



# Energy Use In State Facilities

Fiscal Year 2020 Report

August 17, 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**

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## **Energy Use in State-Owned Facilities**

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

## **Report for Fiscal Year 2020**

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# Acknowledgements

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

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

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

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Energy information was compiled, and report prepared, by Innovative Business Engineering, McFarland, Wisconsin.

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# Executive Summary

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Wisconsin's efforts to reduce energy consumption and costs in state-owned facilities began as a result of the rapid energy cost increases following the first foreign oil embargo in 1973. Energy conservation and energy management efforts have received continued support from the Governor, the State Building Commission and the Wisconsin Legislature. The rate of annual energy use in state facilities has been reduced 36.64 percent since 1973.

This report refers to Fiscal Year 2005 (FY2005 or FY05) as a baseline comparison year and adjusted for weather to reflect renewed energy conservation efforts as part of the Wisconsin Act 141 and the Energy Bond Fund Program. The FY2020 rate of annual energy use in state facilities was 21.85 percent less than FY2005 baseline when adjusted for weather with significant positive results:

Agency	Agency Name	FY05 Base Btu/GSF/Yr	FY20 Weather Adjusted Btu/GSF/Yr	FY20 % Change from FY05 Base
UW	University of Wisconsin System	206,711	156,443	-24.32%
DOA	Department of Administration	157,840	105,473	-33.18%
DOC	Department of Corrections	178,132	165,045	-7.35%
DHS	Department of Health Services	204,184	179,487	-12.10%
DPI	Department of Public Instruction	98,001	89,229	-8.95%
DVA	Department of Veterans Affairs	197,411	162,534	-17.67%
DNR	Department of Natural Resources	111,053	85,426	-23.08%
DOT	Department of Transportation	106,355	98,176	-7.69%
State	Above Statewide Totals	198,390	155,033	-21.85%

The success of the state's energy and fuel management efforts are directly dependent on efforts of the many people who operate and maintain the central plants and distribution systems, as well as those managers and occupants of individual buildings. The Wisconsin State Energy Office and Department of Administration have lead roles in developing and overseeing these efforts.

## ENERGY EXPENDITURES INCREASE DESPITE CONSERVATION EFFORTS

Energy expenditures in Wisconsin State Government facilities totaled \$182 million in FY2020 (review FY20 UW Fuel & Utilities Expenditures and DOA billings), including sewer and water utilities. This total includes all buildings (not just those represented in this report) and includes expenditures for electricity, natural gas, solid fuels, sewer, water, propane and fuel oil. The FY2020 energy expenditures represented a 30 percent increase over FY2005 that can be attributed to the increase in building area gross square footage by 14 percent from the base year, FY2005. In addition, electrical energy unit costs (\$/kwh) increased by more than 60 percent while FY2020 unit gas costs (\$/MMBtu) were approximately 50 percent lower than FY2005. With lower natural gas costs and elimination of coal use at UW-Madison and other state facilities, coal use has decreased by over 90% and will soon be eliminated at state-owned heating plants with lower overall fuel and operating costs.

The Energy Use in State Facilities Reports are updated from time-to-time to reflect updated utility data 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 Energy Use in State Facilities Reports.

# Introduction

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## BACKGROUND

This report presents total energy consumption for the largest State of Wisconsin owned and operated facilities. These facilities account for the majority of energy consumed in buildings owned by the State of Wisconsin. Statewide, agency, and individual facility energy consumption totals 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), Department of Administration (DOA), Department of Natural Resources (DNR); and Department of Transportation (DOT).

Providing detailed facility level data proved to be a challenge. In many cases, accounting systems did not readily lend themselves to compiling the required data. The State Energy Office will continue to work to expand the detail and completeness of future reports. Buildings not included in this report are thousands of other smaller facilities ranging from utility buildings, comfort stations to park offices and farm buildings.

## ENERGY USE MEASUREMENT

Two common ways to account for energy use are end-use energy consumption and resource energy consumption. End-use consumption refers to the energy content of fuel, steam, or electricity at the point of use by the consumer. Resource energy consumption is equal to end-use consumption plus all energy used in the production and transportation of the fuel, steam or electricity. This report is based on end-use energy consumption to coincide with reports from other sources.

State monitored energy consumption is broken down into two categories:

- 1) Electricity, which represents total purchased and central plant co-generated electricity; and
- 2) Thermal or Fossil Fuel, which includes coal, gas, oil, purchased steam 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.

Energy consumption in these categories is monitored through coordination of monthly utilities billings and fuel consumption reports.

All forms of energy consumption are converted to units of Btu/GSF/year. The conversion also removes any variation in energy use over time caused by changes in the size of an individual facility. Electricity consumption is converted from metered kWh to Btu/GSF/Year by multiplying the total fiscal year metered kWh of electricity by 3,413 (Btu/kwh standard conversion factor), and then dividing the resulting number by the gross square footage (GSF) of serviced building area. Fossil fuel energy use is converted to units of Btu/GSF/Year by dividing the Btu value of the fossil fuel category energy consumption by the gross square footage of serviced building area.

## WEATHER FACTORS AFFECTING ENERGY USE

Weather has a significant impact upon energy consumption and should be considered when evaluating efficiencies. Annual heating and cooling degree days can change dramatically from location to location and year to year. Such changes can significantly impact the demand upon heating and cooling systems of a facility. Appendix A and Appendix B present weather adjustments and degree days for selected Wisconsin locations.

# Statewide Energy Use Summary

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## SCOPE

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

## ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted: 21.9 percent decrease**

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

**Latest Year Change - Weather Adjusted: 2.9 percent decrease**

Energy use (BTU/GSF/Yr) for FY20 decrease 2.9 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted: 1.5 percent decrease per year.**

On average, energy use (BTU/GSF/Yr) has decreased 1.5 percent since the base year, FY05.

## GSF AND CONSUMPTION STATISTICS

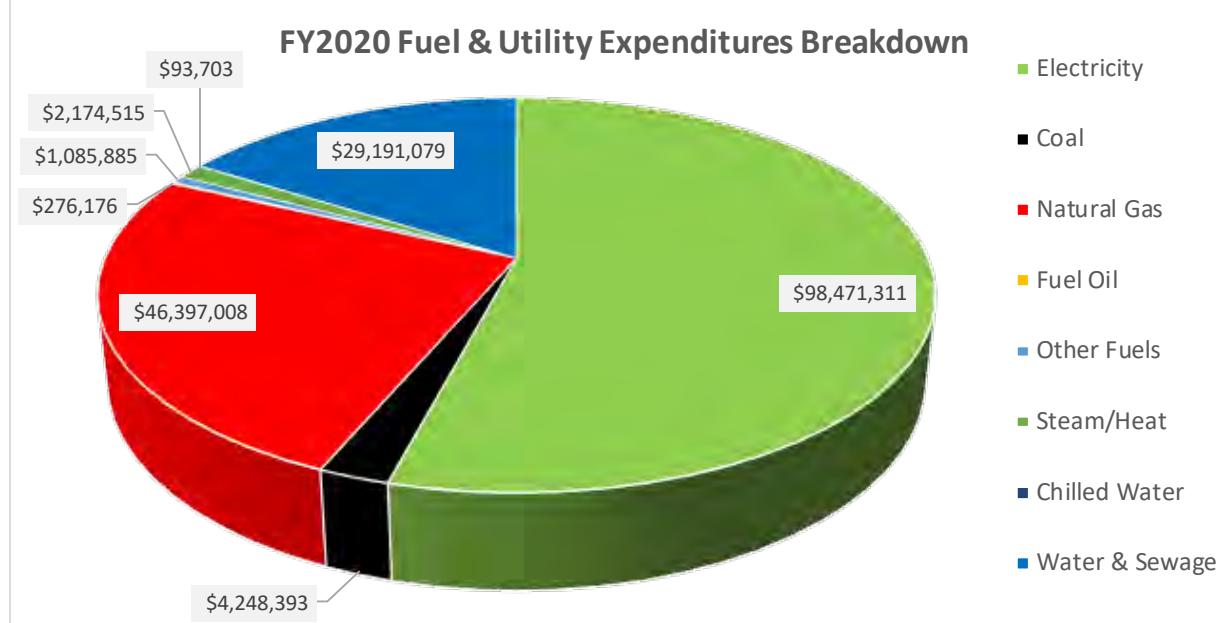
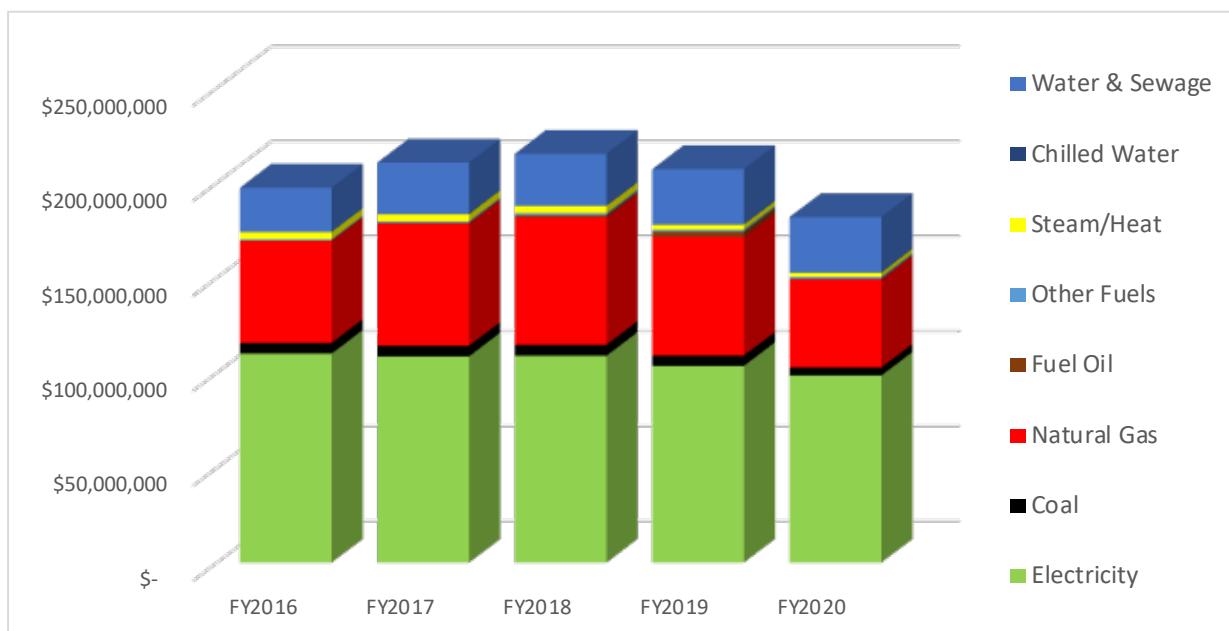
**GSF Change from Base: 13.8 percent increase.**

Gross square footage (GSF) has increased 13.8% from the base fiscal year, FY05.

**Consumption Change from Base: 9.5 percent decrease.**

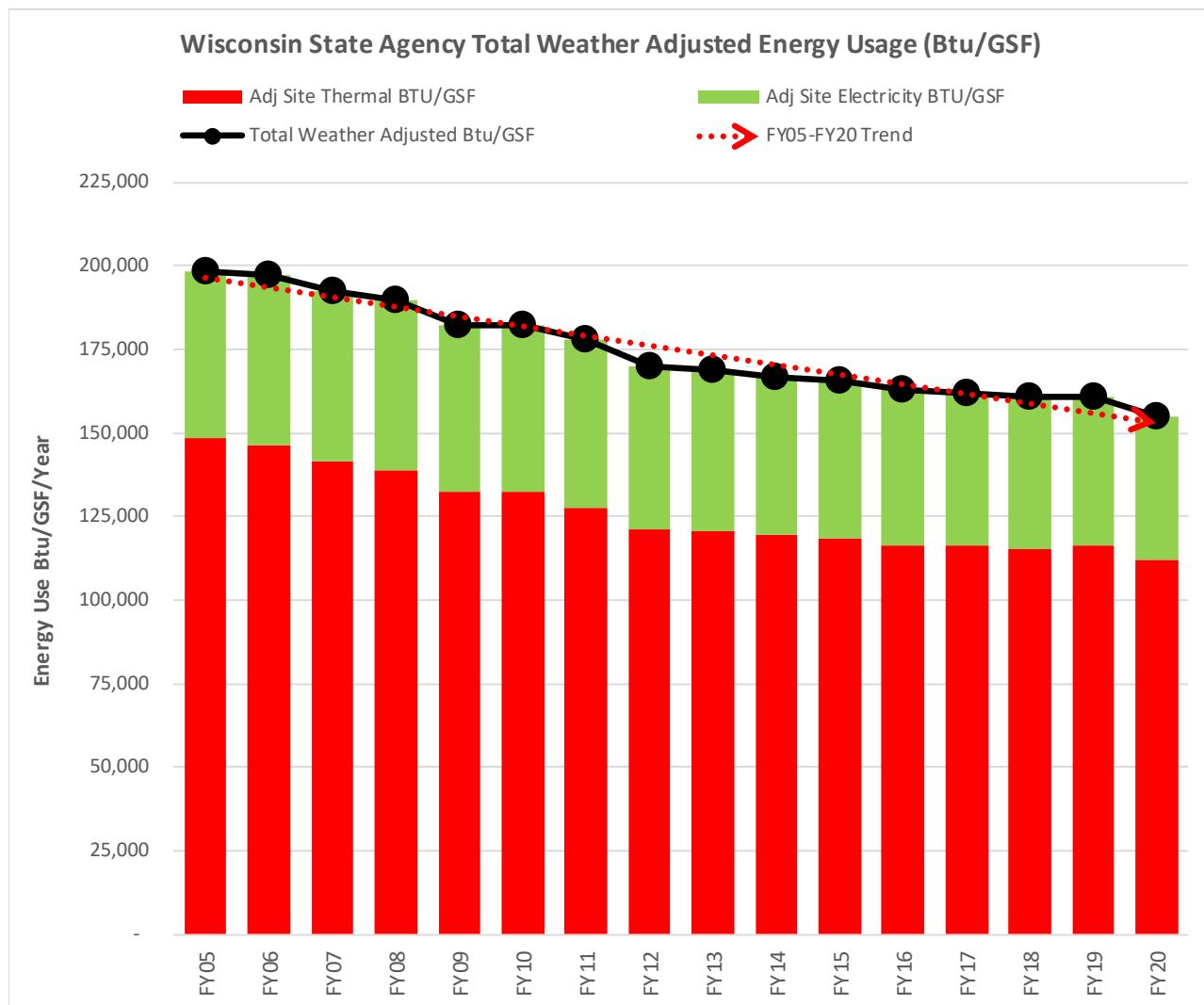
Total consumption was 9.5 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 11.1 percent less than in the base year when adjusted for weather compared to FY05.

State of Wisconsin Totals						
Subcategory Name	FY2016	FY2017	FY2018	FY2019	FY2020	
Electricity	\$ 110,006,184	\$ 108,542,975	\$ 108,898,986	\$ 103,557,309	\$ 98,471,311	
Coal	\$ 5,613,067	\$ 5,583,189	\$ 5,764,543	\$ 5,449,660	\$ 4,248,393	
Natural Gas	\$ 53,684,924	\$ 64,331,299	\$ 67,136,292	\$ 62,480,152	\$ 46,397,008	
Fuel Oil	\$ 251,040	\$ 393,772	\$ 1,085,580	\$ 2,758,308	\$ 276,176	
Other Fuels	\$ 660,459	\$ 849,496	\$ 1,124,633	\$ 1,057,503	\$ 1,085,885	
Steam/Heat	\$ 3,787,350	\$ 3,708,916	\$ 3,738,193	\$ 2,614,625	\$ 2,174,515	
Chilled Water	\$ 55,446	\$ 134,002	\$ 98,412	\$ 84,975	\$ 93,703	
Water & Sewage	\$ 23,292,626	\$ 27,050,521	\$ 27,396,224	\$ 29,148,285	\$ 29,191,079	
<b>Total Utilities</b>	<b>\$ 197,351,094</b>	<b>\$ 210,594,170</b>	<b>\$ 215,242,864</b>	<b>\$ 207,150,817</b>	<b>\$ 181,938,070</b>	



### Statewide Facilities Total Fiscal Year 2020 Total State Agency Total (FY05 Base)

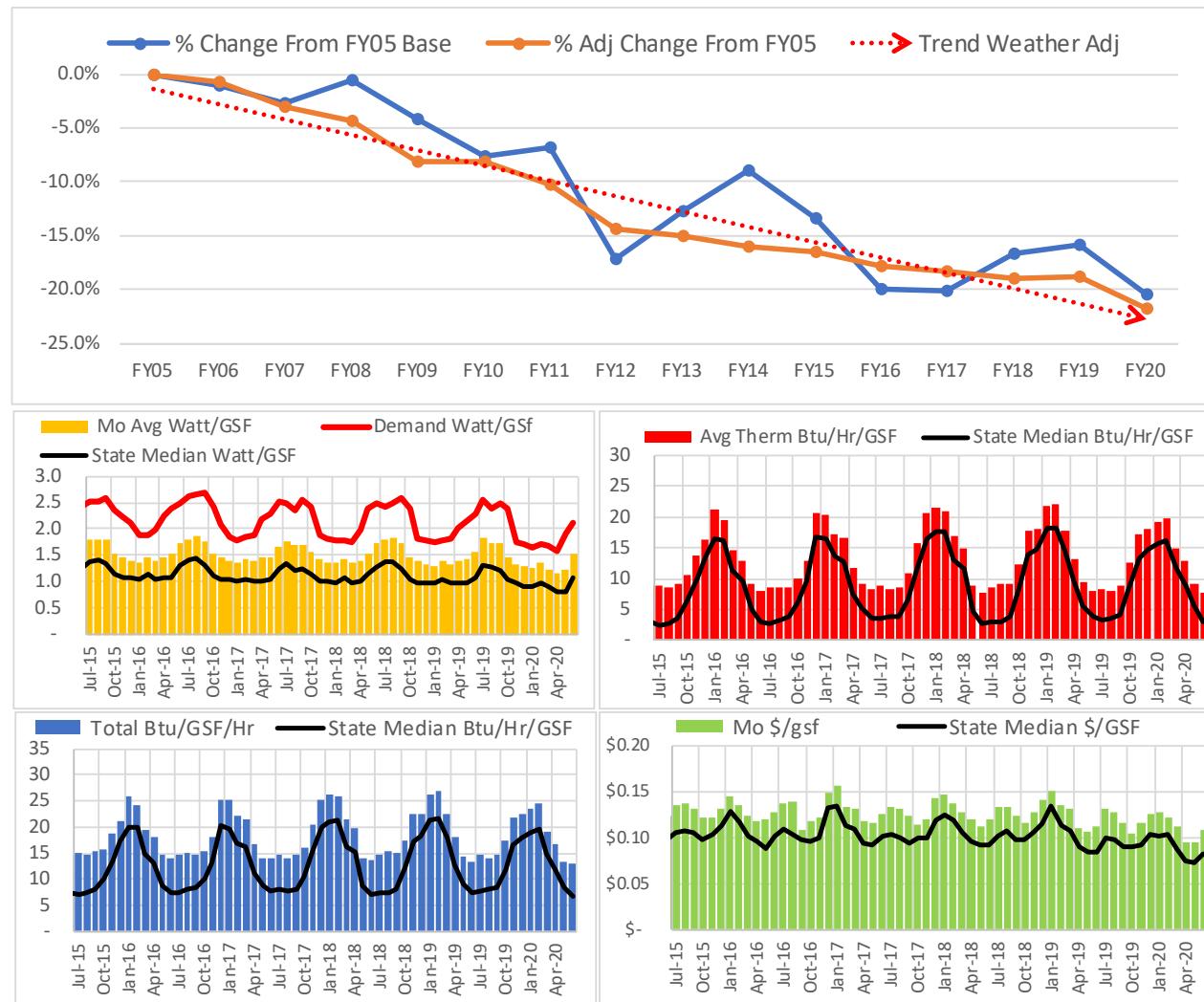
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	64,753,150	148,686	49,704	198,390	0.0%	48.47	100.0%	100.0%	198,390	0.0%
FY06	65,405,533	145,097	51,086	196,183	-1.1%	50.11	100.8%	99.4%	197,040	-0.7%
FY07	66,508,886	142,156	50,876	193,033	-2.7%	48.88	99.5%	99.8%	192,219	-3.1%
FY08	67,703,290	146,259	50,932	197,191	-0.6%	47.87	95.0%	99.5%	189,630	-4.4%
FY09	68,186,861	140,138	49,815	189,953	-4.3%	47.26	94.6%	100.0%	182,406	-8.1%
FY10	67,994,873	133,828	49,533	183,361	-7.6%	49.10	99.0%	100.3%	182,204	-8.2%
FY11	68,875,351	134,455	50,416	184,871	-6.8%	48.17	95.1%	99.5%	177,992	-10.3%
FY12	70,620,947	114,576	49,708	164,284	-17.2%	52.24	105.6%	98.5%	169,996	-14.3%
FY13	71,861,171	125,205	47,956	173,161	-12.7%	48.26	96.5%	99.6%	168,635	-15.0%
FY14	72,438,223	133,075	47,599	180,675	-8.9%	45.20	89.7%	99.6%	166,740	-16.0%
FY15	72,670,156	125,066	46,813	171,879	-13.4%	46.08	94.9%	100.2%	165,626	-16.5%
FY16	73,135,342	112,007	46,791	158,798	-20.0%	50.51	104.0%	99.4%	162,966	-17.9%
FY17	73,151,124	111,951	46,383	158,335	-20.2%	51.99	103.7%	98.8%	161,940	-18.4%
FY18	73,100,282	119,800	45,503	165,303	-16.7%	48.73	96.3%	99.7%	160,717	-19.0%
FY19	73,143,543	122,031	44,817	166,848	-15.9%	47.88	95.2%	100.0%	160,953	-18.9%
FY20	73,704,825	114,837	42,917	157,755	-20.5%	49.85	97.6%	100.2%	155,033	-21.9%



### Statewide Facilities Total Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =	12.57	FY20 Therm/GSF =	1.15	FY20 Total Btu/GSF =	157,755	05-20 Thm	-24.6%			
FY20 Electric \$/GSF =	\$ 1.17	FY20 Thermal \$/GSF =	\$ 0.48	FY20 Energy \$/GSF =	\$ 1.65	05-20 kwh	-13.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	64,753,150	148,686	49,704	198,390	0.0%	48.47	100.0%	100.0%	198,390	0.0%
FY06	65,405,533	145,097	51,086	196,183	-1.1%	50.11	100.8%	99.4%	197,040	-0.7%
FY07	66,508,886	142,156	50,876	193,033	-2.7%	48.88	99.5%	99.8%	192,219	-3.1%
FY08	67,703,290	146,259	50,932	197,191	-0.6%	47.87	95.0%	99.5%	189,630	-4.4%
FY09	68,186,861	140,138	49,815	189,953	-4.3%	47.26	94.6%	100.0%	182,406	-8.1%
FY10	67,994,873	133,828	49,533	183,361	-7.6%	49.10	99.0%	100.3%	182,204	-8.2%
FY11	68,875,351	134,455	50,416	184,871	-6.8%	48.17	95.1%	99.5%	177,992	-10.3%
FY12	70,620,947	114,576	49,708	164,284	-17.2%	52.24	105.6%	98.5%	169,996	-14.3%
FY13	71,861,171	125,205	47,956	173,161	-12.7%	48.26	96.5%	99.6%	168,635	-15.0%
FY14	72,438,223	133,075	47,599	180,675	-8.9%	45.20	89.7%	99.6%	166,740	-16.0%
FY15	72,670,156	125,066	46,813	171,879	-13.4%	46.08	94.9%	100.2%	165,626	-16.5%
FY16	73,135,342	112,007	46,791	158,798	-20.0%	50.51	104.0%	99.4%	162,966	-17.9%
FY17	73,151,124	111,951	46,383	158,335	-20.2%	51.99	103.7%	98.8%	161,940	-18.4%
FY18	73,100,282	119,800	45,503	165,303	-16.7%	48.73	96.3%	99.7%	160,717	-19.0%
FY19	73,143,543	122,031	44,817	166,848	-15.9%	47.88	95.2%	100.0%	160,953	-18.9%
FY20	73,704,825	114,837	42,917	157,755	-20.5%	49.85	97.6%	100.2%	155,033	-21.9%

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



# Agency Energy Use Summary

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## SCOPE

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.

## ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted:** 24.3 percent decrease  
Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted:** 4 percent decrease

Energy use (BTU/GSF/Yr) for FY20 decrease 4 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted:** 1.6 percent decrease per year.

On average, energy use (BTU/GSF/Yr) has decrease 1.6 percent since the base year, FY05.

## GSF AND CONSUMPTION STATISTICS

**GSF Change from Base:** 19.5 percent increase.

Gross square footage (GSF) has increased 19.5% from the base fiscal year, FY05.

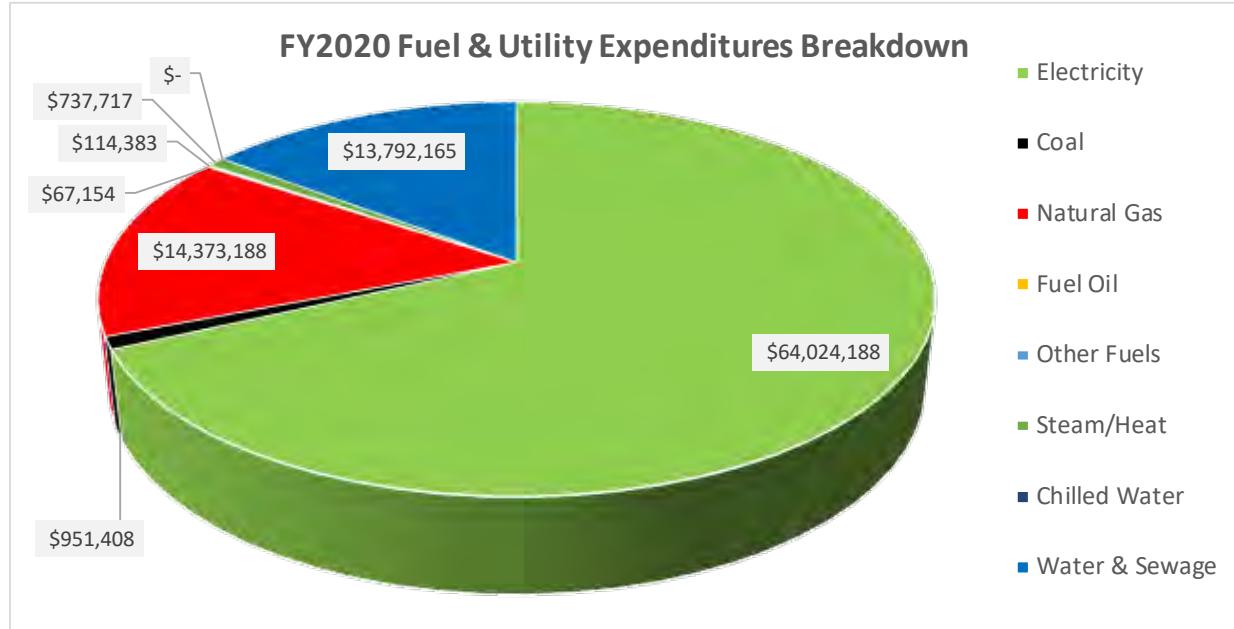
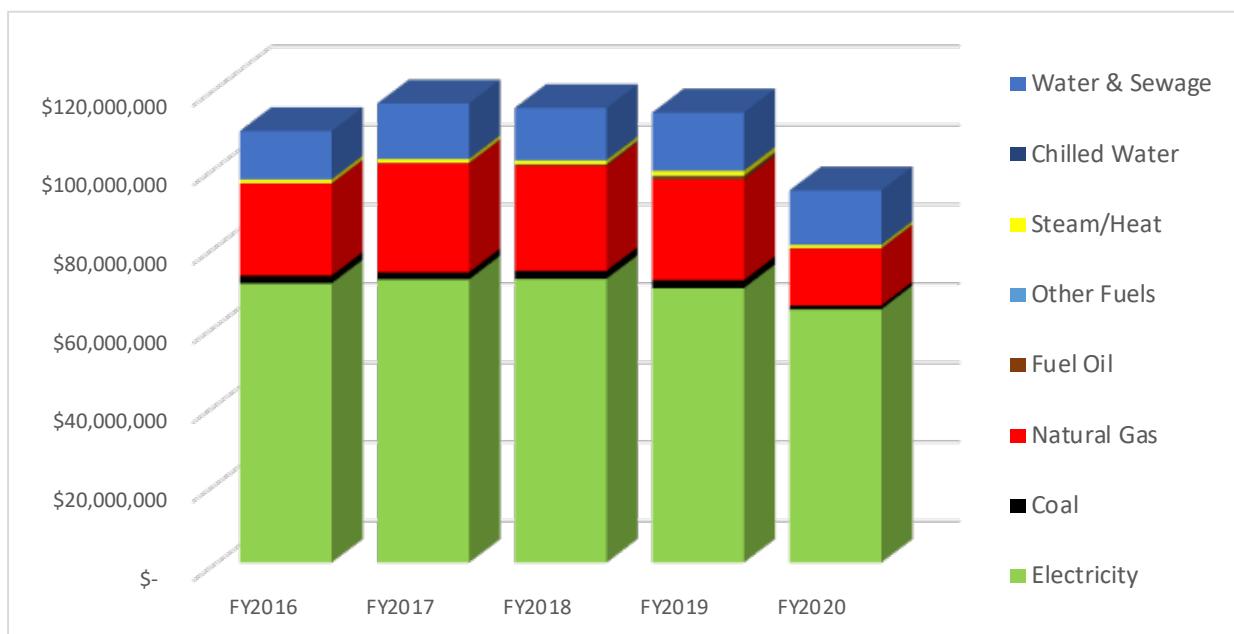
**Consumption Change from Base:** 7.4 percent decrease.

Total consumption was 7.4 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 9.5 percent less than in the base year when adjusted for weather compared to FY05.

### University of Wisconsin System

Subcategory Name	FY2016	FY2017	FY2018	FY2019	FY2020
Electricity	\$ 70,535,020	\$ 71,554,706	\$ 71,697,409	\$ 69,356,196	\$ 64,024,188
Coal	\$ 1,982,375	\$ 1,818,719	\$ 2,040,960	\$ 2,022,398	\$ 951,408
Natural Gas	\$ 23,249,062	\$ 27,528,282	\$ 26,490,130	\$ 25,347,644	\$ 14,373,188
Fuel Oil	\$ 44,893	\$ 56,483	\$ 356,270	\$ 929,650	\$ 67,154
Other Fuels	\$ 78,848	\$ 133,866	\$ 158,855	\$ 164,377	\$ 114,383
Steam/Heat	\$ 912,529	\$ 860,210	\$ 898,014	\$ 1,177,034	\$ 737,717
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 12,253,061	\$ 14,080,182	\$ 13,253,467	\$ 14,725,726	\$ 13,792,165
<b>Total Utilities</b>	<b>\$ 109,055,787</b>	<b>\$ 116,032,448</b>	<b>\$ 114,895,105</b>	<b>\$ 113,723,025</b>	<b>\$ 94,060,202</b>

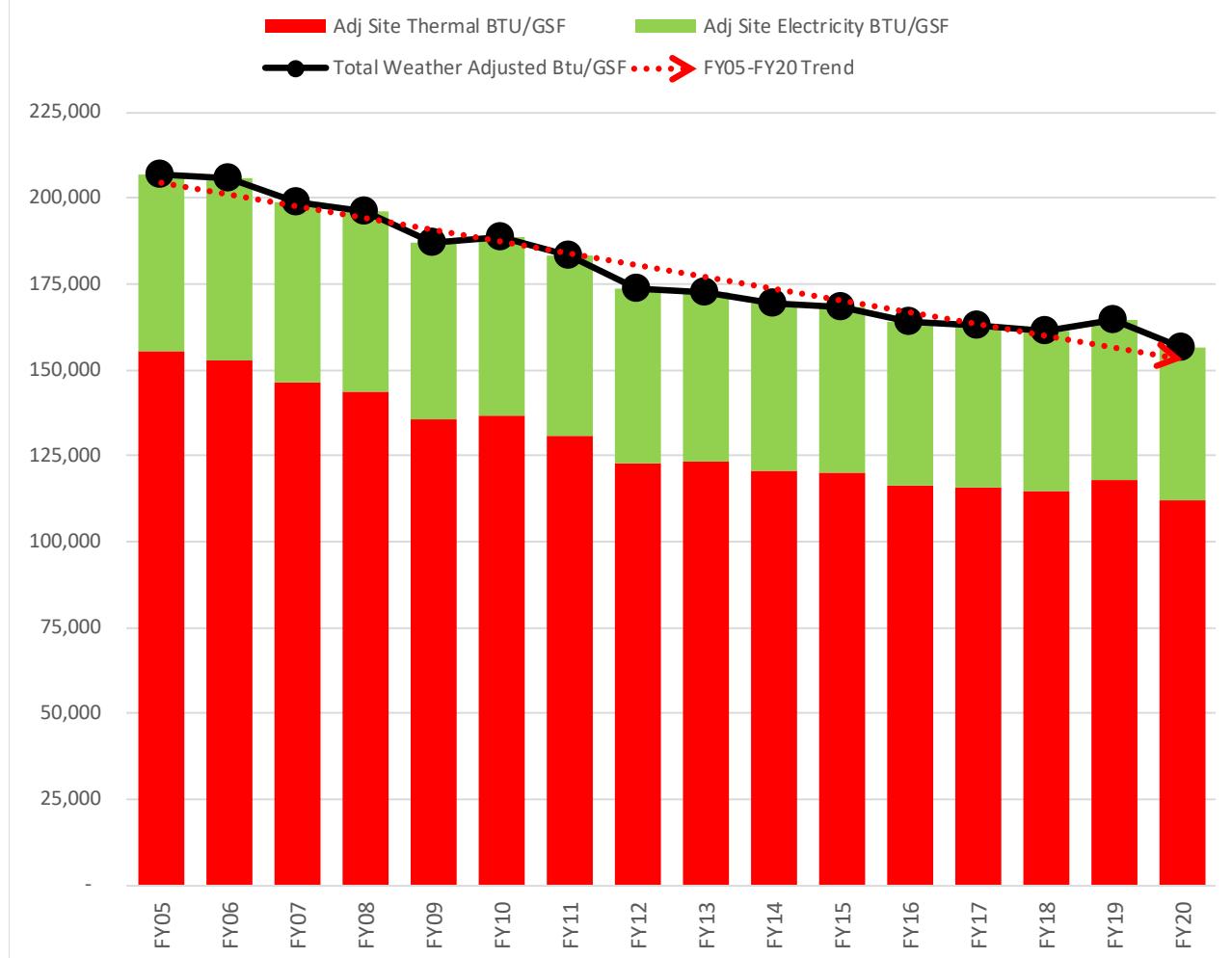
#### **Review and Verify FY2020 Expenditures**



### UW Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	46,655,255	155,225	51,486	206,711	0.0%	48.12	100.0%	100.0%	206,711	0.0%
FY06	47,261,328	151,762	53,242	205,004	-0.8%	48.65	100.7%	99.4%	205,698	-0.5%
FY07	48,307,694	147,250	52,866	200,116	-3.2%	47.46	99.4%	99.8%	199,110	-3.7%
FY08	49,502,098	151,385	52,653	204,038	-1.3%	46.19	95.0%	99.7%	196,313	-5.0%
FY09	50,134,229	143,364	51,396	194,760	-5.8%	45.66	94.7%	100.1%	187,239	-9.4%
FY10	49,843,245	138,445	51,645	190,090	-8.0%	47.10	98.9%	100.3%	188,774	-8.7%
FY11	50,695,697	137,930	52,610	190,540	-7.8%	46.81	95.0%	99.7%	183,415	-11.3%
FY12	52,550,736	116,872	51,625	168,497	-18.5%	51.51	105.2%	98.3%	173,676	-16.0%
FY13	53,733,978	127,535	49,572	177,107	-14.3%	47.29	96.6%	99.6%	172,545	-16.5%
FY14	54,558,478	134,998	48,929	183,927	-11.0%	44.58	89.5%	99.7%	169,577	-18.0%
FY15	54,924,484	126,658	48,046	174,704	-15.5%	45.84	95.0%	100.2%	168,406	-18.5%
FY16	55,389,670	112,048	47,995	160,042	-22.6%	49.68	103.9%	99.3%	164,078	-20.6%
FY17	55,405,452	112,046	47,532	159,579	-22.8%	49.72	103.5%	98.8%	162,914	-21.2%
FY18	55,405,452	119,432	46,653	166,085	-19.7%	46.66	96.2%	99.9%	161,425	-21.9%
FY19	55,214,198	124,245	46,343	170,587	-17.5%	45.88	95.1%	100.1%	164,605	-20.4%
FY20	55,775,480	116,000	44,047	160,047	-22.6%	48.07	96.8%	100.3%	156,443	-24.3%

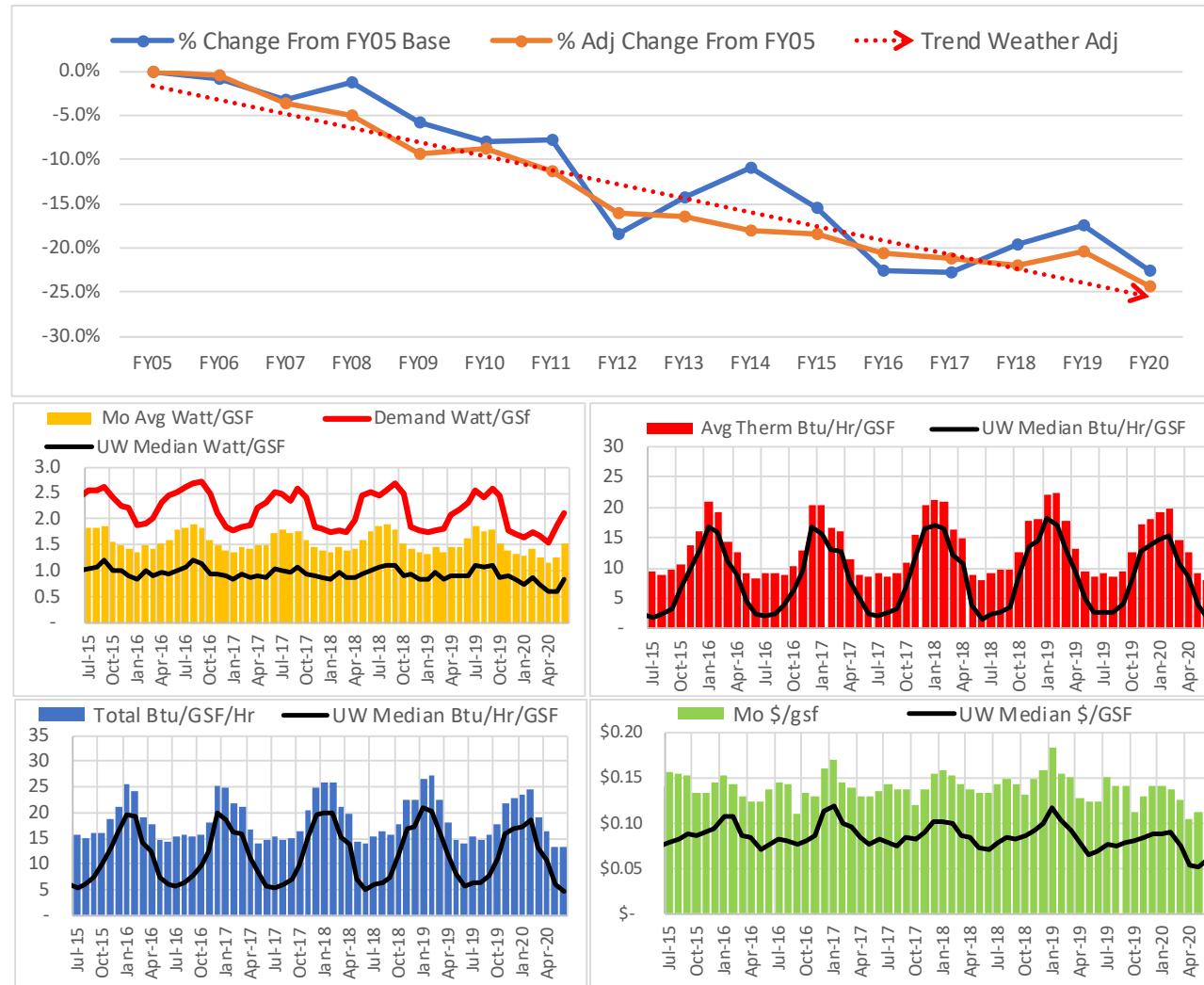
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### UW Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =	12.91	FY20 Therm/GSF =	1.16	FY20 Total Btu/GSF =	160,047	05-20 Thm	-27.7%			
FY20 Electric \$/GSF =	\$ 1.21	FY20 Thermal \$/GSF =	\$ 0.35	FY20 Energy \$/GSF =	\$ 1.56	05-20 kwh	-14.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	46,655,255	155,225	51,486	206,711	0.0%	48.12	100.0%	100.0%	206,711	0.0%
FY06	47,261,328	151,762	53,242	205,004	-0.8%	48.65	100.7%	99.4%	205,698	-0.5%
FY07	48,307,694	147,250	52,866	200,116	-3.2%	47.46	99.4%	99.8%	199,110	-3.7%
FY08	49,502,098	151,385	52,653	204,038	-1.3%	46.19	95.0%	99.7%	196,313	-5.0%
FY09	50,134,229	143,364	51,396	194,760	-5.8%	45.66	94.7%	100.1%	187,239	-9.4%
FY10	49,843,245	138,445	51,645	190,090	-8.0%	47.10	98.9%	100.3%	188,774	-8.7%
FY11	50,695,697	137,930	52,610	190,540	-7.8%	46.81	95.0%	99.7%	183,415	-11.3%
FY12	52,550,736	116,872	51,625	168,497	-18.5%	51.51	105.2%	98.3%	173,676	-16.0%
FY13	53,733,978	127,535	49,572	177,107	-14.3%	47.29	96.6%	99.6%	172,545	-16.5%
FY14	54,558,478	134,998	48,929	183,927	-11.0%	44.58	89.5%	99.7%	169,577	-18.0%
FY15	54,924,484	126,658	48,046	174,704	-15.5%	45.84	95.0%	100.2%	168,406	-18.5%
FY16	55,389,670	112,048	47,995	160,042	-22.6%	49.68	103.9%	99.3%	164,078	-20.6%
FY17	55,405,452	112,046	47,532	159,579	-22.8%	49.72	103.5%	98.8%	162,914	-21.2%
FY18	55,405,452	119,432	46,653	166,085	-19.7%	46.66	96.2%	99.9%	161,425	-21.9%
FY19	55,214,198	124,245	46,343	170,587	-17.5%	45.88	95.1%	100.1%	164,605	-20.4%
FY20	55,775,480	116,000	44,047	160,047	-22.6%	48.07	96.8%	100.3%	156,443	-24.3%

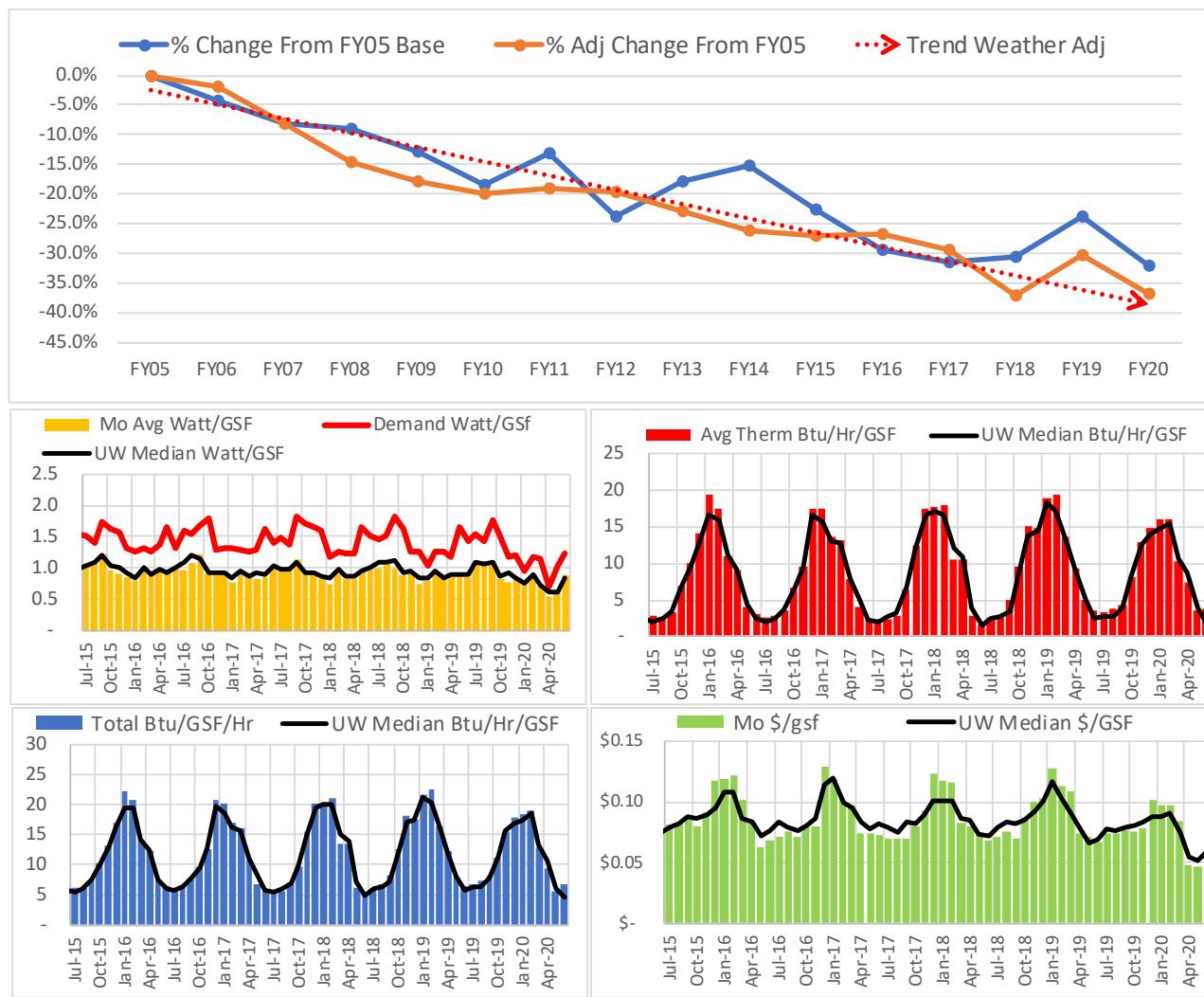
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Eau Claire Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	7.33	FY20 Therm/GSF =	0.76	FY20 Total Btu/GSF =	101,358	05-20 Thm	-36.9%			
FY20 Electric \$/GSF =	\$ 0.60	FY20 Thermal \$/GSF =	\$ 0.32	FY20 Energy \$/GSF =	\$ 0.92	05-20 kwh	-36.4%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,438,217	108,640	40,508	149,148	0.0%	45.85	100.0%	100.0%	149,148	0.0%
FY06	2,436,936	100,153	42,818	142,972	-4.1%	47.80	103.7%	99.0%	146,238	-2.0%
FY07	2,436,936	98,235	38,579	136,814	-8.3%	46.32	100.3%	99.4%	136,824	-8.3%
FY08	2,436,936	98,592	37,164	135,756	-9.0%	43.27	91.5%	99.6%	127,251	-14.7%
FY09	2,436,936	95,121	34,913	130,033	-12.8%	42.97	91.8%	100.4%	122,354	-18.0%
FY10	2,436,963	88,749	32,720	121,470	-18.6%	45.29	97.6%	100.1%	119,338	-20.0%
FY11	2,436,963	95,979	33,367	129,346	-13.3%	43.68	91.0%	99.8%	120,688	-19.1%
FY12	2,452,457	79,834	33,875	113,709	-23.8%	49.02	107.7%	99.4%	119,634	-19.8%
FY13	2,452,457	90,372	32,263	122,635	-17.8%	43.85	91.5%	100.0%	114,927	-22.9%
FY14	2,634,457	95,483	30,862	126,345	-15.3%	41.37	83.4%	99.3%	110,271	-26.1%
FY15	2,634,457	86,137	29,408	115,545	-22.5%	43.42	92.3%	100.2%	108,926	-27.0%
FY16	2,634,457	76,042	29,066	105,108	-29.5%	47.61	105.6%	99.4%	109,197	-26.8%
FY17	2,634,457	74,225	28,091	102,316	-31.4%	47.08	104.0%	99.6%	105,165	-29.5%
FY18	2,634,457	76,146	27,337	103,484	-30.6%	42.94	86.7%	100.9%	93,640	-37.2%
FY19	2,634,457	86,878	26,955	113,832	-23.7%	42.23	88.4%	100.3%	103,887	-30.3%
FY20	2,785,457	76,331	25,027	101,358	-32.0%	41.35	89.8%	103.0%	94,340	-36.7%

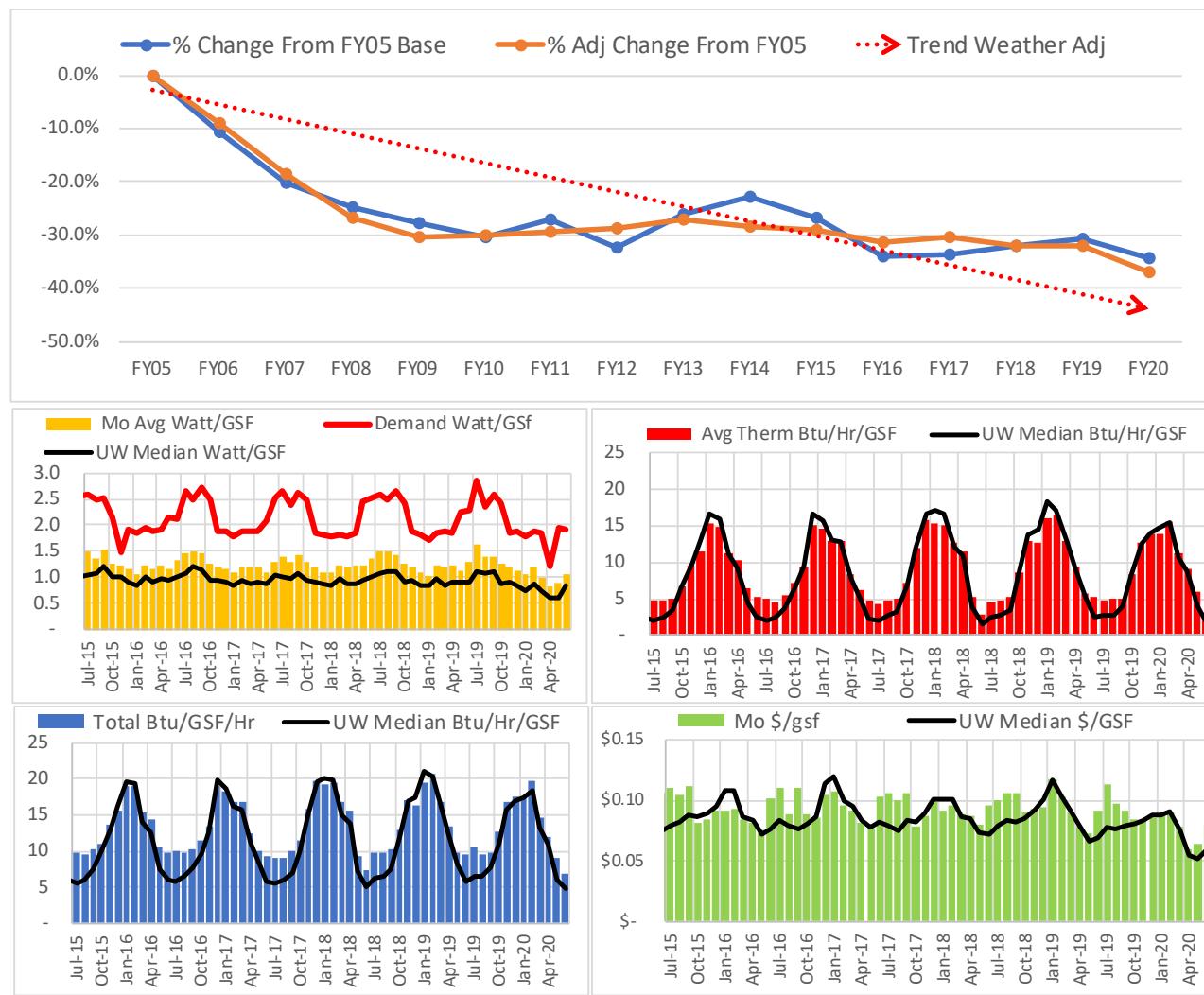
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Green Bay Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	10.27	FY20 Therm/GSF =	0.79	FY20 Total Btu/GSF =	114,379	05-20 Thm	-38.5%			
FY20 Electric \$/GSF =	\$ 0.78	FY20 Thermal \$/GSF =	\$ 0.24	FY20 Energy \$/GSF =	\$ 1.01	05-20 kwh	-33.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,157,746	120,311	54,211	174,522	0.0%	45.92	100.0%	100.0%	174,522	0.0%
FY06	1,179,796	103,003	52,689	155,692	-10.8%	47.27	103.3%	99.0%	158,522	-9.2%
FY07	1,179,796	89,260	49,961	139,222	-20.2%	46.64	103.5%	99.9%	142,316	-18.5%
FY08	1,386,055	85,323	45,712	131,035	-24.9%	45.02	96.5%	99.6%	127,858	-26.7%
FY09	1,386,055	82,101	44,231	126,332	-27.6%	43.47	93.9%	100.5%	121,566	-30.3%
FY10	1,386,055	79,218	42,285	121,502	-30.4%	45.99	100.3%	100.3%	121,870	-30.2%
FY11	1,386,055	84,331	42,679	127,010	-27.2%	44.59	95.6%	99.6%	123,122	-29.5%
FY12	1,386,055	75,586	42,479	118,065	-32.3%	49.86	109.3%	98.6%	124,512	-28.7%
FY13	1,386,055	86,895	41,790	128,685	-26.3%	45.29	98.4%	99.9%	127,268	-27.1%
FY14	1,386,055	94,549	40,324	134,874	-22.7%	41.95	89.5%	99.7%	124,830	-28.5%
FY15	1,386,055	89,115	38,829	127,944	-26.7%	43.98	95.4%	100.3%	124,000	-28.9%
FY16	1,386,055	77,285	37,980	115,265	-34.0%	48.11	106.1%	99.3%	119,727	-31.4%
FY17	1,386,055	77,751	37,774	115,524	-33.8%	48.65	107.9%	99.3%	121,398	-30.4%
FY18	1,386,055	81,181	37,442	118,623	-32.0%	45.77	99.7%	100.0%	118,390	-32.2%
FY19	1,386,055	83,250	37,539	120,790	-30.8%	44.89	97.1%	100.1%	118,443	-32.1%
FY20	1,386,058	79,329	35,050	114,379	-34.5%	42.93	93.2%	102.3%	109,799	-37.1%

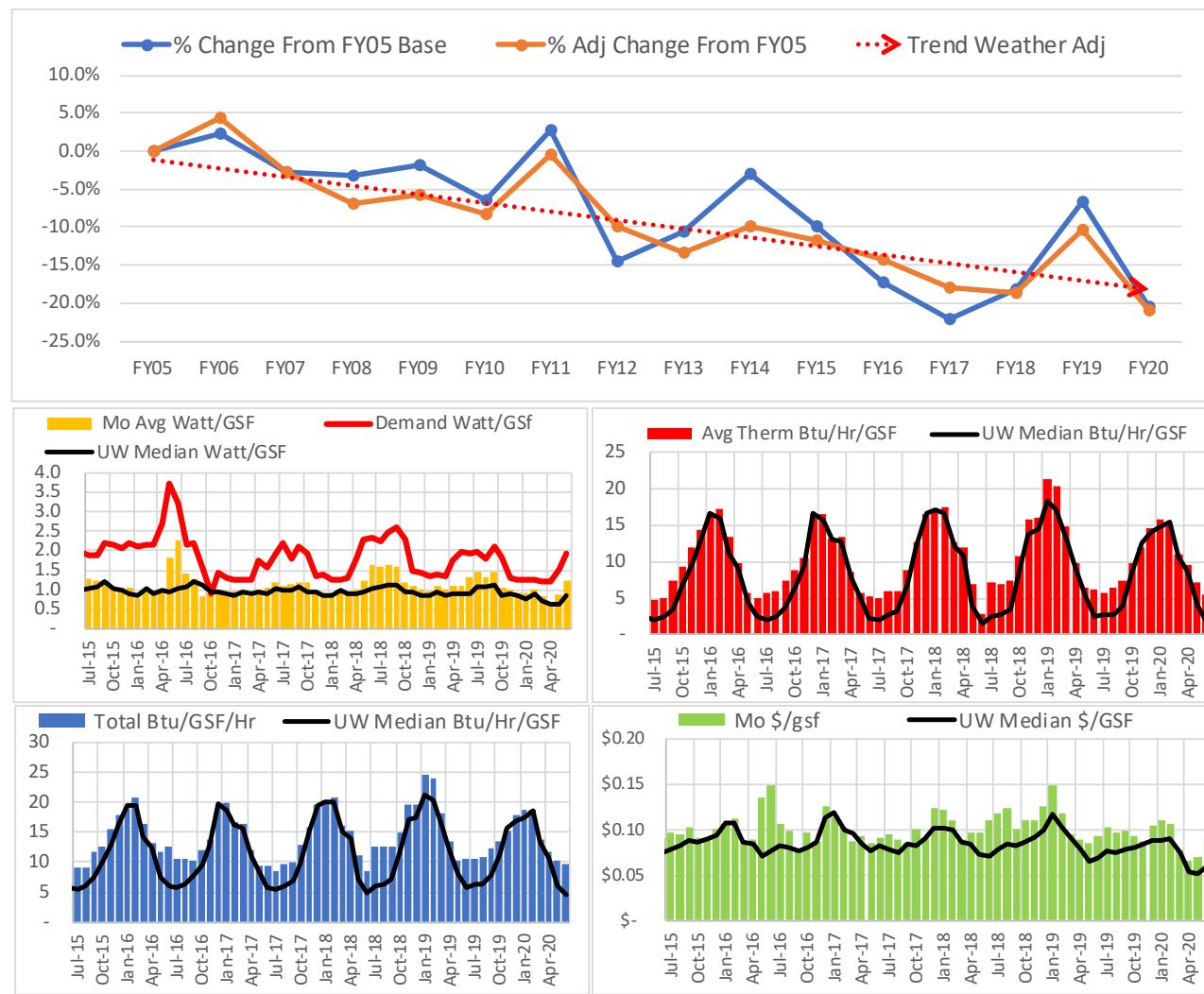
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-La Crosse Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.33	FY20 Therm/GSF =	0.88	FY20 Total Btu/GSF =	119,475	05-20 Thm	-22.1%			
FY20 Electric \$/GSF =	\$ 0.75	FY20 Thermal \$/GSF =	\$ 0.35	FY20 Energy \$/GSF =	\$ 1.11	05-20 kwh	-17.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,260,874	111,932	38,509	150,442	0.0%	48.43	100.0%	100.0%	150,442	0.0%
FY06	2,206,741	112,859	41,060	153,918	2.3%	49.77	103.1%	98.9%	156,956	4.3%
FY07	2,371,272	106,564	39,666	146,230	-2.8%	48.69	100.3%	99.6%	146,365	-2.7%
FY08	2,371,272	107,435	38,037	145,472	-3.3%	46.15	95.0%	100.2%	140,209	-6.8%
FY09	2,371,272	109,799	37,932	147,731	-1.8%	45.85	94.3%	100.8%	141,783	-5.8%
FY10	2,261,088	105,044	35,731	140,775	-6.4%	47.43	97.3%	100.2%	137,957	-8.3%
FY11	2,261,088	114,130	40,565	154,696	2.8%	46.70	95.9%	99.7%	149,829	-0.4%
FY12	2,677,906	92,097	36,609	128,706	-14.4%	51.77	108.4%	98.0%	135,672	-9.8%
FY13	2,677,906	99,742	34,662	134,404	-10.7%	46.71	95.9%	99.9%	130,267	-13.4%
FY14	2,677,906	109,817	36,240	146,057	-2.9%	44.97	90.7%	99.0%	135,455	-10.0%
FY15	2,797,642	102,174	33,283	135,457	-10.0%	47.28	97.6%	99.5%	132,866	-11.7%
FY16	3,008,972	87,787	36,571	124,358	-17.3%	51.01	106.4%	97.7%	129,129	-14.2%
FY17	3,008,972	86,235	31,077	117,312	-22.0%	51.61	107.6%	98.7%	123,419	-18.0%
FY18	3,008,972	90,162	32,779	122,940	-18.3%	48.62	99.6%	99.2%	122,372	-18.7%
FY19	3,008,972	103,829	36,618	140,447	-6.6%	47.03	94.9%	99.4%	134,944	-10.3%
FY20	3,207,814	87,642	31,833	119,475	-20.6%	48.33	99.5%	99.5%	118,898	-21.0%

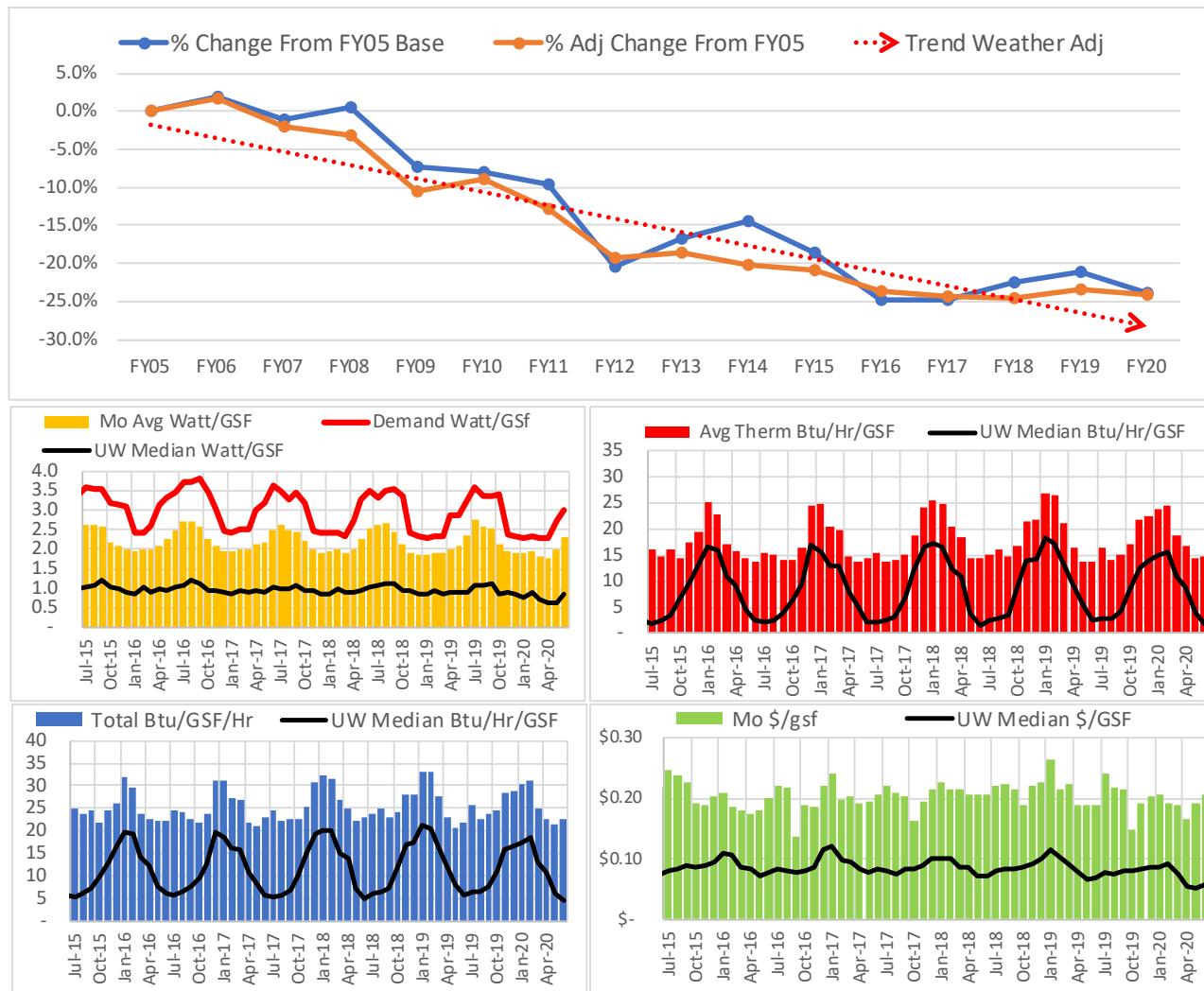
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Madison Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 18.75		FY20 Therm/GSF = 1.61		FY20 Total Btu/GSF = 224,541		05-20 Thm -29.2%				
FY20 Electric \$/GSF = \$ 1.93		FY20 Thermal \$/GSF = \$ 0.44		FY20 Energy \$/GSF = \$ 2.37		05-20 kwh -7.2%				
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	19,207,711	226,083	68,693	294,776	0.0%	48.12	100.0%	100.0%	294,776	0.0%
FY06	19,361,692	228,039	72,458	300,497	1.9%	48.65	99.8%	99.5%	299,638	1.6%
FY07	19,913,817	219,108	72,444	291,552	-1.1%	47.46	98.7%	99.9%	288,631	-2.1%
FY08	20,578,984	223,776	72,402	296,178	0.5%	46.19	95.3%	99.6%	285,316	-3.2%
FY09	20,979,443	202,914	70,317	273,232	-7.3%	45.66	95.5%	100.0%	264,026	-10.4%
FY10	20,678,457	199,722	71,666	271,388	-7.9%	47.10	98.5%	100.5%	268,655	-8.9%
FY11	21,120,379	192,529	73,773	266,301	-9.7%	46.81	95.4%	99.6%	257,112	-12.8%
FY12	22,153,550	162,222	72,184	234,406	-20.5%	51.51	103.1%	98.0%	238,020	-19.3%
FY13	22,362,671	176,114	69,427	245,541	-16.7%	47.29	97.2%	99.6%	240,336	-18.5%
FY14	22,810,139	183,357	68,825	252,183	-14.4%	44.58	90.8%	99.8%	235,182	-20.2%
FY15	22,931,250	172,296	67,872	240,168	-18.5%	45.84	95.8%	100.2%	232,988	-21.0%
FY16	22,931,250	153,689	67,974	221,663	-24.8%	49.68	102.5%	99.3%	224,960	-23.7%
FY17	22,947,032	153,432	68,409	221,841	-24.7%	49.72	101.5%	98.8%	223,252	-24.3%
FY18	22,947,032	161,897	66,506	228,403	-22.5%	46.66	96.3%	99.8%	222,308	-24.6%
FY19	22,755,778	167,054	65,635	232,689	-21.1%	45.88	95.7%	100.3%	225,684	-23.4%
FY20	22,755,778	160,548	63,993	224,541	-23.8%	48.07	99.6%	99.6%	223,684	-24.1%

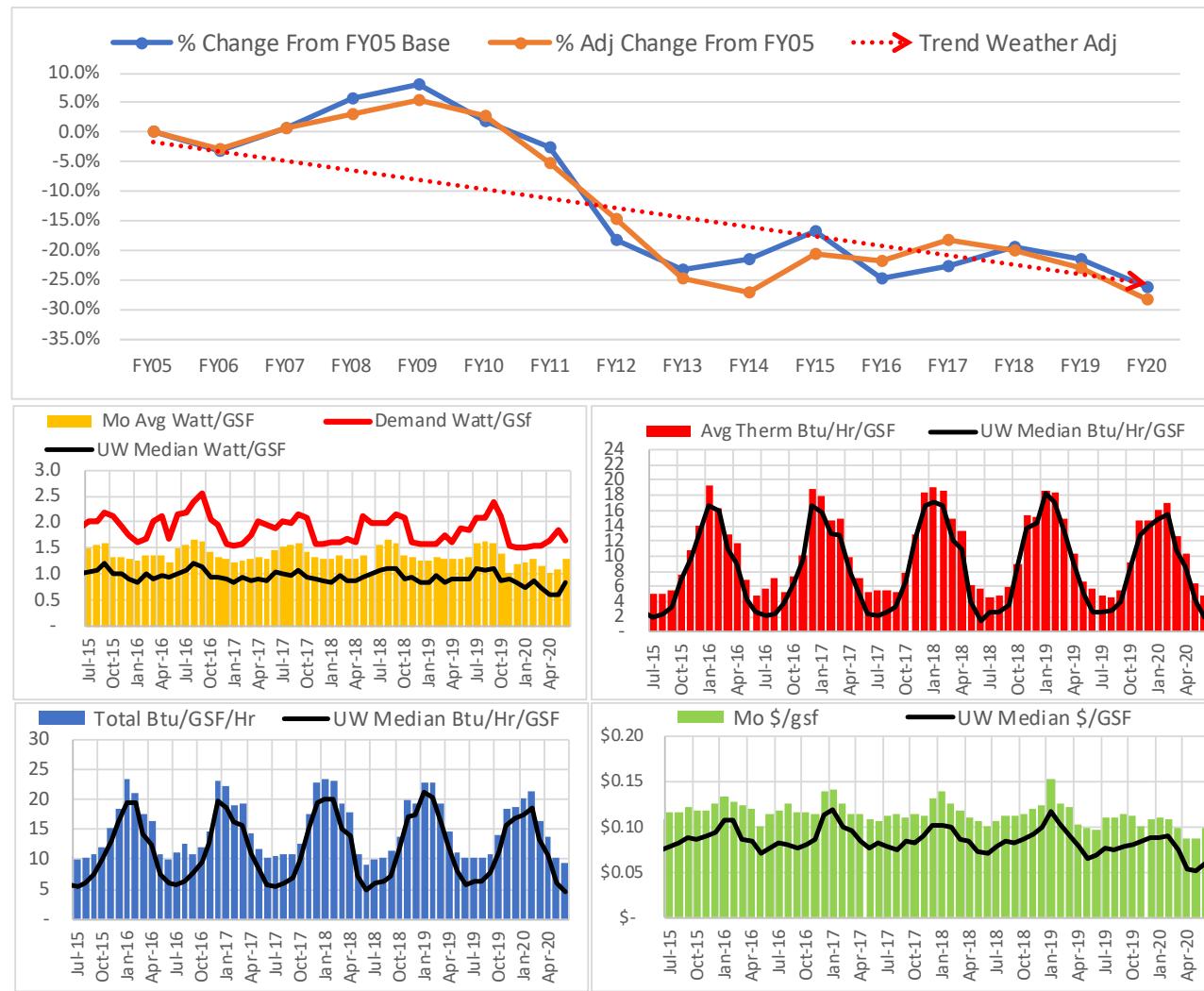
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Milwaukee Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	11.37	FY20 Therm/GSF =	0.88	FY20 Total Btu/GSF =	126,998	05-20 Thm	-30.6%			
FY20 Electric \$/GSF =	\$ 0.98	FY20 Thermal \$/GSF =	\$ 0.26	FY20 Energy \$/GSF =	\$ 1.24	05-20 kwh	-22.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	4,190,131	120,968	50,959	171,927	0.0%	48.47	100.0%	100.0%	171,927	0.0%
FY06	4,190,131	113,043	53,589	166,632	-3.1%	50.11	100.6%	99.0%	166,781	-3.0%
FY07	4,324,831	118,950	53,955	172,905	0.6%	48.88	100.2%	99.6%	172,894	0.6%
FY08	4,320,806	126,609	54,956	181,564	5.6%	47.87	97.0%	99.4%	177,428	3.2%
FY09	4,344,925	131,382	54,261	185,643	8.0%	47.26	96.5%	100.1%	181,096	5.3%
FY10	4,344,925	121,653	53,409	175,062	1.8%	49.10	101.5%	99.8%	176,750	2.8%
FY11	4,344,925	116,806	50,947	167,753	-2.4%	48.17	96.1%	99.4%	162,840	-5.3%
FY12	4,344,925	92,379	48,350	140,729	-18.1%	52.24	107.6%	98.3%	146,895	-14.6%
FY13	5,189,880	89,109	42,571	131,680	-23.4%	48.26	97.6%	99.2%	129,222	-24.8%
FY14	5,195,749	94,234	40,931	135,166	-21.4%	45.20	89.7%	99.7%	125,397	-27.1%
FY15	5,195,749	101,480	41,523	143,004	-16.8%	46.08	93.6%	100.4%	136,648	-20.5%
FY16	5,279,687	87,509	41,637	129,147	-24.9%	50.51	106.4%	99.6%	134,610	-21.7%
FY17	5,279,687	91,176	41,862	133,037	-22.6%	51.99	108.8%	98.1%	140,308	-18.4%
FY18	5,279,687	96,959	41,674	138,632	-19.4%	48.73	99.1%	99.4%	137,524	-20.0%
FY19	5,279,687	93,943	41,193	135,136	-21.4%	47.88	97.4%	99.4%	132,472	-22.9%
FY20	5,275,082	88,193	38,805	126,998	-26.1%	46.54	95.2%	101.5%	123,328	-28.3%

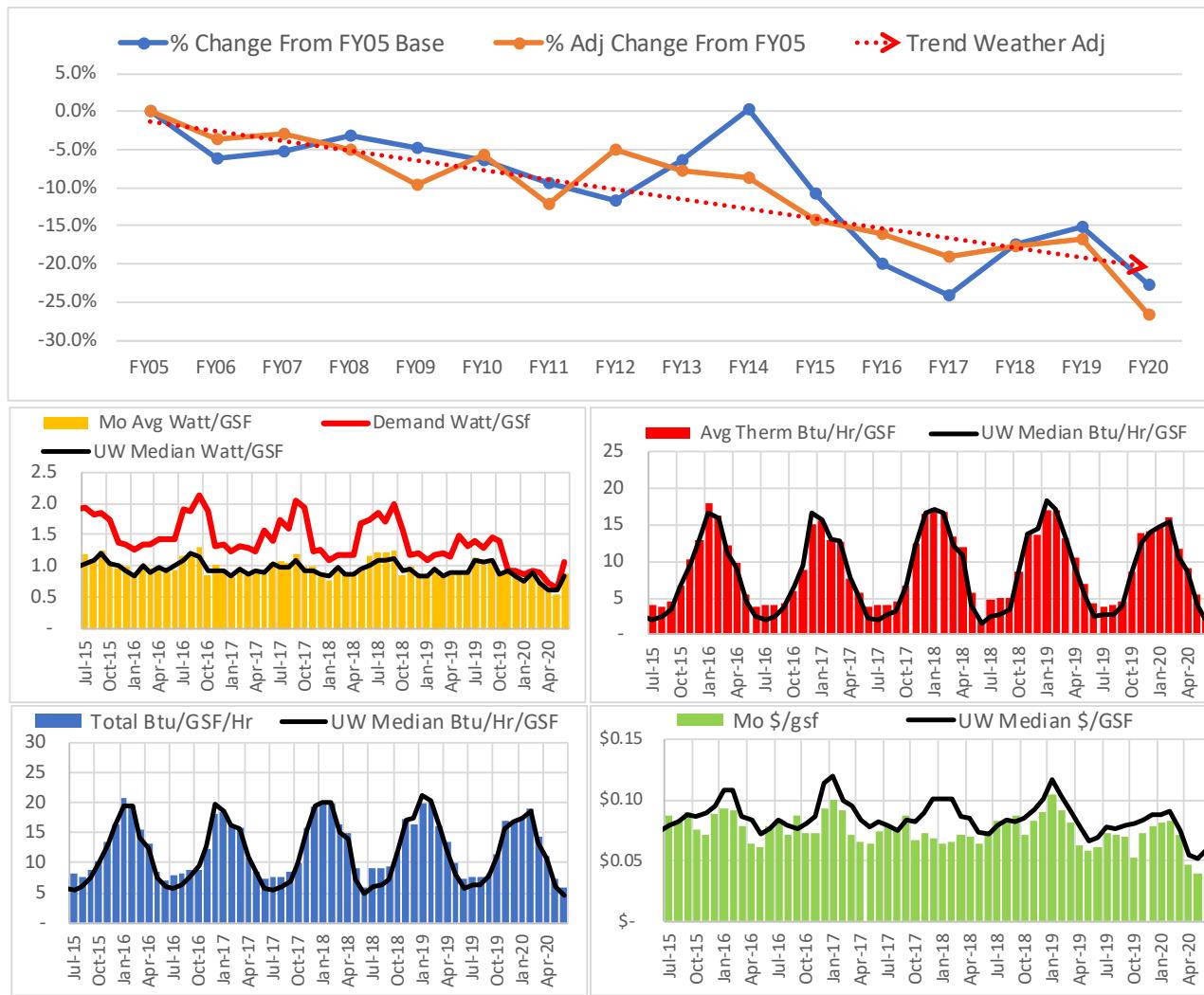
**Verify - Thermal Fuel Use & GSF connected to Central Steam plant**



### UW-Oshkosh Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		7.55	FY20 Therm/GSF =		0.80	FY20 Total Btu/GSF =		105,314	05-20 Thm	-24.3%
FY20 Electric \$/GSF =		\$ 0.51	FY20 Thermal \$/GSF =		\$ 0.28	FY20 Energy \$/GSF =		\$ 0.78	05-20 kwh	-32.4%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,674,233	97,371	39,080	136,452	0.0%	45.92	100.0%	100.0%	136,452	0.0%
FY06	2,746,643	90,160	38,047	128,207	-6.0%	47.27	103.9%	99.3%	131,464	-3.7%
FY07	2,753,951	92,028	37,296	129,324	-5.2%	46.64	103.4%	99.8%	132,360	-3.0%
FY08	2,889,527	96,011	36,061	132,072	-3.2%	45.02	97.1%	100.5%	129,502	-5.1%
FY09	2,855,351	94,812	35,226	130,038	-4.7%	43.47	92.9%	100.6%	123,483	-9.5%
FY10	2,826,573	92,436	35,384	127,820	-6.3%	45.99	100.9%	100.2%	128,691	-5.7%
FY11	2,892,390	89,695	33,923	123,619	-9.4%	44.59	95.6%	100.4%	119,801	-12.2%
FY12	2,892,390	85,067	35,571	120,638	-11.6%	49.86	111.0%	98.6%	129,486	-5.1%
FY13	3,001,171	92,892	34,815	127,707	-6.4%	45.29	97.9%	100.0%	125,799	-7.8%
FY14	3,001,171	102,450	34,326	136,776	0.2%	41.95	88.0%	100.5%	124,702	-8.6%
FY15	3,126,330	89,692	32,045	121,737	-10.8%	43.98	94.7%	100.3%	117,077	-14.2%
FY16	3,259,189	78,674	30,631	109,306	-19.9%	48.11	107.0%	99.3%	114,596	-16.0%
FY17	3,259,189	73,824	29,753	103,577	-24.1%	48.65	109.9%	98.9%	110,580	-19.0%
FY18	3,259,189	83,654	29,123	112,777	-17.4%	45.77	99.4%	100.0%	112,293	-17.7%
FY19	3,259,189	87,213	28,737	115,950	-15.0%	44.89	97.5%	99.7%	113,718	-16.7%
FY20	3,288,596	79,546	25,768	105,314	-22.8%	42.93	92.7%	102.6%	100,150	-26.6%

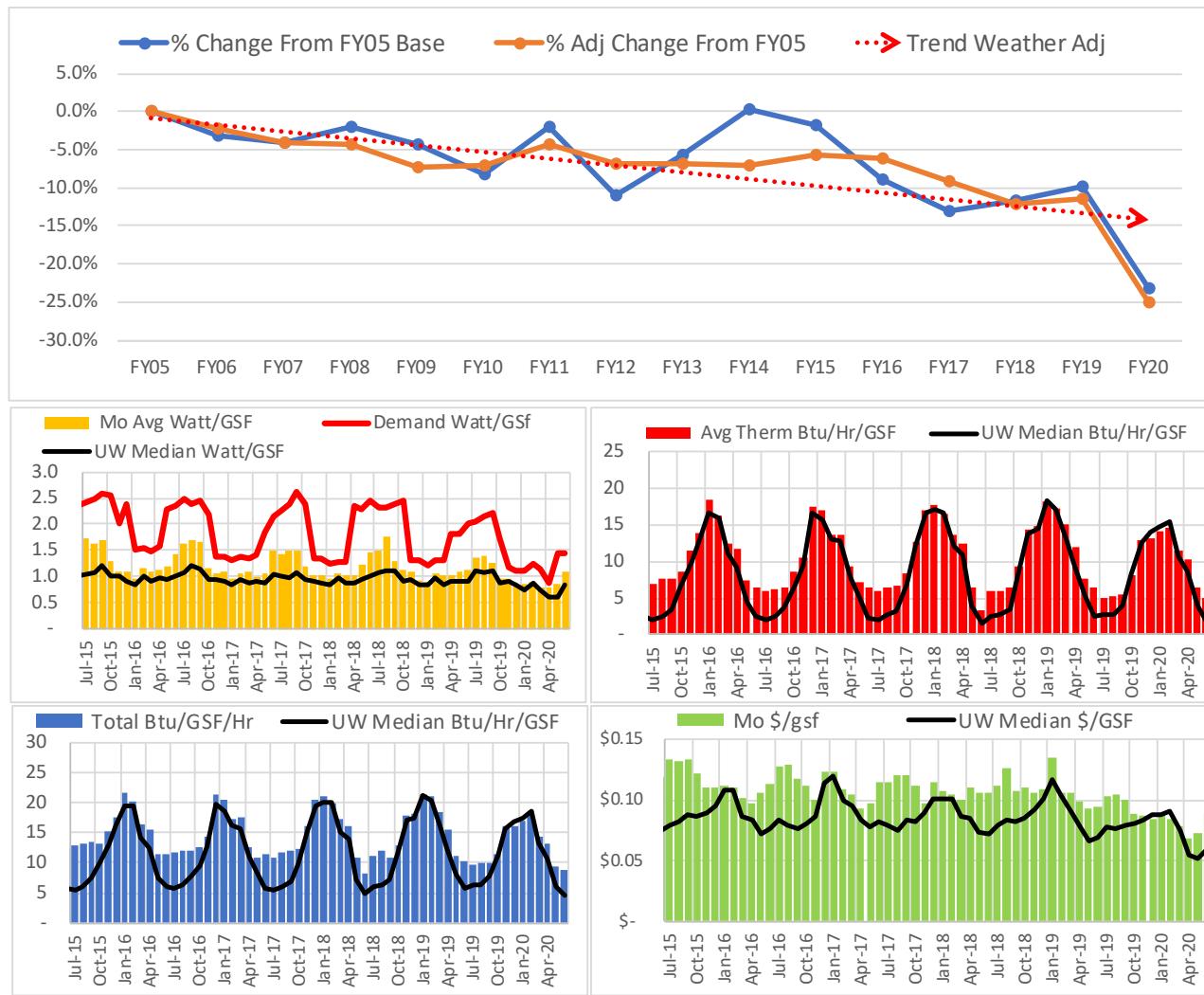
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Parkside Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		8.83	FY20 Therm/GSF =		0.82	FY20 Total Btu/GSF =		112,305	05-20 Thm	-18.9%
FY20 Electric \$/GSF =		\$ 0.79	FY20 Thermal \$/GSF =		\$ 0.26	FY20 Energy \$/GSF =		\$ 1.05	05-20 kwh	-36.9%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,132,766	97,238	48,885	146,123	0.0%	48.47	100.0%	100.0%	146,123	0.0%
FY06	1,135,611	92,933	48,494	141,428	-3.2%	50.11	102.3%	98.2%	142,717	-2.3%
FY07	1,135,611	92,812	47,413	140,224	-4.0%	48.88	100.5%	99.1%	140,275	-4.0%
FY08	1,135,611	96,311	47,038	143,349	-1.9%	47.87	96.8%	98.9%	139,757	-4.4%
FY09	1,191,207	95,784	44,059	139,843	-4.3%	47.26	95.7%	99.4%	135,432	-7.3%
FY10	1,190,505	91,337	42,696	134,033	-8.3%	49.10	101.8%	99.8%	135,620	-7.2%
FY11	1,190,505	99,535	43,573	143,108	-2.1%	48.17	97.2%	98.5%	139,670	-4.4%
FY12	1,262,322	86,719	43,465	130,183	-10.9%	52.24	108.1%	97.5%	136,102	-6.9%
FY13	1,262,322	97,434	40,419	137,853	-5.7%	48.26	98.6%	99.0%	136,081	-6.9%
FY14	1,262,322	106,314	40,203	146,517	0.3%	45.20	90.2%	99.0%	135,691	-7.1%
FY15	1,262,322	104,554	39,040	143,595	-1.7%	46.08	94.0%	100.8%	137,637	-5.8%
FY16	1,262,322	94,192	38,812	133,005	-9.0%	50.51	105.2%	98.4%	137,223	-6.1%
FY17	1,262,322	89,719	37,404	127,123	-13.0%	51.99	107.8%	95.9%	132,617	-9.2%
FY18	1,262,322	93,045	36,003	129,048	-11.7%	48.73	99.7%	98.8%	128,325	-12.2%
FY19	1,262,322	97,055	34,704	131,759	-9.8%	47.88	98.0%	98.6%	129,304	-11.5%
FY20	1,374,576	82,165	30,140	112,305	-23.1%	46.54	96.0%	102.3%	109,676	-24.9%

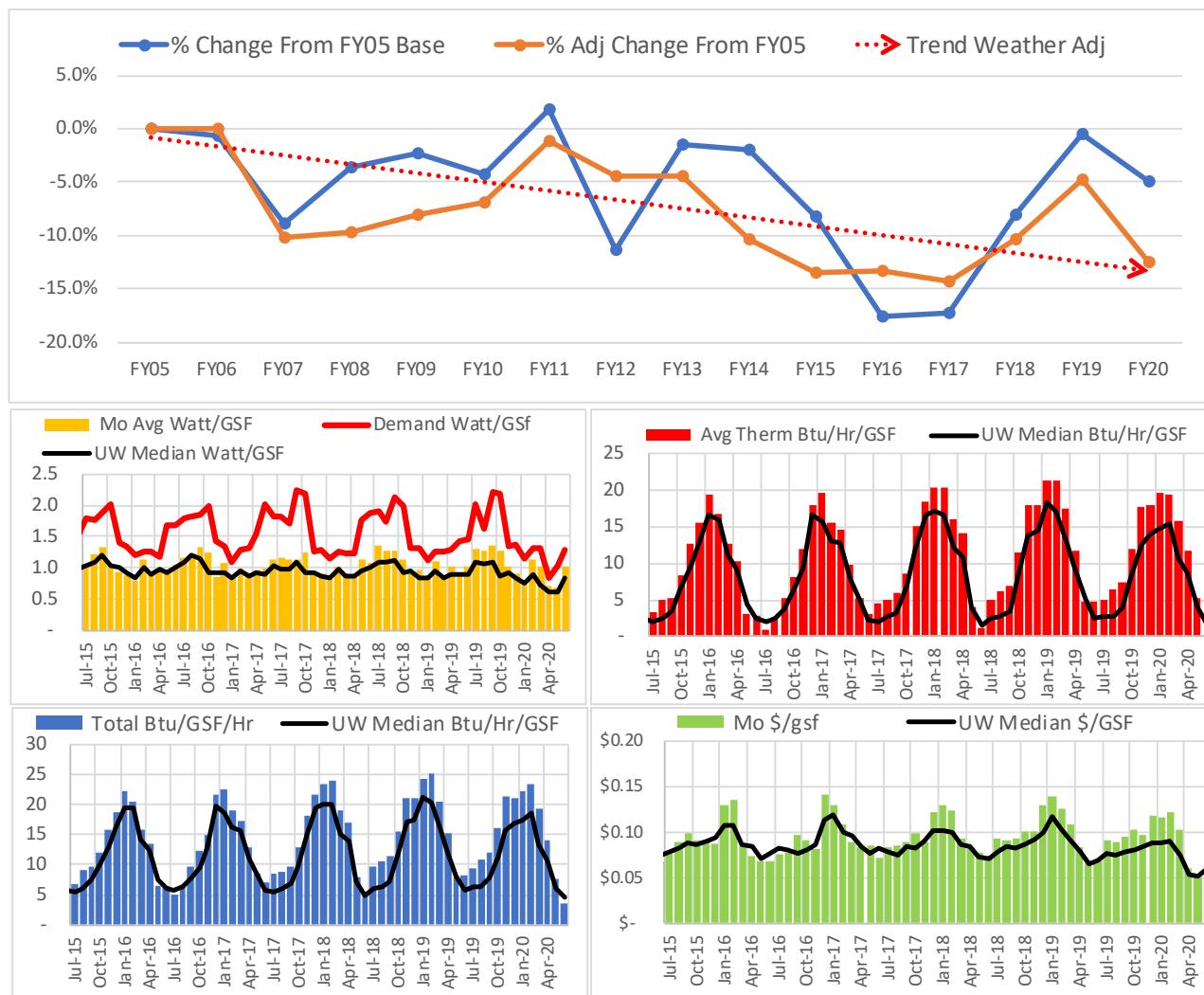
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Platteville Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.12	FY20 Therm/GSF =	1.01	FY20 Total Btu/GSF =	132,262	05-20 Thm	-12.1%			
FY20 Electric \$/GSF =	\$ 0.71	FY20 Thermal \$/GSF =	\$ 0.39	FY20 Energy \$/GSF =	\$ 1.10	05-20 kwh	-13.3%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,767,380	103,200	36,016	139,216	0.0%	46.84	100.0%	100.0%	139,216	0.0%
FY06	1,754,450	101,158	37,098	138,256	-0.7%	47.39	101.0%	99.8%	139,195	0.0%
FY07	1,905,950	91,622	35,117	126,739	-9.0%	46.26	98.1%	99.9%	124,978	-10.2%
FY08	1,951,401	98,076	36,032	134,108	-3.7%	44.24	91.4%	100.0%	125,630	-9.8%
FY09	2,051,105	99,652	36,238	135,890	-2.4%	44.25	92.0%	100.3%	128,011	-8.0%
FY10	2,051,105	95,342	37,995	133,337	-4.2%	45.47	95.8%	100.5%	129,522	-7.0%
FY11	2,070,851	103,837	37,815	141,652	1.8%	46.21	96.3%	99.7%	137,700	-1.1%
FY12	2,070,851	88,288	35,073	123,361	-11.4%	51.40	112.0%	97.8%	133,138	-4.4%
FY13	2,070,851	103,588	33,516	137,104	-1.5%	46.61	96.4%	98.8%	132,981	-4.5%
FY14	2,244,485	104,542	31,937	136,478	-2.0%	43.20	89.1%	99.0%	124,799	-10.4%
FY15	2,244,485	96,423	31,305	127,728	-8.3%	44.37	92.4%	100.3%	120,497	-13.4%
FY16	2,244,485	84,267	30,498	114,766	-17.6%	48.82	107.3%	99.2%	120,646	-13.3%
FY17	2,244,485	83,745	31,430	115,175	-17.3%	49.01	105.3%	98.9%	119,245	-14.3%
FY18	2,244,485	97,297	30,707	128,004	-8.1%	45.93	96.6%	100.1%	124,688	-10.4%
FY19	2,244,485	106,967	31,515	138,482	-0.5%	44.97	94.5%	99.8%	132,530	-4.8%
FY20	2,132,462	101,145	31,117	132,262	-5.0%	43.71	89.7%	100.3%	121,926	-12.4%

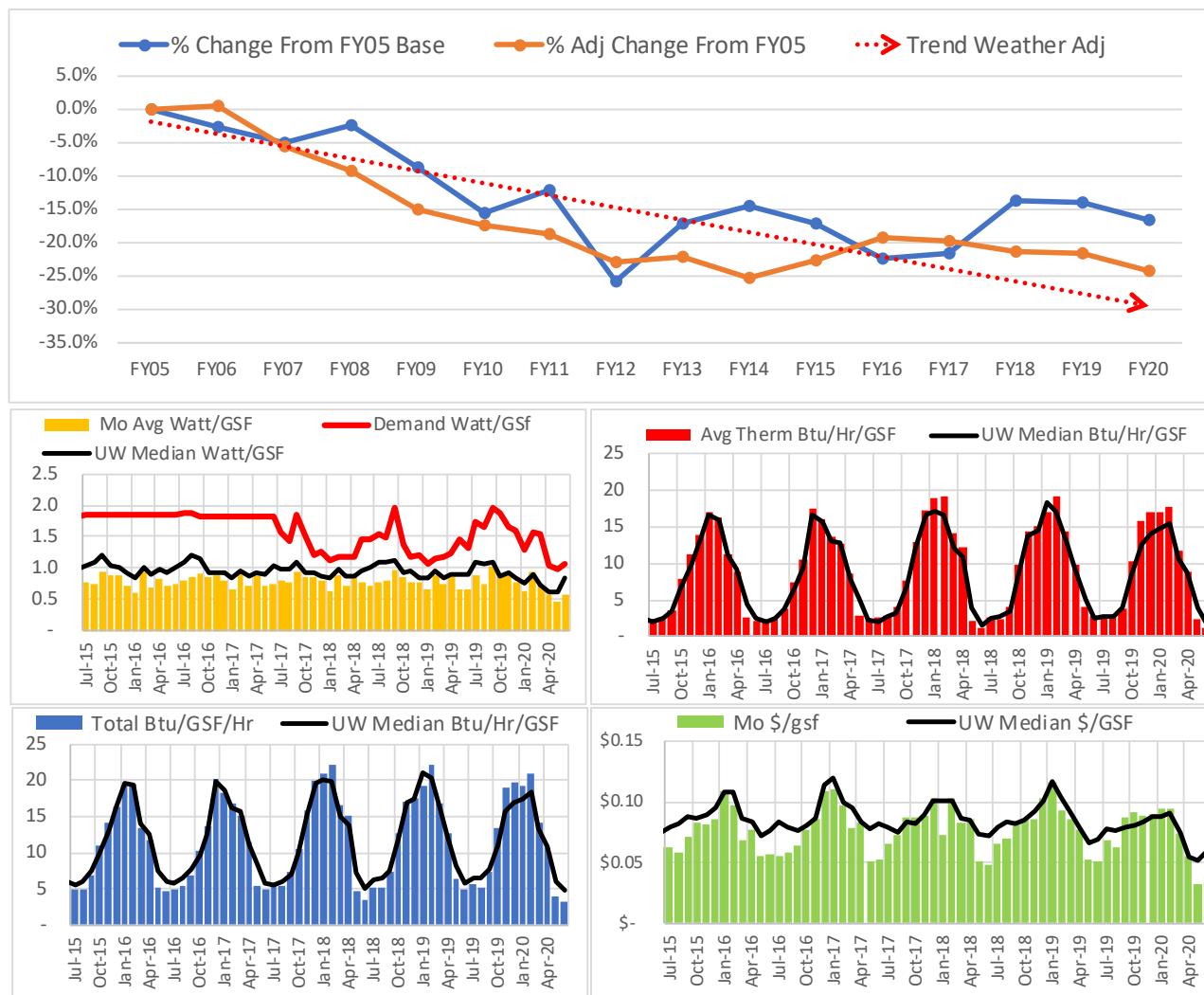
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-River Falls Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	6.65	FY20 Therm/GSF =	0.81	FY20 Total Btu/GSF =	103,879	05-20 Thm	-22.5%			
FY20 Electric \$/GSF =	\$ 0.57	FY20 Thermal \$/GSF =	\$ 0.31	FY20 Energy \$/GSF =	\$ 0.88	05-20 kwh	-29.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,493,198	92,456	32,102	124,558	0.0%	45.85	100.0%	100.0%	124,558	0.0%
FY06	1,539,790	89,293	31,876	121,169	-2.7%	47.80	104.5%	99.7%	125,121	0.5%
FY07	1,685,846	87,694	30,484	118,178	-5.1%	46.32	99.2%	100.1%	117,497	-5.7%
FY08	1,683,720	91,485	29,871	121,356	-2.6%	43.27	90.7%	100.6%	113,063	-9.2%
FY09	1,686,708	85,604	28,108	113,712	-8.7%	42.97	90.2%	101.3%	105,704	-15.1%
FY10	1,686,708	78,074	26,846	104,920	-15.8%	45.29	97.2%	100.1%	102,761	-17.5%
FY11	1,686,708	82,623	26,635	109,259	-12.3%	43.68	89.7%	101.2%	101,061	-18.9%
FY12	1,766,458	66,615	25,643	92,258	-25.9%	49.02	105.8%	99.4%	95,939	-23.0%
FY13	1,769,312	77,503	25,774	103,277	-17.1%	43.85	91.7%	100.4%	96,978	-22.1%
FY14	1,769,312	81,313	25,204	106,516	-14.5%	41.37	83.0%	101.3%	93,007	-25.3%
FY15	1,769,312	78,935	24,038	102,973	-17.3%	43.42	91.2%	100.5%	96,154	-22.8%
FY16	1,769,312	72,883	23,530	96,413	-22.6%	47.61	105.6%	99.6%	100,376	-19.4%
FY17	1,769,312	73,501	24,119	97,620	-21.6%	47.08	103.2%	99.8%	99,938	-19.8%
FY18	1,769,312	83,619	23,740	107,358	-13.8%	42.94	88.4%	101.1%	97,950	-21.4%
FY19	1,769,312	83,694	23,365	107,058	-14.0%	42.23	88.6%	100.6%	97,640	-21.6%
FY20	1,684,447	81,171	22,708	103,879	-16.6%	41.35	88.2%	100.1%	94,343	-24.3%

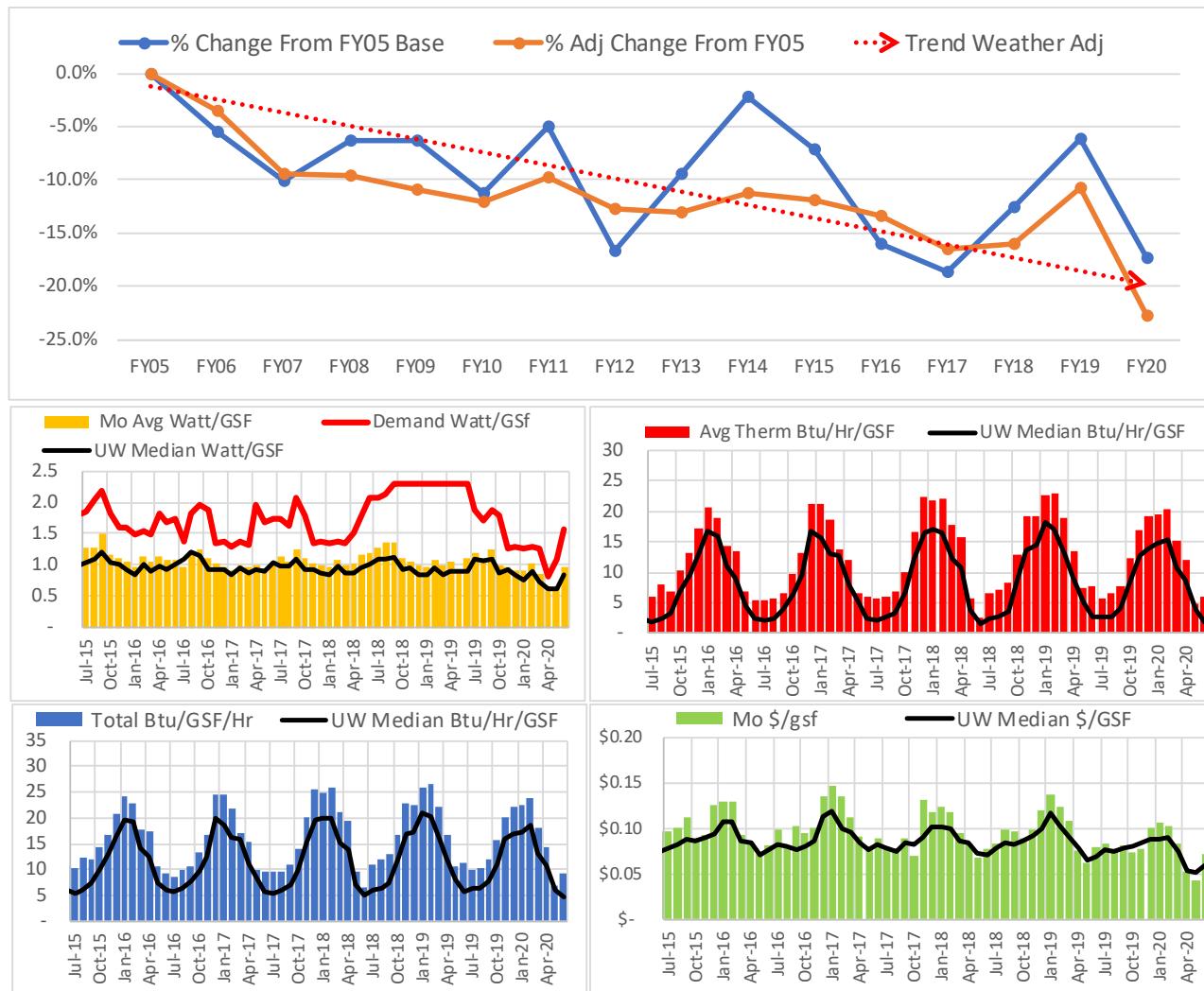
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Stevens Point Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	8.37	FY20 Therm/GSF =	1.07	FY20 Total Btu/GSF =	135,577	05-20 Thm	-23.8%			
FY20 Electric \$/GSF =	\$ 0.58	FY20 Thermal \$/GSF =	\$ 0.37	FY20 Energy \$/GSF =	\$ 0.96	05-20 kwh	-19.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,335,965	128,082	36,054	164,136	0.0%	46.04	100.0%	100.0%	164,136	0.0%
FY06	2,460,496	119,379	35,690	155,069	-5.5%	47.49	102.9%	99.7%	158,359	-3.5%
FY07	2,460,496	113,304	34,134	147,438	-10.2%	46.81	101.0%	99.9%	148,560	-9.5%
FY08	2,493,729	118,947	34,919	153,866	-6.3%	44.51	95.2%	100.3%	148,292	-9.7%
FY09	2,493,729	119,936	33,824	153,759	-6.3%	43.51	93.3%	100.9%	146,070	-11.0%
FY10	2,453,362	111,437	34,311	145,749	-11.2%	45.49	98.7%	100.1%	144,303	-12.1%
FY11	2,463,548	119,930	36,059	155,989	-5.0%	43.59	93.3%	100.7%	148,150	-9.7%
FY12	2,629,769	101,883	34,846	136,730	-16.7%	49.50	106.8%	98.6%	143,168	-12.8%
FY13	2,629,769	114,526	34,093	148,618	-9.5%	44.37	94.7%	100.3%	142,674	-13.1%
FY14	2,629,769	125,931	34,522	160,454	-2.2%	41.62	88.3%	100.2%	145,753	-11.2%
FY15	2,629,769	118,090	34,294	152,384	-7.2%	43.36	93.3%	100.3%	144,570	-11.9%
FY16	2,629,769	103,469	34,492	137,961	-15.9%	47.34	104.1%	99.6%	142,087	-13.4%
FY17	2,629,769	102,577	30,951	133,529	-18.6%	47.13	103.5%	99.7%	137,057	-16.5%
FY18	2,629,769	111,331	32,240	143,572	-12.5%	44.30	94.8%	100.4%	137,875	-16.0%
FY19	2,629,769	120,991	32,980	153,971	-6.2%	43.35	93.6%	100.5%	146,402	-10.8%
FY20	2,806,271	107,015	28,562	135,577	-17.4%	41.63	91.3%	101.9%	126,775	-22.8%

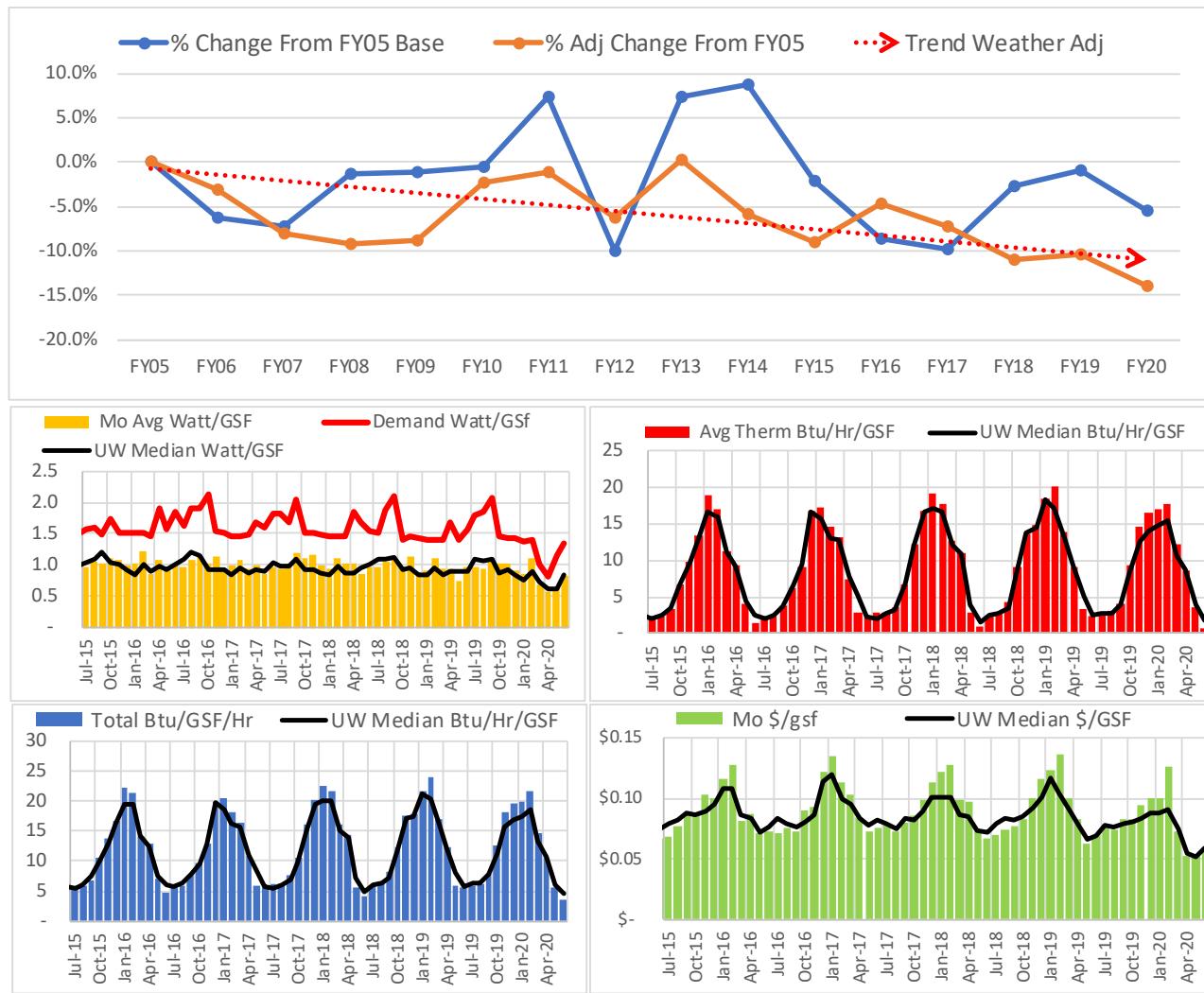
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Stout Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		7.81	FY20 Therm/GSF =		0.80	FY20 Total Btu/GSF =		106,951	05-20 Thm	-12.3%
FY20 Electric \$/GSF =		\$ 0.66	FY20 Thermal \$/GSF =		\$ 0.31	FY20 Energy \$/GSF =		\$ 0.97	05-20 kwh	-17.7%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,162,886	80,464	32,598	113,062	0.0%	45.85	100.0%	100.0%	113,062	0.0%
FY06	2,307,775	73,849	32,191	106,040	-6.2%	47.80	104.9%	99.9%	109,583	-3.1%
FY07	2,308,975	74,375	30,537	104,912	-7.2%	46.32	98.7%	100.0%	103,963	-8.0%
FY08	2,308,426	81,706	29,957	111,663	-1.2%	43.27	88.9%	100.1%	102,659	-9.2%
FY09	2,326,439	81,821	29,965	111,787	-1.1%	42.97	89.2%	100.5%	103,118	-8.8%
FY10	2,326,439	80,831	31,640	112,471	-0.5%	45.29	97.6%	100.0%	110,489	-2.3%
FY11	2,433,320	90,058	31,345	121,403	7.4%	43.68	89.2%	100.3%	111,748	-1.2%
FY12	2,443,351	70,805	31,036	101,842	-9.9%	49.02	105.7%	100.2%	105,949	-6.3%
FY13	2,446,059	88,850	32,537	121,387	7.4%	43.85	91.0%	99.7%	113,287	0.2%
FY14	2,448,864	92,099	30,742	122,841	8.6%	41.37	82.8%	97.8%	106,334	-6.0%
FY15	2,448,864	79,516	31,070	110,586	-2.2%	43.42	90.6%	99.3%	102,915	-9.0%
FY16	2,452,414	72,518	30,781	103,300	-8.6%	47.61	105.9%	100.3%	107,706	-4.7%
FY17	2,452,414	71,777	30,180	101,957	-9.8%	47.08	104.0%	99.9%	104,790	-7.3%
FY18	2,452,414	79,516	30,432	109,948	-2.8%	42.94	88.0%	100.9%	100,651	-11.0%
FY19	2,452,414	82,878	29,133	112,011	-0.9%	42.23	87.2%	99.4%	101,183	-10.5%
FY20	2,456,060	80,284	26,666	106,951	-5.4%	41.35	87.8%	100.6%	97,353	-13.9%

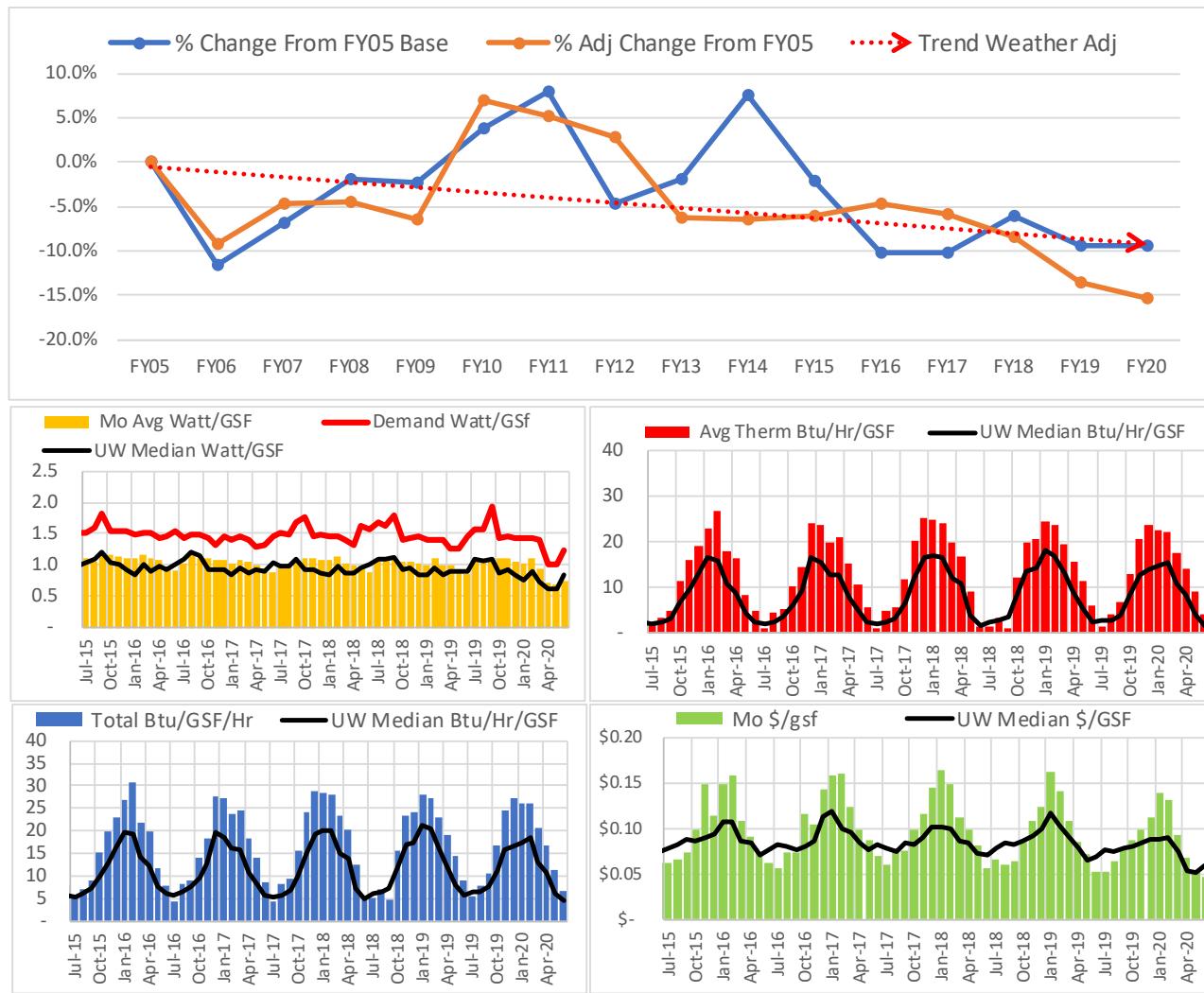
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Superior Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	8.62	FY20 Therm/GSF =	1.17	FY20 Total Btu/GSF =	146,785	05-20 Thm	-18.1%			
FY20 Electric \$/GSF =	\$ 0.56	FY20 Thermal \$/GSF =	\$ 0.47	FY20 Energy \$/GSF =	\$ 1.03	05-20 kwh	-4.0%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,076,728	131,188	30,821	162,010	0.0%	41.25	100.0%	100.0%	162,010	0.0%
FY06	1,100,416	113,499	29,731	143,231	-11.6%	43.07	103.1%	100.5%	146,925	-9.3%
FY07	1,100,416	121,638	29,318	150,955	-6.8%	42.62	102.8%	100.6%	154,557	-4.6%
FY08	1,100,416	128,998	29,891	158,890	-1.9%	40.59	96.7%	100.0%	154,645	-4.5%
FY09	1,100,416	127,933	30,306	158,239	-2.3%	39.54	95.0%	99.5%	151,644	-6.4%
FY10	1,032,741	134,981	33,276	168,257	3.9%	42.44	103.6%	100.4%	173,254	6.9%
FY11	1,032,741	142,386	32,616	175,002	8.0%	40.77	96.7%	99.9%	170,239	5.1%
FY12	1,086,193	119,692	34,618	154,310	-4.8%	45.72	109.9%	101.5%	166,675	2.9%
FY13	1,088,749	125,807	33,202	159,009	-1.9%	40.13	94.4%	99.7%	151,897	-6.2%
FY14	1,101,473	143,147	31,176	174,323	7.6%	37.72	84.2%	99.4%	151,578	-6.4%
FY15	1,101,473	125,867	32,585	158,452	-2.2%	40.35	95.0%	99.7%	152,069	-6.1%
FY16	1,120,382	112,817	32,511	145,328	-10.3%	44.19	107.9%	100.5%	154,405	-4.7%
FY17	1,120,382	114,333	31,154	145,487	-10.2%	43.72	106.0%	100.4%	152,451	-5.9%
FY18	1,120,382	121,106	30,946	152,053	-6.1%	39.93	97.1%	99.8%	148,428	-8.4%
FY19	1,120,382	116,182	30,432	146,615	-9.5%	39.56	94.3%	99.7%	139,952	-13.6%
FY20	1,111,812	117,374	29,411	146,785	-9.4%	38.27	91.6%	100.7%	137,088	-15.4%

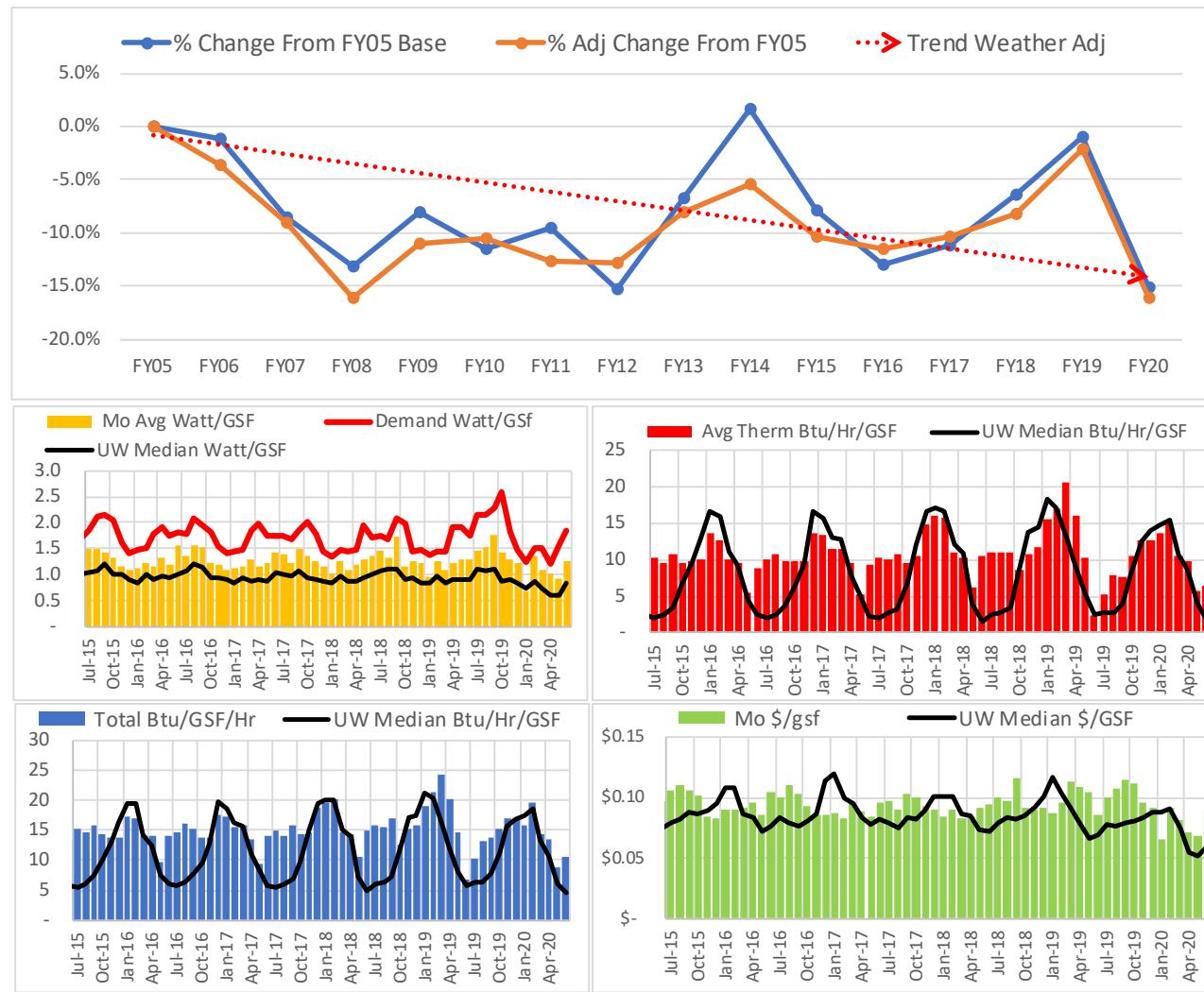
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Whitewater Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	11.01	FY20 Therm/GSF =	0.86	FY20 Total Btu/GSF =	123,726	05-20 Thm	-23.5%			
FY20 Electric \$/GSF =	\$ 0.95	FY20 Thermal \$/GSF =	\$ 0.14	FY20 Energy \$/GSF =	\$ 1.09	05-20 kwh	7.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,558,663	110,212	35,656	145,867	0.0%	48.47	100.0%	100.0%	145,867	0.0%
FY06	2,642,094	108,536	35,654	144,190	-1.2%	50.11	96.6%	100.1%	140,538	-3.7%
FY07	2,531,040	94,691	38,580	133,272	-8.6%	48.88	99.5%	99.8%	132,740	-9.0%
FY08	2,535,623	88,592	38,164	126,756	-13.1%	47.87	95.3%	99.6%	122,441	-16.1%
FY09	2,535,623	95,991	37,999	133,991	-8.1%	47.26	95.7%	99.7%	129,750	-11.0%
FY10	2,714,423	90,988	38,106	129,094	-11.5%	49.10	101.5%	99.8%	130,395	-10.6%
FY11	2,922,323	93,720	38,257	131,976	-9.5%	48.17	95.3%	99.6%	127,400	-12.7%
FY12	2,930,608	85,675	37,935	123,611	-15.3%	52.24	104.9%	98.5%	127,242	-12.8%
FY13	2,942,875	98,566	37,566	136,132	-6.7%	48.26	98.1%	99.9%	134,183	-8.0%
FY14	2,942,875	109,922	38,307	148,229	1.6%	45.20	90.8%	99.7%	138,014	-5.4%
FY15	2,942,875	96,322	38,031	134,352	-7.9%	46.08	96.0%	100.6%	130,738	-10.4%
FY16	2,942,875	87,999	38,941	126,940	-13.0%	50.51	102.7%	99.2%	128,977	-11.6%
FY17	2,942,875	91,167	38,386	129,553	-11.2%	51.99	102.1%	97.9%	130,661	-10.4%
FY18	2,942,875	98,838	37,666	136,504	-6.4%	48.73	97.2%	100.2%	133,806	-8.3%
FY19	2,942,875	106,284	38,144	144,428	-1.0%	47.88	98.3%	100.2%	142,700	-2.2%
FY20	2,965,821	86,145	37,581	123,726	-15.2%	46.54	97.8%	101.6%	122,442	-16.1%

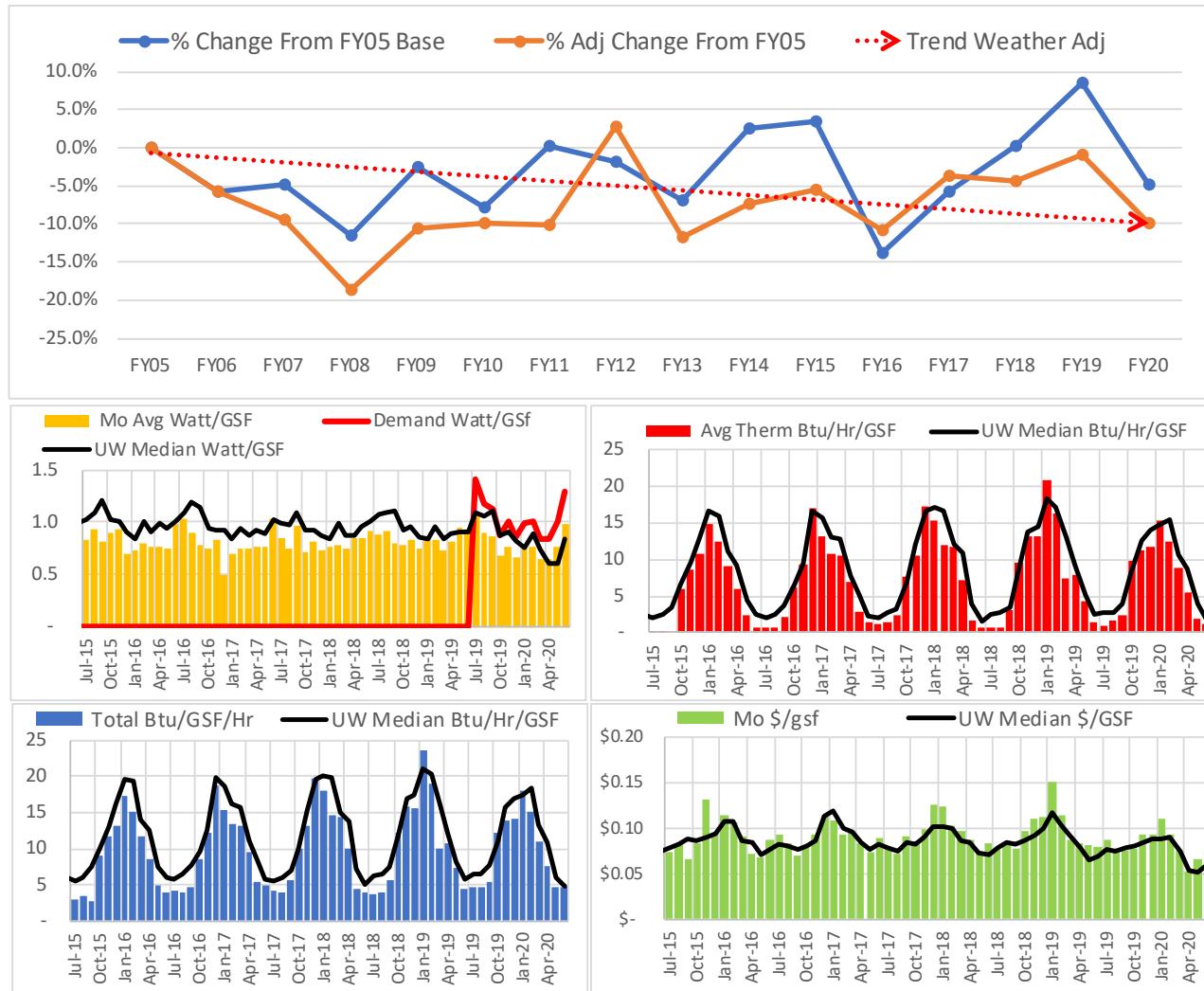
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Baraboo Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	6.99	FY20 Therm/GSF =	0.61	FY20 Total Btu/GSF =	84,555	05-20 Thm	-7.7%			
FY20 Electric \$/GSF =	\$ 0.70	FY20 Thermal \$/GSF =	\$ 0.27	FY20 Energy \$/GSF =	\$ 0.97	05-20 kwh	-14.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	150,015	60,075	28,748	88,823	0.0%	48.12	100.0%	100.0%	88,823	0.0%
FY06	150,015	54,757	28,857	83,615	-5.9%	48.65	100.6%	99.2%	83,683	-5.8%
FY07	150,015	57,135	27,415	84,550	-4.8%	47.46	93.1%	99.7%	80,523	-9.3%
FY08	150,015	48,670	29,922	78,592	-11.5%	46.19	86.9%	99.9%	72,186	-18.7%
FY09	150,015	56,230	30,295	86,525	-2.6%	45.66	87.1%	100.2%	79,327	-10.7%
FY10	151,015	52,354	29,593	81,947	-7.7%	47.10	96.4%	100.1%	80,073	-9.9%
FY11	151,015	55,820	33,110	88,929	0.1%	46.81	84.6%	98.3%	79,780	-10.2%
FY12	151,015	52,615	34,488	87,103	-1.9%	51.51	108.5%	98.9%	91,172	2.6%
FY13	151,015	53,076	29,661	82,736	-6.9%	47.29	92.6%	98.9%	78,472	-11.7%
FY14	151,015	65,370	25,787	91,157	2.6%	44.58	86.3%	100.0%	82,181	-7.5%
FY15	151,015	65,936	25,972	91,909	3.5%	45.84	88.2%	99.2%	83,910	-5.5%
FY16	165,615	51,856	24,668	76,524	-13.8%	49.68	105.5%	99.5%	79,225	-10.8%
FY17	165,615	59,758	23,864	83,623	-5.9%	49.72	103.9%	98.6%	85,614	-3.6%
FY18	165,615	64,858	24,239	89,097	0.3%	46.66	93.7%	100.1%	85,024	-4.3%
FY19	165,615	71,254	25,068	96,321	8.4%	45.88	88.4%	99.8%	88,044	-0.9%
FY20	179,291	60,692	23,864	84,555	-4.8%	44.43	91.3%	102.8%	79,965	-10.0%

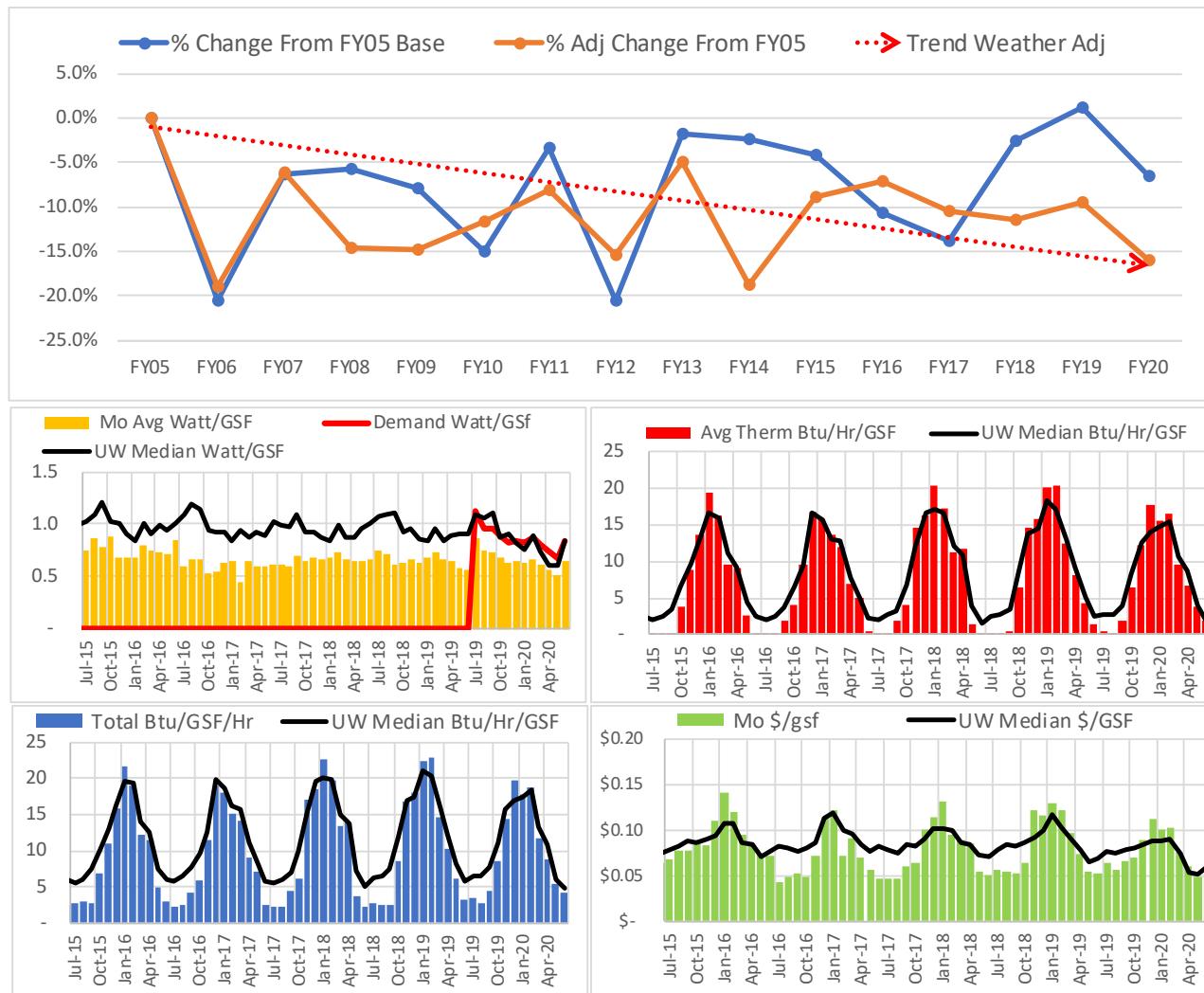
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Barron Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 5.83			FY20 Therm/GSF = 0.68			FY20 Total Btu/GSF = 87,842			05-20 Thm -15.0%	
FY20 Electric \$/GSF = \$ 0.55			FY20 Thermal \$/GSF = \$ 0.35			FY20 Energy \$/GSF = \$ 0.90			05-20 kwh -18.8%	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	146,683	68,961	24,959	93,920	0.0%	44.26	100.0%	100.0%	93,920	0.0%
FY06	146,683	50,219	24,449	74,668	-20.5%	45.56	102.2%	101.3%	76,055	-19.0%
FY07	146,683	59,577	28,442	88,019	-6.3%	44.50	100.2%	100.2%	88,205	-6.1%
FY08	146,683	62,206	26,231	88,437	-5.8%	42.10	86.3%	101.2%	80,266	-14.5%
FY09	146,683	60,882	25,582	86,463	-7.9%	42.50	89.2%	100.5%	80,050	-14.8%
FY10	146,683	55,335	24,564	79,899	-14.9%	45.38	105.8%	99.7%	83,039	-11.6%
FY11	146,683	65,691	25,032	90,723	-3.4%	43.50	93.3%	100.0%	86,312	-8.1%
FY12	146,683	50,835	23,808	74,642	-20.5%	47.63	109.2%	100.7%	79,479	-15.4%
FY13	146,683	69,539	22,747	92,286	-1.7%	42.87	95.7%	99.6%	89,179	-5.0%
FY14	146,683	68,763	22,880	91,642	-2.4%	39.97	77.6%	100.5%	76,337	-18.7%
FY15	146,683	64,978	25,062	90,040	-4.1%	42.20	93.3%	99.4%	85,561	-8.9%
FY16	146,683	60,959	22,912	83,872	-10.7%	46.23	105.6%	99.6%	87,192	-7.2%
FY17	146,683	63,058	17,913	80,971	-13.8%	45.86	104.8%	100.2%	84,030	-10.5%
FY18	146,683	71,792	19,729	91,521	-2.6%	42.67	88.5%	99.6%	83,174	-11.4%
FY19	146,683	75,451	19,621	95,072	1.2%	41.78	87.0%	99.0%	85,043	-9.5%
FY20	146,683	67,954	19,888	87,842	-6.5%	39.87	86.3%	101.9%	78,887	-16.0%

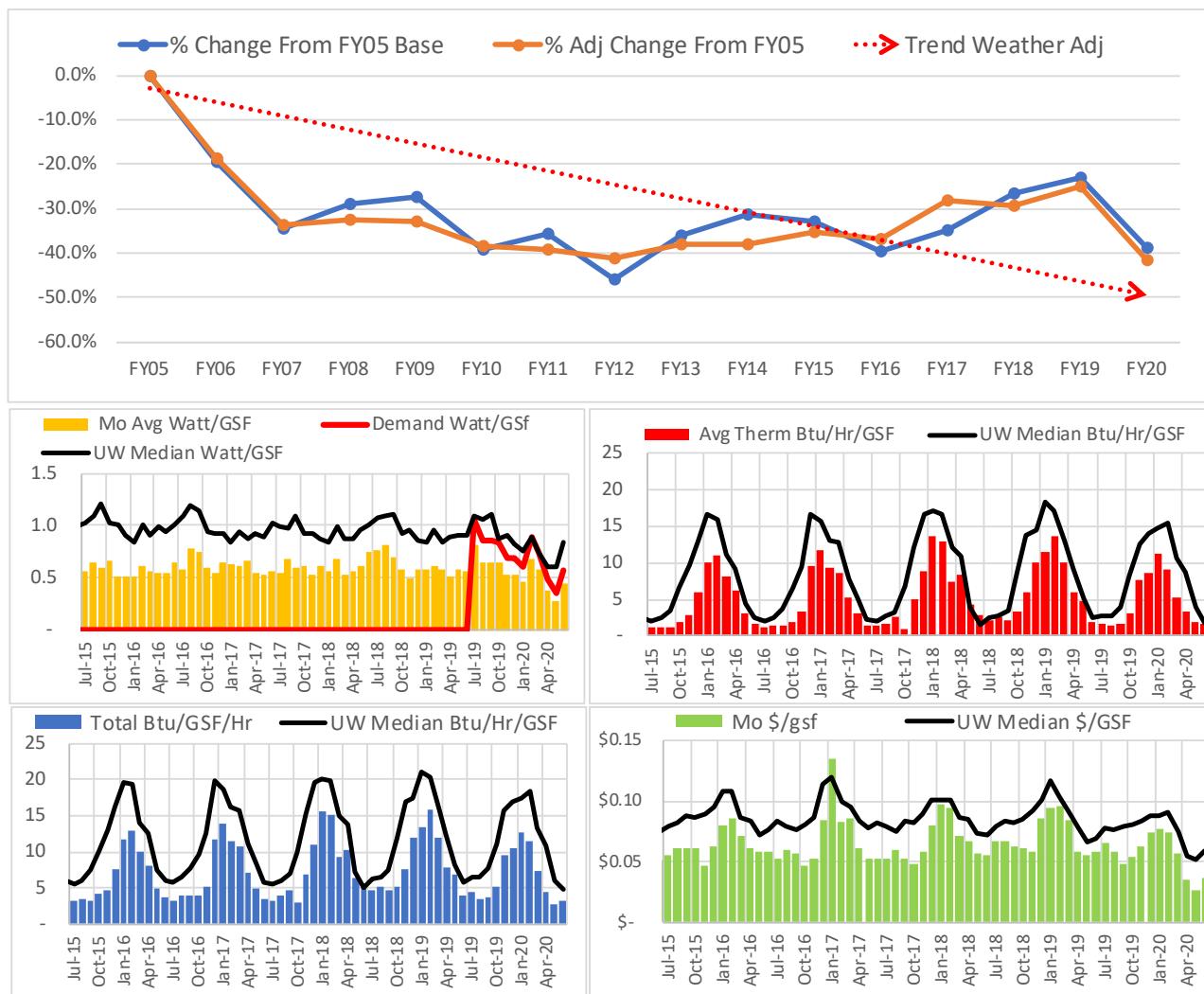
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Fond du Lac Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		4.86	FY20 Therm/GSF =		0.41	FY20 Total Btu/GSF =		57,684	05-20 Thm	-34.3%
FY20 Electric \$/GSF =		\$ 0.49	FY20 Thermal \$/GSF =		\$ 0.18	FY20 Energy \$/GSF =		\$ 0.67	05-20 kwh	-53.6%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	194,077	57,697	36,356	94,053	0.0%	45.92	100.0%	100.0%	94,053	0.0%
FY06	194,077	44,930	30,608	75,537	-19.7%	47.27	102.3%	98.9%	76,257	-18.9%
FY07	194,077	36,836	24,766	61,603	-34.5%	46.64	102.1%	100.2%	62,415	-33.6%
FY08	194,077	41,626	25,281	66,908	-28.9%	45.02	92.0%	99.7%	63,477	-32.5%
FY09	194,077	42,786	25,535	68,320	-27.4%	43.47	87.7%	99.5%	62,949	-33.1%
FY10	194,077	36,351	20,926	57,277	-39.1%	45.99	101.5%	99.7%	57,764	-38.6%
FY11	194,077	39,422	21,010	60,433	-35.7%	44.59	91.9%	99.9%	57,224	-39.2%
FY12	194,077	31,245	19,651	50,896	-45.9%	49.86	114.6%	99.0%	55,267	-41.2%
FY13	194,077	40,447	19,644	60,091	-36.1%	45.29	95.7%	99.7%	58,276	-38.0%
FY14	194,077	44,739	19,695	64,434	-31.5%	41.95	85.8%	101.2%	58,311	-38.0%
FY15	194,077	44,074	18,942	63,016	-33.0%	43.98	95.0%	99.4%	60,704	-35.5%
FY16	194,077	39,516	17,317	56,833	-39.6%	48.11	106.7%	99.6%	59,408	-36.8%
FY17	194,077	42,762	18,639	61,401	-34.7%	48.65	114.3%	100.7%	67,651	-28.1%
FY18	194,077	50,729	18,106	68,835	-26.8%	45.77	95.9%	99.1%	66,587	-29.2%
FY19	194,077	53,974	18,275	72,249	-23.2%	44.89	97.0%	99.3%	70,494	-25.0%
FY20	194,077	41,080	16,604	57,684	-38.7%	42.93	92.3%	101.7%	54,796	-41.7%

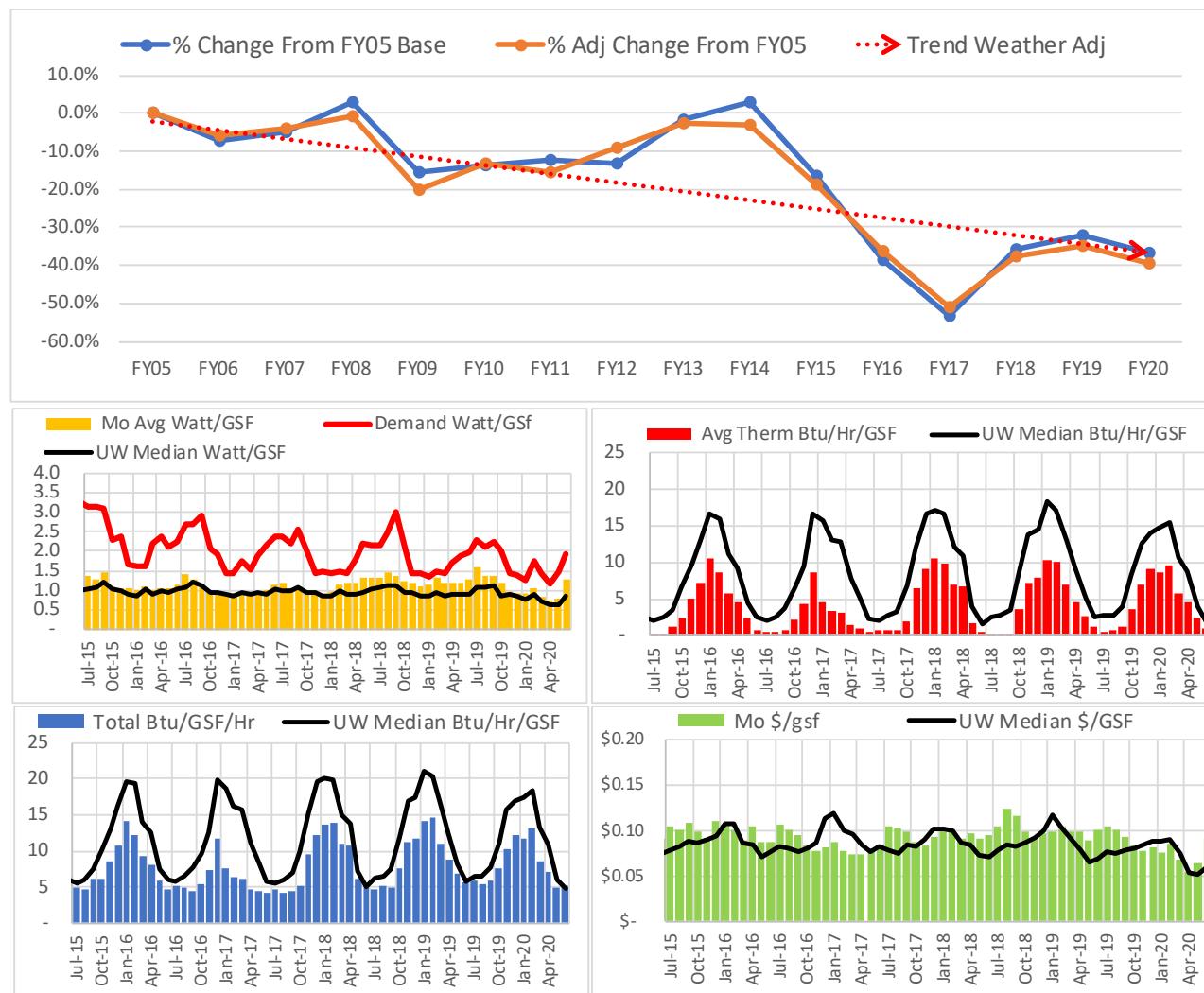
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Fox Valley Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.52	FY20 Therm/GSF =	0.39	FY20 Total Btu/GSF =	71,867	05-20 Thm	-56.4%			
FY20 Electric \$/GSF =	\$ 0.86	FY20 Thermal \$/GSF =	\$ 0.12	FY20 Energy \$/GSF =	\$ 0.98	05-20 kwh	1.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	203,270	80,764	33,160	113,923	0.0%	45.92	100.0%	100.0%	113,923	0.0%
FY06	203,270	65,846	39,731	105,577	-7.3%	47.27	102.7%	99.2%	107,052	-6.0%
FY07	203,270	68,865	39,388	108,253	-5.0%	46.64	101.7%	99.9%	109,408	-4.0%
FY08	202,478	74,578	42,567	117,146	2.8%	45.02	94.3%	100.2%	112,991	-0.8%
FY09	272,978	59,785	36,633	96,419	-15.4%	43.47	90.5%	101.3%	91,235	-19.9%
FY10	274,078	56,536	41,976	98,513	-13.5%	45.99	100.2%	100.4%	98,792	-13.3%
FY11	274,078	57,431	42,594	100,025	-12.2%	44.59	93.6%	99.6%	96,165	-15.6%
FY12	274,078	54,816	44,063	98,879	-13.2%	49.86	110.6%	98.0%	103,831	-8.9%
FY13	274,078	65,656	46,393	112,049	-1.6%	45.29	98.2%	99.9%	110,864	-2.7%
FY14	274,078	69,664	47,498	117,161	2.8%	41.95	90.7%	99.5%	110,430	-3.1%
FY15	274,078	53,826	41,276	95,102	-16.5%	43.98	95.5%	100.0%	92,680	-18.6%
FY16	274,078	35,864	34,150	70,014	-38.5%	48.11	107.5%	99.6%	72,583	-36.3%
FY17	274,078	22,230	31,080	53,310	-53.2%	48.65	113.3%	99.3%	56,054	-50.8%
FY18	274,078	40,306	32,886	73,192	-35.8%	45.77	95.1%	100.0%	71,200	-37.5%
FY19	274,078	39,969	37,308	77,277	-32.2%	44.89	92.6%	99.9%	74,271	-34.8%
FY20	277,988	39,363	32,504	71,867	-36.9%	42.93	89.5%	103.8%	68,958	-39.5%

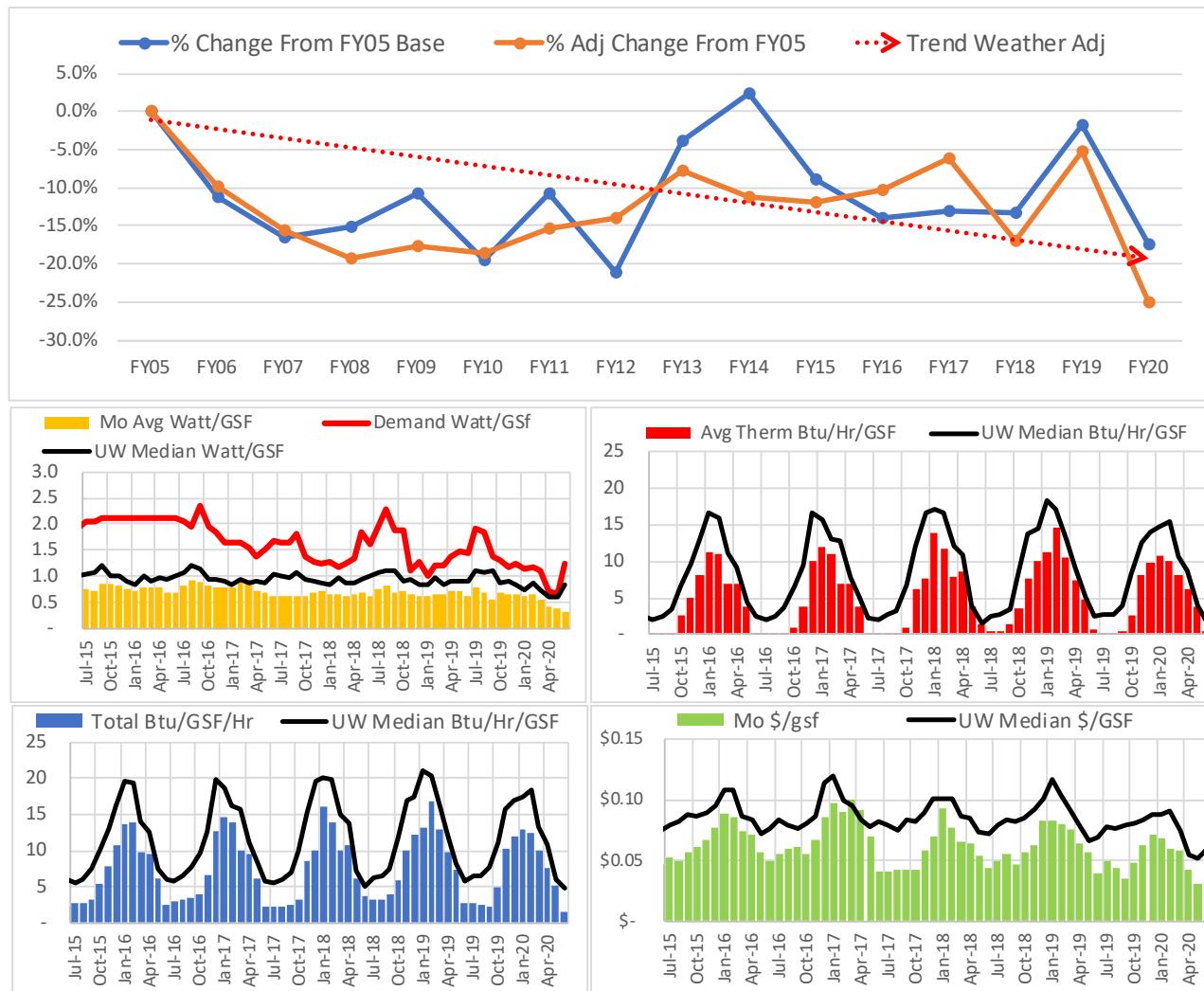
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Manitowoc Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	5.13	FY20 Therm/GSF =	0.44	FY20 Total Btu/GSF =	61,898	05-20 Thm	-20.5%			
FY20 Electric \$/GSF =	\$ 0.39	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 0.59	05-20 kwh	-33.3%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	125,045	48,682	26,306	74,988	0.0%	45.92	100.0%	100.0%	74,988	0.0%
FY06	125,045	42,486	24,105	66,591	-11.2%	47.27	102.4%	100.1%	67,638	-9.8%
FY07	125,045	40,784	21,881	62,665	-16.4%	46.64	101.6%	100.2%	63,364	-15.5%
FY08	125,045	41,371	22,197	63,568	-15.2%	45.02	92.2%	101.2%	60,604	-19.2%
FY09	125,045	44,475	22,531	67,006	-10.6%	43.47	88.1%	100.4%	61,817	-17.6%
FY10	125,045	38,761	21,552	60,313	-19.6%	45.99	102.7%	98.7%	61,080	-18.5%
FY11	125,045	43,806	23,147	66,953	-10.7%	44.59	91.4%	101.0%	63,409	-15.4%
FY12	125,045	35,601	23,632	59,232	-21.0%	49.86	114.6%	100.2%	64,470	-14.0%
FY13	125,045	48,234	23,881	72,115	-3.8%	45.29	94.0%	99.8%	69,201	-7.7%
FY14	125,045	52,936	23,815	76,751	2.4%	41.95	81.0%	99.6%	66,607	-11.2%
FY15	125,045	45,771	22,589	68,359	-8.8%	43.98	95.2%	99.7%	66,091	-11.9%
FY16	125,045	41,535	22,980	64,516	-14.0%	48.11	106.6%	99.7%	67,203	-10.4%
FY17	125,045	41,189	24,019	65,208	-13.0%	48.65	112.1%	100.6%	70,341	-6.2%
FY18	125,045	45,726	19,342	65,068	-13.2%	45.77	94.1%	99.9%	62,331	-16.9%
FY19	125,045	52,954	20,681	73,635	-1.8%	44.89	95.0%	100.2%	71,044	-5.3%
FY20	125,045	44,385	17,513	61,898	-17.5%	42.93	87.2%	100.2%	56,262	-25.0%

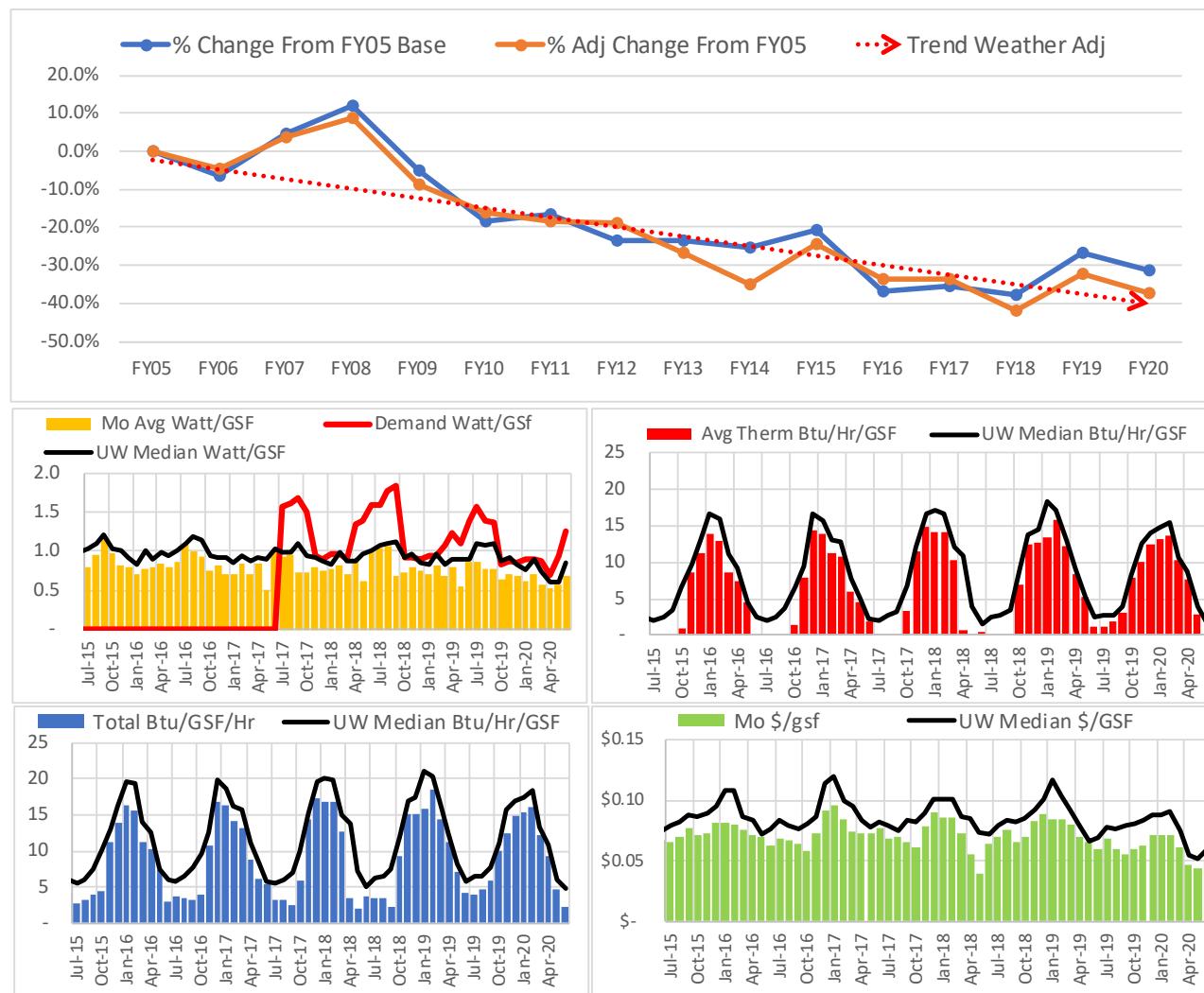
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Marathon Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	5.96	FY20 Therm/GSF =	0.61	FY20 Total Btu/GSF =	81,813	05-20 Thm	-34.9%			
FY20 Electric \$/GSF =	\$ 0.52	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 0.72	05-20 kwh	-42.4%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	286,421	83,471	36,007	119,478	0.0%	44.26	100.0%	100.0%	119,478	0.0%
FY06	286,421	75,819	35,945	111,764	-6.5%	45.56	102.9%	99.4%	113,780	-4.8%
FY07	286,421	82,286	42,725	125,011	4.6%	44.50	98.8%	99.7%	123,859	3.7%
FY08	290,650	98,146	35,457	133,604	11.8%	42.10	96.1%	100.9%	130,082	8.9%
FY09	290,650	79,697	33,568	113,265	-5.2%	42.50	95.2%	99.4%	109,219	-8.6%
FY10	327,695	66,441	31,002	97,443	-18.4%	45.38	104.0%	99.7%	100,021	-16.3%
FY11	327,695	69,285	30,634	99,919	-16.4%	43.50	96.4%	100.5%	97,550	-18.4%
FY12	327,695	59,969	31,194	91,164	-23.7%	47.63	110.1%	98.6%	96,763	-19.0%
FY13	327,695	64,326	26,851	91,177	-23.7%	42.87	94.5%	100.3%	87,732	-26.6%
FY14	327,695	62,455	26,642	89,097	-25.4%	39.97	81.7%	99.5%	77,557	-35.1%
FY15	327,695	66,883	27,637	94,520	-20.9%	42.20	93.7%	99.1%	90,068	-24.6%
FY16	327,695	49,833	25,793	75,626	-36.7%	46.23	107.4%	98.9%	79,054	-33.8%
FY17	327,695	52,758	24,624	77,383	-35.2%	45.86	104.2%	99.7%	79,512	-33.5%
FY18	327,695	50,451	24,061	74,512	-37.6%	42.67	90.3%	99.3%	69,448	-41.9%
FY19	327,695	63,910	23,627	87,537	-26.7%	41.78	89.9%	99.2%	80,898	-32.3%
FY20	327,695	61,484	20,329	81,813	-31.5%	39.87	88.4%	102.1%	75,118	-37.1%

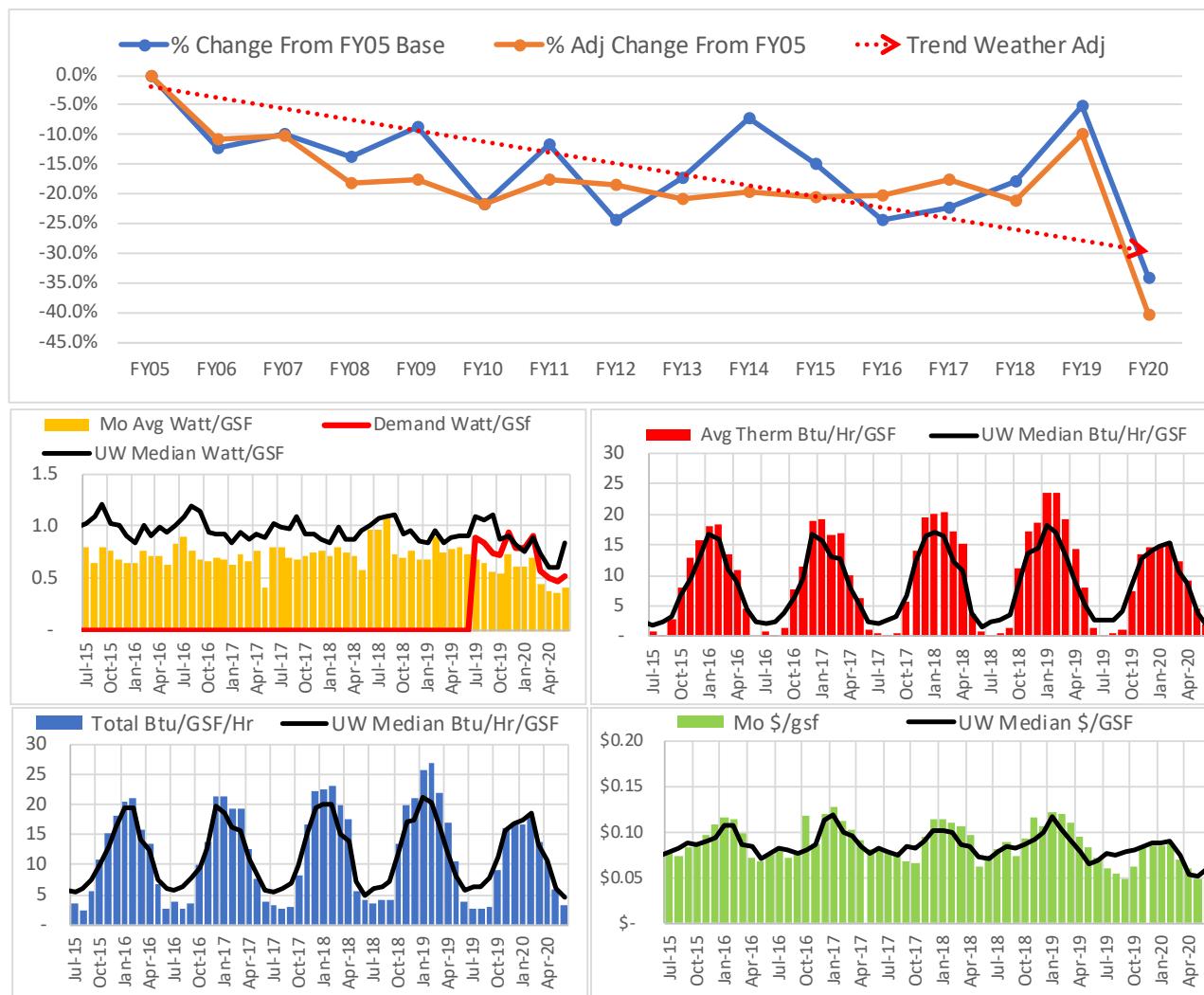
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Marinette Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 4.89			FY20 Therm/GSF = 0.70			FY20 Total Btu/GSF = 86,729			05-20 Thm -36.9%	
FY20 Electric \$/GSF = \$ 0.49			FY20 Thermal \$/GSF = \$ 0.30			FY20 Energy \$/GSF = \$ 0.79			05-20 kwh -50.1%	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	103,778	97,916	33,580	131,496	0.0%	45.92	100.0%	100.0%	131,496	0.0%
FY06	103,778	84,635	30,881	115,517	-12.2%	47.27	102.0%	100.2%	117,284	-10.8%
FY07	103,778	86,211	32,103	118,314	-10.0%	46.64	99.8%	100.1%	118,218	-10.1%
FY08	102,740	82,819	30,750	113,569	-13.6%	45.02	92.8%	99.4%	107,412	-18.3%
FY09	102,740	89,463	30,381	119,843	-8.9%	43.47	87.2%	99.5%	108,225	-17.7%
FY10	107,988	74,977	27,787	102,764	-21.8%	45.99	100.4%	99.2%	102,845	-21.8%
FY11	107,988	87,316	28,818	116,134	-11.7%	44.59	91.1%	99.9%	108,359	-17.6%
FY12	107,988	71,455	28,073	99,528	-24.3%	49.86	109.8%	101.7%	107,006	-18.6%
FY13	107,988	80,514	28,424	108,938	-17.2%	45.29	94.3%	99.5%	104,239	-20.7%
FY14	107,988	95,636	26,299	121,935	-7.3%	41.95	83.5%	98.0%	105,637	-19.7%
FY15	107,988	89,052	22,949	112,001	-14.8%	43.98	91.7%	100.2%	104,641	-20.4%
FY16	107,988	77,780	21,608	99,388	-24.4%	48.11	106.9%	99.9%	104,738	-20.3%
FY17	107,988	81,248	21,027	102,275	-22.2%	48.65	107.6%	100.2%	108,465	-17.5%
FY18	107,988	85,885	22,217	108,102	-17.8%	45.77	95.3%	99.0%	103,832	-21.0%
FY19	107,988	101,099	23,790	124,889	-5.0%	44.89	93.9%	99.2%	118,581	-9.8%
FY20	139,818	70,034	16,695	86,729	-34.0%	42.93	88.2%	100.4%	78,506	-40.3%

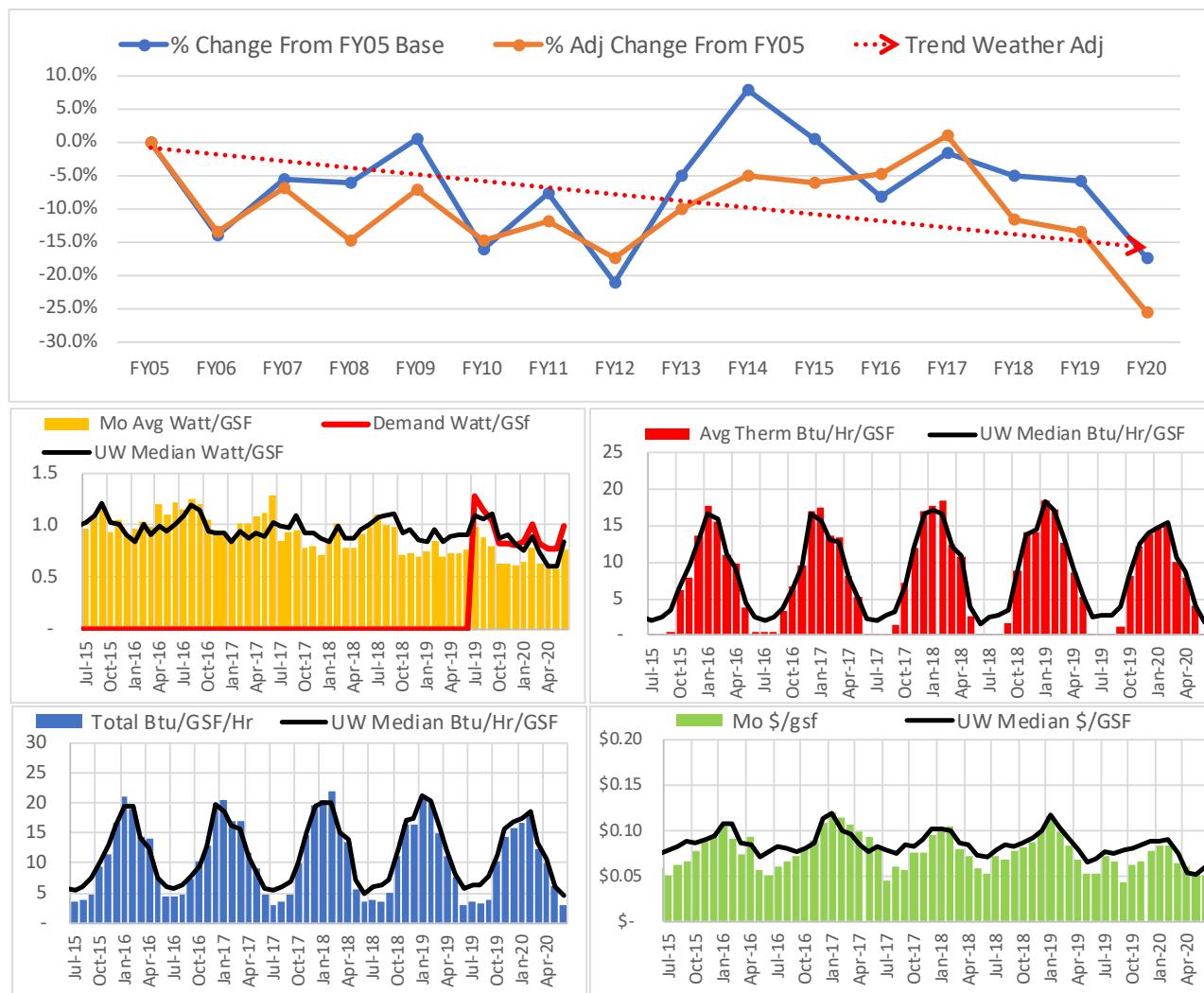
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Marshfield Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		6.25	FY20 Therm/GSF =		0.64	FY20 Total Btu/GSF =		85,777	05-20 Thm	-25.5%
FY20 Electric \$/GSF =		\$ 0.52	FY20 Thermal \$/GSF =		\$ 0.26	FY20 Energy \$/GSF =		\$ 0.78	05-20 kwh	-25.9%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	145,016	74,182	29,668	103,850	0.0%	44.26	100.0%	100.0%	103,850	0.0%
FY06	145,016	58,572	30,750	89,322	-14.0%	45.56	101.0%	99.6%	89,766	-13.6%
FY07	145,016	68,277	29,734	98,011	-5.6%	44.50	97.9%	99.9%	96,544	-7.0%
FY08	141,598	69,599	27,941	97,540	-6.1%	42.10	86.7%	100.4%	88,417	-14.9%
FY09	136,616	73,370	30,941	104,311	0.4%	42.50	89.0%	100.4%	96,397	-7.2%
FY10	149,996	59,028	27,930	86,958	-16.3%	45.38	102.6%	99.5%	88,376	-14.9%
FY11	149,996	67,684	28,222	95,906	-7.6%	43.50	93.3%	99.9%	91,312	-12.1%
FY12	149,996	54,485	27,409	81,894	-21.1%	47.63	107.1%	99.9%	85,732	-17.4%
FY13	149,996	68,181	30,344	98,525	-5.1%	42.87	92.4%	100.3%	93,439	-10.0%
FY14	149,996	81,584	30,211	111,795	7.7%	39.97	83.7%	100.4%	98,637	-5.0%
FY15	149,996	75,601	28,584	104,186	0.3%	42.20	91.2%	99.8%	97,426	-6.2%
FY16	149,996	63,764	31,491	95,255	-8.3%	46.23	105.8%	99.5%	98,788	-4.9%
FY17	149,996	69,976	32,102	102,078	-1.7%	45.86	104.5%	99.1%	104,955	1.1%
FY18	149,996	72,862	25,802	98,664	-5.0%	42.67	90.9%	98.9%	91,735	-11.7%
FY19	149,996	73,596	24,235	97,831	-5.8%	41.78	89.4%	99.5%	89,920	-13.4%
FY20	153,555	64,446	21,331	85,777	-17.4%	39.87	85.7%	103.0%	77,227	-25.6%

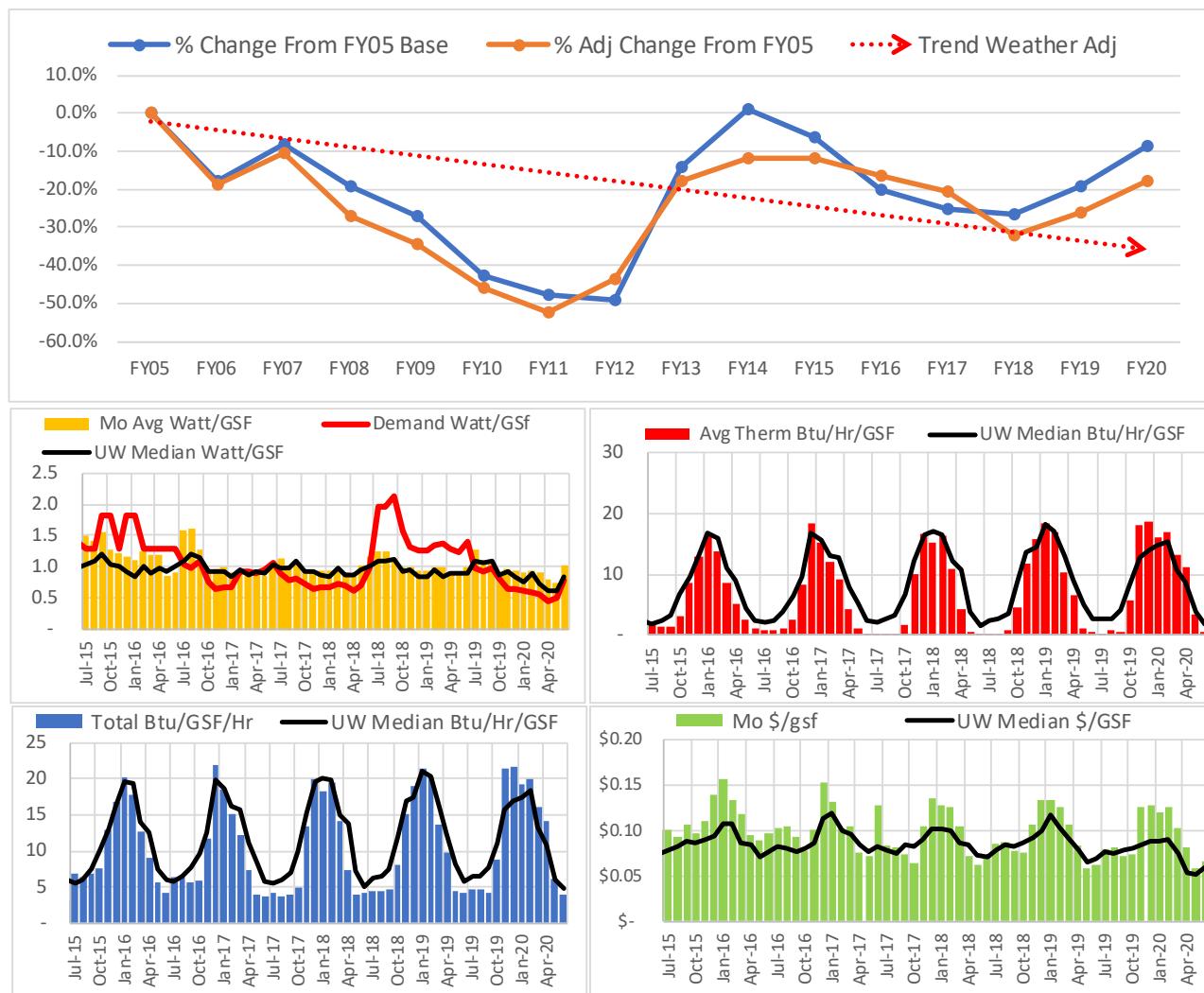
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Richland Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 8.45			FY20 Therm/GSF = 0.77			FY20 Total Btu/GSF = 106,022			05-20 Thm	-20.5%
FY20 Electric \$/GSF = \$ 0.68			FY20 Thermal \$/GSF = \$ 0.43			FY20 Energy \$/GSF = \$ 1.12			05-20 kwh	-10.2%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	95,461	84,023	32,229	116,252	0.0%	46.84	100.0%	100.0%	116,252	0.0%
FY06	95,461	61,755	33,997	95,752	-17.6%	47.39	98.2%	99.3%	94,418	-18.8%
FY07	95,461	73,106	33,885	106,991	-8.0%	46.26	96.8%	99.0%	104,339	-10.2%
FY08	101,990	63,338	30,431	93,768	-19.3%	44.24	86.7%	98.7%	84,929	-26.9%
FY09	101,900	66,571	18,400	84,971	-26.9%	44.25	86.7%	99.2%	75,999	-34.6%
FY10	108,760	49,298	17,232	66,530	-42.8%	45.47	92.6%	100.0%	62,903	-45.9%
FY11	108,760	43,371	17,330	60,701	-47.8%	46.21	88.2%	98.8%	55,380	-52.4%
FY12	108,760	41,968	17,345	59,313	-49.0%	51.40	115.2%	100.5%	65,764	-43.4%
FY13	108,760	60,556	39,069	99,626	-14.3%	46.61	94.3%	98.9%	95,746	-17.6%
FY14	108,760	78,408	39,020	117,429	1.0%	43.20	82.1%	97.8%	102,553	-11.8%
FY15	108,760	73,526	35,442	108,968	-6.3%	44.37	90.9%	100.4%	102,452	-11.9%
FY16	108,760	56,166	36,567	92,733	-20.2%	48.82	108.2%	99.7%	97,234	-16.4%
FY17	108,760	54,662	32,340	87,002	-25.2%	49.01	110.6%	97.9%	92,136	-20.7%
FY18	108,760	55,612	29,696	85,309	-26.6%	45.93	88.9%	98.9%	78,782	-32.2%
FY19	108,760	63,218	30,657	93,875	-19.2%	44.97	87.9%	99.3%	85,985	-26.0%
FY20	104,825	77,195	28,826	106,022	-8.8%	43.71	86.5%	100.4%	95,736	-17.6%

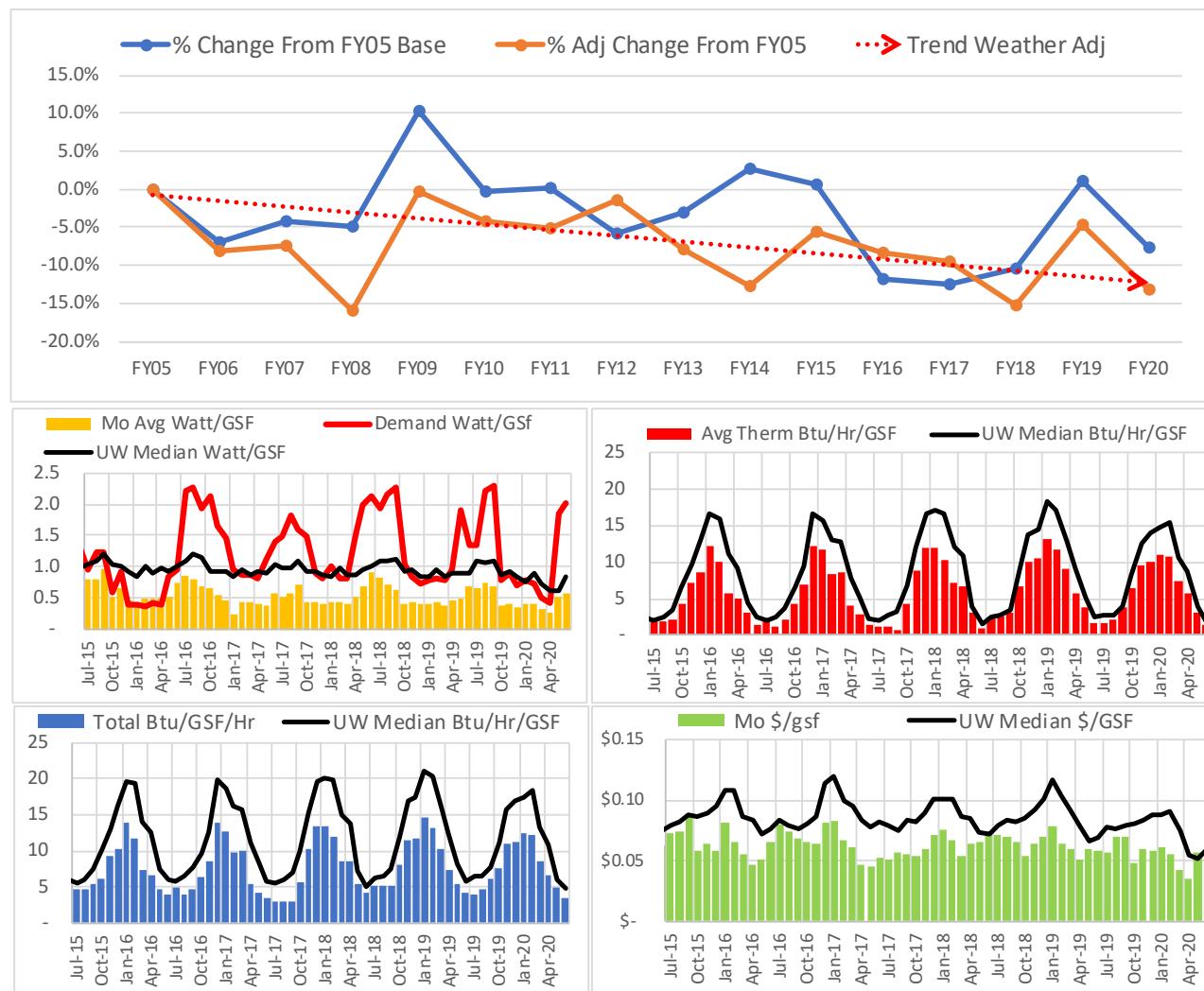
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### UW-Rock Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	4.18	FY20 Therm/GSF =	0.53	FY20 Total Btu/GSF =	67,751	05-20 Thm	0.6%			
FY20 Electric \$/GSF =	\$ 0.47	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 0.67	05-20 kwh	-39.8%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	145,560	48,489	24,956	73,445	0.0%	48.12	100.0%	100.0%	73,445	0.0%
FY06	145,560	43,901	24,404	68,306	-7.0%	48.65	98.5%	99.4%	67,505	-8.1%
FY07	145,560	45,778	24,629	70,407	-4.1%	47.46	94.9%	99.6%	67,972	-7.5%
FY08	185,625	48,518	21,252	69,770	-5.0%	46.19	84.2%	98.0%	61,709	-16.0%
FY09	185,625	61,813	19,134	80,947	10.2%	45.66	87.4%	100.6%	73,242	-0.3%
FY10	191,592	53,702	19,567	73,268	-0.2%	47.10	94.3%	101.0%	70,386	-4.2%
FY11	191,592	55,115	18,398	73,513	0.1%	46.81	93.2%	99.0%	69,609	-5.2%
FY12	191,592	49,687	19,441	69,128	-5.9%	51.51	107.5%	97.5%	72,381	-1.4%
FY13	191,592	52,582	18,632	71,214	-3.0%	47.29	93.7%	99.1%	67,719	-7.8%
FY14	191,592	56,742	18,717	75,459	2.7%	44.58	80.2%	99.5%	64,137	-12.7%
FY15	191,592	55,612	18,293	73,905	0.6%	45.84	91.3%	101.0%	69,260	-5.7%
FY16	191,592	46,394	18,347	64,741	-11.9%	49.68	106.0%	98.5%	67,266	-8.4%
FY17	191,592	48,164	16,112	64,276	-12.5%	49.72	105.7%	96.9%	66,533	-9.4%
FY18	191,592	49,771	16,013	65,783	-10.4%	46.66	92.6%	100.5%	62,165	-15.4%
FY19	191,592	58,569	15,608	74,177	1.0%	45.88	92.9%	99.9%	70,002	-4.7%
FY20	191,592	53,489	14,263	67,751	-7.8%	44.43	91.2%	105.3%	63,780	-13.2%

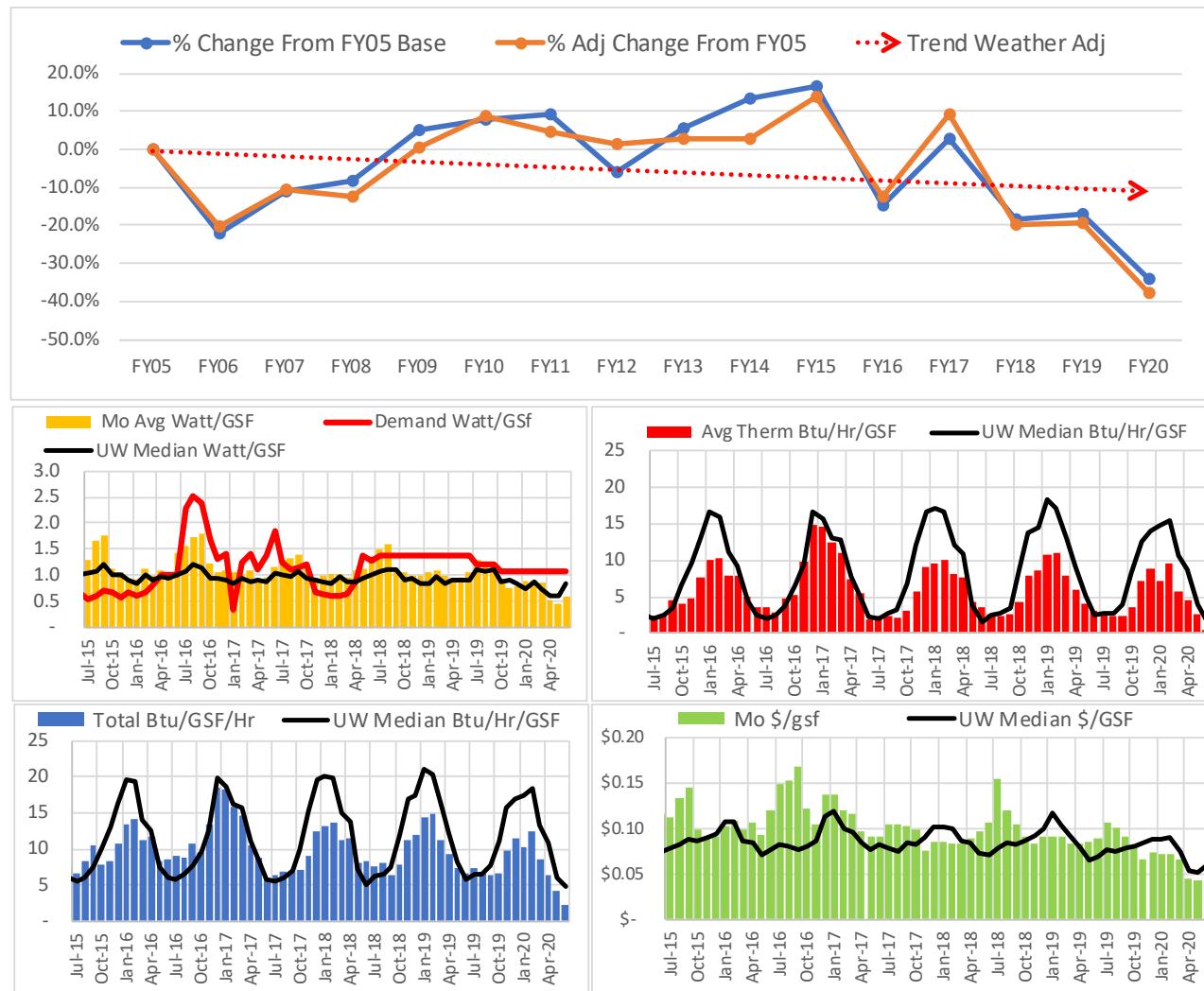
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Sheboygan Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	7.53	FY20 Therm/GSF =	0.42	FY20 Total Btu/GSF =	67,618	05-20 Thm	-48.3%			
FY20 Electric \$/GSF =	\$ 0.79	FY20 Thermal \$/GSF =	\$ 0.08	FY20 Energy \$/GSF =	\$ 0.86	05-20 kwh	-13.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	170,927	72,172	30,582	102,754	0.0%	45.92	100.0%	100.0%	102,754	0.0%
FY06	170,927	52,365	27,815	80,180	-22.0%	47.27	103.6%	99.2%	81,869	-20.3%
FY07	170,927	58,093	33,114	91,207	-11.2%	46.64	101.2%	100.2%	92,000	-10.5%
FY08	197,727	64,566	29,819	94,385	-8.1%	45.02	93.9%	99.0%	90,168	-12.2%
FY09	197,727	74,774	33,178	107,952	5.1%	43.47	93.6%	100.0%	103,180	0.4%
FY10	200,918	73,373	37,387	110,760	7.8%	45.99	101.0%	100.6%	111,715	8.7%
FY11	200,918	77,654	34,410	112,065	9.1%	44.59	95.1%	98.3%	107,679	4.8%
FY12	200,918	63,854	32,782	96,637	-6.0%	49.86	112.0%	99.6%	104,167	1.4%
FY13	200,918	74,154	34,185	108,339	5.4%	45.29	96.2%	99.8%	105,435	2.6%
FY14	200,918	83,874	32,470	116,345	13.2%	41.95	87.7%	98.0%	105,375	2.6%
FY15	200,918	84,688	35,146	119,834	16.6%	43.98	96.5%	100.4%	117,013	13.9%
FY16	200,918	51,512	35,961	87,473	-14.9%	48.11	105.9%	99.1%	90,182	-12.2%
FY17	200,918	68,854	36,730	105,584	2.8%	48.65	109.7%	99.2%	111,975	9.0%
FY18	200,918	49,284	34,318	83,602	-18.6%	45.77	98.5%	99.4%	82,644	-19.6%
FY19	200,918	51,780	33,309	85,089	-17.2%	44.89	96.7%	99.0%	83,054	-19.2%
FY20	228,544	41,923	25,695	67,618	-34.2%	42.93	89.0%	102.9%	63,770	-37.9%

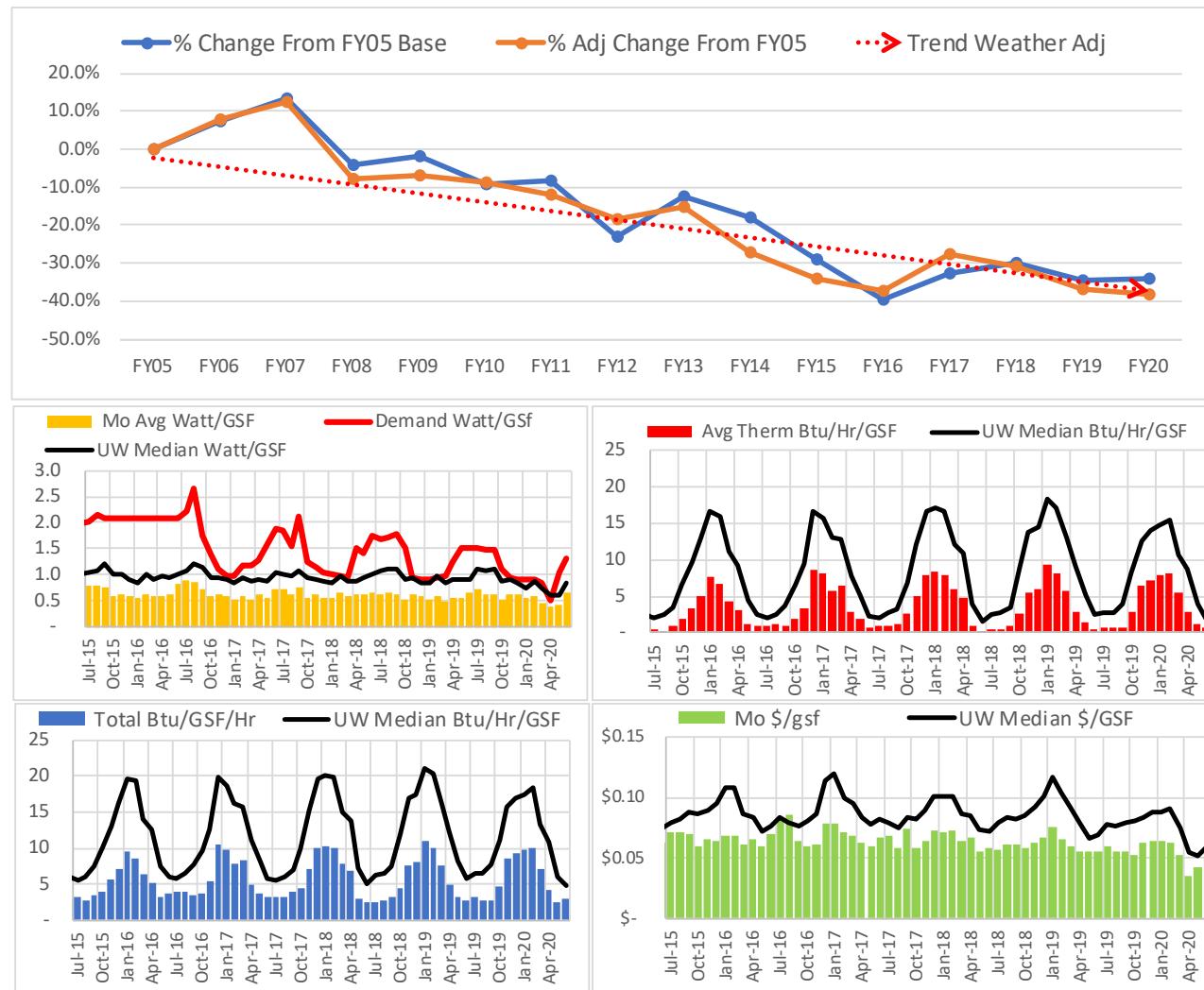
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Washington Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	4.97	FY20 Therm/GSF =	0.33	FY20 Total Btu/GSF =	49,673	05-20 Thm	-30.5%			
FY20 Electric \$/GSF =	\$ 0.53	FY20 Thermal \$/GSF =	\$ 0.14	FY20 Energy \$/GSF =	\$ 0.66	05-20 kwh	-48.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	169,454	42,195	33,126	75,321	0.0%	48.47	100.0%	100.0%	75,321	0.0%
FY06	169,454	46,780	34,158	80,938	7.5%	50.11	102.0%	98.1%	81,232	7.8%
FY07	169,454	50,861	34,547	85,408	13.4%	48.88	99.1%	99.0%	84,618	12.3%
FY08	198,558	42,876	29,150	72,025	-4.4%	47.87	94.4%	99.7%	69,542	-7.7%
FY09	198,558	44,340	29,522	73,862	-1.9%	47.26	91.2%	100.7%	70,142	-6.9%
FY10	199,038	40,945	27,554	68,499	-9.1%	49.10	100.7%	99.9%	68,770	-8.7%
FY11	199,038	41,534	27,541	69,075	-8.3%	48.17	93.1%	99.8%	66,177	-12.1%
FY12	199,038	30,582	27,342	57,924	-23.1%	52.24	112.2%	99.1%	61,417	-18.5%
FY13	199,038	38,382	27,744	66,127	-12.2%	48.26	94.5%	100.0%	64,002	-15.0%
FY14	199,038	41,719	20,034	61,753	-18.0%	45.20	83.9%	98.7%	54,761	-27.3%
FY15	199,038	34,038	19,362	53,400	-29.1%	46.08	89.5%	99.9%	49,794	-33.9%
FY16	199,038	25,957	19,679	45,636	-39.4%	50.51	107.0%	99.0%	47,270	-37.2%
FY17	199,038	31,220	19,507	50,727	-32.7%	51.99	114.6%	96.7%	54,651	-27.4%
FY18	199,038	34,018	18,802	52,820	-29.9%	48.73	98.1%	99.6%	52,104	-30.8%
FY19	199,038	31,956	17,491	49,448	-34.4%	47.88	94.1%	99.6%	47,495	-36.9%
FY20	199,117	32,724	16,949	49,673	-34.1%	46.54	89.6%	101.4%	46,502	-38.3%

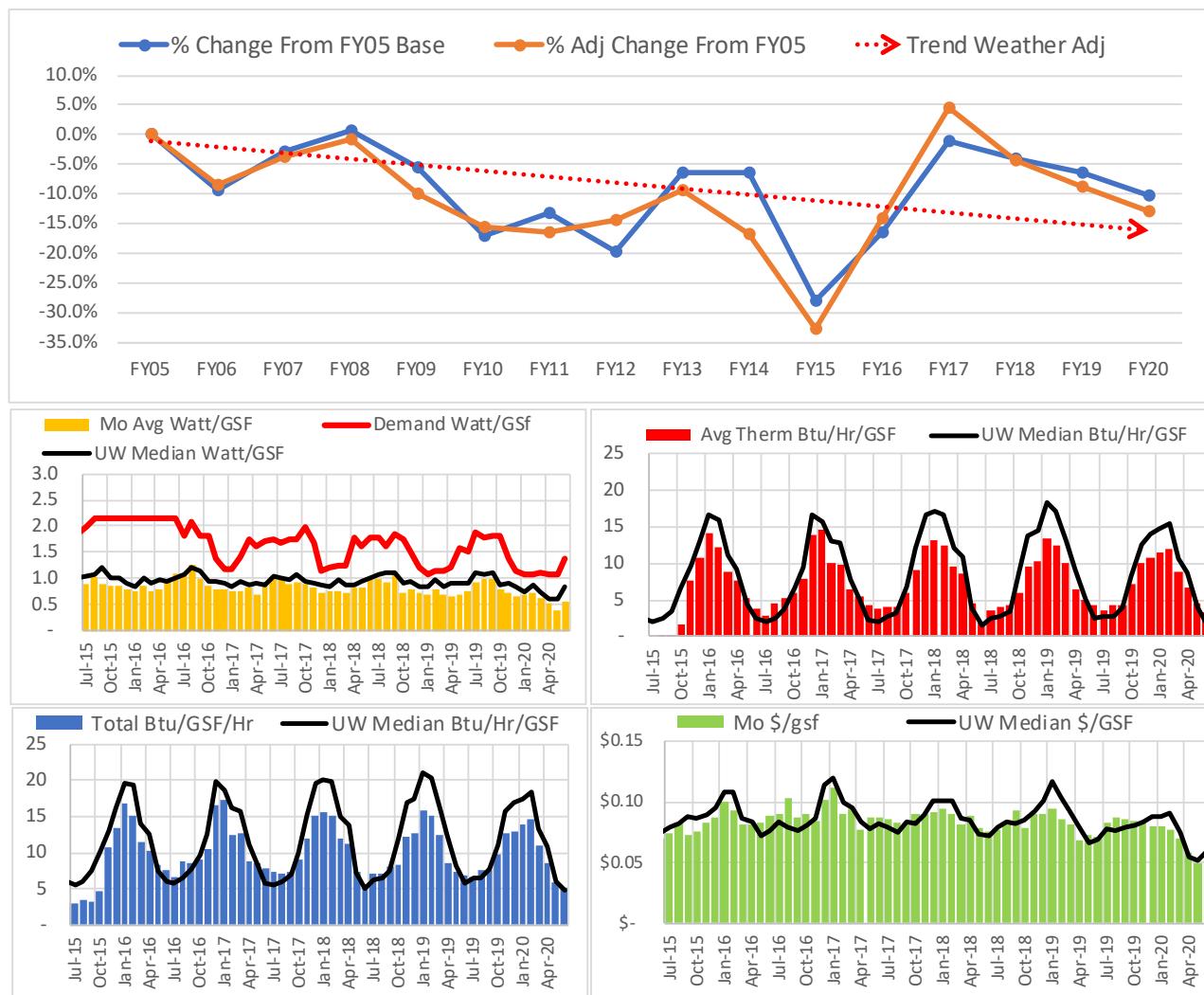
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## UW-Waukesha Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		6.28	FY20 Therm/GSF =	0.64	FY20 Total Btu/GSF =	85,036	05-20 Thm	1.9%		
FY20 Electric \$/GSF =		\$ 0.68	FY20 Thermal \$/GSF =	\$ 0.22	FY20 Energy \$/GSF =	\$ 0.90	05-20 kwh	-38.0%		
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	263,050	59,760	34,992	94,752	0.0%	48.47	100.0%	100.0%	94,752	0.0%
FY06	263,050	52,661	33,092	85,753	-9.5%	50.11	102.8%	98.8%	86,831	-8.4%
FY07	263,050	55,815	36,245	92,059	-2.8%	48.88	99.0%	99.4%	91,291	-3.7%
FY08	272,406	58,675	36,652	95,326	0.6%	47.87	97.7%	100.4%	94,136	-0.7%
FY09	272,406	53,629	35,933	89,562	-5.5%	47.26	92.3%	99.8%	85,370	-9.9%
FY10	277,016	45,765	32,703	78,468	-17.2%	49.10	103.5%	99.8%	79,998	-15.6%
FY11	277,016	49,128	32,983	82,111	-13.3%	48.17	94.6%	99.3%	79,235	-16.4%
FY12	277,016	42,752	33,404	76,156	-19.6%	52.24	112.4%	98.9%	81,105	-14.4%
FY13	277,016	53,059	35,698	88,757	-6.3%	48.26	94.9%	99.3%	85,802	-9.4%
FY14	277,016	59,934	28,837	88,771	-6.3%	45.20	84.4%	98.2%	78,891	-16.7%
FY15	277,016	44,801	23,490	68,292	-27.9%	46.08	90.2%	99.7%	63,824	-32.6%
FY16	277,016	52,792	26,213	79,005	-16.6%	50.51	104.9%	99.1%	81,389	-14.1%
FY17	277,016	66,802	26,902	93,704	-1.1%	51.99	109.1%	96.9%	98,937	4.4%
FY18	277,016	65,532	25,295	90,827	-4.1%	48.73	99.7%	99.7%	90,587	-4.4%
FY19	277,016	64,831	23,859	88,690	-6.4%	47.88	96.9%	98.9%	86,389	-8.8%
FY20	277,016	63,592	21,444	85,036	-10.3%	46.54	95.8%	101.2%	82,589	-12.8%

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



# Agency Energy Use Summary

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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.

## ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted: 33.1 percent decrease**

Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted: 7.4 percent increase**

Energy use (BTU/GSF/Yr) for FY20 increase 7.4 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted: 2.2 percent decrease per year.**

On average, energy use (BTU/GSF/Yr) has decreased 2.2 percent since the base year, FY05.

## GSF AND CONSUMPTION STATISTICS

**GSF Change from Base: 4.4 percent increase.**

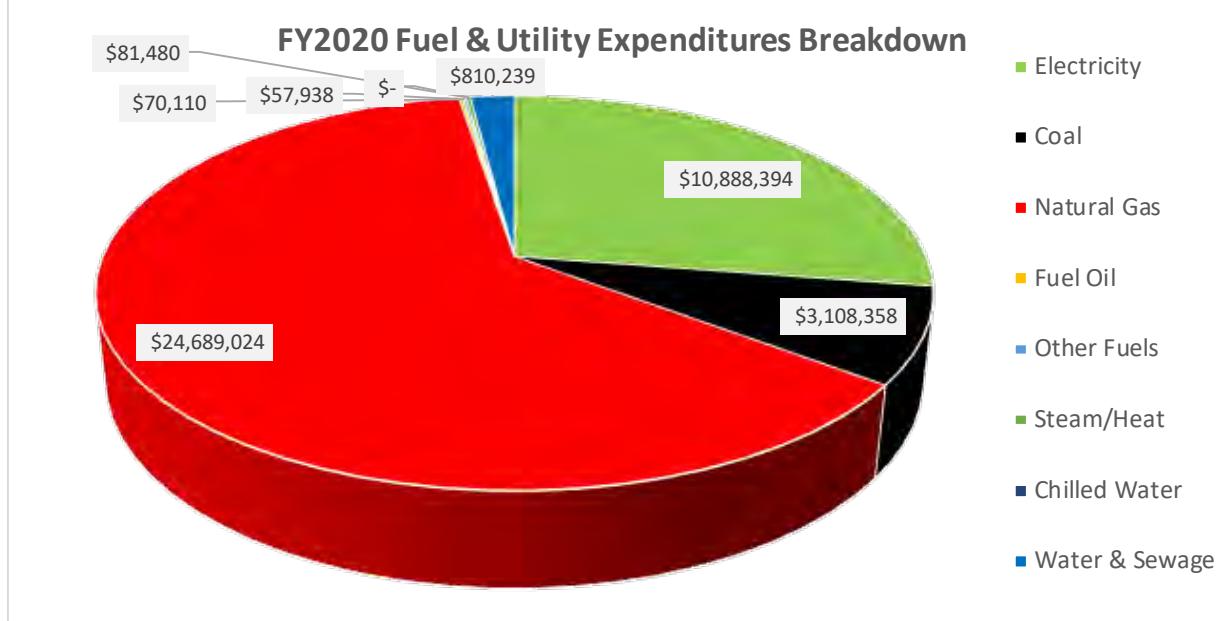
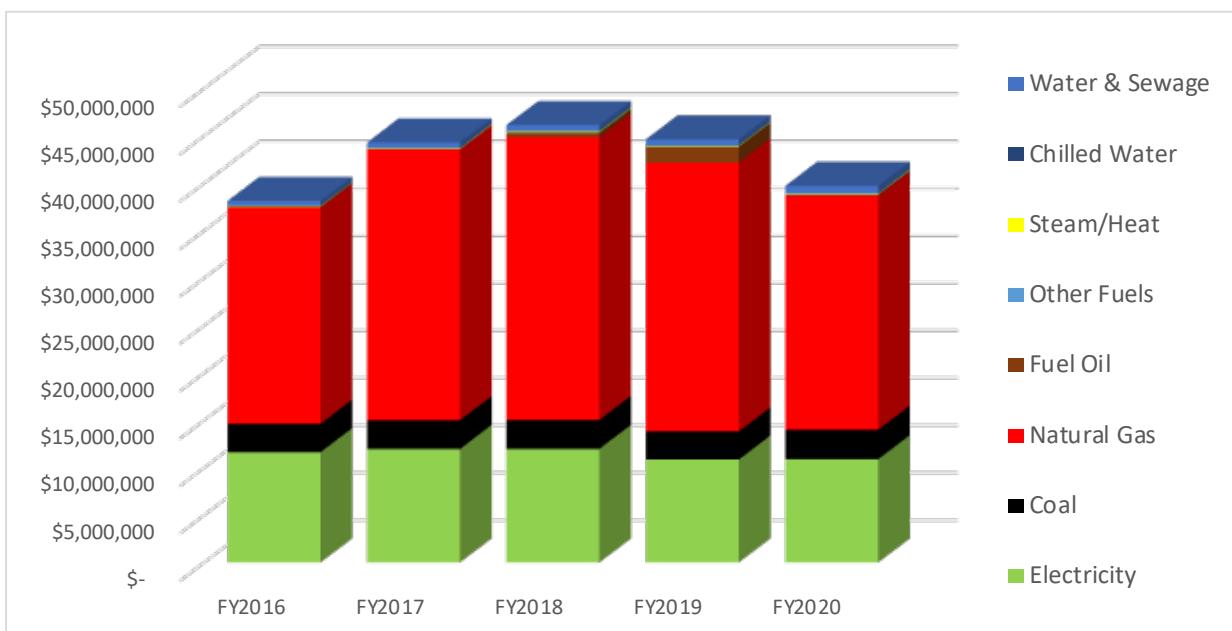
Gross square footage (GSF) has increased 4.4% from the base fiscal year, FY05.

**Consumption Change from Base: 29.9 percent decrease.**

Total consumption was 29.9 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 30.1 percent less than in the base year when adjusted for weather compared to FY05.

**Administration, Department of**

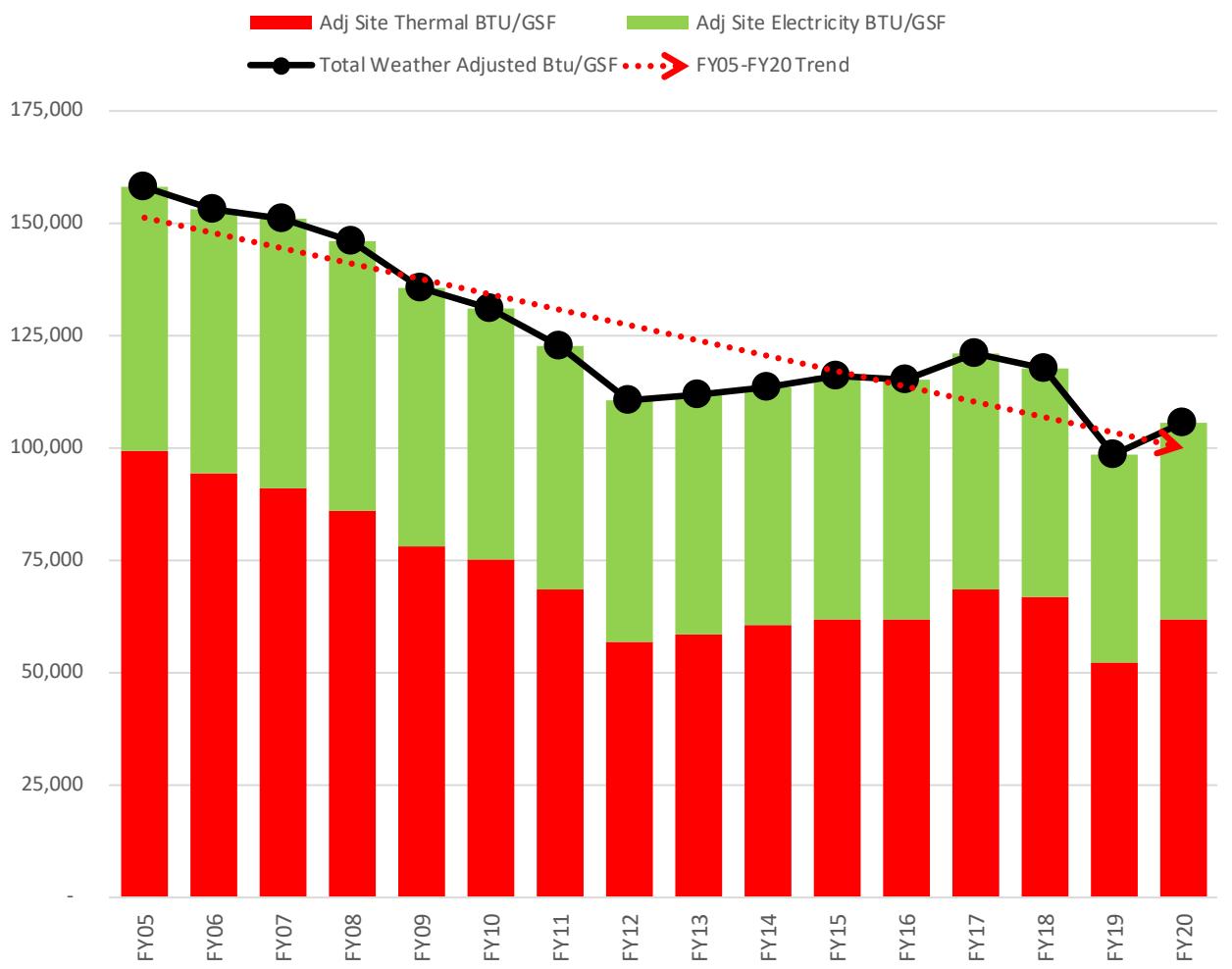
<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 11,620,008	\$ 11,959,033	\$ 11,973,321	\$ 10,847,364	\$ 10,888,394
Coal	\$ 2,997,464	\$ 3,038,156	\$ 3,052,739	\$ 2,958,936	\$ 3,108,358
Natural Gas	\$ 22,801,024	\$ 28,555,458	\$ 29,834,772	\$ 28,360,269	\$ 24,689,024
Fuel Oil	\$ 70,365	\$ 25	\$ 441,488	\$ 1,658,946	\$ 70,110
Other Fuels	\$ 8,107	\$ 27,401	\$ 30,820	\$ 30,588	\$ 57,938
Steam/Heat	\$ 69,393	\$ 84,094	\$ 104,294	\$ 92,237	\$ 81,480
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 549,861	\$ 614,497	\$ 671,963	\$ 665,956	\$ 810,239
<b>Total Utilities</b>	<b>\$ 38,116,221</b>	<b>\$ 44,278,664</b>	<b>\$ 46,109,398</b>	<b>\$ 44,614,295</b>	<b>\$ 39,705,545</b>



### DOA Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	4,027,132	99,221	58,619	157,840	0.0%	46.84	100.0%	100.0%	157,840	0.0%
FY06	4,027,132	97,337	59,097	156,433	-0.9%	47.39	97.0%	99.2%	153,043	-3.0%
FY07	4,084,119	92,767	59,943	152,710	-3.3%	46.26	98.2%	99.7%	150,878	-4.4%
FY08	4,084,119	93,655	60,610	154,265	-2.3%	44.24	91.9%	99.0%	146,080	-7.5%
FY09	4,084,119	84,493	58,124	142,617	-9.6%	44.25	92.3%	99.2%	135,687	-14.0%
FY10	4,084,119	76,185	55,782	131,967	-16.4%	45.47	98.5%	100.3%	131,005	-17.0%
FY11	4,084,119	74,014	54,937	128,951	-18.3%	46.21	92.5%	98.9%	122,787	-22.2%
FY12	4,084,119	52,651	54,928	107,579	-31.8%	51.40	107.6%	98.3%	110,685	-29.9%
FY13	4,084,119	61,282	53,710	114,992	-27.1%	46.61	95.6%	99.3%	111,904	-29.1%
FY14	4,166,958	70,189	53,524	123,713	-21.6%	43.20	86.1%	99.3%	113,570	-28.0%
FY15	4,019,258	65,725	53,965	119,689	-24.2%	44.37	94.0%	100.3%	115,861	-26.6%
FY16	4,019,258	58,978	53,698	112,676	-28.6%	48.82	104.6%	99.2%	114,968	-27.2%
FY17	4,019,258	66,010	53,476	119,485	-24.3%	49.01	104.0%	98.2%	121,126	-23.3%
FY18	3,968,416	70,801	51,303	122,103	-22.6%	45.93	94.3%	99.4%	117,719	-25.4%
FY19	4,202,931	55,998	46,168	102,167	-35.3%	44.97	93.5%	99.7%	98,393	-37.7%
FY20	4,202,931	61,833	43,941	105,774	-33.0%	43.71	99.9%	99.4%	105,443	-33.2%

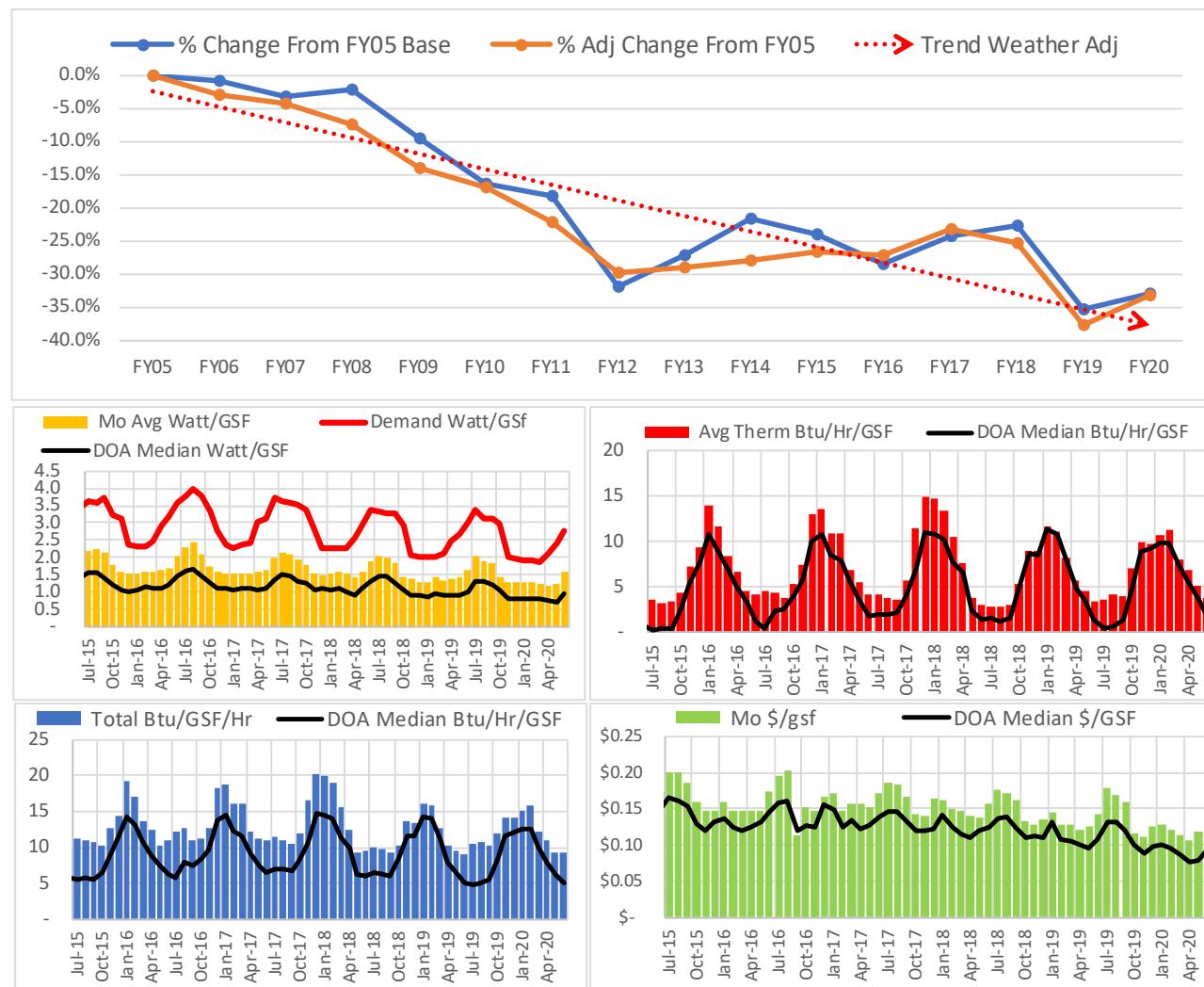
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DOA Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =	12.87	FY20 Therm/GSF =	0.62	FY20 Total Btu/GSF =	105,774	05-20 Thm	-37.8%			
FY20 Electric \$/GSF =	\$ 1.35	FY20 Thermal \$/GSF =	\$ 0.23	FY20 Energy \$/GSF =	\$ 1.59	05-20 kwh	-25.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	4,027,132	99,221	58,619	157,840	0.0%	46.84	100.0%	100.0%	157,840	0.0%
FY06	4,027,132	97,337	59,097	156,433	-0.9%	47.39	97.0%	99.2%	153,043	-3.0%
FY07	4,084,119	92,767	59,943	152,710	-3.3%	46.26	98.2%	99.7%	150,878	-4.4%
FY08	4,084,119	93,655	60,610	154,265	-2.3%	44.24	91.9%	99.0%	146,080	-7.5%
FY09	4,084,119	84,493	58,124	142,617	-9.6%	44.25	92.3%	99.2%	135,687	-14.0%
FY10	4,084,119	76,185	55,782	131,967	-16.4%	45.47	98.5%	100.3%	131,005	-17.0%
FY11	4,084,119	74,014	54,937	128,951	-18.3%	46.21	92.5%	98.9%	122,787	-22.2%
FY12	4,084,119	52,651	54,928	107,579	-31.8%	51.40	107.6%	98.3%	110,685	-29.9%
FY13	4,084,119	61,282	53,710	114,992	-27.1%	46.61	95.6%	99.3%	111,904	-29.1%
FY14	4,166,958	70,189	53,524	123,713	-21.6%	43.20	86.1%	99.3%	113,570	-28.0%
FY15	4,019,258	65,725	53,965	119,689	-24.2%	44.37	94.0%	100.3%	115,861	-26.6%
FY16	4,019,258	58,978	53,698	112,676	-28.6%	48.82	104.6%	99.2%	114,968	-27.2%
FY17	4,019,258	66,010	53,476	119,485	-24.3%	49.01	104.0%	98.2%	121,126	-23.3%
FY18	3,968,416	70,801	51,303	122,103	-22.6%	45.93	94.3%	99.4%	117,719	-25.4%
FY19	4,202,931	55,998	46,168	102,167	-35.3%	44.97	93.5%	99.7%	98,393	-37.7%
FY20	4,202,931	61,833	43,941	105,774	-33.0%	43.71	99.9%	99.4%	105,443	-33.2%

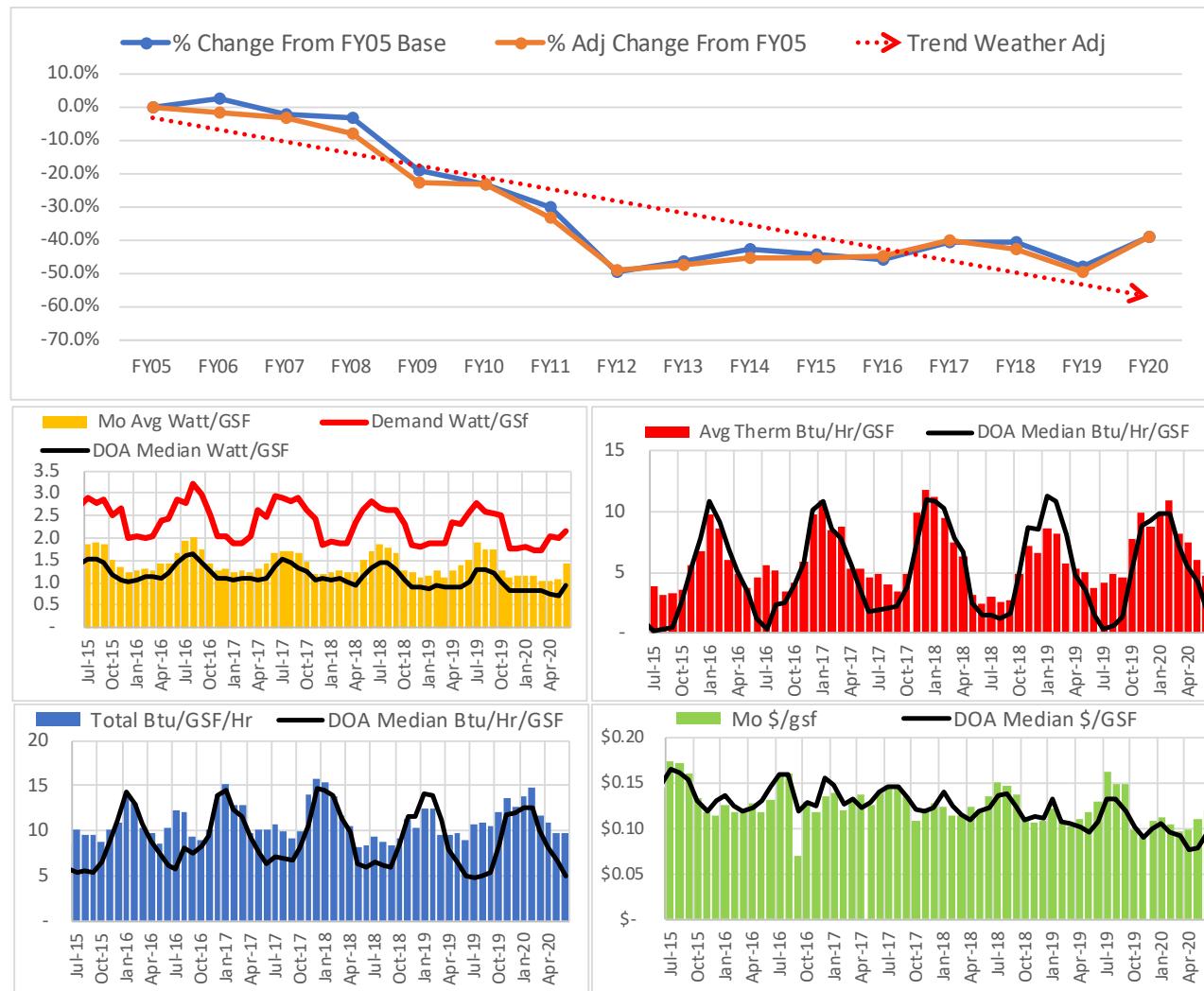
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Capitol Complex Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	11.59	FY20 Therm/GSF =	0.64	FY20 Total Btu/GSF =	103,344	05-20 Thm	-43.7%			
FY20 Electric \$/GSF =	\$ 1.20	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 1.40	05-20 kwh	-30.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	2,013,307	112,981	56,846	169,826	0.0%	48.12	100.0%	100.0%	169,826	0.0%
FY06	2,013,307	116,427	57,203	173,630	2.2%	48.65	94.5%	99.5%	166,991	-1.7%
FY07	2,013,307	109,507	56,231	165,738	-2.4%	47.46	98.6%	99.8%	164,099	-3.4%
FY08	2,013,307	110,539	53,818	164,357	-3.2%	46.19	93.0%	99.3%	156,236	-8.0%
FY09	2,013,307	89,085	48,538	137,622	-19.0%	45.66	92.9%	99.1%	130,883	-22.9%
FY10	2,013,307	82,641	47,512	130,154	-23.4%	47.10	99.5%	100.2%	129,825	-23.6%
FY11	2,013,307	73,324	45,361	118,686	-30.1%	46.81	93.1%	98.9%	113,101	-33.4%
FY12	2,013,307	38,392	46,699	85,091	-49.9%	51.51	105.8%	98.3%	86,535	-49.0%
FY13	2,013,307	45,317	45,833	91,150	-46.3%	47.29	97.1%	99.0%	89,390	-47.4%
FY14	2,013,307	51,410	46,061	97,471	-42.6%	44.58	90.4%	99.2%	92,151	-45.7%
FY15	2,013,307	49,116	45,383	94,499	-44.4%	45.84	96.2%	100.3%	92,783	-45.4%
FY16	2,013,307	46,596	45,379	91,975	-45.8%	49.68	104.3%	99.1%	93,572	-44.9%
FY17	2,013,307	56,361	44,406	100,766	-40.7%	49.72	102.5%	98.2%	101,369	-40.3%
FY18	2,013,307	57,578	42,755	100,333	-40.9%	46.66	94.9%	99.9%	97,306	-42.7%
FY19	2,013,307	46,296	41,505	87,801	-48.3%	45.88	95.3%	100.0%	85,614	-49.6%
FY20	2,013,307	63,783	39,561	103,344	-39.1%	48.07	99.7%	99.3%	102,877	-39.4%

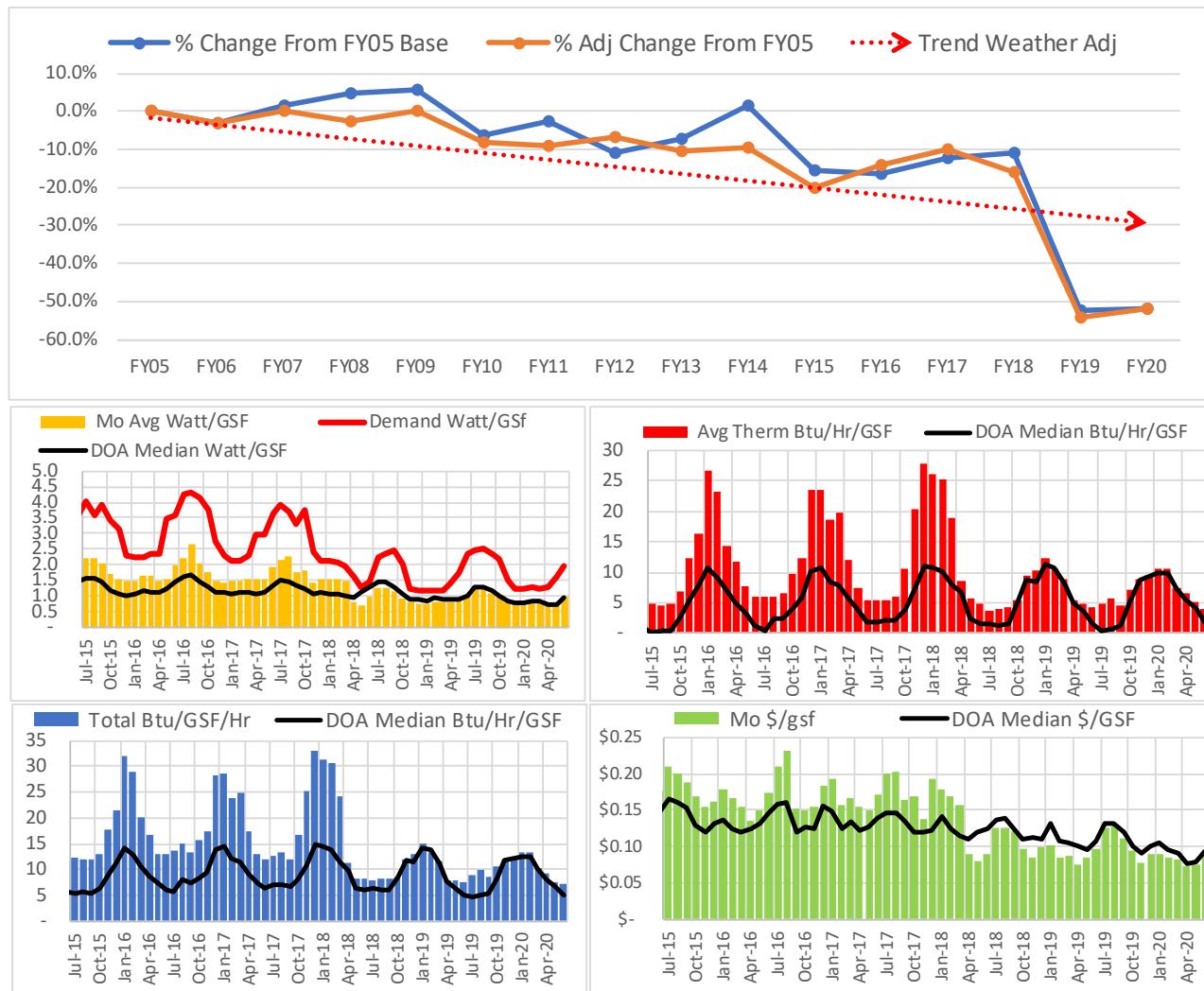
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-Hill Farms Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	8.14	FY20 Therm/GSF =	0.62	FY20 Total Btu/GSF =	89,807	05-20 Thm	-48.4%			
FY20 Electric \$/GSF =	\$ 0.91	FY20 Thermal \$/GSF =	\$ 0.21	FY20 Energy \$/GSF =	\$ 1.13	05-20 kwh	-58.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	644,904	119,925	65,950	185,875	0.0%	48.12	100.0%	100.0%	185,875	0.0%
FY06	644,904	113,539	66,474	180,014	-3.2%	48.65	101.0%	99.0%	180,482	-2.9%
FY07	644,904	124,466	63,980	188,446	1.4%	47.46	97.9%	99.8%	185,750	-0.1%
FY08	644,904	128,346	66,554	194,900	4.9%	46.19	89.8%	98.3%	180,689	-2.8%
FY09	644,904	130,840	65,380	196,219	5.6%	45.66	92.8%	99.0%	186,076	0.1%
FY10	644,904	114,947	59,120	174,068	-6.4%	47.10	96.7%	100.5%	170,531	-8.3%
FY11	644,904	117,923	62,926	180,849	-2.7%	46.81	90.9%	97.9%	168,825	-9.2%
FY12	644,904	102,704	62,968	165,671	-10.9%	51.51	108.8%	98.3%	173,620	-6.6%
FY13	644,904	112,742	59,692	172,434	-7.2%	47.29	94.8%	99.2%	166,074	-10.7%
FY14	644,904	131,537	57,500	189,038	1.7%	44.58	84.4%	99.8%	168,448	-9.4%
FY15	644,904	103,574	53,048	156,622	-15.7%	45.84	92.1%	100.1%	148,455	-20.1%
FY16	644,904	102,309	52,849	155,158	-16.5%	49.68	104.7%	99.3%	159,648	-14.1%
FY17	644,904	110,360	52,804	163,164	-12.2%	49.72	104.5%	97.9%	167,059	-10.1%
FY18	644,904	120,425	45,121	165,546	-10.9%	46.66	93.3%	98.0%	156,553	-15.8%
FY19	879,419	60,690	28,019	88,709	-52.3%	45.88	93.9%	100.0%	85,025	-54.3%
FY20	879,419	62,017	27,790	89,807	-51.7%	48.07	99.8%	99.4%	89,517	-51.8%

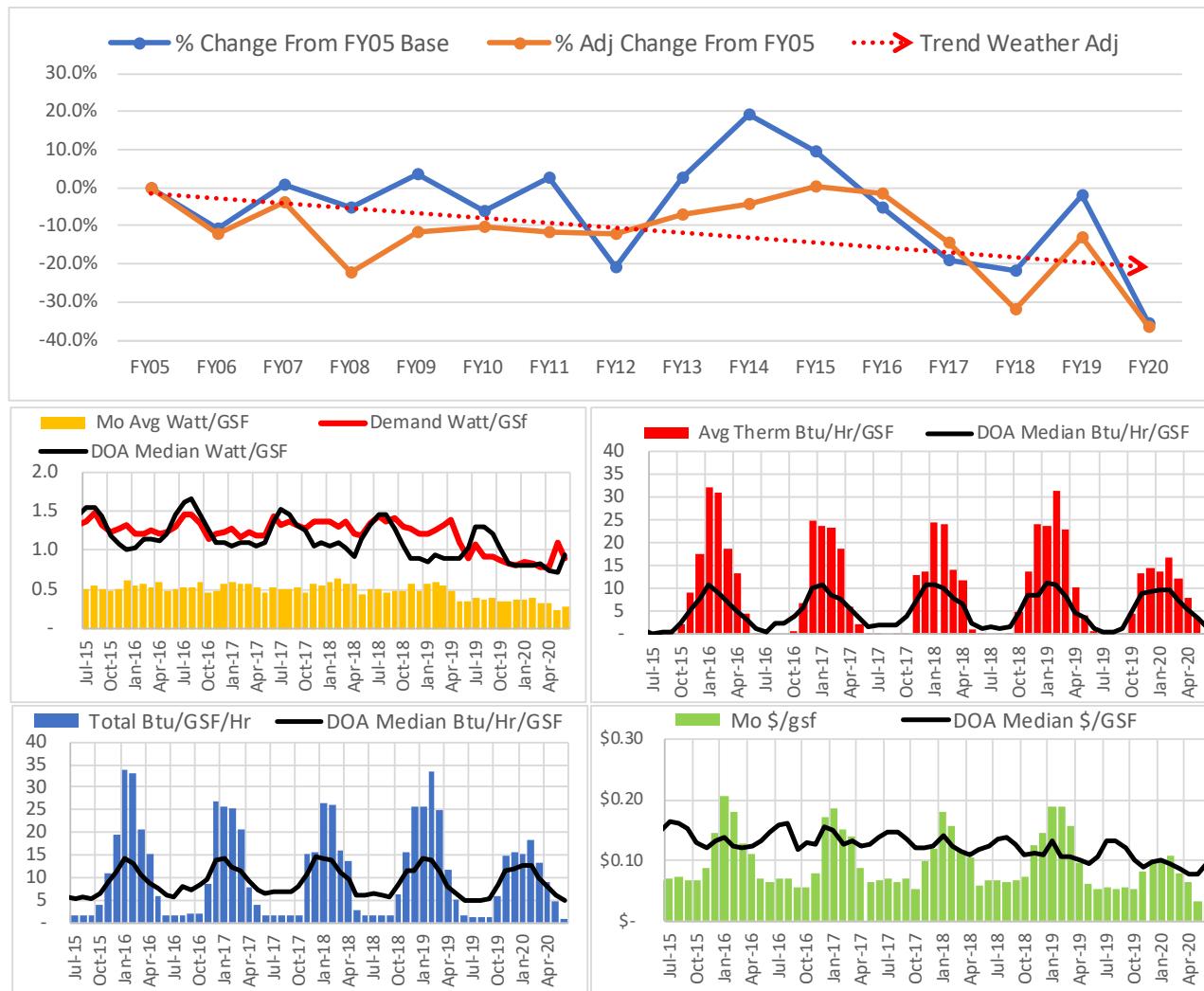
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Air Services Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	3.03	FY20 Therm/GSF =	0.64	FY20 Total Btu/GSF =	74,481	05-20 Thm	-34.7%			
FY20 Electric \$/GSF =	\$ 0.48	FY20 Thermal \$/GSF =	\$ 0.34	FY20 Energy \$/GSF =	\$ 0.82	05-20 kwh	-45.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	17,898	96,324	18,938	115,262	0.0%	48.12	100.0%	100.0%	115,262	0.0%
FY06	17,898	84,250	18,673	102,922	-10.7%	48.65	98.2%	100.1%	101,435	-12.0%
FY07	17,898	98,195	18,172	116,368	1.0%	47.46	94.7%	99.5%	111,068	-3.6%
FY08	17,898	90,479	18,641	109,121	-5.3%	46.19	78.8%	98.7%	89,689	-22.2%
FY09	17,898	101,235	17,950	119,184	3.4%	45.66	82.9%	98.7%	101,651	-11.8%
FY10	17,898	90,703	17,575	108,277	-6.1%	47.10	95.0%	99.6%	103,663	-10.1%
FY11	17,898	99,598	18,691	118,289	2.6%	46.81	83.9%	98.6%	102,024	-11.5%
FY12	17,898	73,394	17,939	91,332	-20.8%	51.51	113.3%	101.4%	101,372	-12.1%
FY13	17,898	99,302	18,995	118,297	2.6%	47.29	88.8%	99.1%	107,020	-7.2%
FY14	17,898	119,835	17,712	137,547	19.3%	44.58	77.2%	99.4%	110,086	-4.5%
FY15	17,898	110,975	15,412	126,387	9.7%	45.84	90.4%	98.9%	115,562	0.3%
FY16	17,898	93,582	15,871	109,453	-5.0%	49.68	104.0%	100.6%	113,287	-1.7%
FY17	17,898	77,491	15,881	93,372	-19.0%	49.72	107.1%	100.2%	98,912	-14.2%
FY18	17,898	74,451	15,959	90,410	-21.6%	46.66	84.0%	98.8%	78,335	-32.0%
FY19	17,898	98,276	14,596	112,872	-2.1%	45.88	87.6%	97.7%	100,316	-13.0%
FY20	17,898	64,133	10,348	74,481	-35.4%	48.07	98.1%	99.6%	73,195	-36.5%

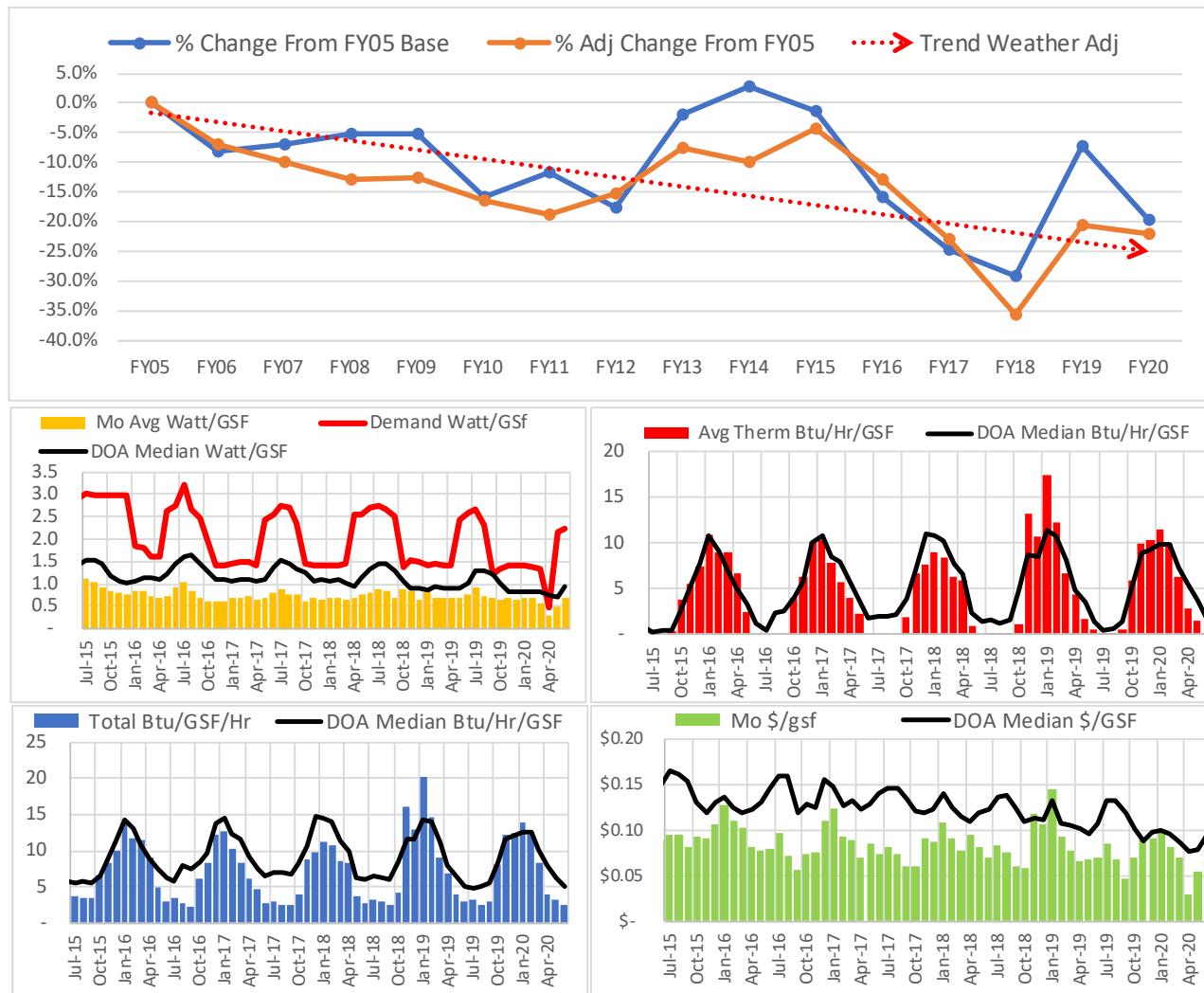
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-Eau Claire SOB Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	5.64	FY20 Therm/GSF =	0.43	FY20 Total Btu/GSF =	62,508	05-20 Thm	10.5%			
FY20 Electric \$/GSF =	\$ 0.60	FY20 Thermal \$/GSF =	\$ 0.26	FY20 Energy \$/GSF =	\$ 0.85	05-20 kwh	-52.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	56,206	37,587	40,349	77,936	0.0%	45.85	100.0%	100.0%	77,936	0.0%
FY06	56,206	32,196	39,397	71,593	-8.1%	47.80	104.0%	98.7%	72,401	-7.1%
FY07	56,206	34,060	38,328	72,388	-7.1%	46.32	95.2%	98.4%	70,127	-10.0%
FY08	56,206	37,252	36,735	73,987	-5.1%	43.27	84.9%	98.6%	67,842	-13.0%
FY09	56,206	37,854	35,948	73,802	-5.3%	42.97	85.3%	99.6%	68,099	-12.6%
FY10	56,206	32,479	33,179	65,658	-15.8%	45.29	97.9%	100.1%	65,014	-16.6%
FY11	56,206	37,056	31,790	68,846	-11.7%	43.68	86.0%	98.9%	63,287	-18.8%
FY12	56,206	31,945	32,305	64,250	-17.6%	49.02	106.5%	99.4%	66,132	-15.1%
FY13	56,206	45,261	31,187	76,448	-1.9%	43.85	90.9%	99.2%	72,073	-7.5%
FY14	56,206	49,631	30,410	80,041	2.7%	41.37	81.3%	98.0%	70,169	-10.0%
FY15	56,206	49,416	27,443	76,858	-1.4%	43.42	95.7%	99.8%	74,678	-4.2%
FY16	56,206	39,969	25,508	65,476	-16.0%	47.61	106.0%	100.4%	67,972	-12.8%
FY17	56,206	37,120	21,455	58,575	-24.8%	47.08	104.4%	99.5%	60,119	-22.9%
FY18	56,206	33,704	21,513	55,218	-29.2%	42.94	85.3%	99.4%	50,138	-35.7%
FY19	56,206	49,565	22,805	72,370	-7.1%	42.23	79.1%	99.9%	61,977	-20.5%
FY20	56,206	43,247	19,261	62,508	-19.8%	45.39	96.1%	99.5%	60,709	-22.1%

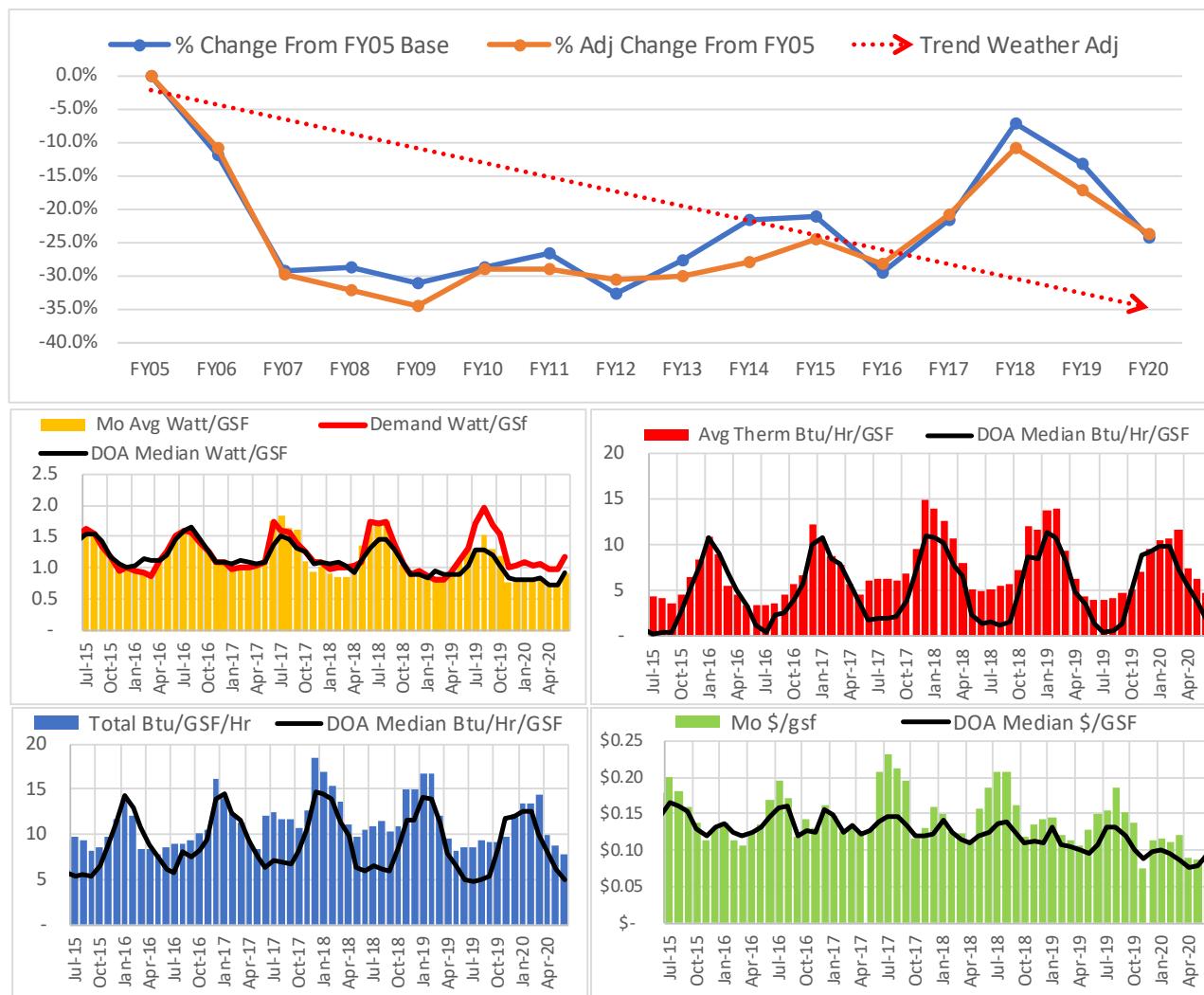
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Executive Residence Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	8.60	FY20 Therm/GSF =	0.63	FY20 Total Btu/GSF =	92,542	05-20 Thm	-28.4%			
FY20 Electric \$/GSF =	\$ 1.15	FY20 Thermal \$/GSF =	\$ 0.29	FY20 Energy \$/GSF =	\$ 1.44	05-20 kwh	-11.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	23,455	89,090	33,078	122,168	0.0%	48.12	100.0%	100.0%	122,168	0.0%
FY06	23,455	74,824	32,752	107,576	-11.9%	48.65	102.3%	99.1%	108,956	-10.8%
FY07	23,455	55,242	31,175	86,417	-29.3%	47.46	98.8%	99.8%	85,700	-29.9%
FY08	23,455	56,001	30,866	86,867	-28.9%	46.19	93.8%	98.7%	82,967	-32.1%
FY09	23,455	54,509	29,463	83,972	-31.3%	45.66	93.2%	99.2%	80,001	-34.5%
FY10	23,455	56,321	30,779	87,099	-28.7%	47.10	98.7%	100.8%	86,635	-29.1%
FY11	23,455	57,779	31,877	89,656	-26.6%	46.81	95.0%	99.3%	86,548	-29.2%
FY12	23,455	49,196	33,081	82,277	-32.7%	51.51	106.3%	98.1%	84,779	-30.6%
FY13	23,455	52,147	36,166	88,313	-27.7%	47.29	95.3%	98.3%	85,255	-30.2%
FY14	23,455	58,460	37,178	95,637	-21.7%	44.58	89.0%	96.3%	87,828	-28.1%
FY15	23,455	60,392	35,975	96,367	-21.1%	45.84	93.2%	100.0%	92,239	-24.5%
FY16	23,455	50,278	35,617	85,895	-29.7%	49.68	104.4%	98.8%	87,701	-28.2%
FY17	23,455	58,521	37,258	95,780	-21.6%	49.72	102.7%	98.3%	96,719	-20.8%
FY18	23,455	76,796	36,593	113,389	-7.2%	46.66	94.7%	98.9%	108,936	-10.8%
FY19	23,455	72,267	33,781	106,048	-13.2%	45.88	93.3%	100.2%	101,228	-17.1%
FY20	23,455	63,201	29,340	92,542	-24.3%	48.07	100.9%	99.5%	92,992	-23.9%

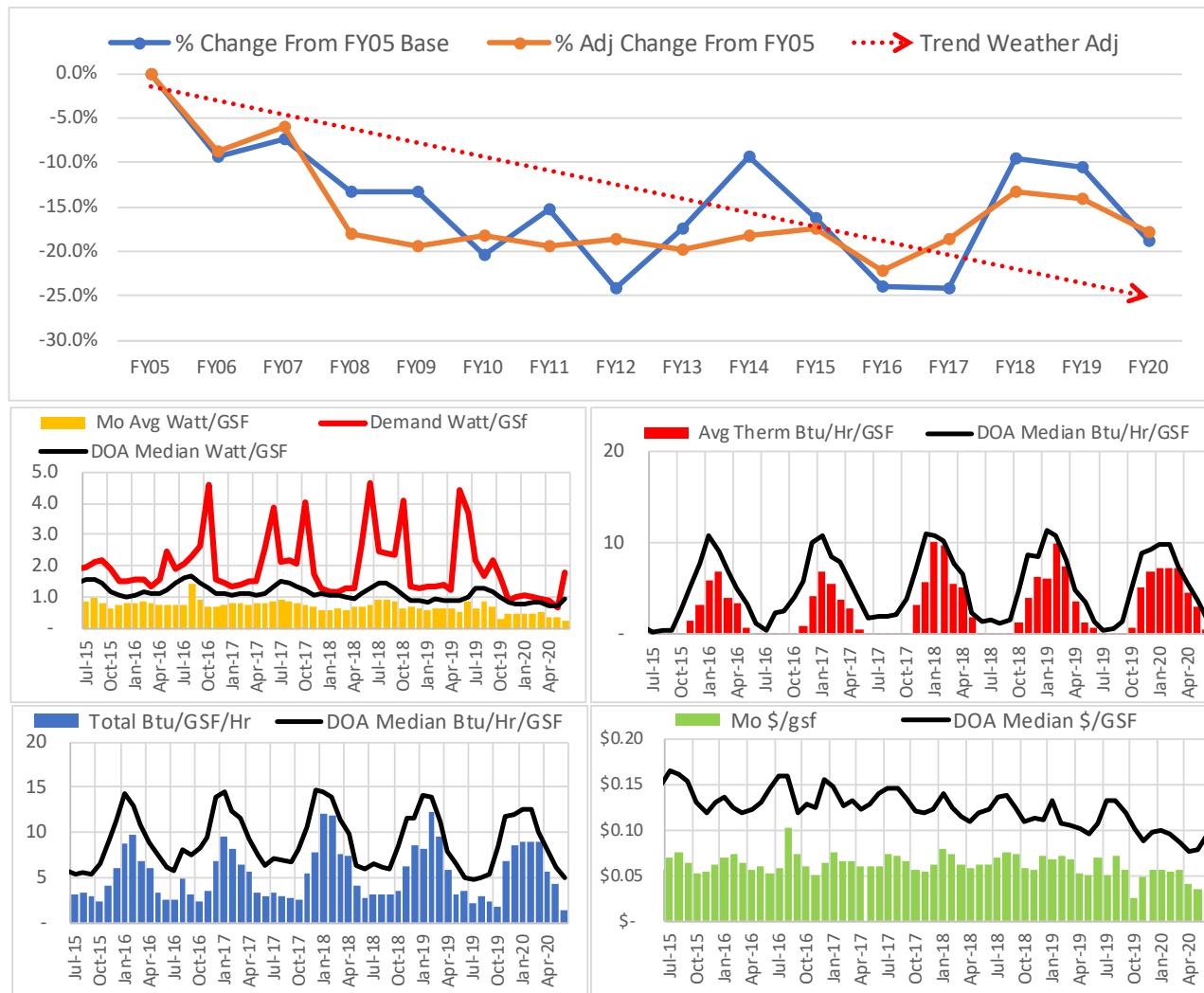
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-Green Bay SOB Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	4.35	FY20 Therm/GSF =	0.31	FY20 Total Btu/GSF =	46,345	05-20 Thm	27.6%			
FY20 Electric \$/GSF =	\$ 0.43	FY20 Thermal \$/GSF =	\$ 0.15	FY20 Energy \$/GSF =	\$ 0.58	05-20 kwh	-53.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	69,206	25,116	31,967	57,083	0.0%	45.92	100.0%	100.0%	57,083	0.0%
FY06	69,206	17,639	34,117	51,756	-9.3%	47.27	103.1%	99.5%	52,127	-8.7%
FY07	69,206	22,474	30,409	52,883	-7.4%	46.64	103.1%	100.1%	53,605	-6.1%
FY08	69,206	19,469	30,073	49,542	-13.2%	45.02	88.0%	98.4%	46,732	-18.1%
FY09	69,206	22,037	27,430	49,467	-13.3%	43.47	86.1%	98.5%	45,999	-19.4%
FY10	69,206	18,068	27,351	45,419	-20.4%	45.99	105.3%	100.9%	46,632	-18.3%
FY11	69,206	20,849	27,519	48,368	-15.3%	44.59	90.6%	98.4%	45,969	-19.5%
FY12	69,206	16,866	26,453	43,320	-24.1%	49.86	115.9%	101.9%	46,500	-18.5%
FY13	69,206	20,019	27,095	47,114	-17.5%	45.29	93.8%	99.5%	45,731	-19.9%
FY14	69,206	25,164	26,603	51,767	-9.3%	41.95	82.2%	97.7%	46,673	-18.2%
FY15	69,206	22,995	24,819	47,814	-16.2%	43.98	97.4%	99.8%	47,161	-17.4%
FY16	69,206	19,149	24,227	43,375	-24.0%	48.11	104.2%	100.8%	44,382	-22.2%
FY17	69,206	18,101	25,244	43,345	-24.1%	48.65	117.7%	99.8%	46,499	-18.5%
FY18	69,206	30,079	21,551	51,631	-9.6%	45.77	93.4%	99.5%	49,530	-13.2%
FY19	69,206	29,576	21,541	51,118	-10.4%	44.89	93.0%	100.0%	49,039	-14.1%
FY20	69,206	31,489	14,856	46,345	-18.8%	46.41	101.8%	99.8%	46,874	-17.9%

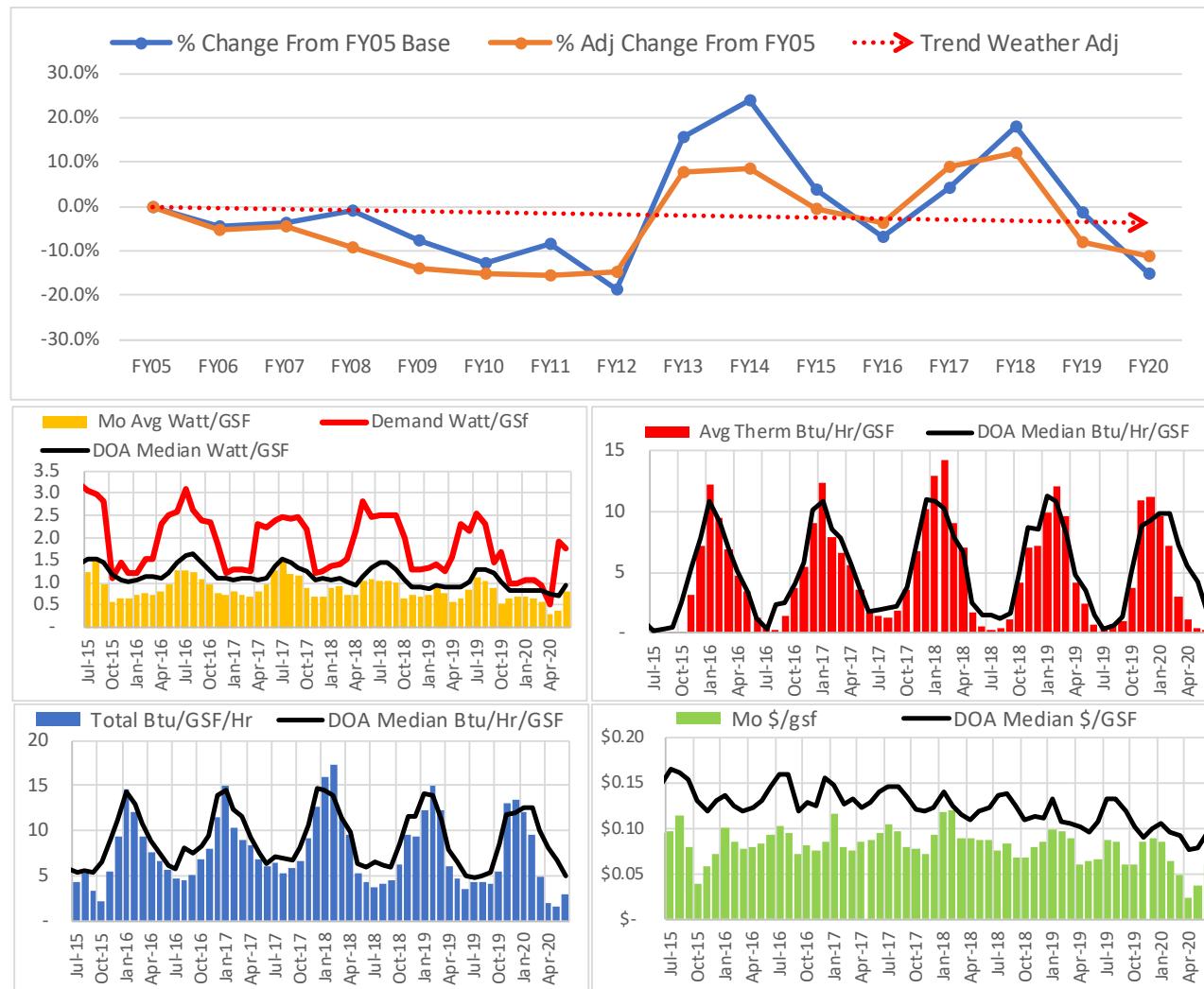
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-La Crosse SOB Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	6.08	FY20 Therm/GSF =	0.36	FY20 Total Btu/GSF =	57,120	05-20 Thm	15.3%			
FY20 Electric \$/GSF =	\$ 0.57	FY20 Thermal \$/GSF =	\$ 0.22	FY20 Energy \$/GSF =	\$ 0.79	05-20 kwh	-39.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	45,965	34,964	32,505	67,468	0.0%	48.43	100.0%	100.0%	67,468	0.0%
FY06	45,965	28,585	35,819	64,404	-4.5%	49.77	99.2%	98.9%	63,782	-5.5%
FY07	45,965	29,512	35,552	65,064	-3.6%	48.69	99.1%	99.2%	64,500	-4.4%
FY08	45,965	30,993	35,730	66,723	-1.1%	46.15	85.4%	97.3%	61,234	-9.2%
FY09	45,965	29,773	32,487	62,259	-7.7%	45.85	86.8%	99.0%	58,002	-14.0%
FY10	45,965	27,401	31,435	58,837	-12.8%	47.43	94.1%	99.8%	57,139	-15.3%
FY11	45,965	30,778	30,972	61,750	-8.5%	46.70	86.9%	97.9%	57,071	-15.4%
FY12	45,965	23,611	31,222	54,833	-18.7%	51.77	111.4%	99.7%	57,434	-14.9%
FY13	45,965	45,670	32,309	77,978	15.6%	46.71	89.0%	99.1%	72,658	7.7%
FY14	45,965	51,560	32,126	83,685	24.0%	44.97	81.6%	96.5%	73,094	8.3%
FY15	45,965	40,100	30,047	70,147	4.0%	47.28	93.5%	98.5%	67,116	-0.5%
FY16	45,965	35,412	27,296	62,708	-7.1%	51.01	107.8%	98.1%	64,962	-3.7%
FY17	45,965	42,211	28,041	70,252	4.1%	51.61	109.5%	97.1%	73,430	8.8%
FY18	45,965	51,148	28,475	79,623	18.0%	48.62	94.7%	95.2%	75,583	12.0%
FY19	45,965	42,732	23,829	66,561	-1.3%	47.03	90.8%	97.4%	62,016	-8.1%
FY20	45,965	36,370	20,750	57,120	-15.3%	52.40	110.9%	94.5%	59,916	-11.2%

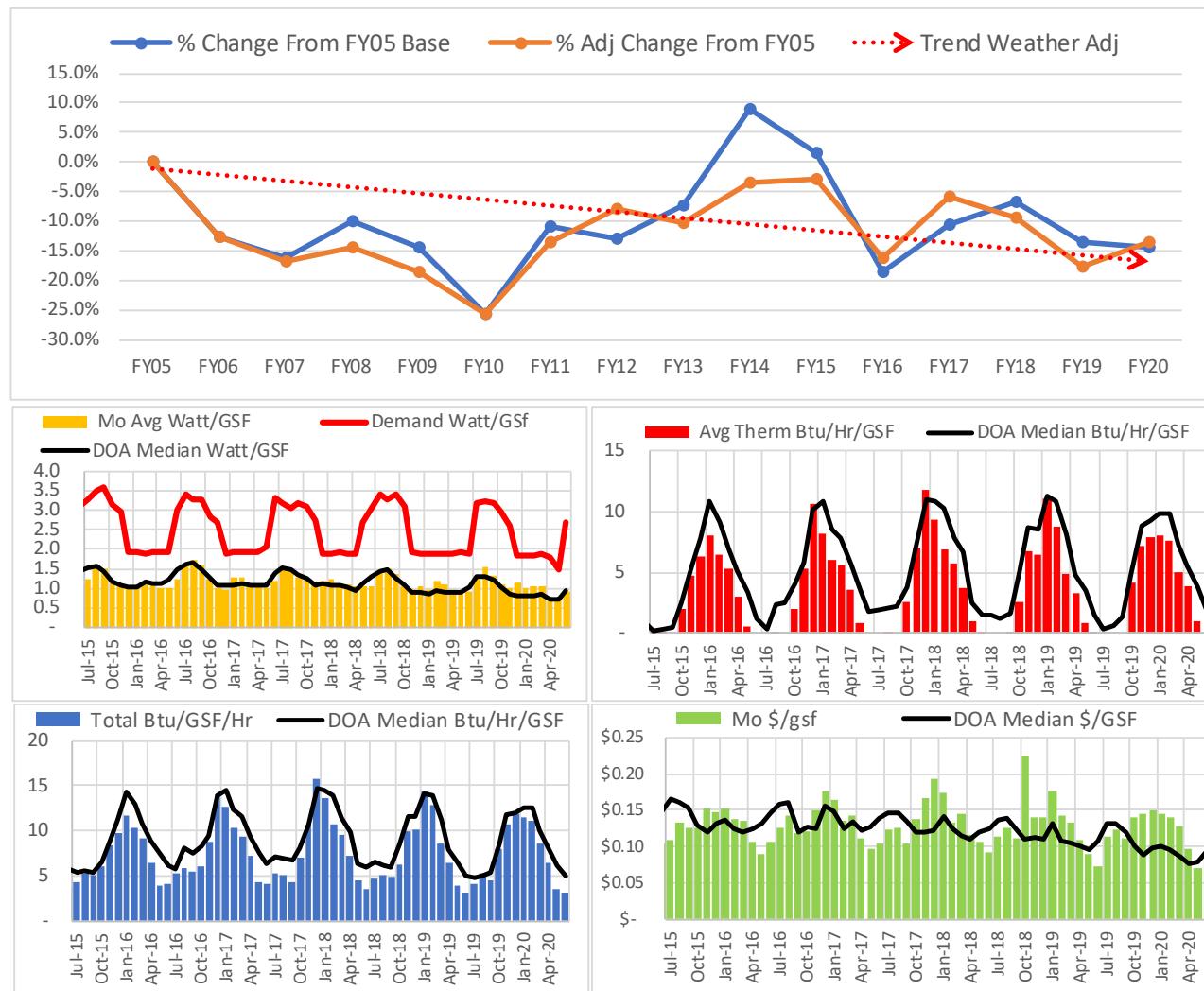
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Milwaukee SOB Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.50	FY20 Therm/Btu/GSF =	0.33	FY20 Total Btu/GSF =	65,162	05-20 Thm	-11.0%			
FY20 Electric \$/GSF =	\$ 1.09	FY20 Thermal \$/GSF =	\$ 0.36	FY20 Energy \$/GSF =	\$ 1.46	05-20 kwh	-15.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	201,200	37,712	38,403	76,115	0.0%	48.47	100.0%	100.0%	76,115	0.0%
FY06	201,200	30,068	36,524	66,591	-12.5%	50.11	101.4%	98.3%	66,396	-12.8%
FY07	201,200	26,487	37,372	63,859	-16.1%	48.88	99.5%	98.9%	63,313	-16.8%
FY08	201,200	33,774	34,693	68,467	-10.0%	47.87	91.7%	98.2%	65,058	-14.5%
FY09	201,200	29,957	35,221	65,178	-14.4%	47.26	90.4%	98.8%	61,868	-18.7%
FY10	201,200	24,808	31,817	56,624	-25.6%	49.10	99.8%	99.9%	56,560	-25.7%
FY11	201,200	32,655	35,188	67,844	-10.9%	48.17	94.5%	99.5%	65,851	-13.5%
FY12	201,200	29,479	36,783	66,263	-12.9%	52.24	113.8%	99.1%	69,995	-8.0%
FY13	201,200	34,379	36,228	70,607	-7.2%	48.26	94.3%	99.1%	68,306	-10.3%
FY14	201,200	46,853	36,023	82,875	8.9%	45.20	82.0%	97.4%	73,499	-3.4%
FY15	201,200	43,010	34,206	77,216	1.4%	46.08	91.8%	100.4%	73,804	-3.0%
FY16	201,200	26,727	35,157	61,884	-18.7%	50.51	108.3%	99.4%	63,867	-16.1%
FY17	201,200	30,714	37,405	68,120	-10.5%	51.99	114.9%	97.2%	71,638	-5.9%
FY18	201,200	34,985	36,106	71,091	-6.6%	48.73	96.5%	97.8%	69,053	-9.3%
FY19	201,200	32,393	33,477	65,870	-13.5%	47.88	91.9%	98.2%	62,654	-17.7%
FY20	201,200	32,747	32,416	65,162	-14.4%	49.85	102.6%	99.6%	65,879	-13.4%

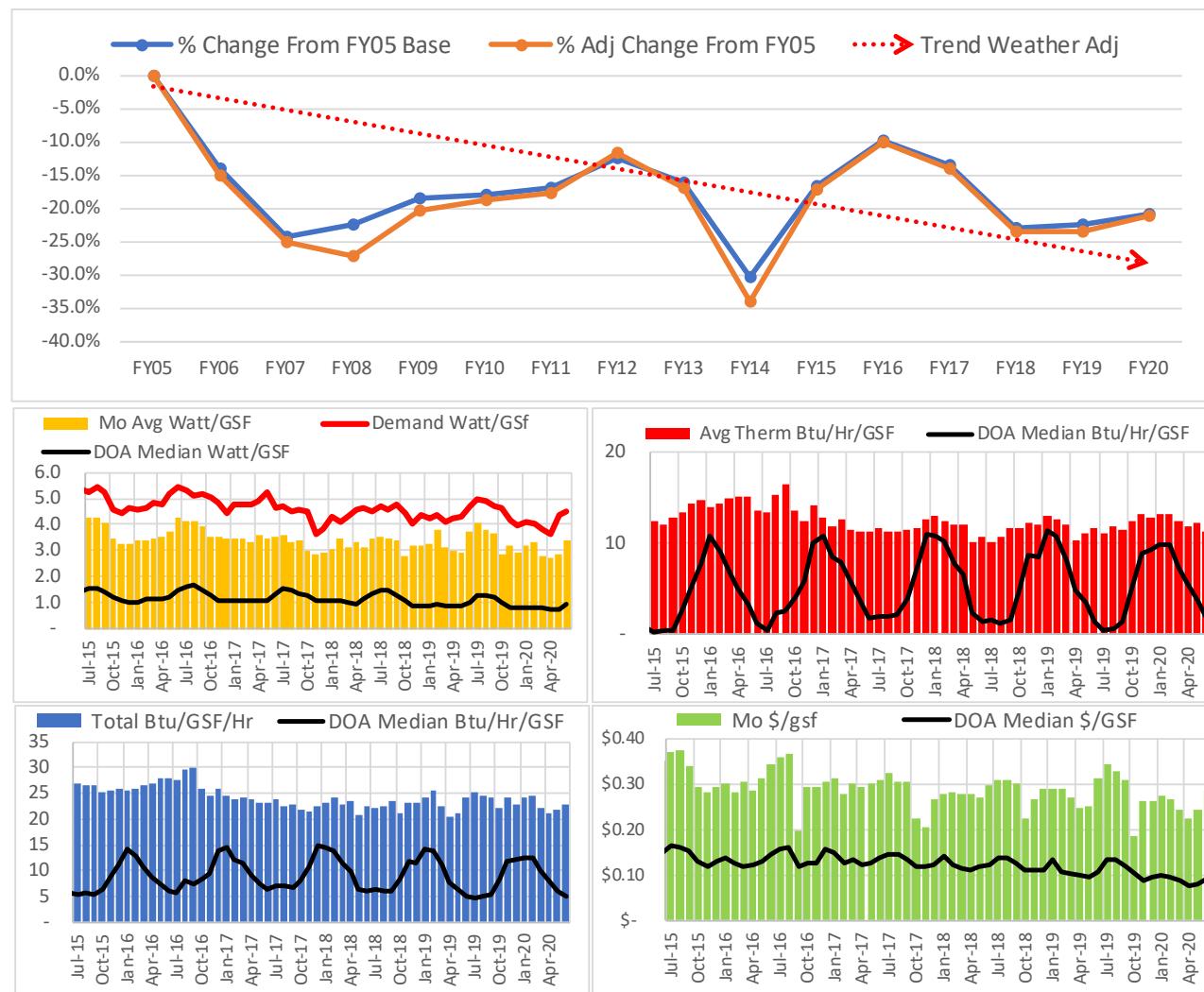
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOA-Public Broadcasting Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	28.41	FY20 Therm/GSF =	1.08	FY20 Total Btu/GSF =	204,570	05-20 Thm	-16.3%			
FY20 Electric \$/GSF =	\$ 2.77	FY20 Thermal \$/GSF =	\$ 0.46	FY20 Energy \$/GSF =	\$ 3.23	05-20 kwh	-25.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	48,246	128,605	129,746	258,351	0.0%	48.12	100.0%	100.0%	258,351	0.0%
FY06	48,246	98,018	123,853	221,871	-14.1%	48.65	99.0%	98.7%	219,243	-15.1%
FY07	48,246	95,086	100,630	195,716	-24.2%	47.46	98.1%	99.3%	193,206	-25.2%
FY08	48,246	97,915	102,515	200,430	-22.4%	46.19	91.1%	96.3%	187,897	-27.3%
FY09	48,246	105,107	105,091	210,198	-18.6%	45.66	97.1%	98.5%	205,534	-20.4%
FY10	48,246	107,512	104,616	212,128	-17.9%	47.10	97.9%	100.0%	209,885	-18.8%
FY11	48,246	111,323	102,905	214,228	-17.1%	46.81	100.6%	97.7%	212,488	-17.8%
FY12	48,246	122,323	103,573	225,896	-12.6%	51.51	102.3%	99.6%	228,267	-11.6%
FY13	48,246	112,353	104,457	216,810	-16.1%	47.29	100.0%	97.7%	214,409	-17.0%
FY14	48,246	84,388	95,518	179,907	-30.4%	44.58	95.0%	94.2%	170,140	-34.1%
FY15	48,246	111,889	103,084	214,973	-16.8%	45.84	99.3%	99.5%	213,681	-17.3%
FY16	48,246	122,171	110,776	232,947	-9.8%	49.68	100.1%	99.5%	232,509	-10.0%
FY17	48,246	114,796	108,685	223,480	-13.5%	49.72	99.4%	99.4%	222,143	-14.0%
FY18	48,246	102,700	96,114	198,814	-23.0%	46.66	99.2%	99.4%	197,491	-23.6%
FY19	48,246	101,667	98,377	200,044	-22.6%	45.88	99.1%	98.6%	197,800	-23.4%
FY20	48,246	107,603	96,966	204,570	-20.8%	48.07	100.0%	99.4%	203,957	-21.1%

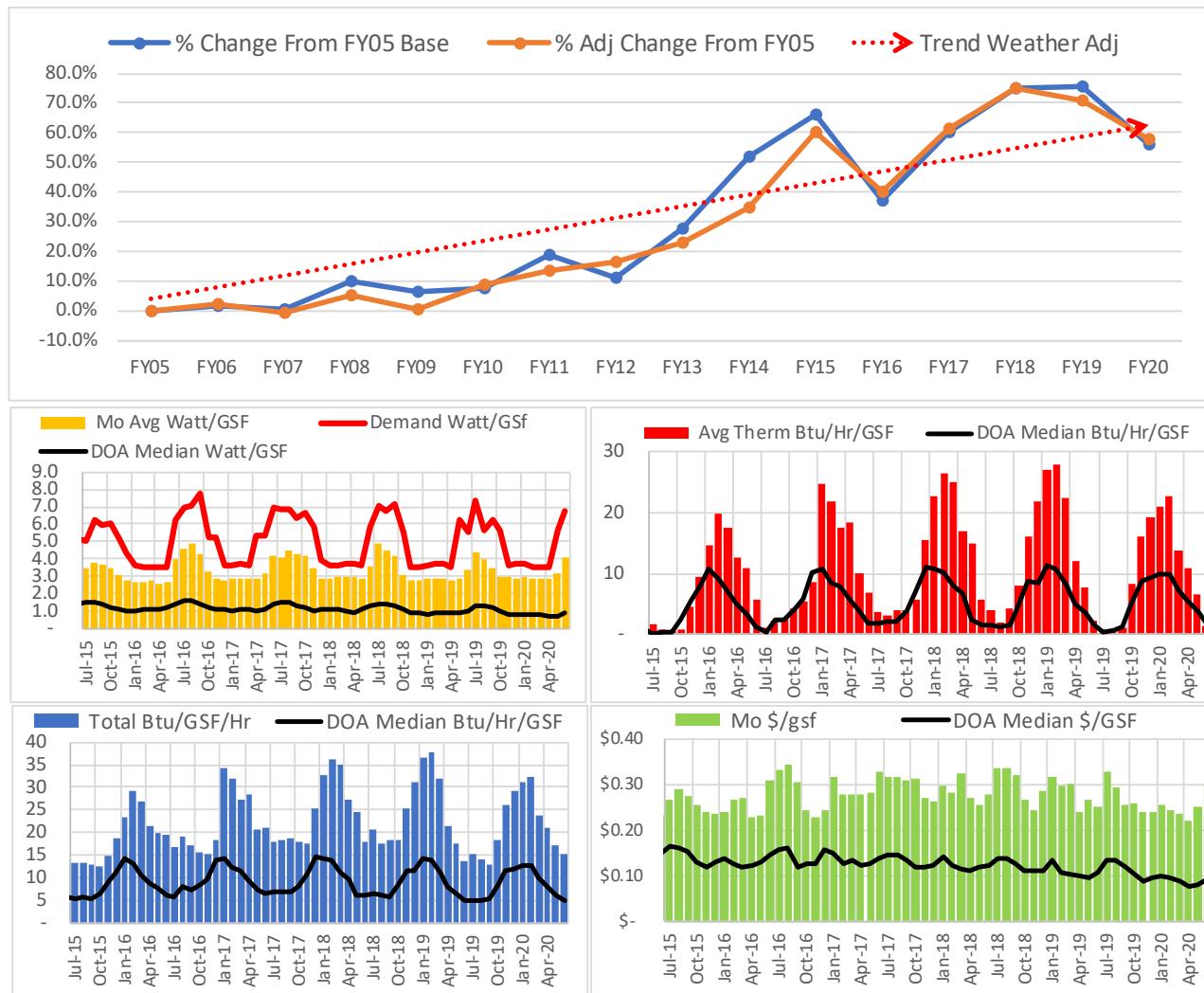
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-SE Crime Lab Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	28.93	FY20 Therm/GSF =	0.89	FY20 Total Btu/GSF =	187,718	05-20 Thm	79.7%			
FY20 Electric \$/GSF =	\$ 2.82	FY20 Thermal \$/GSF =	\$ 0.30	FY20 Energy \$/GSF =	\$ 3.12	05-20 kwh	41.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	43,935	51,334	69,155	120,490	0.0%	48.47	100.0%	100.0%	120,490	0.0%
FY06	43,935	52,546	69,997	122,543	1.7%	50.11	105.0%	97.5%	123,393	2.4%
FY07	43,935	54,697	66,429	121,126	0.5%	48.88	98.3%	99.0%	119,566	-0.8%
FY08	43,935	63,698	68,578	132,276	9.8%	47.87	92.5%	98.6%	126,546	5.0%
FY09	43,935	61,753	66,044	127,797	6.1%	47.26	90.0%	99.5%	121,300	0.7%
FY10	43,935	63,506	65,705	129,211	7.2%	49.10	103.1%	99.8%	131,032	8.7%
FY11	43,935	72,182	70,595	142,778	18.5%	48.17	93.1%	98.4%	136,664	13.4%
FY12	43,935	60,698	73,242	133,940	11.2%	52.24	113.4%	97.8%	140,487	16.6%
FY13	43,935	82,143	71,309	153,451	27.4%	48.26	94.7%	99.1%	148,432	23.2%
FY14	43,935	107,693	75,420	183,112	52.0%	45.20	80.5%	100.0%	162,054	34.5%
FY15	43,935	115,140	84,814	199,955	66.0%	46.08	93.4%	101.1%	193,318	60.4%
FY16	43,935	71,882	93,648	165,530	37.4%	50.51	106.0%	98.9%	168,803	40.1%
FY17	43,935	89,647	103,724	193,371	60.5%	51.99	106.1%	95.8%	194,500	61.4%
FY18	43,935	107,181	103,849	211,030	75.1%	48.73	100.5%	99.3%	210,839	75.0%
FY19	43,935	112,746	99,047	211,793	75.8%	47.88	96.3%	98.4%	206,041	71.0%
FY20	43,935	88,980	98,737	187,718	55.8%	49.85	103.7%	99.1%	190,091	57.8%

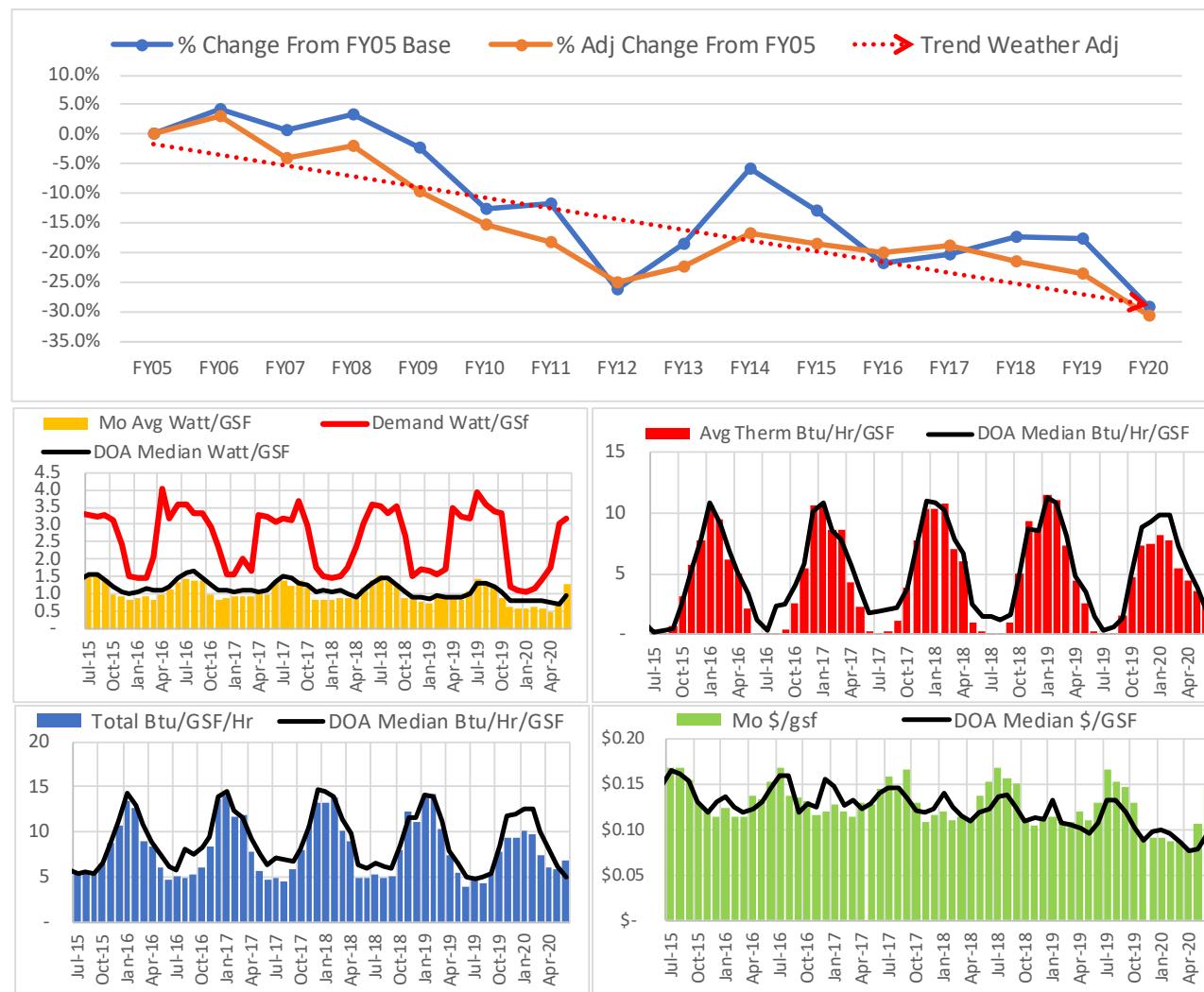
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-State Ag Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	7.53	FY20 Therm/GSF =	0.38	FY20 Total Btu/GSF =	64,116	05-20 Thm	-16.9%			
FY20 Electric \$/GSF =	\$ 1.18	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 1.38	05-20 kwh	-44.3%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	118,011	44,767	45,771	90,538	0.0%	48.12	100.0%	100.0%	90,538	0.0%
FY06	118,011	46,996	47,488	94,484	4.4%	48.65	98.7%	98.7%	93,302	3.1%
FY07	118,011	45,919	45,363	91,283	0.8%	47.46	91.1%	99.3%	86,850	-4.1%
FY08	118,011	50,343	43,200	93,542	3.3%	46.19	91.5%	98.9%	88,799	-1.9%
FY09	118,011	48,159	40,397	88,556	-2.2%	45.66	86.4%	99.6%	81,858	-9.6%
FY10	118,011	39,881	39,166	79,047	-12.7%	47.10	93.2%	100.8%	76,633	-15.4%
FY11	118,011	41,563	38,225	79,788	-11.9%	46.81	88.4%	97.8%	74,132	-18.1%
FY12	118,011	31,247	35,444	66,692	-26.3%	51.51	106.8%	97.3%	67,876	-25.0%
FY13	118,011	38,563	35,237	73,799	-18.5%	47.29	92.2%	98.6%	70,326	-22.3%
FY14	118,011	49,736	35,596	85,332	-5.8%	44.58	81.2%	98.2%	75,343	-16.8%
FY15	118,011	44,184	34,587	78,771	-13.0%	45.84	88.6%	100.1%	73,755	-18.5%
FY16	118,011	37,539	33,251	70,790	-21.8%	49.68	105.4%	98.7%	72,371	-20.1%
FY17	118,011	39,363	32,764	72,127	-20.3%	49.72	104.7%	98.2%	73,394	-18.9%
FY18	118,011	42,730	32,211	74,941	-17.2%	46.66	90.6%	100.2%	70,971	-21.6%
FY19	118,011	44,521	30,019	74,540	-17.7%	45.88	88.0%	99.5%	69,079	-23.7%
FY20	118,011	38,414	25,702	64,116	-29.2%	48.07	96.8%	99.3%	62,705	-30.7%

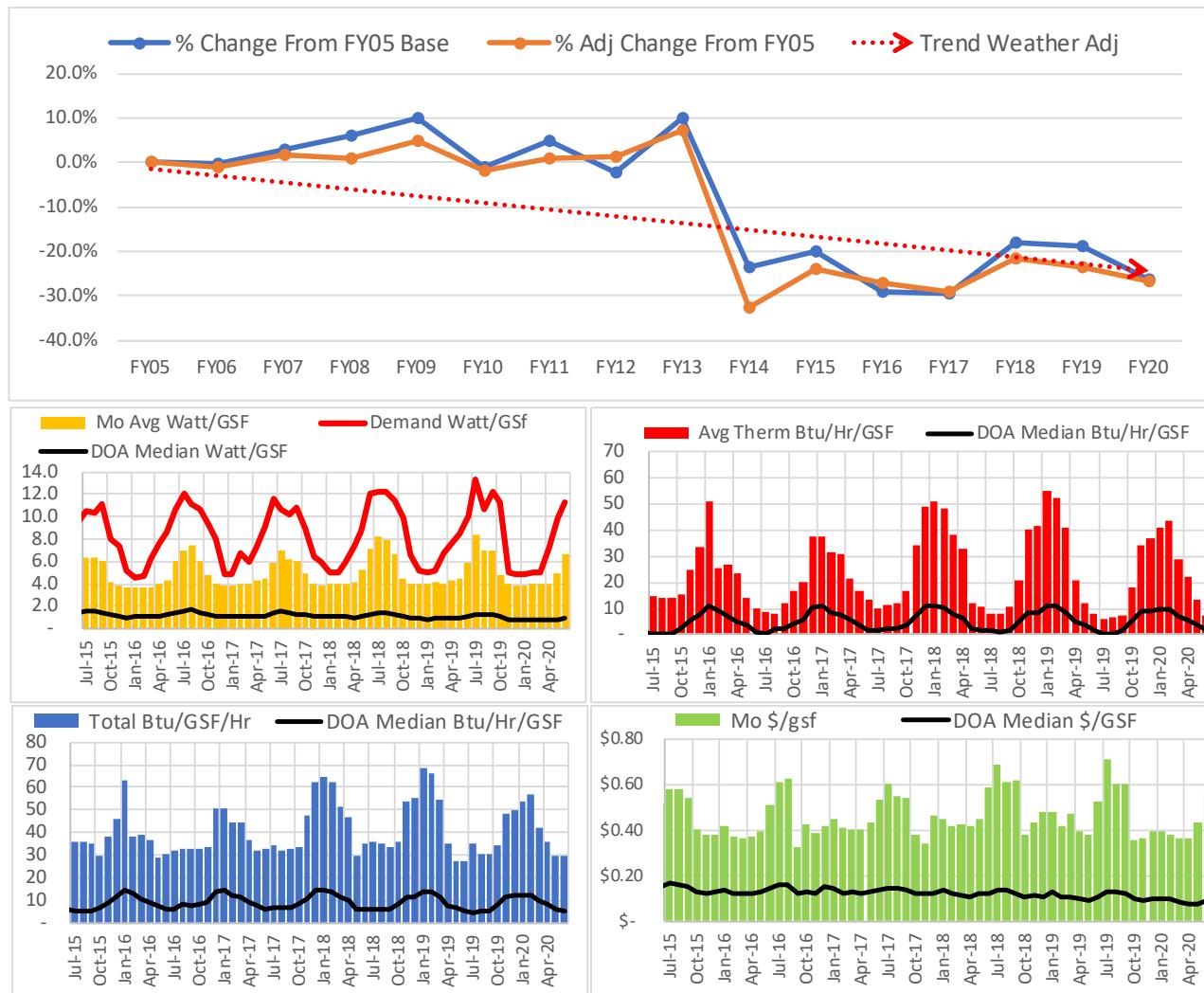
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-State Hygiene Lab Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	45.71	FY20 Therm/GSF =	1.93	FY20 Total Btu/GSF =	349,483	05-20 Thm	-35.1%			
FY20 Electric \$/GSF =	\$ 4.75	FY20 Thermal \$/GSF =	\$ 0.79	FY20 Energy \$/GSF =	\$ 5.54	05-20 kwh	-12.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	77,505	297,710	176,259	473,969	0.0%	48.12	100.0%	100.0%	473,969	0.0%
FY06	77,505	280,021	192,880	472,900	-0.2%	48.65	99.1%	98.9%	468,170	-1.2%
FY07	77,505	298,923	189,399	488,322	3.0%	47.46	98.3%	99.6%	482,676	1.8%
FY08	77,505	310,741	192,525	503,266	6.2%	46.19	92.3%	99.3%	477,776	0.8%
FY09	77,505	326,824	194,168	520,992	9.9%	45.66	92.6%	100.1%	496,888	4.8%
FY10	77,505	279,681	189,726	469,408	-1.0%	47.10	97.8%	100.8%	464,835	-1.9%
FY11	77,505	300,107	196,508	496,615	4.8%	46.81	94.5%	98.6%	477,438	0.7%
FY12	77,505	293,462	170,051	463,514	-2.2%	51.51	107.4%	96.9%	480,070	1.3%
FY13	77,505	345,524	175,931	521,455	10.0%	47.29	96.0%	100.1%	507,840	7.1%
FY14	160,344	229,182	132,158	361,340	-23.8%	44.58	81.9%	99.5%	319,171	-32.7%
FY15	160,344	239,461	139,247	378,709	-20.1%	45.84	91.9%	100.4%	359,806	-24.1%
FY16	160,344	196,523	139,246	335,769	-29.2%	49.68	105.4%	98.8%	344,609	-27.3%
FY17	160,344	184,987	148,451	333,438	-29.6%	49.72	103.5%	97.4%	336,185	-29.1%
FY18	160,344	237,164	150,858	388,022	-18.1%	46.66	93.1%	99.4%	370,757	-21.8%
FY19	160,344	230,466	154,710	385,177	-18.7%	45.88	90.6%	99.6%	362,990	-23.4%
FY20	160,344	193,482	156,001	349,483	-26.3%	48.07	99.8%	99.3%	348,057	-26.6%

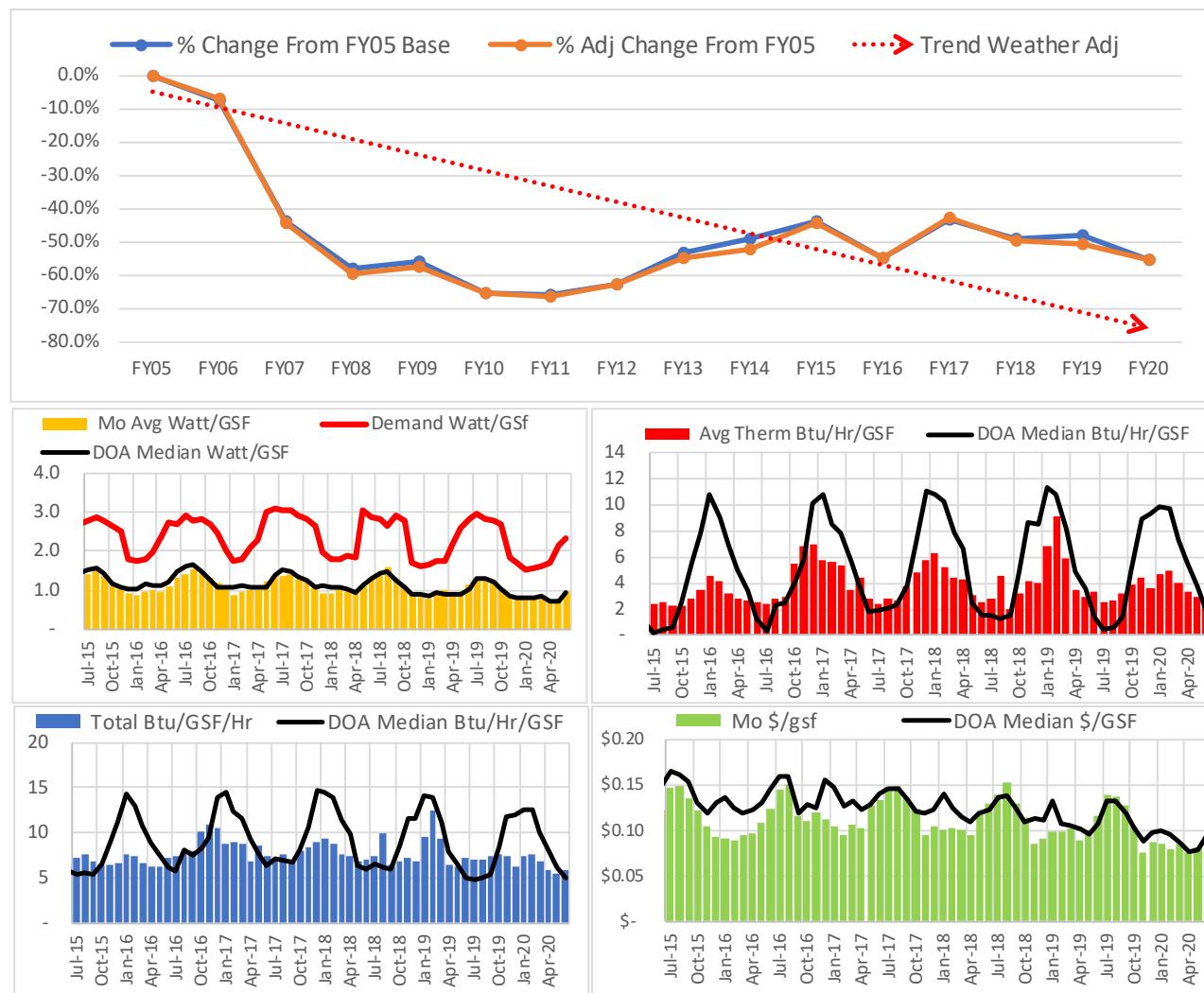
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOA-State Revenue Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

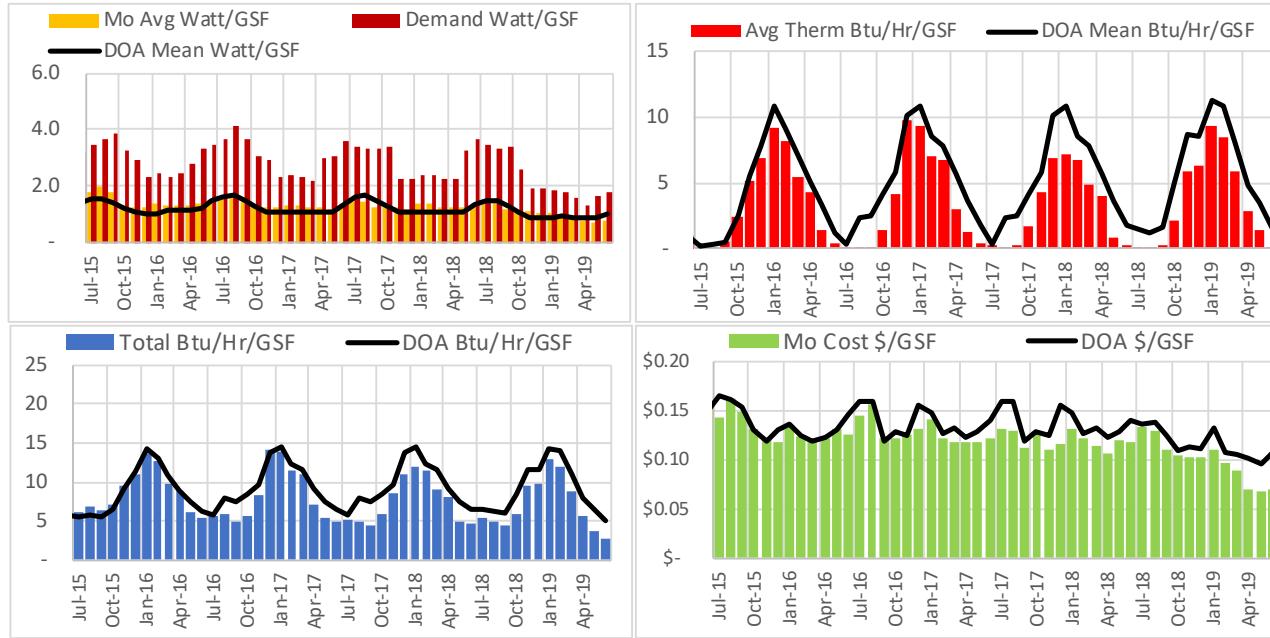
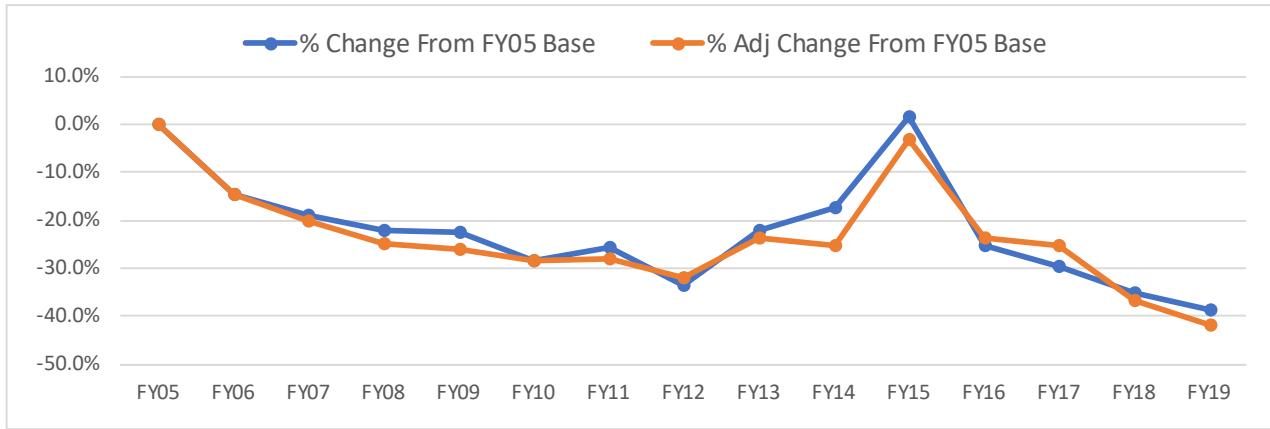
FY20 Electric kwh/GSF =	8.37	FY20 Therm/GSF =	0.31	FY20 Total Btu/GSF =	59,891	05-20 Thm	-57.4%			
FY20 Electric \$/GSF =	\$ 1.02	FY20 Thermal \$/GSF =	\$ 0.15	FY20 Energy \$/GSF =	\$ 1.17	05-20 kwh	-53.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	247,224	73,435	61,299	134,734	0.0%	48.12	100.0%	100.0%	134,734	0.0%
FY06	247,224	62,497	62,098	124,595	-7.5%	48.65	102.5%	98.7%	125,382	-6.9%
FY07	247,224	24,015	51,677	75,692	-43.8%	47.46	96.0%	100.0%	74,718	-44.5%
FY08	247,224	11,651	44,492	56,143	-58.3%	46.19	84.4%	99.5%	54,090	-59.9%
FY09	247,224	15,938	43,465	59,402	-55.9%	45.66	87.2%	99.9%	57,306	-57.5%
FY10	247,224	10,088	36,696	46,784	-65.3%	47.10	97.4%	100.6%	46,755	-65.3%
FY11	247,224	12,179	33,817	45,996	-65.9%	46.81	87.8%	101.2%	44,911	-66.7%
FY12	247,224	12,714	37,133	49,847	-63.0%	51.51	108.2%	97.9%	50,119	-62.8%
FY13	247,224	25,960	36,911	62,871	-53.3%	47.29	93.2%	99.8%	61,022	-54.7%
FY14	247,224	31,527	36,903	68,430	-49.2%	44.58	85.8%	100.4%	64,071	-52.4%
FY15	247,224	38,988	36,705	75,694	-43.8%	45.84	96.3%	100.7%	74,521	-44.7%
FY16	247,224	26,334	34,235	60,569	-55.0%	49.68	102.9%	98.8%	60,912	-54.8%
FY17	247,224	39,967	36,190	76,157	-43.5%	49.72	102.8%	98.4%	76,714	-43.1%
FY18	247,224	34,991	33,718	68,708	-49.0%	46.66	97.4%	100.2%	67,885	-49.6%
FY19	247,224	37,980	32,021	70,002	-48.0%	45.88	90.9%	100.2%	66,620	-50.6%
FY20	247,224	31,317	28,574	59,891	-55.5%	48.07	99.8%	99.5%	59,682	-55.7%

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



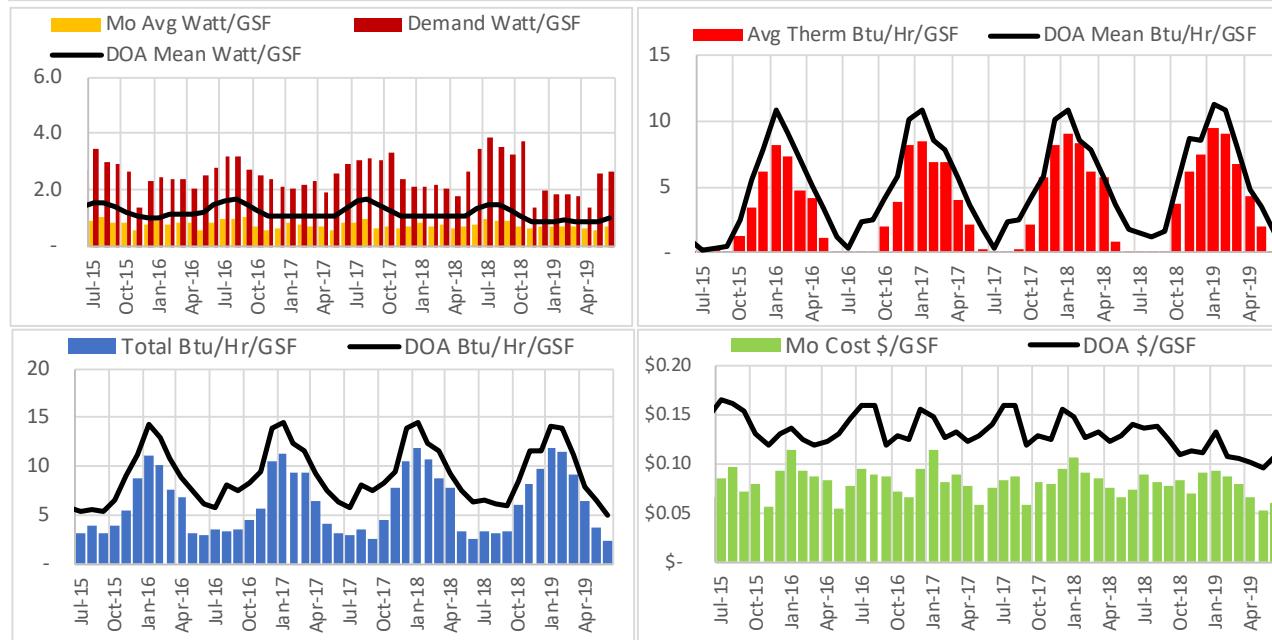
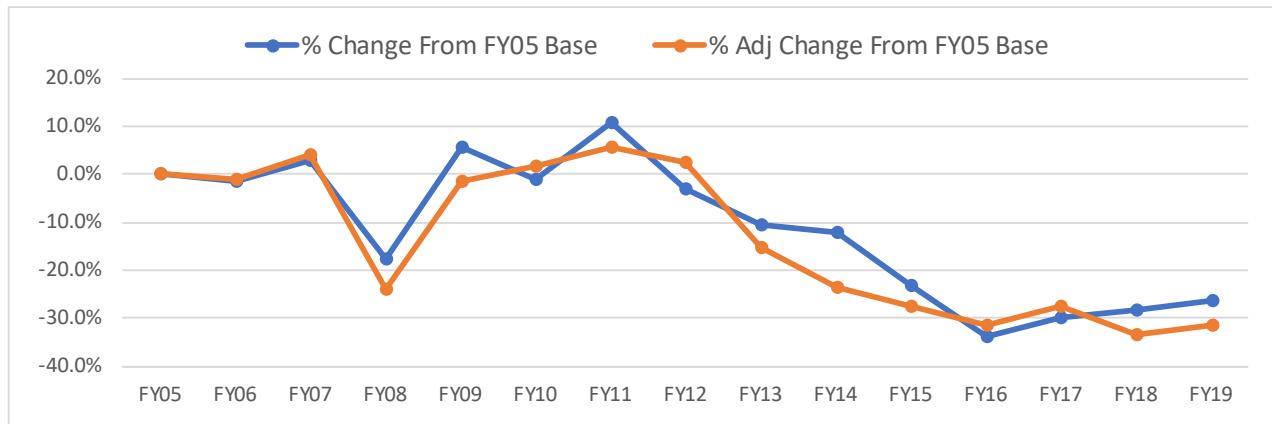
### DOA-Waukesha SOB Fiscal Year 2019 State Facilities Energy Report (FY05 Base)

Electric kwh/GSF =	9.11	Therm/GSF =	0.31	Total Btu/GSF =	62,416	05-19Thm	-35.3%			
Electric \$/GSF =	\$ 1.04	Thermal \$/GSF =	\$ 0.14	Energy \$/GSF =	\$ 1.19	05-19kwh	-47.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05 Base
FY05	169,976	44,800	56,937	101,737	0.0%	48.53	100.0%	100.0%	101,737	0.0%
FY06	169,976	36,390	50,590	86,981	-14.5%	50.24	101.3%	98.7%	86,786	-14.7%
FY07	169,976	32,300	50,248	82,549	-18.9%	49.08	96.6%	99.2%	81,032	-20.4%
FY08	169,976	28,465	50,841	79,306	-22.0%	47.95	92.3%	98.7%	76,466	-24.8%
FY09	169,976	28,974	49,954	78,928	-22.4%	47.36	89.7%	98.5%	75,174	-26.1%
FY10	169,976	24,756	47,896	72,652	-28.6%	49.19	100.1%	100.2%	72,769	-28.5%
FY11	169,976	28,687	47,106	75,793	-25.5%	48.30	93.0%	98.5%	73,095	-28.2%
FY12	169,976	19,840	47,771	67,611	-33.5%	52.32	111.7%	98.8%	69,376	-31.8%
FY13	169,976	27,911	51,217	79,128	-22.2%	48.41	96.0%	99.0%	77,510	-23.8%
FY14	169,976	37,456	46,445	83,901	-17.5%	45.35	81.0%	98.6%	76,120	-25.2%
FY15	169,976	52,758	50,340	103,098	1.3%	46.29	90.7%	100.2%	98,313	-3.4%
FY16	169,976	32,248	43,635	75,883	-25.4%	50.57	106.5%	99.3%	77,674	-23.7%
FY17	169,976	31,676	40,069	71,745	-29.5%	52.04	115.3%	98.1%	75,833	-25.5%
FY18	169,976	26,999	38,860	65,858	-35.3%	48.87	95.9%	98.9%	64,326	-36.8%
FY19	169,976	31,312	31,104	62,416	-38.6%	48.03	92.5%	96.9%	59,121	-41.9%



### DOA-WI Rapids SOB Fiscal Year 2019 State Facilities Energy Report (FY05 Base)

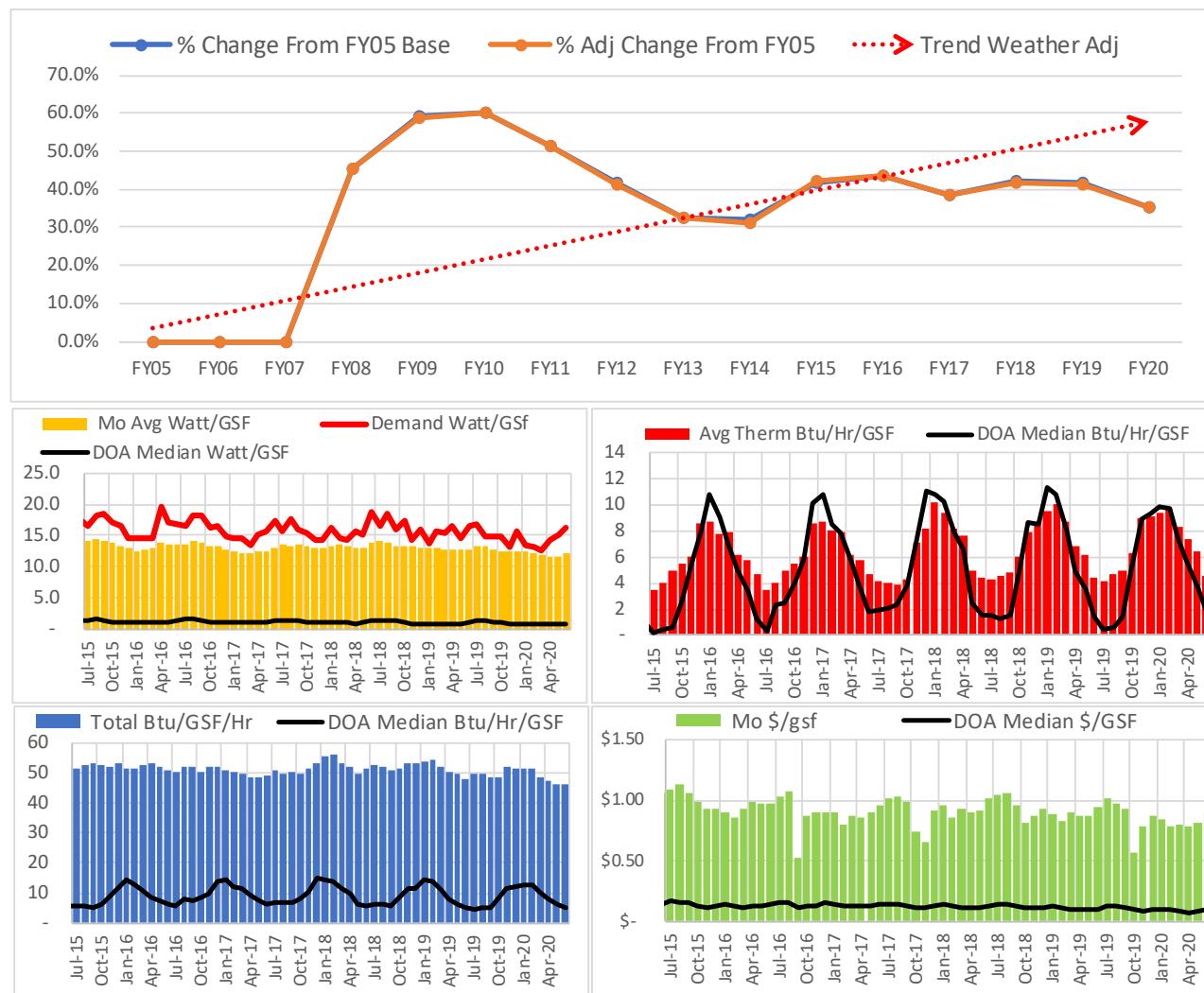
Electric kwh/GSF =	6.39	Therm/GSF =	0.36	Total Btu/GSF =	57,429	05-19Thm	-36.8%			
Electric \$/GSF =	\$ 0.72	Thermal \$/GSF =	\$ 0.22	Energy \$/GSF =	\$ 0.93	05-19kwh	-22.0%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05 Base
FY05	51,552	50,308	27,827	78,136	0.0%	44.32	100.0%	100.0%	78,136	0.0%
FY06	51,552	42,140	34,877	77,017	-1.4%	45.71	101.3%	99.5%	77,367	-1.0%
FY07	51,552	39,279	41,063	80,342	2.8%	44.71	102.5%	99.8%	81,237	4.0%
FY08	51,552	23,935	40,359	64,294	-17.7%	42.19	80.7%	99.5%	59,472	-23.9%
FY09	51,552	42,187	40,263	82,450	5.5%	42.59	88.1%	99.1%	77,076	-1.4%
FY10	51,552	39,496	37,848	77,344	-1.0%	45.47	104.4%	100.5%	79,289	1.5%
FY11	51,552	50,138	36,280	86,418	10.6%	43.64	92.5%	99.2%	82,398	5.5%
FY12	51,552	43,331	32,525	75,856	-2.9%	47.71	109.6%	99.7%	79,910	2.3%
FY13	51,552	38,431	31,307	69,738	-10.7%	43.04	91.3%	99.6%	66,272	-15.2%
FY14	51,552	38,735	29,858	68,593	-12.2%	40.14	79.2%	97.7%	59,846	-23.4%
FY15	51,552	34,448	25,424	59,872	-23.4%	42.42	91.4%	98.7%	56,558	-27.6%
FY16	51,552	27,174	24,492	51,665	-33.9%	46.29	106.1%	101.1%	53,583	-31.4%
FY17	51,552	31,325	23,505	54,830	-29.8%	45.93	105.3%	100.4%	56,596	-27.6%
FY18	51,552	33,711	22,275	55,986	-28.3%	42.85	89.1%	98.5%	51,989	-33.5%
FY19	51,552	35,626	21,803	57,429	-26.5%	41.96	89.2%	99.5%	53,481	-31.6%



### DOA-Femrite Data Center Fiscal Year 2020 State Facilities Energy Report (FY07 Base)

FY20 Electric kwh/GSF =	108.69	FY20 Therm/GSF =	0.61	FY20 Total Btu/GSF =	432,245	05-20 Thm				
FY20 Electric \$/GSF =	\$ 9.77	FY20 Thermal \$/GSF =	\$ 0.28	FY20 Energy \$/GSF =	\$ 10.05	05-20 kwh				
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05										
FY06										
FY07	56,987	53,949	265,496	319,444	0.0%	47.46	100.0%	99.8%	318,822	0.0%
FY08	56,987	53,949	409,775	463,724	45.2%	46.19	98.1%	100.1%	463,200	45.3%
FY09	56,987	53,949	454,990	508,939	59.3%	45.66	97.3%	99.7%	505,954	58.7%
FY10	56,987	53,949	456,994	510,943	59.9%	47.10	98.9%	100.2%	511,093	60.3%
FY11	56,987	53,949	429,179	483,128	51.2%	46.81	98.2%	100.1%	482,647	51.4%
FY12	56,987	53,949	399,136	453,084	41.8%	51.51	105.7%	98.6%	450,388	41.3%
FY13	56,987	53,949	368,674	422,623	32.3%	47.29	98.8%	100.3%	422,906	32.6%
FY14	56,987	53,949	367,123	421,072	31.8%	44.58	96.2%	99.9%	418,775	31.4%
FY15	56,987	53,949	398,367	452,316	41.6%	45.84	98.4%	100.4%	453,216	42.2%
FY16	56,987	53,949	404,172	458,120	43.4%	49.68	102.5%	99.6%	457,913	43.6%
FY17	56,987	53,949	387,951	441,899	38.3%	49.72	102.3%	99.6%	441,739	38.6%
FY18	56,987	55,626	398,621	454,248	42.2%	46.66	96.3%	99.7%	451,088	41.5%
FY19	56,987	59,563	393,213	452,776	41.7%	45.88	96.7%	99.9%	450,457	41.3%
FY20	56,987	61,283	370,961	432,245	35.3%	48.07	100.1%	99.9%	431,787	35.4%

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



# Agency Energy Use Summary

## 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.

### ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted:** 7.3 percent decrease  
Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted:** 0.8 percent increase

Energy use (BTU/GSF/Yr) for FY20 increased 0.8 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted:** 0.5 percent decrease per year.

On average, energy use (BTU/GSF/Yr) has decreased 0.5 percent since the base year, FY05.

### GSF AND CONSUMPTION STATISTICS

**GSF Change from Base:** -3.5 percent decrease.

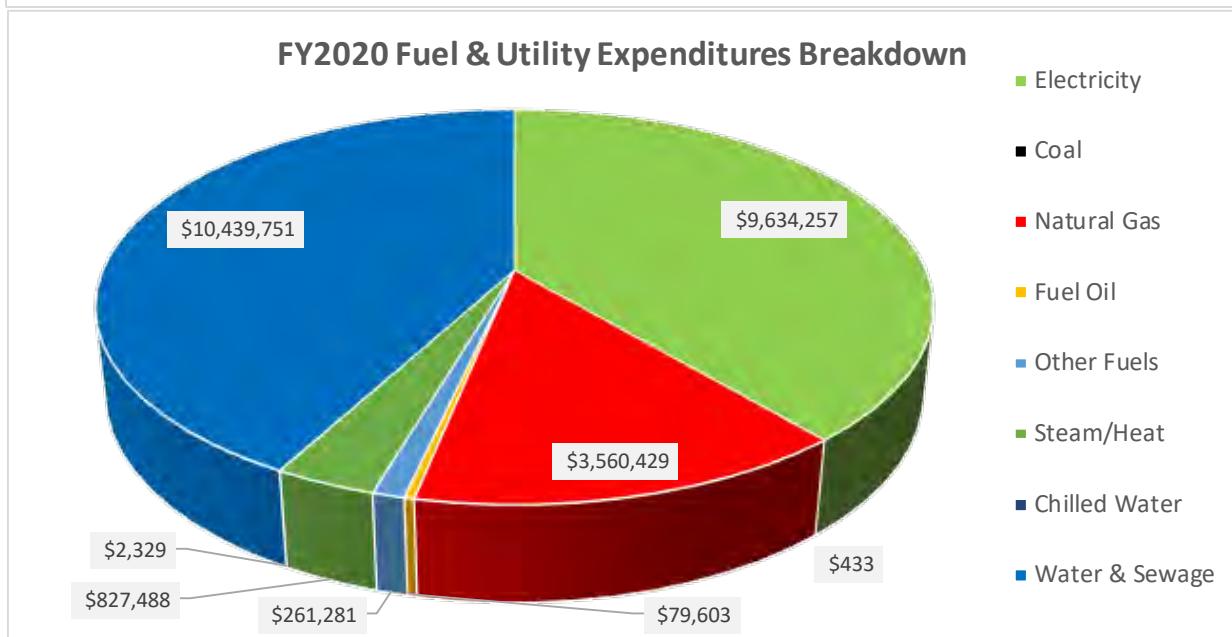
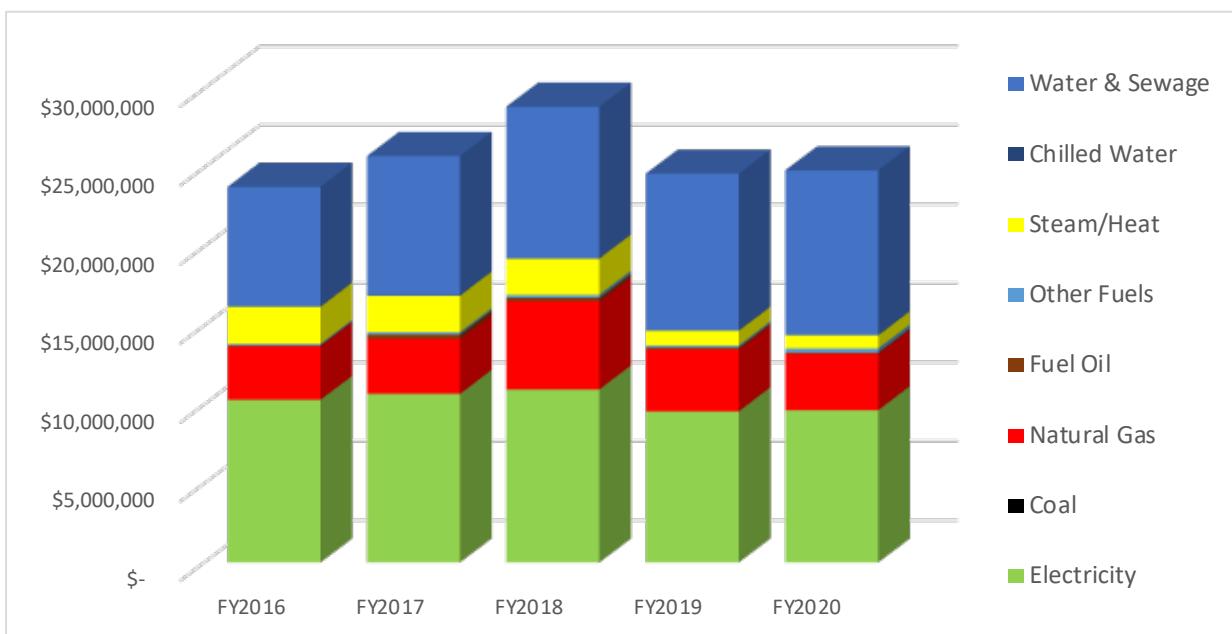
Gross square footage (GSF) has decreased 3.5% from the base fiscal year, FY05.

**Consumption Change from Base:** 10.6 percent decrease.

Total consumption was 10.6 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 10.6 percent less than in the base year when adjusted for weather compared to FY05.

**Corrections, Department of**

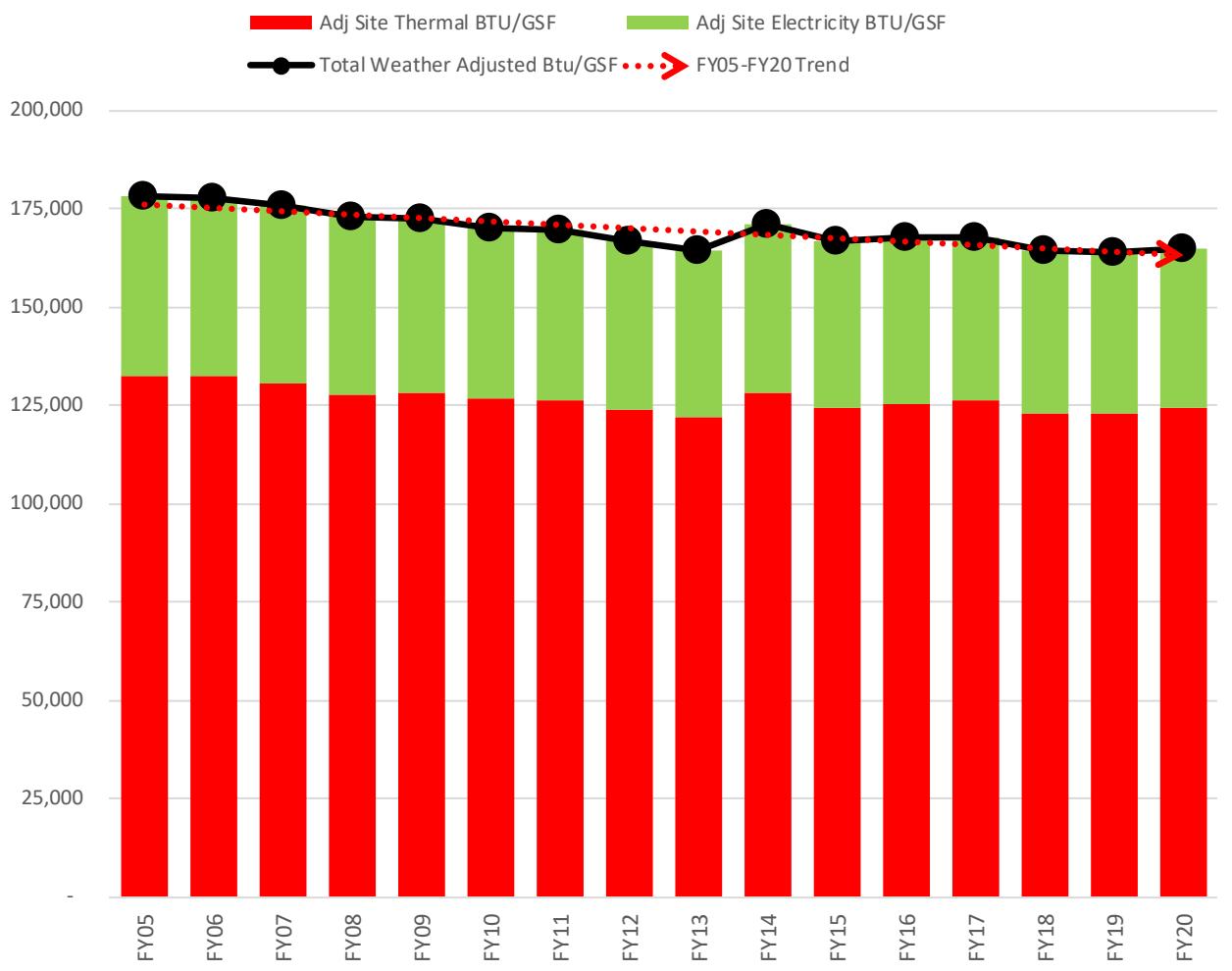
<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 10,289,877	\$ 10,661,661	\$ 10,944,130	\$ 9,554,173	\$ 9,634,257
Coal	\$ 750	\$ 405	\$ 1,692	\$ -	\$ 433
Natural Gas	\$ 3,389,826	\$ 3,480,354	\$ 5,576,854	\$ 3,935,028	\$ 3,560,429
Fuel Oil	\$ 42,910	\$ 265,520	\$ 217,785	\$ 94,120	\$ 79,603
Other Fuels	\$ 102,746	\$ 156,320	\$ 193,721	\$ 146,558	\$ 261,281
Steam/Heat	\$ 2,349,859	\$ 2,307,028	\$ 2,288,860	\$ 927,102	\$ 827,488
Chilled Water	\$ 8,147	\$ 12,947	\$ 9,920	\$ 2,168	\$ 2,329
Water & Sewage	\$ 7,580,483	\$ 8,826,759	\$ 9,602,015	\$ 9,938,057	\$ 10,439,751
<b>Total Utilities</b>	<b>\$ 23,764,598</b>	<b>\$ 25,710,994</b>	<b>\$ 28,834,977</b>	<b>\$ 24,597,207</b>	<b>\$ 24,805,570</b>



### DOC Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	8,230,122	132,660	45,472	178,132	0.0%	46.84	100.0%	100.0%	178,132	0.0%
FY06	8,241,872	129,685	45,262	174,947	-1.8%	47.39	102.1%	99.7%	177,521	-0.3%
FY07	8,241,872	130,889	45,022	175,911	-1.2%	46.26	99.9%	99.8%	175,706	-1.4%
FY08	8,241,872	134,139	45,434	179,574	0.8%	44.24	95.2%	99.1%	172,780	-3.0%
FY09	8,241,872	135,521	44,649	180,170	1.1%	44.25	94.6%	99.3%	172,520	-3.2%
FY10	8,241,872	127,844	43,452	171,295	-3.8%	45.47	99.2%	100.1%	170,301	-4.4%
FY11	8,269,898	131,818	43,819	175,636	-1.4%	46.21	95.9%	98.8%	169,694	-4.7%
FY12	8,269,898	115,139	42,783	157,922	-11.3%	51.40	107.7%	100.0%	166,830	-6.3%
FY13	8,269,898	126,642	42,292	168,934	-5.2%	46.61	96.5%	99.4%	164,202	-7.8%
FY14	7,939,611	140,253	43,384	183,637	3.1%	43.20	91.3%	98.8%	170,861	-4.1%
FY15	7,939,611	131,434	42,395	173,829	-2.4%	44.37	94.7%	99.9%	166,805	-6.4%
FY16	7,939,611	119,703	42,100	161,803	-9.2%	48.82	104.9%	100.0%	167,635	-5.9%
FY17	7,939,611	119,888	41,468	161,357	-9.4%	49.01	105.4%	99.3%	167,554	-5.9%
FY18	7,939,611	127,041	41,429	168,470	-5.4%	45.93	96.9%	99.3%	164,292	-7.8%
FY19	7,939,611	129,370	40,848	170,218	-4.4%	44.97	95.2%	99.5%	163,806	-8.0%
FY20	7,939,611	124,305	40,700	165,005	-7.4%	47.56	100.1%	99.7%	165,048	-7.3%

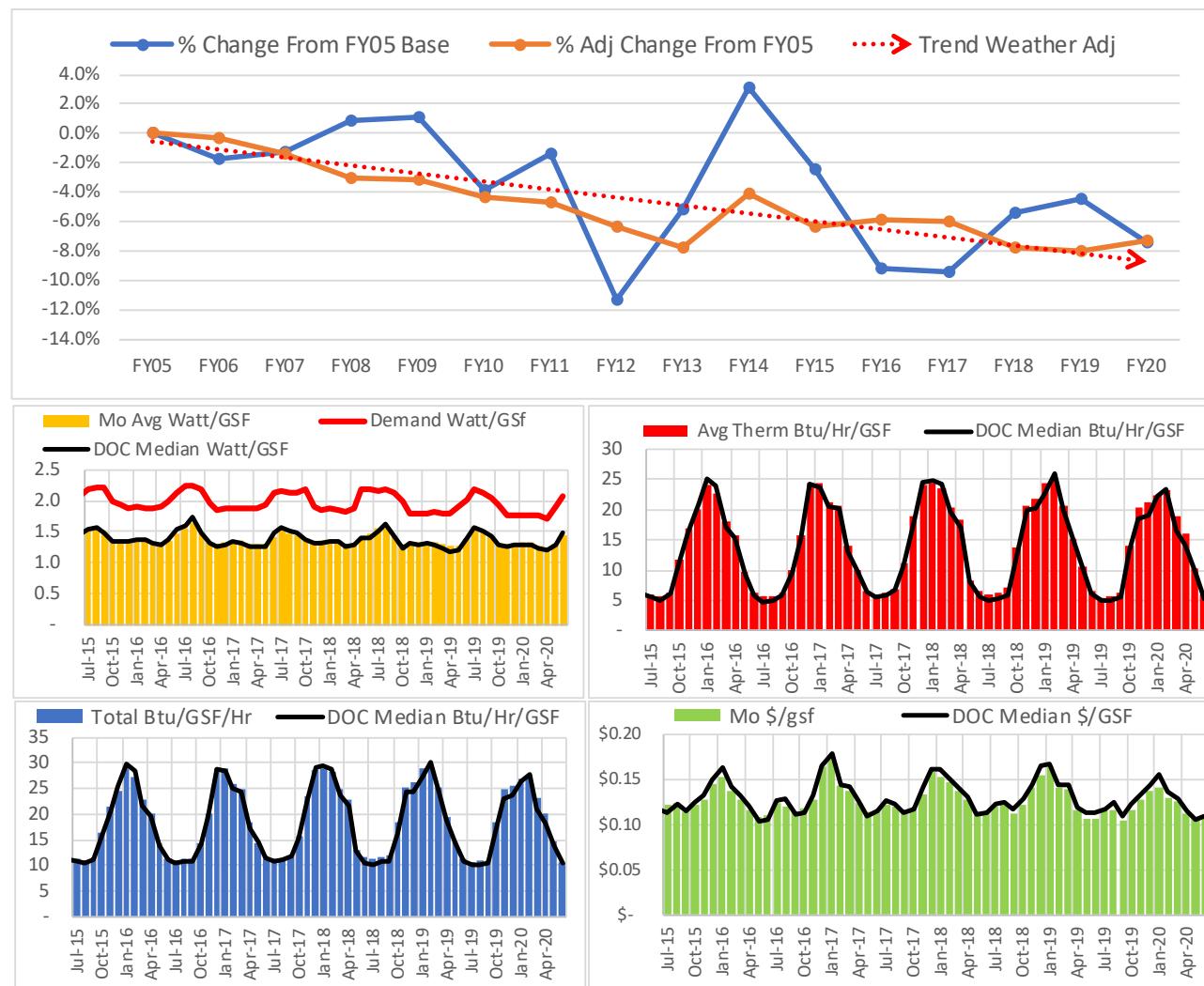
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DOC Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =		11.93	FY20 Therm/GSF =	1.24	FY20 Total Btu/GSF =	165,005	05-20 Thm	-6.2%		
FY20 Electric \$/GSF =		\$ 1.00	FY20 Thermal \$/GSF =	\$ 0.44	FY20 Energy \$/GSF =	\$ 1.44	05-20 kwh	-10.7%		
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	8,230,122	132,660	45,472	178,132	0.0%	46.84	100.0%	100.0%	178,132	0.0%
FY06	8,241,872	129,685	45,262	174,947	-1.8%	47.39	102.1%	99.7%	177,521	-0.3%
FY07	8,241,872	130,889	45,022	175,911	-1.2%	46.26	99.9%	99.8%	175,706	-1.4%
FY08	8,241,872	134,139	45,434	179,574	0.8%	44.24	95.2%	99.1%	172,780	-3.0%
FY09	8,241,872	135,521	44,649	180,170	1.1%	44.25	94.6%	99.3%	172,520	-3.2%
FY10	8,241,872	127,844	43,452	171,295	-3.8%	45.47	99.2%	100.1%	170,301	-4.4%
FY11	8,269,898	131,818	43,819	175,636	-1.4%	46.21	95.9%	98.8%	169,694	-4.7%
FY12	8,269,898	115,139	42,783	157,922	-11.3%	51.40	107.7%	100.0%	166,830	-6.3%
FY13	8,269,898	126,642	42,292	168,934	-5.2%	46.61	96.5%	99.4%	164,202	-7.8%
FY14	7,939,611	140,253	43,384	183,637	3.1%	43.20	91.3%	98.8%	170,861	-4.1%
FY15	7,939,611	131,434	42,395	173,829	-2.4%	44.37	94.7%	99.9%	166,805	-6.4%
FY16	7,939,611	119,703	42,100	161,803	-9.2%	48.82	104.9%	100.0%	167,635	-5.9%
FY17	7,939,611	119,888	41,468	161,357	-9.4%	49.01	105.4%	99.3%	167,554	-5.9%
FY18	7,939,611	127,041	41,429	168,470	-5.4%	45.93	96.9%	99.3%	164,292	-7.8%
FY19	7,939,611	129,370	40,848	170,218	-4.4%	44.97	95.2%	99.5%	163,806	-8.0%
FY20	7,939,611	124,305	40,700	165,005	-7.4%	47.56	100.1%	99.7%	165,048	-7.3%

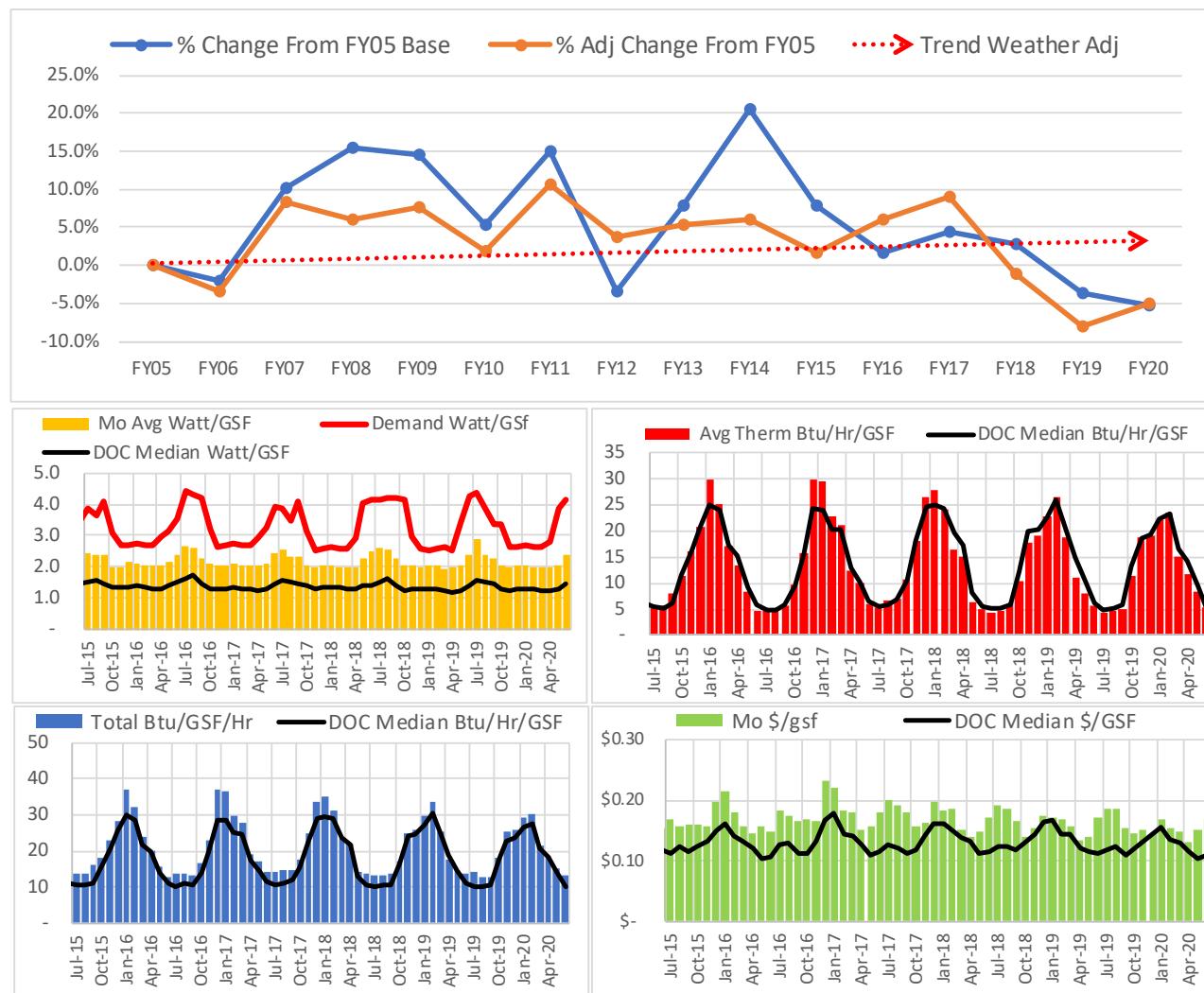
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Boscobel Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	19.05	FY20 Therm/GSF =	1.09	FY20 Total Btu/GSF =	173,760	05-20 Thm	-6.8%			
FY20 Electric \$/GSF =	\$ 1.45	FY20 Thermal \$/GSF =	\$ 0.43	FY20 Energy \$/GSF =	\$ 1.89	05-20 kwh	-1.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	195,000	117,908	65,580	183,488	0.0%	46.84	100.0%	100.0%	183,488	0.0%
FY06	195,000	110,590	69,209	179,800	-2.0%	47.39	98.1%	99.5%	177,315	-3.4%
FY07	195,000	130,509	71,510	202,019	10.1%	46.26	97.9%	99.5%	198,871	8.4%
FY08	195,000	140,829	71,092	211,921	15.5%	44.24	88.2%	99.0%	194,620	6.1%
FY09	195,000	141,322	68,940	210,262	14.6%	44.25	91.1%	99.8%	197,562	7.7%
FY10	195,000	125,478	67,731	193,210	5.3%	45.47	95.1%	99.9%	186,996	1.9%
FY11	195,000	142,574	68,570	211,144	15.1%	46.21	95.2%	98.2%	203,105	10.7%
FY12	195,000	110,054	67,349	177,403	-3.3%	51.40	112.4%	99.0%	190,323	3.7%
FY13	195,000	131,264	66,796	198,059	7.9%	46.61	96.9%	98.8%	193,144	5.3%
FY14	195,000	154,267	66,998	221,265	20.6%	43.20	83.2%	98.9%	194,649	6.1%
FY15	195,000	132,228	65,530	197,758	7.8%	44.37	91.7%	99.8%	186,627	1.7%
FY16	195,000	121,598	65,086	186,684	1.7%	48.82	106.8%	99.7%	194,727	6.1%
FY17	195,000	125,584	66,075	191,659	4.5%	49.01	107.2%	99.1%	200,132	9.1%
FY18	195,000	123,377	65,059	188,437	2.7%	45.93	94.8%	99.1%	181,445	-1.1%
FY19	195,000	112,270	64,538	176,809	-3.6%	44.97	93.0%	99.5%	168,570	-8.1%
FY20	195,000	108,738	65,022	173,760	-5.3%	47.56	101.1%	98.9%	174,212	-5.1%

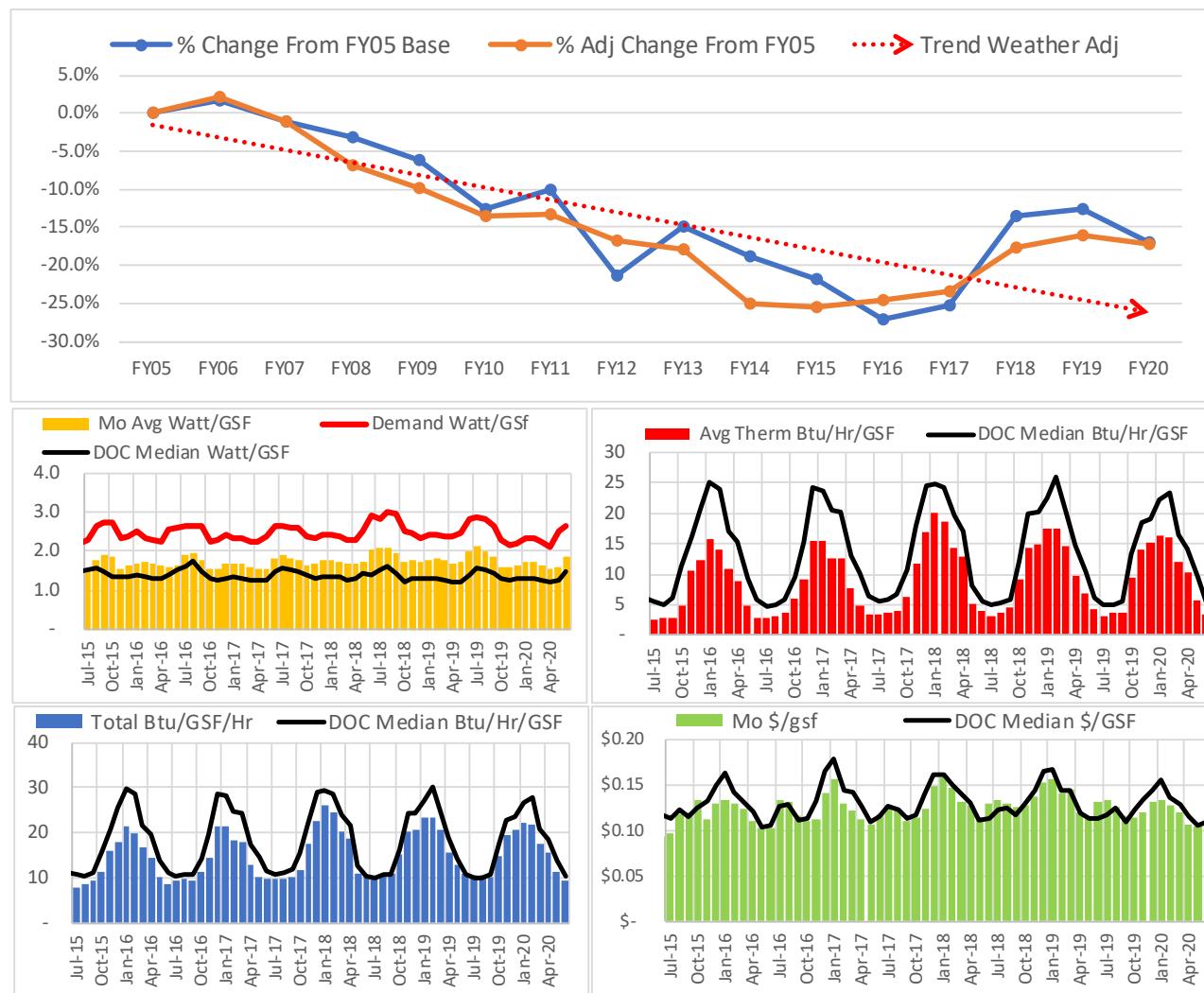
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Columbia Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	15.29	FY20 Therm/GSF =	0.83	FY20 Total Btu/GSF =	135,346	05-20 Thm	-18.1%			
FY20 Electric \$/GSF =	\$ 1.17	FY20 Thermal \$/GSF =	\$ 0.28	FY20 Energy \$/GSF =	\$ 1.45	05-20 kwh	-15.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	330,807	101,211	61,594	162,805	0.0%	48.12	100.0%	100.0%	162,805	0.0%
FY06	330,807	102,969	62,609	165,578	1.7%	48.65	101.0%	99.4%	166,211	2.1%
FY07	330,807	99,321	61,866	161,187	-1.0%	47.46	99.9%	99.7%	160,886	-1.2%
FY08	330,807	96,556	61,086	157,642	-3.2%	46.19	94.4%	99.4%	151,850	-6.7%
FY09	330,807	97,894	54,784	152,678	-6.2%	45.66	94.5%	99.2%	146,837	-9.8%
FY10	330,807	90,489	51,677	142,166	-12.7%	47.10	98.6%	100.0%	140,863	-13.5%
FY11	330,807	93,736	52,754	146,490	-10.0%	46.81	95.1%	98.6%	141,130	-13.3%
FY12	330,807	76,039	52,036	128,074	-21.3%	51.51	109.9%	99.7%	135,430	-16.8%
FY13	330,807	87,419	51,107	138,526	-14.9%	47.29	95.3%	98.8%	133,813	-17.8%
FY14	330,807	79,482	52,584	132,066	-18.9%	44.58	88.5%	98.2%	121,996	-25.1%
FY15	330,807	75,521	51,797	127,318	-21.8%	45.84	92.1%	100.1%	121,400	-25.4%
FY16	330,807	68,488	50,360	118,847	-27.0%	49.68	105.6%	100.0%	122,652	-24.7%
FY17	330,807	71,170	50,475	121,645	-25.3%	49.72	104.6%	99.4%	124,595	-23.5%
FY18	330,807	87,961	52,799	140,759	-13.5%	46.66	93.0%	99.0%	134,091	-17.6%
FY19	330,807	87,400	55,082	142,482	-12.5%	45.88	93.7%	99.6%	136,755	-16.0%
FY20	330,807	83,157	52,189	135,346	-16.9%	48.07	99.7%	99.6%	134,872	-17.2%

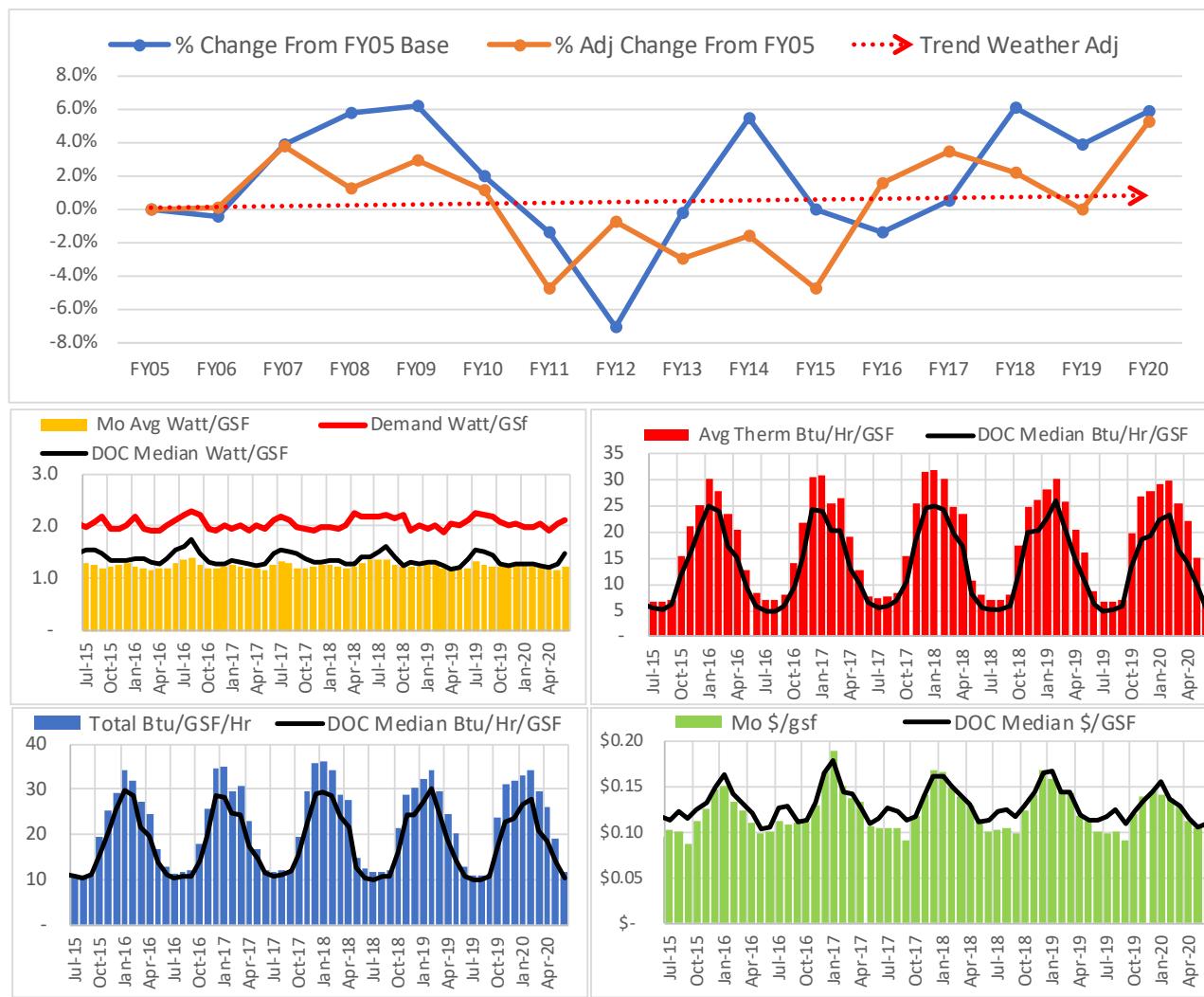
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Fox Lake Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 10.86			FY20 Therm/GSF = 1.63			FY20 Total Btu/GSF = 200,535			05-20 Thm 8.1%	
FY20 Electric \$/GSF = \$ 0.89			FY20 Thermal \$/GSF = \$ 0.52			FY20 Energy \$/GSF = \$ 1.41			05-20 kwh -6.1%	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	533,407	149,959	39,424	189,382	0.0%	48.12	100.0%	100.0%	189,382	0.0%
FY06	533,407	150,044	38,497	188,540	-0.4%	48.65	100.7%	99.9%	189,524	0.1%
FY07	533,407	156,180	40,495	196,675	3.9%	47.46	100.0%	99.4%	196,500	3.8%
FY08	533,407	158,407	41,802	200,209	5.7%	46.19	95.0%	98.8%	191,772	1.3%
FY09	533,407	160,560	40,495	201,055	6.2%	45.66	96.4%	99.0%	194,795	2.9%
FY10	533,407	154,130	38,859	192,990	1.9%	47.10	99.0%	100.0%	191,428	1.1%
FY11	533,407	146,696	40,023	186,719	-1.4%	46.81	96.1%	98.7%	180,427	-4.7%
FY12	533,407	137,316	38,721	176,037	-7.0%	51.51	108.5%	100.3%	187,836	-0.8%
FY13	533,407	149,603	39,251	188,854	-0.3%	47.29	96.8%	99.0%	183,734	-3.0%
FY14	533,407	160,281	39,451	199,732	5.5%	44.58	91.9%	98.7%	186,230	-1.7%
FY15	533,407	151,557	37,712	189,268	-0.1%	45.84	94.3%	99.5%	180,350	-4.8%
FY16	533,407	149,721	36,919	186,639	-1.4%	49.68	103.8%	100.0%	192,281	1.5%
FY17	533,407	153,042	37,195	190,237	0.5%	49.72	103.7%	99.6%	195,807	3.4%
FY18	533,407	163,412	37,357	200,769	6.0%	46.66	95.7%	99.5%	193,471	2.2%
FY19	533,407	159,521	37,193	196,714	3.9%	45.88	95.5%	99.5%	189,289	0.0%
FY20	533,407	163,477	37,058	200,535	5.9%	48.07	99.2%	99.9%	199,167	5.2%

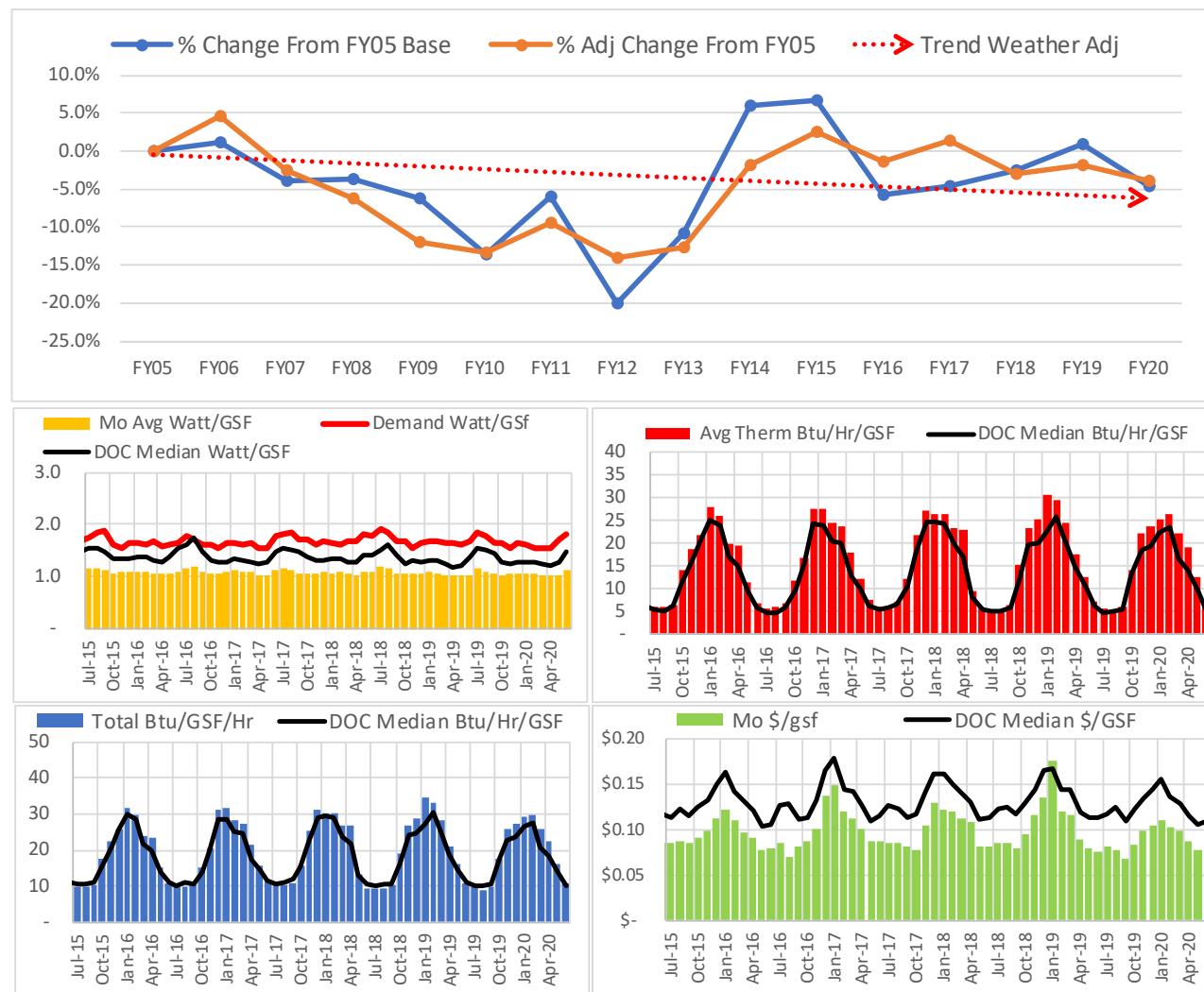
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-Green Bay Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.41	FY20 Therm/GSF =	1.39	FY20 Total Btu/GSF =	170,634	05-20 Thm	-4.7%			
FY20 Electric \$/GSF =	\$ 0.65	FY20 Thermal \$/GSF =	\$ 0.42	FY20 Energy \$/GSF =	\$ 1.07	05-20 kwh	0.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	453,750	146,759	32,097	178,856	0.0%	45.92	100.0%	100.0%	178,856	0.0%
FY06	453,750	147,306	33,408	180,714	1.0%	47.27	104.3%	100.0%	187,048	4.6%
FY07	453,750	139,103	32,619	171,722	-4.0%	46.64	101.9%	100.1%	174,444	-2.5%
FY08	453,750	139,251	33,211	172,462	-3.6%	45.02	96.9%	99.3%	167,902	-6.1%
FY09	453,750	135,705	31,831	167,536	-6.3%	43.47	92.6%	99.4%	157,281	-12.1%
FY10	453,750	123,702	30,828	154,531	-13.6%	45.99	100.5%	100.2%	155,156	-13.3%
FY11	453,750	136,752	31,257	168,009	-6.1%	44.59	95.5%	99.7%	161,792	-9.5%
FY12	453,750	112,157	30,945	143,102	-20.0%	49.86	109.3%	100.1%	153,598	-14.1%
FY13	453,750	128,064	31,432	159,496	-10.8%	45.29	97.5%	99.8%	156,228	-12.7%
FY14	453,750	157,043	32,353	189,396	5.9%	41.95	91.5%	99.1%	175,682	-1.8%
FY15	453,750	158,051	32,665	190,716	6.6%	43.98	95.4%	99.7%	183,303	2.5%
FY16	453,750	135,637	32,825	168,462	-5.8%	48.11	105.8%	100.2%	176,399	-1.4%
FY17	453,750	137,774	32,745	170,519	-4.7%	48.65	107.8%	100.4%	181,459	1.5%
FY18	453,750	142,274	32,223	174,497	-2.4%	45.77	99.4%	99.5%	173,464	-3.0%
FY19	453,750	148,400	32,065	180,466	0.9%	44.89	96.7%	99.7%	175,419	-1.9%
FY20	453,750	138,531	32,103	170,634	-4.6%	46.41	101.0%	100.0%	171,986	-3.8%

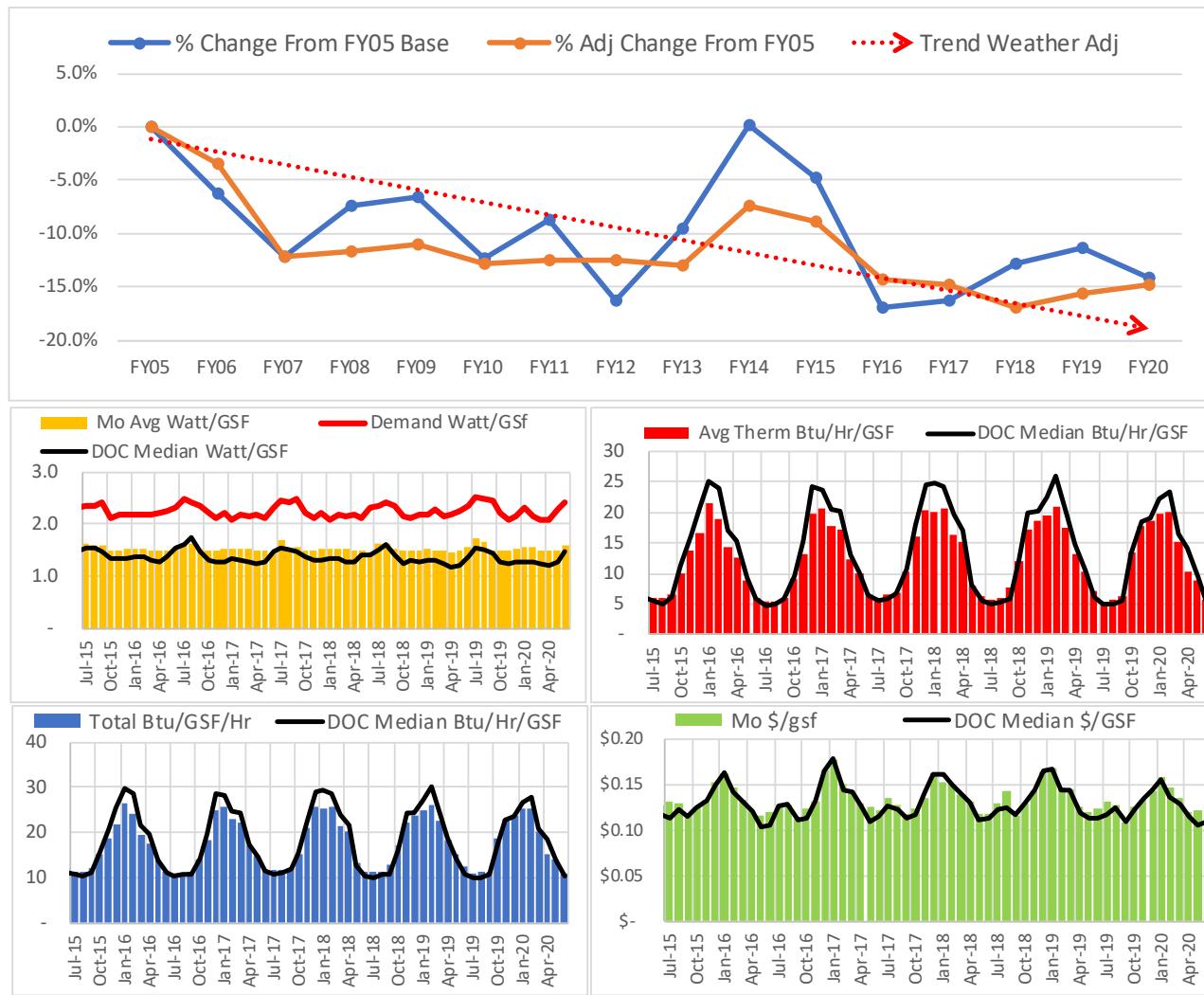
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Jackson Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	13.60	FY20 Therm/GSF =	1.08	FY20 Total Btu/GSF =	154,355	05-20 Thm	-10.9%			
FY20 Electric \$/GSF =	\$ 1.18	FY20 Thermal \$/GSF =	\$ 0.40	FY20 Energy \$/GSF =	\$ 1.58	05-20 kwh	-22.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	390,613	120,043	59,864	179,907	0.0%	45.85	100.0%	100.0%	179,907	0.0%
FY06	390,613	116,901	51,678	168,579	-6.3%	47.80	104.4%	99.8%	173,653	-3.5%
FY07	390,613	106,704	51,339	158,043	-12.2%	46.32	100.0%	99.8%	157,902	-12.2%
FY08	390,613	116,608	49,995	166,603	-7.4%	43.27	93.6%	99.4%	158,841	-11.7%
FY09	390,613	117,792	50,166	167,959	-6.6%	42.97	93.4%	99.5%	159,947	-11.1%
FY10	390,613	109,180	48,546	157,726	-12.3%	45.29	99.0%	100.0%	156,695	-12.9%
FY11	390,613	115,370	48,826	164,196	-8.7%	43.68	94.4%	99.4%	157,474	-12.5%
FY12	390,613	102,124	48,606	150,730	-16.2%	49.02	106.5%	100.2%	157,454	-12.5%
FY13	390,613	113,949	48,803	162,751	-9.5%	43.85	94.6%	99.5%	156,395	-13.1%
FY14	390,613	130,328	49,841	180,169	0.1%	41.37	90.1%	98.7%	166,584	-7.4%
FY15	390,613	123,806	47,392	171,197	-4.8%	43.42	94.2%	99.8%	163,984	-8.9%
FY16	390,613	103,291	46,058	149,349	-17.0%	47.61	104.7%	100.1%	154,279	-14.2%
FY17	390,613	104,794	45,730	150,525	-16.3%	47.08	102.7%	99.9%	153,285	-14.8%
FY18	390,613	111,107	45,752	156,859	-12.8%	42.94	93.4%	99.6%	149,292	-17.0%
FY19	390,613	113,706	45,650	159,356	-11.4%	42.23	93.3%	100.0%	151,680	-15.7%
FY20	390,613	107,941	46,414	154,355	-14.2%	45.39	99.1%	99.9%	153,398	-14.7%

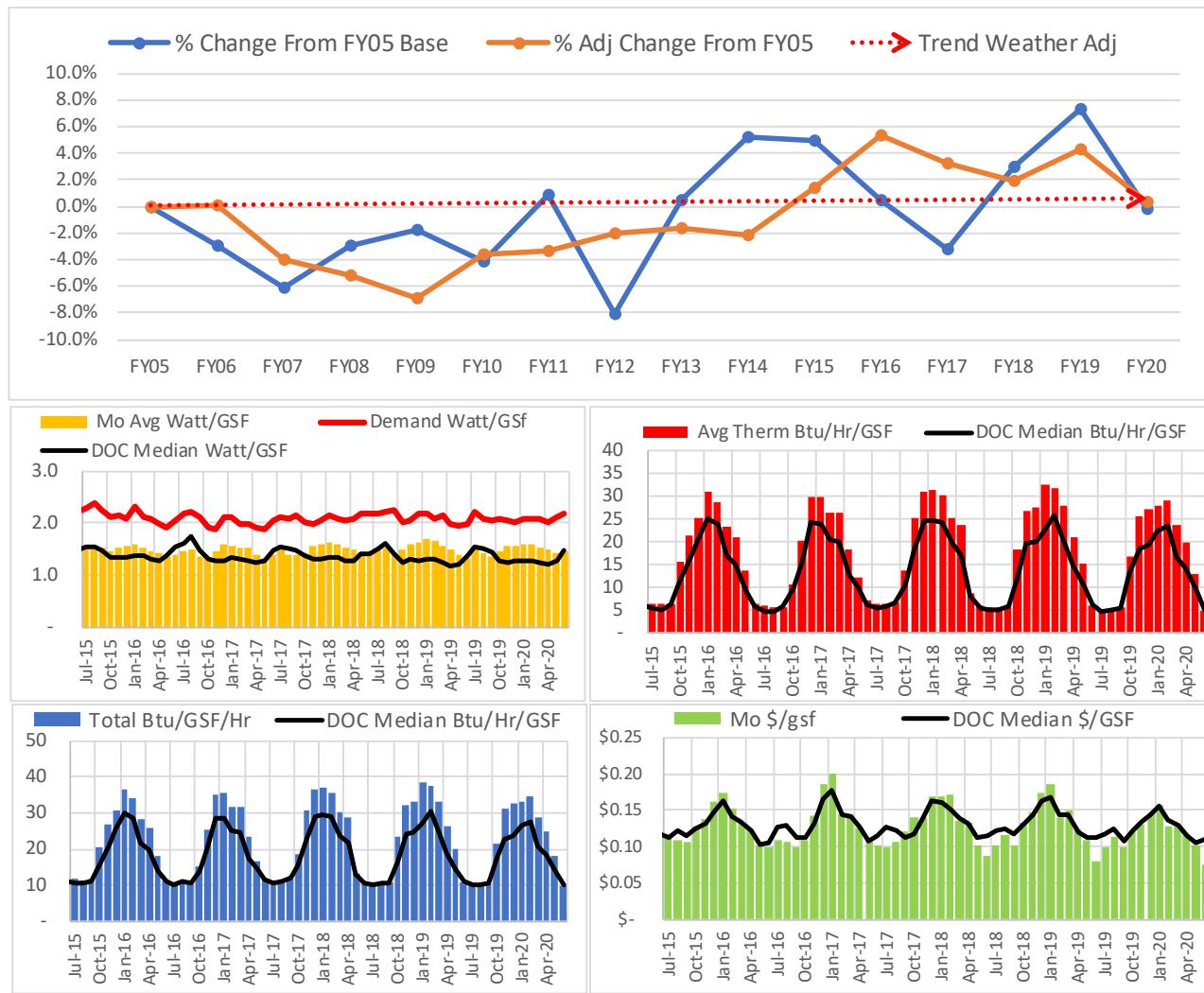
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-Kettle Moraine Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	13.25	FY20 Therm/GSF =	1.49	FY20 Total Btu/GSF =	194,593	05-20 Thm	4.1%			
FY20 Electric \$/GSF =	\$ 0.96	FY20 Thermal \$/GSF =	\$ 0.46	FY20 Energy \$/GSF =	\$ 1.42	05-20 kwh	-10.3%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	361,612	144,408	50,502	194,910	0.0%	45.92	100.0%	100.0%	194,910	0.0%
FY06	361,612	138,897	50,138	189,035	-3.0%	47.27	104.0%	100.7%	194,940	0.0%
FY07	361,612	132,421	50,482	182,903	-6.2%	46.64	102.9%	100.5%	187,043	-4.0%
FY08	361,612	138,258	50,885	189,143	-3.0%	45.02	97.1%	99.3%	184,784	-5.2%
FY09	361,612	140,573	50,817	191,390	-1.8%	43.47	93.6%	98.0%	181,384	-6.9%
FY10	361,612	136,537	50,441	186,978	-4.1%	45.99	100.4%	100.7%	187,907	-3.6%
FY11	361,612	144,475	52,175	196,650	0.9%	44.59	94.8%	98.5%	188,363	-3.4%
FY12	361,612	129,572	49,476	179,049	-8.1%	49.86	108.8%	101.2%	191,073	-2.0%
FY13	361,612	149,178	46,663	195,841	0.5%	45.29	97.3%	99.6%	191,635	-1.7%
FY14	361,612	160,181	44,828	205,009	5.2%	41.95	91.5%	98.4%	190,701	-2.2%
FY15	361,612	159,012	45,503	204,515	4.9%	43.98	95.8%	99.5%	197,558	1.4%
FY16	361,612	151,142	44,629	195,771	0.4%	48.11	106.1%	100.6%	205,214	5.3%
FY17	361,612	145,237	43,347	188,584	-3.2%	48.65	108.4%	101.3%	201,285	3.3%
FY18	361,612	156,141	44,642	200,783	3.0%	45.77	98.8%	99.7%	198,736	2.0%
FY19	361,612	163,471	45,603	209,073	7.3%	44.89	96.6%	99.5%	203,278	4.3%
FY20	361,612	149,384	45,209	194,593	-0.2%	46.41	100.6%	100.2%	195,628	0.4%

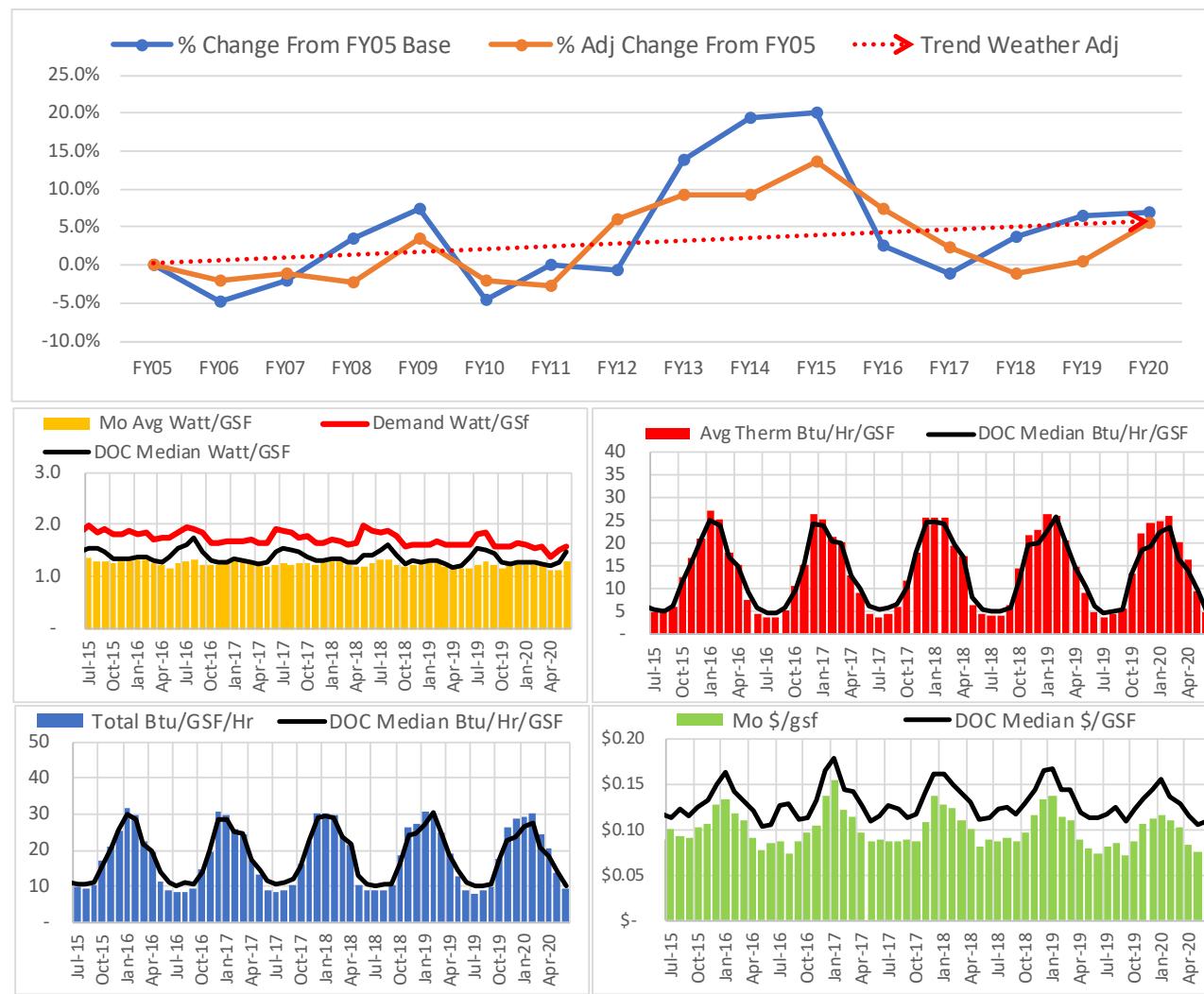
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Lincoln Hills Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		10.66	FY20 Therm/GSF =		1.29	FY20 Total Btu/GSF =		165,579	05-20 Thm	2.3%
FY20 Electric \$/GSF =		\$ 0.71	FY20 Thermal \$/GSF =		\$ 0.41	FY20 Energy \$/GSF =		\$ 1.12	05-20 kwh	18.5%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	249,792	124,056	30,725	154,781	0.0%	44.26	100.0%	100.0%	154,781	0.0%
FY06	249,792	118,831	28,501	147,332	-4.8%	45.56	103.5%	100.2%	151,525	-2.1%
FY07	249,792	123,766	27,976	151,742	-2.0%	44.50	101.0%	99.9%	152,900	-1.2%
FY08	249,792	128,636	31,397	160,033	3.4%	42.10	93.5%	98.9%	151,331	-2.2%
FY09	249,792	133,673	32,717	166,390	7.5%	42.50	95.3%	99.8%	160,068	3.4%
FY10	249,792	117,257	30,441	147,698	-4.6%	45.38	103.3%	100.3%	151,683	-2.0%
FY11	249,792	124,713	30,228	154,941	0.1%	43.50	96.6%	99.4%	150,464	-2.8%
FY12	249,792	118,982	34,727	153,709	-0.7%	47.63	108.6%	100.7%	164,212	6.1%
FY13	249,792	137,976	38,281	176,257	13.9%	42.87	94.8%	99.9%	169,028	9.2%
FY14	249,792	146,481	38,382	184,863	19.4%	39.97	89.2%	100.0%	169,080	9.2%
FY15	249,792	147,239	38,767	186,006	20.2%	42.20	93.3%	99.4%	175,964	13.7%
FY16	249,792	120,206	38,553	158,759	2.6%	46.23	106.2%	100.5%	166,372	7.5%
FY17	249,792	115,807	37,301	153,108	-1.1%	45.86	104.5%	100.2%	158,386	2.3%
FY18	249,792	123,095	37,372	160,467	3.7%	42.67	94.2%	99.5%	153,180	-1.0%
FY19	249,792	128,124	36,657	164,782	6.5%	41.78	92.8%	99.6%	155,423	0.4%
FY20	249,792	129,179	36,399	165,579	7.0%	43.78	98.3%	100.1%	163,388	5.6%

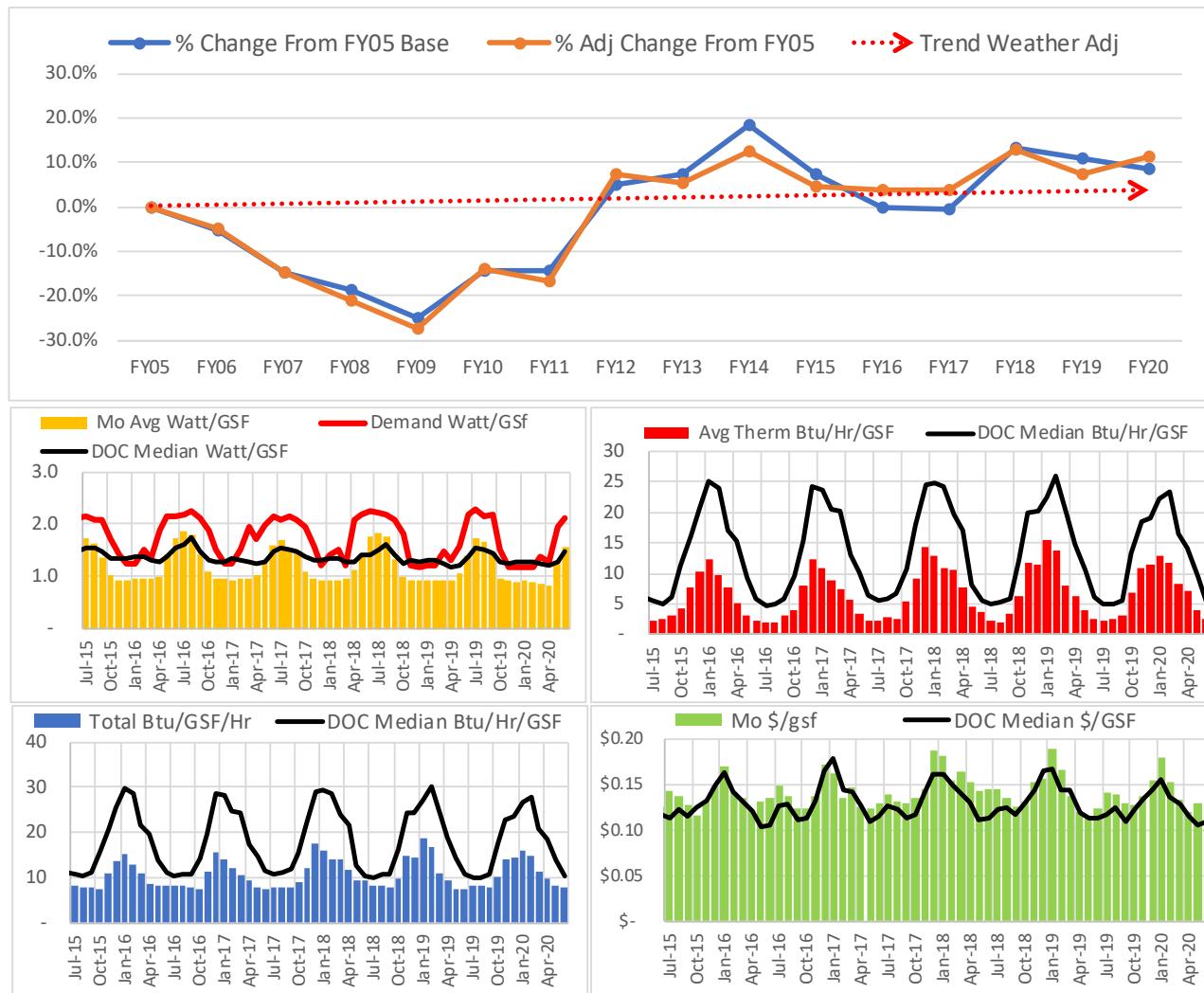
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Milwaukee Secure Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	10.24	FY20 Therm/GSF =	0.61	FY20 Total Btu/GSF =	96,109	05-20 Thm	17.7%			
FY20 Electric \$/GSF =	\$ 0.96	FY20 Thermal \$/GSF =	\$ 0.71	FY20 Energy \$/GSF =	\$ 1.67	05-20 kwh	0.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	413,011	54,540	33,939	88,479	0.0%	48.47	100.0%	100.0%	88,479	0.0%
FY06	413,011	47,428	36,537	83,964	-5.1%	50.11	102.4%	97.6%	84,198	-4.8%
FY07	413,011	37,743	37,680	75,423	-14.8%	48.88	100.7%	98.9%	75,271	-14.9%
FY08	413,011	34,956	36,872	71,827	-18.8%	47.87	96.0%	98.8%	69,982	-20.9%
FY09	413,011	28,626	37,821	66,446	-24.9%	47.26	92.6%	99.5%	64,118	-27.5%
FY10	413,011	36,433	39,180	75,612	-14.5%	49.10	101.6%	99.5%	76,010	-14.1%
FY11	413,011	36,722	38,916	75,638	-14.5%	48.17	96.5%	98.5%	73,768	-16.6%
FY12	413,011	52,506	40,523	93,029	5.1%	52.24	106.5%	96.0%	94,808	7.2%
FY13	413,011	56,572	38,516	95,088	7.5%	48.26	97.0%	99.3%	93,163	5.3%
FY14	413,011	66,797	38,107	104,904	18.6%	45.20	92.0%	99.8%	99,526	12.5%
FY15	413,011	59,565	35,461	95,026	7.4%	46.08	94.8%	101.9%	92,607	4.7%
FY16	413,011	51,612	36,569	88,182	-0.3%	50.51	108.2%	98.2%	91,767	3.7%
FY17	413,011	51,205	36,881	88,086	-0.4%	51.99	110.9%	94.8%	91,747	3.7%
FY18	413,011	63,295	36,975	100,270	13.3%	48.73	99.9%	98.6%	99,704	12.7%
FY19	413,011	63,493	34,727	98,220	11.0%	47.88	95.7%	98.4%	94,964	7.3%
FY20	413,011	61,168	34,941	96,109	8.6%	49.85	105.0%	98.0%	98,449	11.3%

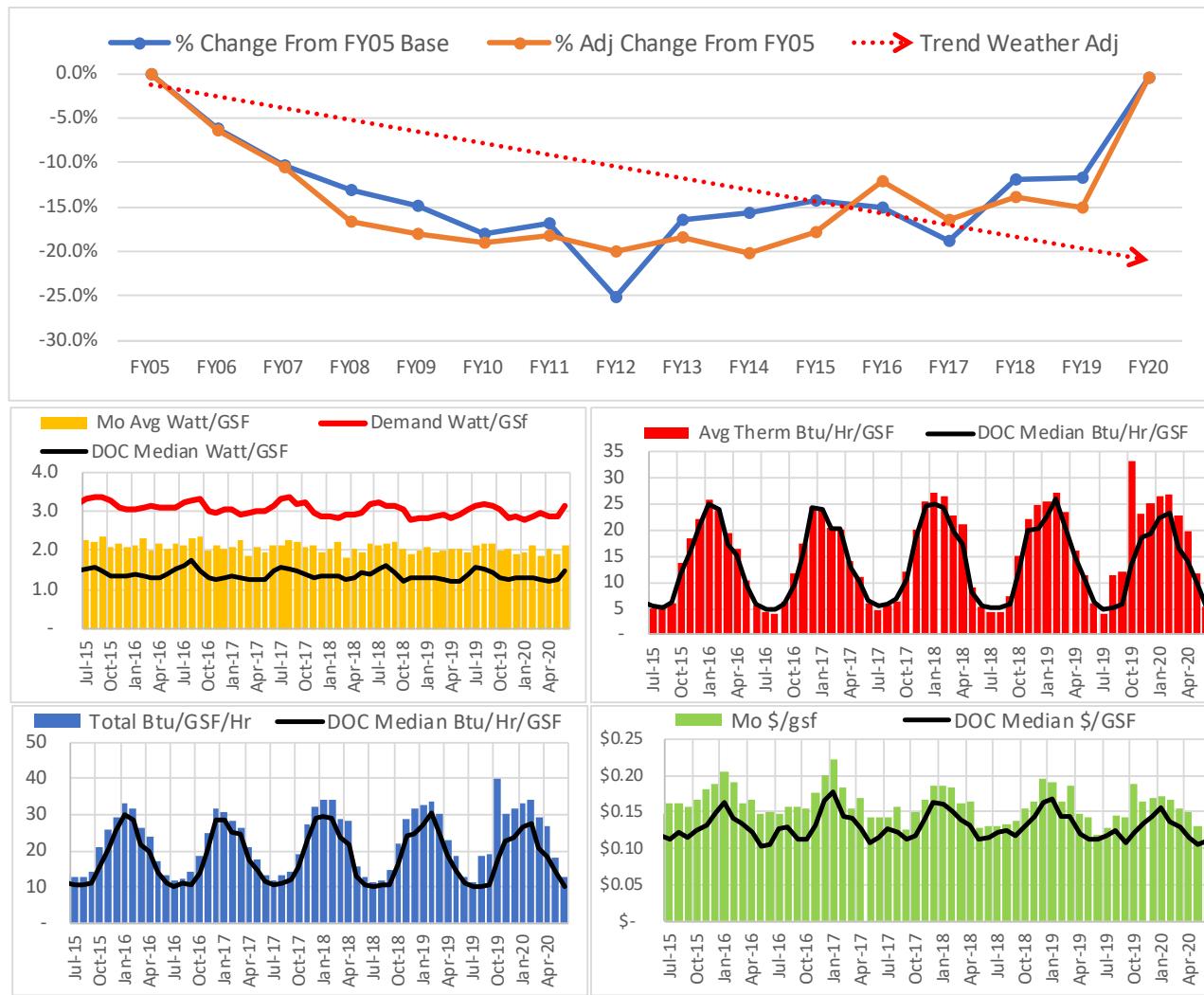
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-New Lisbon Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	17.83	FY20 Therm/GSF =	1.62	FY20 Total Btu/GSF =	222,960	05-20 Thm	4.2%			
FY20 Electric \$/GSF =	\$ 1.31	FY20 Thermal \$/GSF =	\$ 0.52	FY20 Energy \$/GSF =	\$ 1.83	05-20 kwh	-10.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	316,878	156,152	68,006	224,158	0.0%	46.84	100.0%	100.0%	224,158	0.0%
FY06	316,878	140,266	69,779	210,045	-6.3%	47.39	99.9%	100.0%	209,883	-6.4%
FY07	316,878	133,273	67,612	200,885	-10.4%	46.26	100.0%	99.7%	200,649	-10.5%
FY08	316,878	128,558	66,143	194,701	-13.1%	44.24	94.4%	99.2%	186,947	-16.6%
FY09	316,878	127,214	63,464	190,678	-14.9%	44.25	94.7%	99.7%	183,734	-18.0%
FY10	316,878	120,443	63,345	183,788	-18.0%	45.47	98.2%	99.7%	181,444	-19.1%
FY11	316,878	122,922	63,509	186,431	-16.8%	46.21	97.8%	99.3%	183,250	-18.2%
FY12	316,878	105,377	62,385	167,762	-25.2%	51.40	110.6%	100.3%	179,121	-20.1%
FY13	316,878	125,151	62,072	187,223	-16.5%	46.61	96.8%	99.5%	182,947	-18.4%
FY14	316,878	126,244	62,653	188,897	-15.7%	43.20	92.5%	99.1%	178,846	-20.2%
FY15	316,878	127,977	63,964	191,941	-14.4%	44.37	94.0%	99.8%	184,150	-17.8%
FY16	316,878	125,872	64,693	190,565	-15.0%	48.82	105.0%	100.0%	196,889	-12.2%
FY17	316,878	119,139	63,022	182,161	-18.7%	49.01	104.5%	99.7%	187,366	-16.4%
FY18	316,878	135,289	62,191	197,480	-11.9%	45.93	96.8%	99.5%	192,907	-13.9%
FY19	316,878	136,679	60,977	197,656	-11.8%	44.97	94.7%	99.9%	190,350	-15.1%
FY20	316,878	162,100	60,860	222,960	-0.5%	47.56	100.4%	99.5%	223,285	-0.4%

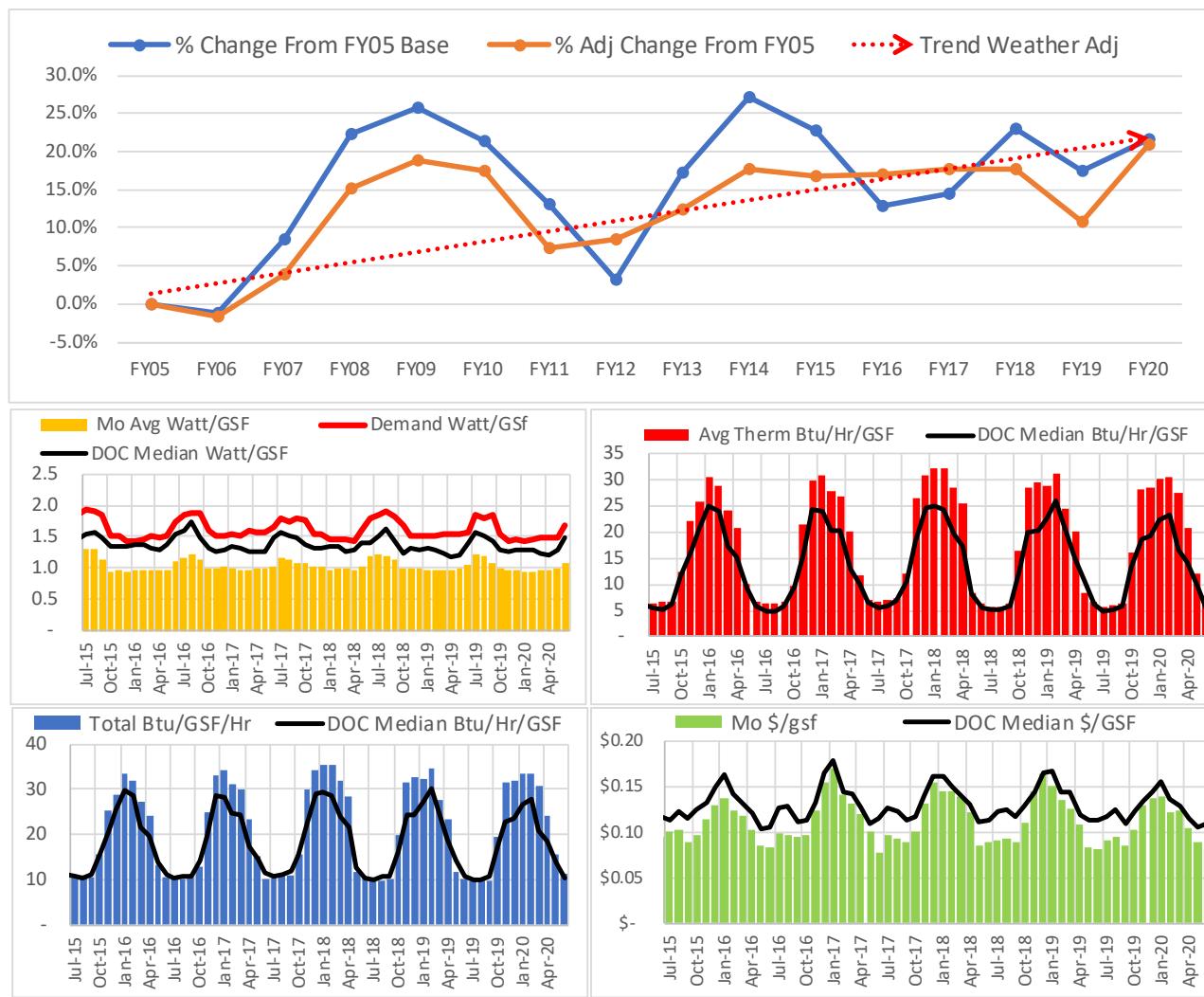
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Oakhill Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		9.04	FY20 Therm/GSF =		1.60	FY20 Total Btu/GSF =		191,335	05-20 Thm	29.1%
FY20 Electric \$/GSF =		\$ 0.73	FY20 Thermal \$/GSF =		\$ 0.57	FY20 Energy \$/GSF =		\$ 1.30	05-20 kwh	-8.7%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	319,630	123,588	33,738	157,326	0.0%	48.12	100.0%	100.0%	157,326	0.0%
FY06	331,380	120,605	34,859	155,465	-1.2%	48.65	99.3%	99.9%	154,604	-1.7%
FY07	331,380	134,930	35,774	170,704	8.5%	47.46	94.8%	99.7%	163,524	3.9%
FY08	331,380	155,265	37,158	192,423	22.3%	46.19	93.0%	98.7%	181,048	15.1%
FY09	331,380	161,178	36,568	197,746	25.7%	45.66	93.6%	99.2%	187,071	18.9%
FY10	331,380	153,778	37,041	190,818	21.3%	47.10	96.1%	100.0%	184,890	17.5%
FY11	348,153	141,509	36,421	177,929	13.1%	46.81	93.8%	99.0%	168,733	7.3%
FY12	348,153	125,267	37,091	162,358	3.2%	51.51	106.7%	99.8%	170,682	8.5%
FY13	348,153	147,566	36,939	184,506	17.3%	47.29	95.0%	99.4%	176,943	12.5%
FY14	348,153	162,932	36,966	199,897	27.1%	44.58	91.0%	99.3%	185,031	17.6%
FY15	348,153	156,462	36,728	193,190	22.8%	45.84	94.0%	99.9%	183,817	16.8%
FY16	348,153	146,394	31,336	177,730	13.0%	49.68	104.4%	99.6%	184,039	17.0%
FY17	348,153	148,831	31,087	179,918	14.4%	49.72	103.8%	99.3%	185,328	17.8%
FY18	348,153	162,045	31,507	193,551	23.0%	46.66	94.9%	99.8%	185,164	17.7%
FY19	348,153	153,600	31,028	184,628	17.4%	45.88	93.2%	99.9%	174,188	10.7%
FY20	348,153	160,481	30,854	191,335	21.6%	48.07	99.4%	99.8%	190,297	21.0%

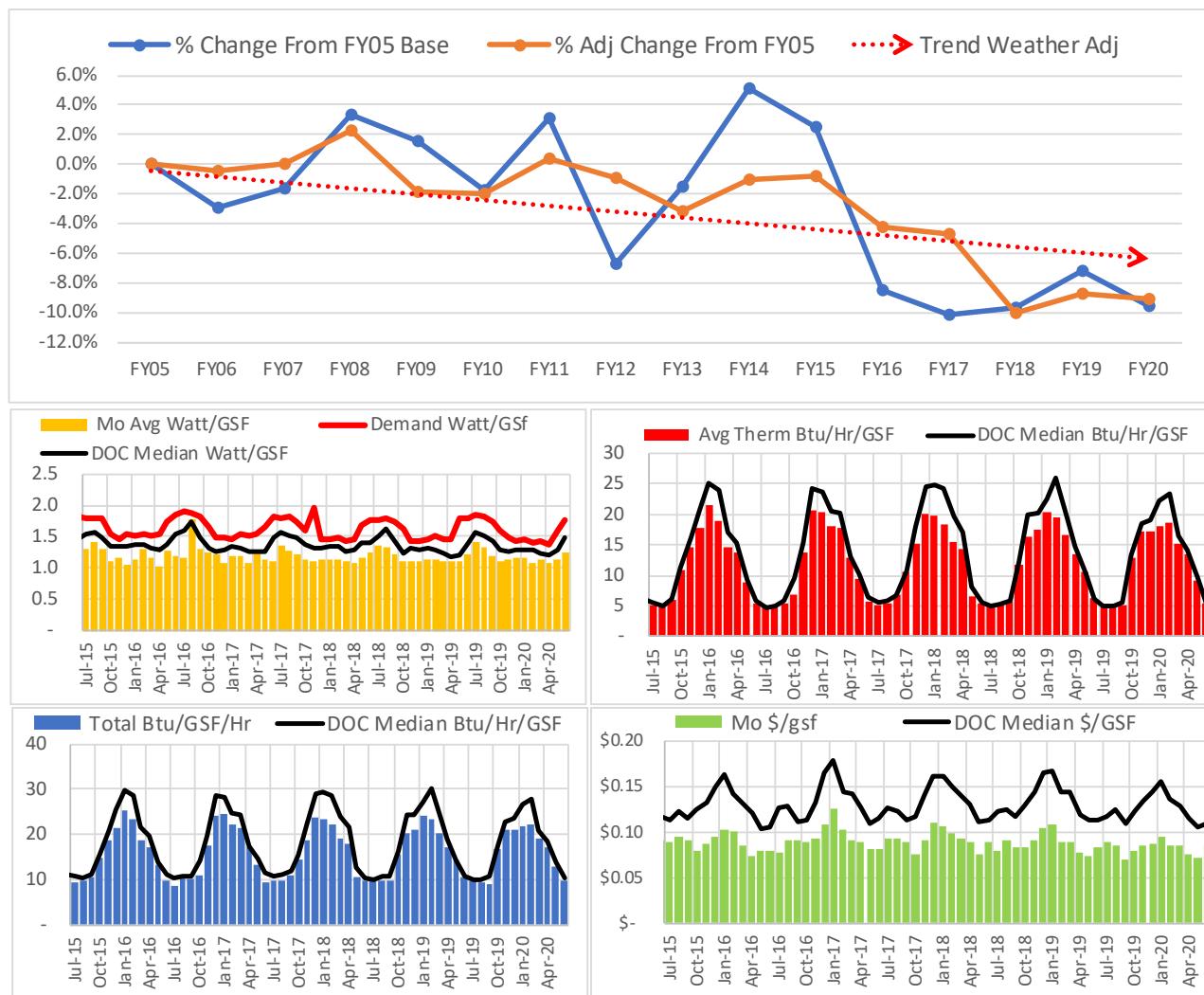
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Oshkosh Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF = 10.36			FY20 Therm/GSF = 1.04			FY20 Total Btu/GSF = 139,550			05-20 Thm -6.5%	
FY20 Electric \$/GSF = \$ 0.68			FY20 Thermal \$/GSF = \$ 0.31			FY20 Energy \$/GSF = \$ 1.00			05-20 kwh -16.1%	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	890,187	112,252	42,105	154,357	0.0%	45.92	100.0%	100.0%	154,357	0.0%
FY06	890,187	107,877	41,991	149,868	-2.9%	47.27	103.6%	99.9%	153,656	-0.5%
FY07	890,187	109,030	42,903	151,932	-1.6%	46.64	102.2%	100.1%	154,335	0.0%
FY08	890,187	116,494	43,110	159,605	3.4%	45.02	98.7%	99.3%	157,796	2.2%
FY09	890,187	114,436	42,311	156,747	1.5%	43.47	95.7%	99.3%	151,557	-1.8%
FY10	890,187	110,648	41,021	151,669	-1.7%	45.99	99.6%	100.3%	151,364	-1.9%
FY11	890,187	117,976	41,112	159,088	3.1%	44.59	96.7%	99.3%	154,947	0.4%
FY12	890,187	103,233	40,770	144,003	-6.7%	49.86	108.5%	100.5%	153,015	-0.9%
FY13	890,187	111,171	40,913	152,084	-1.5%	45.29	97.7%	99.8%	149,400	-3.2%
FY14	890,187	122,831	39,403	162,234	5.1%	41.95	92.7%	98.9%	152,829	-1.0%
FY15	890,187	121,847	36,384	158,231	2.5%	43.98	95.8%	100.0%	153,134	-0.8%
FY16	890,187	104,828	36,382	141,210	-8.5%	48.11	106.2%	100.2%	147,738	-4.3%
FY17	890,187	102,475	36,190	138,665	-10.2%	48.65	108.4%	99.4%	147,023	-4.8%
FY18	890,187	104,169	35,212	139,381	-9.7%	45.77	99.8%	99.1%	138,827	-10.1%
FY19	890,187	108,513	34,830	143,343	-7.1%	44.89	97.8%	99.8%	140,888	-8.7%
FY20	890,187	104,203	35,347	139,550	-9.6%	46.41	100.7%	100.0%	140,312	-9.1%

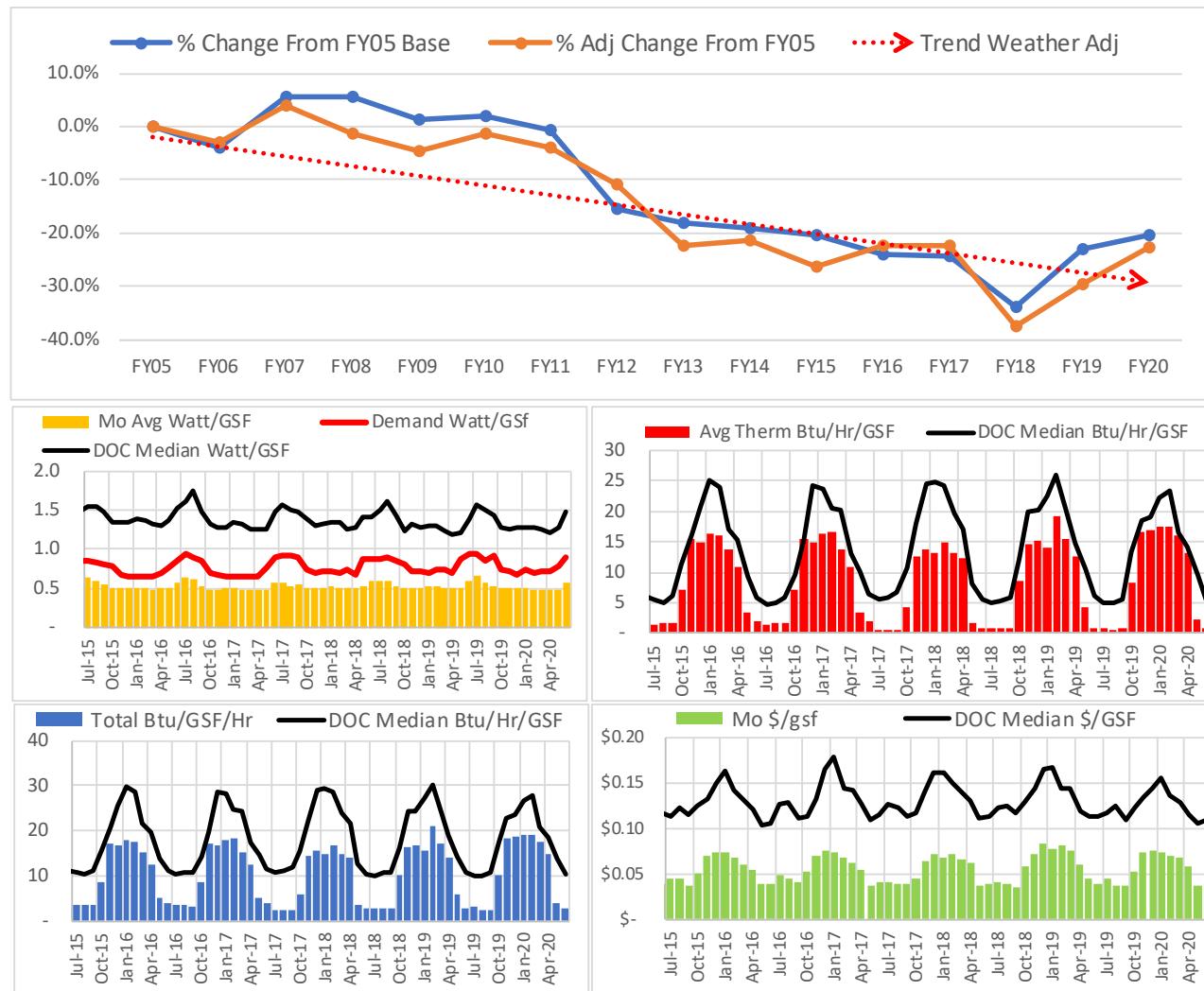
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Prairie du Chien Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	4.60	FY20 Therm/GSF =	0.81	FY20 Total Btu/GSF =	96,896	05-20 Thm	-25.4%			
FY20 Electric \$/GSF =	\$ 0.37	FY20 Thermal \$/GSF =	\$ 0.30	FY20 Energy \$/GSF =	\$ 0.67	05-20 kwh	-6.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	383,100	105,090	16,589	121,679	0.0%	46.84	100.0%	100.0%	121,679	0.0%
FY06	383,100	99,802	17,172	116,974	-3.9%	47.39	101.2%	99.8%	118,160	-2.9%
FY07	383,100	109,906	18,685	128,591	5.7%	46.26	98.2%	99.5%	126,493	4.0%
FY08	383,100	109,408	19,144	128,552	5.6%	44.24	92.4%	98.8%	120,044	-1.3%
FY09	383,100	105,144	18,166	123,310	1.3%	44.25	93.2%	99.2%	116,022	-4.6%
FY10	383,100	105,909	18,289	124,199	2.1%	45.47	96.2%	99.7%	120,173	-1.2%
FY11	383,100	103,314	17,669	120,983	-0.6%	46.21	96.4%	98.9%	117,031	-3.8%
FY12	383,100	85,752	17,167	102,918	-15.4%	51.40	106.2%	100.9%	108,372	-10.9%
FY13	383,100	84,135	15,515	99,650	-18.1%	46.61	94.3%	98.5%	94,624	-22.2%
FY14	383,100	82,630	15,751	98,382	-19.1%	43.20	97.0%	98.3%	95,651	-21.4%
FY15	383,100	80,992	15,843	96,835	-20.4%	44.37	91.2%	99.9%	89,672	-26.3%
FY16	383,100	76,598	15,848	92,446	-24.0%	48.82	102.8%	99.6%	94,499	-22.3%
FY17	383,100	76,598	15,619	92,217	-24.2%	49.01	103.3%	99.2%	94,603	-22.3%
FY18	383,100	64,820	15,775	80,595	-33.8%	45.93	93.5%	99.1%	76,209	-37.4%
FY19	383,100	77,751	15,870	93,621	-23.1%	44.97	90.0%	99.4%	85,783	-29.5%
FY20	383,100	81,182	15,713	96,896	-20.4%	47.56	96.6%	99.0%	94,006	-22.7%

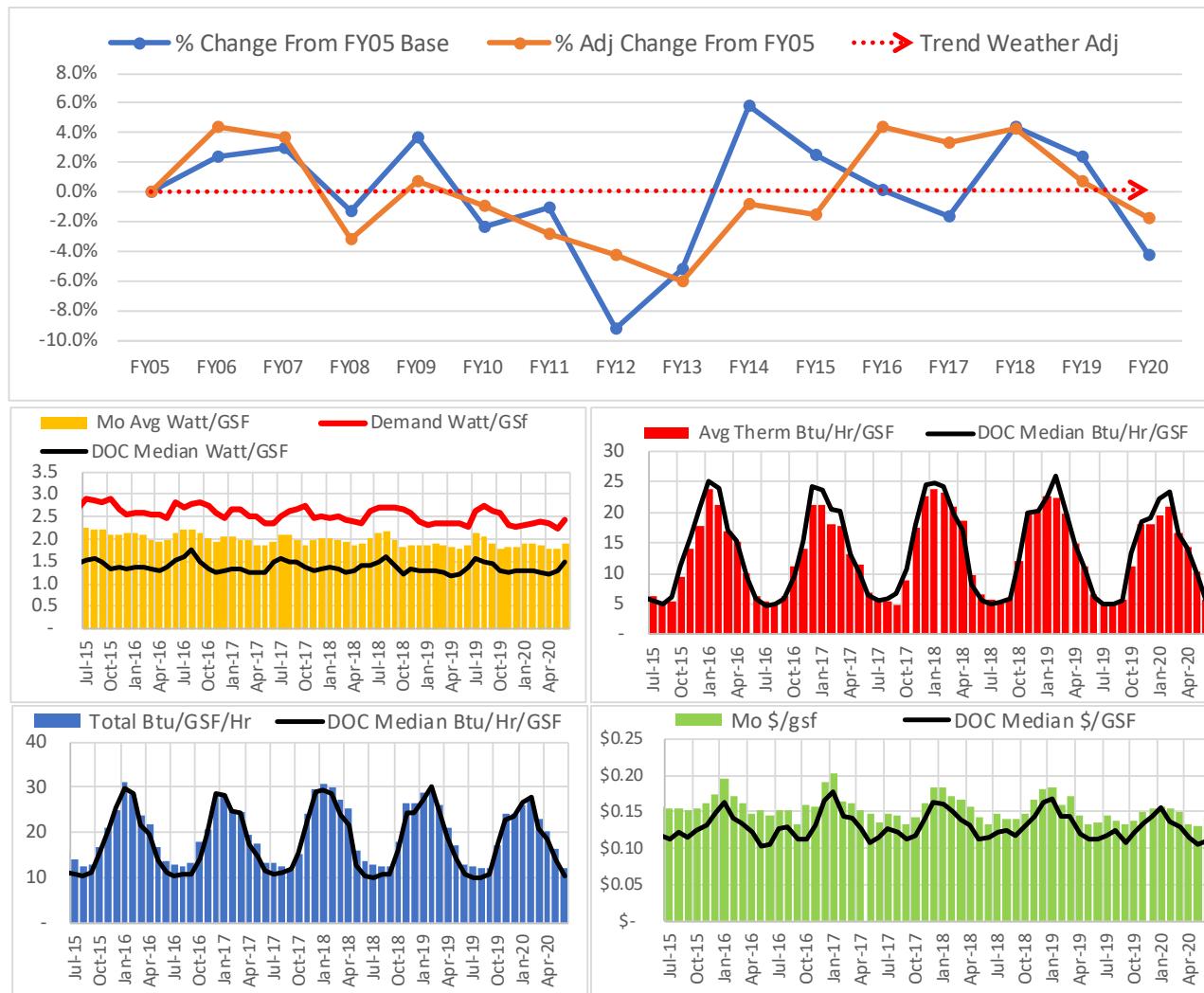
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Racine Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	16.57	FY20 Therm/GSF =	1.10	FY20 Total Btu/GSF =	166,539	05-20 Thm	7.1%			
FY20 Electric \$/GSF =	\$ 1.39	FY20 Thermal \$/GSF =	\$ 0.34	FY20 Energy \$/GSF =	\$ 1.73	05-20 kwh	-15.8%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	409,046	106,944	67,085	174,029	0.0%	48.47	100.0%	100.0%	174,029	0.0%
FY06	409,046	109,439	68,714	178,153	2.4%	50.11	103.5%	99.5%	181,597	4.3%
FY07	409,046	110,566	68,676	179,242	3.0%	48.88	101.3%	99.8%	180,507	3.7%
FY08	409,046	103,329	68,480	171,809	-1.3%	47.87	97.5%	98.9%	168,475	-3.2%
FY09	409,046	112,264	68,076	180,340	3.6%	47.26	96.0%	99.3%	175,380	0.8%
FY10	409,046	105,822	64,164	169,986	-2.3%	49.10	102.2%	100.1%	172,361	-1.0%
FY11	409,046	110,909	61,212	172,121	-1.1%	48.17	97.9%	98.9%	169,052	-2.9%
FY12	409,046	97,050	60,909	157,959	-9.2%	52.24	108.9%	100.1%	166,652	-4.2%
FY13	409,046	104,257	60,837	165,093	-5.1%	48.26	98.8%	99.5%	163,552	-6.0%
FY14	409,046	120,628	63,458	184,086	5.8%	45.20	91.0%	98.9%	172,540	-0.9%
FY15	409,046	112,663	65,659	178,322	2.5%	46.08	94.0%	99.7%	171,353	-1.5%
FY16	409,046	110,993	63,280	174,273	0.1%	50.51	106.6%	100.1%	181,608	4.4%
FY17	409,046	110,893	60,375	171,268	-1.6%	51.99	108.0%	99.5%	179,784	3.3%
FY18	409,046	122,445	59,228	181,673	4.4%	48.73	100.2%	99.2%	181,414	4.2%
FY19	409,046	121,162	57,006	178,169	2.4%	47.88	97.9%	99.3%	175,215	0.7%
FY20	409,046	109,995	56,544	166,539	-4.3%	49.85	104.1%	99.9%	171,018	-1.7%

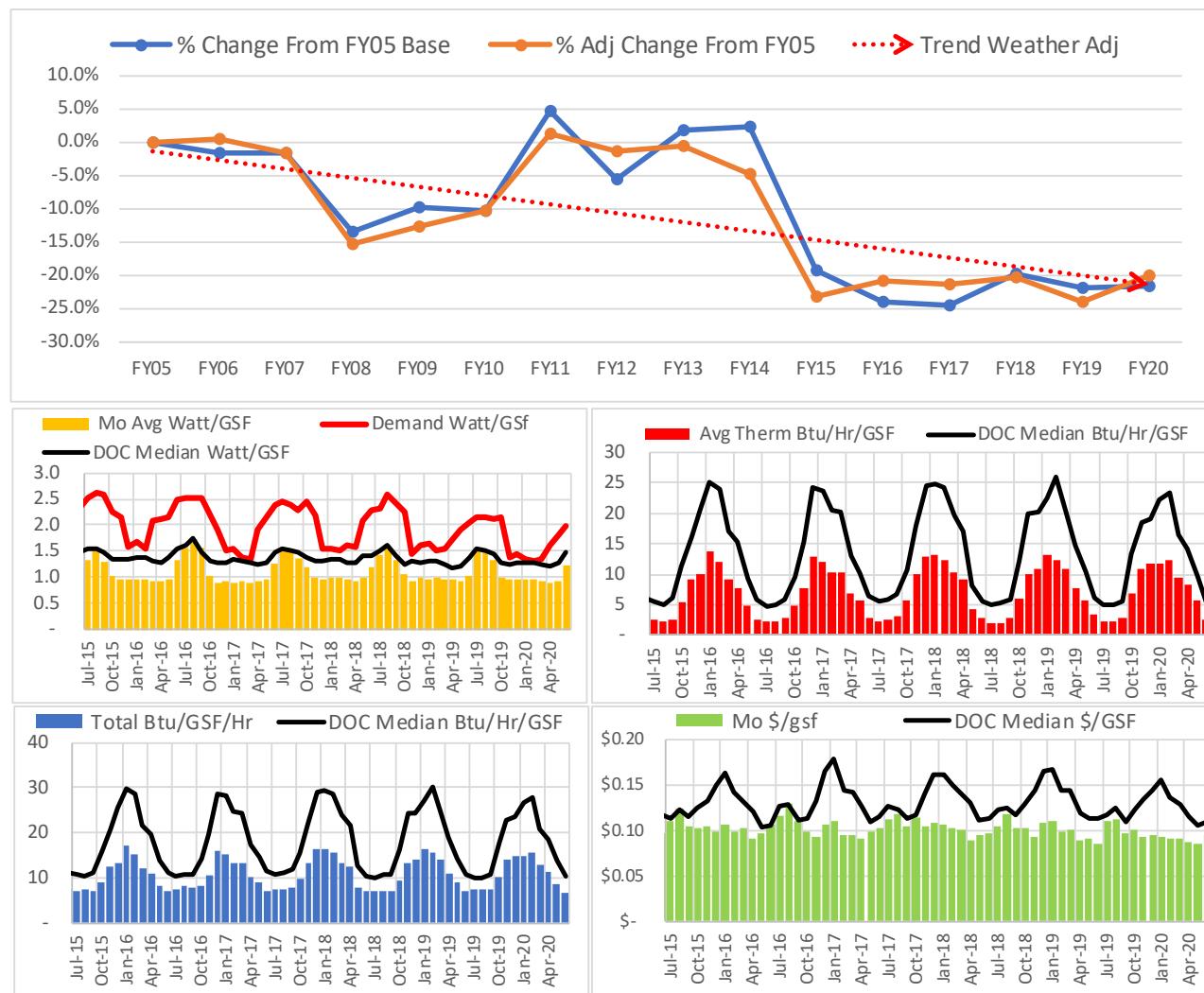
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Racine Youth Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.60	FY20 Therm/GSF =	0.64	FY20 Total Btu/GSF =	96,364	05-20 Thm	-22.4%			
FY20 Electric \$/GSF =	\$ 0.95	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 1.15	05-20 kwh	-15.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	207,697	85,046	38,193	123,239	0.0%	48.47	100.0%	100.0%	123,239	0.0%
FY06	207,697	80,443	40,758	121,201	-1.7%	50.11	104.1%	97.9%	123,617	0.3%
FY07	207,697	80,478	40,715	121,193	-1.7%	48.88	100.4%	98.9%	121,038	-1.8%
FY08	207,697	66,072	40,406	106,478	-13.6%	47.87	97.7%	98.5%	104,381	-15.3%
FY09	207,697	72,363	38,660	111,023	-9.9%	47.26	95.9%	99.1%	107,667	-12.6%
FY10	207,697	72,763	37,540	110,303	-10.5%	49.10	100.6%	99.7%	110,592	-10.3%
FY11	207,697	89,156	39,752	128,908	4.6%	48.17	96.3%	97.6%	124,637	1.1%
FY12	207,697	75,118	41,040	116,158	-5.7%	52.24	108.6%	97.6%	121,592	-1.3%
FY13	207,697	84,271	41,215	125,486	1.8%	48.26	97.1%	98.6%	122,418	-0.7%
FY14	207,697	89,930	36,137	126,067	2.3%	45.20	91.2%	97.8%	117,376	-4.8%
FY15	207,697	67,337	31,975	99,311	-19.4%	46.08	92.6%	101.0%	94,610	-23.2%
FY16	207,697	60,510	33,002	93,512	-24.1%	50.51	107.1%	99.1%	97,548	-20.8%
FY17	207,697	59,188	33,743	92,931	-24.6%	51.99	109.4%	94.9%	96,807	-21.4%
FY18	207,697	64,910	33,930	98,840	-19.8%	48.73	100.0%	98.0%	98,152	-20.4%
FY19	207,697	63,557	32,665	96,223	-21.9%	47.88	96.7%	98.4%	93,597	-24.1%
FY20	207,697	63,613	32,750	96,364	-21.8%	49.85	103.8%	98.9%	98,398	-20.2%

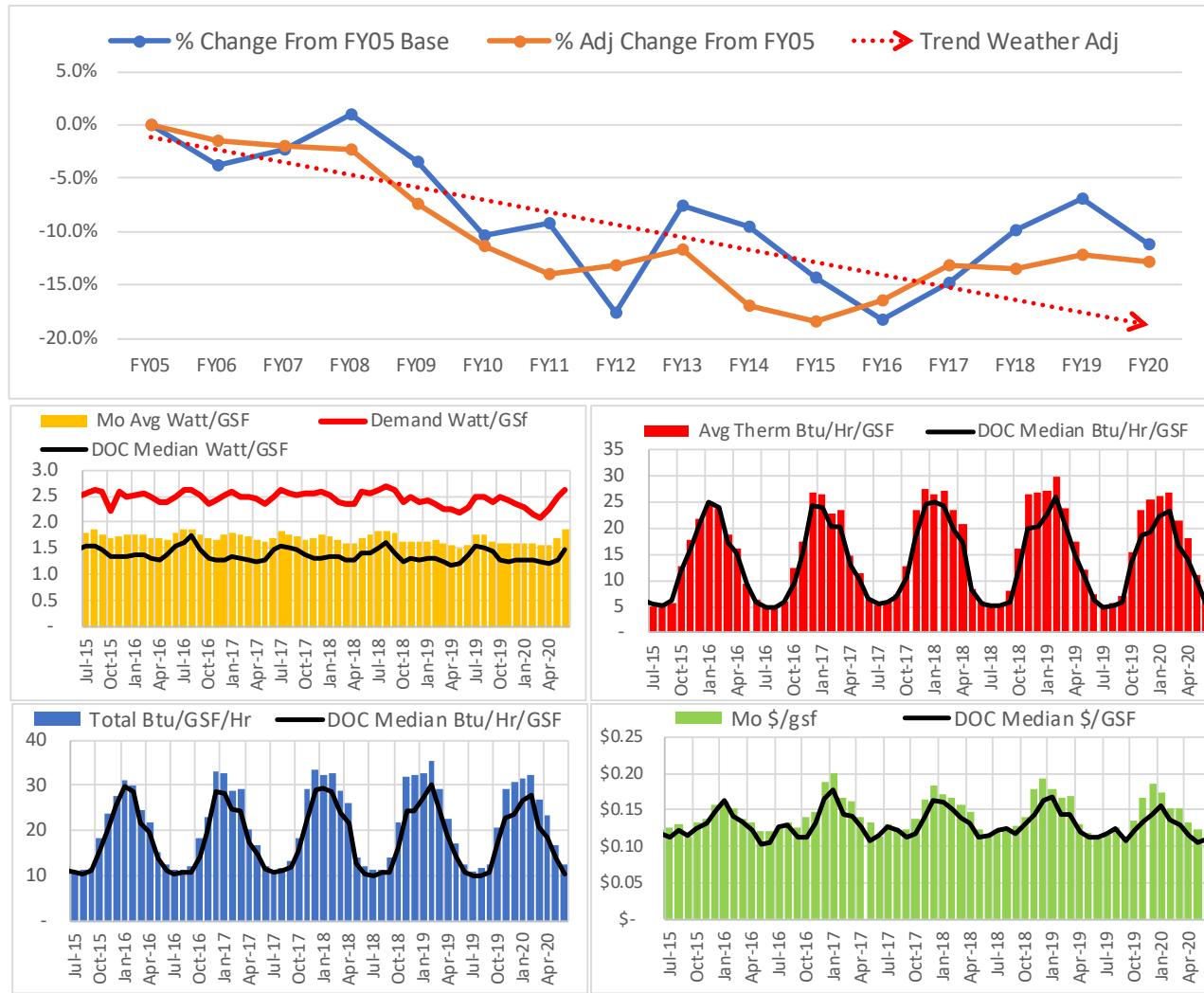
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Redgranite Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	14.49	FY20 Therm/GSF =	1.40	FY20 Total Btu/GSF =	189,454	05-20 Thm	-10.3%			
FY20 Electric \$/GSF =	\$ 1.11	FY20 Thermal \$/GSF =	\$ 0.58	FY20 Energy \$/GSF =	\$ 1.70	05-20 kwh	-19.3%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	310,135	152,068	61,358	213,425	0.0%	46.04	100.0%	100.0%	213,425	0.0%
FY06	310,135	143,563	61,625	205,188	-3.9%	47.49	103.4%	100.1%	210,196	-1.5%
FY07	310,135	147,920	60,417	208,337	-2.4%	46.81	100.6%	99.9%	209,232	-2.0%
FY08	310,135	154,523	60,863	215,386	0.9%	44.51	95.9%	99.3%	208,577	-2.3%
FY09	310,135	145,411	60,714	206,125	-3.4%	43.51	94.4%	99.5%	197,700	-7.4%
FY10	310,135	131,445	60,011	191,456	-10.3%	45.49	98.3%	99.6%	189,054	-11.4%
FY11	310,135	134,920	58,674	193,594	-9.3%	43.59	93.3%	98.4%	183,535	-14.0%
FY12	310,135	118,110	57,891	176,001	-17.5%	49.50	107.6%	100.8%	185,470	-13.1%
FY13	310,135	139,269	57,954	197,223	-7.6%	44.37	94.0%	99.5%	188,653	-11.6%
FY14	310,135	137,482	55,539	193,021	-9.6%	41.62	89.0%	99.0%	177,362	-16.9%
FY15	310,135	130,751	52,033	182,785	-14.4%	43.36	93.4%	99.8%	174,011	-18.5%
FY16	310,135	122,094	52,436	174,531	-18.2%	47.34	103.0%	100.2%	178,272	-16.5%
FY17	310,135	129,607	52,162	181,769	-14.8%	47.13	102.6%	100.2%	185,307	-13.2%
FY18	310,135	141,065	51,135	192,200	-9.9%	44.30	94.8%	99.7%	184,698	-13.5%
FY19	310,135	149,176	49,508	198,684	-6.9%	43.35	92.5%	99.8%	187,375	-12.2%
FY20	310,135	139,991	49,462	189,454	-11.2%	45.35	97.4%	100.1%	185,898	-12.9%

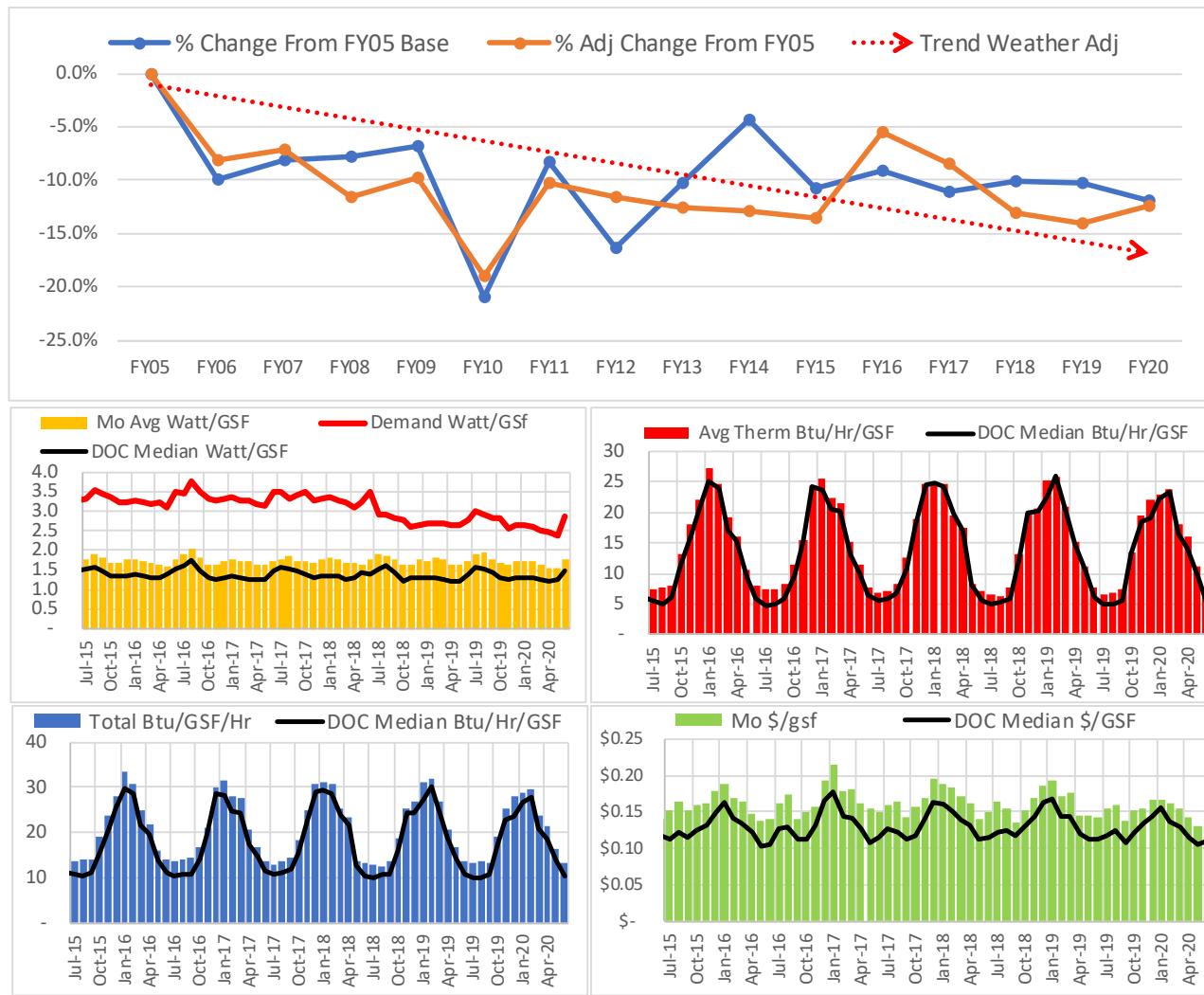
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Stanley Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	15.08	FY20 Therm/GSF =	1.29	FY20 Total Btu/GSF =	180,105	05-20 Thm	-6.3%			
FY20 Electric \$/GSF =	\$ 1.38	FY20 Thermal \$/GSF =	\$ 0.44	FY20 Energy \$/GSF =	\$ 1.82	05-20 kwh	-24.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	411,897	136,226	68,314	204,540	0.0%	44.26	100.0%	100.0%	204,540	0.0%
FY06	411,897	118,035	66,203	184,238	-9.9%	45.56	103.2%	99.9%	187,974	-8.1%
FY07	411,897	130,405	57,584	187,989	-8.1%	44.50	101.3%	100.1%	189,759	-7.2%
FY08	411,897	133,092	55,500	188,592	-7.8%	42.10	94.7%	98.8%	180,924	-11.5%
FY09	411,897	135,351	55,173	190,524	-6.9%	42.50	96.1%	98.5%	184,402	-9.8%
FY10	411,897	109,698	51,820	161,518	-21.0%	45.38	103.1%	101.2%	165,565	-19.1%
FY11	411,897	134,274	53,285	187,559	-8.3%	43.50	97.1%	99.6%	183,466	-10.3%
FY12	411,897	118,819	52,235	171,054	-16.4%	47.63	107.9%	100.8%	180,841	-11.6%
FY13	411,897	133,715	49,943	183,658	-10.2%	42.87	96.4%	99.7%	178,757	-12.6%
FY14	411,897	145,049	50,450	195,499	-4.4%	39.97	88.5%	98.4%	178,010	-13.0%
FY15	411,897	131,797	50,775	182,572	-10.7%	42.20	95.7%	99.6%	176,741	-13.6%
FY16	411,897	133,706	52,090	185,796	-9.2%	46.23	105.5%	100.4%	193,339	-5.5%
FY17	411,897	129,747	52,209	181,956	-11.0%	45.86	104.1%	100.1%	187,261	-8.4%
FY18	411,897	131,768	52,067	183,835	-10.1%	42.67	95.7%	99.3%	177,861	-13.0%
FY19	411,897	131,397	52,076	183,473	-10.3%	41.78	94.2%	99.6%	175,667	-14.1%
FY20	411,897	128,654	51,451	180,105	-11.9%	43.78	99.2%	100.1%	179,088	-12.4%

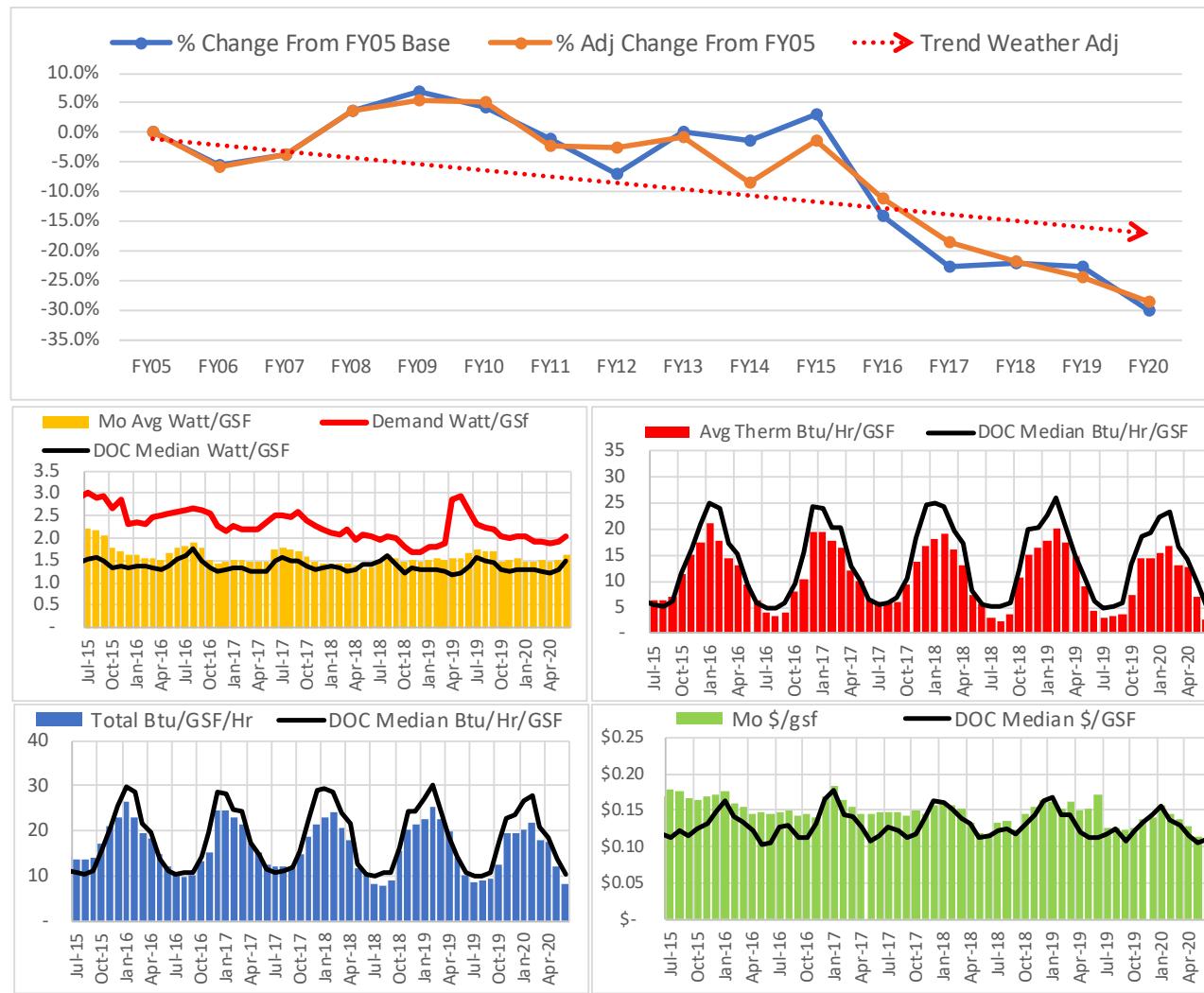
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Sturtevant Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	13.68	FY20 Therm/GSF =	0.83	FY20 Total Btu/GSF =	129,761	05-20 Thm	-34.2%			
FY20 Electric \$/GSF =	\$ 1.21	FY20 Thermal \$/GSF =	\$ 0.35	FY20 Energy \$/GSF =	\$ 1.57	05-20 kwh	-14.8%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	93,312	131,324	54,613	185,937	0.0%	48.47	100.0%	100.0%	185,937	0.0%
FY06	93,312	122,768	52,729	175,497	-5.6%	50.11	99.9%	99.1%	174,913	-5.9%
FY07	93,312	124,053	55,178	179,231	-3.6%	48.88	99.9%	99.6%	178,908	-3.8%
FY08	93,312	134,062	58,563	192,625	3.6%	47.87	100.4%	99.5%	192,949	3.8%
FY09	93,312	138,779	59,728	198,507	6.8%	47.26	98.5%	99.7%	196,268	5.6%
FY10	93,312	136,318	57,564	193,882	4.3%	49.10	101.1%	99.8%	195,301	5.0%
FY11	93,312	125,983	58,048	184,031	-1.0%	48.17	98.7%	99.0%	181,733	-2.3%
FY12	93,312	115,209	57,756	172,965	-7.0%	52.24	107.4%	99.0%	180,921	-2.7%
FY13	93,312	127,853	58,103	185,956	0.0%	48.26	98.8%	99.7%	184,265	-0.9%
FY14	93,312	126,438	56,699	183,137	-1.5%	45.20	90.1%	99.2%	170,185	-8.5%
FY15	93,312	134,765	56,870	191,635	3.1%	46.08	93.7%	100.7%	183,570	-1.3%
FY16	93,312	106,682	53,103	159,785	-14.1%	50.51	105.5%	99.2%	165,226	-11.1%
FY17	93,312	96,279	47,583	143,862	-22.6%	51.99	108.7%	98.1%	151,321	-18.6%
FY18	93,312	100,043	45,077	145,120	-22.0%	48.73	100.5%	99.0%	145,149	-21.9%
FY19	93,312	97,753	45,924	143,676	-22.7%	47.88	97.0%	100.0%	140,673	-24.3%
FY20	93,312	83,075	46,686	129,761	-30.2%	49.85	104.0%	99.7%	132,966	-28.5%

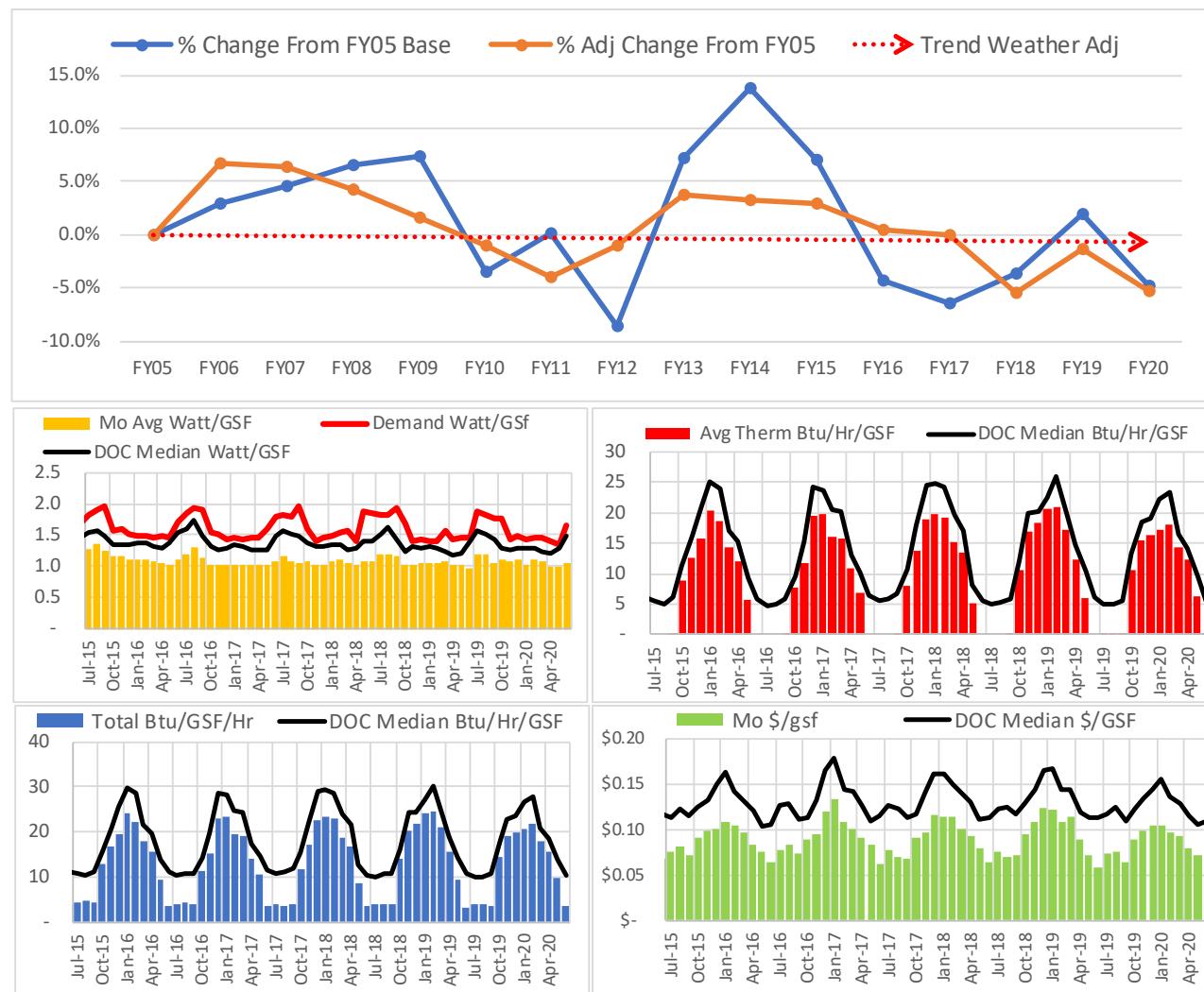
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOC-Taycheedah Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.48	FY20 Therm/GSF =	0.81	FY20 Total Btu/GSF =	113,212	05-20 Thm	-2.1%			
FY20 Electric \$/GSF =	\$ 0.75	FY20 Thermal \$/GSF =	\$ 0.26	FY20 Energy \$/GSF =	\$ 1.01	05-20 kwh	-12.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	380,940	81,875	37,036	118,910	0.0%	45.92	100.0%	100.0%	118,910	0.0%
FY06	380,940	84,843	37,608	122,451	3.0%	47.27	105.3%	100.1%	126,965	6.8%
FY07	380,940	87,325	37,003	124,328	4.6%	46.64	102.3%	100.3%	126,446	6.3%
FY08	380,940	88,875	37,777	126,653	6.5%	45.02	97.2%	99.5%	123,940	4.2%
FY09	380,940	89,681	38,027	127,708	7.4%	43.47	92.5%	99.8%	120,885	1.7%
FY10	380,940	77,349	37,471	114,820	-3.4%	45.99	103.9%	99.4%	117,606	-1.1%
FY11	380,940	81,955	37,156	119,112	0.2%	44.59	94.4%	99.3%	114,220	-3.9%
FY12	380,940	70,353	38,382	108,735	-8.6%	49.86	112.4%	100.5%	117,671	-1.0%
FY13	380,940	89,724	37,780	127,504	7.2%	45.29	95.5%	99.8%	123,360	3.7%
FY14	380,940	97,793	37,471	135,264	13.8%	41.95	87.3%	99.5%	122,710	3.2%
FY15	380,940	90,851	36,461	127,313	7.1%	43.98	94.5%	99.9%	122,291	2.8%
FY16	380,940	79,491	34,313	113,804	-4.3%	48.11	107.1%	99.9%	119,426	0.4%
FY17	380,940	79,162	32,075	111,237	-6.5%	48.65	109.7%	99.9%	118,850	-0.1%
FY18	380,940	82,552	31,936	114,489	-3.7%	45.77	97.8%	99.4%	112,501	-5.4%
FY19	380,940	89,327	31,981	121,308	2.0%	44.89	95.6%	99.8%	117,288	-1.4%
FY20	380,940	80,858	32,354	113,212	-4.8%	46.41	99.2%	100.0%	112,547	-5.4%

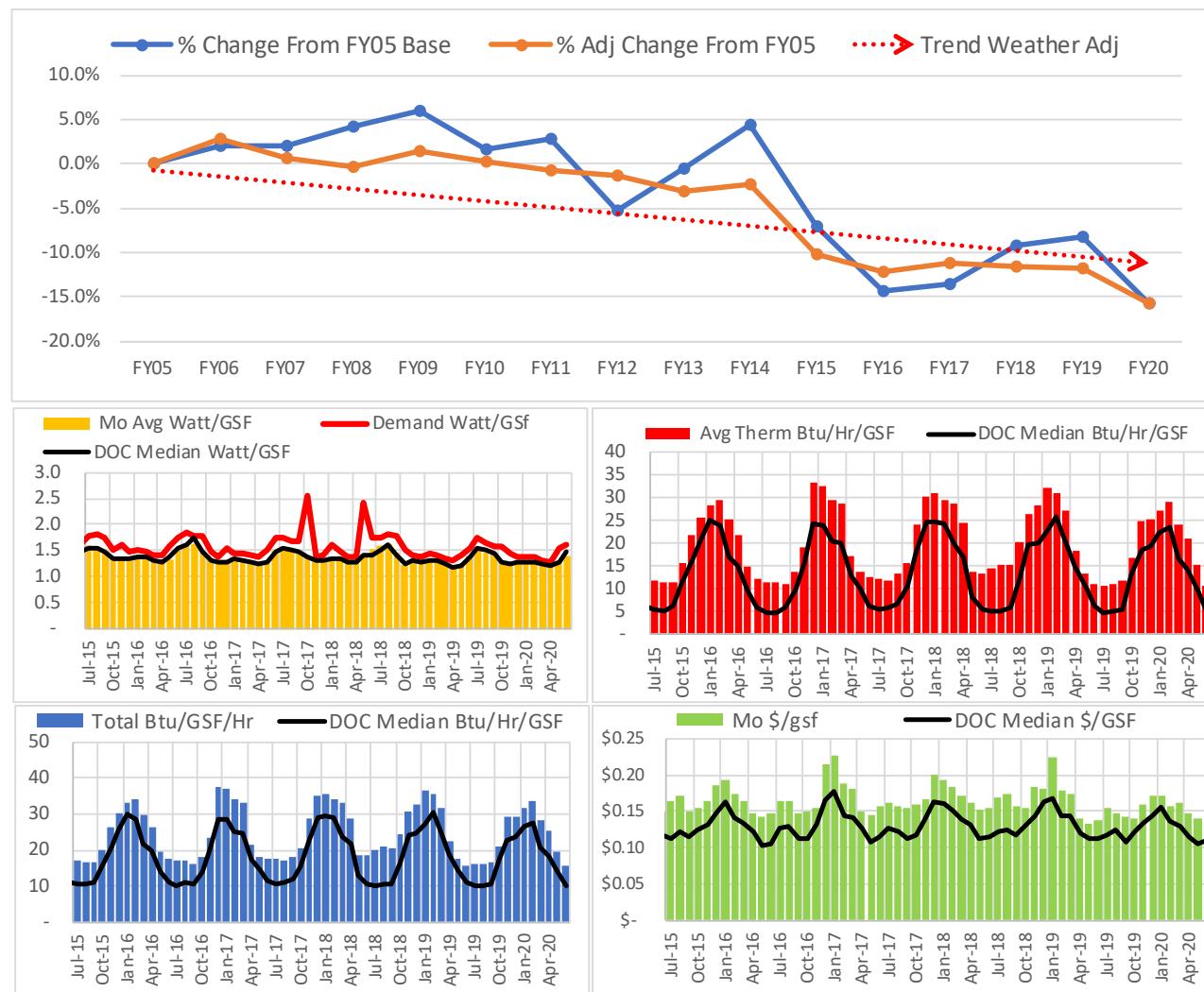
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOC-Waupun Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	11.67	FY20 Therm/GSF =	1.67	FY20 Total Btu/GSF =	206,614	05-20 Thm	-18.0%			
FY20 Electric \$/GSF =	\$ 1.28	FY20 Thermal \$/GSF =	\$ 0.55	FY20 Energy \$/GSF =	\$ 1.83	05-20 kwh	-4.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,260,274	203,602	41,632	245,233	0.0%	48.12	100.0%	100.0%	245,233	0.0%
FY06	1,260,274	209,536	40,731	250,267	2.1%	48.65	100.9%	99.5%	251,993	2.8%
FY07	1,260,274	209,439	40,638	250,078	2.0%	47.46	98.5%	99.7%	246,800	0.6%
FY08	1,260,274	213,020	42,524	255,545	4.2%	46.19	95.0%	99.3%	244,539	-0.3%
FY09	1,260,274	217,938	42,051	259,989	6.0%	45.66	94.9%	99.6%	248,688	1.4%
FY10	1,260,274	208,344	40,815	249,159	1.6%	47.10	98.3%	100.1%	245,612	0.2%
FY11	1,260,274	208,778	43,122	251,900	2.7%	46.81	96.4%	98.0%	243,576	-0.7%
FY12	1,260,274	190,756	41,753	232,509	-5.2%	51.51	105.1%	99.7%	242,090	-1.3%
FY13	1,260,274	202,136	41,702	243,838	-0.6%	47.29	97.0%	99.3%	237,496	-3.2%
FY14	1,260,274	214,423	41,576	255,999	4.4%	44.58	92.8%	98.2%	239,743	-2.2%
FY15	1,260,274	187,545	40,619	228,163	-7.0%	45.84	95.9%	99.5%	220,190	-10.2%
FY16	1,260,274	167,911	42,139	210,050	-14.3%	49.68	103.1%	99.9%	215,281	-12.2%
FY17	1,260,274	171,067	41,131	212,198	-13.5%	49.72	103.5%	99.1%	217,819	-11.2%
FY18	1,260,274	180,755	41,735	222,489	-9.3%	46.66	97.0%	99.4%	216,807	-11.6%
FY19	1,260,274	184,637	40,242	224,878	-8.3%	45.88	95.5%	99.2%	216,184	-11.8%
FY20	1,260,274	166,774	39,841	206,614	-15.7%	48.07	100.1%	99.7%	206,621	-15.7%

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



# Agency Energy Use Summary

## 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.

### ENERGY CONSUMPTION

Total Change from Base - Weather Adjusted: 12.1 percent decrease

Includes the major agency facilities listed in scope above.

Latest Year Change - Weather Adjusted: 2.9 percent decrease

Energy use (BTU/GSF/Yr) for FY20 decrease 2.9 percent from the previous fiscal year, FY19.

Average Annual Change - Weather Adjusted: 0.8 percent decrease per year.

On average, energy use (BTU/GSF/Yr) has decreased 0.8 percent since the base year, FY05.

### GSF AND CONSUMPTION STATISTICS

GSF Change from Base: -2.1 percent decrease.

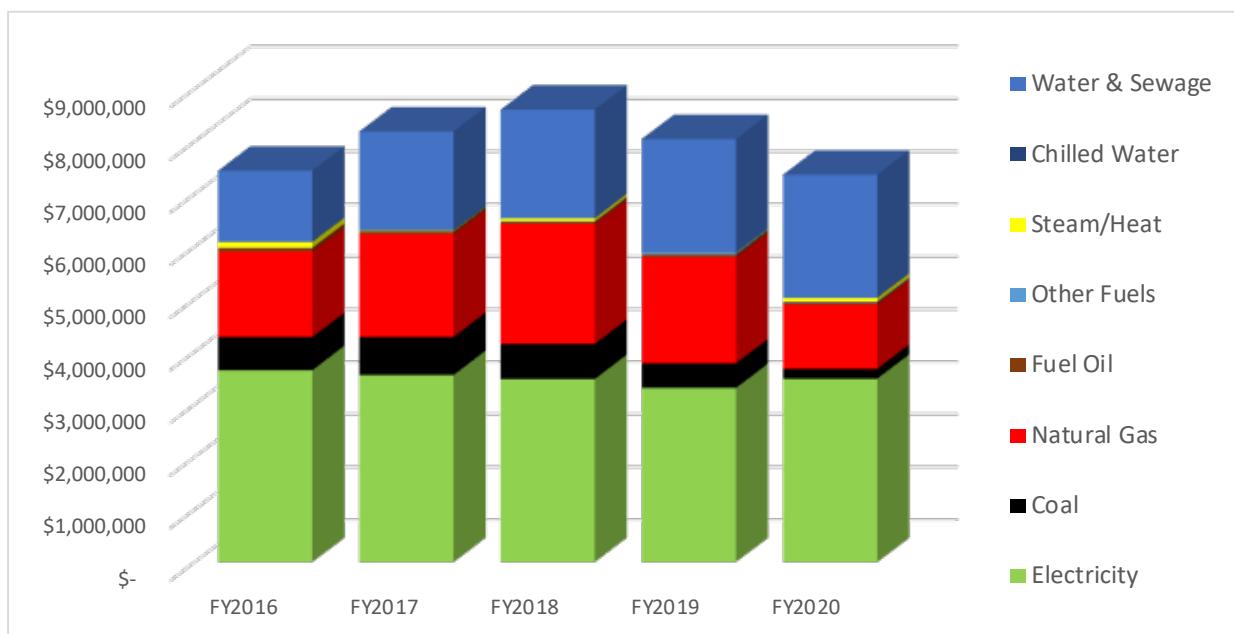
Gross square footage (GSF) has decreased 2.1% from the base fiscal year, FY05.

Consumption Change from Base: 14.3 percent decrease.

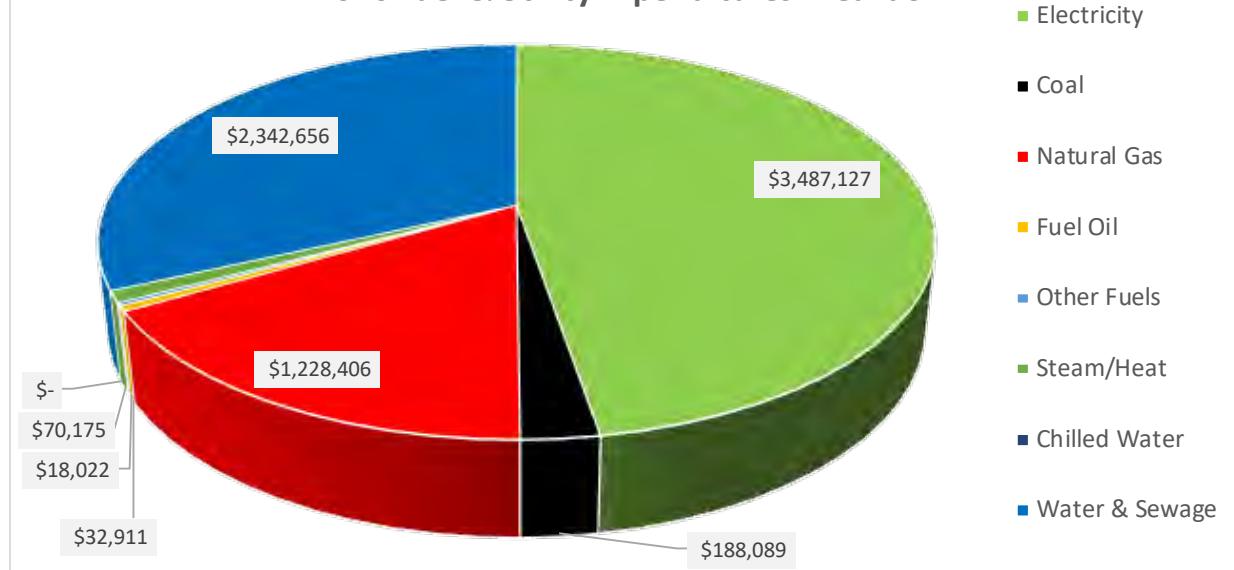
Total consumption was 14.3 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 13.9 percent less than in the base year when adjusted for weather compared to FY05.

**Health Services, Department of**

<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 3,650,092	\$ 3,557,278	\$ 3,481,893	\$ 3,313,725	\$ 3,487,127
Coal	\$ 631,386	\$ 724,340	\$ 669,146	\$ 468,114	\$ 188,089
Natural Gas	\$ 1,623,730	\$ 1,957,741	\$ 2,282,479	\$ 2,019,910	\$ 1,228,406
Fuel Oil	\$ 68,840	\$ 45,310	\$ 36,479	\$ 45,694	\$ 32,911
Other Fuels	\$ 4,444	\$ 5,701	\$ 13,270	\$ 25,010	\$ 18,022
Steam/Heat	\$ 106,410	\$ 11,099	\$ 54,999	\$ 7,811	\$ 70,175
Chilled Water	\$ -	\$ 11,892	\$ -	\$ -	\$ -
Water & Sewage	\$ 1,359,353	\$ 1,876,190	\$ 2,065,677	\$ 2,164,879	\$ 2,342,656
<b>Total Utilities</b>	<b>\$ 7,444,254</b>	<b>\$ 8,189,551</b>	<b>\$ 8,603,942</b>	<b>\$ 8,045,143</b>	<b>\$ 7,367,384</b>



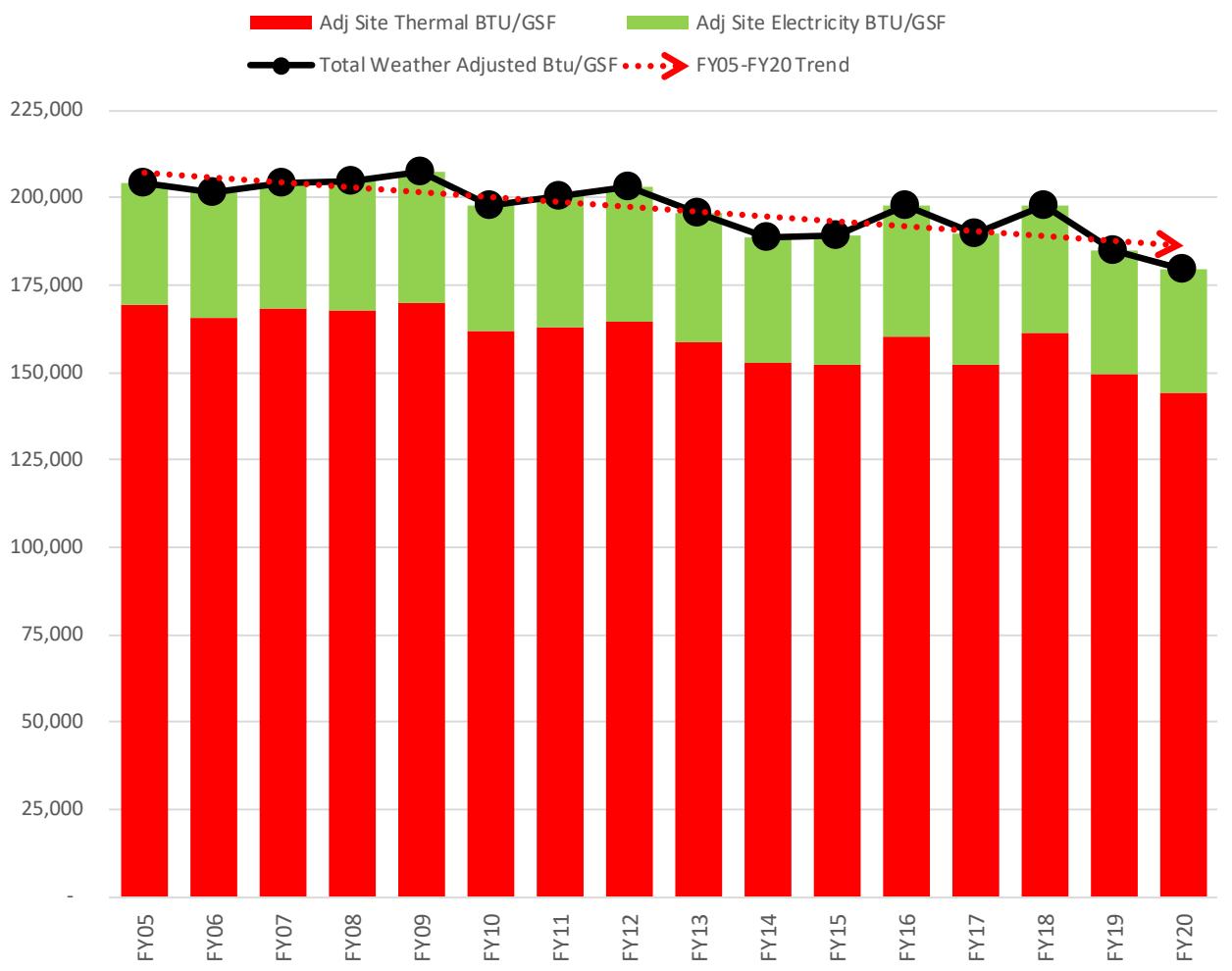
**FY2020 Fuel & Utility Expenditures Breakdown**



### DHS Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	4,247,798	169,215	34,970	204,184	0.0%	48.47	100.0%	100.0%	204,184	0.0%
FY06	4,247,798	162,465	36,013	198,479	-2.8%	50.11	102.1%	98.9%	201,438	-1.3%
FY07	4,247,798	167,295	36,142	203,437	-0.4%	48.88	100.5%	99.5%	204,169	0.0%
FY08	4,247,798	173,573	37,301	210,874	3.3%	47.87	96.5%	99.1%	204,549	0.2%
FY09	4,099,238	177,474	37,891	215,365	5.5%	47.26	95.6%	99.9%	207,572	1.7%
FY10	4,198,234	161,722	35,845	197,567	-3.2%	49.10	100.1%	100.4%	197,835	-3.1%
FY11	4,198,234	168,916	37,803	206,720	1.2%	48.17	96.5%	98.9%	200,386	-1.9%
FY12	4,088,791	155,669	39,096	194,765	-4.6%	52.24	105.6%	98.7%	202,965	-0.6%
FY13	4,145,773	163,386	37,009	200,396	-1.9%	48.26	97.2%	99.7%	195,715	-4.1%
FY14	4,145,773	166,387	36,777	203,164	-0.5%	45.20	91.7%	98.9%	188,949	-7.5%
FY15	4,159,400	159,109	36,732	195,841	-4.1%	46.08	95.9%	100.5%	189,440	-7.2%
FY16	4,159,400	155,603	37,360	192,962	-5.5%	50.51	103.1%	99.4%	197,547	-3.3%
FY17	4,159,400	147,570	37,742	185,312	-9.2%	51.99	103.3%	98.5%	189,537	-7.2%
FY18	4,159,400	165,404	36,238	201,642	-1.2%	48.73	97.7%	99.3%	197,565	-3.2%
FY19	4,159,400	155,221	35,072	190,294	-6.8%	47.88	96.4%	100.0%	184,753	-9.5%
FY20	4,159,400	143,486	35,152	178,637	-12.5%	49.85	100.7%	99.5%	179,487	-12.1%

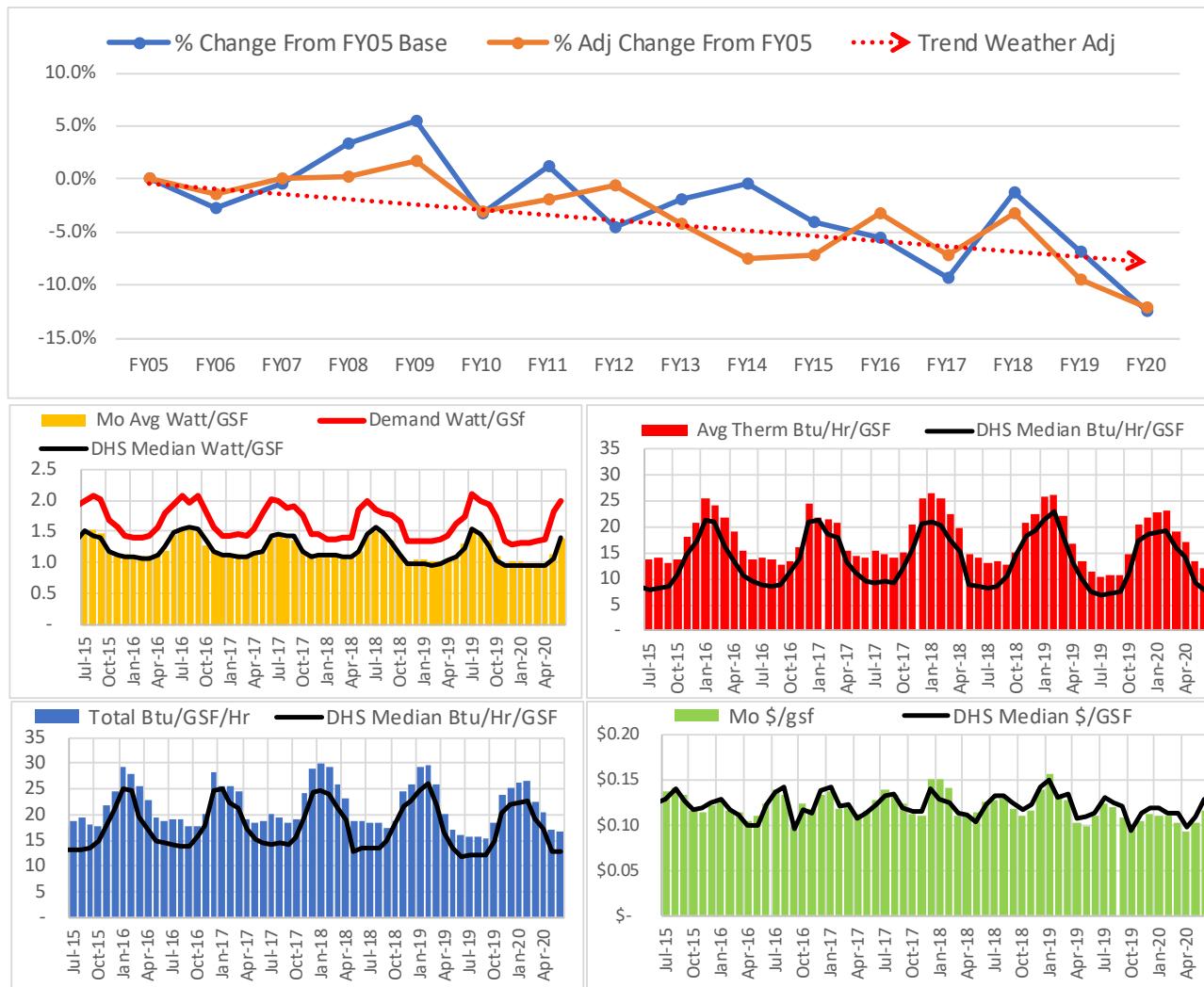
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DHS Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =	10.30	FY20 Therm/GSF =	1.43	FY20 Total Btu/GSF =	178,637	05-20 Thm	-14.6%			
FY20 Electric \$/GSF =	\$ 0.85	FY20 Thermal \$/GSF =	\$ 0.45	FY20 Energy \$/GSF =	\$ 1.30	05-20 kwh	0.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	4,247,798	169,215	34,970	204,184	0.0%	48.47	100.0%	100.0%	204,184	0.0%
FY06	4,247,798	162,465	36,013	198,479	-2.8%	50.11	102.1%	98.9%	201,438	-1.3%
FY07	4,247,798	167,295	36,142	203,437	-0.4%	48.88	100.5%	99.5%	204,169	0.0%
FY08	4,247,798	173,573	37,301	210,874	3.3%	47.87	96.5%	99.1%	204,549	0.2%
FY09	4,099,238	177,474	37,891	215,365	5.5%	47.26	95.6%	99.9%	207,572	1.7%
FY10	4,198,234	161,722	35,845	197,567	-3.2%	49.10	100.1%	100.4%	197,835	-3.1%
FY11	4,198,234	168,916	37,803	206,720	1.2%	48.17	96.5%	98.9%	200,386	-1.9%
FY12	4,088,791	155,669	39,096	194,765	-4.6%	52.24	105.6%	98.7%	202,965	-0.6%
FY13	4,145,773	163,386	37,009	200,396	-1.9%	48.26	97.2%	99.7%	195,715	-4.1%
FY14	4,145,773	166,387	36,777	203,164	-0.5%	45.20	91.7%	98.9%	188,949	-7.5%
FY15	4,159,400	159,109	36,732	195,841	-4.1%	46.08	95.9%	100.5%	189,440	-7.2%
FY16	4,159,400	155,603	37,360	192,962	-5.5%	50.51	103.1%	99.4%	197,547	-3.3%
FY17	4,159,400	147,570	37,742	185,312	-9.2%	51.99	103.3%	98.5%	189,537	-7.2%
FY18	4,159,400	165,404	36,238	201,642	-1.2%	48.73	97.7%	99.3%	197,565	-3.2%
FY19	4,159,400	155,221	35,072	190,294	-6.8%	47.88	96.4%	100.0%	184,753	-9.5%
FY20	4,159,400	143,486	35,152	178,637	-12.5%	49.85	100.7%	99.5%	179,487	-12.1%

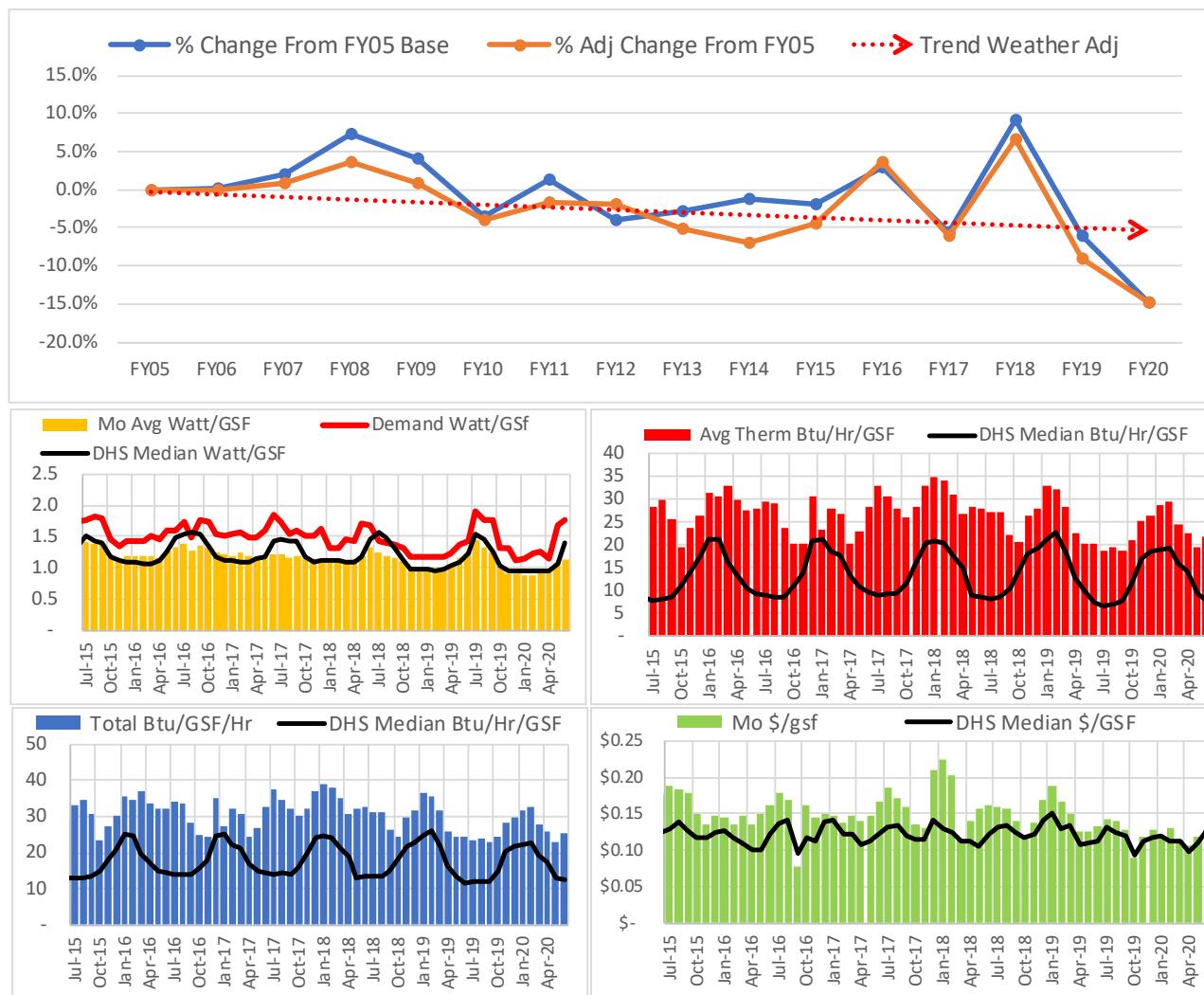
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Mendota Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		9.30	FY20 Therm/GSF =		2.02	FY20 Total Btu/GSF =		233,488	05-20 Thm	-15.3%
FY20 Electric \$/GSF =		\$ 0.83	FY20 Thermal \$/GSF =		\$ 0.64	FY20 Energy \$/GSF =		\$ 1.47	05-20 kwh	-11.8%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,313,997	237,977	35,861	273,839	0.0%	48.12	100.0%	100.0%	273,839	0.0%
FY06	1,313,997	236,207	38,330	274,537	0.3%	48.65	99.7%	99.2%	273,450	-0.1%
FY07	1,313,997	242,071	37,144	279,215	2.0%	47.46	98.8%	99.8%	276,326	0.9%
FY08	1,313,997	255,709	37,895	293,604	7.2%	46.19	96.3%	99.4%	283,806	3.6%
FY09	1,313,997	248,507	36,513	285,020	4.1%	45.66	96.5%	100.1%	276,359	0.9%
FY10	1,313,997	231,683	32,812	264,495	-3.4%	47.10	99.1%	100.6%	262,632	-4.1%
FY11	1,313,997	240,209	37,268	277,477	1.3%	46.81	96.8%	99.1%	269,493	-1.6%
FY12	1,313,997	225,823	37,359	263,182	-3.9%	51.51	102.5%	98.6%	268,340	-2.0%
FY13	1,313,997	230,260	35,982	266,242	-2.8%	47.29	97.2%	100.2%	259,882	-5.1%
FY14	1,313,997	234,125	36,625	270,750	-1.1%	44.58	93.4%	99.0%	255,054	-6.9%
FY15	1,320,211	231,774	36,852	268,627	-1.9%	45.84	96.9%	100.1%	261,471	-4.5%
FY16	1,320,211	244,583	37,478	282,062	3.0%	49.68	100.8%	99.7%	283,955	3.7%
FY17	1,320,211	221,327	37,462	258,789	-5.5%	49.72	99.4%	99.7%	257,383	-6.0%
FY18	1,320,211	264,205	34,869	299,074	9.2%	46.66	97.4%	99.8%	292,180	6.7%
FY19	1,320,211	224,992	32,418	257,410	-6.0%	45.88	96.3%	100.8%	249,267	-9.0%
FY20	1,320,211	201,745	31,743	233,488	-14.7%	48.07	99.9%	99.6%	233,088	-14.9%

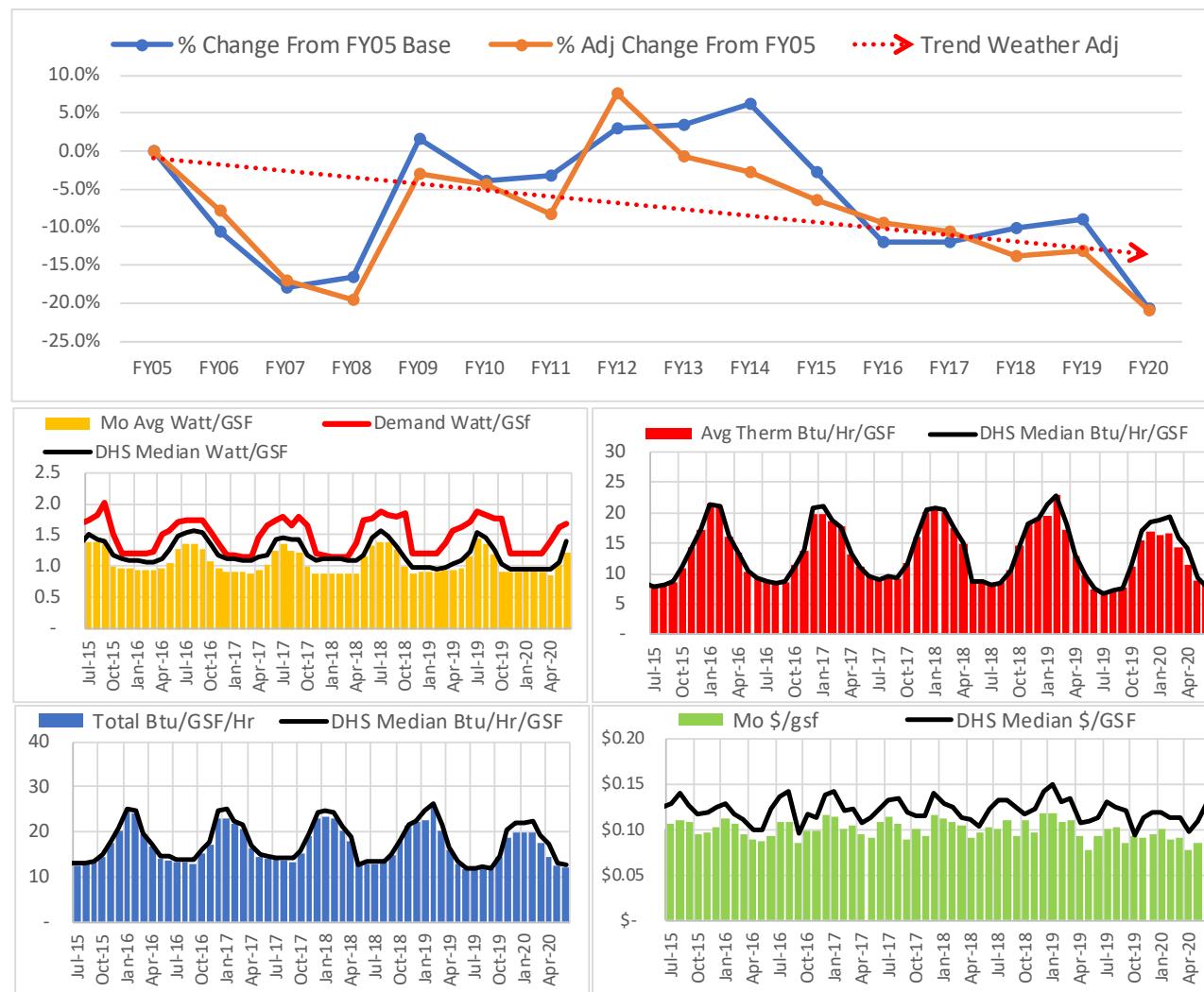
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Northern Center Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.25	FY20 Therm/GSF =	1.03	FY20 Total Btu/GSF =	134,920	05-20 Thm	-26.8%			
FY20 Electric \$/GSF =	\$ 0.72	FY20 Thermal \$/GSF =	\$ 0.38	FY20 Energy \$/GSF =	\$ 1.10	05-20 kwh	6.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	792,392	140,342	29,596	169,938	0.0%	45.85	100.0%	100.0%	169,938	0.0%
FY06	792,392	125,767	26,128	151,895	-10.6%	47.80	104.1%	98.1%	156,566	-7.9%
FY07	792,392	116,598	23,016	139,614	-17.8%	46.32	101.6%	98.9%	141,181	-16.9%
FY08	792,392	118,343	23,497	141,840	-16.5%	43.27	95.7%	99.2%	136,619	-19.6%
FY09	632,669	145,198	27,642	172,840	1.7%	42.97	94.5%	100.3%	164,934	-2.9%
FY10	632,669	135,595	27,797	163,393	-3.9%	45.29	99.3%	100.5%	162,530	-4.4%
FY11	632,669	137,811	26,675	164,486	-3.2%	43.68	93.9%	99.4%	155,916	-8.3%
FY12	523,226	141,377	33,800	175,176	3.1%	49.02	105.8%	99.1%	182,996	7.7%
FY13	523,226	142,405	33,212	175,617	3.3%	43.85	94.9%	100.5%	168,582	-0.8%
FY14	523,226	147,899	32,472	180,371	6.1%	41.37	89.8%	99.3%	165,060	-2.9%
FY15	523,226	132,461	32,892	165,353	-2.7%	43.42	95.0%	100.4%	158,923	-6.5%
FY16	523,226	116,617	32,861	149,478	-12.0%	47.61	103.9%	99.5%	153,828	-9.5%
FY17	523,226	117,850	31,901	149,751	-11.9%	47.08	102.1%	99.0%	151,917	-10.6%
FY18	523,226	121,382	31,467	152,849	-10.1%	42.94	94.6%	100.5%	146,466	-13.8%
FY19	523,226	123,130	31,647	154,778	-8.9%	42.23	93.8%	101.1%	147,529	-13.2%
FY20	523,226	103,341	31,579	134,920	-20.6%	45.39	99.4%	100.0%	134,249	-21.0%

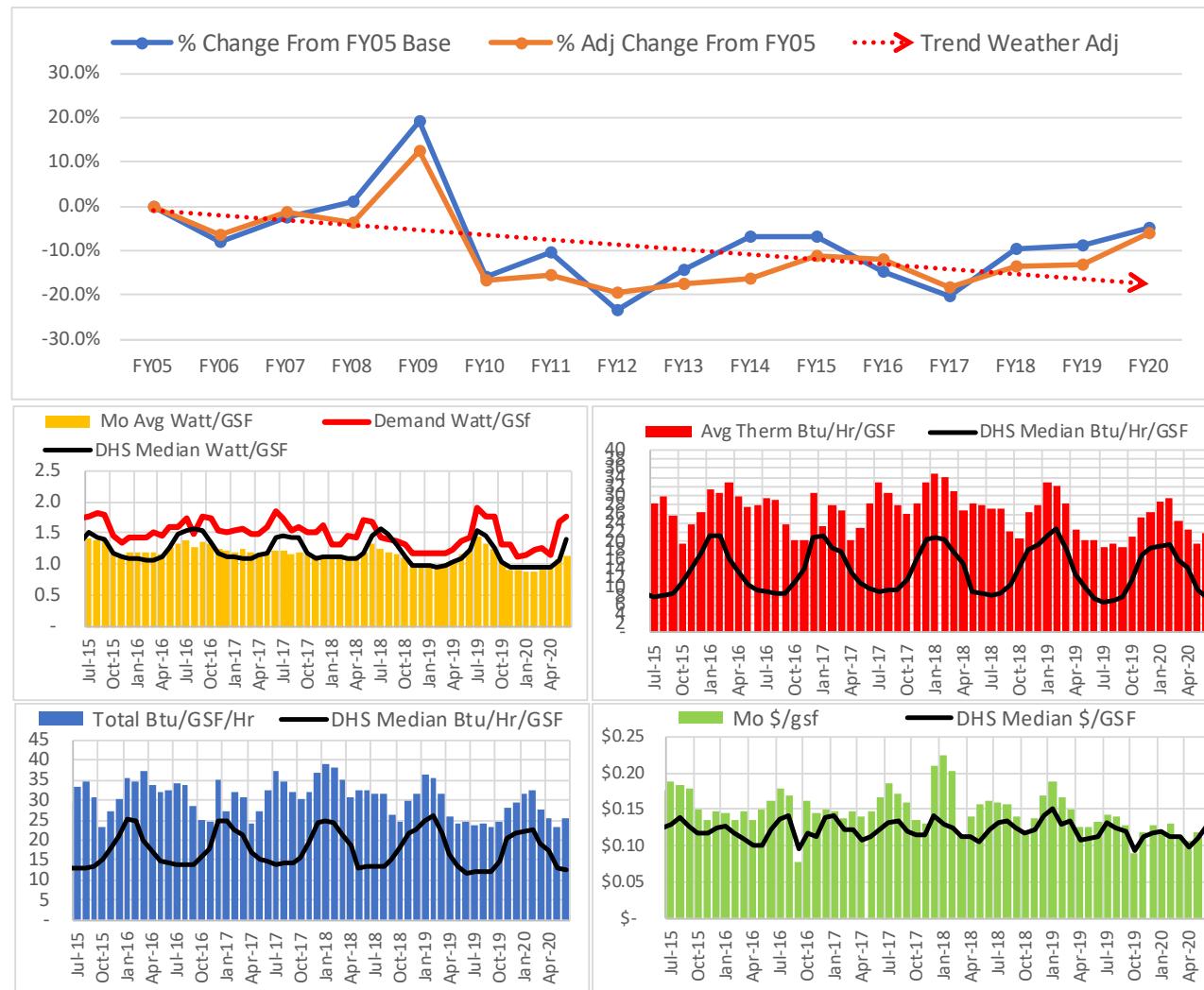
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Sand Ridge Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	15.12	FY20 Therm/GSF =	0.96	FY20 Total Btu/GSF =	147,315	05-20 Thm	-8.9%			
FY20 Electric \$/GSF =	\$ 1.28	FY20 Thermal \$/GSF =	\$ 0.32	FY20 Energy \$/GSF =	\$ 1.60	05-20 kwh	-0.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	198,669	102,791	52,262	155,053	0.0%	46.04	100.0%	100.0%	155,053	0.0%
FY06	198,669	89,314	53,296	142,610	-8.0%	47.49	102.8%	100.1%	145,178	-6.4%
FY07	198,669	97,073	54,087	151,160	-2.5%	46.81	101.8%	100.0%	152,884	-1.4%
FY08	198,669	101,388	55,392	156,780	1.1%	44.51	93.1%	99.2%	149,331	-3.7%
FY09	209,832	124,824	60,174	184,998	19.3%	43.51	91.6%	99.5%	174,179	12.3%
FY10	308,828	87,515	42,823	130,338	-15.9%	45.49	98.4%	100.4%	129,078	-16.8%
FY11	308,828	93,215	45,947	139,163	-10.2%	43.59	91.4%	99.3%	130,787	-15.7%
FY12	308,828	71,292	47,554	118,846	-23.4%	49.50	108.2%	100.8%	125,045	-19.4%
FY13	308,828	87,051	45,928	132,979	-14.2%	44.37	94.2%	99.6%	127,777	-17.6%
FY14	308,828	96,944	47,473	144,417	-6.9%	41.62	86.0%	97.8%	129,853	-16.3%
FY15	308,828	95,635	48,863	144,499	-6.8%	43.36	92.6%	100.5%	137,695	-11.2%
FY16	308,828	83,536	48,828	132,365	-14.6%	47.34	105.1%	100.1%	136,647	-11.9%
FY17	308,828	74,372	49,474	123,846	-20.1%	47.13	103.7%	99.9%	126,503	-18.4%
FY18	308,828	90,990	49,405	140,395	-9.5%	44.30	93.2%	99.5%	133,962	-13.6%
FY19	308,828	92,423	49,045	141,468	-8.8%	43.35	92.5%	99.8%	134,399	-13.3%
FY20	308,828	95,707	51,608	147,315	-5.0%	45.35	97.8%	100.4%	145,403	-6.2%

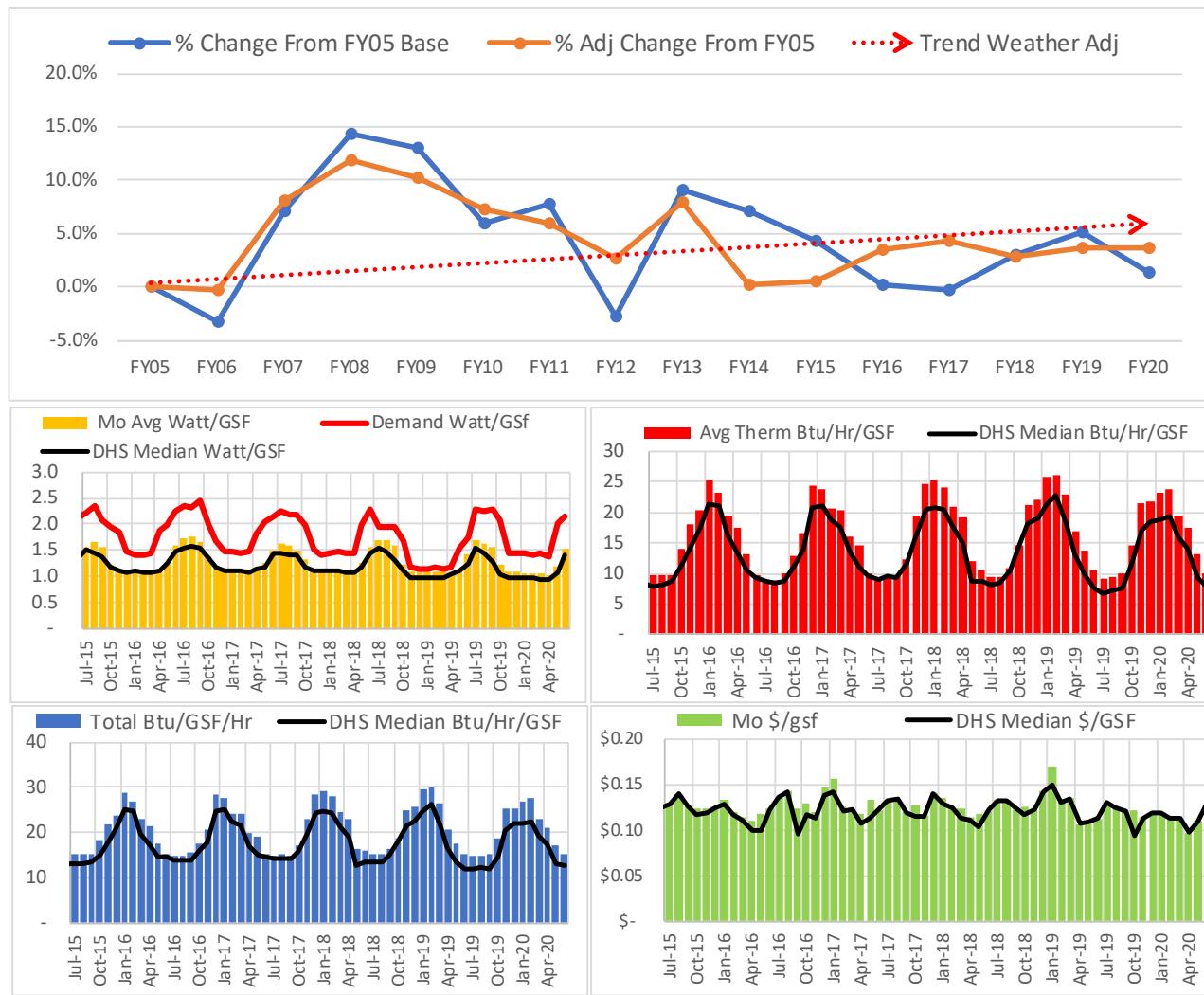
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Southern Center Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	11.13	FY20 Therm/GSF =	1.42	FY20 Total Btu/GSF =	179,790	05-20 Thm	2.5%			
FY20 Electric \$/GSF =	\$ 0.98	FY20 Thermal \$/GSF =	\$ 0.43	FY20 Energy \$/GSF =	\$ 1.41	05-20 kwh	8.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	1,023,235	142,723	34,662	177,385	0.0%	48.47	100.0%	100.0%	177,385	0.0%
FY06	1,023,235	135,306	36,395	171,701	-3.2%	50.11	104.2%	98.4%	176,778	-0.3%
FY07	1,023,235	149,554	40,525	190,080	7.2%	48.88	101.3%	99.1%	191,624	8.0%
FY08	1,023,235	159,251	43,608	202,859	14.4%	47.87	97.5%	98.6%	198,361	11.8%
FY09	1,023,235	158,024	42,358	200,382	13.0%	47.26	97.1%	99.3%	195,565	10.2%
FY10	1,023,235	146,831	41,183	188,014	6.0%	49.10	101.7%	99.7%	190,332	7.3%
FY11	1,023,235	149,154	42,047	191,202	7.8%	48.17	98.4%	97.9%	187,924	5.9%
FY12	1,023,235	132,494	39,930	172,424	-2.8%	52.24	107.9%	97.7%	182,001	2.6%
FY13	1,023,235	154,828	38,549	193,377	9.0%	48.26	98.9%	99.0%	191,323	7.9%
FY14	1,023,235	152,116	37,854	189,969	7.1%	45.20	92.1%	99.6%	177,781	0.2%
FY15	1,023,235	147,440	37,606	185,046	4.3%	46.08	95.2%	101.1%	178,379	0.6%
FY16	1,023,235	139,236	38,534	177,771	0.2%	50.51	104.6%	98.8%	183,667	3.5%
FY17	1,023,235	136,747	40,003	176,750	-0.4%	51.99	107.0%	96.3%	184,897	4.2%
FY18	1,023,235	144,120	38,692	182,812	3.1%	48.73	100.1%	98.5%	182,349	2.8%
FY19	1,023,235	148,453	38,073	186,526	5.2%	47.88	98.4%	99.0%	183,757	3.6%
FY20	1,023,235	141,818	37,972	179,790	1.4%	49.85	103.2%	98.7%	183,785	3.6%

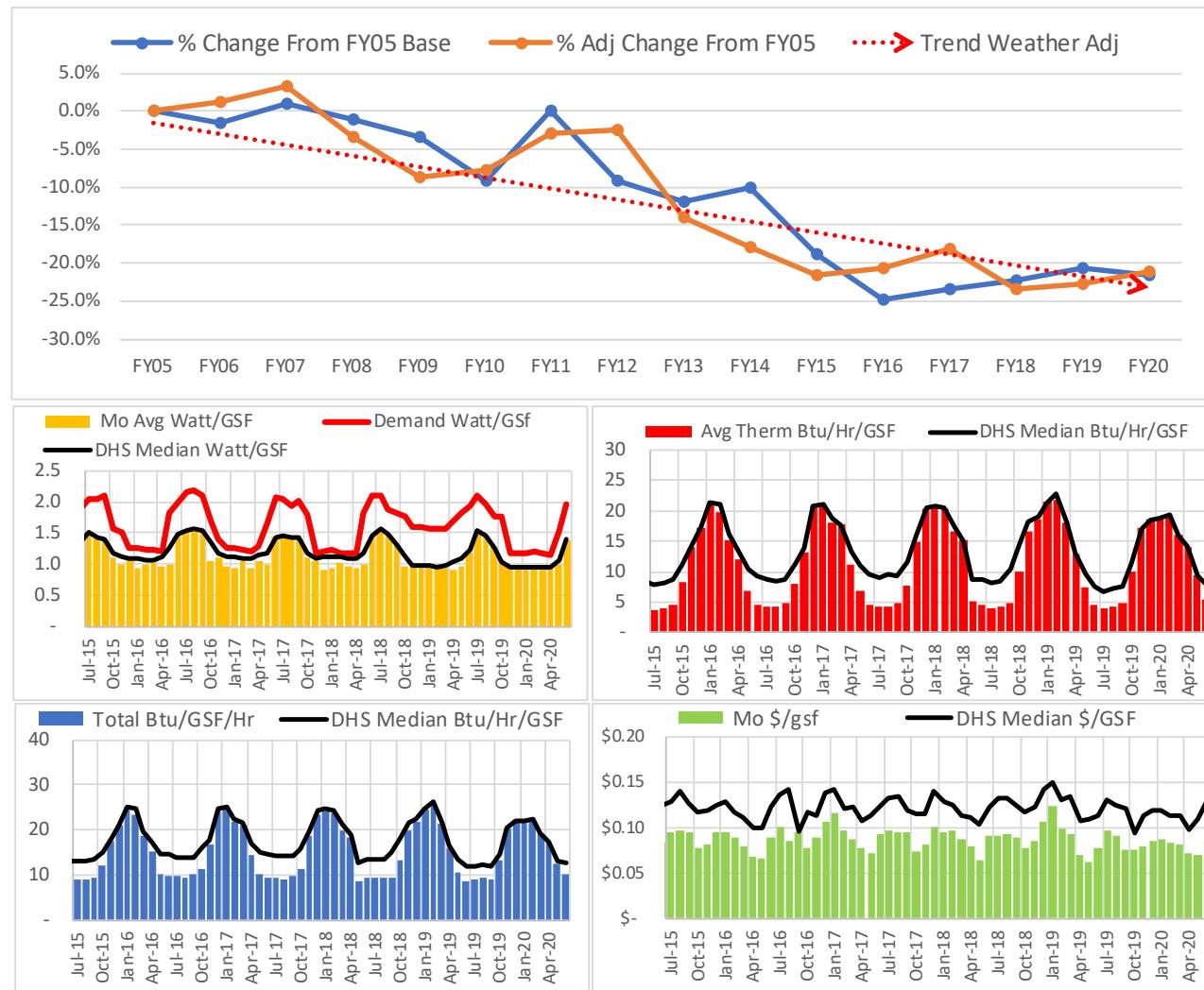
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DHS-Winnebago Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	9.82	FY20 Therm/GSF =	1.03	FY20 Total Btu/GSF =	136,918	05-20 Thm	-25.3%			
FY20 Electric \$/GSF =	\$ 0.67	FY20 Thermal \$/GSF =	\$ 0.31	FY20 Energy \$/GSF =	\$ 0.98	05-20 kwh	-4.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	919,505	139,664	34,932	174,596	0.0%	45.92	100.0%	100.0%	174,596	0.0%
FY06	919,505	134,739	37,064	171,803	-1.6%	47.27	103.9%	99.3%	176,796	1.3%
FY07	919,505	139,043	37,265	176,308	1.0%	46.64	103.0%	99.8%	180,378	3.3%
FY08	919,505	135,325	37,423	172,748	-1.1%	45.02	97.2%	99.3%	168,646	-3.4%
FY09	919,505	131,834	36,855	168,689	-3.4%	43.47	93.1%	100.2%	159,595	-8.6%
FY10	919,505	121,216	37,434	158,650	-9.1%	45.99	101.6%	101.0%	160,972	-7.8%
FY11	919,505	135,856	38,766	174,622	0.0%	44.59	96.3%	99.5%	169,472	-2.9%
FY12	919,505	117,679	40,821	158,500	-9.2%	49.86	110.5%	98.9%	170,405	-2.4%
FY13	976,487	117,750	35,992	153,742	-11.9%	45.29	97.0%	99.6%	149,997	-14.1%
FY14	976,487	122,059	34,777	156,837	-10.2%	41.95	89.3%	98.4%	143,187	-18.0%
FY15	983,900	107,836	33,896	141,732	-18.8%	43.98	95.3%	100.4%	136,762	-21.7%
FY16	983,900	96,580	34,771	131,351	-24.8%	48.11	107.5%	99.4%	138,403	-20.7%
FY17	983,900	98,638	35,189	133,827	-23.4%	48.65	109.9%	98.5%	143,117	-18.0%
FY18	983,900	101,736	33,926	135,662	-22.3%	45.77	98.3%	99.0%	133,572	-23.5%
FY19	983,900	105,418	32,949	138,366	-20.8%	44.89	96.8%	99.6%	134,824	-22.8%
FY20	983,900	103,393	33,526	136,918	-21.6%	46.41	101.0%	99.8%	137,851	-21.0%

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



# Agency Energy Use Summary

Department of Public Instruction



## SCOPE

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

## ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted: 9 percent decrease**

Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted: 2.4 percent decrease**

Energy use (BTU/GSF/Yr) for FY20 decrease 2.4 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted: 0.6 percent decrease per year.**

On average, energy use (BTU/GSF/Yr) has decrease 0.6 percent since the base year, FY05.

## GSF AND CONSUMPTION STATISTICS

***GSF Change from Base: 0 percent increase.***

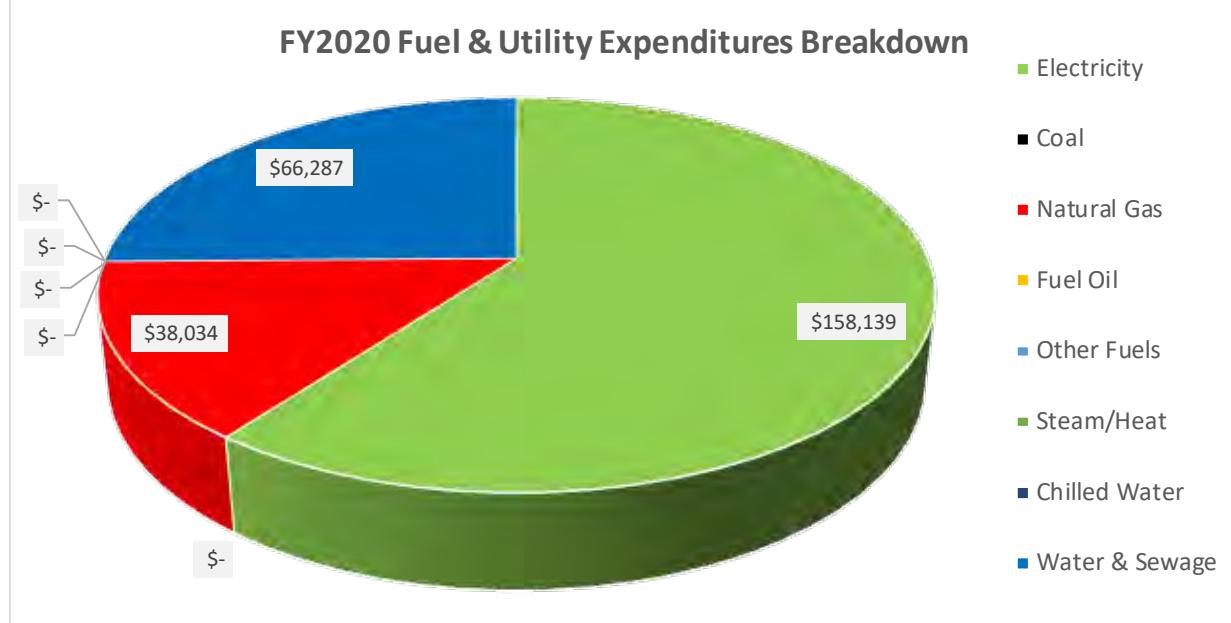
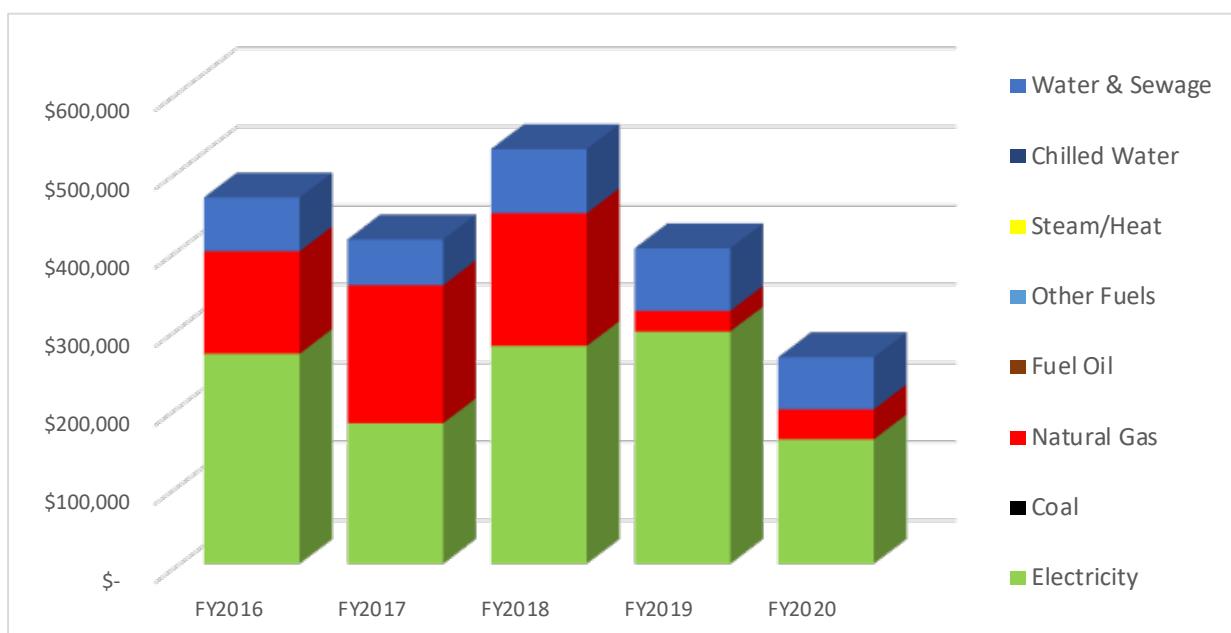
Gross square footage (GSF) has not changed from the base fiscal year, FY05.

***Consumption Change from Base: 6.3 percent decrease.***

Total consumption was 6.3 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 9 percent less than in the base year when adjusted for weather compared to FY05.

**Public Instruction, Department of**

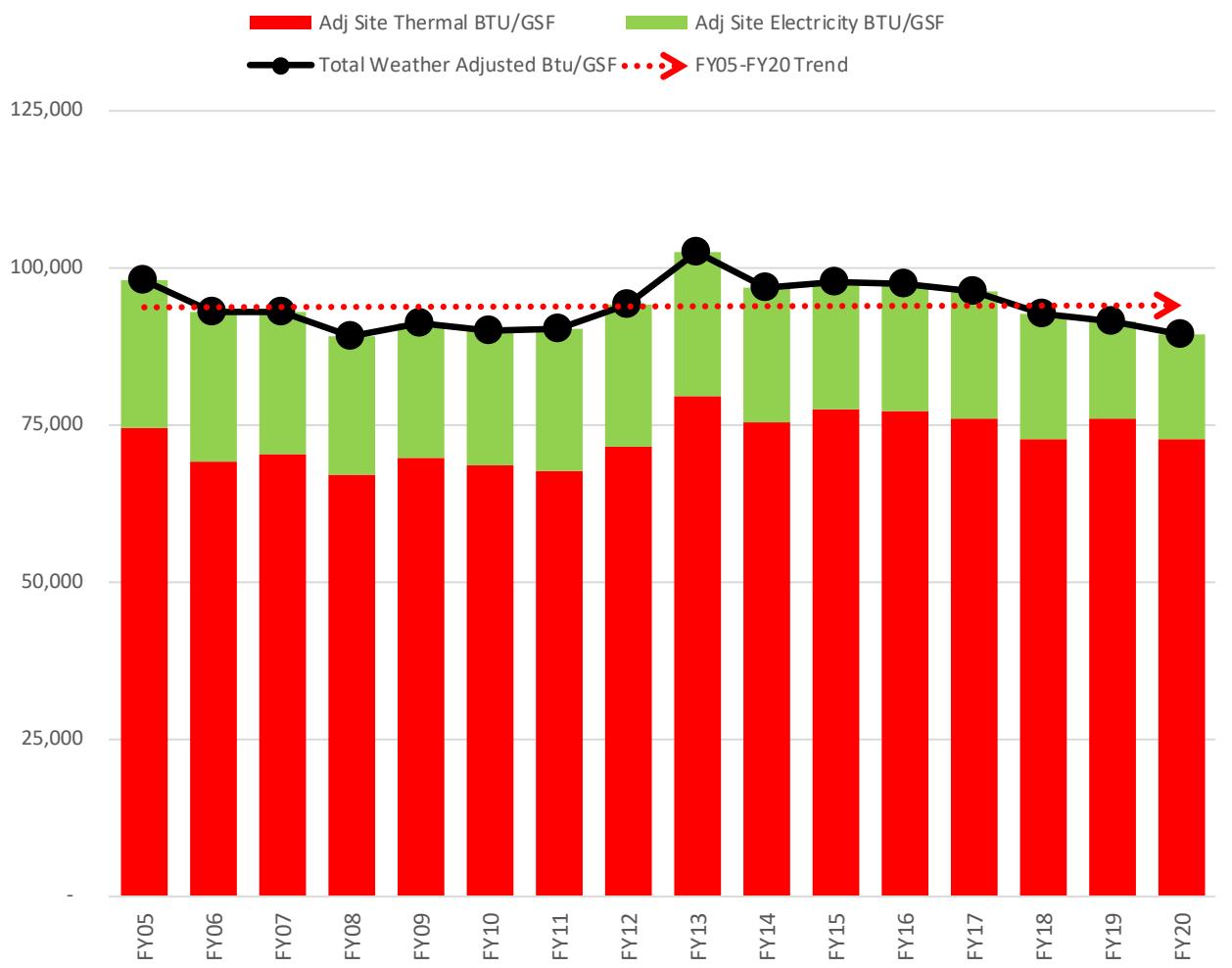
<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 266,895	\$ 178,718	\$ 276,865	\$ 295,170	\$ 158,139
Coal	\$ -	\$ -	\$ -	\$ -	\$ -
Natural Gas	\$ 130,341	\$ 175,385	\$ 168,788	\$ 26,310	\$ 38,034
Fuel Oil	\$ -	\$ -	\$ -	\$ -	\$ -
Other Fuels	\$ -	\$ -	\$ -	\$ -	\$ -
Steam/Heat	\$ -	\$ -	\$ -	\$ -	\$ -
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 68,149	\$ 58,071	\$ 81,268	\$ 79,355	\$ 66,287
<b>Total Utilities</b>	<b>\$ 465,385</b>	<b>\$ 412,175</b>	<b>\$ 526,922</b>	<b>\$ 400,835</b>	<b>\$ 262,459</b>



### DPI Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	441,183	74,517	23,484	98,001	0.0%	45.92	100.0%	100.0%	98,001	0.0%
FY06	441,183	70,542	24,293	94,835	-3.2%	47.27	97.8%	99.0%	93,019	-5.1%
FY07	441,183	73,983	22,893	96,876	-1.1%	46.64	94.9%	99.5%	93,014	-5.1%
FY08	441,183	78,081	22,496	100,578	2.6%	45.02	85.8%	98.0%	89,031	-9.2%
FY09	441,183	80,109	21,788	101,897	4.0%	43.47	86.8%	99.3%	91,209	-6.9%
FY10	441,183	71,838	21,292	93,130	-5.0%	45.99	95.3%	100.3%	89,822	-8.3%
FY11	441,183	75,226	22,980	98,206	0.2%	44.59	89.9%	98.3%	90,204	-8.0%
FY12	441,183	65,293	22,746	88,039	-10.2%	49.86	109.6%	98.4%	93,966	-4.1%
FY13	441,183	85,243	23,015	108,258	10.5%	45.29	93.3%	99.2%	102,336	4.4%
FY14	441,183	89,901	21,379	111,281	13.6%	41.95	84.0%	99.8%	96,815	-1.2%
FY15	441,183	86,814	20,152	106,966	9.1%	43.98	89.4%	100.0%	97,745	-0.3%
FY16	441,183	72,932	20,276	93,209	-4.9%	48.11	105.8%	99.4%	97,350	-0.7%
FY17	441,183	71,518	20,328	91,847	-6.3%	48.65	106.3%	98.7%	96,117	-1.9%
FY18	441,183	82,097	20,116	102,213	4.3%	45.77	88.6%	99.2%	92,685	-5.4%
FY19	441,183	85,292	15,408	100,700	2.8%	44.89	89.0%	100.2%	91,376	-6.8%
FY20	441,183	75,214	16,595	91,809	-6.3%	46.41	96.7%	99.3%	89,229	-9.0%

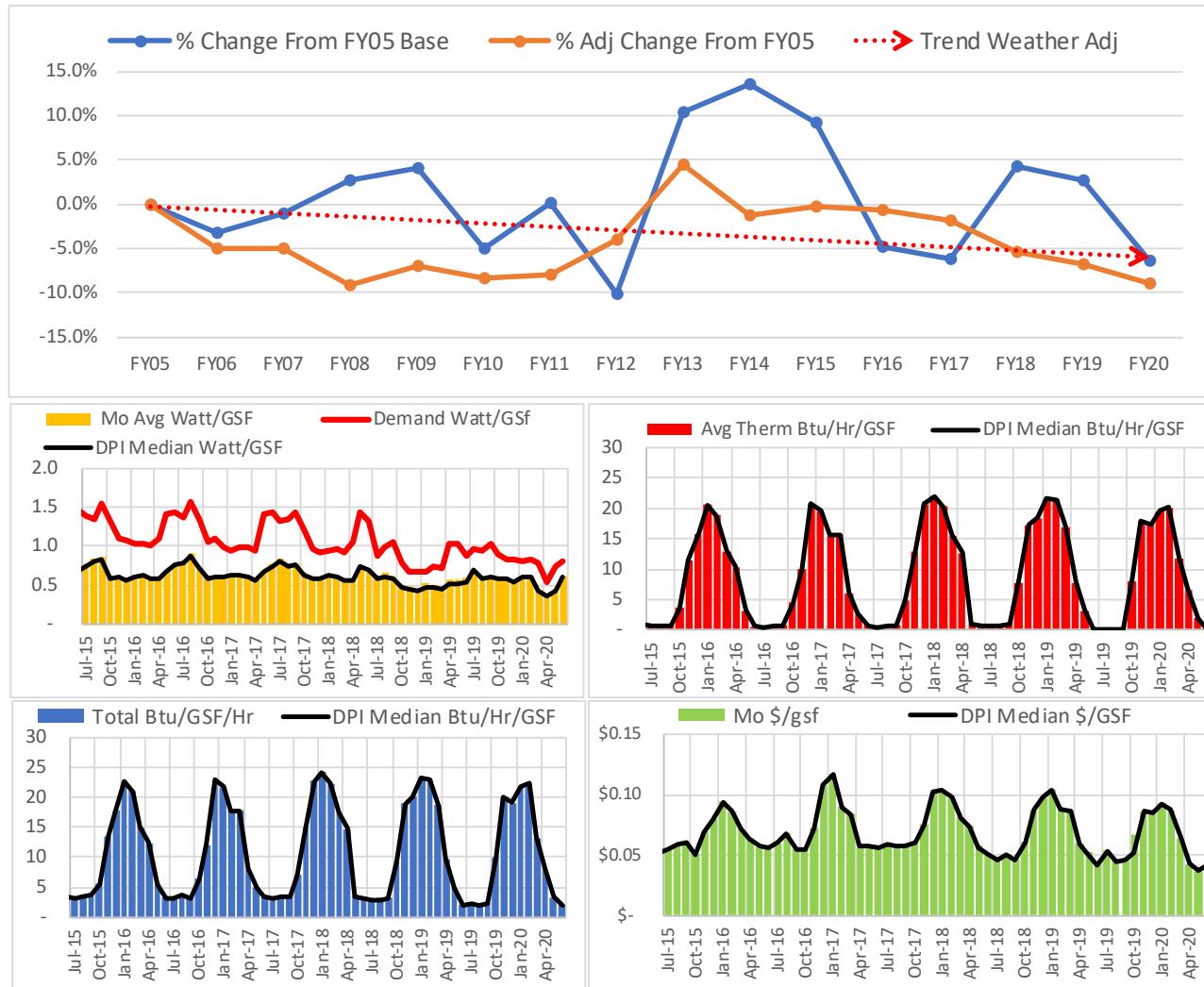
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DPI Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF = 4.86			FY20 Therm/GSF = 0.75			FY20 Total Btu/GSF = 91,809			05-20 Thm -2.4%	
FY20 Electric \$/GSF = \$ 0.49			FY20 Thermal \$/GSF = \$ 0.26			FY20 Energy \$/GSF = \$ 0.75			05-20 kwh -29.8%	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	441,183	74,517	23,484	98,001	0.0%	48.47	100.0%	100.0%	98,001	0.0%
FY06	441,183	70,542	24,293	94,835	-3.2%	50.11	97.8%	99.0%	93,019	-5.1%
FY07	441,183	73,983	22,893	96,876	-1.1%	48.88	94.9%	99.5%	93,014	-5.1%
FY08	441,183	78,081	22,496	100,578	2.6%	47.87	85.8%	98.0%	89,031	-9.2%
FY09	441,183	80,109	21,788	101,897	4.0%	47.26	86.8%	99.3%	91,209	-6.9%
FY10	441,183	71,838	21,292	93,130	-5.0%	49.10	95.3%	100.3%	89,822	-8.3%
FY11	441,183	75,226	22,980	98,206	0.2%	48.17	89.9%	98.3%	90,204	-8.0%
FY12	441,183	65,293	22,746	88,039	-10.2%	52.24	109.6%	98.4%	93,966	-4.1%
FY13	441,183	85,243	23,015	108,258	10.5%	48.26	93.3%	99.2%	102,336	4.4%
FY14	441,183	89,901	21,379	111,281	13.6%	45.20	84.0%	99.8%	96,815	-1.2%
FY15	441,183	86,814	20,152	106,966	9.1%	46.08	89.4%	100.0%	97,745	-0.3%
FY16	441,183	72,932	20,276	93,209	-4.9%	50.51	105.8%	99.4%	97,350	-0.7%
FY17	441,183	71,518	20,328	91,847	-6.3%	51.99	106.3%	98.7%	96,117	-1.9%
FY18	441,183	82,097	20,116	102,213	4.3%	48.73	88.6%	99.2%	92,685	-5.4%
FY19	441,183	85,292	15,408	100,700	2.8%	47.88	89.0%	100.2%	91,376	-6.8%
FY20	441,183	75,214	16,595	91,809	-6.3%	49.85	96.7%	99.3%	89,229	-9.0%

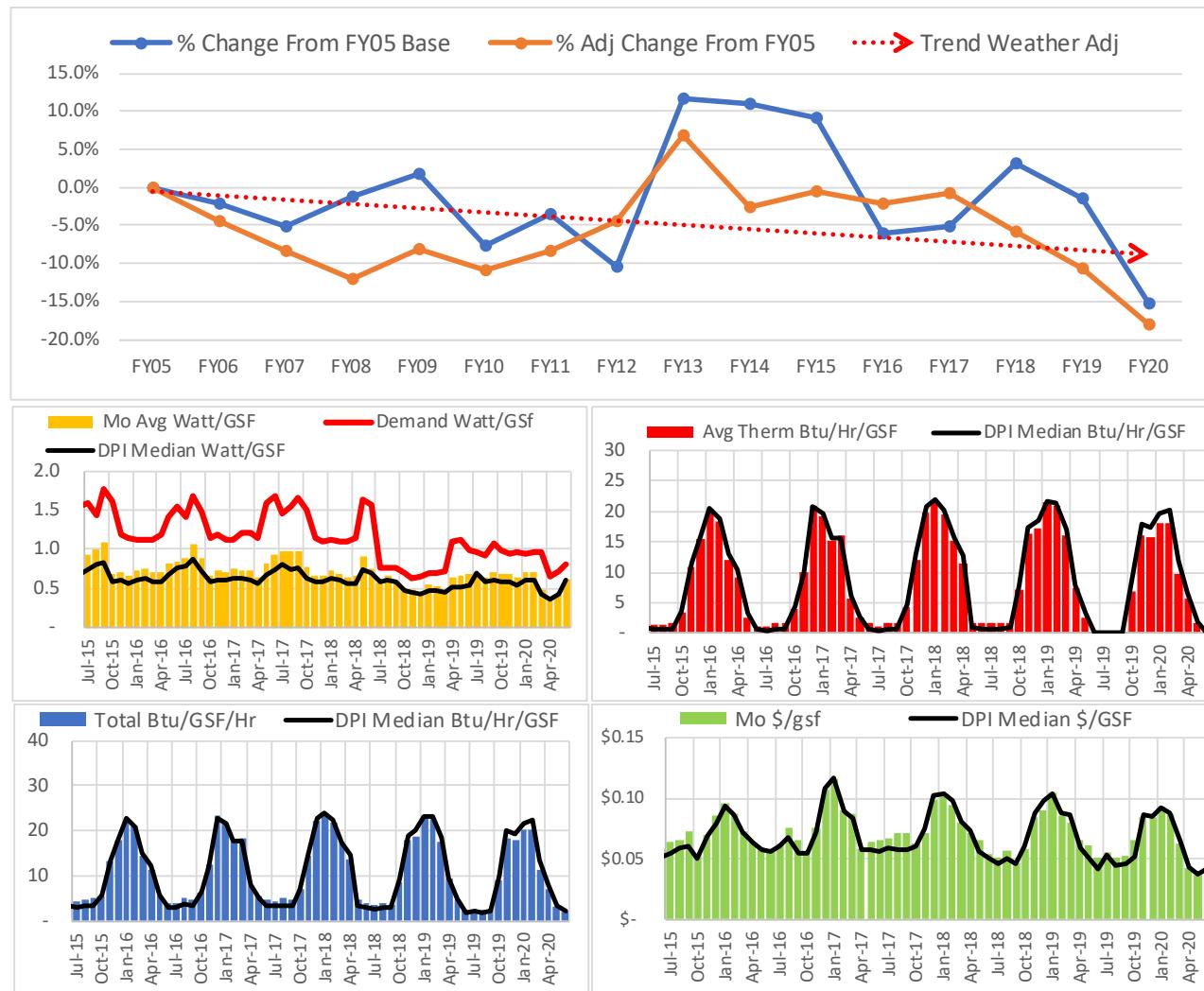
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DPI-Delavan Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	5.39	FY20 Therm/GSF =	0.68	FY20 Total Btu/GSF =	85,897	05-20 Thm	-12.8%			
FY20 Electric \$/GSF =	\$ 0.53	FY20 Thermal \$/GSF =	\$ 0.23	FY20 Energy \$/GSF =	\$ 0.76	05-20 kwh	-32.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	244,979	74,564	26,898	101,462	0.0%	48.12	100.0%	100.0%	101,462	0.0%
FY06	244,979	70,361	28,819	99,180	-2.2%	48.65	97.2%	98.7%	96,849	-4.5%
FY07	244,979	69,028	27,244	96,272	-5.1%	47.46	95.3%	99.7%	92,938	-8.4%
FY08	244,979	73,870	26,336	100,207	-1.2%	46.19	85.8%	98.1%	89,240	-12.0%
FY09	244,979	77,043	26,286	103,329	1.8%	45.66	87.1%	99.5%	93,248	-8.1%
FY10	244,979	68,681	25,092	93,773	-7.6%	47.10	95.0%	100.2%	90,419	-10.9%
FY11	244,979	71,129	26,863	97,992	-3.4%	46.81	93.1%	99.7%	93,007	-8.3%
FY12	244,979	63,083	27,856	90,939	-10.4%	51.51	110.5%	97.9%	96,976	-4.4%
FY13	244,979	84,382	28,809	113,190	11.6%	47.29	94.5%	99.2%	108,342	6.8%
FY14	244,979	87,340	25,271	112,611	11.0%	44.58	84.0%	100.5%	98,742	-2.7%
FY15	244,979	86,930	23,698	110,628	9.0%	45.84	88.8%	100.3%	100,985	-0.5%
FY16	244,979	71,398	23,945	95,343	-6.0%	49.68	105.7%	99.4%	99,294	-2.1%
FY17	244,979	72,636	23,706	96,342	-5.0%	49.72	106.3%	98.8%	100,639	-0.8%
FY18	244,979	81,231	23,470	104,701	3.2%	46.66	89.0%	99.5%	95,631	-5.7%
FY19	244,979	83,280	16,719	99,999	-1.4%	45.88	88.7%	100.6%	90,719	-10.6%
FY20	244,979	67,516	18,381	85,897	-15.3%	48.07	96.3%	99.3%	83,260	-17.9%

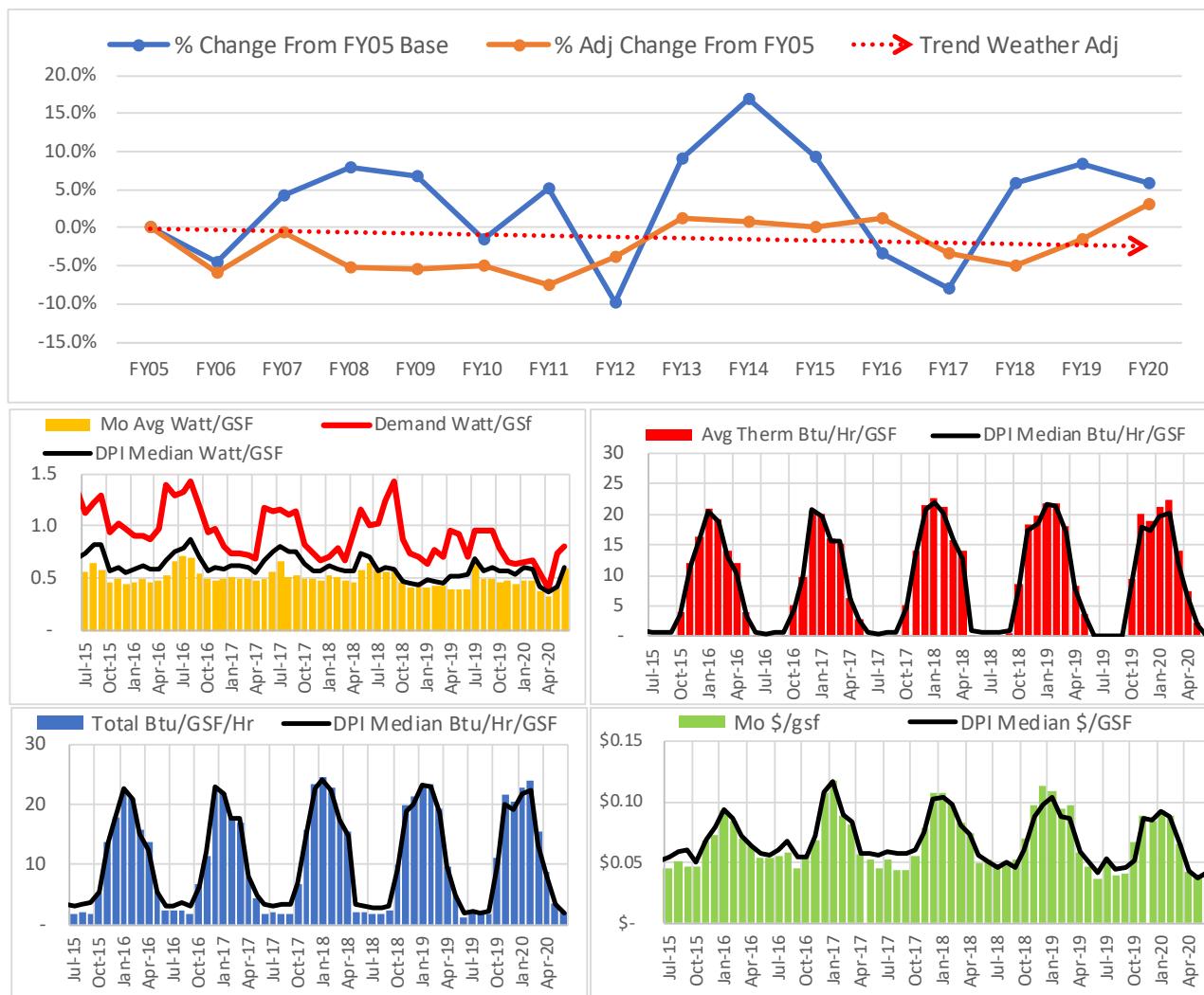
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DPI-Janesville Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		4.21	FY20 Therm/GSF =		0.85	FY20 Total Btu/GSF =		99,191	05-20 Thm	10.7%
FY20 Electric \$/GSF =		\$ 0.44	FY20 Thermal \$/GSF =		\$ 0.30	FY20 Energy \$/GSF =		\$ 0.74	05-20 kwh	-25.8%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	196,204	74,458	19,222	93,680	0.0%	48.12	100.0%	100.0%	93,680	0.0%
FY06	196,204	70,768	18,642	89,410	-4.6%	48.65	98.5%	99.5%	88,238	-5.8%
FY07	196,204	80,169	17,460	97,630	4.2%	47.46	94.5%	99.2%	93,108	-0.6%
FY08	196,204	83,339	17,702	101,041	7.9%	46.19	85.8%	97.6%	88,770	-5.2%
FY09	196,204	83,937	16,172	100,109	6.9%	45.66	86.6%	98.9%	88,662	-5.4%
FY10	196,204	75,780	16,547	92,327	-1.4%	47.10	95.6%	100.4%	89,076	-4.9%
FY11	196,204	80,341	18,133	98,474	5.1%	46.81	86.3%	95.9%	86,703	-7.4%
FY12	196,204	68,052	16,366	84,418	-9.9%	51.51	108.6%	99.5%	90,208	-3.7%
FY13	196,204	86,319	15,780	102,099	9.0%	47.29	91.7%	99.1%	94,836	1.2%
FY14	196,204	93,100	16,520	109,620	17.0%	44.58	83.9%	98.4%	94,409	0.8%
FY15	196,204	86,668	15,725	102,393	9.3%	45.84	90.1%	99.4%	93,700	0.0%
FY16	196,204	74,848	15,696	90,544	-3.3%	49.68	106.0%	99.5%	94,924	1.3%
FY17	196,204	70,122	16,111	86,234	-7.9%	49.72	106.4%	98.7%	90,470	-3.4%
FY18	196,204	83,178	15,928	99,106	5.8%	46.66	88.1%	98.7%	89,007	-5.0%
FY19	196,204	87,804	13,771	101,575	8.4%	45.88	89.4%	99.6%	92,197	-1.6%
FY20	196,204	84,825	14,366	99,191	5.9%	48.07	97.2%	99.3%	96,682	3.2%

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



# Agency Energy Use Summary

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## 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 FY19-FY20*

## ENERGY CONSUMPTION

Total Change from Base - Weather Adjusted: 17.7 percent decrease

Includes the major agency facilities listed in scope above.

Latest Year Change - Weather Adjusted: 3.1 percent decrease

Energy use (BTU/GSF/Yr) for FY20 decrease 3.1 percent from the previous fiscal year, FY19.

*Average Annual Change - Weather Adjusted: 1.2 percent decrease per year.*

On average, energy use (BTU/GSF/Yr) has decrease 1.2 percent since the base year, FY05.

## GSF AND CONSUMPTION STATISTICS

*GSF Change from Base: 0 percent increase.*

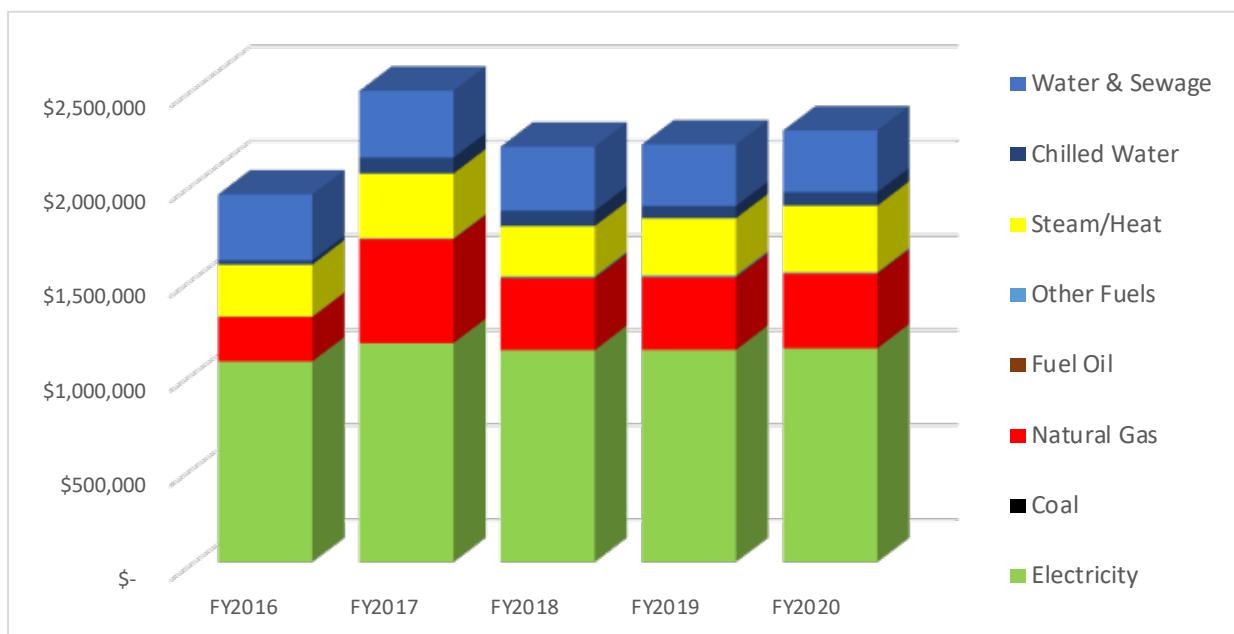
Gross square footage (GSF) has not changed from the base fiscal year, FY05.

*Consumption Change from Base: 17 percent decrease.*

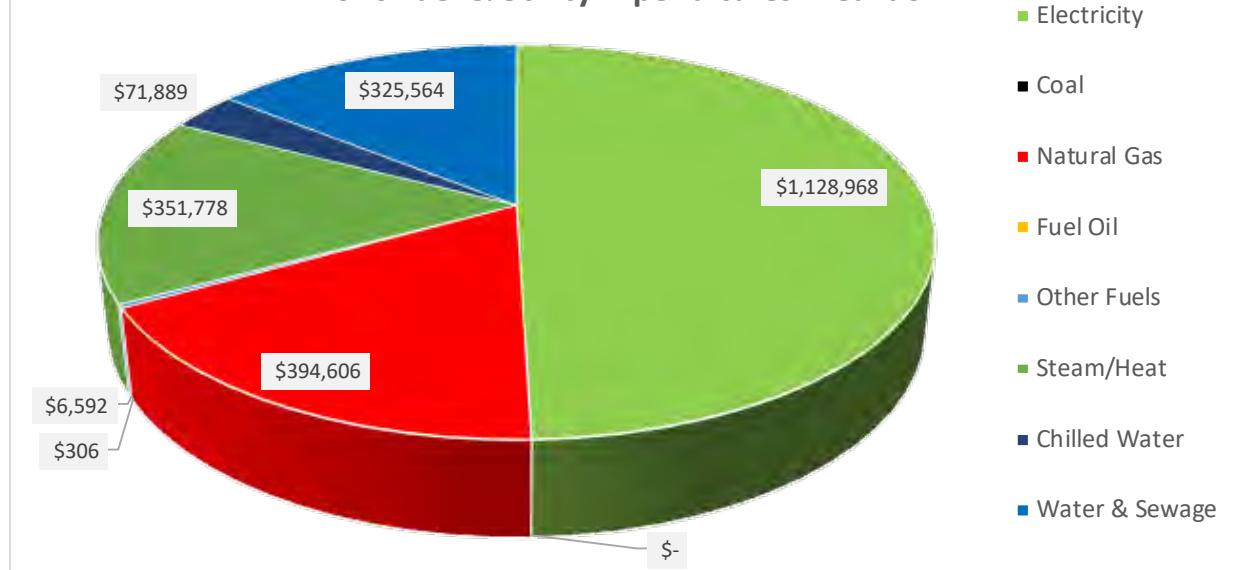
Total consumption was 17 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 17.7 percent less than in the base year when adjusted for weather compared to FY05.

**Veterans Affairs, Department of**

<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 1,060,245	\$ 1,157,197	\$ 1,120,276	\$ 1,121,610	\$ 1,128,968
Coal	\$ -	\$ -	\$ -	\$ -	\$ -
Natural Gas	\$ 234,549	\$ 548,114	\$ 377,872	\$ 383,190	\$ 394,606
Fuel Oil	\$ -	\$ -	\$ 3,559	\$ -	\$ 306
Other Fuels	\$ 2,374	\$ 4,926	\$ 8,464	\$ 10,126	\$ 6,592
Steam/Heat	\$ 274,578	\$ 342,587	\$ 264,427	\$ 301,074	\$ 351,778
Chilled Water	\$ 22,510	\$ 83,762	\$ 81,429	\$ 65,024	\$ 71,889
Water & Sewage	\$ 348,175	\$ 352,794	\$ 338,642	\$ 325,467	\$ 325,564
<b>Total Utilities</b>	<b>\$ 1,942,432</b>	<b>\$ 2,489,380</b>	<b>\$ 2,194,671</b>	<b>\$ 2,206,490</b>	<b>\$ 2,279,701</b>



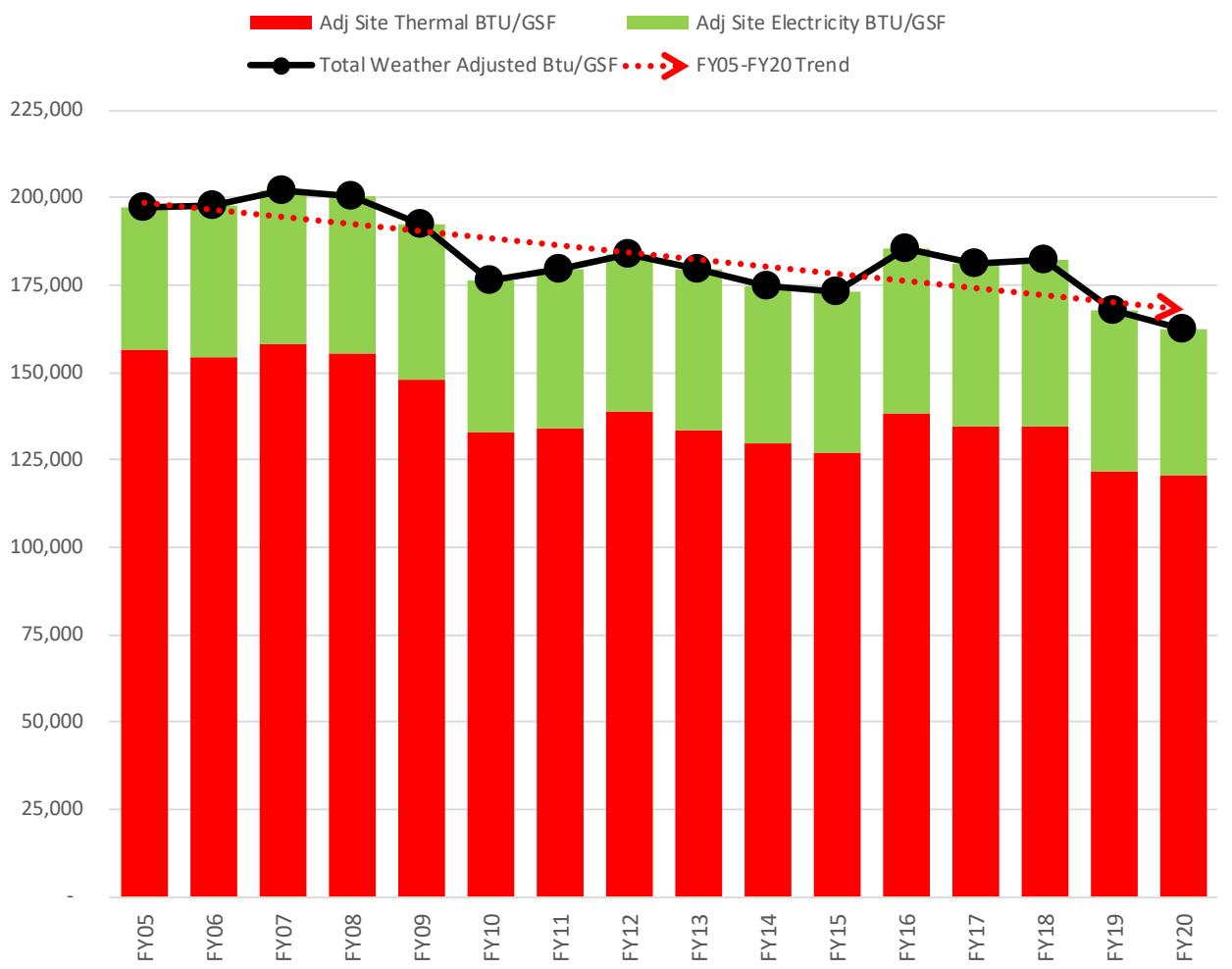
**FY2020 Fuel & Utility Expenditures Breakdown**



### DVA Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	733,728	156,662	40,749	197,411	0.0%	46.04	100.0%	100.0%	197,411	0.0%
FY06	733,728	148,953	43,635	192,588	-2.4%	47.49	103.8%	99.3%	197,869	0.2%
FY07	733,728	154,261	44,374	198,635	0.6%	46.81	102.4%	99.6%	202,105	2.4%
FY08	733,728	162,343	45,139	207,482	5.1%	44.51	95.9%	99.1%	200,381	1.5%
FY09	733,728	157,632	44,029	201,661	2.2%	43.51	94.0%	99.9%	192,177	-2.7%
FY10	733,728	133,891	43,308	177,199	-10.2%	45.49	99.3%	100.5%	176,469	-10.6%
FY11	733,728	142,187	45,433	187,620	-5.0%	43.59	94.1%	100.3%	179,392	-9.1%
FY12	733,728	128,442	45,496	173,938	-11.9%	49.50	108.0%	99.0%	183,798	-6.9%
FY13	733,728	140,005	45,722	185,726	-5.9%	44.37	95.5%	100.1%	179,551	-9.0%
FY14	733,728	147,437	45,185	192,623	-2.4%	41.62	87.9%	99.6%	174,574	-11.6%
FY15	733,728	134,553	45,441	179,994	-8.8%	43.36	94.6%	100.8%	173,116	-12.3%
FY16	733,728	133,028	47,139	180,168	-8.7%	47.34	103.8%	100.0%	185,282	-6.1%
FY17	733,728	130,932	46,822	177,753	-10.0%	47.13	102.9%	99.7%	181,364	-8.1%
FY18	733,728	139,595	47,896	187,491	-5.0%	44.30	96.3%	100.1%	182,393	-7.6%
FY19	733,728	128,343	45,909	174,252	-11.7%	43.35	94.8%	100.5%	167,749	-15.0%
FY20	733,728	122,167	41,684	163,851	-17.0%	45.35	98.9%	100.1%	162,534	-17.7%

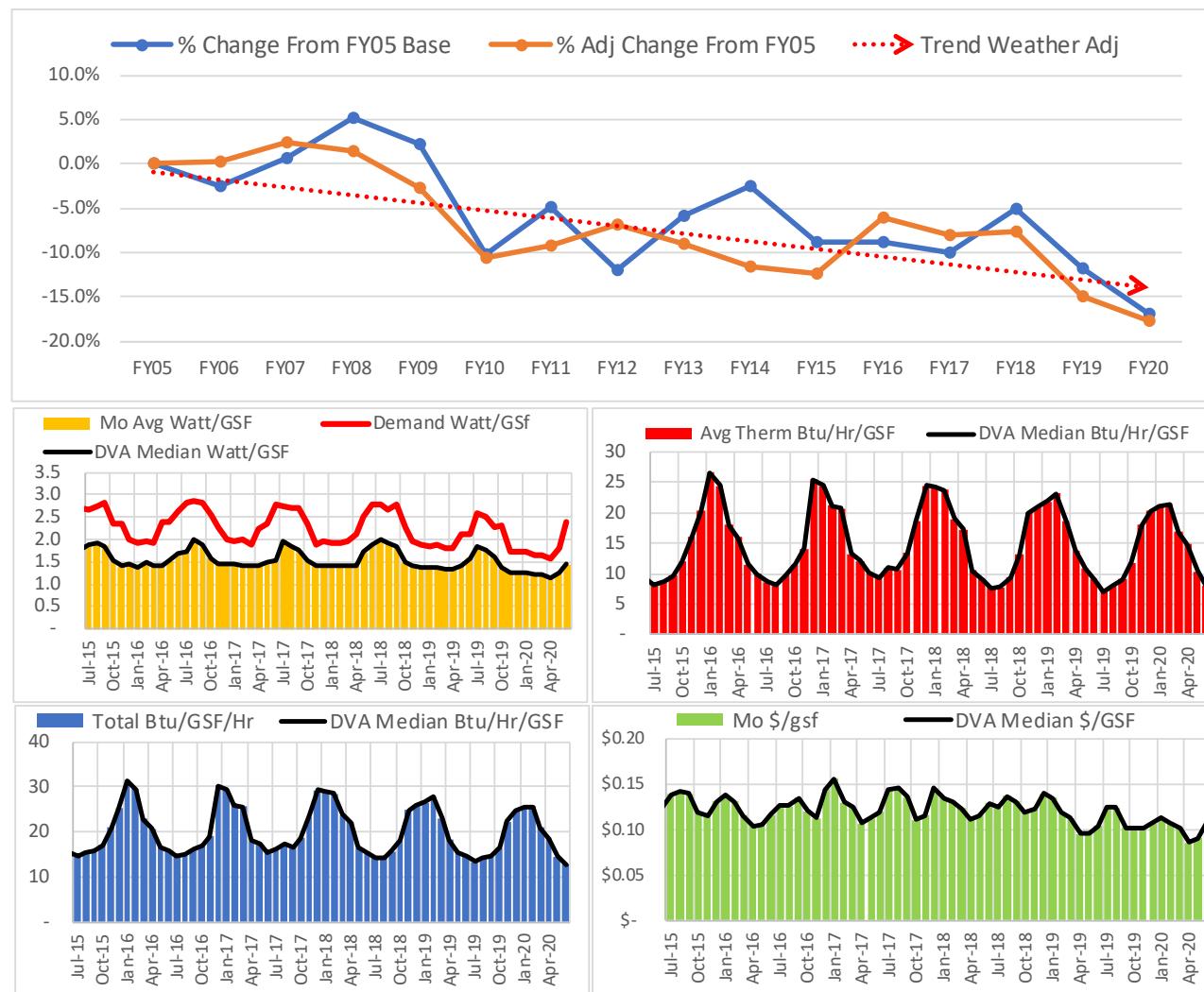
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DVA-King Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	12.21	FY20 Therm/GSF =	1.22	FY20 Total Btu/GSF =	163,851	05-20 Thm	-22.9%			
FY20 Electric \$/GSF =	\$ 0.86	FY20 Thermal \$/GSF =	\$ 0.40	FY20 Energy \$/GSF =	\$ 1.27	05-20 kwh	2.4%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	733,728	156,662	40,749	197,411	0.0%	46.04	100.0%	100.0%	197,411	0.0%
FY06	733,728	148,953	43,635	192,588	-2.4%	47.49	103.8%	99.3%	197,869	0.2%
FY07	733,728	154,261	44,374	198,635	0.6%	46.81	102.4%	99.6%	202,105	2.4%
FY08	733,728	162,343	45,139	207,482	5.1%	44.51	95.9%	99.1%	200,381	1.5%
FY09	733,728	157,632	44,029	201,661	2.2%	43.51	94.0%	99.9%	192,177	-2.7%
FY10	733,728	133,891	43,308	177,199	-10.2%	45.49	99.3%	100.5%	176,469	-10.6%
FY11	733,728	142,187	45,433	187,620	-5.0%	43.59	94.1%	100.3%	179,392	-9.1%
FY12	733,728	128,442	45,496	173,938	-11.9%	49.50	108.0%	99.0%	183,798	-6.9%
FY13	733,728	140,005	45,722	185,726	-5.9%	44.37	95.5%	100.1%	179,551	-9.0%
FY14	733,728	147,437	45,185	192,623	-2.4%	41.62	87.9%	99.6%	174,574	-11.6%
FY15	733,728	134,553	45,441	179,994	-8.8%	43.36	94.6%	100.8%	173,116	-12.3%
FY16	733,728	133,028	47,139	180,168	-8.7%	47.34	103.8%	100.0%	185,282	-6.1%
FY17	733,728	130,932	46,822	177,753	-10.0%	47.13	102.9%	99.7%	181,364	-8.1%
FY18	733,728	139,595	47,896	187,491	-5.0%	44.30	96.3%	100.1%	182,393	-7.6%
FY19	733,728	128,343	45,909	174,252	-11.7%	43.35	94.8%	100.5%	167,749	-15.0%
FY20	733,728	122,167	41,684	163,851	-17.0%	45.35	98.9%	100.1%	162,534	-17.7%

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



# Agency Energy Use Summary

## 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 FY2006); DNR-Tomahawk and DNR-Southeast Office (Milwaukee).

### ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted:** 23.1 percent decrease

Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted:** 5.1 percent increase

Energy use (BTU/GSF/Yr) for FY20 increase 5.1 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted:** 1.5 percent decrease per year.

On average, energy use (BTU/GSF/Yr) has decreased 1.5 percent since the base year, FY05.

### GSF AND CONSUMPTION STATISTICS

**GSF Change from Base:** 24.1 percent increase.

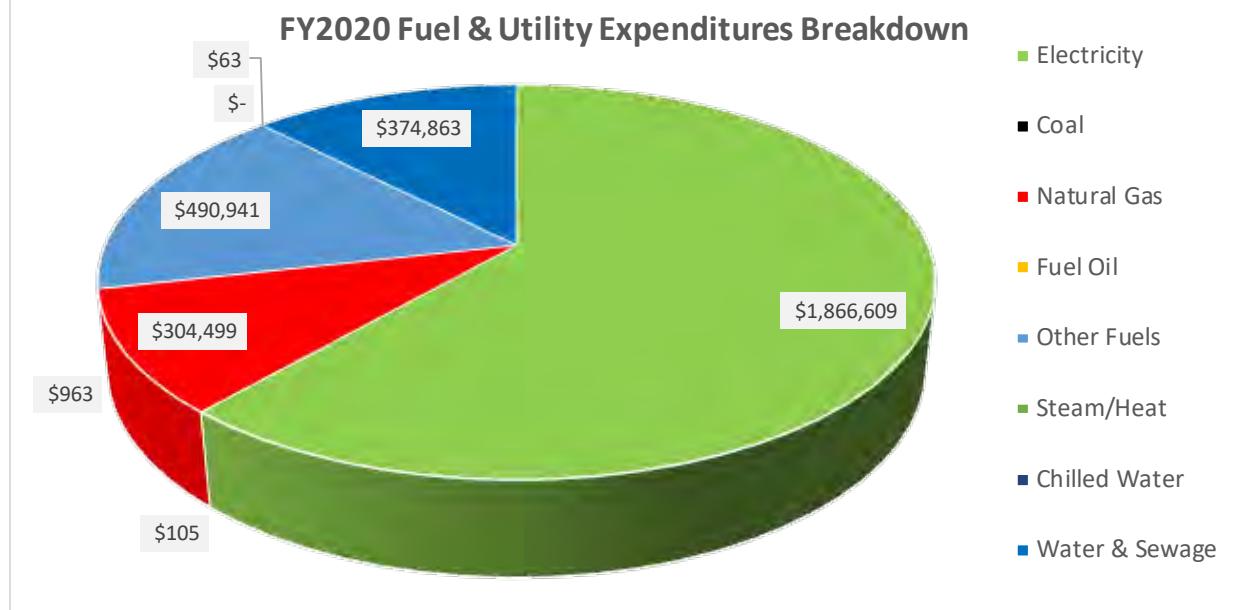
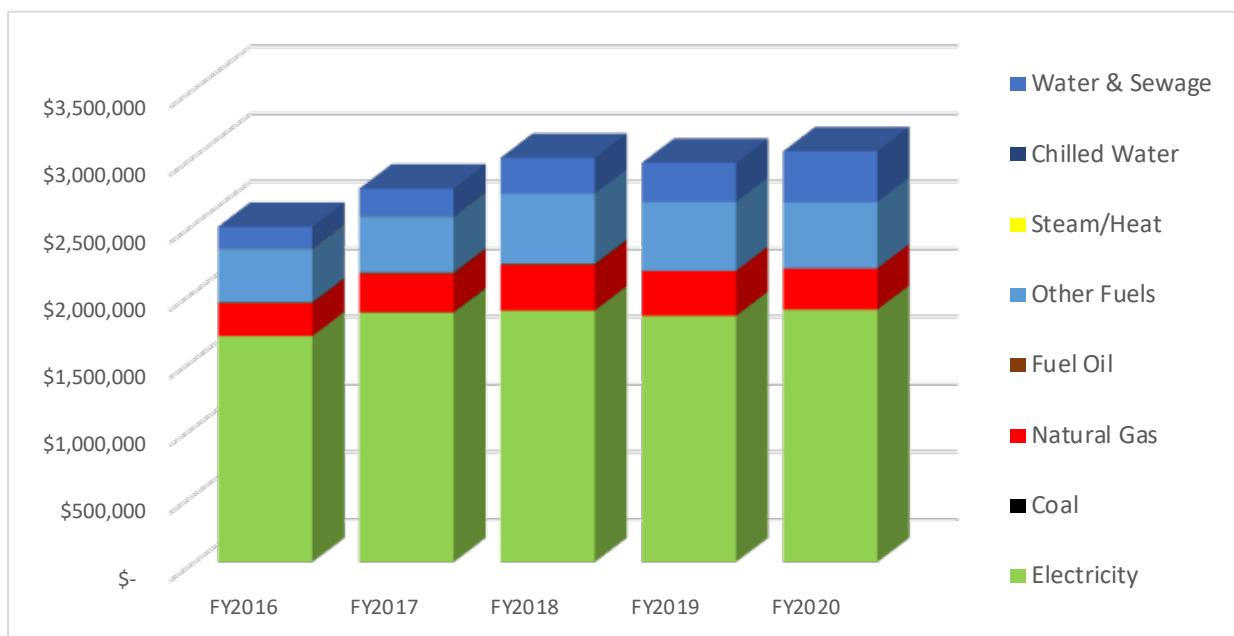
Gross square footage (GSF) has increased 24.1% from the base fiscal year, FY05.

**Consumption Change from Base:** 4.6 percent decrease.

Total consumption was 4.6 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 4.6 percent less than in the base year when adjusted for weather compared to FY05.

**Natural Resources, Department of**

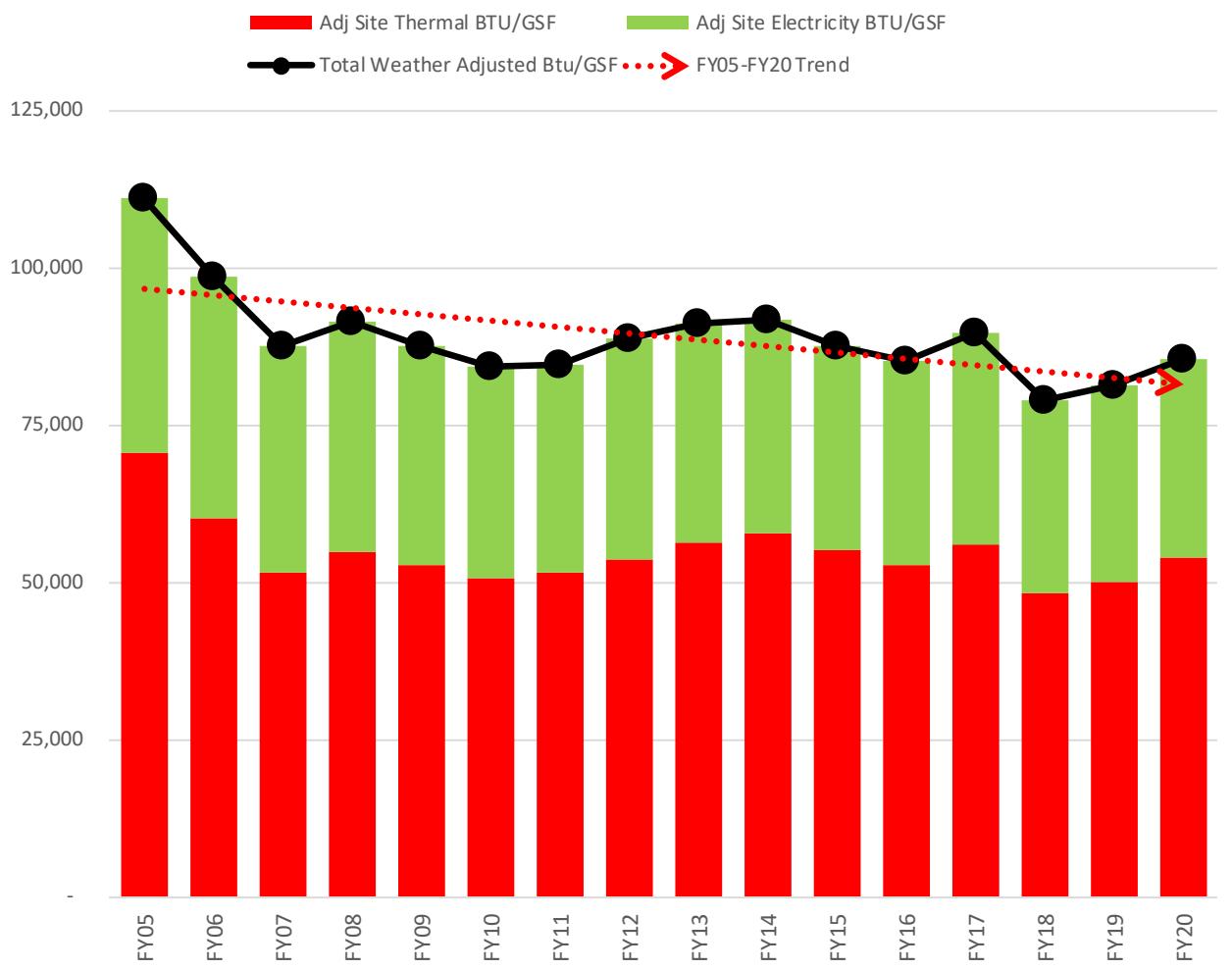
<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 1,671,833	\$ 1,845,777	\$ 1,860,478	\$ 1,820,868	\$ 1,866,609
Coal	\$ 94	\$ 1,568	\$ 6	\$ 212	\$ 105
Natural Gas	\$ 240,227	\$ 282,090	\$ 335,750	\$ 331,256	\$ 304,499
Fuel Oil	\$ 9,605	\$ 11,946	\$ 9,765	\$ 1,825	\$ 963
Other Fuels	\$ 384,706	\$ 405,148	\$ 517,749	\$ 507,665	\$ 490,941
Steam/Heat	\$ 2,825	\$ 813	-	-	-
Chilled Water	\$ 235	\$ -	\$ -	\$ -	\$ 63
Water & Sewage	\$ 170,905	\$ 214,972	\$ 266,770	\$ 290,385	\$ 374,863
<b>Total Utilities</b>	<b>\$ 2,480,430</b>	<b>\$ 2,762,315</b>	<b>\$ 2,990,518</b>	<b>\$ 2,952,211</b>	<b>\$ 3,038,043</b>



### DNR Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	143,537	70,469	40,584	111,053	0.0%	46.04	100.0%	100.0%	111,053	0.0%
FY06	178,097	58,886	38,649	97,535	-12.2%	47.49	102.4%	99.0%	98,575	-11.2%
FY07	178,097	52,646	36,033	88,678	-20.1%	46.81	98.1%	99.4%	87,445	-21.3%
FY08	178,097	60,814	37,215	98,029	-11.7%	44.51	90.2%	98.3%	91,446	-17.7%
FY09	178,097	58,113	35,021	93,134	-16.1%	43.51	90.9%	98.8%	87,432	-21.3%
FY10	178,097	50,777	33,655	84,433	-24.0%	45.49	99.5%	100.0%	84,206	-24.2%
FY11	178,097	55,525	33,682	89,207	-19.7%	43.59	92.9%	98.3%	84,708	-23.7%
FY12	178,097	49,385	35,635	85,021	-23.4%	49.50	108.4%	99.0%	88,774	-20.1%
FY13	178,097	59,759	35,031	94,790	-14.6%	44.37	94.4%	98.9%	91,052	-18.0%
FY14	178,097	67,613	34,690	102,302	-7.9%	41.62	85.4%	98.2%	91,836	-17.3%
FY15	178,097	59,191	32,330	91,521	-17.6%	43.36	93.1%	100.3%	87,512	-21.2%
FY16	178,097	49,528	32,417	81,944	-26.2%	47.34	106.8%	99.9%	85,276	-23.2%
FY17	178,097	52,615	34,354	86,969	-21.7%	47.13	106.5%	98.2%	89,765	-19.2%
FY18	178,097	51,727	30,856	82,583	-25.6%	44.30	93.6%	98.7%	78,873	-29.0%
FY19	178,097	54,372	31,465	85,837	-22.7%	43.35	92.0%	99.2%	81,264	-26.8%
FY20	178,097	53,798	31,581	85,379	-23.1%	45.35	100.2%	99.8%	85,426	-23.1%

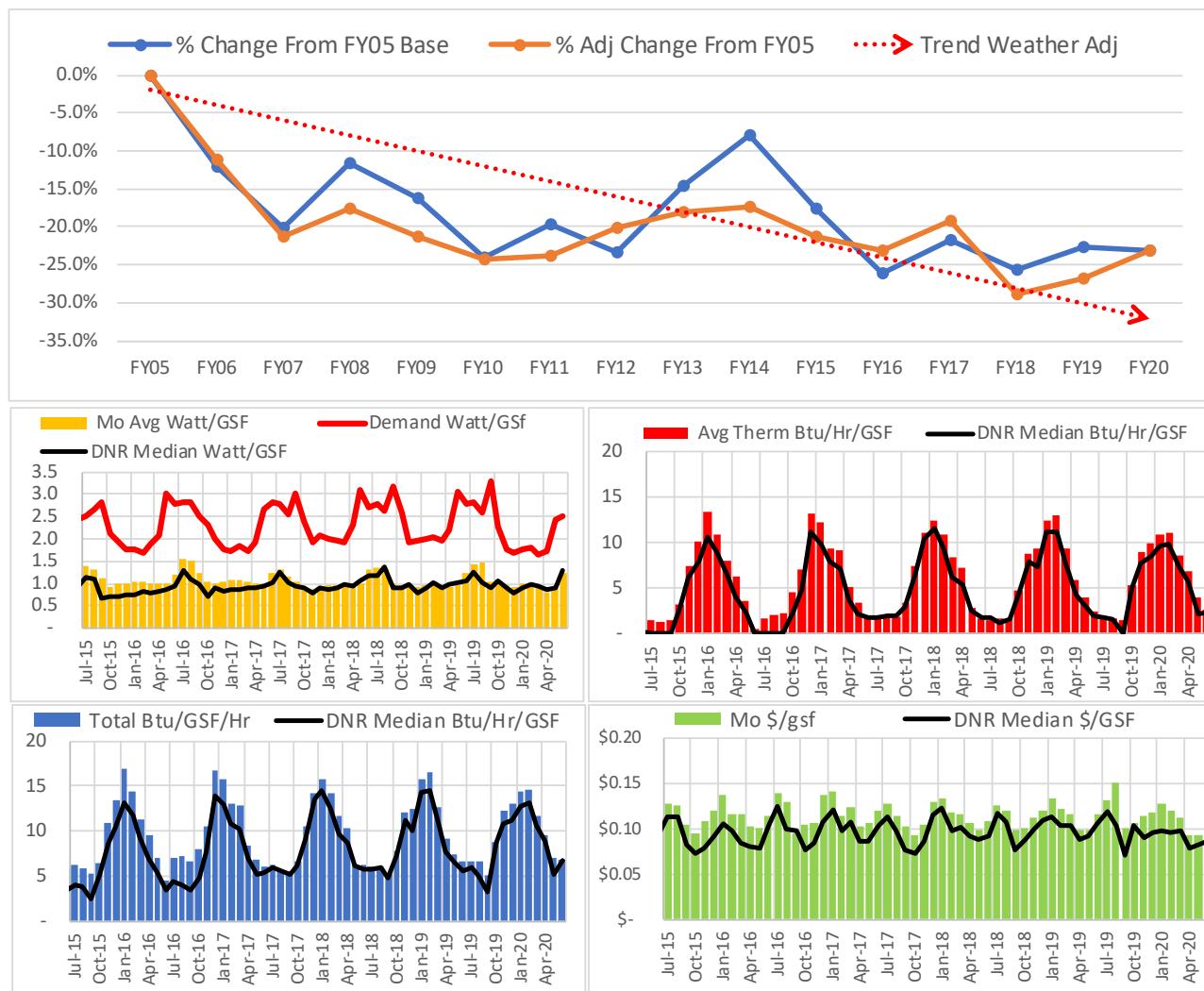
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DNR Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =		9.25	FY20 Therm/GSF =		0.54	FY20 Total Btu/GSF =		85,379	05-20 Thm	-23.5%
FY20 Electric \$/GSF =		\$ 1.11	FY20 Thermal \$/GSF =		\$ 0.27	FY20 Energy \$/GSF =		\$ 1.38	05-20 kwh	-22.4%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	143,537	70,469	40,584	111,053	0.0%	46.04	100.0%	100.0%	111,053	0.0%
FY06	178,097	58,886	38,649	97,535	-12.2%	47.49	102.4%	99.0%	98,575	-11.2%
FY07	178,097	52,646	36,033	88,678	-20.1%	46.81	98.1%	99.4%	87,445	-21.3%
FY08	178,097	60,814	37,215	98,029	-11.7%	44.51	90.2%	98.3%	91,446	-17.7%
FY09	178,097	58,113	35,021	93,134	-16.1%	43.51	90.9%	98.8%	87,432	-21.3%
FY10	178,097	50,777	33,655	84,433	-24.0%	45.49	99.5%	100.0%	84,206	-24.2%
FY11	178,097	55,525	33,682	89,207	-19.7%	43.59	92.9%	98.3%	84,708	-23.7%
FY12	178,097	49,385	35,635	85,021	-23.4%	49.50	108.4%	99.0%	88,774	-20.1%
FY13	178,097	59,759	35,031	94,790	-14.6%	44.37	94.4%	98.9%	91,052	-18.0%
FY14	178,097	67,613	34,690	102,302	-7.9%	41.62	85.4%	98.2%	91,836	-17.3%
FY15	178,097	59,191	32,330	91,521	-17.6%	43.36	93.1%	100.3%	87,512	-21.2%
FY16	178,097	49,528	32,417	81,944	-26.2%	47.34	106.8%	99.9%	85,276	-23.2%
FY17	178,097	52,615	34,354	86,969	-21.7%	47.13	106.5%	98.2%	89,765	-19.2%
FY18	178,097	51,727	30,856	82,583	-25.6%	44.30	93.6%	98.7%	78,873	-29.0%
FY19	178,097	54,372	31,465	85,837	-22.7%	43.35	92.0%	99.2%	81,264	-26.8%
FY20	178,097	53,798	31,581	85,379	-23.1%	45.35	100.2%	99.8%	85,426	-23.1%

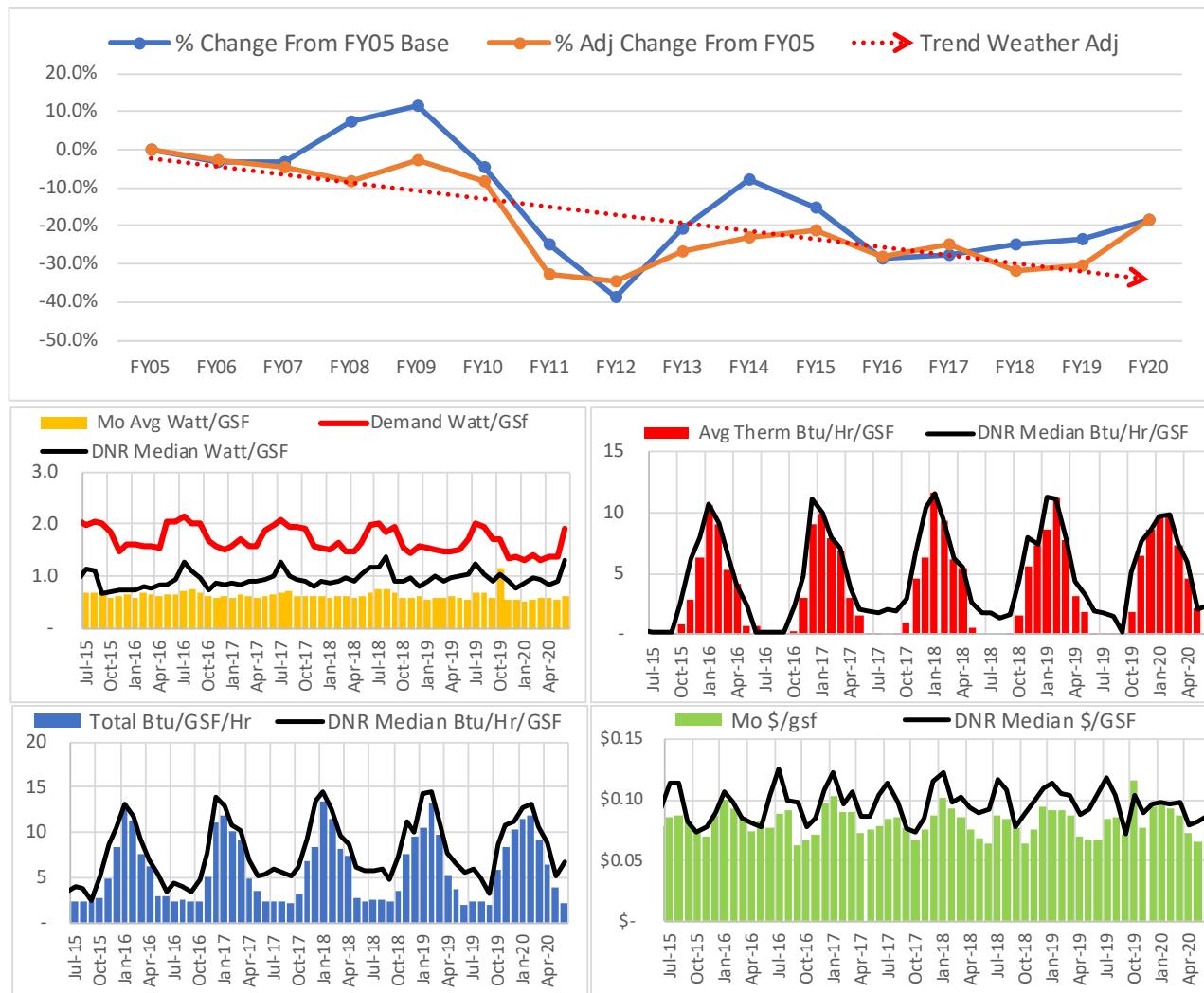
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-Darwin Road Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	5.57	FY20 Therm/GSF =	0.37	FY20 Total Btu/GSF =	56,113	05-20 Thm	-20.8%			
FY20 Electric \$/GSF =	\$ 0.82	FY20 Thermal \$/GSF =	\$ 0.20	FY20 Energy \$/GSF =	\$ 1.02	05-20 kwh	-14.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	24,820	46,623	22,302	68,925	0.0%	48.12	100.0%	100.0%	68,925	0.0%
FY06	24,820	43,866	22,777	66,642	-3.3%	48.65	101.1%	99.8%	67,076	-2.7%
FY07	24,820	44,688	22,031	66,719	-3.2%	47.46	97.8%	99.9%	65,733	-4.6%
FY08	24,820	51,369	22,736	74,105	7.5%	46.19	79.1%	99.2%	63,177	-8.3%
FY09	24,820	53,768	22,941	76,709	11.3%	45.66	81.7%	100.2%	66,942	-2.9%
FY10	24,820	44,952	20,915	65,867	-4.4%	47.10	93.7%	100.2%	63,078	-8.5%
FY11	24,820	31,265	20,476	51,741	-24.9%	46.81	84.3%	98.4%	46,505	-32.5%
FY12	24,820	22,433	19,756	42,189	-38.8%	51.51	113.7%	99.8%	45,222	-34.4%
FY13	24,820	34,456	20,075	54,530	-20.9%	47.29	88.4%	99.2%	50,385	-26.9%
FY14	24,820	41,689	21,749	63,438	-8.0%	44.58	74.7%	100.2%	52,912	-23.2%
FY15	24,820	37,404	20,977	58,381	-15.3%	45.84	89.0%	99.5%	54,175	-21.4%
FY16	24,820	29,694	19,488	49,182	-28.6%	49.68	101.9%	99.8%	49,717	-27.9%
FY17	24,820	30,437	19,444	49,881	-27.6%	49.72	106.5%	99.3%	51,719	-25.0%
FY18	24,820	32,720	18,976	51,696	-25.0%	46.66	85.4%	99.9%	46,897	-32.0%
FY19	24,820	34,139	18,616	52,755	-23.5%	45.88	86.5%	99.9%	48,122	-30.2%
FY20	24,820	37,091	19,022	56,113	-18.6%	48.07	99.6%	100.8%	56,111	-18.6%

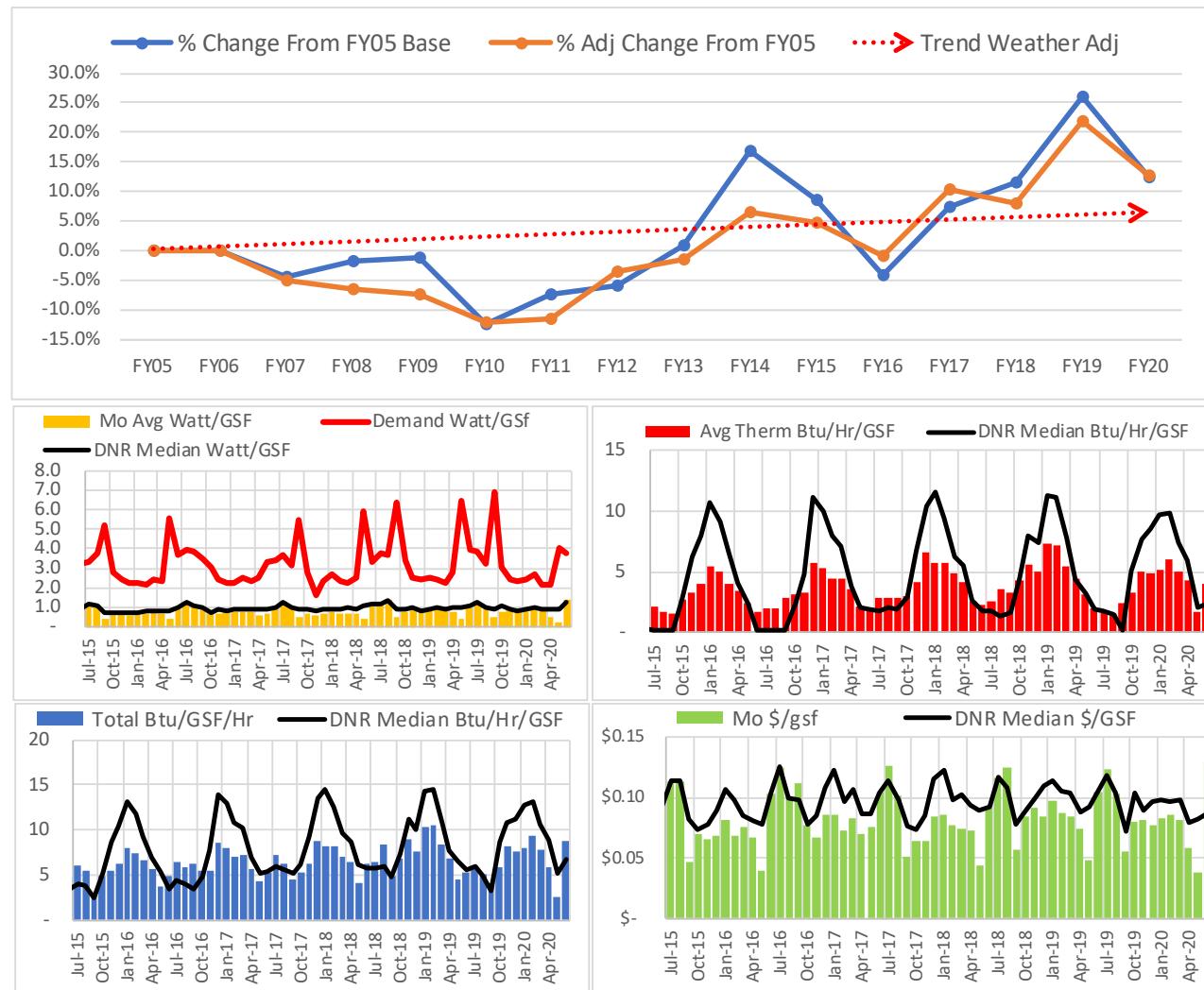
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-Green Bay Fiscal Year 2020 State Facilities Energy Report (FY06 Base)

FY20 Electric kwh/GSF =		7.36	FY20 Therm/GSF =		0.33	FY20 Total Btu/GSF =		58,043	05-20 Thm 05-20 kwh	
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05										
FY06	34,560	21,413	30,196	51,608	0.0%	47.27	103.8%	98.9%	52,110	0.0%
FY07	34,560	22,245	27,077	49,321	-4.4%	46.64	100.7%	100.0%	49,495	-5.0%
FY08	34,560	23,084	27,565	50,649	-1.9%	45.02	94.7%	97.4%	48,702	-6.5%
FY09	34,560	23,745	27,225	50,970	-1.2%	43.47	90.4%	98.2%	48,208	-7.5%
FY10	34,560	20,380	24,736	45,116	-12.6%	45.99	101.2%	101.7%	45,785	-12.1%
FY11	34,560	25,885	21,930	47,816	-7.3%	44.59	94.7%	98.5%	46,115	-11.5%
FY12	34,560	23,122	25,493	48,615	-5.8%	49.86	107.0%	100.2%	50,279	-3.5%
FY13	34,560	27,615	24,483	52,098	0.9%	45.29	98.0%	99.2%	51,341	-1.5%
FY14	34,560	35,477	24,798	60,275	16.8%	41.95	88.9%	96.5%	55,489	6.5%
FY15	34,560	33,515	22,464	55,979	8.5%	43.98	95.9%	100.1%	54,608	4.8%
FY16	34,560	27,640	21,836	49,476	-4.1%	48.11	106.1%	101.8%	51,564	-1.0%
FY17	34,560	29,956	25,409	55,365	7.3%	48.65	106.5%	100.7%	57,496	10.3%
FY18	34,560	34,804	22,813	57,617	11.6%	45.77	98.0%	97.2%	56,300	8.0%
FY19	34,560	39,129	25,974	65,102	26.1%	44.89	97.5%	97.6%	63,489	21.8%
FY20	34,560	32,929	25,114	58,043	12.5%	46.41	100.8%	101.6%	58,709	12.7%

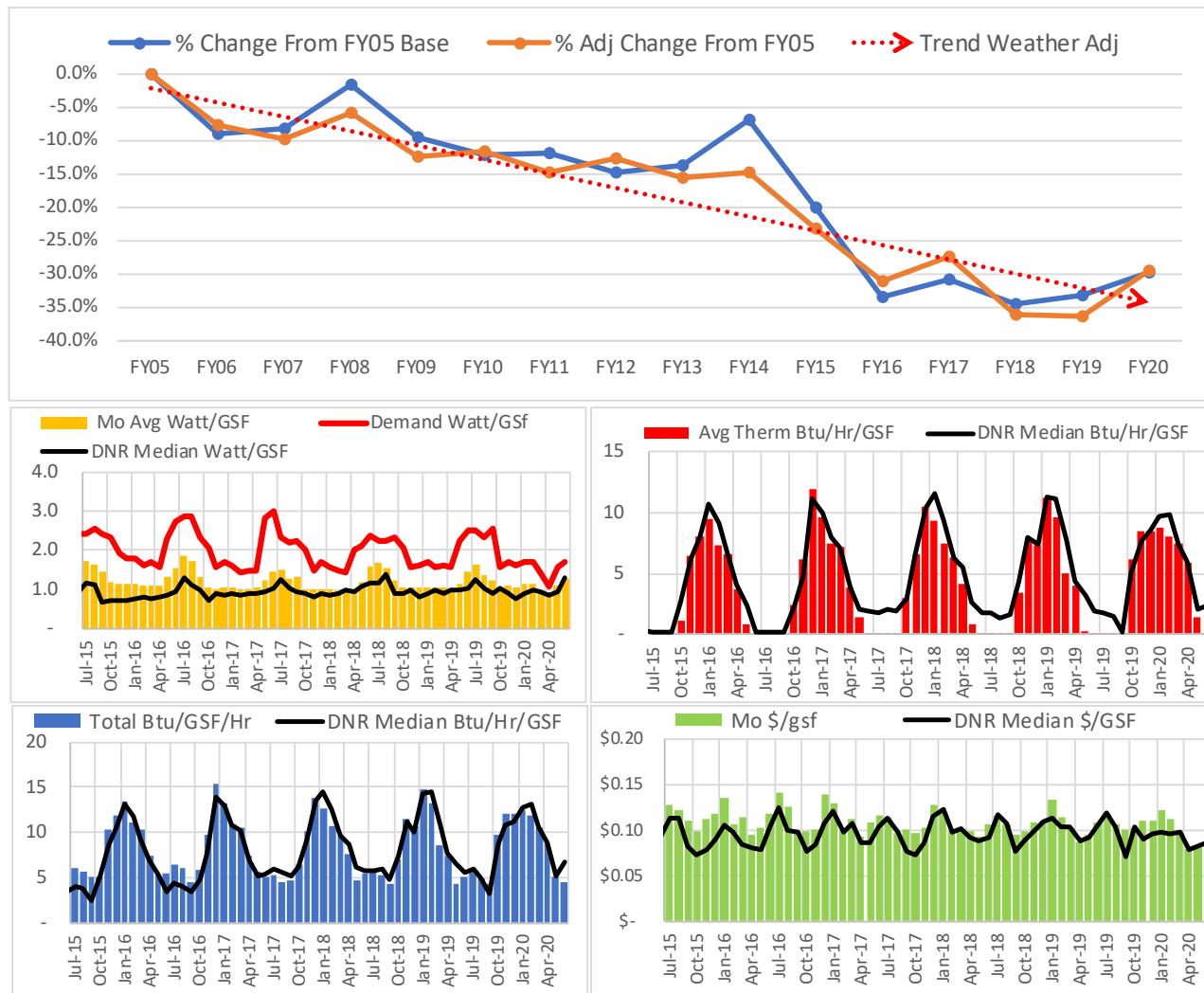
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-SE Milwaukee Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	10.13	FY20 Therm/GSF =	0.40	FY20 Total Btu/GSF =	75,022	05-20 Thm	-27.9%			
FY20 Electric \$/GSF =	\$ 1.01	FY20 Thermal \$/GSF =	\$ 0.22	FY20 Energy \$/GSF =	\$ 1.23	05-20 kwh	-31.6%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	48,000	56,750	50,237	106,987	0.0%	48.47	100.0%	100.0%	106,987	0.0%
FY06	48,000	48,370	49,052	97,421	-8.9%	50.11	104.5%	98.4%	98,771	-7.7%
FY07	48,000	49,489	48,529	98,019	-8.4%	48.88	98.1%	98.8%	96,503	-9.8%
FY08	48,000	58,873	46,299	105,172	-1.7%	47.87	93.9%	98.1%	100,709	-5.9%
FY09	48,000	53,906	42,950	96,856	-9.5%	47.26	94.4%	99.5%	93,598	-12.5%
FY10	48,000	50,296	43,727	94,024	-12.1%	49.10	101.0%	99.7%	94,394	-11.8%
FY11	48,000	50,885	43,409	94,293	-11.9%	48.17	95.4%	98.1%	91,137	-14.8%
FY12	48,000	48,120	42,921	91,041	-14.9%	52.24	106.5%	97.8%	93,229	-12.9%
FY13	48,000	51,926	40,389	92,316	-13.7%	48.26	96.7%	99.1%	90,227	-15.7%
FY14	48,000	58,946	40,569	99,515	-7.0%	45.20	87.0%	98.4%	91,195	-14.8%
FY15	48,000	45,941	39,478	85,419	-20.2%	46.08	91.7%	101.0%	81,995	-23.4%
FY16	48,000	32,149	39,084	71,233	-33.4%	50.51	108.4%	99.0%	73,541	-31.3%
FY17	48,000	36,884	37,141	74,025	-30.8%	51.99	113.7%	95.8%	77,527	-27.5%
FY18	48,000	35,350	34,637	69,987	-34.6%	48.73	96.5%	98.6%	68,256	-36.2%
FY19	48,000	35,752	35,676	71,428	-33.2%	47.88	91.1%	99.0%	67,891	-36.5%
FY20	48,000	40,444	34,578	75,022	-29.9%	49.85	101.1%	99.4%	75,264	-29.7%

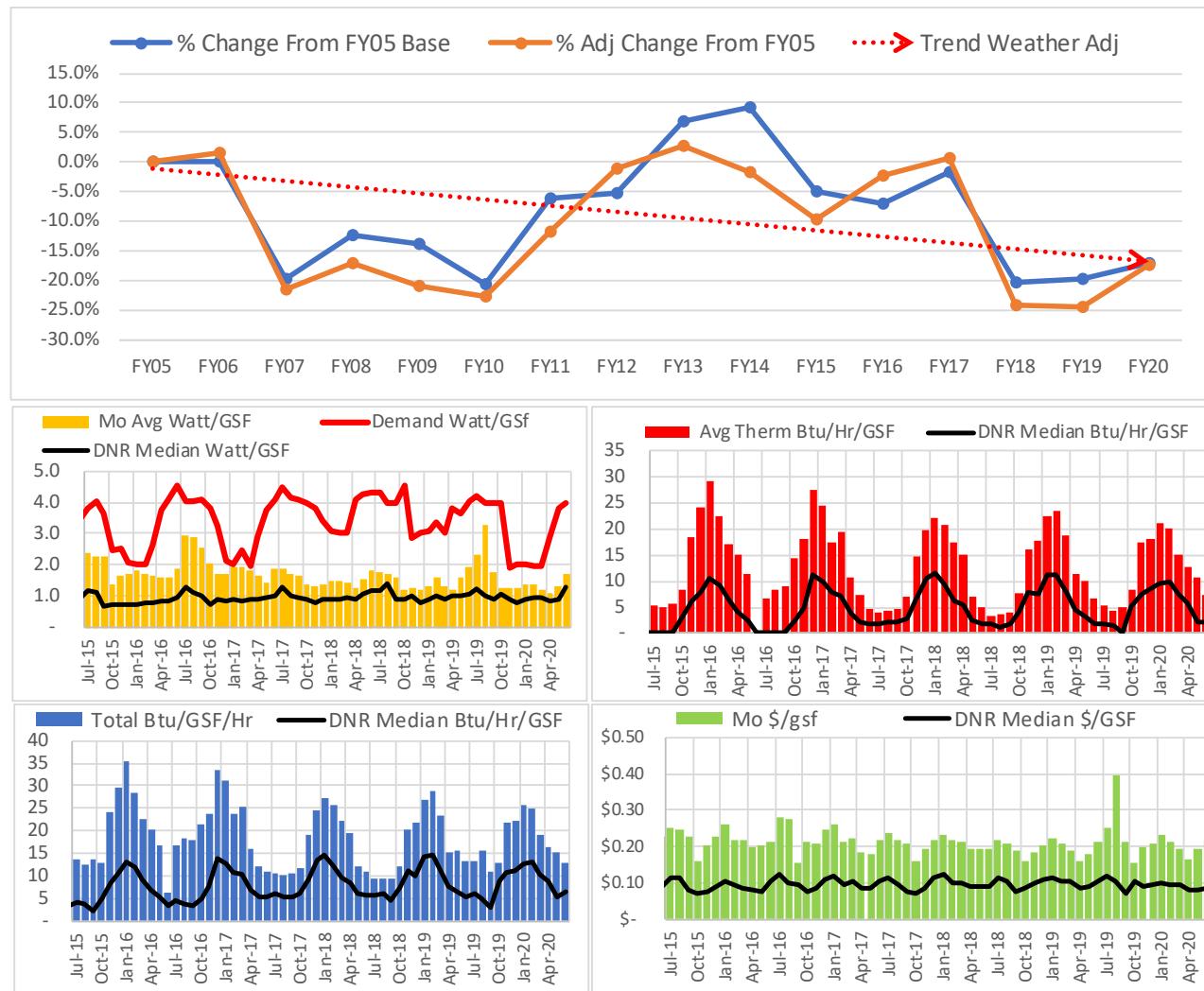
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-South Central Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	14.05	FY20 Therm/GSF =	1.07	FY20 Total Btu/GSF =	154,671	05-20 Thm	-18.3%			
FY20 Electric \$/GSF =	\$ 2.09	FY20 Thermal \$/GSF =	\$ 0.56	FY20 Energy \$/GSF =	\$ 2.65	05-20 kwh	-15.2%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	33,976	130,688	55,820	186,508	0.0%	48.12	100.0%	100.0%	186,508	0.0%
FY06	33,976	129,570	57,246	186,816	0.2%	48.65	102.3%	98.9%	189,134	1.4%
FY07	33,976	99,150	50,411	149,561	-19.8%	47.46	97.2%	99.4%	146,484	-21.5%
FY08	33,976	108,707	54,805	163,512	-12.3%	46.19	92.8%	97.9%	154,592	-17.1%
FY09	33,976	111,071	49,391	160,462	-14.0%	45.66	89.5%	97.4%	147,477	-20.9%
FY10	33,976	99,823	47,924	147,747	-20.8%	47.10	96.4%	99.7%	144,024	-22.8%
FY11	33,976	123,153	51,765	174,918	-6.2%	46.81	92.5%	97.5%	164,456	-11.8%
FY12	33,976	115,512	61,016	176,529	-5.4%	51.51	108.0%	98.2%	184,660	-1.0%
FY13	33,976	137,044	62,033	199,077	6.7%	47.29	95.5%	98.3%	191,839	2.9%
FY14	33,976	145,623	57,931	203,555	9.1%	44.58	87.1%	97.2%	183,098	-1.8%
FY15	33,976	127,213	50,043	177,256	-5.0%	45.84	93.1%	100.2%	168,536	-9.6%
FY16	33,976	118,703	54,830	173,532	-7.0%	49.68	107.4%	99.9%	182,331	-2.2%
FY17	33,976	122,605	60,787	183,392	-1.7%	49.72	104.4%	98.0%	187,505	0.5%
FY18	33,976	103,025	45,660	148,685	-20.3%	46.66	93.8%	98.5%	141,569	-24.1%
FY19	33,976	105,214	44,310	149,524	-19.8%	45.88	92.1%	99.4%	140,901	-24.5%
FY20	33,976	106,709	47,961	154,671	-17.1%	48.07	100.1%	98.7%	154,173	-17.3%

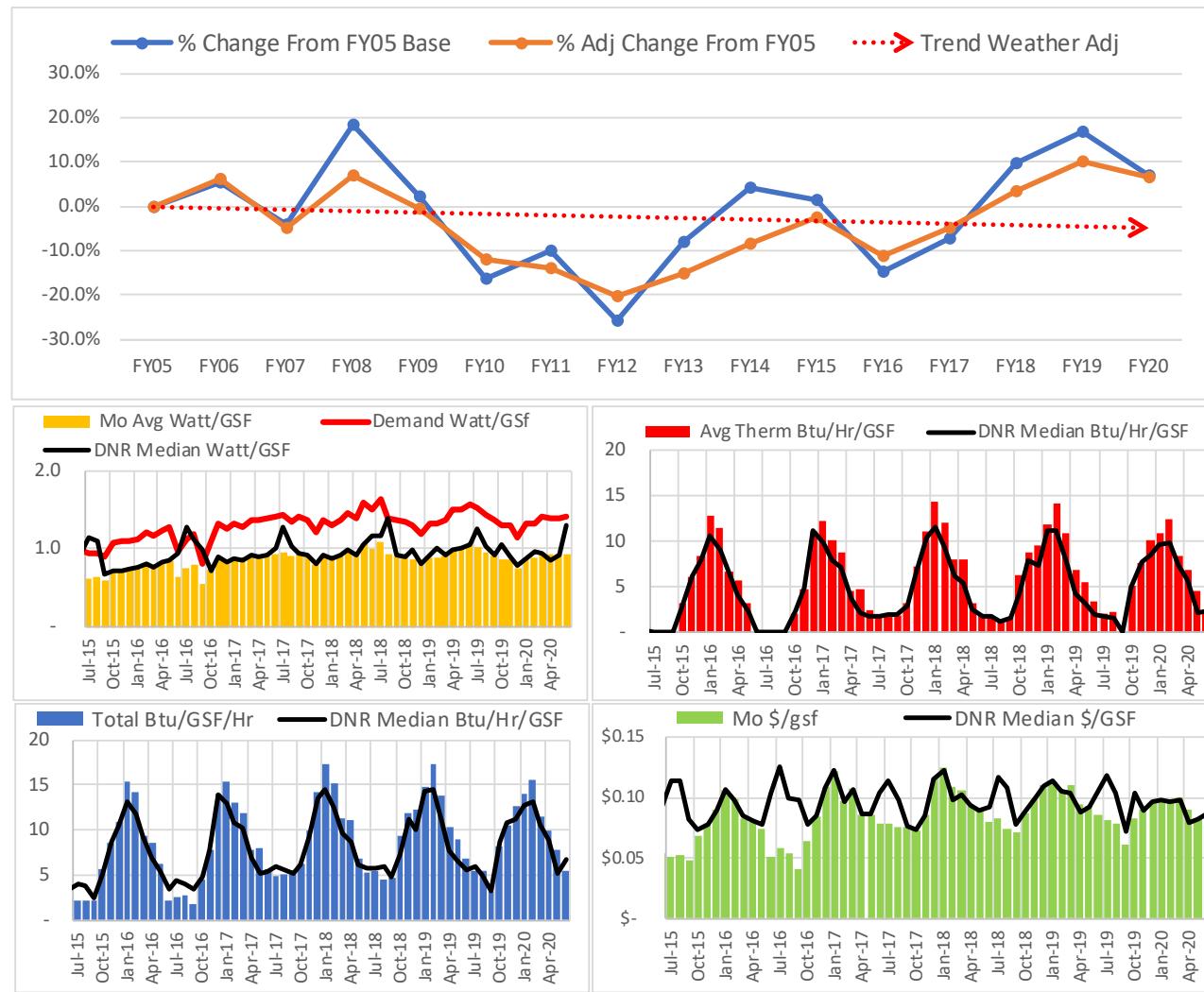
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DNR-Tomahawk Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =		7.94	FY20 Therm/GSF =		0.53	FY20 Total Btu/GSF =		80,317	05-20 Thm	8.5%
FY20 Electric \$/GSF =		\$ 0.79	FY20 Thermal \$/GSF =		\$ 0.24	FY20 Energy \$/GSF =		\$ 1.03	05-20 kwh	3.3%
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	36,741	48,814	26,236	75,049	0.0%	44.26	100.0%	100.0%	75,049	0.0%
FY06	36,741	52,654	26,536	79,190	5.5%	45.56	100.6%	100.2%	79,560	6.0%
FY07	36,741	47,737	24,294	72,031	-4.0%	44.50	98.6%	100.0%	71,378	-4.9%
FY08	36,741	60,931	27,939	88,870	18.4%	42.10	86.0%	99.6%	80,256	6.9%
FY09	36,741	49,901	26,866	76,768	2.3%	42.50	95.8%	99.7%	74,587	-0.6%
FY10	36,741	38,580	24,299	62,879	-16.2%	45.38	108.2%	99.8%	65,993	-12.1%
FY11	36,741	43,317	24,227	67,544	-10.0%	43.50	93.4%	100.0%	64,674	-13.8%
FY12	36,741	32,801	22,913	55,714	-25.8%	47.63	111.5%	101.9%	59,916	-20.2%
FY13	36,741	45,853	23,084	68,936	-8.1%	42.87	89.0%	99.5%	63,754	-15.1%
FY14	36,741	54,536	23,563	78,099	4.1%	39.97	82.6%	100.6%	68,764	-8.4%
FY15	36,741	52,465	23,561	76,026	1.3%	42.20	94.9%	99.7%	73,262	-2.4%
FY16	36,741	42,249	21,667	63,916	-14.8%	46.23	106.3%	100.1%	66,587	-11.3%
FY17	36,741	44,742	24,754	69,496	-7.4%	45.86	104.2%	100.2%	71,425	-4.8%
FY18	36,741	54,444	27,817	82,261	9.6%	42.67	91.5%	100.0%	77,602	3.4%
FY19	36,741	59,689	27,931	87,620	16.8%	41.78	91.5%	100.6%	82,695	10.2%
FY20	36,741	53,232	27,085	80,317	7.0%	43.78	99.5%	100.1%	80,063	6.7%

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



# Agency Energy Use Summary

## 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.

### ENERGY CONSUMPTION

**Total Change from Base - Weather Adjusted: 7.7 percent decrease**

Includes the major agency facilities listed in scope above.

**Latest Year Change - Weather Adjusted: 13.5 percent increase**

Energy use (BTU/GSF/Yr) for FY20 increase 13.5 percent from the previous fiscal year, FY19.

**Average Annual Change - Weather Adjusted: 0.5 percent decrease per year.**

On average, energy use (BTU/GSF/Yr) has decrease 0.5 percent since the base year, FY05.

### GSF AND CONSUMPTION STATISTICS

**GSF Change from Base: 0 percent increase.**

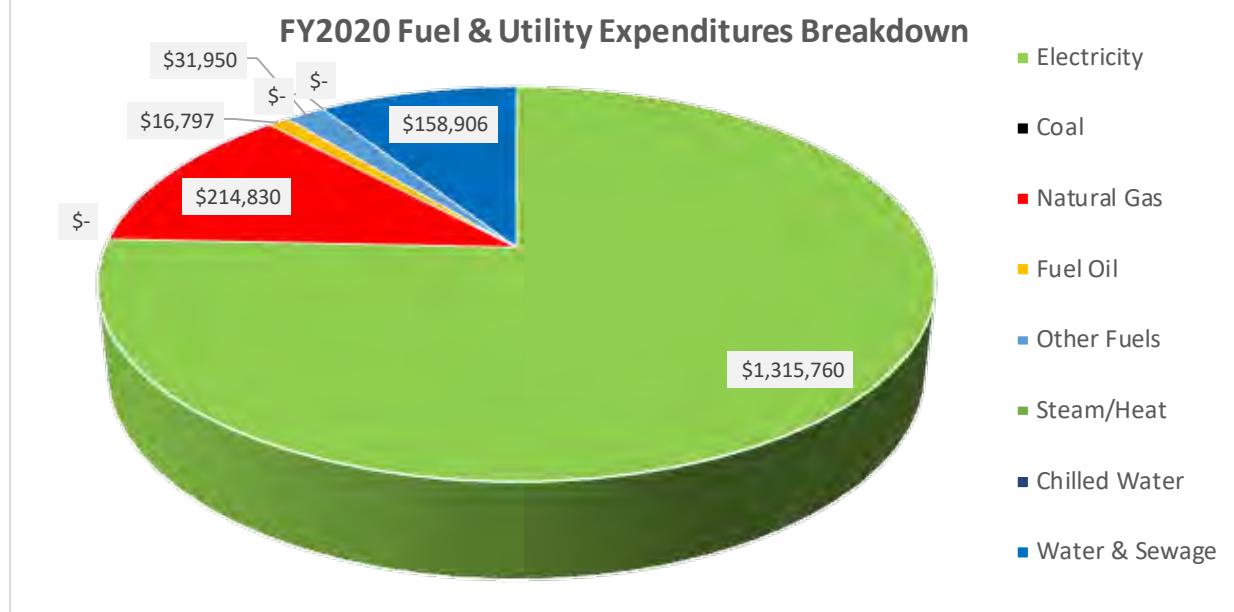
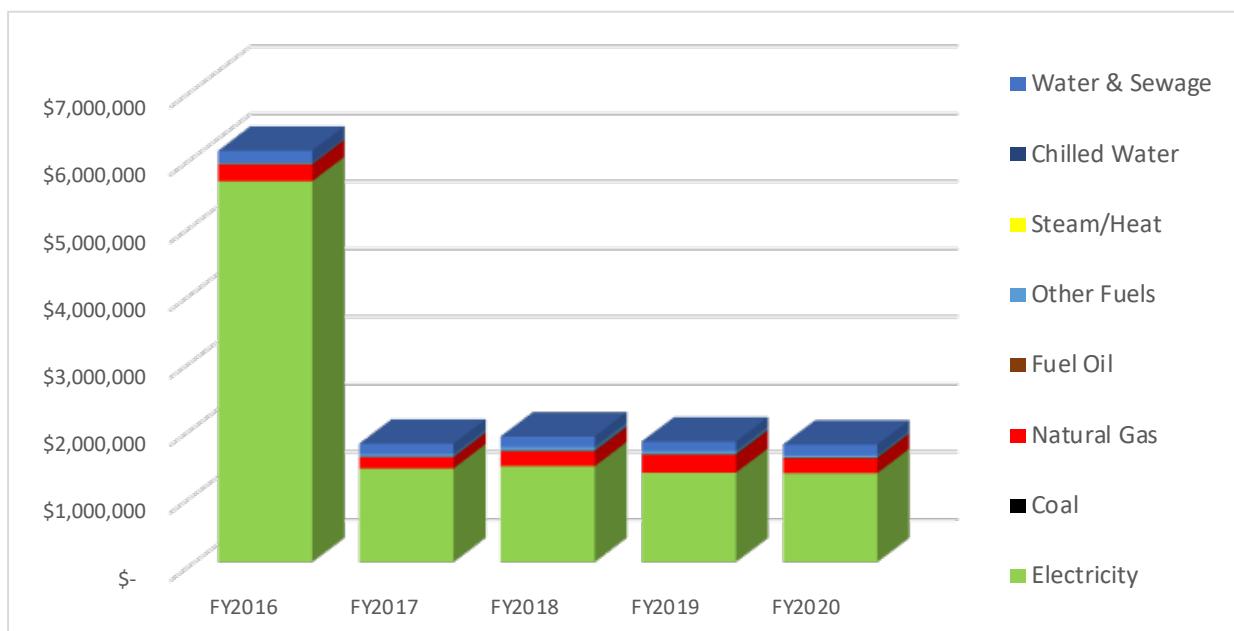
Gross square footage (GSF) has not changed from the base fiscal year, FY05.

**Consumption Change from Base: 7.8 percent decrease.**

Total consumption was 7.8 percent less when compared to FY05. Total energy (million BTU) purchases in FY20 were 7.7 percent less than in the base year when adjusted for weather compared to FY05.

**Transportation, Department of**

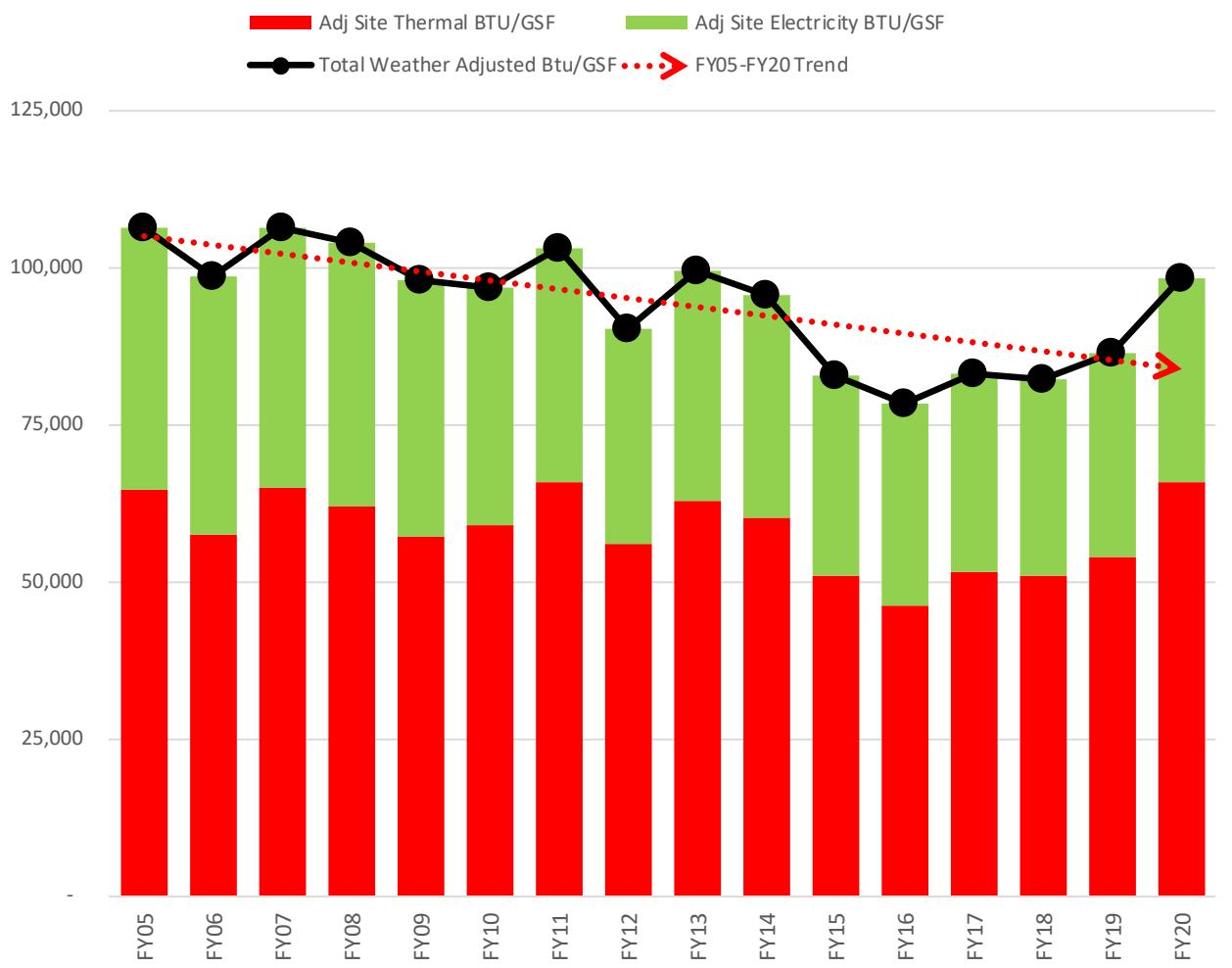
<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 5,633,075	\$ 1,386,980	\$ 1,419,293	\$ 1,323,145	\$ 1,315,760
Coal	\$ -	\$ -	\$ -	\$ -	\$ -
Natural Gas	\$ 245,263	\$ 159,837	\$ 212,941	\$ 258,768	\$ 214,830
Fuel Oil	\$ 12,187	\$ 9,532	\$ 16,212	\$ 15,192	\$ 16,797
Other Fuels	\$ 19,183	\$ 40,183	\$ 54,558	\$ 46,603	\$ 31,950
Steam/Heat	\$ -	\$ -	\$ -	\$ -	\$ -
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 175,214	\$ 155,526	\$ 155,235	\$ 140,198	\$ 158,906
<b>Total Utilities</b>	<b>\$ 6,084,923</b>	<b>\$ 1,752,058</b>	<b>\$ 1,858,239</b>	<b>\$ 1,783,906</b>	<b>\$ 1,738,242</b>



### DOT Fiscal Year 2020 Total State Agency Total (FY05 Base)

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	274,395	64,561	41,794	106,355	0.0%	44.26	100.0%	100.0%	106,355	0.0%
FY06	274,395	57,610	41,548	99,158	-6.8%	45.56	99.7%	99.1%	98,622	-7.3%
FY07	274,395	65,171	41,538	106,709	0.3%	44.50	99.6%	99.7%	106,336	0.0%
FY08	274,395	67,726	42,663	110,389	3.8%	42.10	91.3%	98.8%	104,005	-2.2%
FY09	274,395	62,757	40,834	103,590	-2.6%	42.50	91.1%	99.9%	97,940	-7.9%
FY10	274,395	59,383	37,503	96,886	-8.9%	45.38	99.1%	100.9%	96,704	-9.1%
FY11	274,395	70,053	37,703	107,757	1.3%	43.50	94.0%	98.8%	103,100	-3.1%
FY12	274,395	51,774	35,398	87,172	-18.0%	47.63	108.1%	97.3%	90,376	-15.0%
FY13	274,395	67,300	36,543	103,843	-2.4%	42.87	93.6%	99.7%	99,418	-6.5%
FY14	274,395	68,335	35,671	104,007	-2.2%	39.97	87.9%	99.3%	95,501	-10.2%
FY15	274,395	54,348	31,732	86,080	-19.1%	42.20	94.0%	99.9%	82,773	-22.2%
FY16	274,395	44,153	32,442	76,595	-28.0%	46.23	104.4%	99.6%	78,409	-26.3%
FY17	274,395	48,895	32,161	81,056	-23.8%	45.86	105.2%	98.8%	83,245	-21.7%
FY18	274,395	53,899	31,572	85,471	-19.6%	42.67	94.4%	99.6%	82,314	-22.6%
FY19	274,395	58,741	32,680	91,421	-14.0%	41.78	91.7%	99.7%	86,486	-18.7%
FY20	274,395	65,598	32,478	98,076	-7.8%	43.78	100.5%	99.4%	98,176	-7.7%

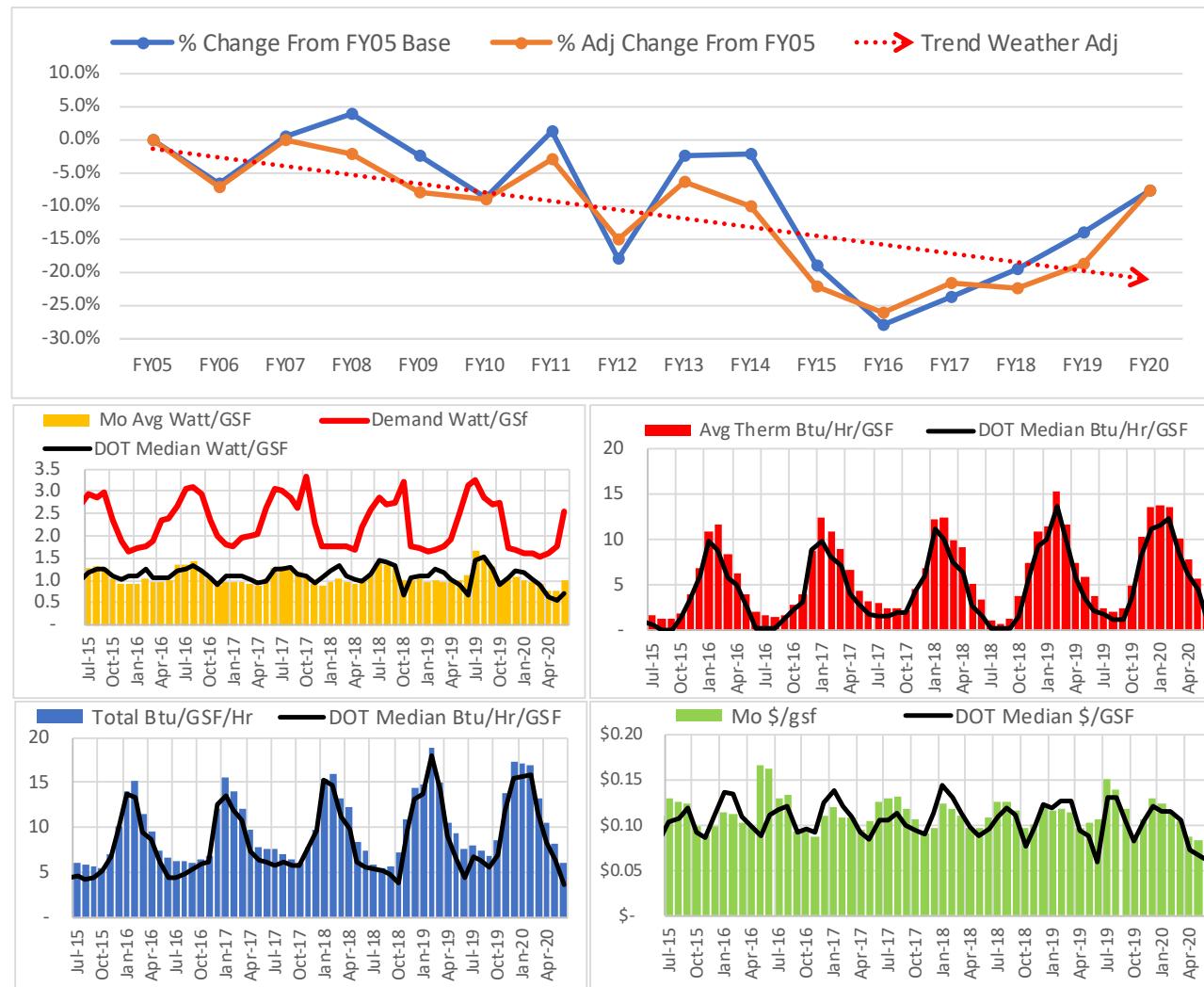
### Wisconsin State Agency Total Weather Adjusted Energy Usage (Btu/GSF)



### DOT Fiscal Year 2020 Total State Agency Total (FY05 Base)

FY20 Electric kwh/GSF =	9.52	FY20 Therm/GSF =	0.66	FY20 Total Btu/GSF =	98,076	05-20 Thm	2.1%			
FY20 Electric \$/GSF =	\$ 1.06	FY20 Thermal \$/GSF =	\$ 0.29	FY20 Energy \$/GSF =	\$ 1.35	05-20 kwh	-22.8%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	274,395	64,561	41,794	106,355	0.0%	44.26	100.0%	100.0%	106,355	0.0%
FY06	274,395	57,610	41,548	99,158	-6.8%	45.56	99.7%	99.1%	98,622	-7.3%
FY07	274,395	65,171	41,538	106,709	0.3%	44.50	99.6%	99.7%	106,336	0.0%
FY08	274,395	67,726	42,663	110,389	3.8%	42.10	91.3%	98.8%	104,005	-2.2%
FY09	274,395	62,757	40,834	103,590	-2.6%	42.50	91.1%	99.9%	97,940	-7.9%
FY10	274,395	59,383	37,503	96,886	-8.9%	45.38	99.1%	100.9%	96,704	-9.1%
FY11	274,395	70,053	37,703	107,757	1.3%	43.50	94.0%	98.8%	103,100	-3.1%
FY12	274,395	51,774	35,398	87,172	-18.0%	47.63	108.1%	97.3%	90,376	-15.0%
FY13	274,395	67,300	36,543	103,843	-2.4%	42.87	93.6%	99.7%	99,418	-6.5%
FY14	274,395	68,335	35,671	104,007	-2.2%	39.97	87.9%	99.3%	95,501	-10.2%
FY15	274,395	54,348	31,732	86,080	-19.1%	42.20	94.0%	99.9%	82,773	-22.2%
FY16	274,395	44,153	32,442	76,595	-28.0%	46.23	104.4%	99.6%	78,409	-26.3%
FY17	274,395	48,895	32,161	81,056	-23.8%	45.86	105.2%	98.8%	83,245	-21.7%
FY18	274,395	53,899	31,572	85,471	-19.6%	42.67	94.4%	99.6%	82,314	-22.6%
FY19	274,395	58,741	32,680	91,421	-14.0%	41.78	91.7%	99.7%	86,486	-18.7%
FY20	274,395	65,598	32,478	98,076	-7.8%	43.78	100.5%	99.4%	98,176	-7.7%

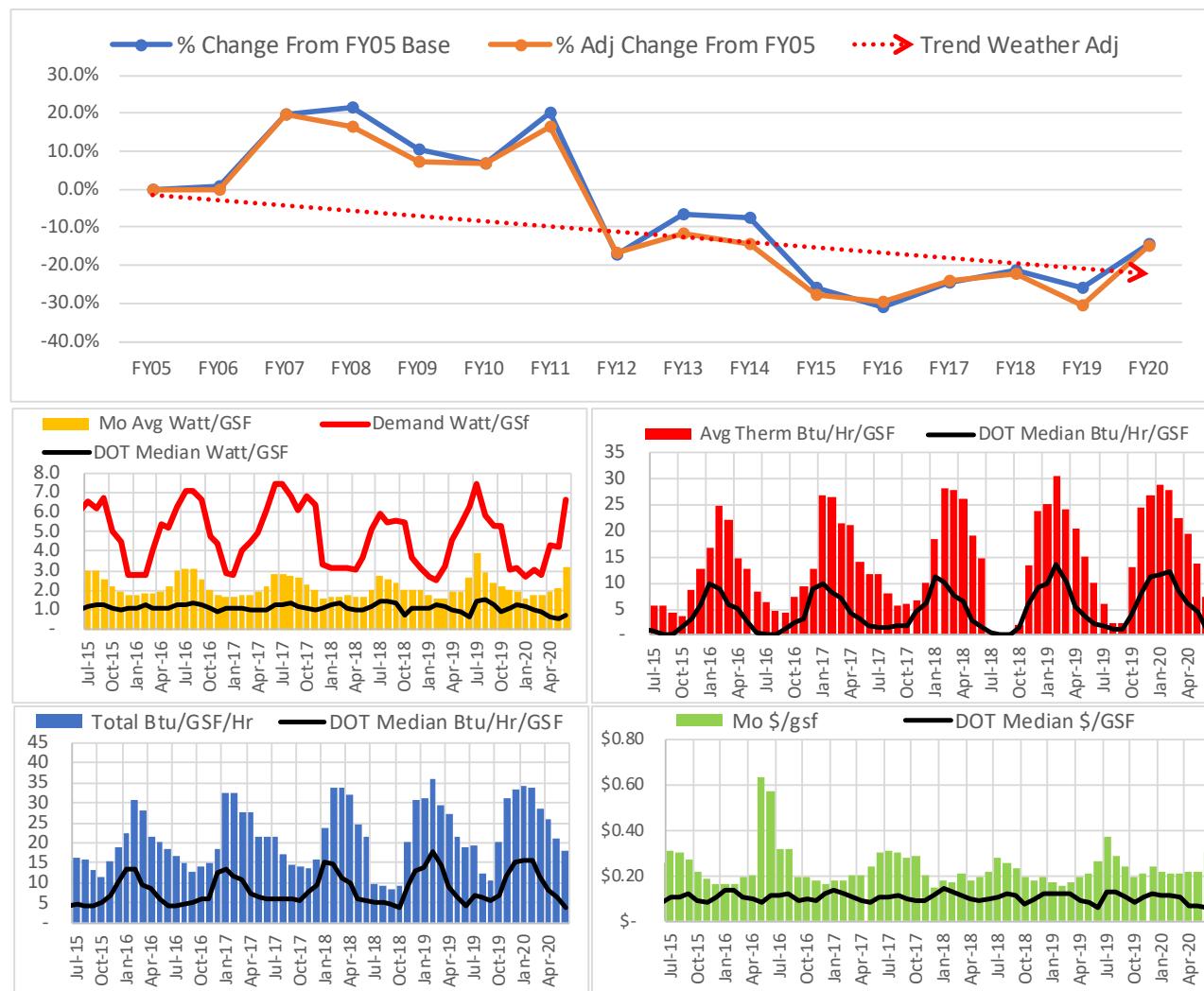
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-DTD 1 Lab Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	20.26	FY20 Therm/GSF =	1.42	FY20 Total Btu/GSF =	211,206	05-20 Thm	-13.5%			
FY20 Electric \$/GSF =	\$ 2.44	FY20 Thermal \$/GSF =	\$ 0.49	FY20 Energy \$/GSF =	\$ 2.93	05-20 kwh	-17.8%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	43,000	162,720	83,591	246,311	0.0%	48.12	100.0%	100.0%	246,311	0.0%
FY06	43,000	163,270	84,970	248,240	0.8%	48.65	99.9%	98.3%	246,542	0.1%
FY07	43,000	204,282	90,188	294,470	19.6%	47.46	100.2%	99.9%	294,804	19.7%
FY08	43,000	207,886	91,095	298,980	21.4%	46.19	95.1%	97.4%	286,381	16.3%
FY09	43,000	186,577	85,628	272,205	10.5%	45.66	95.5%	100.7%	264,360	7.3%
FY10	43,000	176,205	87,027	263,232	6.9%	47.10	98.9%	101.5%	262,614	6.6%
FY11	43,000	206,810	89,568	296,378	20.3%	46.81	96.7%	97.4%	287,132	16.6%
FY12	43,000	126,292	77,353	203,645	-17.3%	51.51	104.5%	94.1%	204,773	-16.9%
FY13	43,000	160,174	69,784	229,958	-6.6%	47.29	92.6%	98.7%	217,246	-11.8%
FY14	43,000	154,439	73,890	228,329	-7.3%	44.58	89.4%	98.5%	210,822	-14.4%
FY15	43,000	119,664	62,463	182,127	-26.1%	45.84	96.1%	100.4%	177,765	-27.8%
FY16	43,000	102,466	67,359	169,825	-31.1%	49.68	103.8%	98.8%	172,944	-29.8%
FY17	43,000	120,664	65,374	186,038	-24.5%	49.72	101.7%	97.7%	186,554	-24.3%
FY18	43,000	132,779	61,392	194,171	-21.2%	46.66	97.3%	100.8%	191,088	-22.4%
FY19	43,000	120,285	62,694	182,979	-25.7%	45.88	89.4%	100.8%	170,727	-30.7%
FY20	43,000	142,070	69,137	211,206	-14.3%	48.07	99.1%	99.4%	209,524	-14.9%

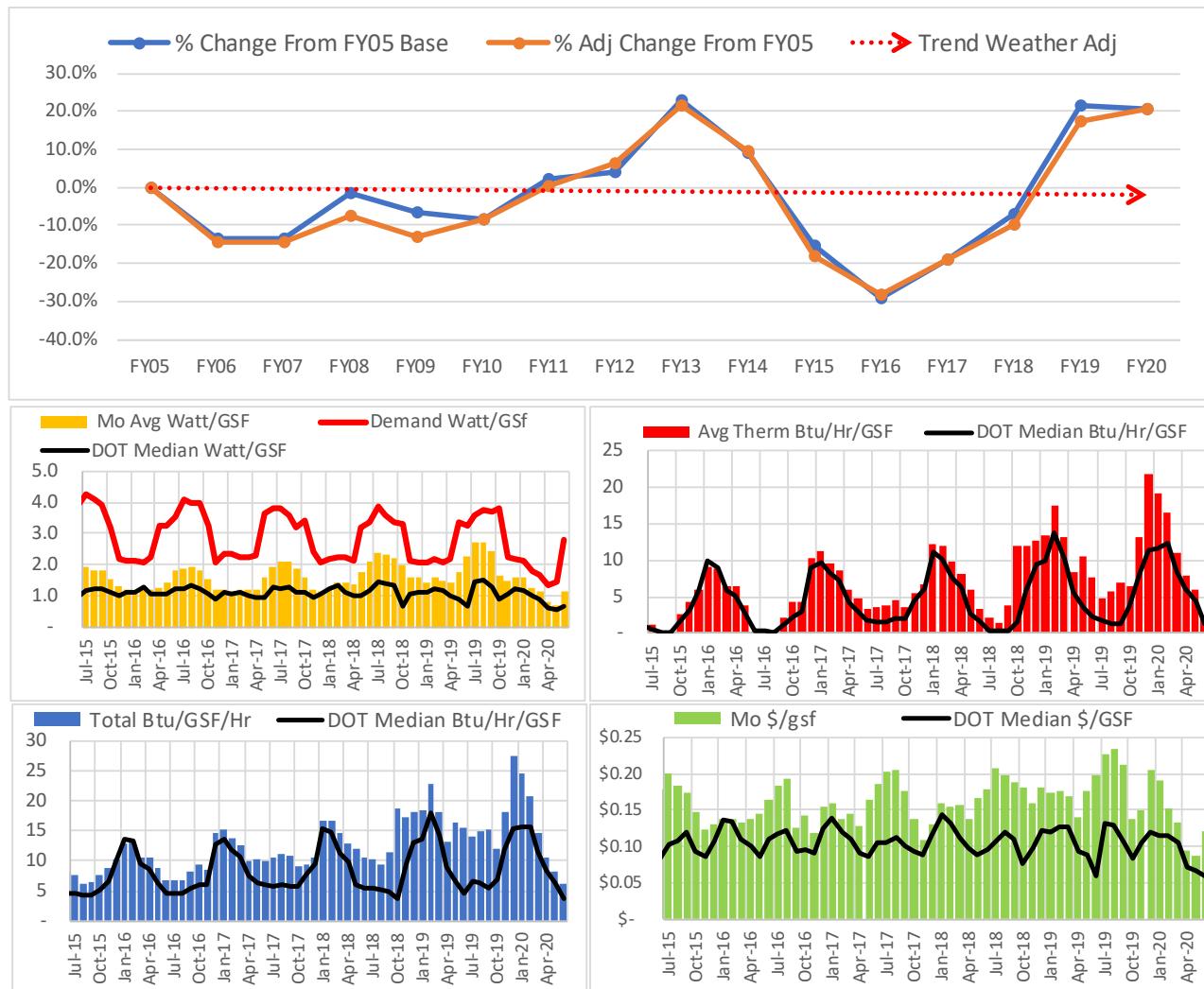
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOT-DTD 1 Madison Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	14.10	FY20 Therm/GSF =	0.89	FY20 Total Btu/GSF =	136,922	05-20 Thm	53.6%			
FY20 Electric \$/GSF =	\$ 1.52	FY20 Thermal \$/GSF =	\$ 0.42	FY20 Energy \$/GSF =	\$ 1.94	05-20 kwh	-14.1%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	56,000	58,589	55,174	113,762	0.0%	48.12	100.0%	100.0%	113,762	0.0%
FY06	56,000	47,046	51,248	98,294	-13.6%	48.65	99.8%	98.8%	97,627	-14.2%
FY07	56,000	48,837	49,591	98,427	-13.5%	47.46	98.1%	99.7%	97,349	-14.4%
FY08	56,000	58,460	53,684	112,144	-1.4%	46.19	88.6%	99.9%	105,387	-7.4%
FY09	56,000	53,853	52,546	106,399	-6.5%	45.66	86.2%	99.7%	98,819	-13.1%
FY10	56,000	50,582	53,766	104,347	-8.3%	47.10	98.4%	100.7%	103,951	-8.6%
FY11	56,000	64,737	51,597	116,334	2.3%	46.81	96.7%	100.3%	114,328	0.5%
FY12	56,000	65,209	52,985	118,195	3.9%	51.51	106.4%	97.0%	120,757	6.1%
FY13	56,000	78,796	61,133	139,929	23.0%	47.29	97.1%	101.3%	138,440	21.7%
FY14	56,000	69,321	54,971	124,292	9.3%	44.58	99.6%	101.5%	124,829	9.7%
FY15	56,000	49,730	46,348	96,078	-15.5%	45.84	93.8%	100.4%	93,164	-18.1%
FY16	56,000	36,047	44,346	80,393	-29.3%	49.68	104.5%	98.8%	81,463	-28.4%
FY17	56,000	47,428	44,581	92,009	-19.1%	49.72	102.0%	98.1%	92,104	-19.0%
FY18	56,000	57,443	48,076	105,519	-7.2%	46.66	95.0%	99.7%	102,487	-9.9%
FY19	56,000	83,108	55,125	138,233	21.5%	45.88	94.0%	100.6%	133,596	17.4%
FY20	56,000	88,784	48,139	136,922	20.4%	48.07	101.4%	98.5%	137,396	20.8%

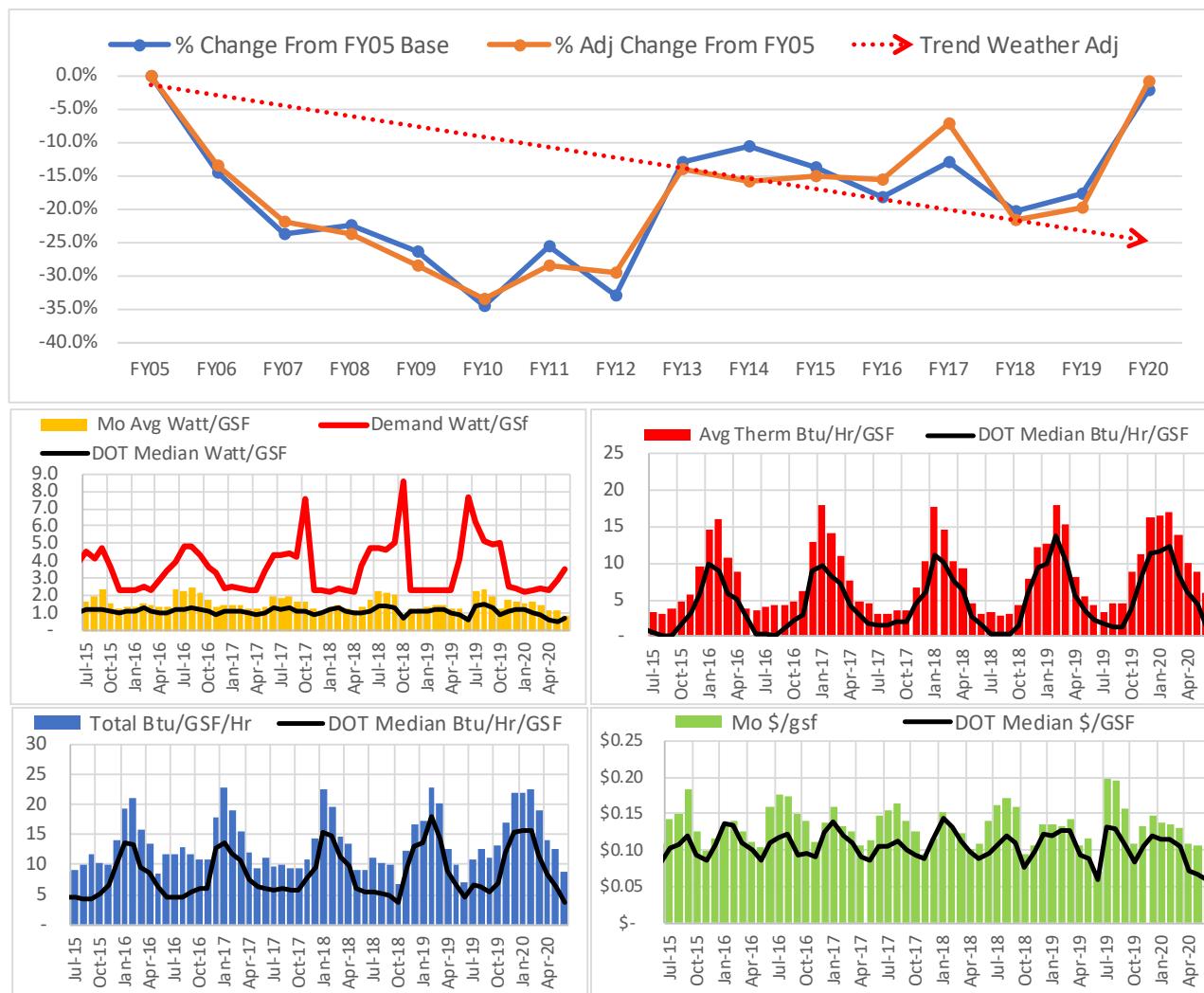
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOT-Green Bay Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	14.07	FY20 Therm/GSF =	0.88	FY20 Total Btu/GSF =	136,004	05-20 Thm	7.0%			
FY20 Electric \$/GSF =	\$ 1.23	FY20 Thermal \$/GSF =	\$ 0.40	FY20 Energy \$/GSF =	\$ 1.63	05-20 kwh	-12.7%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	40,515	84,100	54,819	138,919	0.0%	45.92	100.0%	100.0%	138,919	0.0%
FY06	40,515	60,540	58,017	118,557	-14.7%	47.27	103.4%	99.4%	120,281	-13.4%
FY07	40,515	51,120	54,837	105,957	-23.7%	46.64	105.3%	99.5%	108,389	-22.0%
FY08	40,515	51,929	55,786	107,715	-22.5%	45.02	96.6%	100.0%	105,909	-23.8%
FY09	40,515	50,581	51,556	102,138	-26.5%	43.47	94.4%	99.7%	99,154	-28.6%
FY10	40,515	43,754	47,216	90,970	-34.5%	45.99	102.8%	100.1%	92,209	-33.6%
FY11	40,515	53,998	49,240	103,237	-25.7%	44.59	92.6%	100.3%	99,376	-28.5%
FY12	40,515	44,727	48,357	93,083	-33.0%	49.86	113.3%	97.3%	97,749	-29.6%
FY13	40,515	70,221	50,531	120,753	-13.1%	45.29	97.6%	100.3%	119,221	-14.2%
FY14	40,515	75,866	48,323	124,189	-10.6%	41.95	90.2%	100.2%	116,872	-15.9%
FY15	40,515	73,473	46,114	119,587	-13.9%	43.98	97.4%	100.7%	117,958	-15.1%
FY16	40,515	64,494	49,026	113,520	-18.3%	48.11	105.8%	99.9%	117,210	-15.6%
FY17	40,515	70,324	50,655	120,979	-12.9%	48.65	111.7%	99.1%	128,789	-7.3%
FY18	40,515	65,487	45,244	110,731	-20.3%	45.77	98.1%	98.5%	108,783	-21.7%
FY19	40,515	70,741	43,479	114,221	-17.8%	44.89	97.1%	97.8%	111,253	-19.9%
FY20	40,515	87,979	48,025	136,004	-2.1%	46.41	102.2%	99.7%	137,809	-0.8%

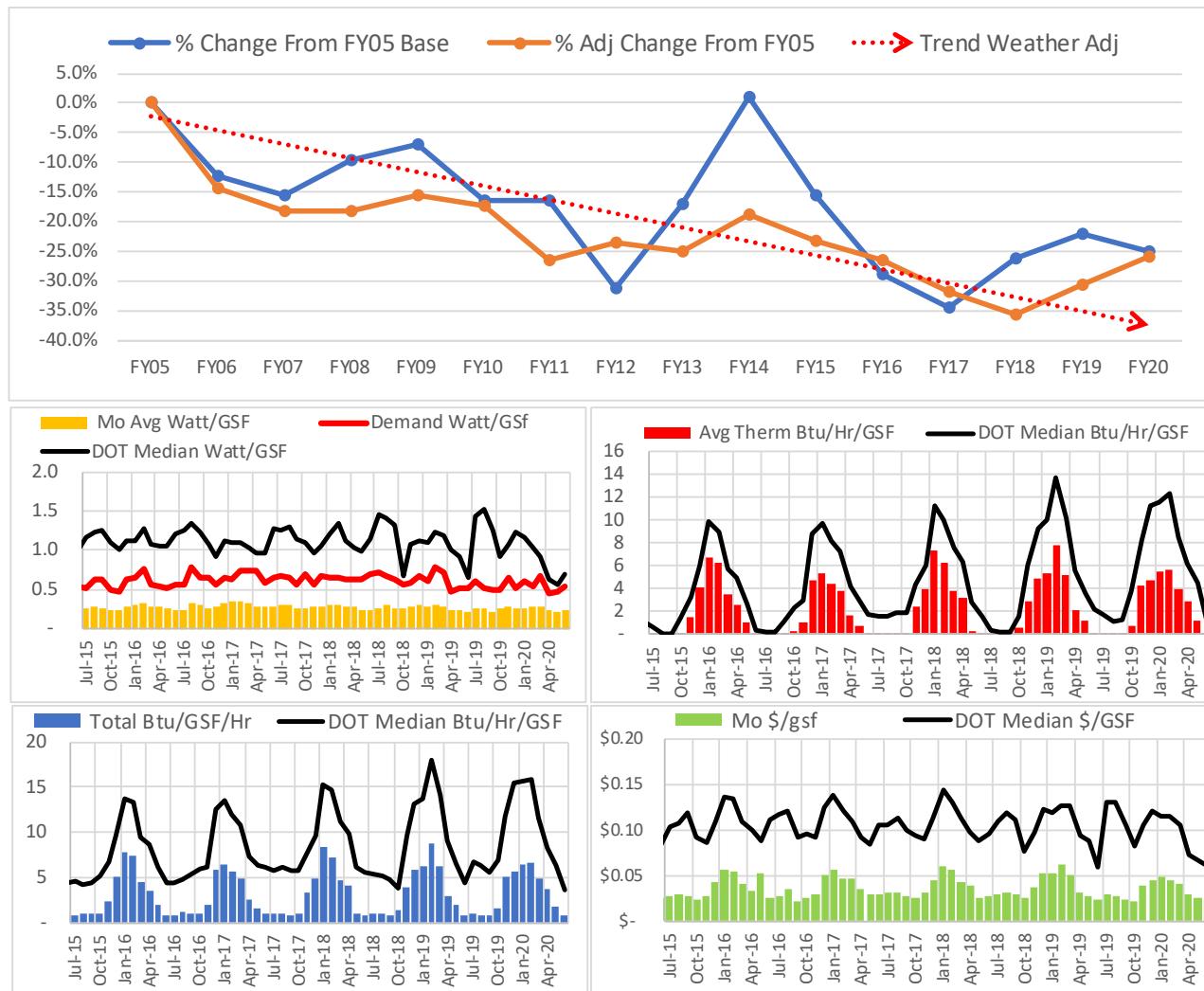
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



## DOT-PIERSTORFF A Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	2.22	FY20 Therm/GSF =	0.21	FY20 Total Btu/GSF =	28,813	05-20 Thm	-4.3%			
FY20 Electric \$/GSF =	\$ 0.29	FY20 Thermal \$/GSF =	\$ 0.11	FY20 Energy \$/GSF =	\$ 0.40	05-20 kwh	-54.5%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	51,700	21,820	16,593	38,413	0.0%	48.12	100.0%	100.0%	38,413	0.0%
FY06	51,700	17,874	15,805	33,679	-12.3%	48.65	95.8%	99.6%	32,853	-14.5%
FY07	51,700	17,292	15,116	32,409	-15.6%	47.46	94.3%	99.7%	31,389	-18.3%
FY08	51,700	19,546	15,136	34,681	-9.7%	46.19	83.6%	99.8%	31,458	-18.1%
FY09	51,700	21,049	14,688	35,737	-7.0%	45.66	84.6%	99.9%	32,478	-15.5%
FY10	51,700	25,076	7,050	32,126	-16.4%	47.10	98.5%	99.8%	31,727	-17.4%
FY11	51,700	26,493	5,634	32,127	-16.4%	46.81	86.0%	96.6%	28,235	-26.5%
FY12	51,700	20,825	5,595	26,420	-31.2%	51.51	113.1%	104.1%	29,389	-23.5%
FY13	51,700	26,236	5,630	31,866	-17.0%	47.29	88.7%	98.3%	28,795	-25.0%
FY14	51,700	32,906	5,943	38,850	1.1%	44.58	76.8%	98.7%	31,142	-18.9%
FY15	51,700	24,705	7,718	32,423	-15.6%	45.84	88.3%	98.7%	29,430	-23.4%
FY16	51,700	19,248	8,100	27,348	-28.8%	49.68	103.9%	100.9%	28,182	-26.6%
FY17	51,700	16,269	8,910	25,179	-34.5%	49.72	105.9%	100.5%	26,182	-31.8%
FY18	51,700	19,982	8,323	28,305	-26.3%	46.66	82.4%	98.7%	24,681	-35.7%
FY19	51,700	21,906	7,982	29,887	-22.2%	45.88	85.8%	98.4%	26,658	-30.6%
FY20	51,700	21,244	7,568	28,813	-25.0%	48.07	98.3%	99.8%	28,442	-26.0%

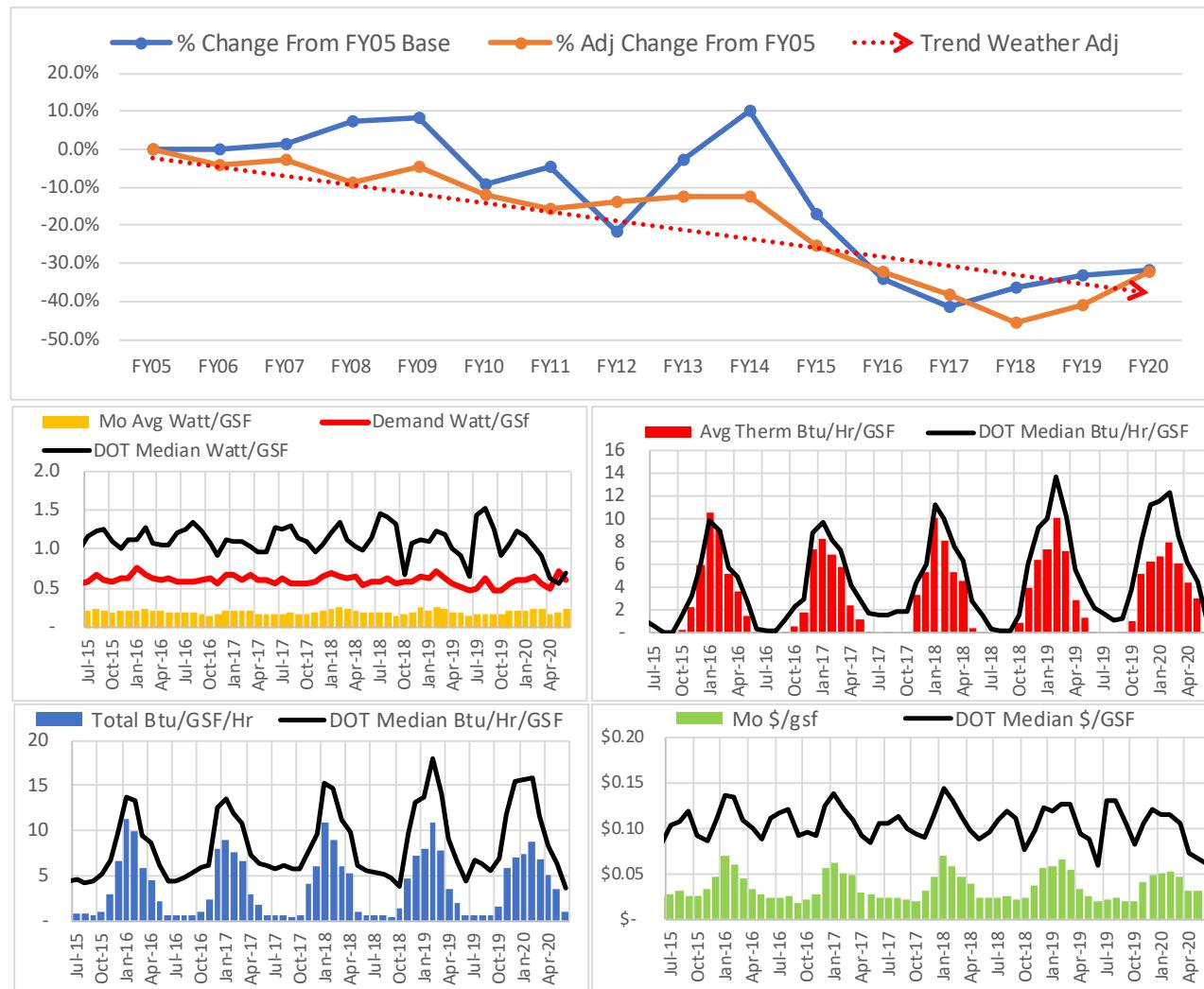
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-PIERSTORFF B Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

FY20 Electric kwh/GSF =	1.73	FY20 Therm/GSF =	0.30	FY20 Total Btu/GSF =	35,862	05-20 Thm	-12.8%			
FY20 Electric \$/GSF =	\$ 0.26	FY20 Thermal \$/GSF =	\$ 0.15	FY20 Energy \$/GSF =	\$ 0.42	05-20 kwh	-68.0%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	51,200	34,005	18,471	52,477	0.0%	48.12	100.0%	100.0%	52,477	0.0%
FY06	51,200	34,105	18,312	52,417	-0.1%	48.65	93.8%	99.5%	50,223	-4.3%
FY07	51,200	34,785	18,313	53,099	1.2%	47.46	94.3%	99.6%	51,040	-2.7%
FY08	51,200	38,093	18,159	56,252	7.2%	46.19	78.5%	98.9%	47,857	-8.8%
FY09	51,200	38,795	18,057	56,852	8.3%	45.66	82.3%	99.8%	49,961	-4.8%
FY10	51,200	37,770	9,926	47,697	-9.1%	47.10	96.1%	100.5%	46,271	-11.8%
FY11	51,200	41,260	8,743	50,003	-4.7%	46.81	86.6%	97.5%	44,276	-15.6%
FY12	51,200	33,145	8,074	41,219	-21.5%	51.51	111.9%	101.0%	45,244	-13.8%
FY13	51,200	42,499	8,561	51,060	-2.7%	47.29	88.5%	96.7%	45,902	-12.5%
FY14	51,200	49,041	8,731	57,772	10.1%	44.58	76.2%	97.3%	45,843	-12.6%
FY15	51,200	36,379	7,084	43,463	-17.2%	45.84	88.8%	98.3%	39,264	-25.2%
FY16	51,200	28,206	6,380	34,587	-34.1%	49.68	103.8%	100.3%	35,667	-32.0%
FY17	51,200	25,054	5,591	30,645	-41.6%	49.72	106.5%	100.4%	32,307	-38.4%
FY18	51,200	27,281	5,995	33,276	-36.6%	46.66	83.1%	98.3%	28,559	-45.6%
FY19	51,200	29,106	5,941	35,047	-33.2%	45.88	86.3%	97.7%	30,934	-41.1%
FY20	51,200	29,952	5,910	35,862	-31.7%	48.07	99.0%	99.9%	35,545	-32.3%

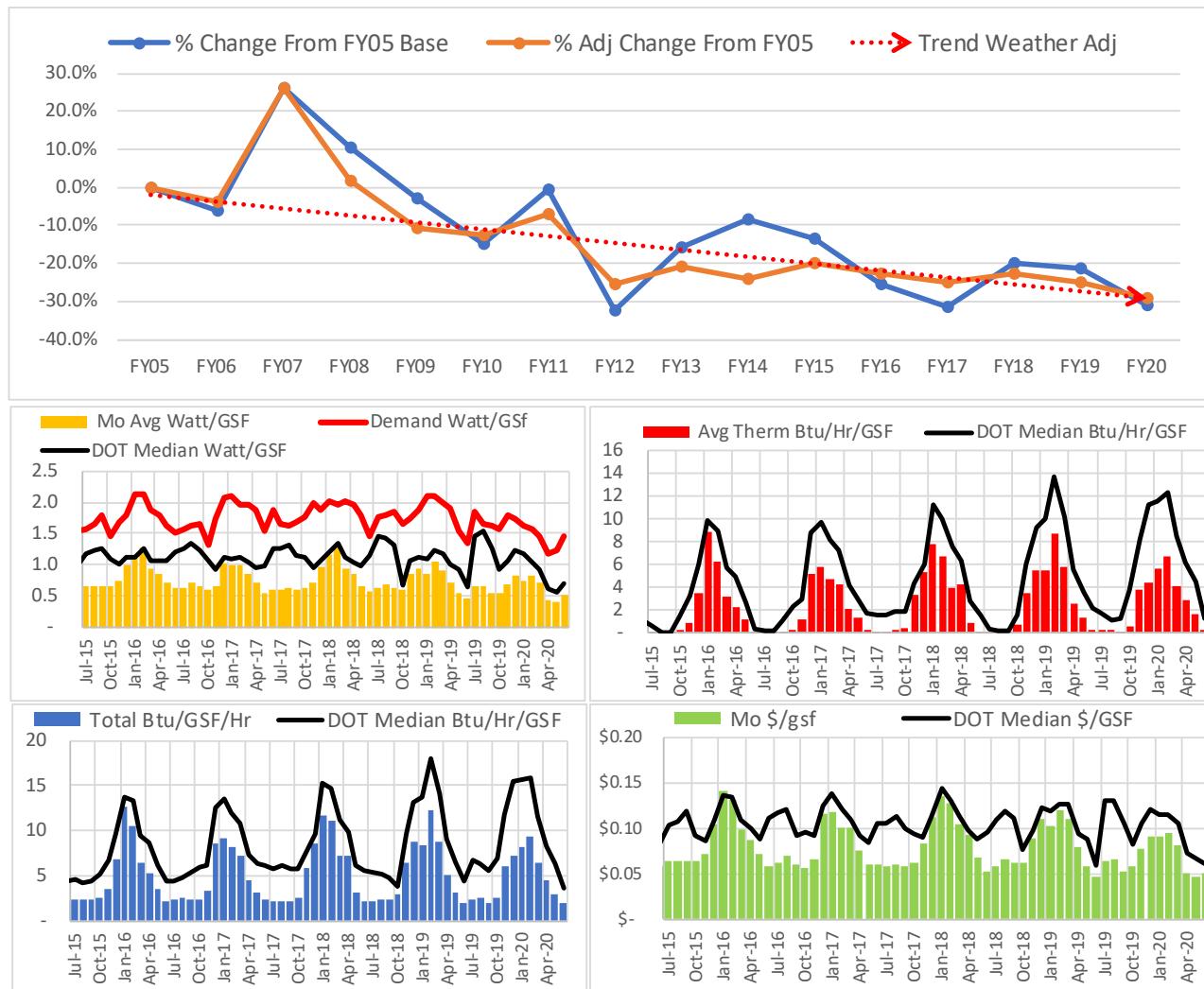
Energy Btu/GSF Benchmark Heat Mapping Color Coding (Red High and Green Best) - M&V Goal trend from Red/Yellow to Green.



### DOT-West Allis Fiscal Year 2020 State Facilities Energy Report (FY05 Base)

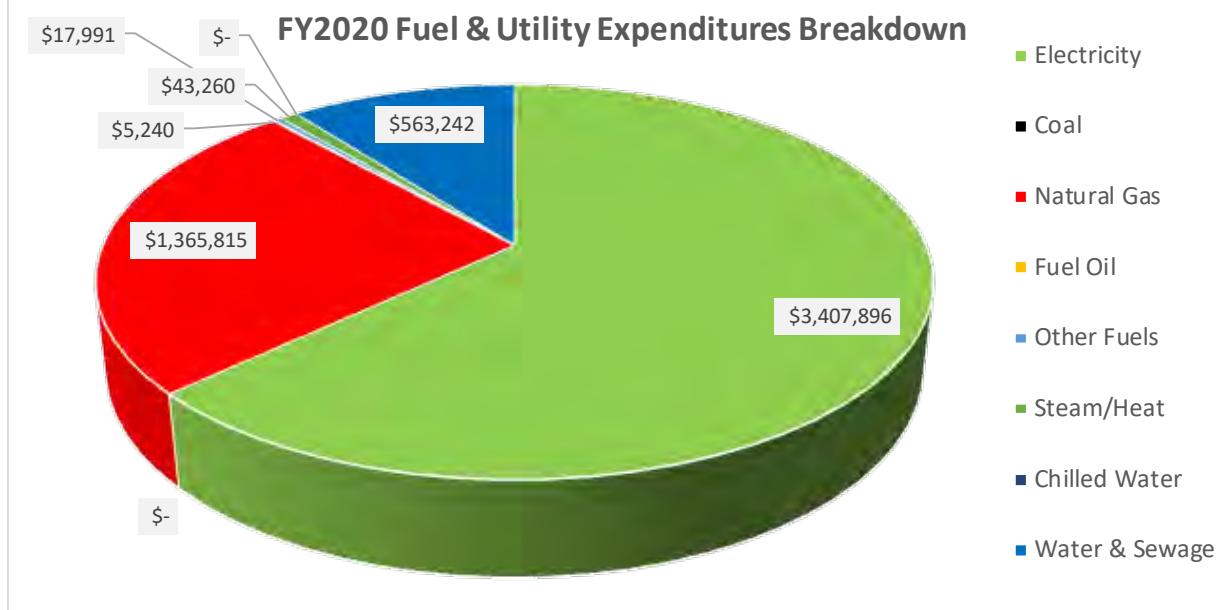
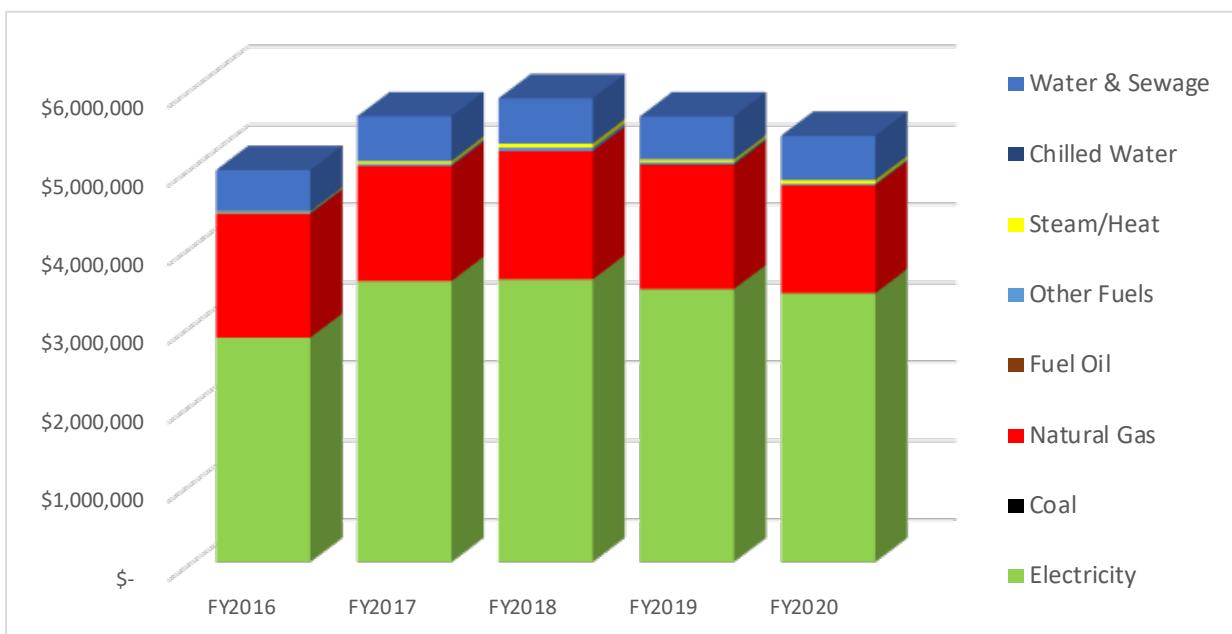
FY20 Electric kwh/GSF =	5.53	FY20 Therm/GSF =	0.23	FY20 Total Btu/GSF =	41,464	05-20 Thm	-35.8%			
FY20 Electric \$/GSF =	\$ 0.69	FY20 Thermal \$/GSF =	\$ 0.13	FY20 Energy \$/GSF =	\$ 0.83	05-20 kwh	-18.9%			
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Mo Avg Temp	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	31,980	36,295	23,744	60,039	0.0%	48.47	100.0%	100.0%	60,039	0.0%
FY06	31,980	32,195	24,132	56,327	-6.2%	50.11	103.2%	102.0%	57,843	-3.7%
FY07	31,980	50,579	25,072	75,651	26.0%	48.88	100.1%	100.2%	75,753	26.2%
FY08	31,980	40,839	25,348	66,187	10.2%	47.87	89.2%	97.4%	61,129	1.8%
FY09	31,980	33,075	25,241	58,316	-2.9%	47.26	88.1%	97.5%	53,735	-10.5%
FY10	31,980	27,579	23,516	51,095	-14.9%	49.10	103.8%	101.1%	52,416	-12.7%
FY11	31,980	32,339	27,234	59,573	-0.8%	48.17	90.7%	97.6%	55,913	-6.9%
FY12	31,980	16,838	23,700	40,538	-32.5%	52.24	115.4%	107.3%	44,872	-25.3%
FY13	31,980	24,686	25,839	50,525	-15.8%	48.26	89.7%	97.8%	47,418	-21.0%
FY14	31,980	29,461	25,651	55,111	-8.2%	45.20	73.6%	93.1%	45,559	-24.1%
FY15	31,980	27,069	24,883	51,952	-13.5%	46.08	89.4%	96.3%	48,173	-19.8%
FY16	31,980	19,962	24,713	44,676	-25.6%	50.51	104.2%	103.7%	46,427	-22.7%
FY17	31,980	18,729	22,449	41,178	-31.4%	51.99	115.9%	103.4%	44,928	-25.2%
FY18	31,980	24,398	23,787	48,184	-19.7%	48.73	94.1%	98.7%	46,435	-22.7%
FY19	31,980	25,113	22,074	47,187	-21.4%	47.88	92.8%	98.3%	45,007	-25.0%
FY20	31,980	22,592	18,872	41,464	-30.9%	49.85	103.2%	102.1%	42,575	-29.1%

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



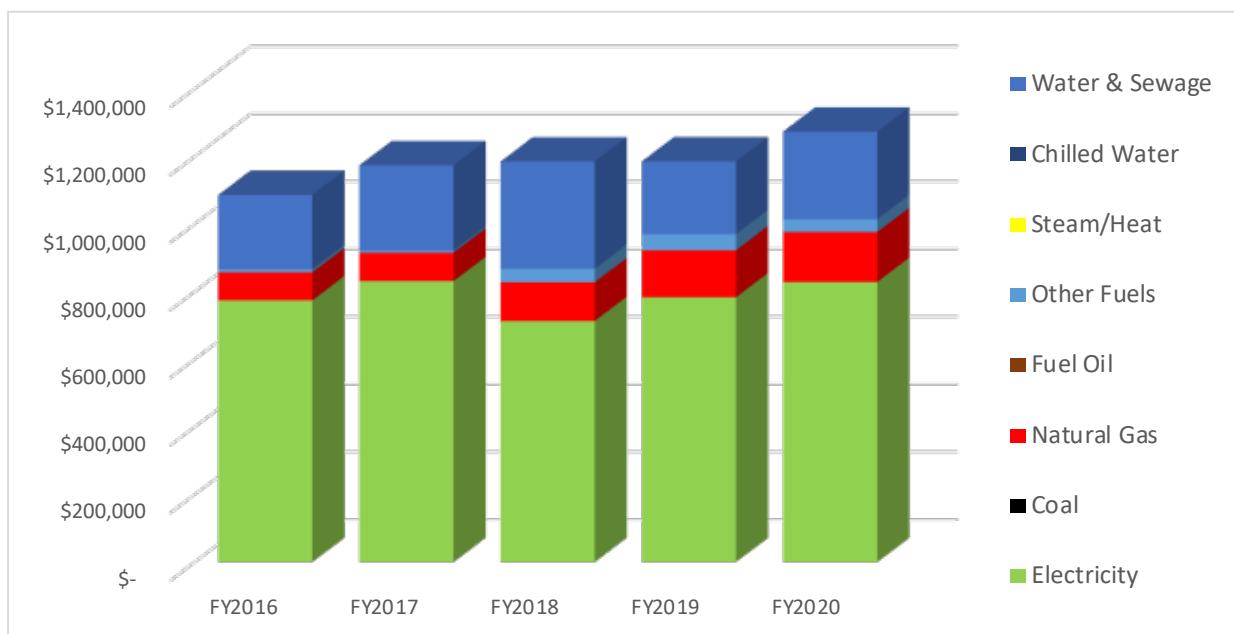
**Military Affairs, Department of**

<b>Subcategory Name</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>
Electricity	\$ 2,846,976	\$ 3,564,022	\$ 3,585,622	\$ 3,461,469	\$ 3,407,896
Coal	\$ -	\$ -	\$ -	\$ -	\$ -
Natural Gas	\$ 1,569,084	\$ 1,457,819	\$ 1,625,377	\$ 1,571,044	\$ 1,365,815
Fuel Oil	\$ 1,351	\$ -	\$ -	\$ 10,846	\$ 5,240
Other Fuels	\$ 14,379	\$ 26,397	\$ 45,009	\$ 25,515	\$ 17,991
Steam/Heat	\$ 10,585	\$ 35,658	\$ 48,962	\$ 34,368	\$ 43,260
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 527,460	\$ 567,559	\$ 573,837	\$ 545,592	\$ 563,242
<b>Total Utilities</b>	<b>\$ 4,969,834</b>	<b>\$ 5,651,454</b>	<b>\$ 5,878,808</b>	<b>\$ 5,648,834</b>	<b>\$ 5,403,443</b>

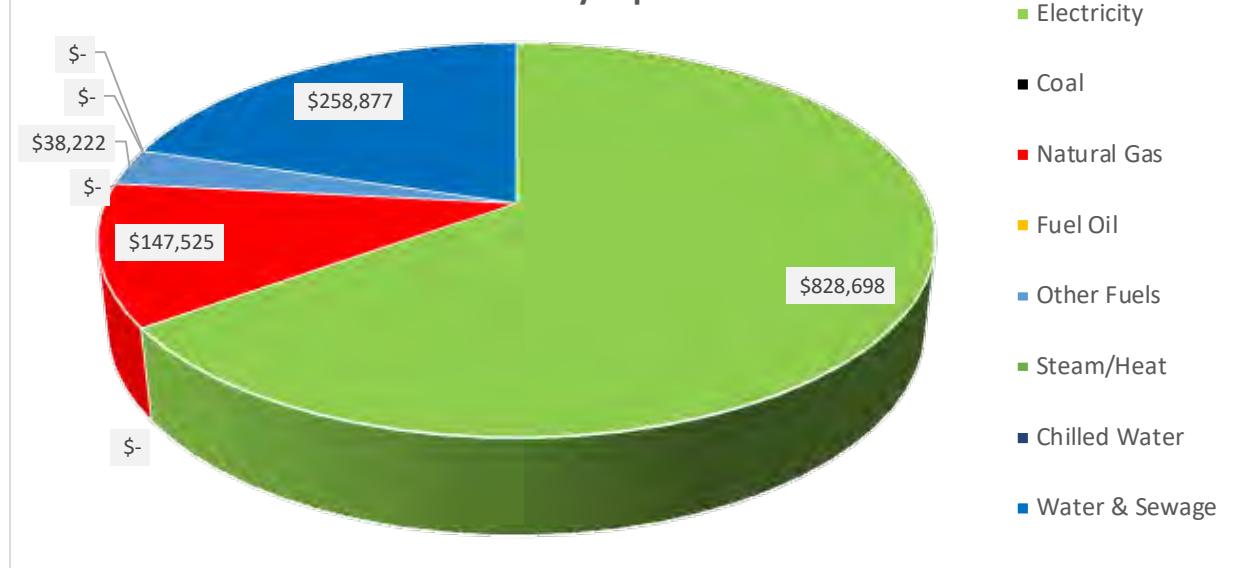


### State Fair Park Board

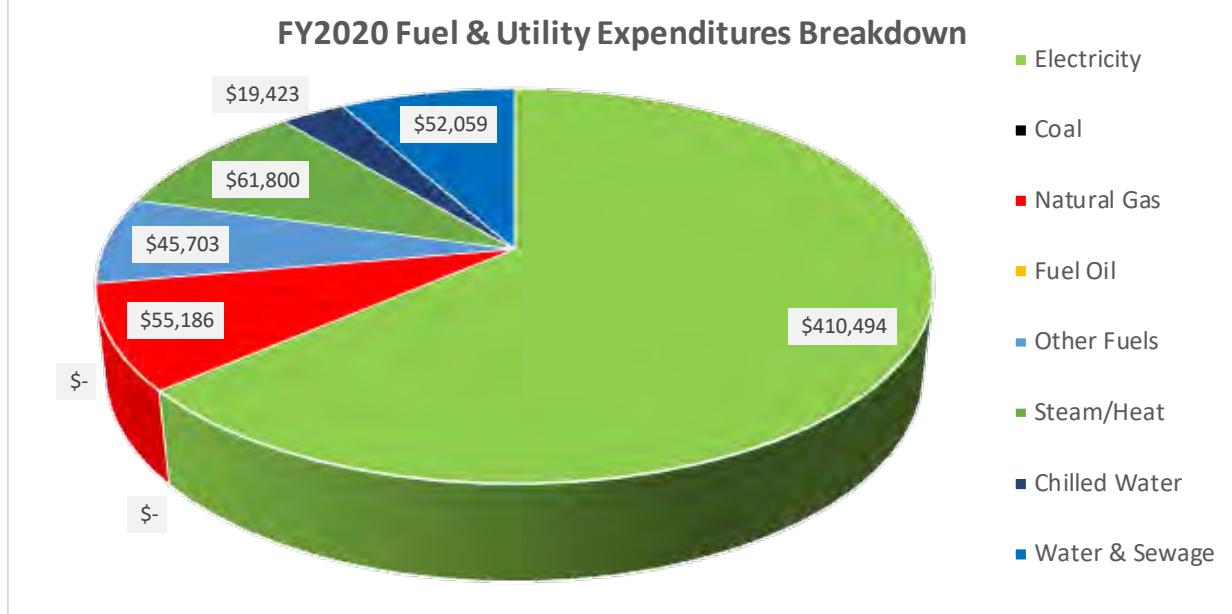
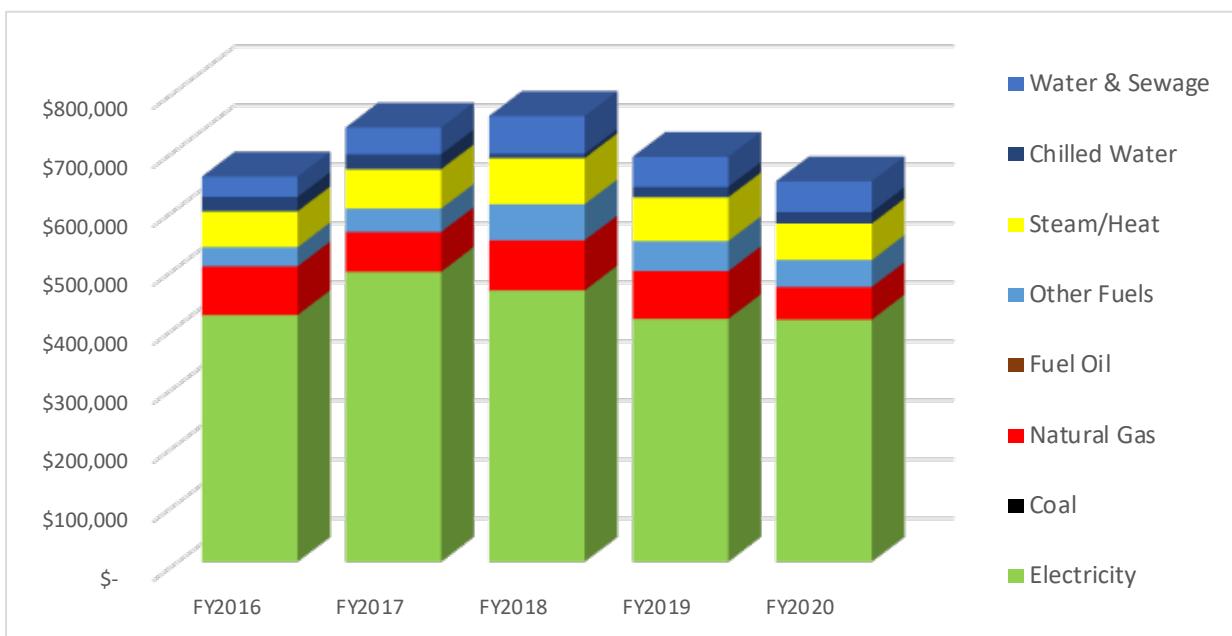
Subcategory Name	FY2016	FY2017	FY2018	FY2019	FY2020
Electricity	\$ 774,360	\$ 831,283	\$ 713,395	\$ 783,260	\$ 828,698
Coal	\$ -	\$ -	\$ -	\$ -	\$ -
Natural Gas	\$ 82,785	\$ 83,980	\$ 114,246	\$ 139,079	\$ 147,525
Fuel Oil	\$ -	\$ -	\$ -	\$ -	\$ -
Other Fuels	\$ 9,739	\$ 6,353	\$ 40,224	\$ 47,859	\$ 38,222
Steam/Heat	\$ -	\$ -	\$ -	\$ -	\$ -
Chilled Water	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Sewage	\$ 219,083	\$ 252,137	\$ 317,129	\$ 214,928	\$ 258,877
<b>Total Utilities</b>	<b>\$ 1,085,967</b>	<b>\$ 1,173,754</b>	<b>\$ 1,184,995</b>	<b>\$ 1,185,125</b>	<b>\$ 1,273,322</b>



### FY2020 Fuel & Utility Expenditures Breakdown



Historical Society						
Subcategory Name	FY2016	FY2017	FY2018	FY2019	FY2020	
Electricity	\$ 418,145	\$ 491,453	\$ 459,820	\$ 411,561	\$ 410,494	
Coal	\$ -	\$ -	\$ -	\$ -	\$ -	
Natural Gas	\$ 82,592	\$ 67,300	\$ 84,917	\$ 80,917	\$ 55,186	
Fuel Oil	\$ -	\$ -	\$ -	\$ -	\$ -	
Other Fuels	\$ 32,404	\$ 39,702	\$ 61,223	\$ 50,946	\$ 45,703	
Steam/Heat	\$ 60,677	\$ 66,674	\$ 78,087	\$ 74,180	\$ 61,800	
Chilled Water	\$ 24,554	\$ 25,402	\$ 7,063	\$ 17,783	\$ 19,423	
Water & Sewage	\$ 34,241	\$ 45,203	\$ 64,167	\$ 50,745	\$ 52,059	
<b>Total Utilities</b>	<b>\$ 652,612</b>	<b>\$ 735,734</b>	<b>\$ 755,275</b>	<b>\$ 686,132</b>	<b>\$ 644,664</b>	



# Benchmarking, Tracking and Managing Energy Use

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Buildings that consistently benchmark energy performance save energy. The most common energy performance benchmarks are based on Btu energy use per Gross Square Feet (GSF) building area to measure the year-to-year changes in energy use and conservation efforts. Monitored building energy consumption is broken down into two categories:

- 1) Electricity, which represents total purchased and central plant co-generated electricity; and
- 2) Thermal or Fossil Fuel, which includes gas, oil, propane, coal, etc.

Energy consumption in these categories is monitored through coordination of monthly utility billings and energy consumption reports. All forms of energy consumption are converted to units of Btu/GSF/year. The conversion also removes any variation in energy use over time caused by changes in the size of an individual facility. Electricity consumption is converted from metered kWh to Btu/GSF/Year by multiplying the total fiscal year metered kWh of electricity by 3,413 (Btu/kWh standard conversion factor), and then dividing the resulting number by the gross square footage (GSF) of serviced building area. Fossil fuel energy use is converted to units of Btu/GSF/Year by dividing the Btu value of the fossil fuel category energy consumption by the gross square footage of serviced building area.

Weather has a significant impact upon energy consumption and should be considered when evaluating efficiencies. Annual heating and cooling degree days can change dramatically from location to location and year to year. Such changes can significantly impact the demand upon heating and cooling systems of a facility.

Site and Source Energy Use Intensity (EUI) - Site EUI may be familiar with from your bills. Site EUI contains a mixture of what is called primary energy (i.e., a raw fuel like natural gas) and secondary energy (i.e., a converted product like electricity or district steam). Source energy provides the most equitable way to combine primary and secondary energy types into a single common unit, ensuring that no building receives either a credit or a penalty based on its energy source or utility.

The annual State Energy Report Site Energy Use Intensity (EUI) monthly/annual measures and benchmarks include:

- Fiscal Year Electricity Use (BTU/GSF/YR) - rate of electricity use with 3413 BTU per kWh conversion factor for the fiscal year, Fiscal Year 2020 (FY2020) July 1, 2019 through June 30, 2020.
- Fiscal Year Fossil Fuel Use (BTU/GSF/YR) - rate of fossil fuel use for the 2020 fiscal year.
- FY19 Total Energy Use (BTU/GSF/YR) - rate of energy use data for the 2020 fiscal year.
- Latest Year Percent Change - the percent change in energy consumption from fiscal year 2019 to fiscal year 2020.
- Base Year Energy Use (BTU/GSF/YR) - rate of energy use for the base fiscal year FY2005.
- GSF (Gross Square Feet) - values used represent monitored gross square footage present on the last day of the fiscal year. GSF data were received from the agencies.
- Electricity (BTU/GSF/YR) - values were obtained by multiplying kWh of purchased electricity by 3,413 Btu/kWh (a standard conversion factor) and then dividing by GSF. This value includes electricity cogenerated on site at the following facilities: Green Bay

Correctional, Waupun Correctional, Mendota Mental Health Institute, Winnebago Mental Health Institute and UW-Madison.

- Fossil Fuel (BTU/GSF/YR) - values were obtained by dividing the fossil fuel energy use (Btu) by the gross square feet (GSF) for the indicated year. Fossil Fuel includes: natural gas, fuel oil, coal, purchased steam, wood and paper pellets. This energy is used for heating, cooling and adjusted for cogenerating electricity, depending upon the energy systems used in the facility.
- Total BTU/GSF/YR - sum of the fossil fuel (Btu/GSF/Yr) and the electricity (Btu/GSF/Yr).
- % Change from Base - percentage change in the Total Btu/GSF/Yr for FY2020 from Total Btu/GSF/Yr of the base year, FY2005.
- Electric kwh/GSF = electricity energy use (kwh) per building area gross square feet (GSF).
- Electric Watt/GSF = electric power (1000 watt = 1 kw) per building GSF.
- Therm/GSF = thermal energy use (therm = 100,000 Btu) per building area GSF.
- Total Btu/GSF = total energy use (Btu) per building area GSF.
- Energy \$/GSF = energy costs \$ per building area GSF.
- Energy Use Intensity = EUI per ft<sup>2</sup> = Gross Square Feet (GSF) building area; kBtu = 1000 Btu; kwh = 1000 watthours; and therm =100,000 Btu.

Energy consumption rates are calculated using end-of-year GSF values. Therefore, if the total monitored gross square footage of a facility changes during the fiscal year, values for the rates of energy consumption will not be 100% accurate. The numbers become less accurate as the magnitude of the GSF change increases and the date of the change falls nearer the end of the fiscal year.

Annual EUI Benchmarks and Monthly Assessments - multiple year trends and comparisons to measure and identify potential savings with goals:

- Reduce weather adjusted energy use and costs year-to-year.
- Identify changes in energy use and costs.
- Evaluate energy use changes: 1) Results from Energy Conservation Measures; 2) Changes in Building Occupancy and Schedules; and/or 3) Changes in Building System Operation, Equipment Schedules; Controls or Set-Points.
- Recommendations for Improvements with Metering and Verification.

Electric Demand - Electric Demand is the rate of using electricity. For most commercial buildings, demand is measured in kilowatts (kW). Utilities measure the highest rate of using electricity each billing cycle in order to adequately size the generation, transmission and distribution capacity required to provide energy to each customer. The utility then recoups these costs by billing based on highest measured demand, and when that demand occurs relative to when the utility experiences peak demand on their system.

**NOTE:** Several external factors should be considered when viewing this data. External factors include: weather, space use, hours of occupancy, number of occupants, available maintenance funds, differences in facility design, number of plant and maintenance staff, and conservation funds allocated to the site.

*Electric kwh/GSF = electricity energy use (kwh) per building area gross square feet per year.*

*Therm/GSF = thermal energy use (therm = 100,000 Btu) per building area gross square feet per year.*

*Total Btu/GSF = total energy use (Btu) per building area gross square feet per year.*  
*FY05-18 Thermal % Change*

#### **Statewide Facilities Total Fiscal Year 2020 Total State Agency Total (FY05 Base)**

FY20 Electric kwh/GSF = 12.57	FY20 Therm/GSF = 1.15	FY20 Total Btu/GSF = 157,748	05-20 Thm -24.6%
FY20 Electric \$/GSF = \$ 1.17	FY20 Thermal \$/GSF = \$ 0.48	FY20 Energy \$/GSF = \$ 1.65	05-20 kwh -13.5%

*Electric \$/GSF = electric cost per building area gross square feet per year.*

*Thermal \$/GSF = thermal energy cost per building area gross square feet per year.*

*Energy \$/GSF = total energy cost per building area gross sq. feet per year.*  
*FY05-18 Electric % Change*

*Fiscal Year – period from July 1<sup>st</sup> through July 31<sup>st</sup>. Fiscal Year 2005 (FY05) base July 1, 2004 through July 31, 2005.*

*Gross Square Feet (GSF) – monitored building area gross square footage on last day of the fiscal year.*

*Site Thermal Btu/GSF - fossil fuel energy use (Btu) divided by the gross square feet (GSF) for the indicated year.*

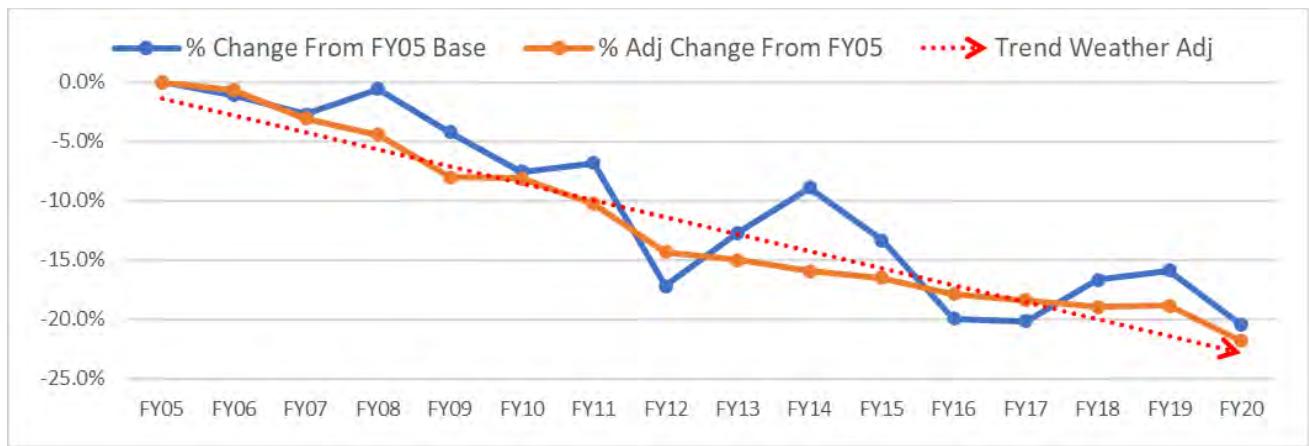
Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05 Base
FY05	64,753,150	148,686	49,707	198,393	0.0%	100.0%	100.0%	198,393	0.00%
FY06	65,405,533	145,105	51,086	196,191	-1.1%	100.8%	99.4%	197,046	-0.68%
FY07	66,508,886	142,159	50,885	193,044	-2.7%	99.5%	99.8%	192,231	-3.11%
FY08	67,703,290	146,259	50,932	197,191	-0.6%	95.0%	99.5%	189,630	-4.42%
FY09	68,186,861	140,138	49,815	189,953	-4.3%	94.6%	100.0%	182,406	-8.06%
FY10	67,994,873	133,830	49,534	183,364	-7.6%	99.0%	100.3%	182,208	-8.16%

*Site Electricity Btu/GSF – electric energy use (Btu) divided by the gross square feet (GSF) for the fiscal year.*

*Site Total Btu/GSF – total energy use (Btu) divided by the gross square feet (GSF) for the fiscal year.*

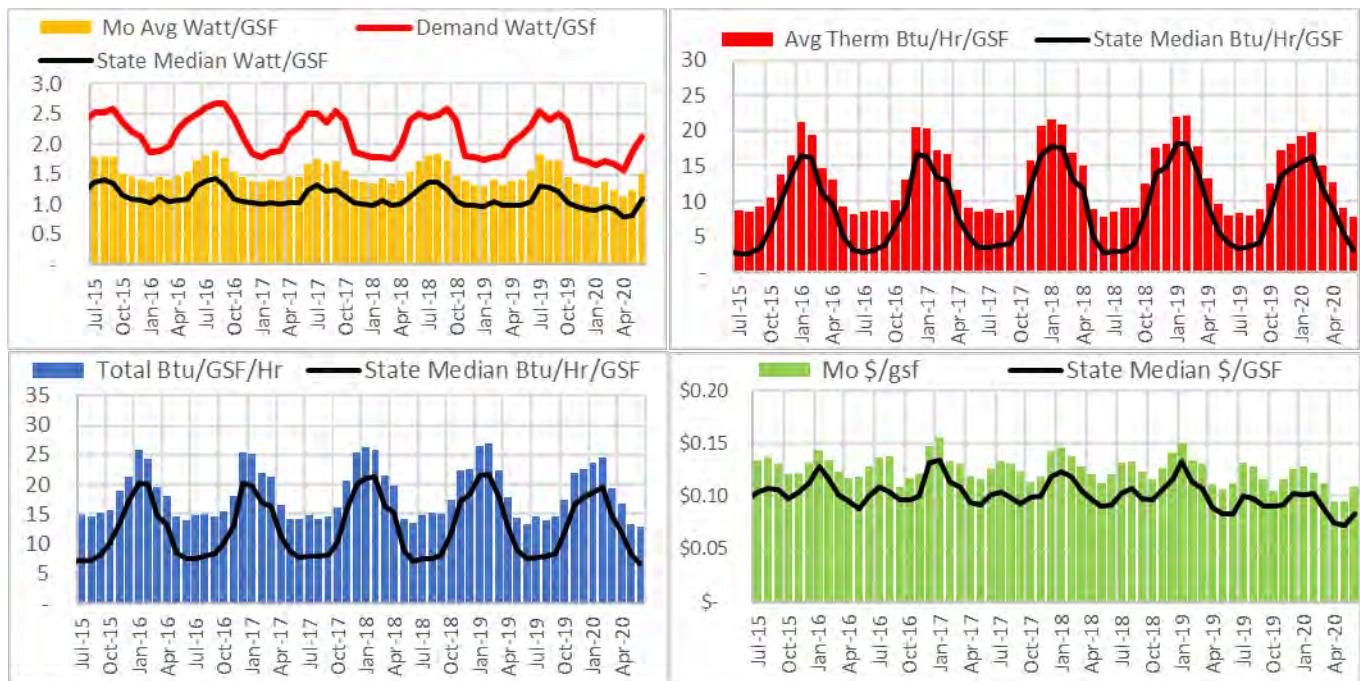
*Percent change from FY2005 Base with and without weather adjustments.*

*Trend in site total energy use gross square feet (GSF) change from fiscal year 2005 baseline.*



Below describe the monthly three year's monthly benchmarks and profiles presented below & herein:

- Monthly Electric Energy Use Average Watt per Gross Square Foot.
- Monthly Electric Demand Watt per Gross Square Foot.
- Monthly Agency Electric Median Average Watt per Gross Square Feet.
- Monthly Average Thermal Btu per Hour per Gross Square Feet.
- Monthly Agency Median Thermal Btu per Hour per Gross Square Feet.
- Monthly Total Energy Btu per Hour per Gross Square Feet.
- Monthly Agency Median Total Energy Btu per Hour per Gross Square Feet.
- Monthly Total Energy Cost per Hour per Gross Square Feet.
- Monthly Agency Median Total Energy Cost per Gross Square Feet.



## Facilities Energy Use Performance

Buildings with different functions and operating schedules have significantly different levels of energy use.

Examples:

The State Lab of Hygiene is a very highly ventilated laboratory space requiring 24/7 laboratory exhaust and supply to maintain safe operating conditions.

### FY16 State Lab of Hygiene:

Building Area Gross Square Foot (GSF) = 160,344

Heating Energy Use = 196523 BTU per GSF

Electrical Energy Use = 141472 BTU per GSF

*Total Rate of Energy Use = 337996 BTU per GSF*

The DNR Northeast Regional Headquarters office in Green Bay and the DOA Green Bay State Office Building Have some of the lowest energy use per square foot of all the State of Wisconsin office buildings.

### FY16 DNR Northeast Regional Headquarter:

Building Area Gross Square Foot (GSF) = 34,560

Heating Energy Use = 27640 BTU per GSF

Electrical Energy Use = 21836 BTU per GSF

*Total Rate of Energy Use = 49476 BTU per GSF*

### FY16 DOA Green Bay State Office Building:

Building Area Gross Square Foot (GSF) = 69,052

Heating Energy Use = 19149 BTU per GSF

Electrical Energy Use = 24227 BTU per GSF

*Total Rate of Energy Use = 43375 BTU per GSF*

**State-Owned Facilities Energy Use and Cost Performance Benchmarks**

Agency-Facility	FY2020 GSF - Verify	FY2019 GSF - Verify	FY2020 Adjusted Thermal Btu/GSF/Yr	FY2020 Adjusted Electric Btu/GSF/Yr	FY2020 Adjusted Energy Btu/GSF/Yr	FY2005 Energy Btu/GSF/Yr	% FY05- FY20 Change Total Btu/GSF	FY2020 Thermal Cost \$/GSF	FY2020 Electric Cost \$/GSF	FY2020 Energy Cost \$/GSF
DHS-Mendota	1,320,211	1,320,211	201,458	31,630	233,088	273,839	-14.88%	\$ 0.64	\$ 0.83	\$ 1.47
DHS-Northern Center	523,226	523,226	102,686	31,564	134,249	169,938	-21.00%	\$ 0.38	\$ 0.72	\$ 1.10
DHS-Sand Ridge	308,828	308,828	93,602	51,801	145,403	155,053	-6.22%	\$ 0.32	\$ 1.28	\$ 1.60
DHS-Southern Center	1,023,235	1,023,235	146,302	37,483	183,785	177,385	3.61%	\$ 0.43	\$ 0.98	\$ 1.41
DHS-Winnebago	983,900	983,900	104,387	33,464	137,851	174,596	-21.05%	\$ 0.31	\$ 0.67	\$ 0.98
<b>DHS</b>	<b>4,159,400</b>	<b>4,159,400</b>	<b>144,494</b>	<b>34,993</b>	<b>179,487</b>	<b>204,184</b>	<b>-12.10%</b>	<b>\$ 0.45</b>	<b>\$ 0.85</b>	<b>\$ 1.30</b>
DNR-Darwin Road	24,820	24,820	36,942	19,168	56,111	68,925	-18.59%	\$ 0.20	\$ 0.82	\$ 1.02
DNR-Green Bay	34,560	34,560	33,186	25,523	58,709			\$ 0.15	\$ 0.85	\$ 1.00
DNR-SE Milwaukee	48,000	48,000	40,904	34,360	75,264	106,987	-29.65%	\$ 0.22	\$ 1.01	\$ 1.23
DNR-South Central	33,976	33,976	106,812	47,361	154,173	186,508	-17.34%	\$ 0.56	\$ 2.09	\$ 2.65
DNR-Tomahawk	36,741	36,741	52,951	27,111	80,063	75,049	6.68%	\$ 0.24	\$ 0.79	\$ 1.03
<b>DNR</b>	<b>178,097</b>	<b>178,097</b>	<b>53,913</b>	<b>31,513</b>	<b>85,426</b>	<b>111,053</b>	<b>-23.08%</b>	<b>\$ 0.27</b>	<b>\$ 1.11</b>	<b>\$ 1.38</b>
DOA-Air Services	17,898	17,898	62,892	10,302	73,195	115,262	-36.50%	\$ 0.34	\$ 0.48	\$ 0.82
DOA-Badger Road					-	107,943	-100.00%			
DOA-Capitol Complex	2,013,307	2,013,307	63,588	39,289	102,877	169,826	-39.42%	\$ 0.20	\$ 1.20	\$ 1.40
DOA-Central Services					-	114,343	-100.00%			
DOA-Eau Claire SOB	56,206	56,206	41,545	19,164	60,709	77,936	-22.11%	\$ 0.26	\$ 0.60	\$ 0.85
DOA-Executive Residence	23,455	23,455	63,796	29,195	92,992	122,168	-23.88%	\$ 0.29	\$ 1.15	\$ 1.44
DOA-Green Bay SOB	69,206	69,206	32,047	14,827	46,874	57,083	-17.88%	\$ 0.15	\$ 0.43	\$ 0.58
DOA-Hill Farms	879,419	879,419	61,880	27,637	89,517	185,875	-51.84%	\$ 0.21	\$ 0.91	\$ 1.13
DOA-La Crosse SOB	45,965	45,965	40,317	19,599	59,916	67,468	-11.19%	\$ 0.22	\$ 0.57	\$ 0.79
DOA-Milwaukee SOB	201,200	201,200	33,582	32,297	65,879	76,115	-13.45%	\$ 0.36	\$ 1.09	\$ 1.46
DOA-Public Broadcasting	48,246	48,246	107,601	96,356	203,957	258,351	-21.05%	\$ 0.46	\$ 2.77	\$ 3.23
DOA-SE Crime Lab	43,935	43,935	92,241	97,849	190,091	120,490	57.77%	\$ 0.30	\$ 2.82	\$ 3.12
DOA-State Ag	118,011	118,011	37,190	25,504	62,694	90,538	-30.75%	\$ 0.17	\$ 1.17	\$ 1.35
DOA-State Hygiene Lab	160,344	160,344	193,240	154,958	348,198	473,969	-26.54%	\$ 0.68	\$ 4.75	\$ 5.43
DOA-State Revenue	247,224	247,224	30,786	28,432	59,218	134,734	-56.05%	\$ 0.12	\$ 1.02	\$ 1.15
DOA-Waukesha SOB	169,976	169,976	24,812	23,569	48,381	101,737	-52.45%	\$ 0.10	\$ 0.80	\$ 0.90
DOA-WI Rapids SOB	51,552	51,552	29,520	17,106	46,626	78,136	-40.33%	\$ 0.17	\$ 0.57	\$ 0.74
DOA-Femrite Data Center	56,987	56,987	61,337	370,451	431,787			\$ 0.28	\$ 9.77	\$ 10.05
<b>DOA</b>	<b>4,202,931</b>	<b>4,202,931</b>	<b>61,787</b>	<b>43,686</b>	<b>105,473</b>	<b>157,840</b>	<b>-33.18%</b>	<b>\$ 0.23</b>	<b>\$ 1.35</b>	<b>\$ 1.58</b>
DOC-Boscobel	195,000	195,000	109,895	64,316	174,212	183,488	-5.06%	\$ 0.43	\$ 1.45	\$ 1.89
DOC-Columbia	330,807	330,807	82,872	52,000	134,872	162,805	-17.16%	\$ 0.28	\$ 1.17	\$ 1.45
DOC-Ethan Allen				-	169,270	-100.00%				
DOC-Fox Lake	533,407	533,407	162,159	37,008	199,167	189,382	5.17%	\$ 0.52	\$ 0.89	\$ 1.41
DOC-Green Bay	453,750	453,750	139,870	32,116	171,986	178,856	-3.84%	\$ 0.42	\$ 0.65	\$ 1.07
DOC-Jackson	390,613	390,613	107,011	46,387	153,398	179,907	-14.73%	\$ 0.40	\$ 1.18	\$ 1.58
DOC-Kettle Moraine	361,612	361,612	150,321	45,307	195,628	194,910	0.37%	\$ 0.46	\$ 0.96	\$ 1.42
DOC-Lincoln Hills	249,792	249,792	126,965	36,423	163,388	154,781	5.56%	\$ 0.41	\$ 0.71	\$ 1.12
DOC-Milwaukee Secure	413,011	413,011	64,199	34,250	98,449	88,479	11.27%	\$ 0.71	\$ 0.96	\$ 1.67
DOC-New Lisbon	316,878	316,878	162,713	60,572	223,285	224,158	-0.39%	\$ 0.52	\$ 1.31	\$ 1.83
DOC-Oakhill	348,153	348,153	159,452	30,786	190,238	157,326	20.92%	\$ 0.56	\$ 0.73	\$ 1.28
DOC-Oshkosh	890,187	890,187	104,972	35,340	140,312	154,357	-9.10%	\$ 0.31	\$ 0.68	\$ 1.00
DOC-Prairie du Chien	383,100	383,100	78,444	15,563	94,006	121,679	-22.74%	\$ 0.30	\$ 0.37	\$ 0.67
DOC-Racine	409,046	409,046	114,548	56,470	171,018	174,029	-1.73%	\$ 0.34	\$ 1.39	\$ 1.73
DOC-Racine Youth	207,697	207,697	66,023	32,375	98,398	123,239	-20.16%	\$ 0.20	\$ 0.95	\$ 1.15
DOC-Redgranite	310,135	310,135	136,400	49,498	185,898	213,425	-12.90%	\$ 0.58	\$ 1.11	\$ 1.70
DOC-Stanley	411,897	411,897	127,578	51,510	179,088	204,540	-12.44%	\$ 0.44	\$ 1.38	\$ 1.82
DOC-Sturtevant	93,312	93,312	86,435	46,532	132,966	185,937	-28.49%	\$ 0.35	\$ 1.21	\$ 1.57
DOC-Taycheedah	380,940	380,940	80,183	32,365	112,547	118,910	-5.35%	\$ 0.26	\$ 0.75	\$ 1.01
DOC-Waupun	1,260,274	1,260,274	166,883	39,739	206,621	245,233	-15.74%	\$ 0.55	\$ 1.28	\$ 1.83
<b>DOC</b>	<b>7,939,611</b>	<b>7,939,611</b>	<b>124,453</b>	<b>40,592</b>	<b>165,045</b>	<b>178,132</b>	<b>-7.35%</b>	<b>\$ 0.44</b>	<b>\$ 1.00</b>	<b>\$ 1.44</b>

**State-Owned Facilities Energy Use and Cost Performance Benchmarks**

Agency-Facility	FY2020 GSF - Verify	FY2019 GSF - Verify	FY2020 Adjusted Thermal Btu/GSF/Yr	FY2020 Adjusted Electric Btu/GSF/Yr	FY2020 Adjusted Energy Btu/GSF/Yr	FY2005 Energy Btu/GSF/Yr	% FY05- FY20 Change Total Btu/GSF	FY2020 Thermal Cost \$/GSF	FY2020 Electric Cost \$/GSF	FY2020 Energy Cost \$/GSF
DOT-DTD 1 Lab	43,000	43,000	140,831	68,693	209,524	246,311	-14.94%	\$ 0.49	\$ 2.44	\$ 2.93
DOT-DTD 1 Madison	56,000	56,000	90,001	47,395	137,396	113,762	20.77%	\$ 0.42	\$ 1.52	\$ 1.94
DOT-Green Bay	40,515	40,515	89,951	47,858	137,809	138,919	-0.80%	\$ 0.40	\$ 1.23	\$ 1.63
DOT-PIERSTORFF A	51,700	51,700	20,890	7,552	28,442	38,413	-25.96%	\$ 0.11	\$ 0.29	\$ 0.40
DOT-PIERSTORFF B	51,200	51,200	29,640	5,904	35,545	52,477	-32.27%	\$ 0.15	\$ 0.26	\$ 0.42
DOT-West Allis	31,980	31,980	23,309	19,266	42,575	60,039	-29.09%	\$ 0.13	\$ 0.69	\$ 0.83
<b>DOT</b>	<b>274,395</b>	<b>274,395</b>	<b>65,902</b>	<b>32,274</b>	<b>98,176</b>	<b>106,355</b>	<b>-7.69%</b>	<b>\$ 0.29</b>	<b>\$ 1.06</b>	<b>\$ 1.35</b>
DPI-Delavan	244,979	244,979	65,012	18,248	83,260	101,462	-17.94%	\$ 0.23	\$ 0.53	\$ 0.76
DPI-Janesville	196,204	196,204	82,416	14,266	96,682	93,680	3.20%	\$ 0.30	\$ 0.44	\$ 0.74
<b>DPI</b>	<b>441,183</b>	<b>441,183</b>	<b>72,752</b>	<b>16,477</b>	<b>89,229</b>	<b>98,001</b>	<b>-8.95%</b>	<b>\$ 0.26</b>	<b>\$ 0.49</b>	<b>\$ 0.75</b>
DVA-King	733,728	733,728	120,817	41,717	162,534	197,411	-17.67%	\$ 0.40	\$ 0.86	\$ 1.27
DVA-King	733,728	733,728	120,817	41,717	162,534	197,411	-17.67%	\$ 0.40	\$ 0.86	\$ 1.27
UW-Eau Claire	2,785,457	2,634,457	68,574	25,765	94,340	149,148	-36.75%	\$ 0.32	\$ 0.60	\$ 0.92
UW-Green Bay	1,386,058	1,386,055	73,939	35,860	109,799	174,522	-37.09%	\$ 0.24	\$ 0.78	\$ 1.01
UW-La Crosse	3,207,814	3,008,972	87,215	31,683	118,898	150,442	-20.97%	\$ 0.35	\$ 0.75	\$ 1.11
UW-Madison	22,755,778	22,755,778	159,962	63,723	223,684	294,776	-24.12%	\$ 0.44	\$ 1.93	\$ 2.37
UW-Milwaukee	5,275,082	5,279,687	83,944	39,384	123,328	171,927	-28.27%	\$ 0.26	\$ 0.98	\$ 1.24
UW-Oshkosh	3,288,596	3,259,189	73,718	26,432	100,150	136,452	-26.60%	\$ 0.28	\$ 0.51	\$ 0.78
UW-Parkside	1,374,576	1,262,322	78,852	30,825	109,676	146,123	-24.94%	\$ 0.26	\$ 0.79	\$ 1.05
UW-Platteville	2,132,462	2,244,485	90,717	31,209	121,926	139,216	-12.42%	\$ 0.39	\$ 0.71	\$ 1.10
UW-River Falls	1,684,447	1,769,312	71,608	22,736	94,343	124,558	-24.26%	\$ 0.31	\$ 0.57	\$ 0.88
UW-Stevens Point	2,806,271	2,629,769	97,660	29,115	126,775	164,136	-22.76%	\$ 0.37	\$ 0.58	\$ 0.96
UW-Stout	2,456,060	2,452,414	70,528	26,826	97,353	113,062	-13.89%	\$ 0.31	\$ 0.66	\$ 0.97
UW-Superior	1,111,812	1,120,382	107,487	29,602	137,088	162,010	-15.38%	\$ 0.47	\$ 0.56	\$ 1.03
UW-Whitewater	2,965,821	2,942,875	84,271	38,171	122,442	145,867	-16.06%	\$ 0.14	\$ 0.95	\$ 1.09
UW-Baraboo	179,291	165,615	55,434	24,531	79,965	88,823	-9.97%	\$ 0.27	\$ 0.70	\$ 0.97
UW-Barron	146,683	146,683	58,618	20,269	78,887	93,920	-16.01%	\$ 0.35	\$ 0.55	\$ 0.90
UW-Fond du Lac	194,077	194,077	37,914	16,882	54,796	94,053	-41.74%	\$ 0.18	\$ 0.49	\$ 0.67
UW-Fox Valley	277,988	274,078	35,221	33,736	68,958	113,923	-39.47%	\$ 0.12	\$ 0.86	\$ 0.98
UW-Manitowoc	125,045	125,045	38,712	17,550	56,262	74,988	-24.97%	\$ 0.20	\$ 0.39	\$ 0.59
UW-Marathon	327,695	327,695	54,370	20,749	75,118	119,478	-37.13%	\$ 0.20	\$ 0.52	\$ 0.72
UW-Marinette	139,818	107,988	61,742	16,764	78,506	131,496	-40.30%	\$ 0.30	\$ 0.49	\$ 0.79
UW-Marshfield	153,555	149,996	55,251	21,976	77,227	103,850	-25.64%	\$ 0.26	\$ 0.52	\$ 0.78
UW-Richland	104,825	108,760	66,806	28,931	95,736	116,252	-17.65%	\$ 0.43	\$ 0.68	\$ 1.12
UW-Rock	191,592	191,592	48,758	15,022	63,780	73,445	-13.16%	\$ 0.20	\$ 0.47	\$ 0.67
UW-Sheboygan	228,544	200,918	37,329	26,441	63,770	102,754	-37.94%	\$ 0.08	\$ 0.79	\$ 0.86
UW-Washington	199,117	199,038	29,317	17,185	46,502	75,321	-38.26%	\$ 0.14	\$ 0.53	\$ 0.66
UW-Waukesha	277,016	277,016	60,892	21,698	82,589	94,752	-12.84%	\$ 0.22	\$ 0.68	\$ 0.90
<b>UW</b>	<b>55,775,480</b>	<b>55,214,198</b>	<b>112,250</b>	<b>44,193</b>	<b>156,443</b>	<b>206,711</b>	<b>-24.32%</b>	<b>\$ 0.35</b>	<b>\$ 1.21</b>	<b>\$ 1.56</b>
<b>State Facilities Total</b>	<b>73,704,825</b>	<b>73,143,543</b>	<b>112,042</b>	<b>42,991</b>	<b>155,033</b>	<b>198,390</b>	<b>-21.85%</b>	<b>\$ 0.36</b>	<b>\$ 1.17</b>	<b>\$ 1.53</b>

## Appendix A - Weather Adjustments and Degree Days for Selected Locations

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### EXPLANATION:

A degree-day is a unit of measure representing one degree of declination from 65°F in the mean daily outdoor temperature. It is simply a way of measuring how hot or cold it has been over a 24-hour period. Whenever the average (or mean) temperature is below 65 degrees Fahrenheit, you have a heating degree day. Whenever the average is above 65 degree Fahrenheit, you have a cooling degree day.

If in a 24-hour period the high outside temperature was 70 degrees and the low was 50 degrees, then the mean temperature for that day was 60 degrees - halfway between 70 and 50 degrees. This is 5 degrees less than the base temperature of 65. Therefore, we can say that there was 5 heating degree days (HDD) for the period.

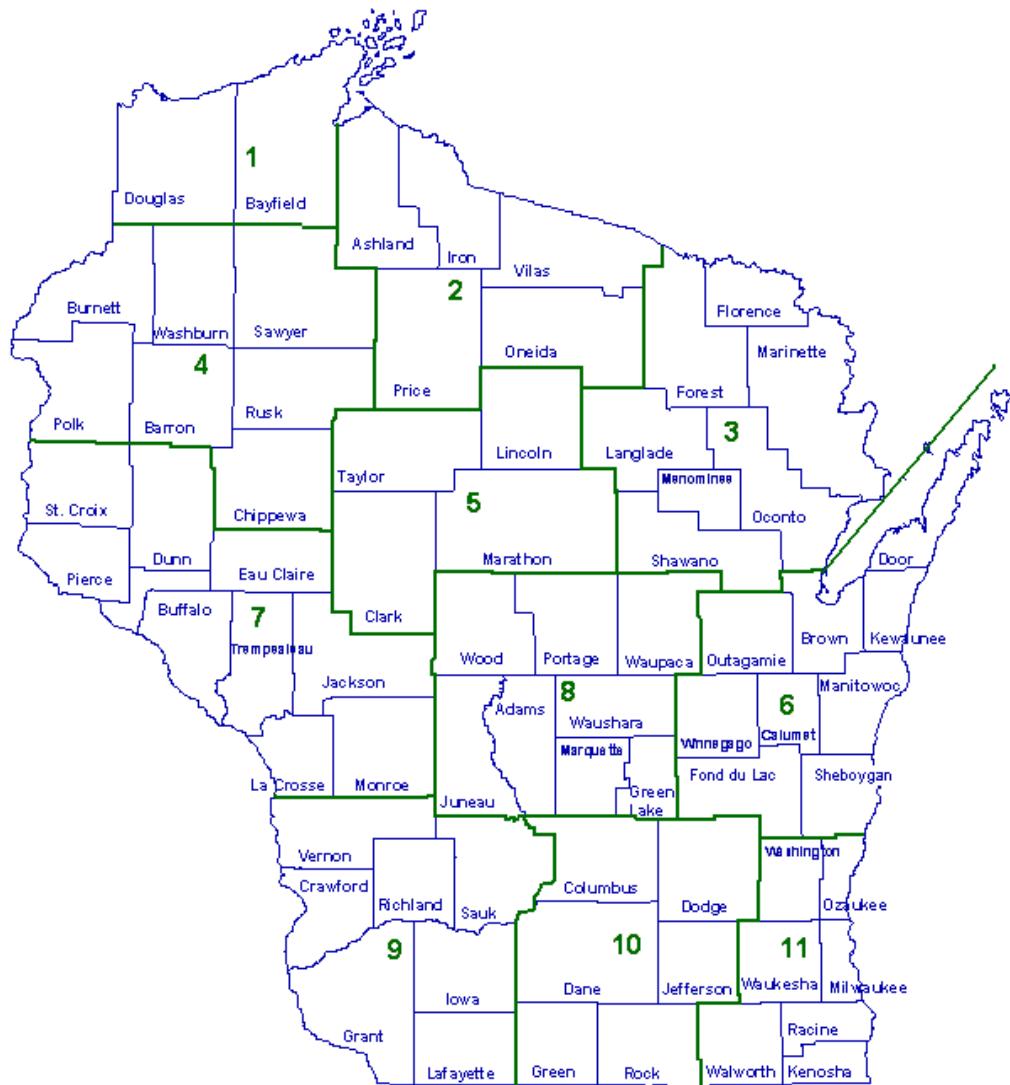
If in a 24-hour period the high outside temperature was 80 degrees and the low was 60 degrees, then the mean temperature for that day was 70 degrees - halfway between 60 and 80 degrees. This is 5 degrees more than the base temperature of 65. Therefore, we can say that there was 5 cooling degree days (CDD) for the period.

There is a direct relationship between heating degree days and the amount of energy required to heat a residence. As HDD increases, the fuel bills to heat a typical building will also likely increase. The opposite is true for CDD. Once the daily average temperature is above 65°, homes start using air conditioning. Higher cooling degree days mean the air conditioner stays on longer to keep the occupant comfortable resulting in higher cooling costs.

Similar to a modified degree day methodology, weather adjustments were based on polynomial equation curve fits of thermal and electric energy use versus mean monthly temperatures curve fit "models" to determine the weather adjustment factors. A widely used statistic to gage the goodness-of-fit of the model is the coefficient of determination  $R^2$ . A value of  $R^2 = 1$  indicates a perfect correlation between actual data and the regression equation; a value of  $R^2 = 0$  indicates no correlation. As a rule of thumb the value of  $R^2$  should never be less than 0.75. In general, the thermal energy use for winter heating resulted in good correlation with  $R^2$  greater than 0.90 while electric energy use correlation did not correlate as well with  $R^2$  around 0.75. However, the weather-adjusted electric factors were small and did not significantly impact overall weather-adjustments.

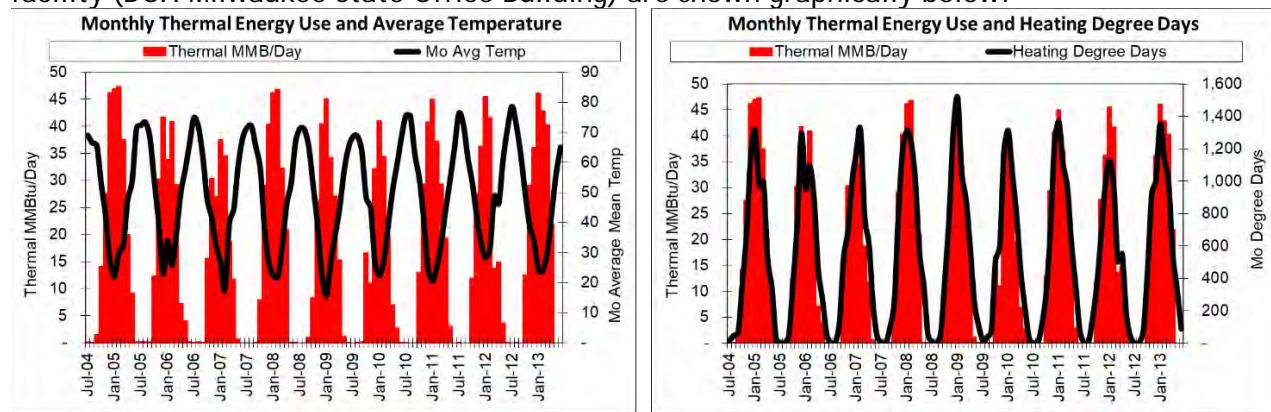
Degree-day and daily mean temperature data were obtained from the Wisconsin Office of Energy Innovation Heating, Cooling and Growing Degree Days website at <http://degreedays.wi.gov/>.

Heating and cooling degree day zone summaries are available for eleven geographic areas in Wisconsin that experience very similar temperatures throughout the year. The following table depicts the weather stations used for zone reporting. Notice that Zone 3 is an average of both Rhinelander which is inland, and Green Bay on the shores of Lake Michigan. (Zone 3 does not have good full-time weather stations and is influenced by both cold inland temperatures and maritime weather from Lake Superior and Lake Michigan).

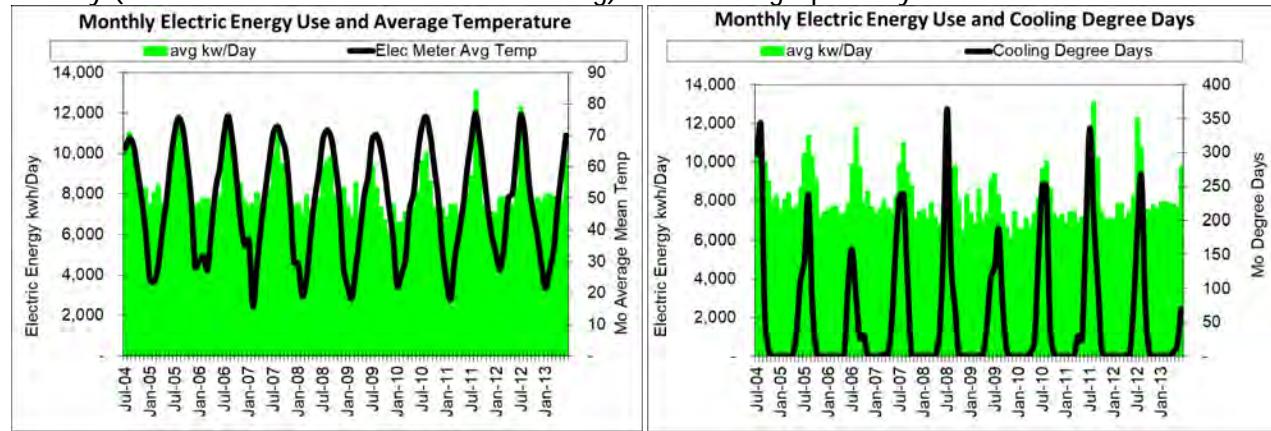


Zone	Weather Station
1	Ashland
2	Rhinelander
3	Rhinelander / Green Bay
4	Spooner
5	Marshfield
6	Green Bay
7	Eau Claire
8	Hancock
9	Lancaster
10	Madison
11	Milwaukee

The relationships between thermal energy use to degree days and temperatures for a sample facility (DOA-Milwaukee State Office Building) are shown graphically below:



The relationships between electric energy use to degree days and temperatures for a sample facility (DOA-Milwaukee State Office Building) are shown graphically below:



As can be seen above, close to 100% of thermal energy is dependent on weather for winter space heating. However, approximately 10% of electric use is dependent on weather and varies with summer temperature for air conditioning building cooling. The ratio of annual Wisconsin heating degree day comparisons to FY2005 base year provide an indication of anticipated weather adjustments for a building's thermal energy:

**Heating Degree Days 65 Degree Base Compared to FY2005**

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State HDD
FY05	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
FY06	93%	93%	93%	91%	95%	94%	93%	95%	99%	99%	94%	95%
FY07	96%	101%	99%	104%	100%	97%	100%	98%	104%	104%	100%	100%
FY08	104%	110%	108%	115%	111%	106%	113%	109%	115%	112%	105%	108%
FY09	107%	112%	112%	117%	108%	112%	114%	112%	112%	113%	107%	111%
FY10	94%	97%	97%	106%	94%	97%	100%	100%	105%	103%	96%	98%
FY11	103%	107%	108%	116%	105%	108%	112%	113%	107%	110%	105%	108%
FY12	85%	96%	91%	91%	87%	84%	88%	86%	83%	87%	85%	86%
FY13	106%	116%	111%	117%	108%	105%	112%	111%	107%	109%	105%	108%
FY14	115%	129%	124%	130%	121%	120%	124%	122%	122%	121%	119%	121%
FY15	102%	119%	113%	114%	107%	107%	110%	110%	111%	111%	110%	110%
FY16	90%	99%	95%	98%	92%	90%	92%	94%	92%	93%	91%	92%
FY17	91%	101%	95%	99%	93%	87%	95%	95%	91%	94%	86%	90%
FY18	105%	115%	109%	118%	108%	102%	114%	109%	106%	109%	101%	106%
FY19	108%	117%	112%	121%	112%	106%	117%	113%	111%	113%	106%	110%
FY20	99%	110%	105%	111%	103%	100%	103%	106%	102%	103%	97%	101%
Norm	103%	107%	107%	112%	103%	108%	107%	108%	108%	110%	106%	107%

The ratio of annual Wisconsin cooling degree day comparisons to FY2005 base year provide an indication of anticipated weather adjustments for approximately 10% of a building's electrical energy:

**Cooling Degree Days 65 Degree Base Compared to FY2005**

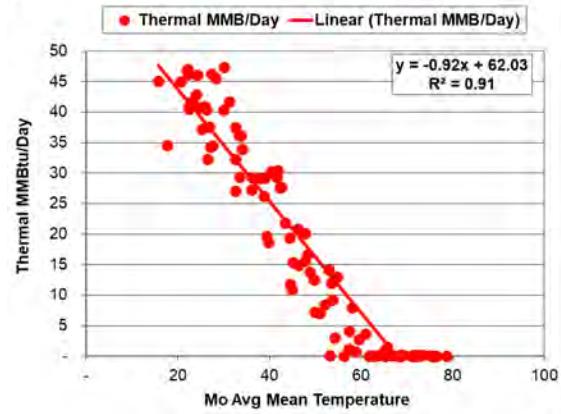
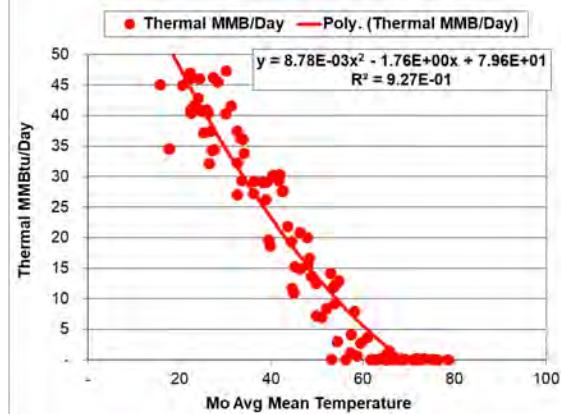
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State CDD
FY05	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
FY06	151%	160%	135%	162%	137%	119%	147%	135%	133%	128%	145%	137%
FY07	212%	146%	131%	154%	130%	121%	151%	137%	131%	118%	131%	130%
FY08	163%	114%	114%	107%	107%	115%	107%	113%	113%	116%	123%	117%
FY09	110%	89%	95%	101%	97%	100%	95%	93%	87%	97%	105%	100%
FY10	78%	62%	63%	66%	77%	62%	66%	68%	69%	72%	93%	78%
FY11	167%	123%	124%	107%	136%	127%	126%	118%	164%	139%	144%	136%
FY12	227%	122%	144%	135%	157%	160%	144%	150%	192%	163%	168%	162%
FY13	175%	87%	118%	131%	140%	140%	136%	146%	187%	157%	148%	147%
FY14	153%	87%	100%	114%	130%	108%	133%	113%	146%	128%	112%	118%
FY15	74%	28%	56%	69%	69%	71%	82%	65%	85%	93%	77%	78%
FY16	190%	85%	104%	105%	115%	117%	111%	104%	131%	120%	122%	119%
FY17	147%	87%	105%	92%	109%	119%	109%	108%	136%	126%	168%	137%
FY18	102%	75%	103%	95%	116%	123%	107%	105%	165%	112%	135%	123%
FY19	147%	93%	109%	110%	114%	118%	100%	105%	134%	113%	134%	121%
FY20	177%	87%	114%	101%	118%	134%	110%	129%	178%	127%	149%	136%
Norm	136%	99%	86%	94%	113%	84%	110%	100%	111%	96%	109%	102%

#### Sample Weather Adjustment Calculation:

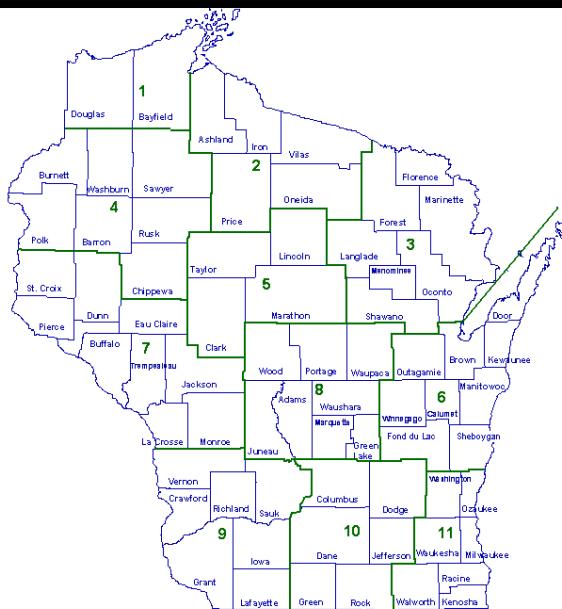
To account for the facility's weather adjustment energy use, the relationship between monthly temperature and energy use were evaluated by graphing the energy use as a function of temperature and calculating the curve fit. The example results shown to the right indicate that no heating energy is required above 61.5 degrees (temperature curve intercept). The R-Squared ( $R^2$ ) is a statistical term saying how good one term is at predicting another. Note the  $R^2$  for this example is 0.91 close to 1.0 and good curve fit. For this example, if the temperature was 25 degrees in FY05 base year month and 20 degrees in FY16, the adjustment factor would be calculated as:

- FY05 Month Thermal Use =  $-0.92 * 25 + 62.03 = 39.03$  MMBtu/Day
- FY16 Month Thermal Use =  $-0.92 * 20 + 62.03 = 43.63$  MMBtu/Day
- FY16 Adjustment Factor =  $39.03 / 43.63 = 0.895$ , the FY13 adjustment multiplier
- FY16 Weather Adjusted Use =  $43.63 * 0.895 = 39.05$  MMBtu/Day or FY05 Base

Similar methodology was used for weather adjustments presented in this report, but were based on second order polynomial equation curve fit. The same data above is plotted with at left with second order polynomial curve fit with a somewhat better  $R^2$  than the linear equation in the above example. The weather-adjusted electric factors were small and did not significantly impact overall weather-adjustments.



## Appendix B - Historical Degree Days Data for Regional Stations

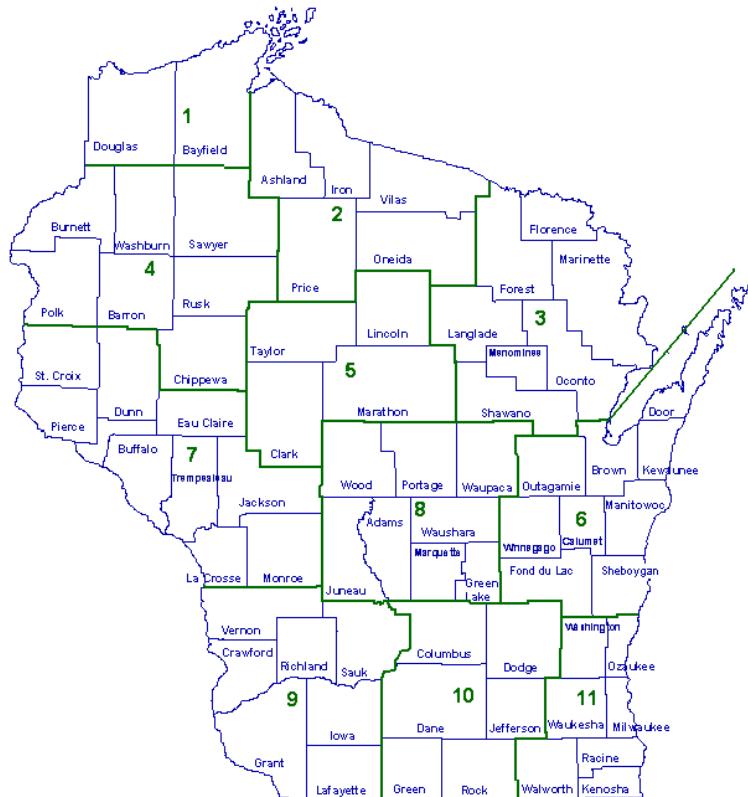


**Wisconsin Heating Degree Days**

Fiscal Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State HDD	Ratio to FY05
Normal	9,033	8,828	8,395	8,628	8,106	7,955	7,959	7,917	7,574	7,333	6,894	7,528	107%
<b>FY05</b>	<b>8,769</b>	<b>8,220</b>	<b>7,847</b>	<b>7,685</b>	<b>7,857</b>	<b>7,335</b>	<b>7,409</b>	<b>7,317</b>	<b>7,003</b>	<b>6,641</b>	<b>6,517</b>	<b>7,005</b>	<b>100%</b>
FY06	8,173	7,615	7,324	6,989	7,493	6,884	6,903	6,939	6,939	6,587	6,155	6,652	95%
FY07	8,457	8,317	7,796	7,958	7,835	7,111	7,440	7,172	7,296	6,928	6,488	7,014	100%
FY08	9,160	9,072	8,478	8,810	8,686	7,743	8,382	7,956	8,025	7,453	6,872	7,600	108%
FY09	9,400	9,238	8,793	8,970	8,464	8,203	8,418	8,203	7,869	7,512	6,962	7,744	111%
FY10	8,275	7,988	7,628	8,163	7,348	7,107	7,413	7,340	7,333	6,828	6,236	6,891	98%
FY11	9,054	8,824	8,443	8,891	8,257	7,921	8,295	8,279	7,520	7,320	6,849	7,572	108%
FY12	7,422	7,899	7,103	6,992	6,870	6,174	6,484	6,319	5,796	5,772	5,526	6,030	86%
FY13	9,296	9,553	8,714	9,007	8,483	7,714	8,300	8,120	7,469	7,237	6,829	7,539	108%
FY14	10,127	10,584	9,758	10,017	9,509	8,771	9,167	8,952	8,510	8,057	7,742	8,472	121%
FY15	8,982	9,752	8,873	8,753	8,428	7,833	8,134	8,060	7,764	7,367	7,197	7,698	110%
FY16	7,907	8,105	7,441	7,499	7,221	6,622	6,843	6,877	6,452	6,198	5,909	6,445	92%
FY17	7,951	8,268	7,420	7,610	7,305	6,414	7,004	6,951	6,390	6,218	5,634	6,339	90%
FY18	9,223	9,439	8,530	9,067	8,463	7,451	8,465	7,942	7,448	7,212	6,586	7,404	106%
FY19	9,441	9,602	8,761	9,311	8,775	7,750	8,688	8,293	7,806	7,500	6,893	7,692	110%
FY20	8,670	9,044	8,262	8,506	8,122	7,311	7,638	7,722	7,117	6,825	6,299	7,062	101%

**Wisconsin Cooling Degree Days**

Fiscal Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State CDD	Ratio to FY05
Normal	288	331	366	410	456	398	579	510	536	568	641	540	102%
<b>FY05</b>	<b>212</b>	<b>334</b>	<b>426</b>	<b>438</b>	<b>402</b>	<b>475</b>	<b>527</b>	<b>510</b>	<b>485</b>	<b>589</b>	<b>588</b>	<b>529</b>	<b>100%</b>
FY06	321	534	573	710	549	565	773	690	646	754	855	727	137%
FY07	449	488	557	673	521	573	796	701	635	693	768	687	130%
FY08	345	382	486	470	429	545	562	575	549	683	721	618	117%
FY09	234	298	404	441	388	474	500	473	422	571	618	529	100%
FY10	165	208	270	288	311	295	349	348	337	424	549	412	78%
FY11	353	412	528	469	546	604	662	601	796	819	849	722	136%
FY12	482	409	614	591	631	760	760	766	933	958	986	855	162%
FY13	370	289	502	574	561	667	716	747	906	922	873	778	147%
FY14	324	290	424	500	521	512	700	576	707	752	658	623	118%
FY15	157	92	237	302	278	335	431	330	413	548	455	410	78%
FY16	403	283	443	461	463	556	586	528	634	706	719	627	119%
FY17	311	290	448	401	440	566	573	552	661	743	989	727	137%
FY18	217	251	439	417	465	583	564	535	800	657	791	649	123%
FY19	311	312	463	480	457	562	528	538	651	668	788	642	121%
FY20	376	289	486	442	473	636	580	656	861	748	874	717	136%



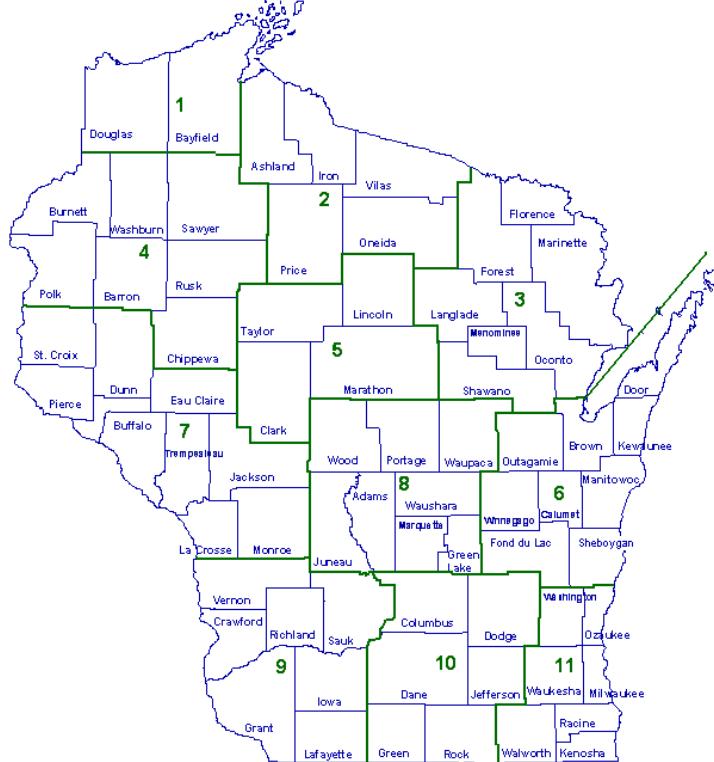
**FY2005 Monthly Wisconsin Heating Degree Days**

Mo-Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State HDD
Jul-04	68	46	40	28	29	30	16	29	18	11	19	22
Aug-04	156	155	127	110	123	89	104	92	89	72	48	78
Sep-04	122	94	91	86	96	82	93	86	79	83	66	79
Oct-04	547	542	507	473	521	458	475	470	473	418	369	429
Nov-04	885	890	839	847	855	770	831	802	769	738	675	749
Dec-04	1,454	1,467	1,386	1,423	1,413	1,288	1,363	1,302	1,273	1,200	1,161	1,253
Jan-05	1,781	1,649	1,572	1,613	1,602	1,480	1,517	1,535	1,516	1,400	1,318	1,436
Feb-05	1,235	1,185	1,142	1,144	1,151	1,088	1,117	1,097	1,057	995	973	1,044
Mar-05	1,270	1,224	1,203	1,131	1,178	1,168	1,134	1,132	1,012	1,010	997	1,073
Apr-05	677	560	550	473	502	528	449	452	402	417	518	491
May-05	460	391	372	349	376	337	305	311	307	283	344	331
Jun-05	114	17	18	8	11	17	5	9	8	14	29	20
Total	8,769	8,220	7,847	7,685	7,857	7,335	7,409	7,317	7,003	6,641	6,517	7,005

**FY2020 Monthly Wisconsin Heating Degree Days**

Mo-Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State HDD
Jul-19	4	22	14	5	2	-	3	3	1	-	-	2
Aug-19	64	109	74	44	32	24	18	2	3	13	2	16
Sep-19	190	194	140	138	120	73	87	120	19	44	22	61
Oct-19	674	718	634	658	634	532	594	591	592	542	467	537
Nov-19	1,123	1,176	1,104	1,166	1,107	1,016	1,050	1,083	1,052	1,012	918	1,004
Dec-19	1,402	1,400	1,306	1,457	1,353	1,199	1,336	1,239	1,104	1,074	970	1,132
Jan-20	1,401	1,456	1,332	1,454	1,399	1,190	1,367	1,309	1,287	1,199	1,072	1,204
Feb-20	1,394	1,459	1,385	1,428	1,361	1,291	1,326	1,337	1,259	1,208	1,071	1,218
Mar-20	1,055	1,087	1,015	1,032	979	933	898	928	848	818	782	866
Apr-20	816	874	779	743	738	671	663	710	620	595	622	654
May-20	462	438	395	332	349	335	277	354	308	301	337	330
Jun-20	85	111	84	49	48	47	19	46	24	19	36	38
Total	8,670	9,044	8,262	8,506	8,122	7,311	7,638	7,722	7,117	6,825	6,299	7,062

-1.1% 10.0% 5.3% 10.7% 3.4% -0.3% 3.1% 5.5% 1.6% 2.8% -3.3% 0.8%



**FY2005 Monthly Wisconsin Cooling Degree Days**

Mo-Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State CDD
Jul-04	79	97	112	129	123	116	159	138	133	155	151	140
Aug-04	21	30	56	53	46	73	71	68	69	91	105	83
Sep-04	29	60	73	83	64	79	100	88	72	93	93	87
Oct-04	-	-	-	-	-	-	1	-	-	2	2	1
Nov-04	-	-	-	-	-	-	-	-	-	-	-	-
Dec-04	-	-	-	-	-	-	-	-	-	-	-	-
Jan-05	-	-	-	-	-	-	-	-	-	-	-	-
Feb-05	-	-	-	-	-	-	-	-	-	-	-	-
Mar-05	-	-	-	-	-	-	-	-	-	-	-	-
Apr-05	-	-	1	8	-	1	4	4	3	2	4	3
May-05	-	2	3	3	1	3	4	4	4	7	4	4
Jun-05	83	145	181	162	168	203	188	208	204	239	229	211
Total	212	334	426	438	402	475	527	510	485	589	588	529

**FY2020 Monthly Wisconsin Cooling Degree Days**

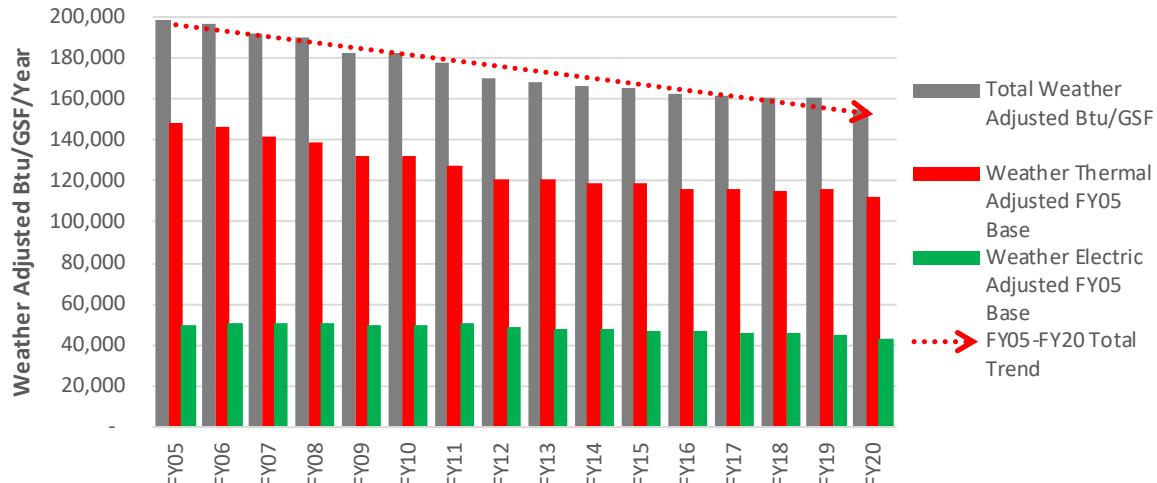
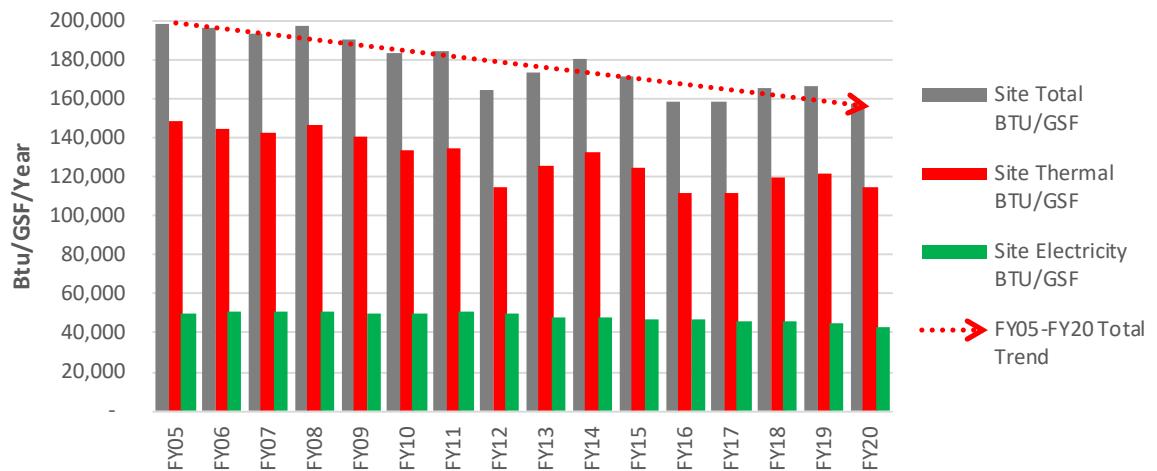
Mo-Year	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	State CDD
Jul-19	200	139	208	198	216	264	225	222	282	323	319	279
Aug-19	69	39	87	78	67	123	95	232	225	126	211	155
Sep-19	18	23	47	30	52	63	72	36	149	85	119	86
Oct-19	-	-	1	-	6	1	-	5	12	4	2	3
Nov-19	-	-	-	-	-	-	-	-	-	-	-	-
Dec-19	-	-	-	-	-	-	-	-	-	-	-	-
Jan-20	-	-	-	-	-	-	-	-	-	-	-	-
Feb-20	-	-	-	-	-	-	-	-	-	-	-	-
Mar-20	-	-	-	-	-	-	-	-	-	-	-	-
Apr-20	-	-	-	-	-	-	-	-	-	-	-	-
May-20	9	27	35	24	28	39	33	41	30	40	35	35
Jun-20	80	61	108	112	104	146	155	120	163	170	188	159
Total	376	289	486	442	473	636	580	656	861	748	874	717

77.4% -13.5% 14.1% 0.9% 17.7% 33.9% 10.1% 28.6% 77.5% 27.0% 48.6% 35.5%

## Appendix C - Historical Statewide Consumption Data

**Statewide Facilities Total Fiscal Year 2020 Total State Agency Total (FY05 Base)**

Fiscal Year	Gross Square Feet (GSF)	Site Thermal BTU/GSF	Site Electricity BTU/GSF	Site Total BTU/GSF	% Change From FY05 Base	Weather Thermal Adjusted FY05 Base	Weather Electric Adjusted FY05 Base	Total Weather Adjusted Btu/GSF	% Adj Change From FY05
FY05	64,753,150	148,686	49,704	198,390	0.0%	148,686	49,704	198,390	0.0%
FY06	65,405,533	145,097	51,086	196,183	-1.1%	146,249	50,791	197,040	-0.7%
FY07	66,508,886	142,156	50,876	193,033	-2.7%	141,452	50,767	192,219	-3.1%
FY08	67,703,290	146,259	50,932	197,191	-0.6%	138,936	50,694	189,630	-4.4%
FY09	68,186,861	140,138	49,815	189,953	-4.3%	132,607	49,800	182,406	-8.1%
FY10	67,994,873	133,828	49,533	183,361	-7.6%	132,537	49,667	182,204	-8.2%
FY11	68,875,351	134,455	50,416	184,871	-6.8%	127,838	50,154	177,992	-10.3%
FY12	70,620,947	114,576	49,708	164,284	-17.2%	121,033	48,964	169,996	-14.3%
FY13	71,861,171	125,205	47,956	173,161	-12.7%	120,872	47,762	168,635	-15.0%
FY14	72,438,223	133,075	47,599	180,675	-8.9%	119,350	47,390	166,740	-16.0%
FY15	72,670,156	125,066	46,813	171,879	-13.4%	118,733	46,893	165,626	-16.5%
FY16	73,135,342	112,007	46,791	158,798	-20.0%	116,478	46,487	162,966	-17.9%
FY17	73,151,124	111,951	46,383	158,335	-20.2%	116,116	45,824	161,940	-18.4%
FY18	73,100,282	119,800	45,503	165,303	-16.7%	115,329	45,388	160,717	-19.0%
FY19	73,143,543	122,031	44,817	166,848	-15.9%	116,130	44,823	160,953	-18.9%
FY20	73,704,825	114,837	42,917	157,755	-20.5%	112,042	42,991	155,033	-21.9%



**Major Agency Comparison FY2020 to FY1973\***

Agency	FY1973 GSF	FY1973 Thermal Btu/GSF	FY1973 Electric Btu/GSF	FY1973 Total Btu/GSF
University of Wisconsin System	31,498,261	192,180	42,581	234,761
Department of Administration	1,966,150	225,697	42,447	268,144
Department of Corrections	2,279,108	317,387	16,662	334,049
Department of Health Services	4,475,139	279,061	25,221	304,282
Department of Public Instruction	358,663	177,888	20,858	198,746
Department of Veterans Affairs	535,072	244,085	29,714	273,799
Agencies Total	41,112,393	210,732	38,891	249,623

Agency	FY2020 GSF	FY2020 Thermal Btu/GSF	FY2020 Electric Btu/GSF	FY2020 Total Btu/GSF
University of Wisconsin System	55,775,480	116,000	44,047	160,047
Department of Administration	4,202,931	61,855	43,941	105,796
Department of Corrections	7,939,611	124,301	40,700	165,002
Department of Health Services	4,159,400	143,486	35,152	178,637
Department of Public Instruction	441,183	75,214	16,595	91,809
Department of Veterans Affairs	733,728	122,167	41,684	163,851
Agencies Total	73,252,333	115,170	42,984	158,154

Agency	GSF % Change 2020 from 1973	Thermal % Change 2020 from 1973	Electric % Change 2020 from 1973	Energy % Change 2020 from 1973
University of Wisconsin System	77.07%	-39.64%	3.44%	-31.83%
Department of Administration	113.76%	-72.59%	3.52%	-60.55%
Department of Corrections	248.36%	-60.84%	144.27%	-50.61%
Department of Health Services	-7.06%	-48.58%	39.37%	-41.29%
Department of Public Instruction	23.01%	-57.72%	-20.44%	-53.81%
Department of Veterans Affairs	37.13%	-49.95%	40.29%	-40.16%
Agencies Total	78.18%	-45.35%	10.52%	-36.64%

\* FY1973 was start of State of Wisconsin Energy Conservation Program and State Energy Report monitoring.

