



SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT

Energy Assessment Report

Prepared For:

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Prepared on:

8/12/2020



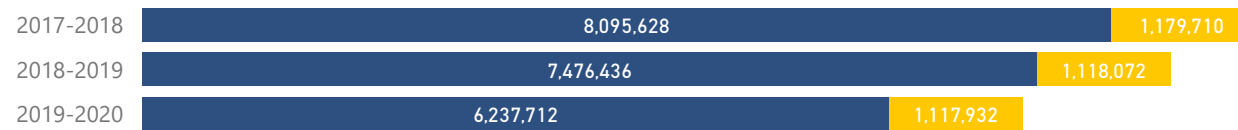
District Electric Energy Totals

Overview

In FY 2018-19, Santa Monica-Malibu Unified School District (SMMUSD) launched a Districtwide Sustainability Plan. This plan provides a strategic roadmap for formalizing and uniting the District's many existing sustainability initiatives, including student learning, integrating climate protection, resource efficiency, waste management, and energy efficiency. In accordance with the Sustainability Plan, there are several projects currently scoped over the next few years which will affect the District's total electric usage. SitelogIQ will coordinate closely with the District to ensure awareness as to the progress of Facilities Improvement Projects and any others as they pertain to energy management. Thus far, all LED lighting projects were completed as of March 2019. Additionally, several of the sites were retrofitted with HVAC units, and are consequently operating at a higher consumption rate. Lastly, SAMOHI and Malibu HS are currently undergoing major construction.

Electricity (kWh) by FY (Jul - Jun)

● Utility Purchased Energy (kWh) ● Solar Generation (kWh)

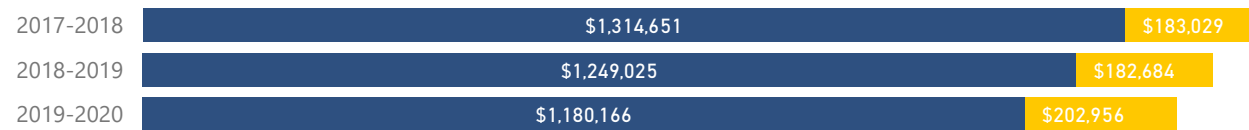


kWh Savings vs FY 17-18 YTD

1,875,528

Electricity (\$) by FY (Jul - Jun)

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)

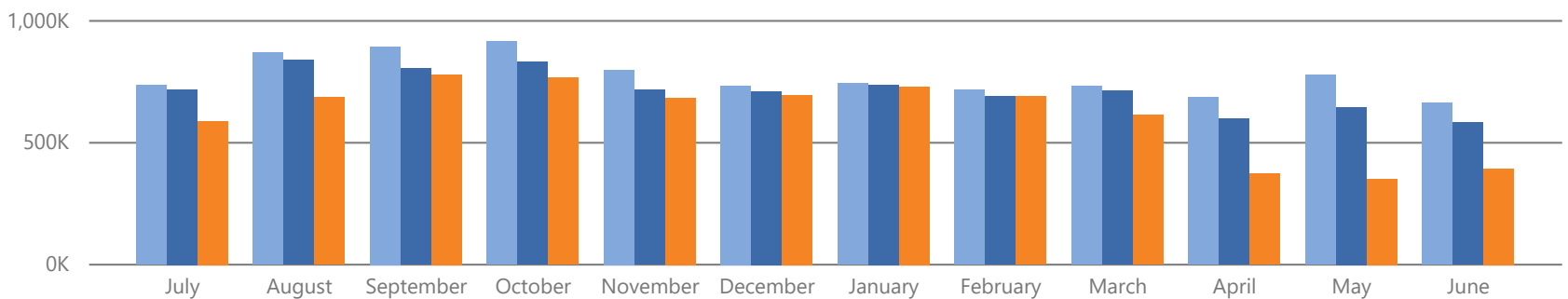


SCE \$ Savings vs FY 17-18 YTD

\$114,558

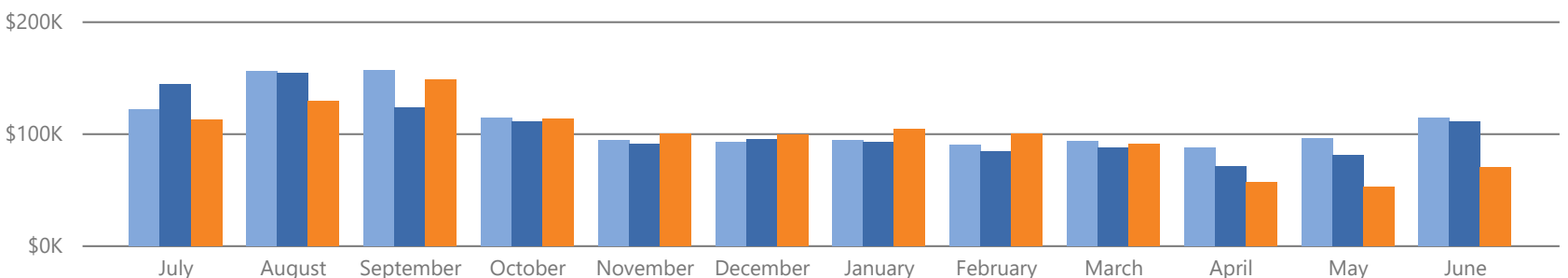
Total Electric (kWh) by Month and Fiscal Year

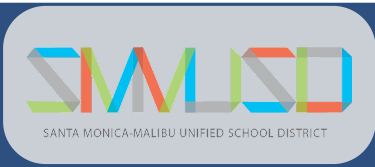
FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020





Site Electric Energy & Costs

Site Name	Utility Purchased Energy (kWh)	Solar Generation (kWh)	Total Electric (kWh)	Utility Purchased Cost (\$)	Electric PPA Cost (\$)	Electric Total Cost (\$)
Bus Barn	34,092		34,092	\$5,747		\$5,747
District Office	318,503		318,503	\$97,899		\$97,899
Edison Elementary	304,339		304,339	\$58,178		\$58,178
Franklin Elementary	28,251	210,428	238,679	\$16,828	\$36,440	\$53,267
Grant Elementary	7,439	159,025	166,463	\$8,745	\$29,617	\$38,362
John Adams MS (JAMS)	471,231		471,231	\$86,273		\$86,273
John Muir Elementary/SMASH	162,880	12,007	174,887	\$29,336	\$3,506	\$32,842
Juan Cabrillo ES	-17,672	119,106	101,433	\$4,796	\$19,979	\$24,775
Lincoln MS	579,357		579,357	\$95,837		\$95,837
Malibu Elementary School	91,004	111,313	202,317	\$13,214	\$19,099	\$32,313
Malibu HS/MS	879,058		879,058	\$138,332		\$138,332
McKinley Elementary	216,782	34,859	251,641	\$34,503	\$5,954	\$40,458
Obama Center for Inquiry and Exploration	164,403		164,403	\$29,873		\$29,873
Roosevelt Elementary	-49,632	229,919	180,287	\$7,450	\$38,600	\$46,050
Santa Monica HS (SAMOHI)	2,932,974		2,932,974	\$513,249		\$513,249
Washington Pre/FIP	98,503		98,503	\$22,853		\$22,853
Webster Elementary	-20,093	125,979	105,886	\$4,615	\$21,004	\$25,620
Will Rogers Elementary	36,293	164,949	195,756	\$12,438	\$28,757	\$41,195
Total	6,237,712	1,167,449	7,399,810	\$1,180,166	\$202,956	\$1,383,122

Utility Purchased Energy (kWh): Quantity of electricity purchased from the utility (SCE)

Solar Generation (kWh): Quantity of electricity produced by the solar photovoltaic panels

Total Electric (kWh): Sum total electricity usage of solar production and utility purchased electricity

Utility Purchased Cost (\$): Total electrical cost from electricity utility (SCE)

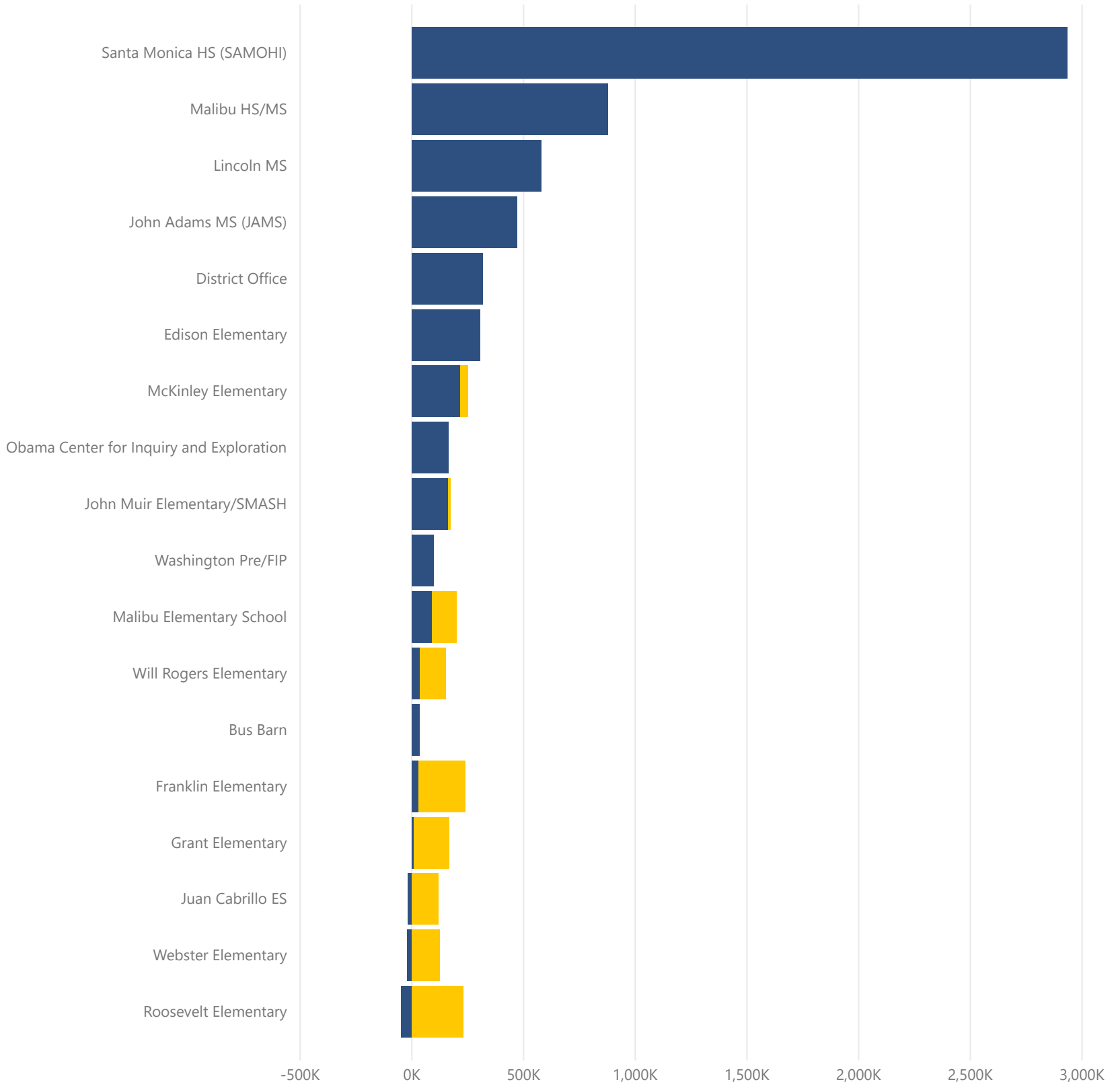
Electric PPA Cost (\$): The cost of electricity purchase from the Solar Power Purchase Agreement (PPA)

Electric Total Cost (\$): Total costs for electricity, including electric utility (SCE) and the PPA

Site Electric Energy Graph

Electricity Consumption by Site

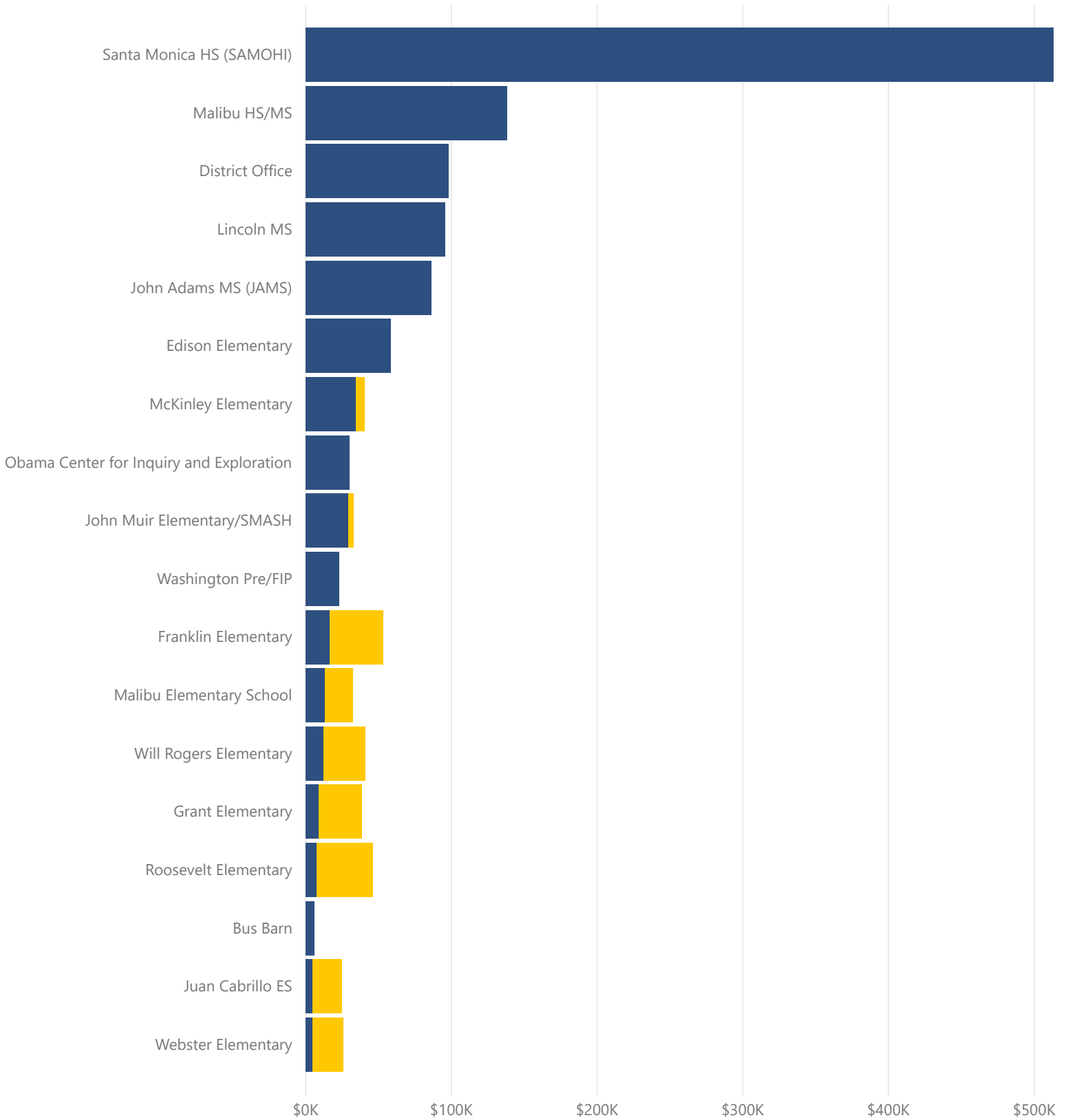
● Current Usage (FY 2019-20) kWh ● Solar Generation (kWh)



Site Electric Energy Graph

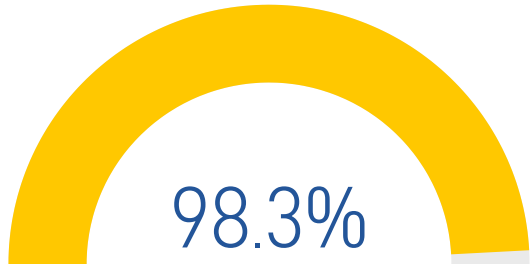
Electricity Cost by Site

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)



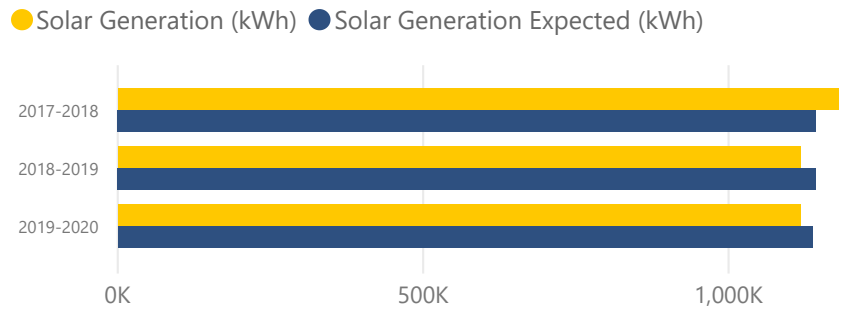
Solar Performance

% Solar Performance



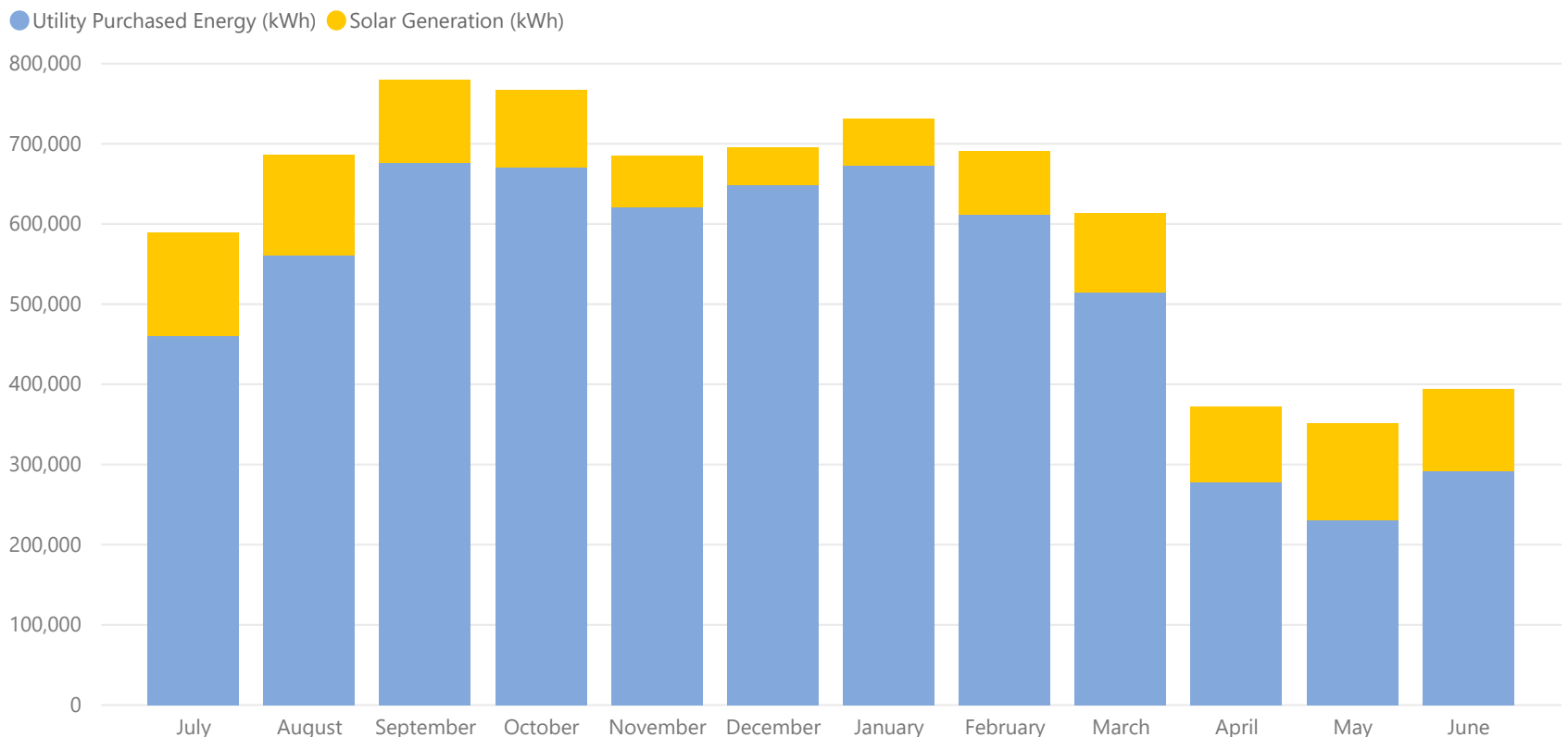
% Solar Performance is a percentage of total electricity provided by solar generation compared to the amount expected based on weather models.

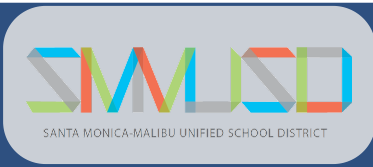
Solar Generation By Fiscal Year



Site Name	Solar Generation (kWh)	Solar Performance (%)	Site Electric PPA Cost (\$)
Franklin Elementary	210,428	99.9%	\$36,440
Grant Elementary	159,025	94.5%	\$29,617
John Muir Elementary/SMASH	12,007	106.2%	\$3,506
Juan Cabrillo ES	119,106	113.5%	\$19,979
Malibu Elementary School	111,313	97.7%	\$19,099
McKinley Elementary	34,859	78.2%	\$5,954
Roosevelt Elementary	229,919	109.1%	\$38,600
Webster Elementary	125,979	107.6%	\$21,004
Will Rogers Elementary	164,949	101.9%	\$28,757
Total	1,167,449	98.3%	\$202,956

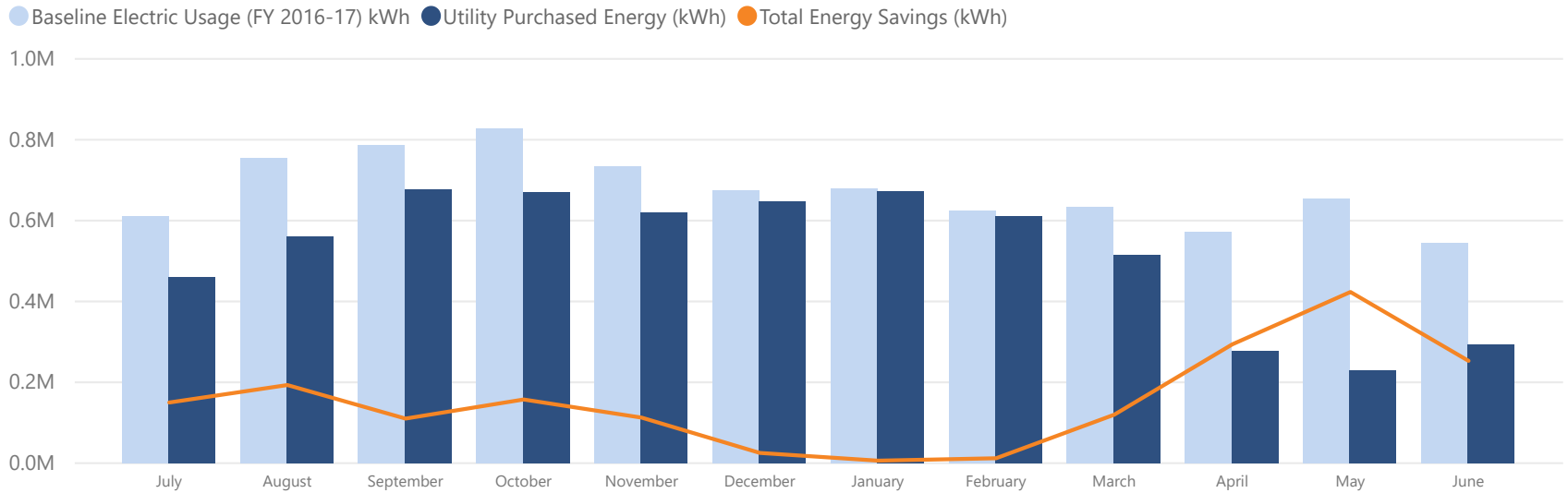
Total Electric (kWh) by Month



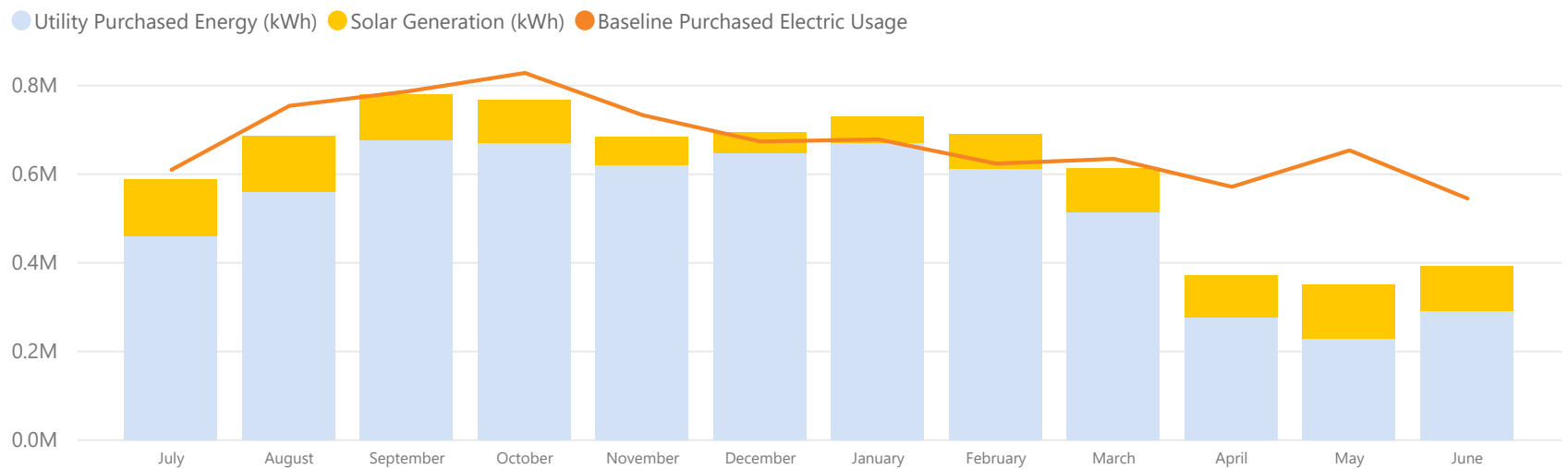


Baseline (FY 2017-2018) vs Current (FY 2019-2020)

Utility Purchased Electricity vs. Baseline



Total Electric Usage vs. Baseline



FY 2017-18 Baseline Usage (kWh)	FY 2019-20 Usage (kWh)	Utility Rate (\$/kWh)	Total Energy Savings (kWh)
9,275,338	7,355,644	\$0.1869	1,875,528
FY 17-18 Baseline Cost (\$)	FY 2019-20 Cost (\$)	Avoided Costs (\$)	Total Cost Savings (\$)
\$1,497,680	\$1,383,122	\$355,933	\$114,558

Total Cost Savings (\$): Savings based on difference in utility bills compared to baseline year.

Total Energy kWh Savings: Total Electricity reduction (solar and utility purchased electricity) between current year and baseline year.

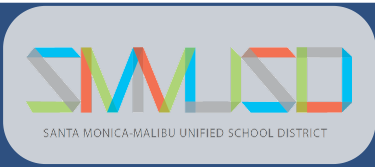
Utility Rate (\$/kWh): Cost (SCE and PPA) per kWh during the defined month range.

Avoided Costs (\$): Costs avoided from energy reduction. Calculated as the Total Energy Savings multiplied by the current utility rate.

* Electrical Usage values include total solar generation and electricity purchased from the utility (SCE)

** PPA cost data was not available for FY 2017-18





Bus Barn : Energy Totals

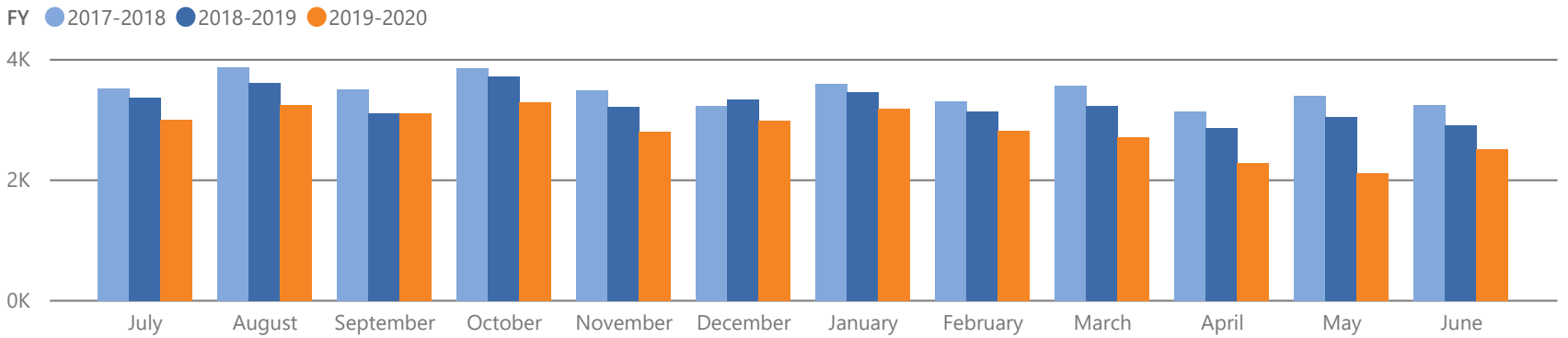
Electricity (kWh) by FY (Jul - Jun)



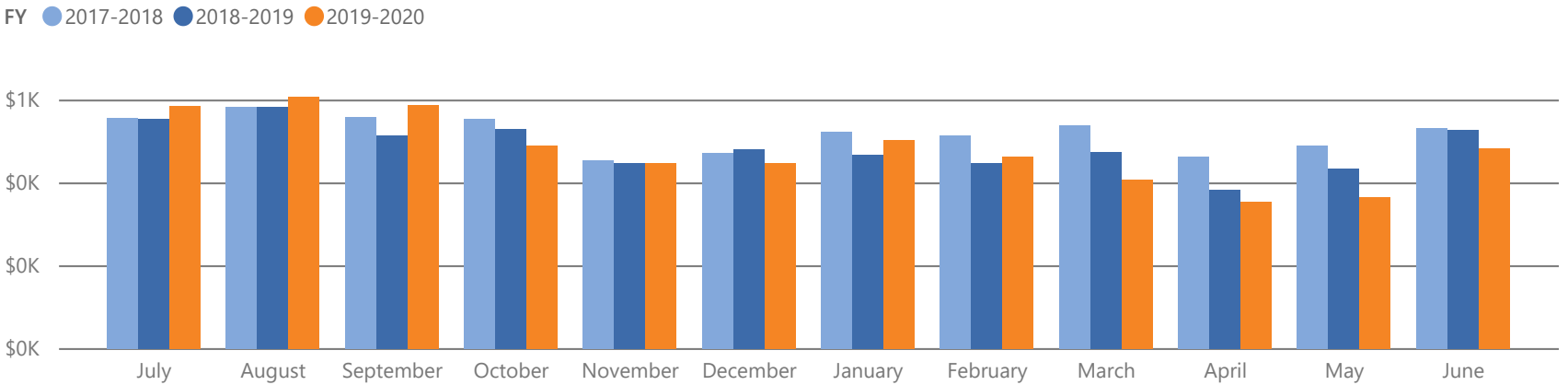
Electricity (\$) by FY (Jul - Jun)



Total Electric (kWh) by Month and Fiscal Year



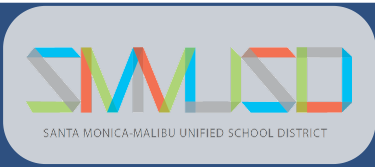
Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, the Bus Barn showed a **decrease in electricity of about 7,677 kWh (18% reduction), yielding a cost decrease of \$498 (8% decrease) compared to FY 2017-18.** Part of the reason for this difference in percent energy vs cost savings is due to the rate increase resultant from obtaining energy through clean generation sources. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$1,294, based on the FY 2019-20.**

No major projects have been performed at the Bus Barn within the past fiscal year.



District Office : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



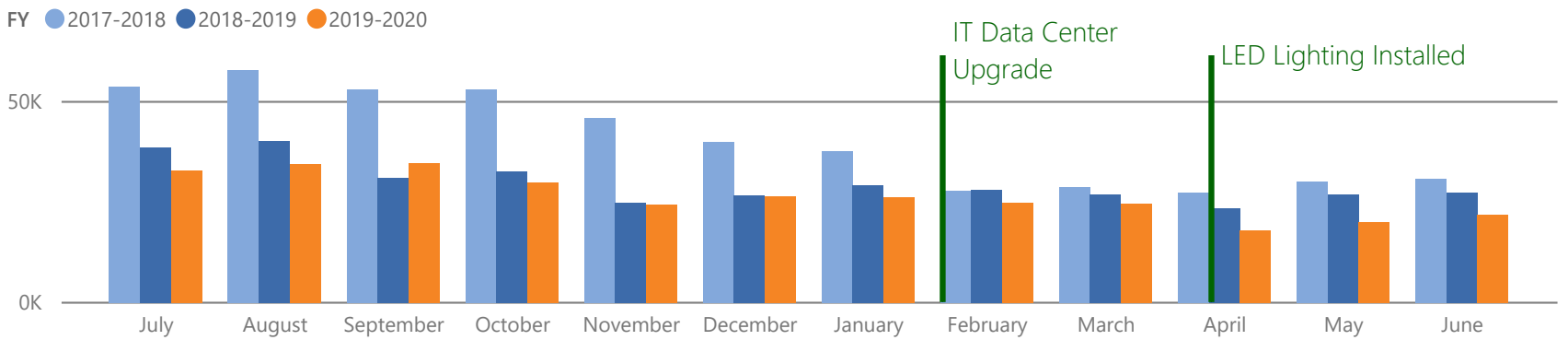
Electricity (\$) by FY (Jul - Jun)



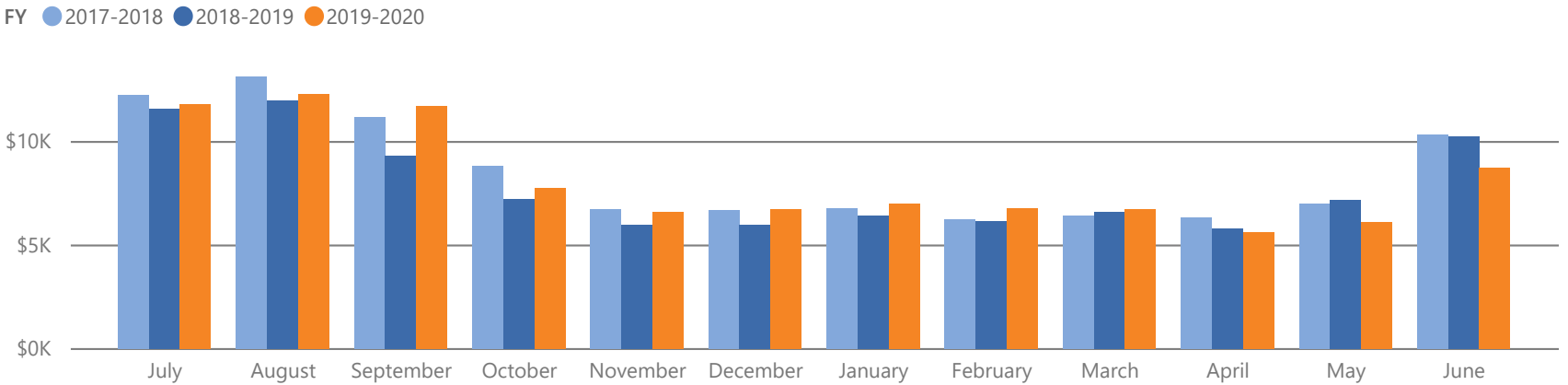
(kWh) Savings vs Baseline YTD
167,949

(\$ Savings vs Baseline YTD)
\$4,161

Total Electric (kWh) by Month and Fiscal Year



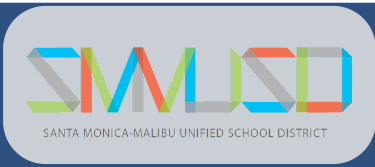
Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, the District Office showed a **decrease in electricity of 167,949 kWh (35% reduction)**, yielding a **cost savings of about \$4,161 (4% reduction)** compared to FY 2017-18. The District Office has also made significant progress becoming very conscious of making behavior changes. However, part of the reason for this difference in percent energy vs cost savings is due to the rate increase from obtaining energy through clean generation sources. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$51,623, based on the FY 2019-20.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. The District Office completed an upgrade of the server room, leading to a lowered system cooling demand in February 2018, significantly lowering overall energy consumption. Interior LED lighting completed installation in April 2019, which led to additional energy savings.



Month Range: Jul - Jun
 Current Fiscal Year: 2019-2020
 Baseline Fiscal Year: 2017-2018

Edison Elementary : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



(kWh) Savings vs Baseline YTD

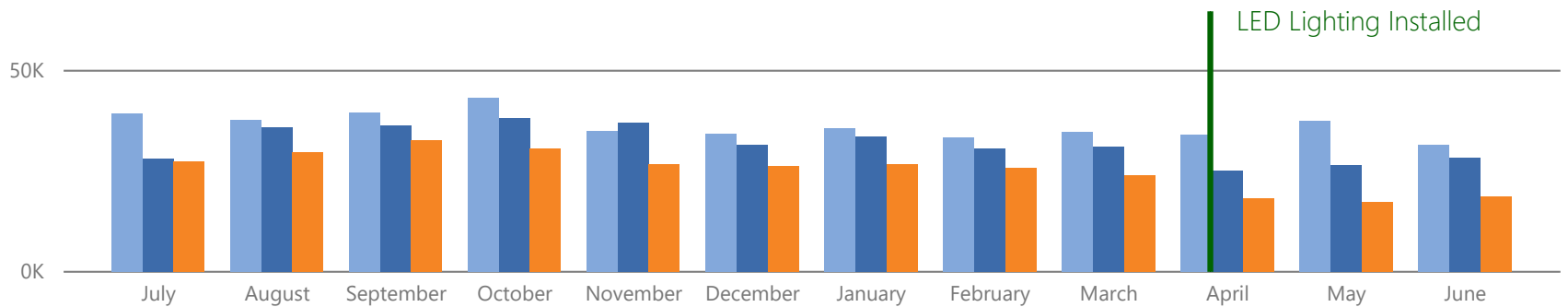
131,917

(\$ Savings vs Baseline YTD

\$10,478

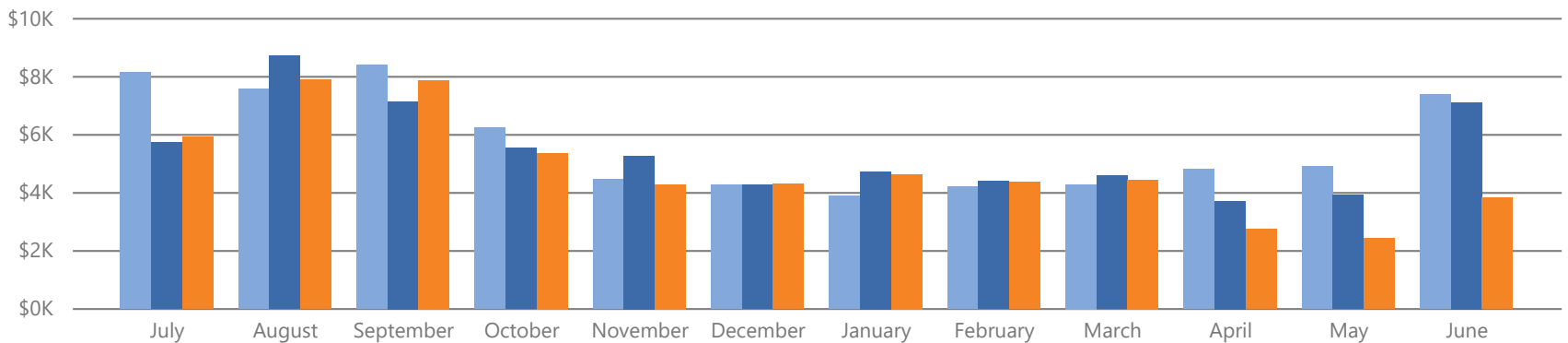
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

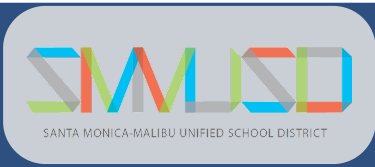
FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, Edison Language Academy showed a **decrease in electricity of 131,917 kWh (30% reduction), yielding a cost savings of \$10,478 (15% reduction) compared to FY 2017-18.** Part of the reason for this difference in percent energy vs cost savings is due to the rate increase from obtaining energy through clean generation sources. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$25,218.**

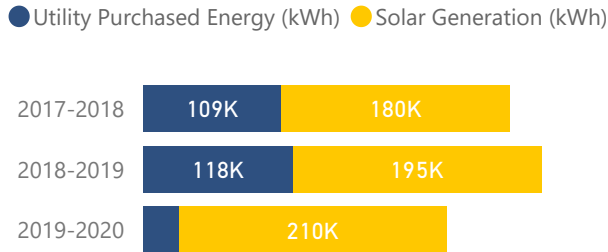
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Edison Language Academy completed an upgrade to interior LED lighting installation in April 2019.



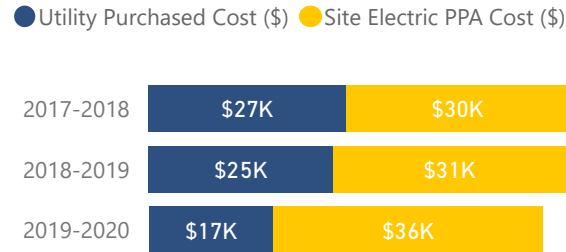
Month Range: Jul - Jun
 Current Fiscal Year: 2019-2020
 Baseline Fiscal Year: 2017-2018

Franklin Elementary : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



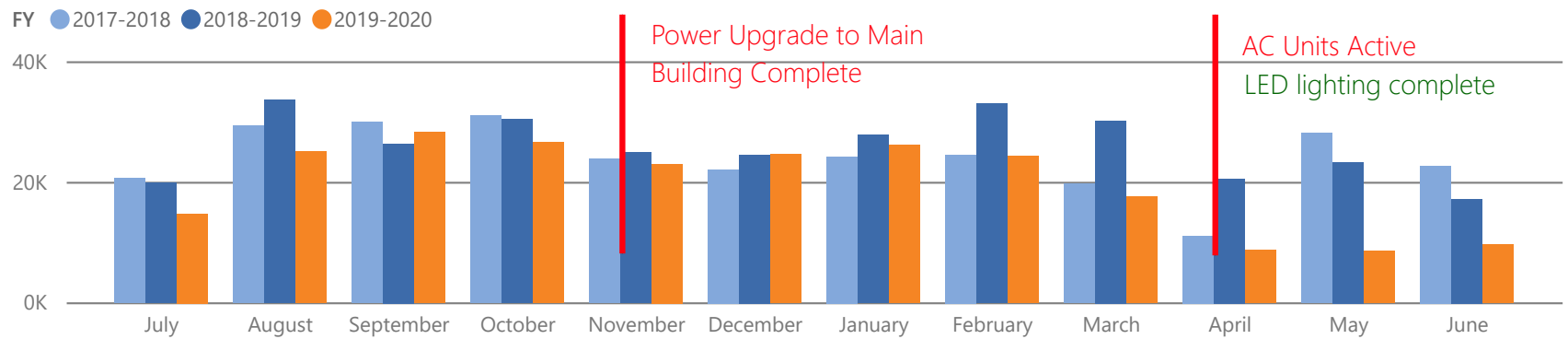
Electricity (\$) by FY (Jul - Jun)



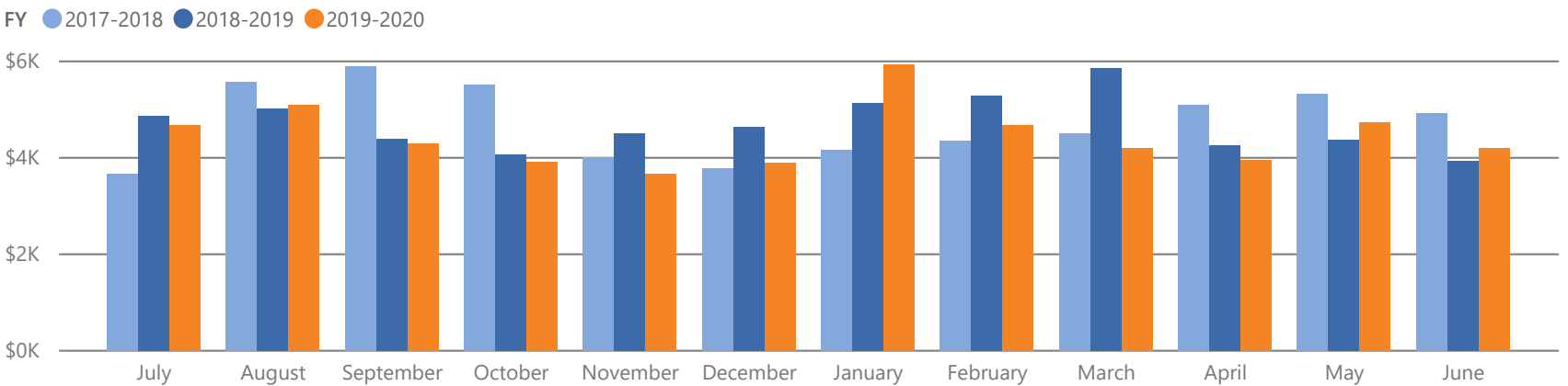
(kWh) Savings vs Baseline YTD
49,999

(\$ Savings vs Baseline YTD
\$3,557

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month



Site Narrative

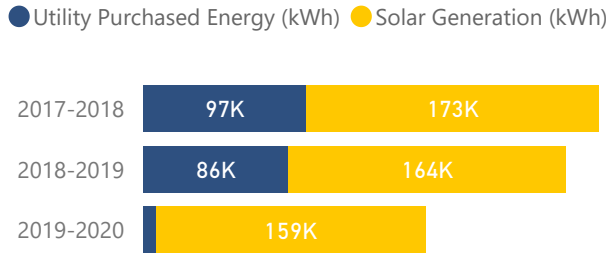
In FY 2019-20 from July through June, Franklin Elementary showed a **decrease in electricity use of 49,999 kWh (17% decrease)**, yielding a **cost savings of \$3,557 (6% decrease)** compared to FY 2017-18. This discrepancy may be a result of shifted peak energy usage and costs from solar generation. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$11,159.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Franklin Elementary completed installation of new AC units, where previously there had been none, which led to an increase in overall energy consumption in FY 2018-19. However, interior LED lighting completed installation in April 2019, which seemingly lowered the energy usage.

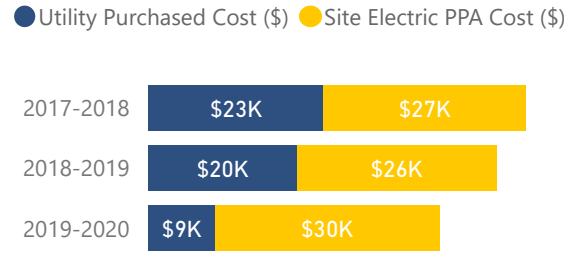


Grant Elementary : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



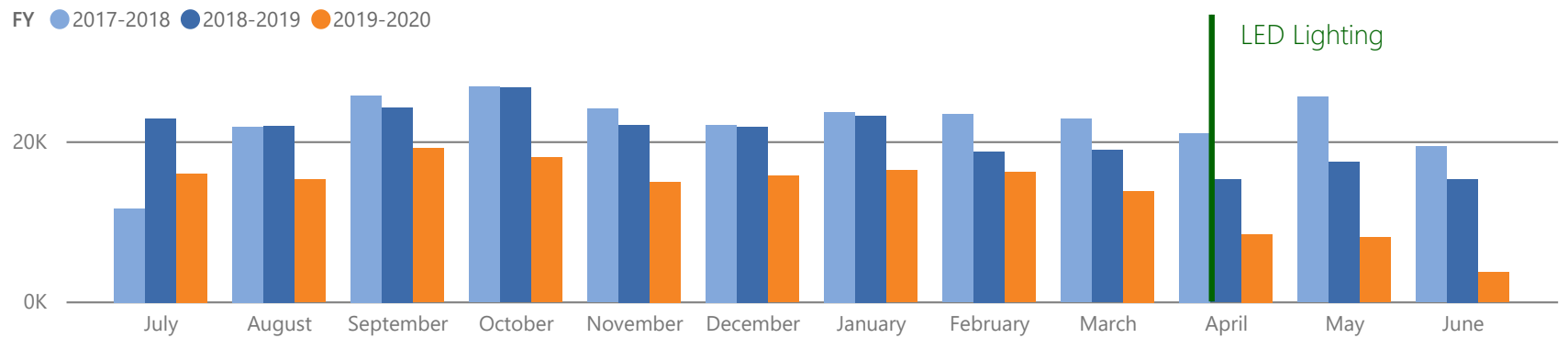
(kWh) Savings vs Baseline YTD

102,691

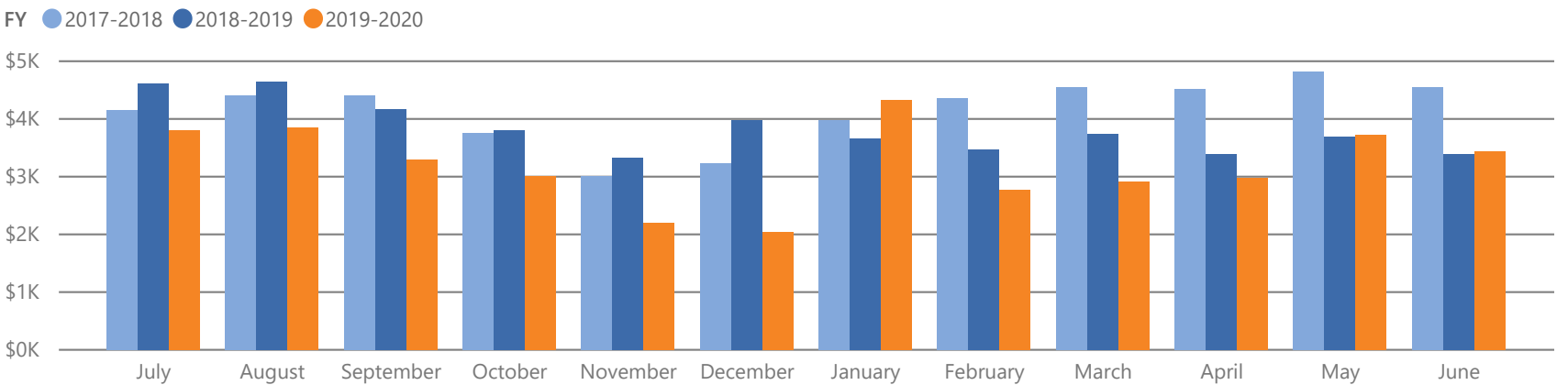
(\$ Savings vs Baseline YTD

\$11,387

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, Grant Elementary showed a **decrease in electricity of 102,691 kWh (38% reduction)**, yielding a **cost savings of about \$11,387 (23% reduction)** compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$23,665.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Grant Elementary completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.

John Adams MS (JAMS) : Energy Totals

Electricity (kWh) by FY (Jul - Jun)

Electricity (\$) by FY (Jul - Jun)

(kWh) Savings vs Baseline YTD

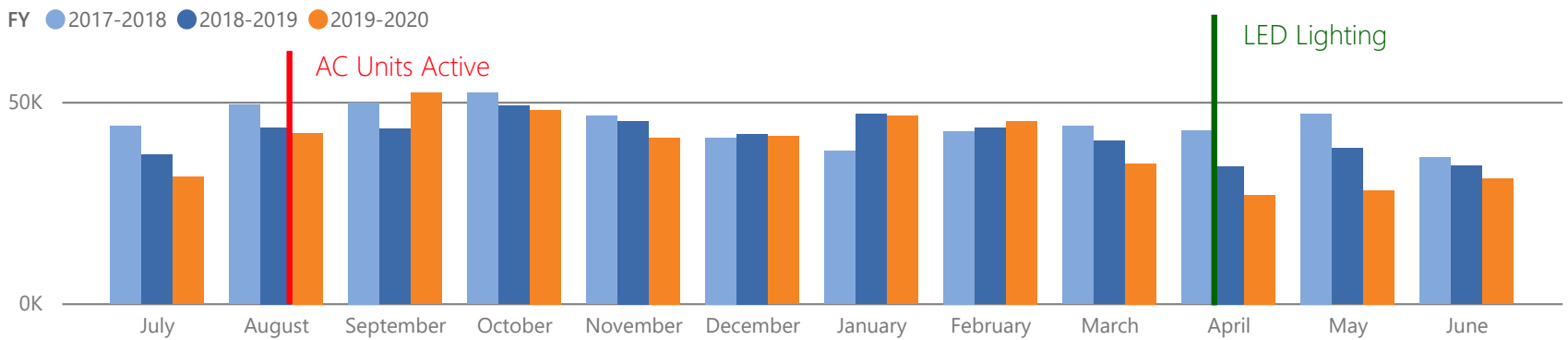
64,993

(\$ Savings vs Baseline YTD

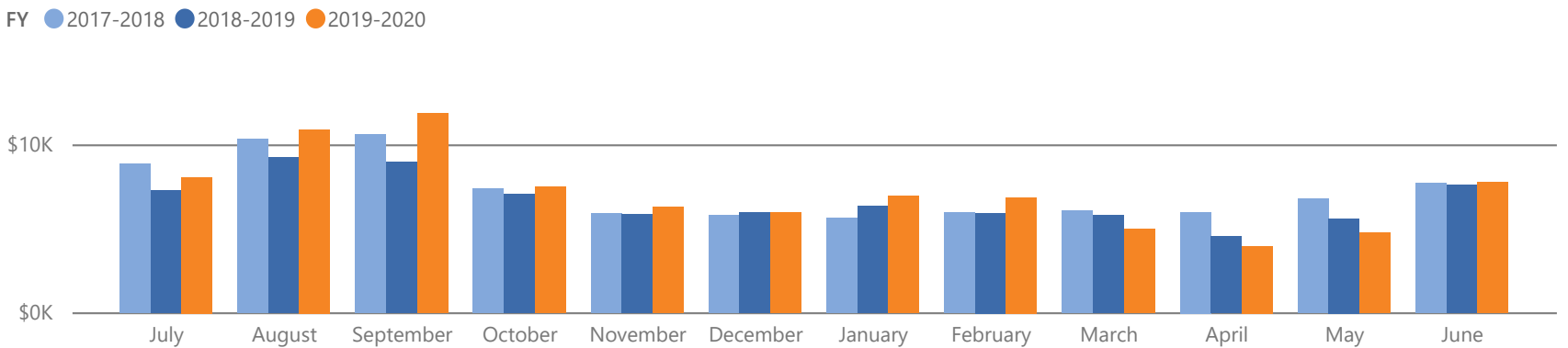
\$1,155



Total Electric (kWh) by Month and Fiscal Year



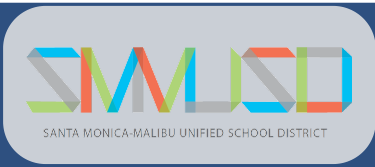
Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, the John Adams Middle School showed a **decrease in electricity of 64,993 kWh (12% reduction)**, yielding a **cost decrease of \$1,155 (1% reduction)** compared to FY 2017-18. Part of the reason for this difference in energy vs cost savings is due to the rate increase from obtaining energy through clean generation sources, yielding a higher cost per kWh. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$11,899.**

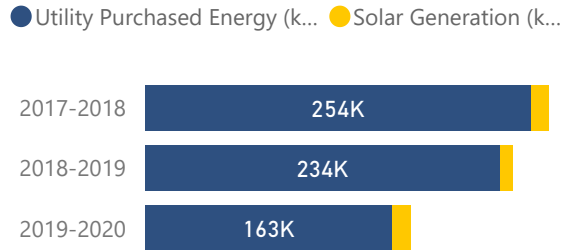
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. John Adams MS completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months. The site also completed installation of AC Units in August 2019, which resulted in a increase in energy consumption.



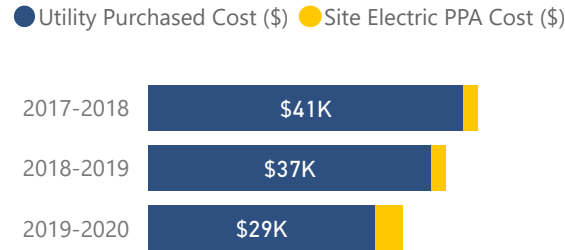
Month Range: Jul - Jun
 Current Fiscal Year: 2019-2020
 Baseline Fiscal Year: 2017-2018

John Muir Elementary/SMASH : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



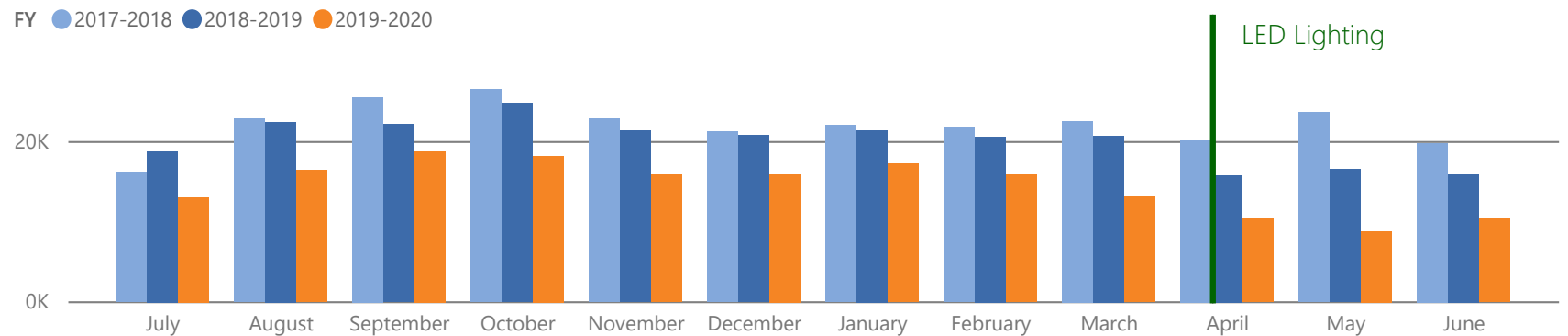
(kWh) Savings vs Baseline YTD

91,087

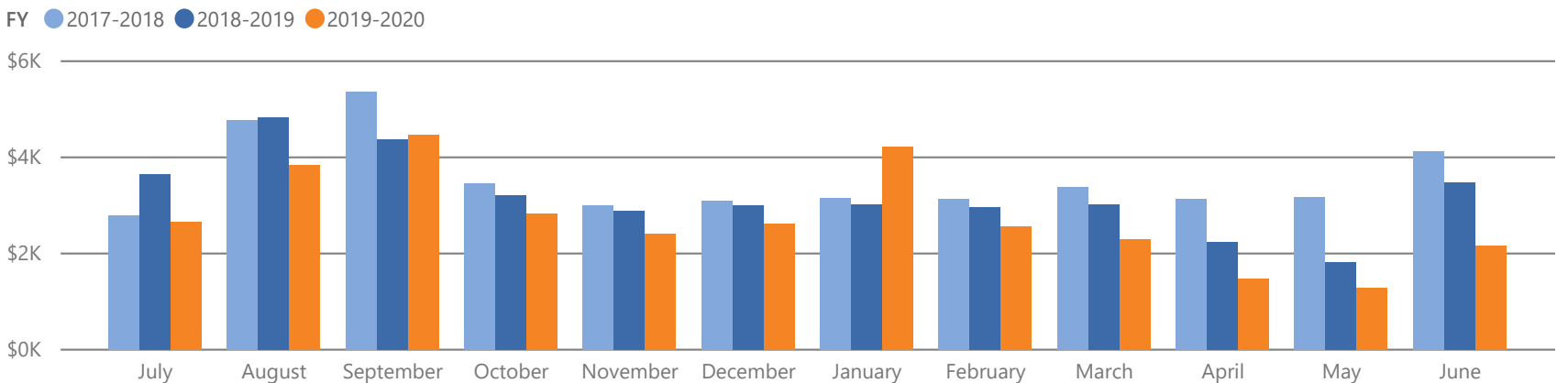
(\$ Savings vs Baseline YTD

\$9,793

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, the John Muir/SMASH site showed a **decrease in electricity of 91,087 kWh (34% reduction), yielding a cost savings of about \$9,793 (23% reduction) compared to FY 2017-18.** Part of the reason for this difference in energy vs cost savings is due to the rate increase from obtaining energy through clean generation sources, yielding a higher cost per kWh. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$17,105.**

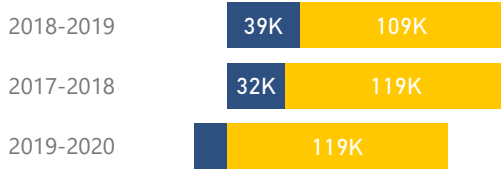
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. John Muir Elementary completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.



Juan Cabrillo ES : Energy Totals

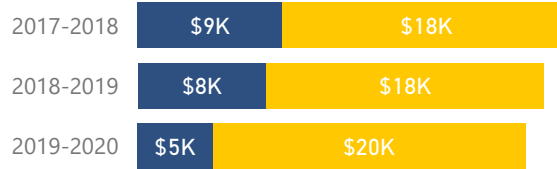
Electricity (kWh) by FY (Jul - Jun)

● Utility Purchased Energy (k... ● Solar Generation (k...



Electricity (\$) by FY (Jul - Jun)

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)



(kWh) Savings vs Baseline YTD

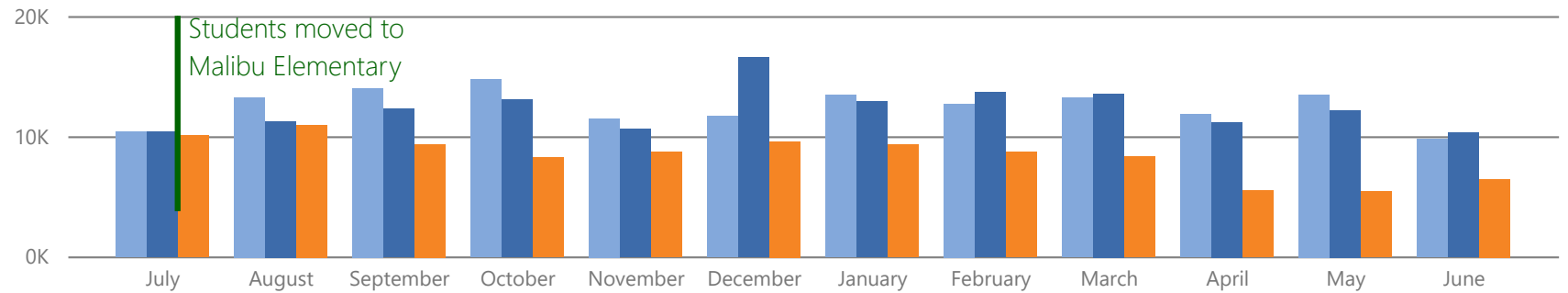
49,382

(\$ Savings vs Baseline YTD

\$2,893

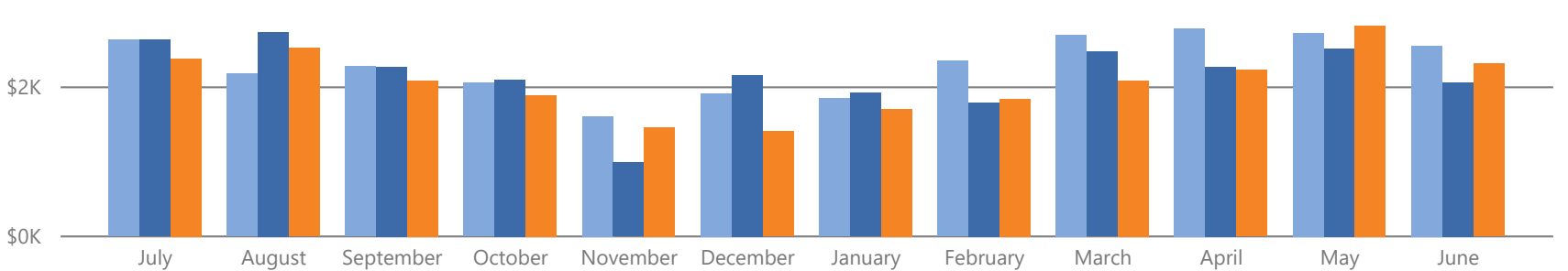
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, the Juan Cabrillo Elementary site showed a **decrease in electricity of 49,382 kWh (33% reduction)**, yielding a **cost savings of about \$2,893 (10% reduction)** compared to FY 2017-18. This discrepancy may be a result of shifted peak energy usage and costs from solar generation. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$12,061.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Juan Cabrillo Elementary is currently under construction as part of the combining with the Malibu HS/MS site. This year, all students were moved to Malibu Elementary (formerly Point Dume Marine Science), thus there was a significant reduction in energy usage starting July 2019.

Lincoln MS : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



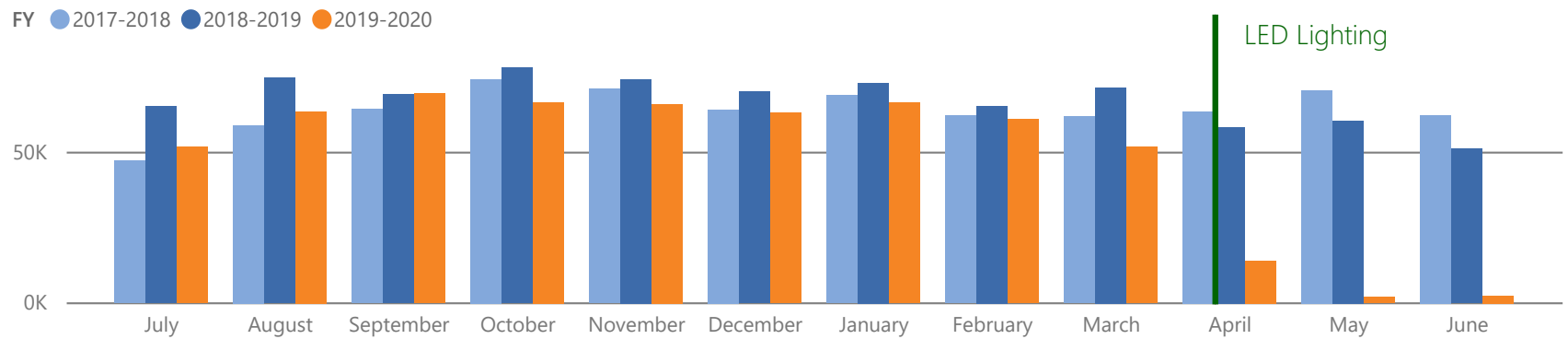
(kWh) Savings vs Baseline YTD

191,223

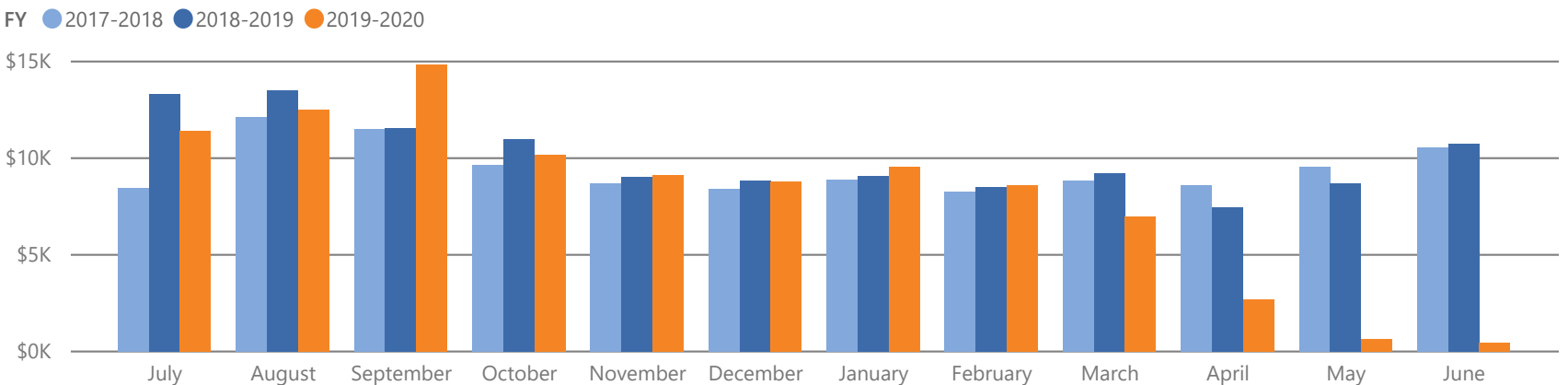
(\$ Savings vs Baseline YTD

\$17,775

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month



Site Narrative

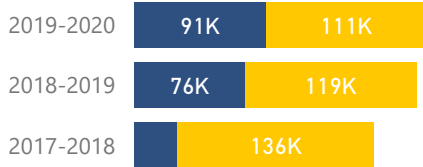
In FY 2019-20 from July through June, Lincoln MS showed an decrease in electricity of 191,223 kWh (25% increase), yielding an cost savings of \$17,775 (16% decrease) compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$31,632.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Lincoln Middle School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.

Malibu Elementary School : Energy Totals

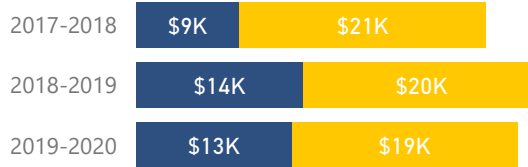
Electricity (kWh) by FY (Jul - Jun)

● Utility Purchased Energy (kWh) ● Solar Generation (kWh)



Electricity (\$) by FY (Jul - Jun)

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)



(kWh) Savings vs Baseline YTD

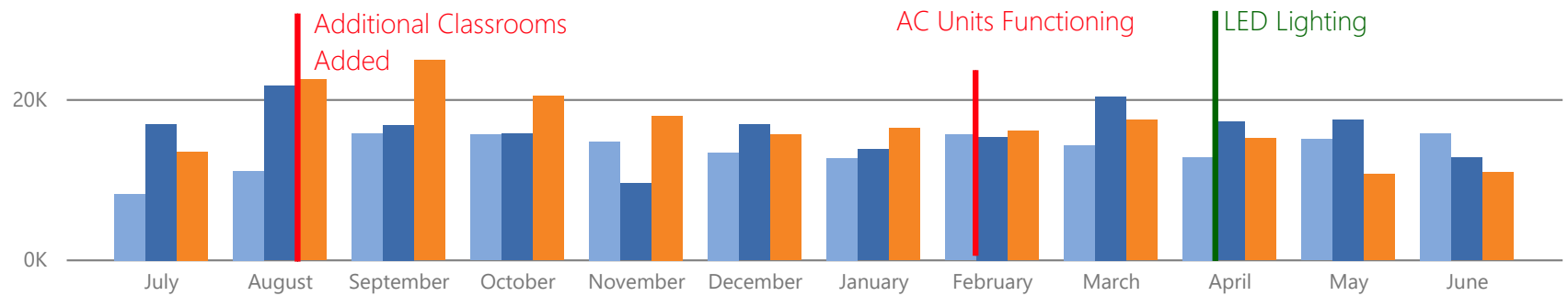
-36,571

(\$ Savings vs Baseline YTD

(\$2,630)

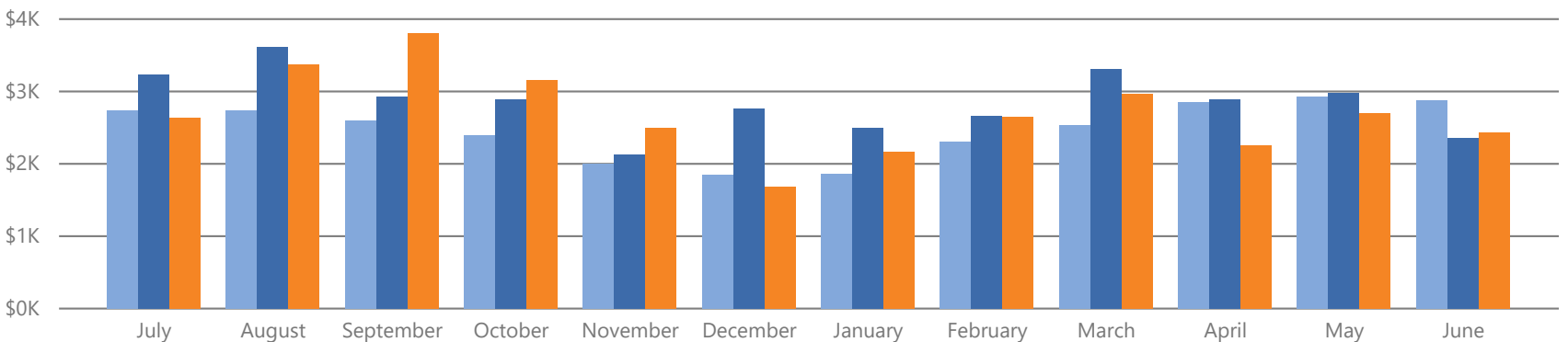
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

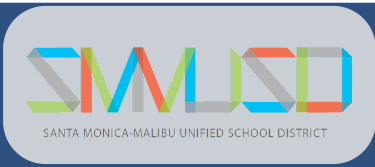
FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, Malibu Elementary (previously Point Dume Elementary) showed an **increase in electricity of 36,571 kWh (22% increase)**, increasing SCE costs by **\$2,630 (9% increase)** compared to FY 2017-18. This increase in energy and costs in the recent year was due to additional portable classrooms added on the site. This additional building size was to accommodate the transfer of students from Juan Cabrillo Elementary. In addition, AC units were added and operational as of February 2019, significantly increasing energy consumption.

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Malibu Elementary completed installation of interior LED lighting in April 2019, which lowered the energy usage in the following months.



Malibu HS/MS : Energy Totals

Electricity (kWh) by FY (Jul - Jun)

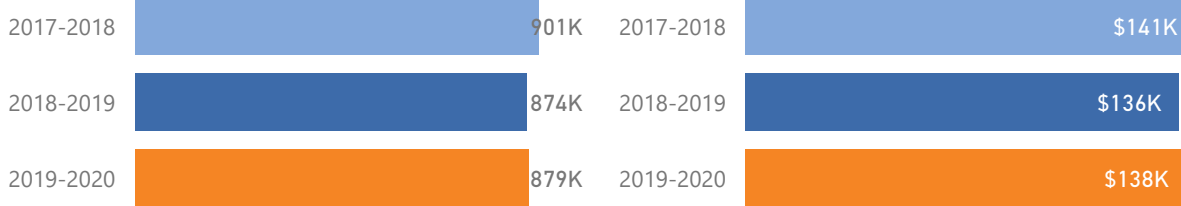
Electricity (\$) by FY (Jul - Jun)

(kWh) Savings vs Baseline YTD

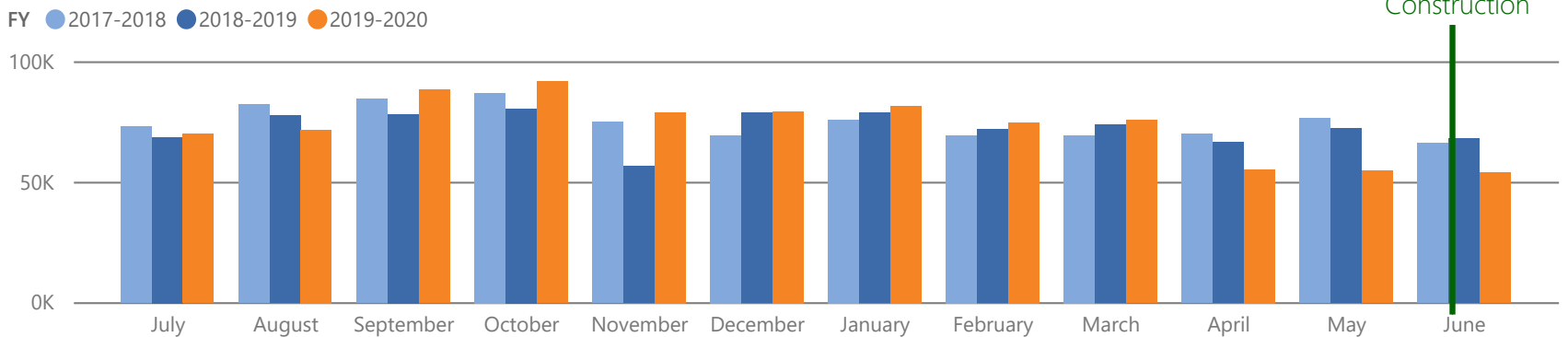
21,586

(\$) Savings vs Baseline YTD

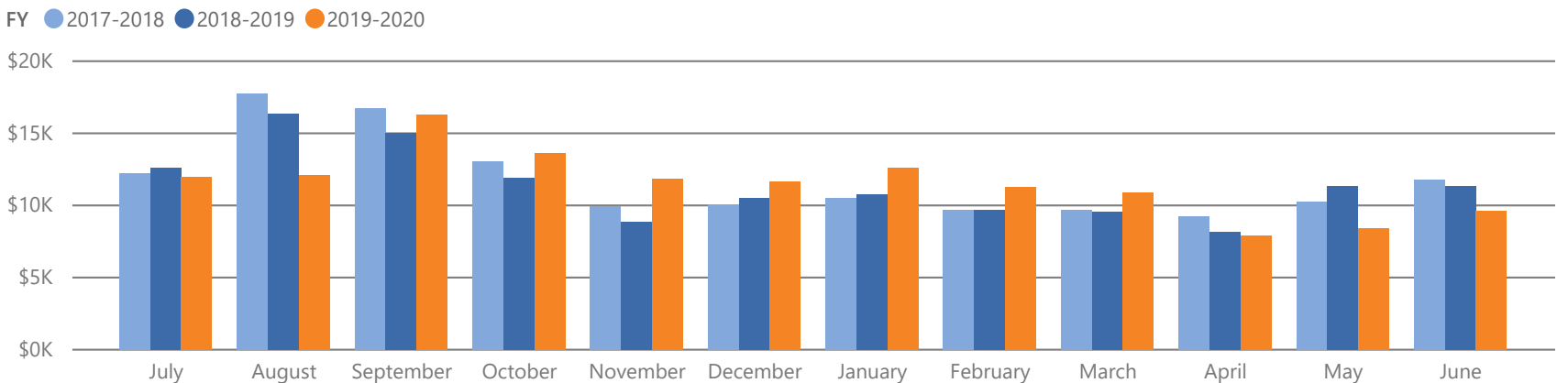
\$2,770



Total Electric (kWh) by Month and Fiscal Year



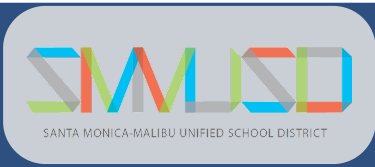
Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, Malibu HS/MS showed an decrease in electricity of 21,586 kWh (2% decrease), yielding a cost decrease of \$2,770 (2% decrease) compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$3,397.**

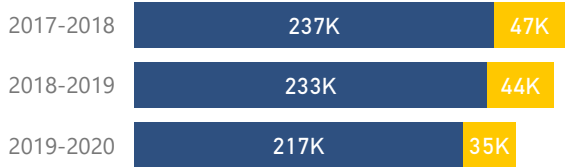
This site is to be combined with Juan Cabrillo Elementary in the following Fiscal year once construction is completed. Though there was significant construction going on, energy consumption did not decrease significantly, indicating much of existing usage may not be a result of air conditioning.



McKinley Elementary : Energy Totals

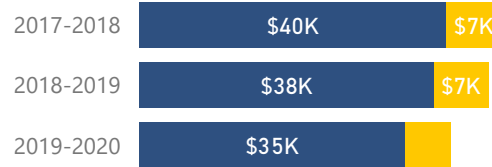
Electricity (kWh) by FY (Jul - Jun)

● Utility Purchased Energy (kWh) ● Solar Generation (kWh)



Electricity (\$) by FY (Jul - Jun)

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)



(kWh) Savings vs Baseline YTD

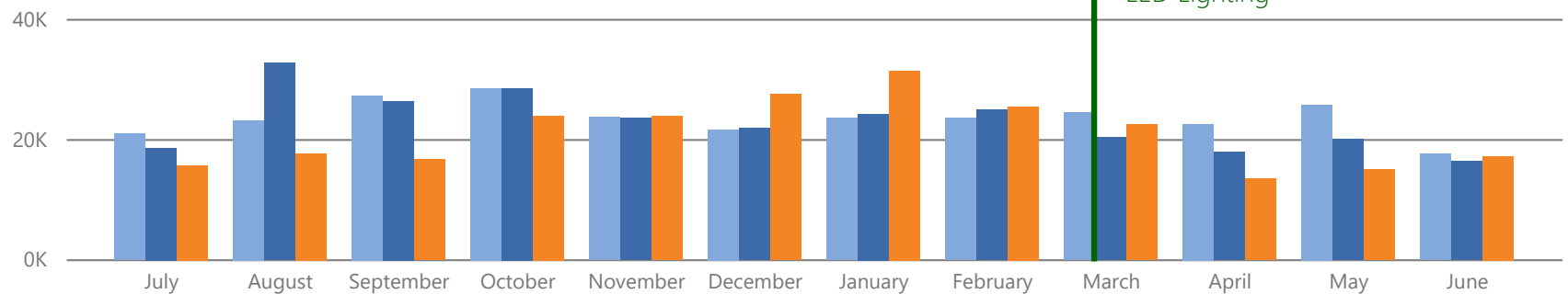
32,531

(\$ Savings vs Baseline YTD

\$6,635

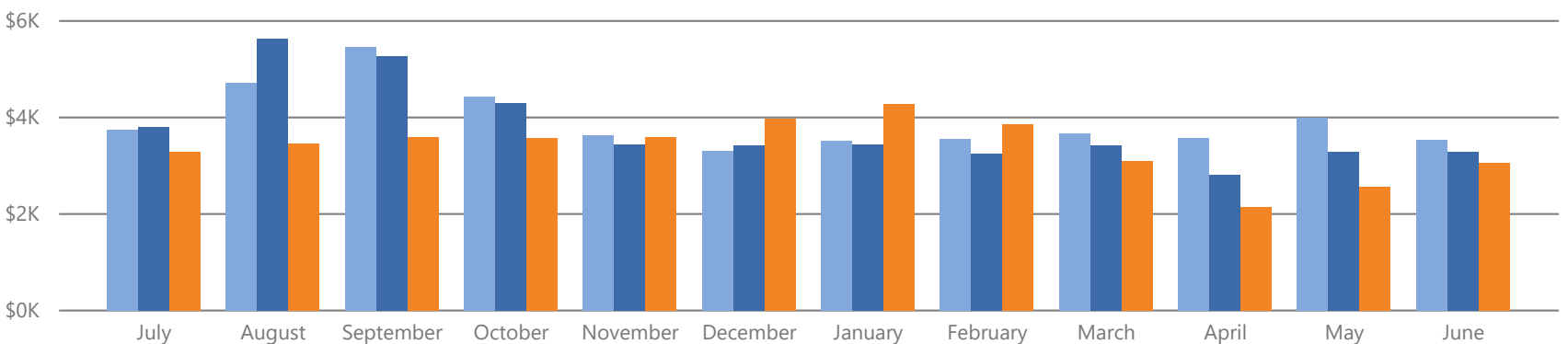
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, McKinley Elementary showed a **decrease in electricity of 32,531 kWh (11% reduction), yielding a decrease in costs of \$6,635 (14% decrease) compared to FY 2017-18.** Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$5,230.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. McKinley Elementary School completed installation of interior LED lighting in March 2019, which significantly lowered the energy usage in the following months.

Obama Center for Inquiry and Exploration : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



(kWh) Savings vs Baseline YTD

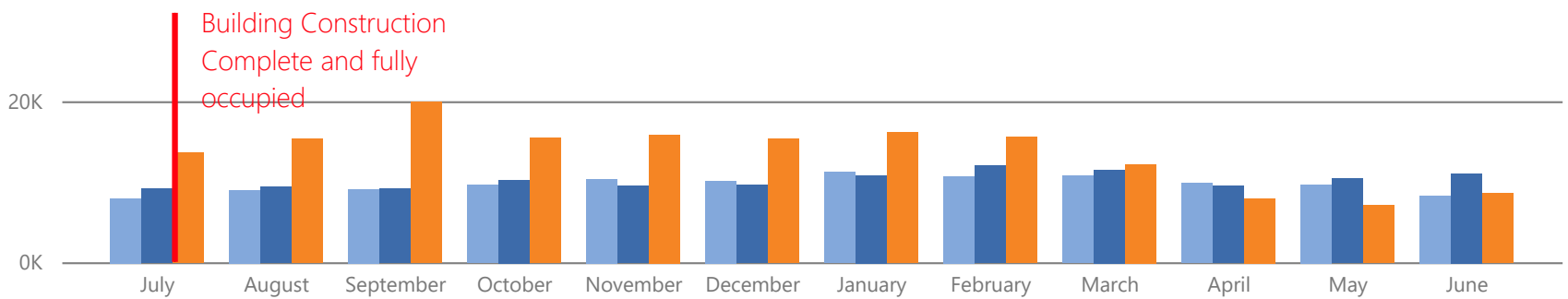
-46,556

(\$ Savings vs Baseline YTD

(\$9,424)

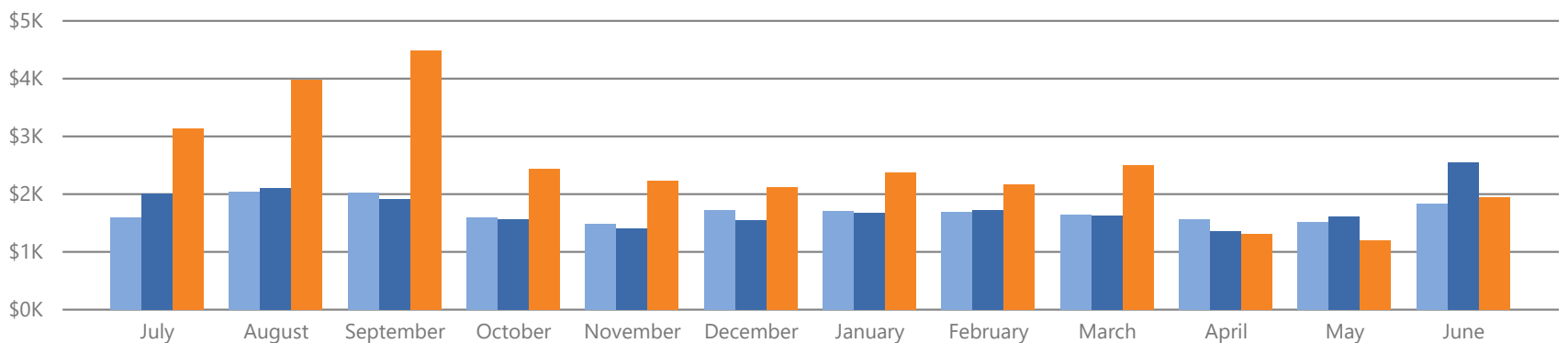
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

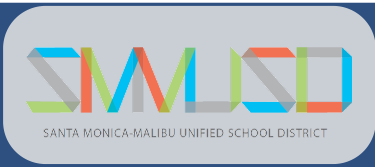
FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, the Michelle and Barack Obama Center for Inquiry and Exploration (previously Olympic HS) showed an **increase in electricity of 46,556 kWh (40% increase)**, **increasing utility costs by \$9,424 (46% increase)** compared to FY 2017-18. This energy increase is attributed to the facilities upgrade that was completed near the end of FY 2017-18 and beginning of FY 2018-19. Since FY 2019-20 marked the start of the full-occupancy (with the exception of April through June due to school closures) this year should be used as the baseline comparison going forward.

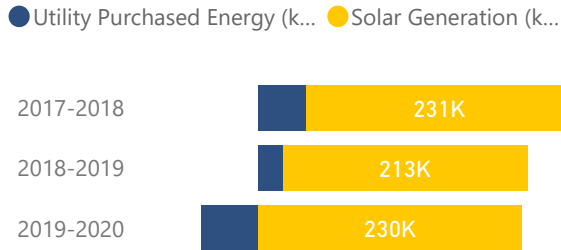
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. The Obama Center was previously undergoing major renovation and installing new AC units. When these new loads went online, energy usage and electric costs.



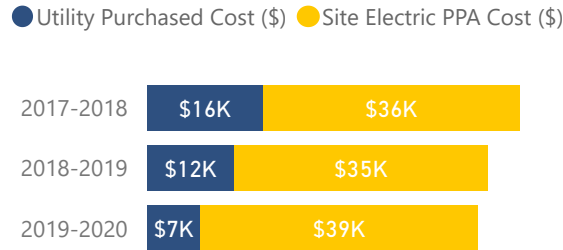
Month Range: Jul - Jun
 Current Fiscal Year: 2019-2020
 Baseline Fiscal Year: 2017-2018

Roosevelt Elementary : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



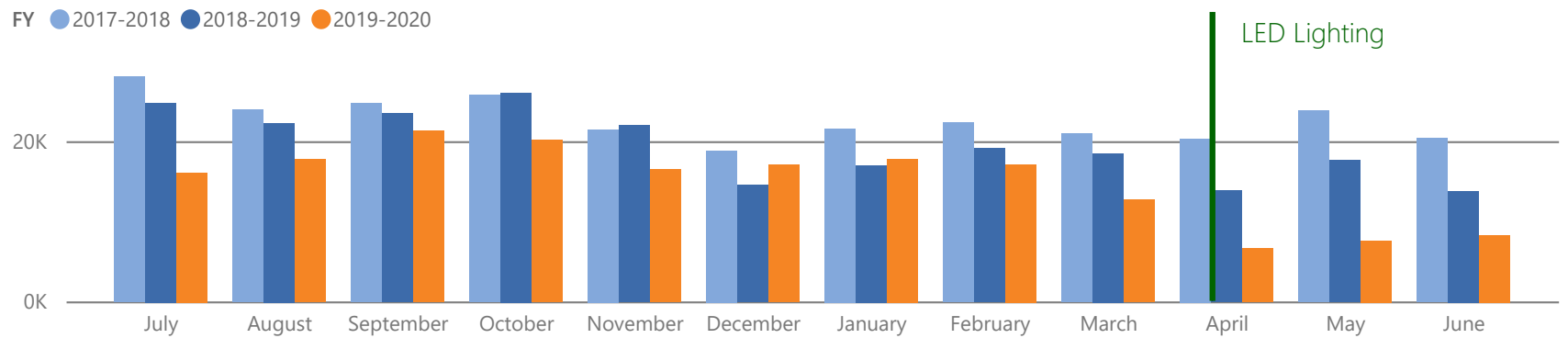
(kWh) Savings vs Baseline YTD

93,108

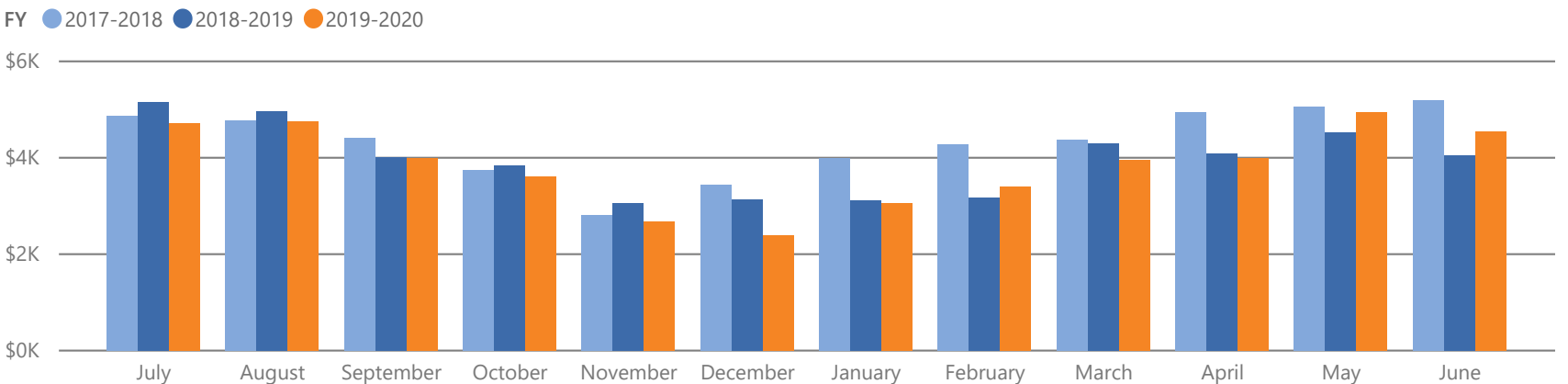
(\$ Savings vs Baseline YTD

\$5,820

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month

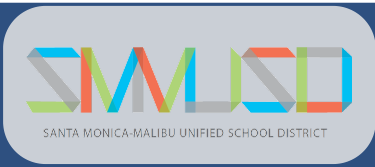


Site Narrative

In FY 2019-20 from July through June, Roosevelt Elementary showed a **decrease in electricity of 93,108 kWh (34% reduction), yielding a cost savings of about \$5,820 (11% reduction) compared to FY 2017-18.** Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$23,782.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Roosevelt Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.





Santa Monica HS (SAMOHI) : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



(kWh) Savings vs Baseline YTD

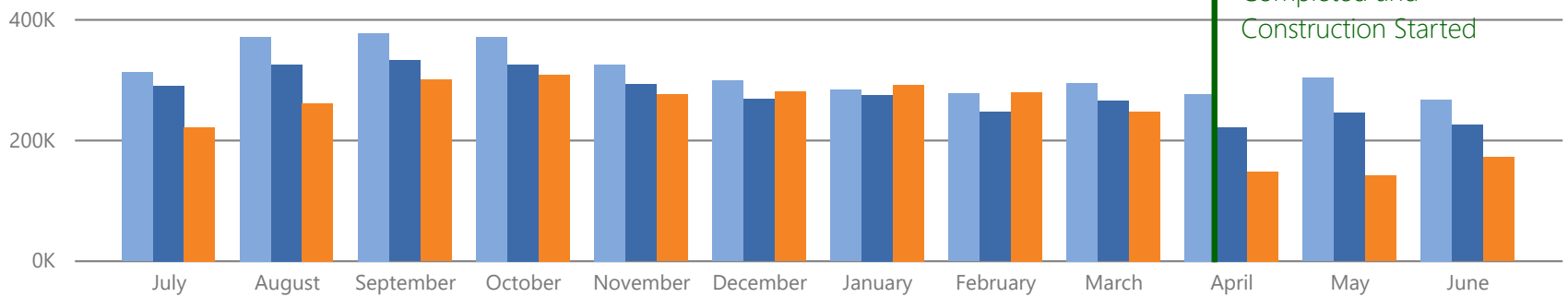
830,999

(\$ Savings vs Baseline YTD

\$43,896

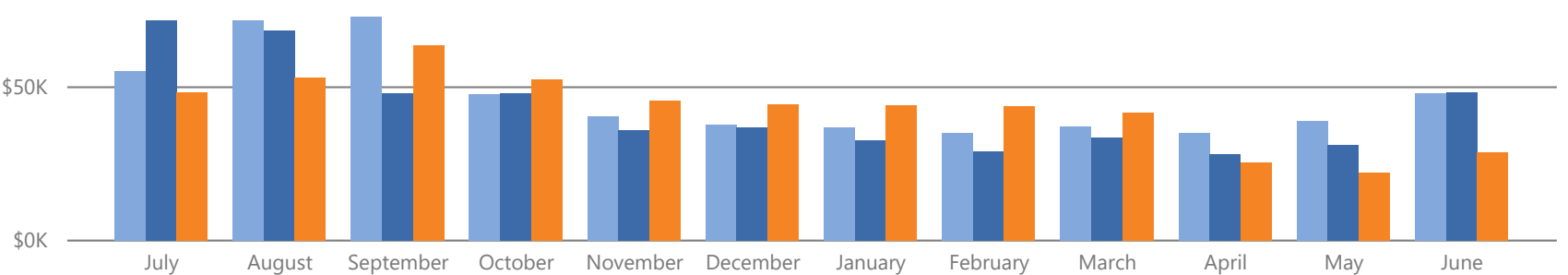
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, Santa Monica HS showed a **decrease in electricity of 830,999 kWh (22% reduction), yielding a cost savings of about \$43,896 (8% reduction) compared to FY 2017-18.** A large portion of the school is currently under construction, which may account for part of the energy reduction. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$145,419.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Santa Monica HS completed installation of interior LED lighting and started significant construction around the month of April 2019, which significantly lowered the energy usage in the following months.

Washington Pre/FIP : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



(kWh) Savings vs Baseline YTD

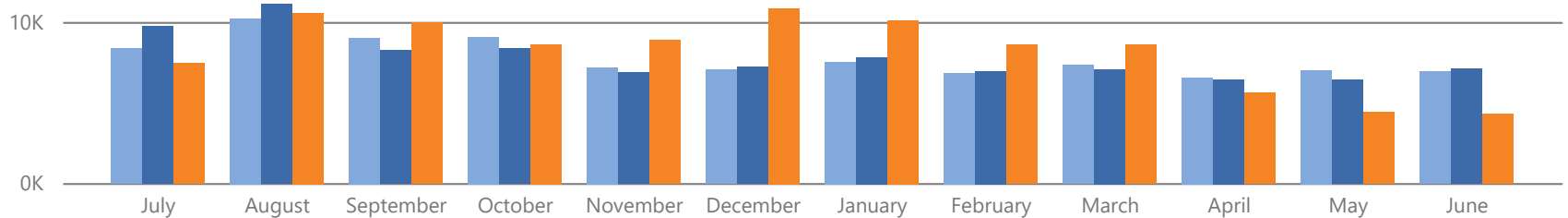
-4,807

(\$ Savings vs Baseline YTD

(\$4,285)

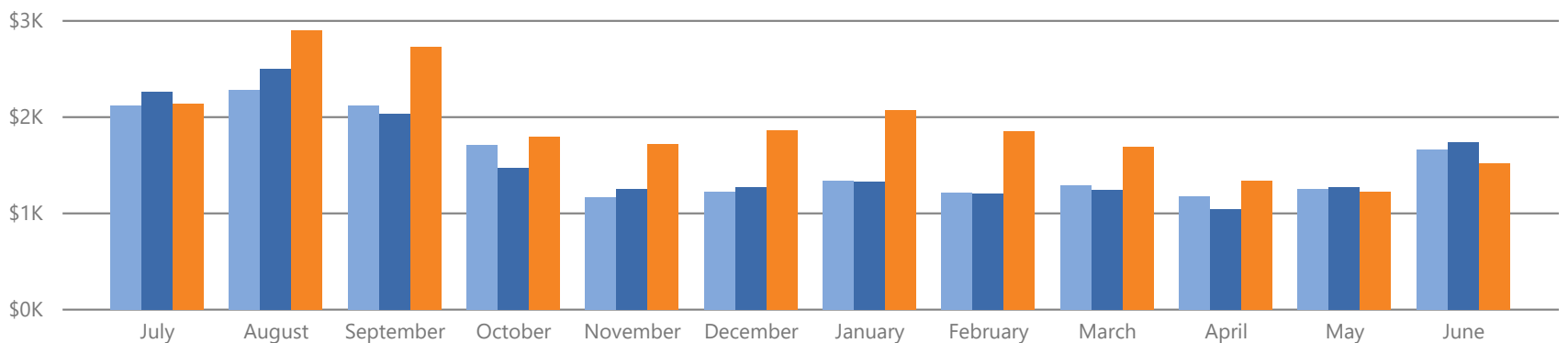
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



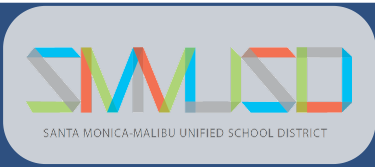
Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

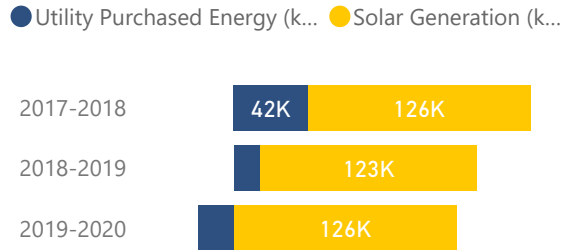
In FY 2019-20 from July through June, the Washington Pre-school/FIP Office showed an **increase in electricity of 4,807 kWh (5% increase)**, **increasing utility costs by \$4,285 (23% increase)** compared to FY 2017-18. This was a result of increased energy consumption in December through February, possibly due to the use of space heaters or other forms of electrical heating. Additionally, though energy usage was only slightly higher in September and October 2019, usage during peak periods appears to have significantly increased electricity costs.



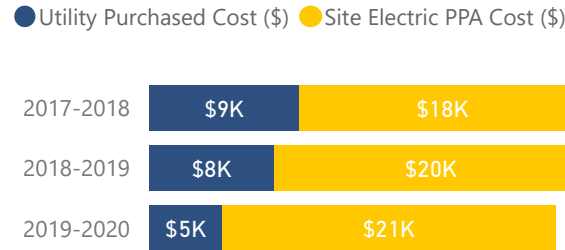
Month Range: Jul - Jun
 Current Fiscal Year: 2019-2020
 Baseline Fiscal Year: 2017-2018

Webster Elementary : Energy Totals

Electricity (kWh) by FY (Jul - Jun)



Electricity (\$) by FY (Jul - Jun)



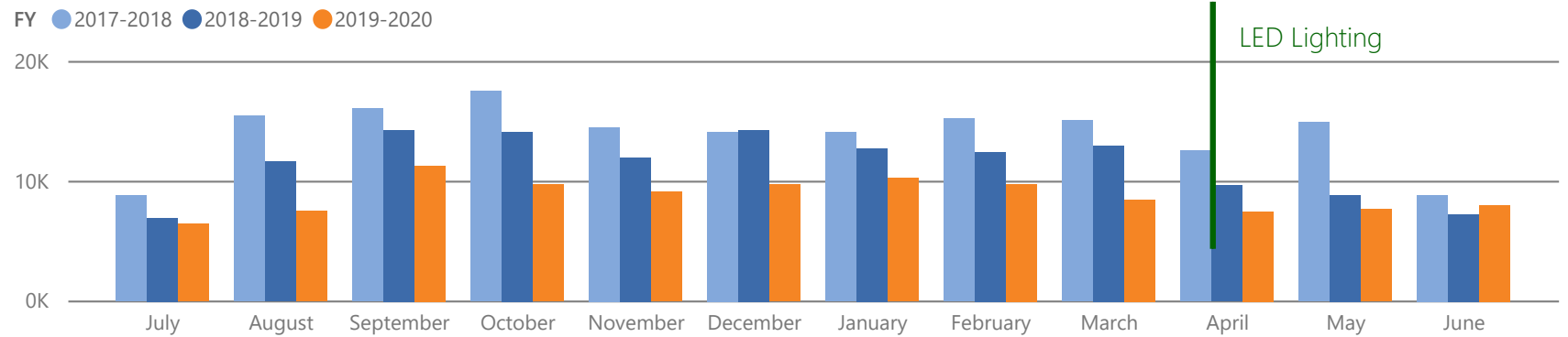
(kWh) Savings vs Baseline YTD

61,784

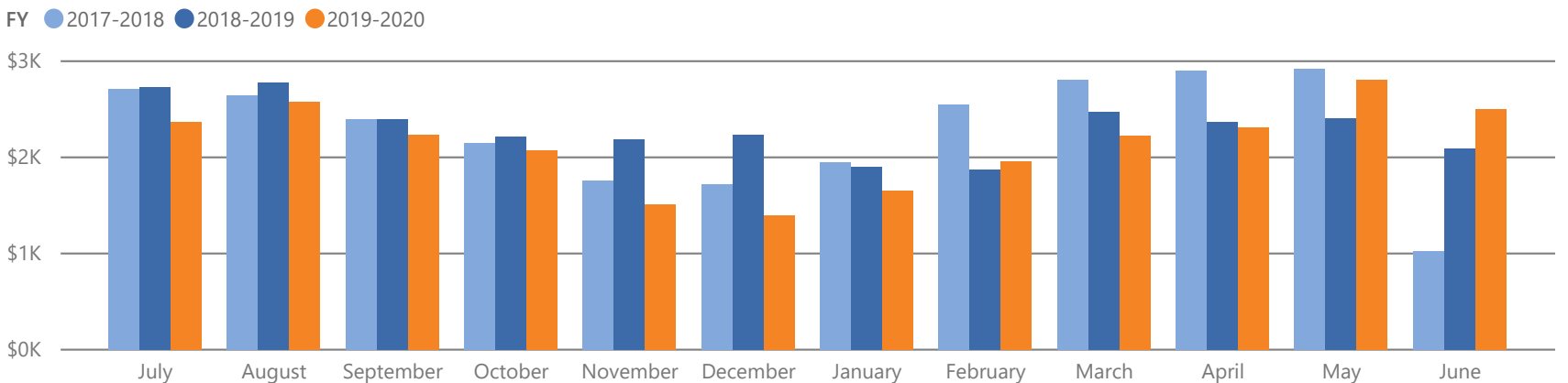
(\$ Savings vs Baseline YTD

\$1,899

Total Electric (kWh) by Month and Fiscal Year



Total Electric Cost (\$) by Month



Site Narrative

In FY 2019-20 from July through June, Webster Elementary showed a **decrease in electricity of 61,784 kWh (37% reduction), yielding a cost decrease of \$1,899 (7% reduction) compared to FY 2017-18.** Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$14,949.**

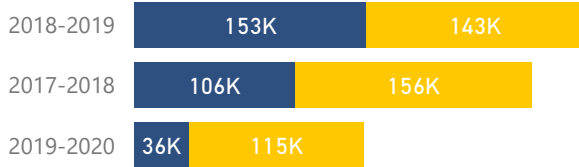
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Webster Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.



Will Rogers Elementary : Energy Totals

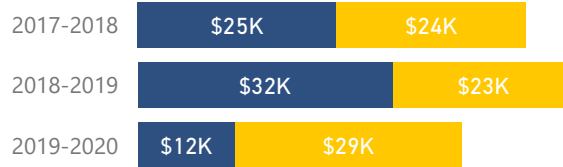
Electricity (kWh) by FY (Jul - Jun)

● Utility Purchased Energy (kWh) ● Solar Generation (kWh)



Electricity (\$) by FY (Jul - Jun)

● Utility Purchased Cost (\$) ● Site Electric PPA Cost (\$)



(kWh) Savings vs Baseline YTD

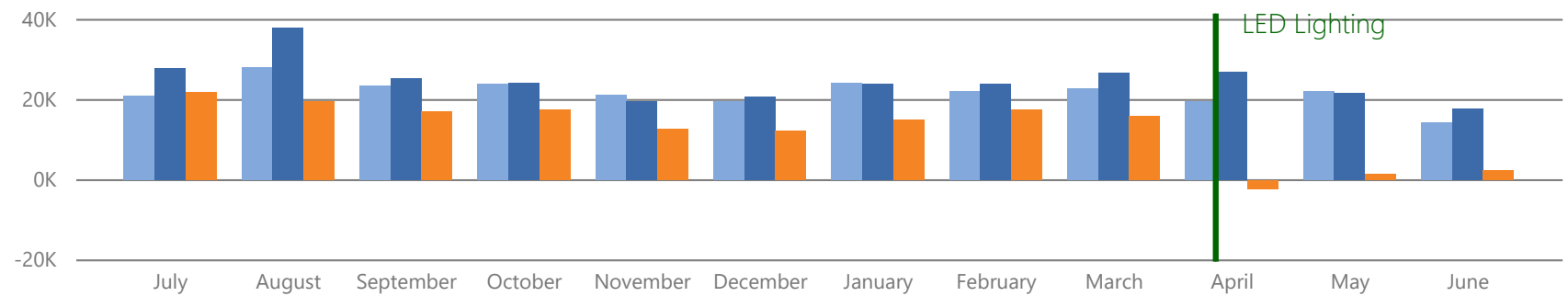
66,535

(\$ Savings vs Baseline YTD

\$8,179

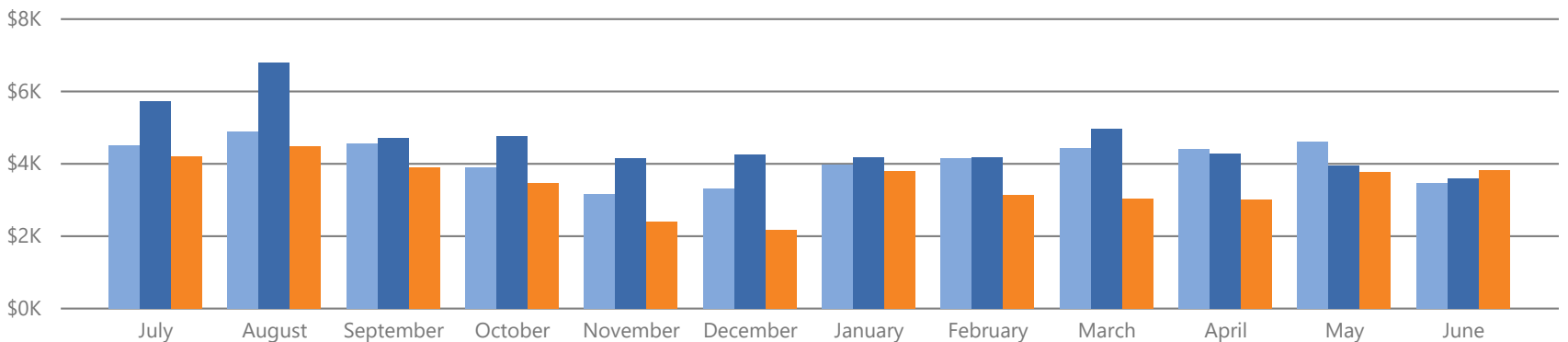
Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020



Site Narrative

In FY 2019-20 from July through June, Will Rogers Elementary showed a reduction in electricity of 66,535 kWh (25% decrease), yielding a decrease in costs of \$8,179 (17% reduction) compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$14,002.**

A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Will Rogers Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.