



**SPECIAL MEETING AGENDA  
RENEWABLE ENERGY COUNCIL  
THURSDAY, NOVEMBER 9, 2017**

7:00 p.m.

City Hall – City Manager’s Conference Room  
1414 Mission Street, South Pasadena, CA 91030



Council Chair: William Kelly

Councilmembers: Andrew Eaton, William Glauz, Kim Hughes,  
Alexander Kung, Charles Li, Carl Marziali, and Daniel Snowden-Ifft  
City Council Liaisons: Mayor Pro Tem Michael Cacciotti, Councilmember Richard Schneider  
Staff Liaison: Jenna Shimmin, Senior Management Analyst

Roll Call

**PUBLIC COMMENTS AND SUGGESTIONS**

Time reserved for those in attendance who wish to address the Council. All attendees should be aware that the Council may not discuss details or vote on non-agenda items. Your concerns may be referred to staff or placed on a future agenda. Note: public input will also be taken during all agenda items.

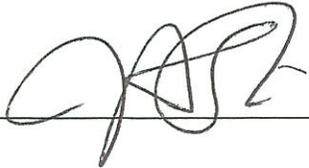
**BUSINESS ITEMS**

- 1) Approval of August 30, 2017 Meeting Minutes
- 2) Review the preliminary audit report presented by Climatec, discuss prioritization of projects and consider a recommendation to the City Council of proposed efficiency projects that the City should undertake.
- 3) Council Communications
- 4) Staff Liaison Communications
- 5) Next Meeting
- 6) Adjournment

STATE OF CALIFORNIA     )  
CITY OF SOUTH PASADENA     )  
COUNTY OF LOS ANGELES     )

I declare under penalty of perjury, that I am an employee of the City of South Pasadena, and that I posted this Agenda on the bulletin board in the courtyard of the City Hall at 1414 Mission Street, South Pasadena on 11-3-17, as required by Law.

Date: November 3, 2017

Signature: 

**SPECIAL MEETING MINUTES**  
**RENEWABLE ENERGY COUNCIL**  
**August 30, 2017**

**Roll Call** - The meeting was called to order at 7:04 p.m. Present were Renewable Energy Council Members William Glauz, Chair William Kelly, Alexander Kung, Carl Marziali and Daniel Snowden-Ifft. Absent were Renewable Energy Council Members Andrew Eaton, Kim Hughes, and Charles Li, as well Mayor Cacciotti. Staff Liaison Jenna Shimmin, and City Councilmember Dr. Schneider were also present.

1. **Minutes** – Minutes from the July 31, 2017 meeting were approved (Glauz, Snowden-Ifft, 4-0; with Renewable Energy Councilmember Kung abstaining due to his absence from the meeting in question).
  
2. **Consider recommending that City Council sign a letter of support to the California Utilities Commission for Southern California Edison’s Transportation Electrification Plan** – Chair Kelly gave a brief background on the Transportation Electrification Plan that Southern California Edison’s (SCE) submitted to the California Public Utilities Commission (CPUC). He also mentioned the protest letter from the Office of Ratepayer Advocates that was circulated to the council, which expressed concern over so much rate payer money going towards programs they feel need refinement in order to meet the state’s goals. He also discussed the cost of medium duty electric vehicles versus heavy duty vehicles, stating that drivers of these vehicles are typically owner operated and would need to be heavily incentivized to purchase these type of vehicles. He has concerns about rates being raised to cover these costs, and feels that there is the potential for a ballot item to increasing sales tax and putting the fees on the truck drivers. He added that he would be in support of the letter, with a change that it read the City is encouraged by SCE’s medium and heavy duty charging program, but that we urge the CPUC to move slowly in approving total funding in light of the uncertainty of availability of technology, as well as the uncertainty of funding for incentives.

Renewable Energy Councilmember Bill Glauz stated that he supports the letter with Chair Kelly’s modifications.

A motion was made to recommend that the City Council sign a letter of support to the CPUC for SCE’s Transportation Electrification Plan with Chair Kelly’s modifications regarding the medium and heavy duty charging program (Glauz, Snowden-Ifft; Ayes: All, Nays: None).

**3. Council Communications –**

Renewable Energy Councilmember Kung advised the REC that he asked staff for an update on electric vehicle charger installation in the City. Staff responded that the incentive program SCE was running is out of funds, and that there is currently an item going before City Council to approve using general fund monies to fund the deficit between actual costs and monies on hand from a SCAQMD grant.

4. **Staff Liaison Communications** – Staff Liaison Shimmin advised the REC members that on September 10<sup>th</sup> the City’s annual Clean Air Car Show and Green Living Expo would be held at Garfield Park from 10:30 a.m. to 2:30 p.m.
5. **Next Meeting Date**– It was decided to have the next meeting once Climatec has completed the Investment Grade Audit of city facilities.
6. **Adjournment** – Renewable Energy Councilmember Kung motioned to adjourn the meeting at 7:22 p.m., Renewable Energy Councilmember Snowden-Ifft seconded. Ayes: All, Nays: None.

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William Kelly, Chair

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Date

## REC MEMORANDUM

**Date:** November 2, 2017

**To:** REC Councilmembers

**From:** Jenna Shimmin

**RE:** Climatec Investment Grade Preliminary Audit Report

Staff has been working with Climatec to finalize the Investment Grade Audit they were contracted to perform for all municipal properties. We have been provided a preliminary audit report that outlines the City's current energy costs, projected costs with no changes, the available projects at each site, and the projected costs and lifecycle savings.

After reviewing the report, staff has identified the following projects as the most viable:

- Street lighting retrofits
- Intersection illuminated street name signage retrofits
- Solar PV system installation
- Interior/Exterior building lighting retrofits
- Park lighting and sports court lighting retrofits

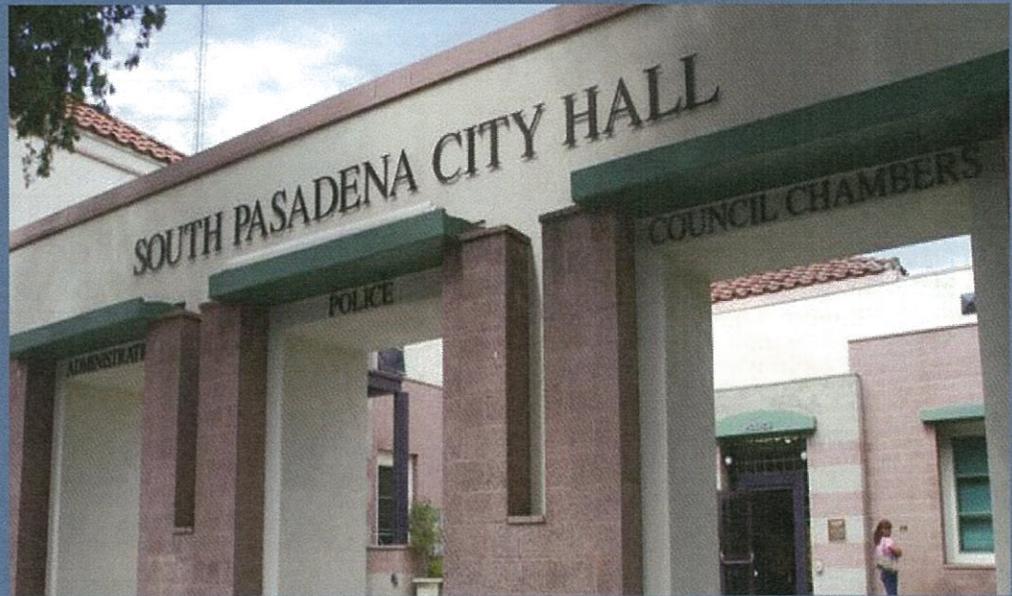
In regards to the street lighting retrofits, the City has opted not to purchase the remaining streetlights from Southern California Edison (SCE). This means that roughly half of the retrofits would be paid for through city funds, and the remaining retrofits would be completed by working with SCE. The City would of course apply for any incentives that are available to assist with these costs.

In regards to the solar PV systems, the biggest concern is the savings penciling out to offset the cost of such systems. In addition, the City is only interested in installing a system meant for the load required at the site unless there is an identified buyer who will take the additional generation. Staff's preference is to utilize a power purchase agreement (PPA) in order to limit the City's exposure. All available funding could be utilized to achieve this, including grants and no/low interest financing.

In regards to the lighting retrofits, earlier this year SCE replaced all interior 4' halogen tube bulbs with LEDs. The Facilities Division has also made some interior LED retrofits at various facilities. This means that the number of bulbs/fixtures needing to be retrofitted is rather minimal. Staff believes there is sufficient monies available to complete these retrofits. As far as exterior lighting retrofits, we feel that the cost of retrofitting these fixtures will be minimal and offset by available incentives. Therefore, all available lighting retrofits are viable projects that should be pursued.

In regards to the remaining projects identified, staff's only concern is the cost. If the full audit report and financial analysis can show that there would be no cost to the City in order to complete the project, then we would be interested in pursuing the project. With the current budget status, our main goal is to decrease expenditures, not increase them.

# CITY OF SOUTH PASADENA PRELIMINARY AUDIT



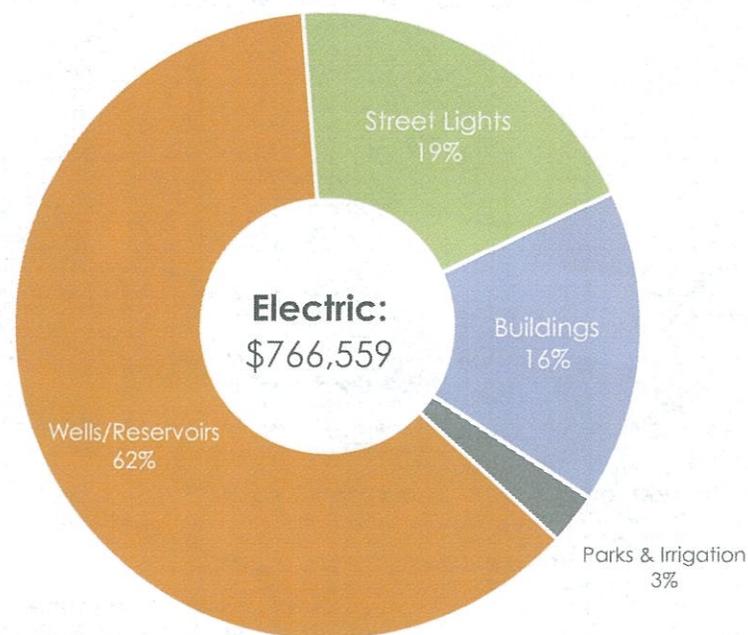
October 5, 2017



# UTILITY ANALYSIS

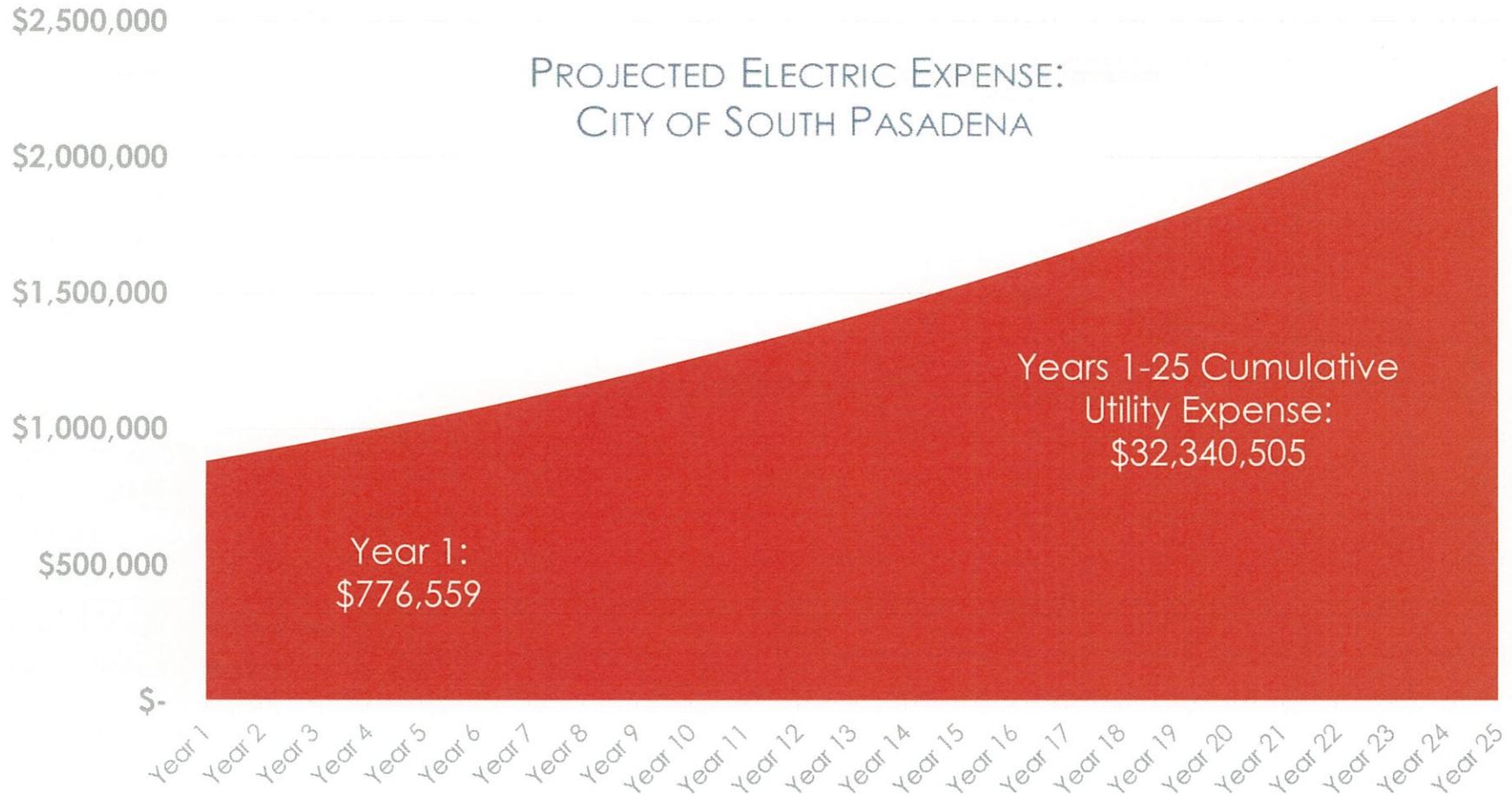
Site Name	Square Footage	\$ Electric	kWh	\$ / kWh
<b>Buildings</b>				
Civic Center	33,462	\$ 74,368	556,968	\$ 0.134
Fire Dept	11,530			
Police Dept	10,500			
City Hall	9,320			
Council Chambers	2,112			
Public Library	24,000	\$ 33,027	199,990	\$ 0.165
Senior Center	6,500	\$ 12,722	57,941	\$ 0.220
Eddie Park House	5,800	\$ 468	1,476	\$ 0.317
War Memorial Building	5,100	\$ 13,348	52,193	\$ 0.256
Garfield Youth House	855	\$ 738	3,138	\$ 0.235
<b>Public Parks</b>				
Arroyo Seco Golf Course		\$ 89,337	290,330	\$ 0.308
Arroyo Seco Park		\$ 16,471	180,560	\$ 0.091
Orange Grove Park		\$ 4,737	51,369	\$ 0.092
Garfield Park		\$ 1,281	8,258	\$ 0.155
Library Park		\$ 915	1,958	\$ 0.467
<b>City Owned Street Lights</b>				
LS-2		\$ 54,346	622,617	\$ 0.087
LS-3		\$ 5,581	74,567	\$ 0.075
<b>Water Facilities</b>				
Wilson Reservoir		\$ 427,355	3,449,113	\$ 0.124
Westside Reservoir		\$ 31,865	226,182	\$ 0.141
Garfield Reservoir		\$ -	-	-
		<b>\$ 766,559</b>	<b>5,776,660</b>	<b>\$ 0.133</b>

## ELECTRIC DISTRIBUTION



# UTILITY ANALYSIS

What's at Risk in Maintaining the Status Quo?



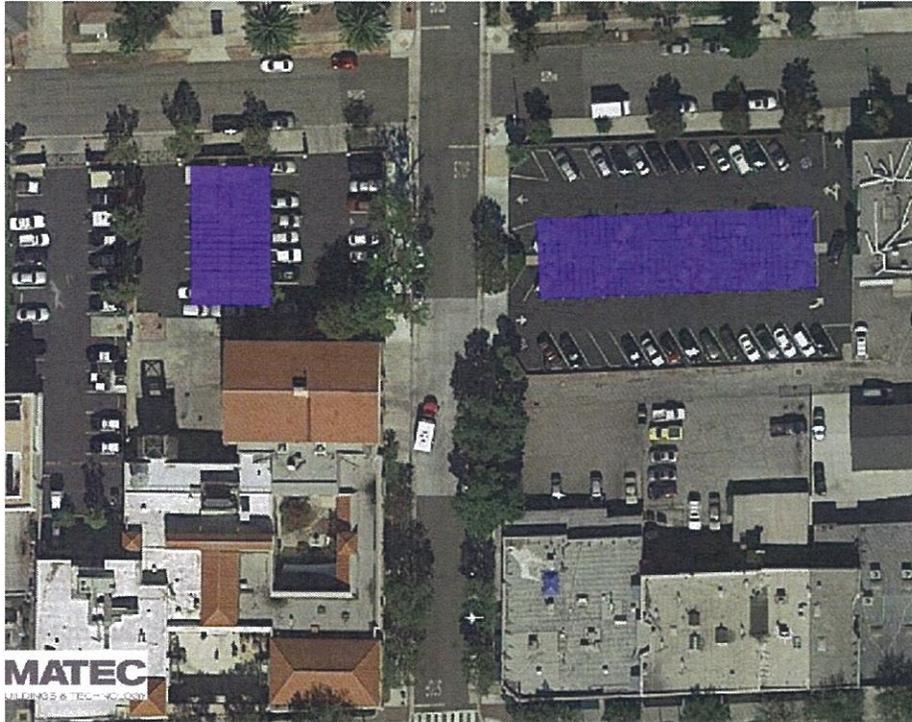






# SOLAR OPPORTUNITIES

City Hall, Police, Fire, Council Chambers



Carport Mount – 156.6 kW



# SOLAR OPPORTUNITIES

Library

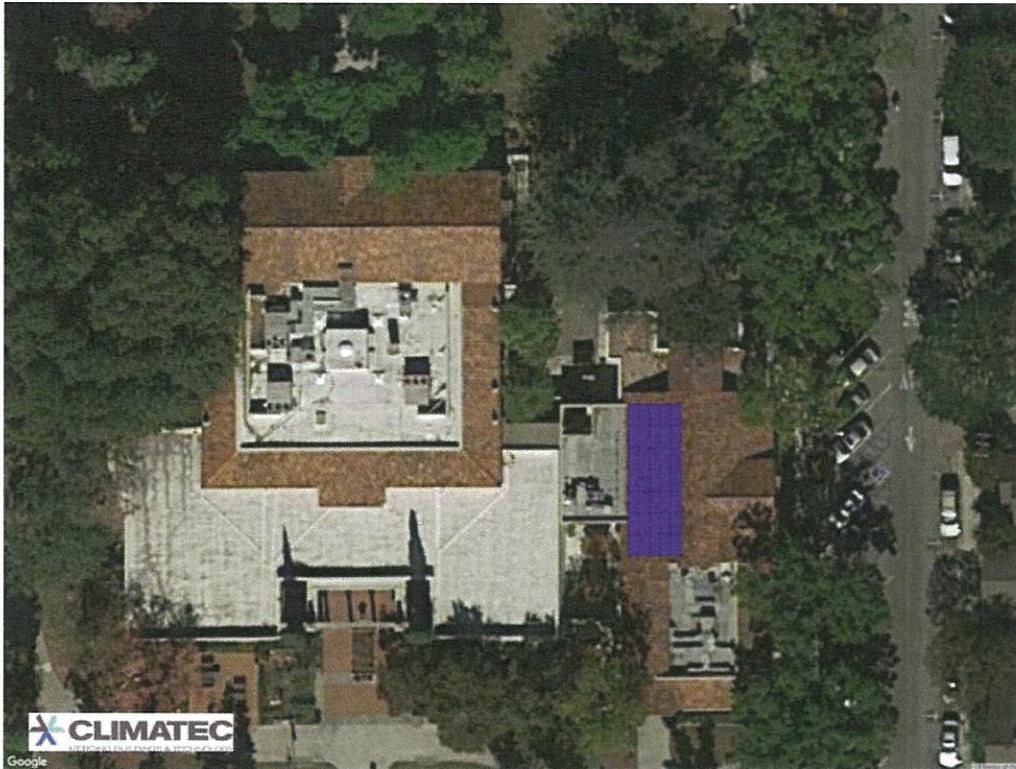


Roof Deck / Fixed Mount – 39.6 kW



# SOLAR OPPORTUNITIES

Senior Center



Roof / Fixed Mount – 15.2 kW



# SOLAR OPPORTUNITIES

Wilson Reservoir



Roof Ballasted / Fixed Mount – 131.4 kW



# SOLAR OPPORTUNITIES

Garfield Reservoir



Roof Ballasted / Fixed Mount – 95.7 kW



# SOLAR OPPORTUNITIES

Westside Reservoir

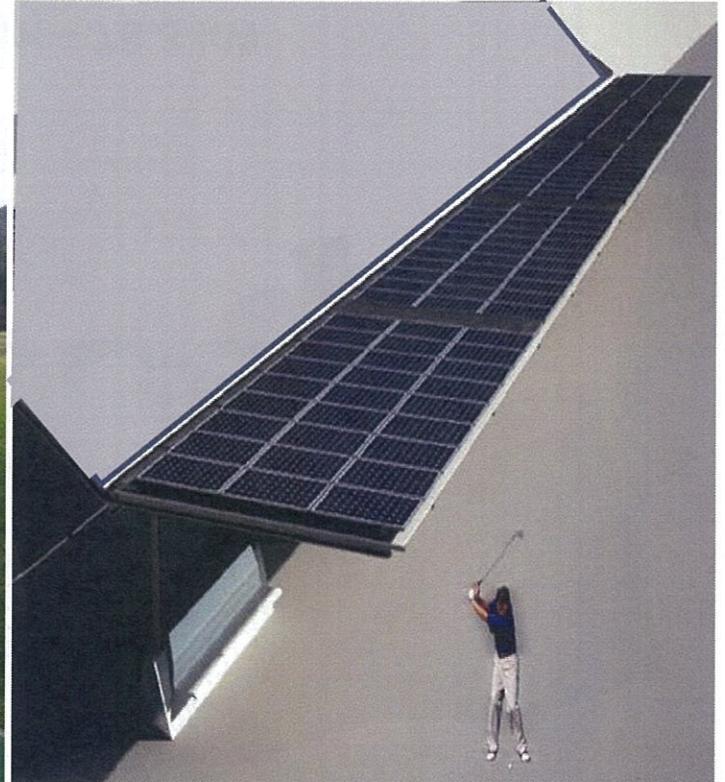


Ground Mount / Dual Tilt System – 78.3 kW



# SOLAR OPPORTUNITIES

Arroyo Seco Golf Course

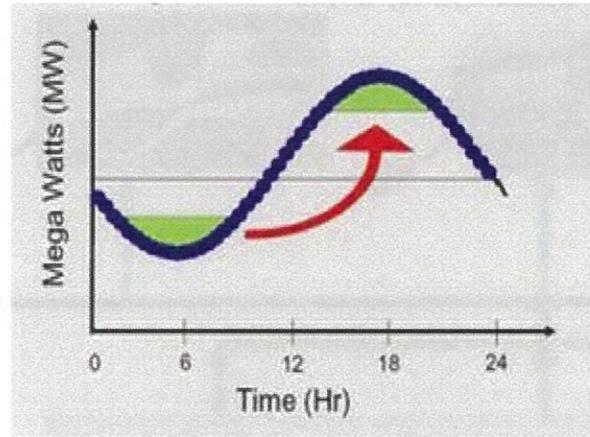
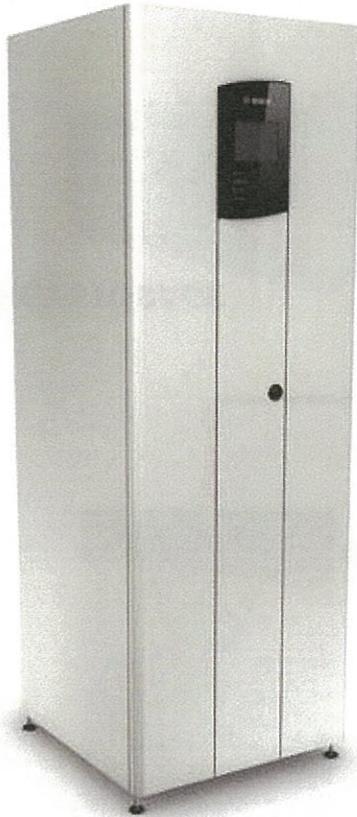


Roof Deck / Fixed Mount – 104.4 kW

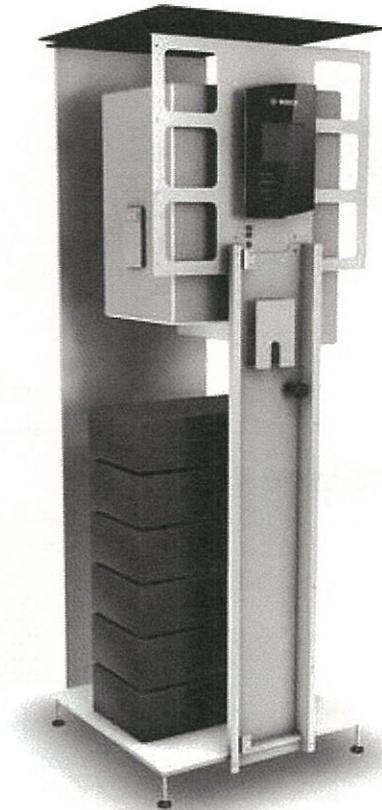
# BATTERY ENERGY STORAGE



Peak Shaving for  
Demand Charge  
Avoidance

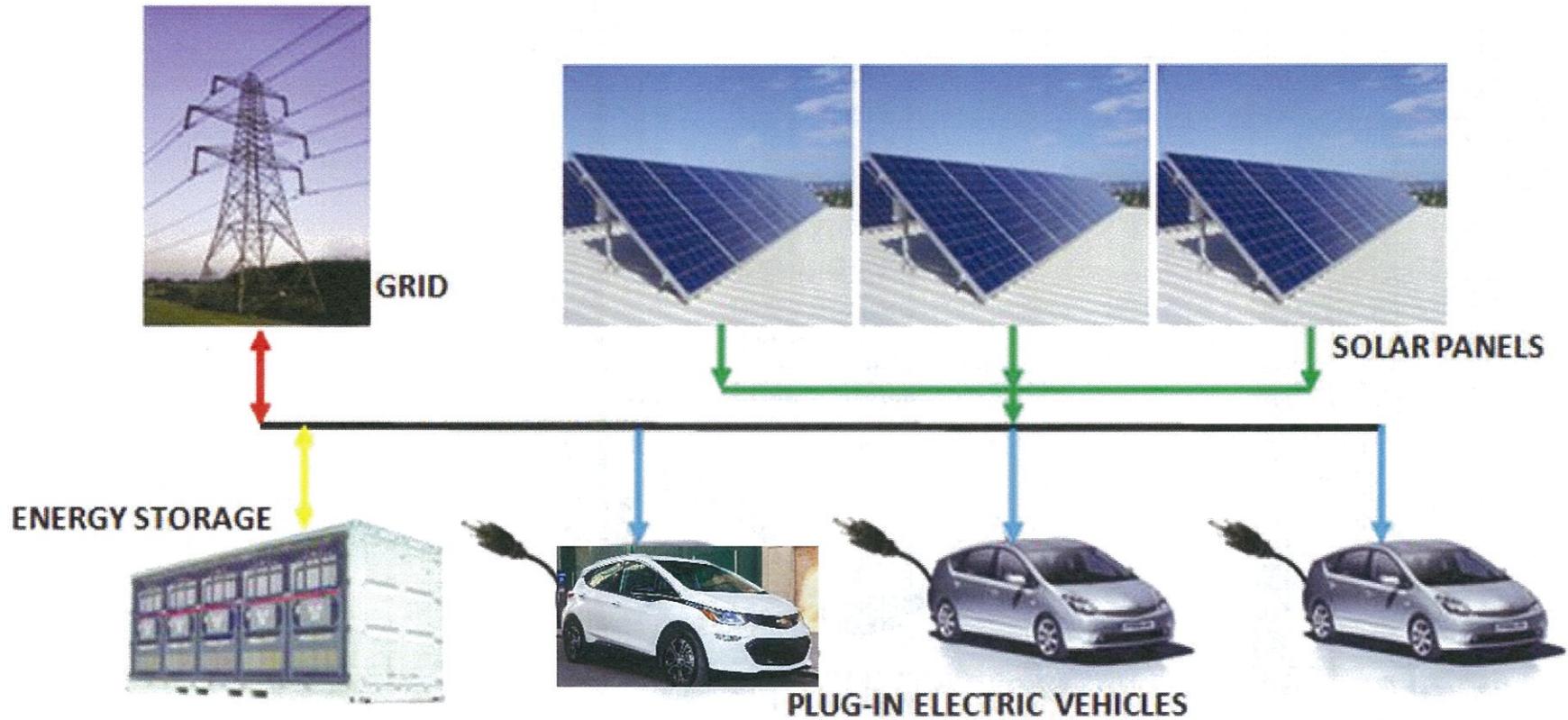


Behind-the-Meter  
Energy Storage



City Hall, Police, Fire, Council Chambers, Golf Course

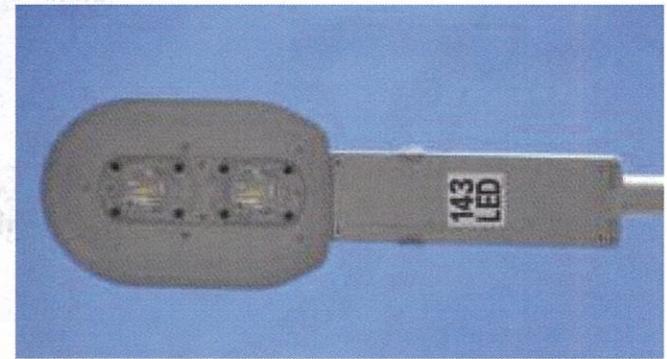
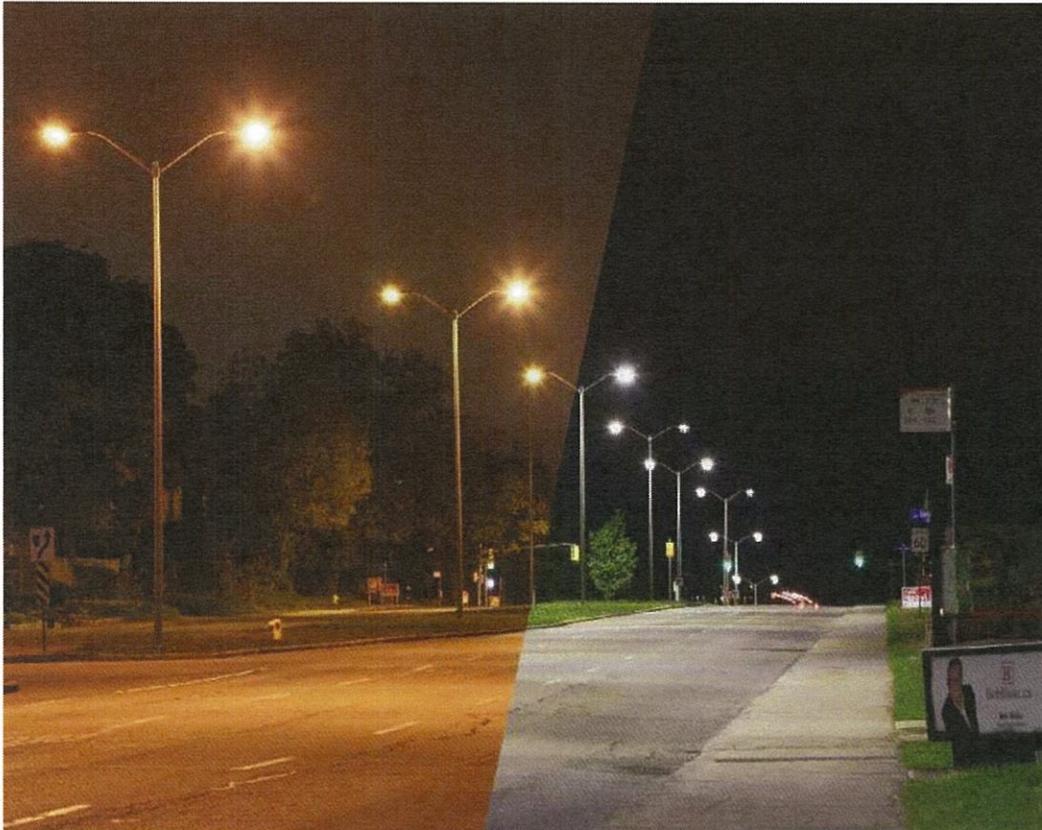
# ELECTRIC VEHICLE CHARGING STATIONS



City Hall, Fire Department, Library, Golf Course

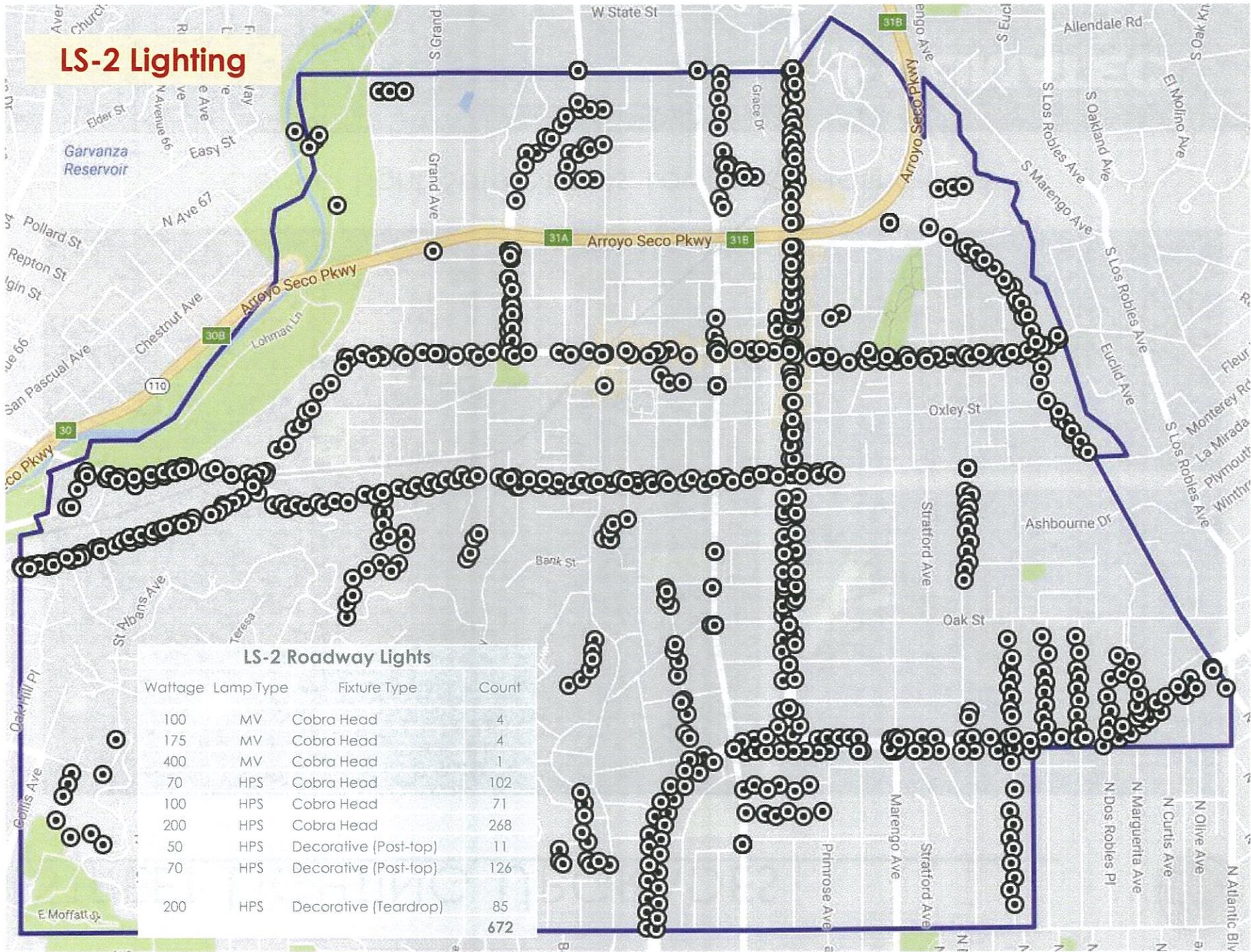


# STREET LIGHTING UPGRADES

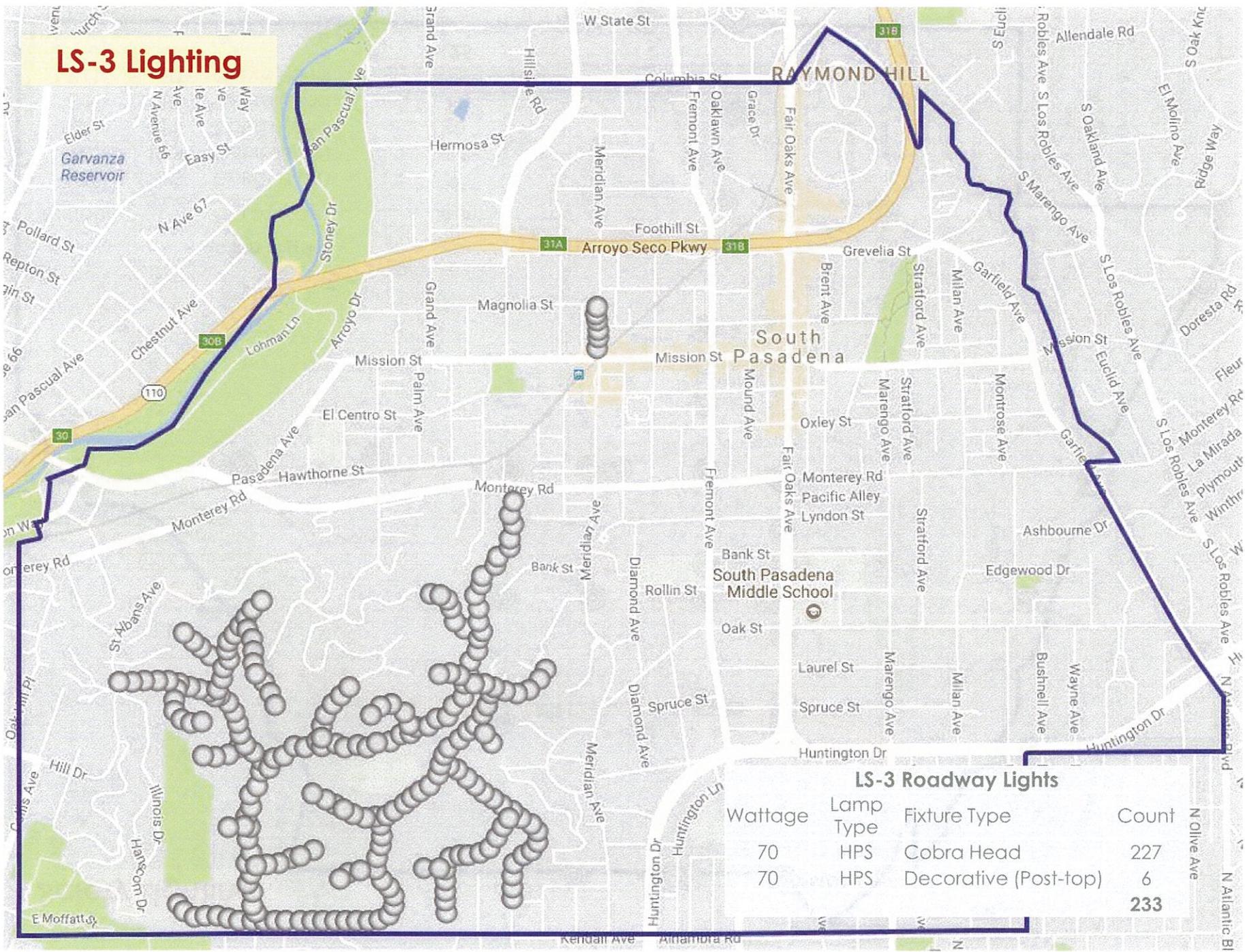


Cleaner Light, Safer Streets, Lowest Operating Cost

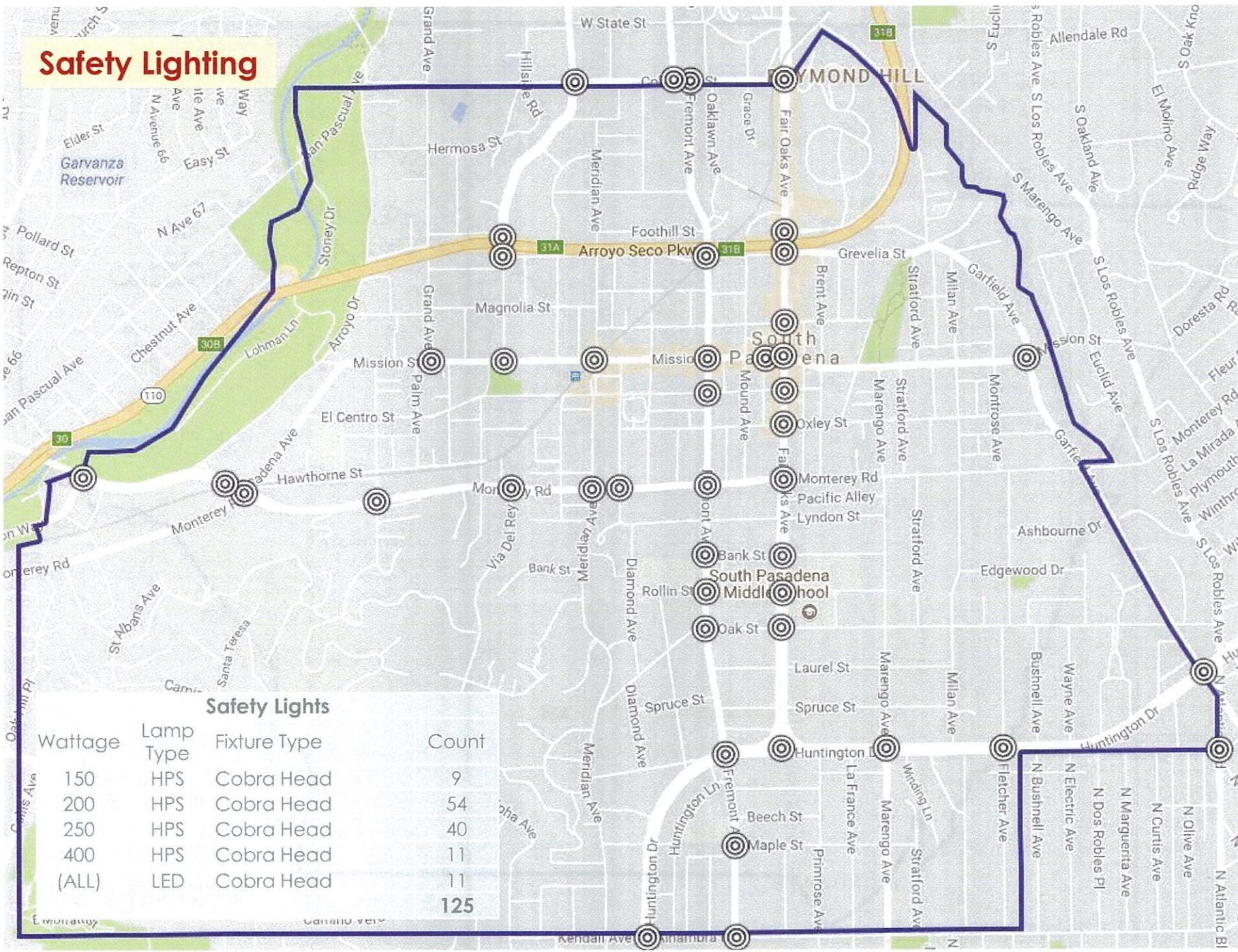
# LS-2 Lighting



# LS-3 Lighting



# Safety Lighting



## Safety Lights

Wattage	Lamp Type	Fixture Type	Count
150	HPS	Cobra Head	9
200	HPS	Cobra Head	54
250	HPS	Cobra Head	40
400	HPS	Cobra Head	11
(ALL)	LED	Cobra Head	11
			<b>125</b>



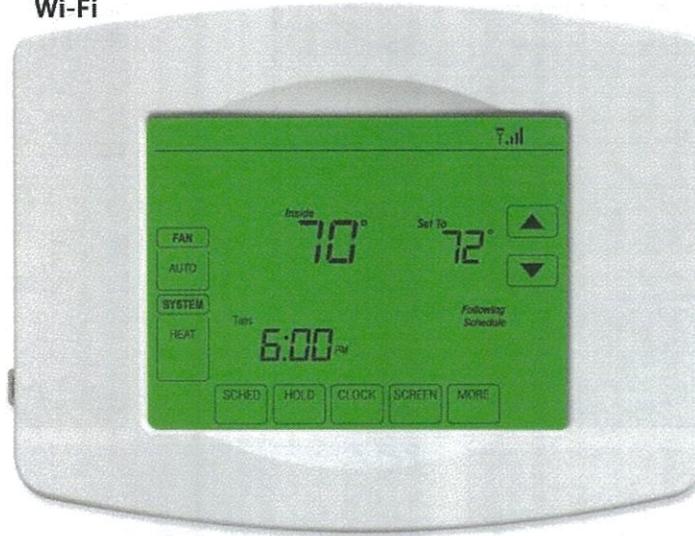
# LIGHTED STREET NAME SIGNS



Intersection Illuminated Street Name Signs



# HVAC / BUILDING CONTROLS



Replace Existing Thermostats with Wi-Fi  
Building Automation Controls

Civic Center, Library, Senior Center, Garfield Youth House, Eddie Park House, City Yard, War Memorial Building

# LIGHTING

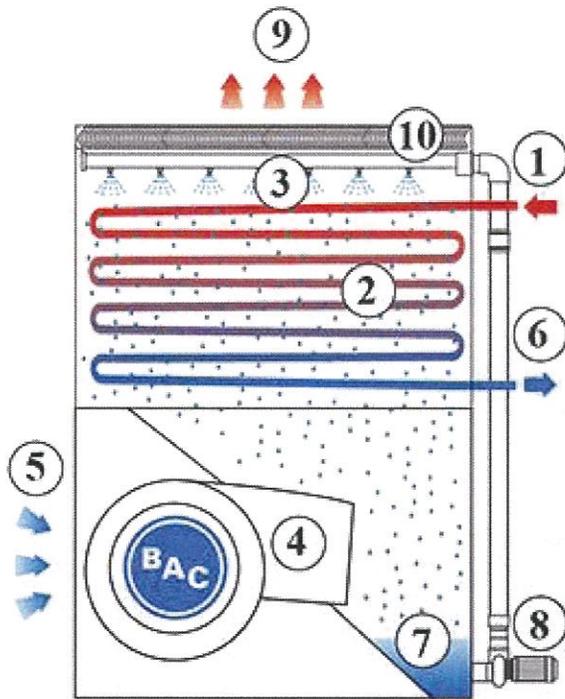


## LED Lighting Upgrades:

- Interior Buildings
- Exterior Buildings
- Parking Lots
- City Parks



# HVAC / Fluid Cooler Replacement



Police, Fire, Council Chambers

Counter flow, centrifugal fan, forced draft

# FINANCIAL HIGHLIGHTS

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<b>Preliminary Audit</b>	<b>Turnkey Price</b>	<b>Lifecycle Savings</b>
General Fund Sites	\$ 2,590,000	\$ 4,010,000
Water Enterprise Sites	\$ 1,230,000	\$ 1,670,000
<b>Total for All Sites</b>	<b>\$ 3,820,000</b>	<b>\$ 5,680,000</b>

# NEXT STEPS

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- Committee Presentation ➤ October
- Detailed Audit Completed ➤ November
- Council Consideration ➤ November
- City Awards Implementation Contract ➤ December
- Project Implementation Begins ➤ January