



SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT

## Energy Assessment Report

Prepared For:

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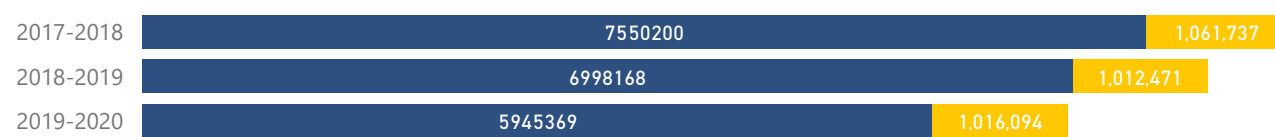
# District Electric Energy Totals

## 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 - May)

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

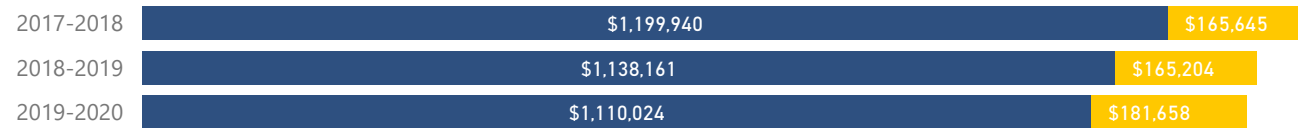


kWh Savings vs FY 17-18 YTD

1,617,926

## Electricity (\$) by FY (Jul - May)

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



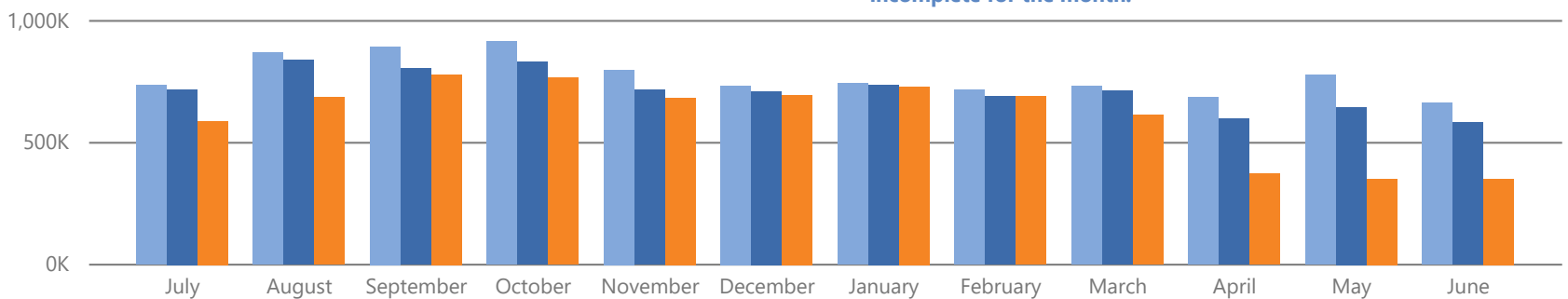
SCE \$ Savings vs FY 17-18 YTD

\$73,904

## Total Electric (kWh) by Month and Fiscal Year

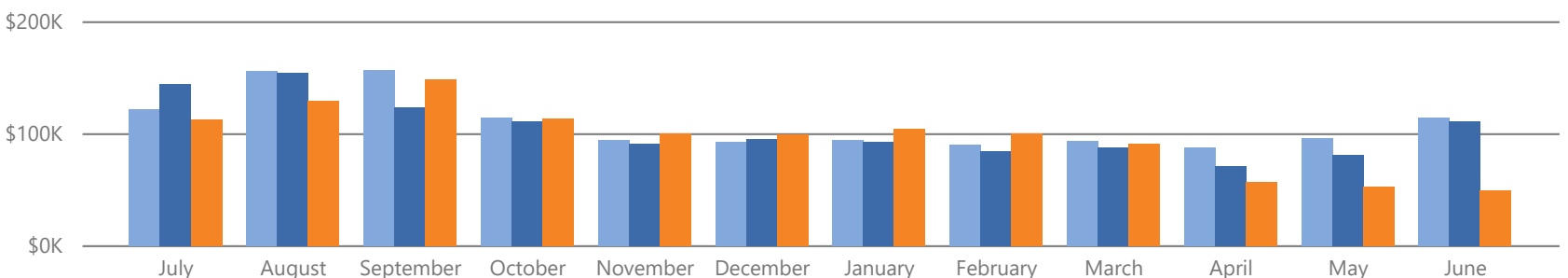
FY ● 2017-2018 ● 2018-2019 ● 2019-2020

\*Note that latest month values are not accurate due to data being incomplete for the month.



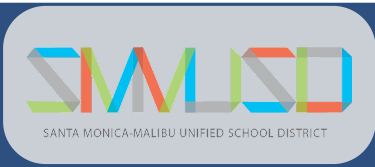
## Total Electric Cost (\$) by Month

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



\*Note that latest month values are not accurate due to data being incomplete for the month.

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



## 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	31,580		31,580	\$5,263		\$5,263
District Office	296,643		296,643	\$89,157		\$89,157
Edison Elementary	285,632		285,632	\$54,348		\$54,348
Franklin Elementary	40,400	188,556	228,956	\$16,400	\$32,674	\$49,074
Grant Elementary	15,762	146,955	162,717	\$8,323	\$26,602	\$34,926
John Adams MS (JAMS)	440,050		440,050	\$78,473		\$78,473
John Muir Elementary/SMASH	153,890	10,595	164,485	\$27,417	\$3,263	\$30,680
Juan Cabrillo ES	-12,413	107,319	94,906	\$4,507	\$17,950	\$22,457
Lincoln MS	576,777		576,777	\$95,380		\$95,380
Malibu Elementary School	92,886	98,476	191,362	\$12,989	\$16,889	\$29,878
Malibu HS/MS	824,950		824,950	\$128,737		\$128,737
McKinley Elementary	204,290	30,064	234,354	\$32,276	\$5,130	\$37,407
Obama Center for Inquiry and Exploration	155,707		155,707	\$27,931		\$27,931
Roosevelt Elementary	-33,532	205,407	171,875	\$7,133	\$34,379	\$41,513
Santa Monica HS (SAMOHI)	2,760,387		2,760,387	\$484,640		\$484,640
Washington Pre/FIP	94,172		94,172	\$21,329		\$21,329
Webster Elementary	-15,587	113,424	97,837	\$4,272	\$18,844	\$23,115
Will Rogers Elementary	33,776	115,298	181,621	\$11,449	\$25,925	\$37,374
<b>Total</b>	<b>5,945,369</b>	<b>1,016,094</b>	<b>6,994,011</b>	<b>\$1,110,024</b>	<b>\$181,658</b>	<b>\$1,291,682</b>

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

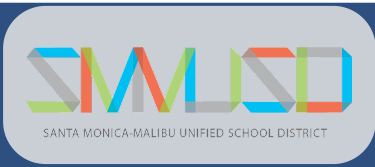
**Solar Generation (kWh):** Quantity of electricity produced by the solar photovoltaic panels

**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

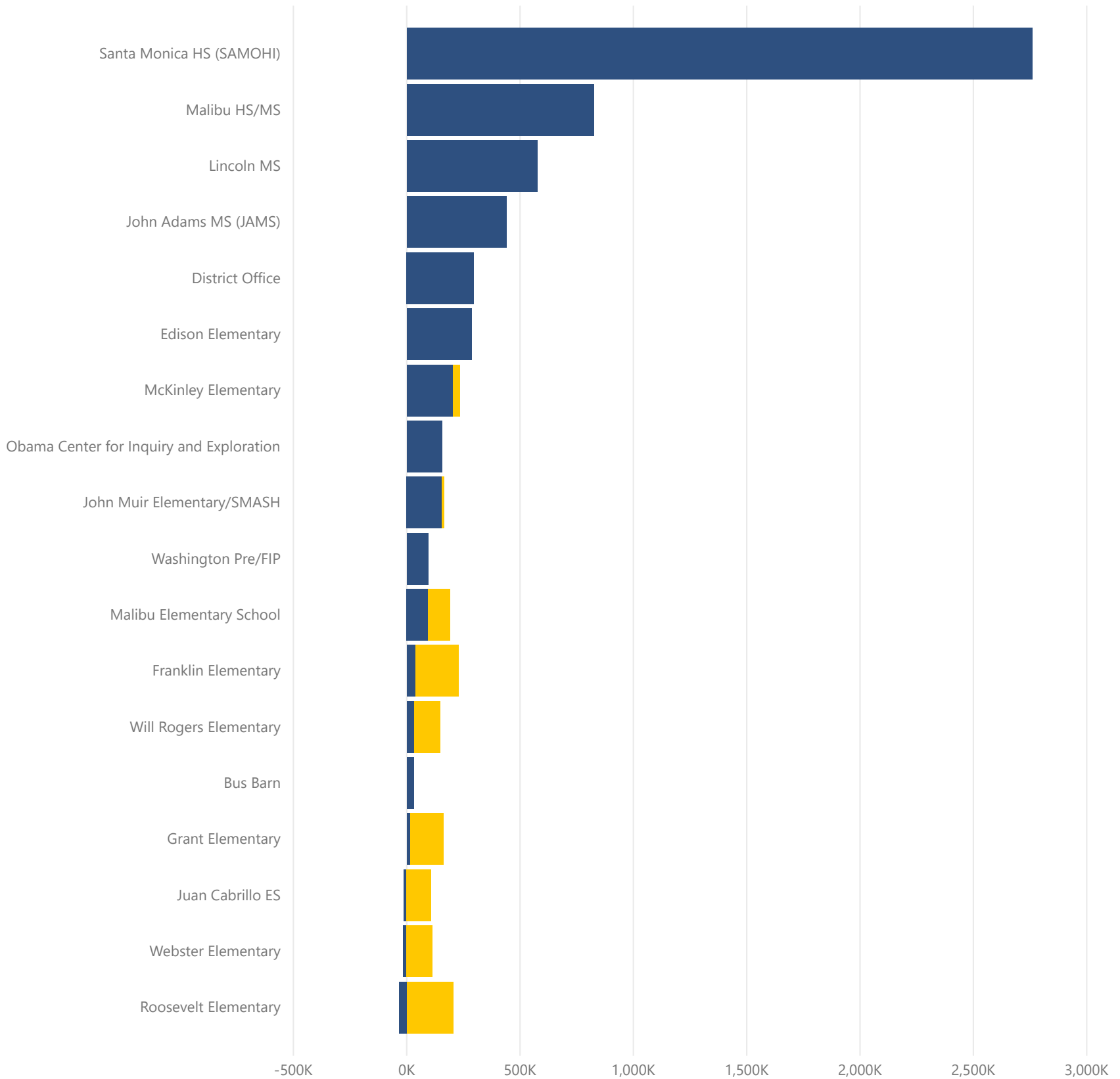


Month Range: Jul - May  
Current Fiscal Year: 2019-2020  
Baseline Fiscal Year: 2017-2018

# Site Electric Energy Graph

## Electricity Consumption by Site

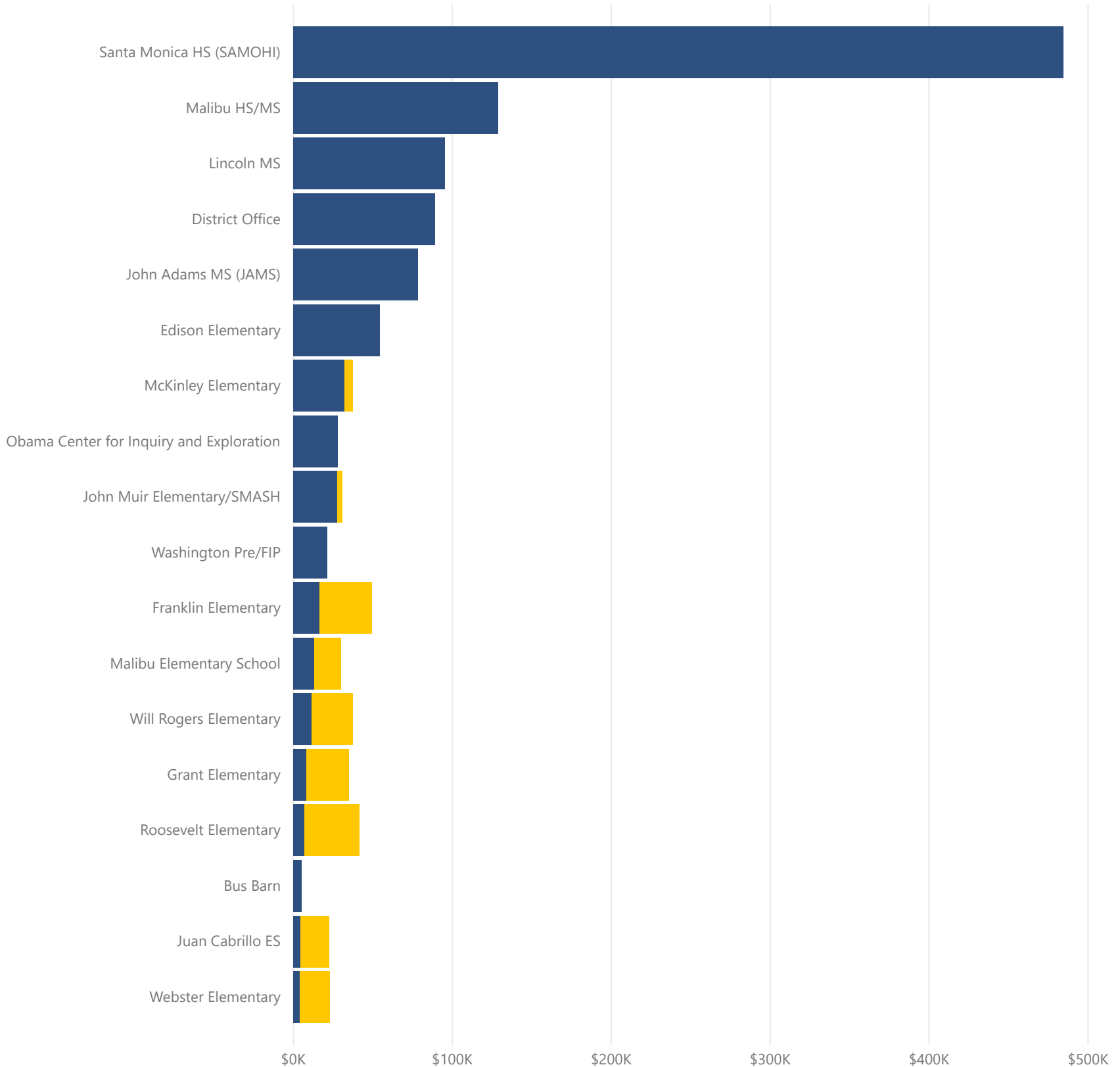
● Current Usage (FY 2019-20) kWh ● Solar Generation (kWh)



# Site Electric Energy Graph

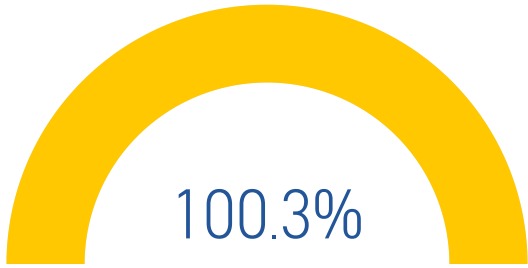
## Electricity Cost by Site

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



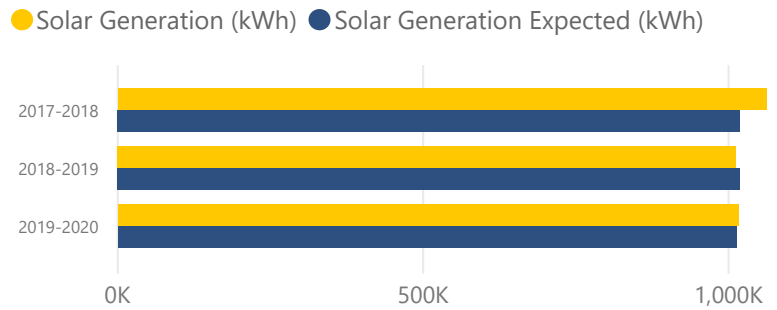
# Solar Performance

## % Solar Performance



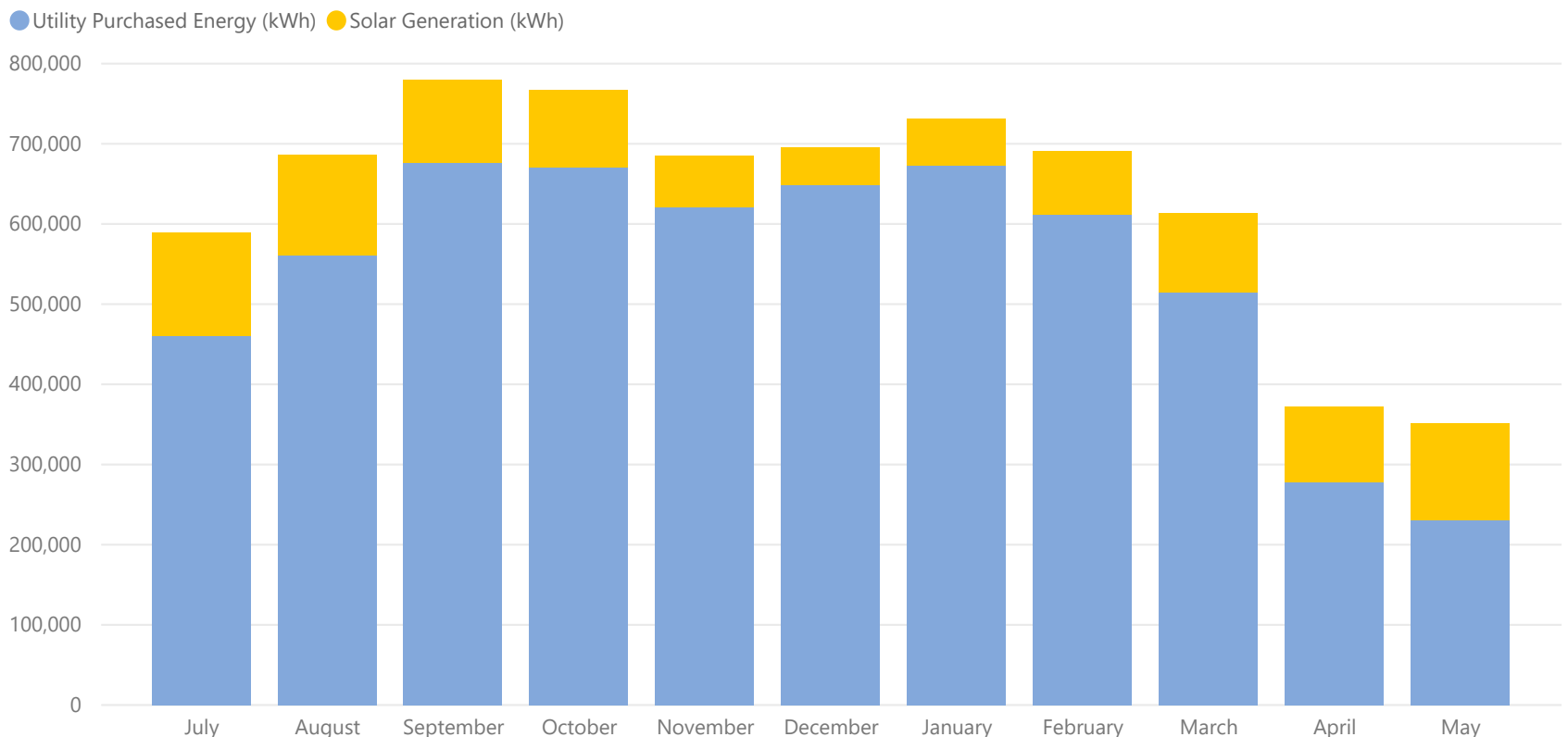
% **Solar Performance** is a percentage of total electricity provided by solar generation compared to the amount expected based on weather models.

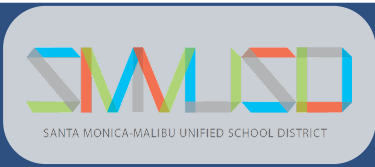
## Solar Generation By Fiscal Year



Site Name	Solar Generation (kWh)	Solar Performance (%)	Site Electric PPA Cost (\$)
Franklin Elementary	188,556	100.7%	\$32,674
Grant Elementary	146,955	98.4%	\$26,602
John Muir Elementary/SMASH	10,595	106.1%	\$3,263
Juan Cabrillo ES	107,319	114.4%	\$17,950
Malibu Elementary School	98,476	96.5%	\$16,889
McKinley Elementary	30,064	75.5%	\$5,130
Roosevelt Elementary	205,407	109.7%	\$34,379
Webster Elementary	113,424	108.6%	\$18,844
Will Rogers Elementary	115,298	83.1%	\$25,925
<b>Total</b>	<b>1,016,094</b>	<b>100.3%</b>	<b>\$181,658</b>

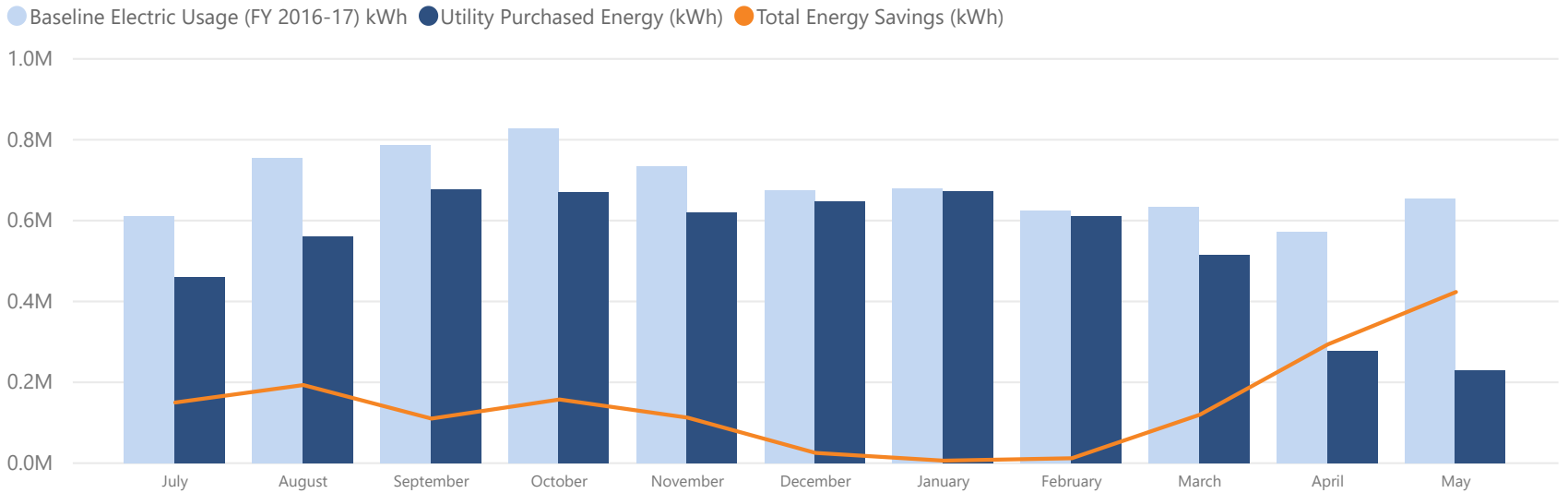
## Total Electric (kWh) by Month



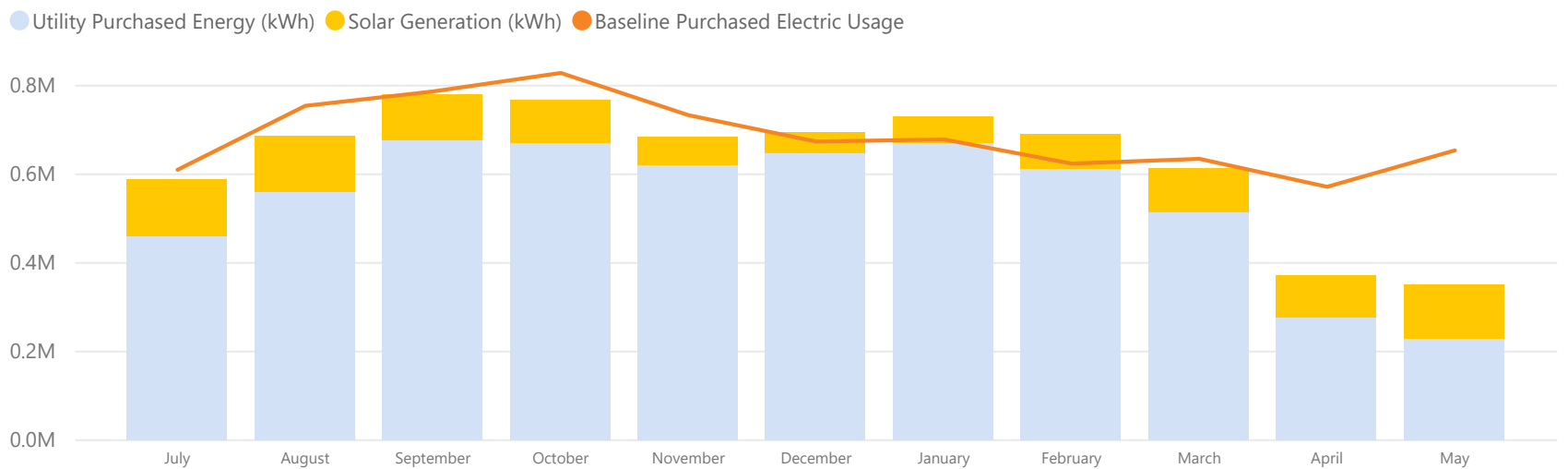


## Baseline (FY 2017-2018) vs Current (FY 2019-2020)

### 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)
8,611,937	6,961,463	\$0.1847	1,617,926
FY 17-18 Baseline Cost (\$)	FY 2019-20 Cost (\$)	Avoided Costs (\$)	Total Cost Savings (\$)
\$1,365,585	\$1,291,682	\$301,816	\$73,904

**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.

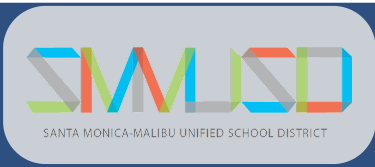
**Utility Rate (\$/kWh):** Cost (SCE and PPA) per kWh during the defined month range.

**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 - May)



### Electricity (\$) by FY (Jul - May)



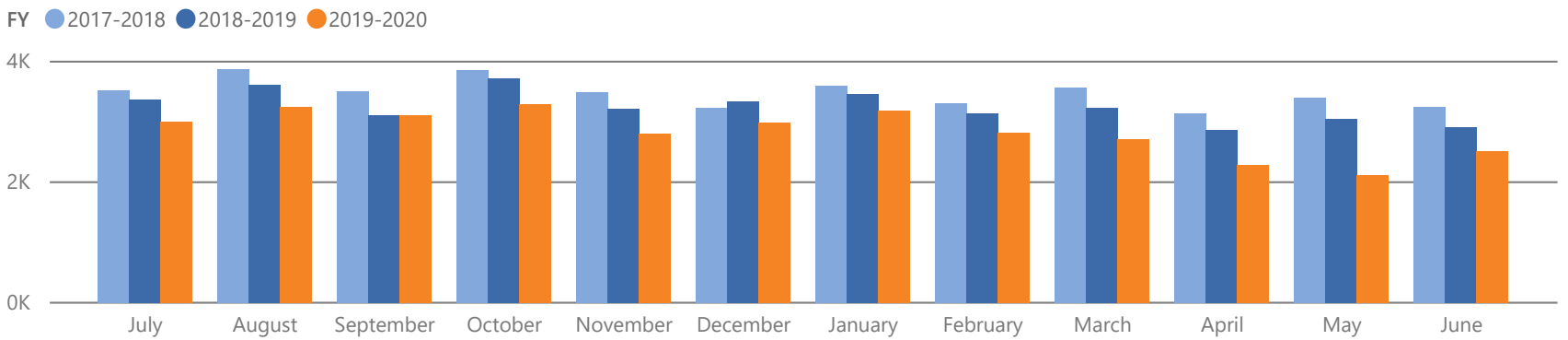
### (kWh) Savings vs Baseline YTD

6,948

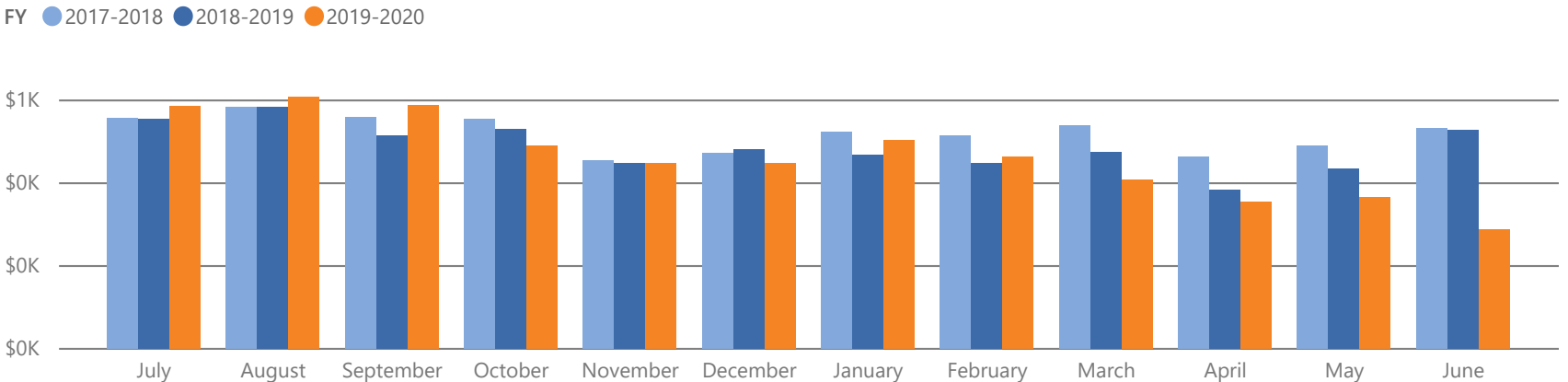
### (\$ Savings vs Baseline YTD

\$448

### Total Electric (kWh) by Month and Fiscal Year



### Total Electric Cost (\$) by Month



### Site Narrative

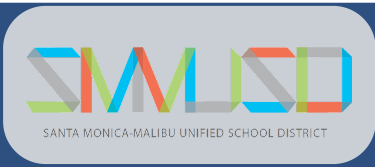
In FY 2019-20 from July through May, the Bus Barn showed a **decrease in electricity of about 6,948 kWh (18% reduction), yielding a cost decrease of \$448 (8% decrease) compared to FY 2017-18.** Part of the reason for this difference in percent energy vs cost savings is due to the rate increase resultant 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 \$1,158, based on the FY 2019-20 utility rate of \$0.1667/kWh.**

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

\*Note that latest month values are not accurate due to data being incomplete for the month.







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

## District Office : Energy Totals

### Electricity (kWh) by FY (Jul - May)

### Electricity (\$) by FY (Jul - May)

(kWh) Savings vs Baseline YTD

158,871

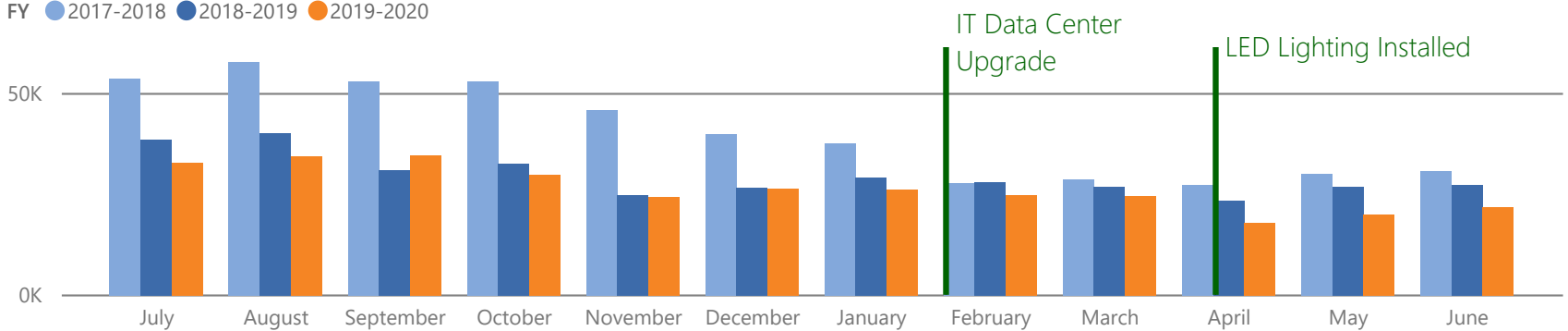
(\$ Savings vs Baseline YTD

\$2,545



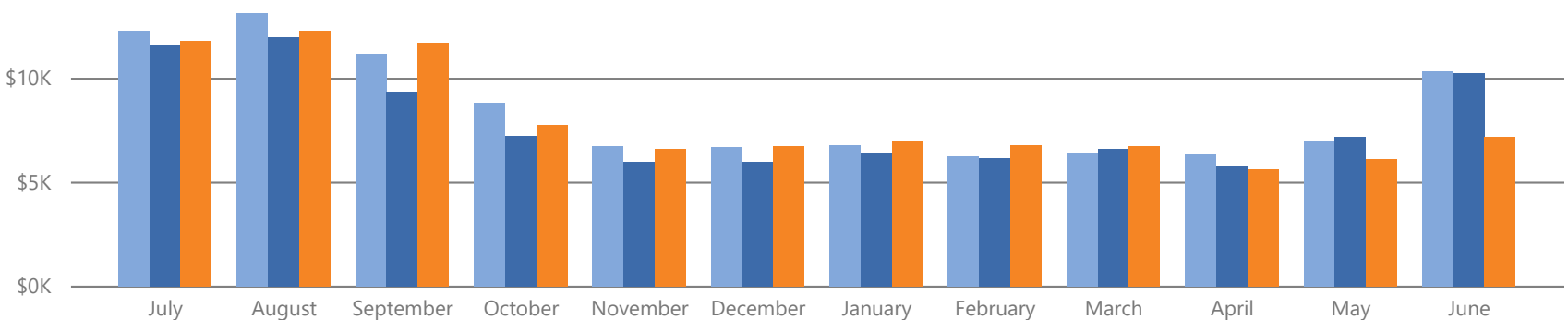
### Total Electric (kWh) by Month and Fiscal Year

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



### Total Electric Cost (\$) by Month

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



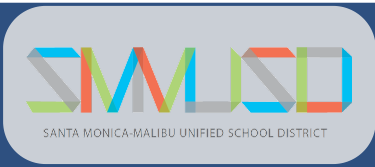
### Site Narrative

In FY 2019-20 from July through May, the District Office showed a **decrease in electricity of 158,871 kWh (35% reduction)**, yielding a **cost savings of about \$2,545 (3% 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 \$47,749, based on the FY 2019-20 utility rate of \$0.3006/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.





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

## Edison Elementary : Energy Totals

### Electricity (kWh) by FY (Jul - May)



### Electricity (\$) by FY (Jul - M...)



### (kWh) Savings vs Baseline YTD

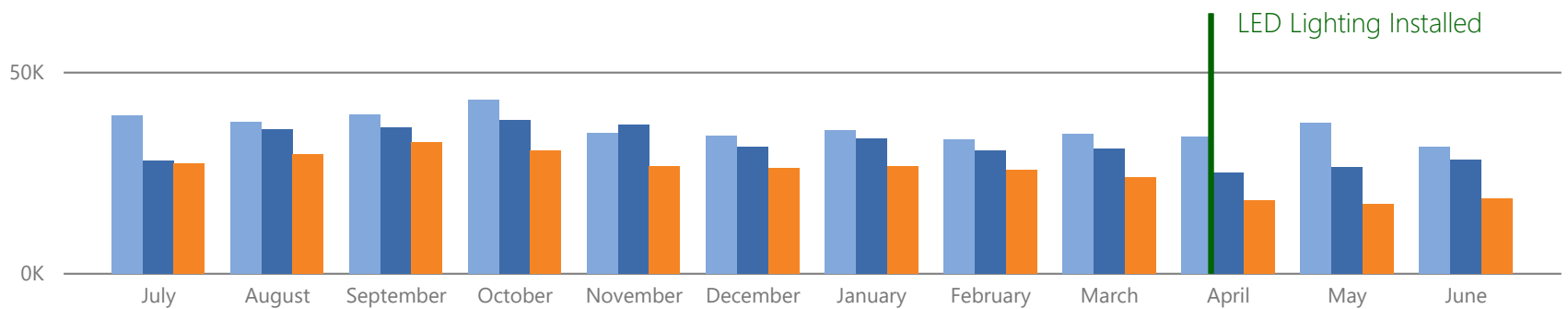
119,043

### (\$ Savings vs Baseline YTD

\$6,907

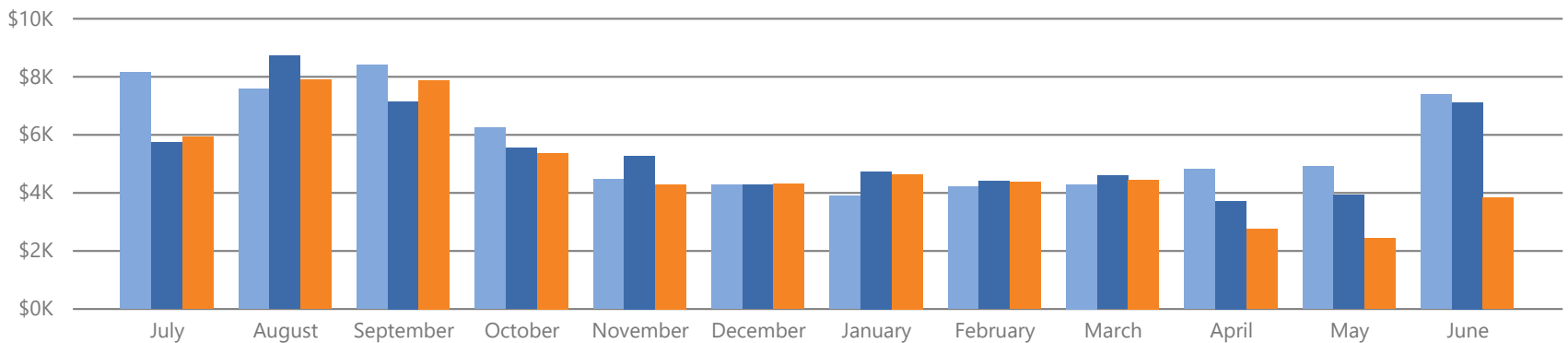
### Total Electric (kWh) by Month and Fiscal Year

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



### Total Electric Cost (\$) by Month

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



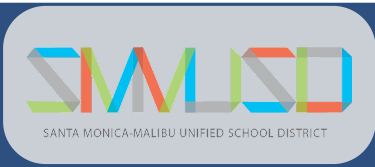
### Site Narrative

In FY 2019-20 from July through May, Edison Language Academy showed a **decrease in electricity of 119,043 kWh (29% reduction), yielding a cost savings of \$6,907 (11% 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 \$22,650, based on the FY 2019-20 utility rate of \$0.1903/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.



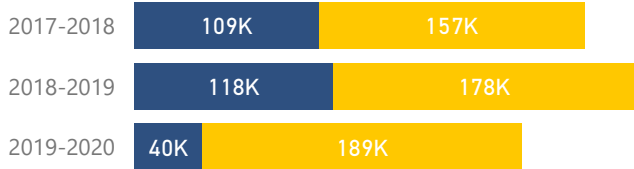


Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Franklin Elementary : Energy Totals

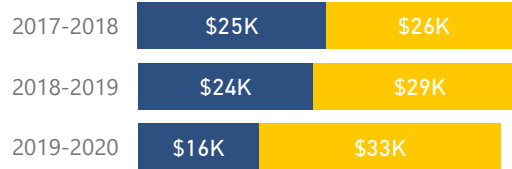
## Electricity (kWh) by FY (Jul - May)

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



## Electricity (\$) by FY (Jul - May)

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



## (kWh) Savings vs Baseline YTD

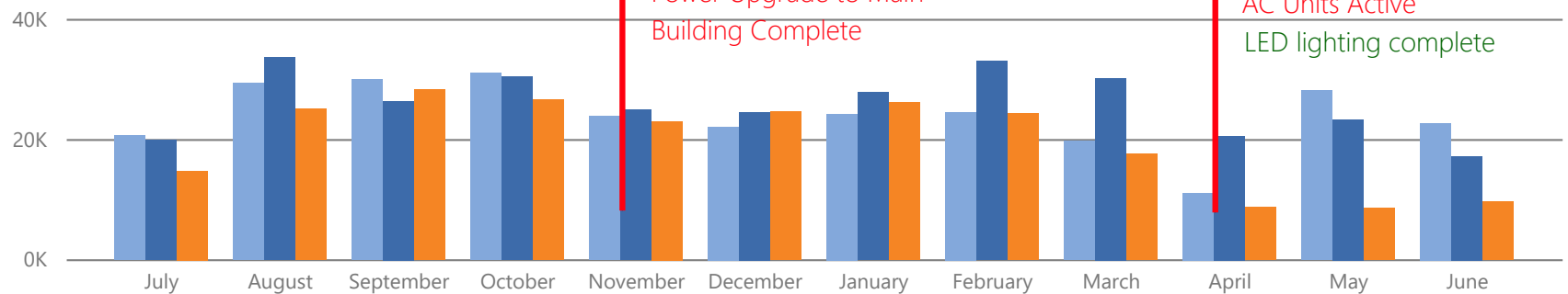
36,892

## (\$ Savings vs Baseline YTD

\$2,821

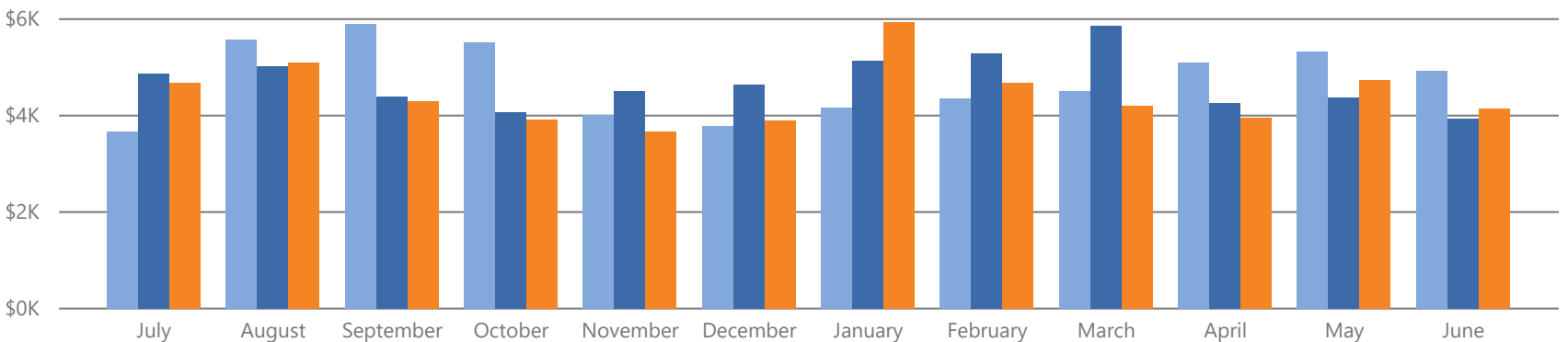
## Total Electric (kWh) by Month and Fiscal Year

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



## Total Electric Cost (\$) by Month

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



## Site Narrative

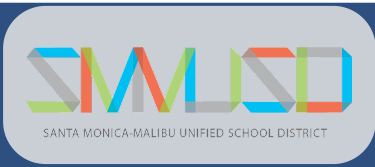
In FY 2019-20 from July through May, Franklin Elementary showed a decrease in electricity use of 36,892 kWh (14% decrease), yielding a cost savings of \$2,821 (5%) compared to FY 2017-18. This discrepancy may be a result of shifted peak energy usage and costs from solar generation. Since rate increases 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 \$7,907, based on the FY 2019-20 utility rate of \$0.2143/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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

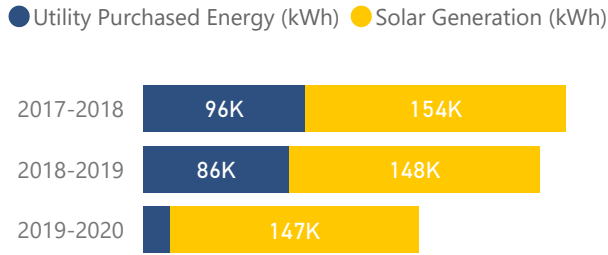




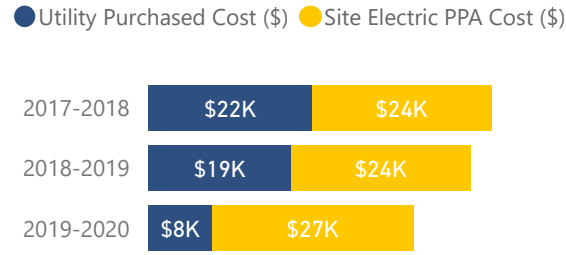
Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Grant Elementary : Energy Totals

## Electricity (kWh) by FY (Jul - May)



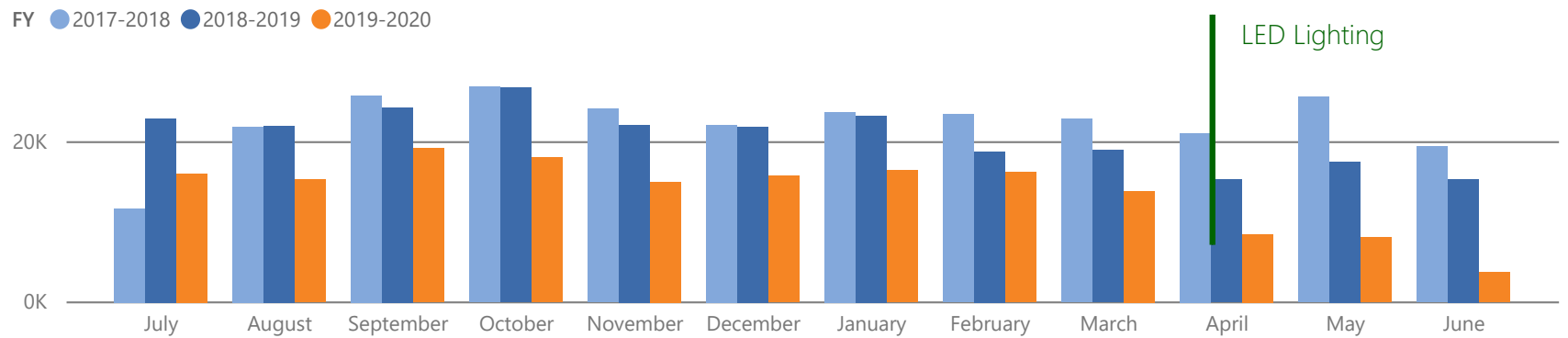
## Electricity (\$) by FY (Jul - May)



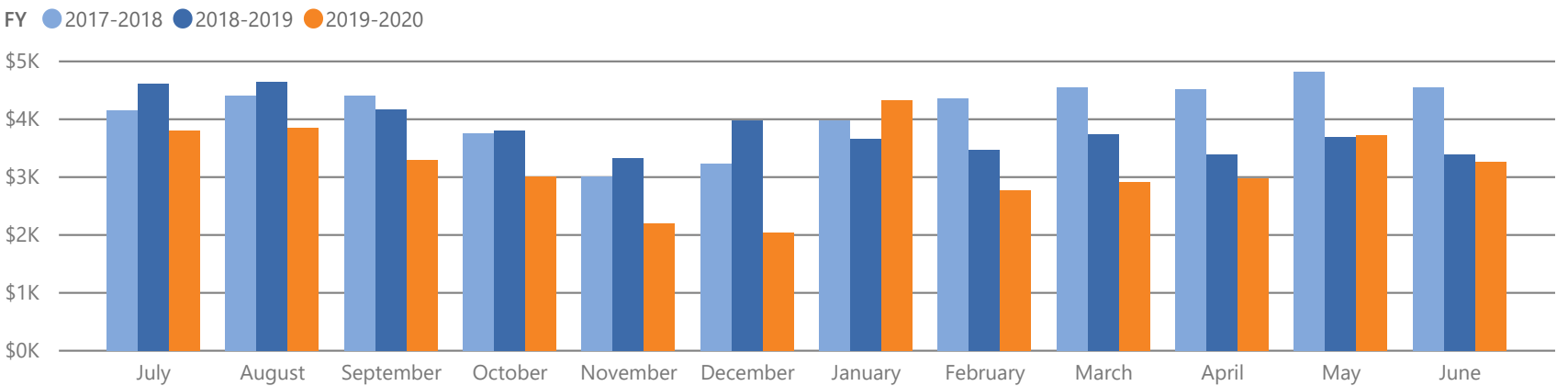
(kWh) Savings vs Baseline YTD  
**86,955**

(\$ Savings vs Baseline YTD  
**\$10,268**

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

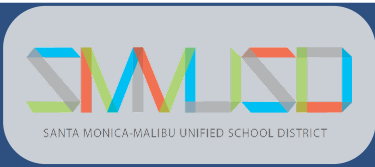
In FY 2019-20 from July through May, Grant Elementary showed a **decrease in electricity of 86,955 kWh (35% reduction)**, yielding a **cost savings of about \$10,268 (23% reduction)** compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice 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 \$18,664, based on the FY 2019-20 utility rate of \$0.2146/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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





# John Adams MS (JAMS) : Energy Totals

Electricity (kWh) by FY (Jul - Ma...

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

(kWh) Savings vs Baseline YTD

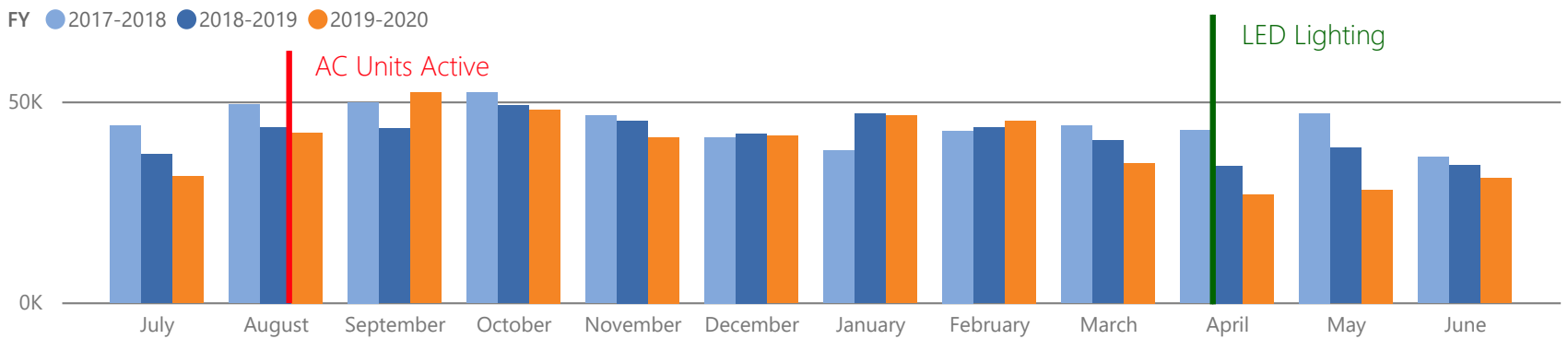
59,741

(\$ Savings vs Baseline YTD

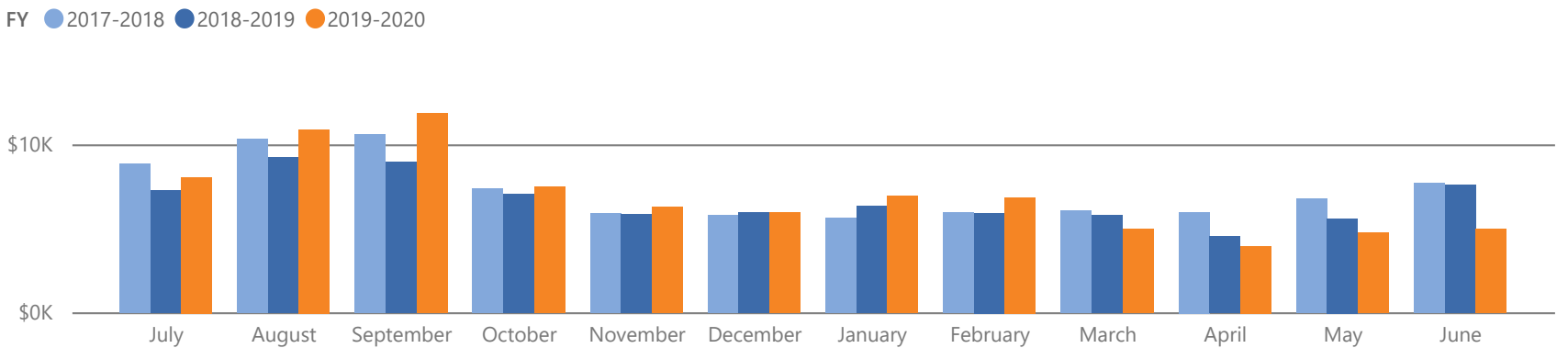
\$1,218



## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



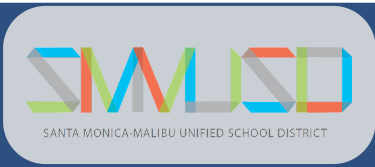
## Site Narrative

In FY 2019-20 from July through May, the John Adams Middle School showed a **decrease in electricity of 59,741 kWh (12% reduction)**, yielding a **cost decrease of \$1,218 (2% 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 \$10,653, based on the FY 2019-20 utility rate of \$0.1783/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

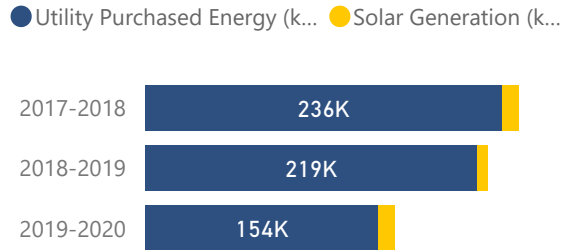




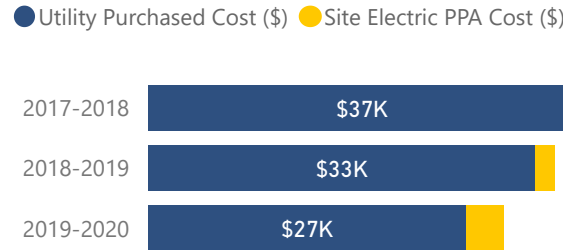
Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# John Muir Elementary/SMASH : Energy Totals

## Electricity (kWh) by FY (Jul - May)



## Electricity (\$) by FY (Jul - May)



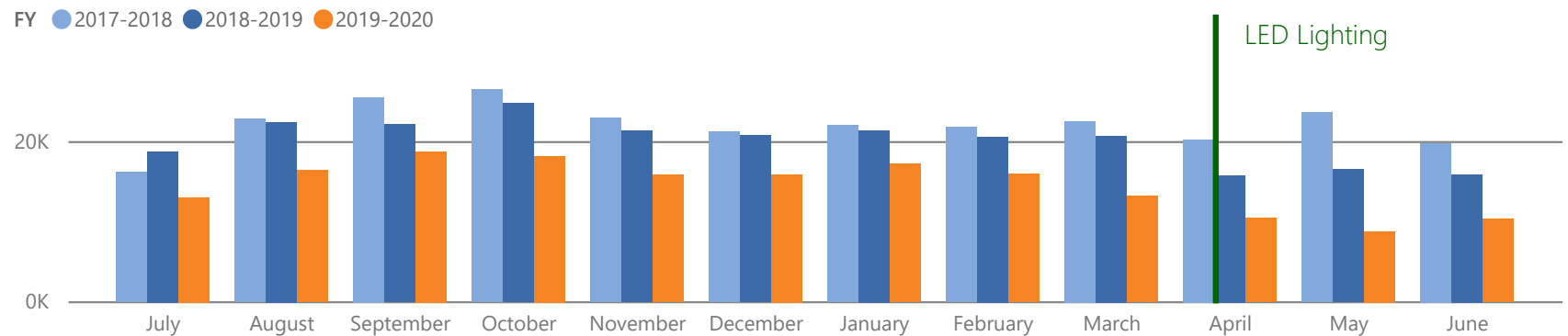
## (kWh) Savings vs Baseline YTD

81,645

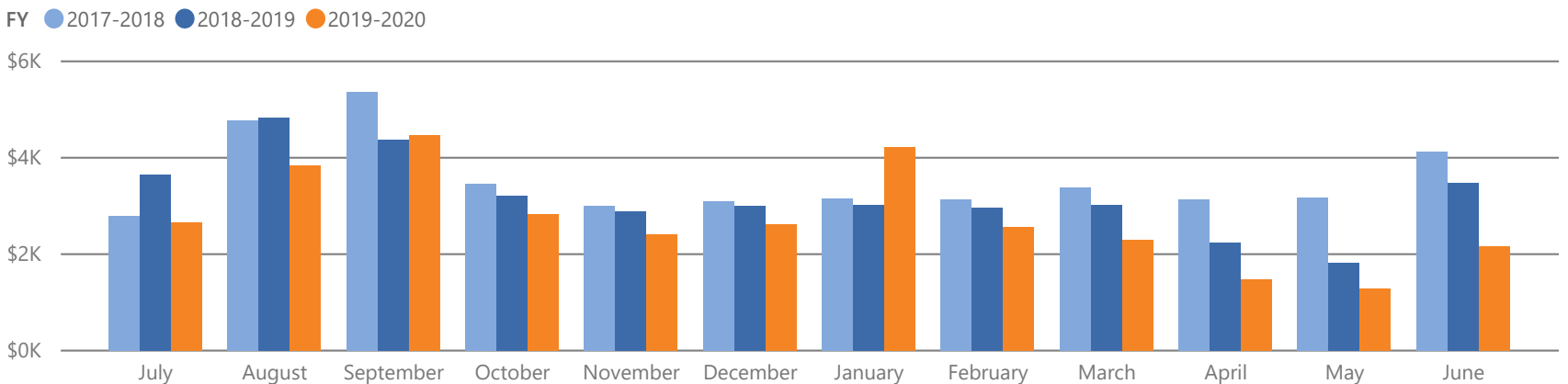
## (\$ Savings vs Baseline YTD

\$7,830

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

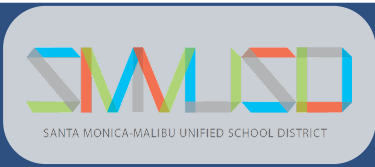
In FY 2019-20 from July through May, the John Muir/SMASH site showed a **decrease in electricity of 81,645 kWh (33% reduction), yielding a cost savings of about \$7,830 (20% reduction) compared to FY 2017-18.** Part of the reason for this difference in energy vs cost savings is due to the rate increase 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 \$15,228, based on the FY 2019-20 utility rate of \$0.1865/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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



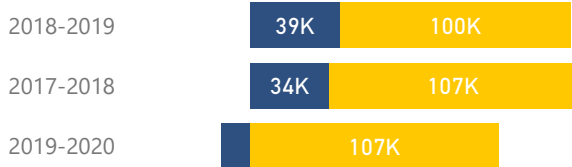


Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Juan Cabrillo ES : Energy Totals

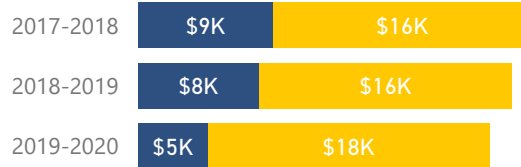
## Electricity (kWh) by FY (Jul - May)

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



## Electricity (\$) by FY (Jul - May)

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



All (kWh) Savings vs Baseline YTD

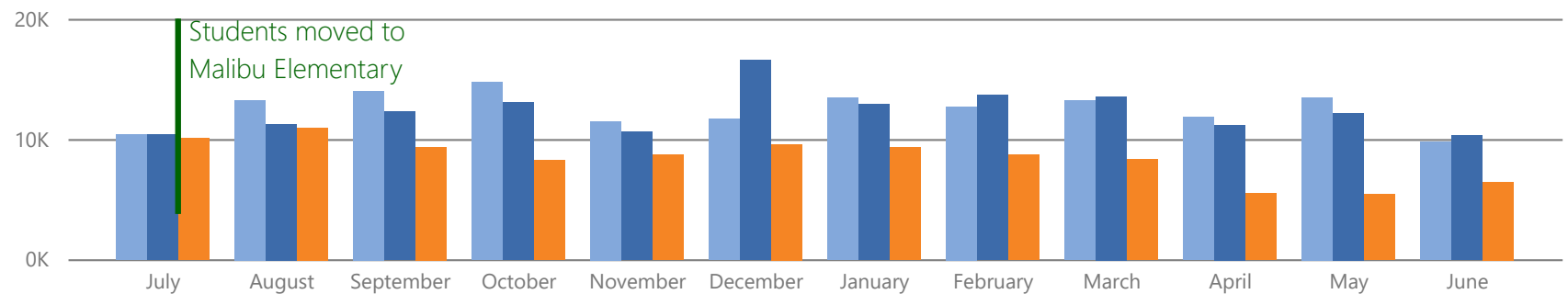
46,082

(\$ Savings vs Baseline YTD)

\$2,653

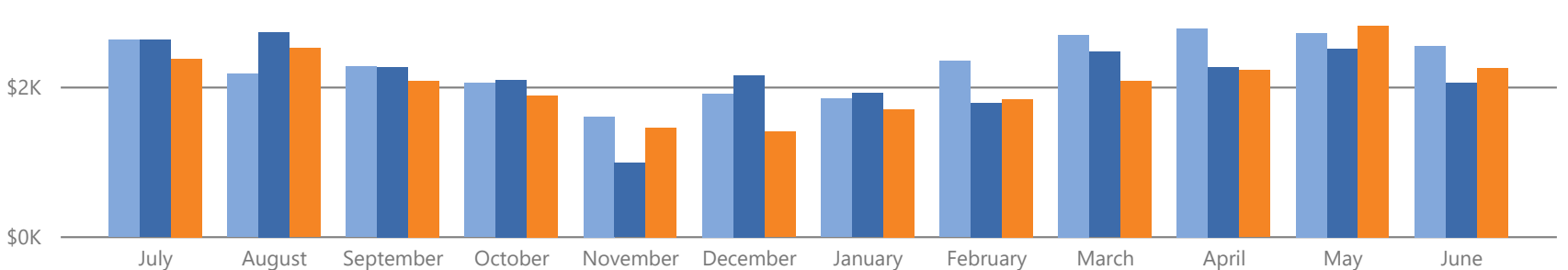
## Total Electric (kWh) by Month and Fiscal Year

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 May, the John Muir/SMASH site showed a decrease in electricity of 46,082 kWh (33% reduction), yielding a cost savings of about \$2,653 (11% 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 \$10,904, based on the FY 2019-20 utility rate of \$0.2366/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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



# Lincoln MS : Energy Totals

## Electricity (kWh) by FY (Jul - M...)



## Electricity (\$) by FY (Jul - May)



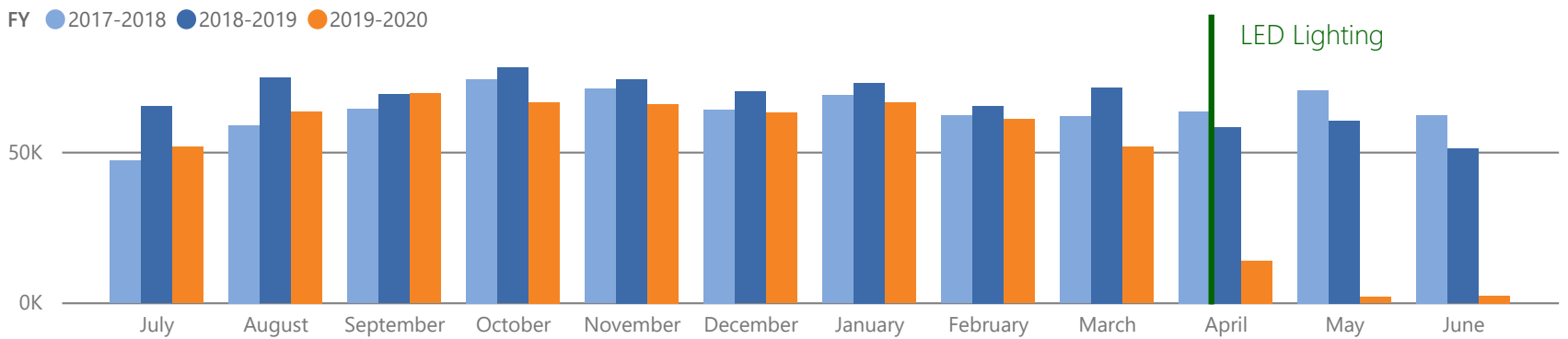
## (kWh) Savings vs Baseline YTD

131,405

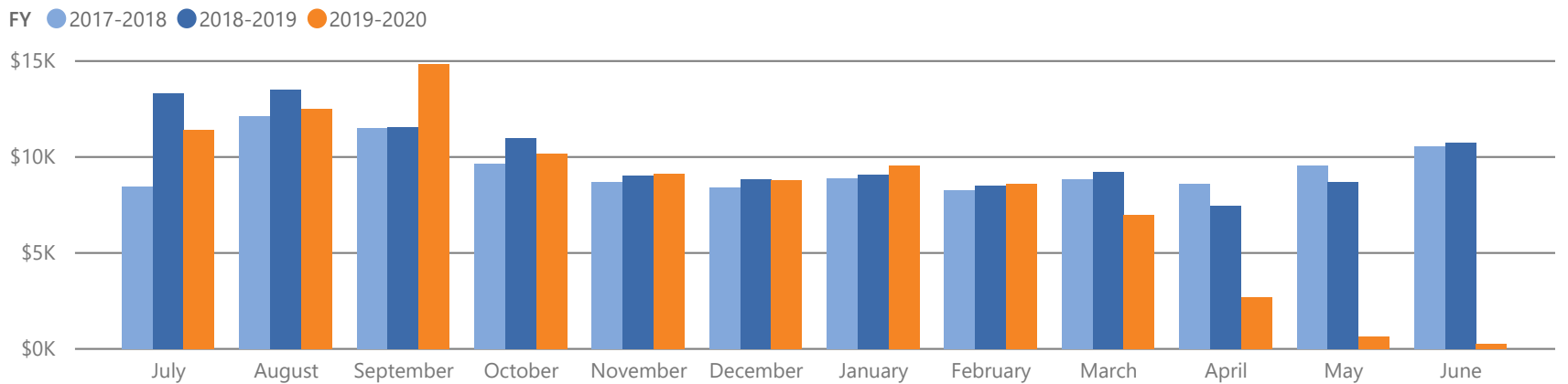
## (\$ Savings vs Baseline YTD

\$7,683

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

In FY 2019-20 from July through May, Lincoln MS showed an decrease in electricity of 131,405 kWh (19% increase), yielding an cost savings of \$7,683 (7% increase) 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 \$21,730, based on the FY 2019-20 utility rate of \$0.1654/kWh.**

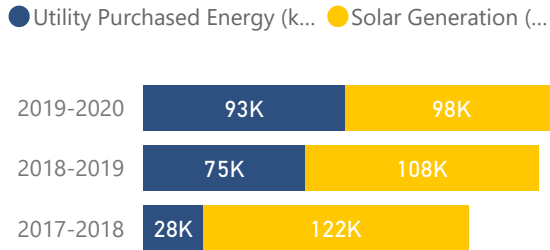
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Lincoln Middle School completed installation of interior LED lighting in April 2019, which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

\*Note that latest month values are not accurate due to data being incomplete for the month.

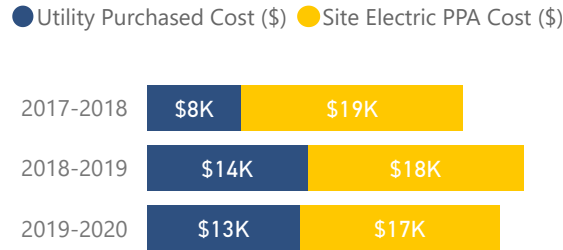


# Malibu Elementary School : Energy Totals

## Electricity (kWh) by FY (Jul - M...)



## Electricity (\$) by FY (Jul - May)



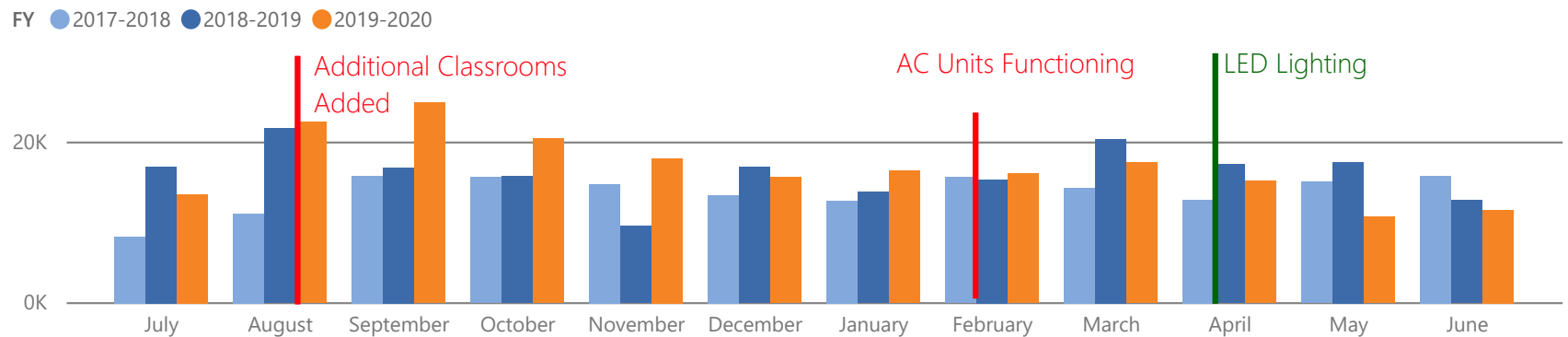
## (kWh) Savings vs Baseline YTD

**-41,442**

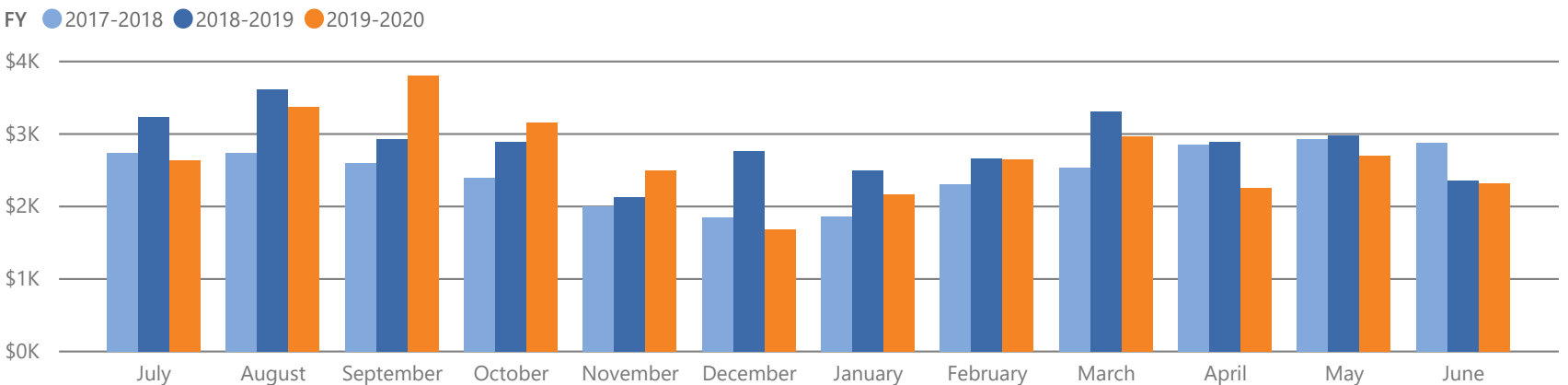
## (\$ Savings vs Baseline YTD

**(\$3,075)**

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



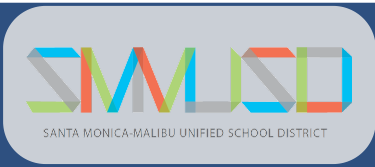
## Site Narrative

In FY 2019-20 from July through May, Malibu Elementary (previously Point Dume Elementary) showed an increase in electricity of 41,442 kWh (28% increase), increasing costs by \$3,075 (11% increase) compared to FY 2017-18 .

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. However, during the recent year, student from Juan Cabrillo Elementary were transferred to Malibu Elementary and additional portable classrooms were added. In addition, AC units were added and operational as of February 2019, significantly increasing energy consumption.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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



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

# Malibu HS/MS : Energy Totals

Electricity (kWh) by FY (Jul - May)

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

(kWh) Savings vs Baseline YTD



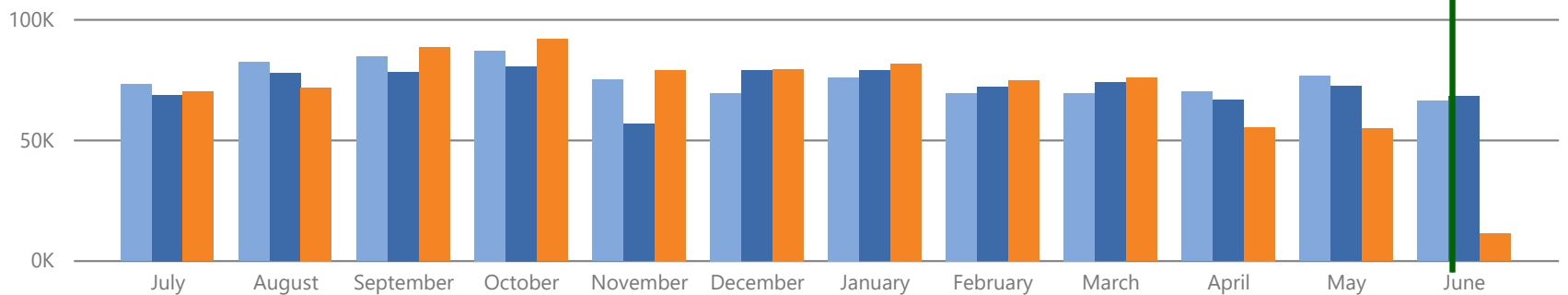
9,402

(\$ Savings vs Baseline YTD

\$565

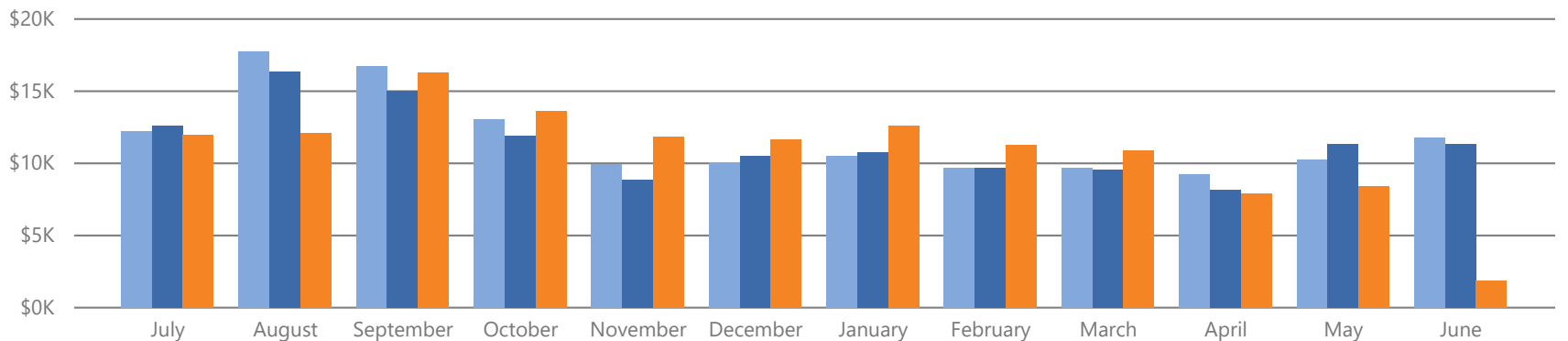
## Total Electric (kWh) by Month and Fiscal Year

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



## Total Electric Cost (\$) by Month

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



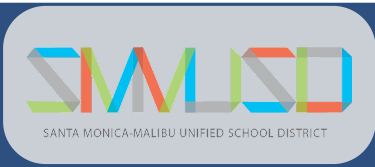
## Site Narrative

In FY 2019-20 from July through May, Malibu HS/MS showed an decrease in electricity of 9,402 kWh (1% increase), yielding a cost decrease of \$565 (%0 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 \$1,467, based on the FY 2019-20 utility rate of \$0.1561/kWh.

At Malibu HS/MS, there has been significant construction starting June 2019, which has led to inconsistent billing cycles. This site is to be combined with Juan Cabrillo Elementary in the following Fiscal year once construction is completed.

\*Note that latest month values are not accurate due to data being incomplete for the month.

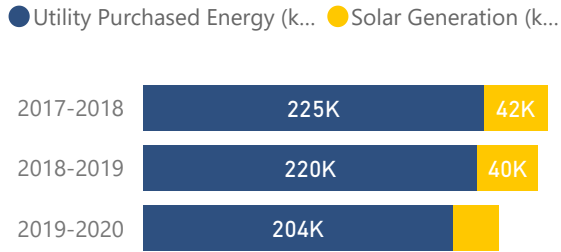




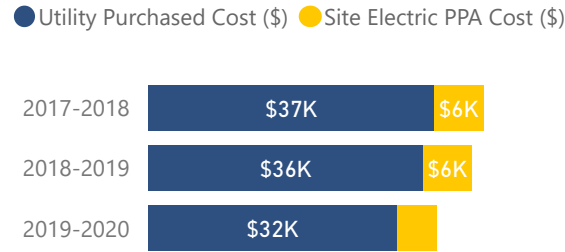
Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# McKinley Elementary : Energy Totals

## Electricity (kWh) by FY (Jul - May)



## Electricity (\$) by FY (Jul - May)



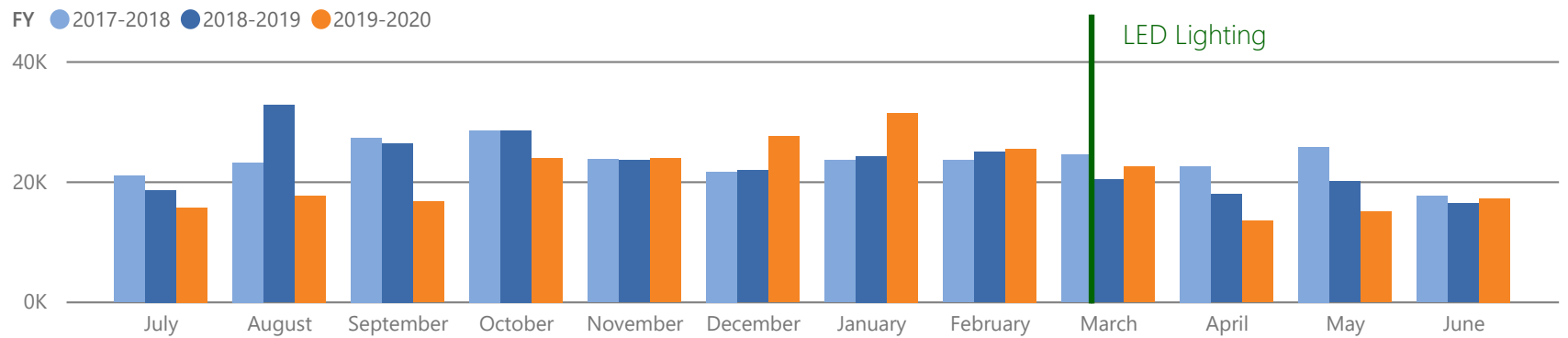
(kWh) Savings vs Baseline YTD

**32,111**

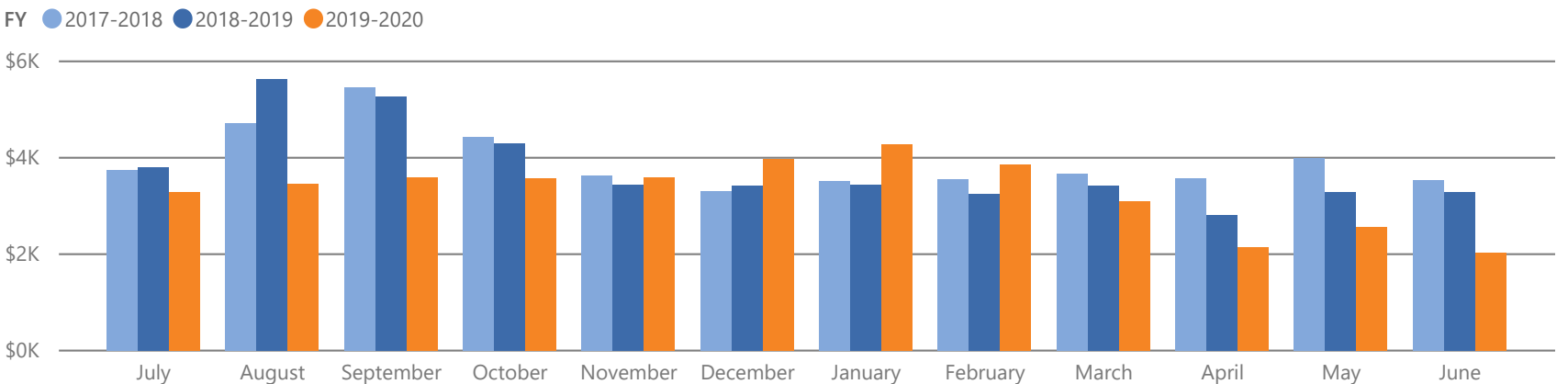
(\$ Savings vs Baseline YTD

**\$6,157**

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

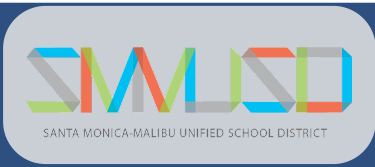
In FY 2019-20 from July through May, McKinley Elementary showed a **decrease in electricity of 32,111 kWh (12% reduction)**, yielding a **decrease in costs of \$6,157 (14% decrease)** compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh).

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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





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

# Obama Center for Inquiry and Exploration : Energy Totals

## Electricity (kWh) by FY (Jul - May)

## Electricity (\$) by FY (Jul - May)

## (kWh) Savings vs Baseline YTD

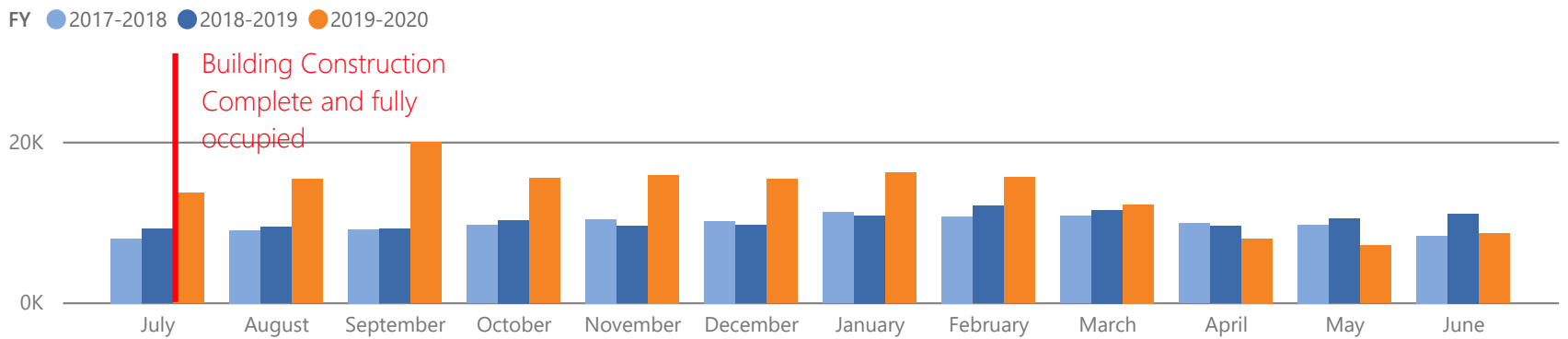
**-46,259**

## (\$ Savings vs Baseline YTD

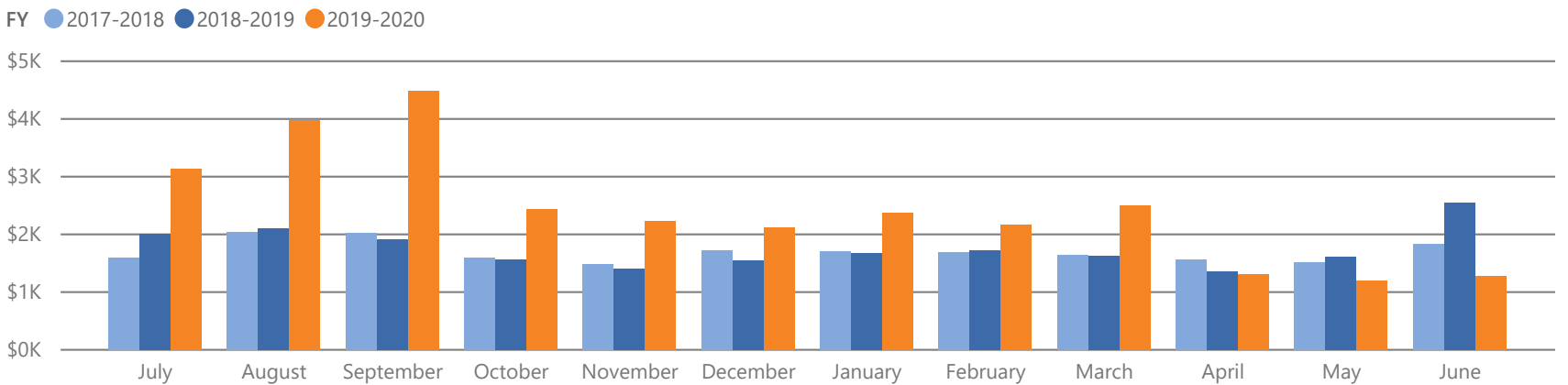
**(\$9,322)**



## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



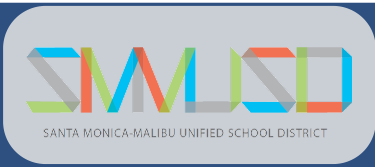
## Site Narrative

In FY 2019-20 from July through May, the Michelle and Barack Obama Center for Inquiry and Exploration (previously Olympic HS) showed an **increase in electricity of 46,259 kWh (42% increase)**, **increasing utility costs by \$9,322 (50% 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. Now that the site is in full use compared to the baseline year, energy usage is expected to increase.

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

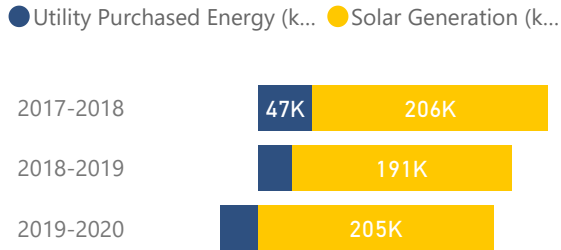




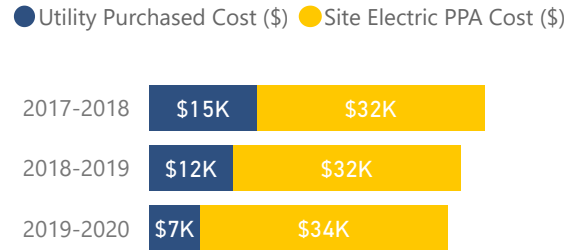
Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Roosevelt Elementary : Energy Totals

## Electricity (kWh) by FY (Jul - May)



## Electricity (\$) by FY (Jul - May)



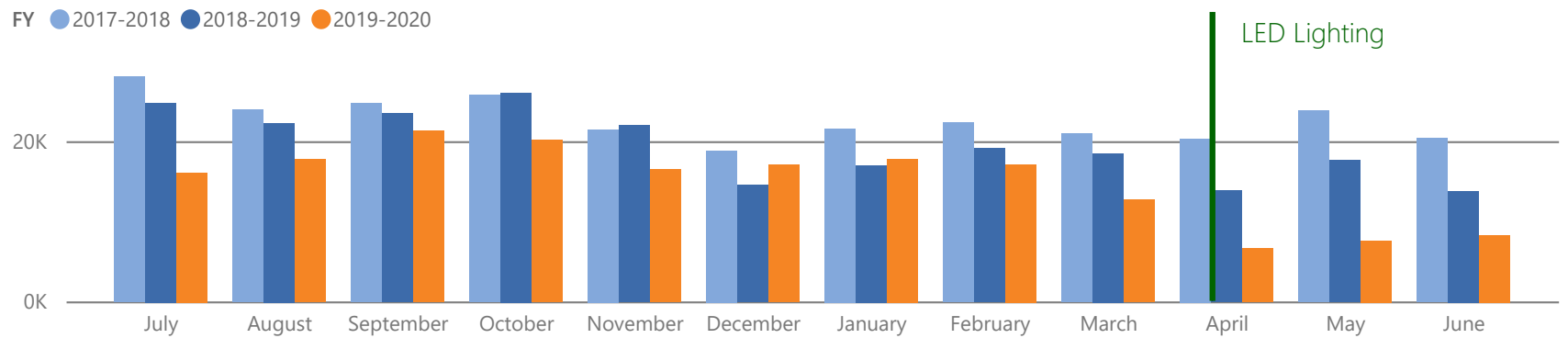
## (kWh) Savings vs Baseline YTD

81,027

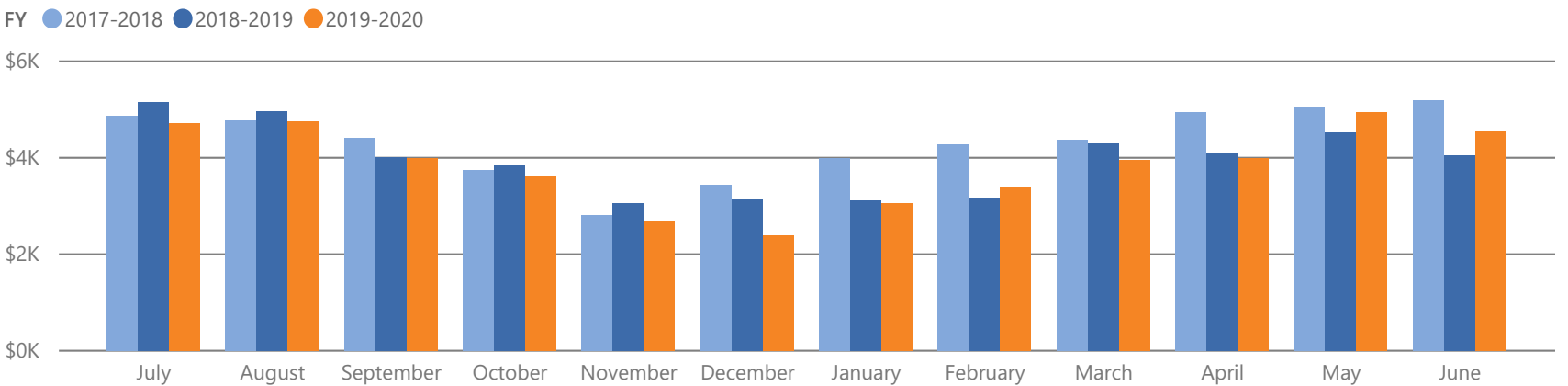
## (\$ Savings vs Baseline YTD

\$5,156

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

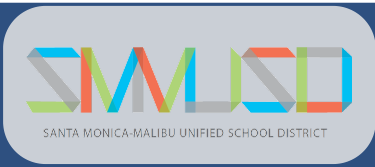
In FY 2019-20 from July through May, Roosevelt Elementary showed a **decrease in electricity of 81,027 kWh (32% reduction), yielding a cost savings of about \$5,156 (11% reduction) compared to FY 2017-18.** Since rate increases have occurred both through SCE and with the addition of Community Choice 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 \$19,570, based on the FY 2019-20 utility rate of \$0.2415/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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





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

# Santa Monica HS (SAMOHI) : Energy Totals

## Electricity (kWh) by FY (Jul - M...)

## Electricity (\$) by FY (Jul - May)

## (kWh) Savings vs Baseline YTD

735,608

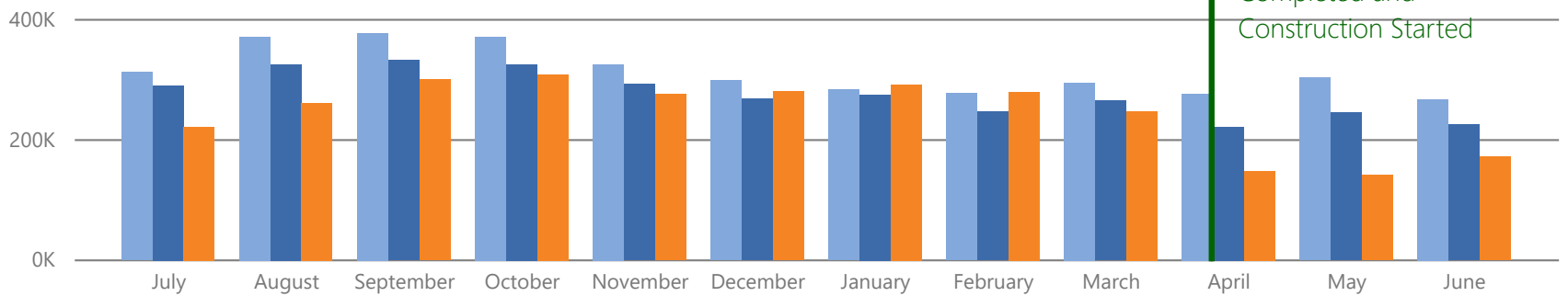
## (\$ Savings vs Baseline YTD

\$24,560



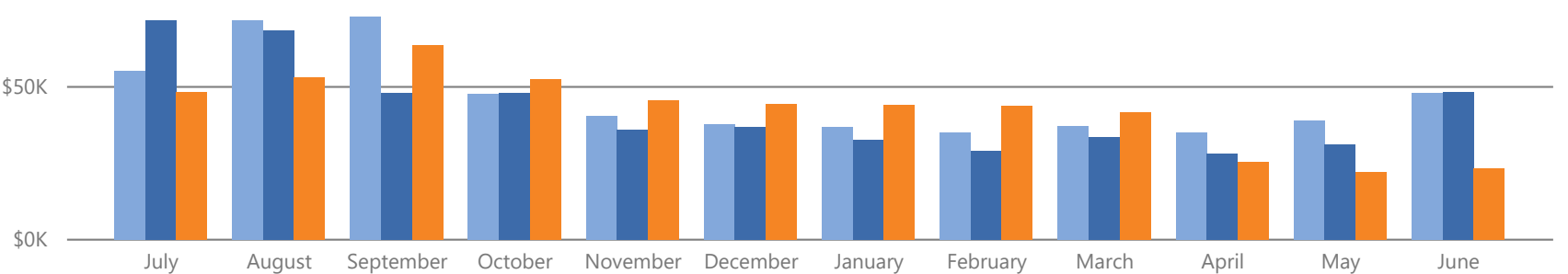
## Total Electric (kWh) by Month and Fiscal Year

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



## Total Electric Cost (\$) by Month

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



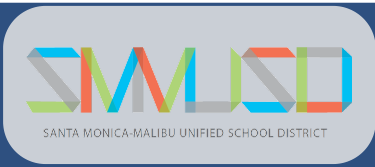
## Site Narrative

In FY 2019-20 from July through May, Santa Monica HS showed a decrease in electricity of 735,608 kWh (21% reduction), yielding a cost savings of about \$24,560 (5% 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 \$129,150, based on the FY 2019-20 utility rate of \$0.1756/kWh.**

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.





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

## Washington Pre/FIP : Energy Totals

Electricity (kWh) by FY (Jul - M...

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

(kWh) Savings vs Baseline YTD

**-7,467**

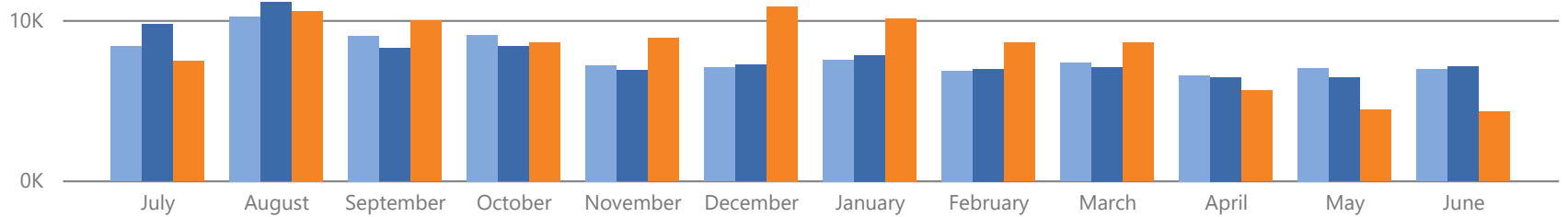
(\$ Savings vs Baseline YTD

**(\$4,427)**



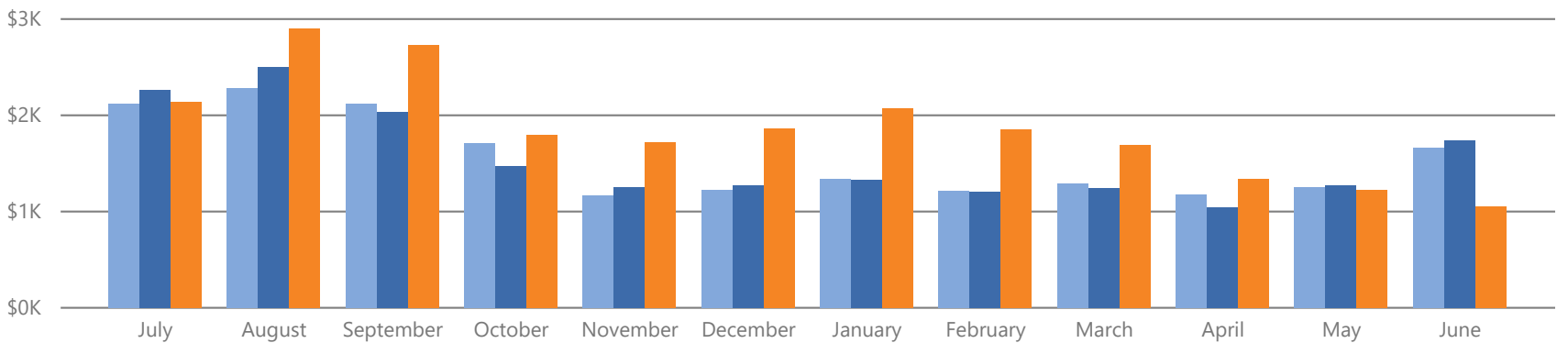
## Total Electric (kWh) by Month and Fiscal Year

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



## Total Electric Cost (\$) by Month

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

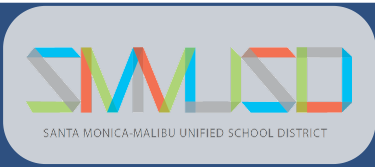


## Site Narrative

In FY 2019-20 from July through May, the Washington Pre-school/FIP Office showed an increase in electricity of 7,467 kWh (9% increase), increasing utility costs by \$4,427 (26% increase) compared to FY 2017-18.

\*Note that latest month values are not accurate due to data being incomplete for the month.

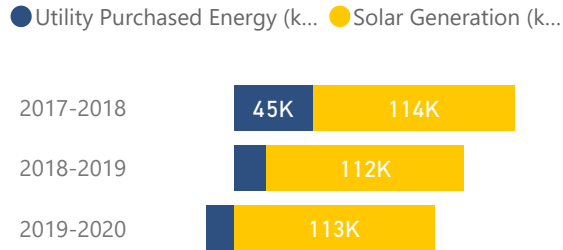




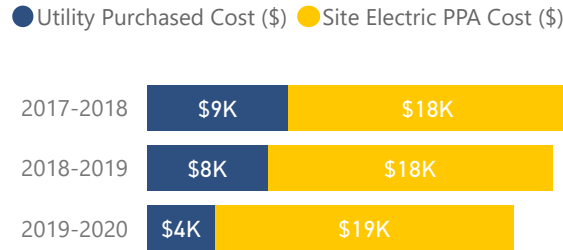
Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Webster Elementary : Energy Totals

## Electricity (kWh) by FY (Jul - Ma...



## Electricity (\$) by FY (Jul - May)



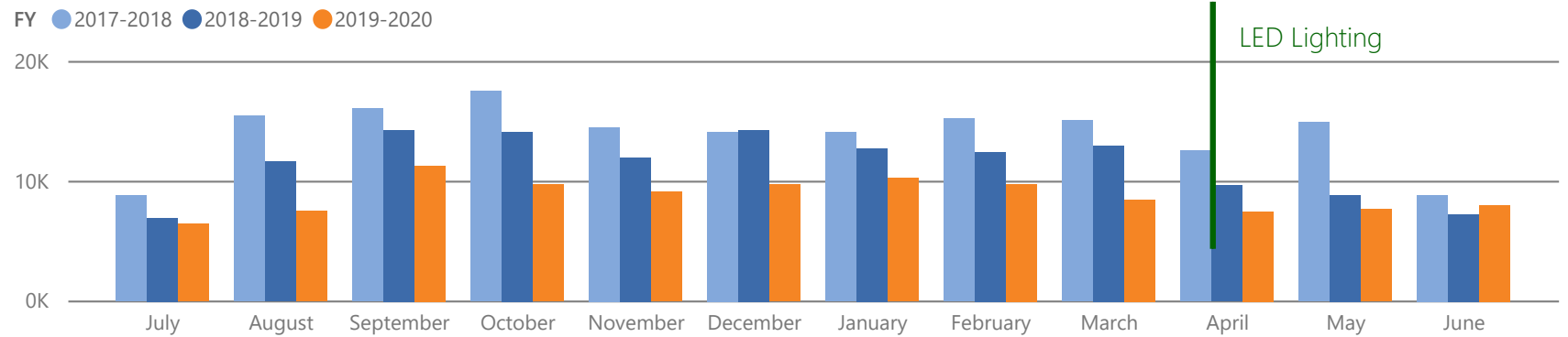
## (kWh) Savings vs Baseline YTD

60,957

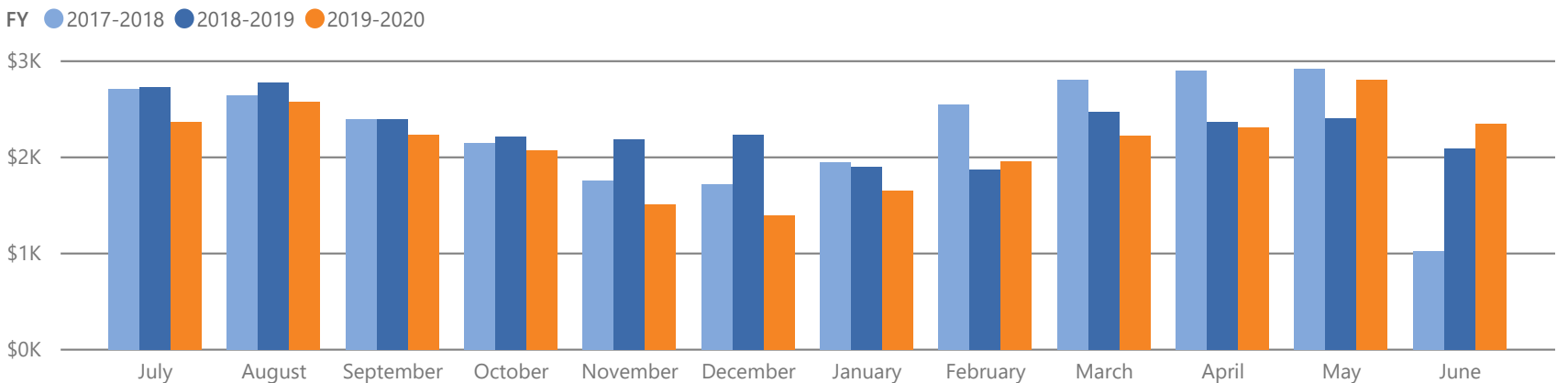
## (\$ Savings vs Baseline YTD

\$3,379

## Total Electric (kWh) by Month and Fiscal Year



## Total Electric Cost (\$) by Month



## Site Narrative

In FY 2019-20 from July through May, Webster Elementary showed a decrease in electricity of 60,957 kWh (38% reduction), yielding a cost decrease of \$3,379 (13% 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 \$14,402, based on the FY 2019-20 utility rate of \$0.2363/kWh.

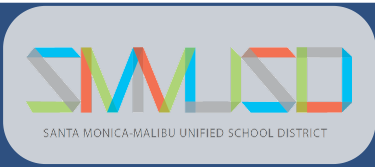
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. Webster Elementary School completed installation of interior LED lighting in April 2019,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

\*Note that latest month values are not accurate due to data being incomplete for the month.

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





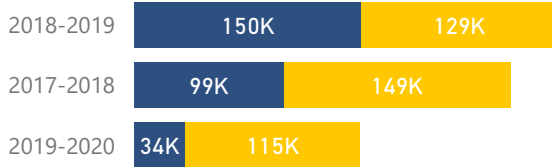


Month Range: Jul - May  
 Current Fiscal Year: 2019-2020  
 Baseline Fiscal Year: 2017-2018

# Will Rogers Elementary : Energy Totals

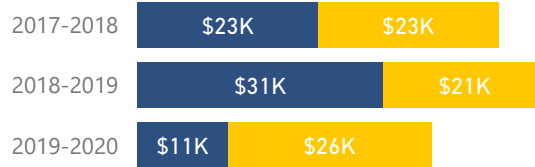
## Electricity (kWh) by FY (Jul - May)

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



## Electricity (\$) by FY (Jul - May)

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



## (kWh) Savings vs Baseline YTD

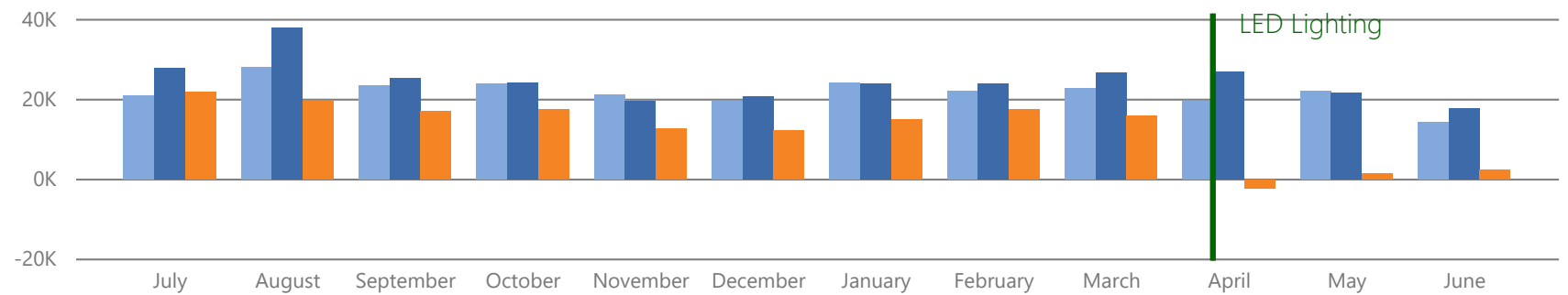
66,410

## (\$ Savings vs Baseline YTD

\$8,537

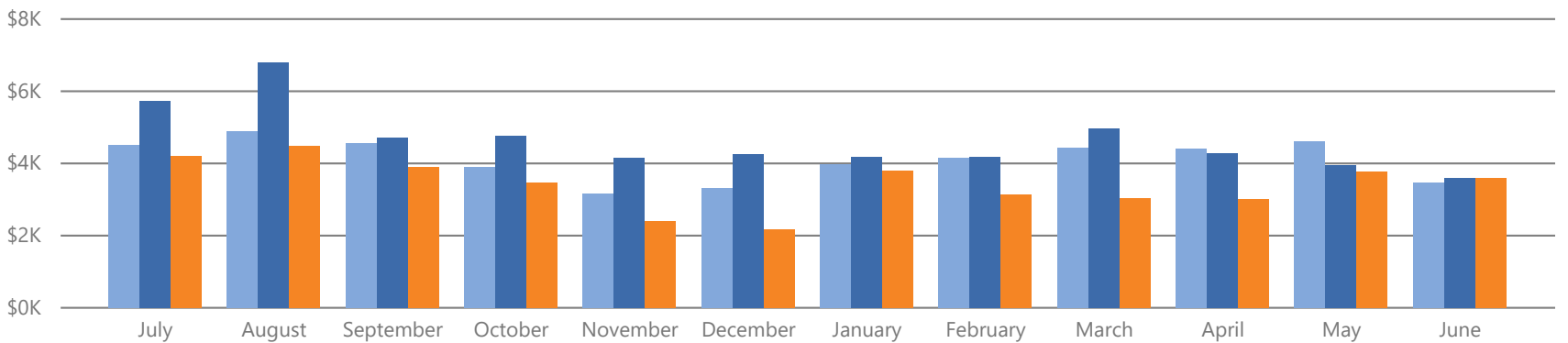
## Total Electric (kWh) by Month and Fiscal Year

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 May, Will Rogers Elementary showed a reduction in electricity of 66,410 kWh (27% decrease), decreasing SCE costs by \$8,537 (19% 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 \$13,666, based on the FY 2019-20 utility rate of \$0.2058/kWh.

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.

\*Note that latest month values are not accurate due to data being incomplete for the month.

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

