



SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT

## Energy Assessment Report

FY 2020-21 Quarter 1 (July 2020 - Oct 2020)

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Prepared on:

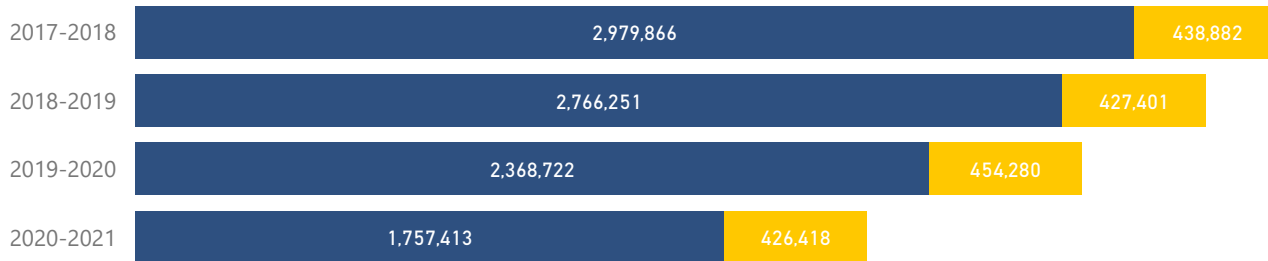
12/11/2020



## District Electric Energy Totals

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

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

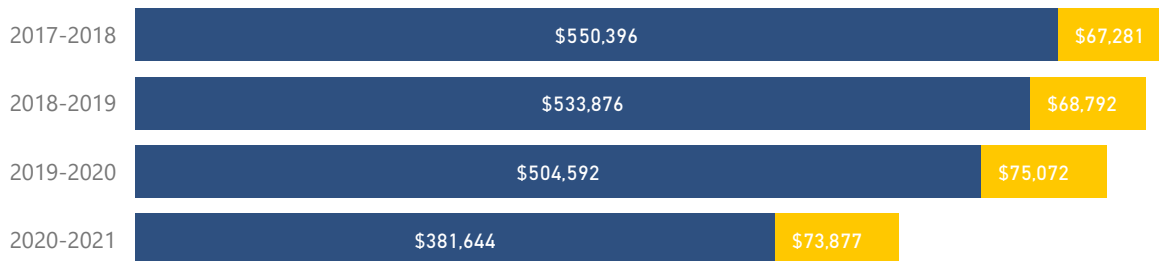


kWh Savings vs FY 17-18 YTD

**1,180,839**

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

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

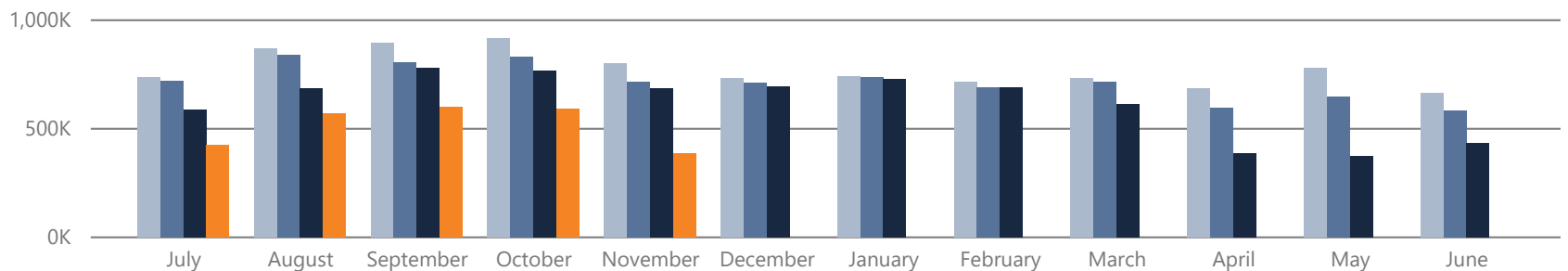


Total Cost Savings vs FY 17-18 YTD

**153,072**

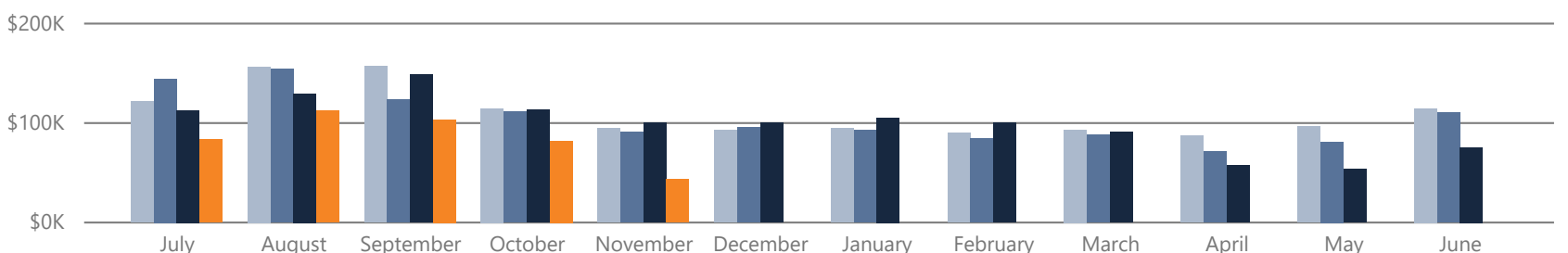
### Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021

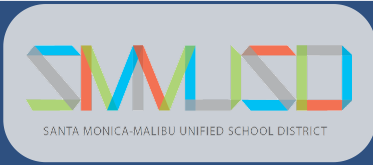


### Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



The kWh and cost savings are adjusted based on bill data available.



## 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                                 | 11,740                         |                        | 11,740               | \$2,259                     |                        | \$2,259                  |
| District Office                          | 104,059                        |                        | 104,059              | \$38,360                    |                        | \$38,360                 |
| Edison Elementary                        | 82,372                         |                        | 82,372               | \$18,828                    |                        | \$18,828                 |
| Franklin Elementary                      | 10,720                         | 74,171                 | 84,891               | \$2,950                     | \$12,849               | \$15,799                 |
| Grant Elementary                         | -9,555                         | 58,837                 | 49,282               | \$2,120                     | \$10,197               | \$12,316                 |
| John Adams MS (JAMS)                     | 135,105                        |                        | 135,105              | \$31,745                    |                        | \$31,745                 |
| John Muir Elementary/SMASH               | 41,058                         | 4,416                  | 45,475               | \$8,062                     | \$766                  | \$8,828                  |
| Juan Cabrillo ES                         | -6,287                         | 43,482                 | 37,195               | \$1,747                     | \$7,531                | \$9,278                  |
| Lincoln MS                               | 152,973                        |                        | 152,973              | \$25,582                    |                        | \$25,582                 |
| Malibu Elementary School                 | 15,926                         | 47,239                 | 63,165               | \$2,395                     | \$8,186                | \$10,580                 |
| Malibu HS/MS                             | 234,937                        |                        | 234,937              | \$41,088                    |                        | \$41,088                 |
| McKinley Elementary                      | 63,178                         | 16,196                 | 79,374               | \$13,406                    | \$2,798                | \$16,204                 |
| Obama Center for Inquiry and Exploration | 39,710                         |                        | 39,710               | \$8,401                     |                        | \$8,401                  |
| Roosevelt Elementary                     | -42,942                        | 80,515                 | 37,574               | \$1,456                     | \$13,948               | \$15,404                 |
| Santa Monica HS (SAMOHI)                 | 911,040                        |                        | 911,040              | \$170,288                   |                        | \$170,288                |
| Washington Pre/FIP                       | 23,826                         |                        | 23,826               | \$7,805                     |                        | \$7,805                  |
| Webster Elementary                       | -14,639                        | 44,100                 | 29,462               | \$843                       | \$7,639                | \$8,482                  |
| Will Rogers Elementary                   | 4,191                          | 57,462                 | 61,653               | \$4,310                     | \$9,964                | \$14,274                 |
| <b>Total</b>                             | <b>1,757,413</b>               | <b>426,418</b>         | <b>2,183,831</b>     | <b>\$381,644</b>            | <b>\$73,877</b>        | <b>\$455,521</b>         |

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

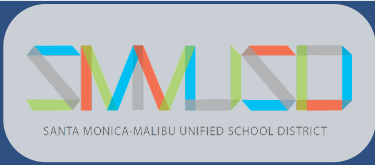
**Solar Generation (kWh):** Quantity of electricity produced by the solar photovoltaic panels

**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)

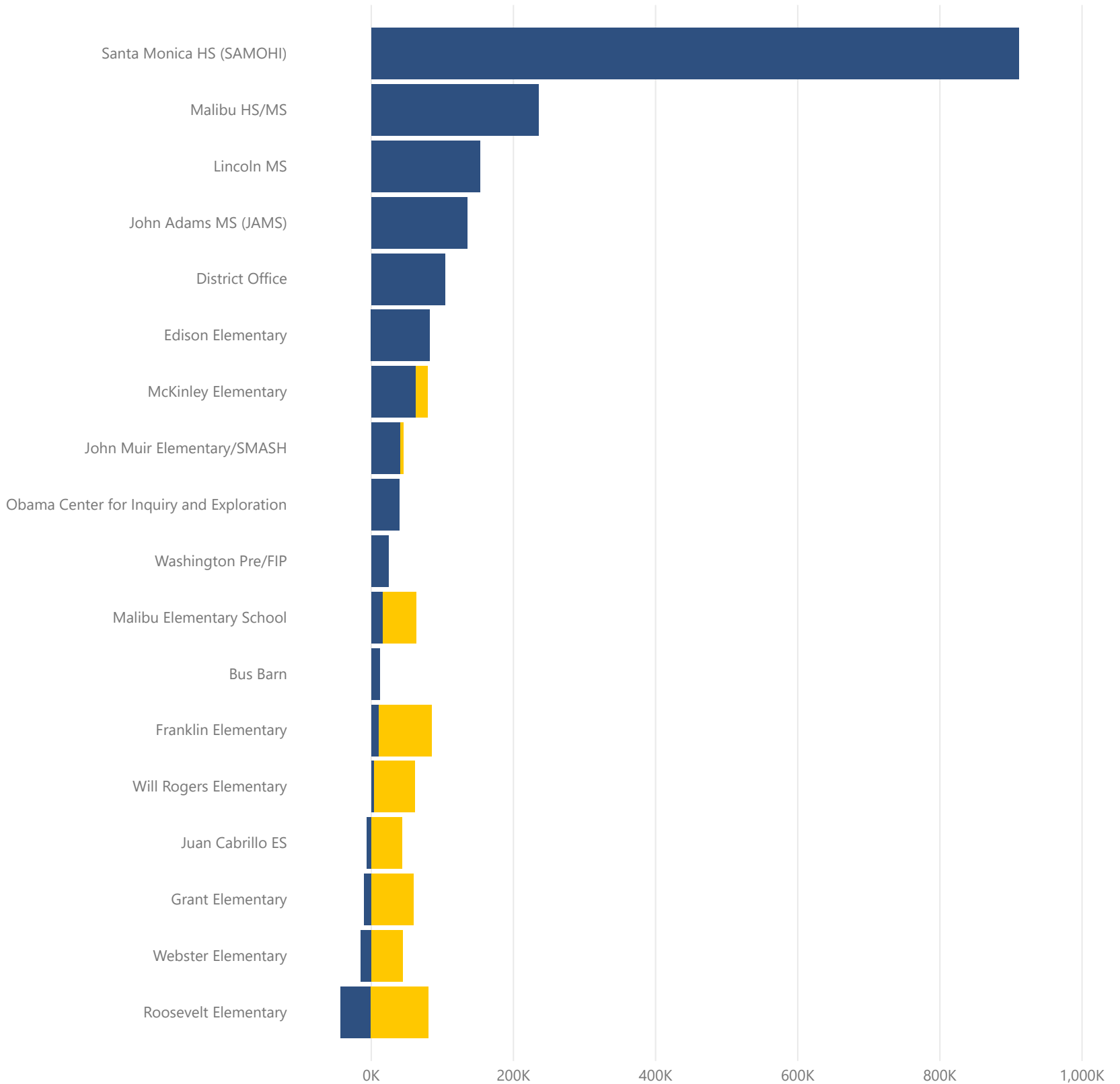
**Electric Total Cost (\$):** Total costs for electricity, including electric utility (SCE) and the PPA



# Site Electric Energy Graph

## Electricity Consumption by Site

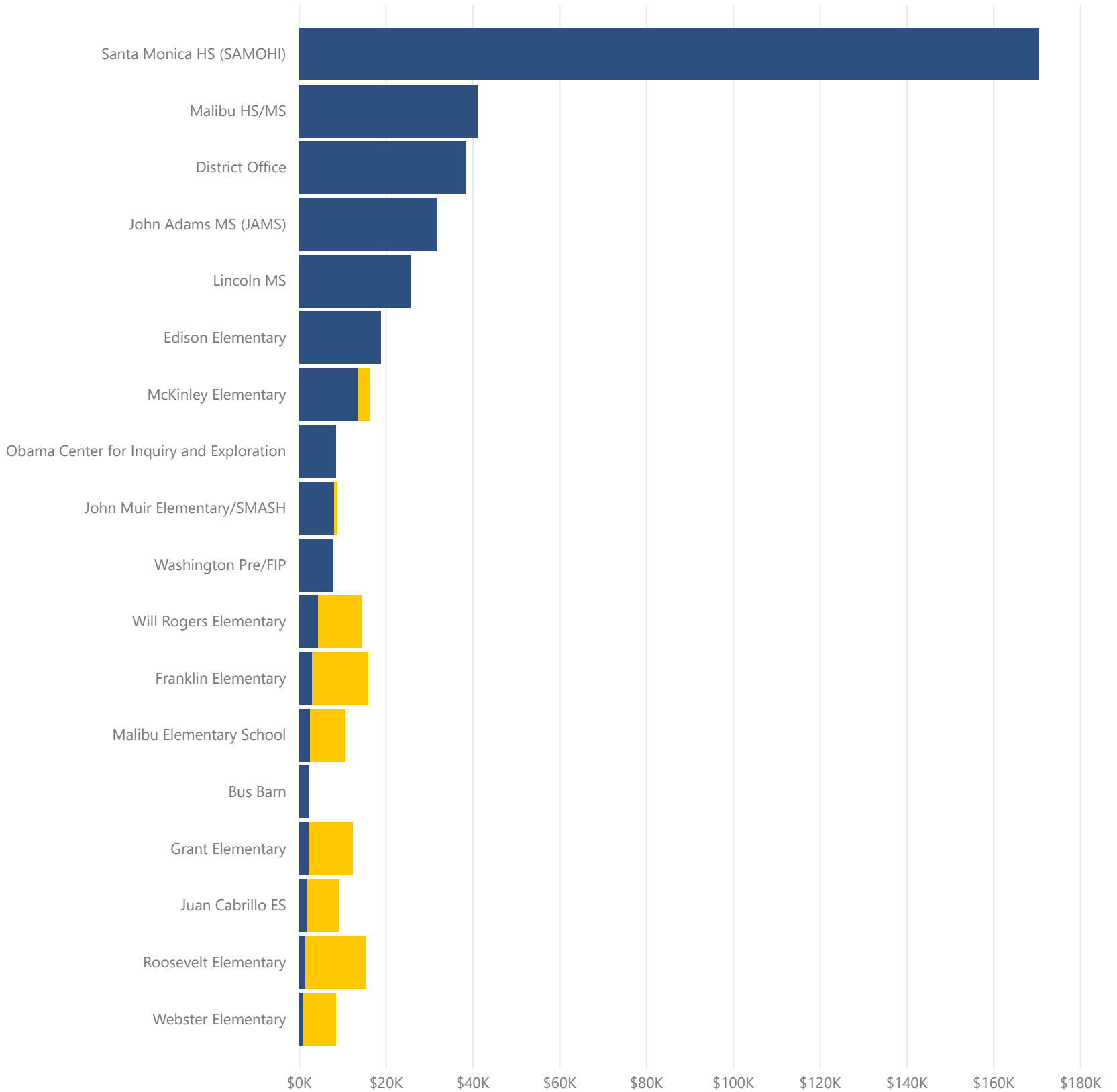
● Current Usage (FY 2019-20) kWh ● Solar Generation (kWh)



# Site Electric Energy Graph

## Electricity Cost by Site

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



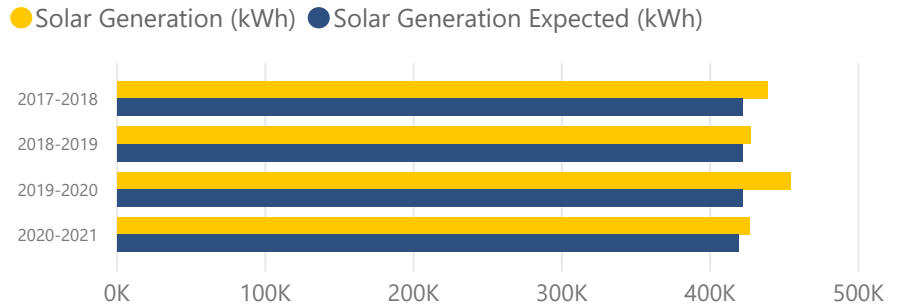
# Solar Performance

## % Solar Performance



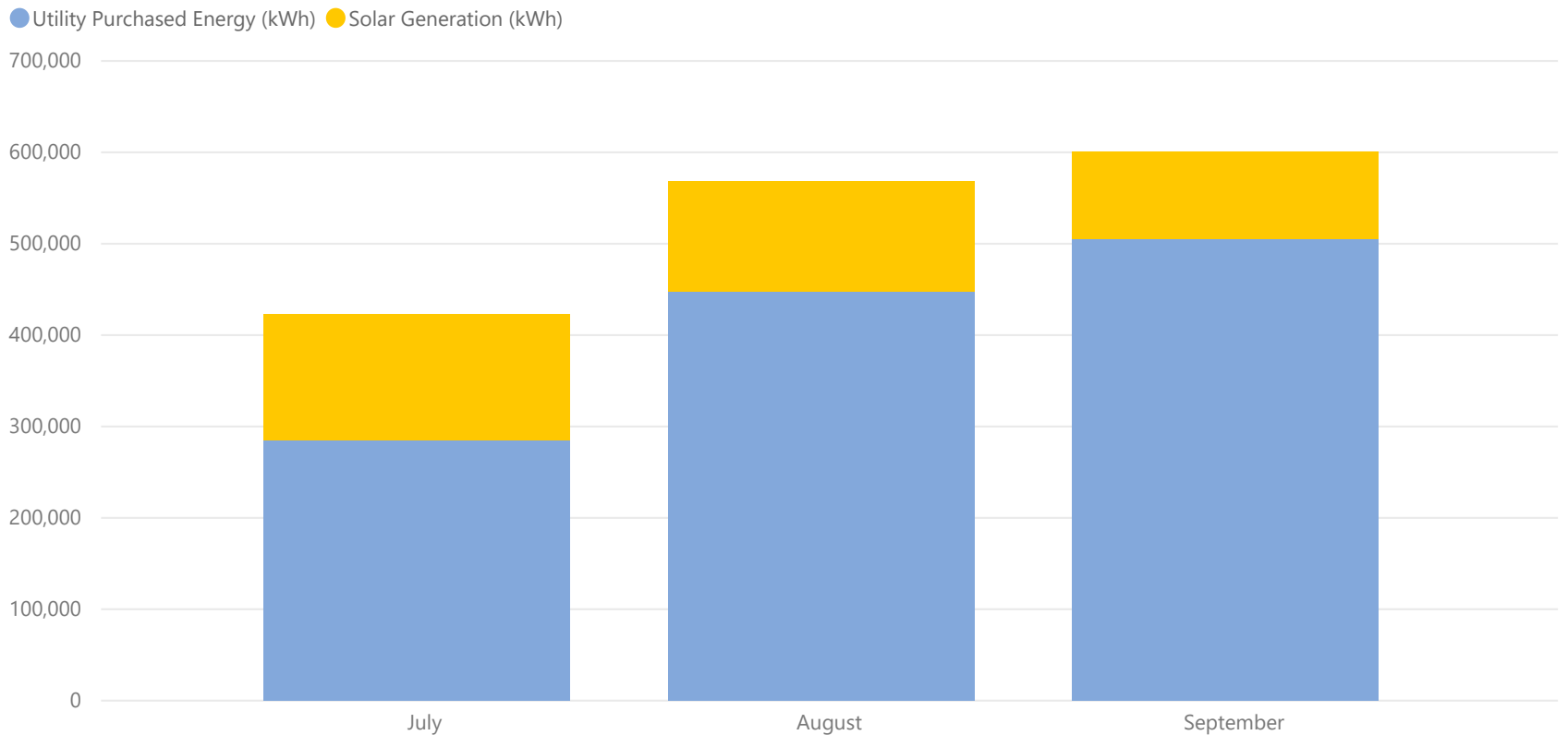
% Solar Performance is a percentage of total electricity provided by solar generation compared to the amount expected based on weather models.

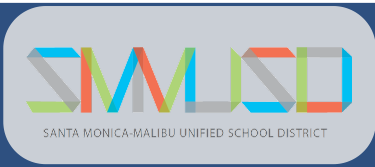
## Solar Generation By Fiscal Year



| Site Name                  | Solar Generation (kWh) | Solar Performance (%) | Site Electric PPA Cost (\$) |
|----------------------------|------------------------|-----------------------|-----------------------------|
| Franklin Elementary        | 74,171                 | 94.8%                 | \$12,849                    |
| Grant Elementary           | 58,837                 | 93.8%                 | \$10,197                    |
| John Muir Elementary/SMASH | 4,416                  | 96.4%                 | \$766                       |
| Juan Cabrillo ES           | 43,482                 | 114.8%                | \$7,531                     |
| Malibu Elementary School   | 47,239                 | 116.1%                | \$8,186                     |
| McKinley Elementary        | 16,196                 | 97.8%                 | \$2,798                     |
| Roosevelt Elementary       | 80,515                 | 102.9%                | \$13,948                    |
| Webster Elementary         | 44,100                 | 104.3%                | \$7,639                     |
| Will Rogers Elementary     | 57,462                 | 99.5%                 | \$9,964                     |
| <b>Total</b>               | <b>426,418</b>         | <b>101.8%</b>         | <b>\$73,877</b>             |

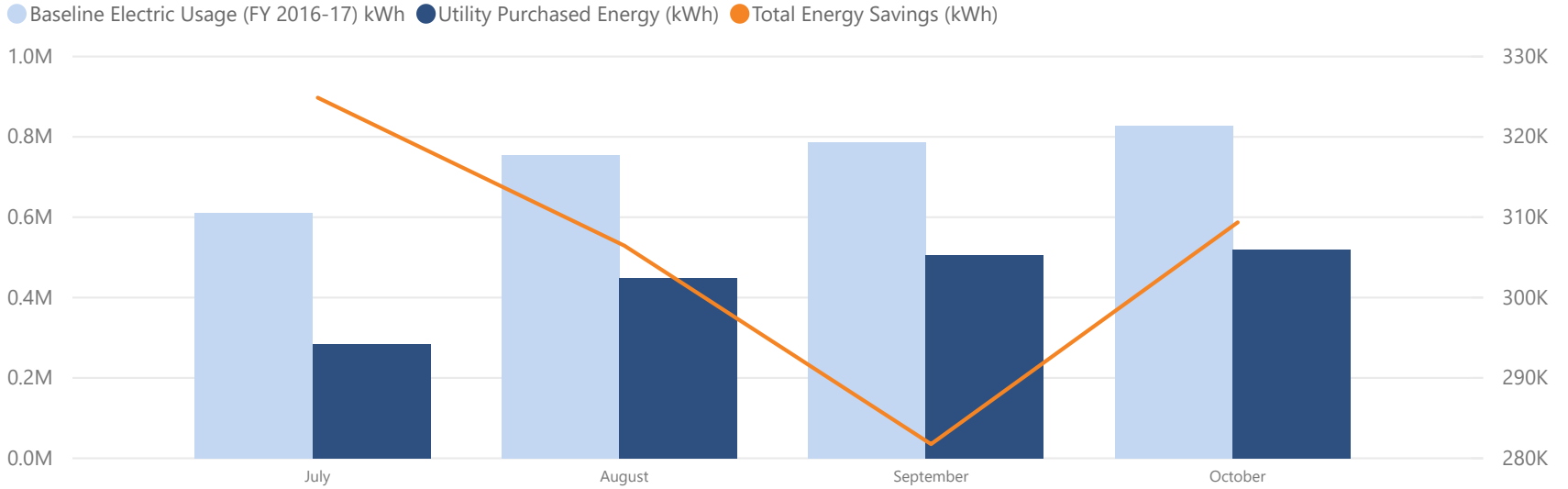
## Total Electric (kWh) by Month



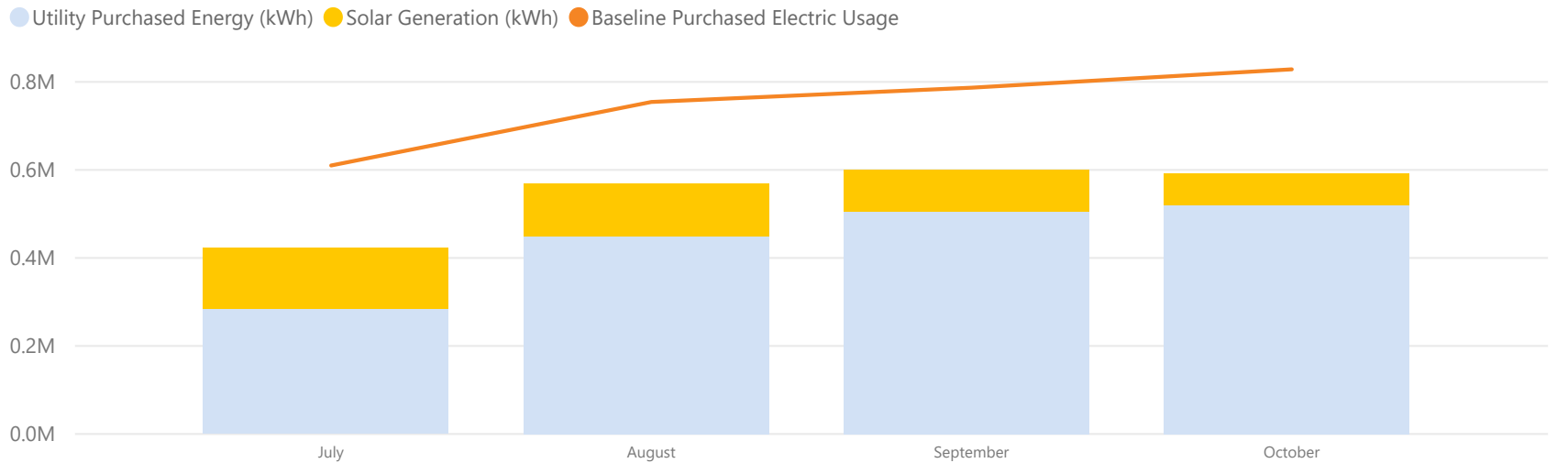


## Baseline (FY 2017-2018) vs Current (FY 2020-2021)

### Utility Purchased Electricity vs. Baseline



### Total Electric Usage vs. Baseline



| FY 2017-18 Baseline Usage (kWh) | FY 2020-21 Usage (kWh) | Utility Rate (\$/kWh) | Total Energy Savings (kWh) |
|---------------------------------|------------------------|-----------------------|----------------------------|
| 3,310,666                       | 2,127,987              | \$0.2117              | 1,180,839                  |
| FY 17-18 Baseline Cost (\$)     | FY 2020-21 Cost (\$)   | Avoided Costs (\$)    | Total Cost Savings (\$)    |
| \$603,499                       | \$450,427              | \$271,521             | \$153,072                  |

**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.

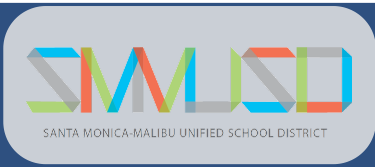
**Utility Rate (\$/kWh):** Cost (SCE and PPA) per kWh during the defined month range.

**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)

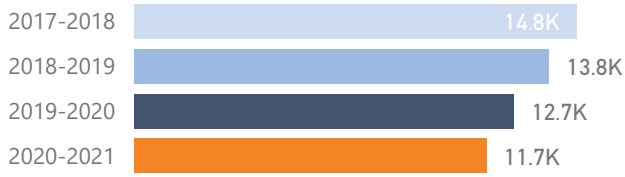
\*\* The kWh and cost savings are adjusted based on bill data available.



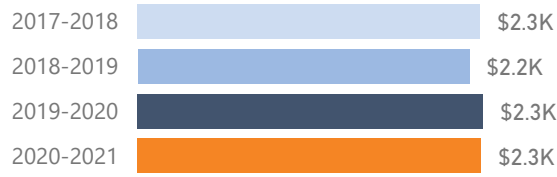


## Bus Barn : Energy Totals

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



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



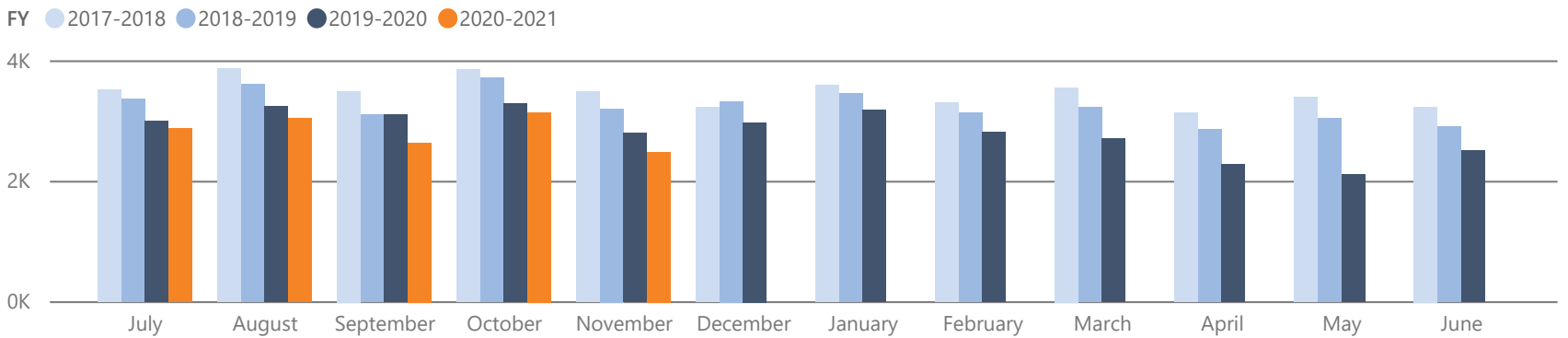
### (kWh) Savings vs Baseline YTD

3,020

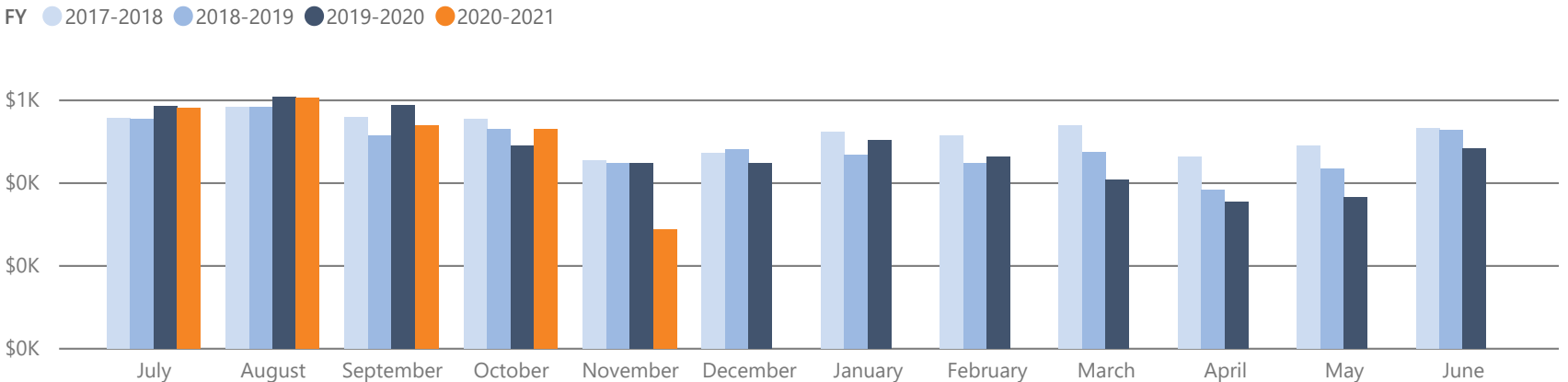
### (\$ Savings vs Baseline YTD

(\$7)

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



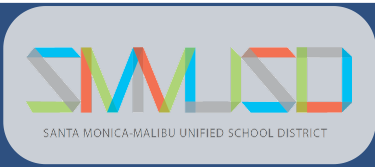
### Total Electric Cost (\$) by Month



### Site Narrative

In FY 2020-21 from July through October, the Bus Barn showed a decrease in electricity of about 3,020 kWh (20% reduction), though costs have increased by \$7 (0% increase) 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 \$581, based on the average rate from FY 2020-21.**

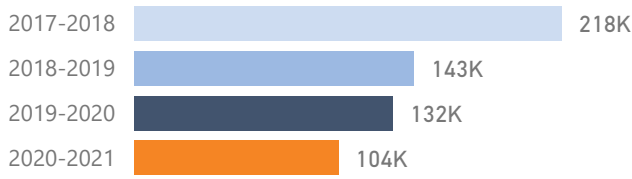




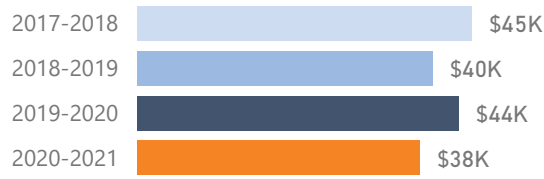
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

## District Office : Energy Totals

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



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



### (kWh) Savings vs Baseline YTD

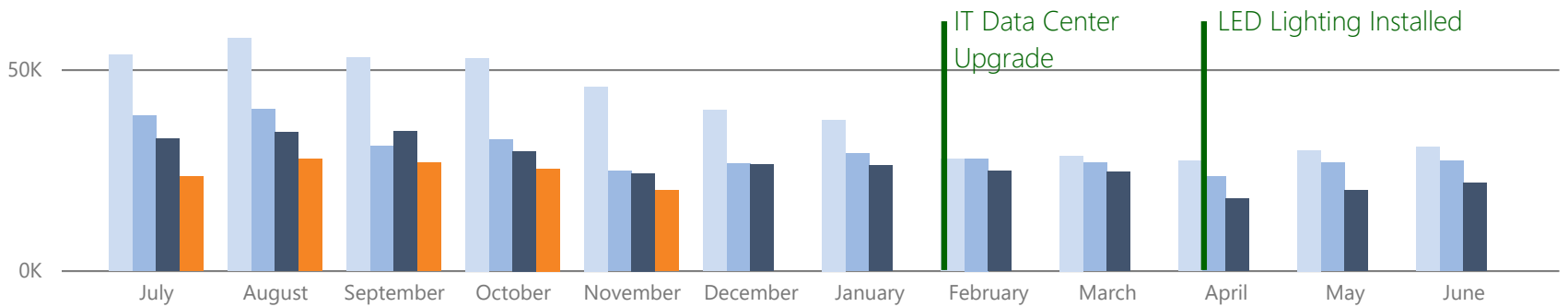
113,808

### (\$ Savings vs Baseline YTD

\$7,058

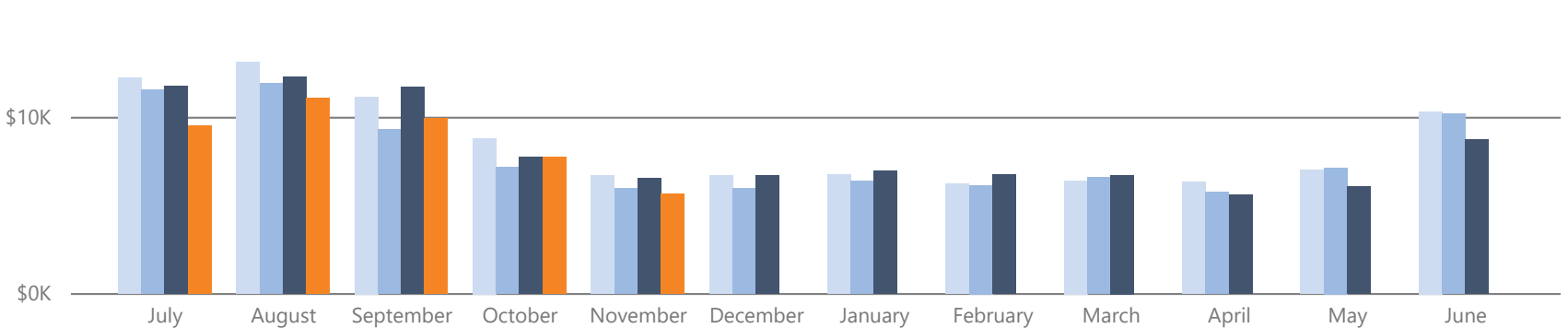
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021

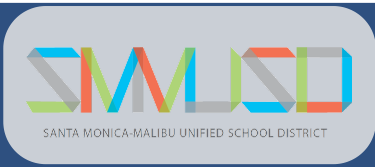


## Site Narrative

In FY 2020-21 from July through October, the District Office showed a **decrease in electricity of 113,808 kWh (52% reduction)**, yielding a **cost savings of about \$7,058 (16% 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 \$41,954, 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.

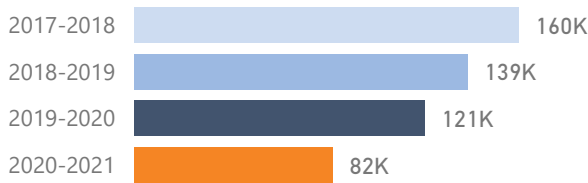




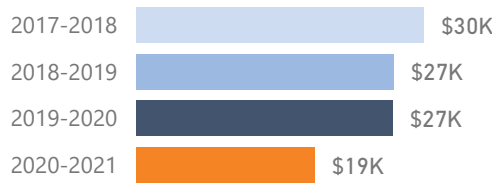
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Edison Elementary : Energy Totals

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



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



(kWh) Savings vs Baseline YTD

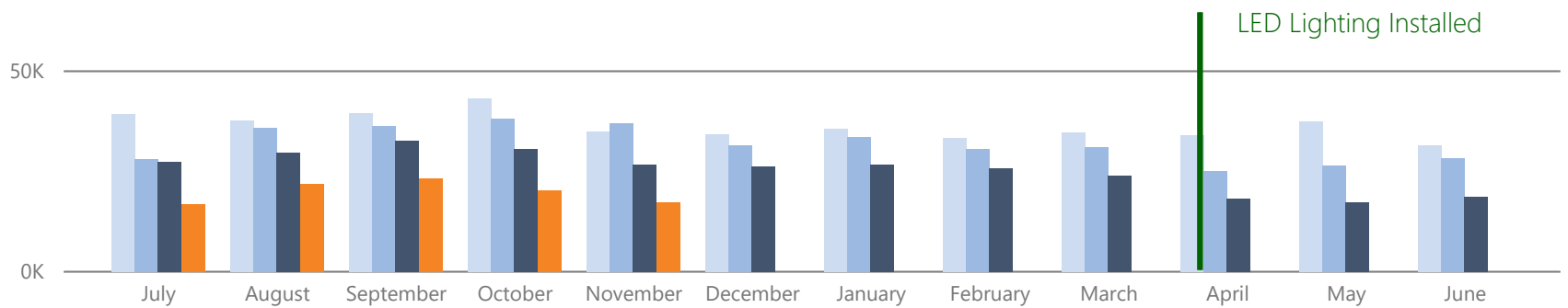
**77,403**

(\$ Savings vs Baseline YTD

**\$11,565**

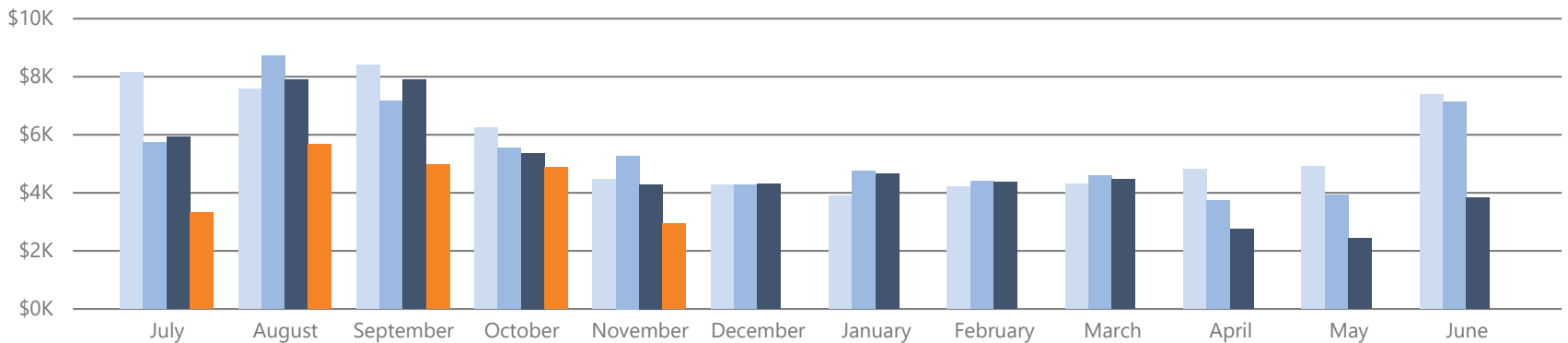
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021

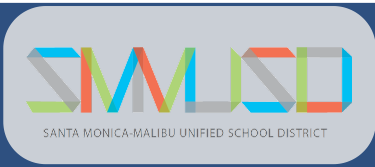


## Site Narrative

In FY 2020-21 from July through October, Edison Language Academy showed a **decrease in electricity of 77,403 kWh (48% reduction), yielding a cost savings of \$11,565 (38% 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 \$17,692.**

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.

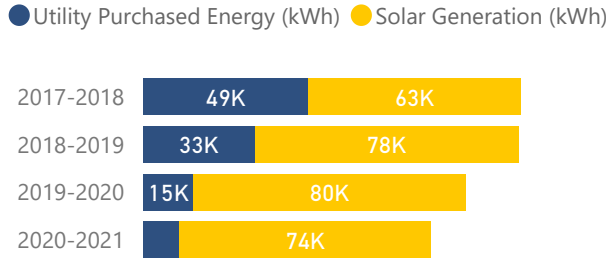




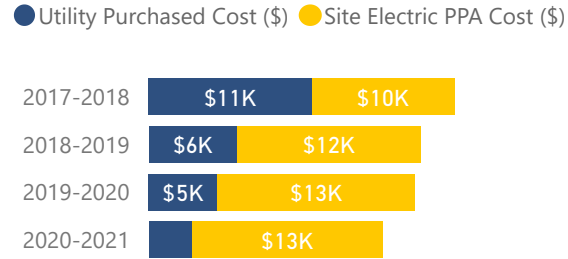
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Franklin Elementary : Energy Totals

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



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



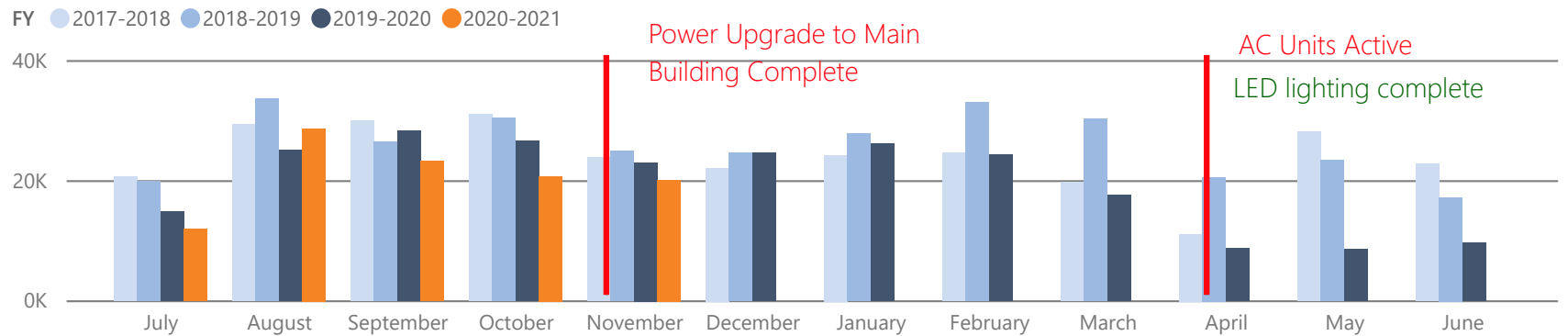
## (kWh) Savings vs Baseline YTD

26,613

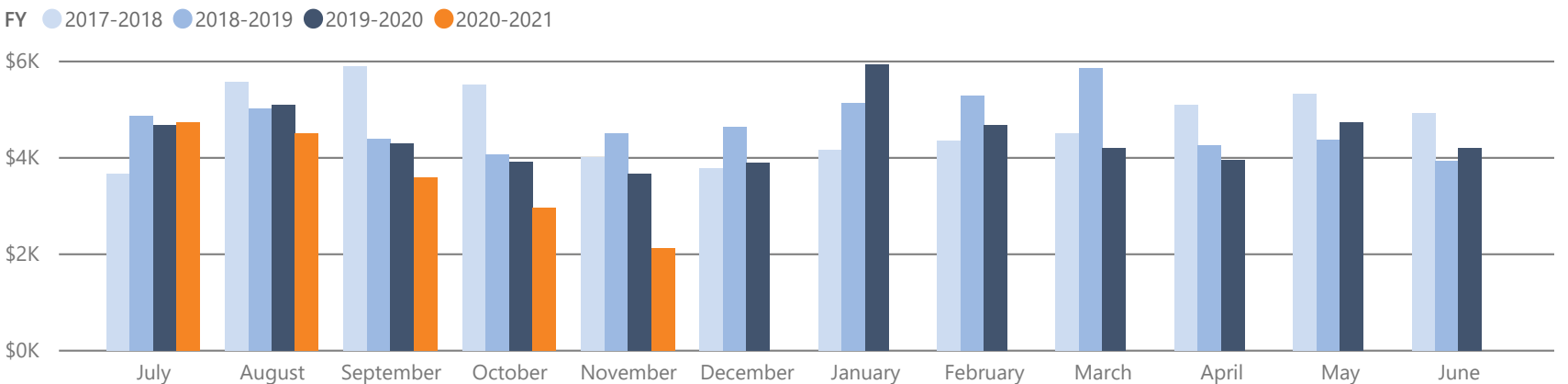
## (\$ Savings vs Baseline YTD

\$4,847

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



## Total Electric Cost (\$) by Month



## Site Narrative

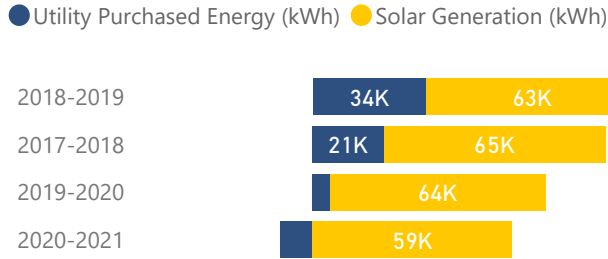
In FY 2020-21 from July through October, Franklin Elementary showed a decrease in electricity use of 26,613 kWh (24% decrease), yielding a cost savings of \$4,847 (23% decrease) compared to FY 2017-18.

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. 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.

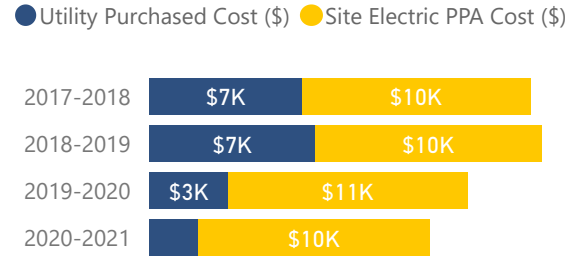


# Grant Elementary : Energy Totals

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



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



## (kWh) Savings vs Baseline YTD

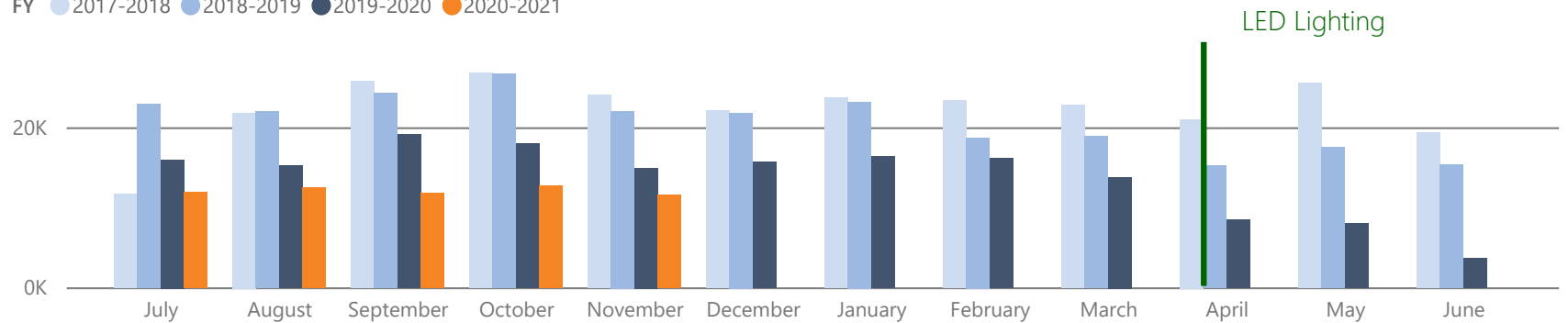
37,131

## (\$ Savings vs Baseline YTD

\$4,407

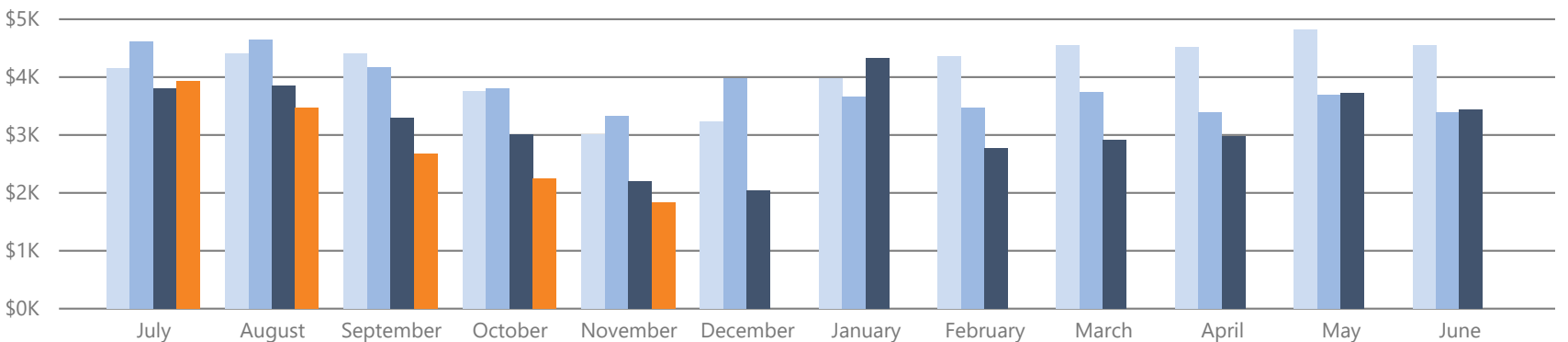
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Site Narrative

In FY 2020-21 from July through October, Grant Elementary showed a **decrease in electricity of 37,131 kWh (43% reduction)**, yielding a **cost savings of about \$4,407 (26% 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 \$9,280.**

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 - Oct)



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



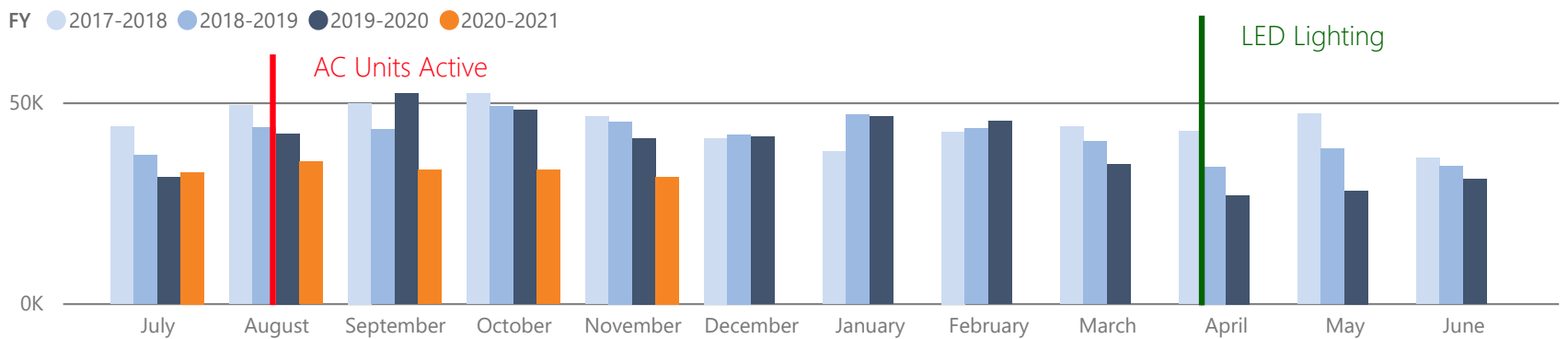
## (kWh) Savings vs Baseline YTD

61,085

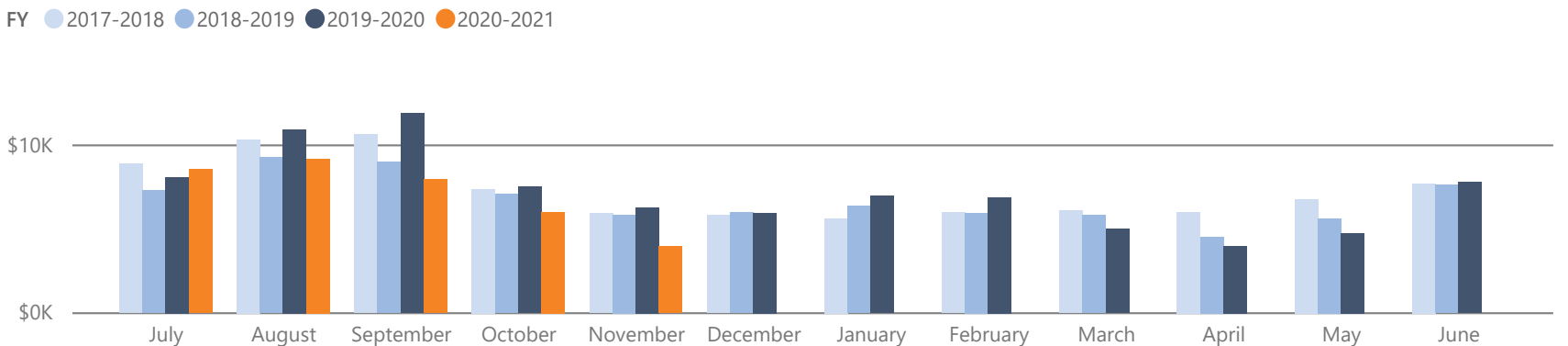
## (\$ Savings vs Baseline YTD

\$5,573

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



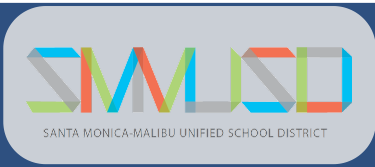
## Total Electric Cost (\$) by Month



## Site Narrative

In FY 2020-21 from July through October, the John Adams Middle School showed a decrease in electricity of 61,085 kWh (31% reduction), yielding a cost decrease of \$5,573 (15% 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 \$14,353.**

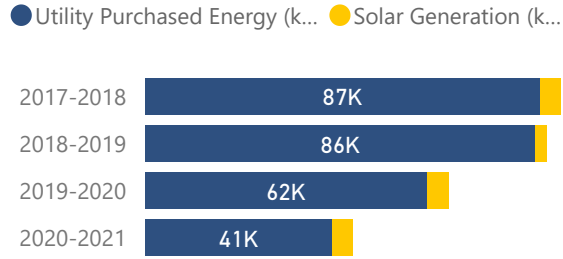
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. John Adams MS completed installation of interior LED lighting in April 2019, which significantly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



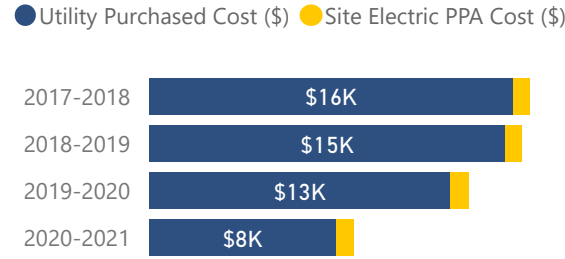
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# John Muir Elementary/SMASH : Energy Totals

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



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



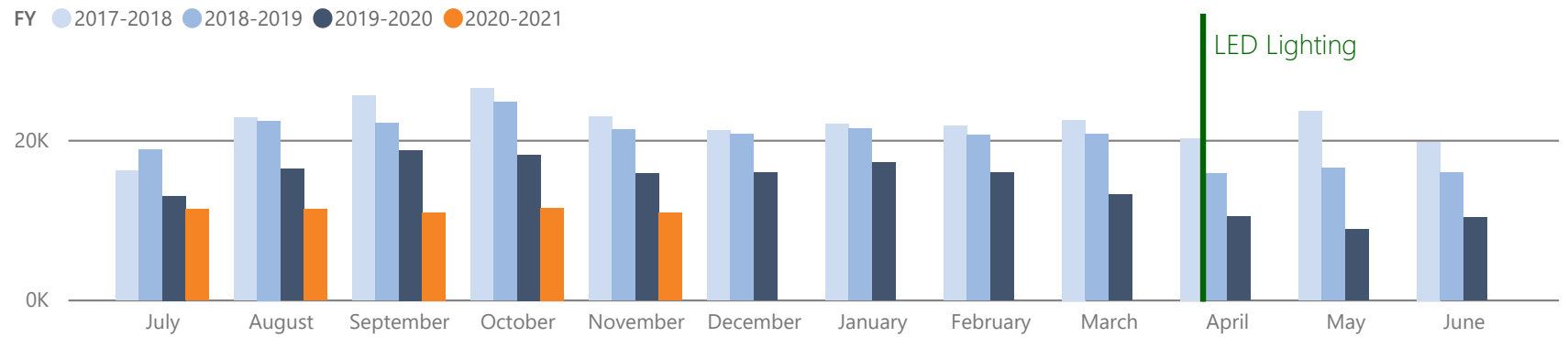
(kWh) Savings vs Baseline YTD

**45,844**

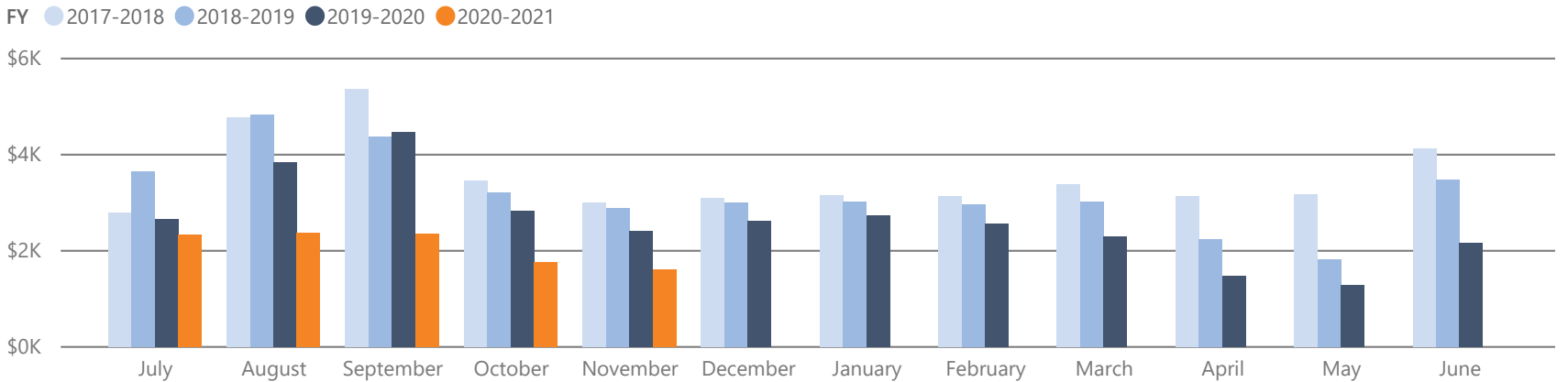
(\$ Savings vs Baseline YTD

**\$7,570**

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



## Total Electric Cost (\$) by Month

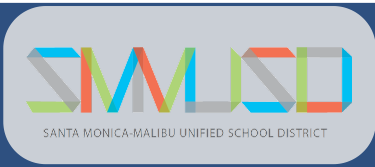


## Site Narrative

In FY 2020-21 from July through October, the John Muir/SMASH site showed a decrease in electricity of 45,844 kWh (50% reduction), yielding a cost savings of about \$7,570 (46% reduction) 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. John Muir Elementary completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.



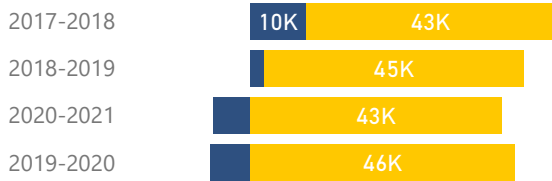


Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Juan Cabrillo ES : Energy Totals

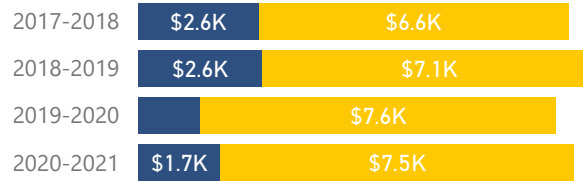
## Electricity (kWh) by FY (Jul - Oct)

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



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

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



(kWh) Savings vs Baseline YTD

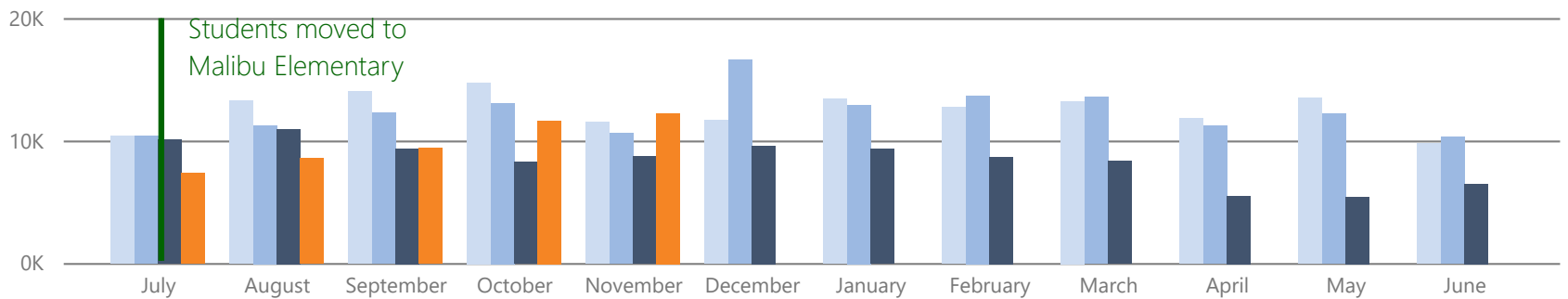
15,472

(\$ Savings vs Baseline YTD

(\$122)

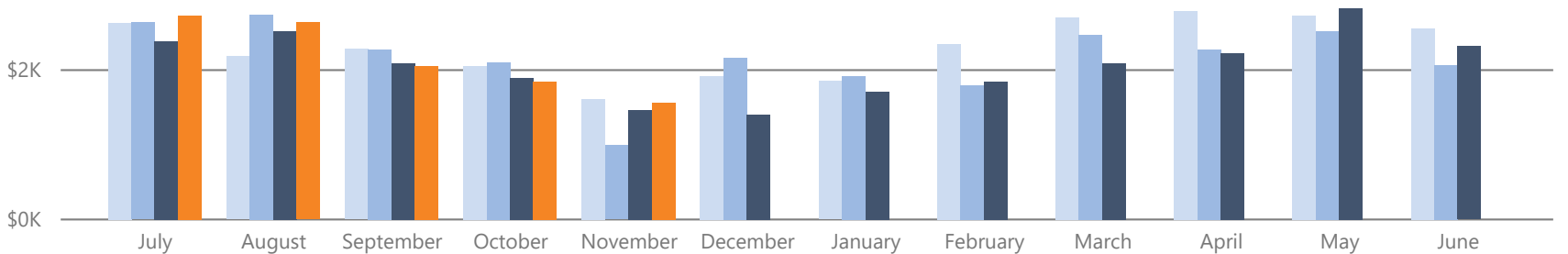
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021

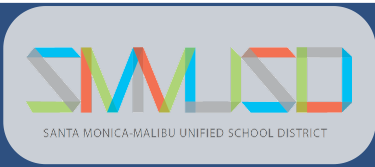


## Site Narrative

In FY 2020-21 from July through October, the Juan Cabrillo Elementary site showed a **decrease in electricity of 15,472 kWh (29% reduction)**, though costs have increased by about **\$122 (1% increase)** 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 \$3,860.**

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.

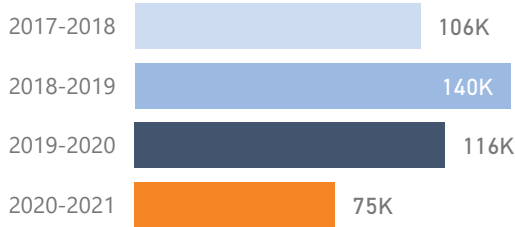




Month Range: Jul - Aug  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Lincoln MS : Energy Totals

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



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



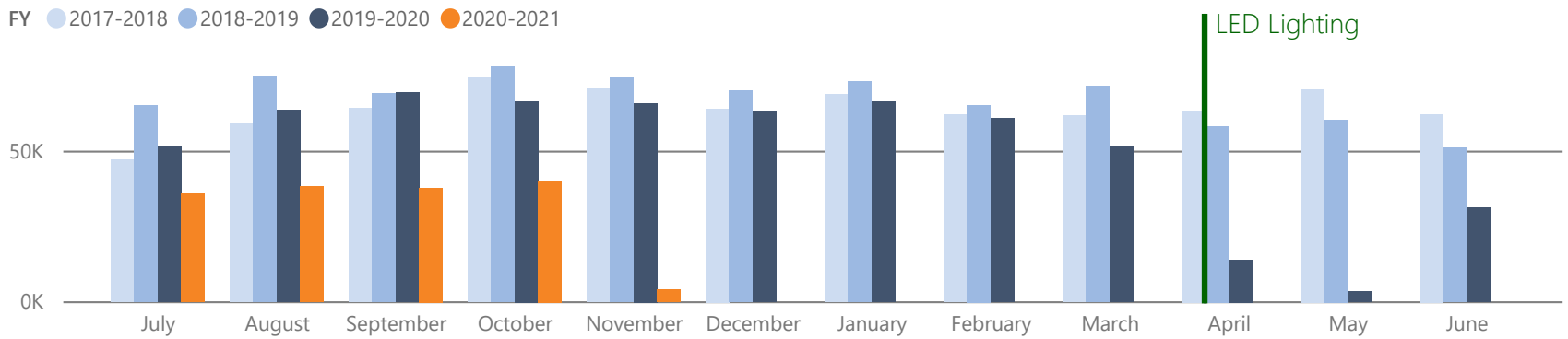
## (kWh) Savings vs Baseline YTD

**58,267**

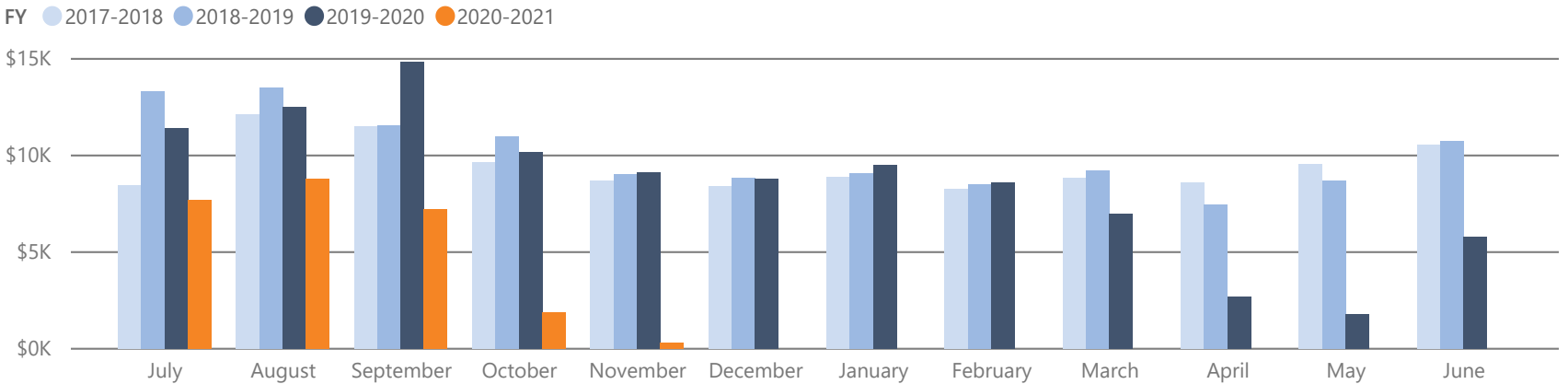
## (\$ Savings vs Baseline YTD

**\$8,423**

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



## Total Electric Cost (\$) by Month



## Site Narrative

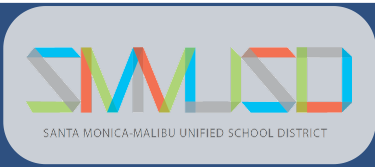
In FY 2020-21 from July through September, Lincoln MS showed a decrease in electricity of 58,267 kWh (34% increase), yielding an cost savings of \$8,423 (20% decrease) compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$12,268.**

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.

The last bill for service account (3-008-1626-05) ended October 7th, 2020. Therefore, energy and costs were compared between July and September 2020.

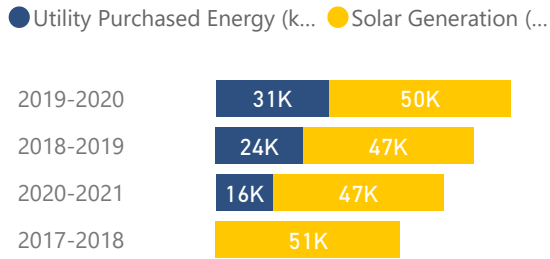




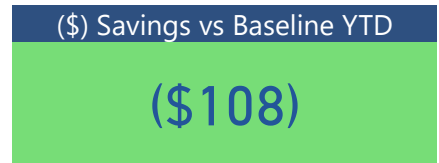
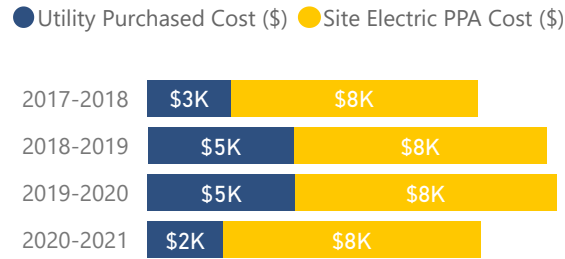


# Malibu Elementary School : Energy Totals

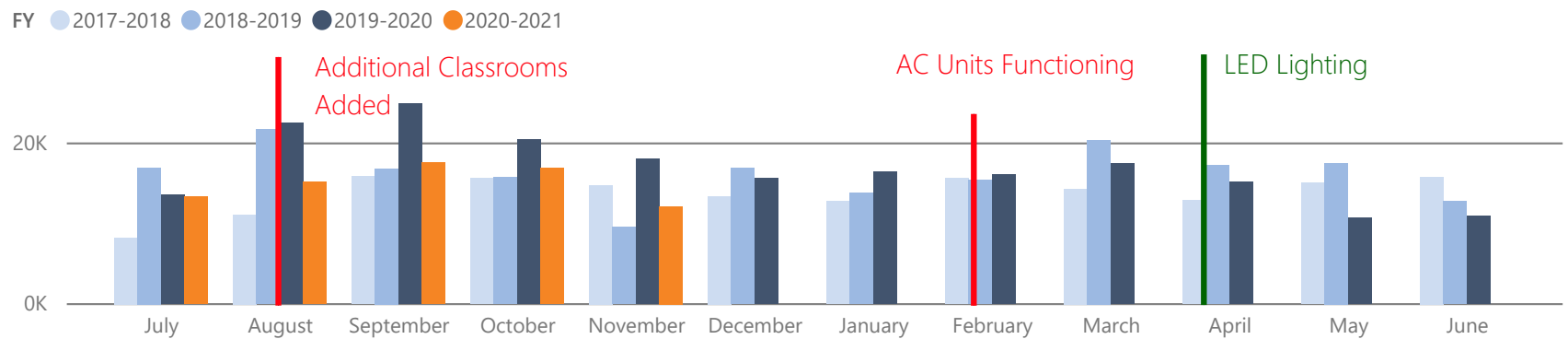
## Electricity (kWh) by FY (Jul - Oct)



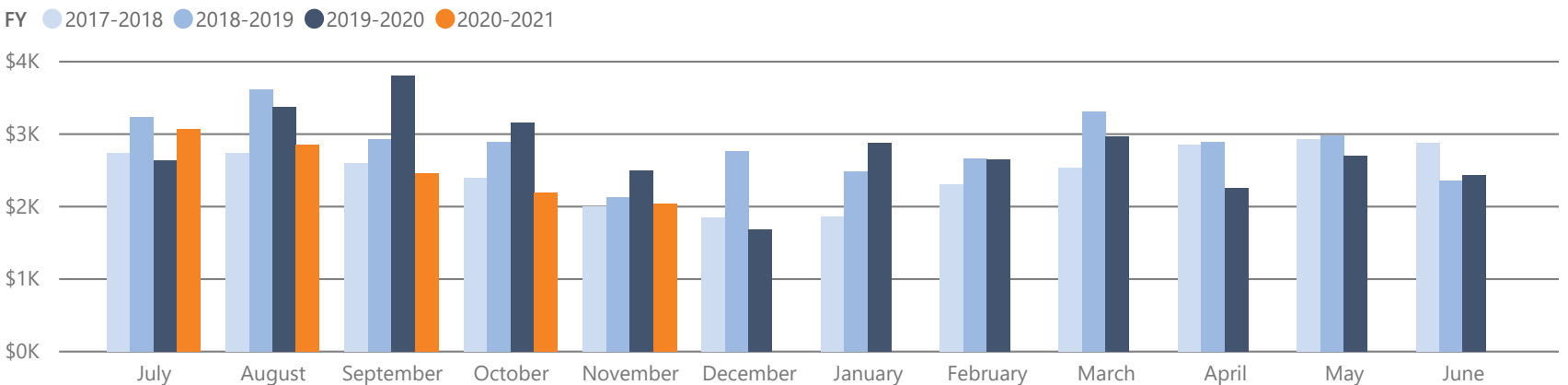
## Electricity (\$) by FY (Jul - Oct)



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



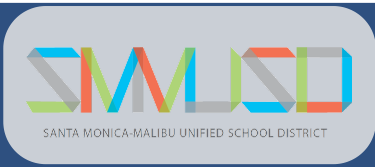
## Total Electric Cost (\$) by Month



## Site Narrative

In FY 2020-21 from July through October, Malibu Elementary (previously Point Dume Elementary) showed an **increase in electricity of 12,241 kWh (24% increase)**, increasing SCE costs by **\$108 (1% 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.



Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Malibu HS/MS : Energy Totals

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

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

## (kWh) Savings vs Baseline YTD

92,640

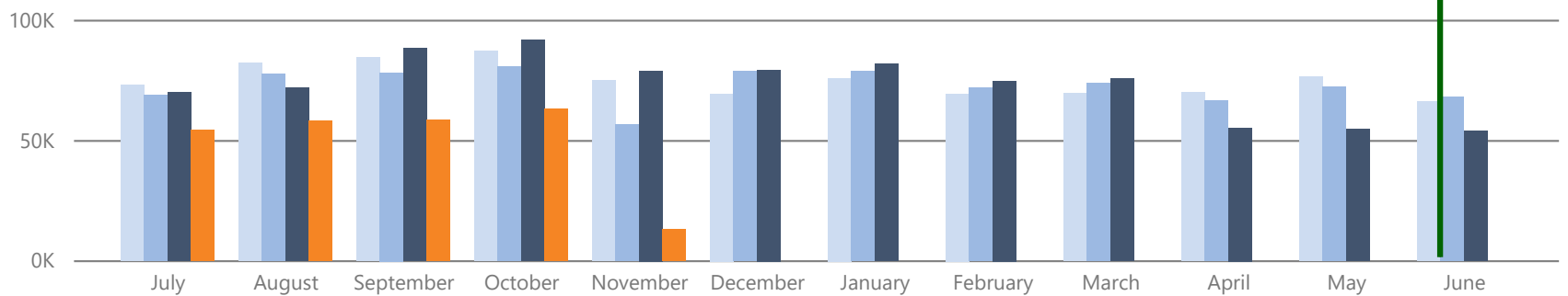
## (\$ Savings vs Baseline YTD

\$18,775



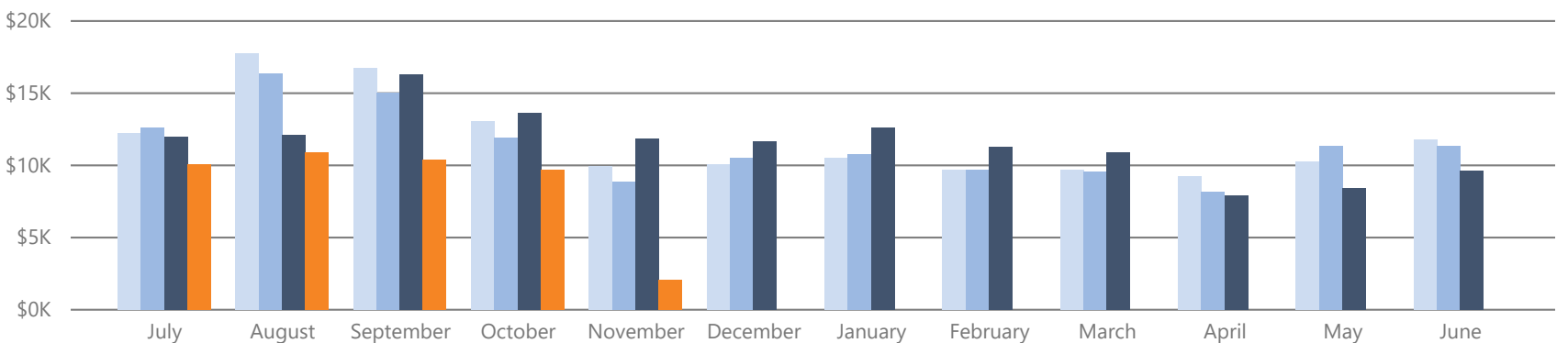
## Total Electric (kWh) by Month and Fiscal Year

FY 2017-2018 2018-2019 2019-2020 2020-2021



## Total Electric Cost (\$) by Month

FY 2017-2018 2018-2019 2019-2020 2020-2021

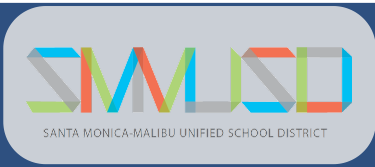


## Site Narrative

In FY 2020-21 from July through October, Malibu HS/MS showed an decrease in electricity of 92,640 kWh (28% decrease), yielding a cost decrease of \$18,775 (31% decrease) compared to FY 2017-18.

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.

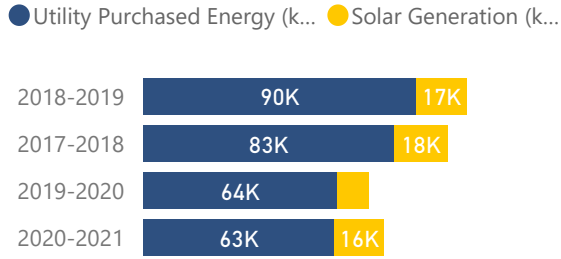




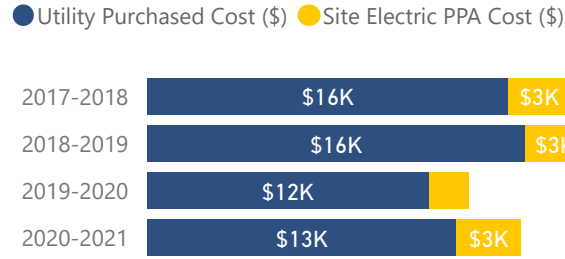
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# McKinley Elementary : Energy Totals

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



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



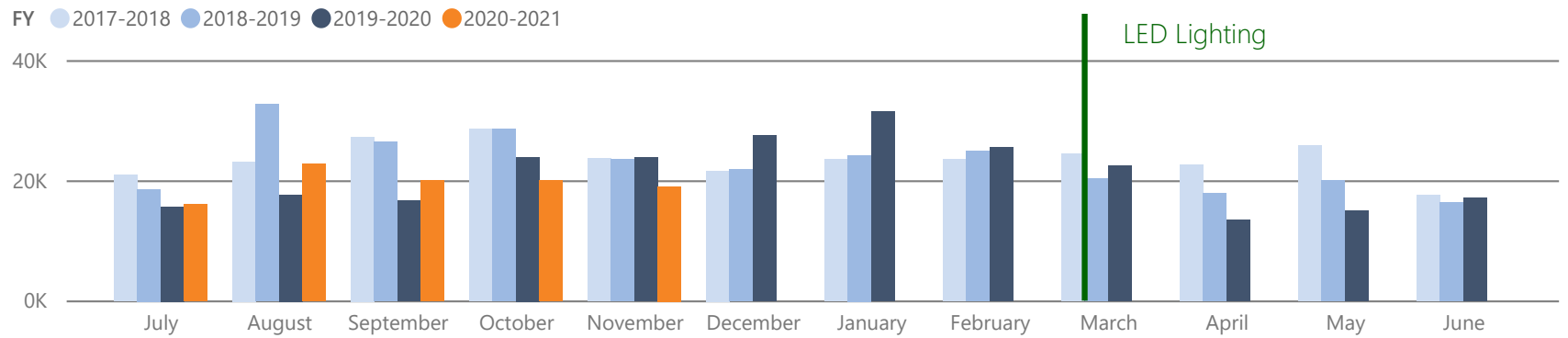
(kWh) Savings vs Baseline YTD

**20,993**

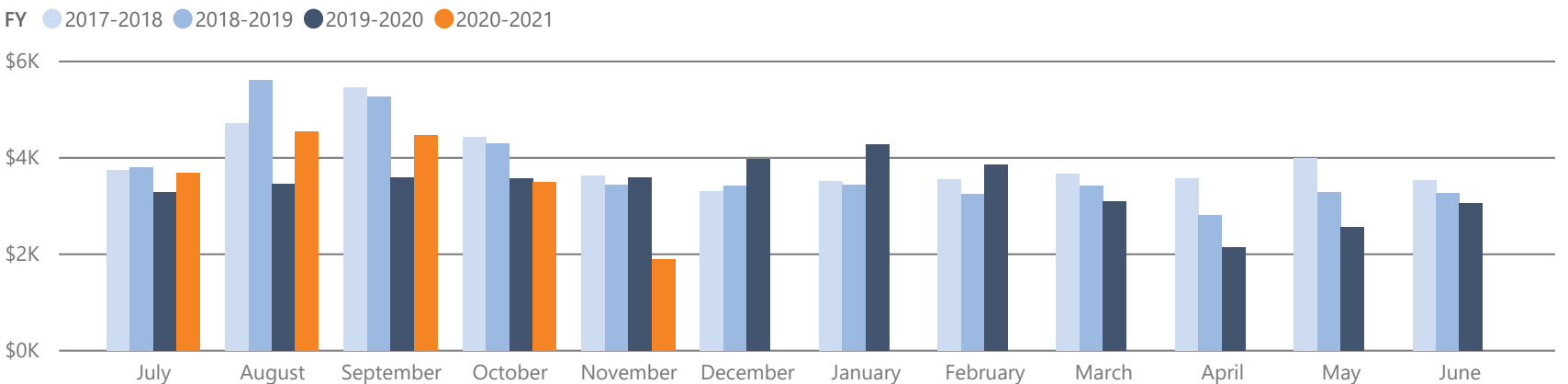
(\$ Savings vs Baseline YTD

**\$2,139**

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



## Total Electric Cost (\$) by Month

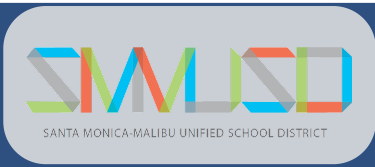


## Site Narrative

In FY 2020-21 from July through October, McKinley Elementary showed a **decrease in electricity of 20,993 kWh (21% reduction)**, yielding a **decrease in costs of \$2,139 (12% 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 \$4,286.**

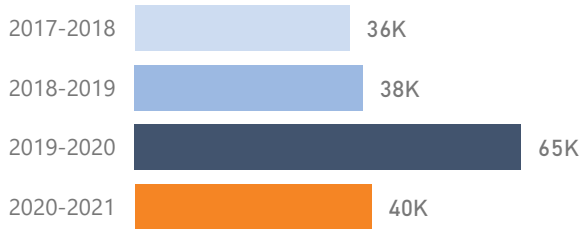
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. McKinley Elementary School completed installation of interior LED lighting in March 2019,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



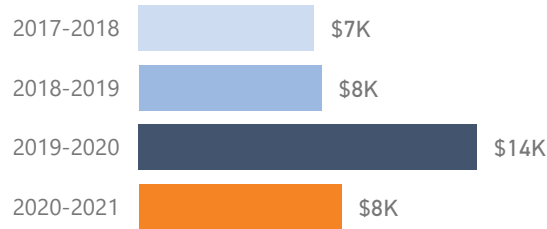


# Obama Center for Inquiry and Exploration : Energy Totals

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



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



## (kWh) Savings vs Baseline YTD

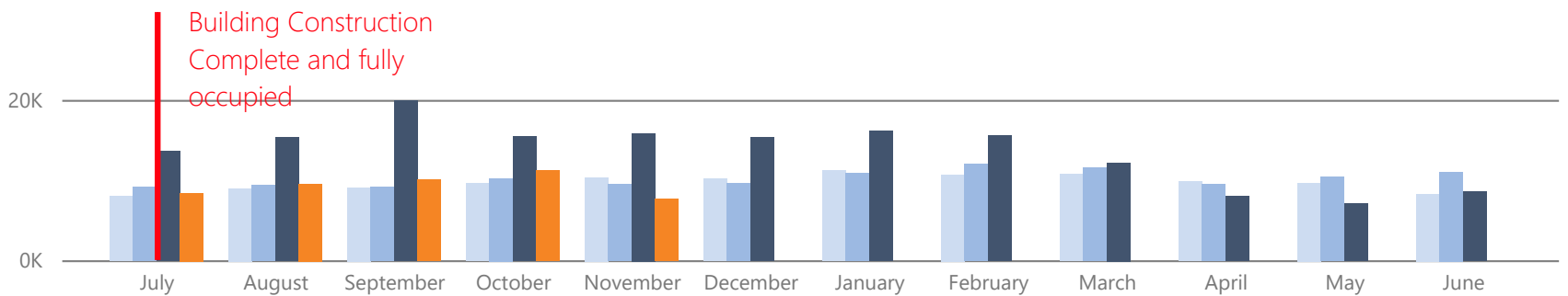
**-3,653**

## (\$ Savings vs Baseline YTD

**(\$1,145)**

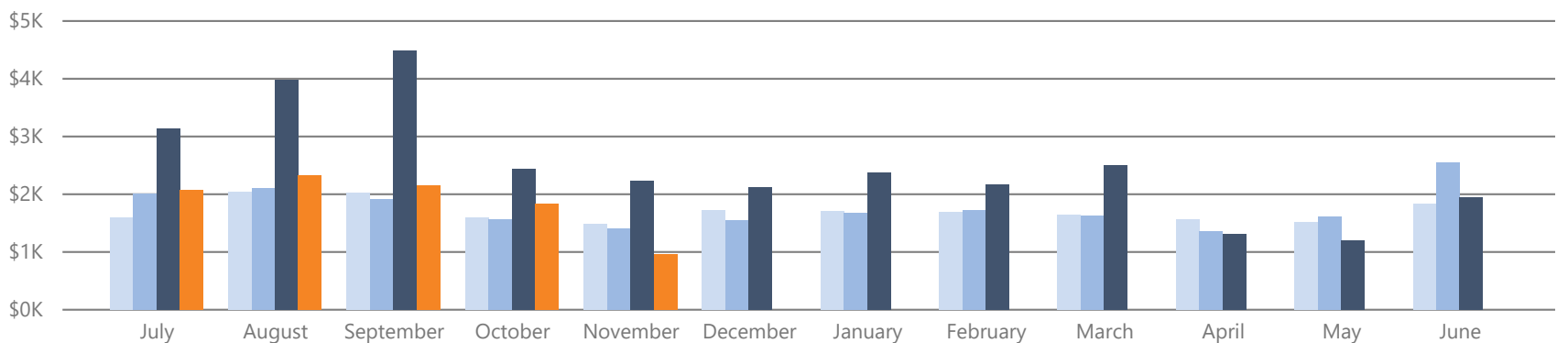
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

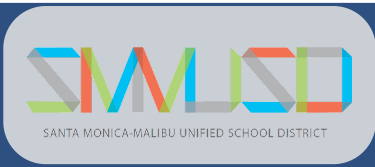
FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Site Narrative

In FY 2020-21 from July through October, the Michelle and Barack Obama Center for Inquiry and Exploration (previously Olympic HS) showed an **increase in electricity of 3,653 kWh (10% increase)**, increasing utility costs by **\$1,145 (16% 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.

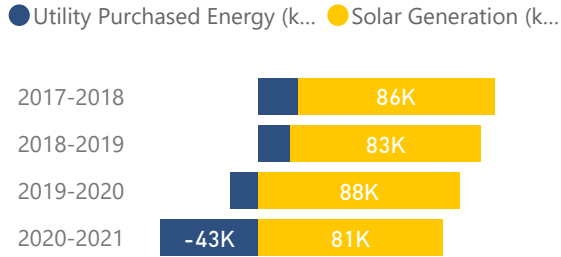
A timeline of the major projects at the site is shown in the total electricity graph above. Green indicates a project that resulted in lowered energy use, while red indicates a project that increases energy use. The Obama Center was previously undergoing major renovation and installing new AC units.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



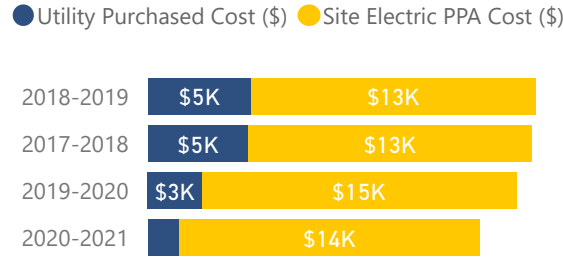
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Roosevelt Elementary : Energy Totals

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



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



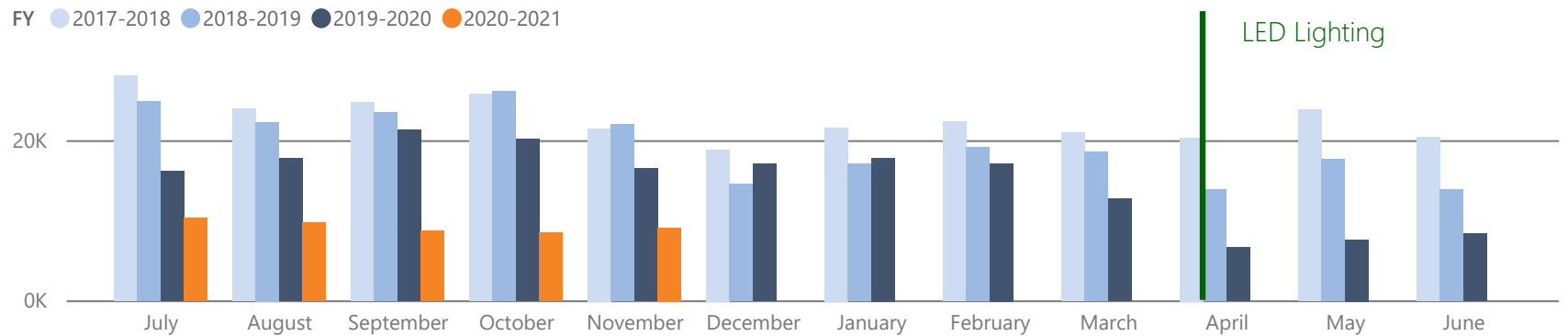
## (kWh) Savings vs Baseline YTD

65,357

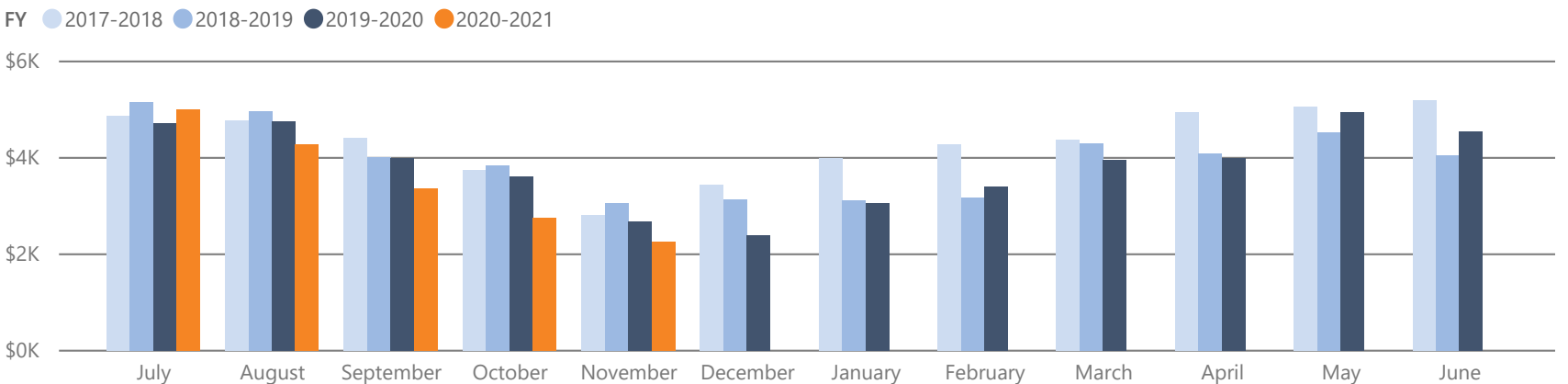
## (\$ Savings vs Baseline YTD

\$2,399

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



## Total Electric Cost (\$) by Month

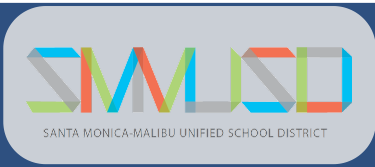


## Site Narrative

In FY 2020-21 from July through October, Roosevelt Elementary showed a decrease in electricity of 65,357 kWh (63% reduction), yielding a cost savings of about \$2,399 (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 \$26,794.**

A timeline of the major projects at the site is shown in the total electricity graph above. Roosevelt Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.





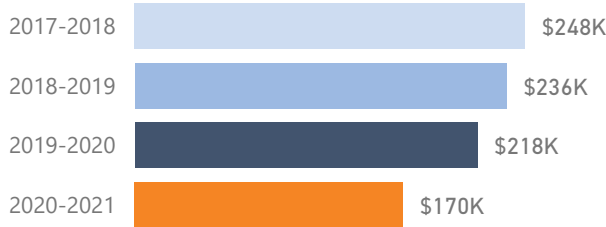
Month Range: Jul - Oct  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Santa Monica HS (SAMOHI) : Energy Totals

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



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



## (kWh) Savings vs Baseline YTD

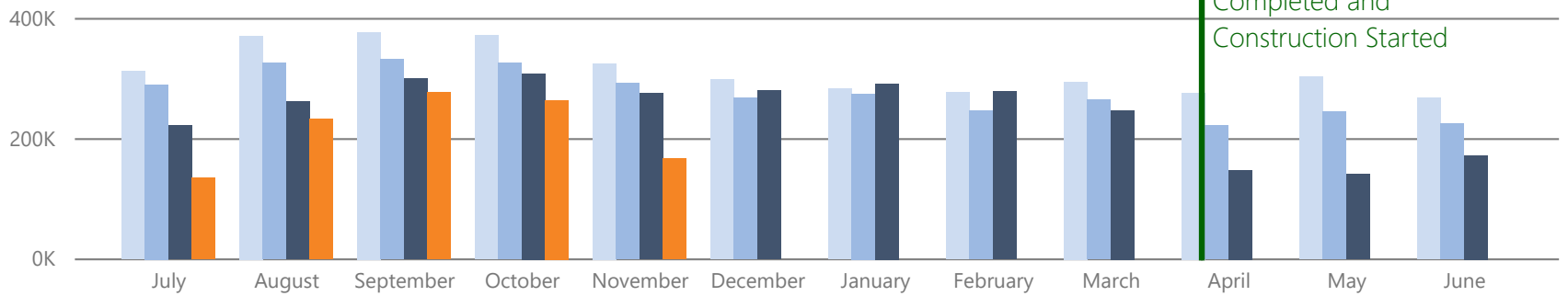
522,891

## (\$ Savings vs Baseline YTD

\$77,604

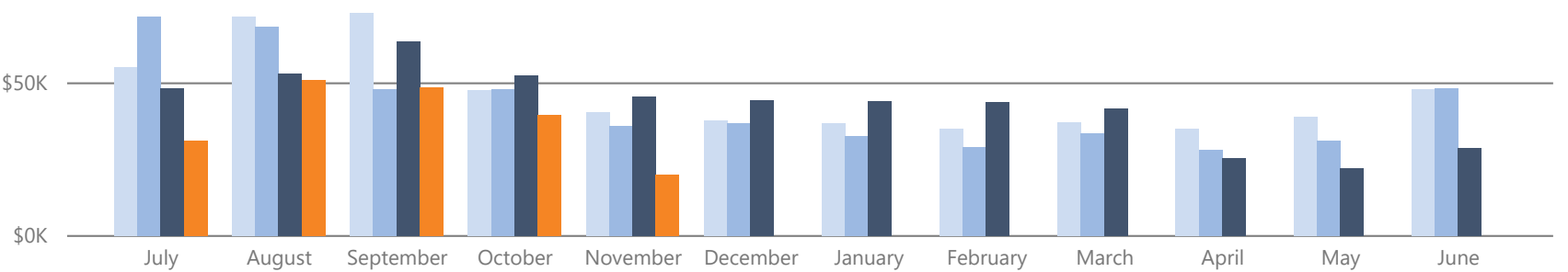
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021

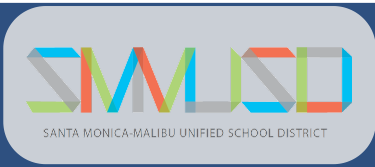


## Site Narrative

In FY 2020-21 from July through October, Santa Monica HS showed a **decrease in electricity of 522,891 kWh (36% reduction), yielding a cost savings of about \$77,604 (31% 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 \$97,737.**

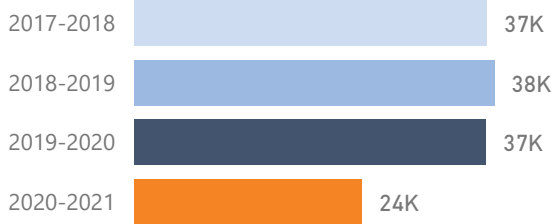
A timeline of the major projects at the site is shown in the total electricity graph above. Santa Monica HS completed installation of interior LED lighting and started significant construction around the month of April 2019, which significantly lowered the energy usage in the following months.





# Washington Pre/FIP : Energy Totals

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



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



## (kWh) Savings vs Baseline YTD

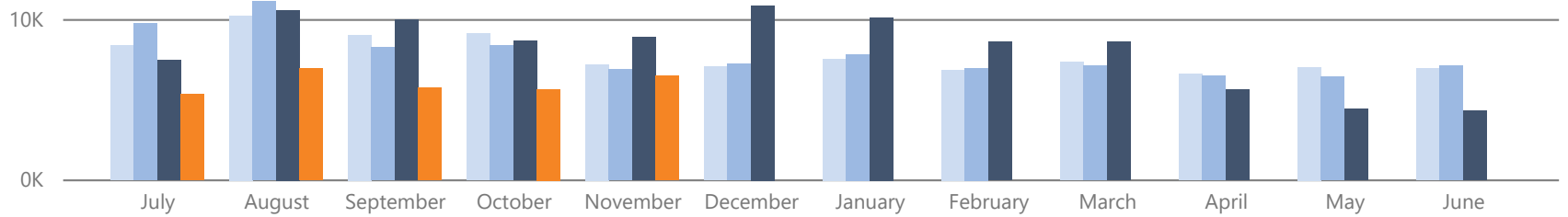
13,064

## (\$ Savings vs Baseline YTD

\$434

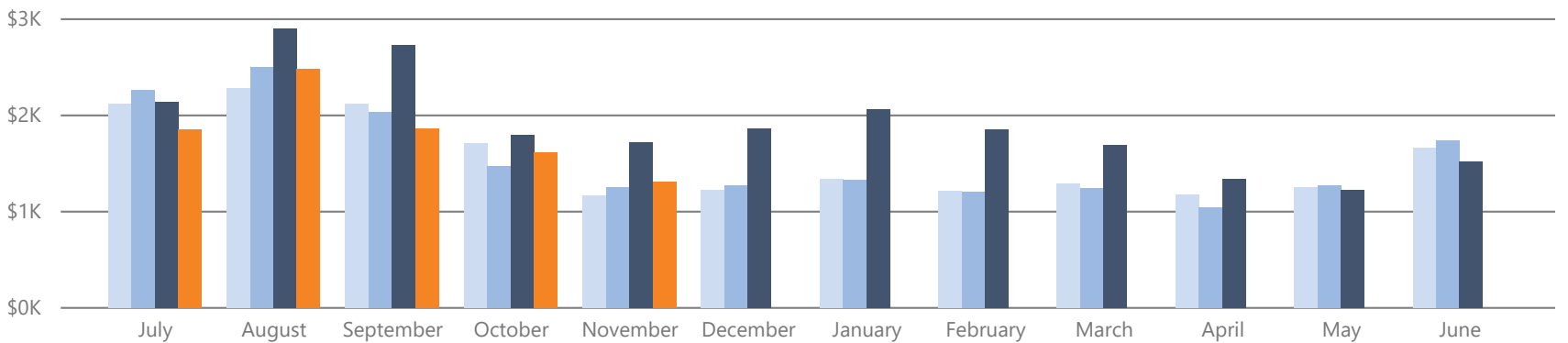
## Total Electric (kWh) by Month and Fiscal Year

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



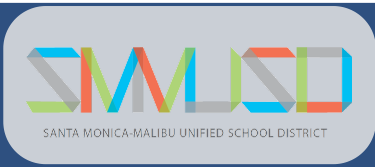
## Total Electric Cost (\$) by Month

FY ● 2017-2018 ● 2018-2019 ● 2019-2020 ● 2020-2021



## Site Narrative

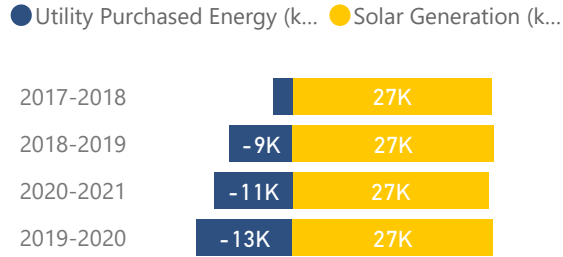
In FY 2020-21 from July through October, the Washington Pre-school/FIP Office showed an decrease of 13,064 kWh (35% increase), and utility costs have reduced by \$434 (5% increase) compared to FY 2017-18. Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$4,279.**



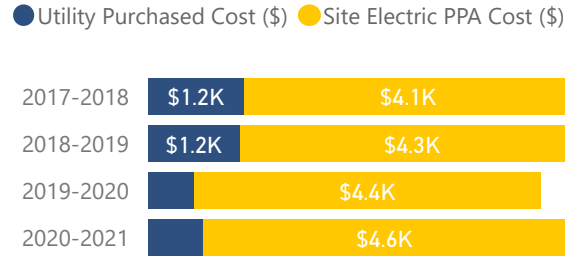
Month Range: Jul - Aug  
 Current Fiscal Year: 2020-2021  
 Baseline Fiscal Year: 2017-2018

# Webster Elementary : Energy Totals

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



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



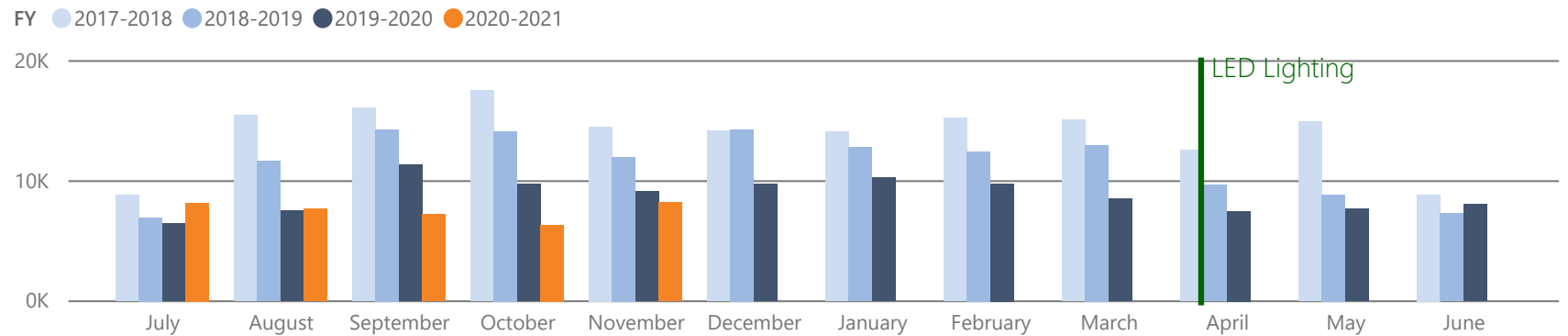
## (kWh) Savings vs Baseline YTD

8,452

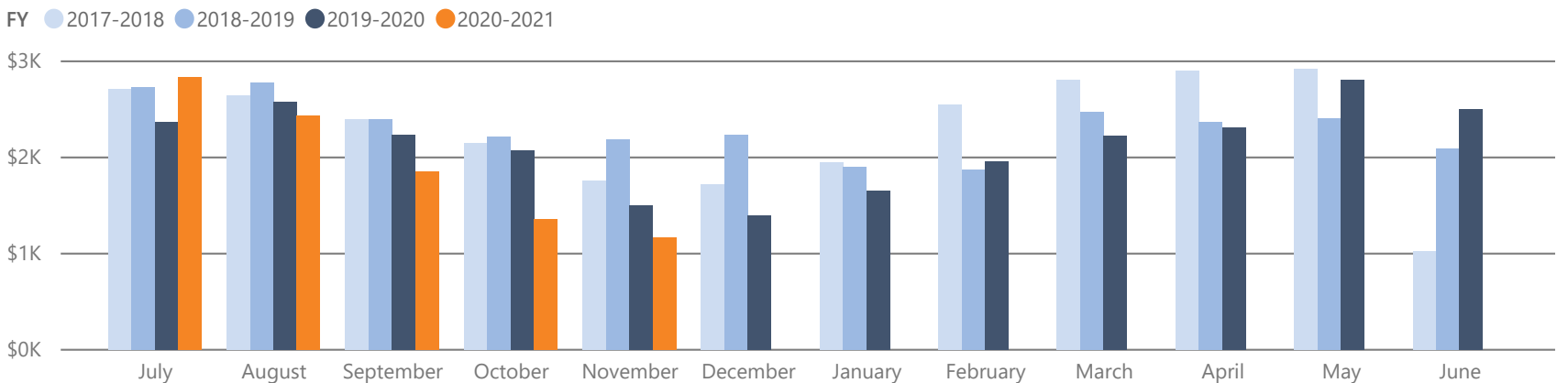
## (\$ Savings vs Baseline YTD

\$79

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



## Total Electric Cost (\$) by Month



## Site Narrative

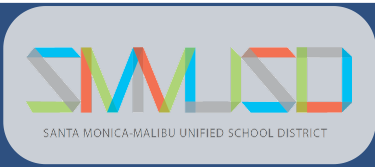
In FY 2020-21 from July through August, Webster Elementary showed a **decrease in electricity of 8,452 kWh (35% reduction), yielding a cost decrease of \$79 (1% reduction) compared to FY 2017-18.** Since rate increases have occurred both through SCE and with the addition of Community Choice Aggregation (CCA) costs, monetary savings are better communicated through avoided costs (energy savings multiplied by current \$/kWh). **Avoided Costs during this period is equal to \$3,174.**

A timeline of the major projects at the site is shown in the total electricity graph above. Webster Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.

The last bill for service account (3-001-9056-09) ended September 17th, 2020. Therefore, energy and costs were compared between July and August 2020.

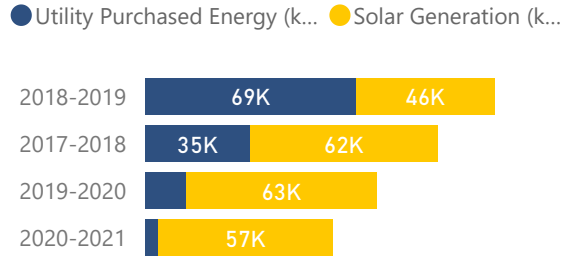




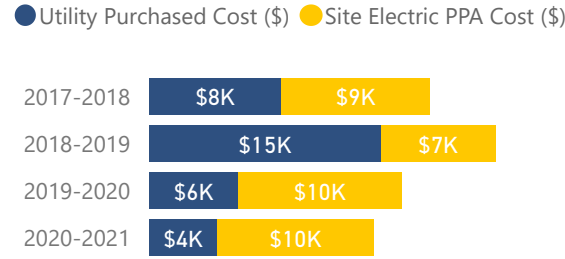


# Will Rogers Elementary : Energy Totals

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



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



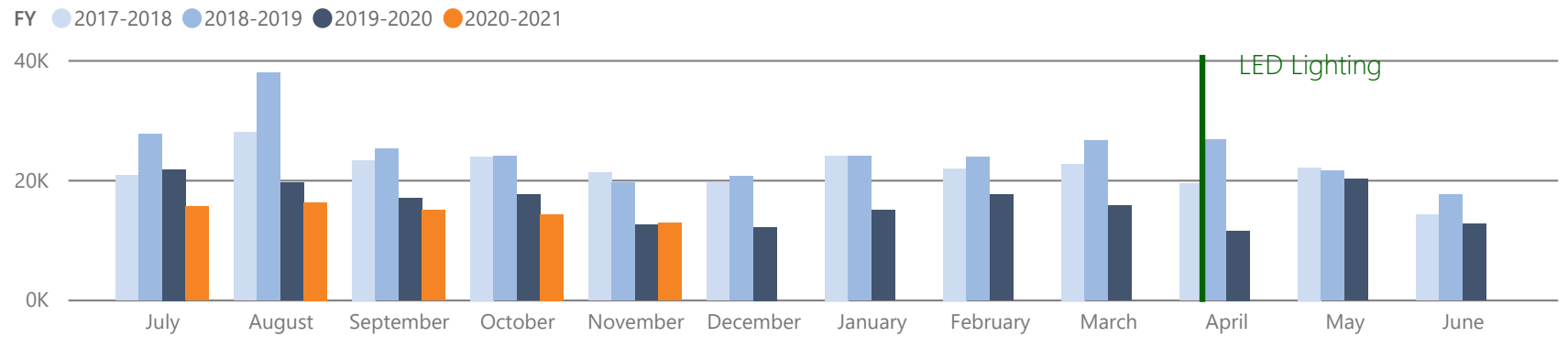
## (kWh) Savings vs Baseline YTD

34,692

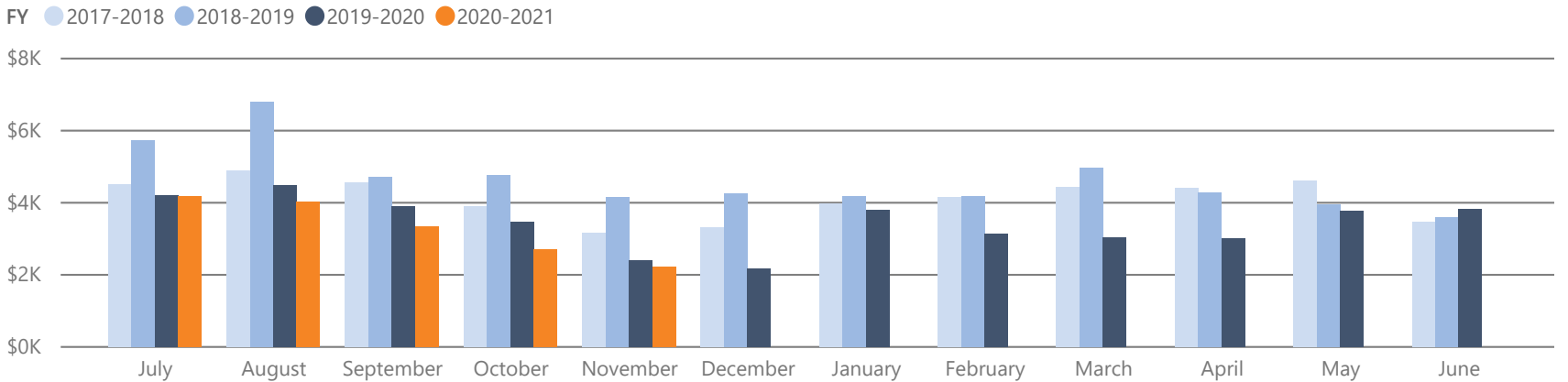
## (\$ Savings vs Baseline YTD

\$3,579

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



## Total Electric Cost (\$) by Month



## Site Narrative

In FY 2020-21 from July through October, Will Rogers Elementary showed a reduction in electricity of 34,692 kWh (36% decrease), yielding a decrease in costs of \$3,579 (20% 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 \$8,032.**

A timeline of the major projects at the site is shown in the total electricity graph above. Will Rogers Elementary School completed installation of interior LED lighting in April 2019, which significantly lowered the energy usage in the following months.