

# Comparative Energy Analysis Report

Prepared for  
City of West Hollywood

Prepared by  
The Energy Coalition

On Behalf of  
The Southern California Regional Energy Network Public Agency Project Delivery Programs

Date  
11/25/2020

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## 1. Overview

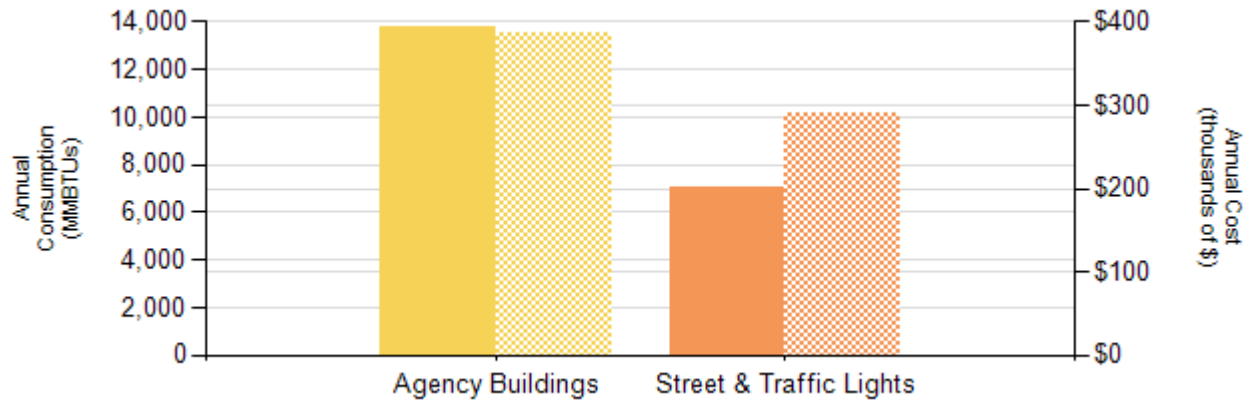
This report is intended to provide a framework for the City of West Hollywood, referred to as “Agency” herein, to identify inefficient facilities and infrastructure and prioritize further investigation and energy efficiency retrofit work. This analysis uses only energy billing data provided by the Agency to analyze energy use across Agency assets, and to help identify opportunities for energy efficiency improvements. Many factors affect the energy use in different assets, including age, type of heating, ventilation, air conditioning (HVAC), and lighting equipment, facility occupancy and hours, plug loads, and climate. Once individual opportunities with the greatest potential for energy savings are identified, a more detailed screening of those facilities can be performed to identify the specific sources of the inefficiencies.

This report was created by The Energy Coalition on behalf of the Southern California Regional Network ([www.socalren.org](http://www.socalren.org)). Any questions about this report can be directed to your assigned Project Manager, Ken Gonzales at [kgonzales@energycoalition.org](mailto:kgonzales@energycoalition.org).

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## 2. Total Energy Portfolio

Your Total Annual Energy Cost is **\$675,988**



Key: Solid color represents consumption, hashed color represents cost

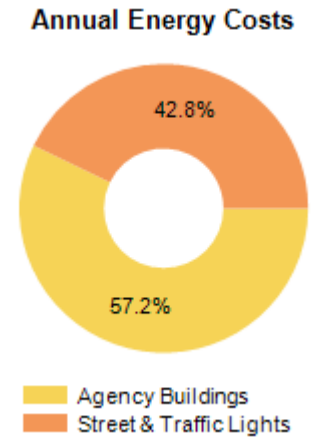


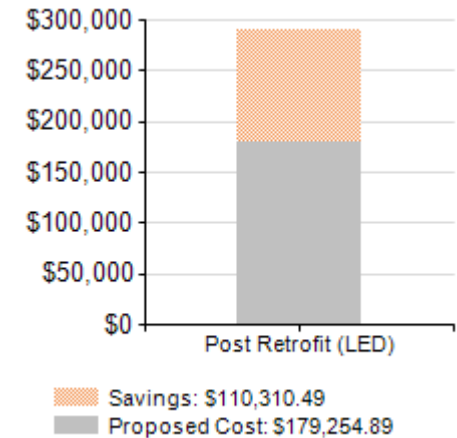
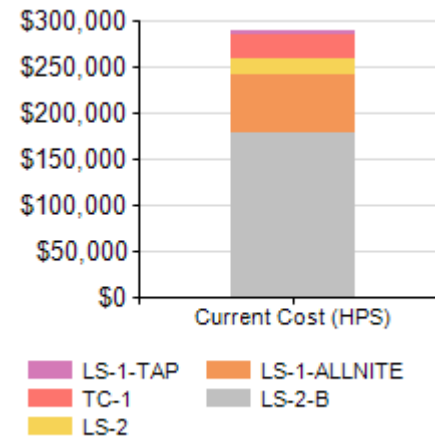
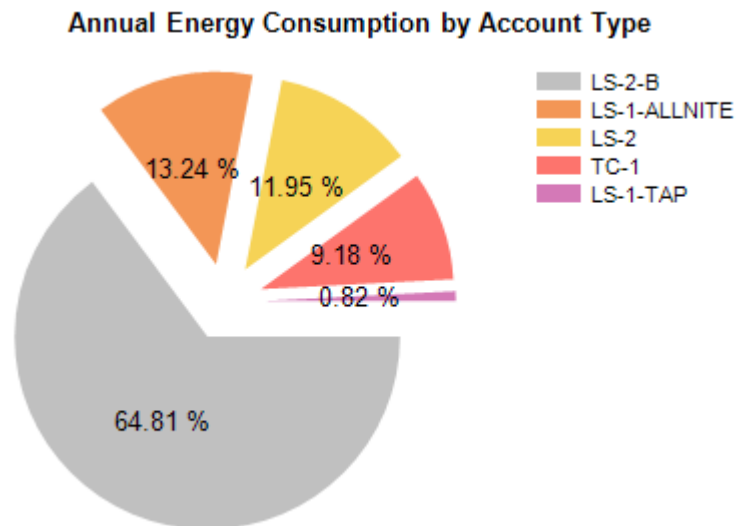
Table 1: Total Energy Portfolio (Annual)

Agency Energy Use	Electric Consumption (kWh)	Electric Cost (\$)	Gas Consumption (therms)	Gas Cost (\$)	Total Energy Consumption (MMBTus)	Total Energy Cost (\$)	GHG Emissions (lbs CO2)
Agency Buildings	3,144,784	\$359,194	30,203	\$27,228	13,750	\$386,422	1,625,854
Street & Traffic Lights	2,074,909	\$289,565	0	\$0	7,080	\$289,565	1,072,728



### 3. Street & Traffic Lights

Your Annual Energy Cost for Street & Traffic Lights is **\$289,565** and **42.8%** of the Total Cost.



**Assumption** -agencies can save 50% on annual street & traffic light kWh consumption by converting HPS to LED.

**Calculation** – projected savings are 50% of the total kWh consumption of agency owned street and traffic lights (TC-1, LS-2, and LS-3). LS-1 street lights are not included in projected savings.

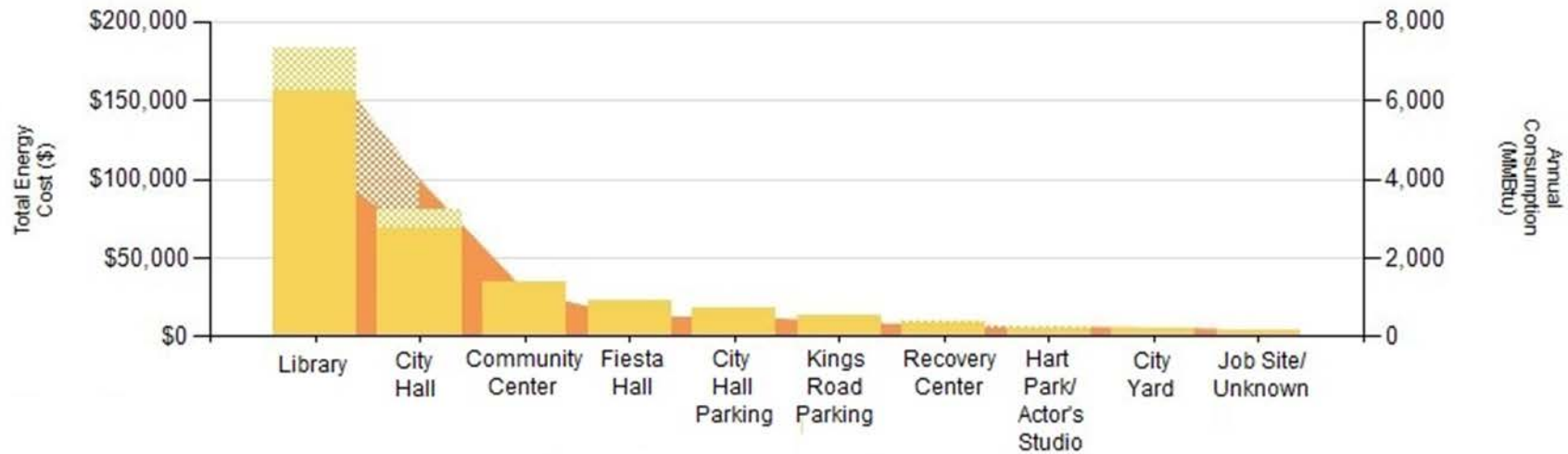
Table 3: Street & Traffic Lights (Annual)

Tariff	Tariff Description	Electric Consumption (kWh)	Electric Cost (\$)	Electric Rate (\$/kWh)
LS-2-B	Street Lights (Agency Owned - unmetered)	1,344,792	\$177,513	0.13
LS-1-ALLNITE	Street Lights (SCE Owned)	274,652	\$64,790	0.24
TC-1	Traffic Signal Lights (Agency Owned)	190,574	\$26,442	0.14
LS-2	Street Lights (Agency Owned - unmetered)	247,956	\$16,667	0.07
LS-1-TAP	Street Lights (SCE Owned)	16,935	\$4,154	0.25



## 4. Building Summary

Your Annual Energy Cost for Buildings is **\$386,422** and **57.2%** of the Total Cost.



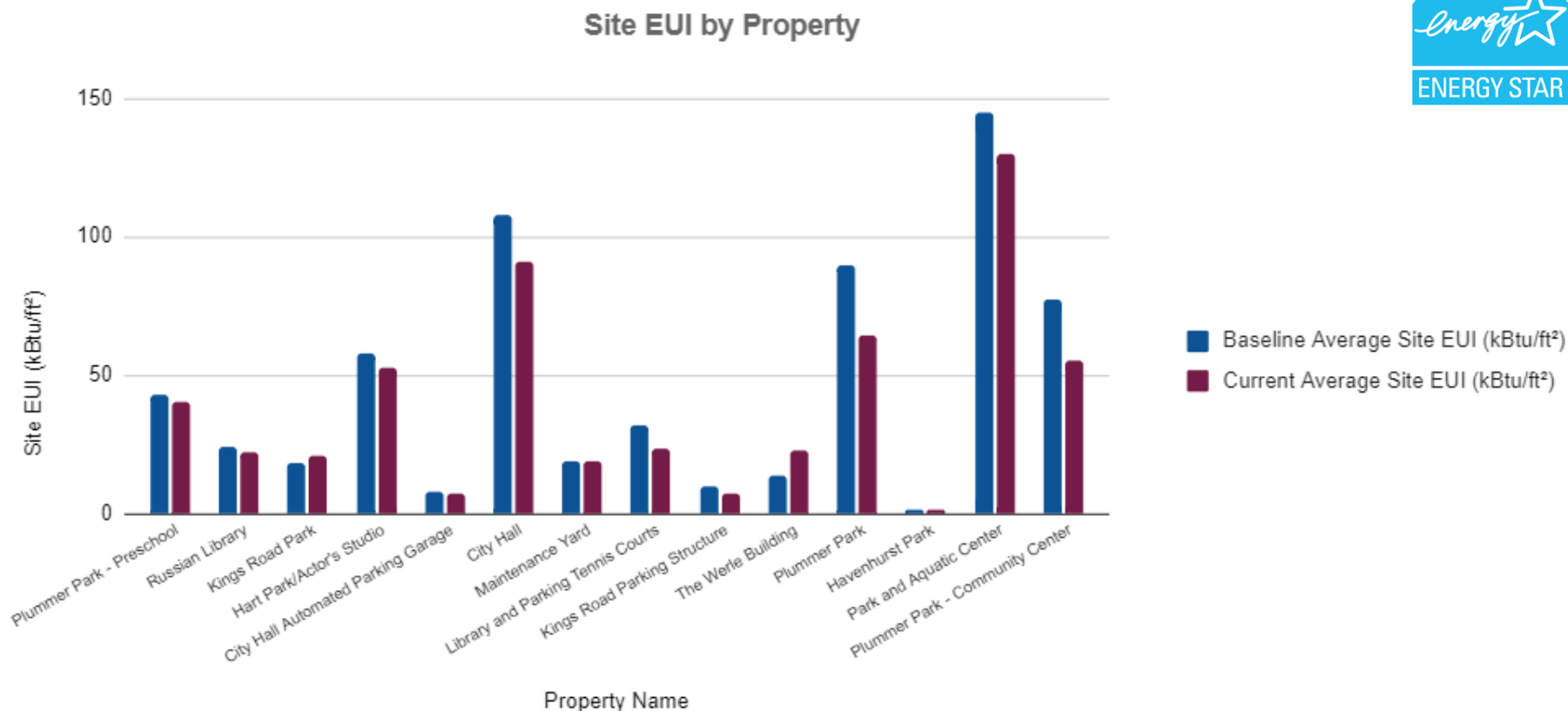
Key: Displays the top 10 consuming Buildings. Yellow columns represent Cost, Orange area represents Consumption. Electricity is the solid shade, Natural Gas is the hashed shade.

Table 4: Building Summary (Annual)

Site Name	Address	Electric Consumption (kWh)	Electric Cost (\$)	Electric Rate (\$/kWh)	Gas Consumption (therms)	Gas Cost (\$)	Gas Rate (\$/therm)
Library/Parking Structure/Tennis Courts	625 N SAN VICENTE BLVD	1,269,533	\$156,533	\$0.12	14,964	\$13,170	\$0.88
City Hall	8300 SANTA MONICA BLVD	749,179	\$68,775	\$0.09	14,088	\$12,093	\$0.86
Community Center	7377 SANTA MONICA BLVD	330,400	\$34,256	\$0.10	0 *	\$0	\$0.00
Fiesta Hall	1200 N VISTA ST	142,402	\$22,928	\$0.16	0	\$0	\$0.00
City Hall Parking	1085 SWEETZER AVE	144,034	\$17,687	\$0.12	0	\$0	\$0.00
Kings Road Parking	8383 SANTA MONICA BLVD UNIT1	102,722	\$13,118	\$0.13	0	\$0	\$0.00
Recovery Center	626 N ROBERTSON BLVD	76,998	\$9,240	\$0.12	256	\$527	\$2.06
Hart Park/Actor's Studio	8341 DE LONGPRE AVE	51,024	\$5,286	\$0.10	758	\$1,112	\$1.47
City Yard/Maintenance	7317 ROMAINE ST	62,715	\$5,569	\$0.09	0 *	\$0	\$0.00
Job Site/Unknown	8460 1/2 HOLLOWAY	42,383	\$4,539	\$0.11	0	\$0	\$0.00

\*This site does have a gas account. A value of "0" is due to missing or inconsistent billing data.

## 5. ENERGY STAR Portfolio Manager – Energy Use Intensity



### Portfolio Average Site EUI

**-6.3** ▶ Change in Average Site EUI

**39.8** ▶ Current Average Site EUI

**46.2** ▶ Baseline Average Site EUI

Properties Included: 15

### Your Properties Compared to the National Median Site EUI

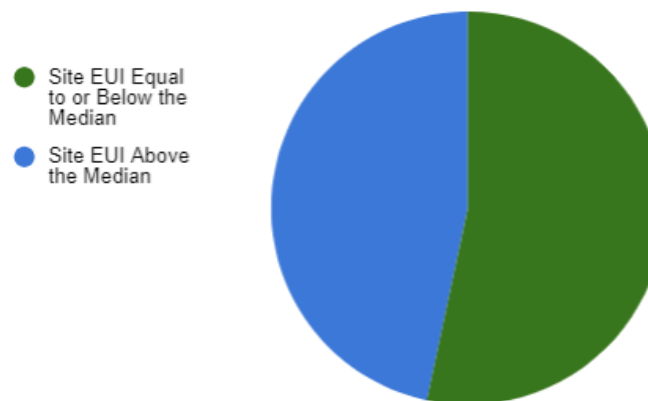


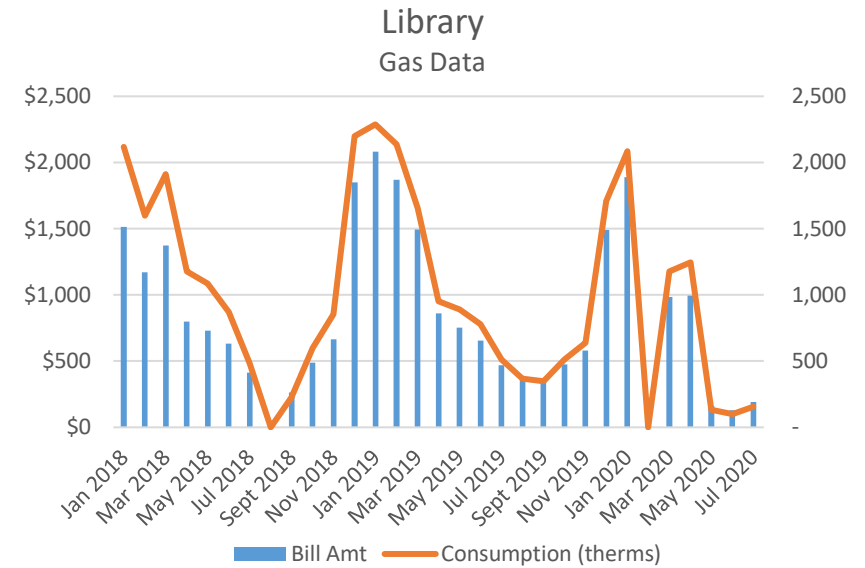
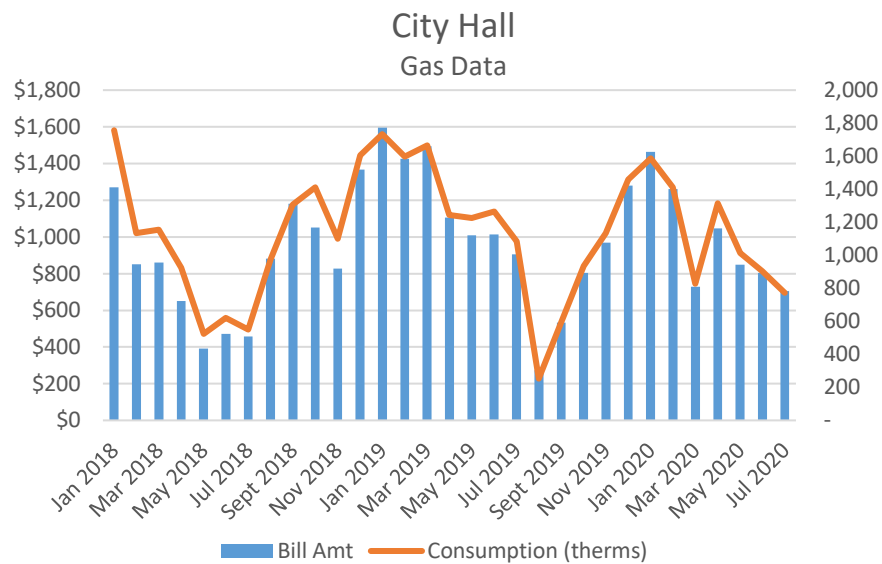
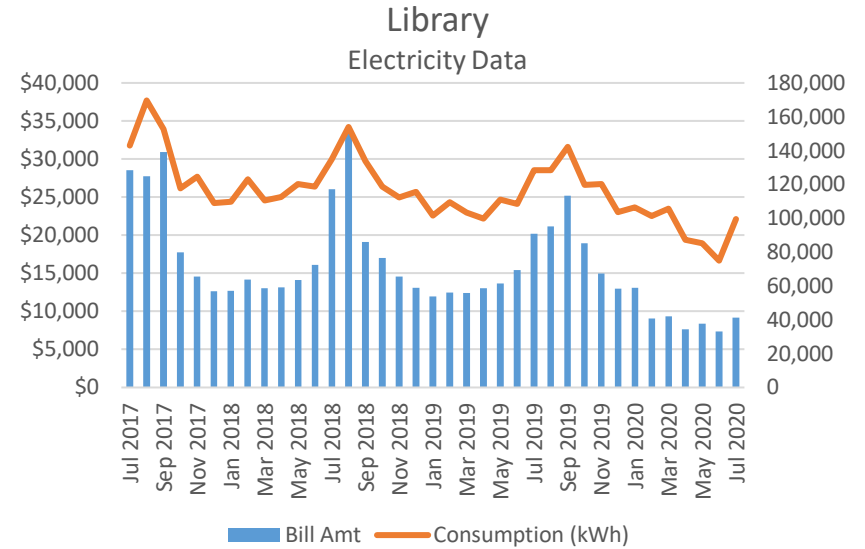
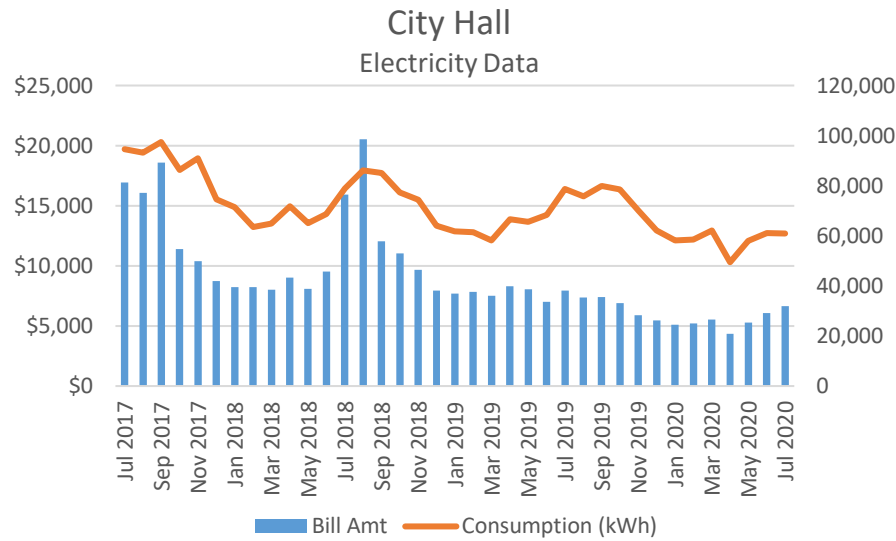
Table 5: Site EUI Summary

Site Name	Property Type – ESPM Calculated	Square Footage (ft <sup>2</sup> )	Baseline Average Site EUI (kBtu/ft <sup>2</sup> )	Baseline Year	Current Average Site EUI (kBtu/ft <sup>2</sup> )	Current Year	Current National Median Average Site EUI (kBtu/ft <sup>2</sup> )
Plummer Park - Preschool	Pre-school/Davcare	2,220	43.1	1/31/2018	40	11/30/2020	47
Russian Library	Library	4,830	24.3	01/31/2018	22	03/31/2020	51.3
Kings Road Park	Other - Recreation	2,735	18	12/31/2018	20.8	10/31/2020	45.9
Hart Park/Actor's Studio	Performing Arts	3,900	58	12/31/2018	52.7	10/31/2020	47.1
City Hall Automated Parking	Parking	62,205	7.8	09/30/2017	7.4	03/31/2020	NA
Laurel House	Other - Recreation	9,905	0.3	12/31/2018	0.3	03/31/2020	40
City Hall	Office	39,512	107.6	12/31/2018	91.1	10/31/2020	61.9
Maintenance Yard	Other - Public	13,436	18.9	12/31/2018	19.1	11/30/2020	35.5
Library and Parking Tennis Courts	Library	161,195	32	1/31/2018	23.1	11/30/2020	51.3
Kings Road Parking Structure	Parking	58,806	9.7	12/31/2017	7.1	03/31/2020	NA
The Werle Building	Social/Meeting Hall	12,600	13.7	06/30/2018	22.8	03/31/2020	39.1
Plummer Park	Other - Recreation	17,182	89.7	01/31/2018	64.3	11/30/2020	40
Havenhurst Park	Other - Recreation	6,700	1.2	01/31/2018	1.5	03/31/2020	40
Park and Aquatic Center*	Other - Recreation	17,815	145.1	12/31/2018	130.2	03/31/2020	105.3
Plummer Park - Community Center	Social/Meeting Hall	17,182	77.3	01/31/2018	55.5	11/30/2020	39.1

\*Park and Aquatic Center has been demolished. Site is still currently receiving electricity but not gas.



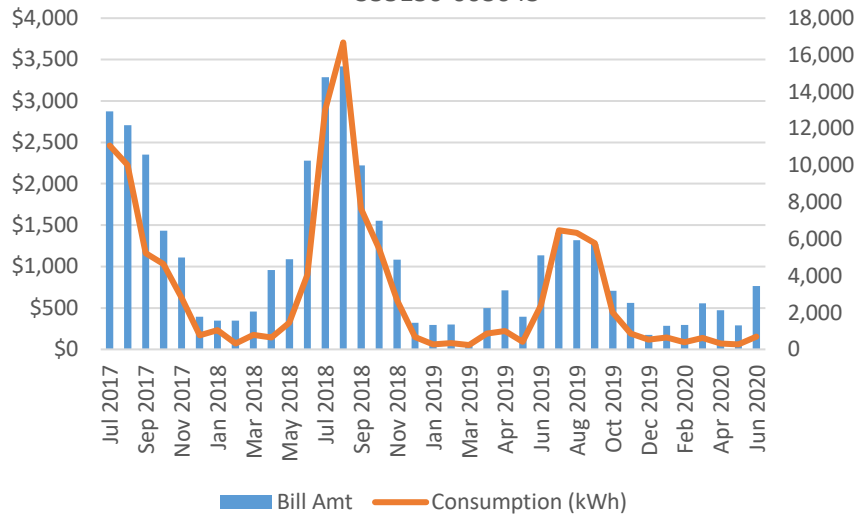
## 6. City Hall and Library Energy Consumption



## 7. Community Center Energy Consumption

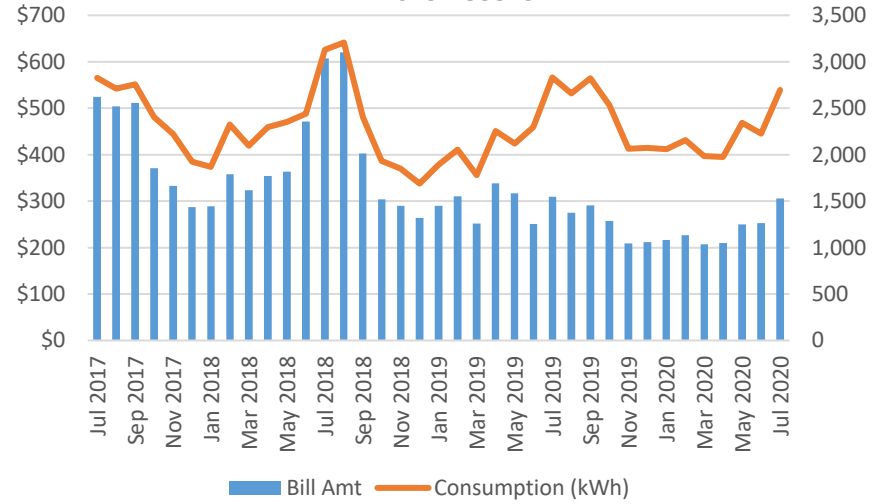
### Community Center

355150-003043



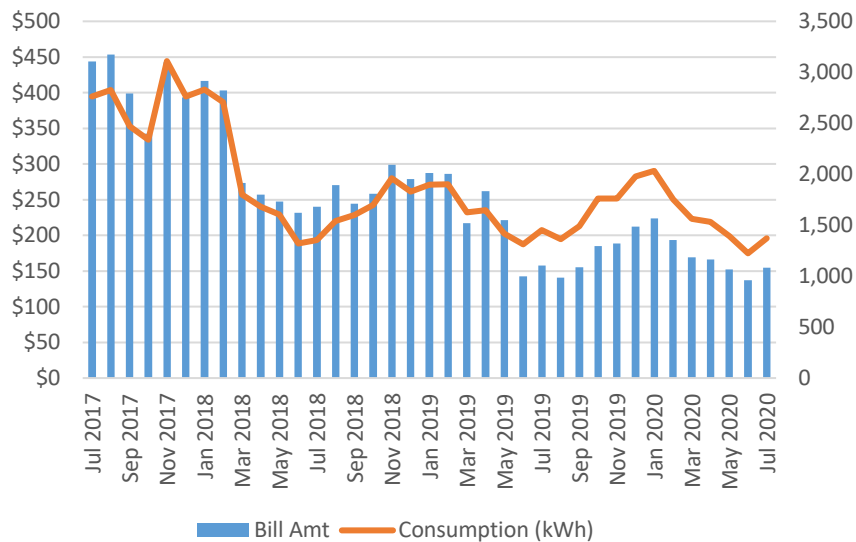
### Community Center

222013-288813



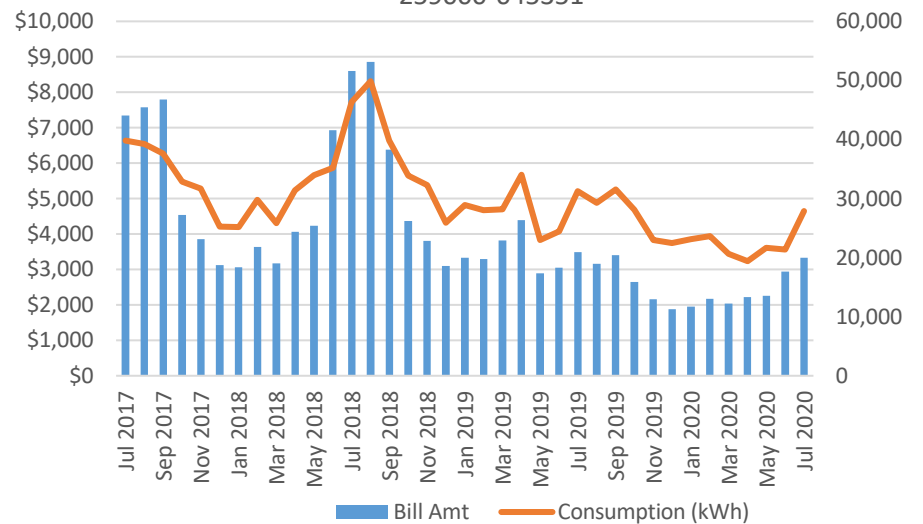
### Community Center

222013-754171



### Community Center

259000-045351



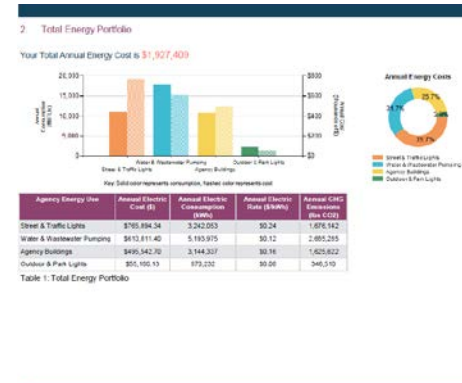
## Appendix A - Methodology

### 1. Data Sources

- Building information, energy usage and cost data used in this analysis were derived from: ENERGY STAR Portfolio Manager®, and utility consumption billing data provided by agency staff.
  - Utility consumption billing data used in this analysis were derived from SCG gas tariffs and SCE electric tariffs
  - For more information about the utility tariffs included in this analysis refer to:
    - SCG Gas Tariffs: [For more information about Southern California Gas tariffs](https://www.socalgas.com/regulatory/tariffs/tariffs-rates.shtml); <https://www.socalgas.com/regulatory/tariffs/tariffs-rates.shtml>
    - SCE Electric Tariff: [For more information about Southern California Edison tariffs](https://www.sce.com/wps/portal/home/regulatory/tariff-books/rates-pricing-choices); <https://www.sce.com/wps/portal/home/regulatory/tariff-books/rates-pricing-choices>
  - Analysis period for electricity and gas results were based on usage during period August 1, 2019 – July 31, 2020.
  - In some cases, multiple meters were associated with a single facility or asset type. For such facilities, to generate estimates of facility-wide energy use and energy intensity, energy usage and cost values were aggregated by summing energy usage and cost values for each day in the analysis period.
  - GHG emissions data used in this analysis were calculated using the conversion: 517 lb CO<sub>2</sub>/MWh + 11.91 lbs CO<sub>2</sub>/therm [1,2].
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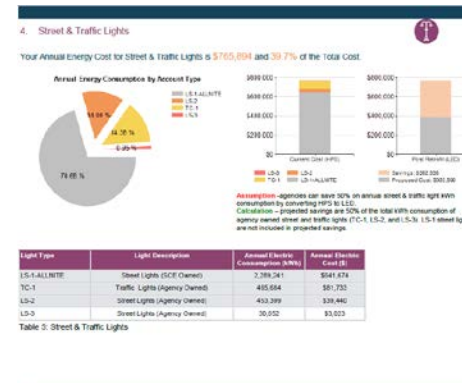
## 2. Total Energy Portfolio

- Total Energy Portfolio data represents an analysis of each agency facility type annual energy costs, annual energy consumption (kWh and therms), GHG Emissions and total annual energy costs for agency facility types based on MMBtus.
- The City of West Hollywood has 8 municipal Level 2 EV on-street (curbside) fixtures located throughout the City, with two more in development for installation near the Sal Guarriello Veterans' Memorial.
- There are 8 existing municipal Level 2 off-street EV charging fixtures with an additional 10 currently under construction. These are all installed in municipal parking facilities. More info found [here](#).
- The following agency assets are included in the Total Energy Portfolio:
  - Water Pumping
  - Street & Traffic Lights
  - Buildings
  - Outdoor & Parks Lights



## 3. Street & Traffic Lights

- Street & traffic light data represents an analysis of annual energy costs and annual energy consumption (kWh) per SCE street & traffic light tariff type.
- Annual cost savings reflects only agency owned street lights in the analysis; assumed cost savings conversion is based on converting HPS to LED agency owned traffic and street lights [3].
- On average, agencies can save 50% on annual kWh consumption by converting HPS to LED, which also results in cost savings [3].

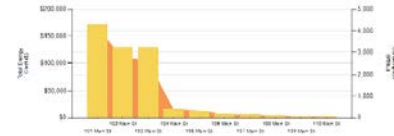


## 4. Building Summary

- Building summary data is weather normalized and includes the following metrics for the top ten highest energy-consuming agency buildings' (total annual energy costs): annual energy costs and annual energy consumption (kWh and therms).
- Due to a gap in natural gas consumption data for 625 N San Vicente Blvd for the month of February 2020, averaged values were utilized to calculate a full year of cost and consumption. Averaged natural gas values utilized for February 2020 at this site were 1,631 therms and \$1,436.

### 5. Building Summary

Your Annual Energy Cost for Buildings is \$492,495 and 25.7% of the Total Cost



File: Choose the top 10 consuming Buildings, Column: Annual Cost, Row: Annual Consumption

Name	Address	Annual Energy Consumption (kWh)	Annual Energy Cost (\$)	Annual Energy Cost (\$MM)
101 Main St	101 Main St	1,028,834	\$172,688	\$0.14
102 Main St	102 Main St	861,458	\$126,106	\$0.10
103 Main St	103 Main St	761,782	\$120,248	\$0.10
104 Main St	104 Main St	105,187	\$16,543	\$0.01
105 Main St	105 Main St	92,182	\$12,708	\$0.01
106 Main St	106 Main St	44,372	\$7,410	\$0.01
107 Main St	107 Main St	32,222	\$6,030	\$0.01
108 Main St	108 Main St	26,854	\$4,292	\$0.01
109 Main St	109 Main St	12,983	\$2,354	\$0.00
110 Main St	110 Main St	13,834	\$1,912	\$0.00

Table 4: Building Summary

## Endnotes

[1] Corporate Responsibility Report. (2015). In Southern California Edison. Retrieved from [https://www.sce.com/wps/wcm/connect/c0fceef5-e04a-4287-8301-8e66e3e5fbac/2014\\_Corporate+Responsibility+Report\\_FINAL+single-page.pdf?MOD=AJPERES&ContentCache=NONE](https://www.sce.com/wps/wcm/connect/c0fceef5-e04a-4287-8301-8e66e3e5fbac/2014_Corporate+Responsibility+Report_FINAL+single-page.pdf?MOD=AJPERES&ContentCache=NONE)

[2] Adams, L.S., Nicols, M.D., Goldstene, J. N. (2008). Climate Change Scoping Plan. In California Air Resources Board. Retrieved from [https://www.arb.ca.gov/cc/scopingplan/document/appendices\\_volume2.pdf](https://www.arb.ca.gov/cc/scopingplan/document/appendices_volume2.pdf)

[3] Based on SoCalREN previous project estimates.