6	11.7	12.3	9.3	8.4	(2.3)	(2.0)	-110.3%
UW	UW-Stout	17.6	18.4	15.6	15.0	13.8	13.7	12.9	12.4	11.5	12.2	12.2	11.5	10.4	11.1	10.8	8.7	8.3	9.0	8.2	-53.3%
UW	UW-Superior	16.6	17.0	15.0	15.0	14.0	14.4	13.4	13.9	11.8	12.4	12.8	12.1	10.7	11.3	11.3	9.6	7.8	8.5	8.1	-51.4%
UW	UW-Whitewater	19.3	20.4	19.8	19.1	17.5	16.5	15.8	15.2	13.3	15.2	15.0	14.5	13.2	13.7	14.2	12.3	10.8	12.5	12.4	-35.3%
UW	UW-Eau Claire, Barron	13.5	14.0	14.6	13.1	11.8	10.6	10.3	9.5	8.1	9.1	9.9	8.5	6.1	7.2	7.3	6.5	6.8	7.8	6.8	-49.7%
UW	UW-Green Bay, Manitowoc	14.2	13.8	11.2	11.1	10.4	9.3	9.5	9.5	8.5	9.4	8.9	8.6	8.2	7.0	7.7	5.7	5.0	6.0	5.7	-60.1%
UW	UW-Green Bay, Marinette	18.1	17.6	16.5	15.4	14.0	12.0	11.9	11.2	10.1	10.4	9.0	8.1	7.2	8.1	8.9	5.5	4.7	5.4	4.5	-75.0%
UW	UW-Green Bay, Sheboygan	16.5	15.9	17.0	14.9	15.3	16.1	14.2	13.1	12.1	12.9	13.8	13.4	12.6	12.5	12.4	8.4	8.1	8.7	8.6	-48.2%
UW	UW-Milwaukee, Washington	17.9	19.5	17.7	14.6	13.6	11.9	11.3	10.9	9.8	7.9	7.6	7.3	6.7	6.8	6.5	5.5	4.9	5.2	5.0	-72.1%
UW	UW-Milwaukee, Waukesha	18.9	18.9	18.6	18.4	16.6	14.1	13.6	13.4	12.7	11.4	9.2	9.8	9.2	9.2	8.9	7.0	6.4	7.6	6.9	-63.5%
UW	UW-Oshkosh, Fond du Lac	19.6	17.5	12.7	12.7	11.8	9.0	8.7	7.9	7.0	7.8	7.5	6.5	6.4	6.6	6.8	5.4	4.3	5.1	4.8	-75.8%
UW	UW-Oshkosh, Fox Cities	17.9	22.7	20.2	21.3	16.9	18.1	17.5	17.6	16.5	18.8	16.2	12.7	10.7	12.0	13.9	10.6	8.3	9.3	8.4	-53.0%
UW	UW-Platteville, Baraboo	15.5	16.5	14.0	15.0	14.0	12.8	13.6	13.8	10.5	10.2	10.2	10.2	8.2	8.8	9.3	7.8	6.5	7.0	7.4	-52.3%
UW	UW-Platteville, Richland	17.4	19.4	17.4	15.2	8.5	7.4	7.1	6.9	13.9	15.5	13.9	13.6	11.1	10.8	11.4	9.4	8.4	8.6	8.1	-53.6%
UW	UW-Stevens Point, Marshfield	16.0	17.6	15.2	14.0	14.3	12.1	11.6	11.0	10.8	12.0	11.2	11.7	11.0	9.4	9.0	7.0	8.4	10.0	7.8	-51.2%
UW	UW-Stevens Point, Wausau	19.4	20.5	21.9	17.8	15.5	13.4	12.6	12.5	9.5	10.6	10.9	9.6	8.5	8.8	8.8	6.6	6.1	6.5	6.0	-69.1%
UW	UW-Whitewater, Rock	13.5	13.9	12.6	10.6	8.8	8.4	7.6	7.8	6.6	7.4	7.2	6.8	5.5	5.8	5.8	4.7	3.4	3.8	3.5	-59.4%
State All Facilities		26.84	29.19	26.07	25.51	22.96	21.35	20.72	19.88	16.97	18.85	18.41	17.45	15.90	16.61	16.65	13.99	12.92	13.05	12.12	-54.8%

Facility Thermal CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

Agency	Agency-Facility	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Change FY05-FY23
DHS	DHS-Mendota	48.9	48.6	49.2	52.6	51.1	47.7	48.9	46.4	37.5	36.0	35.1	36.2	31.0	37.7	32.8	27.3	25.2	26.0	23.2	-52.5%
DHS	DHS-Northern Center	24.2	22.3	20.5	20.5	24.9	21.2	18.8	16.5	18.6	20.1	15.5	13.6	13.8	14.2	14.5	12.1	13.0	13.6	15.1	-37.5%
DHS	DHS-Sand Ridge	12.0	10.4	11.4	11.9	14.6	10.2	10.9	8.3	10.2	11.3	11.2	9.8	8.7	10.6	10.8	11.2	10.2	11.8	10.5	-12.8%
DHS	DHS-Southern Center	16.7	15.8	17.5	18.6	18.5	17.2	17.5	15.5	18.1	17.8	17.3	16.3	16.0	16.9	17.5	16.6	16.0	15.4	13.8	-17.6%
DHS	DHS-Winnebago	27.1	26.9	27.4	24.9	21.9	21.8	23.3	16.0	17.1	16.0	12.6	11.3	11.5	11.9	12.4	12.1	12.3	12.6	12.3	-54.5%
DNR	DNR-Darwin Road	5.5	5.1	5.2	6.0	6.3	5.3	3.7	2.6	4.0	4.9	4.4	3.5	3.6	3.8	4.0	4.3	4.1	4.7	3.7	-31.4%
DNR	DNR-Green Bay		2.5	2.6	2.7	2.8	2.4	3.0	2.7	3.2	4.2	3.9	3.2	3.5	4.1	4.6	3.9	4.7	3.4	3.8	
DNR	DNR-SE Milwaukee	6.6	5.7	5.8	6.9	6.3	5.9	6.0	5.6	6.1	6.9	5.4	3.8	4.3	4.1	4.2	4.7	4.8			
DNR	DNR-South Central	15.3	15.2	11.6	12.7	13.0	11.7	14.4	13.5	16.0	17.0	14.9	13.9	14.3	12.1	12.3	12.5	10.9	12.2	11.5	-24.8%
DNR	DNR-Tomahawk	5.7	6.2	5.6	7.1	5.8	4.5	5.1	3.8	5.4	6.4	6.1	4.9	5.2	6.4	7.0	6.2	6.2	7.8	6.5	14.3%
DOA	DOA-Air Services	11.3	9.9	11.5	10.6	11.8	10.6	11.7	8.6	11.6	14.0	13.0	10.9	9.1	8.7	11.5	7.5	5.7	10.3	10.6	-5.9%
DOA	DOA-Capitol Complex	20.1	20.5	18.7	16.2	12.0	10.5	8.6	4.5	5.3	6.0	5.7	5.5	6.6	6.8	5.5	7.5	7.1	8.4	10.4	-48.4%
DOA	DOA-Eau Claire SOB	4.4	3.8	4.0	4.4	4.4	3.8	4.3	3.7	5.3	5.8	5.8	4.7	4.3	3.9	5.8	5.1	4.9	5.9	6.0	36.2%
DOA	DOA-Executive Residence	10.4	8.8	6.5	6.6	6.4	6.6	6.8	5.8	6.1	6.8	7.1	5.9	6.8	9.0	8.5	7.4	6.7	6.6	6.4	-38.7%
DOA	DOA-Green Bay SOB	2.9	2.1	2.6	2.3	2.6	2.1	2.4	2.0	2.3	2.9	2.7	2.2	2.1	3.5	3.5	3.7	3.9	4.3	4.2	43.2%
DOA	DOA-Hill Farms	21.6	20.5	22.4	22.8	17.5	13.4	13.8	12.0	13.2	15.4	12.1	12.0	12.9	14.1	7.1	7.3	7.4	6.5	6.4	-70.4%
DOA	DOA-La Crosse SOB	4.1	3.3	3.5	3.6	3.5	3.2	3.6	2.8	5.3	6.0	4.7	4.1	4.9	6.0	5.0	4.3	4.9	6.6	3.9	-4.1%
DOA	DOA-Milwaukee SOB	4.4	3.5	3.1	4.0	3.5	2.9	3.8	3.4	4.0	5.5	5.0	3.1	3.6	4.1	3.8	3.8	3.9	4.3	3.8	-13.8%
DOA	DOA-Public Broadcasting	15.0	11.5	11.1	11.5	12.3	12.6	13.0	14.3	13.1	9.9	13.1	14.3	13.4	12.0	13.9	12.6	11.6	11.7	10.2	-32.4%
DOA	DOA-SE Crime Lab	6.0	6.1	6.4	7.5	7.2	7.4	8.4	7.1	9.6	12.6	13.5	8.4	10.5	12.5	13.2	10.4	11.6	12.3	11.4	89.7%
DOA	DOA-State Ag	5.2	5.5	5.4	5.9	5.6	4.7	4.9	3.7	4.5	5.8	5.2	4.4	4.6	5.0	5.2	4.5	5.2	5.5	5.8	11.2%
DOA	DOA-State Hygiene Lab	34.8	32.8	35.0	36.4	38.2	32.7	35.1	34.3	40.4	26.8	28.0	23.0	21.6	27.7	27.0	22.7	23.2	26.3	25.6	-26.4%
DOA	DOA-State Revenue	8.6	7.3	2.8	1.4	1.9	1.2	1.4	1.5	3.0	3.7	4.6	3.1	4.7	4.1	4.4	3.6	3.8	4.0	5.0	-42.0%
DOA	DOA-Waukesha SOB	5.2	4.3	3.8	3.3	3.4	2.9	3.4	2.3	3.3	4.4	6.2	3.8	3.7	3.2	3.7	2.9	3.1	3.0	2.7	-47.6%
DOA	DOA-WI Rapids SOB	5.9	4.9	4.6	2.8	4.9	4.6	5.9	5.1	4.5	4.5	4.0	3.2	3.7	3.9	4.2	3.6	3.8	4.2	4.0	-32.7%
DOA	DOA-Femrite Data Center			6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.5	7.0	7.2	6.9	6.4	6.8	
DOC	DOC-Boscobel	13.8	12.9	15.3	16.5	16.5	14.7	16.7	12.9	15.4	18.0	15.5	14.2	14.7	14.4	13.1	12.7	13.0	13.6	13.0	-5.8%
DOC	DOC-Columbia	11.8	12.0	11.6	11.3	11.5	10.6	11.0	8.9	10.2	9.3	8.8	8.0	8.3	10.3	10.2	9.7	9.8	10.8	10.0	-15.9%
DOC	DOC-Fox Lake	17.5	17.6	18.3	18.5	18.8	18.0	17.2	16.1	17.5	18.8	17.7	17.5	17.9	19.1	18.7	19.1	18.8	17.9	17.3	-1.5%
DOC	DOC-Green Bay	17.2	17.2	16.3	16.3	15.9	14.5	16.0	13.1	15.0	18.5	18.5	15.9	16.1	16.7	17.5	16.2	16.8	17.1	17.0	-1.2%
DOC	DOC-Jackson	14.0	13.7	12.5	13.6	13.8	12.8	13.5	11.9	13.3	15.2	14.5	12.1	12.3	13.0	13.3	12.6	13.0	12.5	12.8	-8.6%
DOC	DOC-Kettle Moraine	16.9	16.3	15.5	16.2	16.4	16.0	16.9	15.2	17.5	18.7	18.6	17.7	17.0	18.3	19.1	17.5	17.3	17.7	17.6	4.2%
DOC	DOC-Lincoln Hills	14.5	13.9	16.2	16.9	15.6	13.7	14.6	13.9	16.1	17.1	17.2	14.1	13.5	14.4	15.0	15.1	14.9	15.2	14.8	1.7%
DOC	DOC-Milwaukee Secure	6.4	5.5	4.4	4.1	3.3	4.3	4.3	6.1	6.6	7.8	7.0	6.0	6.0	7.4	7.4	7.2	6.8	7.0	7.1	10.8%
DOC	DOC-New Lisbon	18.3	16.4	15.6	15.0	14.9	14.1	14.4	12.3	14.6	14.8	15.0	14.7	13.9	15.8	16.1	19.0	14.7	14.9	15.9	-13.0%
DOC	DOC-Oakhill	14.5	14.1	15.8	18.2	18.9	18.0	16.6	14.7	17.3	19.1	18.3	17.1	17.4	19.0	18.3	18.8	17.4	16.5	17.3	19.9%
DOC	DOC-Oshkosh	13.1	12.6	12.8	13.6	13.4	12.9	13.8	12.1	13.0	14.4	14.3	12.3	12.0	12.2	12.7	12.2	12.5	12.7	12.6	-3.7%
DOC	DOC-Prairie du Chien	12.3	11.7	12.9	12.8	12.3	12.4	12.1	10.0	9.8	9.7	9.5	9.0	9.0	7.6	9.1	9.5	8.2	8.6	9.1	-25.6%
DOC	DOC-Racine	12.5	12.8	13.0	12.1	13.2	12.5	13.0	11.6	12.2	14.1	13.2	13.0	13.0	14.3	14.2	12.9	11.2	11.3	11.6	-7.5%
DOC	DOC-Racine Youth	10.0	9.4	9.4	7.7	8.5	8.5	10.4	8.8	9.9	10.7	7.9	7.1	6.9	7.8	7.6	7.4	7.5	6.8	6.9	-30.8%

Facility Thermal CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.																						
Agency	Agency-Facility	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Change FY05-FY23	
DOC	DOC-Redgranite	17.8	16.8	17.3	18.1	17.0	15.4	15.8	13.8	16.3	16.1	15.3	14.3	15.2	16.5	17.5	16.4	14.0	13.8	13.6	-23.5%	
DOC	DOC-Stanley	15.9	13.8	15.3	15.6	15.8	12.8	15.7	13.9	15.6	17.0	15.4	15.6	15.2	15.4	15.4	15.1	14.5	15.5	14.3	-10.0%	
DOC	DOC-Sturtevant	15.4	14.4	14.5	15.7	16.2	15.9	14.7	13.5	15.0	14.8	15.8	12.5	11.3	11.7	11.4	9.7	8.9	8.8	9.4	-39.1%	
DOC	DOC-Taycheedah	9.6	9.9	10.2	10.4	10.5	9.1	9.6	8.2	10.5	11.4	10.6	9.3	9.3	9.7	10.5	9.5	8.8	9.6	9.2	-4.5%	
DOC	DOC-Waupun	41.1	41.4	40.7	41.3	42.7	36.6	41.3	35.6	38.4	37.7	24.0	19.7	20.0	21.2	21.7	19.5	19.5	19.5	18.0	-56.3%	
DOC	DOC-DTD 1 Lab	19.0	19.1	23.9	24.3	21.8	20.6	24.2	14.8	18.7	18.1	14.0	12.0	14.1	15.5	14.1	16.6	12.1	9.8	8.1	-57.5%	
DOT	DOT-DTD 1 Madison	6.9	5.5	5.7	6.8	6.3	5.9	7.6	7.6	9.2	8.1	5.8	4.2	5.5	6.7	9.7	10.4	4.4	4.6	4.2	-39.1%	
DOT	DOT-Green Bay	9.8	7.1	6.0	6.1	5.9	5.1	6.3	5.2	8.2	8.9	8.6	7.5	8.2	7.7	8.3	10.3	6.8	8.8	5.4	-45.2%	
DOT	DOT-PIERSTORFF A	2.6	2.1	2.0	2.3	2.5	2.9	3.1	2.4	3.1	3.9	2.9	2.3	1.9	2.3	2.6	2.5	2.2	2.4	2.4	-6.5%	
DOT	DOT-PIERSTORFF B	4.0	4.0	4.1	4.5	4.5	4.4	4.8	3.9	5.0	5.7	4.3	3.3	2.9	3.2	3.4	3.5	4.4	3.8	3.5	-11.6%	
DOT	DOT-West Allis	4.2	3.8	5.9	4.8	3.9	3.2	3.8	2.0	2.9	3.4	3.2	2.3	2.2	2.9	2.9	2.6	2.4	2.8	2.7	-36.4%	
DPI	DPI-Delavan	8.7	8.2	8.1	8.6	9.0	8.0	8.3	7.4	9.9	10.2	10.2	8.4	8.5	9.5	9.7	7.9	7.4	8.6	8.8	0.7%	
DPI	DPI-Janesville	8.7	8.3	9.4	9.8	9.8	8.9	9.4	8.0	10.1	10.9	10.1	8.8	8.2	9.7	10.3	9.9	8.1	8.4	9.1	4.9%	
DVA	DVA-King	18.3	17.4	18.1	19.0	18.4	15.7	16.6	15.0	16.4	17.3	15.7	15.6	15.3	16.3	15.1	14.3	16.1	18.3	18.0	-2.0%	
UW	UW-Eau Claire	19.8	18.4	18.2	18.8	17.4	14.9	15.6	11.3	14.3	14.8	13.5	11.7	12.4	12.3	13.6	12.0	8.7	9.3	8.8	-55.5%	
UW	UW-Green Bay	14.1	12.1	10.4	10.0	10.9	9.3	9.9	8.8	10.2	11.1	10.4	9.0	9.1	9.6	9.9	9.3	9.5	9.9	9.8	-30.6%	
UW	UW-La Crosse	21.2	20.9	18.4	19.6	20.0	16.1	18.8	10.8	13.5	14.6	13.4	11.8	13.1	13.6	15.3	13.4	10.4	10.4	10.7	-49.6%	
UW	UW-Madison	39.6	40.9	39.4	39.2	31.7	30.4	28.8	21.6	20.5	21.6	20.0	17.9	17.8	19.1	19.6	18.7	18.2	18.0	16.7	-57.8%	
UW	UW-Milwaukee	14.2	13.2	13.9	15.0	15.4	13.9	13.4	10.8	11.0	11.5	12.1	10.2	10.5	11.1	11.1	10.2	10.1	9.8	9.7	-31.5%	
UW	UW-Oshkosh	15.7	14.6	15.4	16.2	12.3	13.3	13.6	12.4	12.3	13.5	12.0	10.6	10.4	11.8	12.4	11.3	9.2	9.3	9.0	-42.6%	
UW	UW-Parkside	11.4	10.9	10.9	11.3	11.2	10.7	11.6	10.1	11.4	12.4	12.2	11.0	10.5	10.9	11.5	9.6	8.6	8.0	8.8	-23.0%	
UW	UW-Platteville	17.3	17.0	15.0	15.0	11.7	13.6	12.1	10.7	15.2	16.3	14.2	12.1	13.5	15.2	16.3	16.2	11.0	11.4	11.6	-33.2%	
UW	UW-River Falls	16.2	16.0	15.6	16.4	11.5	12.0	12.2	7.8	9.8	10.4	10.0	9.4	9.8	11.2	11.7	10.5	8.6	9.3	10.0	-38.0%	
UW	UW-Stevens Point	23.2	21.0	19.9	20.1	15.9	14.3	17.3	11.9	15.8	16.8	16.4	14.4	14.7	16.1	17.3	15.7	12.5	13.2	14.5	-37.8%	
UW	UW-Stout	14.1	13.1	13.0	13.9	13.4	11.5	14.0	8.3	12.3	11.6	10.4	9.5	10.2	11.1	11.5	11.4	8.5	8.9	8.7	-38.7%	
UW	UW-Superior	21.1	19.7	19.5	20.9	19.5	19.0	20.2	14.0	15.7	20.8	17.9	16.0	17.7	18.7	17.8	17.8	11.5	12.7	12.6	-40.2%	
UW	UW-Whitewater	12.9	12.7	11.1	10.4	11.2	10.6	11.0	10.0	11.5	12.9	11.3	10.3	10.7	11.6	12.4	10.1	8.9	11.7	12.1	-6.5%	
UW	UW-Eau Claire, Barron	8.1	5.9	7.0	7.3	7.1	6.5	7.7	5.9	8.1	8.0	7.6	7.1	7.4	8.4	8.8	8.0	8.4	9.3	8.8	9.3%	
UW	UW-Green Bay, Manitowoc	5.7	5.0	4.8	4.8	5.2	4.5	5.1	4.2	5.6	6.2	5.4	4.9	4.8	5.3	6.2	5.2	5.5	5.7	6.1	7.4%	
UW	UW-Green Bay, Marinette	11.5	9.9	10.1	9.7	10.5	8.8	10.2	8.4	9.4	11.2	10.4	9.1	9.5	10.0	11.8	8.2	8.0	8.4	8.3	-28.0%	
UW	UW-Green Bay, Sheboygan	8.4	6.1	6.8	7.6	8.7	8.6	9.1	7.5	8.7	9.8	9.9	6.0	8.1	5.8	6.1	4.9	3.8	4.4	6.5	-22.6%	
UW	UW-Milwaukee, Washington	4.9	5.5	6.0	5.0	5.2	4.8	4.9	3.6	4.5	4.9	4.0	3.0	3.7	4.0	3.7	3.8	3.4	3.6	4.1	-16.5%	
UW	UW-Milwaukee, Waukesha	7.0	6.2	6.5	6.9	6.3	5.4	5.7	5.0	6.2	7.0	5.2	6.2	7.8	7.7	7.6	7.4	7.1	7.4	7.6	8.7%	
UW	UW-Oshkosh, Fond du Lac	6.8	5.3	4.3	4.9	5.0	4.3	4.6	3.7	4.7	5.2	5.2	4.6	5.0	5.9	6.3	4.8	4.5	5.0	4.5	-32.9%	
UW	UW-Oshkosh, Fox Cities	9.4	7.7	8.1	8.7	7.0	6.6	6.7	6.4	7.7	8.2	6.3	4.2	2.6	4.7	4.7	4.6	4.7	4.9	6.7	-28.8%	
UW	UW-Platteville, Baraboo	7.0	6.4	6.7	5.7	6.6	6.1	6.5	6.2	6.2	7.6	7.7	6.1	7.0	7.6	8.3	7.1	6.3	6.3	7.2	1.9%	
UW	UW-Platteville, Richland	9.8	7.2	8.6	7.4	7.8	5.8	5.1	4.9	7.1	9.2	8.6	6.6	6.4	6.5	7.4	9.0	10.8	8.7	7.1	-28.2%	
UW	UW-Stevens Point, Marshfield	8.7	6.9	8.0	8.1	8.6	6.9	7.9	6.4	8.0	9.5	8.8	7.5	8.2	8.5	8.6	7.5	8.8	9.9	9.7	12.0%	
UW	UW-Stevens Point, Wausau	9.8	8.9	9.6	11.5	9.3	7.8	8.1	7.0	7.5	7.3	7.8	5.8	6.2	5.9	7.5	7.2	6.2	6.9	7.5	-23.6%	
UW	UW-Whitewater, Rock	5.7	5.1	5.4	5.7	7.2	6.3	6.4	5.8	6.2	6.6	6.5	5.4	5.6	5.8	6.9	6.3	4.8	4.8	5.3	-6.8%	
UW	State All Facilities	24.1	23.9	23.4	23.6	20.7	19.2	19.2	15.0	15.6	16.6	15.3	13.6	13.8	14.9	15.1	14.2	13.0	13.3	12.9	-46.7%	

Facility % Renewable Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.								
Agency	Agency-Facility	FY17	FY18	FY19	FY20	FY21	FY22	FY23
DHS	DHS-Mendota	14.6%	14.5%	9.2%	9.3%	9.4%	10.1%	10.3%
DHS	DHS-Northern Center	14.6%	14.5%	9.2%	9.3%	9.4%	10.1%	10.3%
DHS	DHS-Sand Ridge	14.6%	14.5%	9.2%	9.3%	9.4%	10.1%	10.3%
DHS	DHS-Southern Center	14.6%	14.5%	9.2%	9.3%	9.4%	10.1%	10.3%
DHS	DHS-Winnebago	14.6%	14.5%	9.2%	9.3%	9.4%	10.1%	10.3%
DNR	DNR-Darwin Road	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DNR	DNR-Green Bay	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DNR	DNR-SE Milwaukee	0.0%	0.0%	0.0%	0.0%	0.0%		
DNR	DNR-South Central	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DNR	DNR-Tomahawk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOA	DOA-Air Services	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Capitol Complex	14.6%	12.7%	9.4%	10.1%	12.9%	29.9%	27.5%
DOA	DOA-Eau Claire SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Executive Residence	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Green Bay SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Hill Farms	14.6%	12.7%	9.4%	10.1%	12.7%	28.6%	29.2%
DOA	DOA-La Crosse SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Milwaukee SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Public Broadcasting	14.6%	12.7%	9.4%	10.1%	12.4%	23.5%	27.3%
DOA	DOA-SE Crime Lab	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-State Ag	14.6%	12.7%	9.4%	10.1%	13.5%	48.8%	131.2%
DOA	DOA-State Hygiene Lab	14.6%	12.7%	9.4%	10.1%	13.1%	26.0%	10.8%
DOA	DOA-State Revenue	14.6%	12.7%	9.4%	10.1%	13.2%	30.4%	32.1%
DOA	DOA-Waukesha SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-WI Rapids SOB	14.6%	12.7%	9.4%	10.1%	11.0%	11.1%	10.8%
DOA	DOA-Femrite Data Center	14.6%	12.7%	9.4%	10.1%	12.3%	25.0%	27.1%
DOC	DOC-Boscobel	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Columbia	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Fox Lake	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Green Bay	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Jackson	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Kettle Moraine	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Lincoln Hills	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Milwaukee Secure	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-New Lisbon	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Oakhill	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Oshkosh	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Prairie du Chien	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Racine	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Racine Youth	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%

Facility % Renewable Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.

Agency	Agency-Facility	FY17	FY18	FY19	FY20	FY21	FY22	FY23
DOC	DOC-Redgranite	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Stanley	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Sturtevant	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Taycheedah	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOC	DOC-Waupun	16.4%	14.1%	8.9%	9.4%	9.3%	10.0%	9.8%
DOT	DOT-DTD 1 Lab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOT	DOT-DTD 1 Madison	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOT	DOT-Green Bay	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOT	DOT-PIERSTORFF A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOT	DOT-PIERSTORFF B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DOT	DOT-West Allis	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DPI	DPI-Delavan	15.3%	14.1%	11.7%	10.0%	12.7%	11.0%	10.3%
DPI	DPI-Janesville	15.3%	14.1%	11.7%	10.0%	12.7%	11.0%	10.3%
DVA	DVA-King	15.9%	13.8%	9.0%	10.3%	10.0%	9.2%	10.1%
UW	UW-Eau Claire	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	24.8%
UW	UW-Green Bay	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.5%
UW	UW-La Crosse	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Madison	15.4%	14.2%	8.9%	9.6%	10.0%	14.1%	14.1%
UW	UW-Milwaukee	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.6%
UW	UW-Oshkosh	15.4%	14.2%	8.9%	9.6%	9.6%	13.3%	27.6%
UW	UW-Parkside	15.4%	14.2%	8.9%	9.6%	9.6%	9.8%	60.9%
UW	UW-Platteville	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	27.1%
UW	UW-River Falls	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	10.0%
UW	UW-Stevens Point	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	121.5%
UW	UW-Stout	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	11.9%
UW	UW-Superior	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	14.8%
UW	UW-Whitewater	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.5%
UW	UW-Eau Claire, Barron	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Green Bay, Manitowoc	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Green Bay, Marinette	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Green Bay, Sheboygan	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Milwaukee, Washington	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Milwaukee, Waukesha	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Oshkosh, Fond du Lac	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Oshkosh, Fox Cities	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Platteville, Baraboo	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Platteville, Richland	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Stevens Point, Marshfield	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Stevens Point, Wausau	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
UW	UW-Whitewater, Rock	15.4%	14.2%	8.9%	9.6%	9.6%	9.6%	9.3%
	State All Facilities	15.4%	14.1%	8.9%	9.6%	9.9%	12.7%	17.1%

**State Energy Reports - Renewables:**

FY15	1,007,539,802	Total kwh			
FY15	153,101,235	Agency DOA Purchased Renewable kwh		FY15 Renew kwh	
FY15	-	Utility Facility Purchased Renewable kwh		153,101,235	
FY15	15.20%	State Facilities % Renewables			
FY14	1,019,343,048	Total kwh			
FY14	155,103,490	Agency DOA Purchased Renewable kwh		FY14 Renew kwh	
FY14	-	Utility Facility Purchased Renewable kwh		155,103,490	
FY14	15.22%	State Facilities % Renewables			
FY15	1,007,539,802	Total kwh			
FY15	153,101,235	Agency DOA Purchased Renewable kwh		FY15 Renew kwh	
FY15	-	Utility Facility Purchased Renewable kwh		153,101,235	
FY15	15.20%	State Facilities % Renewables			
FY16	1,013,784,449	Total kwh			
FY16	155,243,861	Agency DOA Purchased Renewable kwh		FY16 Renew kwh	
FY16	-	Utility Facility Purchased Renewable kwh		155,243,861	
FY16	15.31%	State Facilities % Renewables			
FY17	1,004,851,794	Total kwh			
FY17	159,167,727	Agency DOA Purchased Renewable kwh		FY17 Renew kwh	
FY17	-	Utility Facility Purchased Renewable kwh		159,167,727	
FY17	15.84%	State Facilities % Renewables			
FY18	985,057,955	Total kwh			
FY18	142,788,434	Agency DOA Purchased Renewable kwh		FY18 Renew kwh	
FY18	-	Utility Facility Purchased Renewable kwh		142,788,434	
FY18	14.50%	State Facilities % Renewables			
FY19	971,051,987	Total kwh			
FY19	89,061,350	Agency DOA Purchased Renewable kwh		FY19 Renew kwh	
FY19	-	Utility Facility Purchased Renewable kwh		89,061,350	
FY19	9.17%	State Facilities % Renewables			
FY20	937,846,191	Total kwh			
FY20	92,636,487	Agency DOA Purchased Renewable kwh		FY20 Renew kwh	
FY20	-	Utility Facility Purchased Renewable kwh		92,636,487	
FY20	9.88%	State Facilities % Renewables			
FY21	905,635,884	Total kwh			
FY21	89,577,352	Agency DOA Purchased Renewable kwh		FY21 Renew kwh	
FY21	2,611,522	Utility Facility Purchased Renewable kwh		92,188,874	
FY21	10.18%	State Facilities % Renewables			
FY22	946,476,664	Total kwh			
FY22	95,106,495	Agency DOA Purchased Renewable kwh		FY22 Renew kwh	
FY22	28,275,708	Utility Facility Purchased Renewable kwh		123,382,203	
FY22	13.04%	State Facilities % Renewables			
FY23	927,356,178	Total kwh			
FY23	96,860,680	Agency DOA Purchased Renewable kwh		FY23 Renew kwh	
FY23	71,582,968	Utility Facility Purchased Renewable kwh		168,443,648	
FY23	18.16%	State Facilities % Renewables			

# State of Wisconsin



2023 Senate Bill 791

Date of enactment: March 20, 2024  
Date of publication\*: March 21, 2024

## 2023 WISCONSIN ACT 121

AN ACT to amend chapter 77 (title), 77.52 (13) and 77.53 (10); and to create 16.9565, 25.40 (1) (L), 66.0442, 77.54 (71), subchapter XIII of chapter 77 [precedes 77.997] and 196.01 (5) (b) 8. of the statutes; relating to: exemptions from public utility regulation regarding electric vehicle charging stations, installation and operation of electric vehicle charging stations by state agencies or local governmental units, and imposing an excise tax on electric vehicle charging.

*The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:*

SECTION 1. 16.9565 of the statutes is created to read:

16.9565 Electric vehicle charging stations. (1) In this section:

(a) "Level 1 charger" means a device with one or more charging ports and connectors for charging electric vehicles that operates on a circuit up to 120 volts and transfers alternating current electricity to a device in an electric vehicle that converts alternating current to direct current to recharge an electric vehicle battery.

(b) "Level 2 charger" has the meaning given for "AC Level 2" under 23 CFR 680.104

(c) "Level 3 charger" means a direct current fast charger, as defined under 23 CFR 680.104, and analogous successor technologies.

(d) "State agency" means an association, authority, board, department, commission, independent agency, institution, office, society, or other body in state government created or authorized to be created by the constitution or any law.

(2) (a) Except as provided in par. (b), no state agency may own, operate, or lease an electric vehicle charging station containing a Level 1, Level 2, or Level 3 charger

unless the charger is not available to the public and is used solely to charge vehicles owned or leased by a state agency.

(b) A state agency may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or Level 2 charger is available to the public if the state agency makes all Level 1 chargers or Level 2 chargers available for public use free of any charge.

(3) Notwithstanding sub. (2), a state agency may authorize an electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by the state agency.

(4) An electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. who is authorized under sub. (3) to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by a state agency, shall charge a reasonable fee for the electricity delivered or placed by all such chargers.

\* Section 991.11, WISCONSIN STATUTES: Effective date of acts. "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication."



(5) Notwithstanding sub. (2), a state agency may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or a Level 2 charger installed on or after the effective date of this subsection ... [LRB inserts date], is available to the public if the state agency charges a reasonable fee for the electricity delivered or placed by all such Level 1 chargers and Level 2 chargers.

**SECTION 2.** 25.40 (1) (L) of the statutes is created to read:

25.40 (1) (L) Electric vehicle charging taxes deposited under s. 77.9973 (2).

**SECTION 3.** 66.0442 of the statutes is created to read:

**66.0442 Electric vehicle charging stations. (1)** In this section:

(a) "Level 1 charger" means a device with one or more charging ports and connectors for charging electric vehicles that operates on a circuit up to 120 volts and transfers alternating current electricity to a device in an electric vehicle that converts alternating current to direct current to recharge an electric vehicle battery.

(b) "Level 2 charger" has the meaning given for "AC Level 2" under 23 CFR 680.104

(c) "Level 3 charger" means a direct current fast charger, as defined under 23 CFR 680.104, and analogous successor technologies.

(d) "Local governmental unit" means any of the following:

1. A city, village, town, or county.
2. A school district.
3. A special purpose district in this state.
4. An agency or corporation of an entity described in subd. 1. or 3.
5. A combination or subunit of an entity described in this paragraph.

(e) "Municipal utility" has the meaning given in s. 16.957 (1) (q).

(2) (a) Except as provided in pars. (b) and (c), no local governmental unit may own, operate, manage, or lease an electric vehicle charging station containing a Level 1, Level 2, or Level 3 charger unless the charger is not available to the public and is used solely to charge vehicles owned or leased by the local governmental unit.

(b) A local governmental unit may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or Level 2 charger is available to the public if the local governmental unit makes all Level 1 chargers or Level 2 chargers installed before the effective date of this paragraph ... [LRB inserts date], available for public use free of any charge.

(c) A local governmental unit may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or a Level 2 charger installed on or after the effective date of this paragraph ... [LRB inserts date], is available to the public if the local governmental unit charges a reasonable fee for the electricity

delivered or placed by all such Level 1 chargers and Level 2 chargers.

(3) Notwithstanding sub. (2) and subject to sub. (4), a local governmental unit may authorize an electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by the local governmental unit.

(3m) An electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. who is authorized under sub. (3) to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by a local governmental unit, shall charge a reasonable fee for the electricity delivered or placed by all such chargers.

(4) Notwithstanding sub. (2), a municipal utility existing on the effective date of this subsection ... [LRB inserts date], may own and operate an electric vehicle charging station that is available to the public and may charge a fee for using the electric vehicle charging station that is based on the amount of kilowatt-hours of electricity that users consume if all of the following apply:

(a) The electric vehicle charging station receives any approvals from the public service commission required under ch. 196.

(b) No tax revenue subsidizes, directly or indirectly, any costs associated with the electric vehicle charging station. This paragraph does not prohibit a municipal utility from using grant money from this state that is distributed after approval by the joint committee on finance under s. 13.10 or the federal government to pay costs associated with constructing an electric vehicle charging station if the purpose of the grant is to expand the availability of electric vehicle charging infrastructure.

(c) Notwithstanding s. 66.0811 (2), no revenue generated by the electric vehicle charging station is transferred to the general fund of the municipality that owns the municipal utility or otherwise directly or indirectly supplements any portion of the municipality's budget.

(5) No local governmental unit may require a private developer to install an electric vehicle charging station or allow the installation of an electric vehicle charging station on the developer's property as a condition of granting a building permit, conditional use permit, or other approval. This subsection does not apply to the enforcement of a voluntary contractual agreement between a developer and local governmental unit.

**SECTION 4.** Chapter 77 (title) of the statutes, as affected by 2023 Wisconsin Act 12, is amended to read:

#### CHAPTER 77

**TAXATION OF FOREST CROPLANDS; REAL ESTATE TRANSFER FEES; SALES AND USE TAXES; COUNTY, MUNICIPALITY, AND SPE-**

(5) Notwithstanding sub. (2), a state agency may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or a Level 2 charger installed on or after the effective date of this subsection ... [LRB inserts date], is available to the public if the state agency charges a reasonable fee for the electricity delivered or placed by all such Level 1 chargers and Level 2 chargers.

**SECTION 2.** 25.40 (1) (L) of the statutes is created to read:

25.40 (1) (L) Electric vehicle charging taxes deposited under s. 77.9973 (2).

**SECTION 3.** 66.0442 of the statutes is created to read:

**66.0442 Electric vehicle charging stations. (1)** In this section:

(a) "Level 1 charger" means a device with one or more charging ports and connectors for charging electric vehicles that operates on a circuit up to 120 volts and transfers alternating current electricity to a device in an electric vehicle that converts alternating current to direct current to recharge an electric vehicle battery.

(b) "Level 2 charger" has the meaning given for "AC Level 2" under 23 CFR 680.104

(c) "Level 3 charger" means a direct current fast charger, as defined under 23 CFR 680.104, and analogous successor technologies.

(d) "Local governmental unit" means any of the following:

1. A city, village, town, or county.
2. A school district.
3. A special purpose district in this state.
4. An agency or corporation of an entity described in subd. 1. or 3.
5. A combination or subunit of an entity described in this paragraph.

(e) "Municipal utility" has the meaning given in s. 16.957 (1) (q).

(2) (a) Except as provided in pars. (b) and (c), no local governmental unit may own, operate, manage, or lease an electric vehicle charging station containing a Level 1, Level 2, or Level 3 charger unless the charger is not available to the public and is used solely to charge vehicles owned or leased by the local governmental unit.

(b) A local governmental unit may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or Level 2 charger is available to the public if the local governmental unit makes all Level 1 chargers or Level 2 chargers installed before the effective date of this paragraph ... [LRB inserts date], available for public use free of any charge.

(c) A local governmental unit may own, operate, manage, or lease an electric vehicle charging station at which a Level 1 charger or a Level 2 charger installed on or after the effective date of this paragraph ... [LRB inserts date], is available to the public if the local governmental unit charges a reasonable fee for the electricity

delivered or placed by all such Level 1 chargers and Level 2 chargers.

(3) Notwithstanding sub. (2) and subject to sub. (4), a local governmental unit may authorize an electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by the local governmental unit.

(3m) An electric provider, as defined in s. 16.957 (1) (f), or a person described in s. 196.01 (5) (b) 8. who is authorized under sub. (3) to own and operate an electric vehicle charging station at which a Level 1 charger, Level 2 charger, or Level 3 charger is available to the public on property owned by a local governmental unit, shall charge a reasonable fee for the electricity delivered or placed by all such chargers.

(4) Notwithstanding sub. (2), a municipal utility existing on the effective date of this subsection ... [LRB inserts date], may own and operate an electric vehicle charging station that is available to the public and may charge a fee for using the electric vehicle charging station that is based on the amount of kilowatt-hours of electricity that users consume if all of the following apply:

(a) The electric vehicle charging station receives any approvals from the public service commission required under ch. 196.

(b) No tax revenue subsidizes, directly or indirectly, any costs associated with the electric vehicle charging station. This paragraph does not prohibit a municipal utility from using grant money from this state that is distributed after approval by the joint committee on finance under s. 13.10 or the federal government to pay costs associated with constructing an electric vehicle charging station if the purpose of the grant is to expand the availability of electric vehicle charging infrastructure.

(c) Notwithstanding s. 66.0811 (2), no revenue generated by the electric vehicle charging station is transferred to the general fund of the municipality that owns the municipal utility or otherwise directly or indirectly supplements any portion of the municipality's budget.

(5) No local governmental unit may require a private developer to install an electric vehicle charging station or allow the installation of an electric vehicle charging station on the developer's property as a condition of granting a building permit, conditional use permit, or other approval. This subsection does not apply to the enforcement of a voluntary contractual agreement between a developer and local governmental unit.

**SECTION 4.** Chapter 77 (title) of the statutes, as affected by 2023 Wisconsin Act 12, is amended to read:

#### CHAPTER 77

#### TAXATION OF FOREST CROPLANDS; REAL ESTATE TRANSFER FEES; SALES AND USE TAXES; COUNTY, MUNICIPALITY, AND SPE-

(am) 1. Except as provided in par. (b), a tax is imposed at the rate of 3 cents per kilowatt-hour on the electricity delivered or placed by a Level 1 charger, as defined in s. 16.9565 (1) (a), or a Level 2 charger, as defined in s. 16.9565 (1) (b), of an electric vehicle charging station into the battery or other energy storage device of an electric vehicle.

2. The tax imposed under this paragraph applies only to a Level 1 charger, as defined in s. 16.9565 (1) (a), or a Level 2 charger, as defined in s. 16.9565 (1) (b), installed on or after the day after publication of 2023 Wisconsin Act .... (this act) .... [LRB inserts date].

(b) No tax under this section applies to electricity delivered or placed by a Level 3 charger of an electric vehicle charging station located at a residence.

(c) The tax imposed under this section applies regardless of whether or not a person holding a registration under s. 77.9971 charges for the electricity delivered or placed by the person's Level 3 charger at an electric vehicle charging station.

(2) (a) The tax imposed under this section attaches at the time of the delivery or placement of electricity and shall be paid to the department by the person holding the registration under s. 77.9971 in the form and manner prescribed by the department.

(b) The tax imposed under this section is payable to the department and due by July 31 for the period beginning on January 1 and ending on June 30, and by January 31 for the period beginning on July 1 and ending on December 31.

(3) Biannually, a person holding a registration under s. 77.9971 who owes tax under this section shall file a return in the form and manner prescribed by the department containing all of the following by July 31 for the period beginning on January 1 and ending on June 30 and by January 31 for the period beginning on July 1 and ending on December 31:

(a) The person's name and registration identification number.

(b) The location of each of the person's electric vehicle charging stations.

(c) The total number of kilowatt-hours of electricity delivered or placed by the Level 3 chargers of electric vehicle charging stations into the battery or other energy storage device of an electric vehicle at each location identified in par. (b).

(d) The total number of kilowatt-hours of electricity delivered or placed by the Level 1 chargers, as defined in s. 16.9565 (1) (a), and the Level 2 chargers, as defined in

s. 16.9565 (1) (b), installed on or after the day after publication of 2023 Wisconsin Act .... (this act) .... [LRB inserts date], of electric vehicle charging stations into the battery or other energy storage device of an electric vehicle at each location identified in par. (b).

**77.9973 Administration.** (1) A person holding a registration under s. 77.9971 who owes tax under s. 77.9972 shall maintain records indicating the total number of kilowatt-hours of electricity delivered or placed by each Level 3 charger and by each Level 1 charger, as defined in s. 16.9565 (1) (a), and Level 2 charger, as defined in s. 16.9565 (1) (b), installed on or after the effective date of this subsection .... [LRB inserts date], of the person during the periods described in s. 77.9972 (3), and shall provide those records to the department upon request.

(2) Section 77.76 (1) and (2), as it applies to the taxes under subch. V, applies to the tax under this subchapter.

(3) The department shall deposit all of the revenue that it collects under this subchapter in the transportation fund under s. 25.40.

**SECTION 9.** 196.01 (5) (b) 8. of the statutes is created to read:

196.01 (5) (b) 8. A person who satisfies all of the following:

a. The person supplies electricity through the person's electric vehicle charging station to charge electric vehicles.

b. The person charges a fee for using the electric vehicle charging station that is based on the amount of kilowatt-hours of electricity that the user consumes.

c. The person is a retail customer of an electric utility, as defined in s. 16.957 (1) (g), or a retail electric cooperative, as defined in s. 16.957 (1) (t).

d. All of the electricity supplied by the electric vehicle charging station is supplied to the person by the electric utility or electric cooperative that provides service to the person.

e. Other than engaging in the activity described in this subdivision, the person does not directly or indirectly provide electricity to the public.

**SECTION 10. Effective dates.** This act takes effect on the day after publication, except as follows:

(1) **SALES TAX EXEMPTION: ELECTRIC VEHICLE CHARGING TAX.** The treatment of ss. 77.52 (13), 77.53 (10), and 77.54 (71), subch. XIII of ch. 77, and ch. 77 (title) takes effect on the first day of the 10th month beginning after publication.