

Prepared for
City of Arcadia

Prepared by
The Energy Coalition

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

Date
11/10/2020

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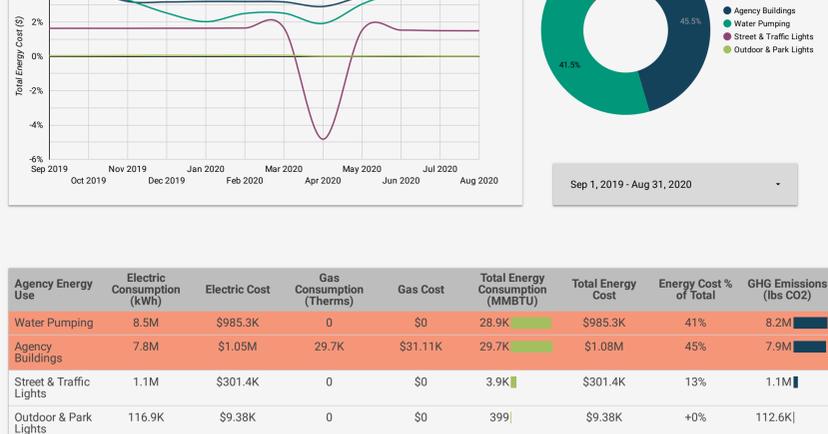
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Overview

This report summarizes energy usage and energy cost by sector (Street & Traffic Lights, Agency Buildings, Water Pumping, and Outdoor & Park Lights) for the City of Arcadia, referred to as "Agency" herein. This analysis uses energy billing data provided by the Utility and Agency to help identify opportunities for energy efficiency improvements across sectors. Once opportunities are identified, a more detailed screening of those facilities can be performed to further vet potential energy and cost-saving projects.

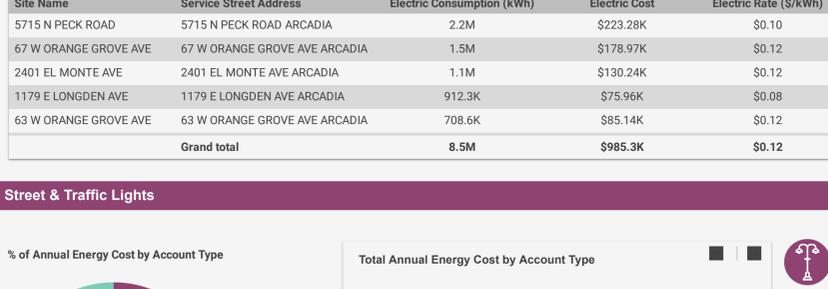
This report was created by The Energy Coalition on behalf of the Southern California Regional Energy Network (www.socalren.org). Any questions about this report can be directed to your assigned Project Manager, Stefan Slattery at sslattery@energycoalition.org.

Total Energy Portfolio (Annual)



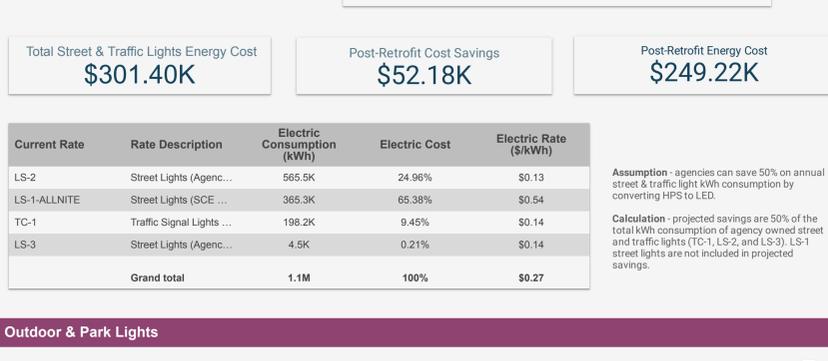
Agency Energy Use	Electric Consumption (kWh)	Electric Cost	Gas Consumption (Therms)	Gas Cost	Total Energy Consumption (MMBTU)	Total Energy Cost	Energy Cost % of Total	GHG Emissions (lbs CO2)
Water Pumping	8.5M	\$985.3K	0	\$0	28.9K	\$985.3K	41%	8.2M
Agency Buildings	7.8M	\$1.05M	29.7K	\$31.11K	29.7K	\$1.08M	45%	7.9M
Street & Traffic Lights	1.1M	\$301.4K	0	\$0	3.9K	\$301.4K	13%	1.1M
Outdoor & Park Lights	116.9K	\$9.38K	0	\$0	399	\$9.38K	+0%	112.6K
Grand total	17.6M	\$2.35M	29.7K	\$31.11K	62.9K	\$2.38M	100%	17.3M

Water Pumping



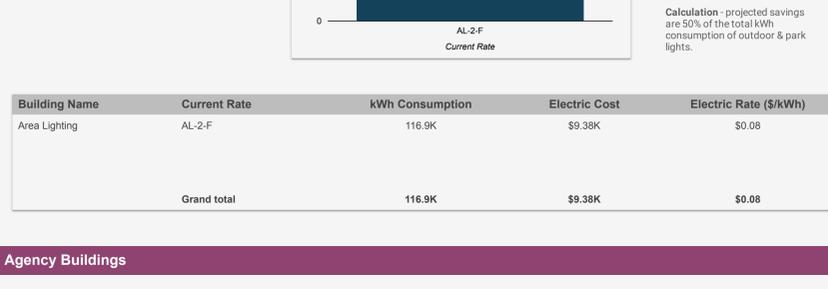
Site Name	Service Street Address	Electric Consumption (kWh)	Electric Rate (\$/kWh)
5715 N PECK ROAD	5715 N PECK ROAD ARCADIA	2.2M	\$0.10
67 W ORANGE GROVE AVE	67 W ORANGE GROVE AVE ARCADIA	1.5M	\$0.12
2401 EL MONTE AVE	2401 EL MONTE AVE ARCADIA	1.1M	\$0.12
1179 E LONGDEN AVE	1179 E LONGDEN AVE ARCADIA	912.3K	\$0.08
63 W ORANGE GROVE AVE	63 W ORANGE GROVE AVE ARCADIA	708.6K	\$0.12
Grand total		8.5M	\$0.12

Street & Traffic Lights



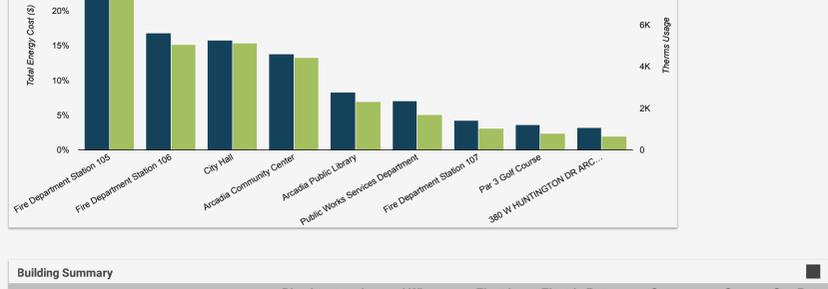
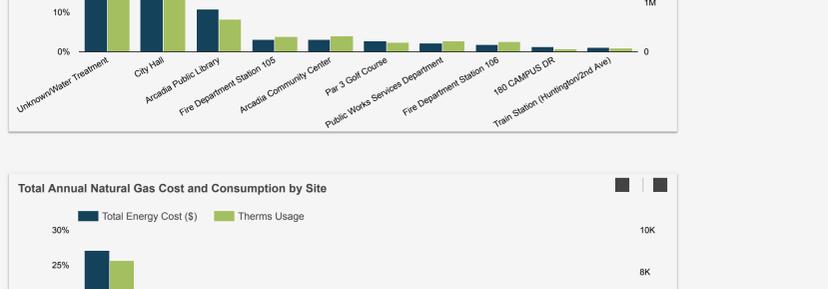
Current Rate	Rate Description	Electric Consumption (kWh)	Electric Cost	Electric Rate (\$/kWh)
LS-2	Street Lights (Agenc...	565.5K	24.96%	\$0.13
LS-1-ALLNITE	Street Lights (SCE ...	365.3K	65.38%	\$0.54
TC-1	Traffic Signal Lights ...	198.2K	9.45%	\$0.14
LS-3	Street Lights (Agenc...	4.5K	0.21%	\$0.14
Grand total		1.1M	100%	\$0.27

Outdoor & Park Lights



Building Name	Current Rate	kWh Consumption	Electric Cost	Electric Rate (\$/kWh)
Area Lighting	AL-2-F	116.9K	\$9.38K	\$0.08
Grand total		116.9K	\$9.38K	\$0.08

Agency Buildings



Building Summary	Site Name	Address	Disadvantaged Community	kWh Consumption	Electric Cost	Electric Rate (\$/kWh)	Gas Consumption	Gas Cost	Gas Rate (\$/therm)
1.	Unknown/Water Treatment	141 E CAMINO REAL AVE ARCADIA	no	3.9M	\$474.48K	\$0.12	0	\$0	null
2.	City Hall	240 W HUNTINGTON DR	no	1.7M	\$258.51K	\$0.15	5.1K	\$4.92K	\$0.96
3.	Arcadia Public Library	20 W DUARTE RD	no	664.4K	\$113.05K	\$0.17	2.3K	\$2.6K	\$1.11
4.	Fire Department Station 105	710 S SANTA ANITA AVE	no	310.4K	\$33.55K	\$0.11	8.6K	\$8.42K	\$0.98
5.	Arcadia Community Center	365 CAMPUS DR	no	317.8K	\$33.39K	\$0.11	4.4K	\$4.29K	\$0.97
6.	Fire Department Station 106	630 S BALDWIN AVE	no	204K	\$19.65K	\$0.1	5K	\$5.23K	\$1.04
7.	Public Works Services Department	11800 GOLDRING RD	no	219.8K	\$23.51K	\$0.11	1.7K	\$2.19K	\$1.28
8.	Par 3 Golf Course	620 E LIVE OAK AVE	no	190.1K	\$29.81K	\$0.16	804	\$1.14K	\$1.42
9.	Fire Department Station 107	79 W ORANGE GROVE AVE	no	55.3K	\$4.68K	\$0.08	1K	\$1.33K	\$1.28
10.	Train Station (Huntington/2nd Ave)	20 S 2ND AVE	no	67.7K	\$11.43K	\$0.17	0	\$0	null
11.	180 CAMPUS DR	180 CAMPUS DR ARCADIA	no	53.5K	\$14.2K	\$0.27	0	\$0	null
12.	2240 HIGHLAND	2240 HIGHLAND OAKS	no	24.5K	\$2.66K	\$0.11	0	\$0	null

Annual Energy Consumption Comparison	Site Name	Address	kWh Consumption	% Δ	Gas Consumption	% Δ	MMBTU	% Δ
1.	Unknown/Water Treatment	141 E CAMINO REAL AVE ARCADIA	3.9M	40.2% ↑	0	-	13.2K	40.2% ↑
2.	City Hall	240 W HUNTINGTON DR	1.7M	2.0% ↑	5.1K	11.1% ↑	6.3K	2.7% ↑
3.	Arcadia Public Library	20 W DUARTE RD	664.4K	-13.5% ↓	2.3K	-68.6% ↓	2.5K	-25.7% ↓
4.	Fire Department Station 105	710 S SANTA ANITA AVE	310.4K	4.7% ↑	8.6K	-6.7% ↓	1.9K	-0.7% ↓
5.	Arcadia Community Center	365 CAMPUS DR	317.8K	-16.5% ↓	4.4K	-26.2% ↓	1.5K	-19.6% ↓
6.	Fire Department Station 106	630 S BALDWIN AVE	204K	2.3% ↑	5K	-16.7% ↓	1.2K	-6.6% ↓
7.	Public Works Services Department	11800 GOLDRING RD	219.8K	-0.9% ↓	1.7K	-3.9% ↓	921	-1.5% ↓
8.	Par 3 Golf Course	620 E LIVE OAK AVE	190.1K	42.1% ↑	804	9.5% ↑	729	37.6% ↑

Appendix A - Methodology

Data Sources

- Building information, energy usage and cost data used in this analysis were derived from: utility consumption billing data provided by agency staff.
- Utility consumption billing data used in this analysis were derived from SCE electric tariffs and SCG gas tariffs.
- For more information about the utility tariffs included in this analysis refer to:
 - [SCG Gas Tariffs](#)
 - [SCE Electric Tariffs](#)
- Analysis period for electricity and gas results were based on usage during period September 1, 2019 - August 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, 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 CO2/MMWh + 11.91 lbs CO2/therm[1,2].
- Any surcharges on your utility billing are excluded from this report.

Total Energy Portfolio

- Total Energy Portfolio data represents an analysis of each agency facility type annual energy costs, annual energy consumption (kWh), GHG Emissions, and total annual energy costs for agency facility types based on MMBTUs.
- The following agency assets are included in the Total Energy Portfolio:
 - Water Pumping
 - Street & Traffic Lights
 - Buildings
 - Outdoor & Parks Lights

Water Pumping

- Water pumping data represents an analysis of the top five highest energy consuming water and wastewater pumping SCE service accounts annual energy costs, annual energy consumption (kWh), GHG Emissions, and total annual energy costs based on MMBTUs.
- Water pump conversion data used in this analysis is derived on the assumption that 65% of all existing pumps need to be upgraded. Of the 65% of pumps requiring upgrades, it is assumed that the pumps will save 7.5% of their annual kWh consumption [3].

Street & Traffic Lights

- Street & traffic light data represents an analysis of annual energy costs, annual energy consumption (kWh), GHG Emissions per SCE street & traffic light tariff type.
- Annual cost savings reflect only agency owned street lights in the analysis; assumed cost savings conversion is based on converting HOPS 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].

Outdoor & Park Lights

- Outdoor & park lights data represents an analysis of annual energy costs, annual energy consumption (kWh), GHG Emissions, and total annual energy costs based on MMBTUs per SCE outdoor and park lighting tariff type.
- On average, agencies can save 50% on annual kWh consumption by converting HPS to LED, which also results in cost savings [3].

Agency Buildings

- Building summary data 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).
- Annual comparison data includes the following metrics for the agency buildings with the greatest change (absolute value) in annual energy consumption (MMBTU) from baseline period to analysis period: annual energy costs, annual energy consumption (kWh and therms).
- Baseline period for electricity and gas results were based on usage during September 1, 2018 - August 31, 2020.
- Analysis period for electricity and gas results were based on usage during September 1, 2019 - August 31, 2020.

Data Quality

Certain properties did not have energy usage data for the range of analysis and were excluded:

- [Gas/Electric] [TOU-GS1E] [11286] [Lucille/Santa Anita Arcadia]
- [Gas/Electric] [TOU-GS1E] [11306] [Leroy/Santa Anita NE Arcadia]
- [Gas/Electric] [TOU-GS1E] [11303] [Lemon/Santa Anita Arcadia]
- [Gas/Electric] [TOU-GS1E] [11365] [Las Tunas/Warren Arcadia]
- [Gas/Electric] [TOU-GS1E] [11310] [Huntington/Michign SE Arcadia]
- [Gas/Electric] [TOU-GS1E] [11286] [Huntington/5th NW Arcadia]
- [Gas/Electric] [TOU-GS1E] [11362] [Baldwin/Woodruff Arcadia]

End Notes

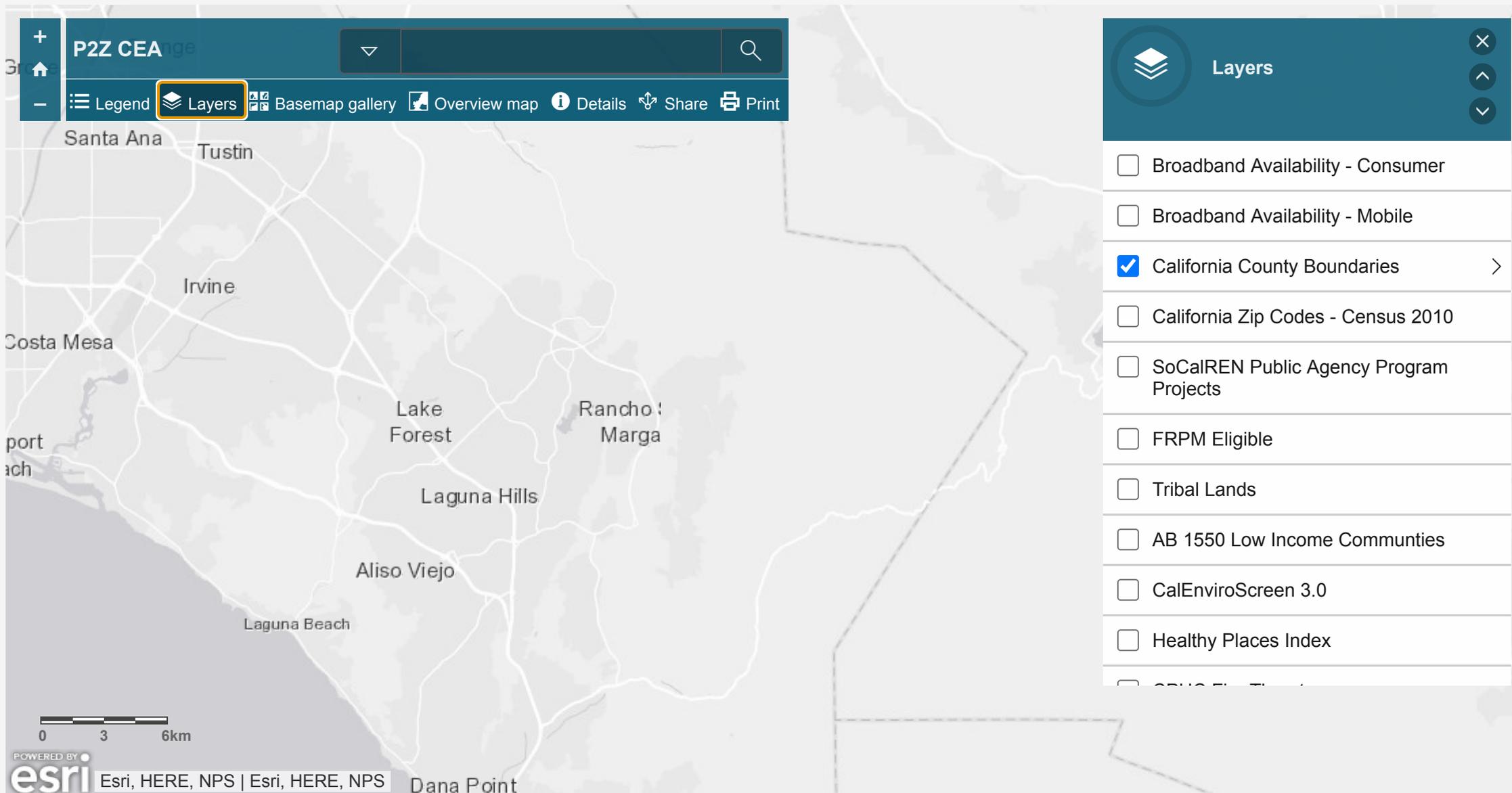
[1] Corporate Responsibility Report. (2015). In Southern California Edison. Retrieved from https://www.sce.com/wps/wcm/connect/c0fce5f604a-4287-8301-8e66e3e5fbac/2014_Corporate+Responsibility+Report_FINAL+single-page.pdf?MOD=AJPERES&ContentCache=NONE

[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

[3] Based on SoCalREN previous project estimates.

Monthly MMBTU Consumption by Service Address	Service Street Address	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020
LUCILLE/SANTA ANITA ARCADIA		0	0	0	0	0	0	0	0	0
LEROY/SANTA ANITA NE ARCADIA		0	0	0	0	0	0	0	0	0
LEMON/SANTA ANITA ARCADIA		0	0	0	0	0	0	0	0	0
LAS TUNAS/WARREN ARCADIA		0	0	0	0	0	0	0	0	0
HUNTINGTON/MICHIGN SE ARCADIA		0	0	0	0	0	0	0	0	0
HUNTINGTON/LA CADENA ARCADIA		3	3	3	4	3	3	3	3	3
HUNTINGTON/5TH NW ARCADIA		0	0	0	0	0	0	0	0	0
HUNTINGTON/MICHLINDA ARCADIA		1	1	1	1	1	1	1	1	1
BALDWIN/WOODRUFF ARCADIA		0	0	0	0	0	0	0	0	0

Annual Energy Consumption Comparison	Address	Meter Number	kWh Consumption	% Δ	Gas Consumption	% Δ
1.	141 E CAMINO REAL AVE ARCADIA	359150-009329	3.9M	40.2% ↑	0	-
2.	5715 N PECK ROAD ARCADIA	V345N-001038	2.2M	-0.1% ↓	-	-
3.	240 W HUNTINGTON DR	V349N-001067	1.7M	2.0% ↑	0	-
4.	67 W ORANGE GROVE AVE ARCADIA	V349N-005291	1.5M	5.6% ↑	0	-
5.	2401 EL MONTE AVE ARCADIA	V349N-018092	1.1M	-10.3% ↓	0	-
6.	1179 E LONGDEN AVE ARCADIA	V345N-001474	912.3K	54.9% ↑	0	-
7.	63 W ORANGE GROVE AVE ARCADIA	V45M-006534	708.6K	-33.4% ↓	0	-
8.	20 W DUARTE RD	V349N-014949	664.4K	-13.5% ↓	0	-
9.	230 N 2ND ARCADIA	V349N-014018	548.6K	-35.5% ↓	0	-
10.	1420 S BALDWIN AVE ARCADIA	259000-025409	506.3K	8.6% ↑	0	-



- Broadband Availability - Consumer
- Broadband Availability - Mobile
- California County Boundaries >
- California Zip Codes - Census 2010
- SoCalREN Public Agency Program Projects
- FRPM Eligible
- Tribal Lands
- AB 1550 Low Income Communities
- CalEnviroScreen 3.0
- Healthy Places Index

Comparative Energy Analysis Report

Prepared for
[Agency Name]

Prepared by
The Energy Coalition

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

Date
[Date]

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Appendix A - Methodology

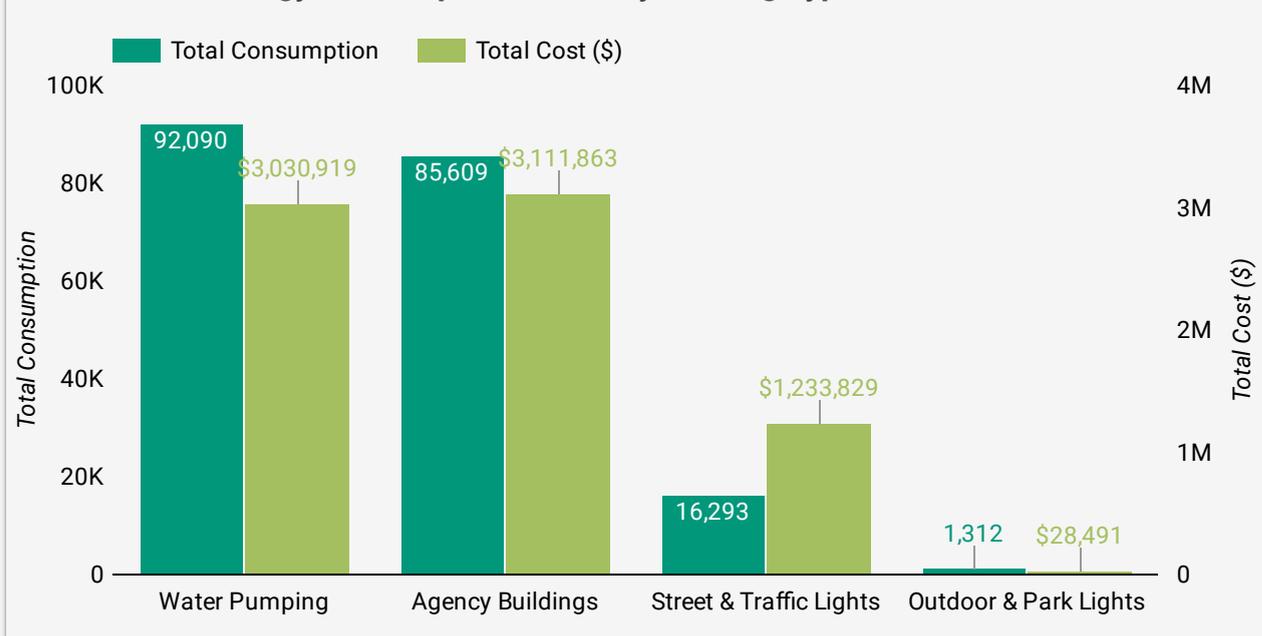
Overview

This report summarizes energy consumption and energy cost by sector (Street & Traffic Lights, Agency Buildings, Water Pumping, and Outdoor & Park Lights) for the **[Agency Name]**, referred to as "Agency" herein. This analysis uses energy billing data **[and building characteristic data-if ESPM appendix included]** provided by the Utility and Agency to help identify opportunities for energy efficiency improvements across sectors. Once opportunities are identified, a more detailed screening of those facilities can be performed to further vet potential energy and cost-saving projects.

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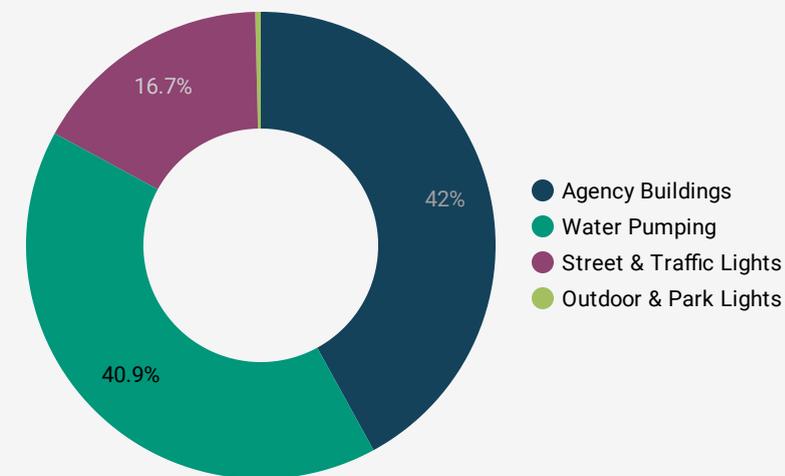
Total Energy Portfolio (Annual)

Annual Total Energy Consumption & Cost by Building Type

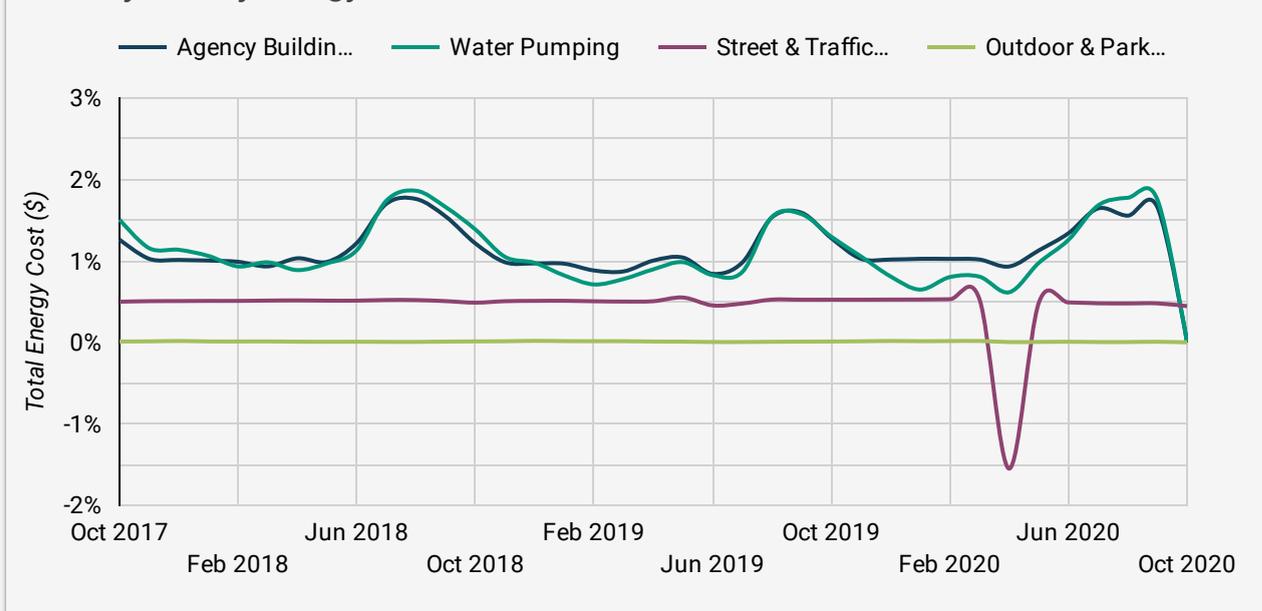


Total Energy Cost
100%

% of Total Annual Energy Cost by Agency Energy Use



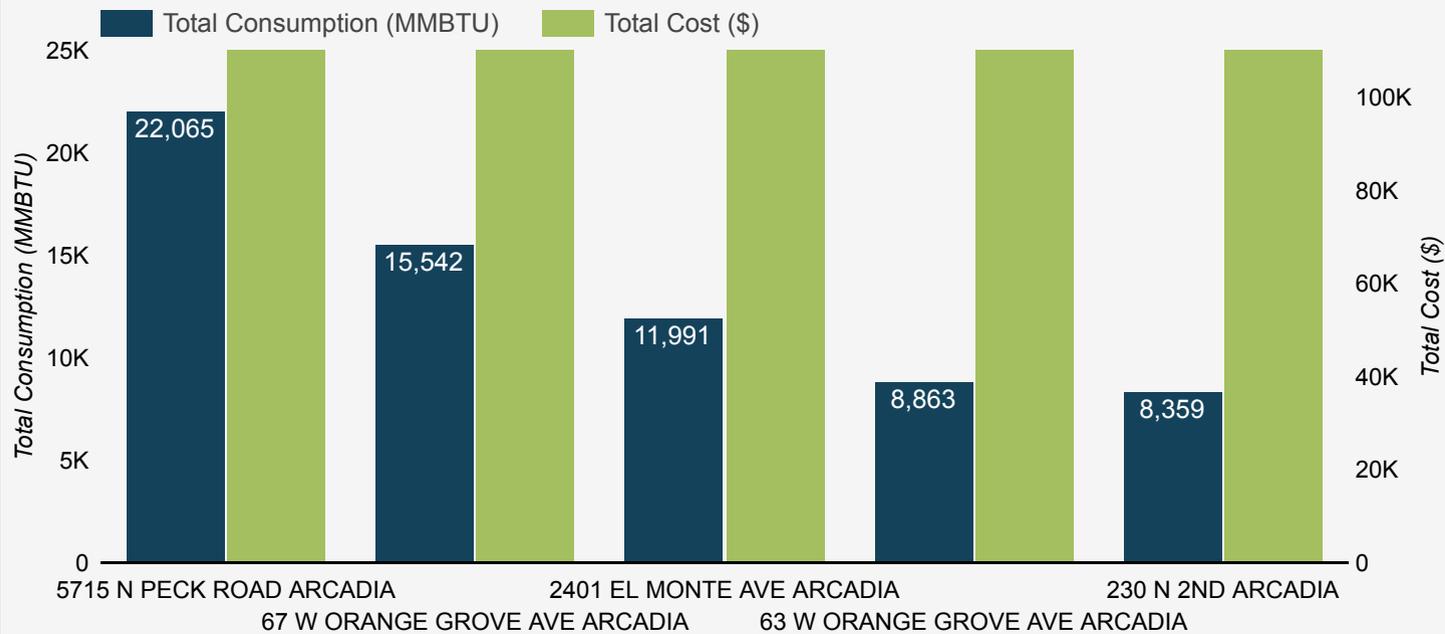
Monthly Cost by Energy Use



Agency Energy Use	Electric Consumption (kWh)	Electric Cost	Gas Consumption (Therms)	Gas Cost	Total Energy Consumption (MMBTU)	Total Energy Cost	Energy Cost % of Total	GHG Emissions (lbs CO2)
Water Pumping	27M	\$3.03M	0	\$0	92.1K	40.93%	41%	26M
Agency Buildings	22M	\$3.01M	105.1K	\$100.54K	85.7K	42.02%	42%	22.5M
Street & Traffic Lights	4.8M	\$1.23M	0	\$0	16.3K	16.66%	17%	4.6M
Outdoor & Park Lights	384.3K	\$28.49K	0	\$0	1.3K	0.38%	+0%	370.1K
Grand total	54.2M	\$7.3M	105.1K	\$100.54K	195.4K	100%	100%	53.4M



Top 5 Consuming Accounts



Total Pumping Energy Cost
100.00%

Post-Retrofit Cost Savings
\$147.76K

Post-Retrofit Energy Cost
\$2.88M

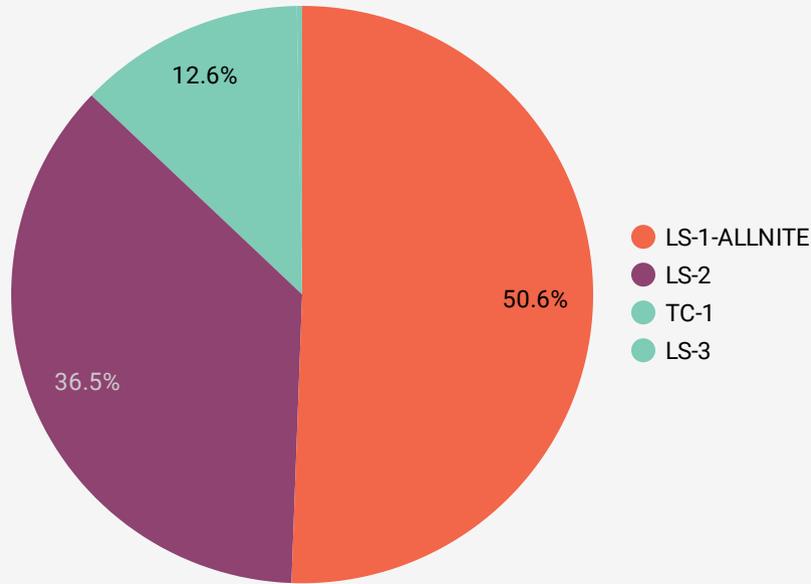
Assumption - 65% of all pumps need to be upgraded. Those pumps will reduce consumption by 7.5% kWh post-retrofit.

Calculation - projected savings are 7.5% of 65% of the total PA consumption (for ALL pump accounts)

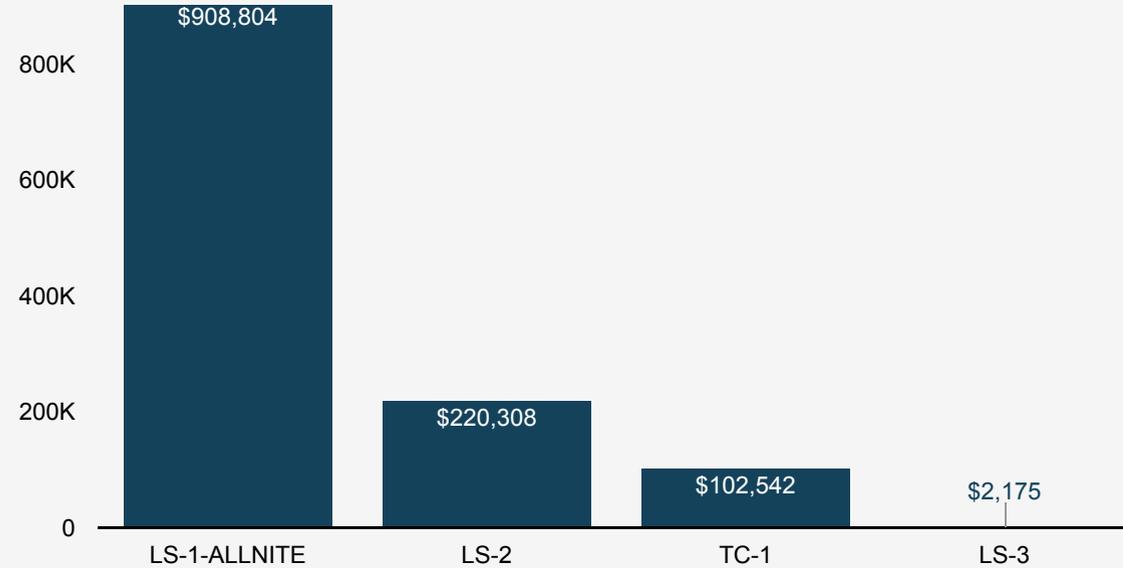
Site Name	Service Street Address	Electric Consumption (kWh)	Electric Cost	Electric Rate (\$/kWh)
5715 N PECK ROAD	5715 N PECK ROAD ARCADIA	6.5M	\$612.73K	\$0.09
67 W ORANGE GROVE AVE	67 W ORANGE GROVE AVE ARCADIA	4.6M	\$499.67K	\$0.11
2401 EL MONTE AVE	2401 EL MONTE AVE ARCADIA	3.5M	\$379.54K	\$0.11
63 W ORANGE GROVE AVE	63 W ORANGE GROVE AVE ARCADIA	2.6M	\$265.49K	\$0.10
230 N 2ND	230 N 2ND ARCADIA	2.4M	\$279.26K	\$0.11
1179 E LONGDEN AVE	1179 E LONGDEN AVE ARCADIA	1.7M	\$173.87K	\$0.10
500 W COLORADO ST	500 W COLORADO ST ARCADIA	1.4M	\$162.73K	\$0.12
618 E LIVE OAK AVE	618 E LIVE OAK AVE ARCADIA	1.3M	\$181.96K	\$0.14
65 W ORANGE GROVE AVE	65 W ORANGE GROVE AVE ARCADIA	1.2M	\$157.36K	\$0.13
1420 S BALDWIN AVE	1420 S BALDWIN AVE ARCADIA	1.1M	\$138.12K	\$0.12
Grand total		27M	\$3.03M	\$0.11

Street & Traffic Lights

% of Annual Energy Cost by Account Type



Total Annual Energy Cost by Account Type



Total Street & Traffic Lights Energy Cost

100.00%

Post-Retrofit Cost Savings

\$162.50K

Post-Retrofit Energy Cost

\$844.54K

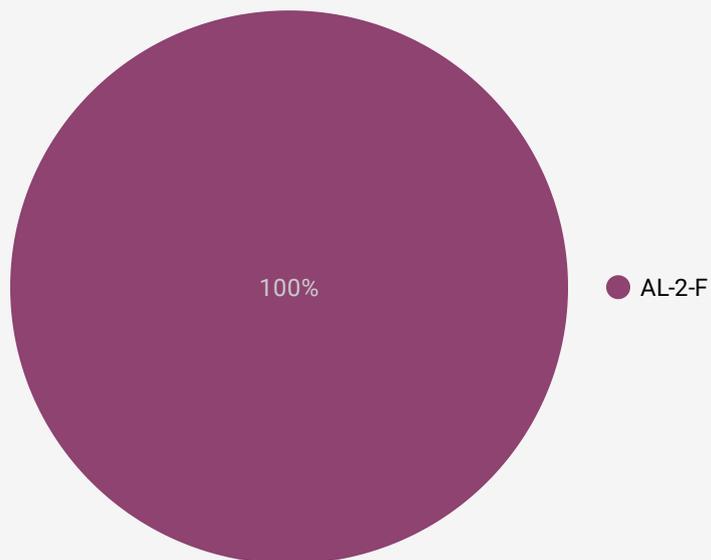
Current Rate	Rate Description	Electric Consumption (kWh)	Electric Cost	Electric Rate (\$/kWh)
LS-1-ALLNITE	Street Lights (SCE Owned)	2.4M	73.66%	\$0.38
LS-2	Street Lights (Agency Owned - unmetered)	1.7M	17.86%	\$0.13
TC-1	Traffic Signal Lights (Agency Owned)	601.1K	8.31%	\$0.17
LS-3	Street Lights (Agency Owned - metered)	14K	0.18%	\$0.16
Grand total		4.8M	100%	\$0.26

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

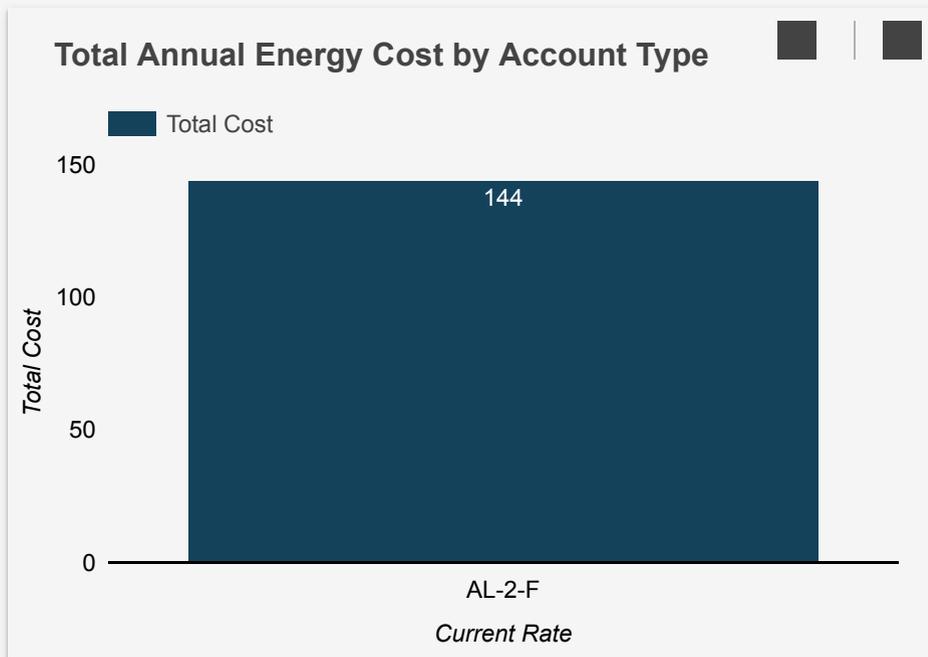
Calculation - projected savings are 50% of the total kWh consumption of agency owned street and traffic lights (TC-1, LS-2, and LS-3). LS-1 street lights are not included in projected savings.



% of Annual Energy Cost by Account Type



Total Outdoor & Park Lights Energy Cost
100%



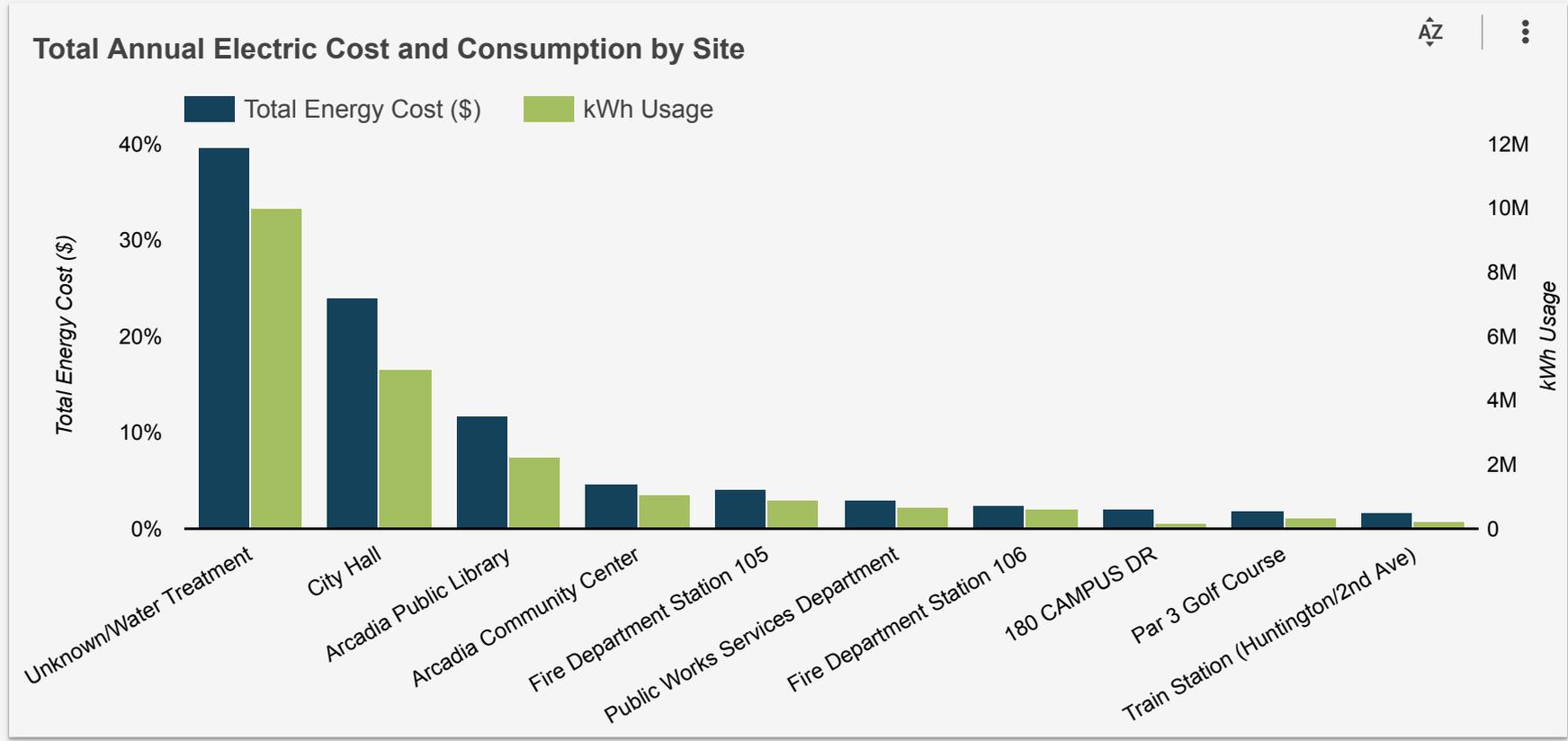
Post-Retrofit Cost Savings
\$14.24K

Post-Retrofit Energy Cost
\$14.24K

Assumption - agencies can save 50% on annual outdoor & park light kWh consumption by converting HPS to LED.

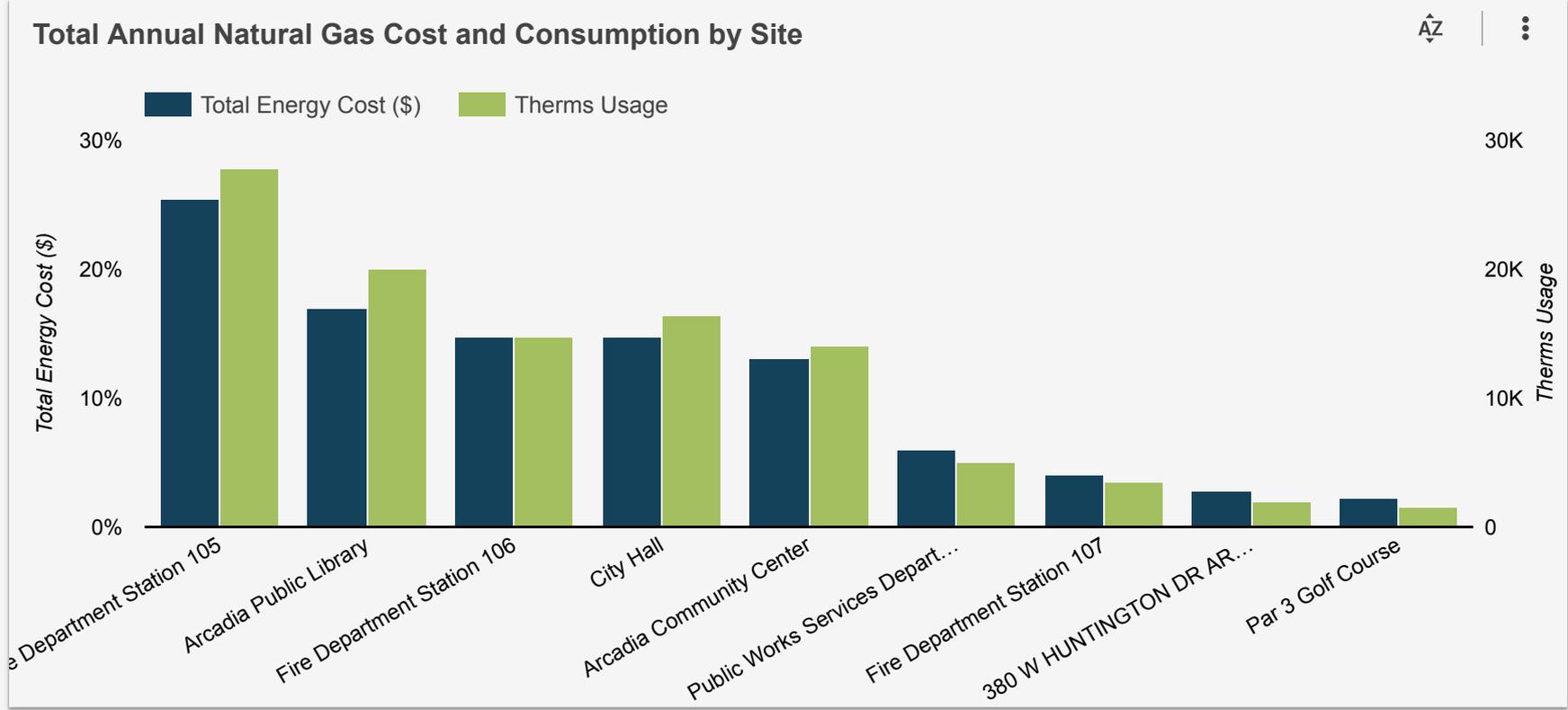
Calculation - projected savings are 50% of the total kWh consumption of outdoor & park lights.

Building Name	Current Rate	kWh Consumption	Electric Cost	Electric Rate (\$/kWh)
Area Lighting	AL-2-F	384.3K	\$28.49K	\$0.07
	Grand total	384.3K	\$28.49K	\$0.07



Total Annual Energy Cost for Buildings

100%



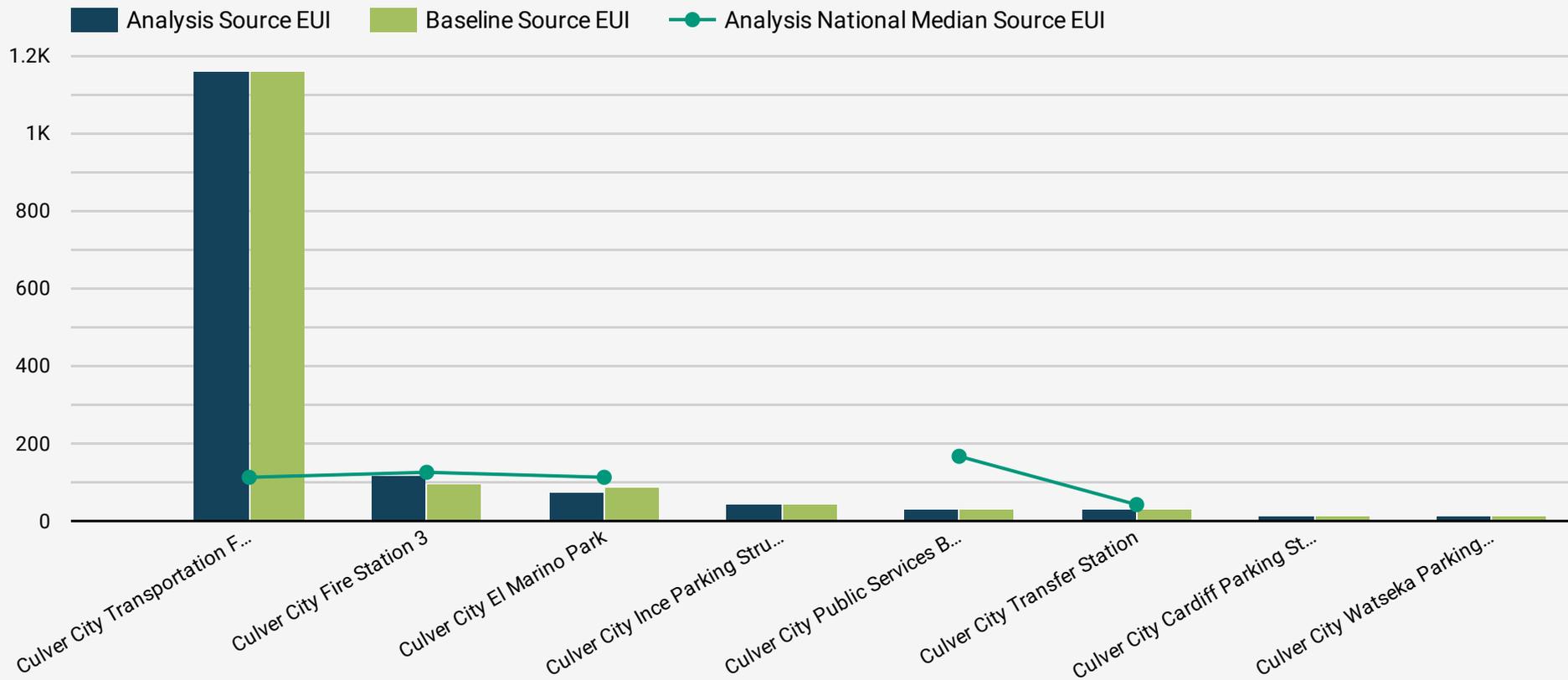
Agency Buildings (Cont'd)

Building Summary									
	Site Name	Address	Disadvantaged Community	kWh Consumption	Electric Cost	Electric Rate (\$/kWh)	Gas Consumption	Gas Cost	Gas Rate (\$/therm)
1.	Unknown/Water Treatment	141 E CAMINO REAL AVE ARCADIA	no	10M	\$1.19M	\$0.12	0	\$0	null
2.	City Hall	240 W HUNTINGTON DR	no	5M	\$724.14K	\$0.15	16.4K	\$14.76K	\$0.9
3.	Arcadia Public Library	20 W DUARTE RD	no	2.2M	\$352.32K	\$0.16	20K	\$17.07K	\$0.85
4.	Fire Department Station 105	710 S SANTA ANITA AVE	no	920.8K	\$120.92K	\$0.13	27.8K	\$25.6K	\$0.92
5.	Arcadia Community Center	365 CAMPUS DR	no	1.1M	\$142.76K	\$0.13	14.1K	\$13.17K	\$0.94
6.	Fire Department Station 106	630 S BALDWIN AVE	no	611.5K	\$72.63K	\$0.12	14.8K	\$14.77K	\$1
7.	Public Works Services Department	11800 GOLDRING RD	no	683K	\$91.4K	\$0.13	5K	\$6.06K	\$1.21
8.	Par 3 Golf Course	620 E LIVE OAK AVE	no	342.3K	\$55.84K	\$0.16	1.6K	\$2.19K	\$1.38
9.	Fire Department Station 107	79 W ORANGE GROVE AVE	no	162.8K	\$17.59K	\$0.11	3.5K	\$4.12K	\$1.18
10.	Train Station (Huntington/2nd Ave)	20 S 2ND AVE	no	221.4K	\$47.98K	\$0.22	0	\$0	null
11.	180 CAMPUS DR	180 CAMPUS DR ARCADIA	no	174K	\$62.79K	\$0.36	0	\$0	null
12.	2240 HIGHLAND	2240 HIGHLAND OAKS DR	no	89K	\$12.84K	\$0.14	0	\$0	null

Annual Energy Consumption Comparison									
	Site Name	Address	kWh Consumption	% Δ	Gas Consumption	% Δ	MMBTU	% Δ	
1.	Unknown/Water Treatment	141 E CAMINO REAL AVE ARCADIA	10M	-	0	-	34.1K	-	
2.	City Hall	240 W HUNTINGTON DR	5M	-	16.4K	-	18.6K	-	
3.	Arcadia Public Library	20 W DUARTE RD	2.2M	-	20K	-	9.5K	-	
4.	Fire Department Station 105	710 S SANTA ANITA AVE	920.8K	-	27.8K	-	5.9K	-	
5.	Arcadia Community Center	365 CAMPUS DR	1.1M	-	14.1K	-	5K	-	
6.	Fire Department Station 106	630 S BALDWIN AVE	611.5K	-	14.8K	-	3.6K	-	
7.	Public Works Services Department	11800 GOLDRING RD	683K	-	5K	-	2.8K	-	
8.	Par 3 Golf Course	620 E LIVE OAK AVE	342.3K	-	1.6K	-	1.3K	-	
9.	Fire Department Station 107	79 W ORANGE GROVE AVE	162.8K	-	3.5K	-	904.3	-	
10.	Train Station (Huntington/2nd Ave)	20 S 2ND AVE	221.4K	-	0	-	755.6	-	
11.	180 CAMPUS DR	180 CAMPUS DR ARCADIA	174K	-	0	-	593.7	-	
12.	2240 HIGHLAND OAKS DR	2240 HIGHLAND OAKS DR ARCADIA	89K	-	0	-	303.7	-	
13.	380 W HUNTINGTON DR ARCADIA	380 W HUNTINGTON DR ARCADIA	0	-	2K	-	196.9	-	



Top 10 Source EUI Properties



Portfolio Average Source EUI

Change in Average Source EUI

2

Analysis Source EUI

186

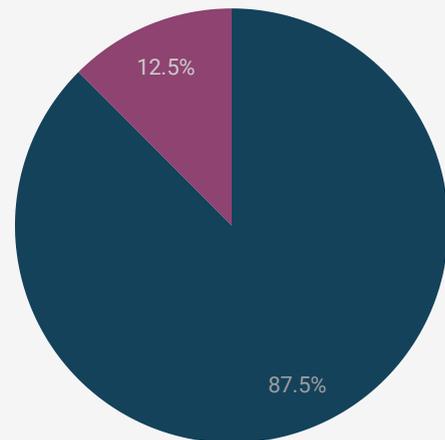
Baseline Average Source EUI

184

Properties Included:

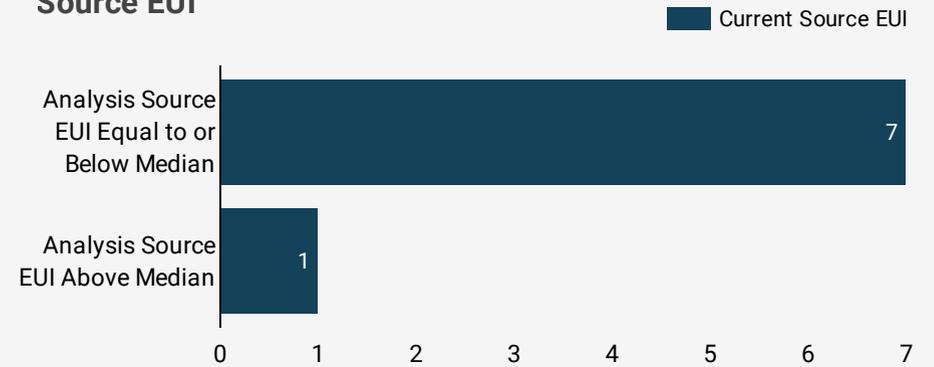
8

Share of Properties Above/Below National Median Source EUI



- Analysis Source EUI Equal to or Below Median
- Analysis Source EUI Above Median

Number of Properties Above/Below National Median Source EUI



* Please note that data in this section comes directly from Energy Star Portfolio Manager and may therefore vary from data reflected elsewhere in the report.

Data Sources

- Building information, energy usage and cost data used in this analysis were derived from: ENERGY STAR Portfolio Manager®, Green Button Connect, and utility consumption billing data provided by agency staff.
- Utility consumption billing data used in this analysis were derived from SCE electric tariffs and SCG gas tariffs.
- For more information about the utility tariffs included in this analysis refer to: [remove SCG Gas Tariffs link if electric only]
SCG Gas Tariffs : <https://www.socalgas.com/regulatory/tariffs/tariffs-rates.shtml>
SCE Electric Tariffs: <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 [Analysis Year Start Date - Analysis Year End Date].
- 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 CO2/MWh + 11.91 lbs CO2/therm[1,2].

Total Energy Portfolio

- Total Energy Portfolio data represents an analysis of each agency facility type annual energy costs, annual energy consumption (kWh), GHG Emissions and total annual energy costs for agency facility types based on MMBTUs.
- The following agency assets are included in the Total Energy Portfolio:
 - Water Pumping
 - Street & Traffic Lights
 - Buildings
 - Outdoor & Parks Lights

Water Pumping

- Water pumping data represents an analysis of the top five highest energy consuming water and wastewater pumping SCE service accounts annual energy costs, annual energy consumption (kWh), GHG Emissions, and total annual energy costs based on MMBTUs.
- Water pump conversion data used in this analysis is derived on the assumption that 65% of all existing pumps need to be upgraded. Of the 65% of pumps requiring upgrades, it is assumed that the pumps will save 7.5% of their annual kWh consumption [3].

Street & Traffic Lights

- Street & traffic light data represents an analysis of annual energy costs, annual energy consumption (kWh), GHG Emissions 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 HOPS 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].

Outdoor & Park Lights

- Outdoor & park lights data represents an analysis of annual energy costs, annual energy consumption (kWh), GHG Emissions, and total annual energy costs based on MMBTUs per SCE outdoor and park lighting tariff type.
- On average, agencies can save 50% on annual kWh consumption by converting HPS to LED, which also results in cost savings [3].

Agency Buildings

- Building summary data 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).
- Annual comparison data includes the following metrics for the agency buildings with the greatest change (absolute value) in annual energy consumption (MMBTU) from baseline period to analysis period: annual energy costs, annual energy consumption (kWh and therms).
- Baseline period for electricity and gas results were based on usage during **January 1, 2013 – January 1, 2014.**
- Analysis period for electricity and gas results were based on usage during **January 1, 2013 – January 1, 2014.**

Energy Star Portfolio Manager® - Energy Use Intensity

- Data is derived from Energy Star Portfolio Manager®
- Data includes kBtu/ft² for the top 10 highest source Energy Use Intensity (EUI) facilities for the **analysis year**
- Baseline period for source EUI results were based on usage during **January 1, 2013 – January 1, 2014.**
- Analysis period for source EUI results were based on usage during **January 1, 2013 – January 1, 2014.**

Data Quality

Certain properties did not have energy usage data for the range of analysis and were excluded:

- [Gas/Electric] [Tariff] [SA Number] [SA Address]
- Energy Star Portfolio Manager® [Address]

Multiple service accounts were associated with the below addresses and were therefore aggregated for the purposes of analysis:

- [SA Address]

End Notes

[1] Corporate Responsibility Report. (2015). In Southern California Edison. Retrieved from https://www.sce.com/wps/wcm/connect/c0fcef5-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

[3] Based on SoCalREN previous project estimates.