

Comparative Energy Analysis Report



Prepared for
The City of Westlake Village

Prepared by
The Energy Coalition

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

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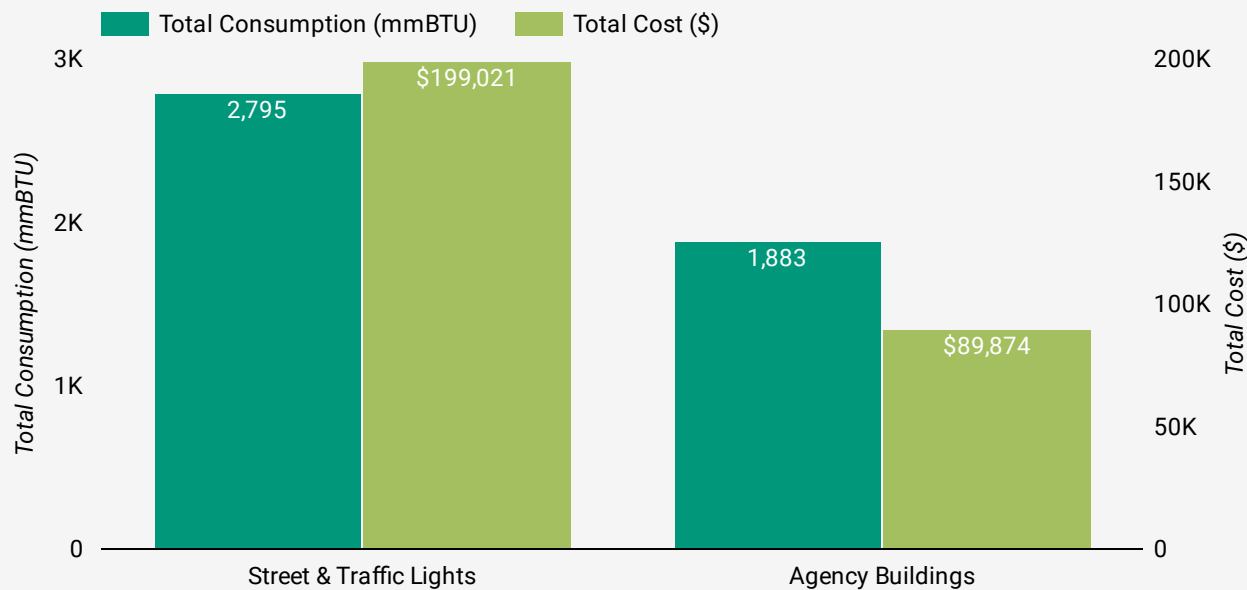
Overview

This report summarizes energy consumption and energy cost by sector (Street & Traffic Lights, Agency Buildings, Water Pumping, and Outdoor & Park Lights) for the City of Westlake Village, 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 Network (www.socalren.org). Any questions about this report can be directed to your assigned Project Manager, Stefan Slattery at sslattery@energycoalition.org.

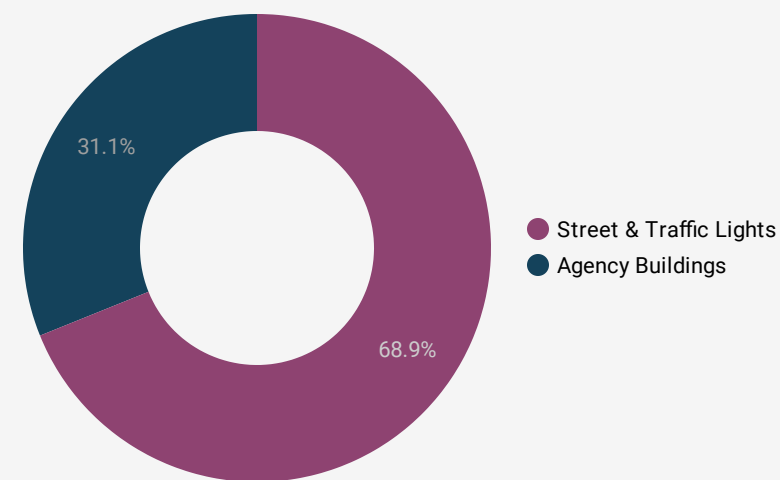
Total Energy Portfolio (Annual)

Annual Total Energy Consumption & Cost by Building Type

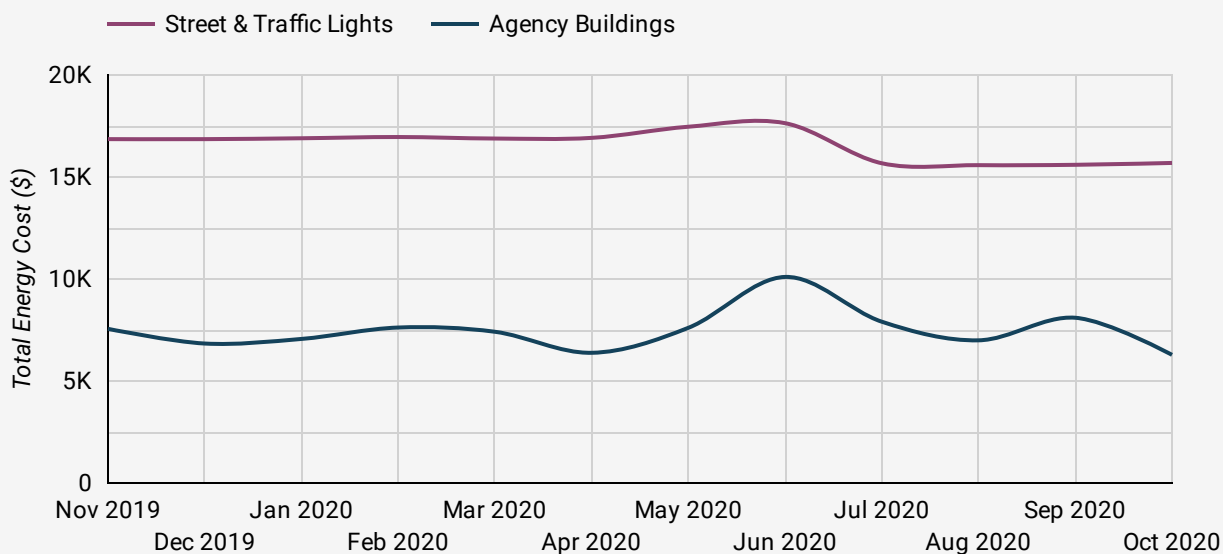


Total Energy Cost
\$288,878

% of Total Annual Energy Cost by Agency Energy Use



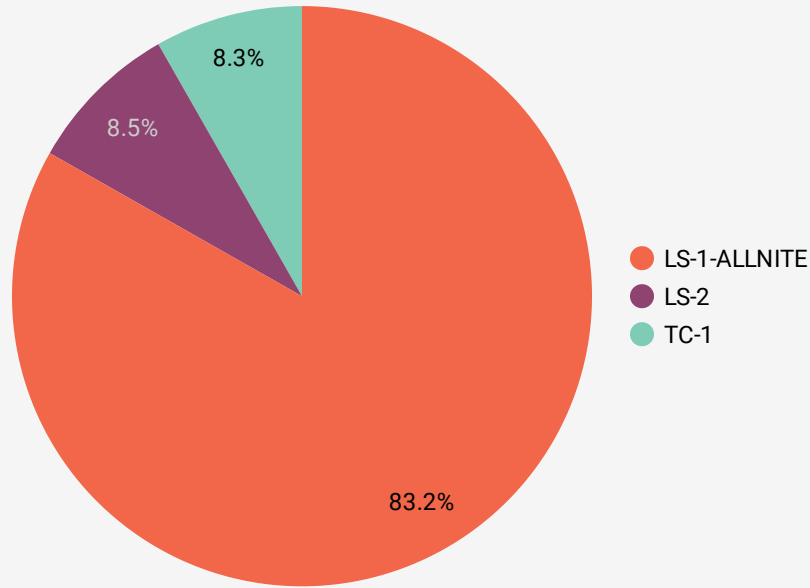
Monthly Cost by Energy Use



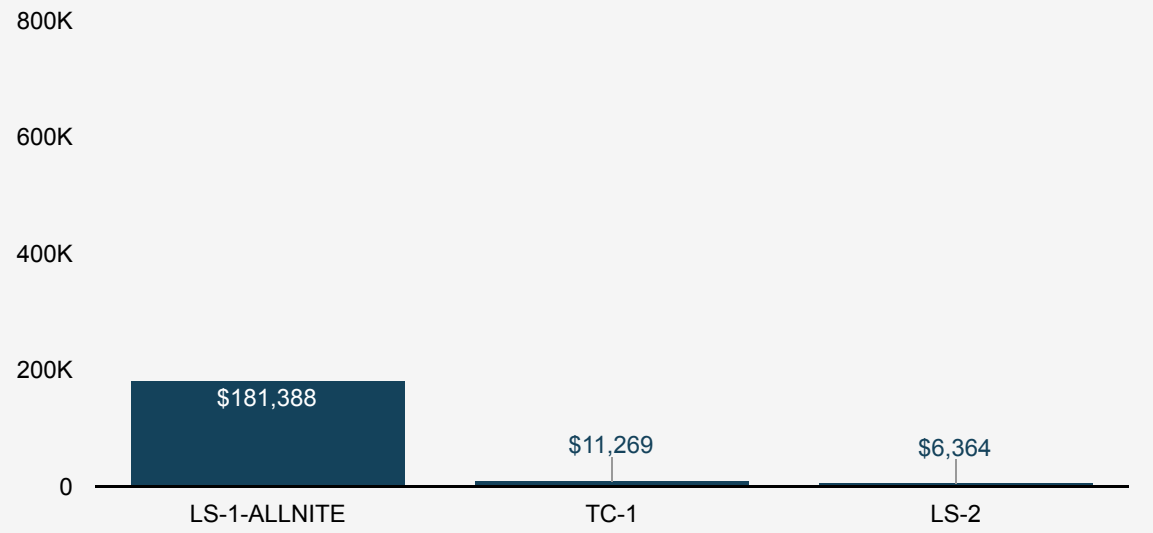
| Agency Energy Use | Electric Consumption (kWh) | Electric Cost | Gas Consumption (Therms) | Gas Cost | Total Energy Consumption (MMBTU) | Total Energy Cost | Energy Cost % of Total | GHG Emissions (lbs CO2) |
|-------------------------|----------------------------|------------------|--------------------------|-----------------|----------------------------------|-------------------|------------------------|-------------------------|
| Street & Traffic Lights | 822.5K | \$199.02K | 0 | \$0 | 2.8K | \$199.02K | 69% | 425.2K |
| Agency Buildings | 547.9K | \$89.33K | 317 | \$527.81 | 1.9K | \$89.86K | 31% | 287K |
| Grand total | 1.4M | \$288.35K | 317 | \$527.81 | 4.7K | \$288.88K | 100% | 712.2K |

Street & Traffic Lights

% of Annual Energy Cost by Account Type



Total Annual Energy Cost by Account Type



Total Street & Traffic Lights Energy Cost

\$199.02K

Post-Retrofit Cost Savings

\$8.81K

Post-Retrofit Energy Cost

\$190.21K

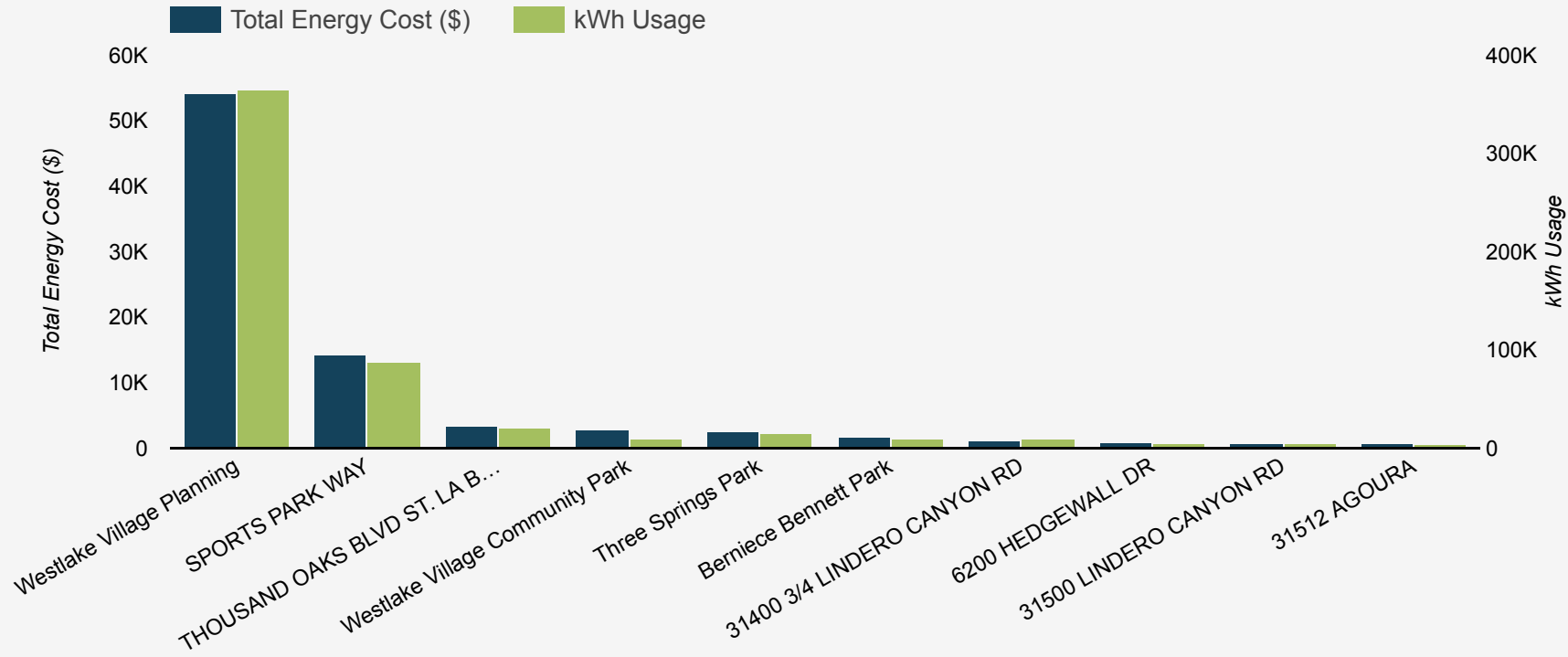
| Current Rate | Rate Description | Electric Consumption (kWh) ▾ | Electric Cost | Electric Rate (\$/kWh) |
|--------------|--|------------------------------|------------------|------------------------|
| LS-1-ALLNITE | Street Lights (SCE Owned) | 684.4K | \$181.39K | \$0.27 |
| LS-2 | Street Lights (Agency Owned - unmetered) | 70.2K | \$6.36K | \$0.09 |
| TC-1 | Traffic Signal Lights (Agency Owned) | 67.9K | \$11.27K | \$0.17 |
| | Grand total | 822.5K | \$199.02K | \$0.24 |

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.



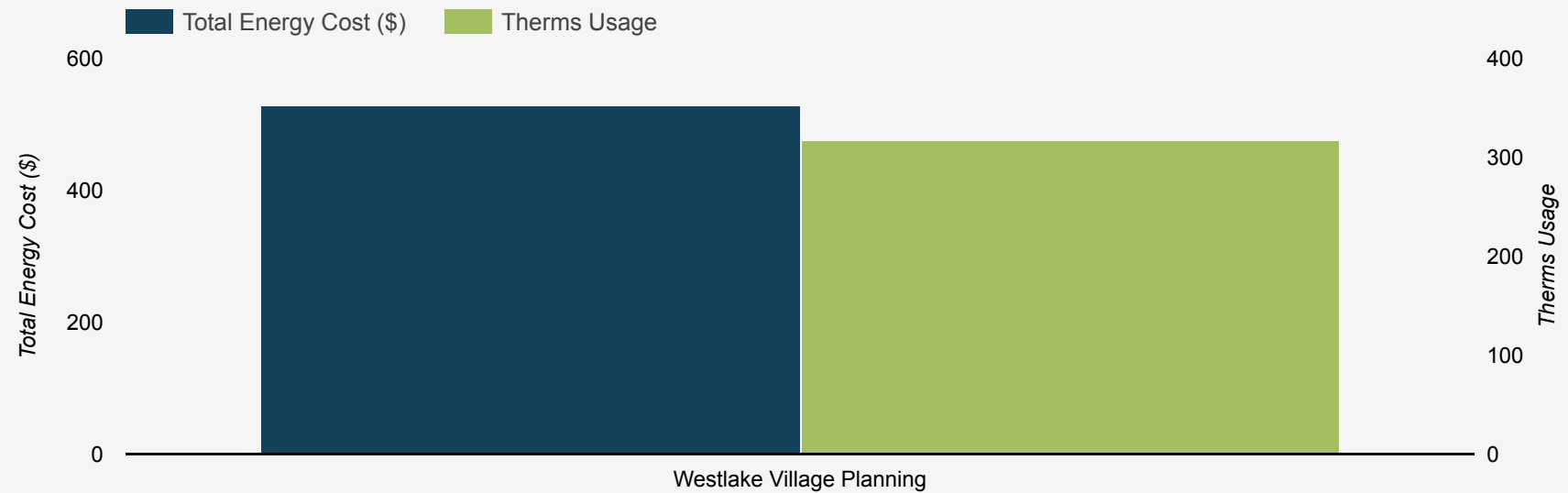
Total Annual Electric Cost and Consumption by Site



Total Annual Energy Cost for Buildings

\$89,861

Total Annual Natural Gas Cost and Consumption by Site



Agency Buildings (Cont'd)

| Building Summary | | | | | | | | | |
|------------------|--------------------------------------|--------------------------------------|-------------------------|-----------------|---------------|------------------------|-----------------|----------|---------------------|
| | Site Name | Service Street Address | Disadvantaged Community | kWh Consumption | Electric Cost | Electric Rate (\$/kWh) | Gas Consumption | Gas Cost | Gas Rate (\$/therm) |
| 1. | Westlake Village Planning | 31200 OAK CREST DR | no | 365.1K | \$54.06K | \$0.15 | 317 | \$527.81 | \$1.67 |
| 2. | SPORTS PARK WAY | SPORTS PARK WAY | no | 86.6K | \$14.31K | \$0.17 | 0 | \$0 | null |
| 3. | THOUSAND OAKS BLVD ST. LA BAYA DRIVE | THOUSAND OAKS BLVD ST. LA BAYA DRIVE | no | 20.5K | \$3.36K | \$0.16 | 0 | \$0 | null |
| 4. | Three Springs Park | 3000 THREE SPRINGS DR | no | 14.9K | \$2.53K | \$0.17 | 0 | \$0 | null |
| 5. | Westlake Village Community Park | 31107 THOUSAND OAKS BLVD | no | 10K | \$2.84K | \$0.28 | 0 | \$0 | null |
| 6. | 31400 3/4 LINDERO CANYON RD | 31400 3/4 LINDERO CANYON RD | no | 9.1K | \$1.25K | \$0.14 | 0 | \$0 | null |
| 7. | Berniece Bennett Park | 31800 VILLAGE CENTER RD | no | 8.8K | \$1.59K | \$0.18 | 0 | \$0 | null |
| 8. | 6200 HEDGEWALL DR | 6200 HEDGEWALL DR | no | 4.5K | \$763.42 | \$0.17 | 0 | \$0 | null |
| 9. | 31500 LINDERO CANYON RD | 31500 LINDERO CANYON RD | no | 4.2K | \$694.91 | \$0.17 | 0 | \$0 | null |
| 10. | 31512 AGOURA | 31512 AGOURA | no | 3.9K | \$624.26 | \$0.16 | 0 | \$0 | null |
| 11. | 30820 1/2 E THOUSAND OAKS BLVD | 30820 1/2 E THOUSAND OAKS BLVD | no | 3.7K | \$546.1 | \$0.15 | 0 | \$0 | null |

| Annual Energy Consumption Comparison | | | | | | | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|--|-----------------|----------|-----------------|----------|-------|----------|
| | Site Name | Service Street Address | | kWh Consumption | % Δ | Gas Consumption | % Δ | MMBTU | % Δ |
| 1. | Westlake Village Planning | 31200 OAK CREST DR | | 365.1K | -9.8% ↓ | 317 | -61.3% ↓ | 1.3K | -12.7% ↓ |
| 2. | SPORTS PARK WAY | SPORTS PARK WAY | | 86.6K | -19.3% ↓ | 0 | - | 295.5 | -19.3% ↓ |
| 3. | THOUSAND OAKS BLVD ST. LA BAYA DRIVE | THOUSAND OAKS BLVD ST. LA BAYA DRIVE | | 20.5K | -1.5% ↓ | 0 | - | 69.8 | -1.5% ↓ |
| 4. | Three Springs Park | 3000 THREE SPRINGS DR | | 14.9K | -34.5% ↓ | 0 | - | 51 | -34.5% ↓ |
| 5. | Westlake Village Community Park | 31107 THOUSAND OAKS BLVD | | 10K | 117.0% ↑ | 0 | - | 34.1 | 117.0% ↑ |
| 6. | 31400 3/4 LINDERO CANYON RD | 31400 3/4 LINDERO CANYON RD | | 9.1K | -9.8% ↓ | 0 | - | 31.2 | -9.8% ↓ |
| 7. | Berniece Bennett Park | 31800 VILLAGE CENTER RD | | 8.8K | -21.0% ↓ | 0 | - | 30 | -21.0% ↓ |
| 8. | 6200 HEDGEWALL DR | 6200 HEDGEWALL DR | | 4.5K | 4.1% ↑ | 0 | - | 15.2 | 4.1% ↑ |
| 9. | 31500 LINDERO CANYON RD | 31500 LINDERO CANYON RD | | 4.2K | -7.1% ↓ | 0 | - | 14.3 | -7.1% ↓ |
| 10. | 31512 AGOURA | 31512 AGOURA | | 3.9K | -0.1% ↓ | 0 | - | 13.3 | -0.1% ↓ |
| 11. | 30820 1/2 E THOUSAND OAKS BLVD | 30820 1/2 E THOUSAND OAKS BLVD | | 3.7K | 2.6% ↑ | 0 | - | 12.7 | 2.6% ↑ |
| 12. | Russell Ranch Park | 30798 RUSSELL RANCH RD | | 3.3K | -3.7% ↓ | 0 | - | 11.4 | -3.7% ↓ |
| 13. | 3901 MIDDLEGATE RD | 3901 MIDDLEGATE RD | | 2.6K | 158.6% ↑ | 0 | - | 8.9 | 158.6% ↑ |

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 : <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 November 1, 2019 - October 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/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:
 - Street & Traffic Lights
 - Buildings

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].

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 November 1, 2019 - October 31, 2020.
- Analysis period for electricity and gas results were based on usage during November 1, 2019 - October 31, 2020.

End Notes

[1] Corporate Responsibility Report. (2015). In Southern California Edison. Retrieved from https://www.sce.com/wps/wcm/connect/c0fceed5-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.