



MACALESTER COLLEGE

Fiscal Year 2020 – 2021

Campus Annual Energy Use Report

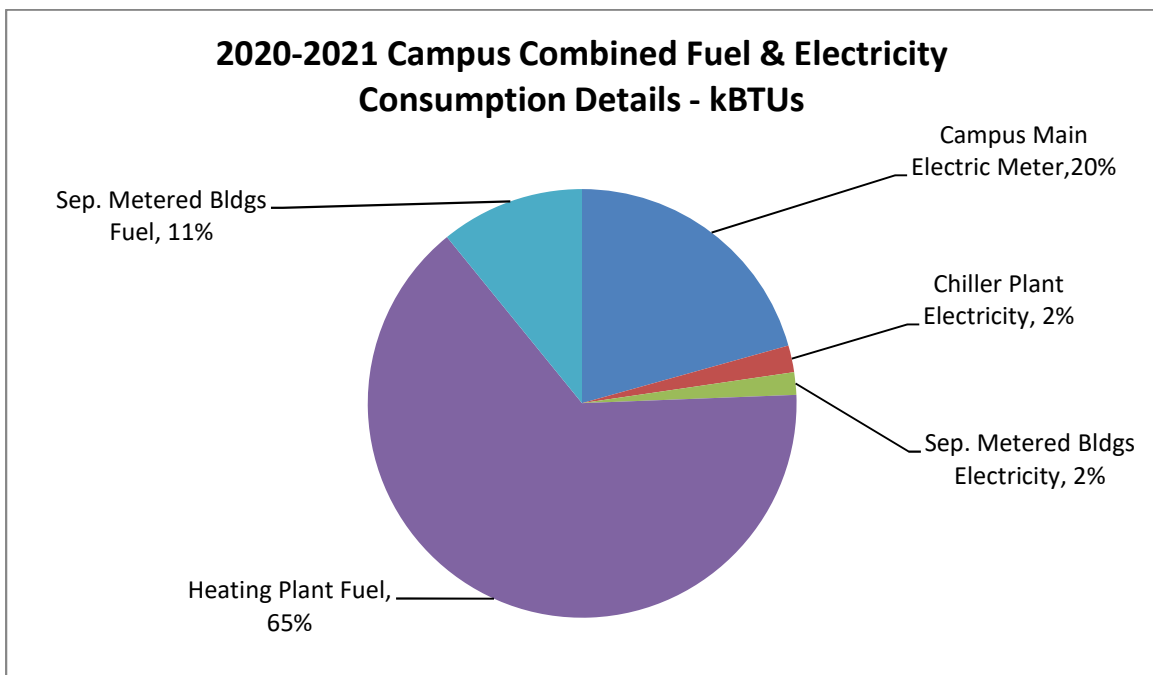
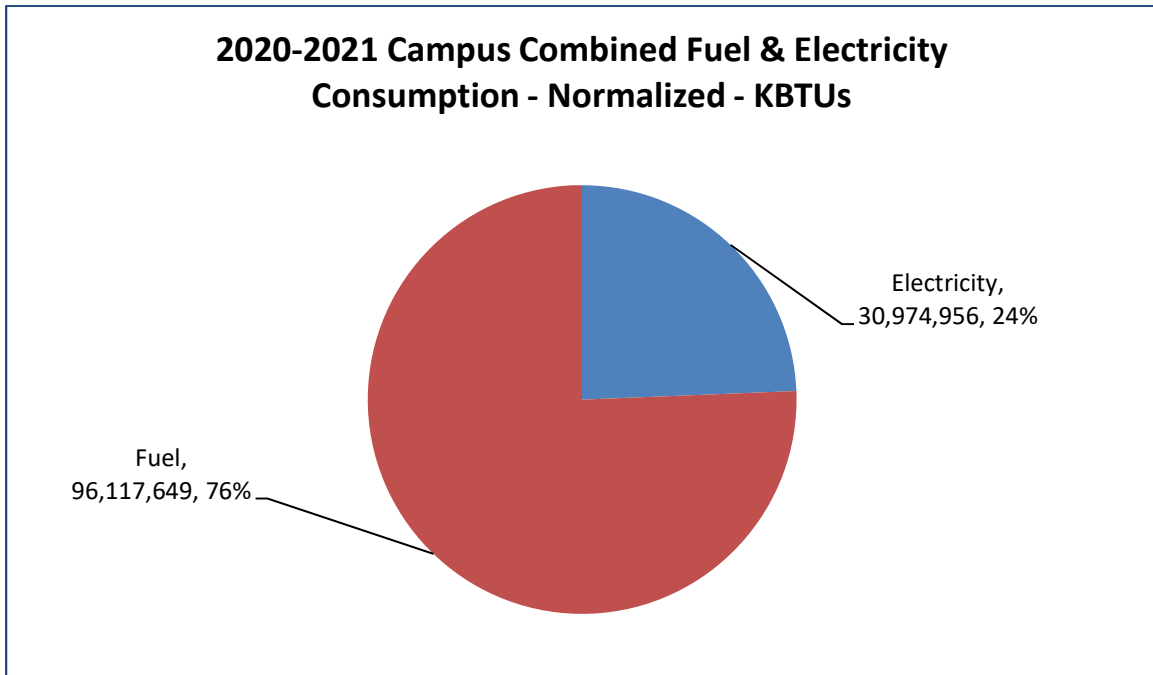
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Fuel, Electricity, & Water Consumption

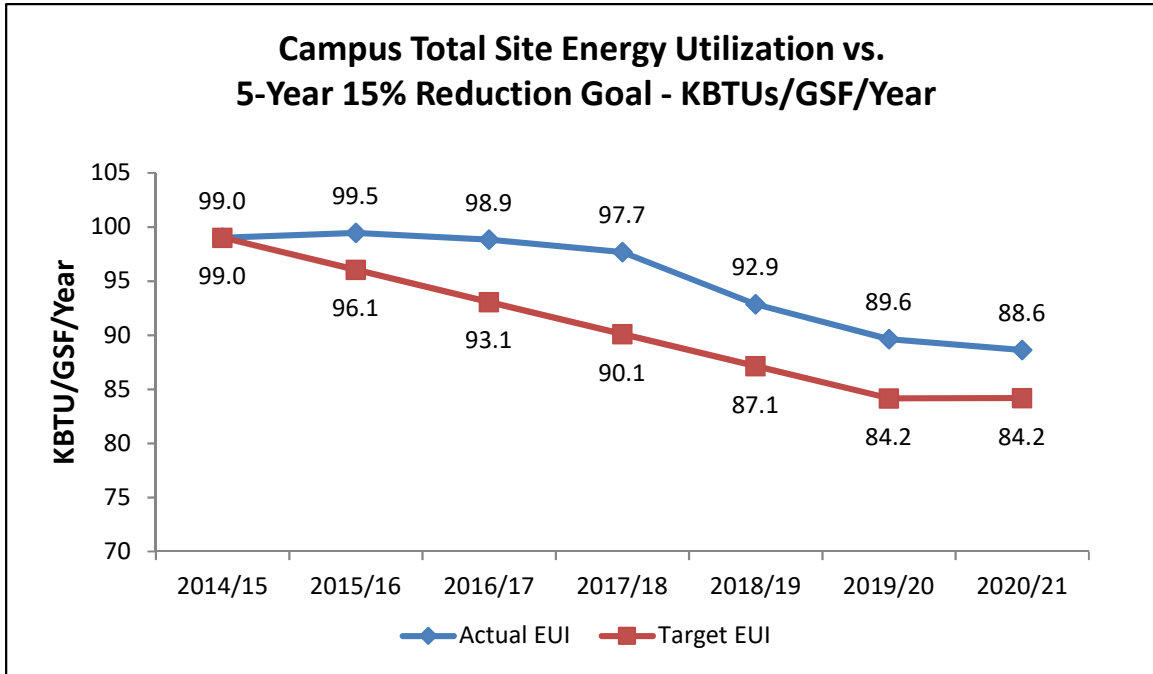
FY 2020-2021 Total Site Energy Consumption

In fiscal year 2020-21, Macalester College consumed 127,092,606 kBtus of energy on its campus. 76% of the energy was comprised of fuel (natural gas & #2 fuel oil) and the balance of the consumption was electricity usage. The largest single consumer of energy on campus was the heating plant – its fuel consumption accounted for 65% of the campus’ total energy usage.



Site Energy Consumption vs. 5-Year Reduction Target:

In 2015, Macalester College set a goal to reduce the College’s total energy consumption by 15% within 5 years, with fiscal year 2014-2015 selected as the base year for comparison. In FY 2020-21, the College’s site EUI value was 88.6 kBtUs/GSF/Year, which equates to a total site energy consumption reduction of 10.5% vs. the 2014-15 base year. The rate at which Macalester consumed electricity in FY 2020-21 was 20% less than in the base year but the rate at which the campus used fuel was only 6.8% less than in the base year. Since the majority of the energy consumed on campus is provided by fuel the combined EUI value for the year fell short of the 15% goal.



Source Energy Utilization:

In addition to monitoring the amount of energy used on campus (site energy), the US EPA recommends monitoring “source energy”, which is the total amount of raw fuel that is required to operate a property.

Per the US EPA:

“In addition to what the property consumes on-site, source energy includes losses that take place during generation, transmission, and distribution of the energy, thereby enabling a complete assessment of energy consumption resulting from building operations. For this reason, Source EUI is the best way to quantify the energy performance of commercial buildings.”

In FY 2014-2015, Macalester’s energy utilization rate (EUI) of source energy as calculated by Energy Star Portfolio Manager was 168.4 kBtU/GSF/Year, which was 6.7% lower than the median score for peer higher education institutions. Macalester’s source energy EUI value in FY 2020-21 improved to 128.1 kBtU/GSF/Year, which is 29% lower than the median score for its peers. The screen snapshots displayed on the following page show site & source energy performance report screens from Macalester’s Energy Star Portfolio Manager account.

2020 -2021 Macalester College Campus Energy Use Report

Macalester College Campus



125 Snelling Ave S., Saint Paul, MN 55105 | [Map It](#)
 Portfolio Manager Property ID: 4311151
 Year Built: 1890

[Edit](#)

Not currently eligible for ENERGY STAR Certification

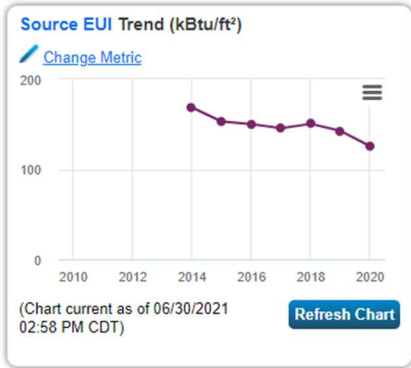
[Change Metric](#)

Source EUI (kBtu/ft²)

Current: 128.1
(29.08% lower than median.)

Baseline: 168.4
(6.75% lower than median.)

- Summary
- Details
- Energy
- Water
- Waste & Materials
- Goals
- Design



[Change Metrics](#)
[Change Time Periods](#)

Metric	May 2015 (Other)	May 2021 (Energy Current)	Change
Energy Cost (\$)	1,858,752.78	1,327,661.49	-531,091.29 (-28.60%)
Water Use (All Water Sources) (kgal)	30,013.7	Not Available	N/A
Total GHG Emissions (Metric Tons CO ₂ e)	12,527.1	10,324.2	-2,202.90 (-17.60%)
Source EUI (kBtu/ft ²)	160.0	128.1	-31.90 (-19.90%)
Site EUI (kBtu/ft ²)	102.1	86.7	-15.40 (-15.10%)
Site Energy Use (kBtu)	144,027,773.8	125,119,131.1	-18,908,642.70 (-13.10%)
Water Use Intensity (All Water Sources) (gal/ft ²)	21.28	Not Available	N/A

ENERGY STAR[®] Progress & Goals Report

N/A

ENERGY STAR[®] Score¹

Macalester College Campus

Primary Property Type: College/University
Gross Floor Area (ft²): 1,443,859
Built: 1890

Property Address:
 Macalester College Campus
 125 Snelling Ave S.
 Saint Paul, Minnesota 55105

Property ID: 4311151
MN Efficient Buildings Collaborative ID: SP1686

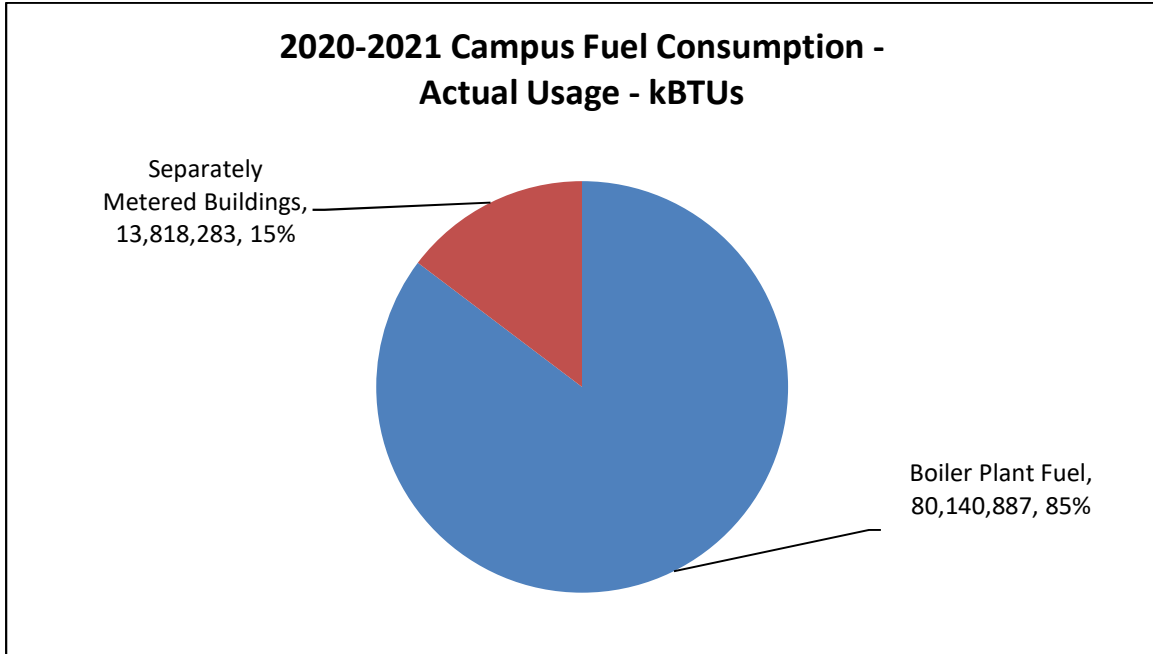
For Year Ending: May 31, 2021
Date Generated: August 19, 2021

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

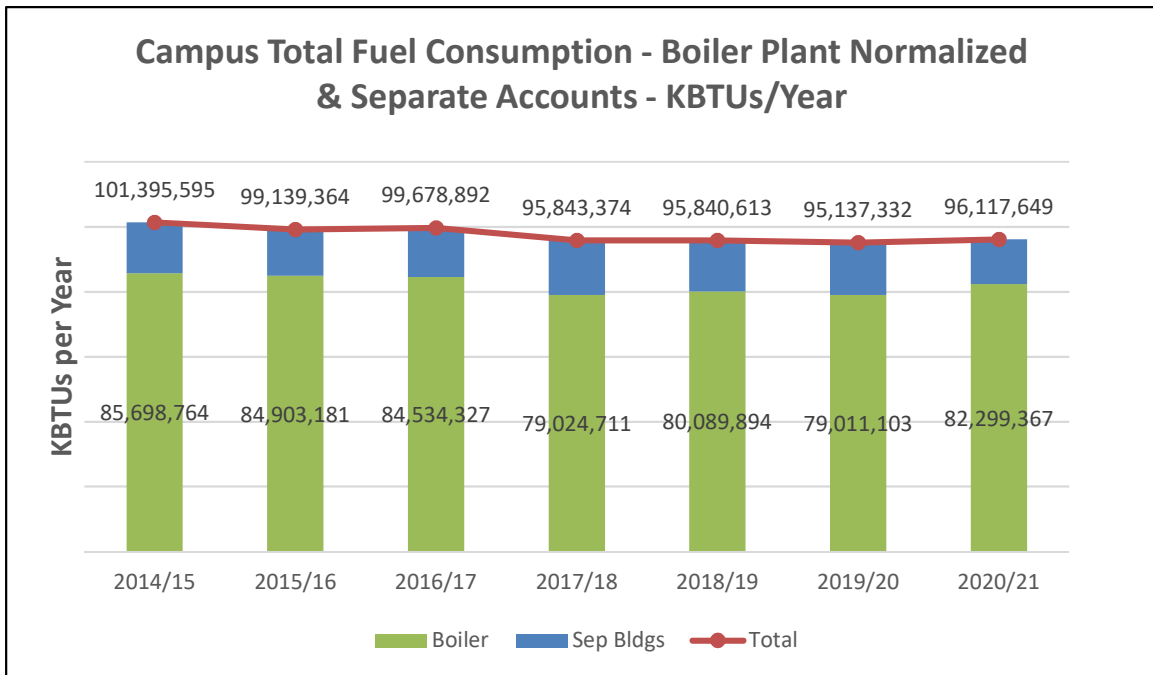
Performance Comparison						
	Progress			Performance Goals		
	Baseline (Ending Date 12/31/2014)	(Ending Date 5/31/2021)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	109.8	86.7	-21	91.6	122.2	N/A
Source EUI (kBtu/ft ²)	168.4	128.1	-23.9	135.5	180.6	N/A
Energy Cost (\$)	2,101,605.89	1,327,661.49	-36.8	1,404,044.84	1,872,059.79	N/A
Energy Cost Intensity (\$/ft ²)	1.49	0.92	-36.8	0.97	1.3	N/A

Fuel Energy Consumption

Macalester consumed slightly less than 94,000,000 kBTUs of fuel during FY 2020-21. 85% of the fuel energy was consumed by the central heating plant and the balance was used in other buildings and houses on campus for space heating, domestic water heating, and cooking. The Art building’s kilns and forges also consume a significant amount of natural gas.

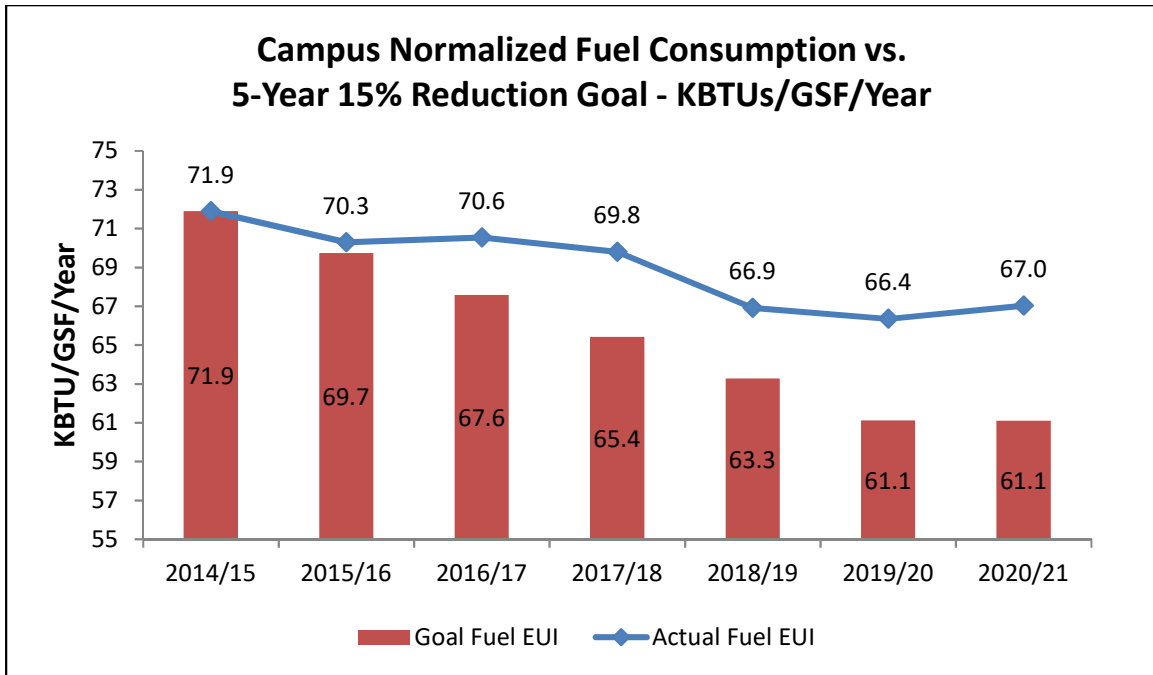


After weather normalization, the total fuel consumption for the campus was 96,117,649 kBTUs, which was very similar to the amount consumed in previous years.

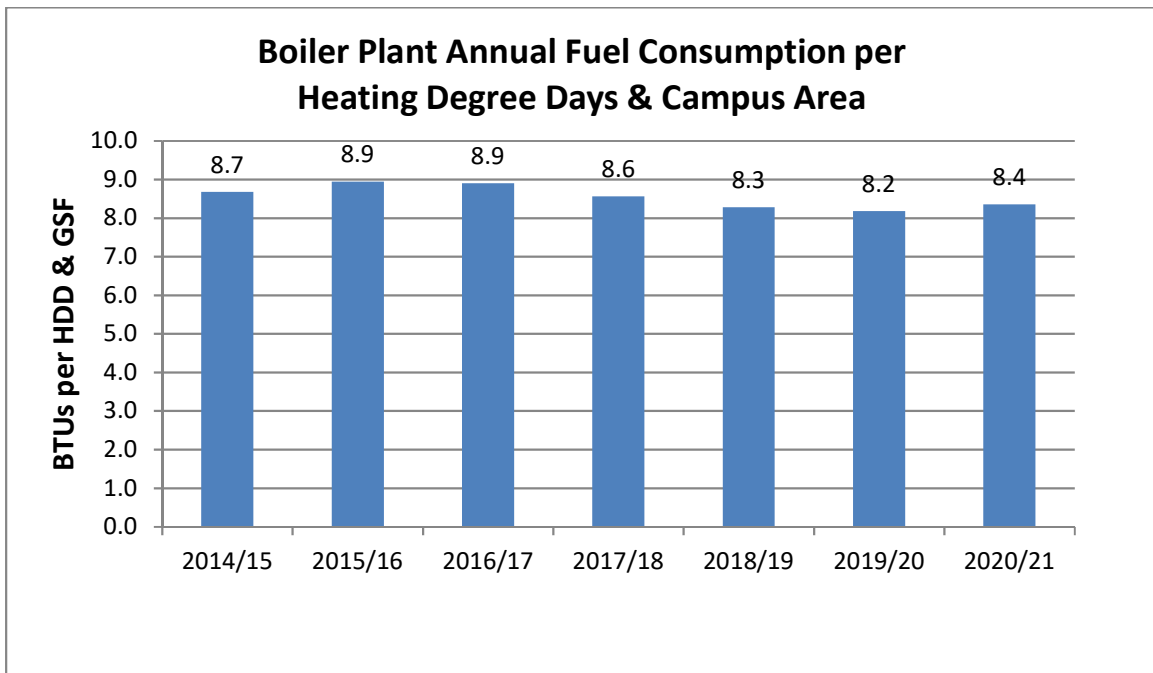


2020 -2021 Macalester College Campus Energy Use Report

On an EUI basis, the College's fuel consumption rate of 67 kBTU/GSF/Year FY 2020-21 was similar to the EUI values for the past two years but remained higher than the 5-year reduction goal of 61.1 kBTU/GSF/Year.

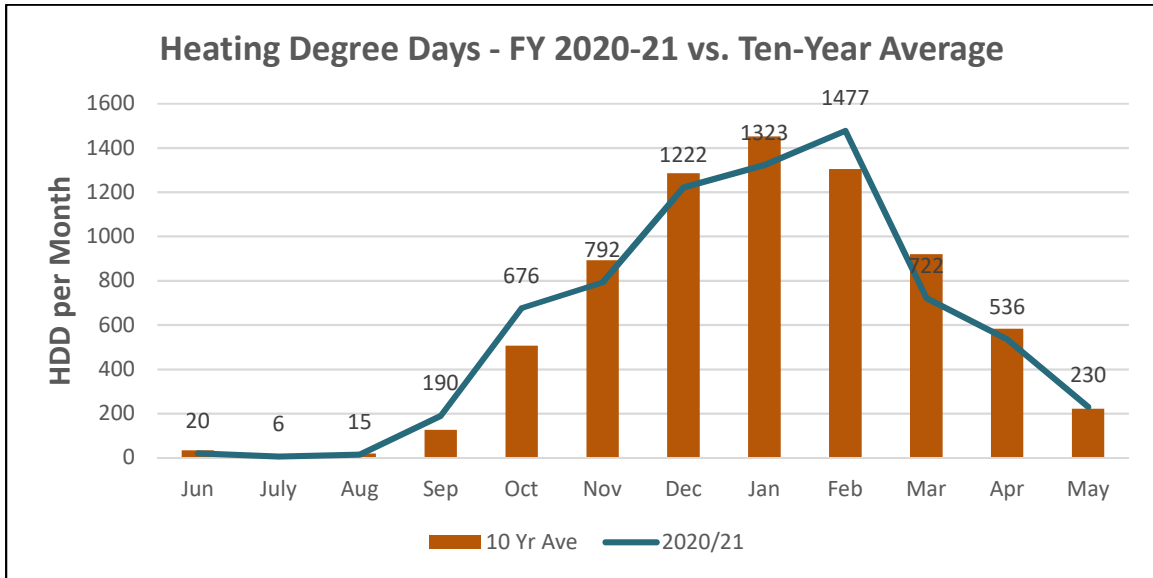


After normalizing for both weather and changes in the square footage of campus area that it serves, the rate at which the heating plant used fuel in FY 2020-21 was very similar to the rate at which used fuel in the past two years.



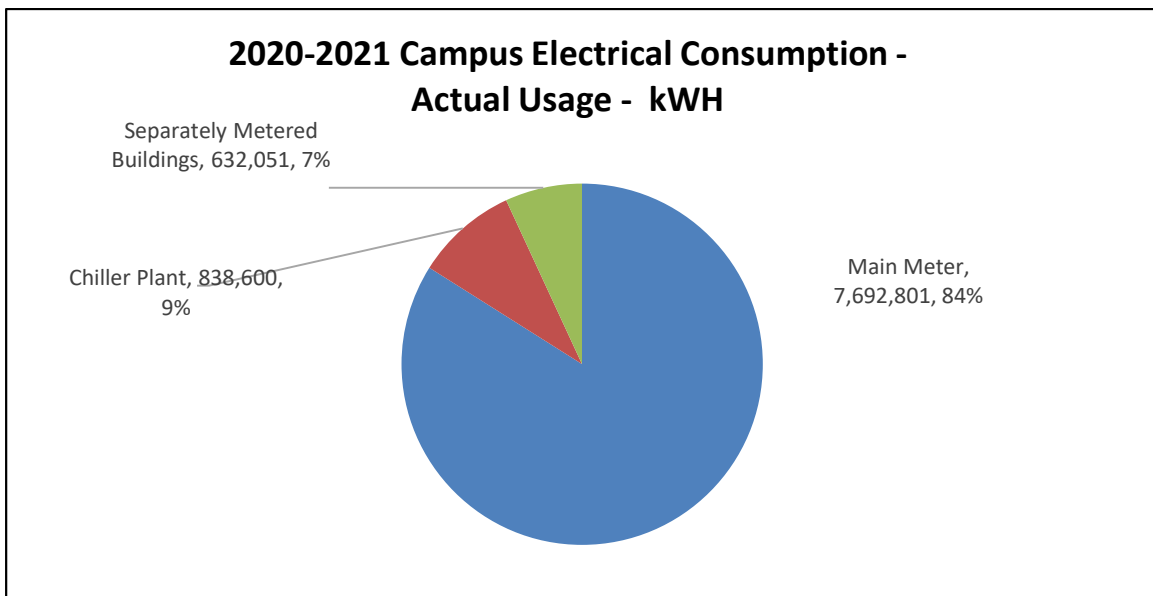
2020 -2021 Macalester College Campus Energy Use Report

The actual amount of fuel consumed in any given year can be adjusted via weather normalization calculations to provide an “apples to apples” comparison with the fuel consumption in any selected base year. With the exception of the month of February, the winter of FY 20-21 was slightly milder than average, with a total of 7,209 heating degree days (HDD) vs. the average of 7,351 HDD for the previous ten years. The weather in February was severe enough, however, to cause Xcel Energy to curtail the use of natural gas in the heating plant and switch to burning #2 fuel oil for part of the month.



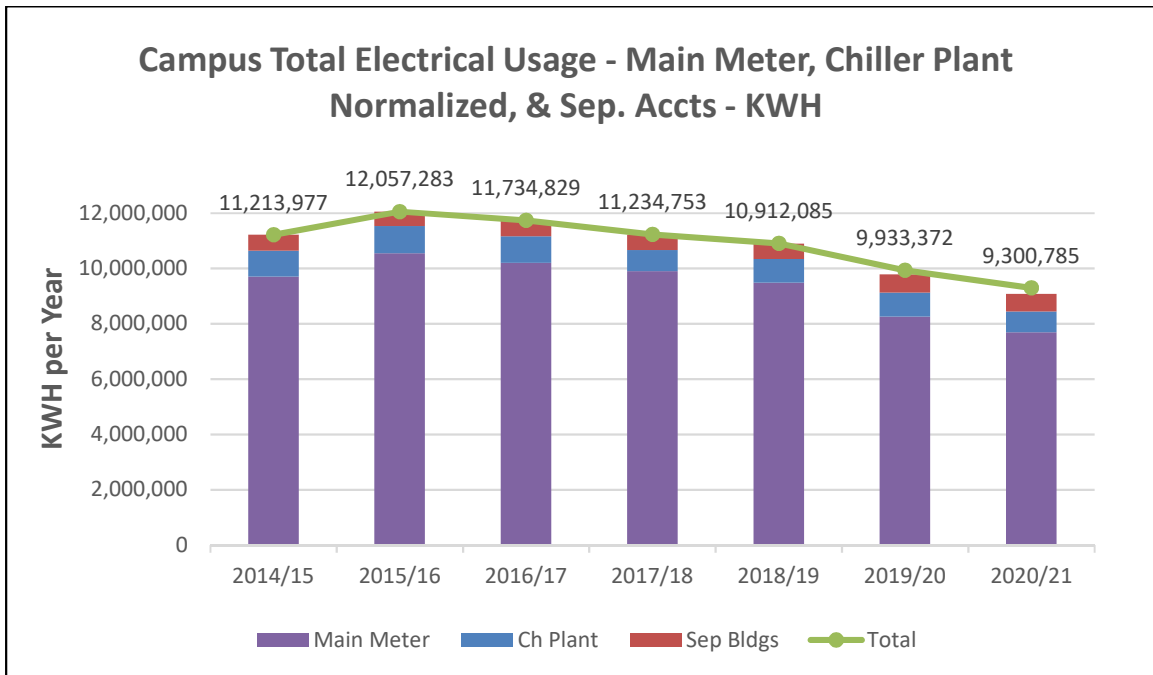
Electrical Energy Consumption

Macalester College’s total actual electrical consumption in FY 2020-21 was 9,386,003 kWh. 84% of the electricity was used for the electrical loads served by the campus main electric service, such as building lighting, HVAC equipment, and plug loads. The College’s chiller plant is served by a separate Xcel meter and used 9% of the campus’ total electric energy. The remaining 7% was used in the various buildings and houses on campus that also have individual electric services and meters.

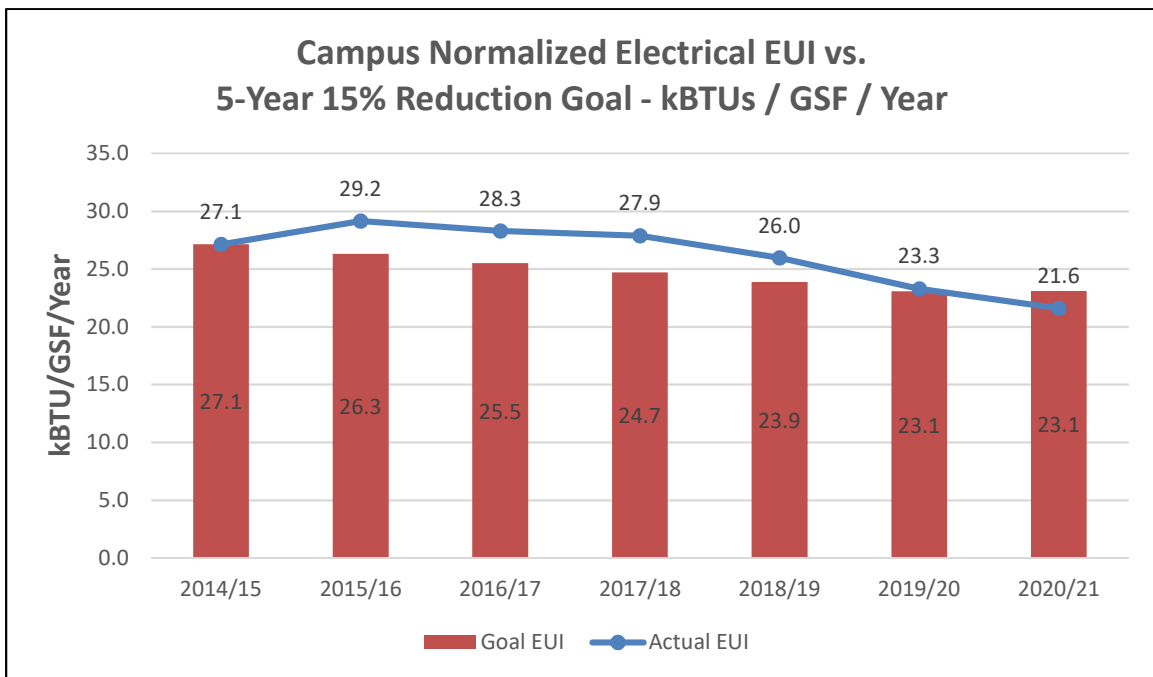


2020 -2021 Macalester College Campus Energy Use Report

After weather-normalization of the chiller plant's usage, the total electrical consumption for the campus was 9,300,785 kWh, which was 22% less than the weather-normalized amount of electricity consumed in the 2014-2015 baseline year.

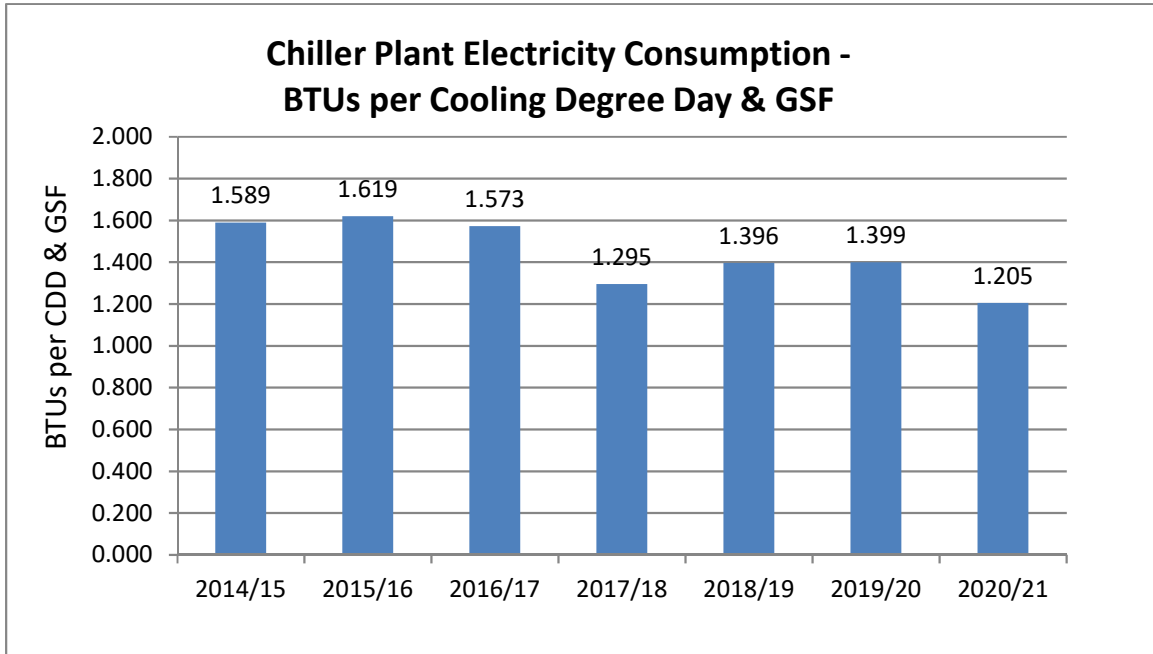


On an EUI basis, the 21.6 EUI rate at which the campus consumed for electricity in FY 2020-21 was lower (better than) the 5-year reduction goal of 23.1 kBTU/GSF/Year.

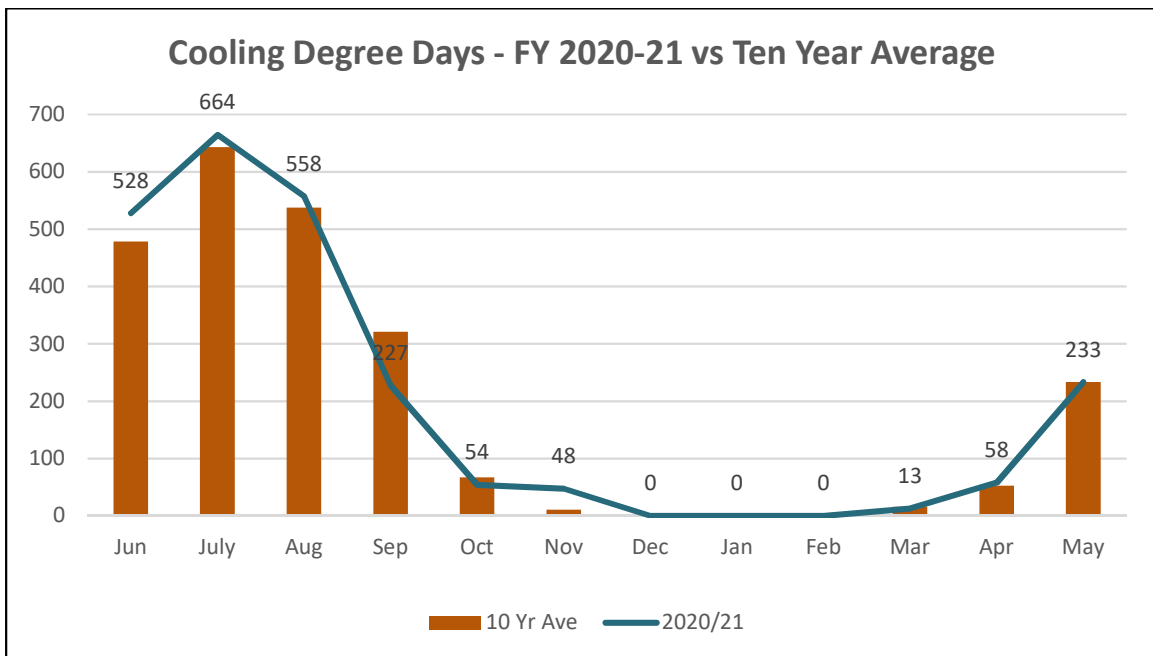


2020 -2021 Macalester College Campus Energy Use Report

Like the boiler plant’s fuel consumption, the amount of electricity used in Macalester College’s central cooling plant is affected by seasonal weather variations and is adjusted via weather normalization calculations to provide a standardized method of measuring year-to-year progress toward the College’s energy reduction goals. After normalizing for both weather and changes in the square footage of campus area that it serves the rate at which the chiller plant used electricity in FY 2020-21 improved compared to previous years.

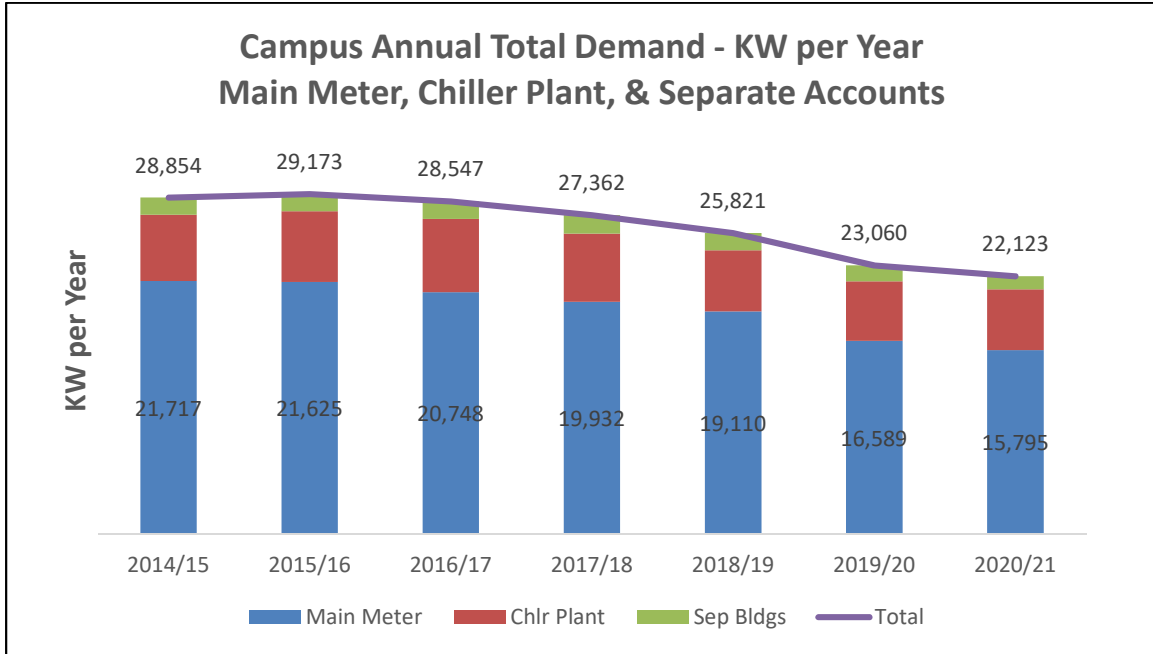


Fiscal year 2020-21’s cooling season was fairly typical, with a total of 2,383 cooling degree days (CDD) vs the average of 2,358 CDD for the previous ten-year period.

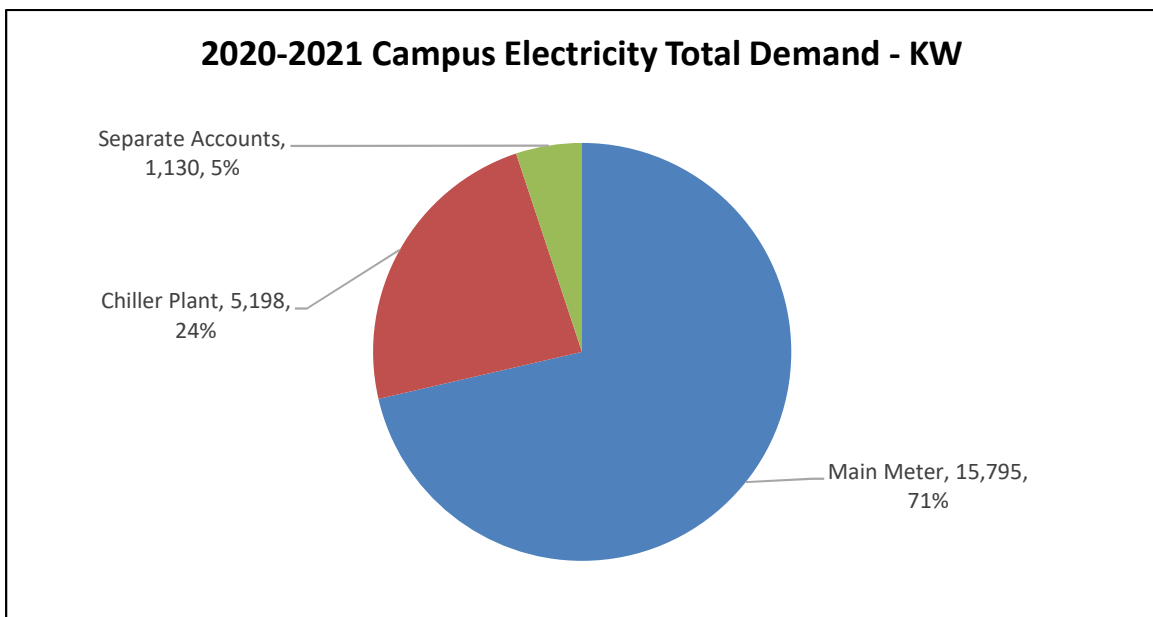


Electrical Demand

In addition to the amount of electricity consumed on campus (measured in kilowatt-hours or kWh), the College is also charged for the rate at which it uses electricity (demand, which is measured in kilowatts or kW). Macalester used 22,123 kW in FY 2020-21, which was 23% less than the 28,854 kW used in the 2014-2015 base year.

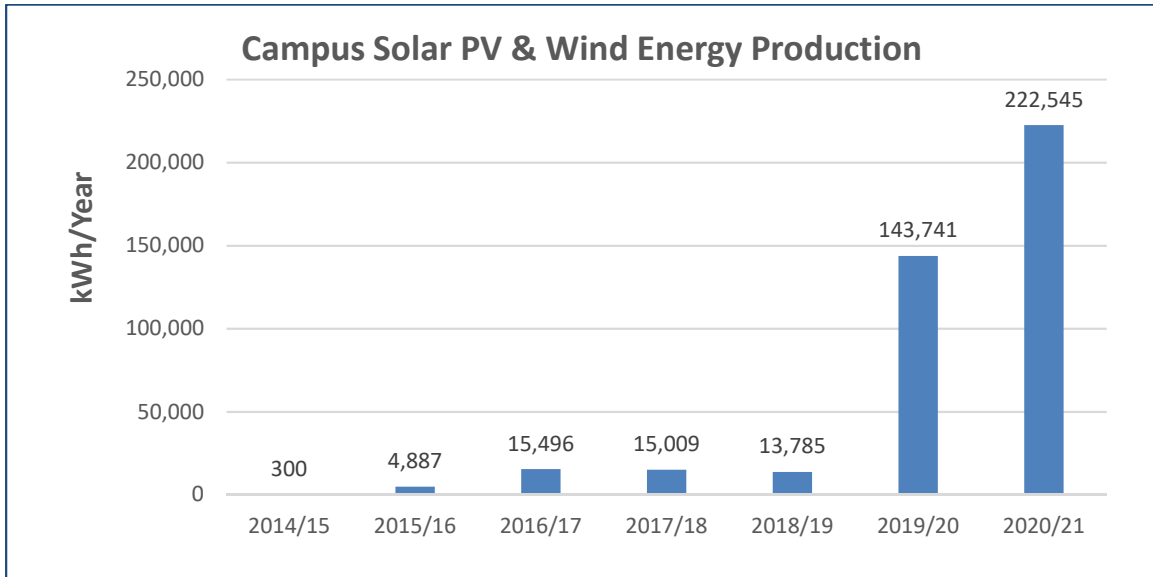


The chiller plant comprises the single largest component of the College’s demand. Although it is operated only from May through October and its electrical consumption is 9% of the campus total, the demand associated with the chiller plant accounts for 24% of the campus total.



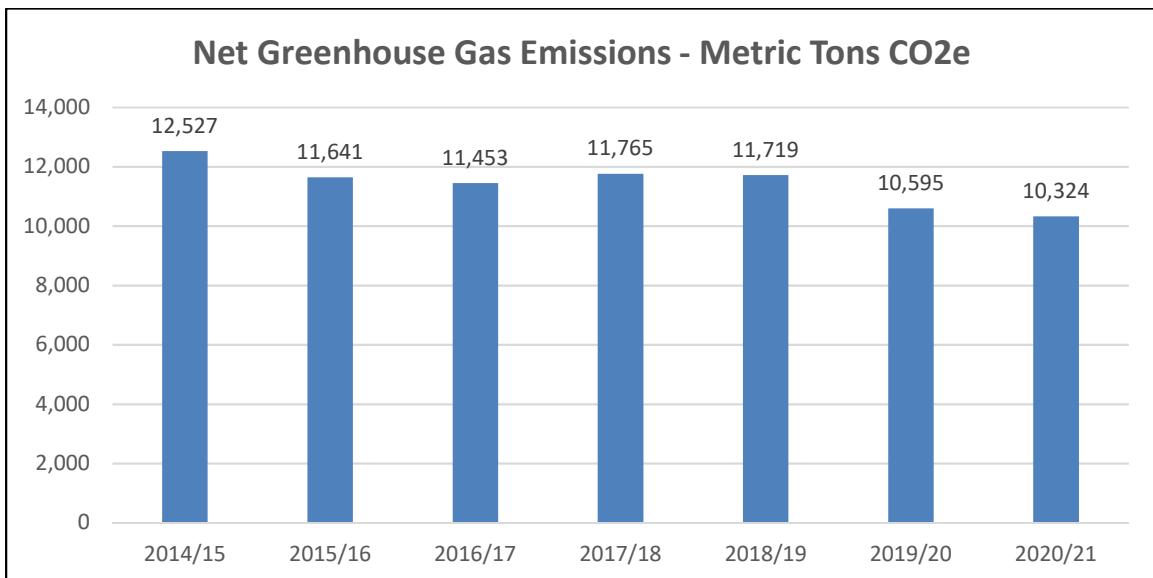
Campus Solar & Wind Energy Production

During the summer of 2020 a 130 kW PV array was installed on the roof of the Leonard Center. In FY 2020-21 the total combined electrical output from that system, the wind turbine installed next to the Olin-Rice Science Building, and the solar arrays installed on the roofs of the International Global Center (IGC), Theater building, and the Ordway Field Station was 222,545 kWh, which was equivalent to 2.4% of the campus' total electrical consumption.



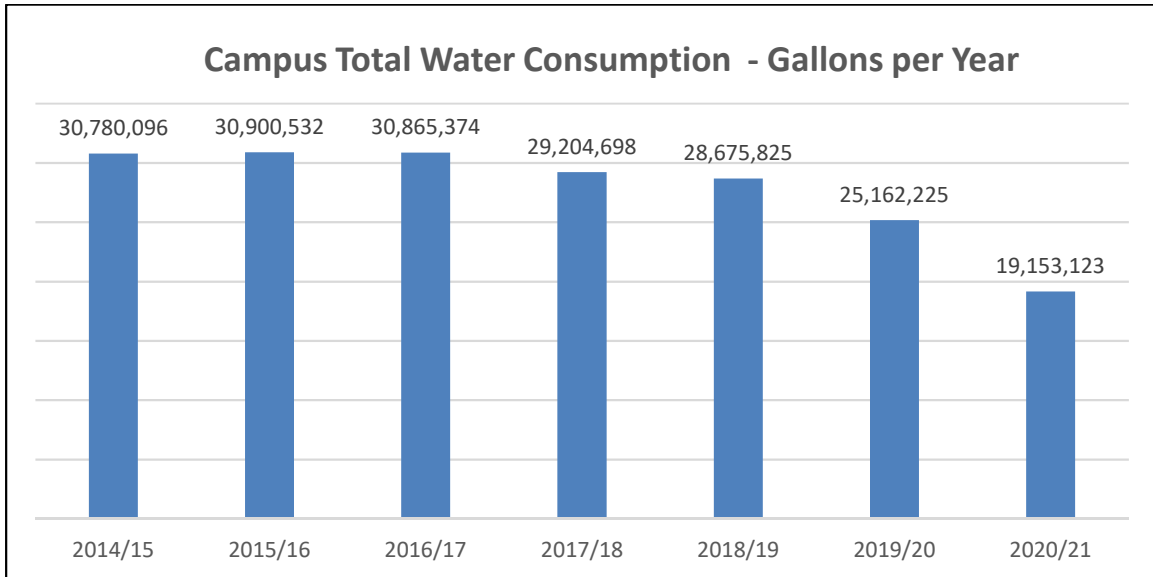
Carbon Footprint / Greenhouse Gas Emissions

Macalester College records the data related to the amounts of electricity, natural gas, and fuel oil that are consumed in campus buildings in Energy Star Portfolio Manager (ESPM). The Portfolio Manager application uses Xcel Energy's emissions factors to calculate the College's greenhouse gas emissions and carbon footprint. For FY 2020-21, ESPM estimated that Macalester emitted 10,324 metric tons of CO₂e, which was 17% less than the amount of CO₂e emitted in FY 2014-15.

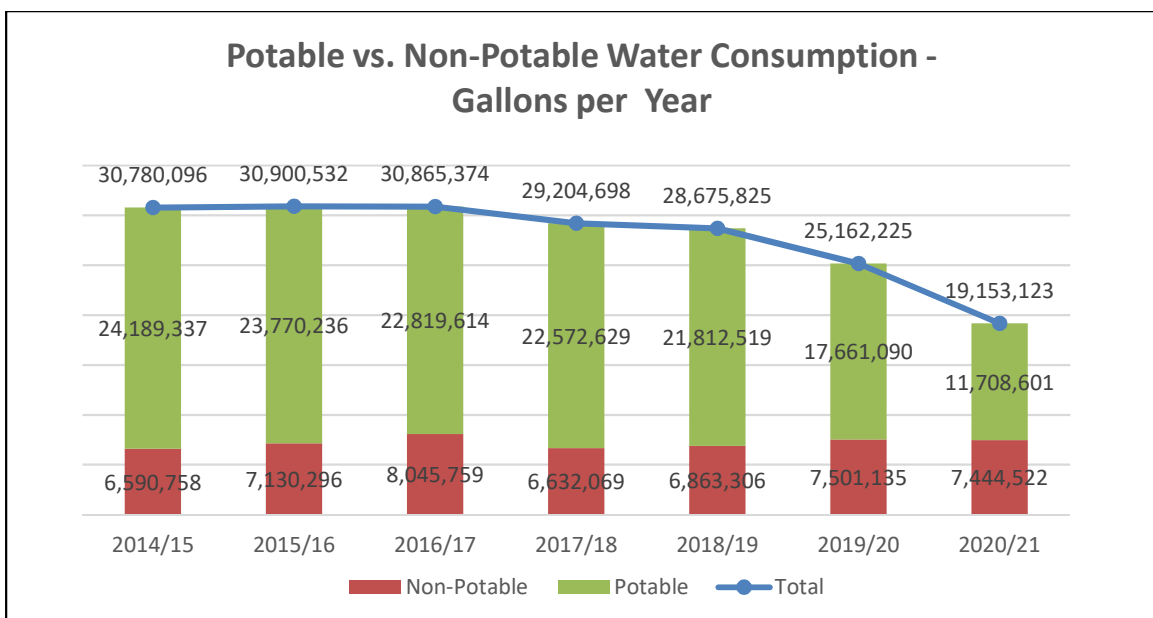


Water Consumption

Macalester consumed 19,153,123 gallons of water on its campus in FY 2020/21. The amount of potable water consumed on Macalester’s campus in any given year is directly related to the number of full-time students on campus. Due to the campus shutdown caused by the COVID-19 pandemic, the amount of water that was consumed on campus declined dramatically during the fourth quarter of FY 2019-20 and continued throughout most of FY 2020-21.



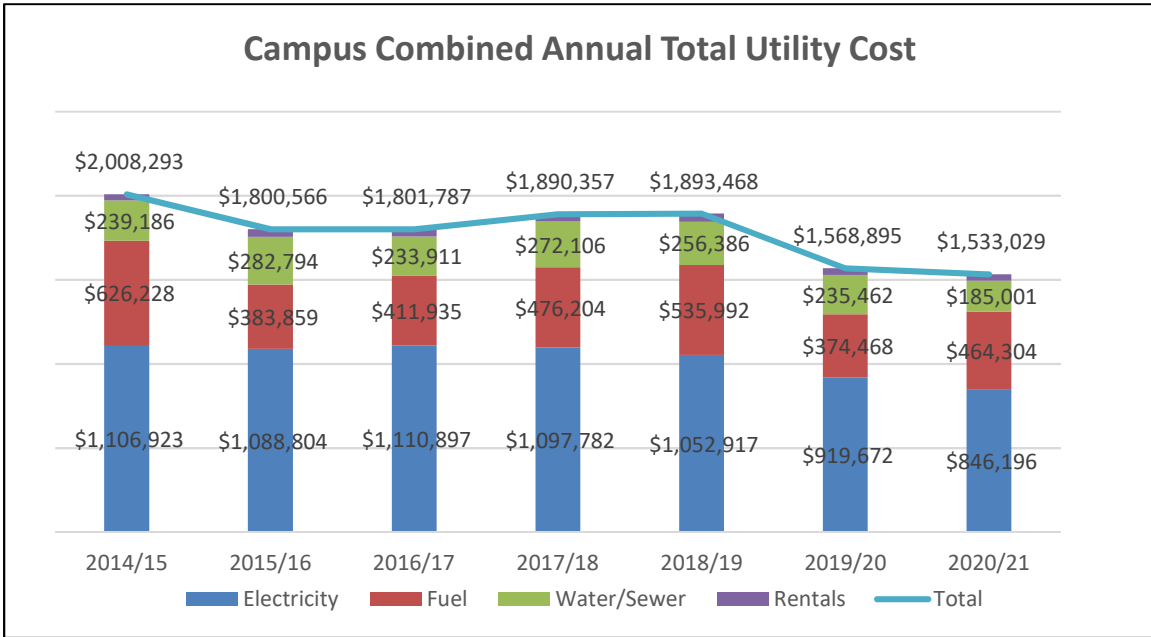
Nearly 40% of the water consumed in FY 2020-21 was used for non-potable purposes, such as the irrigation of campus vegetation and as makeup water in the central heating & cooling plant’s boilers and cooling towers. The non-potable percentage in FY 2020-21 was much higher than the 20-25% typically observed in previous years because the College’s non-potable water usage is not affected by the number of people on campus.



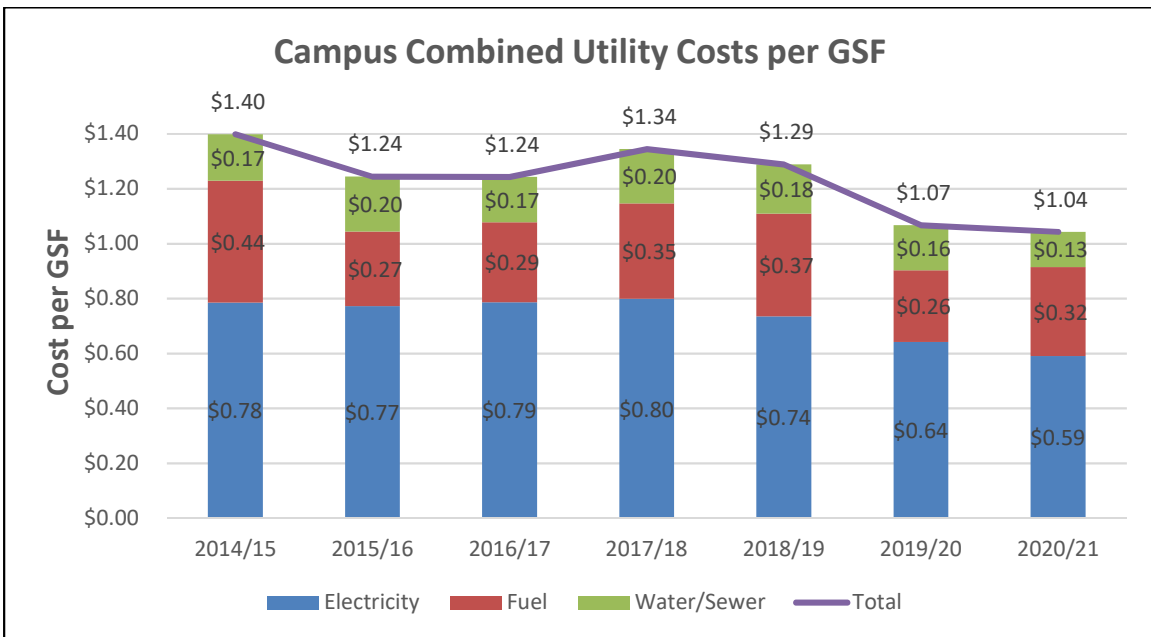
Total Utility Costs

Total Annual Utility Costs:

The total amount spent for utilities in FY 2020-21 was \$1,533,029. As noted for FY 2019-20, Macalester’s utility costs were significantly less than in any of the recent preceding years due to the reduction in campus occupancy necessitated by the COVID-19 pandemic.

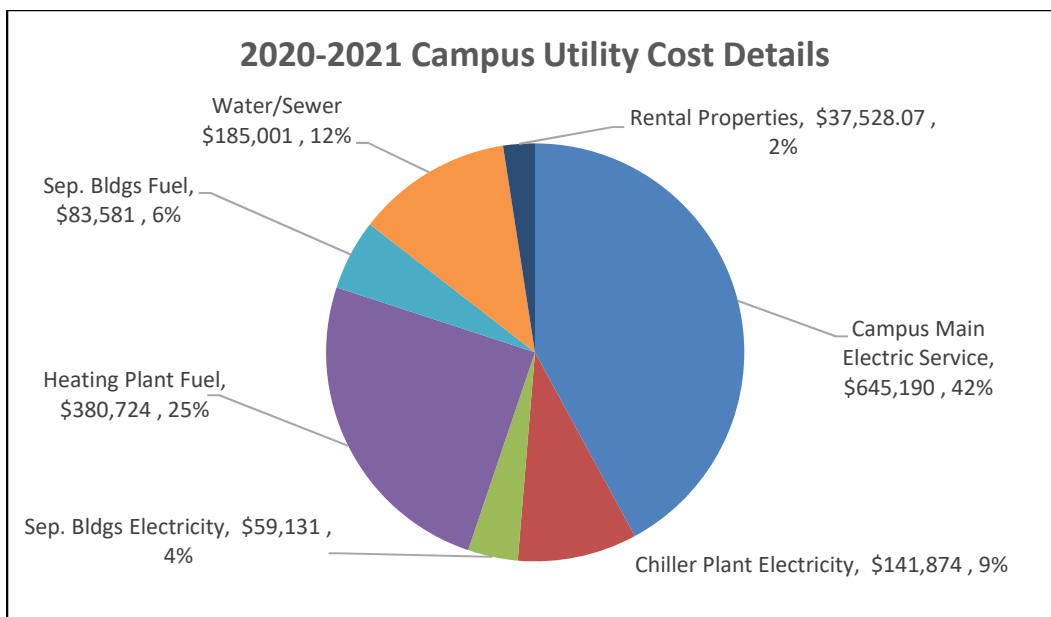
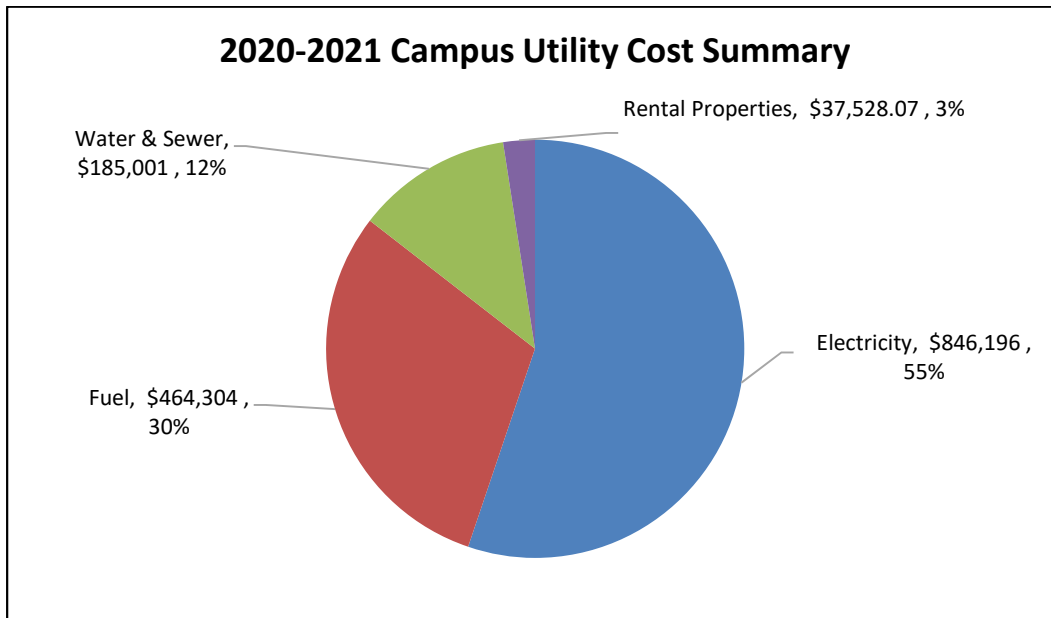


Since FY 2014-15, Macalester’s total utility costs per square foot have varied from a high of \$1.40/GSF to a low of \$1.04/GSF, which was recorded in FY 2020-21.



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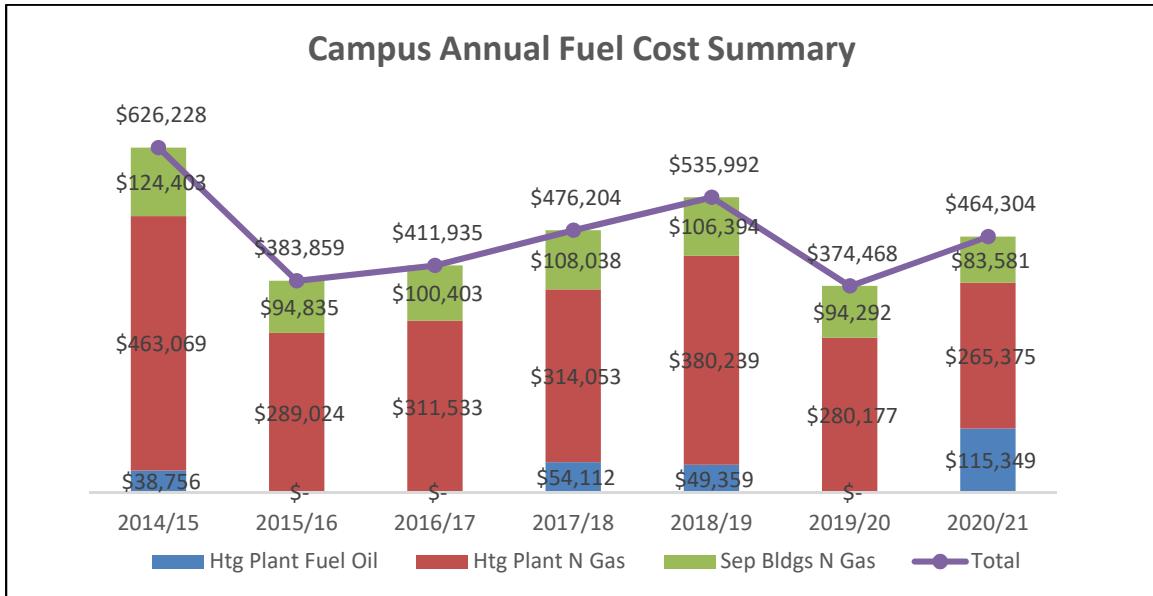
The pie charts displayed below show a summary and detailed breakdown of Macalester College’s utility costs in FY 2020-21. Expenditures for electricity accounted for 55% of the total amount spent and were divided between the main campus electric service, chiller plant, and the buildings on campus that have individually billed electric services. Fuel costs comprised 30% of the total utility costs, and were divided between the central heating plant and the buildings on campus that have separately billed natural gas services. Water & Sewer charges comprised 12% of Macalester’s total utility costs for the year. The combined total cost for the electricity, natural gas, and water/sewer costs for the rental properties owned by the college accounted for 3% of the total utility budget.



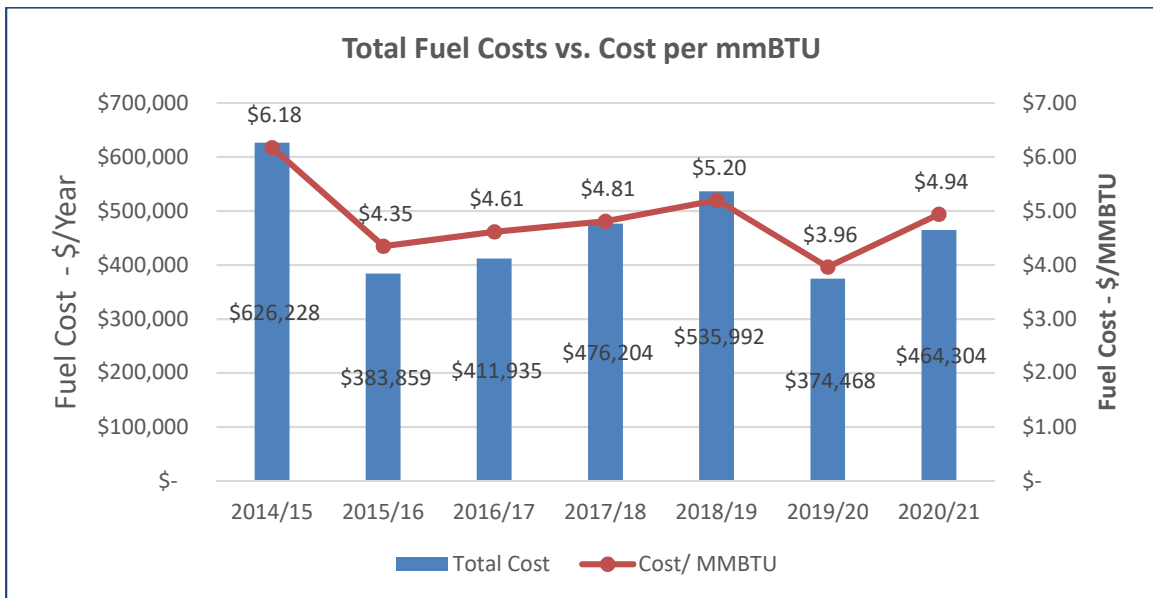
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Fuel Costs

The total cost for the natural gas and #2 fuel oil consumed on Macalester College’s campus in FY 2020-21 was \$464,304. As noted above, Xcel Energy curtailed the College’s use of natural gas during a prolonged cold snap in February. If the College’s use of natural gas had not been curtailed the total amount spent on fuel is estimated to have been reduced by about \$90Ks.

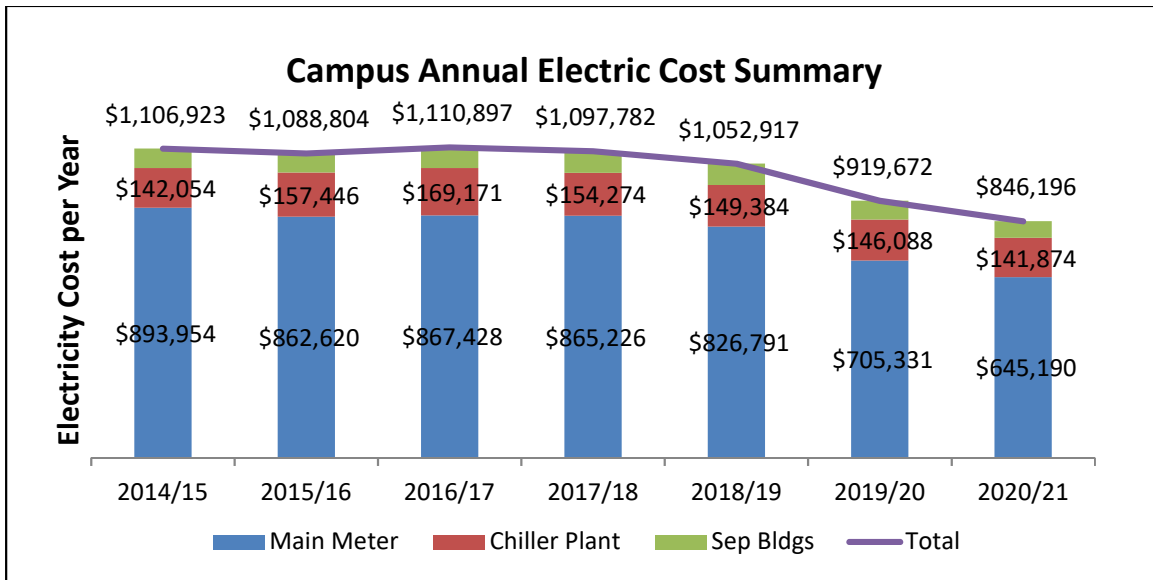


The total amount spent for fuel in any given year is affected by both the severity of the heating season and the cost paid per million BTUs (mmBTU). Since FY 2014-15, the cost paid per mmBTU of fuel has varied from a high of \$6.18/mmBTU in FY 2014-15 to a low of \$3.96/mmBTU in FY 2019-20. In FY 2020-21 Macalester paid \$4.94/mmBTU. As noted above, the increase in fuel cost vs. FY 2019-20 was largely caused by the \$115K spent for #2 fuel oil during the natural gas curtailment requested by Xcel Energy in February.

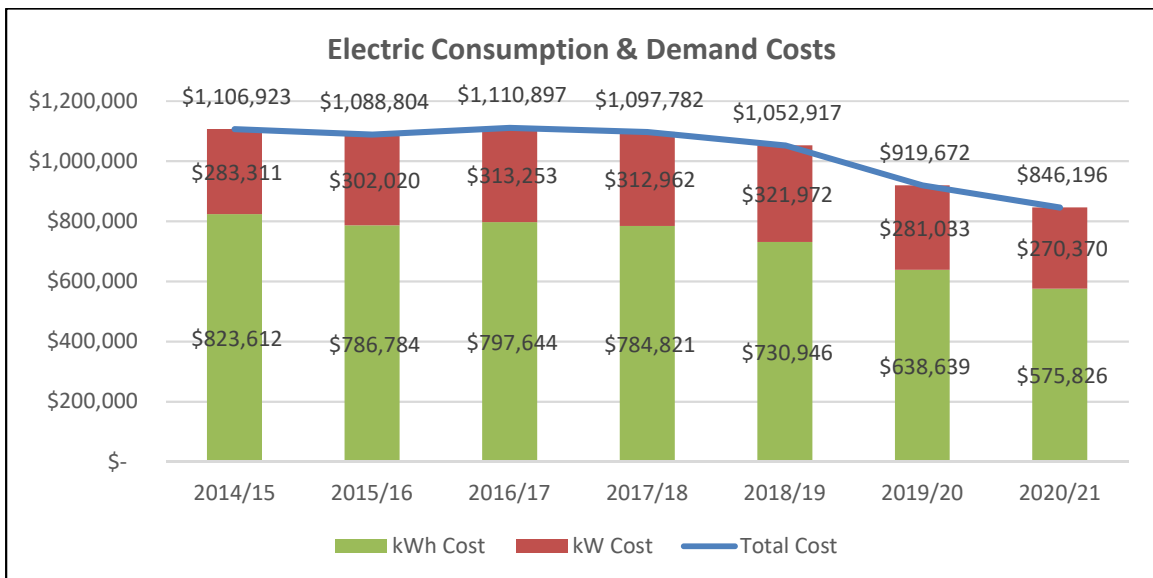


Electrical Costs

Macalester College spent \$846,196 on electricity in FY 2020-21, which was 24% less than the total amount that was spent in the FY 2014-15 base period. The majority of the savings was realized at the campus main electric meter, and was due to a combination of reduced occupancy on campus along with the savings realized from Macalester’s ongoing LED lighting retrofits and HVAC controls upgrades. The amount spent on electricity for the chiller plant and separately metered buildings was about the same as in previous years.

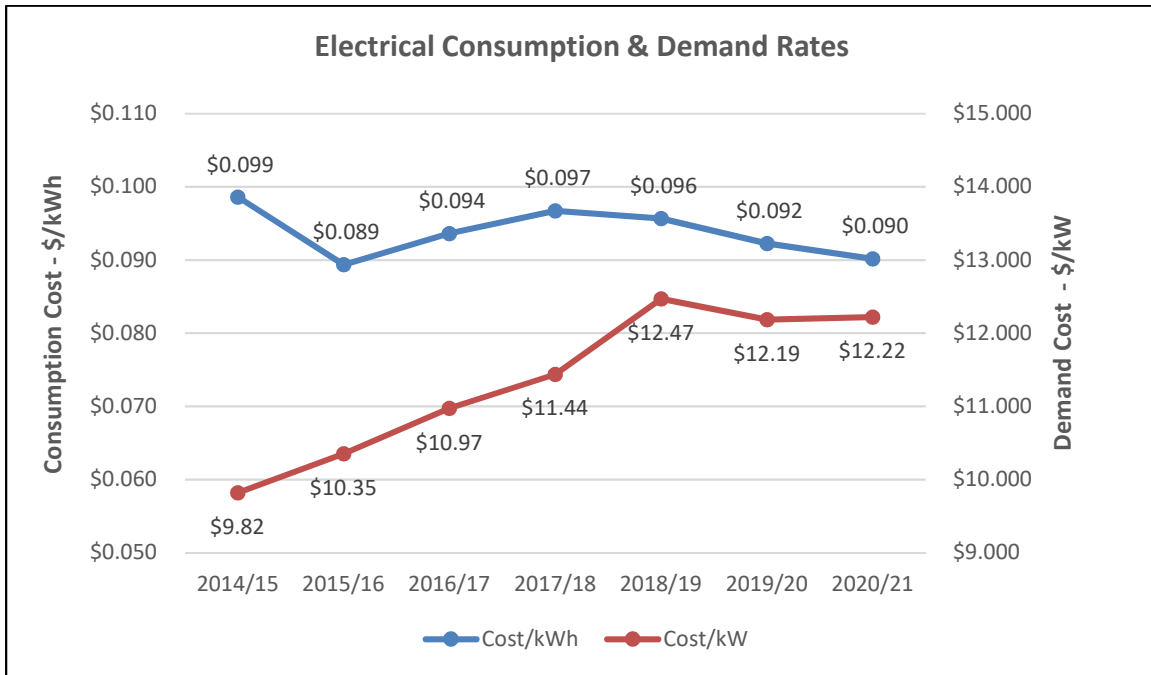


Macalester’s expenditures for electricity include the costs for consumption, measured in kilowatt-hours (kWH), plus the costs for demand, measured in kilowatts (kW). The College pays electrical demand charges for the campus main electric service, chiller plant, and several other buildings on campus that are billed individually. In FY 2020-21 demand charges comprised 32% of the total amount spent on electricity.



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Although the amount that Xcel Energy charges per kWh has increased annually the net amount that Macalester has paid per kWh has actually decreased over time. This is largely due to the electricity generated by the College’s on-site solar panel arrays combined with the financial benefit from the arrangement made by the College to purchase and resell a percentage of its electrical consumption from solar gardens. Since FY 2014-15, the rate charged by Xcel per kW of electrical demand has increased from \$9.82/ kW in FY 2014-15 to \$12.22/kW in FY 2020-21.



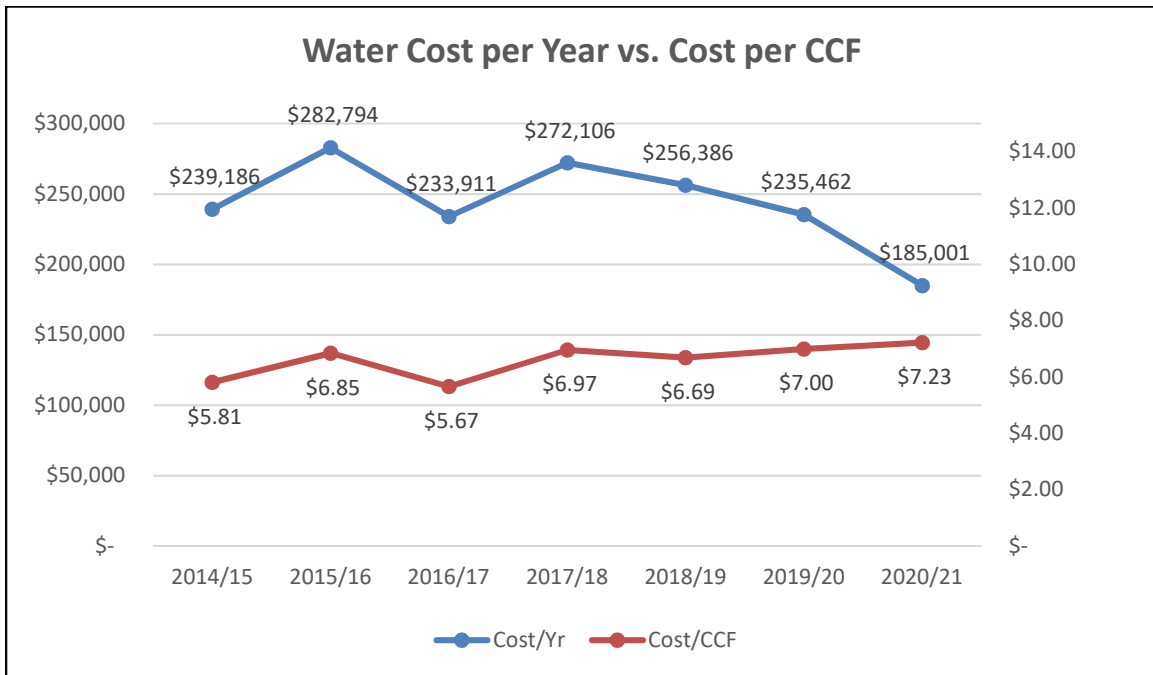
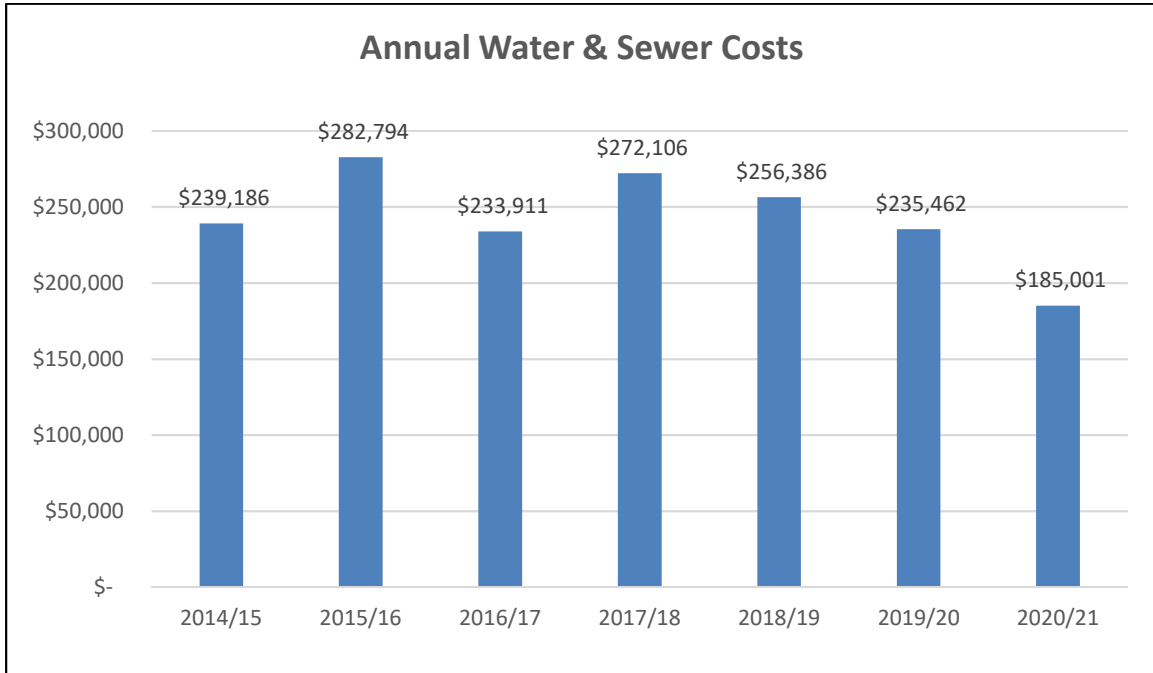
Solar Garden Energy Purchases

In FY 2018-19 Macalester College entered an agreement to purchase a portion of the electricity produced by two regional solar gardens and resell it to Xcel Energy as a partial hedge against future increases in electric utility rates. Under this agreement, Macalester’s cost for the electricity produced by the solar gardens is locked in for the term of the contract, while the amount that the College is paid by Xcel Energy will vary with market rates and are expected to rise over time. The first garden started production in August 2018 and the second solar garden came online in July, 2019. In FY 2020-21, the amount of electricity purchased by the gardens was equal to about 38% of Macalester’s electrical consumption for the year and provided a financial benefit to the College of approximately \$39,000.

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Water & Sewer Costs

Macalester College’s total water & sewer charges in FY 2020-21 were approximately \$185,000, which was 21% less than in FY 2019-20. As noted above, this reduction was largely due to reduced occupancy on campus during the year and is not expected to be repeated as occupancy on campus returns to normal. Water & sewer utility rates have increased by 20% since the 2014-2015 base year.




FY 2020-21 Energy Conservation Projects & Initiatives:

GRITS Project Summary

In 2015 Macalester started recording the costs and estimated energy savings associated with the energy conservation projects implemented on campus with the Green Revolving Investment Tracking System (GRITS). From 2015 to date the College has invested nearly \$1.3M in a total of (81) energy & water conservation projects, with an estimated financial savings to date of nearly \$1.2M.

Macalester College	
TOTAL PROJECTS FUNDED (COMPLETED / IN-PROGRESS)	81 / 0
TOTAL INVESTED TO DATE *	\$ 1,299,598
TOTAL FINANCIAL SAVINGS TO DATE	\$ 1,177,818
TOTAL ENERGY SAVINGS TO DATE	65,417 mmbtu
TOTAL EMISSIONS ABATED TO DATE	10,943 MTCO ₂ e
TOTAL WATER SAVINGS TO DATE	2,522,081 gal

Efficiency data powered by  GRITS

* Includes investments to in-progress projects without savings to date
Last updated 08/25/2021

Energy Conservation Projects:

In FY 2020-21 Macalester College invested more than \$275,000 in the energy conservation projects listed below, for which it received more than \$106,000 in rebates from Xcel Energy:

- Building Automation System Upgrades:
 - Obsolete HVAC equipment controls in the buildings listed below were upgraded to newer direct digital control equipment. The new controls provide the ability to implement energy conservation strategies that were not possible with the original equipment.
 - Wallace Library
 - Kagin Commons
- Electrical & Mechanical Upgrades:
 - Carnegie Hall Transformer
 - The electric step-down transformer that served Carnegie Hall for more than 30 years was replaced with a more efficient unit.
 - Wallace Library Rare Books Liebert Unit

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- The dedicated air handling unit that maintains the temperature and relative humidity in the Library's Rare Books area was replaced with a more efficient unit.
- Weyerhaeuser Heat Tapes
 - The quantity of heat trace tapes that melt ice and snow was reduced by 50% when the building's roof was replaced.
- LED Lighting Retrofit Projects
 - The College's continued to retrofit fluorescent lighting in the campus buildings with LED lamps and fixtures:
 - 6" & 8" recessed downlight fixtures
 - 24", 36", & 48" linear lamps
 - Leonard Center Basketball Gym high bay lighting

Water Conservation & O&M Projects:

- Campus Irrigation Controls Upgrades:
 - Historically, Macalester has typically used about 4 to 5 million gallons of water per year for watering the campus' sports fields, lawn area, trees, and plantings. The irrigation equipment was previously controlled by simple time-clock controls, but in FY 2020-21, Macalester's Grounds Department upgraded the irrigation controls to a new system that will optimize the amount of water used through the utilization of soil moisture sensors and the use of online weather data. The new controls may increase the amount of water used during drought conditions but are expected to reduce water consumption whenever the soil already has adequate moisture and/or when rain is expected.
- Variable Frequency Drives (VFDs)
 - The VFDs serving HVAC equipment in the buildings listed below that were more than 20 years and past the end of their expected service life were replaced by Macalester's Facilities Services staff. Xcel Energy provided rebates of 60% towards the total cost of this work.
 - Humanities
 - Wallace Library
 - Olin-Rice
 - Old Main
- Steam Trap Audits, Repairs, & Replacements:
 - The steam traps in all of the buildings on Macalester's campus that are served by the campus boiler plant as well as in the 1550 Summit Avenue rental property were audited and repaired or replaced as needed.

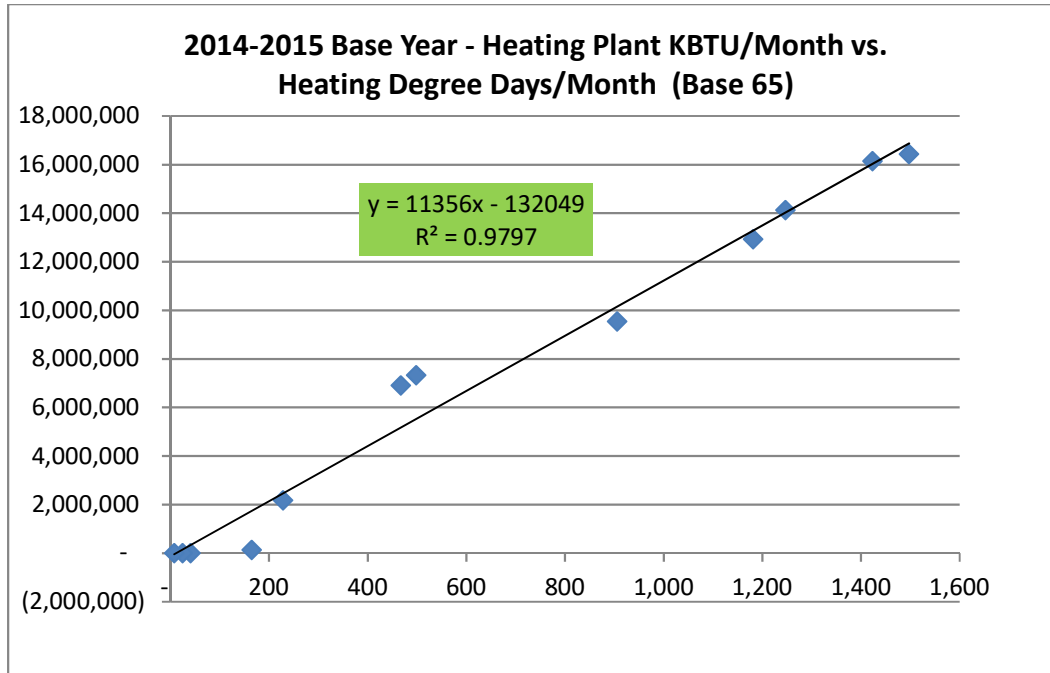
Appendices

Appendix 1: Heating & Cooling Degree Day Data

Annual Heating Degree Days, Base = 65 Degrees Fahrenheit, Fiscal Year (from DegreeDays.net)													
Fiscal Year	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
2011/12	53	1	7	175	382	776	1140	1286	1083	546	457	137	6042
2012/13	25	0	28	171	548	834	1274	1482	1271	1154	733	277	7797
2013/14	59	18	15	95	514	953	1623	1752	1563	1202	669	262	8723
2014/15	41	25	8	165	498	1181	1246	1423	1497	906	467	228	7686
2015/16	29	13	33	76	417	715	1073	1458	1151	743	536	194	6436
2016/17	26	7	11	82	393	634	1372	1361	946	964	446	236	6477
2017/18	30	5	36	98	439	922	1415	1494	1357	1002	811	96	7704
2018/19	12	5	16	139	601	1096	1204	1571	1446	1120	565	316	8090
2019/20	39	4	21	79	592	1015	1286	1361	1250	843	611	246	7348
2020/21	20	6	15	190	676	792	1222	1323	1477	722	536	230	7209
10 Year Ave	33	8	19	127	506	892	1286	1451	1304	920	583	222	7351
Annual Cooling Degree Days, Base = 55 Degrees Fahrenheit, Fiscal Year (from DegreeDays.net)													
Fiscal Year	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
2011/12	437	752	584	269	160	2	0	0	0	104	52	290	2649
2012/13	538	775	533	299	45	7	0	0	0	0	45	206	2448
2013/14	420	630	608	370	77	0	0	0	0	1	28	206	2340
2014/15	432	517	550	255	38	0	0	0	0	14	81	195	2081
2015/16	447	586	491	401	67	21	0	0	0	17	82	265	2377
2016/17	491	625	565	326	95	27	0	0	3	5	56	190	2383
2017/18	501	633	410	373	80	2	0	0	0	0	35	415	2447
2018/19	541	617	585	336	18	0	0	0	0	2	48	145	2293
2019/20	448	627	490	352	35	0	0	0	0	2	39	187	2179
2020/21	528	664	558	227	54	48	0	0	0	13	58	233	2383
10 Year Ave	478	643	537	321	67	11	0	0	0	16	52	233	2358

Appendix 2: Boiler Plant Fuel Usage Weather Normalization

Weather normalization of energy usage allows an “apples to apples” evaluation of energy consumption in years with different weather patterns using heating degree day (HDD) data and the correlation between fuel usage and the weather. 2014-2015 has been selected as the base year for purposes of comparison. Through trial and error, HDD data based on a balance point temperature of 65F was shown to correlate very well with the boiler plant’s fuel consumption.

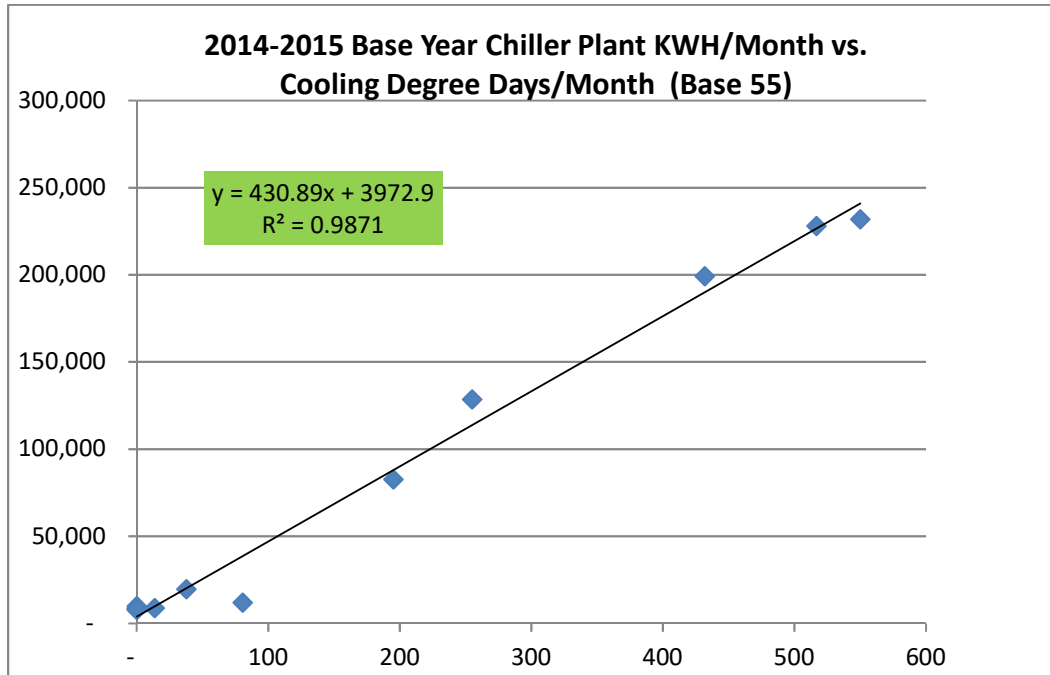


Using the linear regression formula displayed above, the amount of fuel expected to be used in an average year can be predicted and used for comparison with the consumption in the base year. The chart displayed below shows the normalized fuel consumption since the base year - that is, the fuel that would have been used if the number of HDD’s in those years had been the same as the HDD’s in the base year. Weather normalized usage that is lower than the usage predicted for the year indicates efficiency and/or operational improvements, and vice versa.

Fiscal Year	Heating Degree Days (HDD)	Actual Fuel Usage - kBTUs	Predicted Fuel Usage – kBTUs	Weather Normalized Fuel Usage - kBTUs
2014-15	7,686	85,698,764	88,864,533	85,698,764
2015-16	6,436	73,980,840	74,674,075	84,903,181
2016-17	6,477	74,118,707	75,139,671	84,534,327
2017-18	7,704	82,133,473	89,070,076	79,024,711
2018-19	8,090	87,334,964	93,451,221	80,089,894
2019-20	7,348	78,389,982	85,025,069	79,011,103
2020-21	7,209	80,140,887	83,451,128	82,299,367

Appendix 3: Chiller Plant Electrical Usage Weather Normalization

Like the normalization shown above for the heating plant’s fuel usage, fiscal year 2014-15 was chosen for the base year for comparison. Through trial and error, cooling degree day (CDD) data based on a balance point temperature of 55F was shown to correlate very well with the chiller plant’s electric consumption.



Using the linear regression formula displayed above, the amount of fuel expected to be used in an average year can be predicted and used for comparison with the consumption in the base year. The chart displayed below shows the normalized electrical consumption for the chiller plant since the base year - that is, the electricity that would have been used if the number of CDD’s in those years had been the same as the CDD’s in the base year. Weather normalized usage that is lower than the usage predicted for the year indicates efficiency and/or operational improvements, and vice versa.

Fiscal Year	Cooling Degree Days (CDD)	Actual Elect Usage - kWh	Predicted Elect Usage – kWh	Normalized Elect Usage - kWh
2014-15	2,081	944,269	944,271	944,269
2015-16	2,377	1,119,756	1,071,728	986,585
2016-17	2,383	1,086,834	1,074,313	955,274
2017-18	2,447	891,841	1,102,149	764,087
2018-19	2,293	934,775	1,035,619	852,320
2019-20	2,179	902,333	986,713	863,518
2020-21	2,383	857,351	1,074,572	753,388

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Appendix 4: Campus Gross Square Footage

Note: In FY 2019-20 the house located at 1657 Lincoln Avenue was converted from a High Winds rental property to administrative use by the College.

	<u>2014-15</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>
<u>Residence Halls</u>						
30 Macalester	9,062	9,062	9,062	9,062	9,062	9,062
37 Macalester (Cultural House)	6,294	6,294	6,294	6,294	6,294	6,294
Bigelow Hall	37,890	37,890	37,890	37,890	37,890	37,890
GD Dayton Hall	42,423	42,423	42,423	42,423	42,423	42,423
Doty Hall	43,474	43,474	43,474	43,474	43,474	43,474
Dupre Hall	65,459	65,459	65,459	65,459	65,459	65,459
Kirk Hall	53,515	53,515	53,515	53,515	53,515	53,515
Stadium (Veggie Co-op)	18,305	18,305	18,305	18,305	18,305	18,305
Turck Hall	40,377	40,377	40,377	40,377	40,377	40,377
Wallace Hall	<u>49,328</u>	<u>49,328</u>	<u>49,328</u>	<u>49,328</u>	<u>49,328</u>	<u>49,328</u>
Residence Halls Total:	366,757	366,757	366,757	366,757	366,757	366,757
<u>Admin & Support Bldgs.</u>						
100 Cambridge Garage	709	709	709	709	709	709
77 Macalester Campus Center	11,944	11,944	11,944	11,944	11,944	11,944
Kagin Commons	41,377	41,377	41,377	41,377	41,377	41,377
Lampert Building	28,999	28,999	28,999	28,999	28,999	28,999
Wallace Library	86,910	86,910	86,910	86,910	86,910	86,910
Weyerhaeuser Chapel	17,682	17,682	17,682	17,682	17,682	17,682
Weyerhaeuser Hall	31,144	31,144	31,144	31,144	31,144	31,144
Leonard Center	174,617	174,617	174,617	174,617	174,617	174,617
Fine Arts – Chiller Plant	6,525	6,525	6,525	6,525	6,525	6,525
Fine Arts – Heating Plant	<u>11,964</u>	<u>11,964</u>	<u>11,964</u>	<u>11,964</u>	<u>11,964</u>	<u>11,964</u>
Admin/Support Total:	486,685	486,685	486,685	486,685	486,685	486,685
<u>Academic Buildings</u>						
Carnegie Hall	33,905	33,905	33,905	33,905	33,905	33,905
Old Main	28,007	28,007	28,007	28,007	28,007	28,007
Olin-Rice Halls	172,020	172,020	172,020	172,020	172,020	172,020
Ordway Biology Station	5,072	5,072	5,072	5,072	5,072	5,072
Fine Arts – Humanities	55,735	55,735	55,735	55,735	55,735	55,735
Fine Arts – Music	76,440	76,440	76,440	76,440	76,440	76,440

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	<u>2014-15</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>
Fine Arts – Orig. Theater	39,677	39,677	n/a	n/a	n/a	n/a
Fine Arts – New Theater	n/a	n/a	n/a	59,145	59,145	59,145
Markim Hall – IGC	16,585	16,585	16,585	16,585	16,585	16,585
Fine Arts – Art without Heating & Chiller Plants	37,022	37,022	37,022	37,022	37,022	37,022
Fine Arts – Commons	<u>32,027</u>	<u>32,027</u>	<u>32,027</u>	<u>32,027</u>	<u>32,027</u>	<u>32,027</u>
Academic Bldgs. Total:	496,490	496,490	456,813	515,958	515,958	515,958

<u>Houses & Apartments</u>	<u>2014-15</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2019-20</u>
1657 Lincoln Ave – New High Winds Office	n/a	n/a	n/a	n/a	1,512	1,512
1662 Princeton – Student Overflow	1,242	1,242	1,242	1,242	1,242	1,242
1668 Princeton – Russian House	1,144	1,144	1,144	1,144	1,144	1,144
180/182 Vernon – French House	2,656	2,656	2,656	2,656	2,656	2,656
188/190 Vernon – German House	3,837	3,837	3,837	3,837	3,837	3,837
196 Vernon – Spanish House	2,882	2,882	2,882	2,882	2,882	2,882
200 Vernon – Eco House	1,176	1,176	1,176	1,176	1,176	1,176
216 Vernon – Chinese House	1,928	1,928	1,928	1,928	1,928	1,928
230 Vernon - Humphrey House	1,625	1,625	1,625	1,625	1,625	1,625
53 Macalester St – Student Overflow	1,200	1,200	1,200	1,200	1,200	1,200
57 Macalester St – Student Overflow	1,200	1,200	1,200	1,200	1,200	1,200
63 Macalester St – Student Overflow	1,216	1,216	1,216	1,216	1,216	1,216
Grand Cambridge Apartments	17,049	17,049	17,049	17,049	17,049	17,049
98 Cambridge Ave - Dean of Students House	n/a	2,565	2,565	2,565	2,565	2,565
1635 Summit Ave - President’s House	3,976	3,976	3,976	3,976	3,976	3,976
1576 Summit Ave -Summit House	7,320	7,320	7,320	7,320	7,320	7,320

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	<u>2014-15</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>
1661/1663 Princeton- Japanese House	2,080	2,080	2,080	2,080	2,080	2,080
1644 Summit Ave - Alumni House	7,109	7,109	7,109	7,109	7,109	7,109
176 Vernon – Arabic House	1,477	1,477	1,477	1,477	1,477	1,477
1653 Lincoln Ave – Sust. & Special Events	<u>1,265</u>	<u>1,265</u>	<u>1,265</u>	<u>1,265</u>	<u>1,265</u>	<u>1,265</u>
Houses & Apts Total:	60,382	62,947	62,947	62,947	64,459	64,459
<u>Rental Properties</u>	<u>2014-15</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2019-20</u>
92 Cambridge – Rental House	1,865	1,865	1,865	1,865	1,865	1,865
1665/1667 Princeton -Rental	2,080	2,080	2,080	2,080	2,080	2,080
1667 St. Clair – Rental	1,100	1,100	1,100	1,100	1,100	1,100
210 Vernon – Rental	2,160	2,160	2,160	2,160	2,160	2,160
222 Vernon – Rental	1,420	1,420	1,420	1,420	1,420	1,420
224 Vernon – Rental	836	836	836	836	836	836
204 Vernon – Rental	1,365	1,365	1,365	1,365	1,365	1,365
1550 Summit Ave	<u>61,108</u>	<u>61,108</u>	<u>61,108</u>	<u>61,108</u>	<u>61,108</u>	<u>61,108</u>
<u>Rental Properties Total:</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>
<u>Grand Total GSF:</u>						
Residence Halls Total:	366,757	366,757	366,757	366,757	366,757	366,757
Admin / Support Buildings Total:	486,685	486,685	486,685	486,685	486,685	486,685
Academic Buildings Total:	496,490	496,490	496,490	515,958	515,958	515,958
Houses & Apts Total:	60,382	62,947	62,947	62,947	64,459	64,459
Rental Properties Total:	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>	<u>71,934</u>
Grand Total GSF:	1,482,248	1,484,813	1,484,813	1,504,281	1,505,793	1,505,793

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