

State Facilities Energy GHG CO₂e Emissions

Fiscal Year 2021 Review Report
August 19, 2022

Facilities include:

University of Wisconsin System
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

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Acknowledgements

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

University of Wisconsin System
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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.

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Energy information and CO₂e emission factors were compiled, and report prepared, by Innovative Business Engineering, McFarland, Wisconsin.

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Executive 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 (CO₂) represents more than 99% of the total greenhouse gas emissions from fuels combusted by commercial, industrial, and electricity production sources, with other GHG CH₄ and N₂O together representing less than 1% from the same sources.

Beginning in Fiscal Year 2021 (FY2021), the State Energy Report has been expanded to include greenhouse gas accounting 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'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 (CO₂e) per gross square foot (lb CO₂e/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	Agency Name	FY05 Thermal CO ₂ e lb/GSF/Yr	FY05 Electric CO ₂ e lb/GSF/Yr	FY05 Base CO ₂ e lb/GSF/Yr	FY21 Weather Adj Thermal Btu/GSF/Yr	FY21 Weather Adj Electric Btu/GSF/Yr	FY21 Weather Adjusted Btu/GSF/Yr	FY21 % Change from FY05 Base
UW	University of Wisconsin System	26.10	27.80	53.90	12.54	14.73	27.27	-49.40%
DOA	Department of Administration	16.32	31.65	47.97	6.97	13.70	20.67	-56.91%
DOC	Department of Corrections	18.18	24.55	42.73	14.14	13.61	27.75	-35.06%
DHS	Department of Health Services	30.16	18.88	49.04	17.31	11.83	29.14	-40.58%
DPI	Department of Public Instruction	8.72	12.68	21.40	7.34	4.85	12.19	-43.05%
DVA	Department of Veterans Affairs	18.34	22.00	40.34	16.20	14.40	30.59	-24.16%
DNR	Department of Natural Resources	8.24	21.92	30.16	6.08	9.71	15.79	-47.65%
DOT	Department of Transportation	7.55	22.57	30.12	5.19	8.88	14.07	-53.29%
State	Above Statewide Totals	24.42	26.84	51.26	12.63	14.29	26.92	-47.49%

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 CO₂e 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 CO₂e Emissions and Energy Use in State Facilities Reports.

Introduction

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 CO₂e Emissions Reports were developed to track State of Wisconsin facilities' energy consumption and GHG emissions to measure and help inform agencies regarding progress in Wisconsin's energy conservation and emissions-reduction goals.

Beginning in FY2021, the State Facilities Energy GHG CO₂e 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 CO₂-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), University of Wisconsin System (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 CO₂e 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 CO₂, CH₄, and N₂O 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.

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; 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 emission reductions.

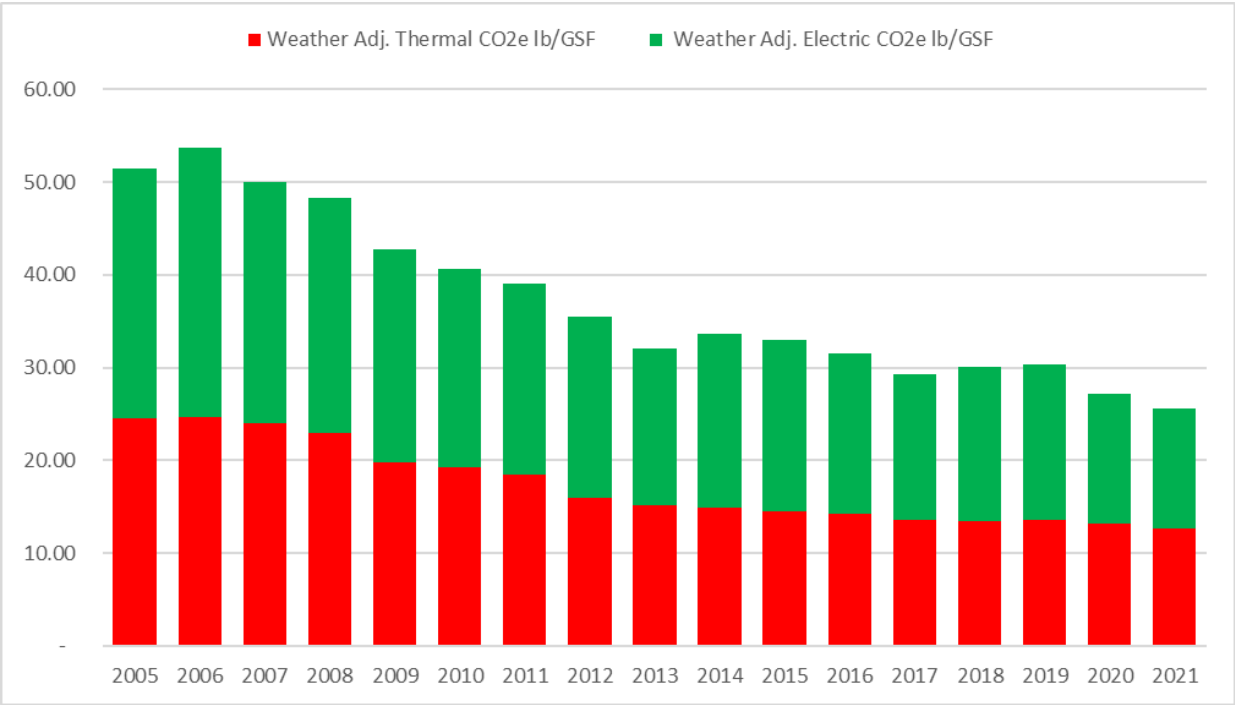
Statewide GHG CO2e Emissions



SCOPE

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

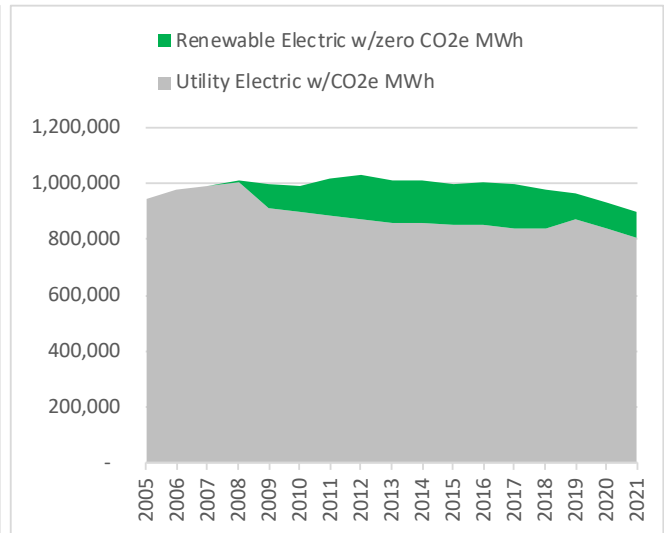
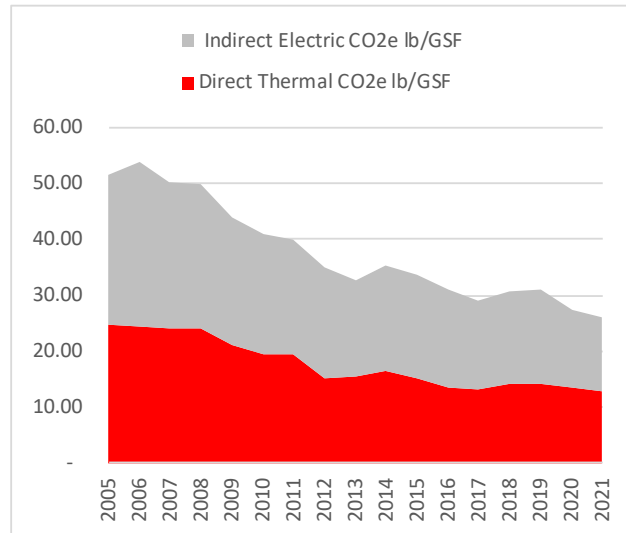
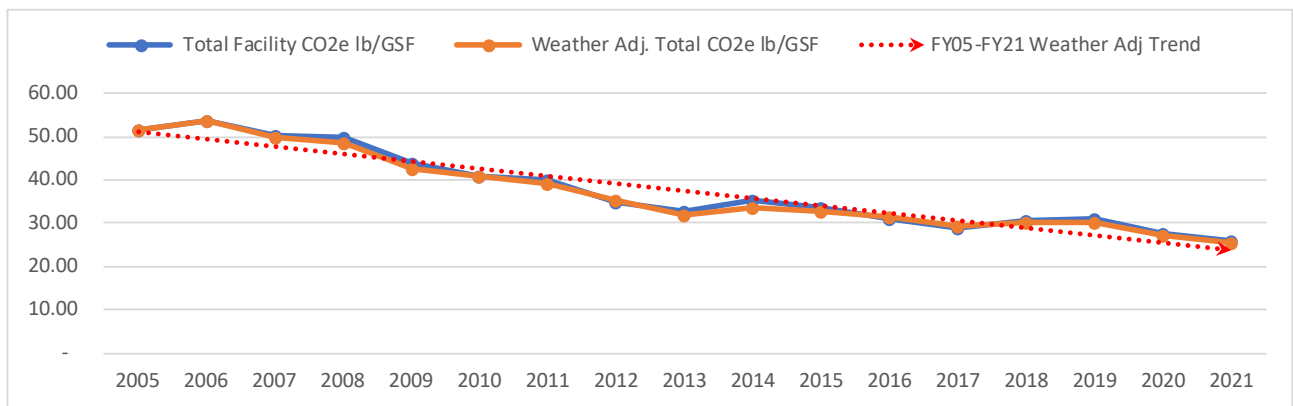
State of Wisconsin Facilities GHG CO2e Ibs/GSF:



State of Wisconsin Facilities CO2e Emissions Fiscal Year 2021 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	24.59	26.84	51.43	0.0%	47.05	24.59	26.84	51.43	0.0%
2006	65,405,533	24.47	29.19	53.66	4.3%	48.17	24.66	29.03	53.69	4.4%
2007	66,508,886	24.10	26.07	50.17	-2.5%	47.10	23.96	26.02	49.98	-2.8%
2008	67,703,290	24.17	25.51	49.68	-3.4%	45.46	22.94	25.40	48.34	-6.0%
2009	68,186,861	20.94	22.96	43.90	-14.6%	44.84	19.80	22.95	42.75	-16.9%
2010	67,994,873	19.42	21.35	40.77	-20.7%	46.76	19.24	21.41	40.65	-21.0%
2011	68,875,351	19.36	20.70	40.06	-22.1%	45.88	18.40	20.61	39.01	-24.2%
2012	70,620,947	15.01	19.86	34.87	-32.2%	50.67	15.90	19.58	35.48	-31.0%
2013	71,861,171	15.64	16.98	32.61	-36.6%	46.20	15.10	16.93	32.03	-37.7%
2014	72,438,223	16.58	18.87	35.45	-31.1%	43.28	14.85	18.80	33.66	-34.6%
2015	72,670,156	15.27	18.40	33.68	-34.5%	44.80	14.50	18.44	32.93	-36.0%
2016	73,135,342	13.64	17.45	31.09	-39.6%	48.89	14.21	17.34	31.55	-38.7%
2017	73,151,124	13.06	15.90	28.96	-43.7%	49.21	13.54	15.70	29.24	-43.2%
2018	73,100,282	14.03	16.57	30.60	-40.5%	46.05	13.50	16.54	30.04	-41.6%
2019	73,143,543	14.31	16.66	30.96	-39.8%	45.20	13.63	16.66	30.29	-41.1%
2020	73,704,825	13.45	14.01	27.46	-46.6%	46.24	13.15	14.02	27.17	-47.2%
2021	73,861,498	12.97	13.00	25.96	-49.5%	46.25	12.64	12.91	25.55	-50.3%

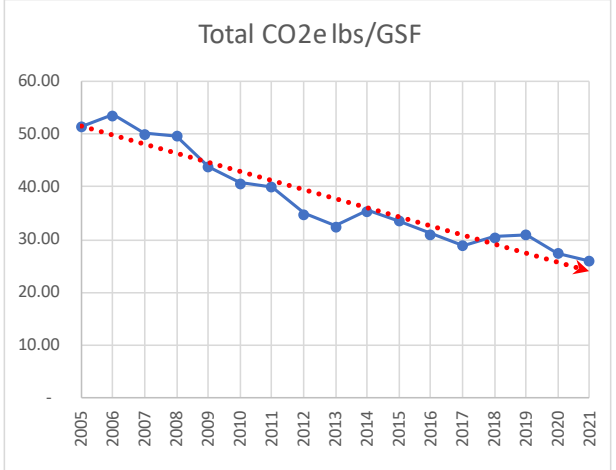
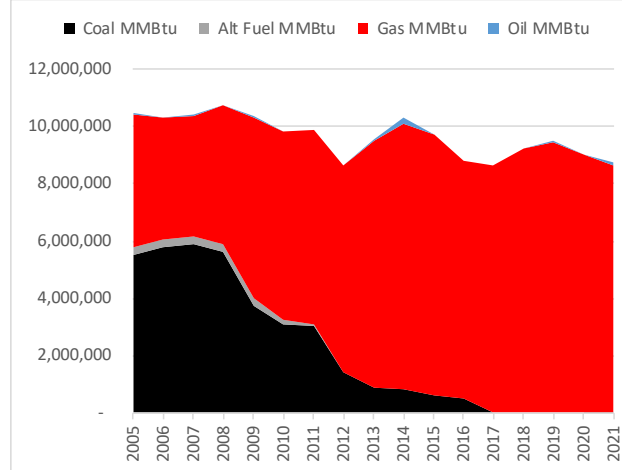
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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	Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	Total CO2e lbs/GSF
2005	64,753,150	47.05	943,007,467	-	943,007,467	1.84	788,327	722,381	1,510,708	51.43
2006	65,405,533	48.17	978,993,362	-	978,993,362	1.95	865,924	725,941	1,591,865	53.66
2007	66,508,886	47.10	991,423,587	-	991,423,587	1.75	786,529	727,037	1,513,566	50.17
2008	67,703,290	45.46	1,010,329,614	6,666,666	1,003,662,948	1.72	783,492	742,285	1,525,777	49.68
2009	68,186,861	44.84	995,237,761	84,524,854	910,712,907	1.72	710,106	647,781	1,357,887	43.90
2010	67,994,873	46.76	986,821,665	92,312,991	894,508,674	1.62	658,520	598,846	1,257,365	40.77
2011	68,875,351	45.88	1,017,402,889	135,021,334	882,381,555	1.62	646,790	604,816	1,251,606	40.06
2012	70,620,947	50.67	1,028,539,980	156,399,996	872,139,984	1.61	636,118	480,886	1,117,004	34.87
2013	71,861,171	46.20	1,009,719,286	151,802,336	857,916,950	1.42	553,364	509,704	1,063,068	32.61
2014	72,438,223	43.28	1,010,259,246	150,629,785	859,629,461	1.59	619,975	544,918	1,164,893	35.45
2015	72,670,156	44.80	996,743,171	148,641,976	848,101,195	1.58	606,660	503,465	1,110,124	33.68
2016	73,135,342	48.89	1,002,662,034	150,854,007	851,808,026	1.50	578,788	452,633	1,031,421	31.09
2017	73,151,124	49.21	994,131,750	154,379,500	839,752,251	1.39	527,554	433,293	960,846	28.96
2018	73,100,282	46.05	974,527,512	138,527,203	836,000,309	1.45	549,466	465,133	1,014,599	30.60
2019	73,143,543	45.20	960,392,579	86,392,660	873,999,919	1.39	552,637	474,633	1,027,270	30.96
2020	73,704,825	46.24	927,341,211	89,859,818	837,481,393	1.23	468,386	449,721	918,107	27.46
2021	73,861,498	46.25	894,788,535	86,838,527	807,950,008	1.19	435,378	434,393	869,771	25.96

Fiscal Year	Net Thermal MMBtu	Plant Reports MMBtu w/Sales	Coal MMBtu	Alt Fuel MMBtu	Gas MMBtu	Oil MMBtu	Plant Reports MMBtu w/Sales	Boiler Fuel Based Emissions lbs	Boiler Fuel Emissions lb/MMBtu	Net Thermal MMBtu CO2e Metric Tons
2005	9,627,884	10,461,758	5,529,226	255,718	4,647,526	32,643	10,461,758	784,947	165.41	722,381
2006	9,490,154	10,313,947	5,790,121	272,553	4,252,931	12,226	10,313,947	788,956	168.64	725,941
2007	9,438,163	10,343,210	5,885,909	301,660	4,194,489	13,989	10,343,210	796,754	169.83	727,037
2008	9,877,723	10,671,193	5,649,220	247,779	4,823,075	15,808	10,671,193	801,912	165.67	742,285
2009	9,533,903	10,371,582	3,747,816	279,028	6,298,936	49,769	10,371,582	704,697	149.79	647,781
2010	9,077,002	9,805,581	3,092,617	146,508	6,568,512	3,688	9,805,581	646,913	145.45	598,846
2011	9,244,206	9,867,224	3,021,004	81,218	6,761,535	5,918	9,867,224	645,577	144.24	604,816
2012	8,068,512	8,659,796	1,400,779	22,812	7,220,778	17,337	8,659,796	516,126	131.40	480,886
2013	8,969,155	9,551,144	887,004	23,113	8,617,568	23,460	9,551,144	542,778	125.29	509,704
2014	9,616,019	10,288,041	832,892	2,907	9,276,980	175,421	10,288,041	583,000	124.93	544,918
2015	9,063,821	9,734,515	598,895	3,977	9,128,891	2,752	9,734,515	540,719	122.46	503,465
2016	8,165,767	8,801,000	515,570	1,820	8,281,104	2,505	8,801,000	487,845	122.20	452,633
2017	8,164,247	8,645,762	-	-	8,645,044	718	8,645,762	458,848	117.00	433,293
2018	8,759,695	9,223,709	-	-	9,210,420	13,289	9,223,709	489,772	117.06	465,133
2019	8,919,635	9,493,700	-	-	9,426,673	67,027	9,493,700	505,180	117.31	474,633
2020	8,473,343	9,025,423	-	-	9,023,419	2,004	9,025,423	479,022	117.01	449,721
2021	8,150,957	8,762,644	-	-	8,665,297	97,347	8,762,644	466,992	117.49	434,393



Wisconsin Agency GHG CO2e Emissions

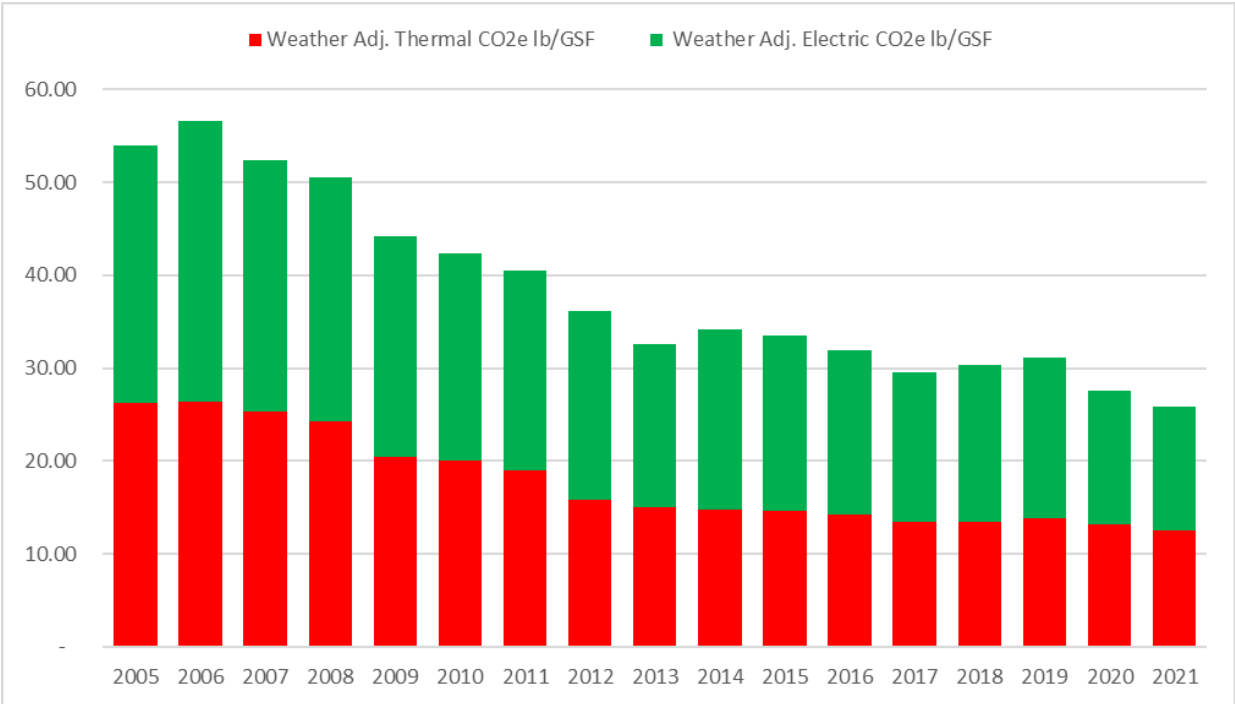


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Includes 13-four year university campuses: Eau Claire; Green Bay; La Crosse; Madison; Milwaukee; Oshkosh; Parkside; Platteville; River Falls; Stevens Point; Stout; Superior; and Whitewater.

Also, includes 13 two-year college campuses: Baraboo/Sauk County; Barron County; Fond du Lac; Fox Valley; Manitowoc; Marathon County; Marinette; Marshfield/Wood County; Richland; Rock County; Sheboygan; Washington County; and Waukesha.

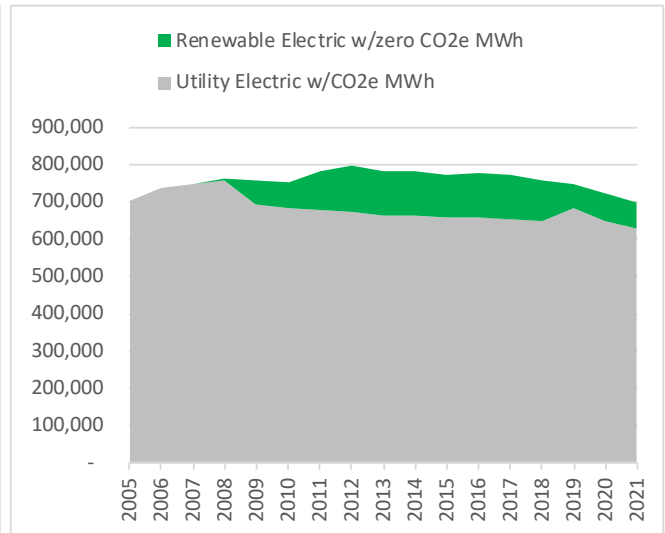
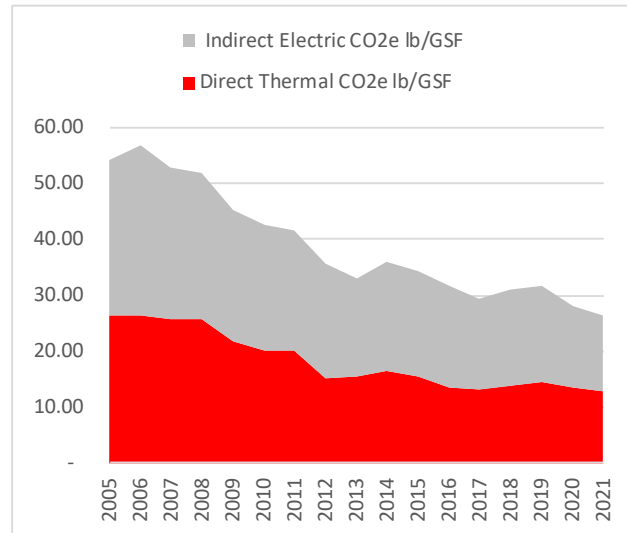
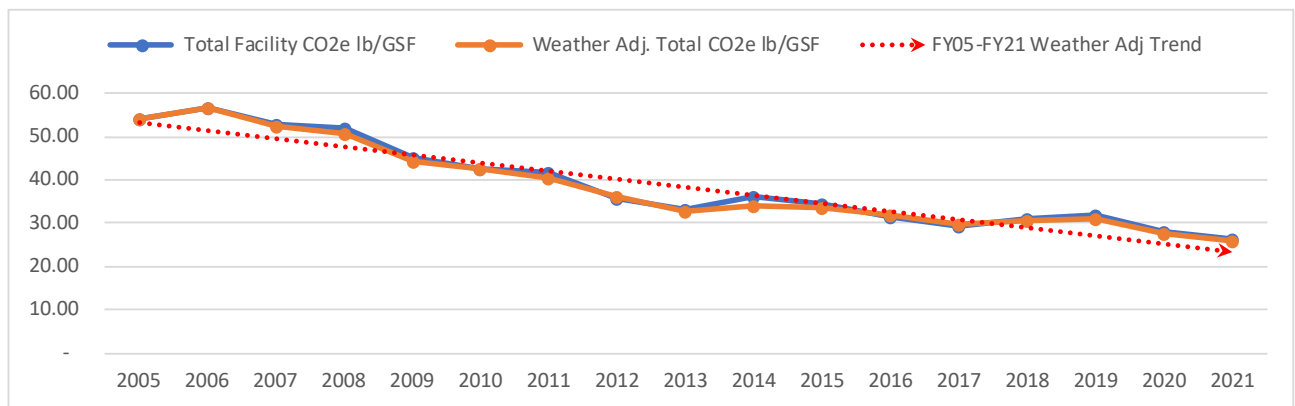
University of Wisconsin Facilities GHG CO2e Ibs/GSF:



University of Wisconsin System CO2e Emissions Fiscal Year 2021 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	26.23	27.80	54.03	0.0%	46.46	26.23	27.80	54.03	0.0%
2006	47,261,328	26.22	30.42	56.64	4.8%	47.79	26.39	30.26	56.65	4.9%
2007	48,307,694	25.57	27.09	52.66	-2.5%	46.78	25.39	27.04	52.43	-3.0%
2008	49,502,098	25.57	26.37	51.94	-3.9%	44.96	24.26	26.30	50.56	-6.4%
2009	50,134,229	21.63	23.68	45.31	-16.1%	44.28	20.47	23.71	44.17	-18.2%
2010	49,843,245	20.27	22.27	42.54	-21.3%	46.42	20.07	22.34	42.41	-21.5%
2011	50,695,697	19.97	21.63	41.60	-23.0%	45.32	18.96	21.58	40.53	-25.0%
2012	52,550,736	15.00	20.62	35.62	-34.1%	50.17	15.83	20.30	36.13	-33.1%
2013	53,733,978	15.58	17.55	33.12	-38.7%	45.57	15.04	17.51	32.56	-39.7%
2014	54,558,478	16.59	19.36	35.95	-33.5%	42.62	14.82	19.33	34.15	-36.8%
2015	54,924,484	15.44	18.86	34.30	-36.5%	44.32	14.66	18.89	33.55	-37.9%
2016	55,389,670	13.65	17.86	31.51	-41.7%	48.46	14.21	17.74	31.96	-40.9%
2017	55,405,452	13.06	16.27	29.33	-45.7%	48.80	13.51	16.06	29.57	-45.3%
2018	55,405,452	13.99	16.95	30.94	-42.7%	45.60	13.45	16.94	30.38	-43.8%
2019	55,214,198	14.57	17.22	31.80	-41.2%	44.74	13.89	17.24	31.12	-42.4%
2020	55,775,480	13.59	14.37	27.96	-48.2%	43.45	13.18	14.40	27.58	-49.0%
2021	55,932,153	13.00	13.37	26.37	-51.2%	43.55	12.56	13.30	25.86	-52.1%

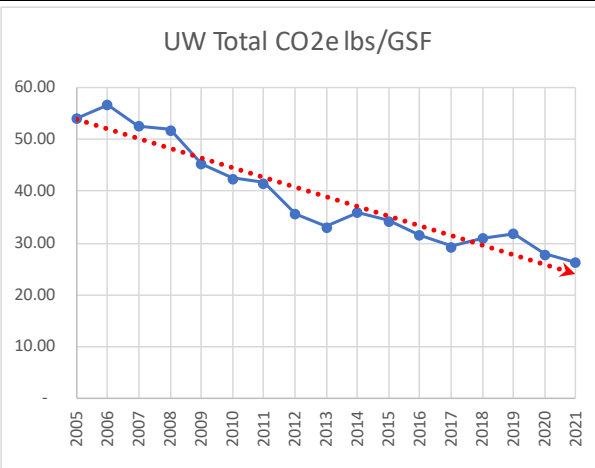
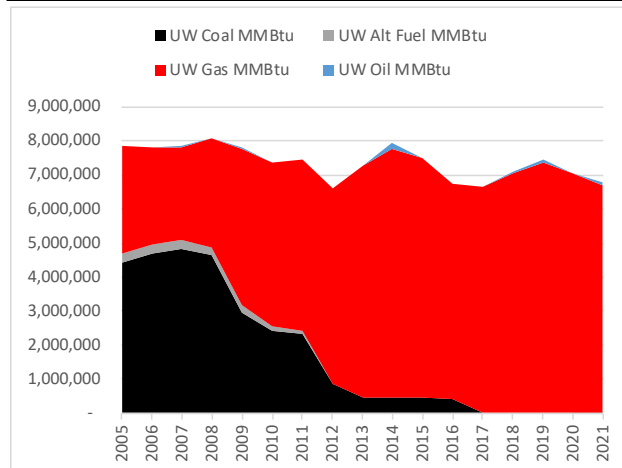
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



University of Wisconsin System 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	555,036	1,143,394	54.03
2006	47,261,328	47.79	737,261,746	-	737,261,746	1.95	652,112	562,149	1,214,260	56.64
2007	48,307,694	46.78	748,272,247	-	748,272,247	1.75	593,629	560,297	1,153,926	52.66
2008	49,502,098	44.96	763,676,445	5,080,668	758,595,777	1.72	592,184	574,130	1,166,315	51.94
2009	50,134,229	44.28	754,963,413	64,416,402	690,547,011	1.72	538,437	491,949	1,030,386	45.31
2010	49,843,245	46.42	754,215,301	70,351,730	683,863,570	1.62	503,447	458,251	961,698	42.54
2011	50,695,697	45.32	781,460,391	102,899,759	678,560,633	1.62	497,388	459,306	956,695	41.60
2012	52,550,736	50.17	794,882,367	120,881,557	674,000,810	1.61	491,600	357,539	849,139	35.62
2013	53,733,978	45.57	780,446,936	117,328,025	663,118,910	1.42	427,717	379,632	807,349	33.12
2014	54,558,478	42.62	782,159,825	117,867,807	664,292,019	1.59	479,095	410,545	889,640	35.95
2015	54,924,484	44.32	773,193,140	116,386,667	656,806,473	1.58	469,824	384,614	854,437	34.30
2016	55,389,670	48.46	778,904,074	118,420,442	660,483,632	1.50	448,786	342,911	791,697	31.51
2017	55,405,452	48.80	771,622,296	120,580,532	651,041,764	1.39	409,001	328,140	737,141	29.33
2018	55,405,452	45.60	757,291,182	109,118,522	648,172,660	1.45	426,015	351,545	777,560	30.94
2019	55,214,198	44.74	749,641,825	67,462,276	682,179,549	1.39	431,347	364,981	796,329	31.80
2020	55,775,480	43.45	720,345,068	70,365,494	649,979,574	1.23	363,520	343,893	707,413	27.96
2021	55,932,153	43.55	697,191,840	67,767,049	629,424,790	1.19	339,177	329,811	668,988	26.37

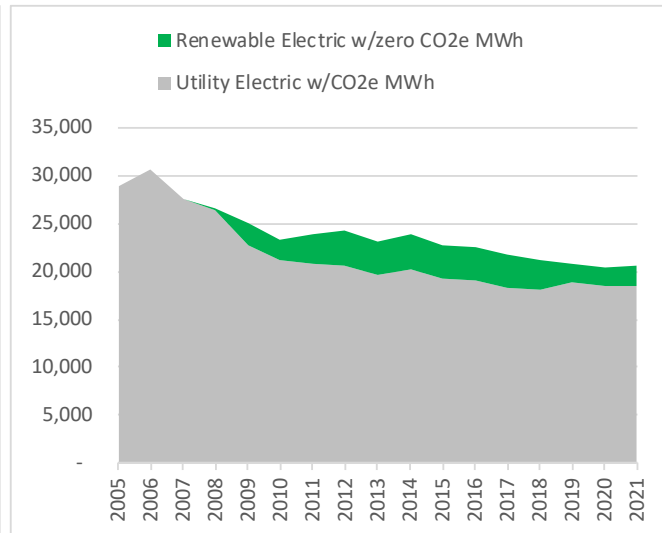
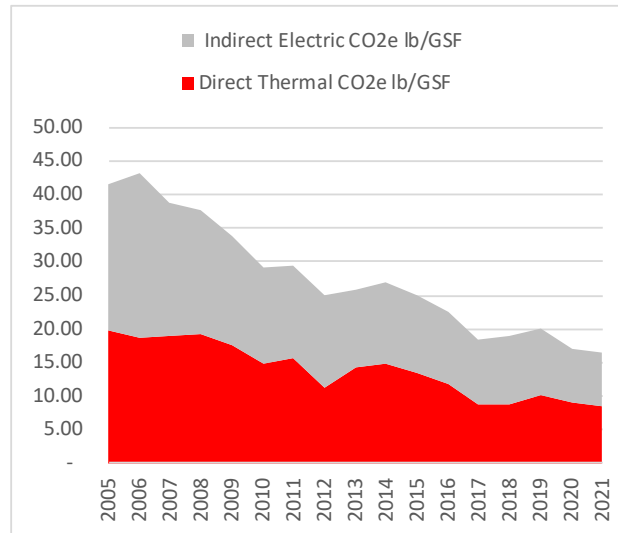
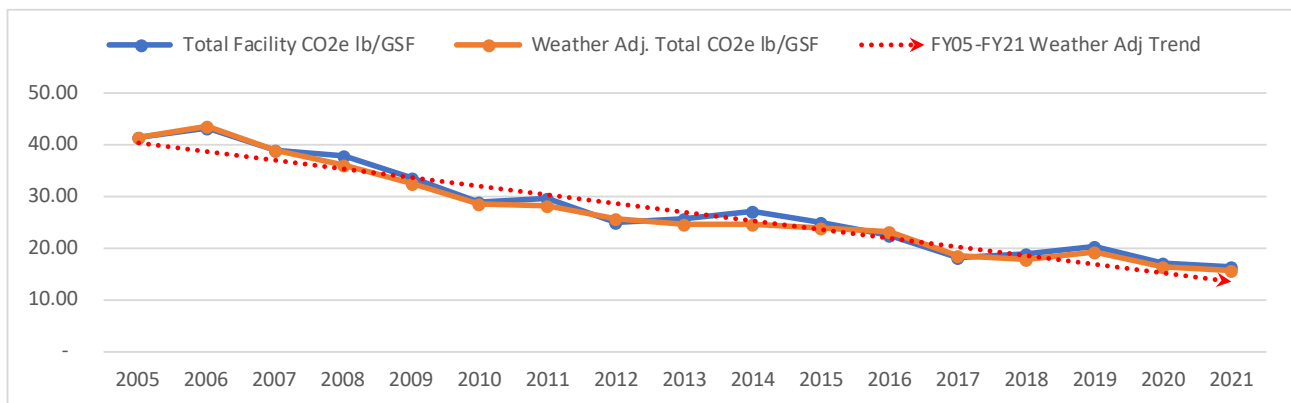
Fiscal Year	UW Net Thermal MMBtu	UW Plant Reports MMBtu w/Sales	UW Coal MMBtu	UW Alt Fuel MMBtu	UW Gas MMBtu	UW Oil MMBtu	UW Plant Reports MMBtu w/Sales	UW Boiler Fuel Based Emissions lbs	UW Boiler Fuel Emissions lb/MMBtu	UW Net Thermal MMBtu CO2e Metric Tons
2005	7,242,061	7,859,747	4,425,586	246,898	3,155,791	31,780	7,859,747	602,375	168.96	555,036
2006	7,172,490	7,795,920	4,703,905	253,689	2,835,380	4,283	7,795,920	611,010	172.79	562,149
2007	7,096,796	7,827,841	4,818,027	280,942	2,722,346	12,463	7,827,841	618,014	174.06	560,297
2008	7,469,384	8,077,888	4,648,106	227,277	3,189,459	15,119	8,077,888	620,903	169.46	574,130
2009	7,165,793	7,822,938	2,942,166	257,194	4,574,880	48,982	7,822,938	537,063	151.35	491,949
2010	6,877,963	7,369,586	2,434,575	131,114	4,801,358	2,539	7,369,586	491,006	146.89	458,251
2011	6,976,031	7,445,973	2,351,324	58,157	5,031,679	4,814	7,445,973	490,248	145.15	459,306
2012	6,118,747	6,613,007	873,629	2,347	5,719,932	17,099	6,613,007	386,420	128.82	357,539
2013	6,824,754	7,289,475	452,460	1,316	6,813,883	21,815	7,289,475	405,482	122.63	379,632
2014	7,341,554	7,951,830	477,663	1,214	7,300,673	172,279	7,951,830	444,672	123.28	410,545
2015	6,931,844	7,501,942	450,245	1,813	7,048,840	1,044	7,501,942	416,246	122.32	384,614
2016	6,180,392	6,717,807	402,698	1,820	6,311,725	1,564	6,717,807	372,729	122.32	342,911
2017	6,182,860	6,664,375	-	-	6,663,657	718	6,664,375	353,695	117.00	328,140
2018	6,619,445	7,083,459	-	-	7,070,170	13,289	7,083,459	376,188	117.08	351,545
2019	6,853,903	7,427,968	-	-	7,360,941	67,027	7,427,968	395,551	117.40	364,981
2020	6,479,253	7,031,332	-	-	7,029,329	2,004	7,031,332	373,195	117.01	343,893
2021	6,181,071	6,792,758	-	-	6,695,411	97,347	6,792,758	362,450	117.63	329,811



UW-Eau Claire CO2e Emissions Fiscal Year 2021 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	19.07	19.77	38.84	-6.6%	46.32	19.12	19.65	38.76	-6.8%
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	33.74	-18.9%	42.97	16.20	16.15	32.35	-22.2%
2010	2,436,963	14.93	14.11	29.04	-30.2%	45.29	14.57	14.12	28.69	-31.0%
2011	2,436,963	15.72	13.72	29.44	-29.2%	43.68	14.31	13.70	28.01	-32.6%
2012	2,452,457	11.35	13.53	24.88	-40.1%	49.02	12.22	13.45	25.67	-38.3%
2013	2,452,457	14.38	11.42	25.80	-37.9%	43.85	13.15	11.42	24.57	-40.9%
2014	2,634,457	14.82	12.21	27.03	-35.0%	41.37	12.36	12.12	24.48	-41.1%
2015	2,634,457	13.53	11.54	25.08	-39.7%	43.42	12.49	11.56	24.05	-42.2%
2016	2,634,457	11.70	10.82	22.52	-45.8%	47.61	12.35	10.75	23.11	-44.4%
2017	2,634,457	8.68	9.62	18.30	-56.0%	47.08	9.03	9.58	18.61	-55.2%
2018	2,634,457	8.91	9.93	18.84	-54.7%	42.94	7.73	10.02	17.75	-57.3%
2019	2,634,457	10.16	10.02	20.18	-51.5%	42.23	8.99	10.05	19.04	-54.2%
2020	2,785,457	8.93	8.16	17.09	-58.9%	41.35	8.02	8.40	16.42	-60.5%
2021	2,785,457	8.51	7.89	16.40	-60.5%	41.67	7.70	8.10	15.80	-62.0%

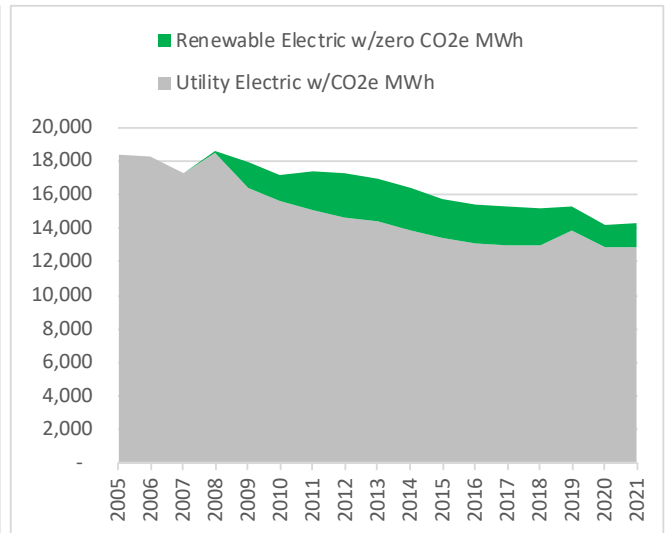
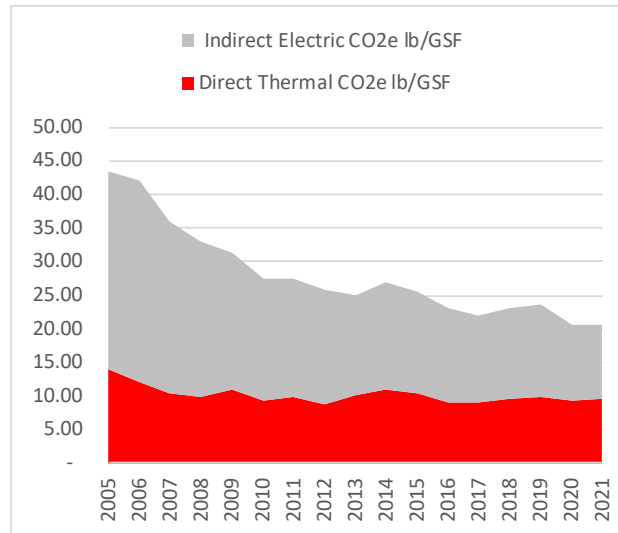
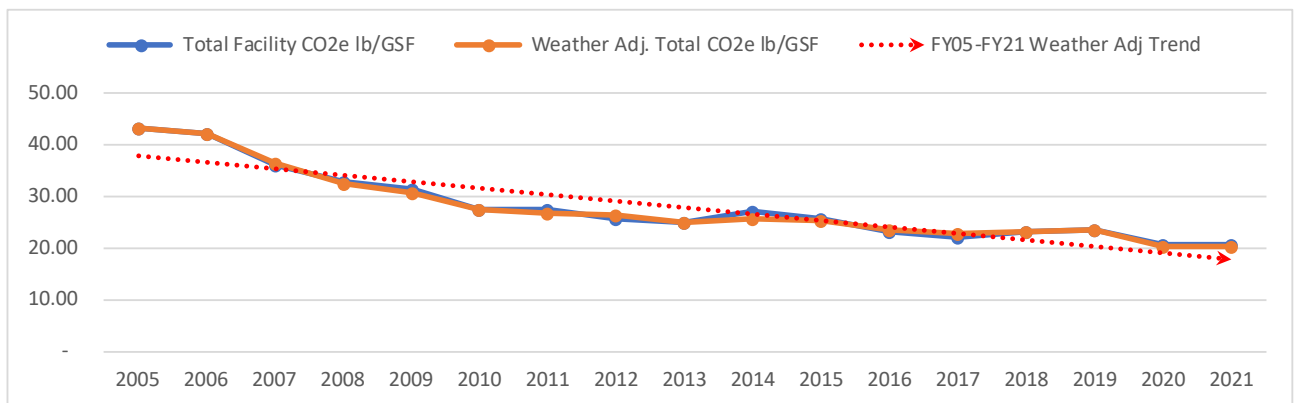
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Green Bay CO2e Emissions Fiscal Year 2021 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	18.23	27.50	-36.6%	45.99	9.30	18.28	27.58	-36.4%
2011	1,386,055	9.87	17.55	27.41	-36.8%	44.59	9.43	17.48	26.91	-37.9%
2012	1,386,055	8.85	16.97	25.82	-40.4%	49.86	9.67	16.73	26.40	-39.1%
2013	1,386,055	10.17	14.79	24.96	-42.4%	45.29	10.00	14.78	24.79	-42.8%
2014	1,386,055	11.09	15.95	27.05	-37.6%	41.95	9.93	15.90	25.83	-40.4%
2015	1,386,055	10.43	15.24	25.67	-40.8%	43.98	9.95	15.29	25.24	-41.8%
2016	1,386,055	9.04	14.14	23.18	-46.5%	48.11	9.59	14.04	23.63	-45.5%
2017	1,386,055	9.10	12.93	22.03	-49.2%	48.65	9.82	12.84	22.65	-47.7%
2018	1,386,055	9.50	13.61	23.10	-46.7%	45.77	9.47	13.60	23.07	-46.8%
2019	1,386,055	9.74	13.95	23.69	-45.3%	44.89	9.46	13.97	23.43	-46.0%
2020	1,386,058	9.28	11.43	20.71	-52.2%	42.93	8.65	11.69	20.34	-53.1%
2021	1,386,058	9.48	11.06	20.54	-52.6%	43.28	8.98	11.19	20.16	-53.5%

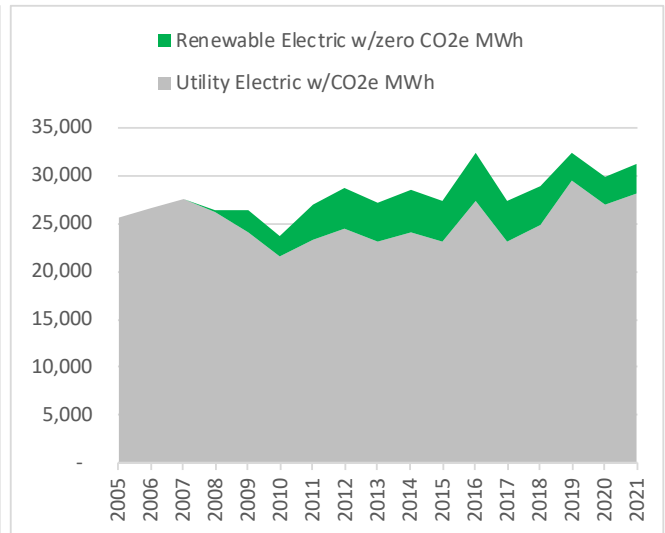
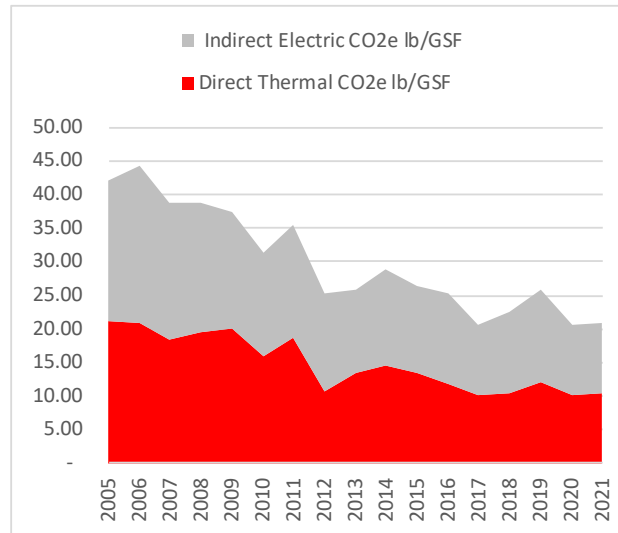
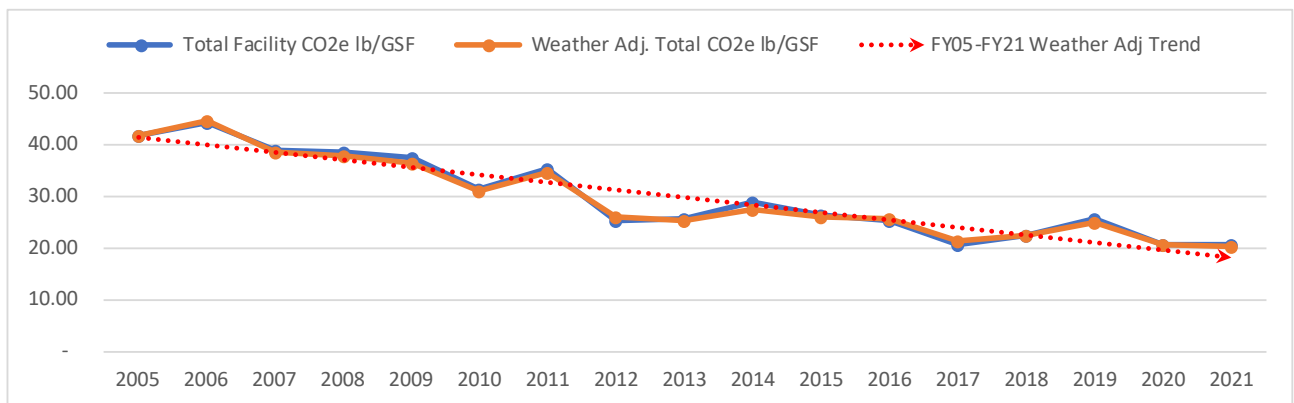
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-La Crosse CO2e Emissions Fiscal Year 2021 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	15.41	31.47	-25.0%	47.43	15.63	15.43	31.06	-26.0%
2011	2,261,088	18.75	16.68	35.43	-15.6%	46.70	17.97	16.62	34.59	-17.6%
2012	2,677,906	10.78	14.63	25.40	-39.5%	51.77	11.68	14.34	26.01	-38.0%
2013	2,677,906	13.54	12.27	25.81	-38.5%	46.71	12.99	12.26	25.24	-39.9%
2014	2,677,906	14.57	14.34	28.91	-31.1%	44.97	13.21	14.20	27.41	-34.7%
2015	2,797,642	13.40	13.06	26.46	-37.0%	47.28	13.08	13.00	26.08	-37.9%
2016	3,008,972	11.79	13.61	25.40	-39.5%	51.01	12.54	13.30	25.84	-38.4%
2017	3,008,972	10.09	10.64	20.73	-50.6%	51.61	10.85	10.50	21.35	-49.1%
2018	3,008,972	10.55	11.91	22.46	-46.5%	48.62	10.51	11.82	22.33	-46.8%
2019	3,008,972	12.15	13.61	25.76	-38.6%	47.03	11.53	13.53	25.06	-40.3%
2020	3,207,814	10.25	10.38	20.63	-50.8%	48.33	10.20	10.33	20.53	-51.1%
2021	3,220,082	10.38	10.39	20.77	-50.5%	45.16	9.77	10.63	20.40	-51.4%

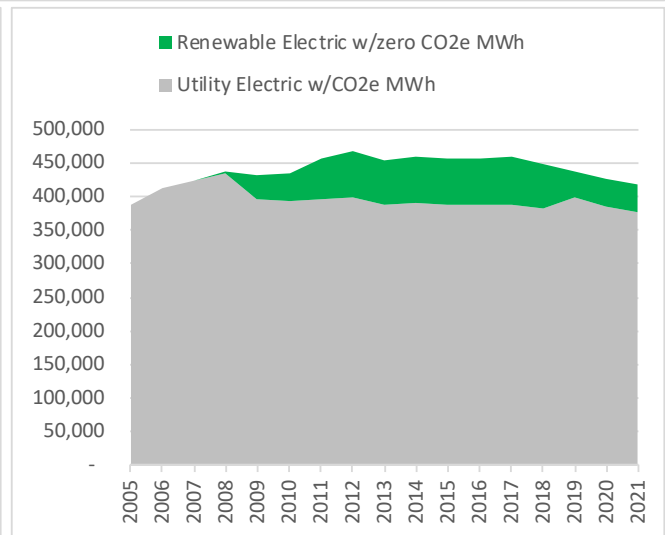
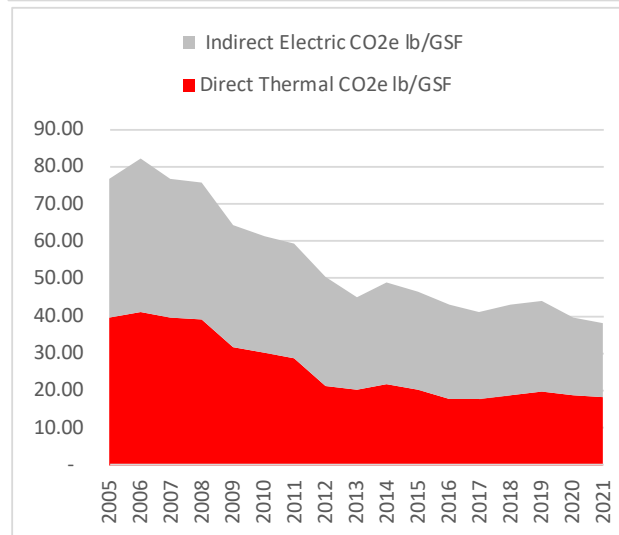
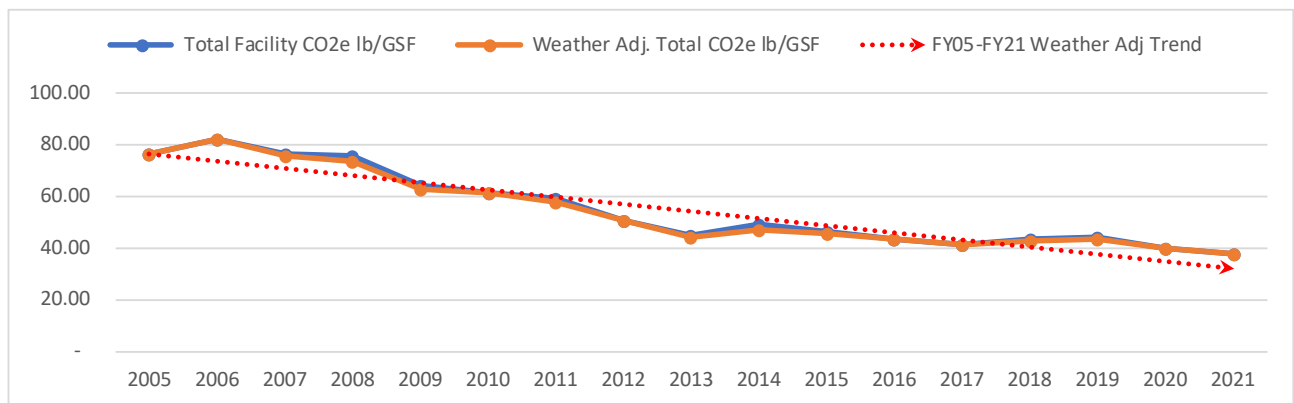
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Madison CO2e Emissions Fiscal Year 2021 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	30.90	61.30	-20.1%	47.10	29.97	31.06	61.03	-20.4%
2011	21,120,379	28.84	30.33	59.17	-22.8%	46.81	27.49	30.24	57.73	-24.7%
2012	22,153,550	21.49	28.84	50.32	-34.4%	51.51	22.29	28.32	50.61	-34.0%
2013	22,362,671	20.49	24.58	45.07	-41.2%	47.29	19.92	24.55	44.47	-42.0%
2014	22,810,139	21.61	27.23	48.85	-36.3%	44.58	19.57	27.24	46.81	-39.0%
2015	22,931,250	20.03	26.64	46.67	-39.1%	45.84	19.17	26.69	45.86	-40.2%
2016	22,931,250	17.85	25.30	43.15	-43.7%	49.68	18.36	25.13	43.49	-43.3%
2017	22,947,032	17.82	23.42	41.25	-46.2%	49.72	18.07	23.11	41.18	-46.3%
2018	22,947,032	18.98	24.16	43.14	-43.7%	46.66	18.27	24.14	42.41	-44.7%
2019	22,755,778	19.63	24.39	44.02	-42.6%	45.88	18.84	24.47	43.30	-43.5%
2020	22,755,778	18.84	20.89	39.72	-48.2%	48.25	18.84	20.75	39.58	-48.4%
2021	22,755,778	18.25	19.69	37.94	-50.5%	48.83	18.05	19.37	37.42	-51.2%

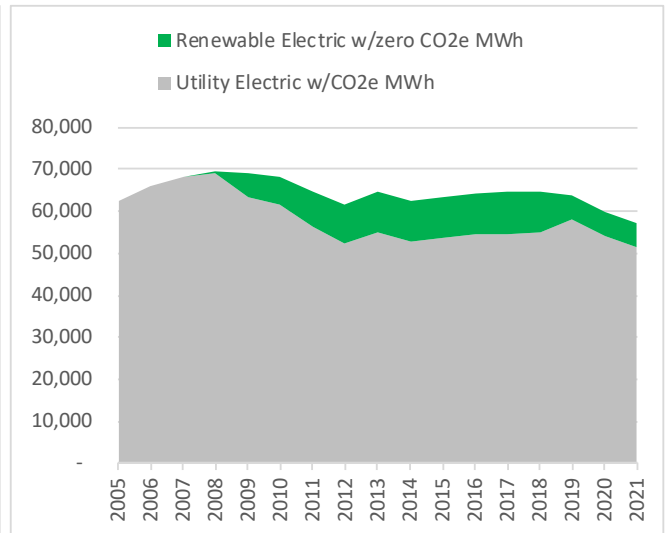
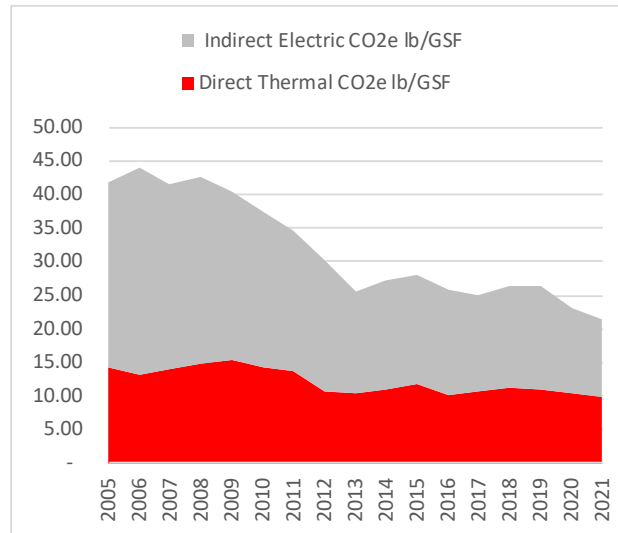
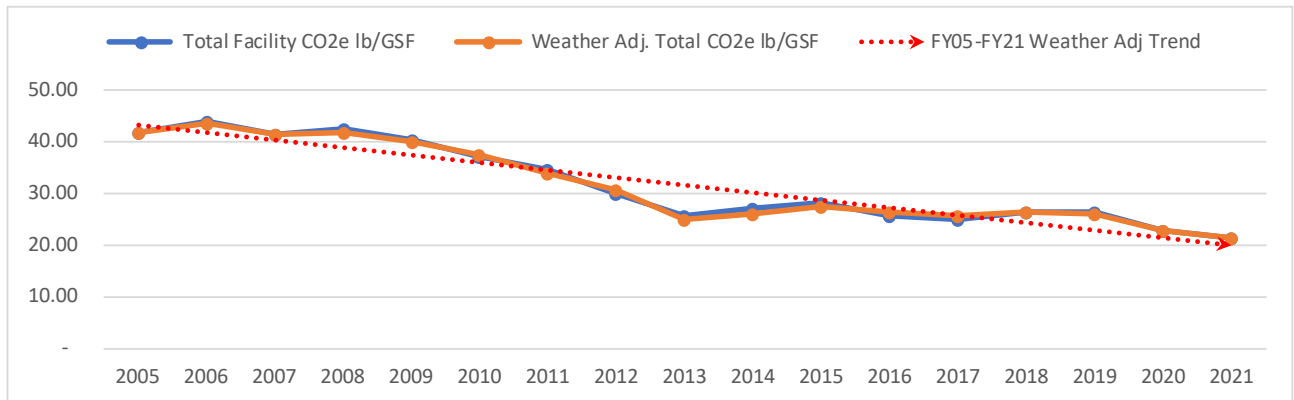
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Milwaukee CO2e Emissions Fiscal Year 2021 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	27.52	41.69	0.0%
2006	4,190,131	13.24	30.62	43.86	5.2%	50.11	13.32	30.30	43.63	4.7%
2007	4,324,831	13.92	27.65	41.57	-0.3%	48.88	13.95	27.53	41.48	-0.5%
2008	4,320,806	14.95	27.53	42.48	1.9%	47.87	14.51	27.35	41.86	0.4%
2009	4,344,925	15.37	25.00	40.37	-3.2%	47.26	14.84	25.01	39.85	-4.4%
2010	4,344,925	14.24	23.03	37.27	-10.6%	49.10	14.45	22.98	37.43	-10.2%
2011	4,344,925	13.67	20.95	34.62	-17.0%	48.17	13.13	20.81	33.94	-18.6%
2012	4,344,925	10.81	19.32	30.12	-27.7%	52.24	11.63	18.98	30.61	-26.6%
2013	5,189,880	10.43	15.07	25.50	-38.8%	48.26	10.18	14.96	25.13	-39.7%
2014	5,195,749	11.06	16.19	27.25	-34.6%	45.20	9.92	16.15	26.07	-37.5%
2015	5,195,749	11.87	16.30	28.17	-32.4%	46.08	11.11	16.36	27.47	-34.1%
2016	5,279,687	10.24	15.50	25.74	-38.3%	50.51	10.90	15.44	26.33	-36.8%
2017	5,279,687	10.67	14.33	25.00	-40.0%	51.99	11.61	14.06	25.67	-38.4%
2018	5,279,687	11.34	15.14	26.49	-36.5%	48.73	11.24	15.05	26.29	-36.9%
2019	5,279,687	10.99	15.31	26.30	-36.9%	47.88	10.71	15.22	25.93	-37.8%
2020	5,275,082	10.32	12.65	22.97	-44.9%	46.54	9.82	12.84	22.66	-45.6%
2021	5,275,082	9.82	11.63	21.45	-48.5%	47.13	9.57	11.69	21.26	-49.0%

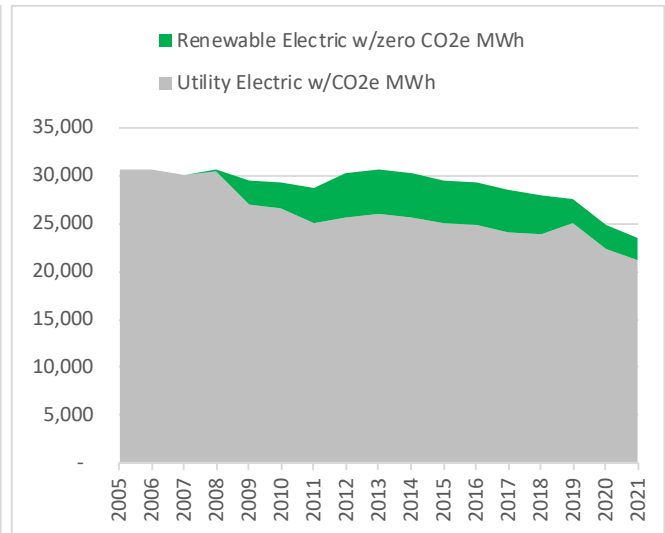
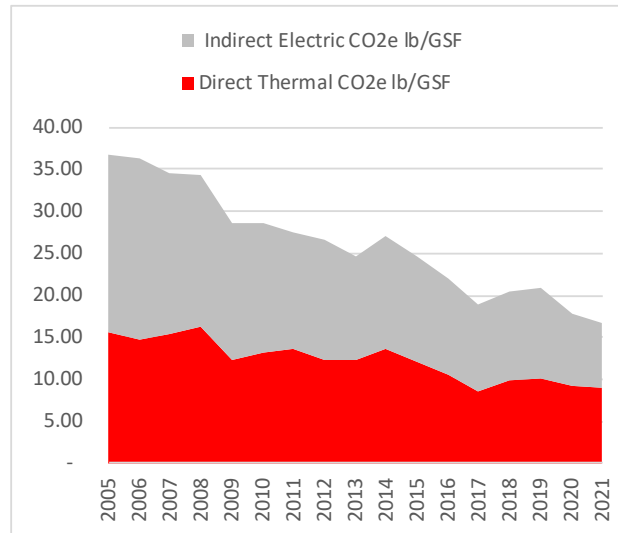
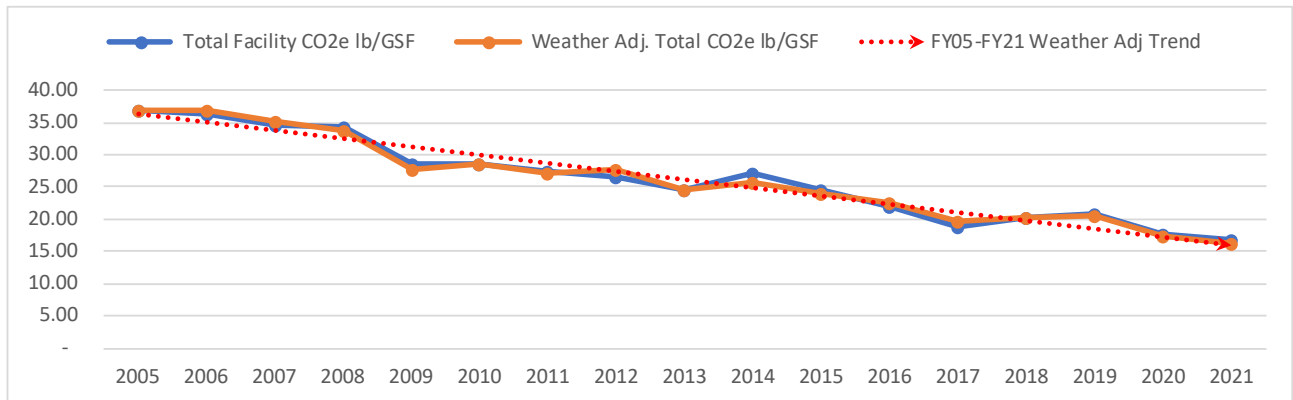
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Oshkosh CO2e Emissions Fiscal Year 2021 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	14.62	21.74	36.35	-1.3%	47.27	15.19	21.59	36.78	-0.1%
2007	2,753,951	15.43	19.11	34.55	-6.2%	46.64	15.95	19.08	35.03	-4.8%
2008	2,889,527	16.18	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	13.28	15.26	28.53	-22.5%	45.99	13.39	15.29	28.68	-22.1%
2011	2,892,390	13.59	13.95	27.54	-25.2%	44.59	12.99	14.00	26.99	-26.7%
2012	2,892,390	12.37	14.21	26.58	-27.8%	49.86	13.73	14.02	27.75	-24.6%
2013	3,001,171	12.35	12.32	24.67	-33.0%	45.29	12.09	12.33	24.42	-33.7%
2014	3,001,171	13.54	13.58	27.12	-26.3%	41.95	11.92	13.65	25.57	-30.5%
2015	3,126,330	12.01	12.58	24.59	-33.2%	43.98	11.37	12.62	23.99	-34.8%
2016	3,259,189	10.57	11.40	21.97	-40.3%	48.11	11.31	11.32	22.63	-38.5%
2017	3,259,189	8.64	10.19	18.82	-48.9%	48.65	9.49	10.08	19.57	-46.8%
2018	3,259,189	9.79	10.58	20.37	-44.7%	45.77	9.73	10.58	20.31	-44.8%
2019	3,259,189	10.20	10.68	20.88	-43.3%	44.89	9.95	10.65	20.60	-44.0%
2020	3,288,596	9.31	8.40	17.71	-51.9%	42.93	8.62	8.62	17.24	-53.2%
2021	3,288,596	9.04	7.63	16.67	-54.7%	43.28	8.62	7.72	16.34	-55.6%

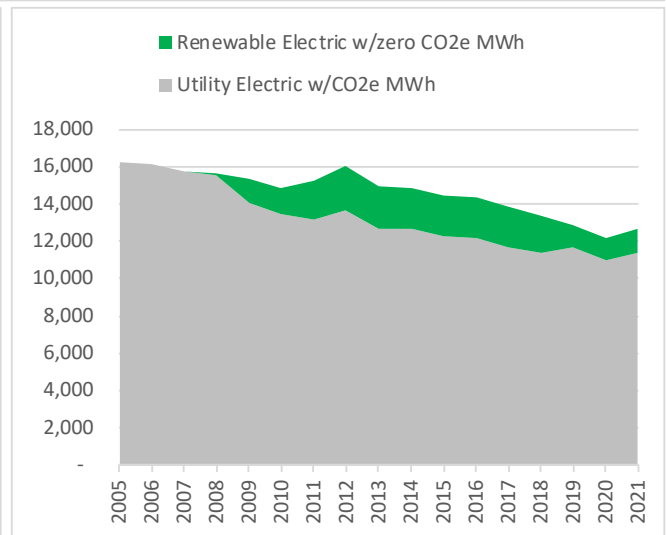
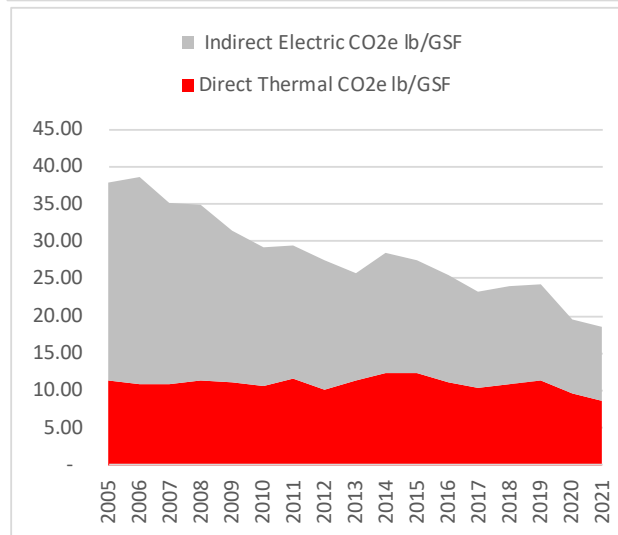
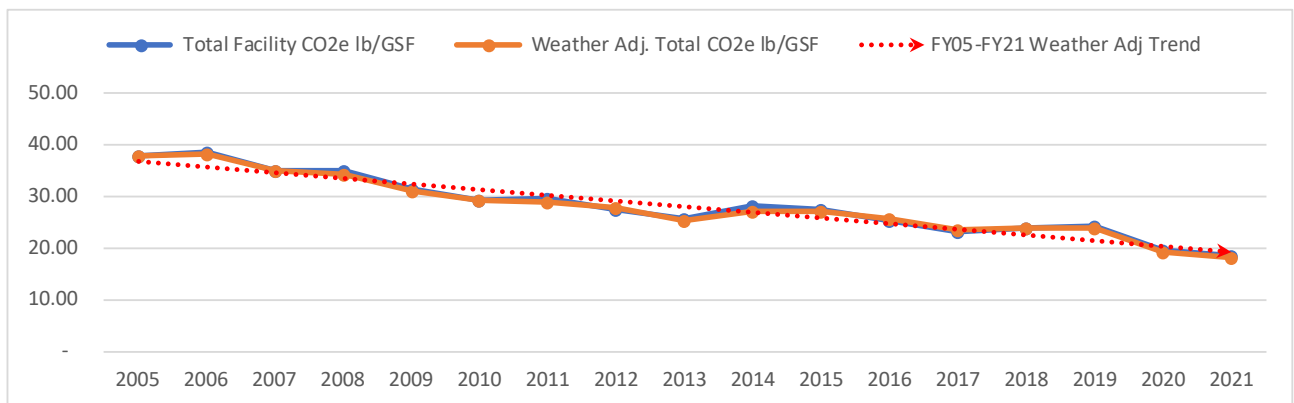
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Parkside CO2e Emissions Fiscal Year 2021 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	18.41	29.10	-23.0%	49.10	10.88	18.37	29.26	-22.6%
2011	1,190,505	11.65	17.91	29.56	-21.7%	48.17	11.32	17.64	28.96	-23.3%
2012	1,262,322	10.15	17.36	27.51	-27.2%	52.24	10.96	16.93	27.90	-26.1%
2013	1,262,322	11.40	14.31	25.71	-31.9%	48.26	11.24	14.17	25.41	-32.7%
2014	1,262,322	12.44	15.91	28.35	-25.0%	45.20	11.22	15.75	26.97	-28.6%
2015	1,262,322	12.23	15.32	27.56	-27.1%	46.08	11.50	15.44	26.94	-28.7%
2016	1,262,322	11.02	14.45	25.47	-32.6%	50.51	11.59	14.21	25.80	-31.7%
2017	1,262,322	10.50	12.81	23.30	-38.3%	51.99	11.32	12.29	23.60	-37.5%
2018	1,262,322	10.89	13.08	23.97	-36.5%	48.73	10.85	12.93	23.78	-37.1%
2019	1,262,322	11.36	12.90	24.25	-35.8%	47.88	11.12	12.72	23.85	-36.9%
2020	1,374,576	9.61	9.82	19.44	-48.5%	46.54	9.23	10.05	19.27	-49.0%
2021	1,374,576	8.56	9.87	18.43	-51.2%	47.13	8.29	9.99	18.28	-51.6%

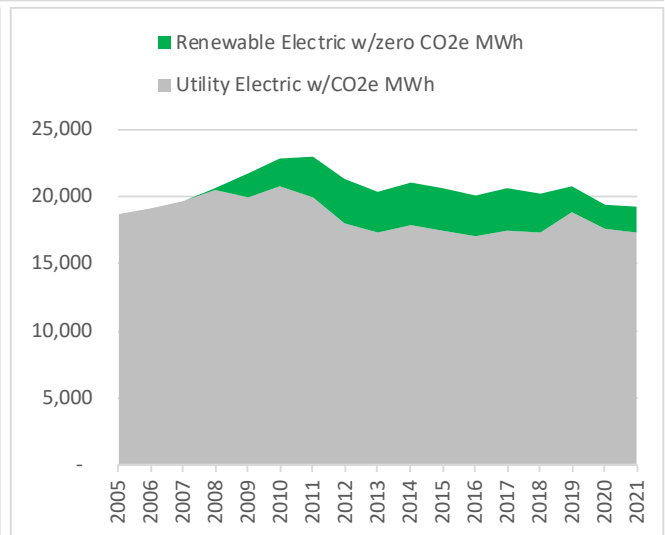
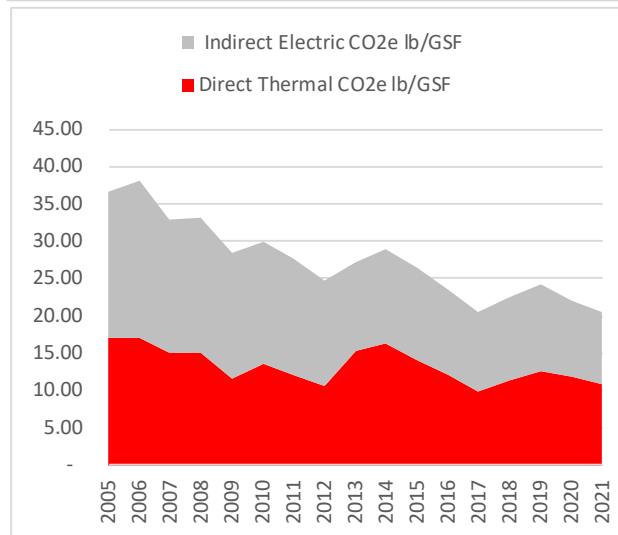
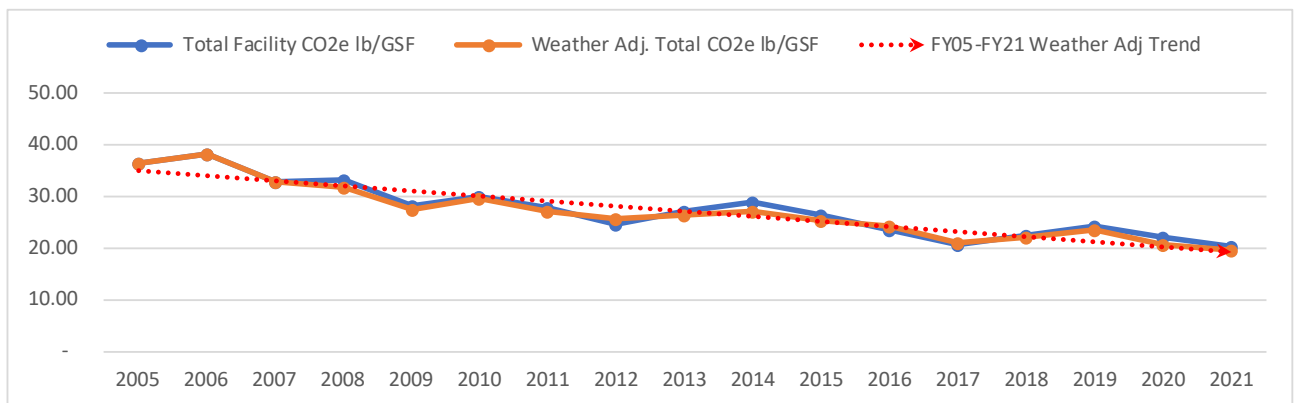
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Platteville CO2e Emissions Fiscal Year 2021 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	17.14	19.45	36.58	0.0%	46.84	17.14	19.45	36.58	0.0%
2006	1,754,450	17.00	21.20	38.20	4.4%	47.39	17.17	21.15	38.32	4.7%
2007	1,905,950	15.00	18.00	32.99	-9.8%	46.26	14.71	17.97	32.69	-10.6%
2008	1,951,401	15.02	18.05	33.07	-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	16.38	29.99	-18.0%	45.47	13.04	16.47	29.51	-19.3%
2011	2,070,851	12.15	15.55	27.70	-24.3%	46.21	11.70	15.50	27.20	-25.7%
2012	2,070,851	10.72	14.01	24.73	-32.4%	51.40	12.00	13.70	25.70	-29.8%
2013	2,070,851	15.24	11.87	27.10	-25.9%	46.61	14.69	11.72	26.41	-27.8%
2014	2,244,485	16.33	12.64	28.96	-20.8%	43.20	14.55	12.51	27.06	-26.0%
2015	2,244,485	14.21	12.29	26.49	-27.6%	44.37	13.13	12.32	25.45	-30.4%
2016	2,244,485	12.15	11.35	23.50	-35.8%	48.82	13.03	11.26	24.29	-33.6%
2017	2,244,485	9.80	10.76	20.56	-43.8%	49.01	10.31	10.65	20.96	-42.7%
2018	2,244,485	11.38	11.16	22.54	-38.4%	45.93	10.99	11.17	22.16	-39.4%
2019	2,244,485	12.52	11.71	24.23	-33.8%	44.97	11.83	11.69	23.52	-35.7%
2020	2,132,462	11.83	10.14	21.98	-39.9%	43.71	10.61	10.17	20.79	-43.2%
2021	2,132,462	10.75	9.67	20.42	-44.2%	43.00	9.80	9.87	19.67	-46.2%

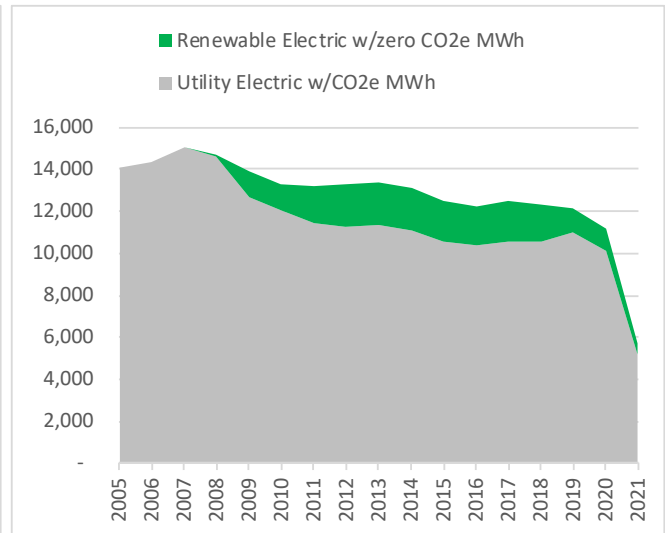
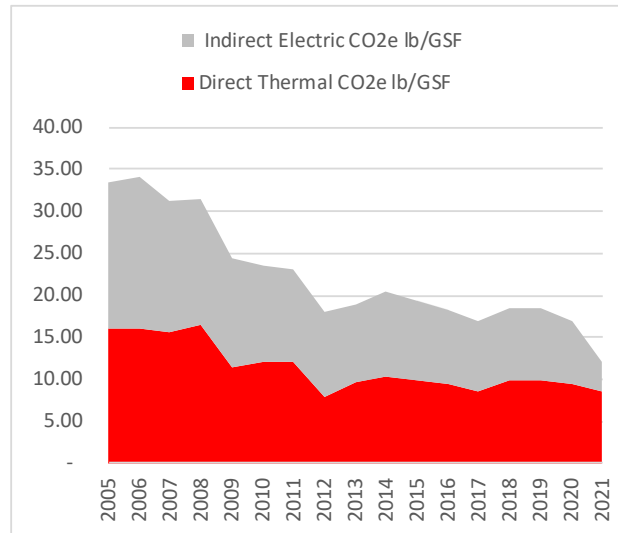
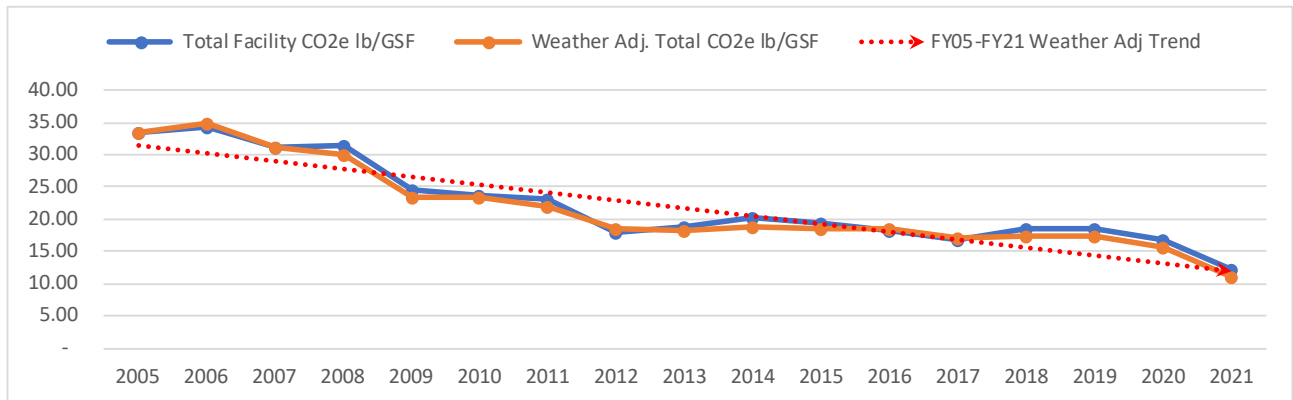
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-River Falls CO2e Emissions Fiscal Year 2021 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	11.58	23.59	-29.4%	45.29	11.68	11.58	23.26	-30.4%
2011	1,686,708	12.17	10.95	23.12	-30.9%	43.68	10.91	11.09	22.00	-34.2%
2012	1,766,458	7.79	10.24	18.04	-46.1%	49.02	8.24	10.18	18.42	-44.9%
2013	1,769,312	9.77	9.12	18.89	-43.5%	43.85	8.96	9.16	18.13	-45.8%
2014	1,769,312	10.37	9.97	20.34	-39.2%	41.37	8.60	10.11	18.71	-44.0%
2015	1,769,312	9.96	9.44	19.40	-42.0%	43.42	9.09	9.48	18.57	-44.5%
2016	1,769,312	9.42	8.76	18.18	-45.6%	47.61	9.94	8.72	18.66	-44.2%
2017	1,769,312	8.60	8.26	16.86	-49.6%	47.08	8.88	8.24	17.12	-48.8%
2018	1,769,312	9.78	8.63	18.41	-44.9%	42.94	8.65	8.72	17.37	-48.0%
2019	1,769,312	9.79	8.68	18.48	-44.7%	42.23	8.67	8.74	17.41	-47.9%
2020	1,684,447	9.50	7.40	16.90	-49.5%	41.35	8.38	7.41	15.79	-52.8%
2021	1,684,447	8.47	3.64	12.11	-63.8%	41.67	7.43	3.73	11.16	-66.6%

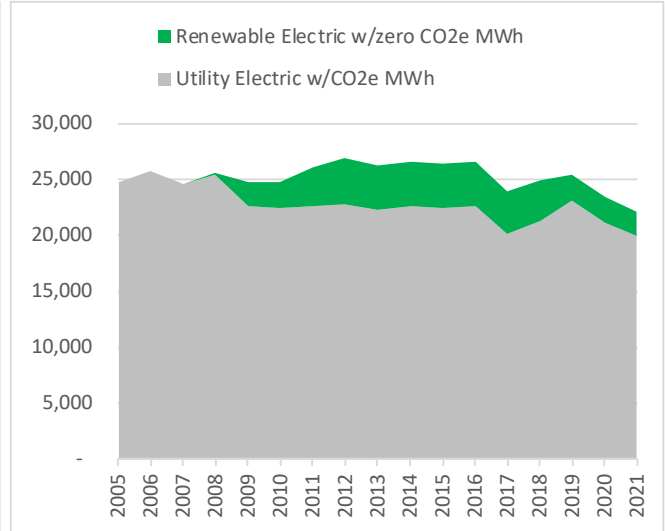
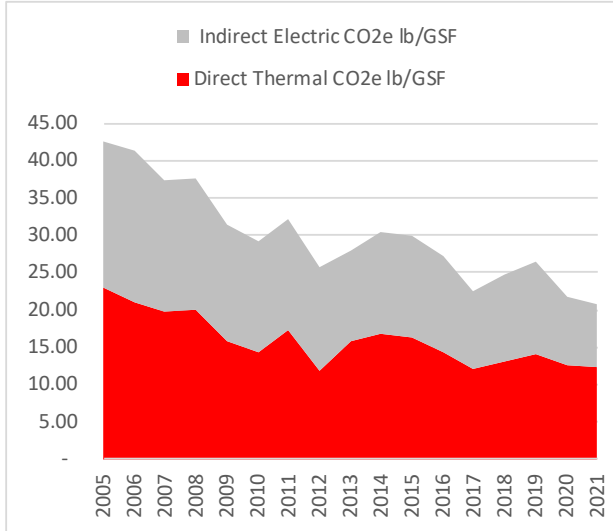
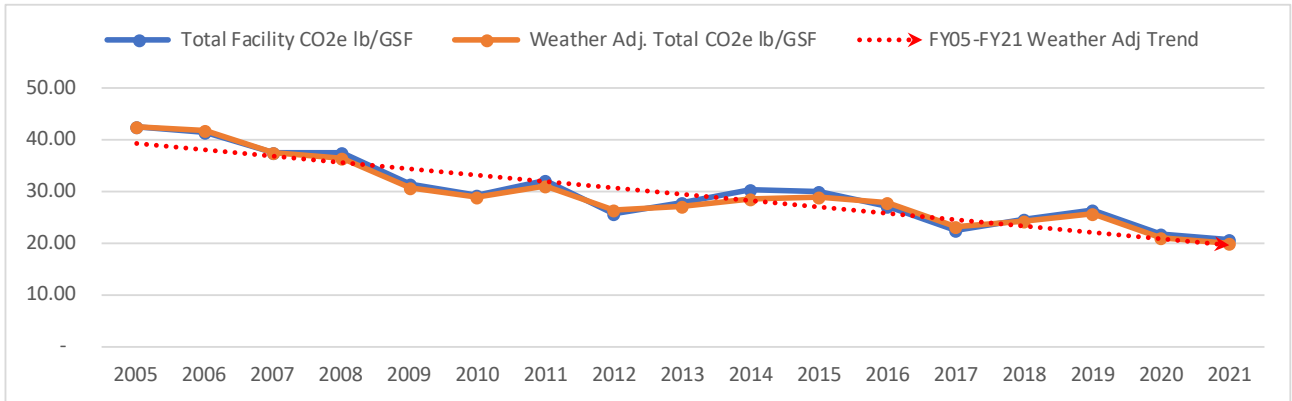
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Stevens Point CO2e Emissions Fiscal Year 2021 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	42.57	0.0%	46.04	23.10	19.47	42.57	0.0%
2006	2,460,496	20.95	20.39	41.34	-2.9%	47.49	21.54	20.33	41.87	-1.6%
2007	2,460,496	19.87	17.49	37.36	-12.2%	46.81	20.07	17.48	37.55	-11.8%
2008	2,493,729	20.02	17.49	37.51	-11.9%	44.51	19.06	17.54	36.60	-14.0%
2009	2,493,729	15.89	15.58	31.48	-26.1%	43.51	14.83	15.72	30.55	-28.2%
2010	2,453,362	14.32	14.79	29.11	-31.6%	45.49	14.13	14.81	28.94	-32.0%
2011	2,463,548	17.31	14.83	32.13	-24.5%	43.59	16.14	14.93	31.07	-27.0%
2012	2,629,769	11.92	13.92	25.84	-39.3%	49.50	12.73	13.73	26.46	-37.8%
2013	2,629,769	15.78	12.07	27.85	-34.6%	44.37	14.95	12.11	27.06	-36.4%
2014	2,629,769	16.81	13.66	30.47	-28.4%	41.62	14.84	13.69	28.53	-33.0%
2015	2,629,769	16.41	13.46	29.87	-29.8%	43.36	15.31	13.50	28.81	-32.3%
2016	2,629,769	14.36	12.84	27.20	-36.1%	47.34	14.95	12.79	27.74	-34.8%
2017	2,629,769	12.00	10.60	22.60	-46.9%	47.13	12.43	10.56	22.99	-46.0%
2018	2,629,769	13.03	11.72	24.74	-41.9%	44.30	12.35	11.76	24.10	-43.4%
2019	2,629,769	14.16	12.26	26.41	-37.9%	43.35	13.25	12.31	25.57	-39.9%
2020	2,806,271	12.52	9.31	21.83	-48.7%	41.63	11.43	9.49	20.92	-50.9%
2021	2,806,271	12.24	8.42	20.67	-51.4%	41.73	11.24	8.66	19.91	-53.2%

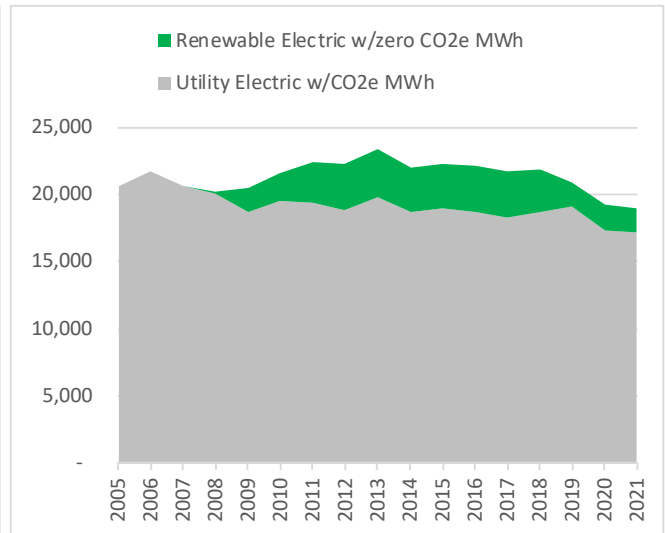
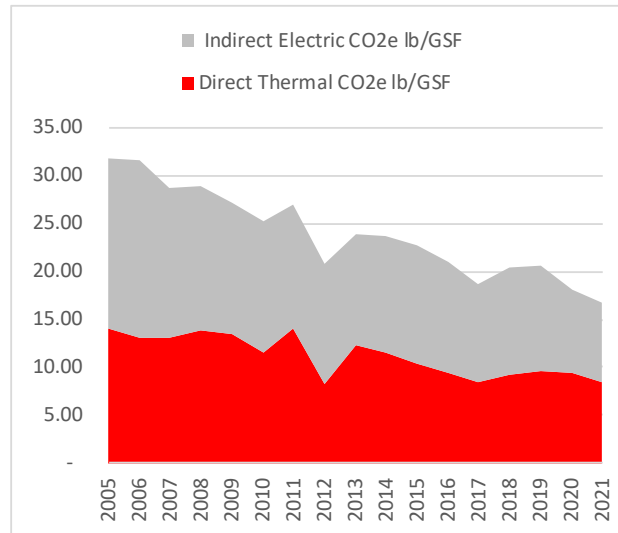
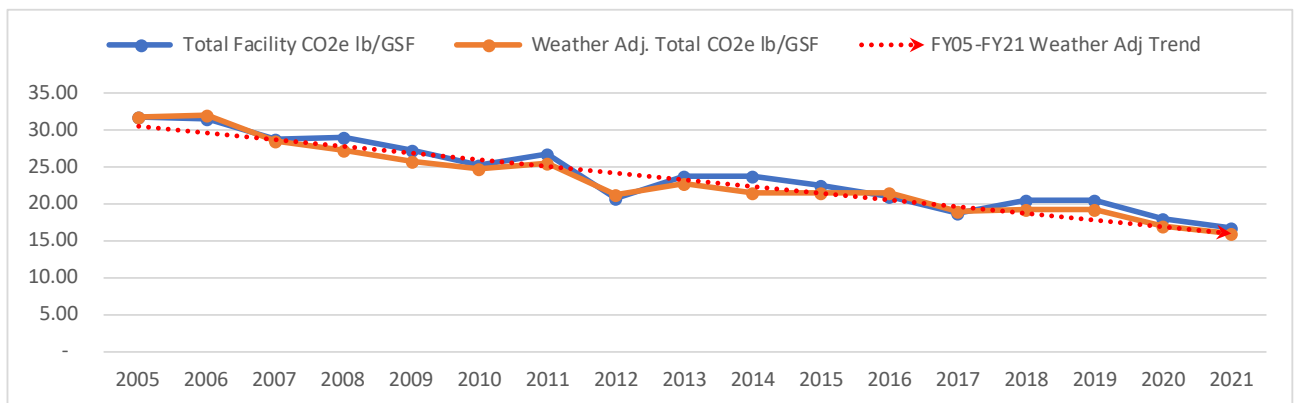
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Stout CO2e Emissions Fiscal Year 2021 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	13.64	25.15	-20.7%	45.29	11.23	13.64	24.86	-21.6%
2011	2,433,320	13.99	12.89	26.88	-15.3%	43.68	12.48	12.92	25.40	-20.0%
2012	2,443,351	8.29	12.40	20.69	-34.8%	49.02	8.76	12.42	21.18	-33.2%
2013	2,446,059	12.27	11.52	23.79	-25.0%	43.85	11.16	11.48	22.65	-28.6%
2014	2,448,864	11.56	12.16	23.72	-25.2%	41.37	9.57	11.90	21.47	-32.3%
2015	2,448,864	10.42	12.19	22.61	-28.7%	43.42	9.44	12.12	21.55	-32.1%
2016	2,452,414	9.51	11.46	20.97	-33.9%	47.61	10.08	11.49	21.57	-32.0%
2017	2,452,414	8.40	10.33	18.73	-41.0%	47.08	8.73	10.33	19.06	-39.9%
2018	2,452,414	9.30	11.06	20.36	-35.8%	42.94	8.19	11.15	19.34	-39.1%
2019	2,452,414	9.70	10.83	20.52	-35.3%	42.23	8.45	10.76	19.21	-39.5%
2020	2,456,060	9.39	8.69	18.09	-43.0%	41.35	8.25	8.74	17.00	-46.4%
2021	2,456,060	8.53	8.30	16.83	-47.0%	41.67	7.60	8.26	15.86	-50.0%

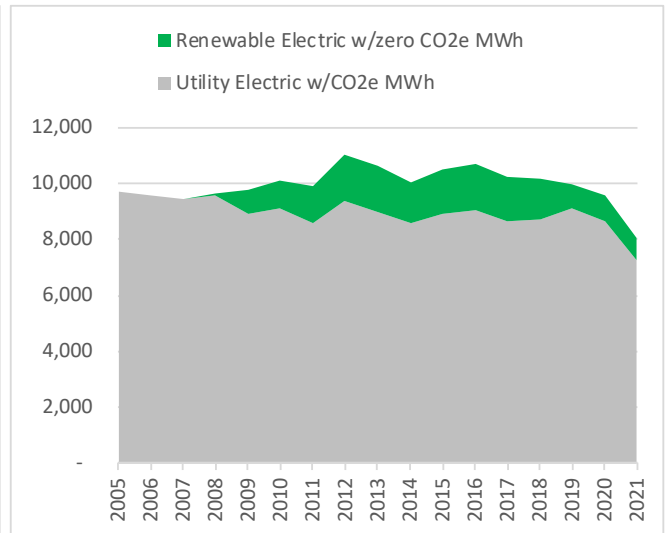
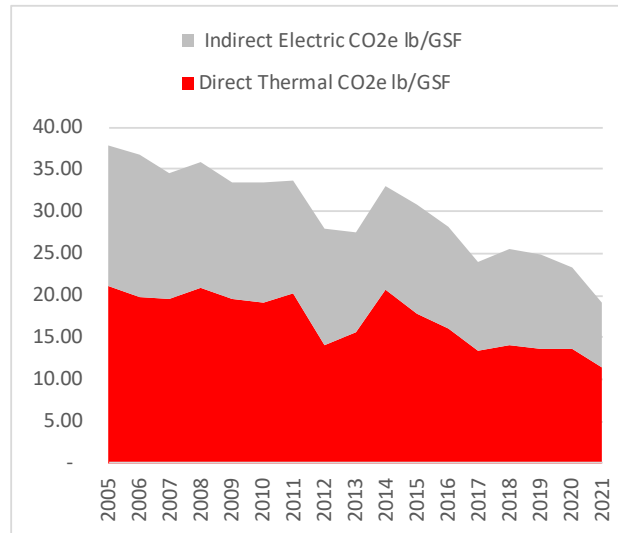
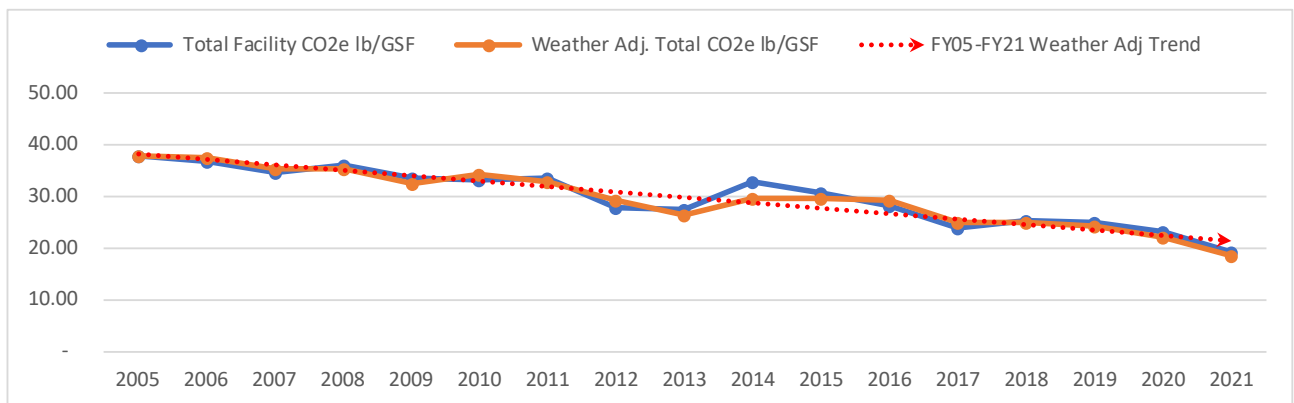
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Superior CO2e Emissions Fiscal Year 2021 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	37.43	-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	20.29	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	14.35	33.37	-11.8%	42.44	19.71	14.40	34.12	-9.9%
2011	1,032,741	20.24	13.41	33.65	-11.1%	40.77	19.57	13.40	32.96	-12.9%
2012	1,086,193	14.00	13.83	27.83	-26.5%	45.72	15.39	14.04	29.43	-22.3%
2013	1,088,749	15.69	11.75	27.45	-27.5%	40.13	14.82	11.71	26.53	-29.9%
2014	1,101,473	20.57	12.34	32.91	-13.1%	37.72	17.33	12.26	29.59	-21.8%
2015	1,101,473	17.90	12.79	30.69	-18.9%	40.35	17.01	12.75	29.76	-21.4%
2016	1,120,382	15.99	12.10	28.09	-25.8%	44.19	17.26	12.16	29.42	-22.3%
2017	1,120,382	13.38	10.67	24.04	-36.5%	43.72	14.18	10.71	24.89	-34.3%
2018	1,120,382	14.17	11.25	25.41	-32.9%	39.93	13.75	11.22	24.97	-34.0%
2019	1,120,382	13.59	11.31	24.90	-34.2%	39.56	12.82	11.28	24.10	-36.3%
2020	1,111,812	13.73	9.59	23.32	-38.4%	38.27	12.58	9.65	22.23	-41.3%
2021	1,107,876	11.35	7.80	19.15	-49.4%	38.57	10.52	7.81	18.33	-51.6%

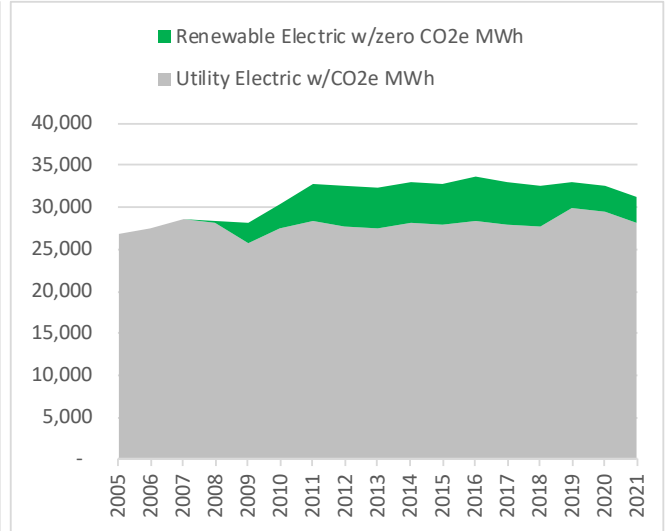
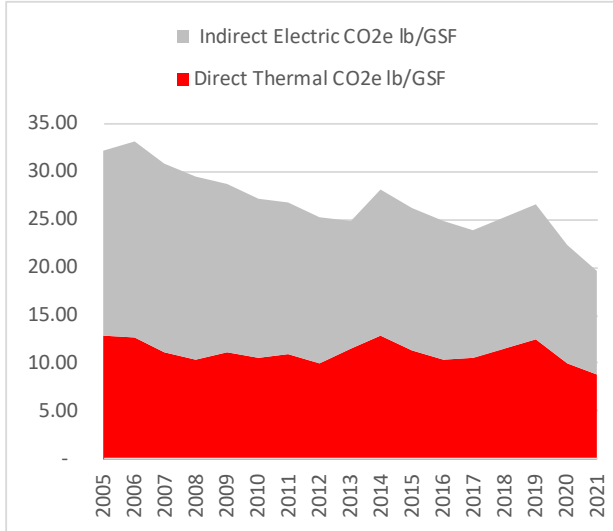
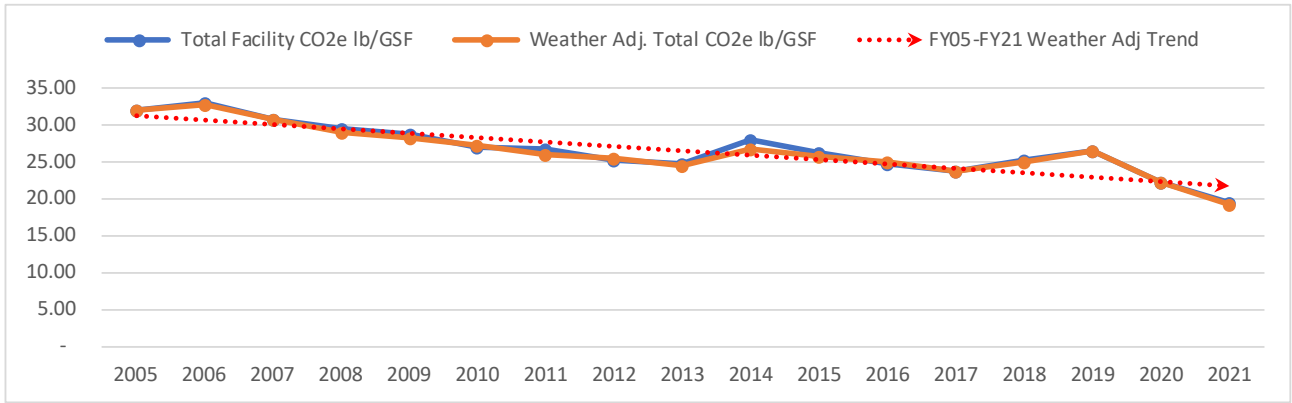
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Whitewater CO2e Emissions Fiscal Year 2021 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	16.43	27.08	-15.8%	49.10	10.81	16.40	27.21	-15.4%
2011	2,922,323	10.97	15.73	26.69	-17.0%	48.17	10.45	15.67	26.12	-18.8%
2012	2,930,608	10.02	15.15	25.18	-21.7%	52.24	10.51	14.93	25.45	-20.9%
2013	2,942,875	11.53	13.30	24.83	-22.8%	48.26	11.31	13.28	24.59	-23.5%
2014	2,942,875	12.86	15.16	28.02	-12.9%	45.20	11.68	15.11	26.79	-16.7%
2015	2,942,875	11.27	14.93	26.20	-18.5%	46.08	10.82	15.02	25.84	-19.6%
2016	2,942,875	10.30	14.49	24.79	-22.9%	50.51	10.57	14.37	24.94	-22.4%
2017	2,942,875	10.67	13.14	23.81	-25.9%	51.99	10.89	12.87	23.76	-26.1%
2018	2,942,875	11.56	13.69	25.25	-21.5%	48.73	11.24	13.71	24.95	-22.4%
2019	2,942,875	12.44	14.18	26.61	-17.2%	47.88	12.22	14.20	26.43	-17.8%
2020	2,965,821	10.08	12.25	22.33	-30.5%	46.54	9.86	12.44	22.30	-30.6%
2021	3,114,162	8.86	10.74	19.60	-39.0%	47.13	8.58	10.69	19.27	-40.1%

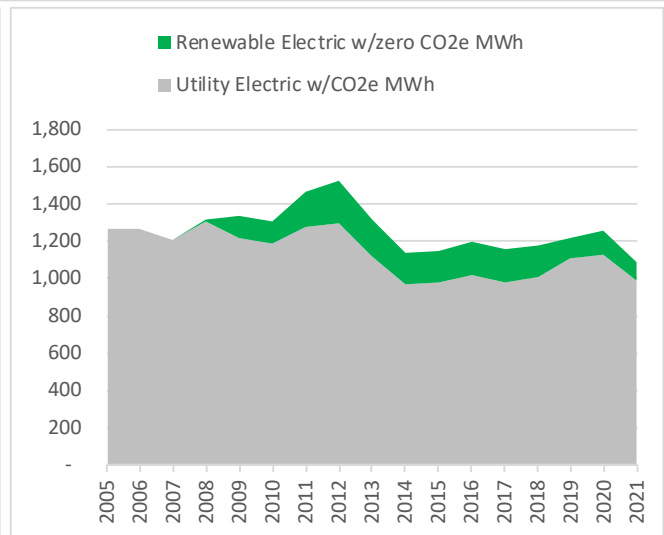
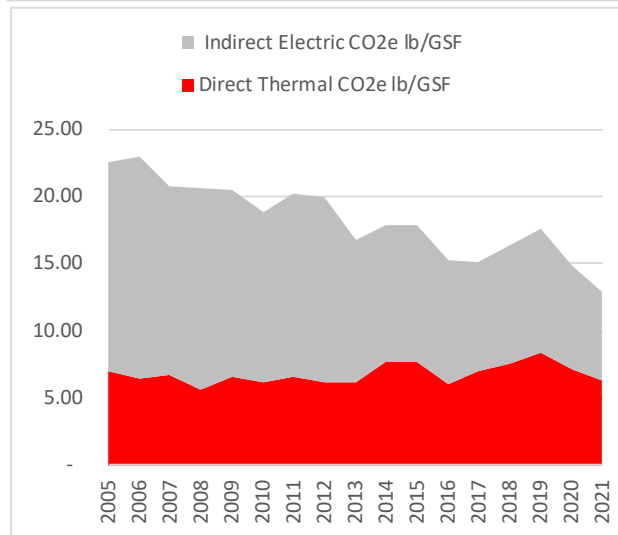
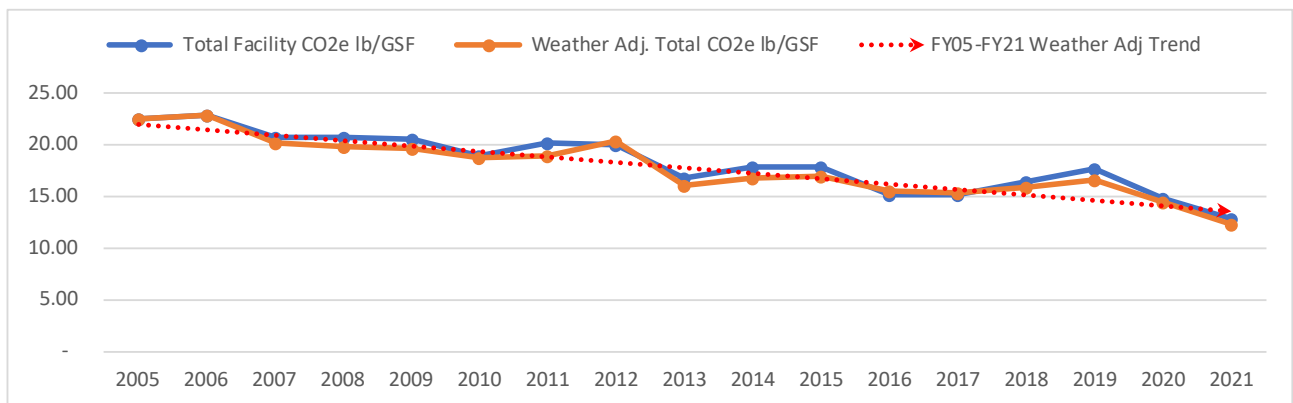
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Baraboo CO2e Emissions Fiscal Year 2021 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	20.22	-10.3%
2008	150,015	5.69	14.99	20.68	-8.3%	46.19	4.94	14.97	19.91	-11.7%
2009	150,015	6.58	13.96	20.54	-8.9%	45.66	5.72	13.99	19.71	-12.6%
2010	151,015	6.13	12.76	18.89	-16.3%	47.10	5.90	12.77	18.67	-17.2%
2011	151,015	6.53	13.61	20.14	-10.7%	46.81	5.52	13.38	18.90	-16.2%
2012	151,015	6.16	13.78	19.93	-11.6%	51.51	6.68	13.62	20.30	-10.0%
2013	151,015	6.21	10.50	16.71	-25.9%	47.29	5.75	10.39	16.13	-28.5%
2014	151,015	7.65	10.20	17.85	-20.8%	44.58	6.59	10.21	16.80	-25.5%
2015	151,015	7.71	10.19	17.91	-20.6%	45.84	6.80	10.12	16.91	-25.0%
2016	165,615	6.07	9.18	15.25	-32.4%	49.68	6.38	9.13	15.52	-31.2%
2017	165,615	6.99	8.17	15.16	-32.8%	49.72	7.26	8.06	15.32	-32.1%
2018	165,615	7.59	8.81	16.40	-27.3%	46.66	7.11	8.82	15.93	-29.4%
2019	165,615	8.34	9.32	17.65	-21.7%	45.88	7.37	9.30	16.68	-26.1%
2020	179,291	7.10	7.78	14.88	-34.0%	44.43	6.49	8.00	14.48	-35.8%
2021	179,291	6.34	6.54	12.88	-42.9%	43.38	5.56	6.75	12.31	-45.4%

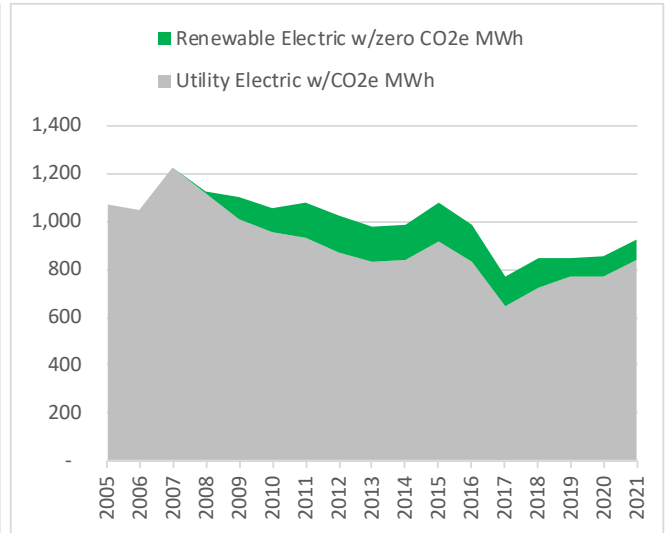
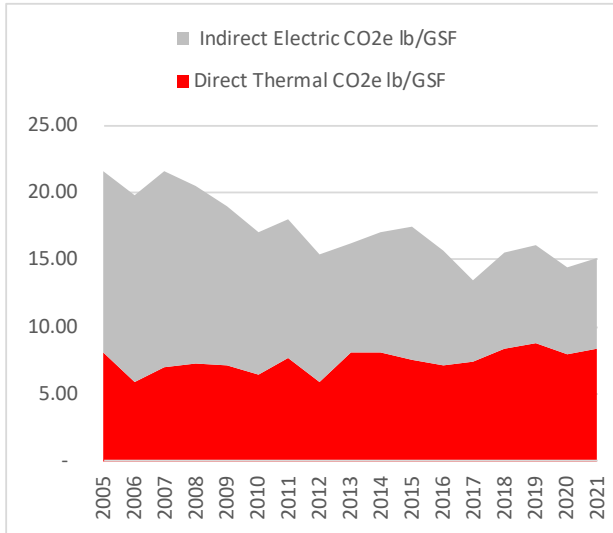
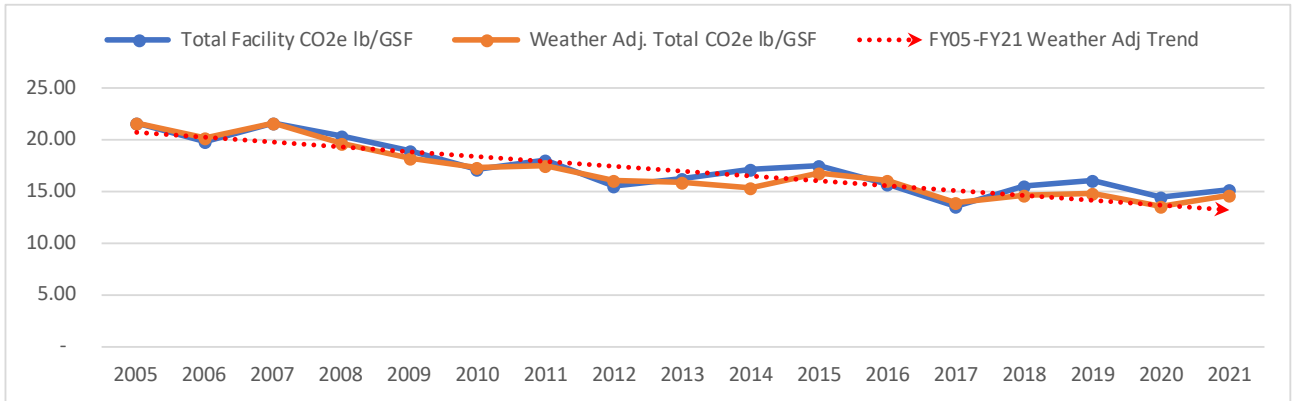
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Barron CO2e Emissions Fiscal Year 2021 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	20.14	-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	10.59	17.07	-20.8%	45.38	6.85	10.56	17.41	-19.2%
2011	146,683	7.69	10.29	17.98	-16.6%	43.50	7.17	10.29	17.46	-19.0%
2012	146,683	5.95	9.51	15.46	-28.3%	47.63	6.49	9.58	16.07	-25.4%
2013	146,683	8.14	8.05	16.19	-24.9%	42.87	7.78	8.02	15.80	-26.7%
2014	146,683	8.05	9.05	17.10	-20.6%	39.97	6.24	9.10	15.33	-28.8%
2015	146,683	7.60	9.84	17.44	-19.1%	42.20	7.09	9.78	16.87	-21.7%
2016	146,683	7.13	8.53	15.66	-27.3%	46.23	7.53	8.49	16.02	-25.6%
2017	146,683	7.38	6.13	13.51	-37.3%	45.86	7.72	6.14	13.86	-35.7%
2018	146,683	8.40	7.17	15.57	-27.7%	42.67	7.43	7.14	14.57	-32.4%
2019	146,683	8.83	7.29	16.12	-25.2%	41.78	7.65	7.22	14.86	-31.0%
2020	146,683	7.95	6.48	14.43	-33.0%	39.87	6.86	6.61	13.47	-37.5%
2021	146,683	8.40	6.78	15.18	-29.6%	40.53	7.61	6.96	14.58	-32.3%

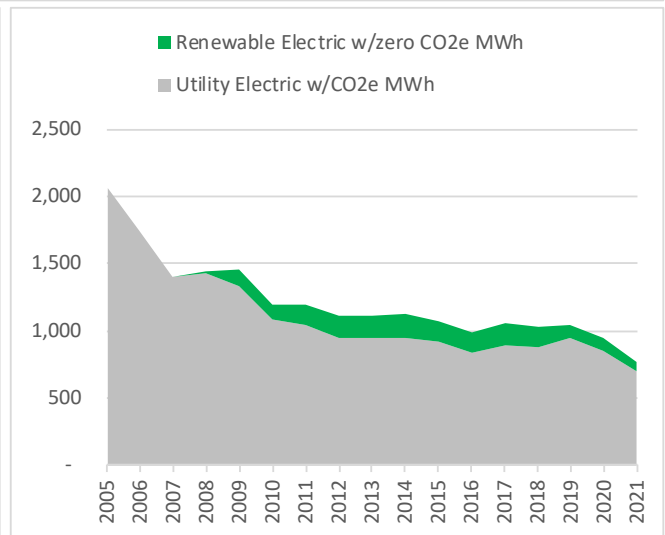
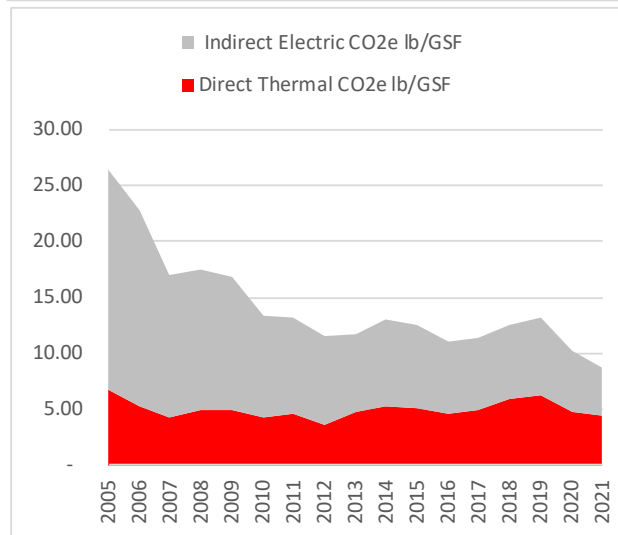
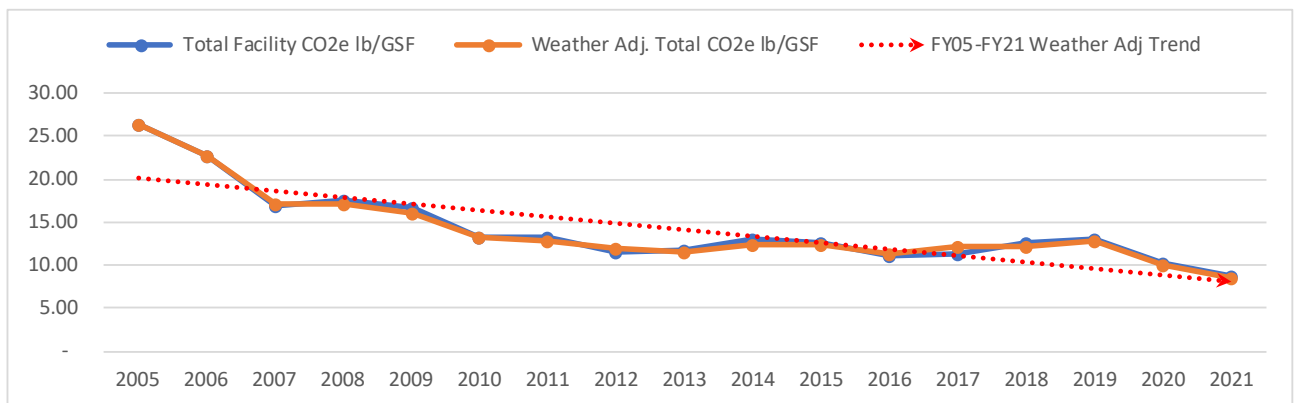
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Fond du Lac CO2e Emissions Fiscal Year 2021 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	9.02	13.28	-49.7%	45.99	4.32	8.99	13.31	-49.5%
2011	194,077	4.61	8.64	13.25	-49.8%	44.59	4.24	8.63	12.87	-51.2%
2012	194,077	3.66	7.85	11.51	-56.4%	49.86	4.19	7.77	11.96	-54.7%
2013	194,077	4.73	6.95	11.69	-55.7%	45.29	4.53	6.93	11.46	-56.6%
2014	194,077	5.23	7.79	13.03	-50.6%	41.95	4.49	7.88	12.37	-53.1%
2015	194,077	5.16	7.43	12.59	-52.3%	43.98	4.90	7.39	12.29	-53.4%
2016	194,077	4.62	6.45	11.07	-58.0%	48.11	4.93	6.42	11.35	-57.0%
2017	194,077	5.00	6.38	11.38	-56.8%	48.65	5.72	6.43	12.15	-54.0%
2018	194,077	5.94	6.58	12.51	-52.6%	45.77	5.69	6.52	12.21	-53.7%
2019	194,077	6.31	6.79	13.11	-50.3%	44.89	6.12	6.75	12.87	-51.2%
2020	194,077	4.81	5.41	10.22	-61.3%	42.93	4.44	5.50	9.94	-62.3%
2021	194,077	4.52	4.27	8.78	-66.7%	43.28	4.18	4.34	8.52	-67.7%

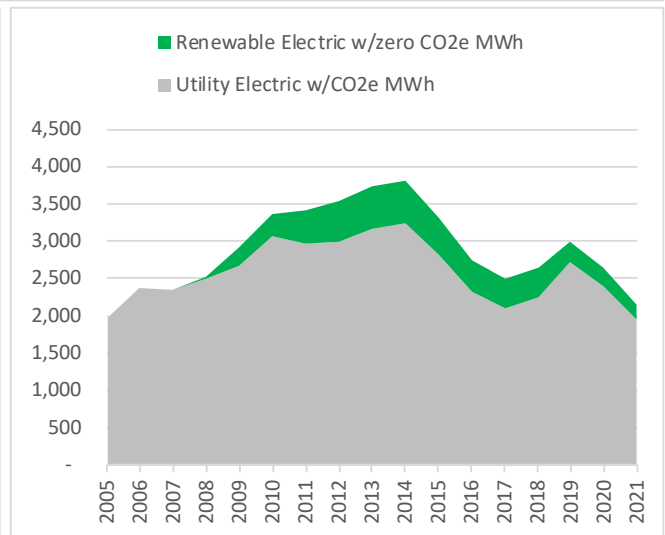
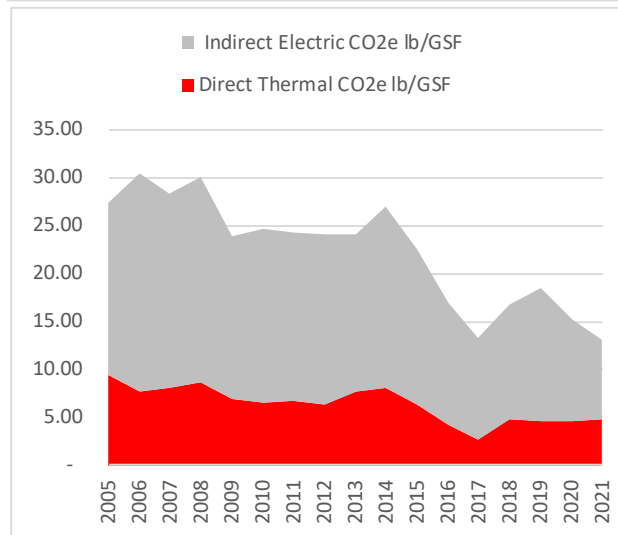
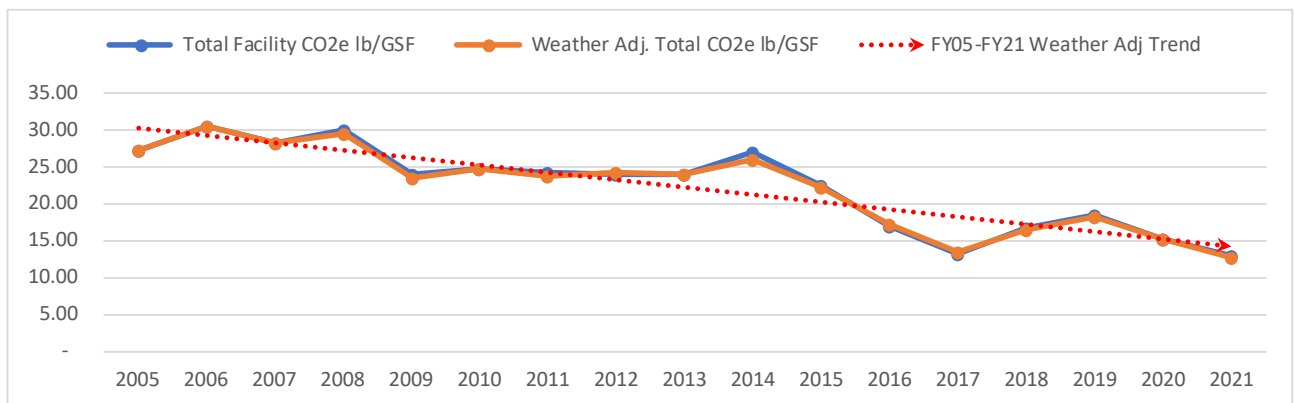
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Fox Valley CO2e Emissions Fiscal Year 2021 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	18.10	24.71	-9.7%	45.99	6.63	18.17	24.80	-9.3%
2011	274,078	6.72	17.51	24.23	-11.4%	44.59	6.29	17.45	23.73	-13.2%
2012	274,078	6.41	17.60	24.02	-12.2%	49.86	7.10	17.25	24.35	-11.0%
2013	274,078	7.68	16.42	24.11	-11.9%	45.29	7.55	16.41	23.96	-12.4%
2014	274,078	8.15	18.79	26.94	-1.5%	41.95	7.39	18.70	26.09	-4.6%
2015	274,078	6.30	16.20	22.50	-17.8%	43.98	6.01	16.20	22.21	-18.8%
2016	274,078	4.20	12.71	16.91	-38.2%	48.11	4.51	12.66	17.17	-37.2%
2017	274,078	2.60	10.64	13.24	-51.6%	48.65	2.95	10.57	13.51	-50.6%
2018	274,078	4.72	11.95	16.67	-39.1%	45.77	4.48	11.95	16.43	-39.9%
2019	274,078	4.68	13.87	18.54	-32.2%	44.89	4.33	13.85	18.18	-33.6%
2020	277,988	4.61	10.60	15.20	-44.4%	42.93	4.12	11.00	15.12	-44.7%
2021	277,988	4.75	8.32	13.07	-52.2%	43.28	4.35	8.45	12.80	-53.2%

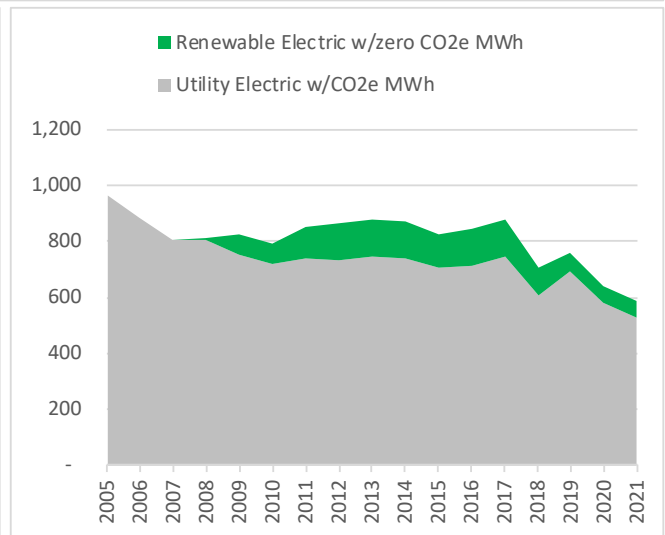
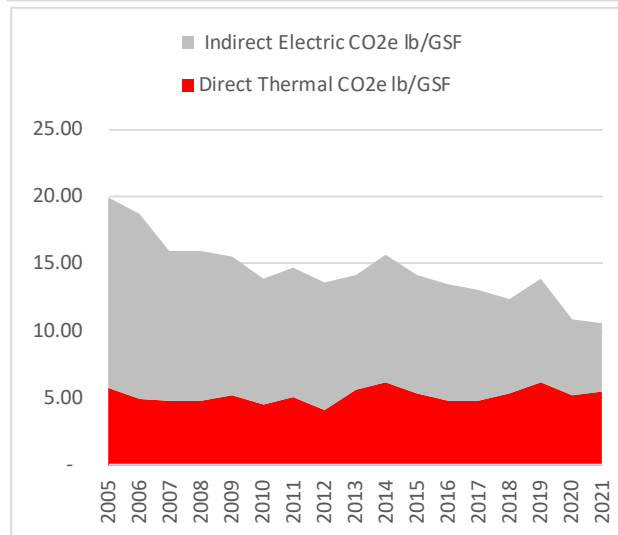
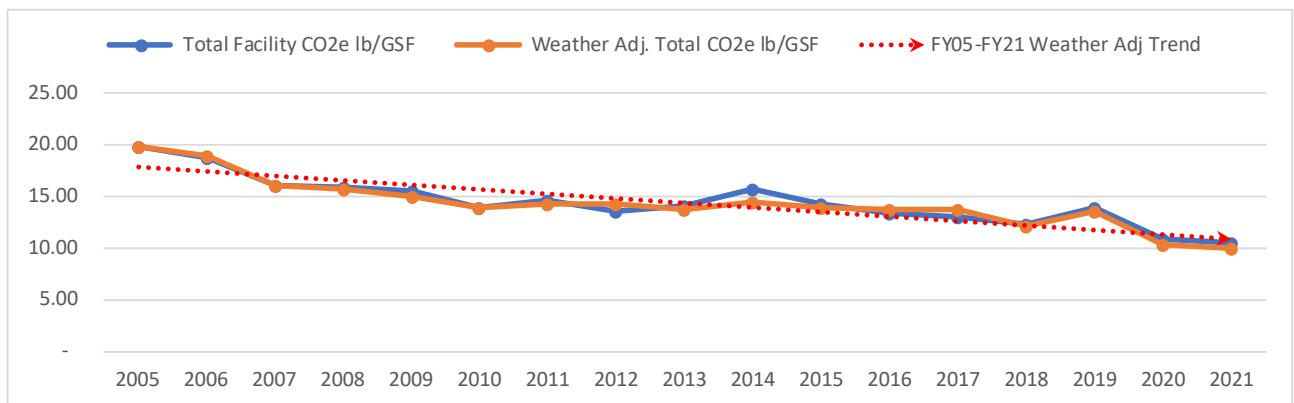
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Manitowoc CO2e Emissions Fiscal Year 2021 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	5.08	13.78	18.86	-5.2%
2007	125,045	4.77	11.21	15.98	-19.7%	46.64	4.84	11.24	16.08	-19.2%
2008	125,045	4.84	11.12	15.96	-19.8%	45.02	4.44	11.25	15.69	-21.1%
2009	125,045	5.20	10.38	15.58	-21.7%	43.47	4.55	10.42	14.97	-24.8%
2010	125,045	4.54	9.29	13.83	-30.5%	45.99	4.65	9.18	13.82	-30.5%
2011	125,045	5.13	9.52	14.64	-26.4%	44.59	4.68	9.61	14.29	-28.2%
2012	125,045	4.17	9.44	13.61	-31.6%	49.86	4.77	9.46	14.23	-28.5%
2013	125,045	5.64	8.45	14.10	-29.2%	45.29	5.31	8.44	13.75	-30.9%
2014	125,045	6.19	9.42	15.62	-21.5%	41.95	5.01	9.39	14.39	-27.7%
2015	125,045	5.36	8.87	14.22	-28.5%	43.98	5.09	8.84	13.93	-30.0%
2016	125,045	4.86	8.55	13.41	-32.6%	48.11	5.17	8.53	13.70	-31.2%
2017	125,045	4.82	8.22	13.04	-34.5%	48.65	5.39	8.28	13.67	-31.3%
2018	125,045	5.35	7.03	12.38	-37.8%	45.77	5.03	7.02	12.05	-39.4%
2019	125,045	6.20	7.69	13.88	-30.2%	44.89	5.89	7.70	13.59	-31.7%
2020	125,045	5.19	5.71	10.90	-45.2%	42.93	4.52	5.72	10.24	-48.5%
2021	125,045	5.51	5.04	10.55	-47.0%	43.28	4.93	5.02	9.94	-50.0%

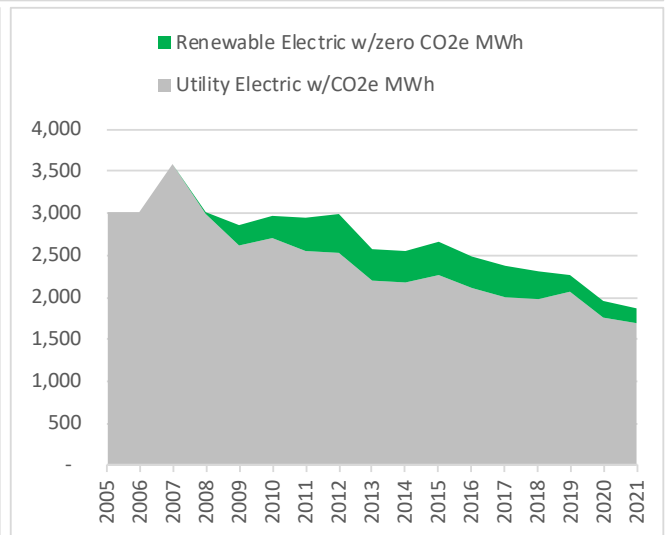
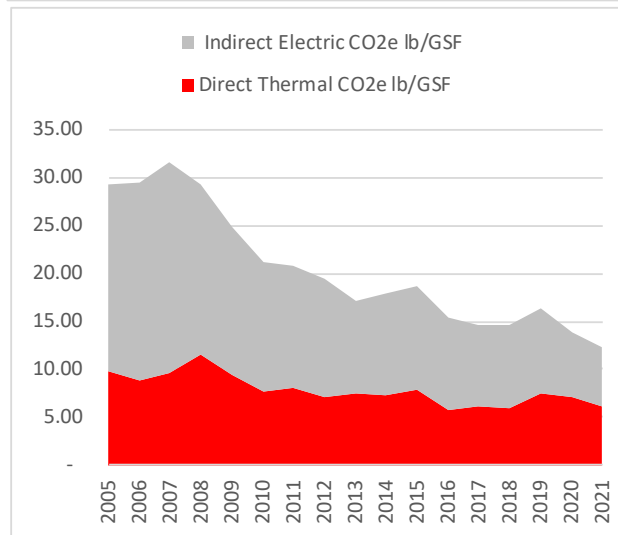
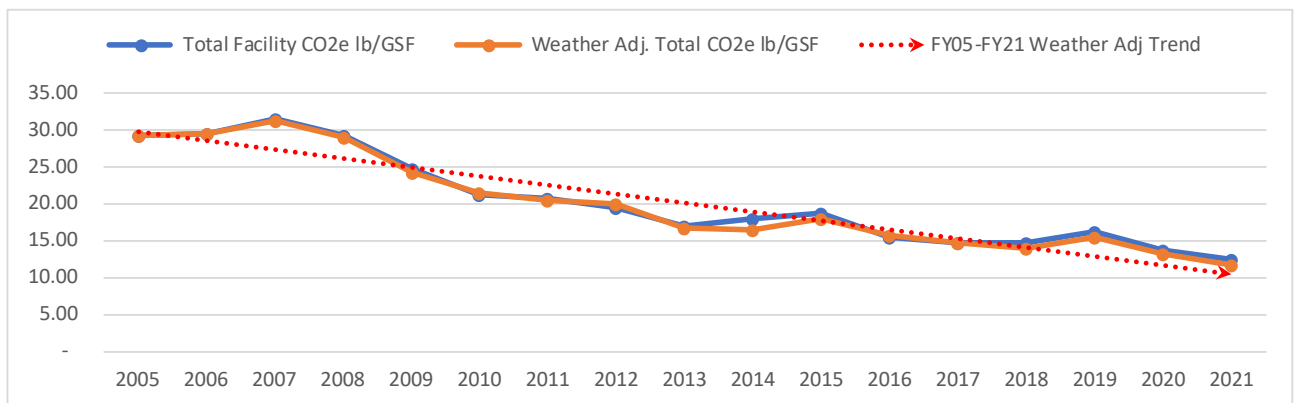
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Marathon CO2e Emissions Fiscal Year 2021 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	13.37	21.14	-27.6%	45.38	8.08	13.33	21.42	-26.7%
2011	327,695	8.11	12.59	20.70	-29.1%	43.50	7.81	12.66	20.47	-29.9%
2012	327,695	7.02	12.46	19.48	-33.3%	47.63	7.72	12.29	20.01	-31.5%
2013	327,695	7.53	9.51	17.03	-41.7%	42.87	7.11	9.54	16.65	-43.0%
2014	327,695	7.31	10.54	17.85	-38.9%	39.97	5.97	10.49	16.46	-43.7%
2015	327,695	7.83	10.85	18.67	-36.1%	42.20	7.33	10.75	18.08	-38.1%
2016	327,695	5.83	9.60	15.43	-47.2%	46.23	6.26	9.49	15.76	-46.0%
2017	327,695	6.17	8.43	14.60	-50.0%	45.86	6.40	8.41	14.81	-49.3%
2018	327,695	5.90	8.74	14.65	-49.9%	42.67	5.32	8.68	14.00	-52.1%
2019	327,695	7.48	8.78	16.26	-44.3%	41.78	6.70	8.71	15.41	-47.3%
2020	327,695	7.19	6.63	13.82	-52.7%	39.87	6.36	6.76	13.12	-55.1%
2021	327,695	6.23	6.13	12.36	-57.7%	40.53	5.36	6.27	11.62	-60.2%

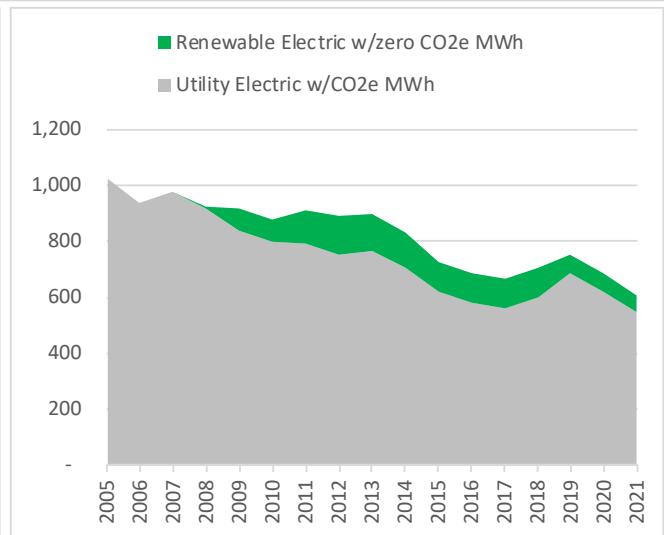
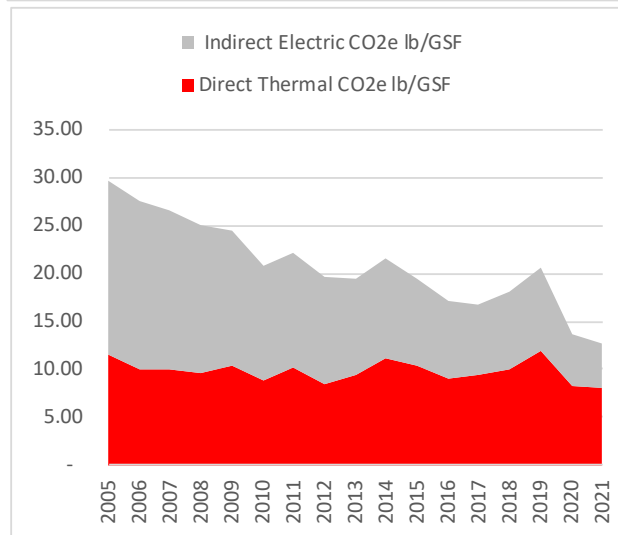
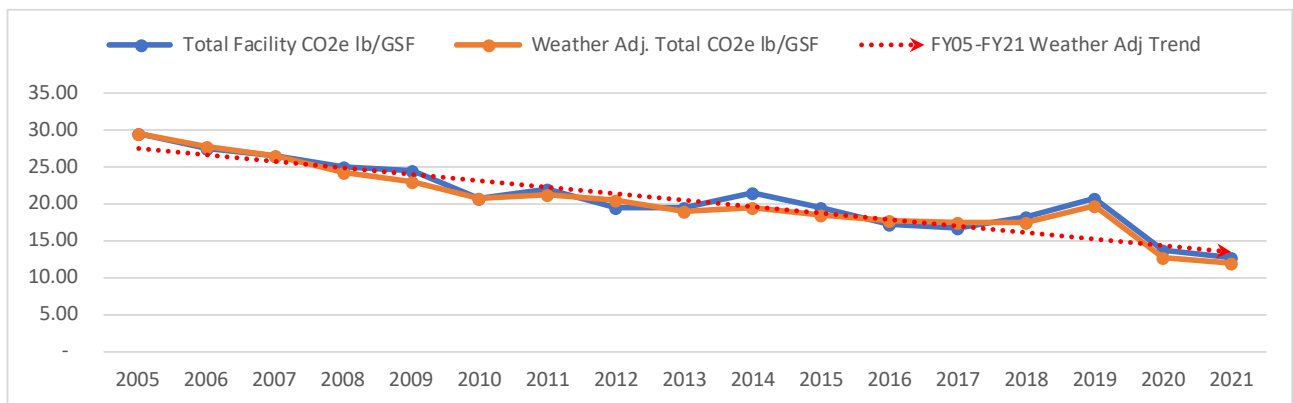
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Marquette CO2e Emissions Fiscal Year 2021 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	10.04	16.47	26.51	-10.4%
2008	102,740	9.69	15.40	25.09	-15.2%	45.02	8.96	15.31	24.26	-18.0%
2009	102,740	10.47	14.00	24.46	-17.3%	43.47	9.09	13.93	23.02	-22.2%
2010	107,988	8.77	11.98	20.75	-29.9%	45.99	8.78	11.88	20.66	-30.2%
2011	107,988	10.22	11.85	22.06	-25.4%	44.59	9.30	11.83	21.13	-28.6%
2012	107,988	8.36	11.21	19.58	-33.8%	49.86	9.17	11.41	20.58	-30.4%
2013	107,988	9.42	10.06	19.48	-34.2%	45.29	8.88	10.01	18.90	-36.1%
2014	107,988	11.19	10.41	21.59	-27.0%	41.95	9.32	10.19	19.51	-34.1%
2015	107,988	10.42	9.01	19.43	-34.3%	43.98	9.52	9.03	18.55	-37.3%
2016	107,988	9.10	8.04	17.14	-42.1%	48.11	9.71	8.04	17.75	-40.0%
2017	107,988	9.51	7.20	16.71	-43.5%	48.65	10.19	7.21	17.41	-41.2%
2018	107,988	10.05	8.07	18.12	-38.8%	45.77	9.54	7.99	17.54	-40.7%
2019	107,988	11.83	8.84	20.67	-30.1%	44.89	11.07	8.77	19.84	-32.9%
2020	139,818	8.19	5.44	13.64	-53.9%	42.93	7.22	5.46	12.68	-57.1%
2021	139,818	8.02	4.66	12.68	-57.2%	43.28	7.41	4.58	12.00	-59.5%

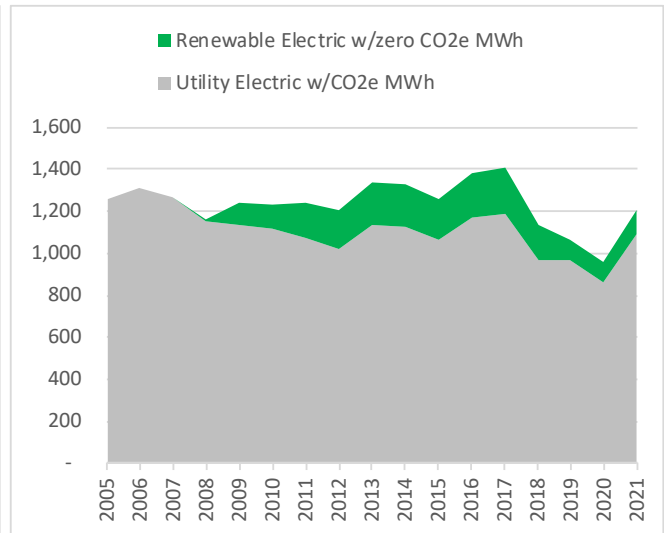
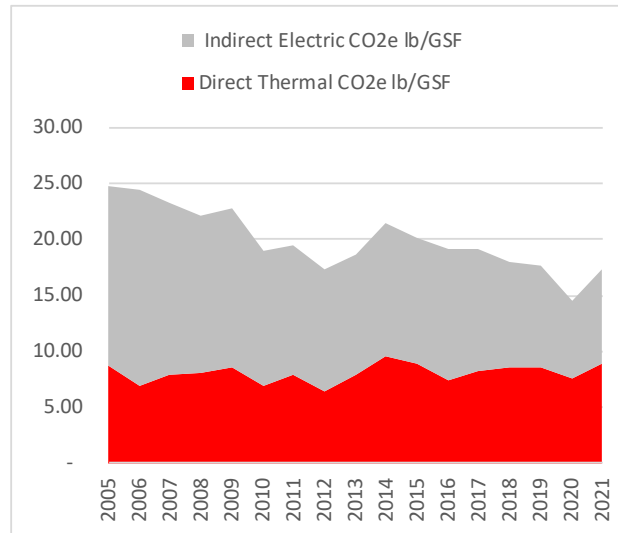
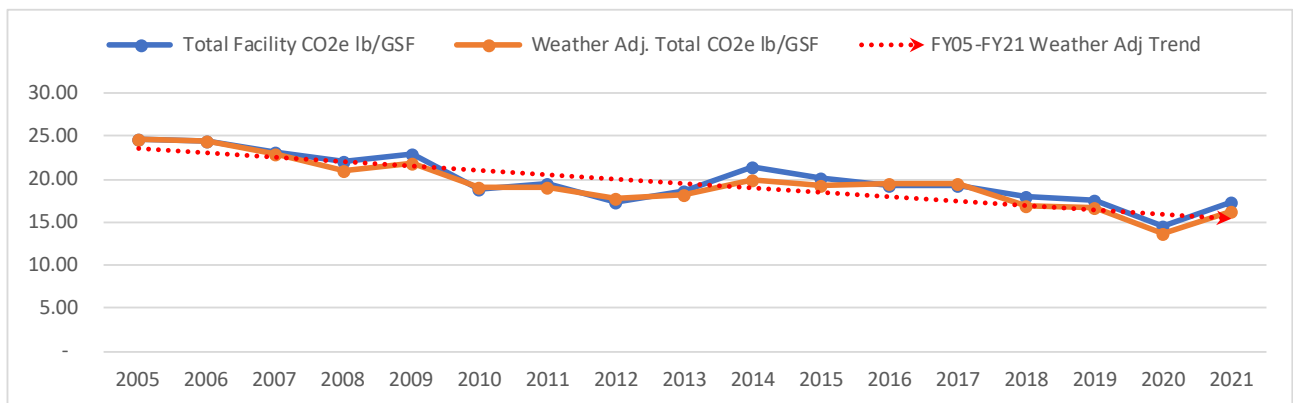
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Marshfield CO2e Emissions Fiscal Year 2021 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	6.91	17.50	24.41	-1.2%
2007	145,016	7.99	15.24	23.23	-6.0%	44.50	7.81	15.22	23.03	-6.8%
2008	141,598	8.14	14.00	22.14	-10.4%	42.10	7.05	14.05	21.10	-14.6%
2009	136,616	8.58	14.25	22.84	-7.5%	42.50	7.63	14.32	21.95	-11.1%
2010	149,996	6.91	12.04	18.95	-23.3%	45.38	7.08	11.98	19.06	-22.8%
2011	149,996	7.92	11.60	19.52	-21.0%	43.50	7.38	11.59	18.96	-23.2%
2012	149,996	6.37	10.95	17.32	-29.9%	47.63	6.82	10.94	17.76	-28.1%
2013	149,996	7.98	10.74	18.72	-24.2%	42.87	7.37	10.78	18.14	-26.5%
2014	149,996	9.55	11.95	21.50	-13.0%	39.97	7.98	12.00	19.98	-19.1%
2015	149,996	8.85	11.22	20.06	-18.8%	42.20	8.05	11.19	19.24	-22.1%
2016	149,996	7.46	11.72	19.18	-22.3%	46.23	7.88	11.67	19.55	-20.9%
2017	149,996	8.19	10.99	19.18	-22.4%	45.86	8.56	10.90	19.45	-21.2%
2018	149,996	8.52	9.38	17.90	-27.5%	42.67	7.74	9.27	17.01	-31.1%
2019	149,996	8.61	9.01	17.62	-28.7%	41.78	7.68	8.96	16.64	-32.6%
2020	153,555	7.54	6.95	14.49	-41.3%	39.87	6.46	7.16	13.62	-44.9%
2021	153,555	8.85	8.44	17.28	-30.0%	40.53	7.81	8.51	16.31	-34.0%

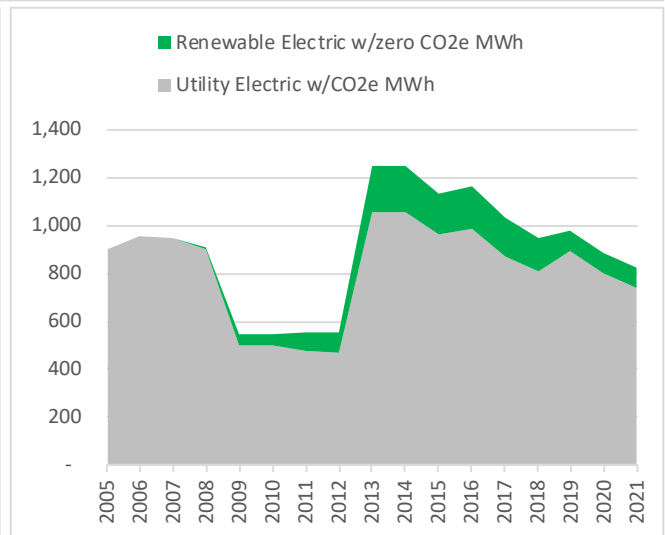
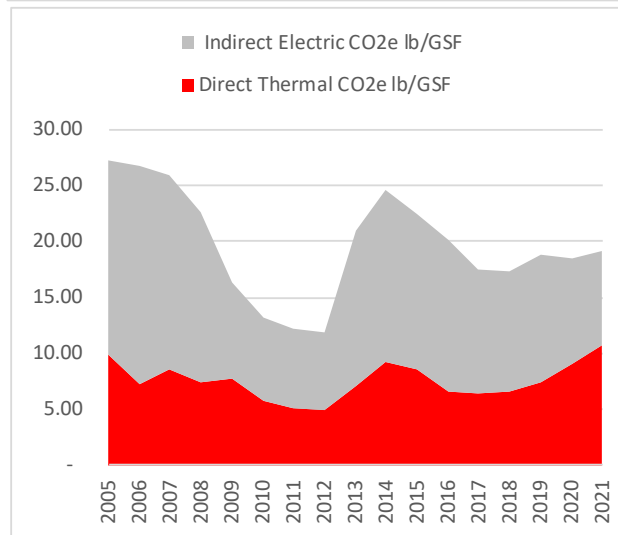
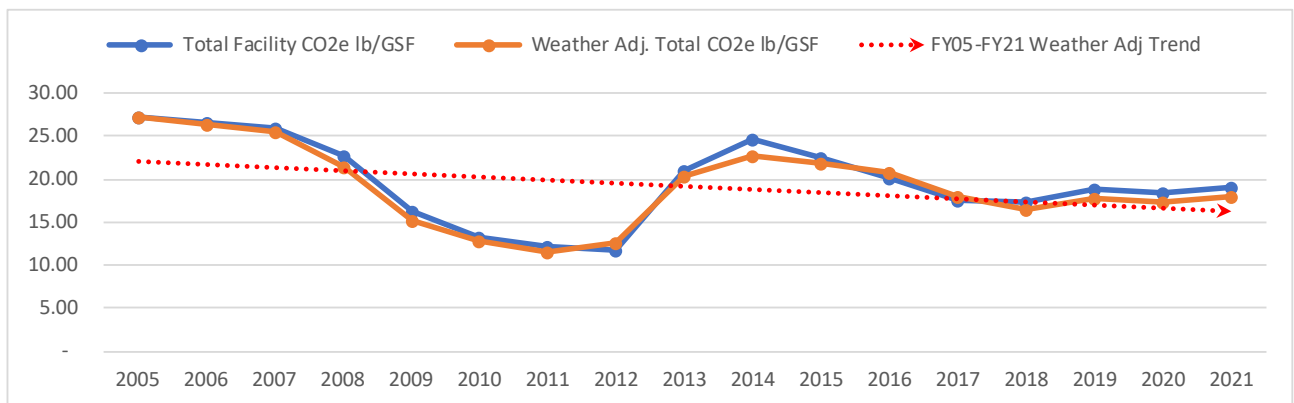
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Richland CO2e Emissions Fiscal Year 2021 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	7.43	13.20	-51.5%	45.47	5.34	7.43	12.77	-53.1%
2011	108,760	5.07	7.12	12.20	-55.2%	46.21	4.46	7.04	11.50	-57.8%
2012	108,760	4.91	6.93	11.84	-56.5%	51.40	5.65	6.97	12.62	-53.7%
2013	108,760	7.09	13.83	20.92	-23.2%	46.61	6.68	13.68	20.36	-25.2%
2014	108,760	9.17	15.44	24.61	-9.6%	43.20	7.53	15.10	22.63	-16.9%
2015	108,760	8.60	13.91	22.51	-17.3%	44.37	7.82	13.97	21.79	-20.0%
2016	108,760	6.57	13.61	20.18	-25.9%	48.82	7.11	13.56	20.68	-24.1%
2017	108,760	6.40	11.07	17.47	-35.9%	49.01	7.08	10.84	17.92	-34.2%
2018	108,760	6.51	10.79	17.30	-36.5%	45.93	5.78	10.67	16.45	-39.6%
2019	108,760	7.40	11.39	18.79	-31.0%	44.97	6.48	11.31	17.79	-34.7%
2020	104,825	9.03	9.40	18.43	-32.3%	43.71	7.81	9.43	17.24	-36.7%
2021	104,825	10.77	8.39	19.16	-29.6%	43.00	9.42	8.52	17.94	-34.1%

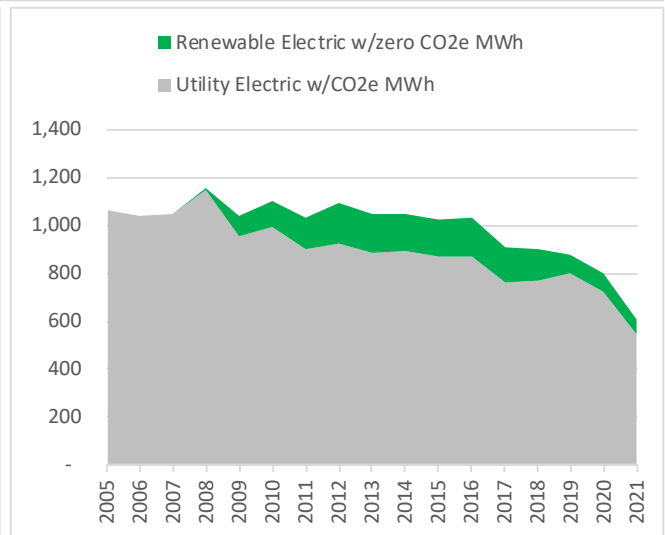
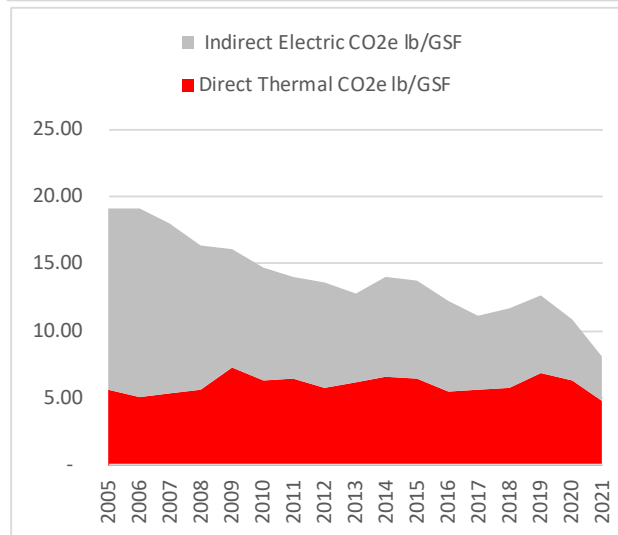
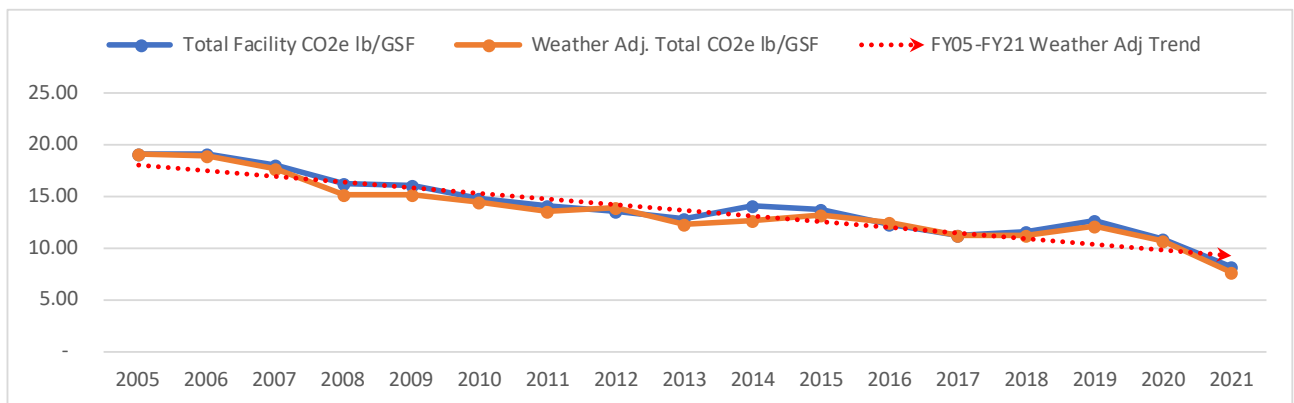
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Rock CO2e Emissions Fiscal Year 2021 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	5.05	13.86	18.91	-1.2%
2007	145,560	5.36	12.62	17.98	-6.1%	47.46	5.08	12.57	17.65	-7.8%
2008	185,625	5.68	10.64	16.32	-14.8%	46.19	4.76	10.44	15.19	-20.7%
2009	185,625	7.23	8.81	16.05	-16.2%	45.66	6.28	8.86	15.14	-20.9%
2010	191,592	6.28	8.44	14.72	-23.1%	47.10	5.92	8.52	14.44	-24.6%
2011	191,592	6.45	7.56	14.01	-26.8%	46.81	6.01	7.49	13.50	-29.5%
2012	191,592	5.81	7.77	13.58	-29.1%	51.51	6.25	7.57	13.82	-27.8%
2013	191,592	6.15	6.60	12.75	-33.4%	47.29	5.76	6.54	12.30	-35.8%
2014	191,592	6.64	7.41	14.04	-26.7%	44.58	5.33	7.37	12.69	-33.7%
2015	191,592	6.51	7.18	13.69	-28.5%	45.84	5.94	7.25	13.19	-31.1%
2016	191,592	5.43	6.83	12.26	-36.0%	49.68	5.75	6.73	12.48	-34.8%
2017	191,592	5.64	5.52	11.15	-41.8%	49.72	5.96	5.35	11.30	-41.0%
2018	191,592	5.82	5.82	11.64	-39.2%	46.66	5.39	5.85	11.24	-41.3%
2019	191,592	6.85	5.80	12.65	-33.9%	45.88	6.37	5.79	12.16	-36.5%
2020	191,592	6.26	4.65	10.91	-43.0%	44.43	5.70	4.90	10.60	-44.6%
2021	191,592	4.78	3.38	8.17	-57.4%	43.38	4.11	3.57	7.68	-59.9%

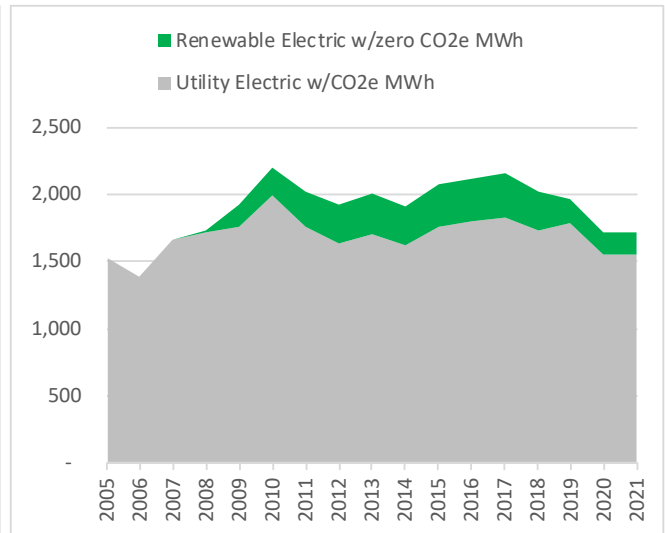
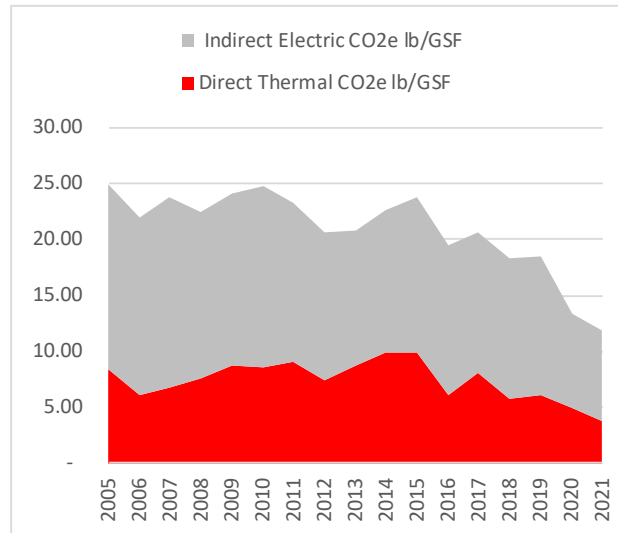
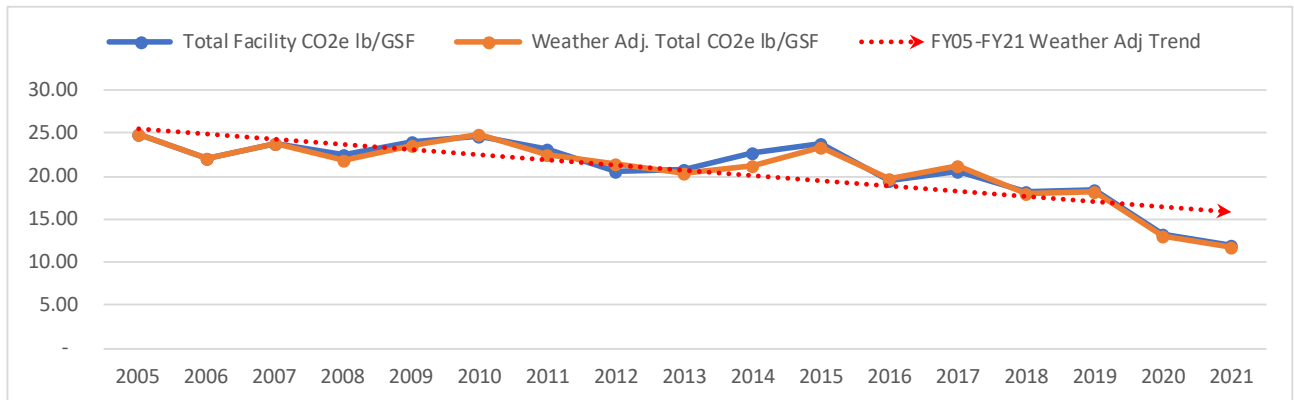
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Sheboygan CO2e Emissions Fiscal Year 2021 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	16.12	24.71	-1.0%	45.99	8.67	16.22	24.89	-0.3%
2011	200,918	9.09	14.15	23.23	-6.9%	44.59	8.64	13.90	22.54	-9.7%
2012	200,918	7.47	13.10	20.57	-17.6%	49.86	8.37	13.04	21.41	-14.2%
2013	200,918	8.68	12.10	20.78	-16.8%	45.29	8.35	12.08	20.42	-18.2%
2014	200,918	9.81	12.85	22.66	-9.2%	41.95	8.61	12.59	21.19	-15.1%
2015	200,918	9.91	13.79	23.70	-5.0%	43.98	9.56	13.85	23.41	-6.2%
2016	200,918	6.03	13.38	19.41	-22.2%	48.11	6.38	13.26	19.64	-21.3%
2017	200,918	8.06	12.58	20.63	-17.3%	48.65	8.84	12.47	21.31	-14.6%
2018	200,918	5.77	12.47	18.24	-26.9%	45.77	5.68	12.40	18.08	-27.6%
2019	200,918	6.06	12.38	18.44	-26.1%	44.89	5.86	12.25	18.11	-27.4%
2020	228,544	4.91	8.38	13.28	-46.8%	42.93	4.37	8.62	12.99	-48.0%
2021	228,544	3.82	8.09	11.92	-52.2%	43.28	3.50	8.20	11.70	-53.1%

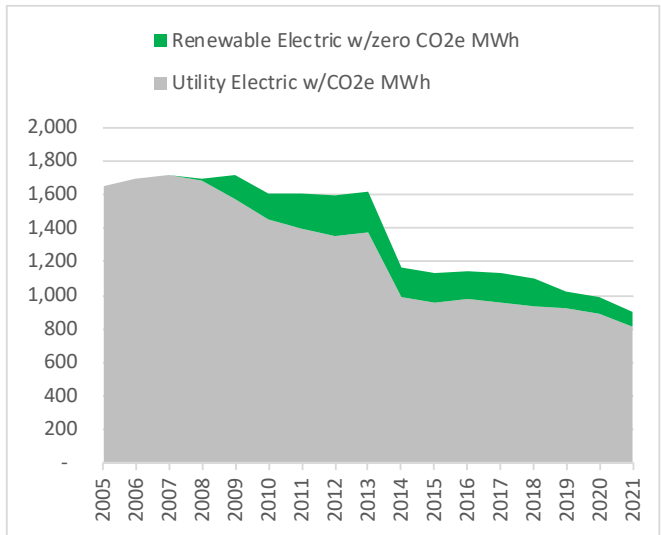
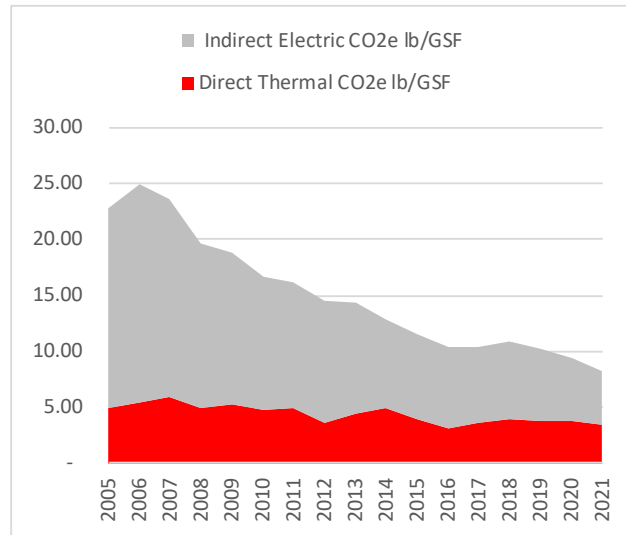
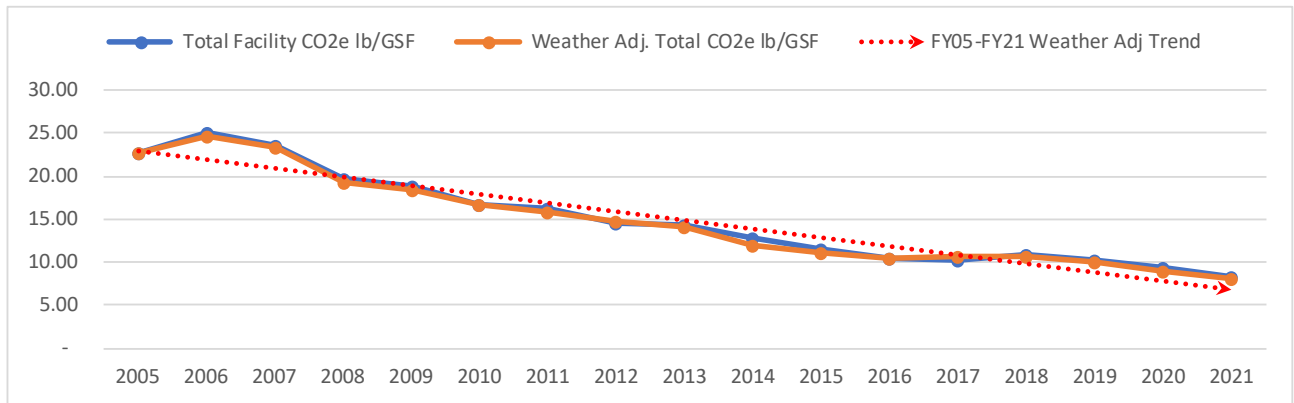
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Washington CO2e Emissions Fiscal Year 2021 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	4.71	13.69	18.40	-19.4%
2010	199,038	4.79	11.88	16.67	-27.0%	49.10	4.82	11.87	16.70	-26.8%
2011	199,038	4.86	11.32	16.18	-29.1%	48.17	4.52	11.30	15.82	-30.7%
2012	199,038	3.58	10.92	14.50	-36.5%	52.24	4.01	10.83	14.84	-35.0%
2013	199,038	4.49	9.82	14.31	-37.3%	48.26	4.24	9.82	14.06	-38.4%
2014	199,038	4.88	7.93	12.81	-43.9%	45.20	4.09	7.82	11.92	-47.8%
2015	199,038	3.98	7.60	11.58	-49.3%	46.08	3.56	7.59	11.15	-51.1%
2016	199,038	3.04	7.32	10.36	-54.6%	50.51	3.25	7.25	10.50	-54.0%
2017	199,038	3.65	6.68	10.33	-54.7%	51.99	4.19	6.46	10.65	-53.4%
2018	199,038	3.98	6.83	10.81	-52.6%	48.73	3.91	6.80	10.71	-53.1%
2019	199,038	3.74	6.50	10.24	-55.1%	47.88	3.52	6.48	9.99	-56.2%
2020	199,117	3.83	5.52	9.35	-59.0%	46.54	3.43	5.60	9.03	-60.4%
2021	199,117	3.37	4.85	8.23	-64.0%	47.13	3.25	4.87	8.12	-64.4%

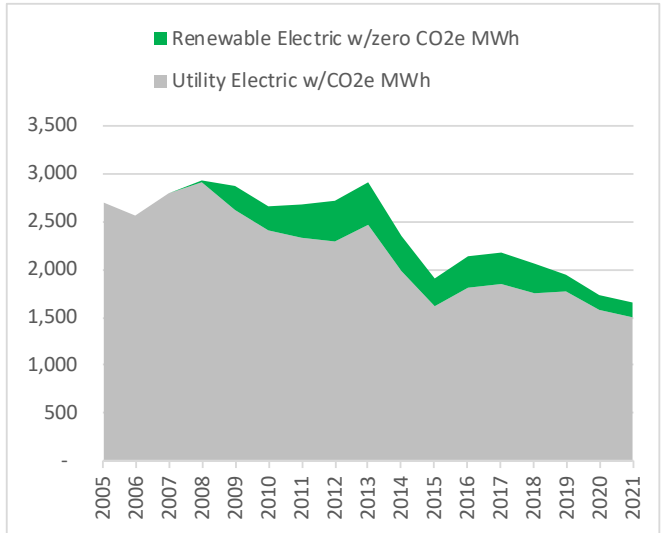
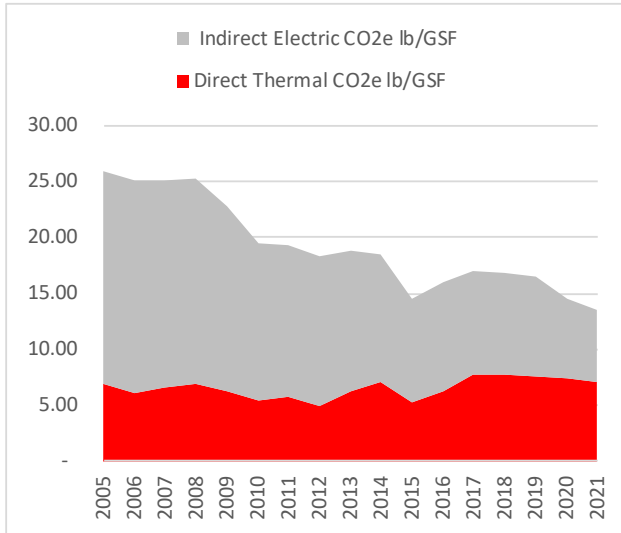
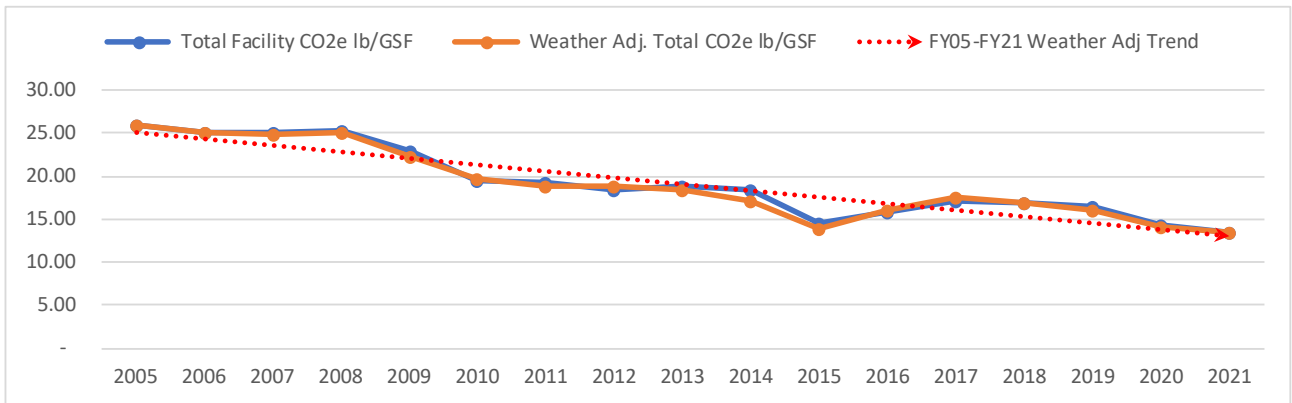
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



UW-Waukesha CO2e Emissions Fiscal Year 2021 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	14.10	19.46	-24.8%	49.10	5.54	14.08	19.62	-24.2%
2011	277,016	5.75	13.56	19.31	-25.4%	48.17	5.44	13.46	18.90	-27.0%
2012	277,016	5.00	13.34	18.35	-29.1%	52.24	5.62	13.20	18.82	-27.3%
2013	277,016	6.21	12.64	18.85	-27.2%	48.26	5.89	12.55	18.44	-28.8%
2014	277,016	7.01	11.41	18.42	-28.8%	45.20	5.92	11.21	17.12	-33.9%
2015	277,016	5.24	9.22	14.46	-44.1%	46.08	4.73	9.19	13.92	-46.2%
2016	277,016	6.18	9.76	15.93	-38.5%	50.51	6.48	9.67	16.15	-37.6%
2017	277,016	7.82	9.21	17.03	-34.2%	51.99	8.53	8.92	17.45	-32.6%
2018	277,016	7.67	9.19	16.86	-34.9%	48.73	7.65	9.17	16.81	-35.1%
2019	277,016	7.59	8.87	16.45	-36.4%	47.88	7.35	8.77	16.12	-37.7%
2020	277,016	7.44	6.99	14.43	-44.3%	46.54	7.12	7.07	14.20	-45.2%
2021	277,016	7.14	6.42	13.56	-47.6%	47.13	6.91	6.46	13.37	-48.3%

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



State of Wisconsin

Department of Administration

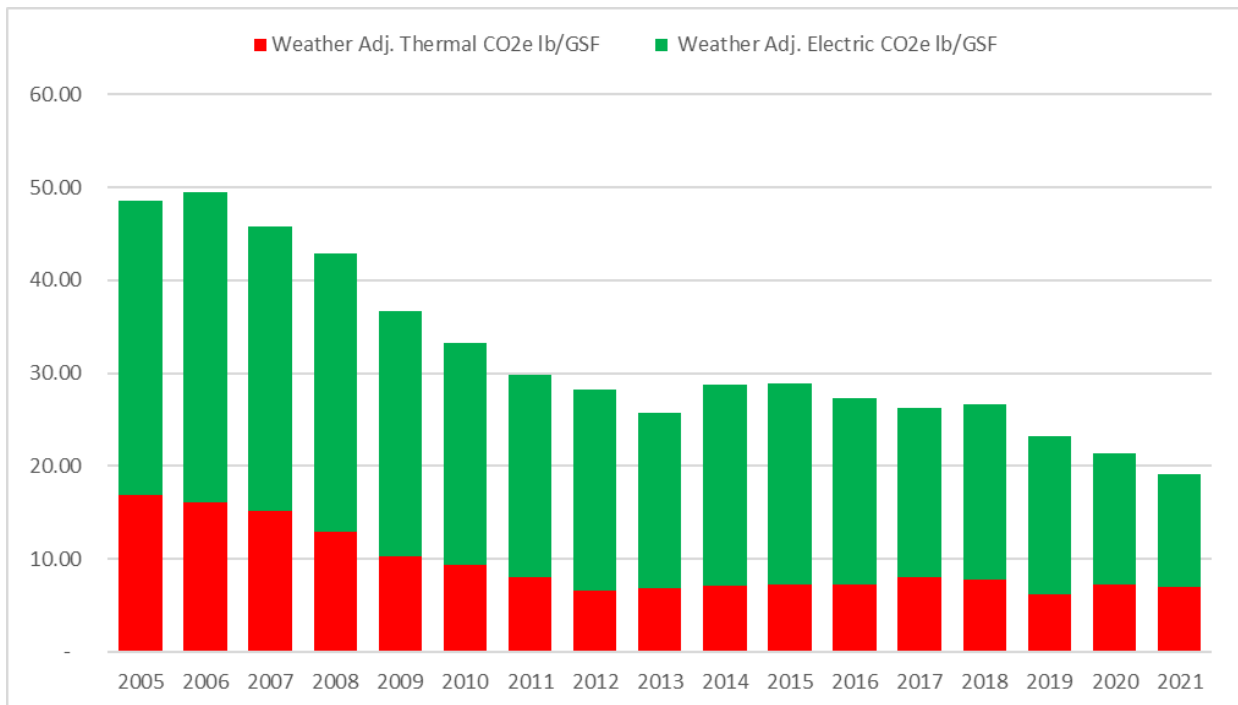
SCOPE

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.

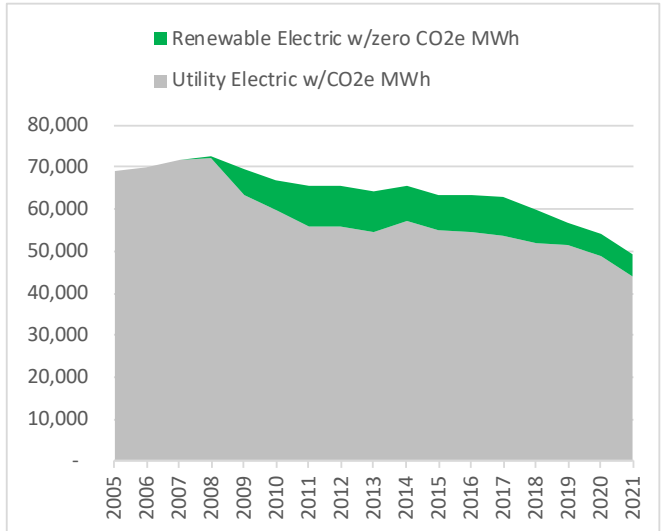
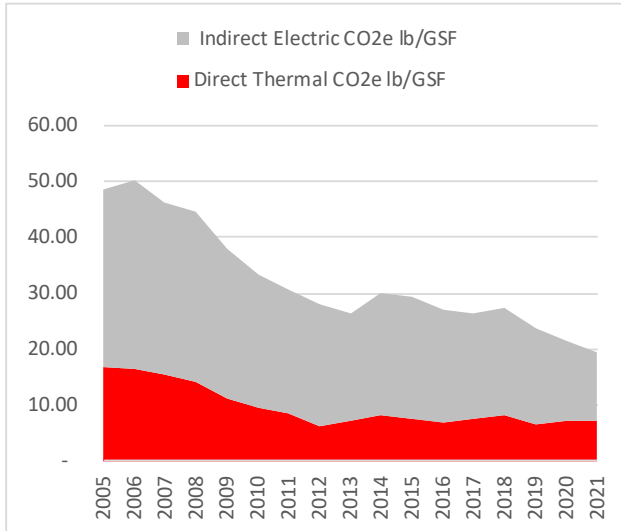
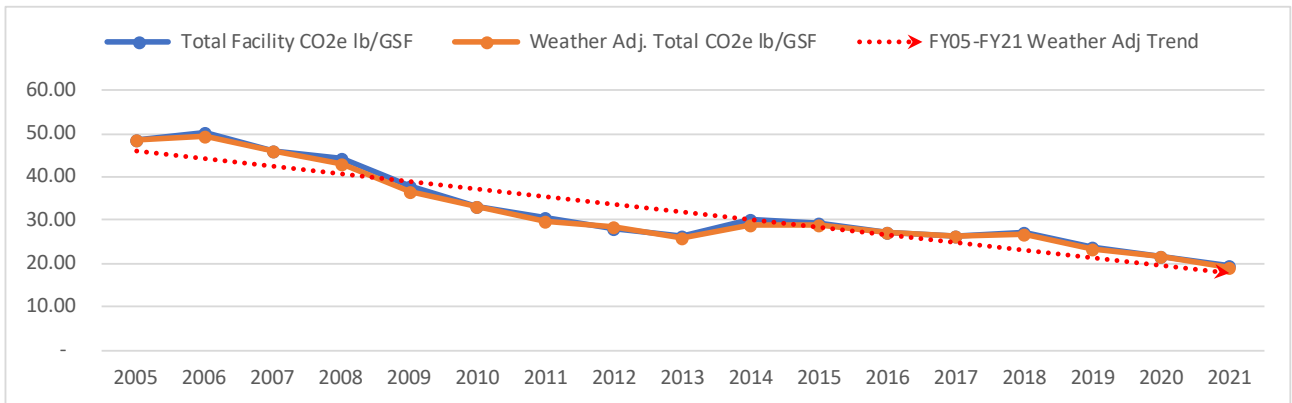
Wisconsin Department of Administration Facilities GHG CO2e lbs/GSF:



Department of Administration CO2e Emissions Fiscal Year 2021 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	16.86	31.65	48.51	0.0%	47.71	16.86	31.65	48.51	0.0%
2006	4,027,132	16.53	33.76	50.29	3.7%	48.66	16.03	33.49	49.52	2.1%
2007	4,084,119	15.44	30.72	46.16	-4.8%	47.49	15.17	30.62	45.79	-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	-31.3%	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	-46.9%
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	-40.6%
2016	4,019,258	6.90	20.28	27.18	-44.0%	49.49	7.22	20.11	27.33	-43.7%
2017	4,019,258	7.72	18.52	26.25	-45.9%	49.79	8.03	18.19	26.22	-46.0%
2018	3,968,416	8.28	19.02	27.30	-43.7%	46.63	7.81	18.90	26.71	-44.9%
2019	4,202,931	6.55	17.08	23.63	-51.3%	45.78	6.13	17.03	23.16	-52.3%
2020	4,202,931	7.24	14.27	21.50	-55.7%	48.14	7.23	14.18	21.41	-55.9%
2021	4,202,931	7.17	12.37	19.55	-59.7%	47.74	6.97	12.19	19.16	-60.5%

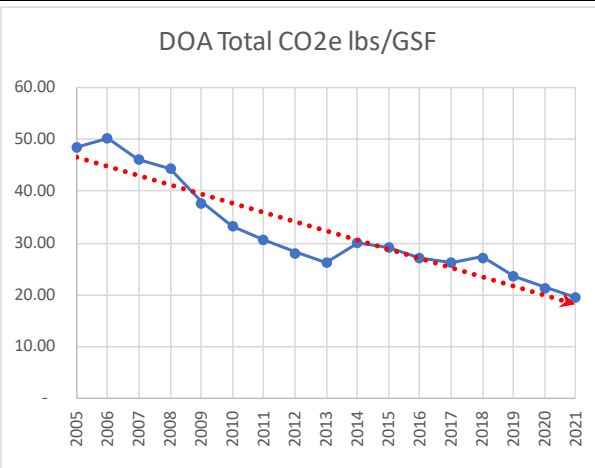
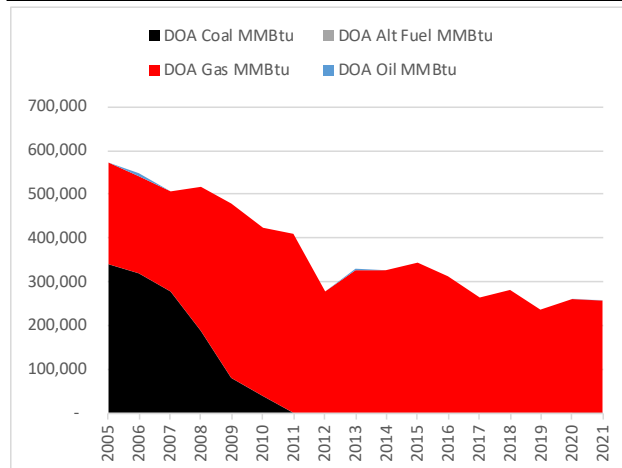
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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	30,793	88,615	48.51
2006	4,027,132	48.66	69,730,487	-	69,730,487	1.95	61,677	30,189	91,866	50.29
2007	4,084,119	47.49	71,730,275	-	71,730,275	1.75	56,906	28,607	85,513	46.16
2008	4,084,119	46.02	72,527,798	496,666	72,031,132	1.72	56,230	25,976	82,206	44.37
2009	4,084,119	45.49	69,552,909	6,297,098	63,255,811	1.72	49,322	20,668	69,991	37.78
2010	4,084,119	47.20	66,750,932	6,877,318	59,873,614	1.62	44,078	17,703	61,780	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	14,080	47,852	26.25
2018	3,968,416	46.63	59,651,618	7,564,225	52,087,393	1.45	34,235	14,911	49,146	27.30
2019	4,202,931	45.78	56,853,956	5,357,204	51,496,752	1.39	32,562	12,490	45,052	23.63
2020	4,202,931	48.14	54,110,768	5,482,053	48,628,715	1.23	27,197	13,797	40,994	21.50
2021	4,202,931	47.74	49,209,710	5,431,750	43,777,961	1.19	23,591	13,678	37,268	19.55

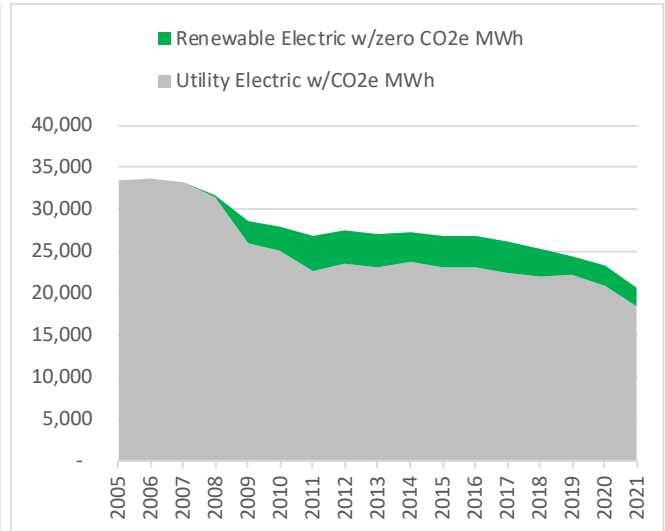
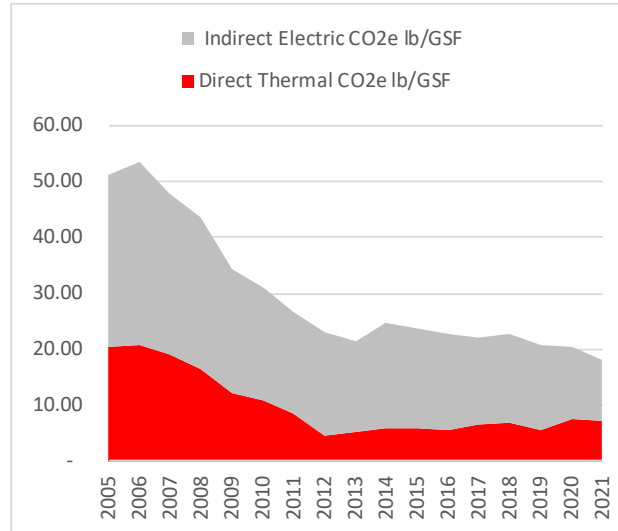
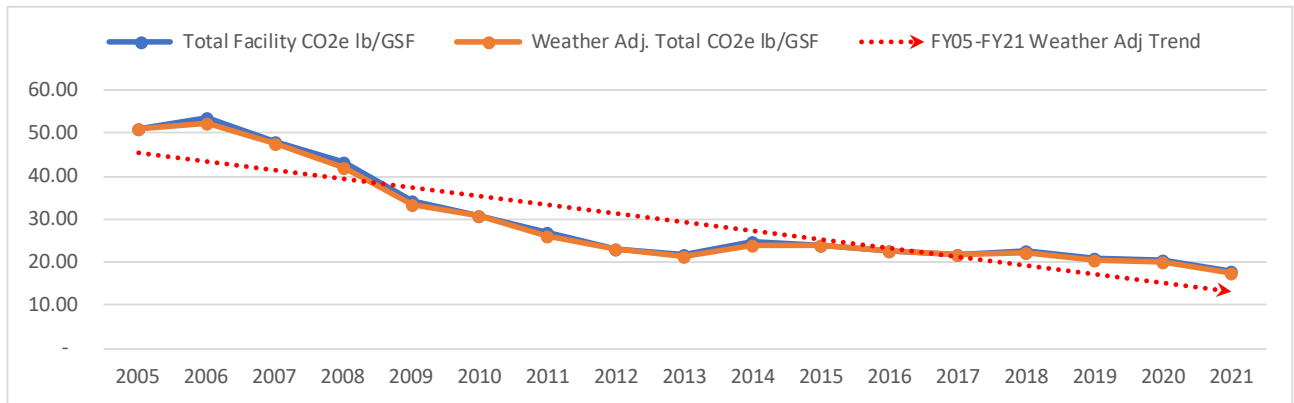
Fiscal Year	DOA Net Thermal MMBtu	DOA Plant Reports MMBtu w/Sales	DOA Coal MMBtu	DOA Alt Fuel MMBtu	DOA Gas MMBtu	DOA Oil MMBtu	DOA Plant Reports MMBtu w/Sales	DOA Boiler Fuel Based Emissions lbs	DOA Boiler Fuel Emissions lb/MMBtu	DOA Net Thermal MMBtu CO2e Metric Tons
2005	399,576	572,015	338,956	-	234,679	20	572,015	44,082	169.90	30,793
2006	391,988	546,642	319,009	-	222,235	7,397	546,642	42,100	169.79	30,189
2007	378,872	504,582	279,233	-	226,974	-	504,582	38,099	166.46	28,607
2008	382,500	515,326	187,834	-	329,192	-	515,326	34,996	149.72	25,976
2009	345,081	478,589	81,173	-	397,416	-	478,589	28,665	132.04	20,668
2010	311,148	422,433	40,152	-	382,281	-	422,433	24,034	125.43	17,703
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	-	-	265,310	-	265,310	14,080	117.00	14,080
2018	280,966	280,966	-	-	280,966	-	280,966	14,911	117.00	14,911
2019	235,357	235,357	-	-	235,357	-	235,357	12,490	117.00	12,490
2020	259,972	259,972	-	-	259,972	-	259,972	13,797	117.00	13,797
2021	257,732	257,732	-	-	257,732	-	257,732	13,678	117.00	13,678



DOA-Capitol Complex CO₂e Emissions Fiscal Year 2021 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO ₂ e lb/GSF	Indirect Electric CO ₂ e lb/GSF	Total Facility CO ₂ e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO ₂ e lb/GSF	Weather Adj. Electric CO ₂ e lb/GSF	Weather Adj. Total CO ₂ e lb/GSF	Weather Adj. Total from Base
2005	2,013,307	20.30	30.70	50.99	0.0%	48.12	20.30	30.70	50.99	0.0%
2006	2,013,307	20.75	32.68	53.44	4.8%	48.65	19.62	32.53	52.15	2.3%
2007	2,013,307	18.99	28.82	47.81	-6.2%	47.46	18.73	28.75	47.48	-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	6.59	15.38	21.98	-56.9%	49.72	6.76	15.10	21.86	-57.1%
2018	2,013,307	6.74	15.85	22.59	-55.7%	46.66	6.39	15.83	22.22	-56.4%
2019	2,013,307	5.42	15.35	20.77	-59.3%	45.88	5.16	15.36	20.52	-59.8%
2020	2,013,307	7.46	12.84	20.31	-60.2%	48.07	7.44	12.76	20.20	-60.4%
2021	2,013,307	7.14	10.89	18.03	-64.6%	47.61	6.95	10.67	17.63	-65.4%

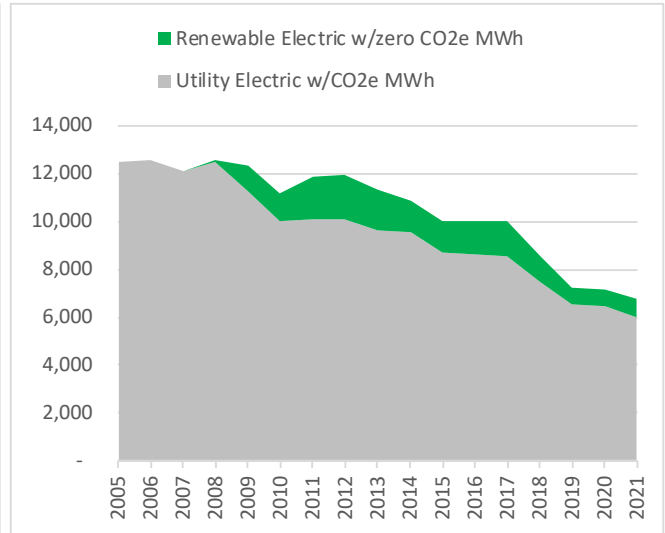
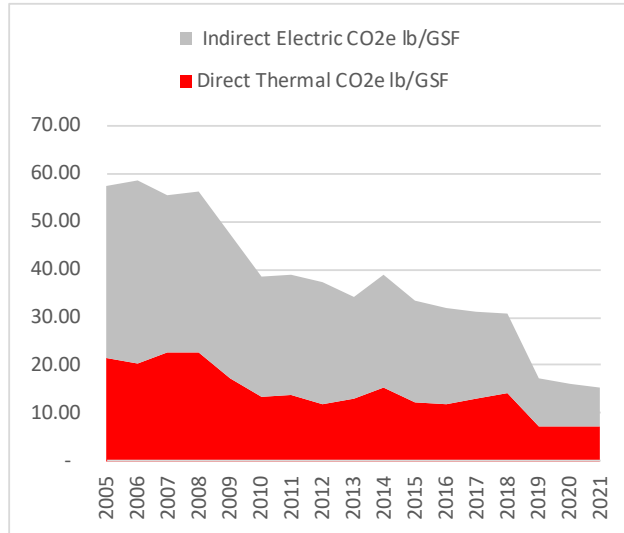
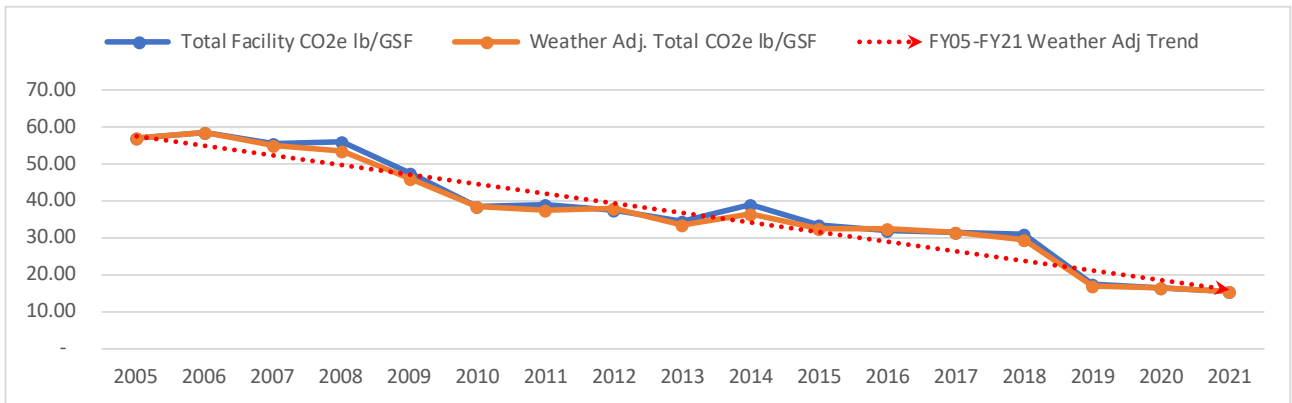
CO₂e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Hill Farms CO2e Emissions Fiscal Year 2021 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	55.30	-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	47.38	-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	-32.1%	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	31.20	-45.5%	49.72	13.50	17.91	31.41	-45.2%
2018	644,904	14.09	16.73	30.82	-46.2%	46.66	13.14	16.39	29.53	-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	8.13	15.51	-72.9%	47.61	7.09	8.03	15.12	-73.6%

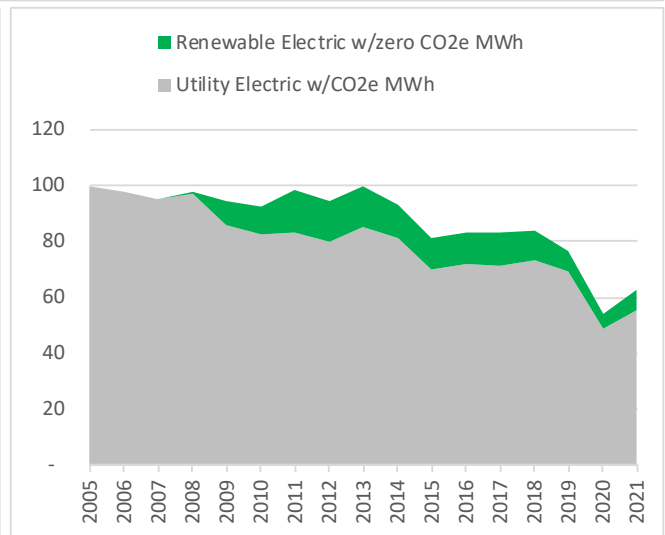
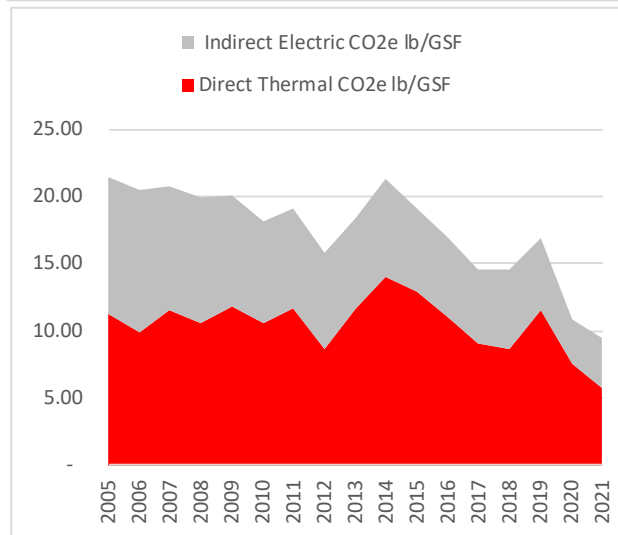
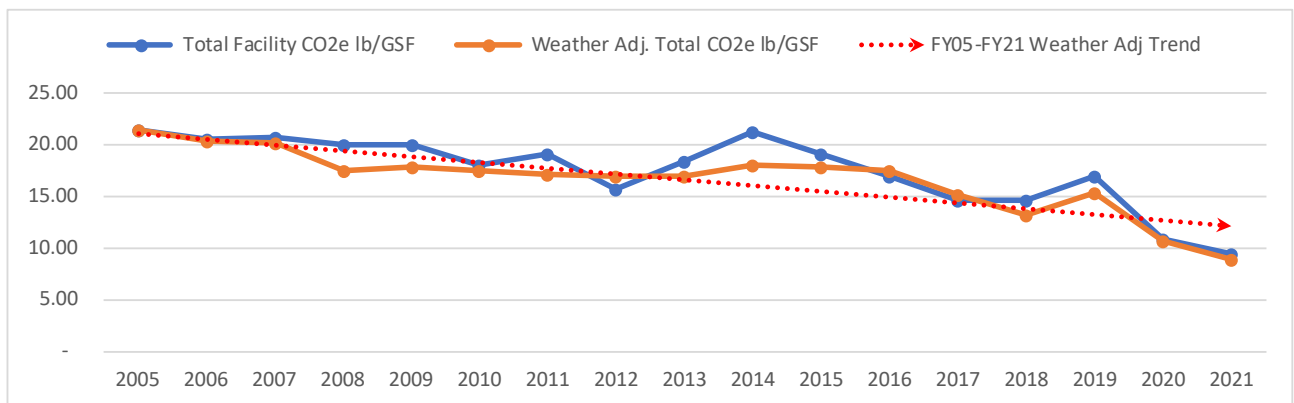
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Air Services CO2e Emissions Fiscal Year 2021 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	9.76	7.39	17.15	-20.2%
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	16.99	-21.0%
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	10.05	5.28	15.33	-28.7%
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%

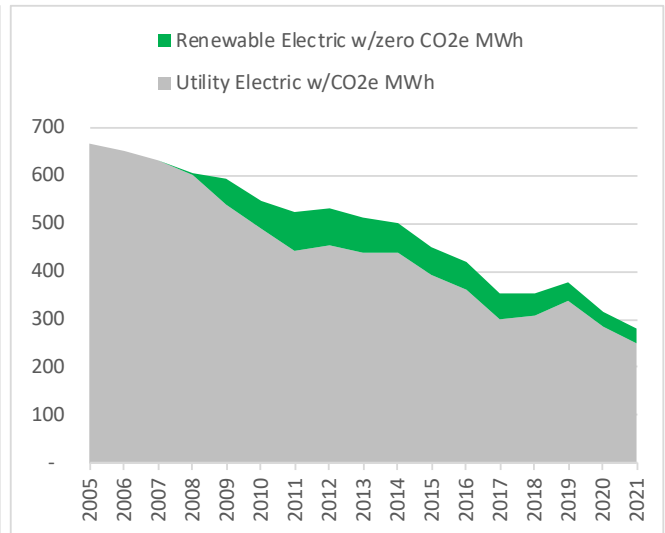
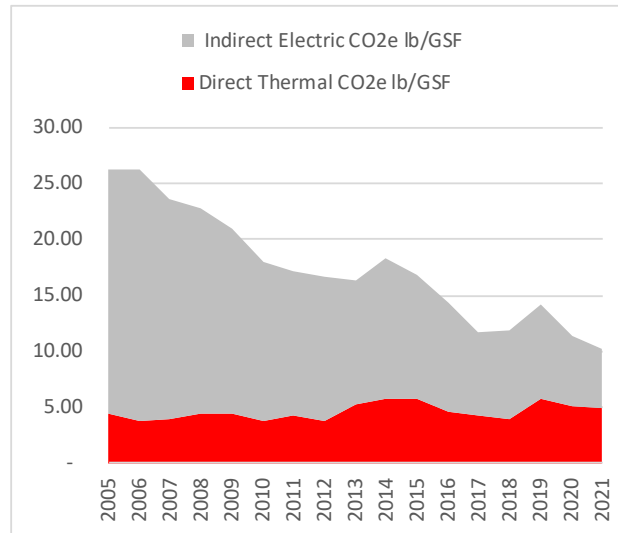
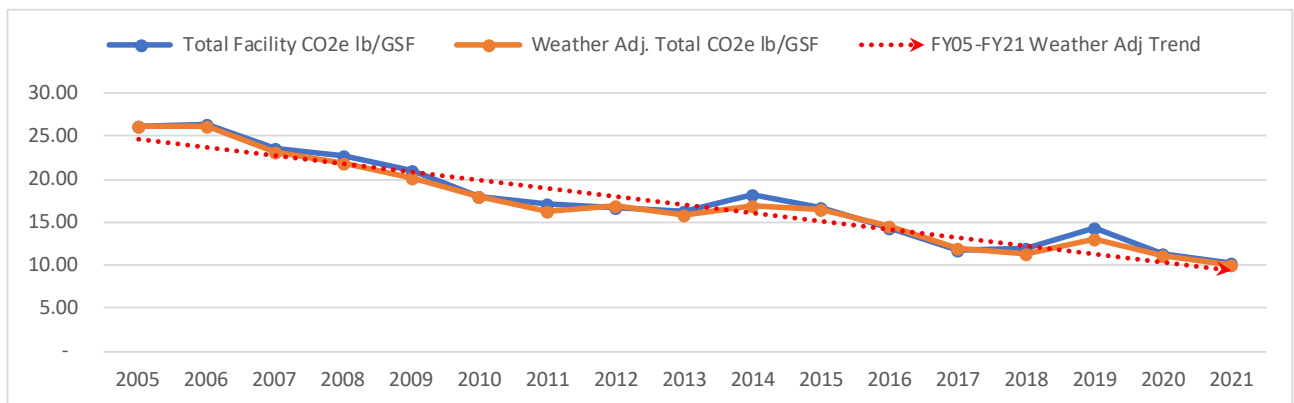
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Eau Claire SOB CO2e Emissions Fiscal Year 2021 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	26.14	-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	20.17	-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	3.72	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	15.78	-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	4.57	8.43	13.00	-50.4%
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%

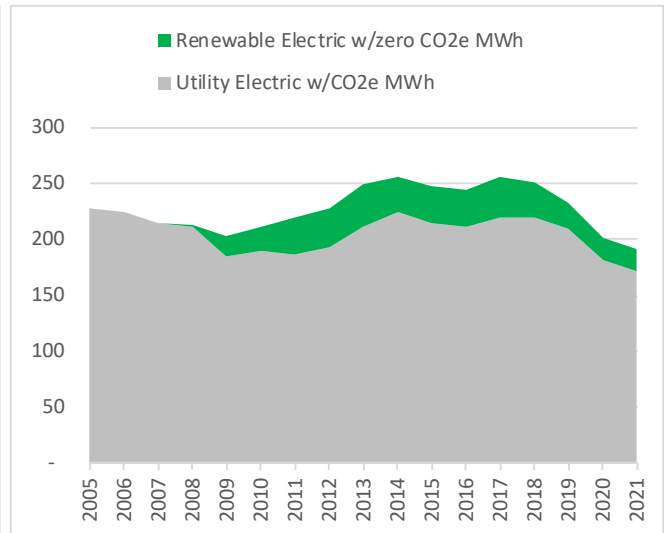
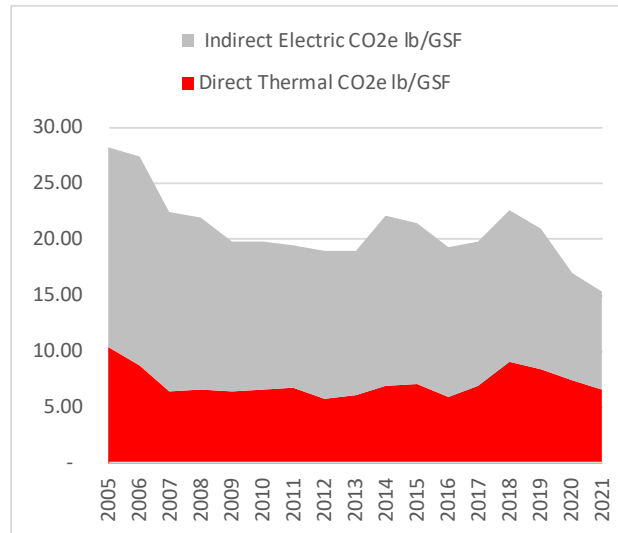
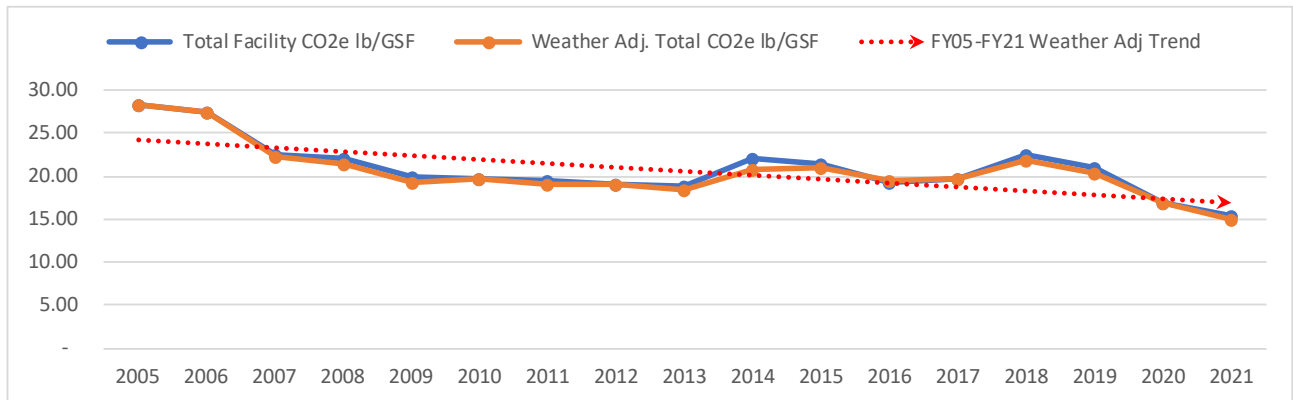
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Executive Residence CO2e Emissions Fiscal Year 2021 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	14.99	-47.0%

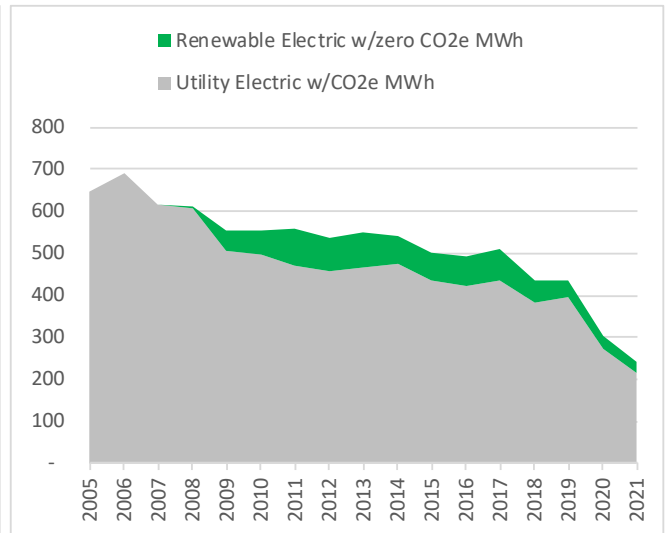
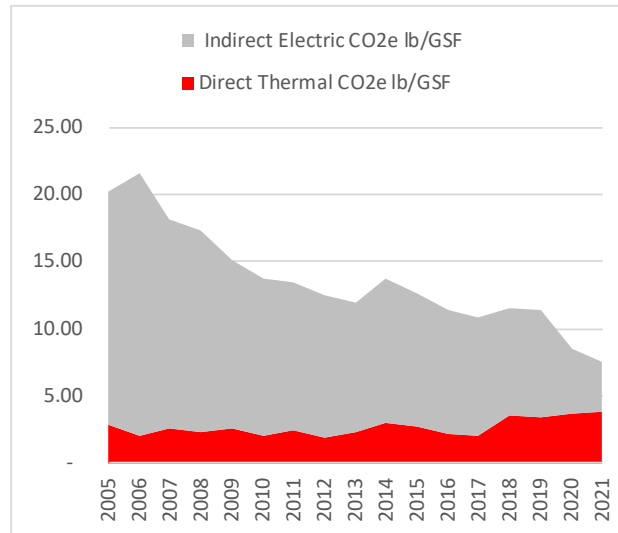
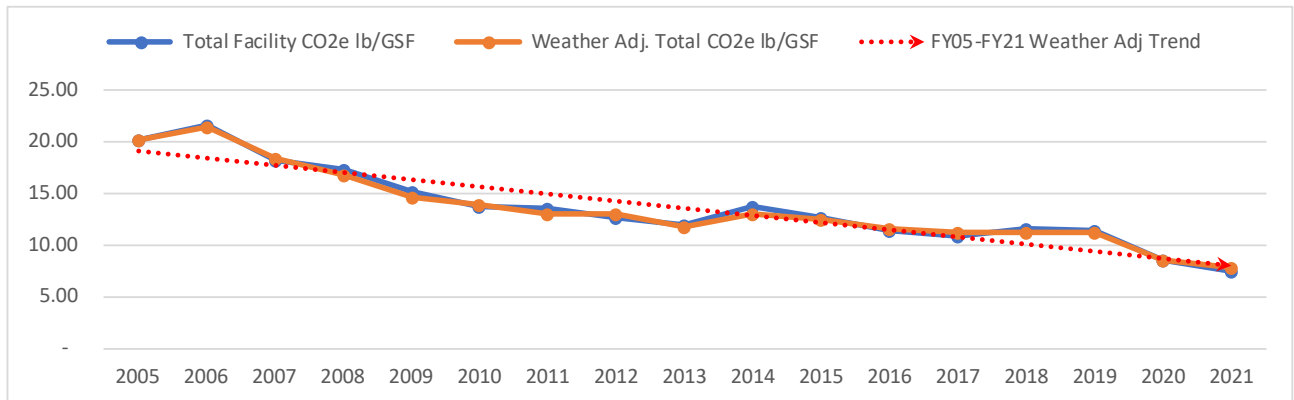
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Green Bay SOB CO2e Emissions Fiscal Year 2021 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	2.12	19.39	21.51	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	2.00	14.82	16.82	-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	2.21	11.77	13.99	-30.8%
2011	69,206	2.44	11.04	13.48	-33.3%	44.59	2.20	10.86	13.07	-35.3%
2012	69,206	1.97	10.60	12.57	-37.8%	49.86	2.28	10.80	13.08	-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	2.33	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	3.20	7.97	11.17	-44.7%
2020	69,206	3.68	4.82	8.51	-57.9%	46.41	3.74	4.81	8.55	-57.7%
2021	69,206	3.87	3.67	7.54	-62.7%	47.28	4.10	3.64	7.74	-61.7%

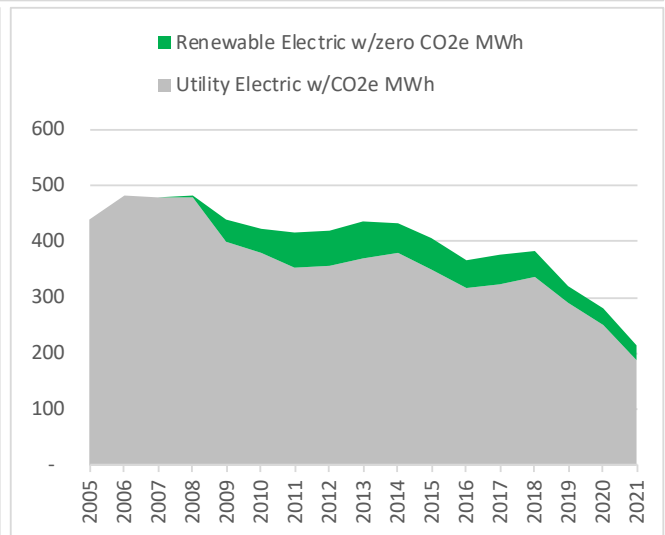
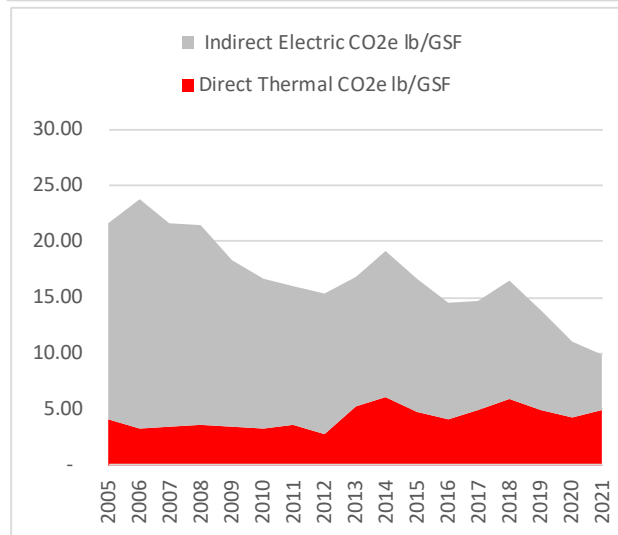
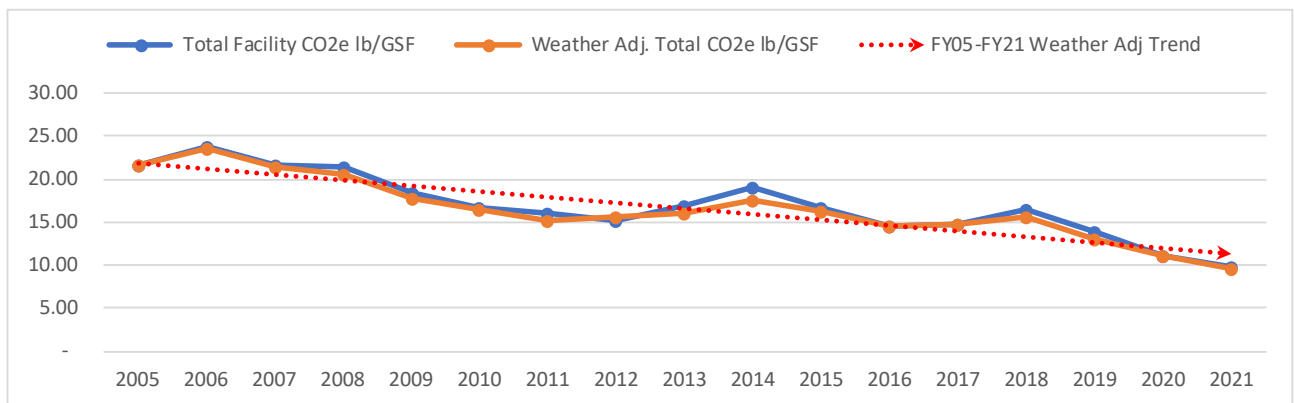
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-La Crosse SOB CO2e Emissions Fiscal Year 2021 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	4.90	9.84	-54.5%	47.24	4.89	4.67	9.56	-55.8%

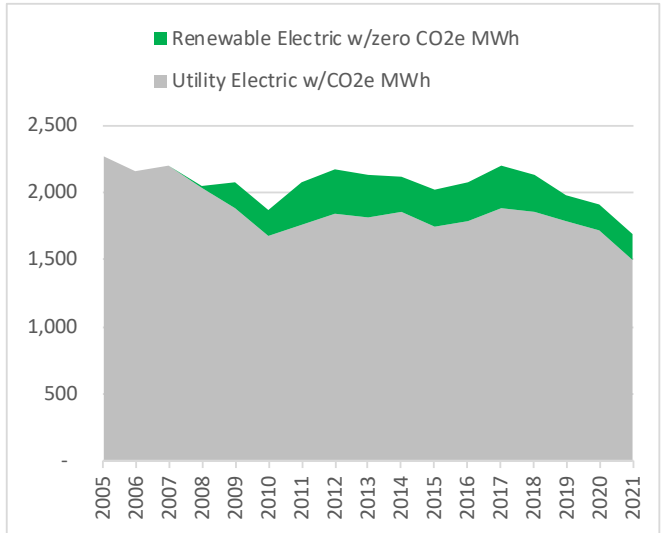
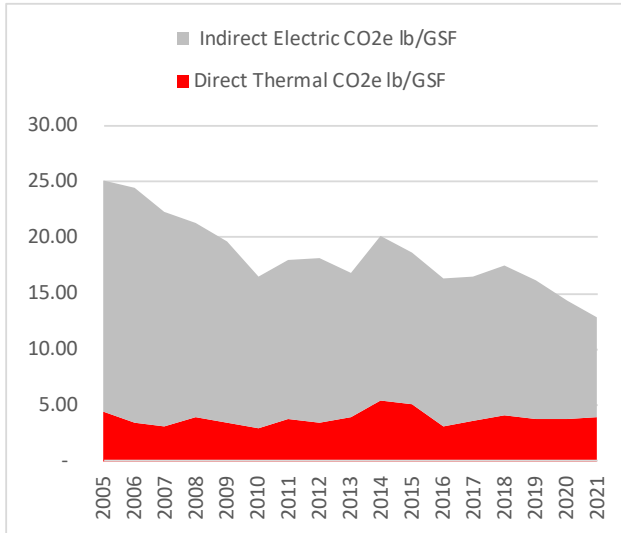
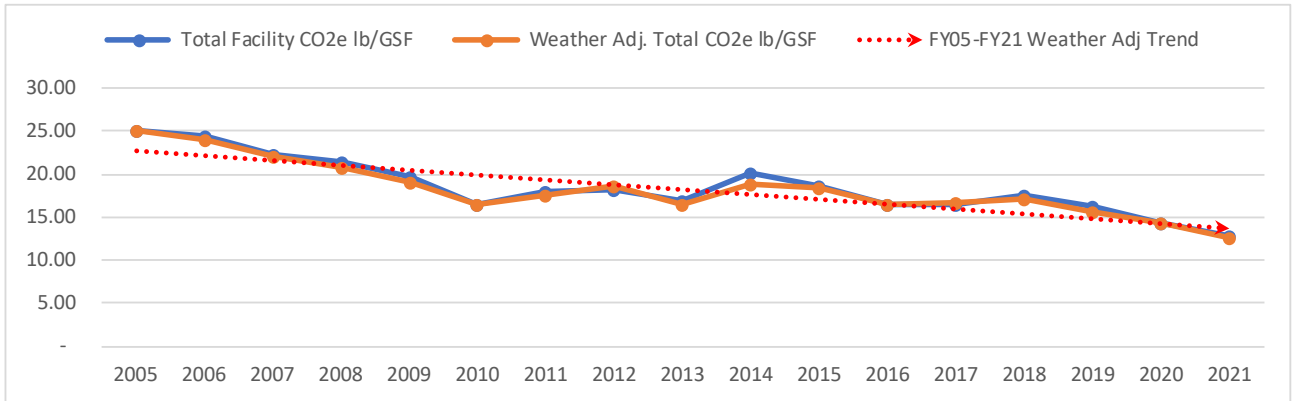
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Milwaukee SOB CO2e Emissions Fiscal Year 2021 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	3.56	20.52	24.08	-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	3.80	8.77	12.58	-50.0%

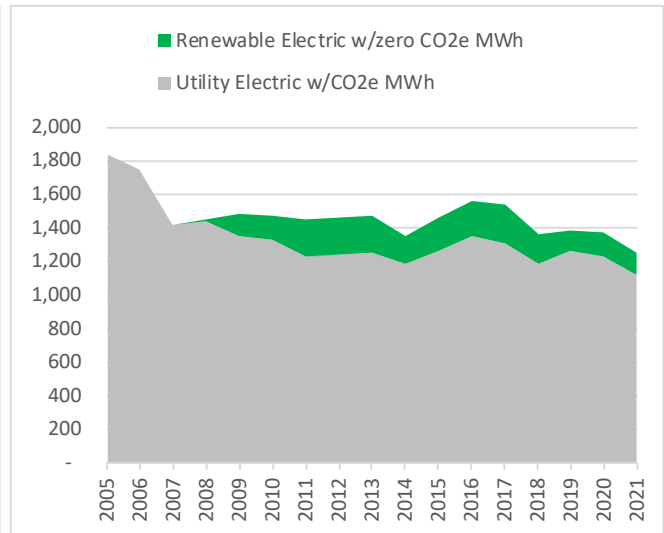
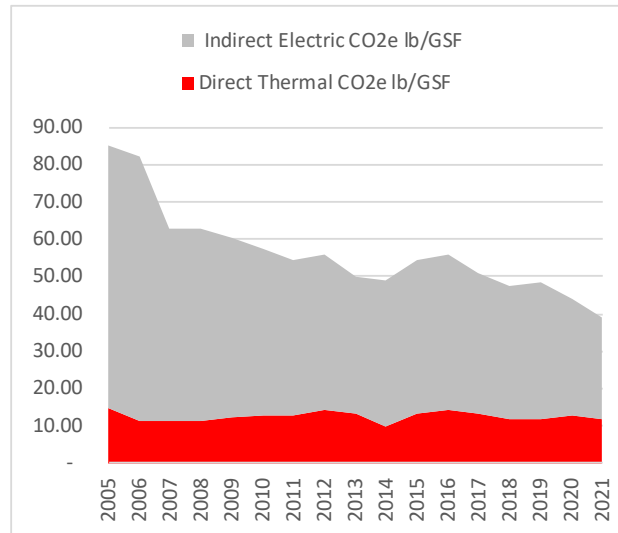
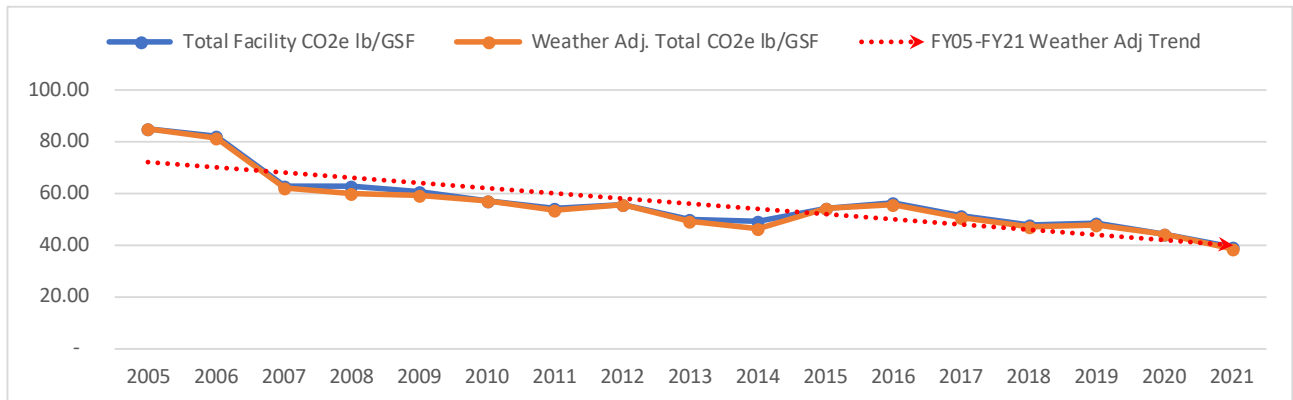
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Public Broadcasting CO2e Emissions Fiscal Year 2021 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	27.51	39.15	-54.0%	47.61	11.60	27.13	38.73	-54.5%

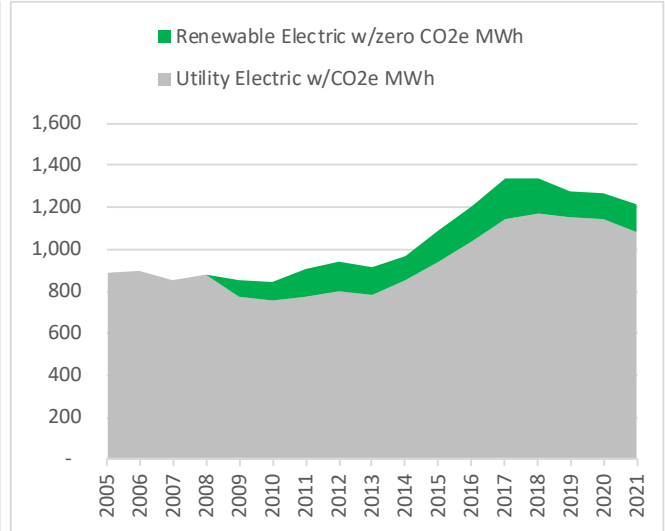
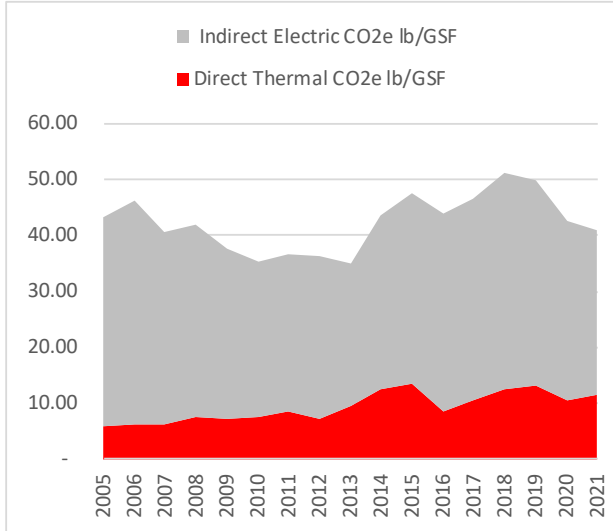
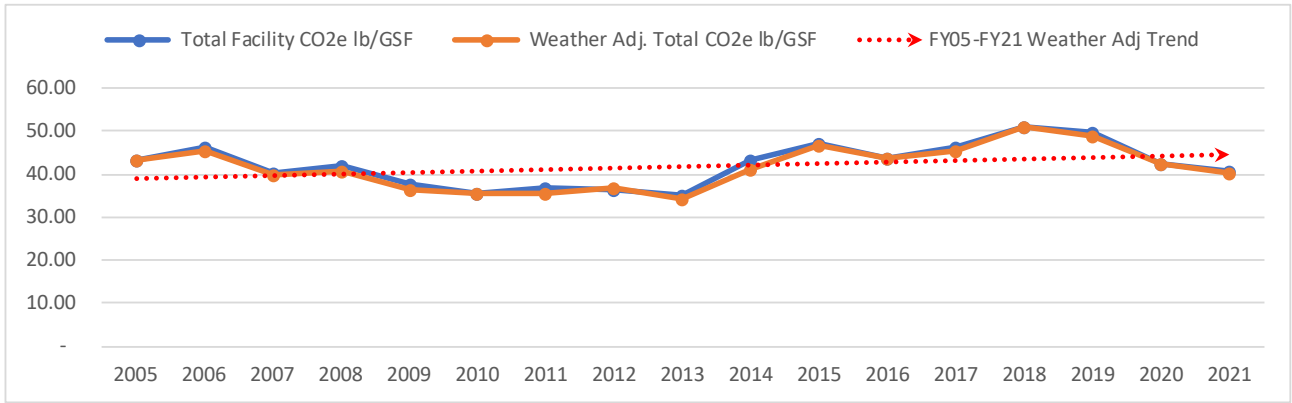
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-SE Crime Lab CO2e Emissions Fiscal Year 2021 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	6.28	33.72	40.00	-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	6.47	30.10	36.56	-15.7%
2010	43,935	7.43	28.03	35.46	-18.2%	49.10	7.65	27.97	35.61	-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	36.75	-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%

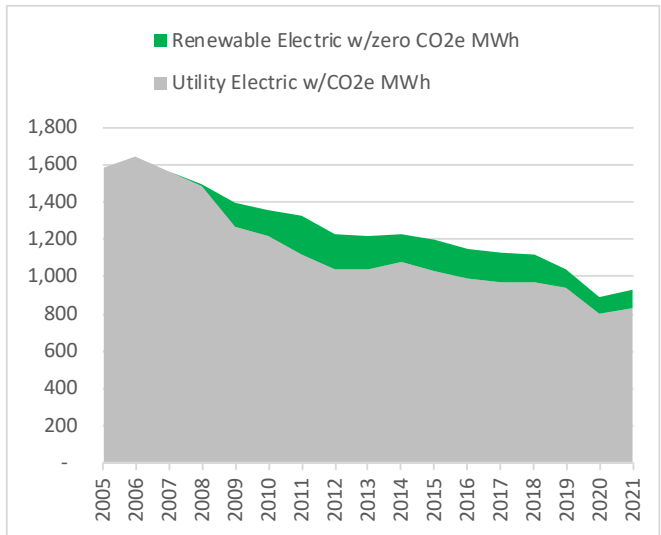
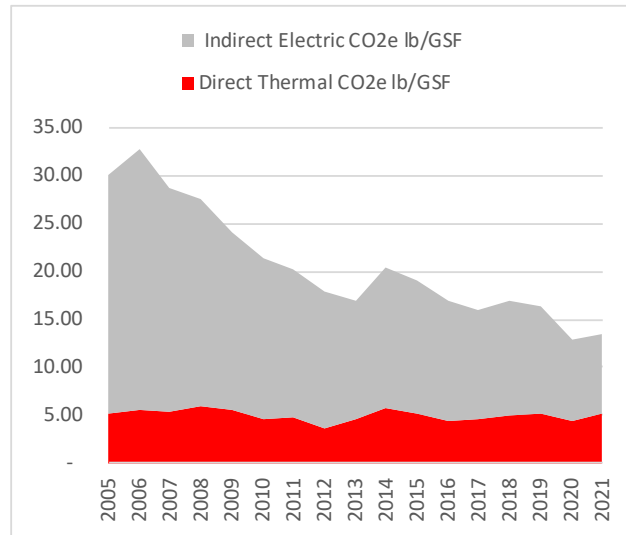
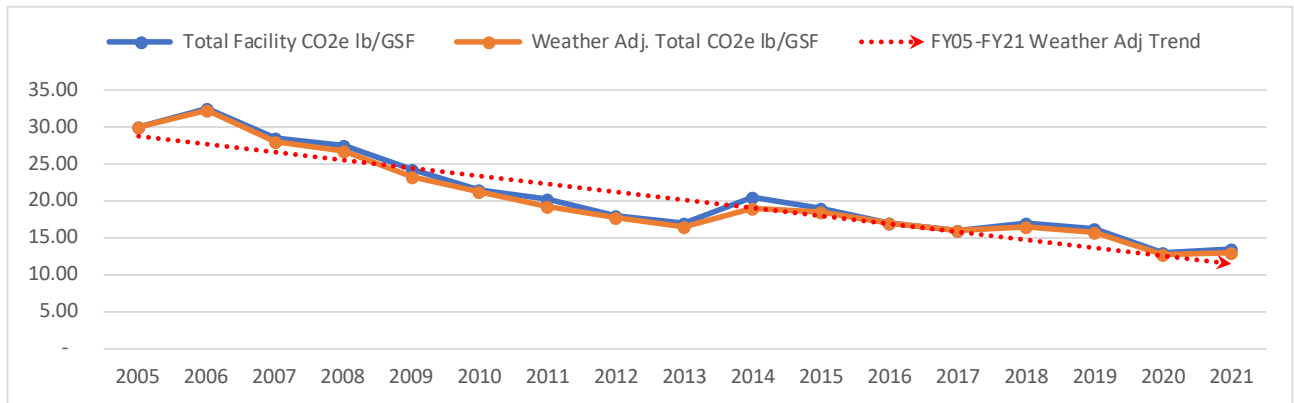
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-State Ag CO2e Emissions Fiscal Year 2021 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	5.41	26.79	32.20	7.5%
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	4.29	15.00	19.29	-35.6%
2012	118,011	3.66	14.20	17.86	-40.4%	51.51	3.90	13.82	17.72	-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	4.57	13.83	18.39	-38.6%
2016	118,011	4.39	12.56	16.95	-43.4%	49.68	4.62	12.39	17.01	-43.2%
2017	118,011	4.61	11.35	15.96	-46.7%	49.72	4.81	11.15	15.96	-46.7%
2018	118,011	5.00	11.94	16.94	-43.4%	46.66	4.52	11.96	16.48	-45.0%
2019	118,011	5.21	11.11	16.31	-45.5%	45.88	4.58	11.05	15.63	-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	8.32	13.48	-55.0%	47.61	4.83	8.05	12.88	-57.0%

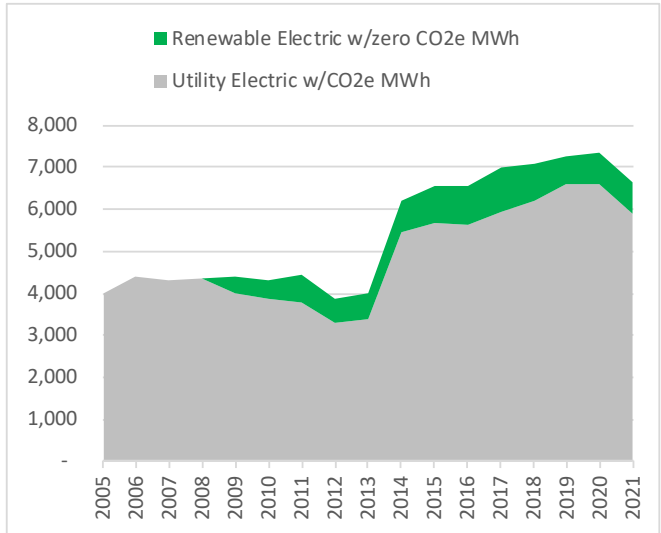
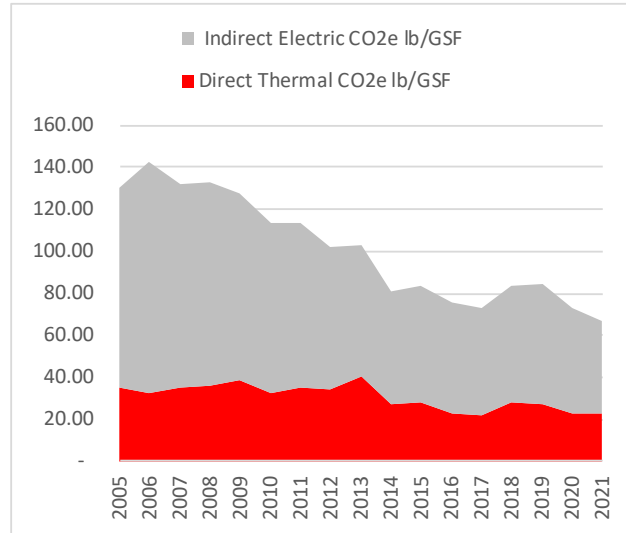
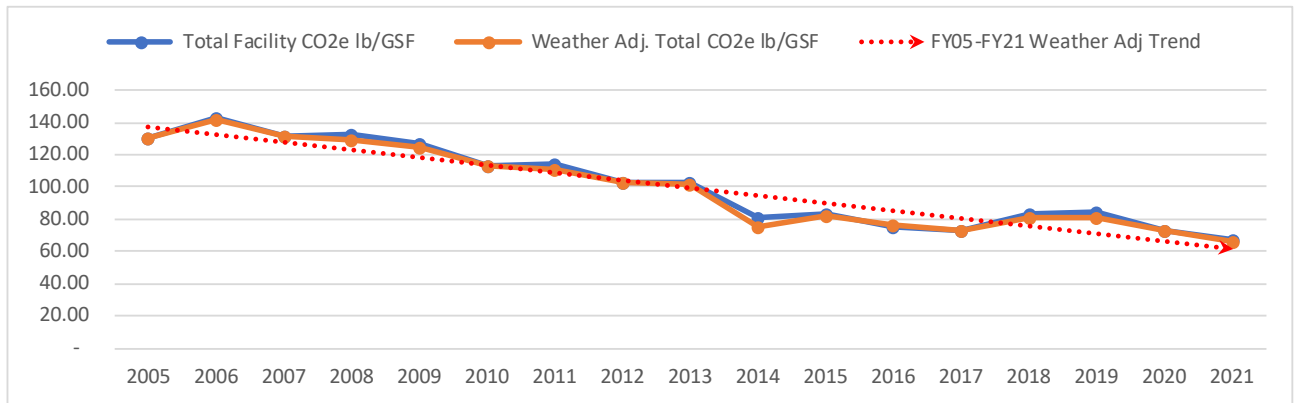
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-State Hygiene Lab CO2e Emissions Fiscal Year 2021 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	43.76	66.99	-48.5%	47.61	22.37	43.34	65.71	-49.5%

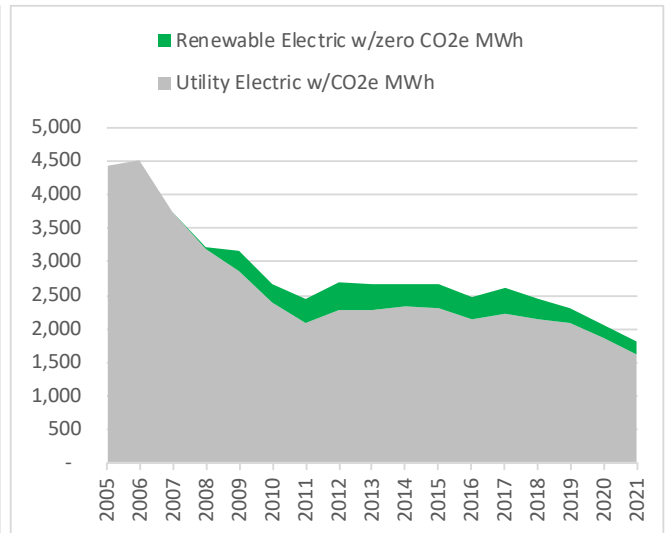
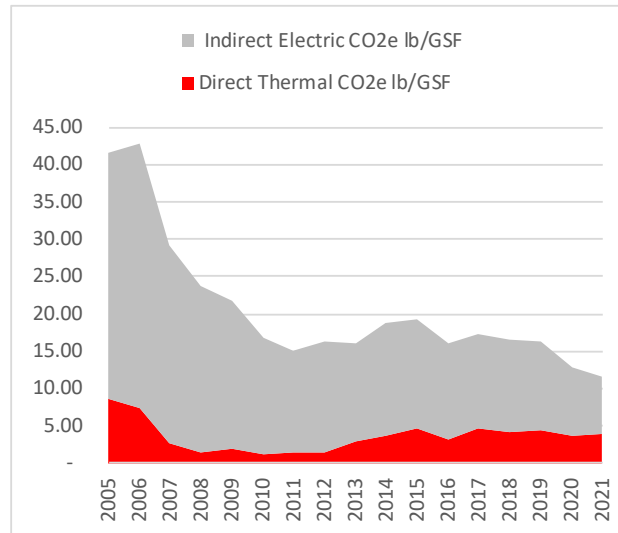
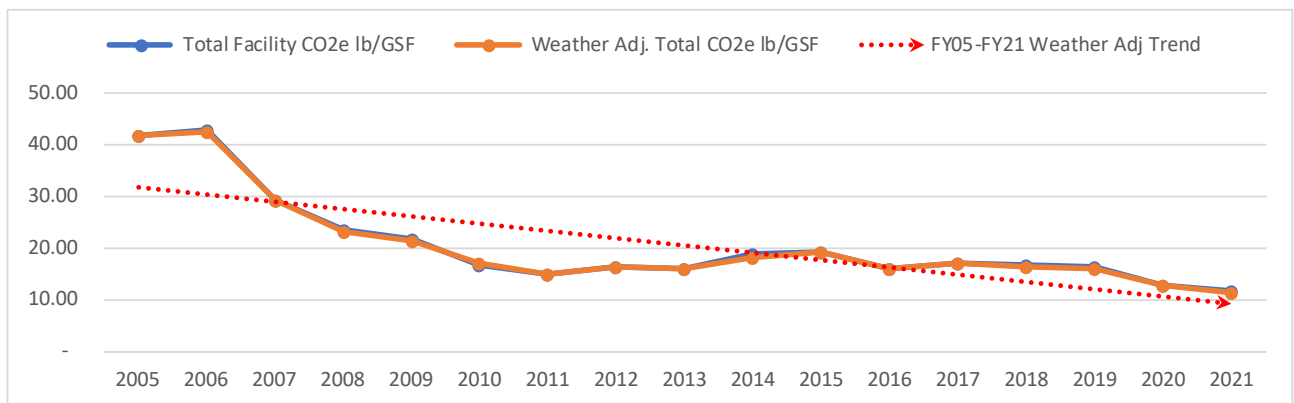
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-State Revenue CO2e Emissions Fiscal Year 2021 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	7.78	11.61	-72.2%	47.61	3.63	7.70	11.34	-72.8%

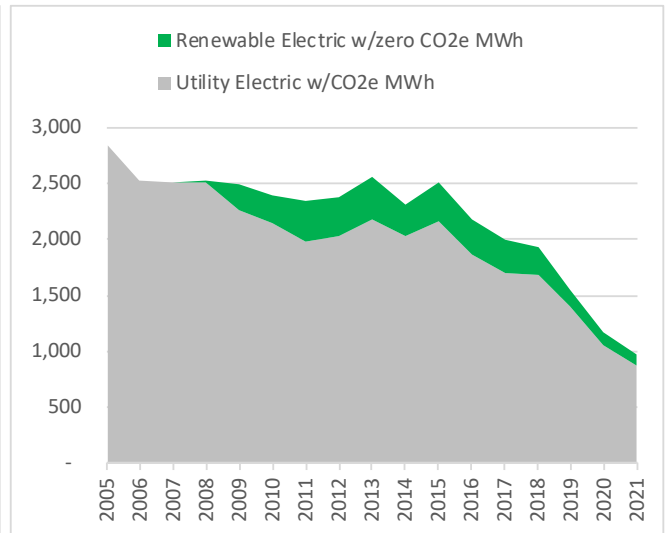
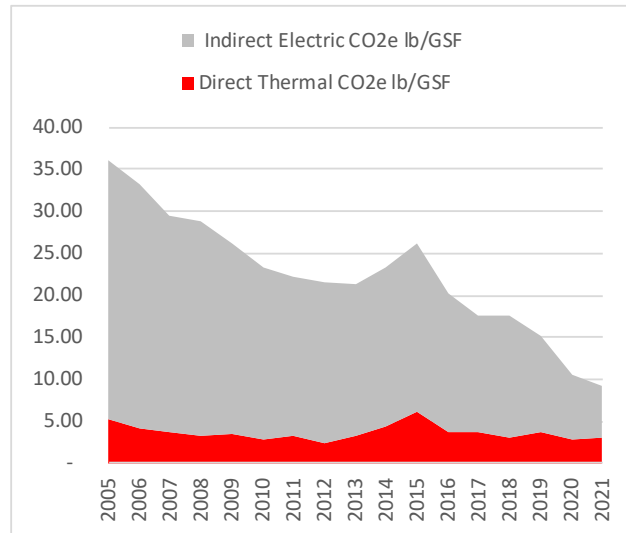
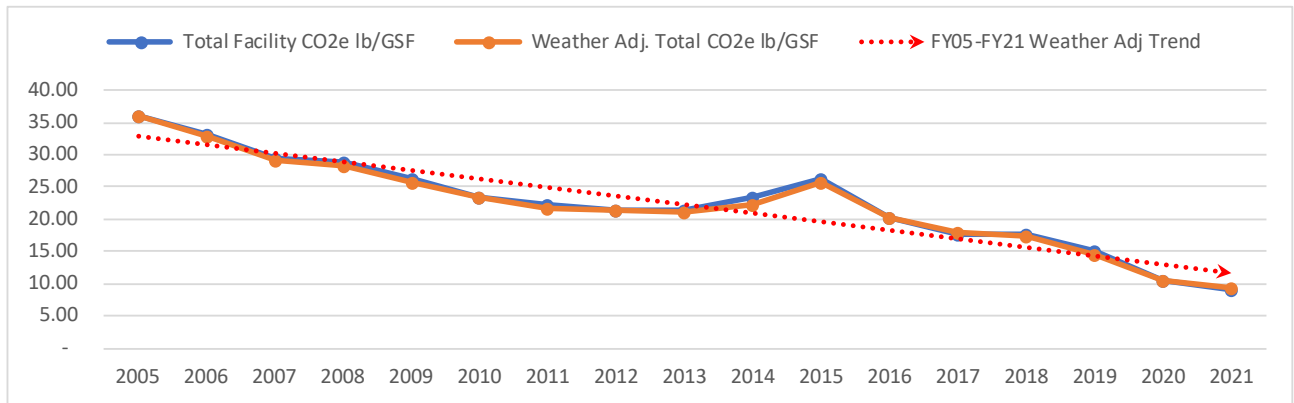
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Waukesha SOB CO2e Emissions Fiscal Year 2021 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	3.03	22.54	25.56	-29.0%
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	5.57	20.15	25.72	-28.5%
2016	169,976	3.77	16.48	20.25	-43.7%	50.51	4.01	16.36	20.37	-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%

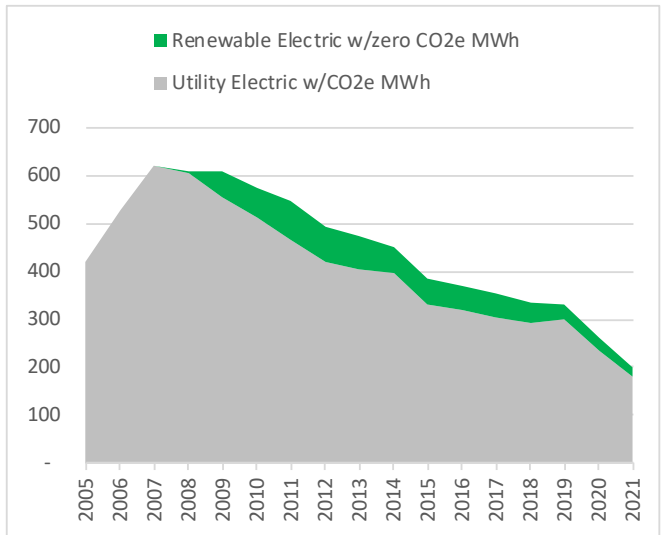
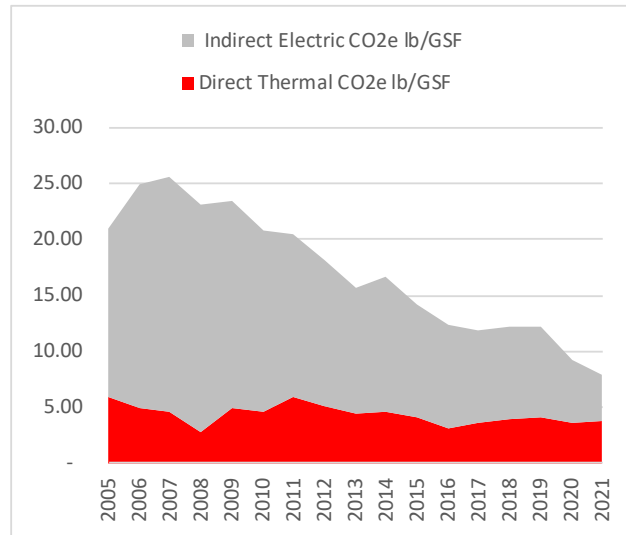
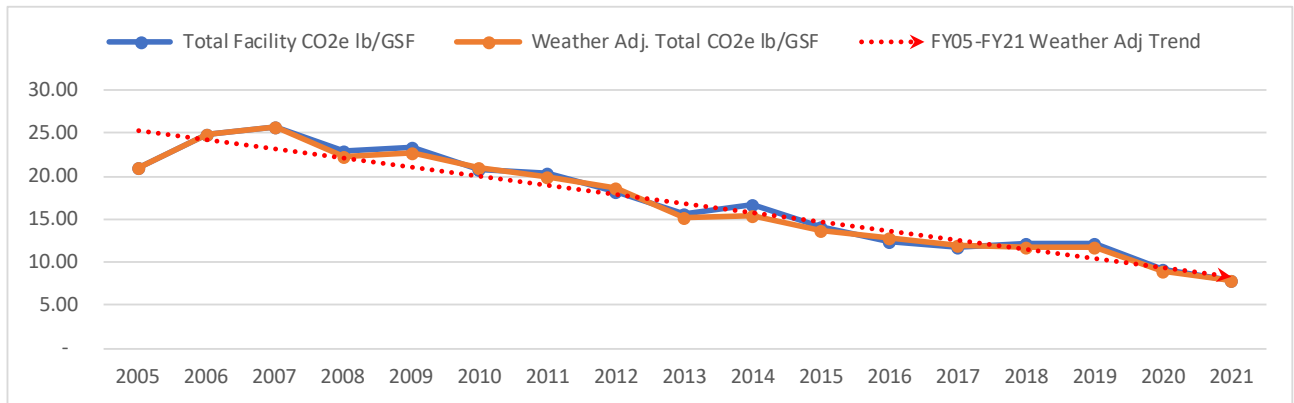
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-WI Rapids SOB CO2e Emissions Fiscal Year 2021 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	4.34	18.28	22.62	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	5.42	14.44	19.86	-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	13.69	-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	3.85	8.17	12.03	-42.5%
2018	51,552	3.94	8.26	12.20	-41.7%	42.67	3.51	8.14	11.65	-44.3%
2019	51,552	4.17	8.07	12.23	-41.5%	41.78	3.72	8.03	11.74	-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%

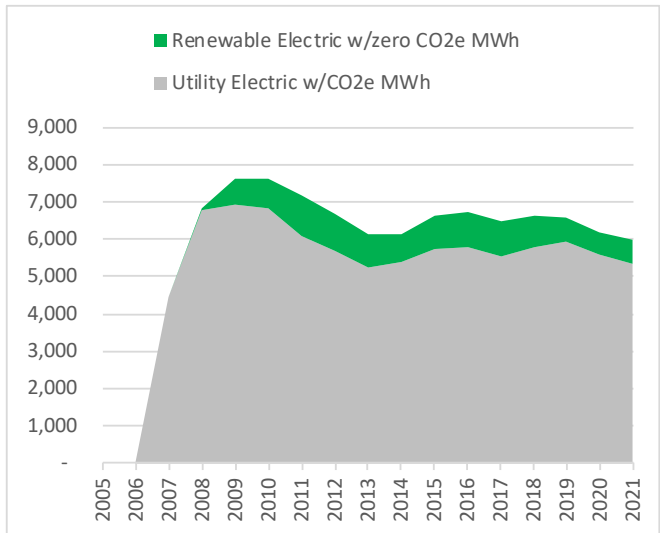
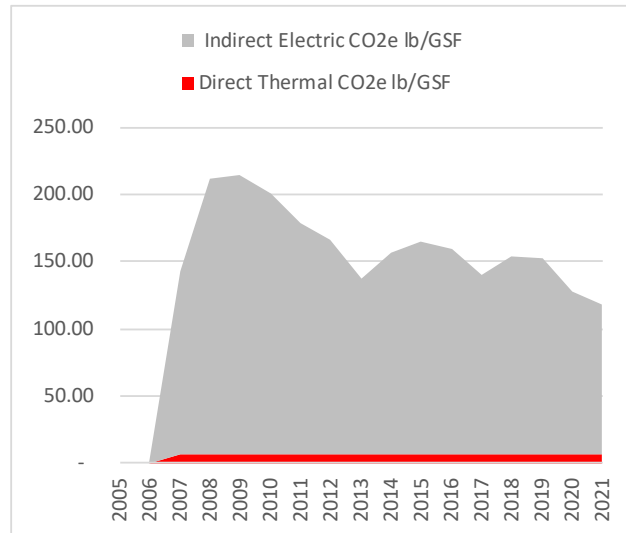
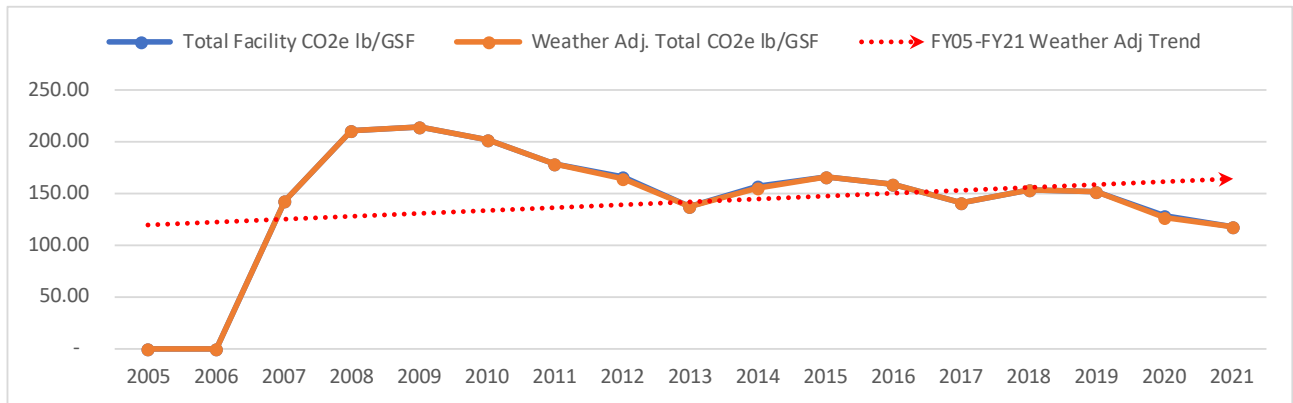
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOA-Femrite Data Center CO2e Emissions Fiscal Year 2021 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										
2006										
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	110.99	117.94		47.61	6.85	110.43	117.28	

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

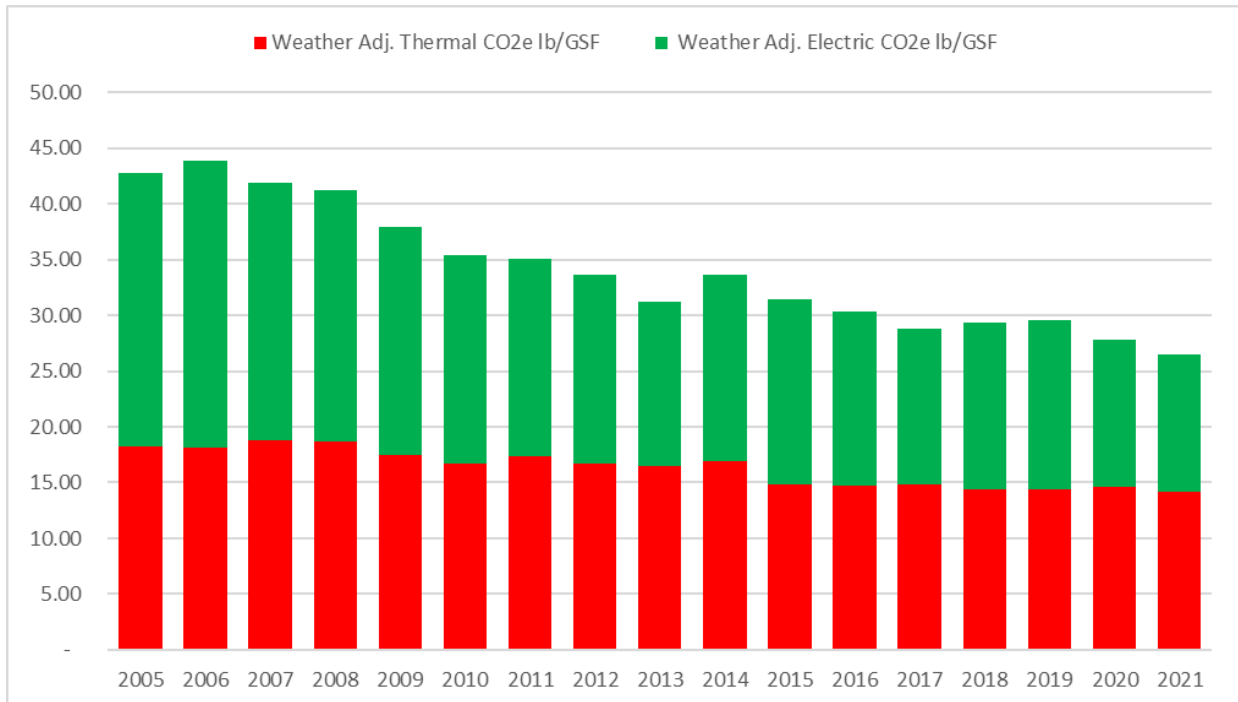
Department of Corrections



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.

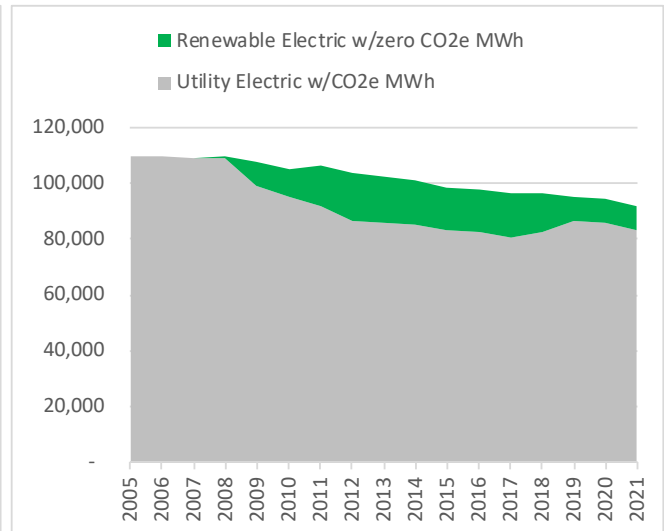
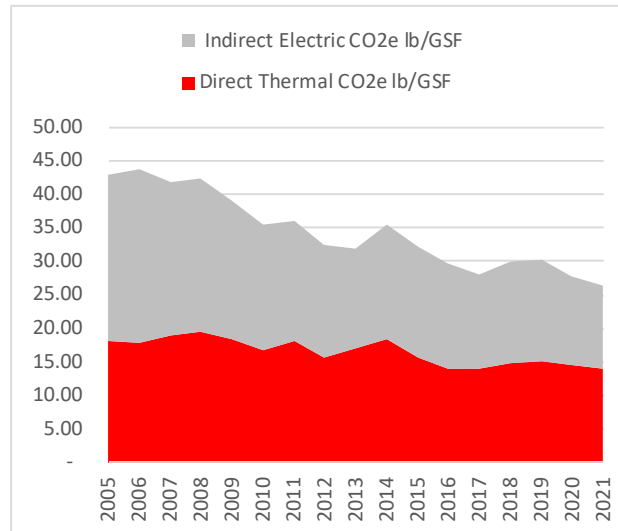
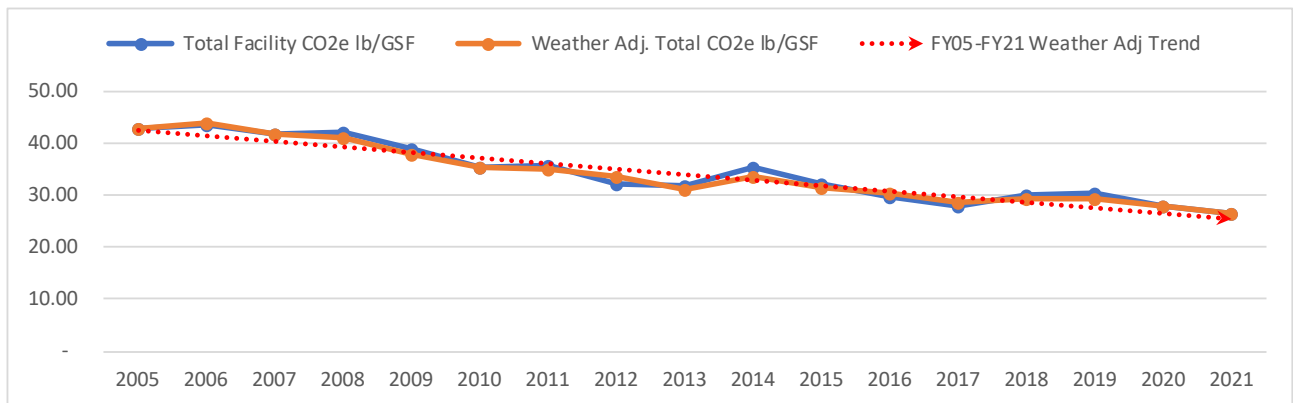
Wisconsin Department of Corrections Facilities GHG CO2e lbs/GSF:



Department of Corrections CO2e Emissions Fiscal Year 2021 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	42.77	0.0%	46.96	18.21	24.55	42.77	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	18.84	23.07	41.91	-2.0%	47.01	18.82	23.02	41.84	-2.2%
2008	8,241,872	19.59	22.76	42.36	-1.0%	45.36	18.66	22.56	41.22	-3.6%
2009	8,241,872	18.52	20.60	39.12	-8.5%	44.77	17.51	20.46	37.97	-11.2%
2010	8,241,872	16.84	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	33.62	-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	33.67	-21.3%
2015	7,939,611	15.71	16.55	32.26	-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	14.78	13.97	28.76	-32.8%
2018	7,939,611	14.86	15.10	29.96	-29.9%	46.05	14.41	15.00	29.41	-31.2%
2019	7,939,611	15.14	15.19	30.33	-29.1%	45.19	14.41	15.12	29.53	-31.0%
2020	7,939,611	14.54	13.32	27.86	-34.8%	47.28	14.56	13.29	27.85	-34.9%
2021	7,939,611	13.99	12.48	26.47	-38.1%	47.29	14.14	12.35	26.48	-38.1%

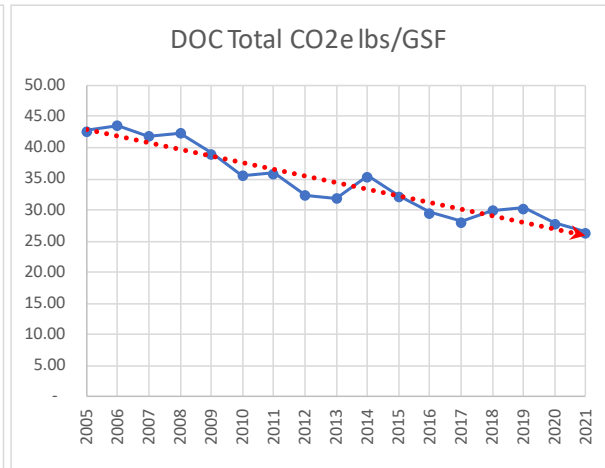
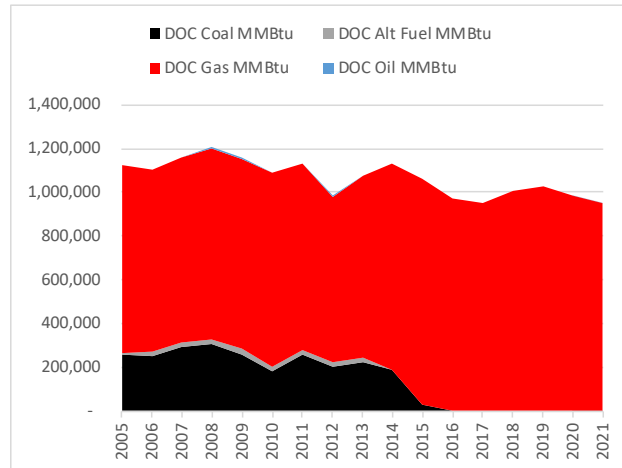
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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	67,995	159,660	42.77
2006	8,241,872	48.07	109,301,074	-	109,301,074	1.95	96,677	66,438	163,115	43.63
2007	8,241,872	47.01	108,720,904	-	108,720,904	1.75	86,252	70,416	156,668	41.91
2008	8,241,872	45.36	109,716,385	714,000	109,002,385	1.72	85,091	73,253	158,344	42.36
2009	8,241,872	44.77	107,820,024	9,052,612	98,767,412	1.72	77,011	69,222	146,233	39.12
2010	8,241,872	46.69	104,929,036	9,886,721	95,042,315	1.62	69,968	62,942	132,911	35.55
2011	8,269,898	45.90	106,175,282	14,460,785	91,714,498	1.62	67,227	67,744	134,971	35.98
2012	8,269,898	50.70	103,665,088	16,953,760	86,711,328	1.61	63,245	58,346	121,591	32.41
2013	8,269,898	46.22	102,475,307	16,455,373	86,019,934	1.42	55,484	64,158	119,642	31.89
2014	7,939,611	43.13	100,923,141	16,057,135	84,866,006	1.59	61,206	66,593	127,800	35.49
2015	7,939,611	44.62	98,622,239	15,310,124	83,312,115	1.58	59,594	56,568	116,162	32.26
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	50,516	101,164	28.09
2018	7,939,611	46.05	96,376,737	13,632,673	82,744,064	1.45	54,384	53,530	107,914	29.96
2019	7,939,611	45.19	95,023,787	8,502,919	86,520,868	1.39	54,708	54,511	109,219	30.33
2020	7,939,611	47.28	94,680,804	8,900,332	85,780,472	1.23	47,975	52,375	100,350	27.86
2021	7,939,611	47.29	91,931,300	8,548,385	83,382,916	1.19	44,932	50,391	95,324	26.47

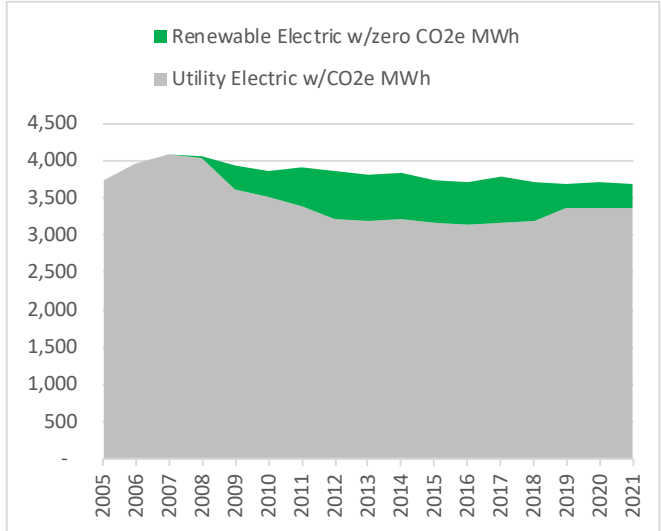
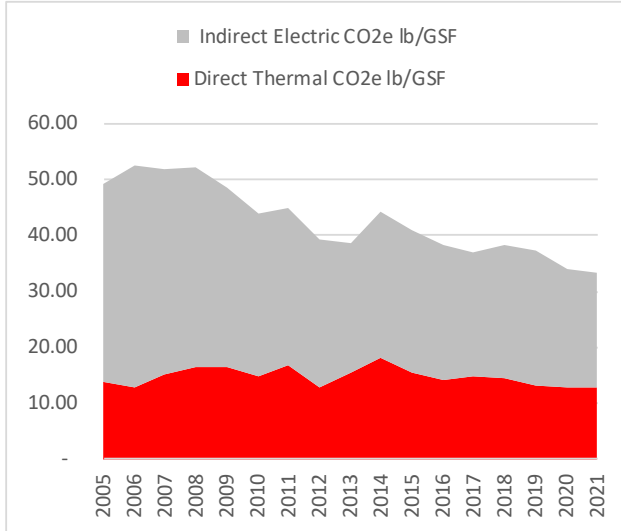
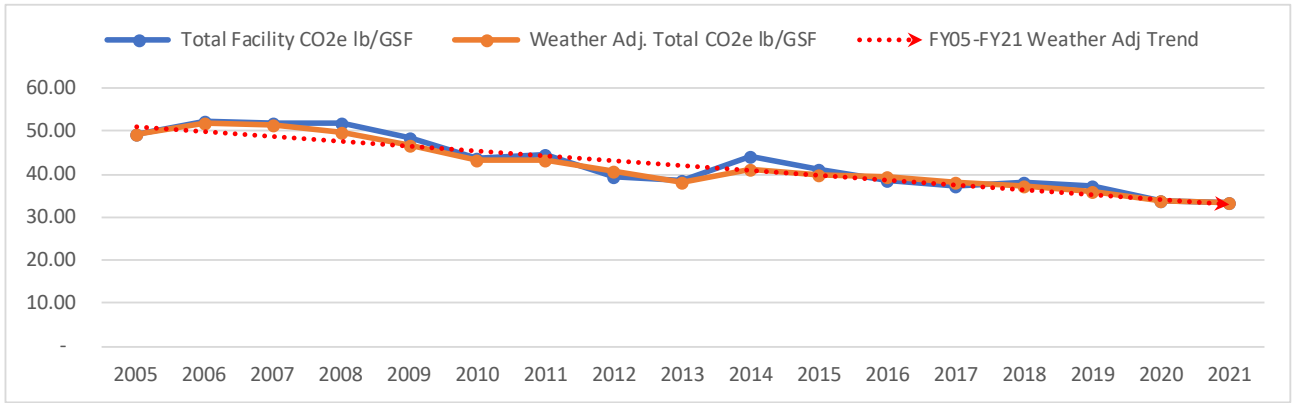
Fiscal Year	DOC Net Thermal MMBtu	DOC Plant Reports MMBtu w/Sales	DOC Coal MMBtu	DOC Alt Fuel MMBtu	DOC Gas MMBtu	DOC Oil MMBtu	DOC Plant Reports MMBtu w/Sales	DOC Boiler Fuel Based Emissions lbs	DOC Boiler Fuel Emissions lb/MMBtu	DOC Net Thermal MMBtu CO2e Metric Tons
2005	1,091,804	1,124,798	259,230	8,820	856,526	527	1,124,798	70,049	137.30	67,995
2006	1,068,849	1,104,509	254,645	18,864	830,703	312	1,104,509	68,654	137.04	66,438
2007	1,078,774	1,118,499	290,759	20,718	847,292	689	1,118,499	73,009	143.90	70,416
2008	1,105,560	1,148,954	309,548	20,502	873,570	425	1,148,954	76,128	146.08	73,253
2009	1,116,948	1,155,659	261,682	21,834	871,642	500	1,155,659	71,621	136.63	69,222
2010	1,053,672	1,091,764	184,780	15,394	890,674	917	1,091,764	65,218	131.70	62,942
2011	1,090,118	1,126,836	257,140	23,061	848,173	808	1,126,836	70,025	137.00	67,744
2012	952,186	981,428	204,267	19,961	758,045	238	981,428	60,138	135.09	58,346
2013	1,047,315	1,078,030	225,463	21,797	830,506	264	1,078,030	66,040	135.05	64,158
2014	1,113,552	1,132,416	188,478	1,694	939,838	2,565	1,132,416	67,721	131.84	66,593
2015	1,043,535	1,064,154	30,084	2,164	1,030,682	1,224	1,064,154	57,685	119.51	56,568
2016	950,393	972,857	-	-	972,225	632	972,857	51,643	117.03	50,450
2017	951,867	951,867	-	-	951,867	-	951,867	50,516	117.00	50,516
2018	1,008,654	1,008,654	-	-	1,008,654	-	1,008,654	53,530	117.00	53,530
2019	1,027,148	1,027,148	-	-	1,027,148	-	1,027,148	54,511	117.00	54,511
2020	986,903	986,903	-	-	986,903	-	986,903	52,375	117.00	52,375
2021	949,518	949,518	-	-	949,518	-	949,518	50,391	117.00	50,391



DOC-Boscobel CO2e Emissions Fiscal Year 2021 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%

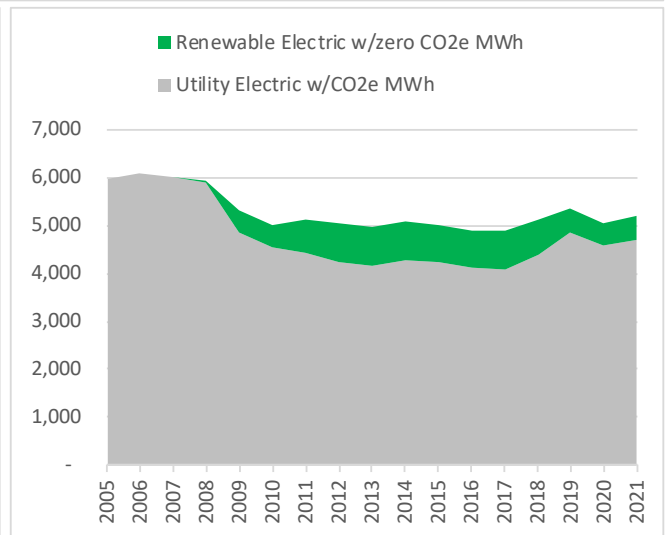
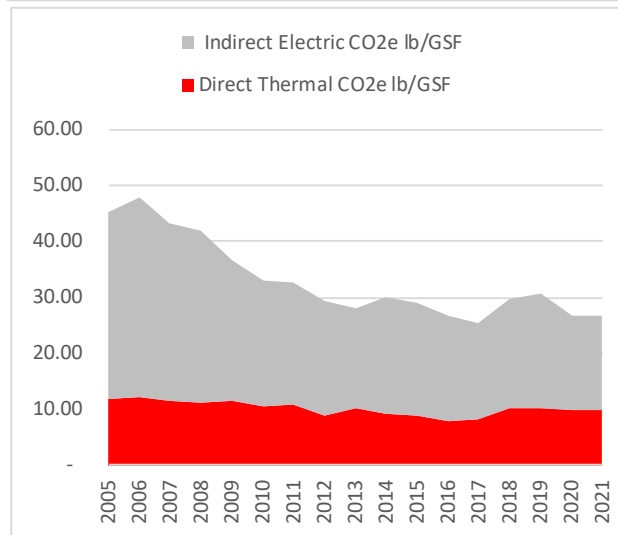
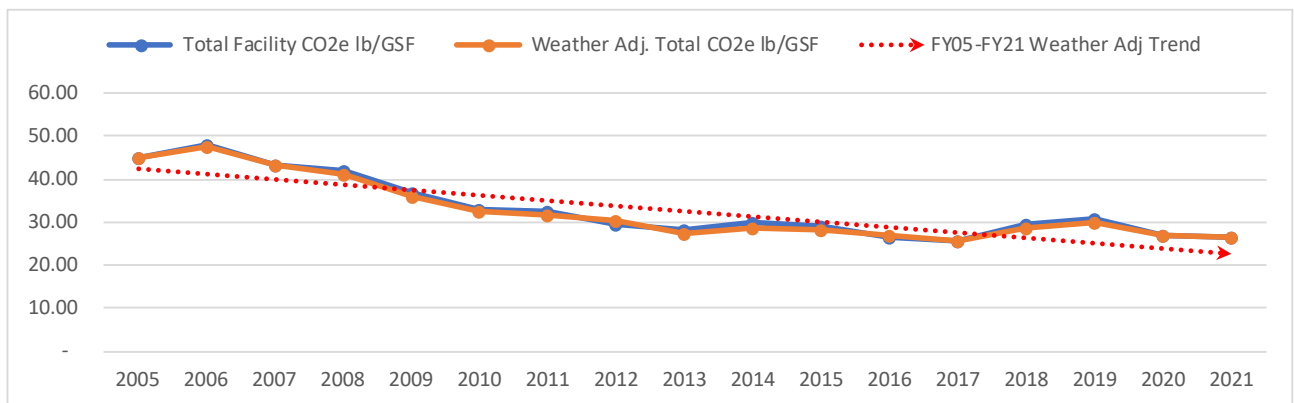
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Columbia CO2e Emissions Fiscal Year 2021 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%

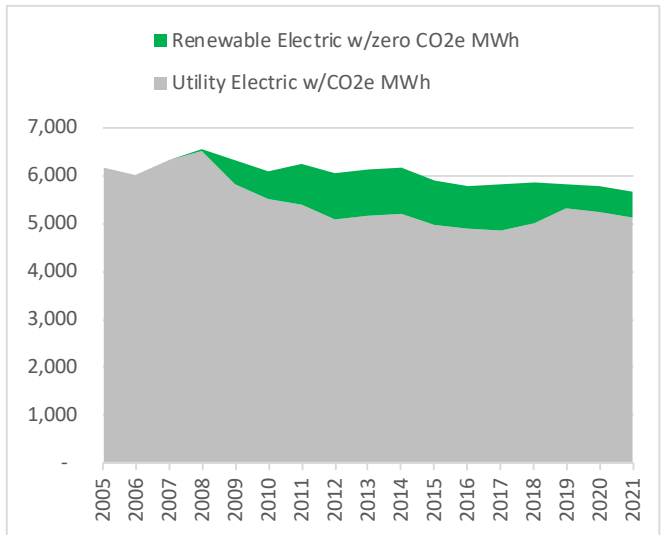
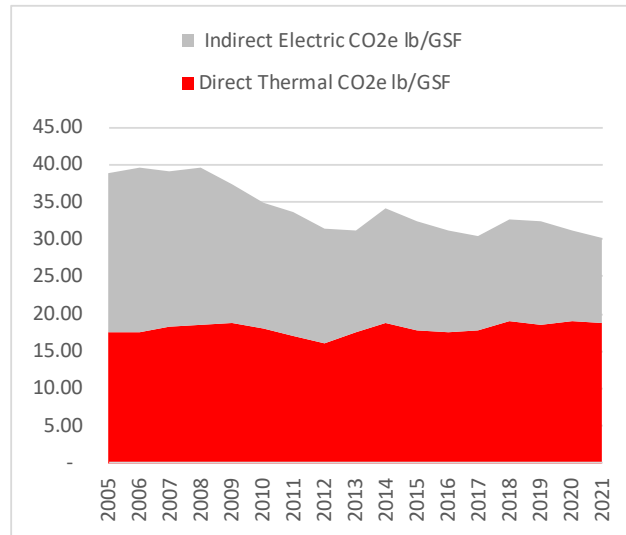
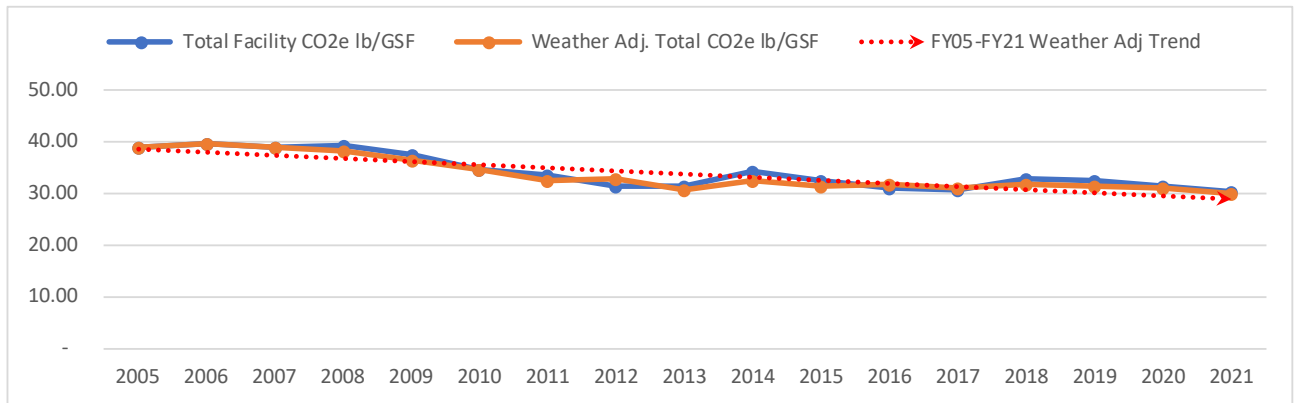
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Fox Lake CO2e Emissions Fiscal Year 2021 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%

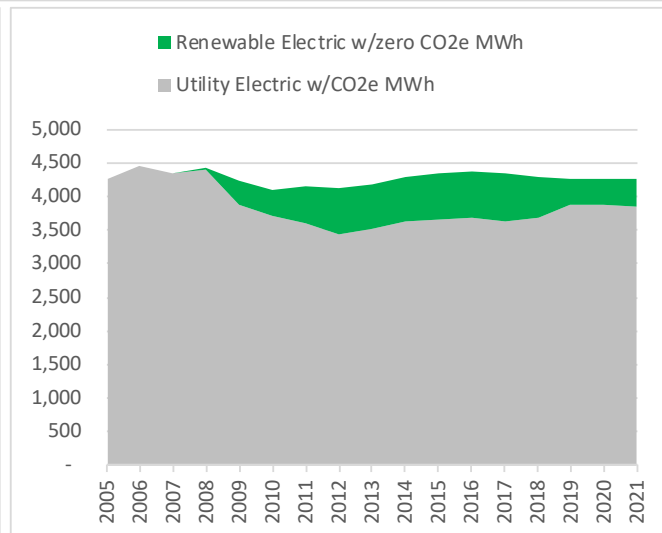
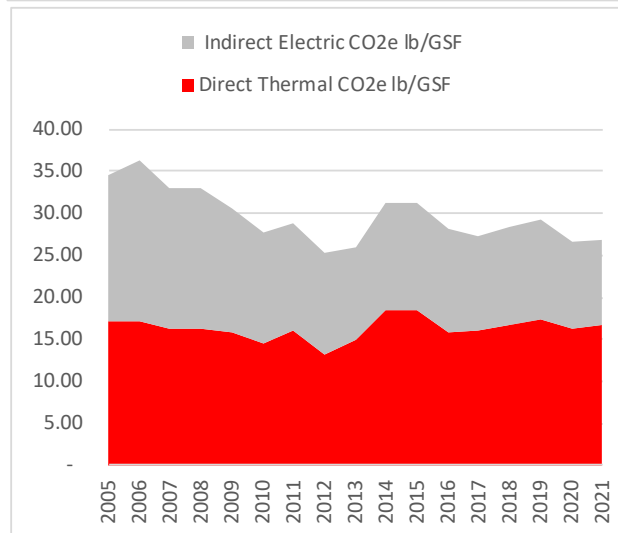
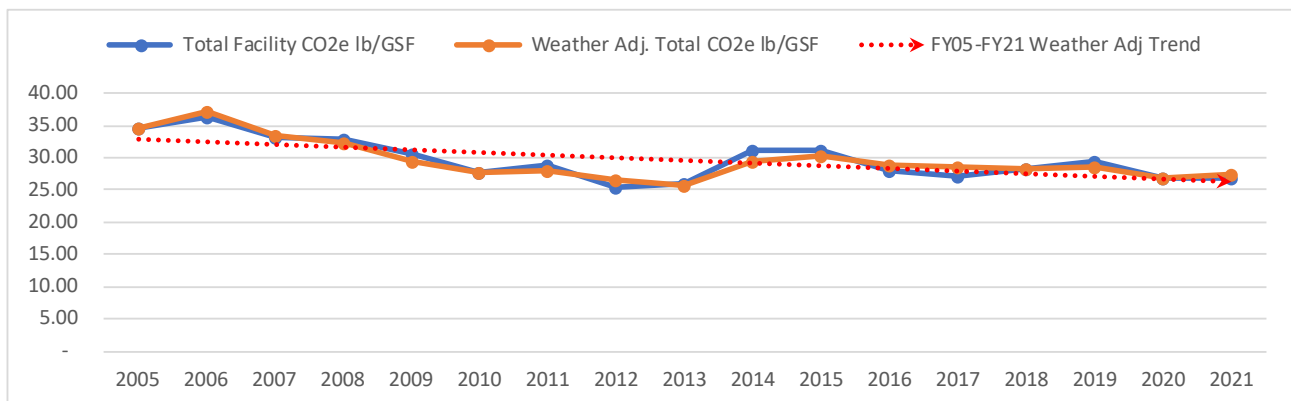
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Green Bay CO2e Emissions Fiscal Year 2021 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	27.22	-21.1%	48.65	17.38	11.15	28.54	-17.3%
2018	453,750	16.65	11.75	28.39	-17.7%	45.77	16.54	11.69	28.23	-18.2%
2019	453,750	17.36	11.92	29.29	-15.1%	44.89	16.78	11.89	28.67	-16.9%
2020	453,750	16.21	10.51	26.72	-22.6%	46.41	16.36	10.51	26.88	-22.1%
2021	453,750	16.74	10.10	26.84	-22.2%	47.28	17.31	10.06	27.37	-20.7%

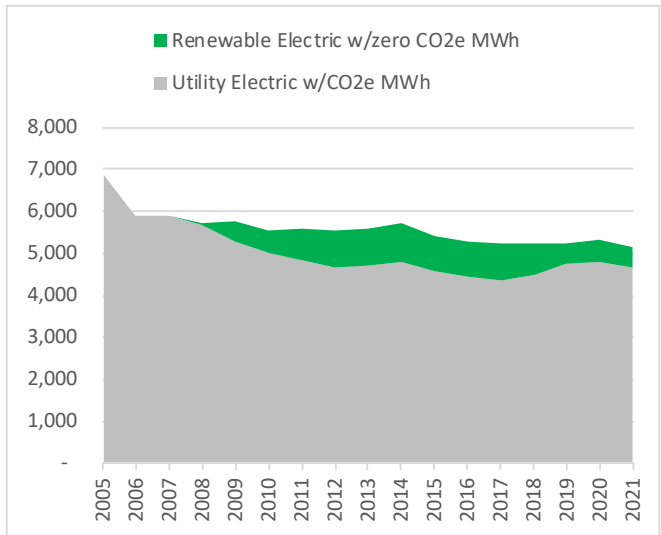
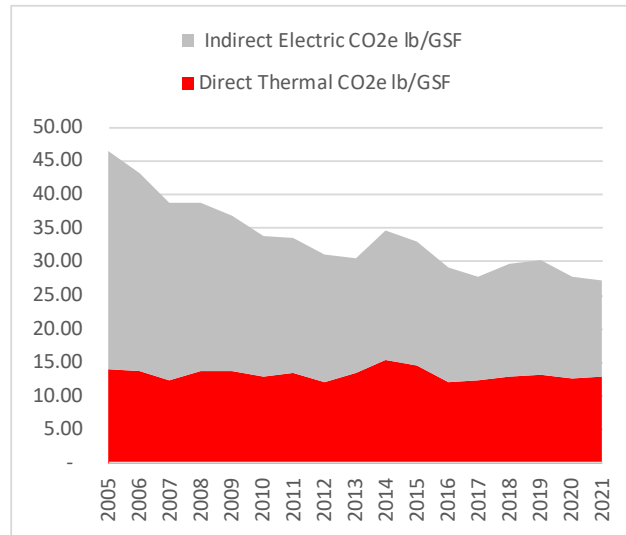
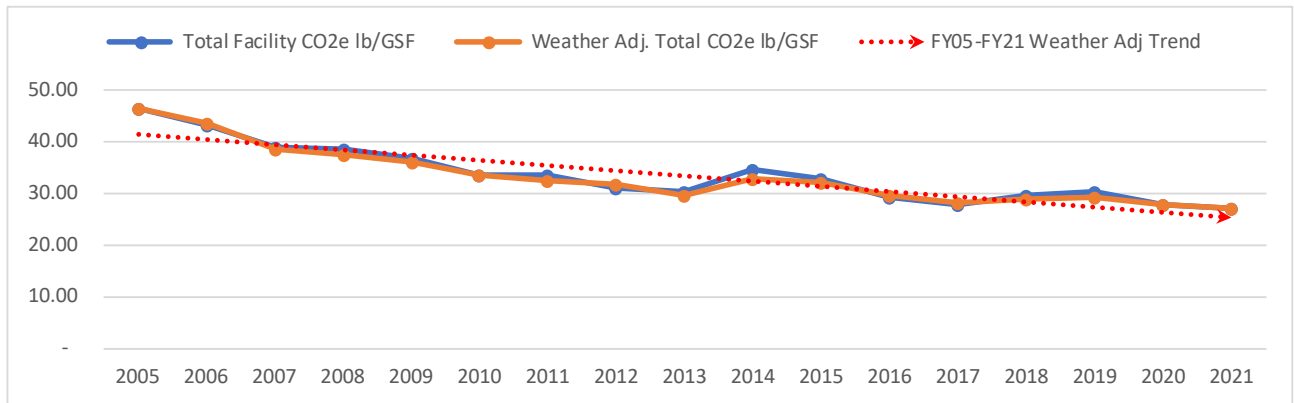
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Jackson CO2e Emissions Fiscal Year 2021 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%

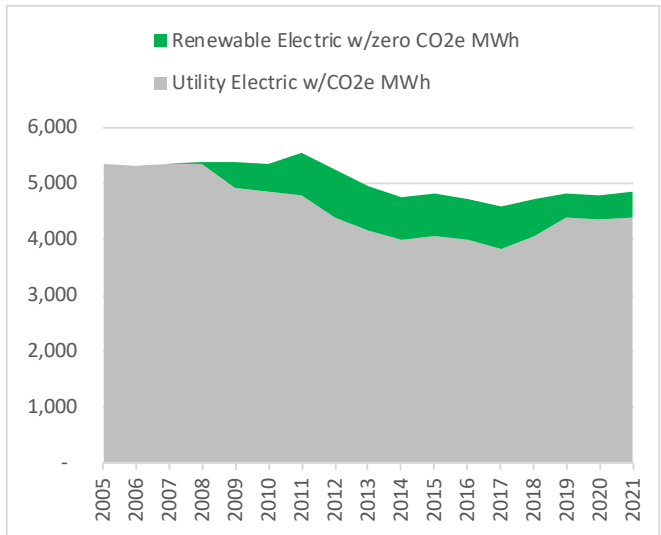
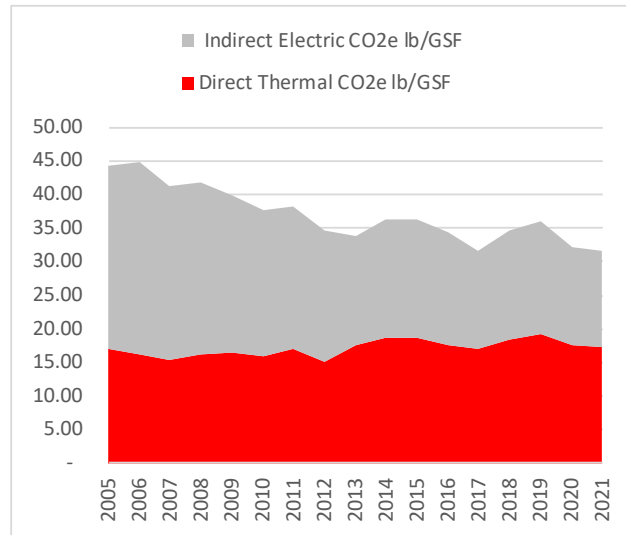
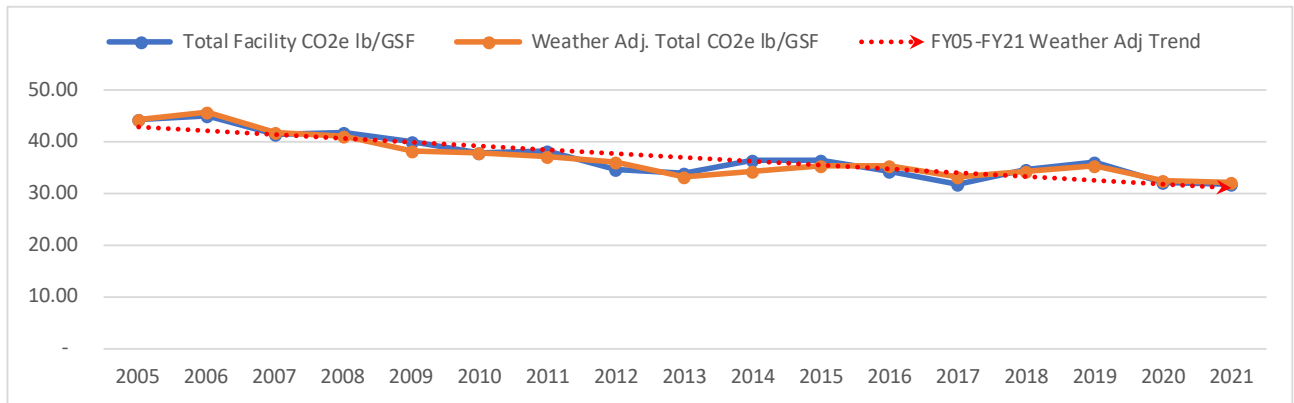
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Kettle Moraine CO2e Emissions Fiscal Year 2021 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%

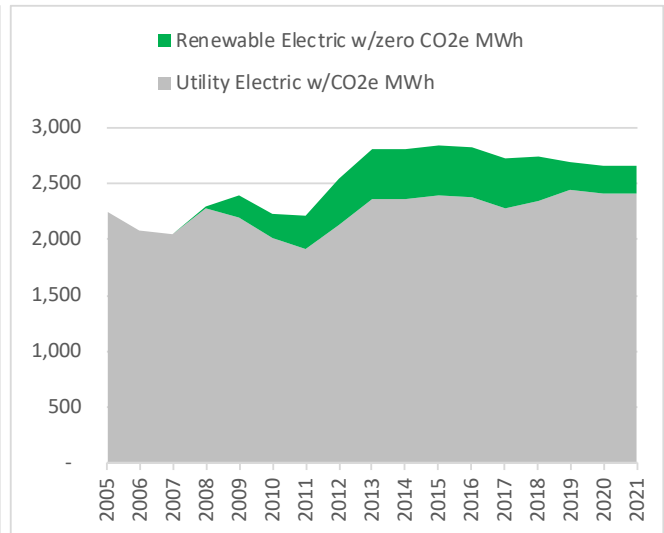
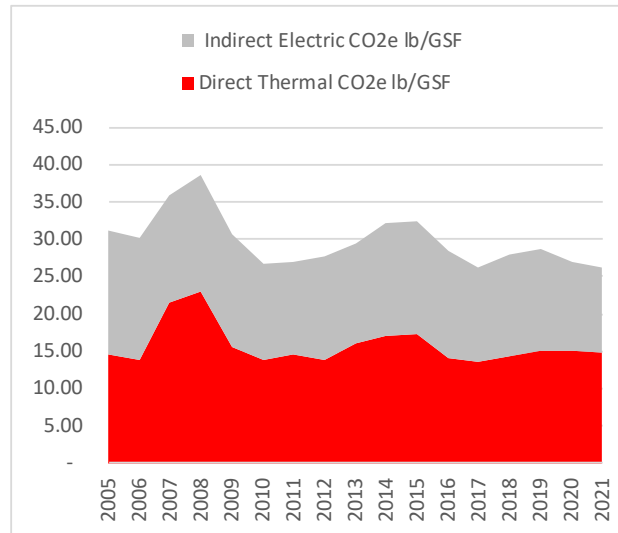
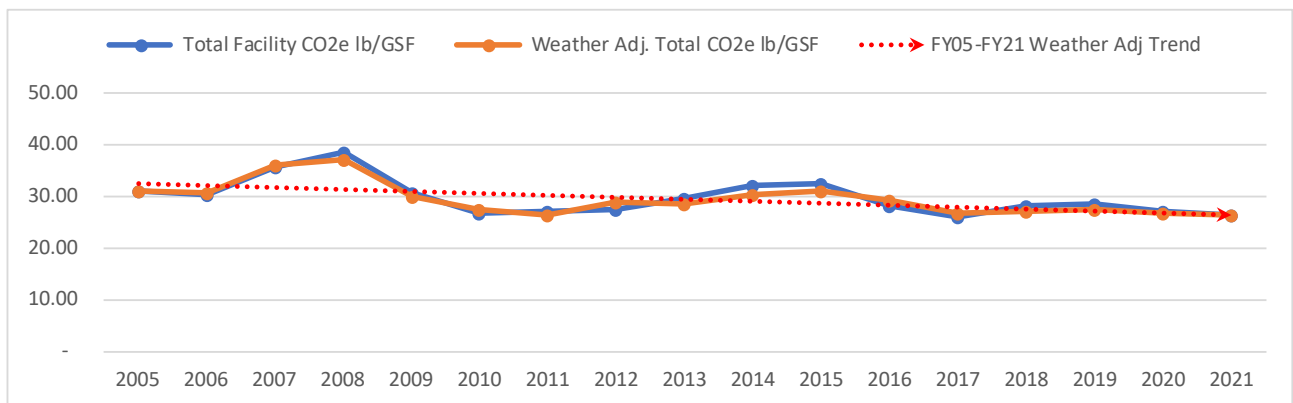
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Lincoln Hills CO2e Emissions Fiscal Year 2021 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	35.81	15.1%	44.50	21.68	14.32	36.00	15.7%
2008	249,792	22.93	15.73	38.66	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%

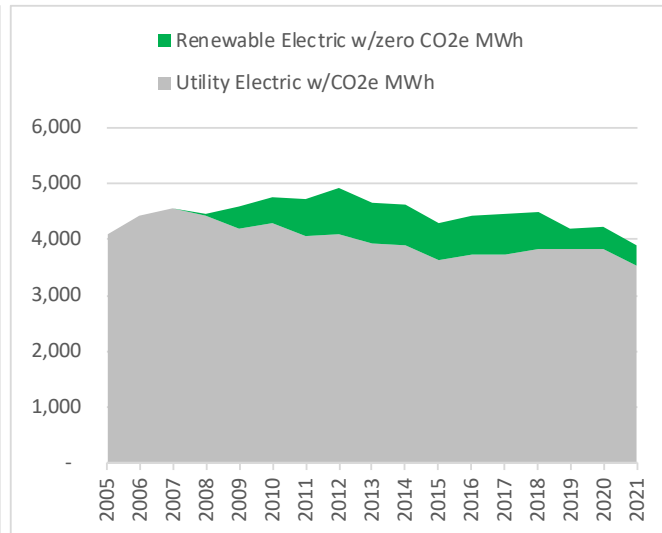
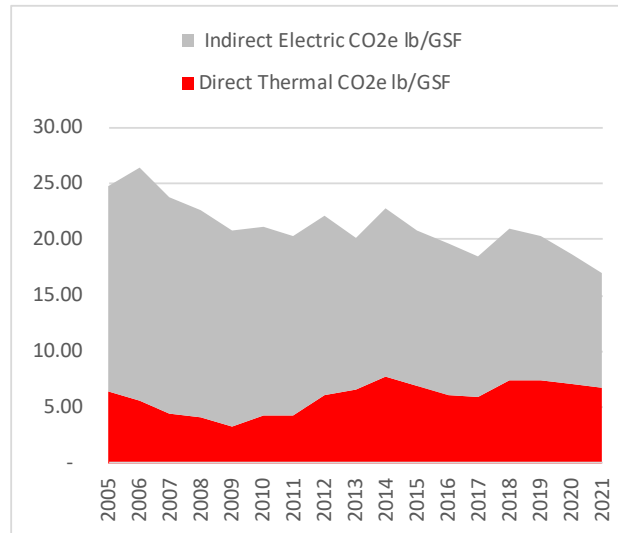
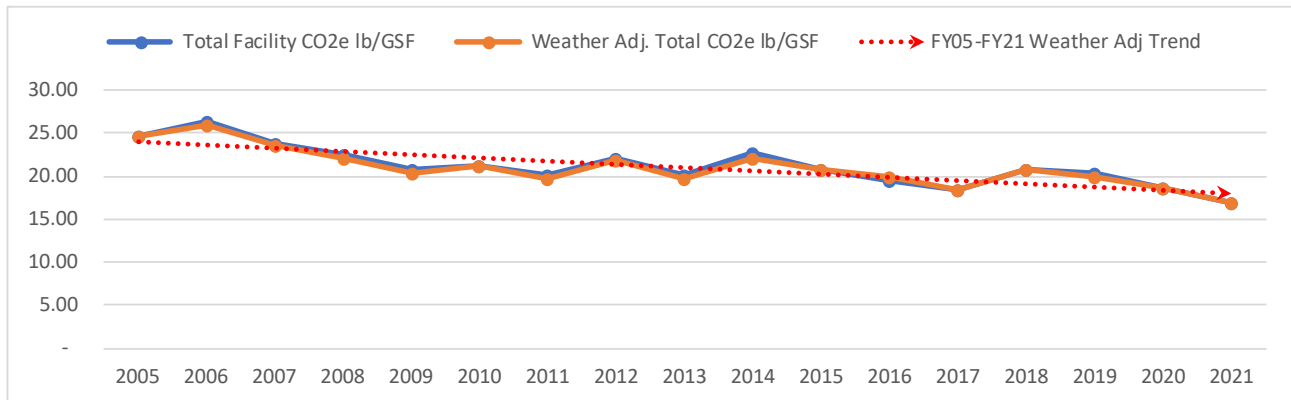
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Milwaukee Secure CO2e Emissions Fiscal Year 2021 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	4.12	15.68	19.80	-19.9%
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	10.16	16.98	-31.3%	50.84	7.20	9.64	16.84	-31.9%

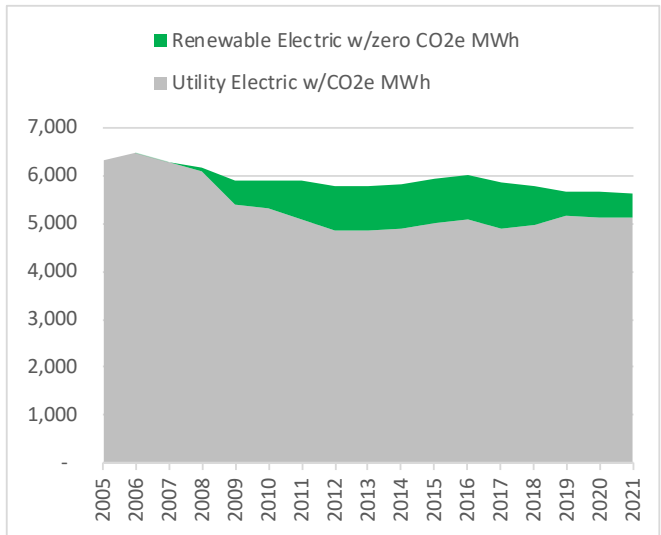
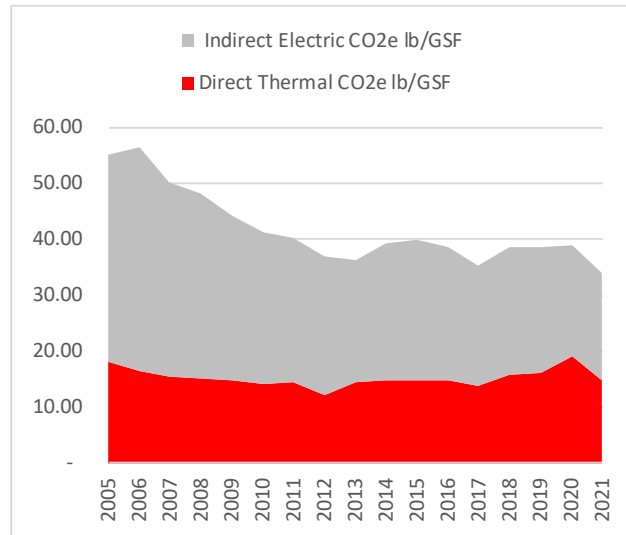
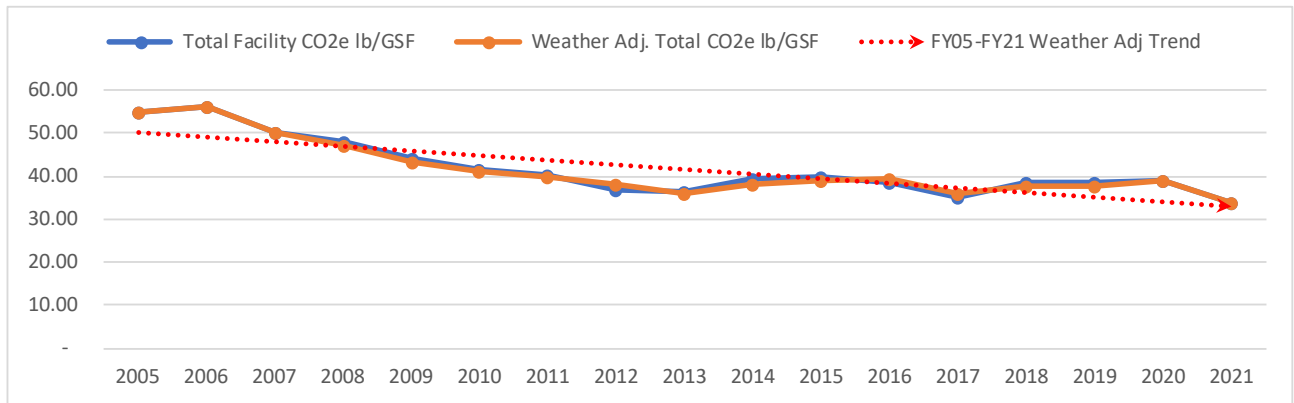
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-New Lisbon CO2e Emissions Fiscal Year 2021 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	15.99	22.68	38.67	-29.7%	44.97	15.14	22.66	37.80	-31.3%
2020	316,878	18.97	19.92	38.89	-29.3%	47.56	19.04	19.83	38.86	-29.3%
2021	316,878	14.68	19.13	33.81	-38.5%	47.24	14.81	19.04	33.85	-38.5%

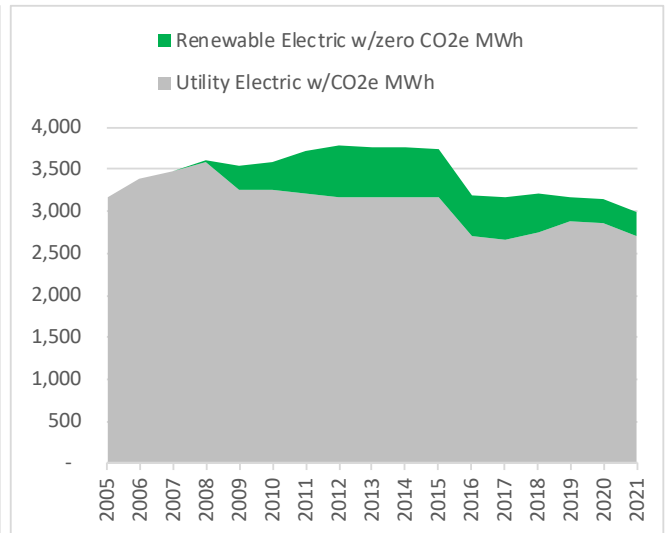
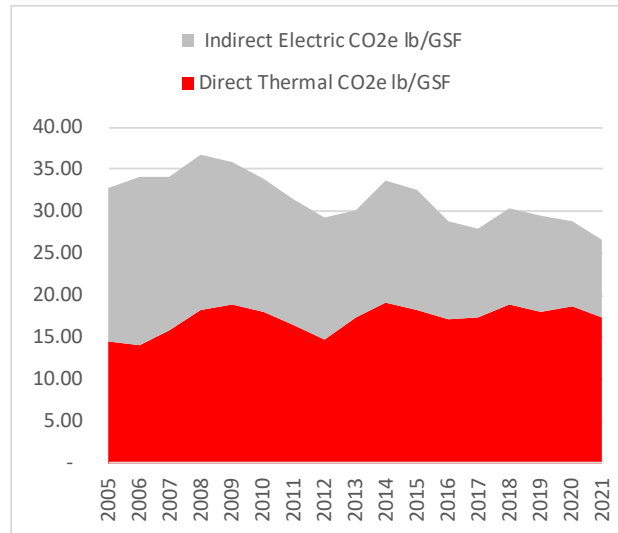
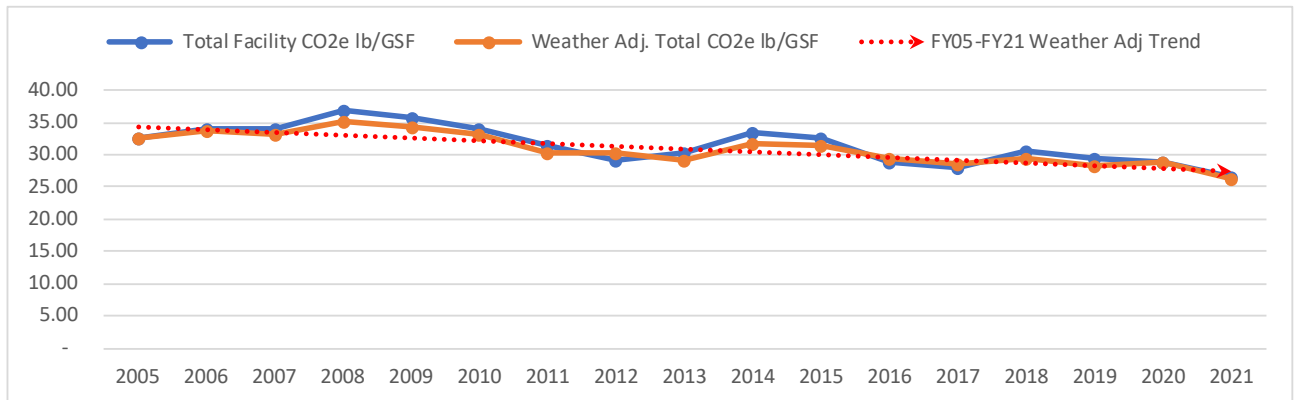
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Oakhill CO2e Emissions Fiscal Year 2021 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	13.95	19.89	33.85	3.6%
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	17.97	11.54	29.51	-9.7%	45.88	16.75	11.53	28.28	-13.5%
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	9.25	26.60	-18.6%	47.61	17.19	9.17	26.37	-19.3%

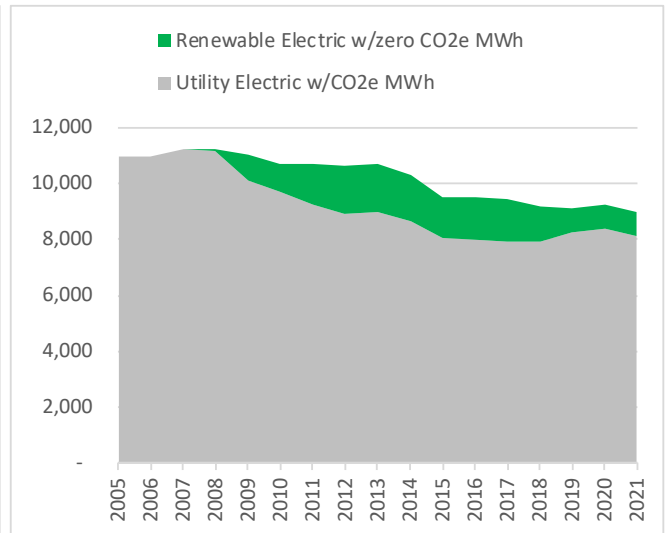
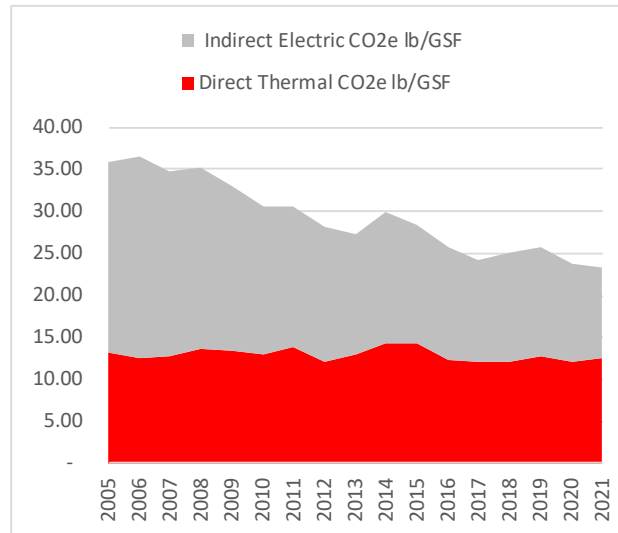
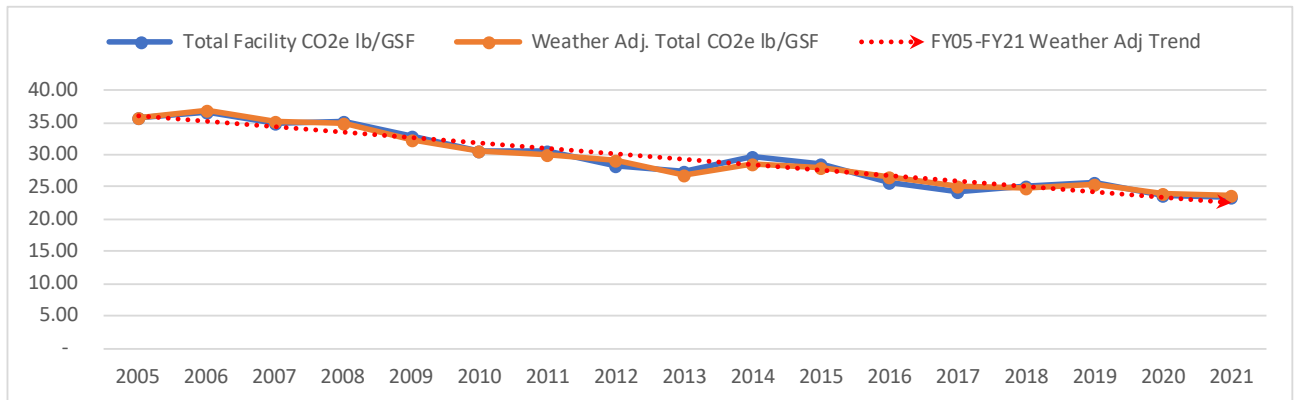
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Oshkosh CO2e Emissions Fiscal Year 2021 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	10.85	23.38	-34.8%	47.28	12.88	10.76	23.64	-34.1%

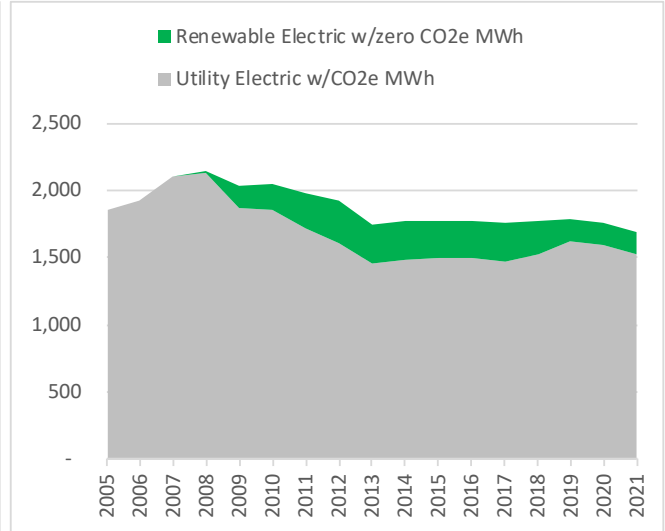
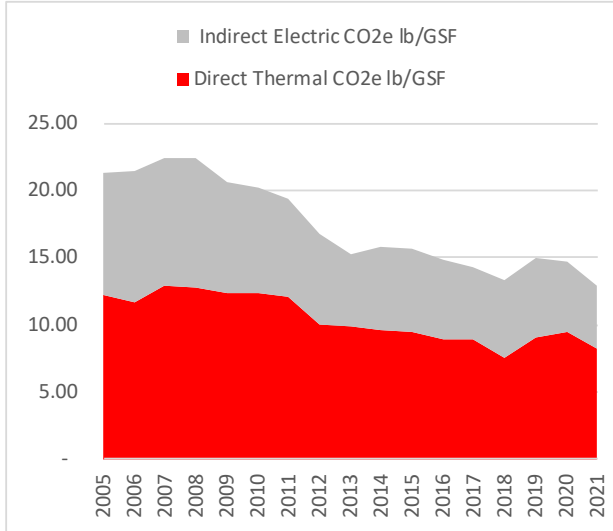
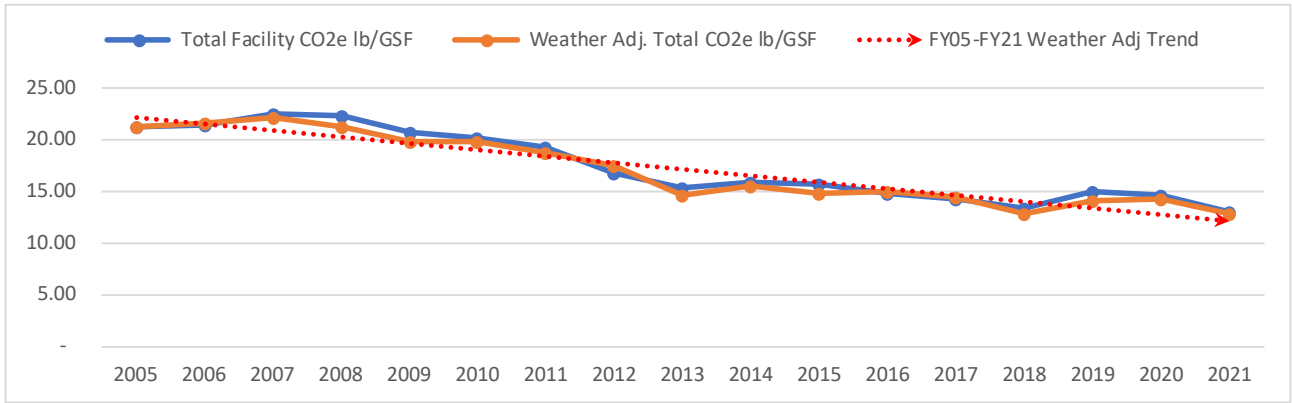
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Prairie du Chien CO2e Emissions Fiscal Year 2021 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	10.62	6.83	17.45	-17.9%
2013	383,100	9.84	5.43	15.27	-28.2%	46.61	9.26	5.35	14.61	-31.3%
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	8.57	6.18	14.75	-30.6%
2016	383,100	8.96	5.88	14.84	-30.2%	48.82	9.16	5.85	15.02	-29.3%
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	7.07	5.70	12.77	-39.9%
2019	383,100	9.10	5.90	15.00	-29.4%	44.97	8.14	5.86	14.00	-34.1%
2020	383,100	9.50	5.14	14.64	-31.1%	47.56	9.16	5.09	14.25	-32.9%
2021	383,100	8.20	4.75	12.95	-39.1%	47.24	8.16	4.68	12.84	-39.6%

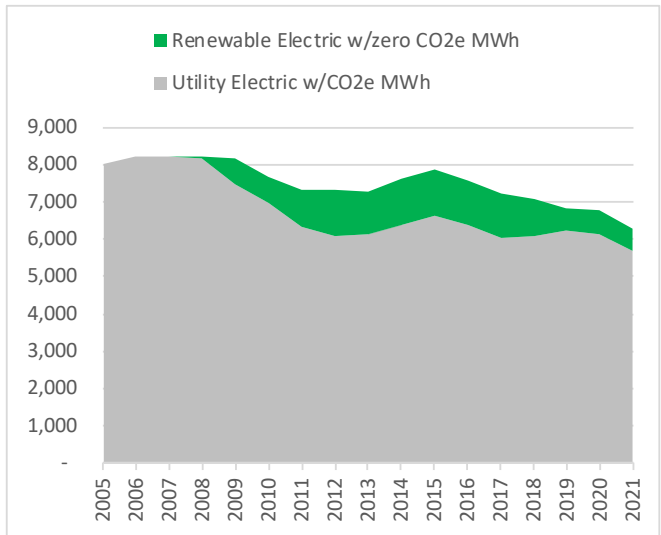
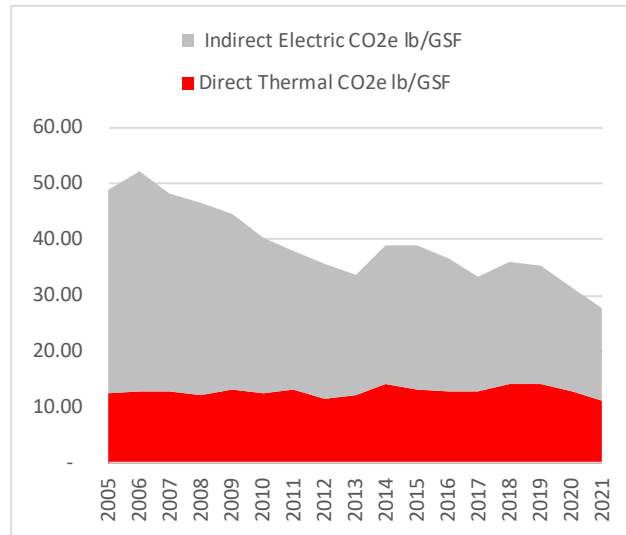
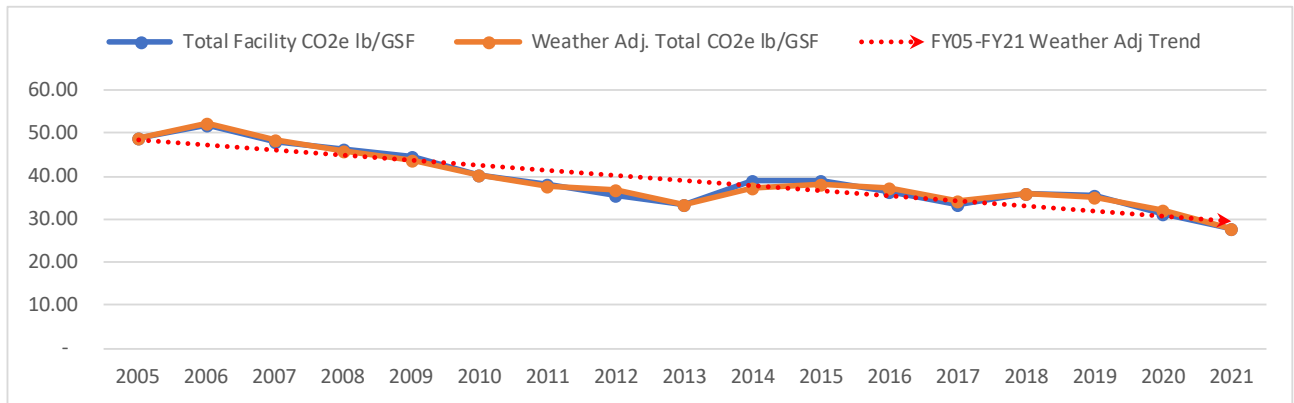
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Racine CO₂e Emissions Fiscal Year 2021 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO ₂ e lb/GSF	Indirect Electric CO ₂ e lb/GSF	Total Facility CO ₂ e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO ₂ e lb/GSF	Weather Adj. Electric CO ₂ e lb/GSF	Weather Adj. Total CO ₂ e 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	16.56	27.71	-43.2%	47.24	11.29	16.37	27.66	-43.3%

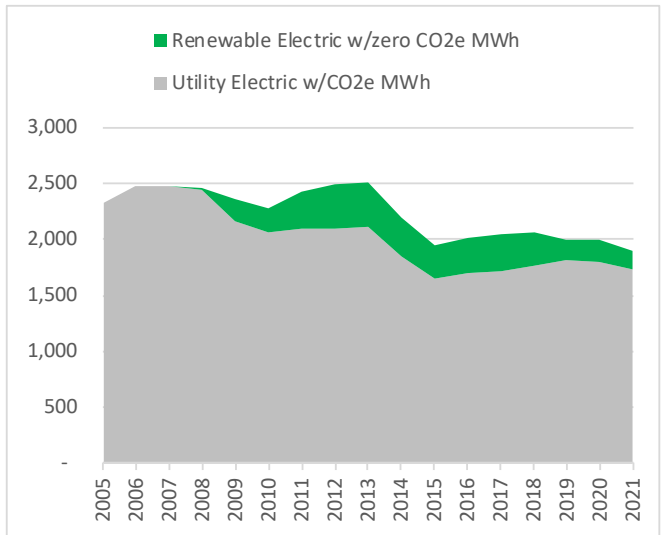
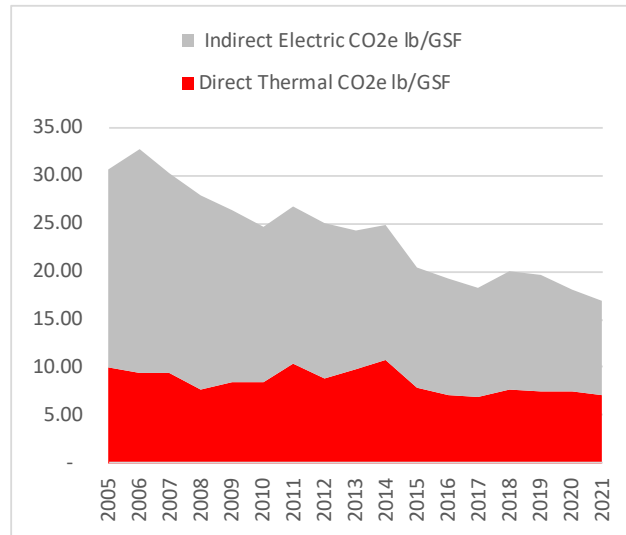
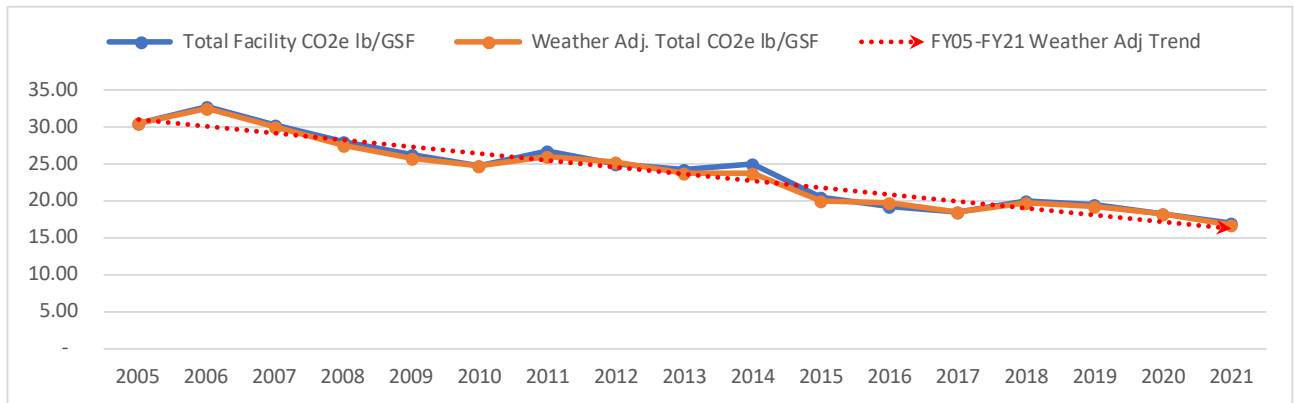
CO₂e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Racine Youth CO2e Emissions Fiscal Year 2021 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	6.92	11.44	18.37	-39.9%	51.99	7.58	10.86	18.44	-39.7%
2018	207,697	7.59	12.37	19.96	-34.7%	48.73	7.59	12.12	19.71	-35.5%
2019	207,697	7.44	12.15	19.58	-35.9%	47.88	7.19	11.95	19.14	-37.4%
2020	207,697	7.44	10.72	18.16	-40.6%	49.85	7.72	10.60	18.32	-40.1%
2021	207,697	7.10	9.87	16.97	-44.5%	47.24	7.15	9.65	16.80	-45.1%

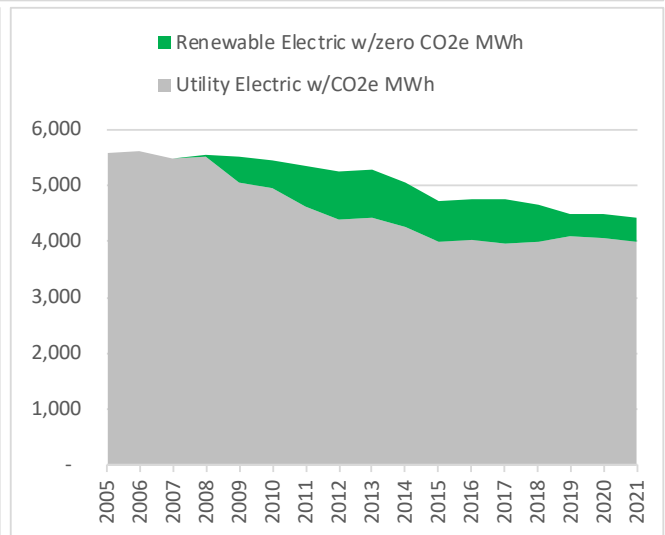
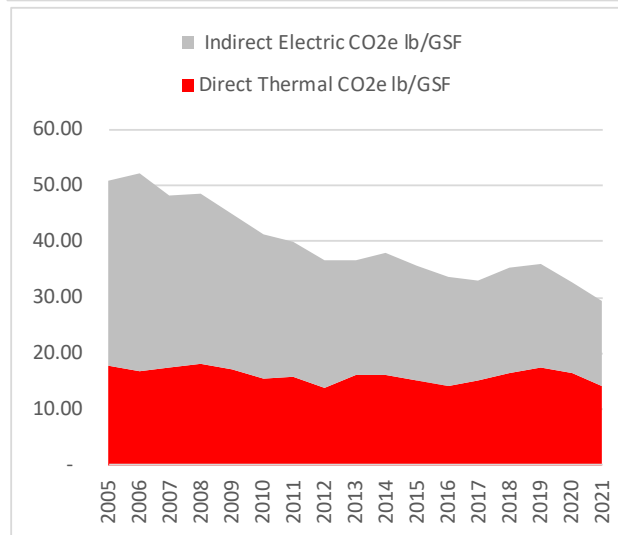
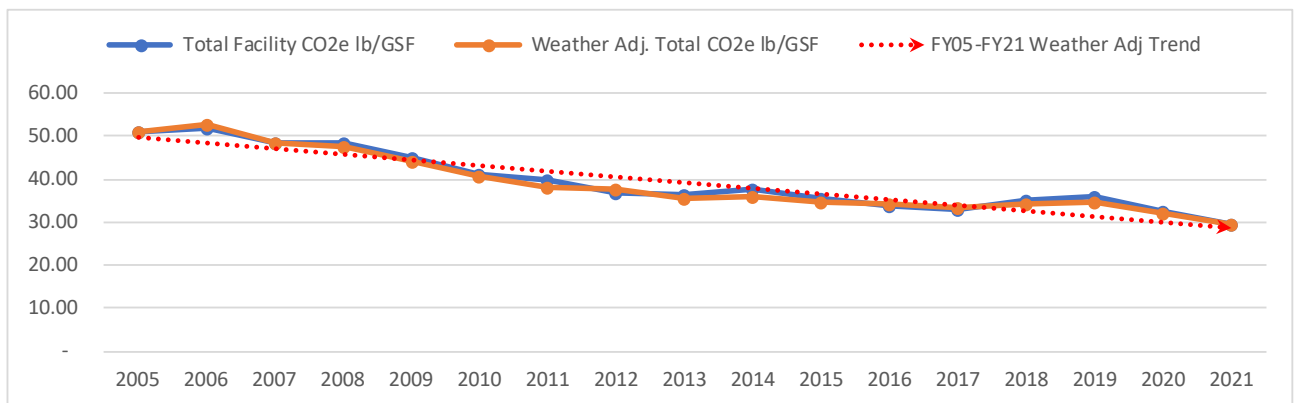
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Redgranite CO2e Emissions Fiscal Year 2021 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	17.45	18.41	35.87	-29.6%	43.35	16.14	18.38	34.52	-32.2%
2020	310,135	16.38	16.19	32.57	-36.0%	45.35	15.96	16.20	32.16	-36.8%
2021	310,135	14.00	15.32	29.32	-42.4%	47.24	14.09	15.22	29.31	-42.4%

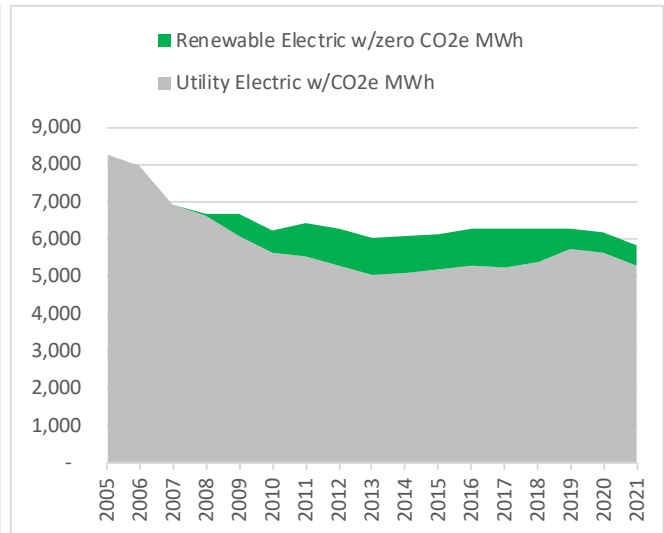
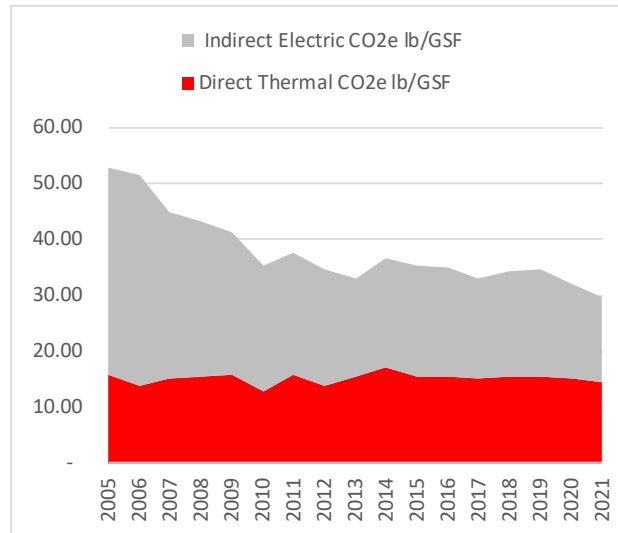
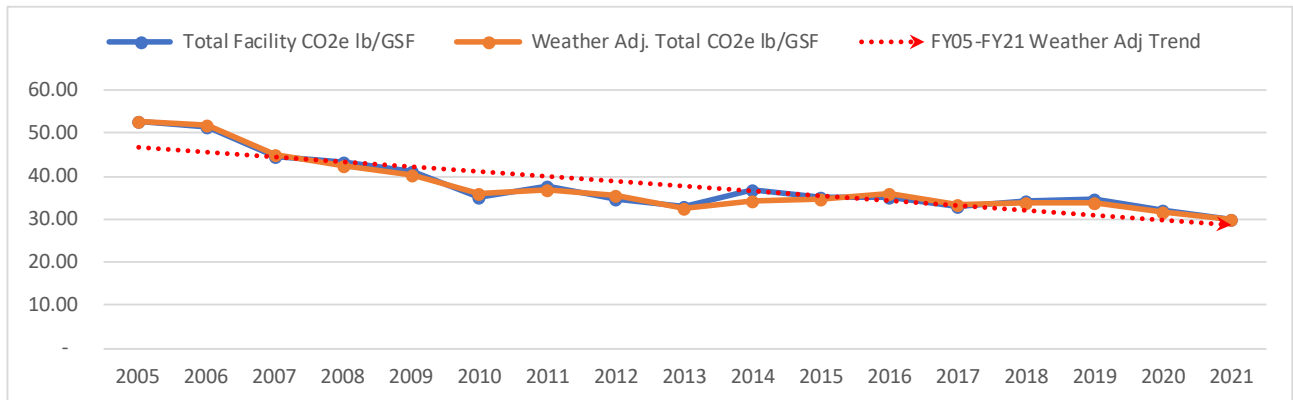
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Stanley CO2e Emissions Fiscal Year 2021 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%

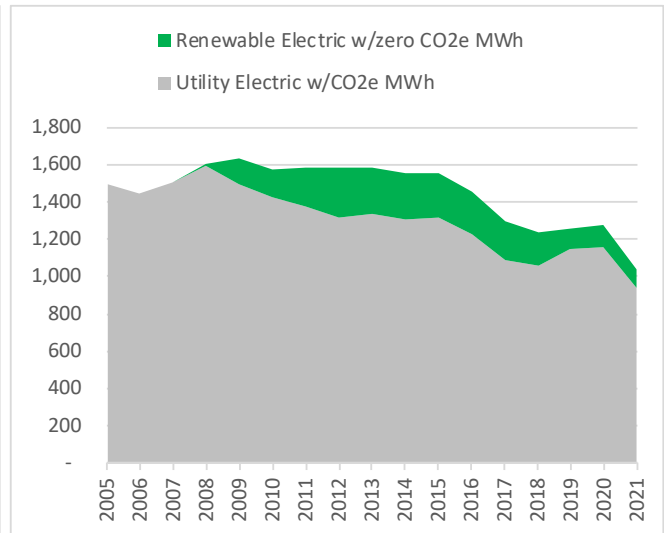
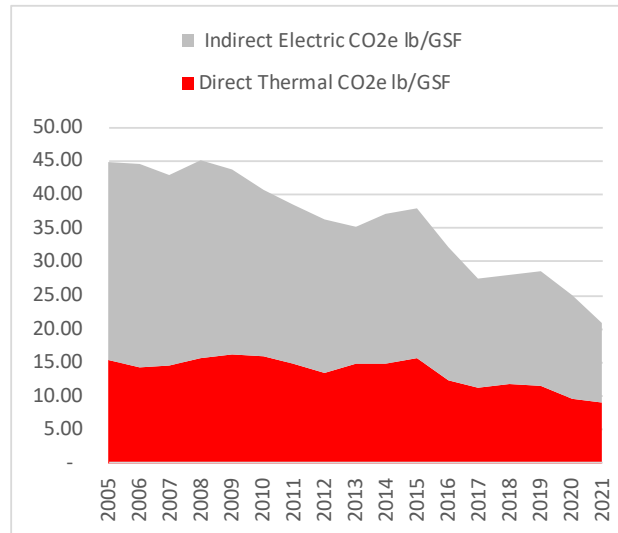
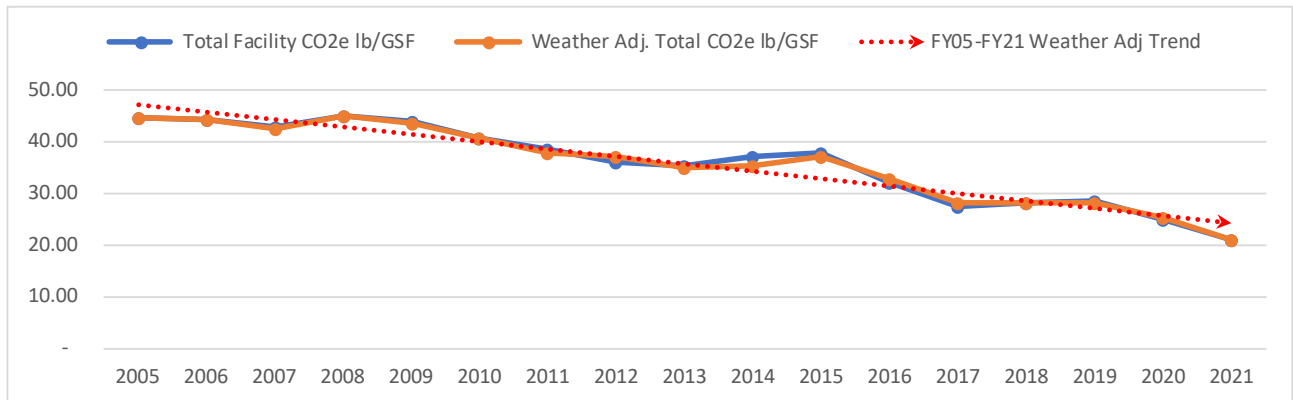
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Sturtevant CO2e Emissions Fiscal Year 2021 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%

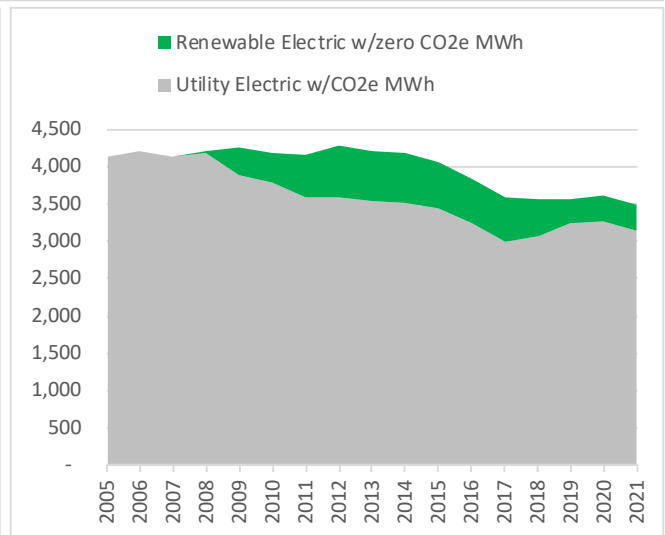
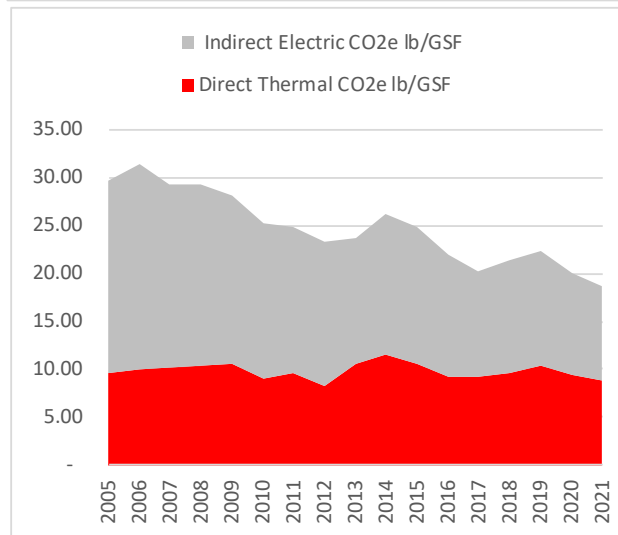
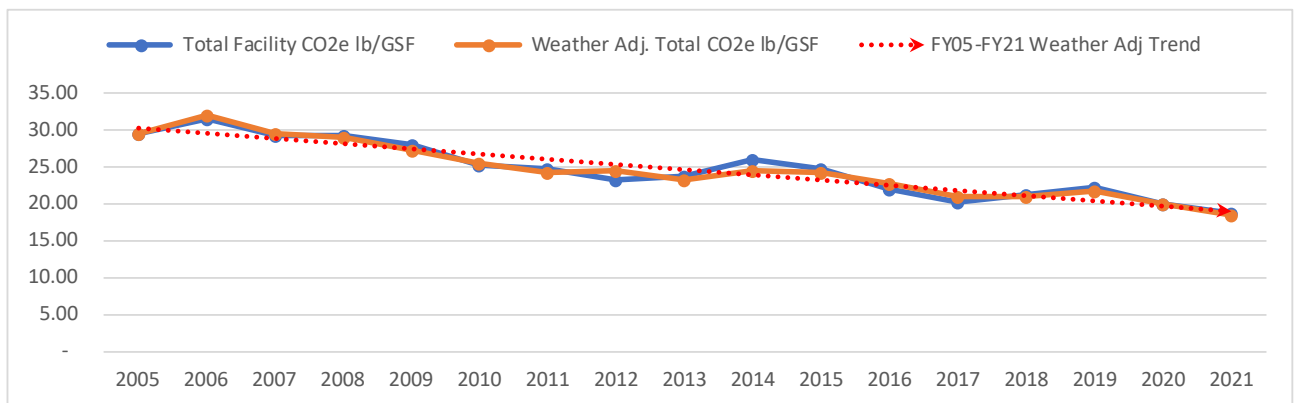
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Taycheedah CO2e Emissions Fiscal Year 2021 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%

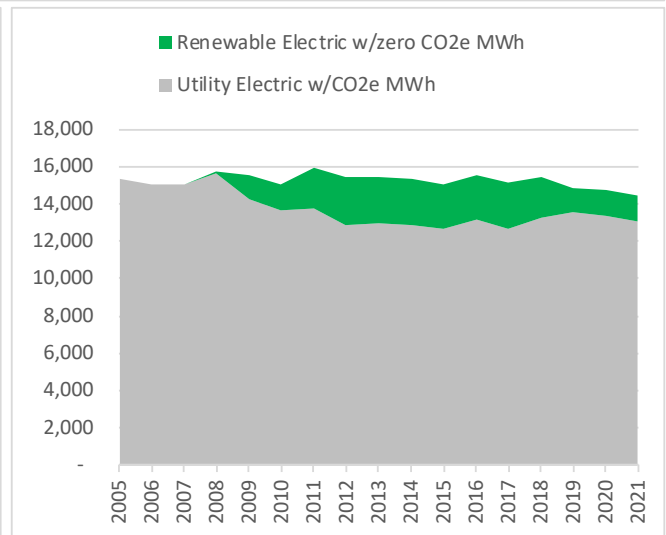
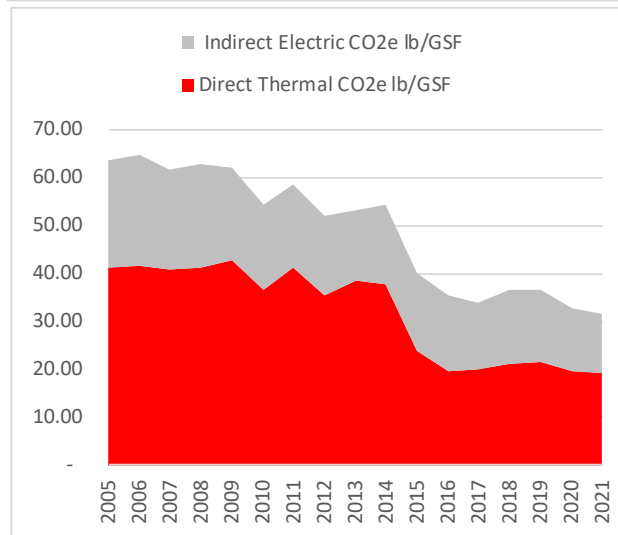
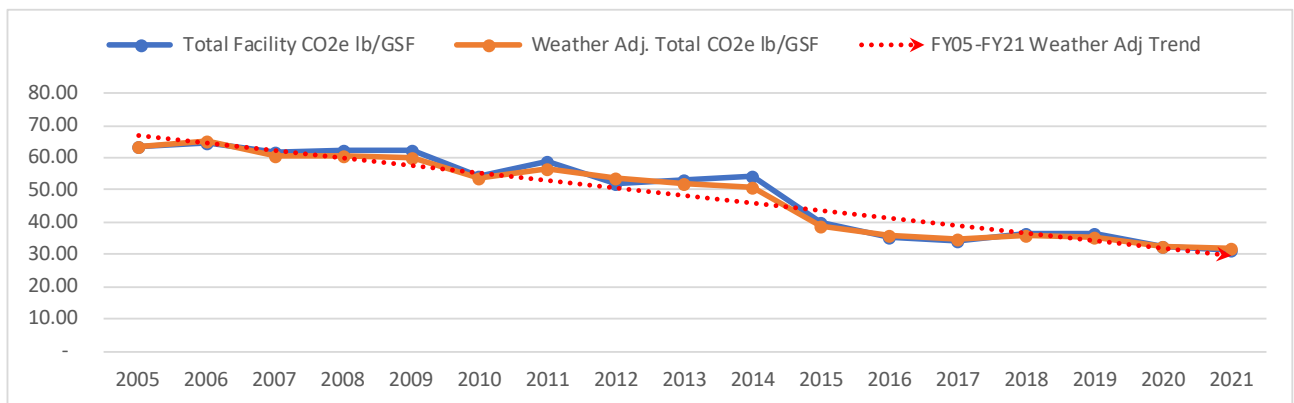
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOC-Waupun CO2e Emissions Fiscal Year 2021 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	41.11	22.48	63.59	0.0%	48.12	41.11	22.48	63.59	0.0%
2006	1,260,274	41.43	23.27	64.70	1.7%	48.65	41.80	23.16	64.97	2.2%
2007	1,260,274	40.68	20.83	61.51	-3.3%	47.46	40.07	20.77	60.83	-4.3%
2008	1,260,274	41.28	21.30	62.58	-1.6%	46.19	39.20	21.16	60.36	-5.1%
2009	1,260,274	42.69	19.40	62.10	-2.3%	45.66	40.52	19.32	59.83	-5.9%
2010	1,260,274	36.53	17.58	54.11	-14.9%	47.10	35.91	17.59	53.50	-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	37.31	16.40	53.71	-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	54.14	-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	20.01	13.95	33.96	-46.6%	49.72	20.71	13.83	34.54	-45.7%
2018	1,260,274	21.15	15.21	36.36	-42.8%	46.66	20.51	15.12	35.63	-44.0%
2019	1,260,274	21.60	14.97	36.57	-42.5%	45.88	20.63	14.84	35.46	-44.2%
2020	1,260,274	19.51	13.04	32.55	-48.8%	48.07	19.53	13.01	32.53	-48.8%
2021	1,260,274	19.28	12.32	31.60	-50.3%	47.24	19.47	12.17	31.63	-50.3%

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



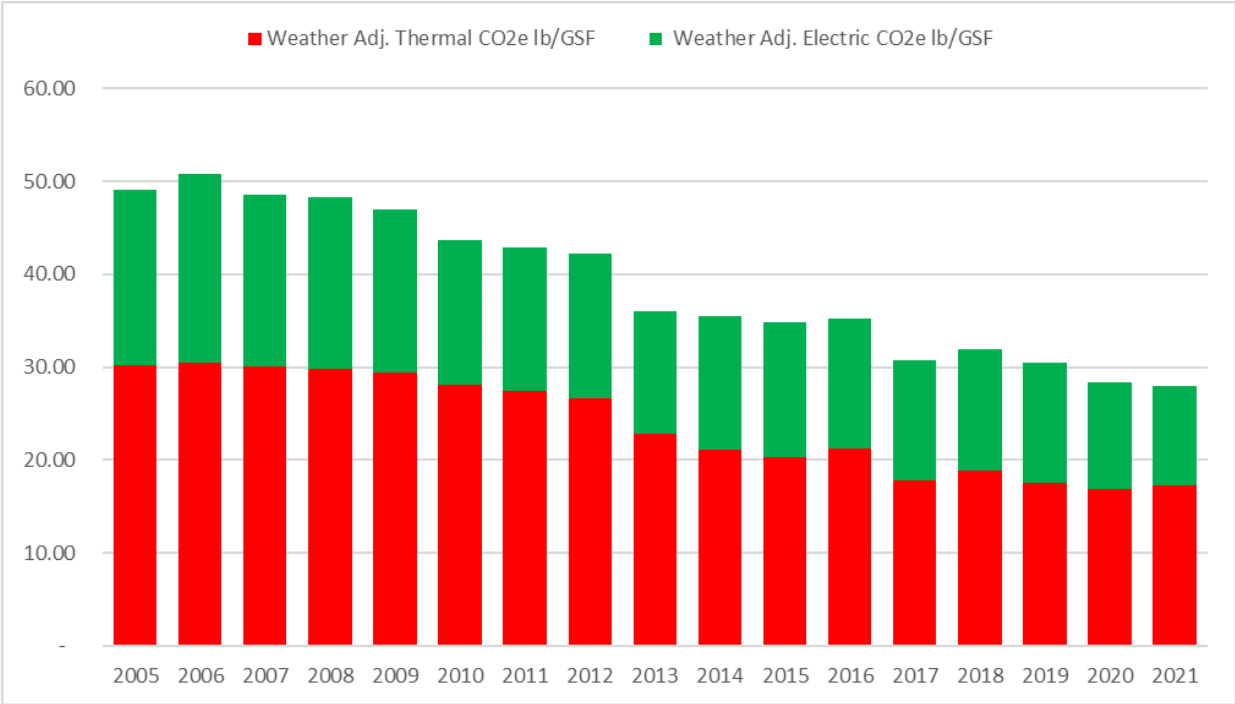
WISCONSIN DEPARTMENT
of HEALTH SERVICES

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.

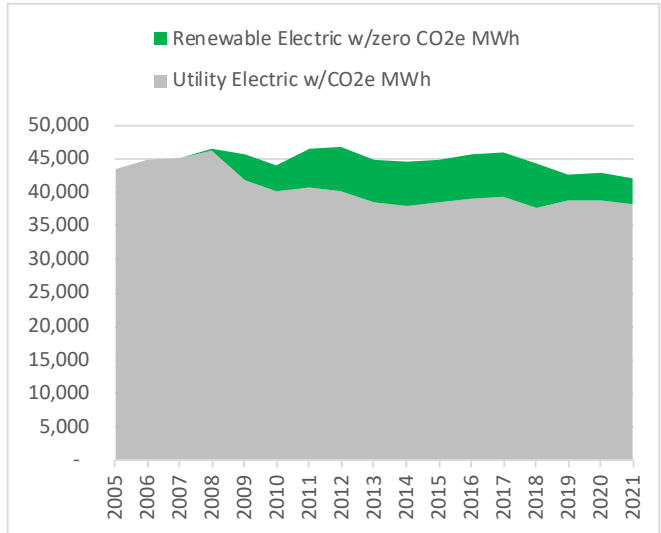
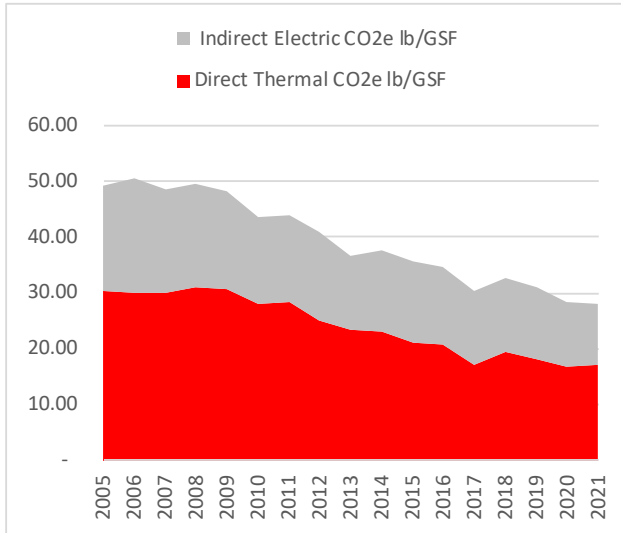
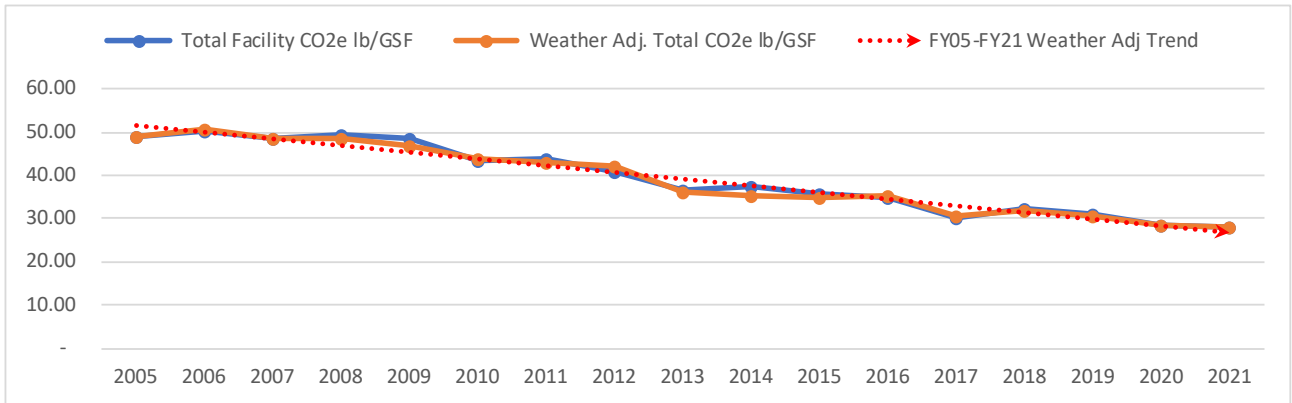
Wisconsin Department of Health Services GHG CO2e lbs/GSF:



Department of Health Services CO2e Emissions Fiscal Year 2021 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	30.23	18.88	49.11	0.0%	46.88	30.23	18.88	49.11	0.0%
2006	4,247,798	29.85	20.58	50.42	2.7%	48.27	30.46	20.36	50.82	3.5%
2007	4,247,798	29.97	18.52	48.49	-1.3%	47.22	30.13	18.43	48.57	-1.1%
2008	4,247,798	30.86	18.69	49.56	0.9%	45.37	29.80	18.53	48.32	-1.6%
2009	4,099,238	30.77	17.55	48.32	-1.6%	44.57	29.43	17.53	46.96	-4.4%
2010	4,198,234	28.10	15.50	43.60	-11.2%	46.59	28.12	15.57	43.68	-11.1%
2011	4,198,234	28.39	15.65	44.03	-10.3%	45.37	27.39	15.48	42.87	-12.7%
2012	4,088,791	25.21	15.76	40.96	-16.6%	50.43	26.62	15.55	42.17	-14.1%
2013	4,145,773	23.54	13.17	36.70	-25.3%	45.81	22.88	13.13	36.01	-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	-29.0%
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	17.27	13.07	30.34	-38.2%	48.91	17.83	12.87	30.70	-37.5%
2018	4,159,400	19.35	13.15	32.50	-33.8%	45.68	18.90	13.06	31.96	-34.9%
2019	4,159,400	18.16	13.00	31.16	-36.5%	44.85	17.51	13.00	30.51	-37.9%
2020	4,159,400	16.79	11.52	28.31	-42.4%	47.02	16.91	11.47	28.38	-42.2%
2021	4,159,400	17.17	10.89	28.07	-42.9%	47.53	17.31	10.72	28.03	-42.9%

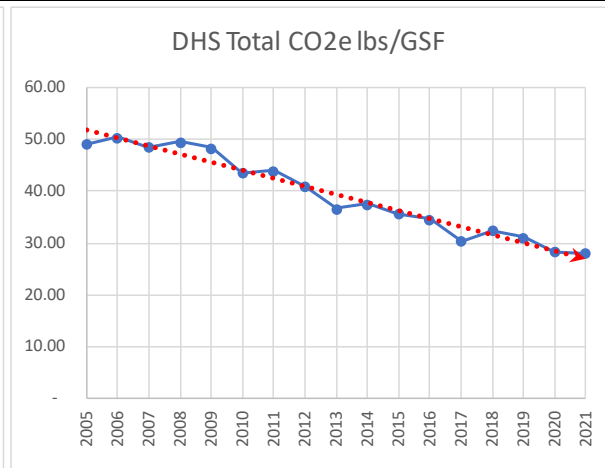
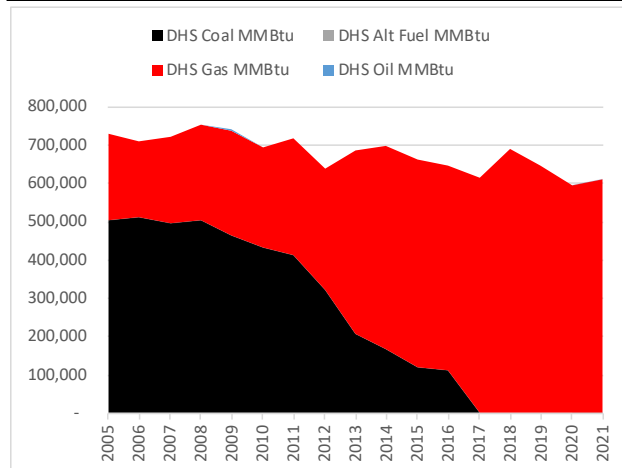
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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	58,244	94,628	49.11
2006	4,247,798	48.27	44,822,033	-	44,822,033	1.95	39,645	57,509	97,154	50.42
2007	4,247,798	47.22	44,981,559	-	44,981,559	1.75	35,685	57,748	93,433	48.49
2008	4,247,798	45.37	46,425,119	288,666	46,136,453	1.72	36,016	59,466	95,481	49.56
2009	4,099,238	44.57	45,509,209	3,659,923	41,849,286	1.72	32,631	57,216	89,847	48.32
2010	4,198,234	46.59	44,092,319	3,997,153	40,095,167	1.62	29,517	53,506	83,024	43.60
2011	4,198,234	45.37	46,500,802	5,846,424	40,654,378	1.62	29,800	54,053	83,853	44.03
2012	4,088,791	50.43	46,836,797	6,772,120	40,064,677	1.61	29,222	46,750	75,972	40.96
2013	4,145,773	45.81	44,955,338	6,573,041	38,382,297	1.42	24,757	44,260	69,017	36.70
2014	4,145,773	42.94	44,672,991	6,703,025	37,969,965	1.59	27,384	43,240	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	32,575	57,238	30.34
2018	4,159,400	45.68	44,162,598	6,424,782	37,737,816	1.45	24,803	36,511	61,315	32.50
2019	4,159,400	44.85	42,742,545	3,947,718	38,794,827	1.39	24,530	34,264	58,794	31.16
2020	4,159,400	47.02	42,838,997	3,971,967	38,867,030	1.23	21,738	31,673	53,411	28.31
2021	4,159,400	47.53	42,100,848	3,962,442	38,138,406	1.19	20,552	32,401	52,953	28.07

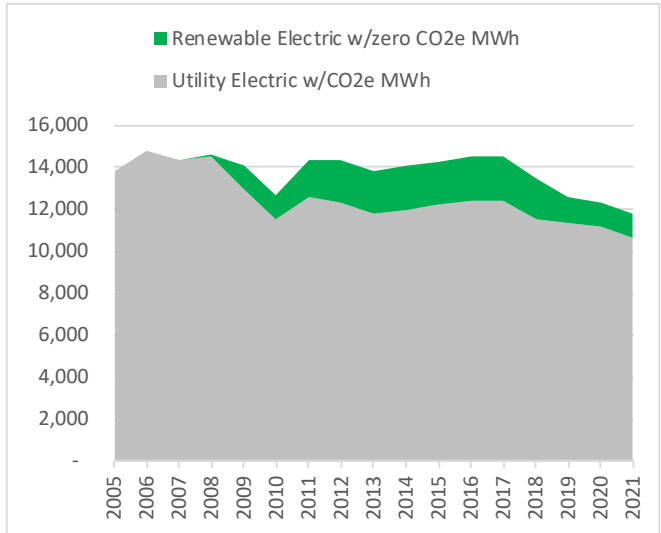
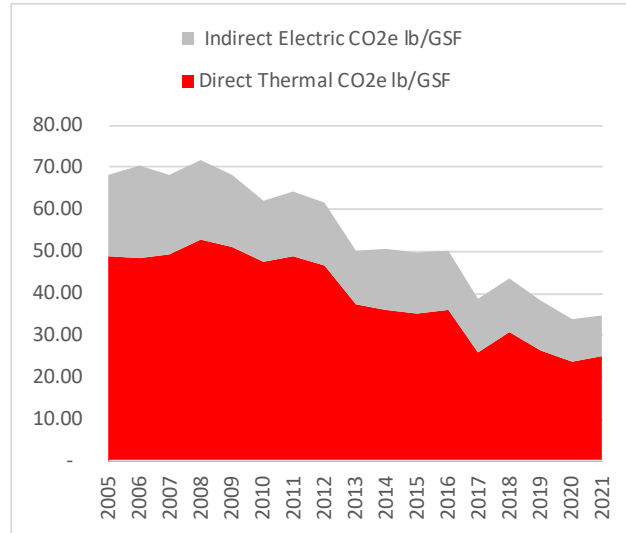
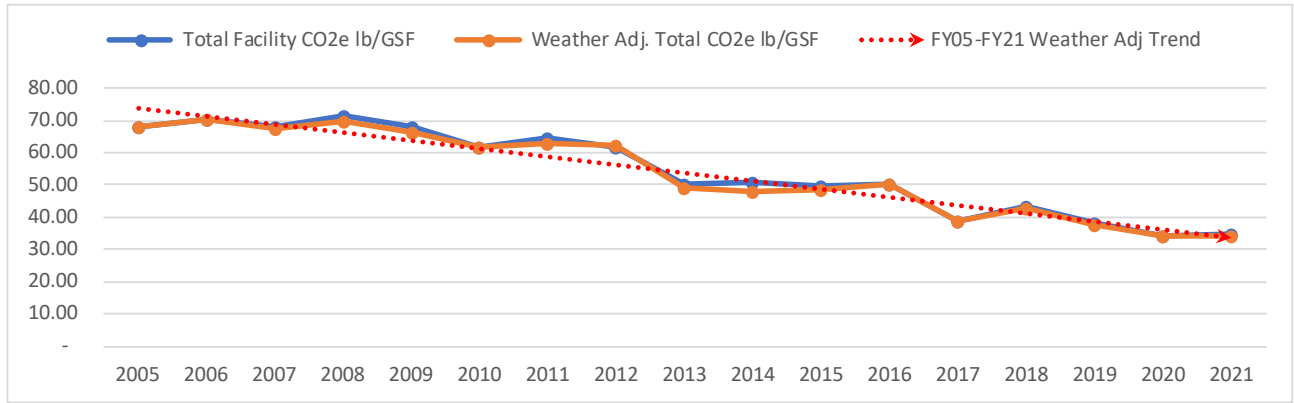
Fiscal Year	DHS Net Thermal MMBtu	DHS Plant Reports MMBtu w/Sales	DHS Coal MMBtu	DHS Alt Fuel MMBtu	DHS Gas MMBtu	DHS Oil MMBtu	DHS Plant Reports MMBtu w/Sales	DHS Boiler Fuel Based Emissions lbs	DHS Boiler Fuel Emissions lb/MMBtu	DHS Net Thermal MMBtu CO2e Metric Tons
2005	718,790	729,546	505,453	-	225,029	165	729,546	59,115	178.64	58,244
2006	690,119	699,959	512,562	-	197,896	34	699,959	58,329	183.72	57,509
2007	710,637	719,199	497,891	-	224,897	727	719,199	58,444	179.15	57,748
2008	737,301	746,048	503,731	-	248,043	98	746,048	60,171	177.81	59,466
2009	727,510	735,825	462,795	-	276,528	186	735,825	57,870	173.38	57,216
2010	678,947	688,925	433,110	-	261,518	40	688,925	54,293	173.74	53,506
2011	709,150	717,242	412,540	-	304,689	119	717,242	54,670	168.04	54,053
2012	636,498	639,344	322,882	504	316,784	-	639,344	46,959	161.93	46,750
2013	677,362	685,522	209,081	-	476,441	-	685,522	44,793	144.05	44,260
2014	689,803	697,821	166,750	-	531,071	-	697,821	43,743	138.20	43,240
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	-	-	613,803	-	613,803	32,575	117.00	32,575
2018	687,983	687,983	-	-	687,983	-	687,983	36,511	117.00	36,511
2019	645,627	645,627	-	-	645,627	-	645,627	34,264	117.00	34,264
2020	596,815	596,815	-	-	596,815	-	596,815	31,673	117.00	31,673
2021	610,529	610,529	-	-	610,529	-	610,529	32,401	117.00	32,401



DHS-Mendota CO2e Emissions Fiscal Year 2021 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	68.23	-0.1%	47.46	48.62	19.00	67.62	-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	25.90	12.98	38.87	-43.1%	49.72	25.75	12.93	38.68	-43.4%
2018	1,320,211	30.91	12.65	43.56	-36.2%	46.66	30.11	12.62	42.74	-37.4%
2019	1,320,211	26.32	12.02	38.34	-43.9%	45.88	25.34	12.11	37.45	-45.2%
2020	1,320,211	23.60	10.40	34.01	-50.2%	48.07	23.57	10.37	33.94	-50.3%
2021	1,320,211	25.18	9.59	34.78	-49.1%	47.61	24.65	9.56	34.22	-49.9%

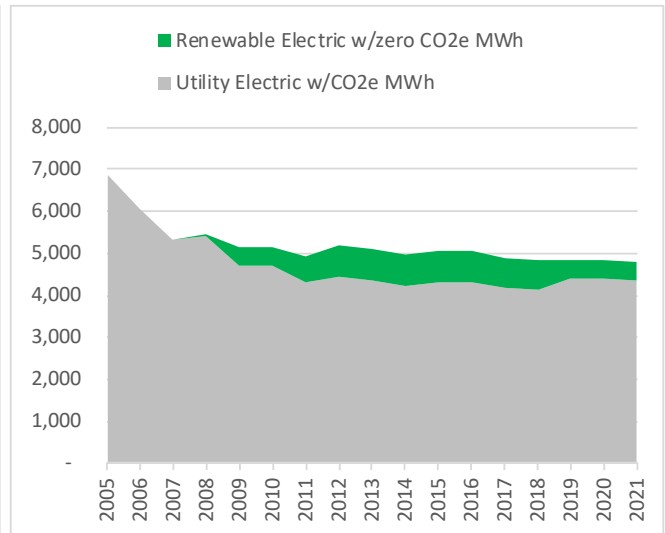
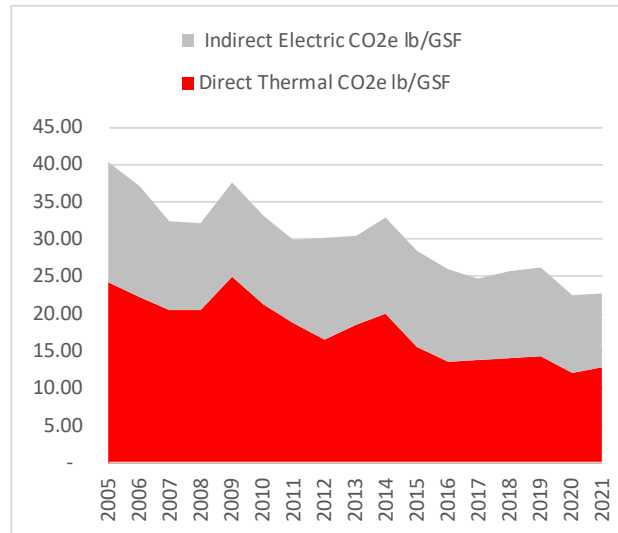
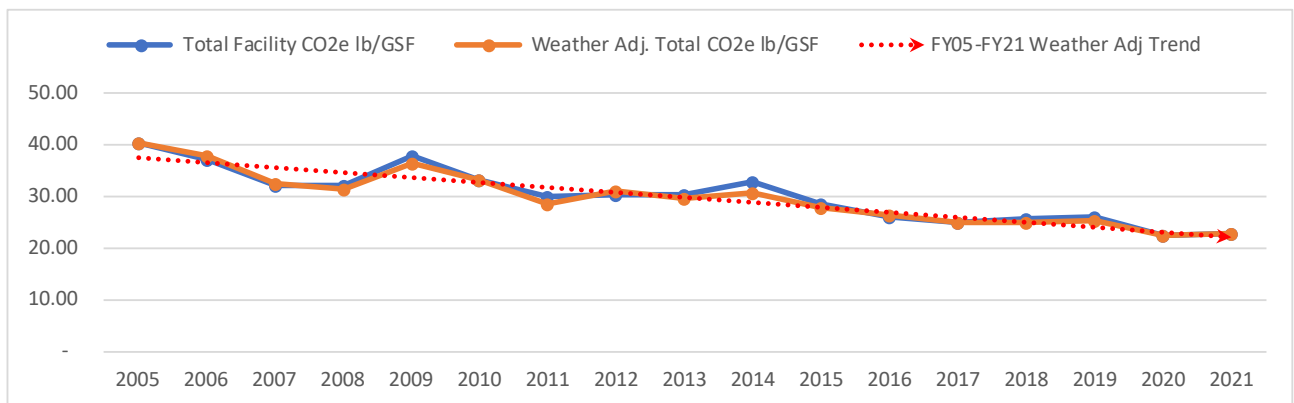
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DHS-Northern Center CO2e Emissions Fiscal Year 2021 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	37.20	-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	20.07	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	13.43	11.48	24.91	-38.0%
2019	523,226	14.41	11.73	26.14	-35.0%	42.23	13.52	11.86	25.38	-36.9%
2020	523,226	12.09	10.35	22.44	-44.2%	45.39	12.01	10.35	22.36	-44.4%
2021	523,226	12.84	9.90	22.75	-43.4%	46.03	12.86	9.78	22.63	-43.7%

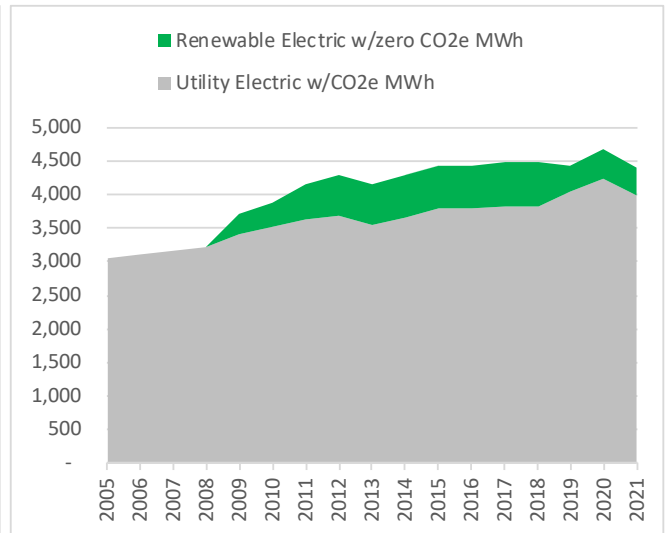
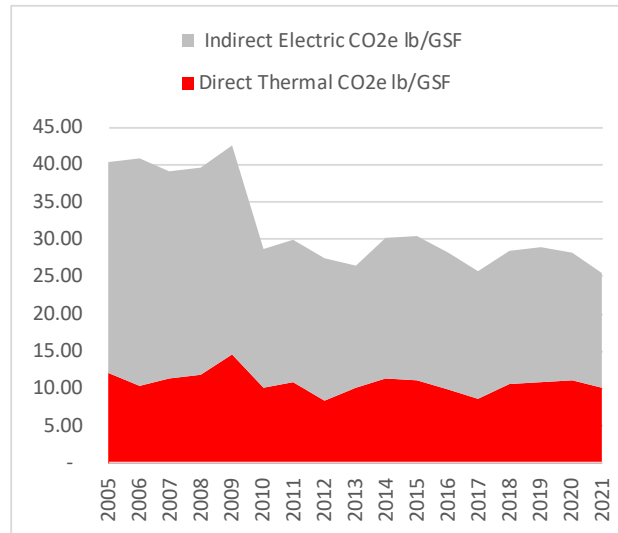
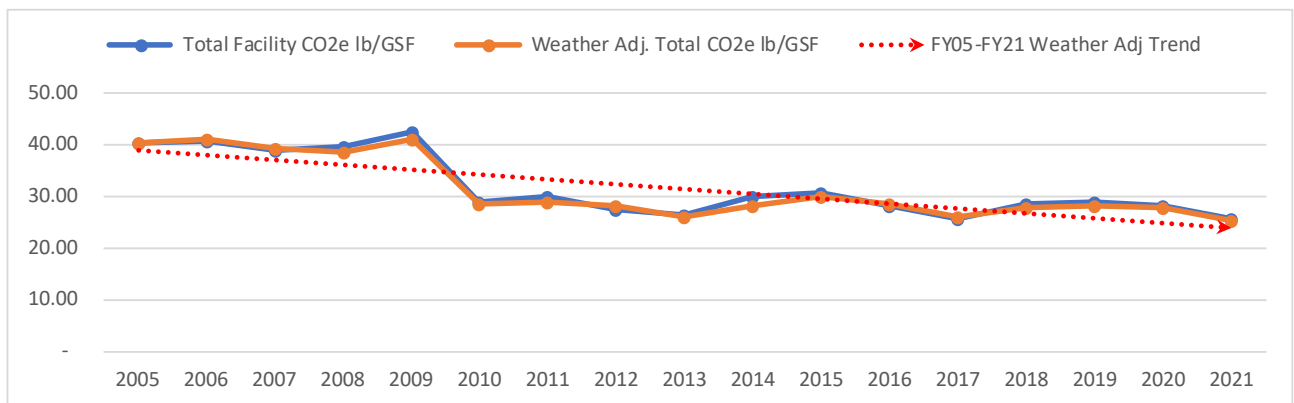
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DHS-Sand Ridge CO2e Emissions Fiscal Year 2021 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	15.30	25.50	-36.6%	45.89	10.21	15.16	25.37	-37.0%

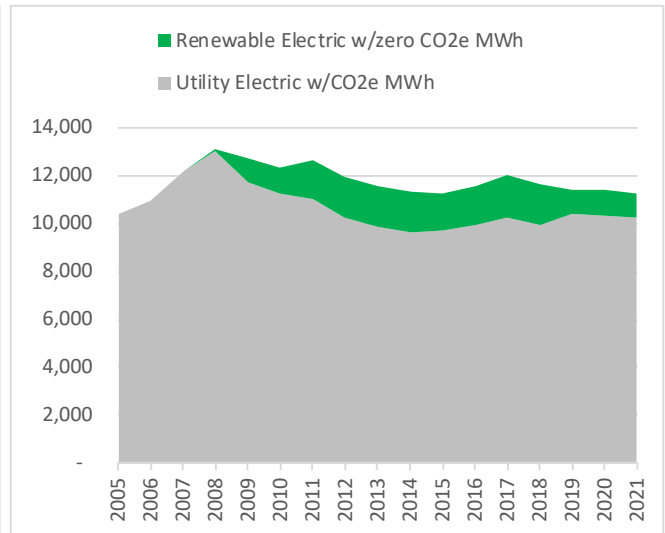
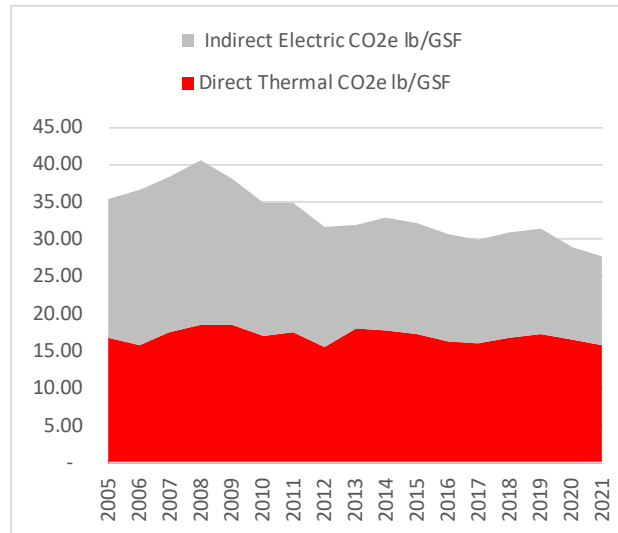
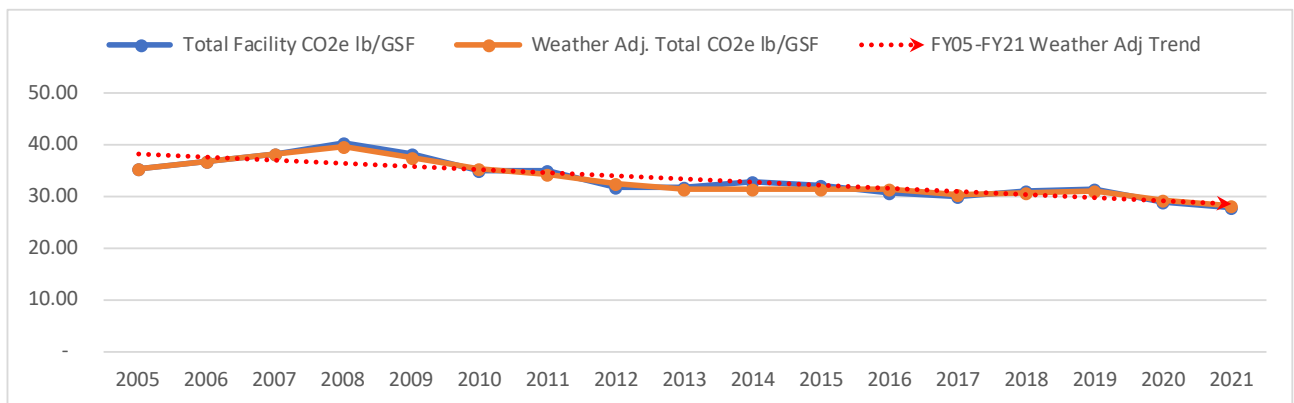
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DHS-Southern Center CO2e Emissions Fiscal Year 2021 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	29.85	-15.7%	51.99	17.13	13.34	30.47	-14.0%
2018	1,023,235	16.86	14.04	30.90	-12.8%	48.73	16.88	13.83	30.70	-13.3%
2019	1,023,235	17.37	14.11	31.48	-11.1%	47.88	17.09	13.97	31.06	-12.3%
2020	1,023,235	16.59	12.45	29.04	-18.0%	49.85	17.12	12.29	29.40	-17.0%
2021	1,023,235	15.83	11.85	27.68	-21.9%	50.84	16.62	11.47	28.09	-20.7%

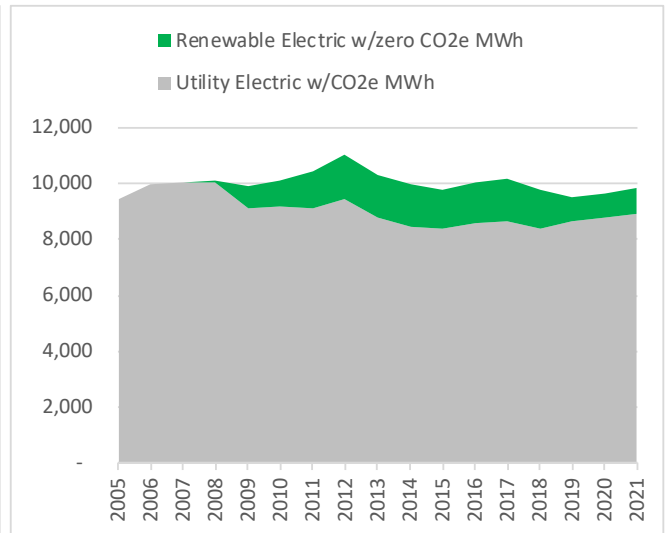
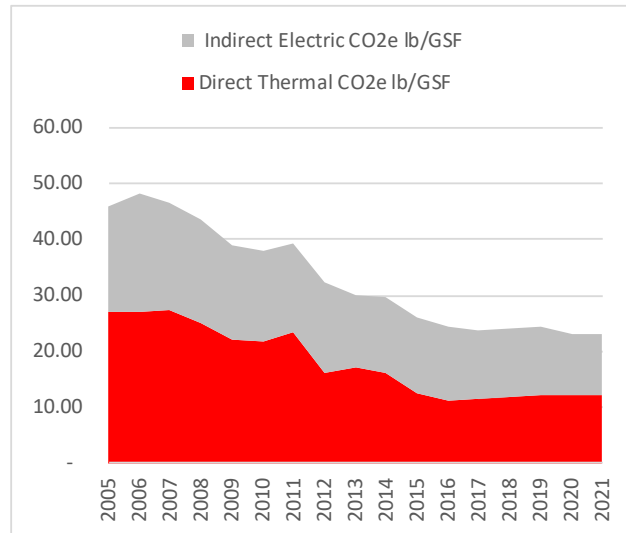
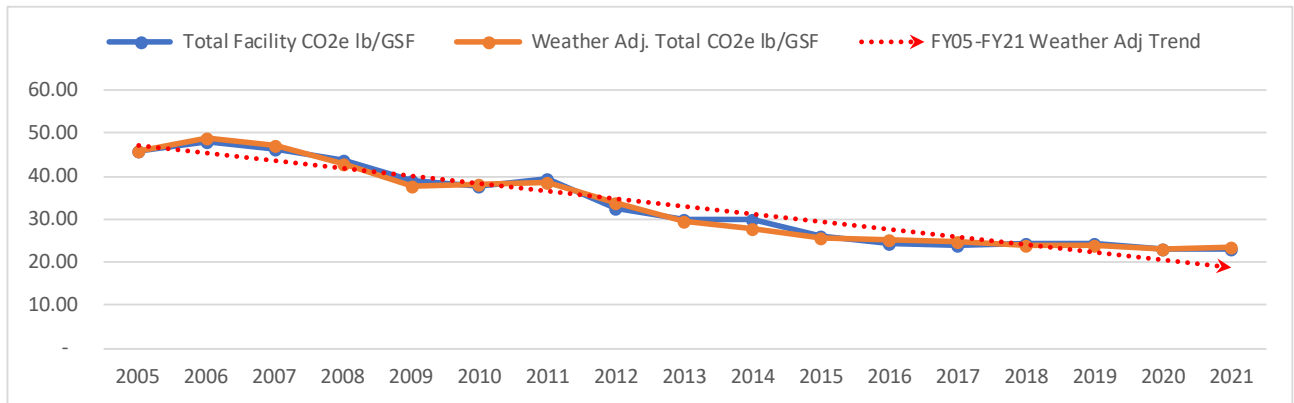
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DHS-Winnebago CO2e Emissions Fiscal Year 2021 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	27.40	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	24.25	18.61	42.86	-6.8%
2009	919,505	21.95	17.07	39.02	-15.1%	43.47	20.43	17.10	37.53	-18.4%
2010	919,505	21.62	16.19	37.80	-17.8%	45.99	21.96	16.35	38.32	-16.7%
2011	919,505	23.34	16.05	39.39	-14.3%	44.59	22.49	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	11.90	12.31	24.21	-47.3%	45.77	11.70	12.19	23.88	-48.0%
2019	983,900	12.33	12.21	24.55	-46.6%	44.89	11.93	12.17	24.10	-47.6%
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	23.10	-49.7%	47.28	12.77	10.59	23.36	-49.2%

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

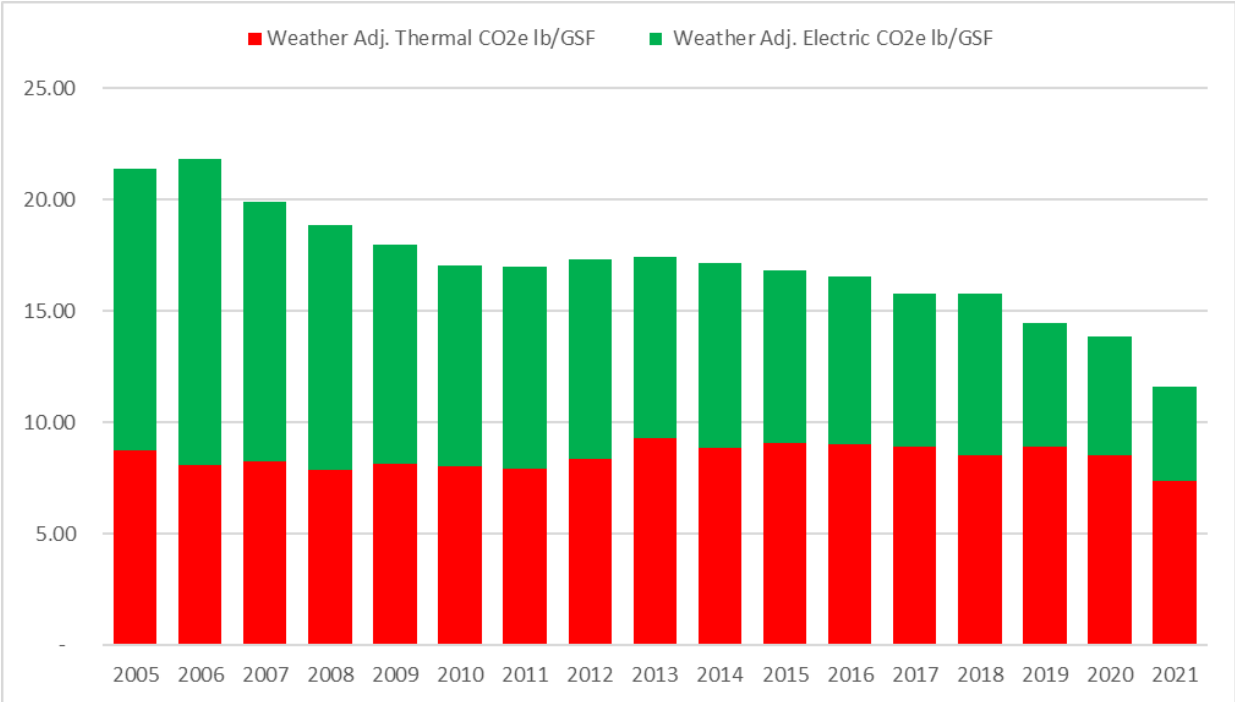
Department of Public Instruction



SCOPE

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

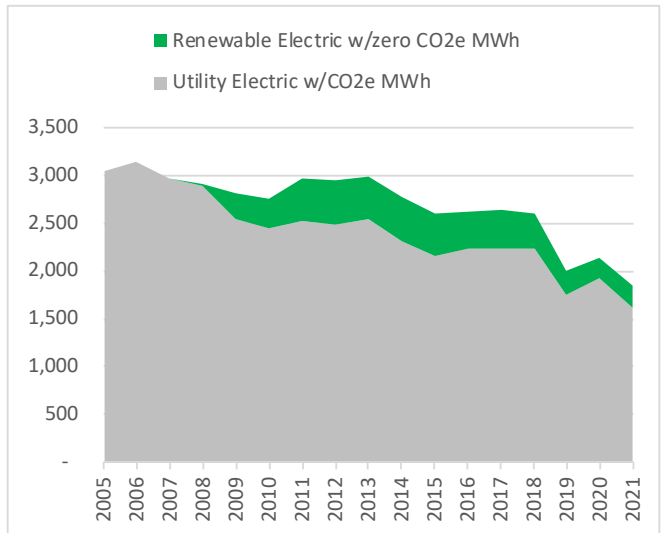
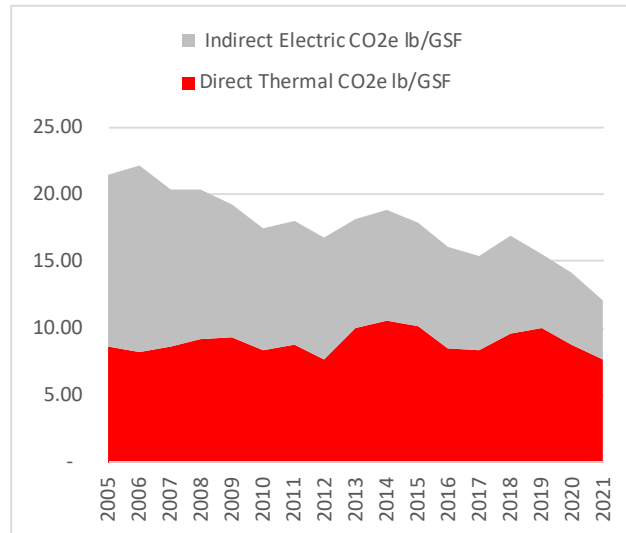
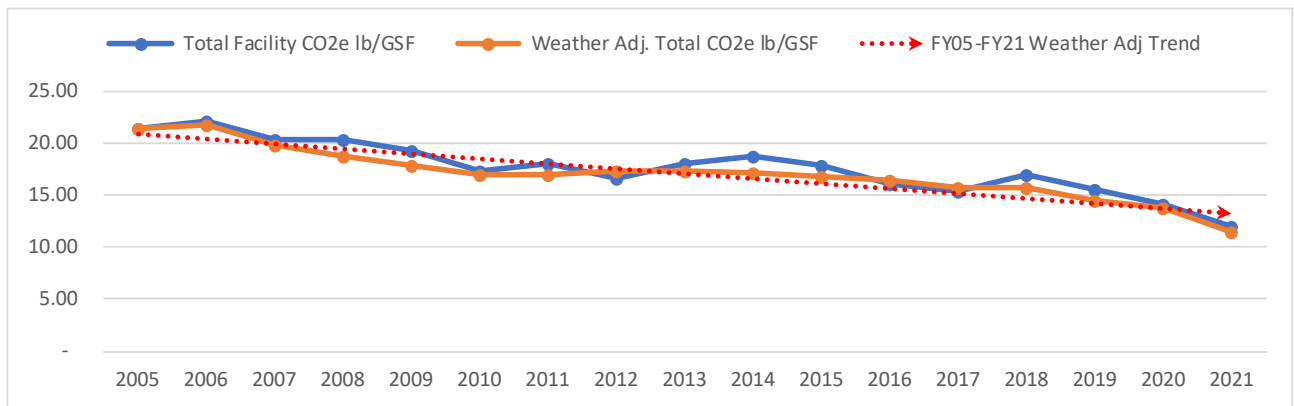
Wisconsin Department of Public Instruction GHG CO2e lbs/GSF:



Department of Public Instruction CO2e Emissions Fiscal Year 2021 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%

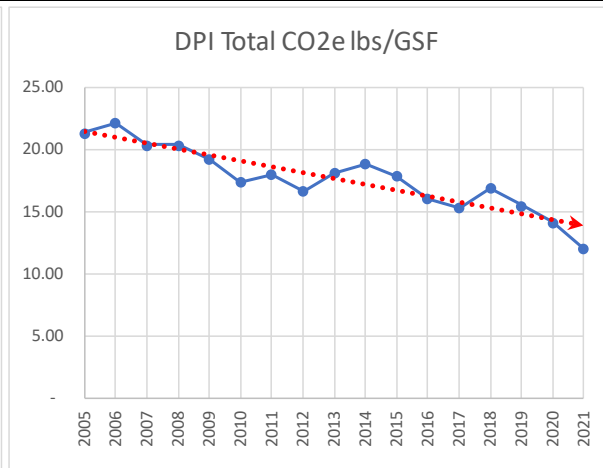
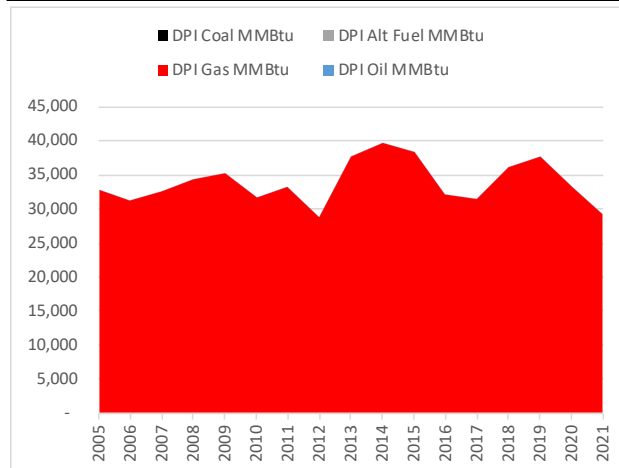
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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	234,464	1,608,721	1.19	867	1,551	2,418	12.08

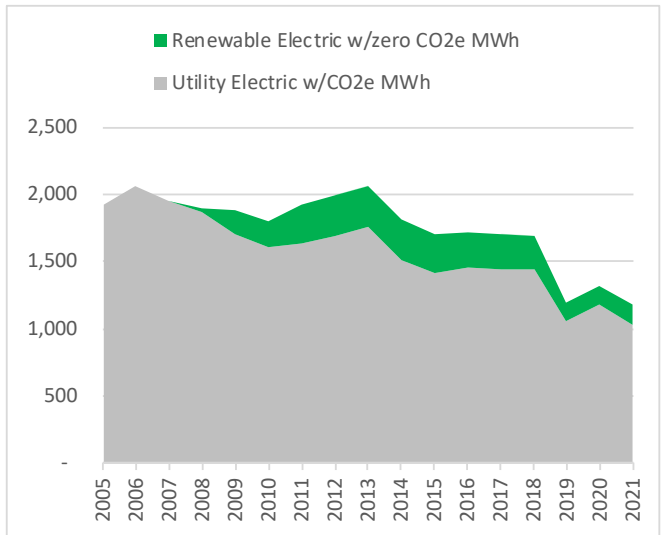
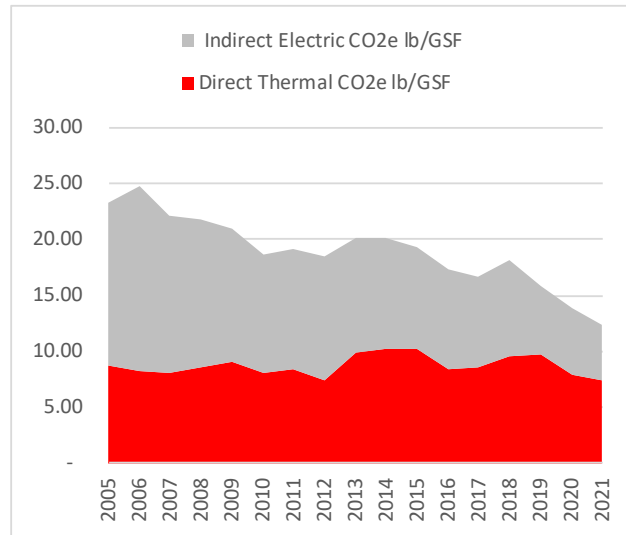
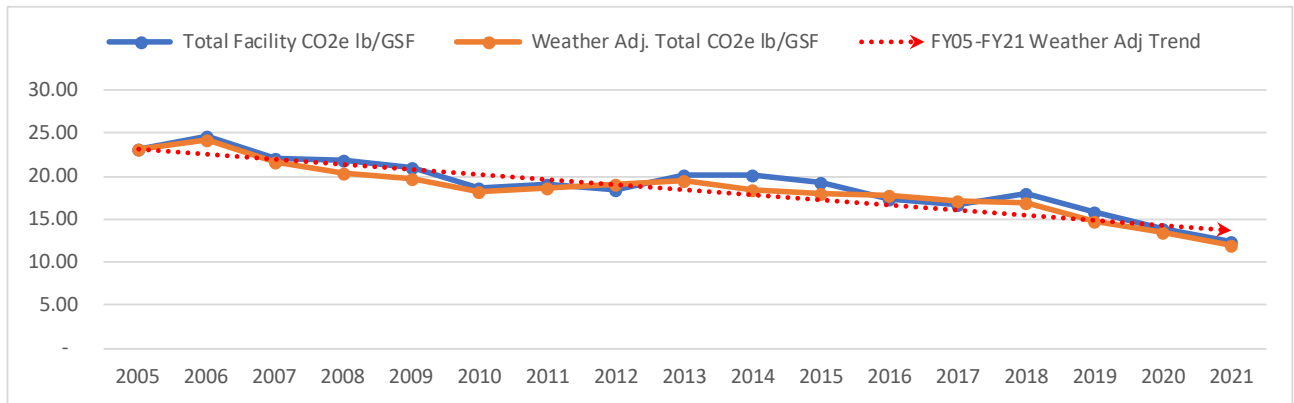
Fiscal Year	DPI Net Thermal MMBtu	DPI Plant Reports MMBtu w/Sales	DPI Coal MMBtu	DPI Alt Fuel MMBtu	DPI Gas MMBtu	DPI Oil MMBtu	DPI Plant Reports MMBtu w/Sales	DPI Boiler Fuel Based Emissions lbs	DPI Boiler Fuel Emissions lb/MMBtu	DPI Net Thermal MMBtu CO2e Metric Tons
2005	32,876	32,876	-	-	32,876	-	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



DPI-Delavan CO2e Emissions Fiscal Year 2021 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	8.97	9.11	18.07	-22.3%
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	7.60	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%

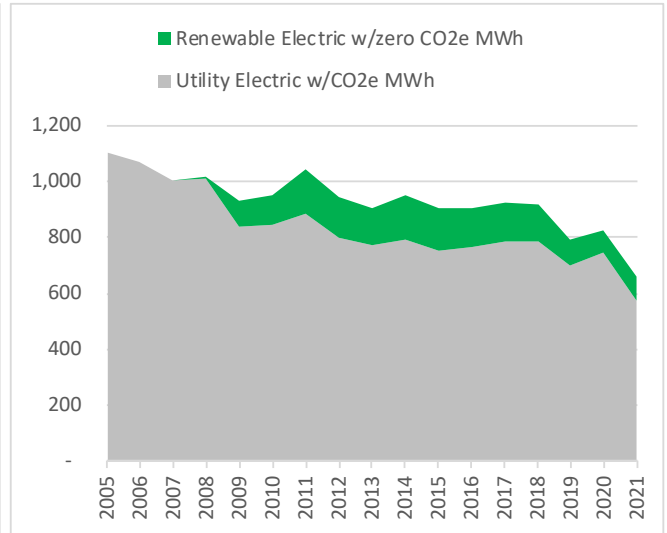
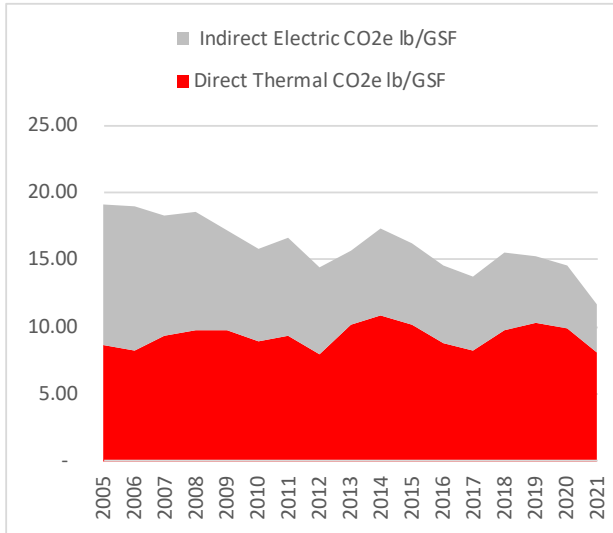
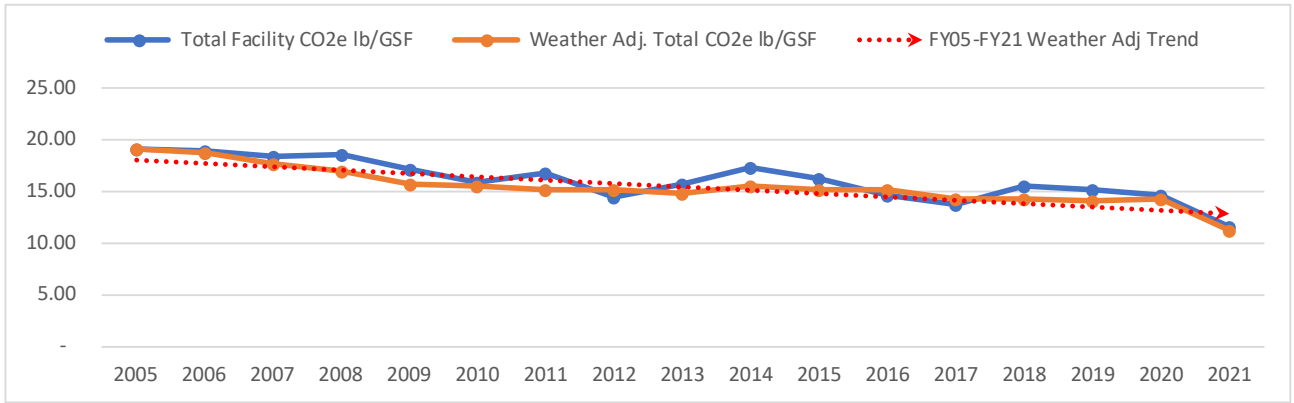
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DPI-Janesville CO2e Emissions Fiscal Year 2021 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	8.84	8.87	17.72	-7.2%
2008	196,204	9.75	8.86	18.61	-2.5%	46.19	8.33	8.65	16.97	-11.1%
2009	196,204	9.82	7.34	17.16	-10.1%	45.66	8.48	7.26	15.73	-17.6%
2010	196,204	8.87	7.00	15.86	-16.9%	47.10	8.45	7.03	15.48	-18.9%
2011	196,204	9.40	7.30	16.70	-12.5%	46.81	8.09	7.00	15.09	-21.0%
2012	196,204	7.96	6.52	14.48	-24.1%	51.51	8.64	6.49	15.13	-20.8%
2013	196,204	10.10	5.60	15.70	-17.8%	47.29	9.26	5.55	14.81	-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	9.12	5.99	15.11	-20.9%
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%

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

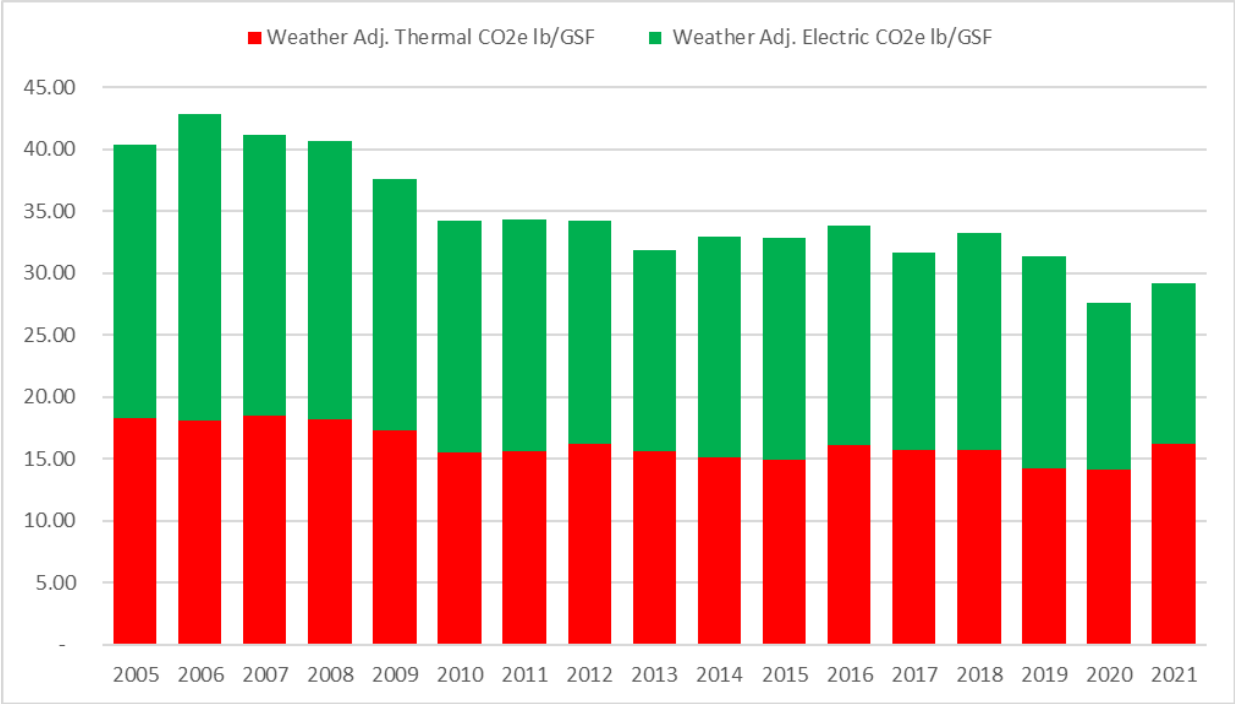


SCOPE

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

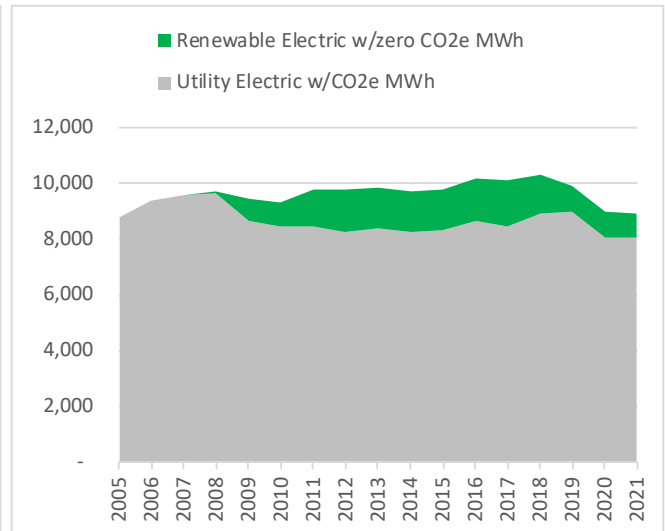
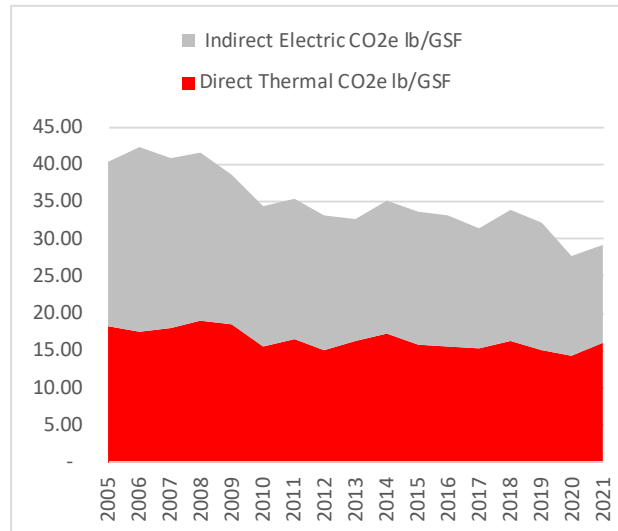
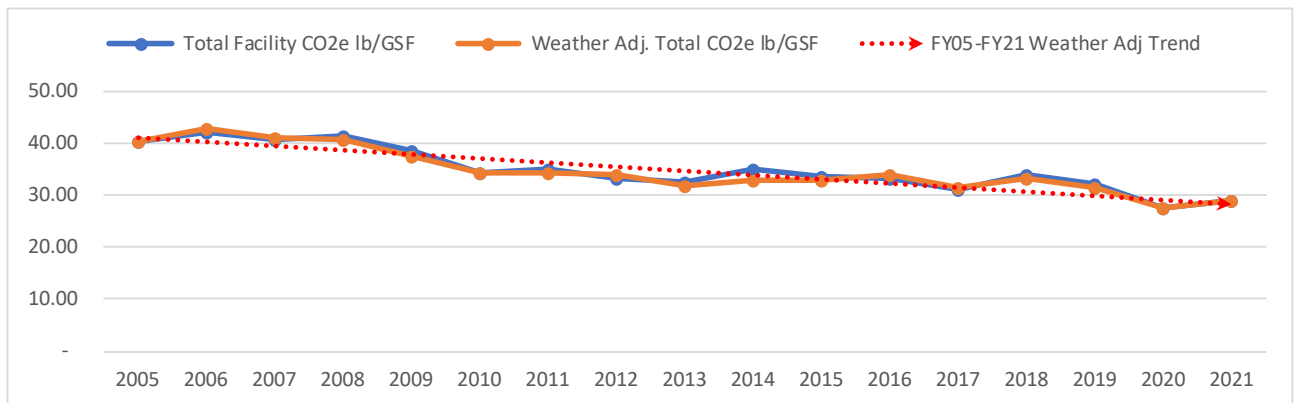
Wisconsin Department of Veterans Affairs GHG CO2e lbs/GSF:



Department of Veterans Affairs CO2e Emissions Fiscal Year 2021 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	15.02	17.06	32.08	-20.5%	43.35	14.23	17.15	31.38	-22.2%
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	12.96	29.15	-27.7%

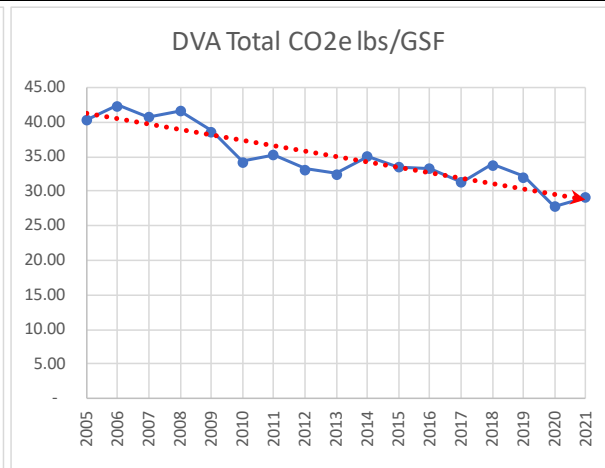
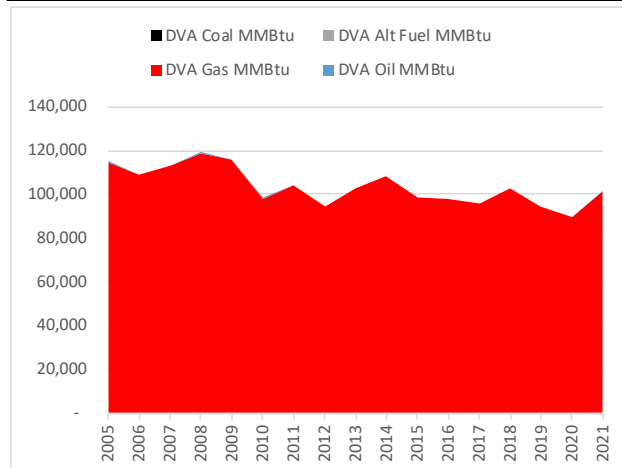
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



Department of Veterans Affairs 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 Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DVA 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	4,998	10,676	32.08
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	894,437	8,045,125	1.19	4,335	5,367	9,702	29.15

Fiscal Year	DVA Net Thermal MMBtu	DVA Plant Reports MMBtu w/Sales	DVA Coal MMBtu	DVA Alt Fuel MMBtu	DVA Gas MMBtu	DVA Oil MMBtu	DVA Plant Reports MMBtu w/Sales	DVA Boiler Fuel Based Emissions lbs	DVA Boiler Fuel Emissions lb/MMBtu	DVA 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	-	-	94,169	-	94,169	4,998	117.00	4,998
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



Wisconsin Agency GHG CO2e Emissions

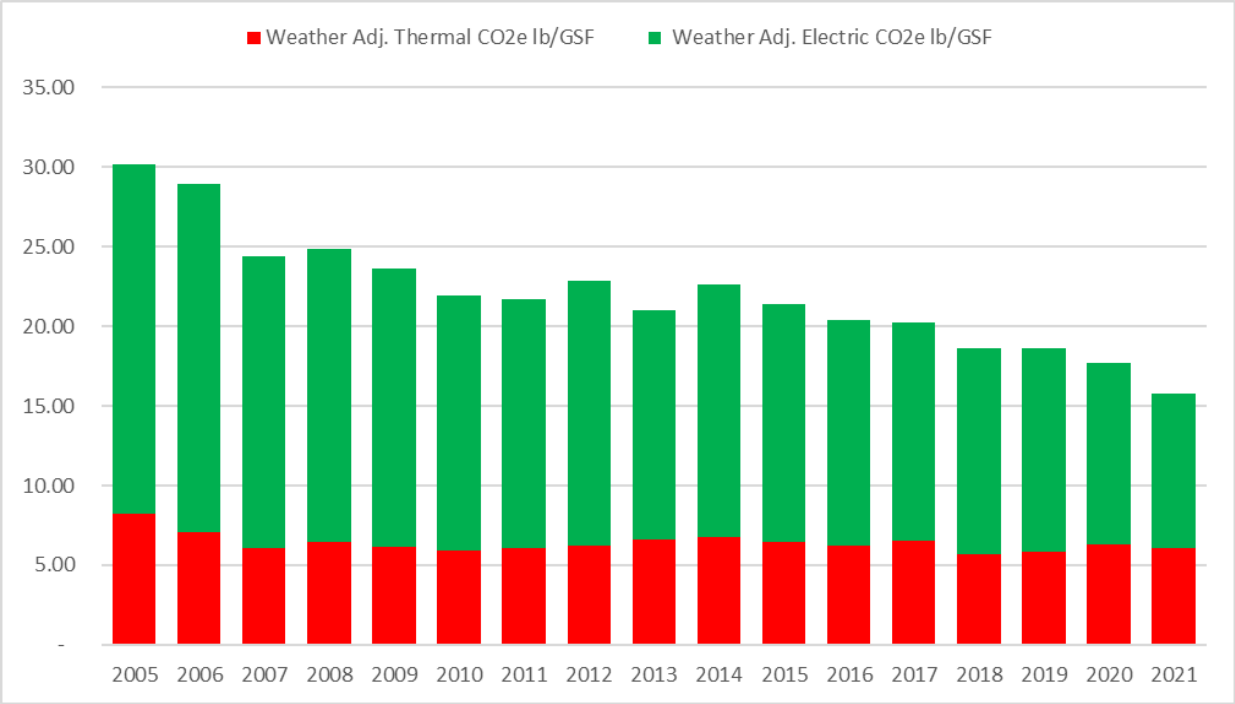
Department of Natural Resources



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).

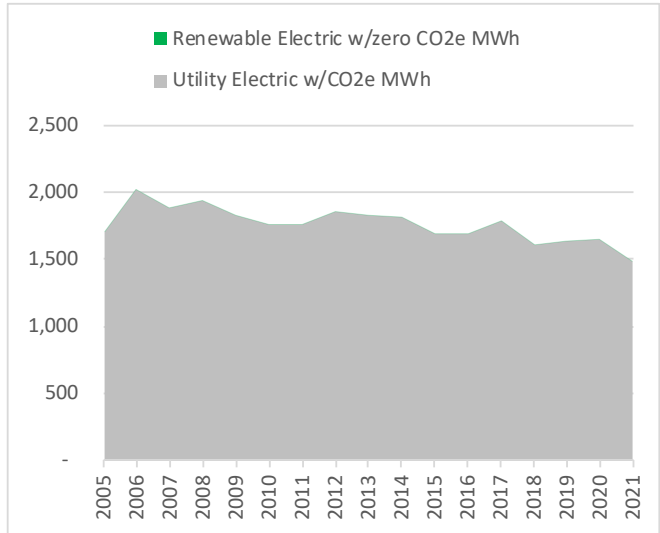
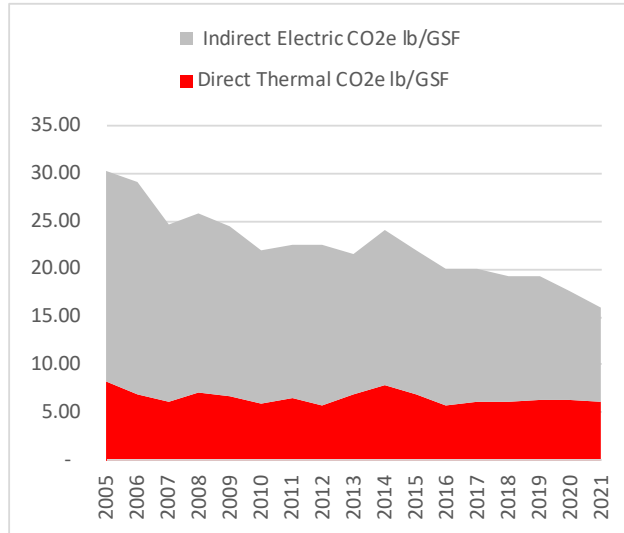
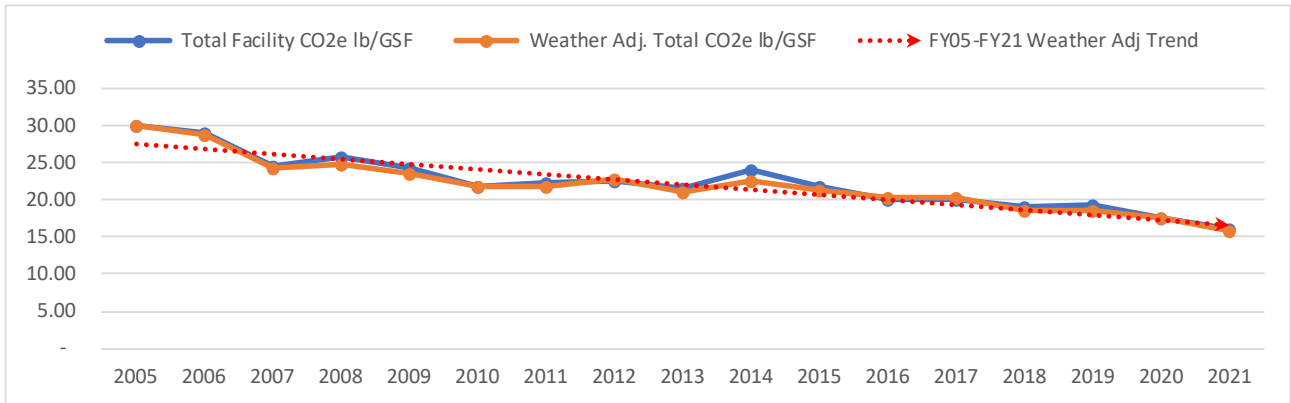
Wisconsin Department of Natural Resources GHG CO2e lbs/GSF:



Department of Natural Resources CO₂e Emissions Fiscal Year 2021 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO ₂ e lb/GSF	Indirect Electric CO ₂ e lb/GSF	Total Facility CO ₂ e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO ₂ e lb/GSF	Weather Adj. Electric CO ₂ e lb/GSF	Weather Adj. Total CO ₂ e 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%

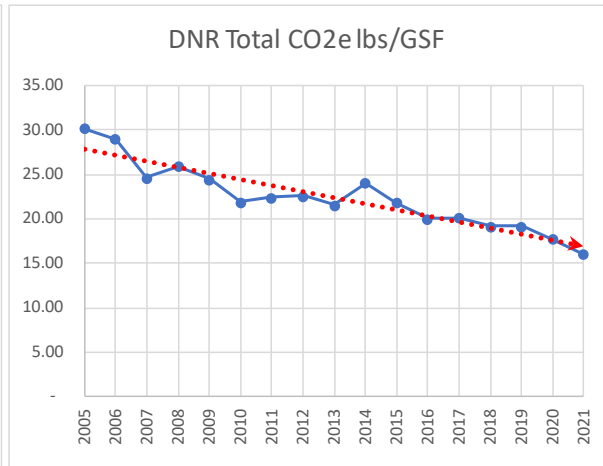
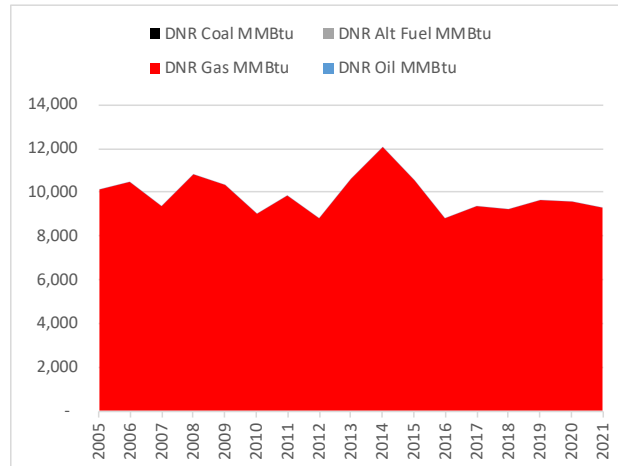
CO₂e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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

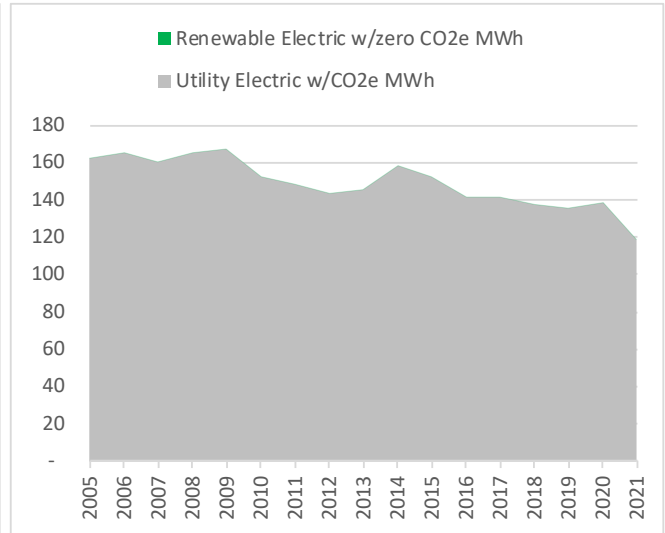
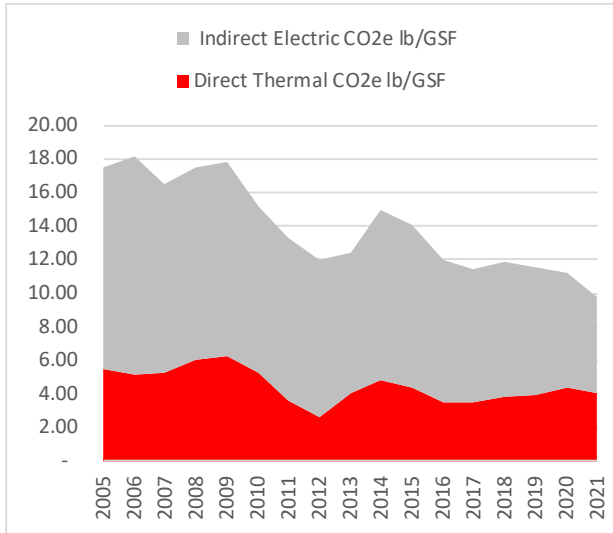
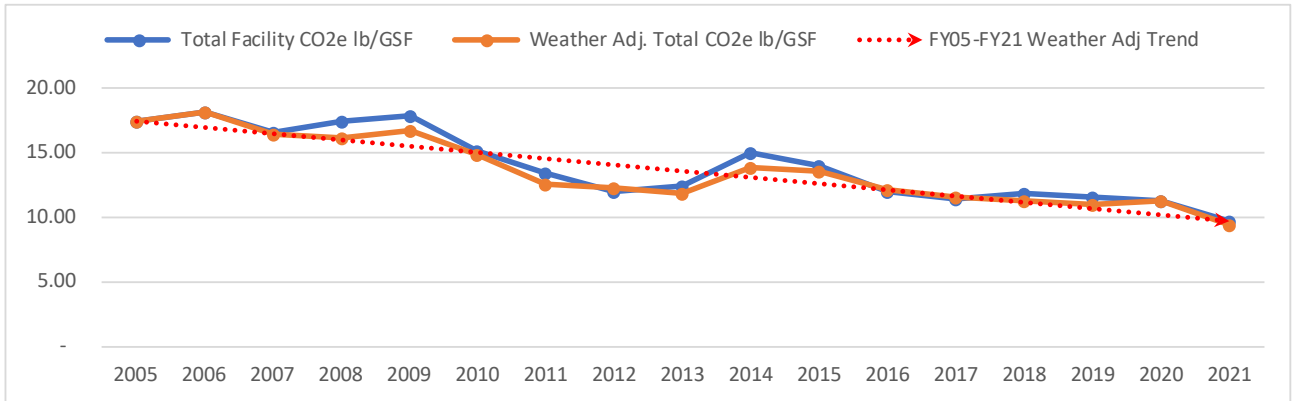
Fiscal Year	DNR Net Thermal MMBtu	DNR Plant Reports MMBtu w/Sales	DNR Coal MMBtu	DNR Alt Fuel MMBtu	DNR Gas MMBtu	DNR Oil MMBtu	DNR Plant Reports MMBtu w/Sales	DNR Boiler Fuel Based Emissions lbs	DNR Boiler Fuel Emissions lb/MMBtu	DNR Net Thermal MMBtu CO2e Metric Tons
2005	10,115	10,115	-	-	10,115	-	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



DNR-Darwin Road CO2e Emissions Fiscal Year 2021 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	5.17	12.98	18.15	3.7%
2007	24,820	5.23	11.29	16.52	-5.6%	47.46	5.11	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	3.56	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	3.89	9.65	13.54	-22.6%
2016	24,820	3.47	8.55	12.03	-31.3%	49.68	3.53	8.54	12.07	-31.0%
2017	24,820	3.56	7.89	11.45	-34.6%	49.72	3.79	7.84	11.63	-33.6%
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	-36.9%
2020	24,820	4.34	6.87	11.21	-35.9%	48.07	4.32	6.92	11.24	-35.7%
2021	24,820	4.05	5.68	9.73	-44.4%	47.61	3.77	5.60	9.37	-46.4%

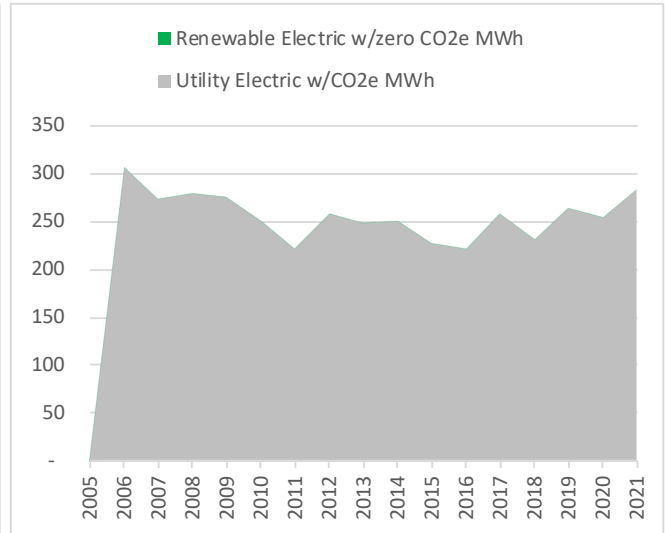
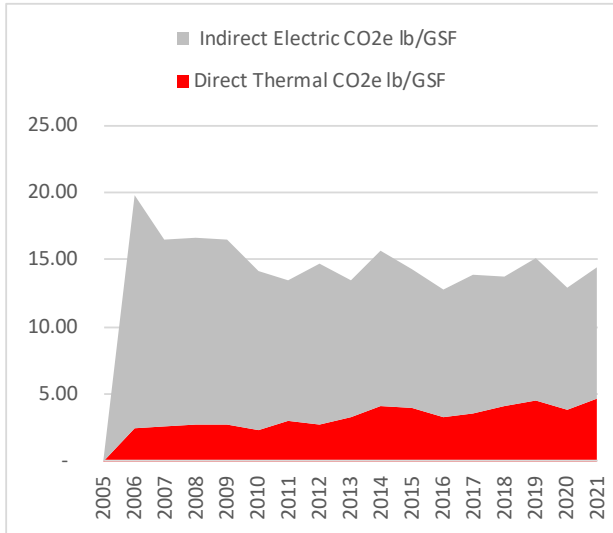
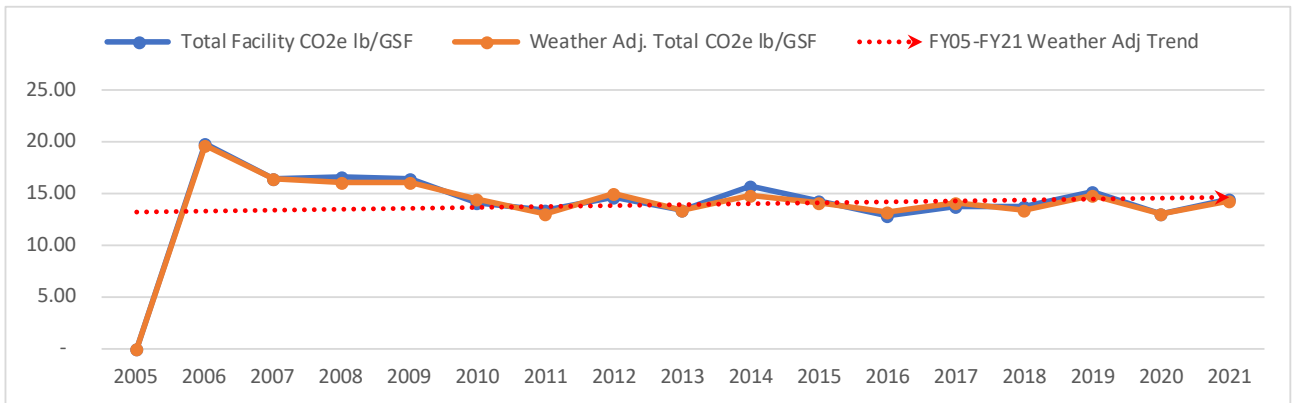
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DNR-Green Bay CO2e Emissions Fiscal Year 2021 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										
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	

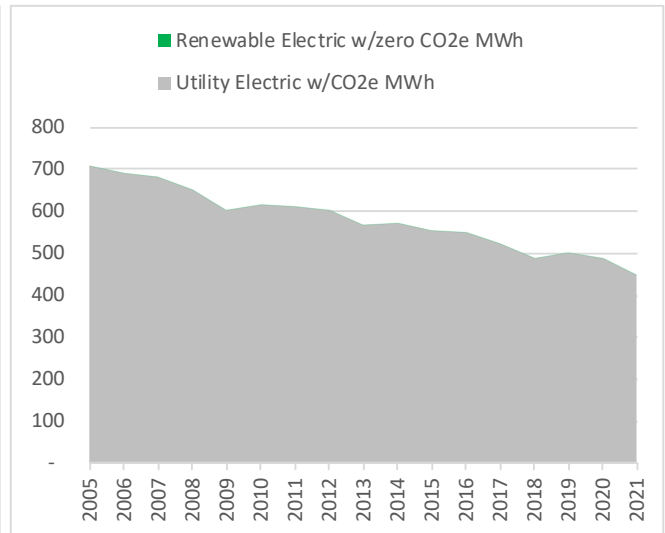
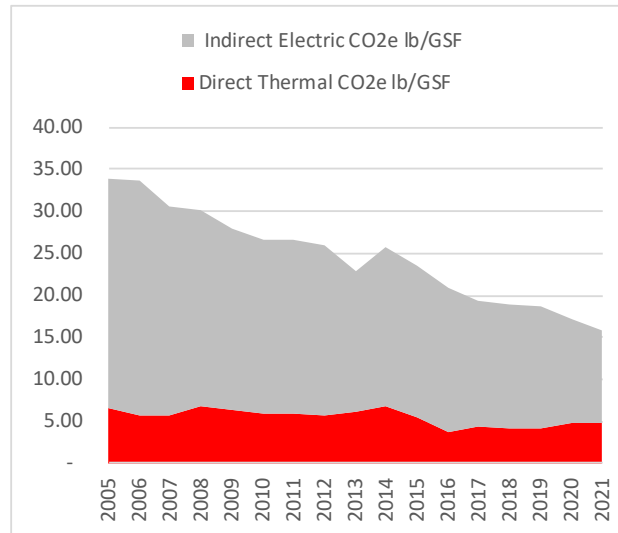
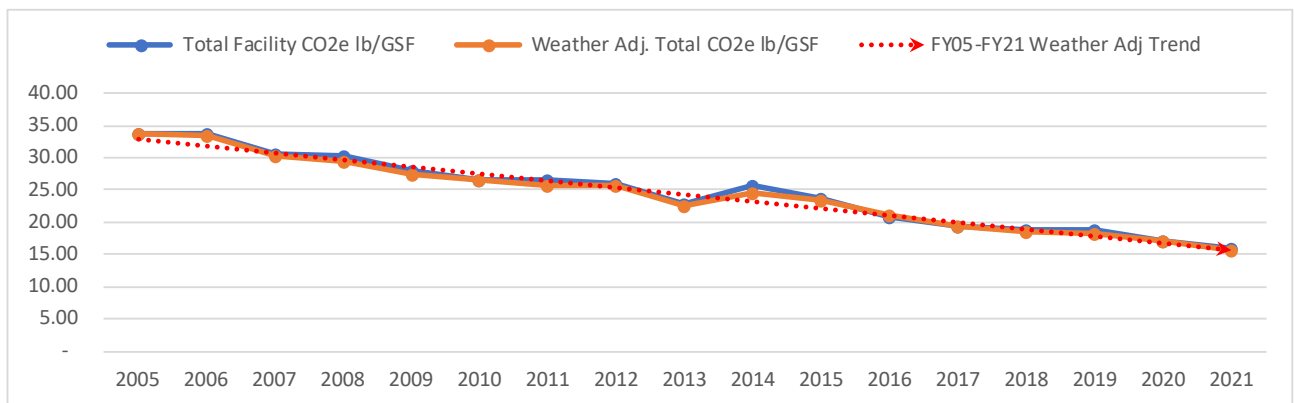
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DNR-SE Milwaukee CO2e Emissions Fiscal Year 2021 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	48,000	6.64	27.13	33.77	0.0%	48.47	6.64	27.13	33.77	0.0%
2006	48,000	5.66	28.03	33.68	-0.2%	50.11	5.91	27.57	33.48	-0.9%
2007	48,000	5.79	24.87	30.66	-9.2%	48.88	5.67	24.58	30.25	-10.4%
2008	48,000	6.89	23.35	30.23	-10.5%	47.87	6.46	22.91	29.38	-13.0%
2009	48,000	6.31	21.63	27.94	-17.3%	47.26	5.94	21.52	27.46	-18.7%
2010	48,000	5.88	20.79	26.68	-21.0%	49.10	5.94	20.72	26.67	-21.0%
2011	48,000	5.95	20.55	26.51	-21.5%	48.17	5.67	20.17	25.84	-23.5%
2012	48,000	5.63	20.22	25.85	-23.4%	52.24	5.99	19.77	25.77	-23.7%
2013	48,000	6.08	16.83	22.90	-32.2%	48.26	5.87	16.68	22.55	-33.2%
2014	48,000	6.90	18.90	25.80	-23.6%	45.20	5.97	18.60	24.58	-27.2%
2015	48,000	5.38	18.24	23.62	-30.1%	46.08	4.92	18.43	23.35	-30.9%
2016	48,000	3.76	17.15	20.92	-38.1%	50.51	4.07	16.98	21.05	-37.6%
2017	48,000	4.32	15.07	19.39	-42.6%	51.99	4.90	14.44	19.34	-42.7%
2018	48,000	4.14	14.71	18.84	-44.2%	48.73	3.99	14.50	18.49	-45.2%
2019	48,000	4.18	14.57	18.75	-44.5%	47.88	3.81	14.42	18.23	-46.0%
2020	48,000	4.73	12.49	17.22	-49.0%	49.85	4.78	12.41	17.20	-49.1%
2021	48,000	4.80	11.08	15.88	-53.0%	50.84	5.00	10.69	15.69	-53.5%

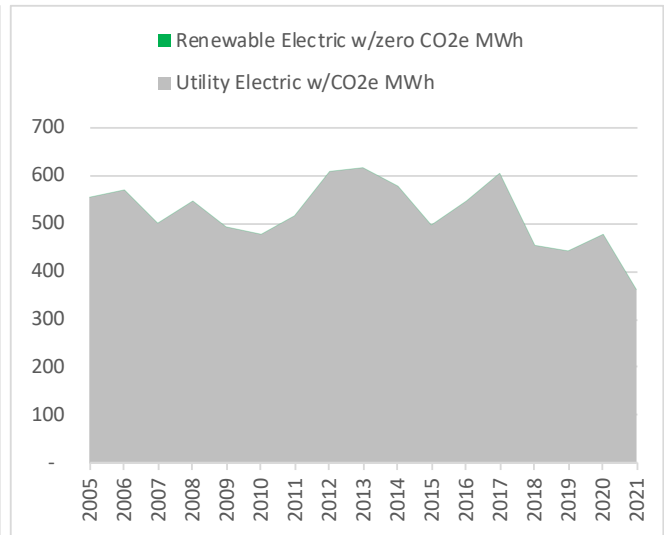
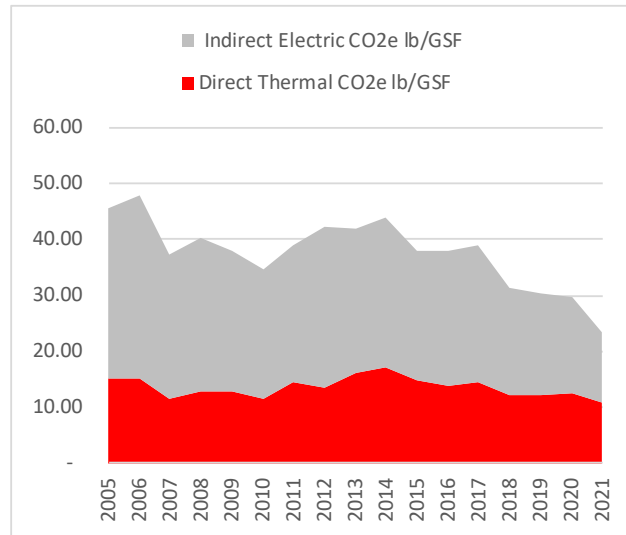
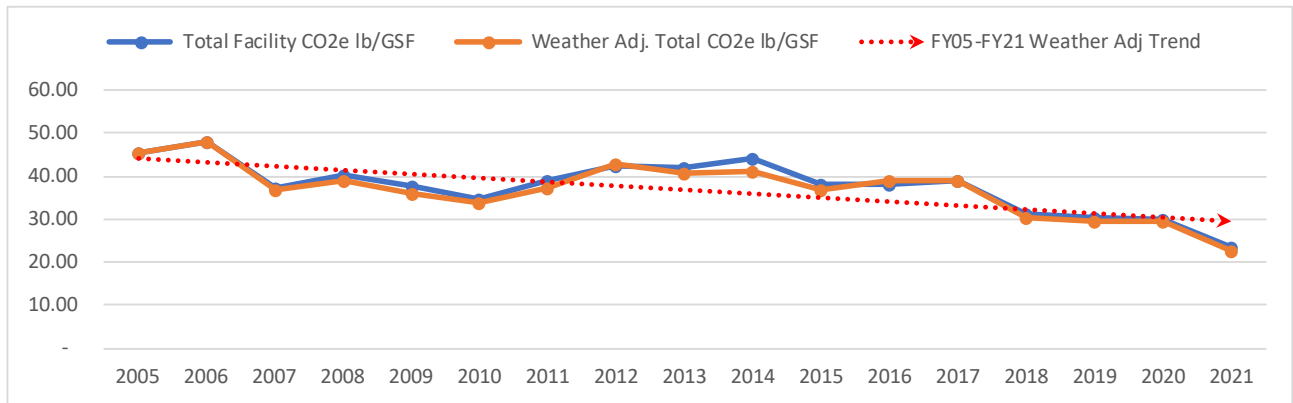
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DNR-South Central CO2e Emissions Fiscal Year 2021 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%

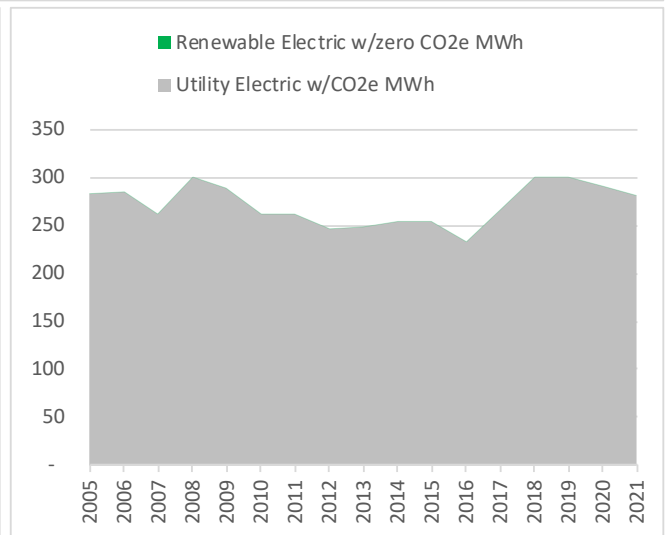
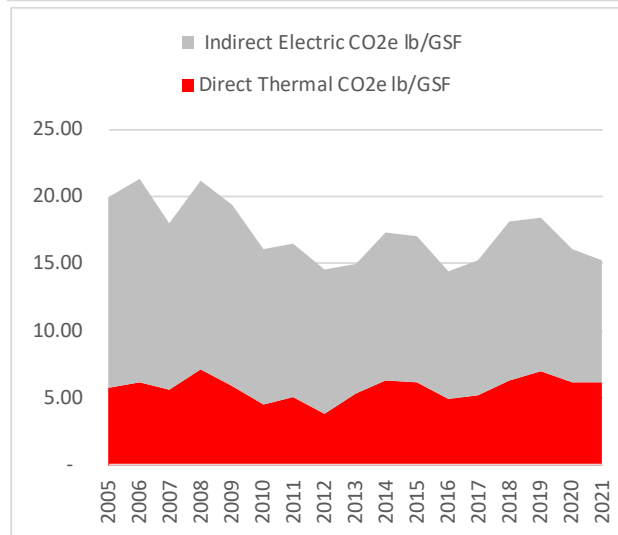
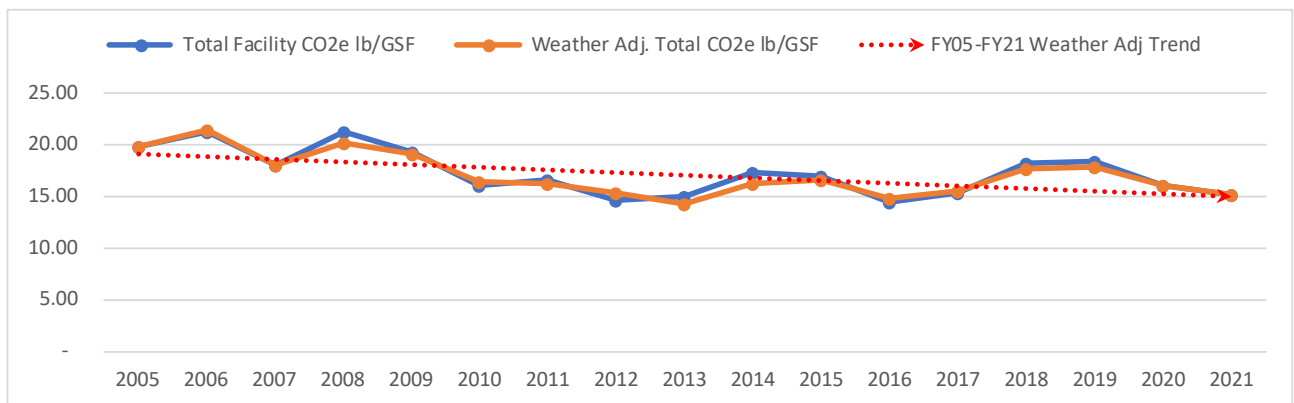
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DNR-Tomahawk CO₂e Emissions Fiscal Year 2021 Facilities Energy Use Summary Report

Fiscal Year	GSF	Direct Thermal CO ₂ e lb/GSF	Indirect Electric CO ₂ e lb/GSF	Total Facility CO ₂ e lb/GSF	% Change From FY05 Base	Avg Temp	Weather Adj. Thermal CO ₂ e lb/GSF	Weather Adj. Electric CO ₂ e lb/GSF	Weather Adj. Total CO ₂ e 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	6.19	15.19	21.38	7.5%
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	6.11	14.04	20.15	1.4%
2009	36,741	5.84	13.53	19.37	-2.6%	42.50	5.58	13.50	19.08	-4.0%
2010	36,741	4.51	11.56	16.07	-19.2%	45.38	4.87	11.53	16.40	-17.5%
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	-16.2%
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%

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

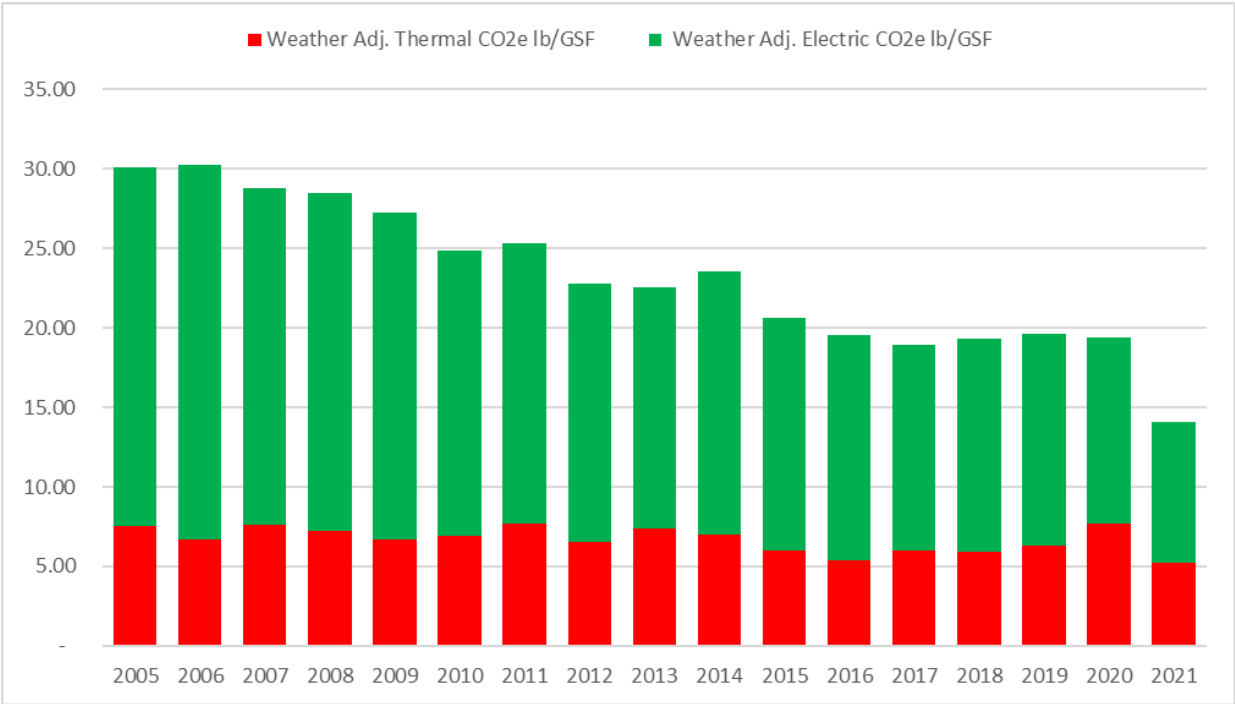
Department of Transportation



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.

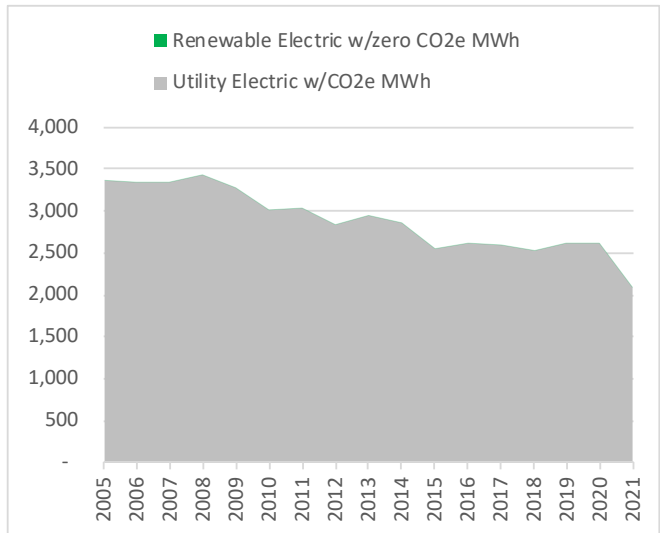
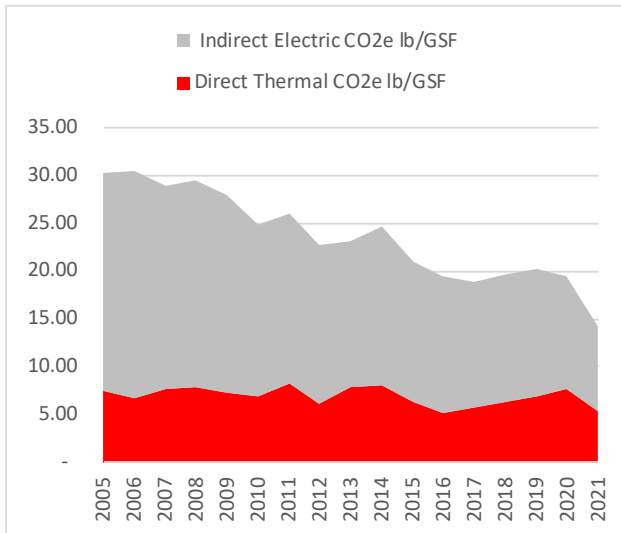
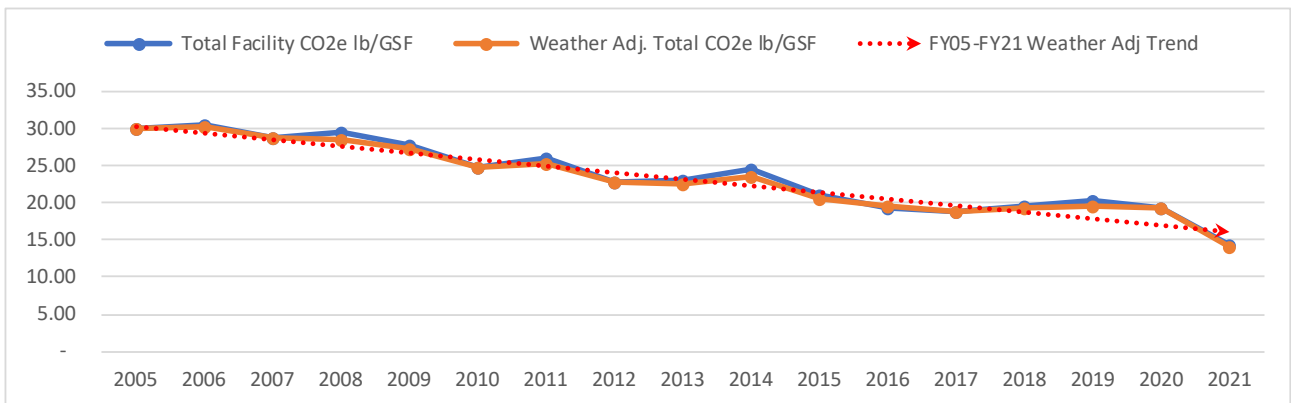
Wisconsin Department of Transportation GHG CO2e lbs/GSF:



Department of Transportation CO2e Emissions Fiscal Year 2021 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%

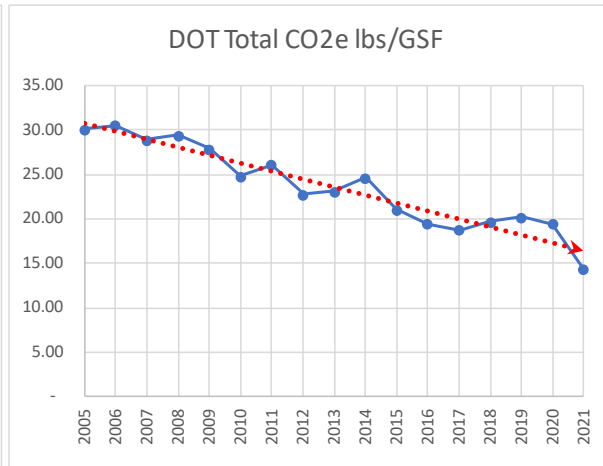
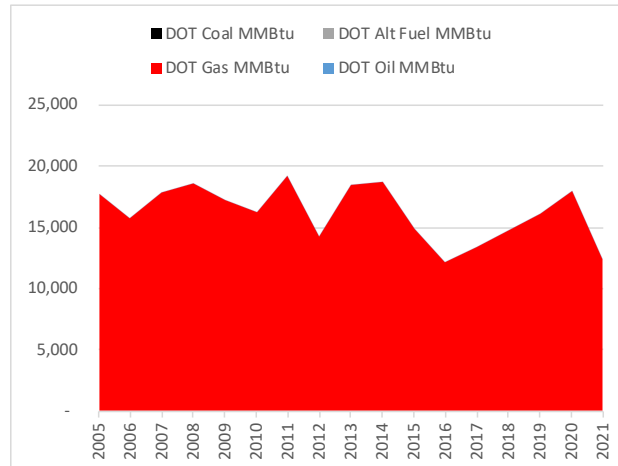
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



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

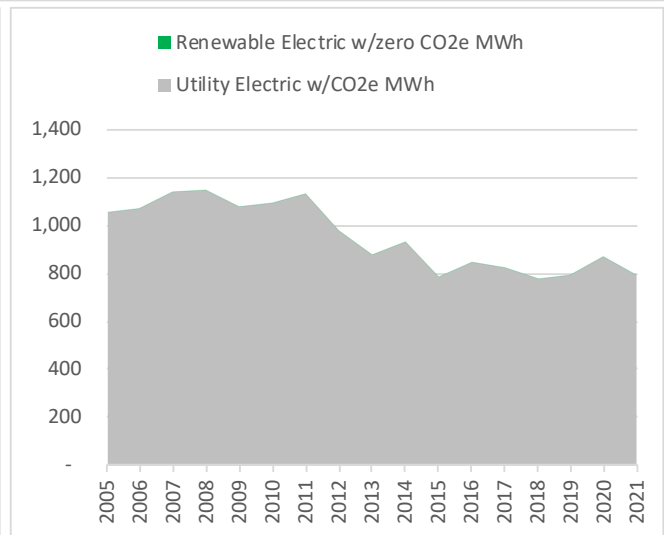
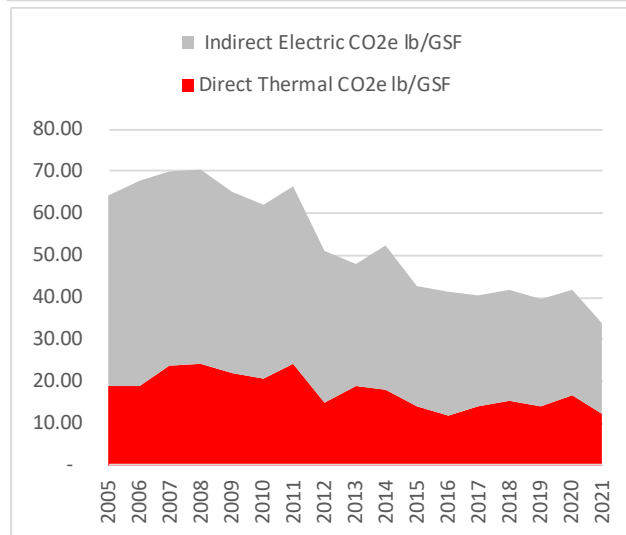
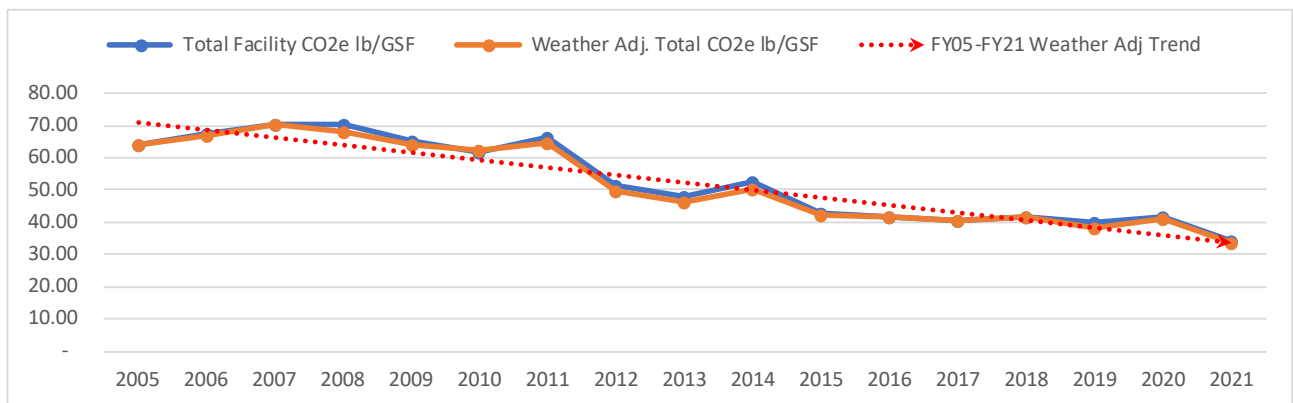
Fiscal Year	DOT Net Thermal MMBtu	DOT Plant Reports MMBtu w/Sales	DOT Coal MMBtu	DOT Alt Fuel MMBtu	DOT Gas MMBtu	DOT Oil MMBtu	DOT Plant Reports MMBtu w/Sales	DOT Boiler Fuel Based Emissions lbs	DOT Boiler Fuel Emissions lb/MMBtu	DOT Net Thermal MMBtu CO2e Metric Tons
2005	17,715	17,715	-	-	17,715	-	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



DOT-DTD 1 Lab CO2e Emissions Fiscal Year 2021 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%

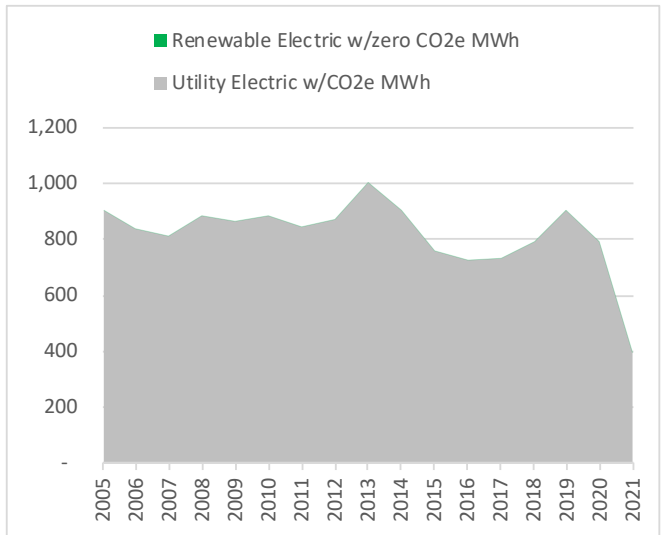
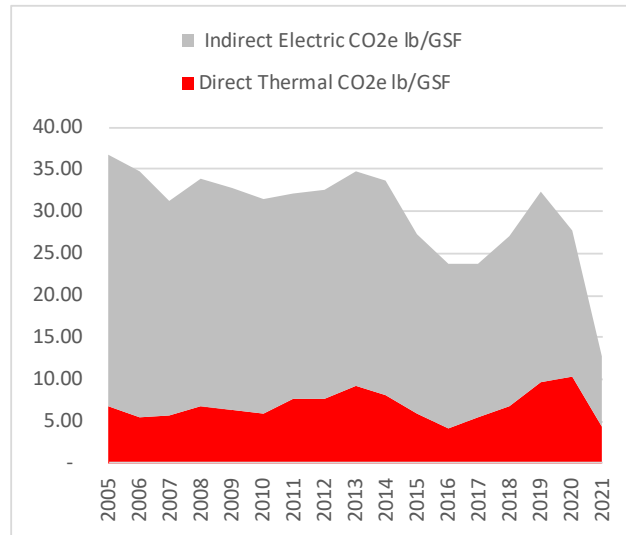
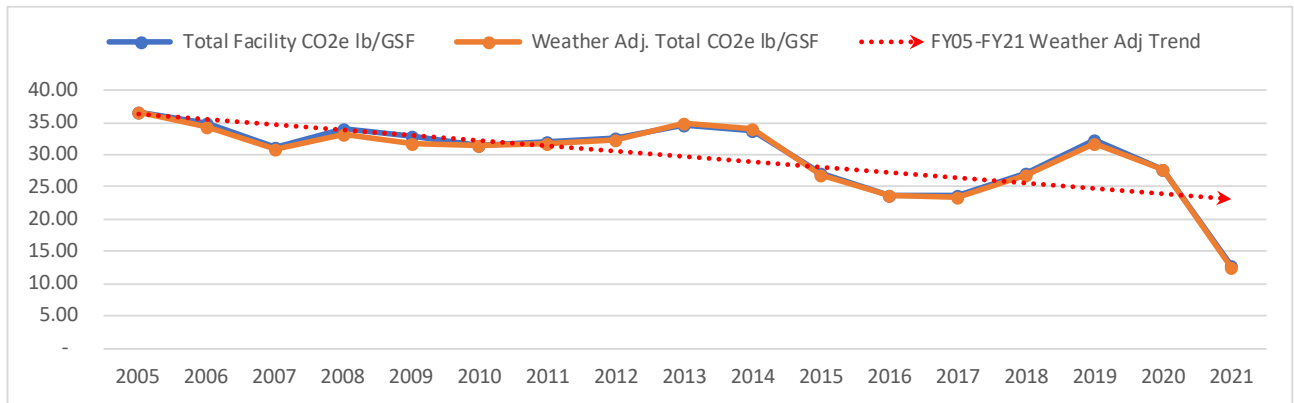
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOT-DTD 1 Madison CO2e Emissions Fiscal Year 2021 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	31.82	-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%

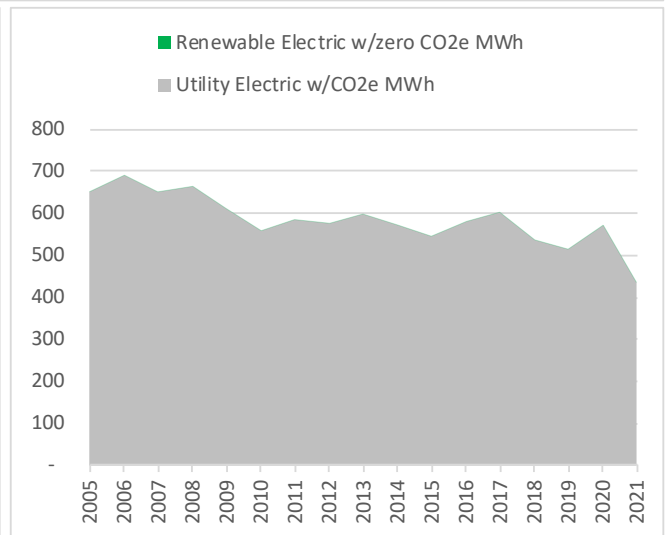
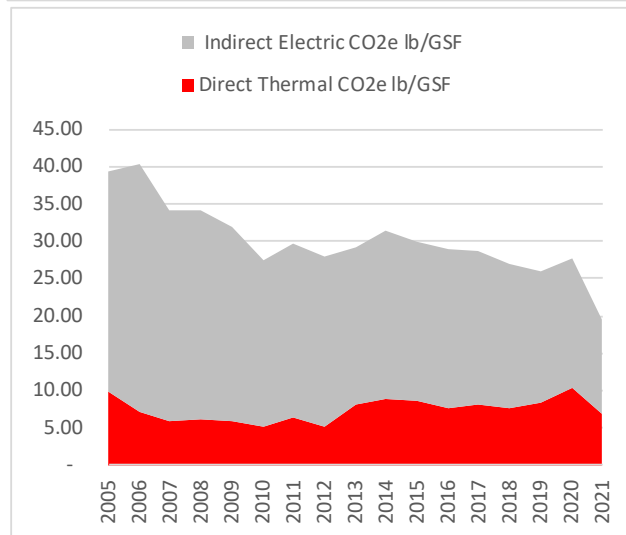
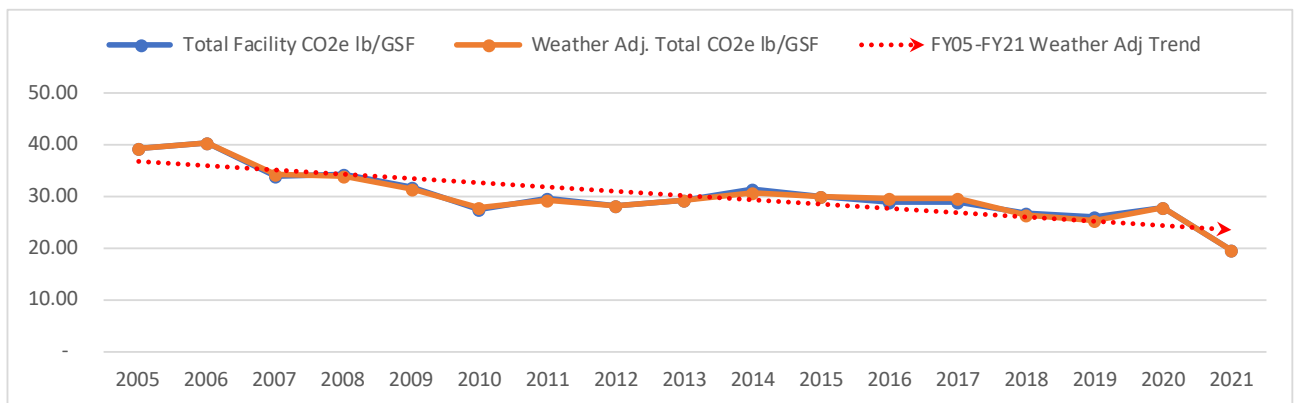
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOT-Green Bay CO2e Emissions Fiscal Year 2021 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%

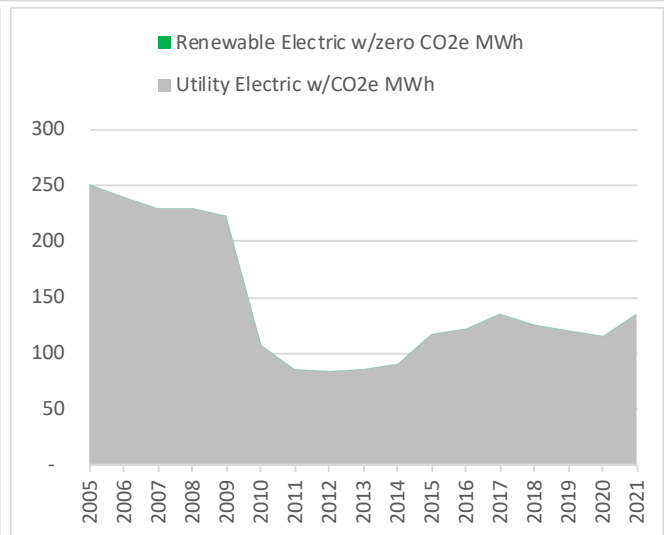
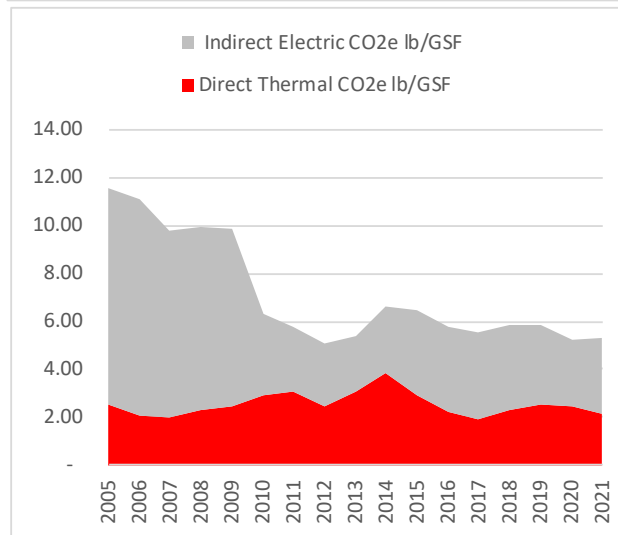
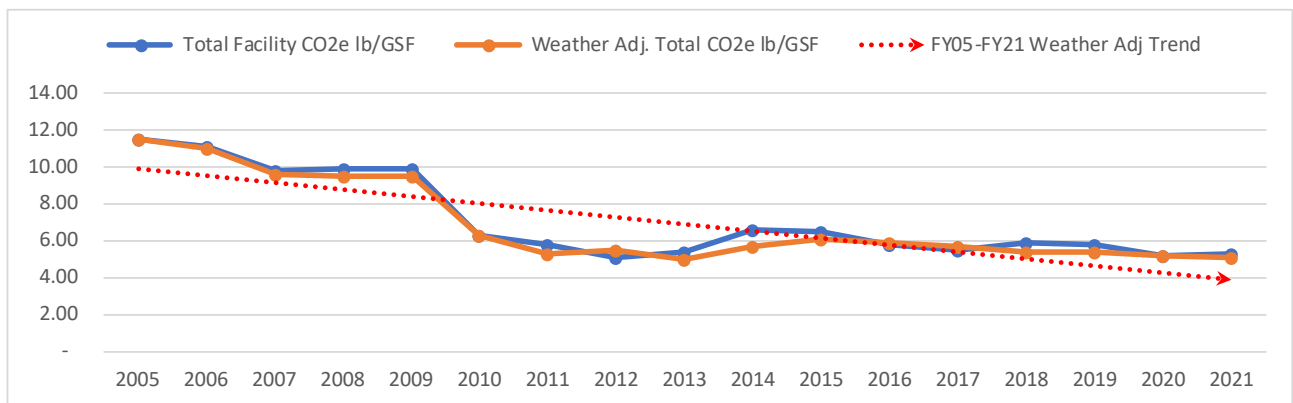
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOT-PIERSTORFF A CO2e Emissions Fiscal Year 2021 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	6.23	-45.9%
2011	51,700	3.10	2.67	5.77	-49.9%	46.81	2.66	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	5.02	-56.4%
2014	51,700	3.85	2.77	6.62	-42.5%	44.58	2.95	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	2.01	3.63	5.65	-51.0%
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%

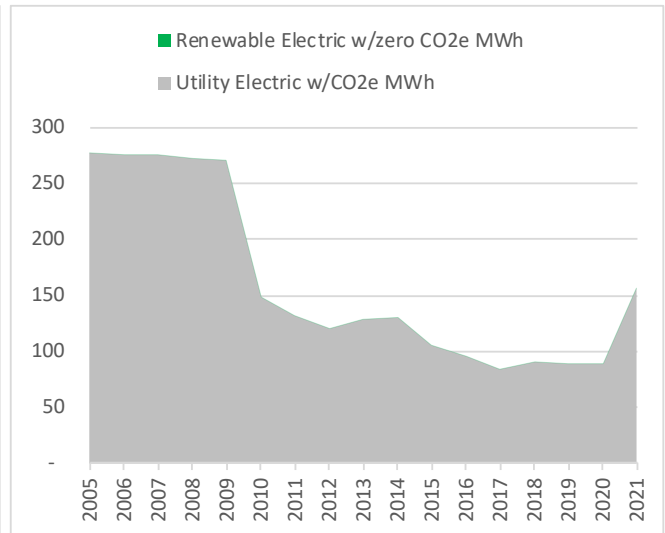
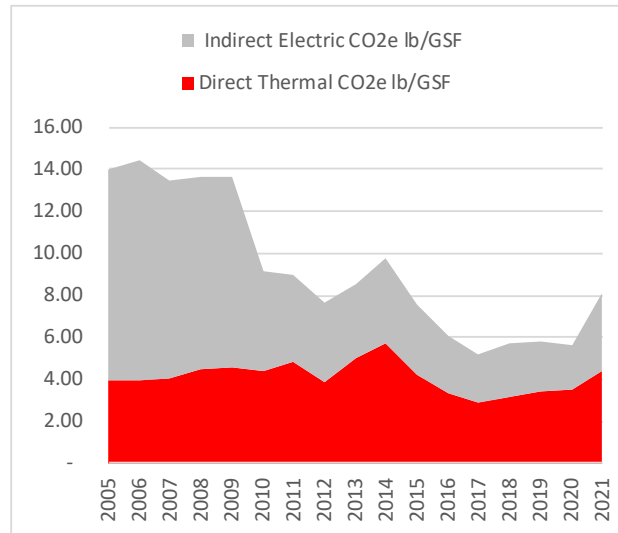
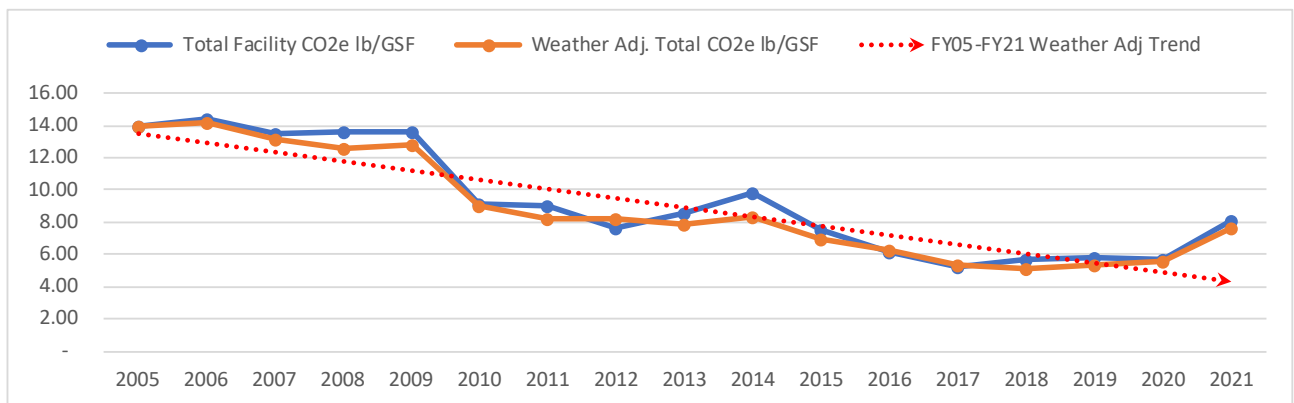
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOT-PIERSTORFF B CO2e Emissions Fiscal Year 2021 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	8.21	-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	4.39	3.45	7.84	-43.8%
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	6.99	-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	3.46	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	-44.9%

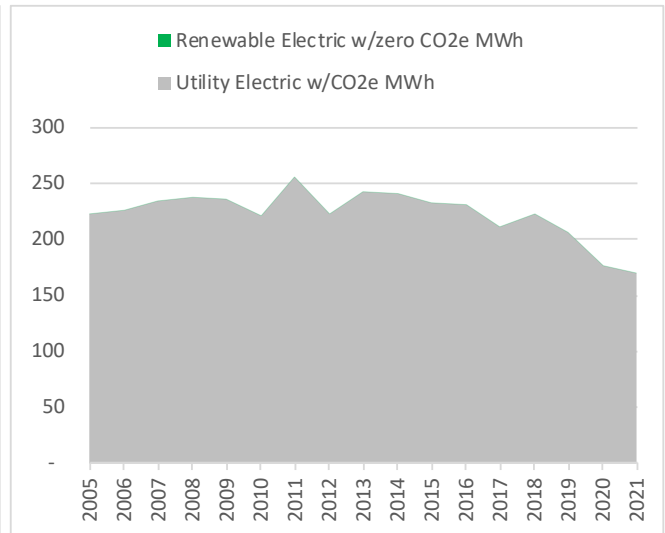
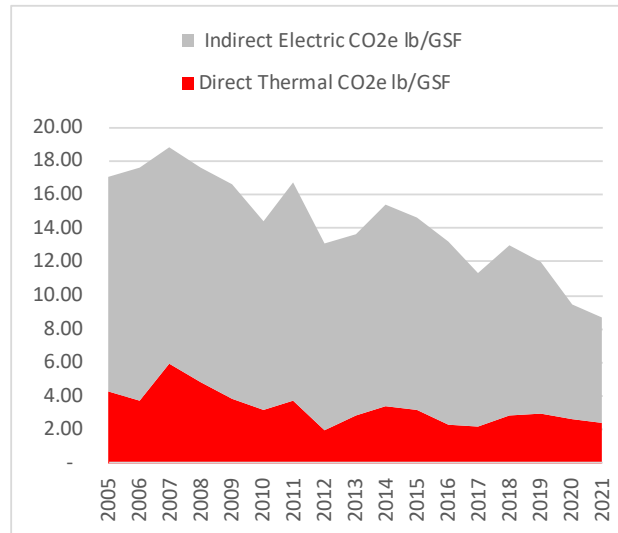
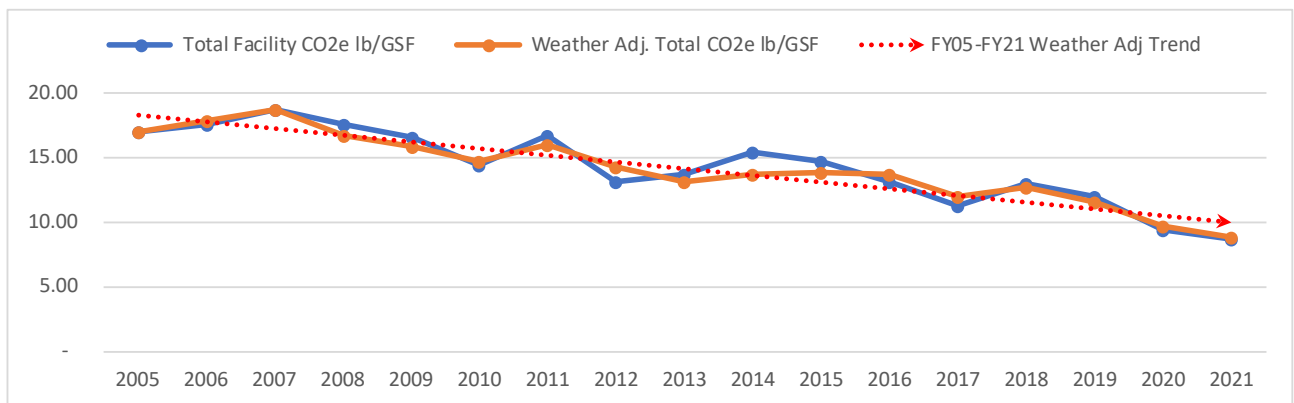
CO2e lb/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



DOT-West Allis CO2e Emissions Fiscal Year 2021 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	3.88	14.06	17.94	5.1%
2007	31,980	5.92	12.85	18.77	9.9%	48.88	5.91	12.87	18.78	10.0%
2008	31,980	4.78	12.78	17.56	2.9%	47.87	4.26	12.45	16.70	-2.1%
2009	31,980	3.87	12.71	16.58	-2.8%	47.26	3.41	12.39	15.80	-7.5%
2010	31,980	3.23	11.18	14.41	-15.6%	49.10	3.35	11.31	14.65	-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	2.72	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%

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



GHG-CO2e Calculation Methodology and Emission Factors

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 to determine a building's total GHG emissions accounts for all CO₂, CH₄, and N₂O 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).

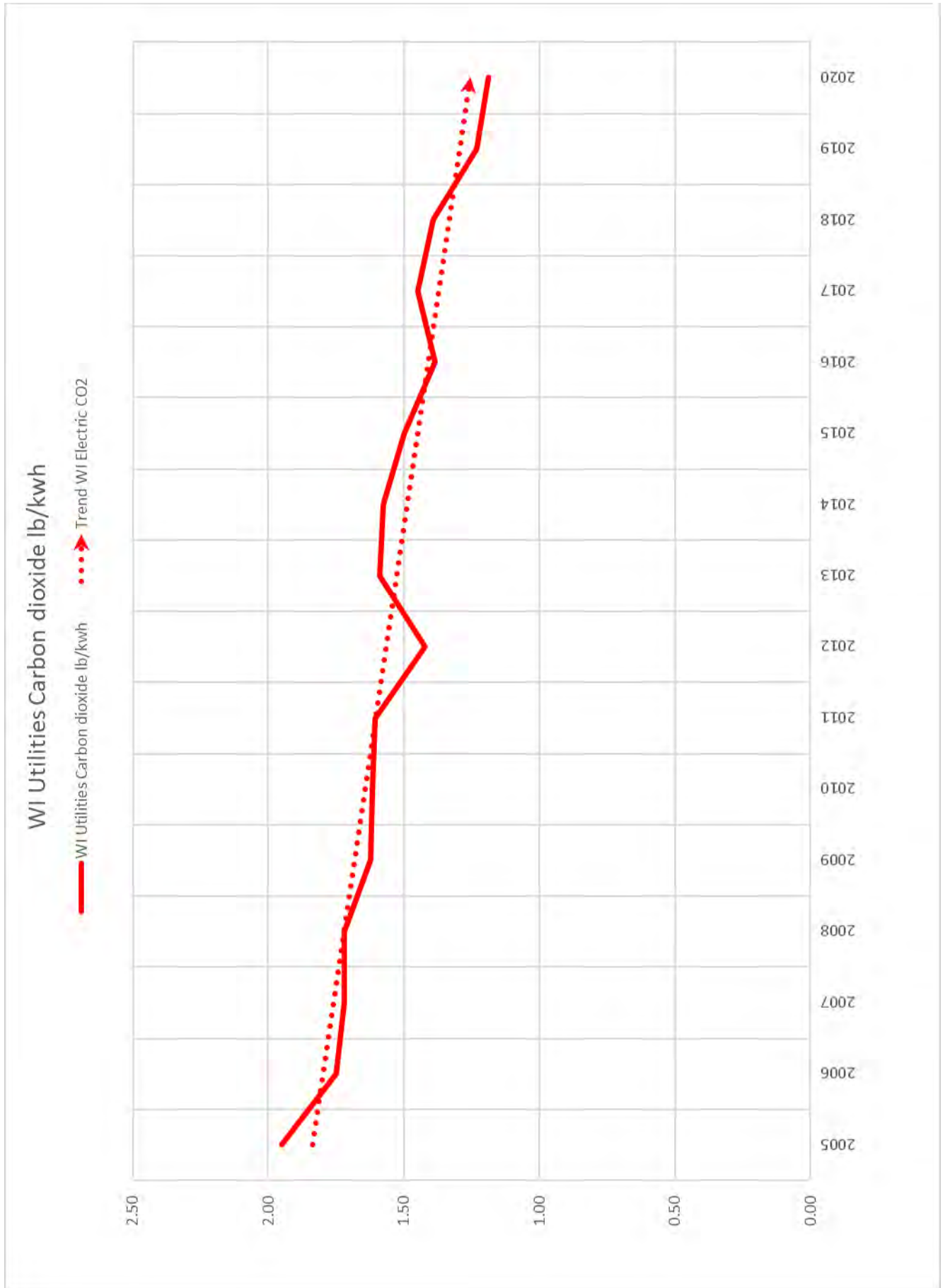
Calculating Direct GHG Emissions - For direct greenhouse gas emissions in CO₂e, each fuel is assigned a heating content, carbon content, a carbon oxidation factor, and a standard carbon to CO₂ ratio to arrive at an emissions factor expressed in mass of CO₂ per unit of fuel energy. CH₄ and N₂O emissions 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 ₂ 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 all 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 all Act 141 renewable purchases assuming from non-combustible wind-based resources.

Since FY2005, State of Wisconsin facilities have reduced the rate of GHG CO₂e 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
For homes and businesses				
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
Other transportation fuels				
Jet Fuel	21.10 gallon	9.57 gallon	156.30	70.90
Aviation Gas	18.40 gallon	8.35 gallon	152.60	69.20
Industrial fuels and others not listed above				
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
Nonfuel uses				
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
Coals by type				
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
Other fuels				
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.

Appendix B - Renewable Energy Policy and Purchases

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	Agency	Total UNITS	Total COST	Total Cost \$/kwh
FY08	Total	6,666,666	\$ 66,667	\$ 0.0100
FY09	Total	84,524,854	\$ 1,449,850	\$ 0.0172
FY10	Total	92,312,991	\$ 1,605,502	\$ 0.0174
FY11	Total	135,021,334	\$ 3,094,235	\$ 0.0229
FY12	Total	156,399,996	\$ 4,685,579	\$ 0.0300
FY13	Total	151,802,336	\$ 4,367,188	\$ 0.0288
FY14	Total	150,629,785	\$ 3,845,352	\$ 0.0255
FY15	Total	148,641,976	\$ 4,742,512	\$ 0.0319
FY16	Total	150,854,007	\$ 5,563,077	\$ 0.0369
FY17	Total	154,379,500	\$ 5,389,162	\$ 0.0349
FY18	Total	138,527,203	\$ 5,134,199	\$ 0.0371
FY19	Total	86,392,660	\$ 3,937,375	\$ 0.0456
FY20	Total	89,859,818	\$ 4,936,061	\$ 0.0549
FY21	Total	86,838,527	\$ 5,068,265	\$ 0.0584

These purchases were allocated based on to State Agencies and the State Energy Report electric energy monitored use to state agencies are summarized on the following page.

Fiscal Year	Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
FY08	DOA	496,666	\$ 4,967	72,527,798	0.68%	FY08	DPI	22,000	\$ 220	2,907,980	0.76%
FY09	DOA	6,297,098	\$ 108,014	69,552,909	9.05%	FY09	DPI	278,932	\$ 4,785	2,816,466	9.90%
FY10	DOA	6,877,318	\$ 119,610	66,750,932	10.30%	FY10	DPI	304,633	\$ 5,298	2,752,309	11.07%
FY11	DOA	10,059,089	\$ 230,521	65,739,826	15.30%	FY11	DPI	445,570	\$ 10,211	2,970,567	15.00%
FY12	DOA	9,837,560	\$ 294,723	65,729,341	14.97%	FY12	DPI	453,560	\$ 13,588	2,940,301	15.43%
FY13	DOA	9,548,367	\$ 274,696	64,271,547	14.86%	FY13	DPI	440,227	\$ 12,665	2,974,984	14.80%
FY14	DOA	8,058,693	\$ 205,726	65,347,680	12.33%	FY14	DPI	451,889	\$ 11,536	2,763,596	16.35%
FY15	DOA	8,621,235	\$ 275,066	63,550,371	13.57%	FY15	DPI	445,926	\$ 14,228	2,604,980	17.12%
FY16	DOA	8,824,904	\$ 325,440	63,236,496	13.96%	FY16	DPI	392,221	\$ 14,464	2,621,051	14.96%
FY17	DOA	9,217,165	\$ 318,499	62,974,849	14.64%	FY17	DPI	402,893	\$ 14,012	2,627,752	15.33%
FY18	DOA	7,564,225	\$ 276,508	59,651,618	12.68%	FY18	DPI	366,591	\$ 13,422	2,600,248	14.10%
FY19	DOA	5,357,204	\$ 244,340	56,853,956	9.42%	FY19	DPI	232,979	\$ 10,619	1,991,750	11.70%
FY20	DOA	5,482,053	\$ 299,961	54,110,768	10.13%	FY20	DPI	214,416	\$ 11,540	2,145,181	10.00%
FY21	DOA	5,431,750	\$ 317,020	49,209,710	11.04%	FY21	DPI	234,464	\$ 13,684	1,843,185	12.72%
Fiscal Year	Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
FY08	DOC	714,000	\$ 7,140	109,716,385	0.65%	FY08	DVA	64,666	\$ 647	9,703,983	0.67%
FY09	DOC	9,052,612	\$ 155,279	107,820,024	8.40%	FY09	DVA	819,888	\$ 14,064	9,465,390	8.66%
FY10	DOC	9,886,721	\$ 171,949	104,929,036	9.42%	FY10	DVA	895,436	\$ 15,573	9,310,393	9.62%
FY11	DOC	14,460,785	\$ 331,393	106,175,282	13.62%	FY11	DVA	1,309,707	\$ 30,014	9,767,198	13.41%
FY12	DOC	16,953,760	\$ 507,917	103,665,088	16.35%	FY12	DVA	1,501,440	\$ 44,982	9,780,670	15.35%
FY13	DOC	16,455,373	\$ 473,403	102,475,307	16.06%	FY13	DVA	1,457,302	\$ 41,925	9,829,269	14.83%
FY14	DOC	16,057,135	\$ 409,915	100,923,141	15.91%	FY14	DVA	1,491,235	\$ 38,069	9,713,958	15.35%
FY15	DOC	15,310,124	\$ 488,479	98,622,239	15.52%	FY15	DVA	1,486,420	\$ 47,425	9,768,928	15.22%
FY16	DOC	15,206,090	\$ 560,758	97,936,710	15.53%	FY16	DVA	1,463,284	\$ 53,962	10,134,052	14.44%
FY17	DOC	15,845,414	\$ 547,539	96,467,070	16.43%	FY17	DVA	1,596,076	\$ 55,508	10,065,736	15.86%
FY18	DOC	13,632,673	\$ 498,734	96,376,737	14.15%	FY18	DVA	1,420,410	\$ 115,246	10,296,737	13.79%
FY19	DOC	8,502,919	\$ 387,530	95,023,787	8.95%	FY19	DVA	889,563	\$ 40,543	9,869,445	9.01%
FY20	DOC	8,900,332	\$ 489,415	94,680,804	9.40%	FY20	DVA	925,556	\$ 50,841	8,961,309	10.33%
FY21	DOC	8,548,385	\$ 498,920	91,931,300	9.30%	FY21	DVA	894,437	\$ 52,203	8,939,562	10.01%
Fiscal Year	Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
FY08	DHS	288,666	\$ 2,887	46,425,119	0.62%	FY08	UW	5,080,668	\$ 50,807	763,676,445	0.67%
FY09	DHS	3,659,923	\$ 62,778	45,509,209	8.04%	FY09	UW	64,416,402	\$ 1,104,931	754,963,413	8.53%
FY10	DHS	3,997,153	\$ 69,518	44,092,319	9.07%	FY10	UW	70,351,730	\$ 1,223,553	754,215,301	9.33%
FY11	DHS	5,846,424	\$ 133,980	46,500,802	12.57%	FY11	UW	102,899,759	\$ 2,358,117	781,460,391	13.17%
FY12	DHS	6,772,120	\$ 202,886	46,836,797	14.46%	FY12	UW	120,881,557	\$ 3,621,484	794,882,367	15.21%
FY13	DHS	6,573,041	\$ 189,099	44,955,338	14.62%	FY13	UW	117,328,025	\$ 3,375,400	780,446,936	15.03%
FY14	DHS	6,703,025	\$ 171,118	44,672,991	15.00%	FY14	UW	117,867,807	\$ 3,008,988	782,159,825	15.07%
FY15	DHS	6,391,605	\$ 203,928	44,765,285	14.28%	FY15	UW	116,386,667	\$ 3,713,387	773,193,140	15.05%
FY16	DHS	6,547,066	\$ 241,438	45,529,852	14.38%	FY16	UW	118,420,442	\$ 4,367,016	778,904,074	15.20%
FY17	DHS	6,737,420	\$ 232,812	45,995,789	14.65%	FY17	UW	120,580,532	\$ 4,220,792	771,622,296	15.63%
FY18	DHS	6,424,782	\$ 235,418	44,162,598	14.55%	FY18	UW	109,118,522	\$ 3,994,871	757,291,182	14.41%
FY19	DHS	3,947,718	\$ 179,897	42,742,545	9.24%	FY19	UW	67,462,276	\$ 3,074,447	749,641,825	9.00%
FY20	DHS	3,971,967	\$ 217,099	42,838,997	9.27%	FY20	UW	70,365,494	\$ 3,867,206	720,345,068	9.77%
FY21	DHS	3,962,442	\$ 231,265	42,100,848	9.41%	FY21	UW	67,767,049	\$ 3,955,172	697,191,840	9.72%

Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
DOA	496,666	\$ 4,967	72,527,798	0.68%	FY08	DPI	22,000	\$ 220	2,907,980	0.76%
DOA	6,297,098	\$ 108,014	69,552,909	9.05%	FY09	DPI	278,932	\$ 4,785	2,816,466	9.90%
DOA	6,877,318	\$ 119,610	66,750,932	10.30%	FY10	DPI	304,633	\$ 5,298	2,752,309	11.07%
DOA	10,059,089	\$ 230,521	65,739,826	15.30%	FY11	DPI	445,570	\$ 10,211	2,970,567	15.00%
DOA	9,837,560	\$ 294,723	65,729,341	14.97%	FY12	DPI	453,560	\$ 13,588	2,940,301	15.43%
DOA	9,548,367	\$ 274,696	64,271,547	14.86%	FY13	DPI	440,227	\$ 12,665	2,974,984	14.80%
DOA	8,058,693	\$ 205,726	65,347,680	12.33%	FY14	DPI	451,889	\$ 11,536	2,763,596	16.35%
DOA	8,621,235	\$ 275,066	63,550,371	13.57%	FY15	DPI	445,926	\$ 14,228	2,604,980	17.12%
DOA	8,824,904	\$ 325,440	63,236,496	13.96%	FY16	DPI	392,221	\$ 14,464	2,621,051	14.96%
DOA	9,217,165	\$ 318,499	62,974,849	14.64%	FY17	DPI	402,893	\$ 14,012	2,627,752	15.33%
DOA	7,564,225	\$ 276,508	59,651,618	12.68%	FY18	DPI	366,591	\$ 13,422	2,600,248	14.10%
DOA	5,357,204	\$ 244,340	56,853,956	9.42%	FY19	DPI	232,979	\$ 10,619	1,991,750	11.70%
DOA	5,482,053	\$ 299,961	54,110,768	10.13%	FY20	DPI	214,416	\$ 11,540	2,145,181	10.00%
DOA	5,431,750	\$ 317,020	49,209,710	11.04%	FY21	DPI	234,464	\$ 13,684	1,843,185	12.72%
Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
DOC	714,000	\$ 7,140	109,716,385	0.65%	FY08	DVA	64,666	\$ 647	9,703,983	0.67%
DOC	9,052,612	\$ 155,279	107,820,024	8.40%	FY09	DVA	819,888	\$ 14,064	9,465,390	8.66%
DOC	9,886,721	\$ 171,949	104,929,036	9.42%	FY10	DVA	895,436	\$ 15,573	9,310,393	9.62%
DOC	14,460,785	\$ 331,393	106,175,282	13.62%	FY11	DVA	1,309,707	\$ 30,014	9,767,198	13.41%
DOC	16,953,760	\$ 507,917	103,665,088	16.35%	FY12	DVA	1,501,440	\$ 44,982	9,780,670	15.35%
DOC	16,455,373	\$ 473,403	102,475,307	16.06%	FY13	DVA	1,457,302	\$ 41,925	9,829,269	14.83%
DOC	16,057,135	\$ 409,915	100,923,141	15.91%	FY14	DVA	1,491,235	\$ 38,069	9,713,958	15.35%
DOC	15,310,124	\$ 488,479	98,622,239	15.52%	FY15	DVA	1,486,420	\$ 47,425	9,768,928	15.22%
DOC	15,206,090	\$ 560,758	97,936,710	15.53%	FY16	DVA	1,463,284	\$ 53,962	10,134,052	14.44%
DOC	15,845,414	\$ 547,539	96,467,070	16.43%	FY17	DVA	1,596,076	\$ 55,508	10,065,736	15.86%
DOC	13,632,673	\$ 498,734	96,376,737	14.15%	FY18	DVA	1,420,410	\$ 115,246	10,296,737	13.79%
DOC	8,502,919	\$ 387,530	95,023,787	8.95%	FY19	DVA	889,563	\$ 40,543	9,869,445	9.01%
DOC	8,900,332	\$ 489,415	94,680,804	9.40%	FY20	DVA	925,556	\$ 50,841	8,961,309	10.33%
DOC	8,548,385	\$ 498,920	91,931,300	9.30%	FY21	DVA	894,437	\$ 52,203	8,939,562	10.01%
Agency	DOC TOTAL UNITS	DOC TOTAL COST	Agency kwh	% Renewables	Fiscal Year	Agency	DVA TOTAL UNITS	DVA TOTAL COST	Agency kwh	% Renewables
DHS	288,666	\$ 2,887	46,425,119	0.62%	FY08	UW	5,080,668	\$ 50,807	763,676,445	0.67%
DHS	3,659,923	\$ 62,778	45,509,209	8.04%	FY09	UW	64,416,402	\$ 1,104,931	754,963,413	8.53%
DHS	3,997,153	\$ 69,518	44,092,319	9.07%	FY10	UW	70,351,730	\$ 1,223,553	754,215,301	9.33%
DHS	5,846,424	\$ 133,980	46,500,802	12.57%	FY11	UW	102,899,759	\$ 2,358,117	781,460,391	13.17%
DHS	6,772,120	\$ 202,886	46,836,797	14.46%	FY12	UW	120,881,557	\$ 3,621,484	794,882,367	15.21%
DHS	6,573,041	\$ 189,099	44,955,338	14.62%	FY13	UW	117,328,025	\$ 3,375,400	780,446,936	15.03%
DHS	6,703,025	\$ 171,118	44,672,991	15.00%	FY14	UW	117,867,807	\$ 3,008,988	782,159,825	15.07%
DHS	6,391,605	\$ 203,928	44,765,285	14.28%	FY15	UW	116,386,667	\$ 3,713,387	773,193,140	15.05%
DHS	6,547,066	\$ 241,438	45,529,852	14.38%	FY16	UW	118,420,442	\$ 4,367,016	778,904,074	15.20%
DHS	6,737,420	\$ 232,812	45,995,789	14.65%	FY17	UW	120,580,532	\$ 4,220,792	771,622,296	15.63%
DHS	6,424,782	\$ 235,418	44,162,598	14.55%	FY18	UW	109,118,522	\$ 3,994,871	757,291,182	14.41%
DHS	3,947,718	\$ 179,897	42,742,545	9.24%	FY19	UW	67,462,276	\$ 3,074,447	749,641,825	9.00%
DHS	3,971,967	\$ 217,099	42,838,997	9.27%	FY20	UW	70,365,494	\$ 3,867,206	720,345,068	9.77%
DHS	3,962,442	\$ 231,265	42,100,848	9.41%	FY21	UW	67,767,049	\$ 3,955,172	697,191,840	9.72%

Additional Renewable Energy Resources and Purchases

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 encourage to develop and use grid-source "green" electricity purchases and on-site renewable energy technologies.

In addition to 16.75(12) 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 CO₂, 255 lbs of NO_x and 491 lbs of SO₂ (acid rain emissions). Refer to:
 - <http://view2.fatspanel.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 CO₂, 144 lbs of NO_x and 277 lbs of SO₂. SO₂ is also associated acid rain emissions. See:
 - <http://view2.fatspanel.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 CO₂, 242 lbs of NO_x and 465 lbs of SO₂. SO₂ is also associated acid rain emissions. See:
 - 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 below:

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

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 shall 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**

PROJECT:		PROJECT NO.:	
LOCATION:		DATE:	

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

Appendix D - Facility and Building CO₂e Analysis Reports

The State Energy and GHG Emissions Report services includes 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) 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.

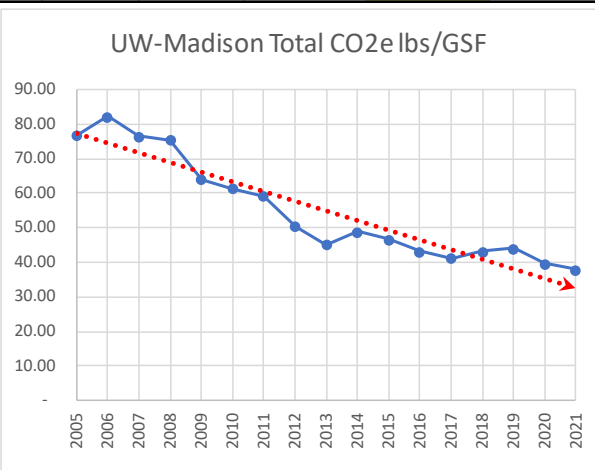
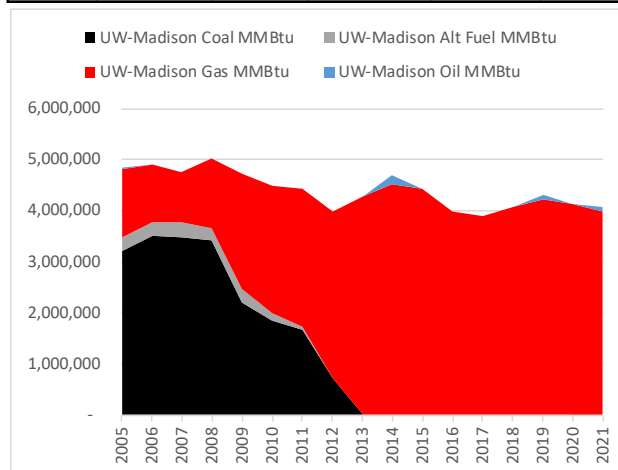
Attached are sample GHG analysis and data reports provided for facility and building energy and sustainability managers:

- Page 124 - UW-Madison Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 125 - DOA-Capitol Complex Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 126 - DOC-Waupun Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 127 - DHS-Mendota Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 128 - DVA-King Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 129 - DPI-Delavan Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 130 - DOT-DTD 1 Madison Boiler Plant Fuel and Electric Use CO₂e Emissions.
- Page 131 - DNR-South Central Boiler Plant Fuel and Electric Use CO₂e Emissions.

UW-Madison 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-Madison Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	UW-Madison Total CO2e lbs/GSF
2005	19,207,711	48.12	386,588,309	-	386,588,309	1.84	323,176	344,851	668,027	76.67
2006	19,361,692	48.65	411,046,209	-	411,046,209	1.95	363,572	359,183	722,755	82.30
2007	19,913,817	47.46	422,685,825	-	422,685,825	1.75	335,331	356,220	691,550	76.56
2008	20,578,984	46.19	436,554,159	2,904,354	433,649,805	1.72	338,521	366,367	704,888	75.51
2009	20,979,443	45.66	432,235,116	36,879,974	395,355,142	1.72	308,268	301,860	610,129	64.12
2010	20,678,457	47.10	434,203,004	40,501,608	393,701,396	1.62	289,835	285,147	574,982	61.30
2011	21,120,379	46.81	456,522,094	60,113,109	396,408,986	1.62	290,570	276,282	566,852	59.17
2012	22,153,550	51.51	468,541,934	71,253,409	397,288,525	1.61	289,773	215,922	505,695	50.32
2013	22,362,671	47.29	454,891,461	68,385,837	386,505,624	1.42	249,299	207,879	457,179	45.07
2014	22,810,139	44.58	459,981,537	69,317,054	390,664,483	1.59	281,752	223,635	505,387	48.85
2015	22,931,250	45.84	456,020,369	68,643,510	387,376,860	1.58	277,096	208,375	485,472	46.67
2016	22,931,250	49.68	456,704,129	69,434,872	387,269,257	1.50	263,142	185,672	448,814	43.15
2017	22,947,032	49.72	459,942,575	71,874,699	388,067,876	1.39	243,794	185,530	429,324	41.25
2018	22,947,032	46.66	447,082,530	64,420,379	382,662,151	1.45	251,507	197,523	449,030	43.14
2019	22,755,778	45.88	437,536,516	39,375,083	398,161,433	1.39	251,761	202,605	454,365	44.02
2020	22,755,778	48.25	427,188,789	41,729,099	385,459,691	1.23	215,580	194,415	409,994	39.72
2021	22,755,778	48.83	417,802,042	42,432,284	375,369,758	1.19	202,275	188,385	390,660	37.85

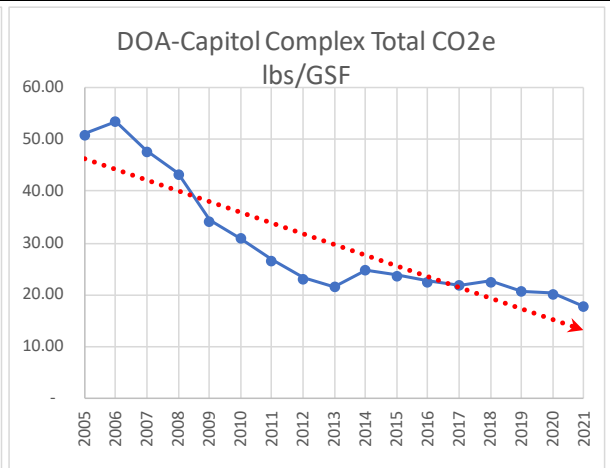
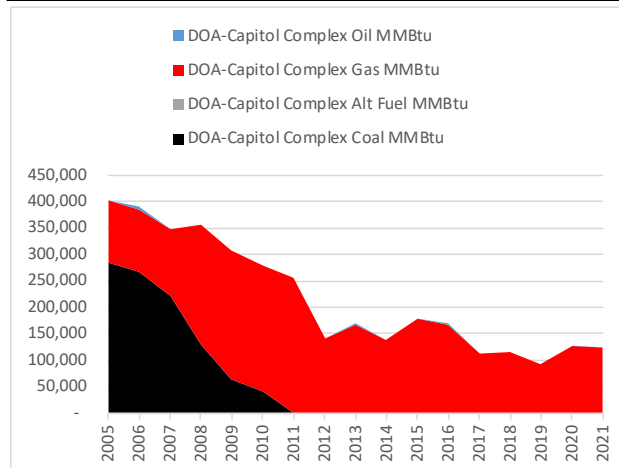
Fiscal Year	UW-Madison Net Thermal MMBtu	UW-Madison Plant Reports MMBtu w/Sales	UW-Madison Coal MMBtu	UW-Madison Alt Fuel MMBtu	UW-Madison Gas MMBtu	UW-Madison Oil MMBtu	UW-Madison Plant Reports MMBtu w/Sales	UW-Madison Boiler Fuel Based Emissions lbs	UW-Madison Boiler Fuel Emissions lb/MMBtu	UW-Madison Net Thermal MMBtu CO2e Metric Tons
2005	4,342,538	4,845,955	3,228,569	244,761	1,345,677	26,948	4,845,955	384,828	175.07	344,851
2006	4,415,221	4,912,018	3,523,171	248,989	1,139,858	-	4,912,018	399,597	179.35	359,183
2007	4,346,779	4,765,371	3,496,180	278,622	984,007	6,562	4,765,371	390,523	180.67	356,220
2008	4,580,613	5,036,296	3,430,734	219,198	1,386,363	-	5,036,296	402,813	176.33	366,367
2009	4,235,380	4,737,407	2,215,357	255,952	2,265,748	350	4,737,407	337,640	157.13	301,860
2010	4,107,352	4,502,779	1,865,772	125,787	2,511,220	-	4,502,779	312,599	153.05	285,147
2011	4,049,855	4,437,517	1,684,551	53,371	2,696,617	2,978	4,437,517	302,728	150.40	276,282
2012	3,570,819	3,991,242	725,662	-	3,249,053	16,527	3,991,242	241,345	133.31	215,922
2013	3,910,155	4,297,202	-	-	4,277,165	20,036	4,297,202	228,456	117.21	207,879
2014	4,158,668	4,688,892	-	-	4,524,290	164,602	4,688,892	252,148	118.56	223,635
2015	3,926,203	4,438,316	-	-	4,437,711	605	4,438,316	235,555	117.01	208,375
2016	3,498,402	3,979,539	-	-	3,978,930	609	3,979,539	211,208	117.01	185,672
2017	3,495,678	3,912,464	-	-	3,911,746	718	3,912,464	207,650	117.01	185,530
2018	3,717,325	4,080,344	-	-	4,067,055	13,289	4,080,344	216,812	117.14	197,523
2019	3,795,287	4,303,363	-	-	4,236,336	67,027	4,303,363	229,728	117.69	202,605
2020	3,662,674	4,147,494	-	-	4,145,491	2,004	4,147,494	220,149	117.02	194,415
2021	3,517,895	4,073,534	-	-	3,976,187	97,347	4,073,534	218,140	118.06	188,385



DOA-Capitol Complex 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-Capitol Complex Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOA-Capitol Complex Total CO2e lbs/GSF
2005	2,013,307	48.12	33,532,898	-	33,532,898	1.84	28,033	18,534	46,567	50.99
2006	2,013,307	48.65	33,743,622	-	33,743,622	1.95	29,846	18,952	48,798	53.44
2007	2,013,307	47.46	33,170,270	-	33,170,270	1.75	26,315	17,345	43,660	47.81
2008	2,013,307	46.19	31,747,089	217,402	31,529,687	1.72	24,613	15,080	39,693	43.46
2009	2,013,307	45.66	28,632,035	2,592,253	26,039,782	1.72	20,304	11,039	31,342	34.32
2010	2,013,307	47.10	28,027,209	2,887,630	25,139,578	1.62	18,507	9,798	28,305	30.99
2011	2,013,307	46.81	26,758,378	4,094,397	22,663,981	1.62	16,613	7,834	24,447	26.77
2012	2,013,307	51.51	27,547,579	4,122,983	23,424,596	1.61	17,085	4,102	21,187	23.20
2013	2,013,307	47.29	27,036,607	4,016,637	23,019,970	1.42	14,848	4,857	19,705	21.58
2014	2,013,307	44.58	27,171,351	3,350,778	23,820,572	1.59	17,180	5,493	22,673	24.83
2015	2,013,307	45.84	26,771,104	3,631,764	23,139,339	1.58	16,552	5,250	21,802	23.87
2016	2,013,307	49.68	26,768,875	3,735,703	23,033,172	1.50	15,651	4,980	20,631	22.59
2017	2,013,307	49.72	26,194,545	3,833,903	22,360,642	1.39	14,048	6,022	20,069	21.98
2018	2,013,307	46.66	25,220,829	3,198,170	22,022,659	1.45	14,475	6,152	20,627	22.59
2019	2,013,307	45.88	24,483,489	2,307,017	22,176,473	1.39	14,022	4,947	18,969	20.77
2020	2,013,307	48.07	23,336,501	2,364,260	20,972,241	1.23	11,729	6,815	18,544	20.31
2021	2,013,307	47.61	20,737,546	2,705,055	18,032,491	1.19	9,717	6,524	16,241	17.78

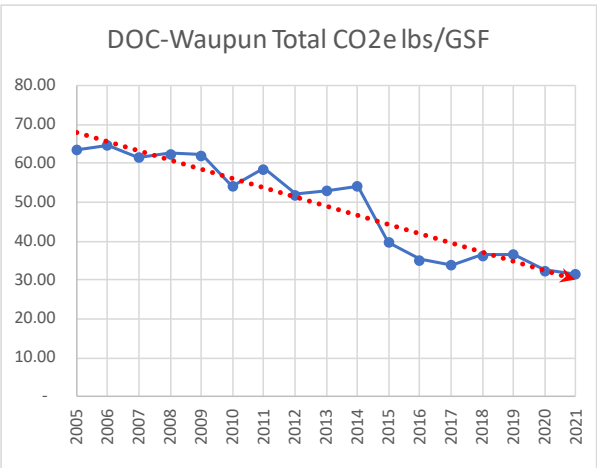
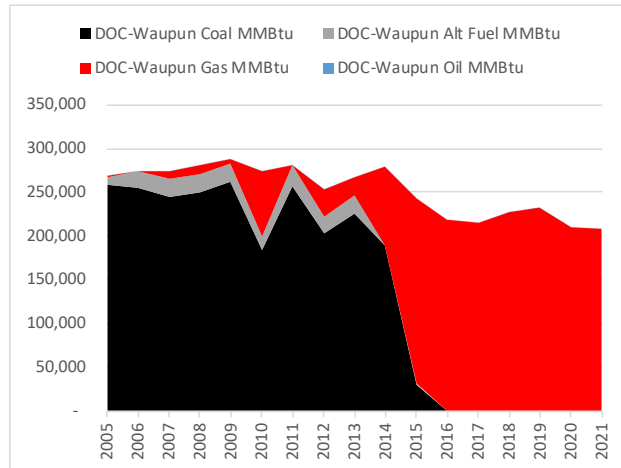
Fiscal Year	DOA-Capitol Complex Net Thermal MMBtu	DOA-Capitol Complex Plant Reports MMBtu w/Sales	DOA-Capitol Complex Coal MMBtu	DOA-Capitol Complex Alt Fuel MMBtu	DOA-Capitol Complex Gas MMBtu	DOA-Capitol Complex Oil MMBtu	DOA-Capitol Complex Plant Reports MMBtu	DOA-Capitol Complex Boiler Fuel Based Emissions lbs	DOA-Capitol Complex Boiler Fuel Emissions lb/MMBtu	DOA-Capitol Complex Net Thermal MMBtu CO2e Metric Tons
2005	227,465	401,457	283,485	-	117,952	20	401,457	32,711	179.64	18,534
2006	234,403	390,937	266,448	-	117,494	6,995	390,937	31,608	178.25	18,952
2007	220,472	346,247	220,323	-	125,925	-	346,247	27,240	173.44	17,345
2008	222,549	355,373	129,751	-	225,622	-	355,373	24,080	149.39	15,080
2009	179,355	307,896	64,859	-	243,037	-	307,896	18,950	135.68	11,039
2010	166,382	277,667	40,152	-	237,515	-	277,667	16,351	129.83	9,798
2011	147,624	255,889	-	-	255,889	-	255,889	13,580	117.00	7,834
2012	77,294	142,230	-	-	142,230	-	142,230	7,548	117.00	4,102
2013	91,237	169,441	-	-	168,061	1,380	169,441	9,020	117.36	4,857
2014	103,504	138,369	-	-	138,369	-	138,369	7,343	117.00	5,493
2015	98,886	178,357	-	-	178,200	157	178,357	9,469	117.04	5,250
2016	93,812	168,650	-	-	168,498	152	168,650	8,953	117.04	4,980
2017	113,472	113,472	-	-	113,472	-	113,472	6,022	117.00	6,022
2018	115,922	115,922	-	-	115,922	-	115,922	6,152	117.00	6,152
2019	93,207	93,207	-	-	93,207	-	93,207	4,947	117.00	4,947
2020	128,415	128,415	-	-	128,415	-	128,415	6,815	117.00	6,815
2021	122,923	122,923	-	-	122,923	-	122,923	6,524	117.00	6,524



DOC-Waupun Boiler 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-Waupun Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOC-Waupun Total CO2e lbs/GSF
2005	1,260,274	48.12	15,372,772	-	15,372,772	1.84	12,851	23,499	36,351	63.59
2006	1,260,274	48.65	15,040,220	-	15,040,220	1.95	13,303	23,681	36,984	64.70
2007	1,260,274	47.46	15,006,005	-	15,006,005	1.75	11,905	23,255	35,160	61.51
2008	1,260,274	46.19	15,702,434	102,187	15,600,247	1.72	12,178	23,598	35,776	62.58
2009	1,260,274	45.66	15,527,569	1,303,701	14,223,868	1.72	11,091	24,406	35,497	62.10
2010	1,260,274	47.10	15,071,194	1,420,052	13,651,142	1.62	10,050	20,885	30,934	54.11
2011	1,260,274	46.81	15,923,230	2,168,701	13,754,529	1.62	10,082	23,432	33,514	58.63
2012	1,260,274	51.51	15,417,640	2,521,456	12,896,184	1.61	9,406	20,293	29,699	51.95
2013	1,260,274	47.29	15,398,769	2,472,718	12,926,051	1.42	8,337	21,941	30,278	52.97
2014	1,260,274	44.58	15,352,198	2,442,575	12,909,623	1.59	9,311	21,637	30,947	54.14
2015	1,260,274	45.84	14,998,817	2,328,417	12,670,400	1.58	9,063	13,713	22,777	39.84
2016	1,260,274	49.68	15,560,081	2,415,927	13,144,154	1.50	8,931	11,240	20,171	35.29
2017	1,260,274	49.72	15,187,924	2,494,726	12,693,198	1.39	7,974	11,441	19,416	33.96
2018	1,260,274	46.66	15,410,775	2,179,883	13,230,892	1.45	8,696	12,089	20,786	36.36
2019	1,260,274	45.88	14,859,455	1,329,654	13,529,801	1.39	8,555	12,349	20,904	36.57
2020	1,260,274	48.07	14,711,386	1,382,923	13,328,463	1.23	7,454	11,154	18,609	32.55
2021	1,260,274	47.24	14,409,245	1,339,868	13,069,377	1.19	7,043	11,023	18,065	31.60

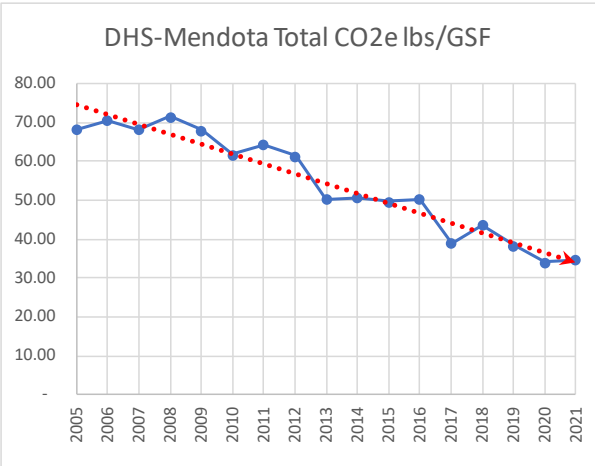
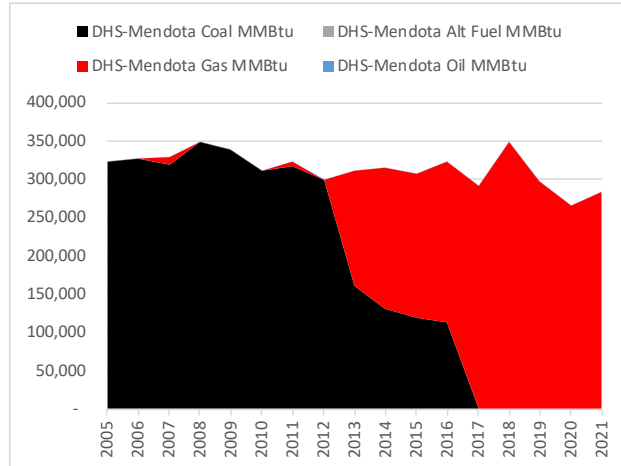
Fiscal Year	DOC-Waupun Net Thermal MMBtu	DOC-Waupun Plant Reports MMBtu w/Sales	DOC-Waupun Coal MMBtu	DOC-Waupun Alt Fuel MMBtu	DOC-Waupun Gas MMBtu	DOC-Waupun Oil MMBtu	DOC-Waupun Plant Reports MMBtu w/Sales	DOC-Waupun Boiler Fuel Based Emissions lbs	DOC-Waupun Boiler Fuel Emissions lb/MMBtu	DOC-Waupun Net Thermal MMBtu CO2e Metric Tons
2005	256,594	268,214	259,230	8,820	164	-	268,214	24,564	201.90	23,499
2006	264,073	274,017	254,645	18,864	507	-	274,017	24,573	197.70	23,681
2007	263,951	274,620	244,996	20,718	8,906	-	274,620	24,195	194.24	23,255
2008	268,464	281,321	249,341	20,502	11,478	-	281,321	24,728	193.79	23,598
2009	274,662	287,231	261,682	21,834	3,715	-	287,231	25,523	195.90	24,406
2010	262,571	274,249	184,780	15,394	74,076	-	274,249	21,814	175.35	20,885
2011	263,118	280,201	257,140	23,061	0	-	280,201	24,953	196.33	23,432
2012	240,404	253,367	203,014	19,961	30,391	-	253,367	21,387	186.09	20,293
2013	254,747	266,896	225,463	21,797	19,636	-	266,896	22,987	189.88	21,941
2014	270,232	280,182	188,478	1,694	90,010	-	280,182	22,433	176.52	21,637
2015	236,358	243,815	30,084	2,164	210,526	1,040	243,815	14,146	127.91	13,713
2016	211,614	219,296	-	-	218,803	493	219,296	11,648	117.10	11,240
2017	215,591	215,591	-	-	215,591	-	215,591	11,441	117.00	11,441
2018	227,801	227,801	-	-	227,801	-	227,801	12,089	117.00	12,089
2019	232,693	232,693	-	-	232,693	-	232,693	12,349	117.00	12,349
2020	210,181	210,181	-	-	210,181	-	210,181	11,154	117.00	11,154
2021	207,701	207,701	-	-	207,701	-	207,701	11,023	117.00	11,023



DHS-Mendota 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-Mendota Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DHS-Mendota Total CO2e lbs/GSF
2005	1,313,997	48.12	13,806,506	-	13,806,506	1.84	11,542	29,160	40,701	68.29
2006	1,313,997	48.65	14,756,863	-	14,756,863	1.95	13,053	28,959	42,012	70.49
2007	1,313,997	47.46	14,300,165	-	14,300,165	1.75	11,345	29,319	40,663	68.23
2008	1,313,997	46.19	14,589,363	90,715	14,498,648	1.72	11,318	31,350	42,668	71.59
2009	1,313,997	45.66	14,057,288	1,130,509	12,926,779	1.72	10,079	30,467	40,547	68.03
2010	1,313,997	47.10	12,632,662	1,145,203	11,487,459	1.62	8,457	28,405	36,861	61.85
2011	1,313,997	46.81	14,348,277	1,803,971	12,544,306	1.62	9,195	29,155	38,350	64.34
2012	1,313,997	51.51	14,383,296	2,079,677	12,303,619	1.61	8,974	27,660	36,634	61.47
2013	1,313,997	47.29	13,853,069	2,025,495	11,827,574	1.42	7,629	22,348	29,977	50.29
2014	1,313,997	44.58	14,100,508	2,115,732	11,984,776	1.59	8,644	21,494	30,138	50.56
2015	1,320,211	45.84	14,255,126	2,035,352	12,219,773	1.58	8,741	21,002	29,743	49.67
2016	1,320,211	49.68	14,497,294	2,084,671	12,412,623	1.50	8,434	21,678	30,112	50.28
2017	1,320,211	49.72	14,491,034	2,122,633	12,368,401	1.39	7,770	15,507	23,277	38.87
2018	1,320,211	46.66	13,487,862	1,962,216	11,525,646	1.45	7,575	18,511	26,087	43.56
2019	1,320,211	45.88	12,539,894	1,158,190	11,381,705	1.39	7,197	15,764	22,961	38.34
2020	1,320,211	48.07	12,278,906	1,138,482	11,140,425	1.23	6,231	14,135	20,366	34.01
2021	1,320,211	47.61	11,767,075	1,107,492	10,659,583	1.19	5,744	15,081	20,825	34.78

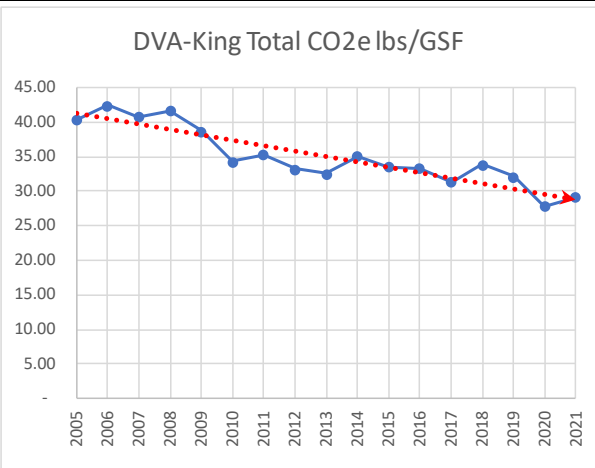
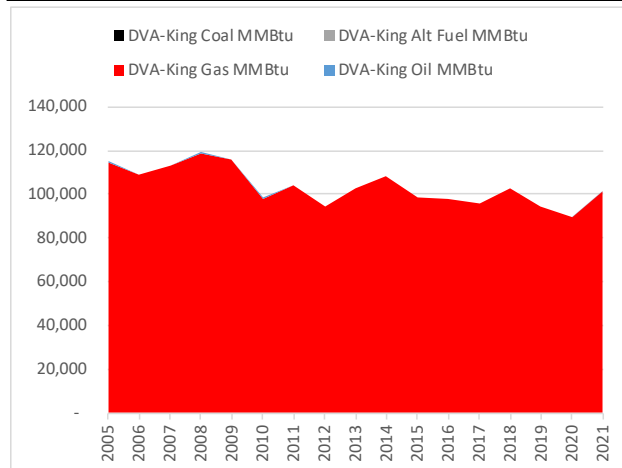
Fiscal Year	DHS-Mendota Net Thermal MMBtu	DHS-Mendota Plant Reports MMBtu w/Sales	DHS-Mendota Coal MMBtu	DHS-Mendota Alt Fuel MMBtu	DHS-Mendota Gas MMBtu	DHS-Mendota Oil MMBtu	DHS-Mendota Plant Reports MMBtu w/Sales	DHS-Mendota Boiler Fuel Based Emissions lbs	DHS-Mendota Boiler Fuel Emissions lb/MMBtu	DHS-Mendota Net Thermal MMBtu CO2e Metric Tons
2005	312,702	324,132	323,701	-	431	-	324,132	30,225	205.58	29,160
2006	310,375	326,812	326,810	-	1	-	326,812	30,493	205.70	28,959
2007	318,081	329,261	320,009	-	9,252	-	329,261	30,349	203.21	29,319
2008	336,001	348,918	348,918	-	0	-	348,918	32,555	205.70	31,350
2009	326,538	338,536	338,536	-	0	-	338,536	31,587	205.70	30,467
2010	304,431	312,230	312,230	-	0	-	312,230	29,132	205.70	28,405
2011	315,634	323,805	316,297	-	7,508	-	323,805	29,910	203.64	29,155
2012	296,730	300,402	299,898	504	0	-	300,402	28,003	205.51	27,660
2013	302,561	310,720	160,568	-	150,152	-	310,720	22,950	162.84	22,348
2014	307,640	315,572	131,746	-	183,826	-	315,572	22,048	154.03	21,494
2015	305,991	306,483	118,565	-	187,918	-	306,483	21,035	151.31	21,002
2016	322,902	322,902	112,873	-	210,029	-	322,902	21,678	148.01	21,678
2017	292,199	292,199	-	-	292,199	-	292,199	15,507	117.00	15,507
2018	348,807	348,807	-	-	348,807	-	348,807	18,511	117.00	18,511
2019	297,037	297,037	-	-	297,037	-	297,037	15,764	117.00	15,764
2020	266,346	266,346	-	-	266,346	-	266,346	14,135	117.00	14,135
2021	284,173	284,173	-	-	284,173	-	284,173	15,081	117.00	15,081



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	4,998	10,676	32.08
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	894,437	8,045,125	1.19	4,335	5,367	9,702	29.15

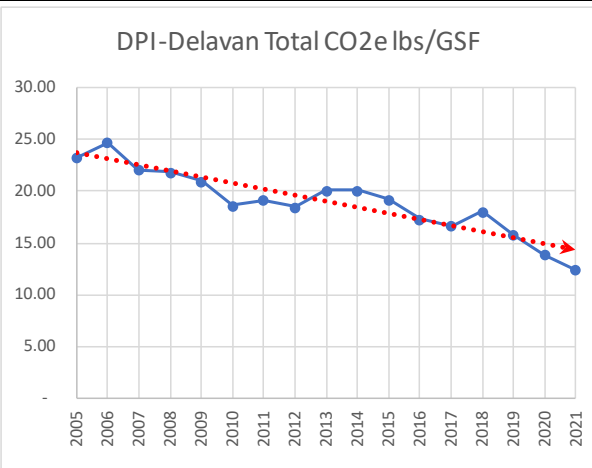
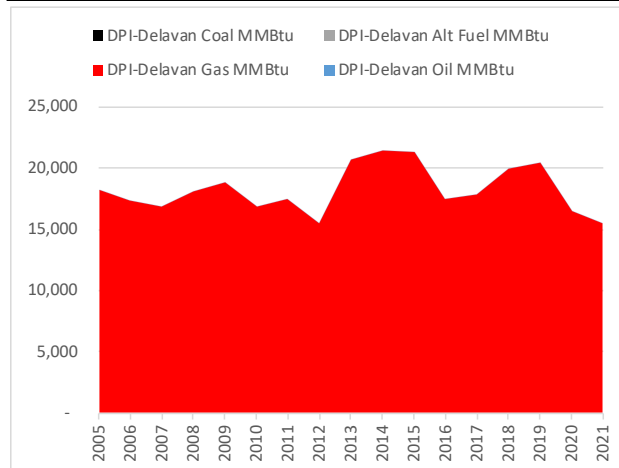
Fiscal Year	DVA-King Net Thermal MMBtu	DVA-King Plant Reports MMBtu w/Sales	DVA-King Coal MMBtu	DVA-King Alt Fuel MMBtu	DVA-King Gas MMBtu	DVA-King Oil MMBtu	DVA-King Plant Reports MMBtu w/Sales	DVA-King Boiler Fuel Based Emissions lbs	DVA-King Boiler Fuel Emissions lb/MMBtu	DVA-King Net Thermal MMBtu 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	-	-	94,169	-	94,169	4,998	117.00	4,998
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



DPI-Delavan 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-Delavan Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DPI-Delavan Total CO2e lbs/GSF
2005	244,979	48.12	1,930,680	-	1,930,680	1.84	1,614	969	2,583	23.25
2006	244,979	48.65	2,068,560	-	2,068,560	1.95	1,830	915	2,745	24.70
2007	244,979	47.46	1,955,520	-	1,955,520	1.75	1,551	897	2,449	22.04
2008	244,979	46.19	1,890,360	14,301	1,876,059	1.72	1,465	960	2,425	21.82
2009	244,979	45.66	1,886,760	186,857	1,699,903	1.72	1,325	1,002	2,327	20.94
2010	244,979	47.10	1,801,080	199,348	1,601,732	1.62	1,179	893	2,072	18.65
2011	244,979	46.81	1,928,160	289,214	1,638,946	1.62	1,201	925	2,126	19.13
2012	244,979	51.51	1,999,440	308,426	1,691,014	1.61	1,233	820	2,054	18.48
2013	244,979	47.29	2,067,840	305,991	1,761,849	1.42	1,136	1,097	2,233	20.10
2014	244,979	44.58	1,813,904	296,600	1,517,303	1.59	1,094	1,136	2,230	20.07
2015	244,979	45.84	1,701,019	291,184	1,409,835	1.58	1,008	1,130	2,139	19.25
2016	244,979	49.68	1,718,708	257,192	1,461,516	1.50	993	928	1,921	17.29
2017	244,979	49.72	1,701,570	260,889	1,440,681	1.39	905	944	1,849	16.64
2018	244,979	46.66	1,684,614	237,502	1,447,112	1.45	951	1,056	2,007	18.06
2019	244,979	45.88	1,200,072	140,375	1,059,697	1.39	670	1,083	1,753	15.77
2020	244,979	48.07	1,319,339	131,871	1,187,468	1.23	664	878	1,542	13.88
2021	244,979	47.61	1,183,901	150,599	1,033,302	1.19	557	826	1,382	12.44

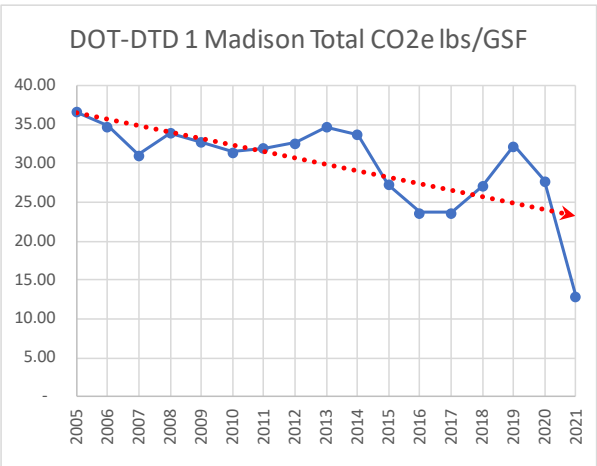
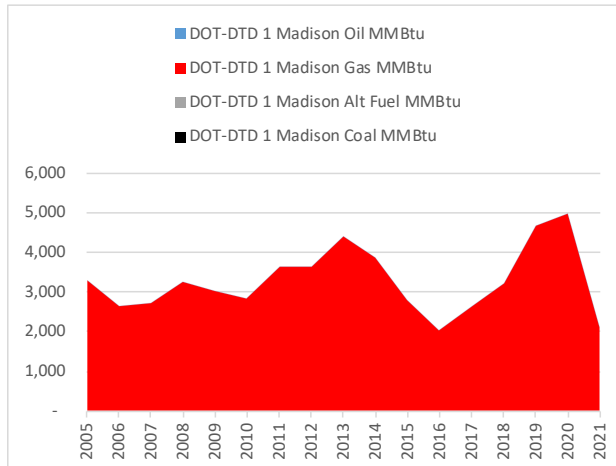
Fiscal Year	DPI-Delavan Net Thermal MMBtu	DPI-Delavan Plant Reports MMBtu w/Sales	DPI-Delavan Coal MMBtu	DPI-Delavan Alt Fuel MMBtu	DPI-Delavan Gas MMBtu	DPI-Delavan Oil MMBtu	DPI-Delavan Plant Reports MMBtu w/Sales	DPI-Delavan Boiler Fuel Based Emissions lbs	DPI-Delavan Boiler Fuel Emissions lb/MMBtu	DPI-Delavan Net Thermal MMBtu CO2e Metric Tons
2005	18,267	18,267	-	-	18,267	-	18,267	969	117.00	969
2006	17,237	17,382	-	-	17,346	36	17,382	923	117.09	915
2007	16,911	16,911	-	-	16,911	-	16,911	897	117.00	897
2008	18,097	18,097	-	-	18,097	-	18,097	960	117.00	960
2009	18,874	18,874	-	-	18,874	-	18,874	1,002	117.00	1,002
2010	16,825	16,825	-	-	16,825	-	16,825	893	117.00	893
2011	17,425	17,425	-	-	17,425	-	17,425	925	117.00	925
2012	15,454	15,454	-	-	15,454	-	15,454	820	117.00	820
2013	20,672	20,672	-	-	20,672	-	20,672	1,097	117.00	1,097
2014	21,397	21,397	-	-	21,397	-	21,397	1,136	117.00	1,136
2015	21,296	21,296	-	-	21,296	-	21,296	1,130	117.00	1,130
2016	17,491	17,491	-	-	17,491	-	17,491	928	117.00	928
2017	17,794	17,794	-	-	17,794	-	17,794	944	117.00	944
2018	19,900	19,900	-	-	19,900	-	19,900	1,056	117.00	1,056
2019	20,402	20,402	-	-	20,402	-	20,402	1,083	117.00	1,083
2020	16,540	16,540	-	-	16,540	-	16,540	878	117.00	878
2021	15,557	15,557	-	-	15,557	-	15,557	826	117.00	826



DOT-DTD 1 Madison 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-DTD 1 Madison Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DOT-DTD 1 Madison Total CO2e lbs/GSF
2005	56,000	48.12	905,279	-	905,279	1.84	757	174	931	36.65
2006	56,000	48.65	840,868	-	840,868	1.95	744	140	884	34.78
2007	56,000	47.46	813,681	-	813,681	1.75	646	145	791	31.13
2008	56,000	46.19	880,846	-	880,846	1.72	688	174	861	33.91
2009	56,000	45.66	862,175	-	862,175	1.72	672	160	832	32.77
2010	56,000	47.10	882,182	-	882,182	1.62	649	150	800	31.49
2011	56,000	46.81	846,594	-	846,594	1.62	621	192	813	32.00
2012	56,000	51.51	869,378	-	869,378	1.61	634	194	828	32.59
2013	56,000	47.29	1,003,061	-	1,003,061	1.42	647	234	881	34.69
2014	56,000	44.58	901,957	-	901,957	1.59	651	206	857	33.72
2015	56,000	45.84	760,479	-	760,479	1.58	544	148	692	27.23
2016	56,000	49.68	727,618	-	727,618	1.50	494	107	602	23.68
2017	56,000	49.72	731,472	-	731,472	1.39	460	141	600	23.64
2018	56,000	46.66	788,820	-	788,820	1.45	518	171	689	27.13
2019	56,000	45.88	904,483	-	904,483	1.39	572	247	819	32.24
2020	56,000	48.07	789,851	-	789,851	1.23	442	264	706	27.78
2021	56,000	47.61	397,652	-	397,652	1.19	214	111	325	12.81

Fiscal Year	DOT-DTD 1 Madison Net Thermal MMBtu	DOT-DTD 1 Madison Plant Reports MMBtu w/Sales	DOT-DTD 1 Madison Coal MMBtu	DOT-DTD 1 Madison Alt Fuel MMBtu	DOT-DTD 1 Madison Gas MMBtu	DOT-DTD 1 Madison Oil MMBtu	DOT-DTD 1 Madison Plant Reports MMBtu w/Sales	DOT-DTD 1 Madison Boiler Fuel Based Emissions lbs	DOT-DTD 1 Madison Boiler Fuel Emissions lb/MMBtu	DOT-DTD 1 Madison Net Thermal MMBtu CO2e Metric Tons
2005	3,281	3,281	-	-	3,281	-	3,281	174	117.00	174
2006	2,635	2,635	-	-	2,635	-	2,635	140	117.00	140
2007	2,735	2,735	-	-	2,735	-	2,735	145	117.00	145
2008	3,274	3,274	-	-	3,274	-	3,274	174	117.00	174
2009	3,016	3,016	-	-	3,016	-	3,016	160	117.00	160
2010	2,833	2,833	-	-	2,833	-	2,833	150	117.00	150
2011	3,625	3,625	-	-	3,625	-	3,625	192	117.00	192
2012	3,652	3,652	-	-	3,652	-	3,652	194	117.00	194
2013	4,413	4,413	-	-	4,413	-	4,413	234	117.00	234
2014	3,882	3,882	-	-	3,882	-	3,882	206	117.00	206
2015	2,785	2,785	-	-	2,785	-	2,785	148	117.00	148
2016	2,019	2,019	-	-	2,019	-	2,019	107	117.00	107
2017	2,656	2,656	-	-	2,656	-	2,656	141	117.00	141
2018	3,217	3,217	-	-	3,217	-	3,217	171	117.00	171
2019	4,654	4,654	-	-	4,654	-	4,654	247	117.00	247
2020	4,972	4,972	-	-	4,972	-	4,972	264	117.00	264
2021	2,096	2,096	-	-	2,096	-	2,096	111	117.00	111



DNR-South Central 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-South Central Net Thermal MMBtu CO2e Metric Tons	Total CO2e Emissions Metric Tons	DNR-South Central Total CO2e lbs/GSF
2005	33,976	48.12	555,680	-	555,680	1.84	465	236	700	45.43
2006	33,976	48.65	569,877	-	569,877	1.95	504	234	738	47.87
2007	33,976	47.46	501,836	-	501,836	1.75	398	179	577	37.43
2008	33,976	46.19	545,578	-	545,578	1.72	426	196	622	40.35
2009	33,976	45.66	491,683	-	491,683	1.72	383	200	584	37.87
2010	33,976	47.10	477,073	-	477,073	1.62	351	180	531	34.47
2011	33,976	46.81	515,315	-	515,315	1.62	378	222	600	38.92
2012	33,976	51.51	607,412	-	607,412	1.61	443	208	651	42.26
2013	33,976	47.29	617,536	-	617,536	1.42	398	247	645	41.88
2014	33,976	44.58	576,697	-	576,697	1.59	416	263	678	44.03
2015	33,976	45.84	498,176	-	498,176	1.58	356	229	586	38.01
2016	33,976	49.68	545,822	-	545,822	1.50	371	214	585	37.95
2017	33,976	49.72	605,130	-	605,130	1.39	380	221	601	39.01
2018	33,976	46.66	454,537	-	454,537	1.45	299	186	485	31.44
2019	33,976	45.88	441,102	-	441,102	1.39	279	190	469	30.41
2020	33,976	48.07	477,451	-	477,451	1.23	267	192	459	29.81
2021	33,976	47.61	360,482	-	360,482	1.19	194	167	362	23.47

Fiscal Year	DNR-South Central Net Thermal MMBtu	DNR-South Central Plant Reports MMBtu w/Sales	DNR-South Central Coal MMBtu	DNR-South Central Alt Fuel MMBtu	DNR-South Central Gas MMBtu	DNR-South Central Oil MMBtu	DNR-South Central Plant Reports MMBtu w/Sales	DNR-South Central Boiler Fuel Based Emissions lbs	DNR-South Central Boiler Fuel Emissions lb/MMBtu	DNR-South Central Net Thermal MMBtu CO2e Metric Tons
2005	4,440	4,440	-	-	4,440	-	4,440	236	117.00	236
2006	4,402	4,402	-	-	4,402	-	4,402	234	117.00	234
2007	3,369	3,369	-	-	3,369	-	3,369	179	117.00	179
2008	3,693	3,693	-	-	3,693	-	3,693	196	117.00	196
2009	3,774	3,774	-	-	3,774	-	3,774	200	117.00	200
2010	3,392	3,392	-	-	3,392	-	3,392	180	117.00	180
2011	4,184	4,184	-	-	4,184	-	4,184	222	117.00	222
2012	3,925	3,925	-	-	3,925	-	3,925	208	117.00	208
2013	4,656	4,656	-	-	4,656	-	4,656	247	117.00	247
2014	4,948	4,948	-	-	4,948	-	4,948	263	117.00	263
2015	4,322	4,322	-	-	4,322	-	4,322	229	117.00	229
2016	4,033	4,033	-	-	4,033	-	4,033	214	117.00	214
2017	4,166	4,166	-	-	4,166	-	4,166	221	117.00	221
2018	3,500	3,500	-	-	3,500	-	3,500	186	117.00	186
2019	3,575	3,575	-	-	3,575	-	3,575	190	117.00	190
2020	3,626	3,626	-	-	3,626	-	3,626	192	117.00	192
2021	3,155	3,155	-	-	3,155	-	3,155	167	117.00	167

