



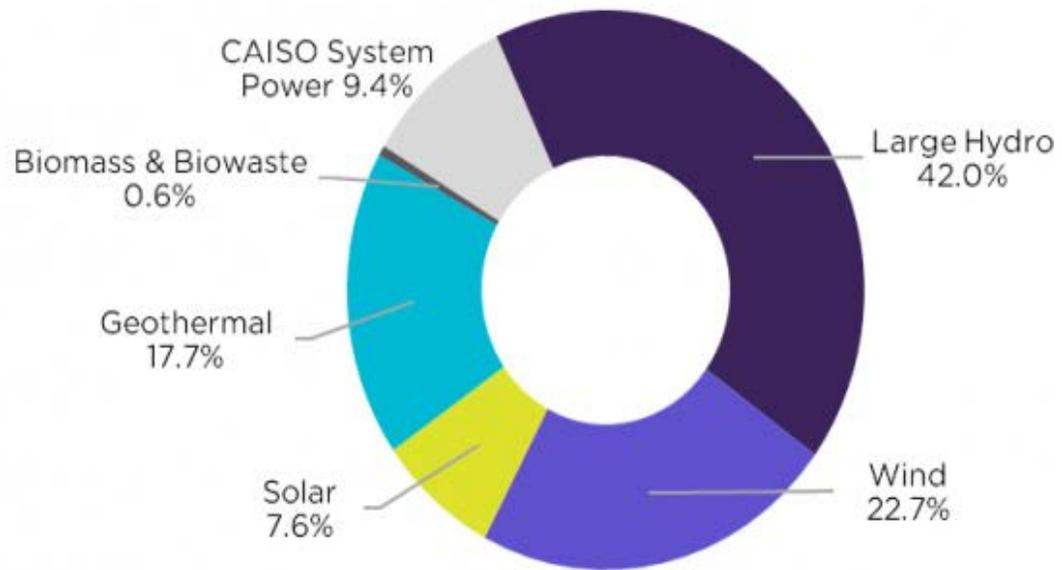
# EverGreen Study Session City Council

January 28, 2020

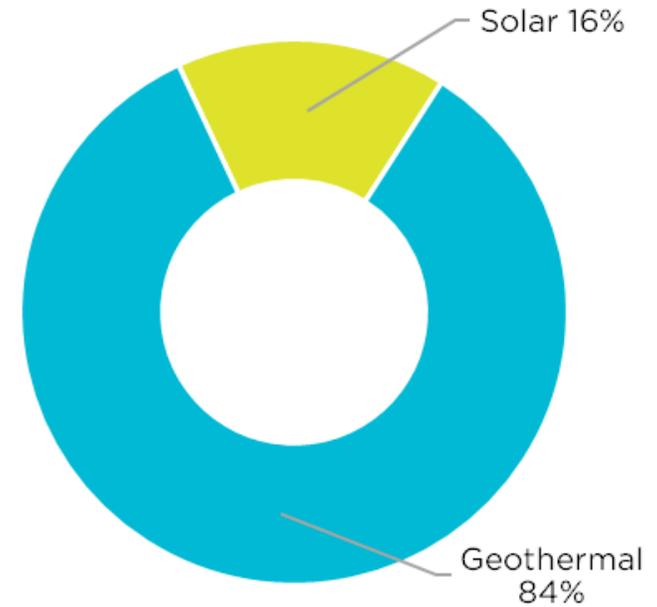
- Sonoma Clean Power (SCP) not-for-profit public agency operated by the Cities within and the Counties of Sonoma and Mendocino
- Sources clean energy from renewable resources throughout Sonoma and Mendocino counties
- Higher percentages of renewable energy that reduce greenhouse gas emissions - customers helping solve climate crisis at local level

# SCP Power Sources

2018 CleanStart Power Sources



2018 EverGreen Power Sources



# EverGreen

## 24/7 Local Renewables

100% renewable electricity

100% locally produced

Renewable both day and night



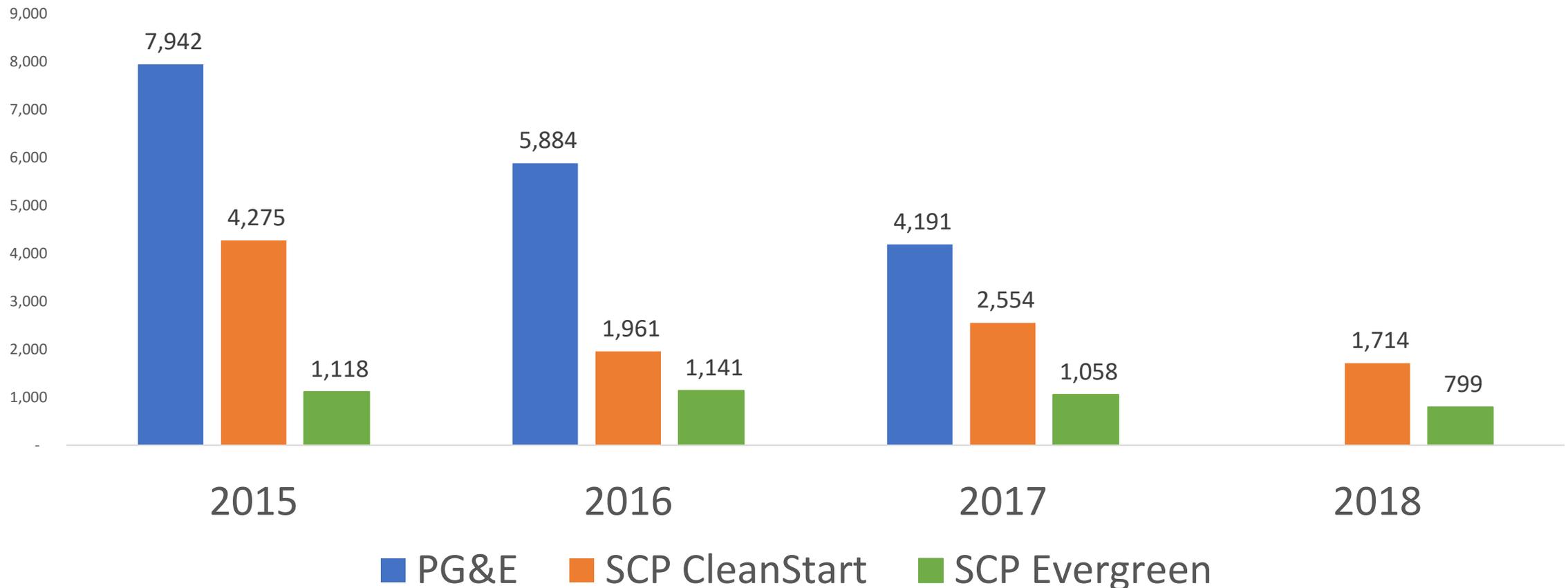
Local solar energy  
by day

Local geothermal energy  
by night



# GHG Reduction Comparison

Annual Municipal GHG Emissions (MT CO2)



**MUNICIPAL OPERATIONS  
CLIMATE ACTION PLAN**



**CITY OF SANTA ROSA**  
August 6, 2013



# Climate Action Plan

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## Municipal and Community Climate Action Plan implementation

- “Purchase cleaner electricity from PG&E and/or another entity.”
- “Install and utilize renewable energy sources in Santa Rosa”

## Increase renewable energy production at the local scale

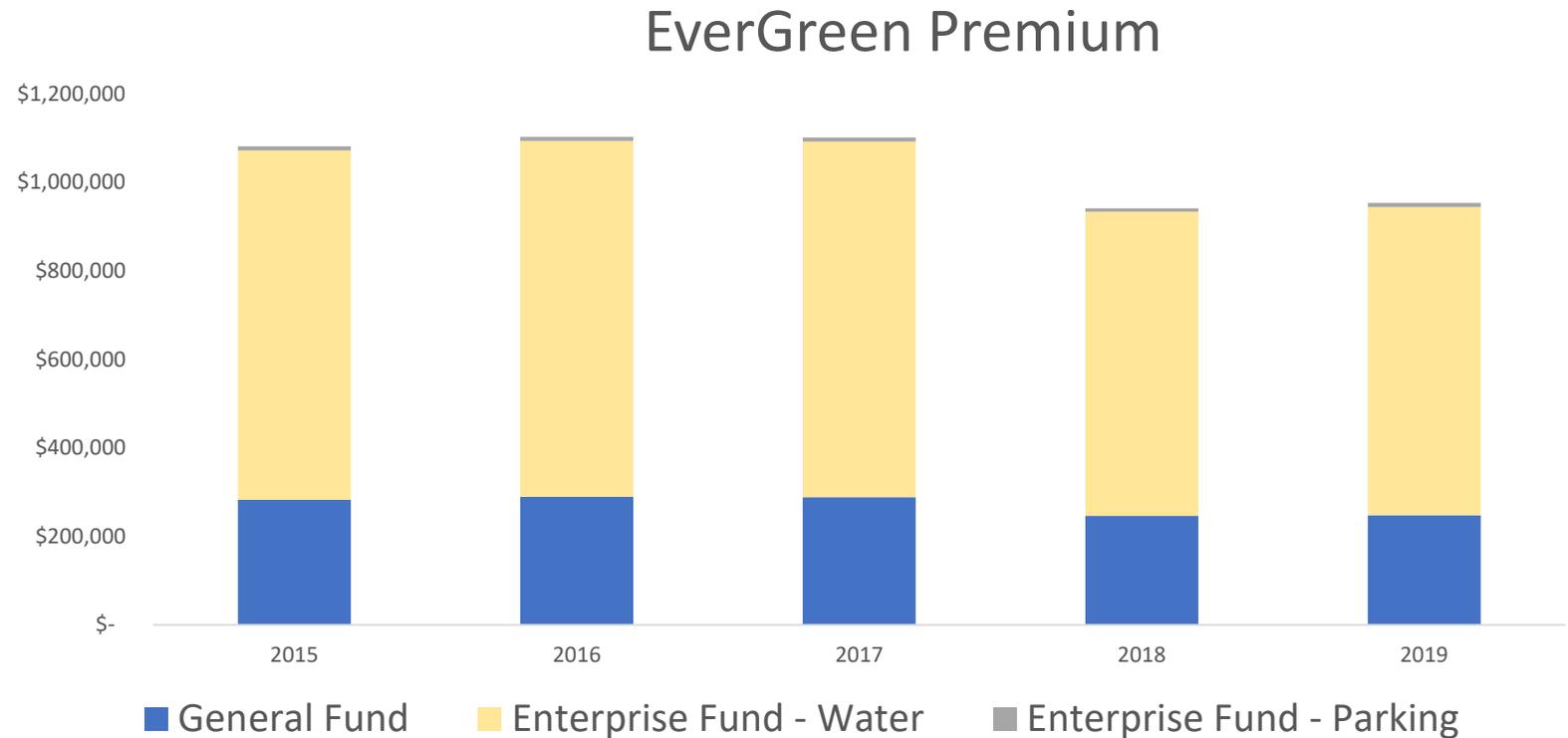
- Support the local economy, create local jobs

# Cost Impacts

## Estimated Historic Costs if the City Purchased EverGreen

- ~\$1 Million/year added cost
  - ~25% General Fund
  - ~75% Enterprise Funds

\*Does not account for any additional efficiency gains



WATER



# SANTA ROSA WATER: ENERGY OPTIMIZATION PLAN

## Memorialize

Energy efficiency and renewable energy projects completed to date

## Evaluate

Efficiency of current water systems and practices

## Identify

Cost-effective measures to:

- Enhance energy efficiency
- Reduce energy demand
- Increase renewable energy generation

# REGIONAL WATER REUSE

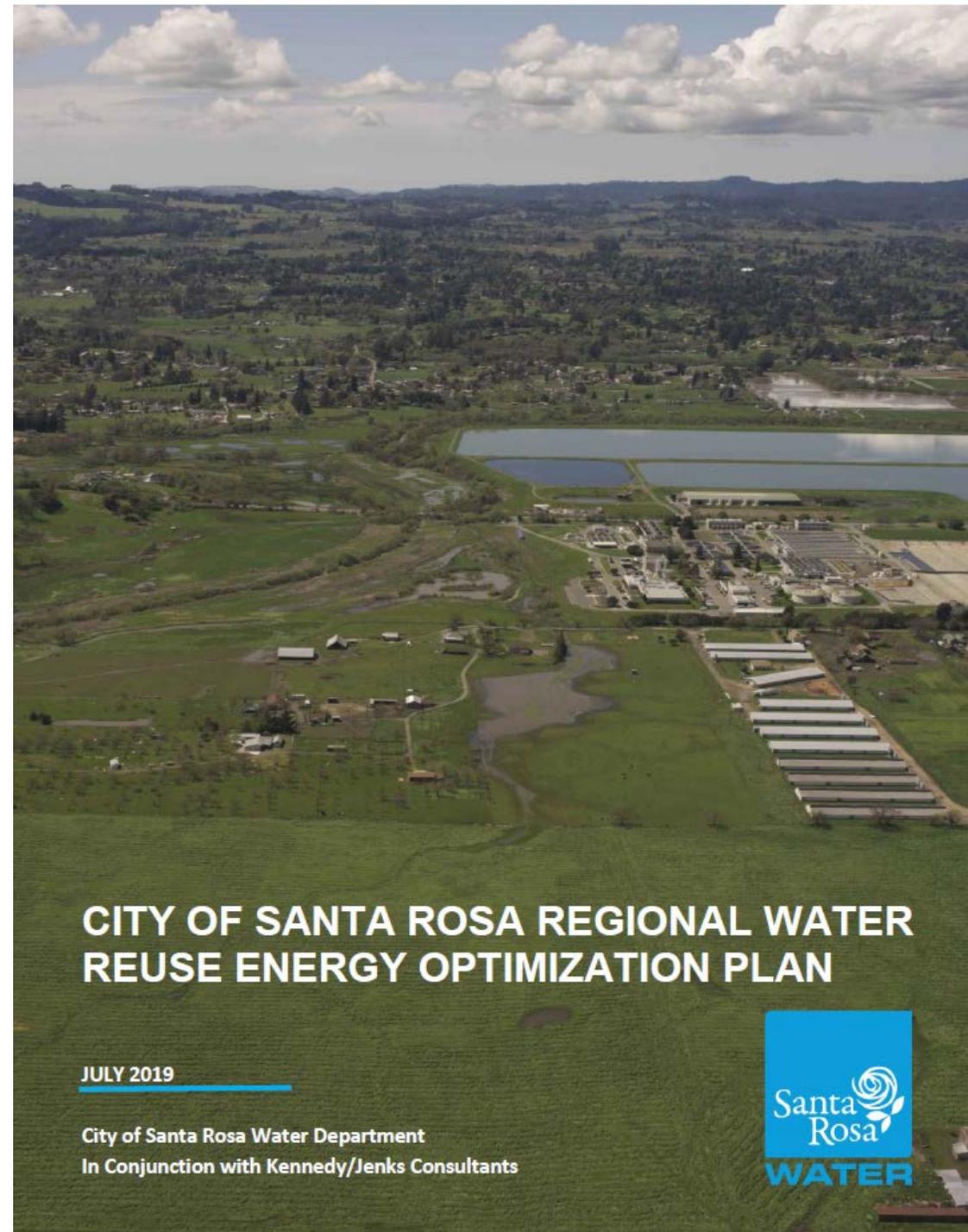
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## 4 System Audits

- LTP
- Biosolids/Compost
- Reclamation
- Geysers

## 5 Deeper Investigations

- LTP Waste Heat
- Energy Management Software
- Irrigation System Optimization
- Solar Photovoltaics
- Mechanical Digester Mixing

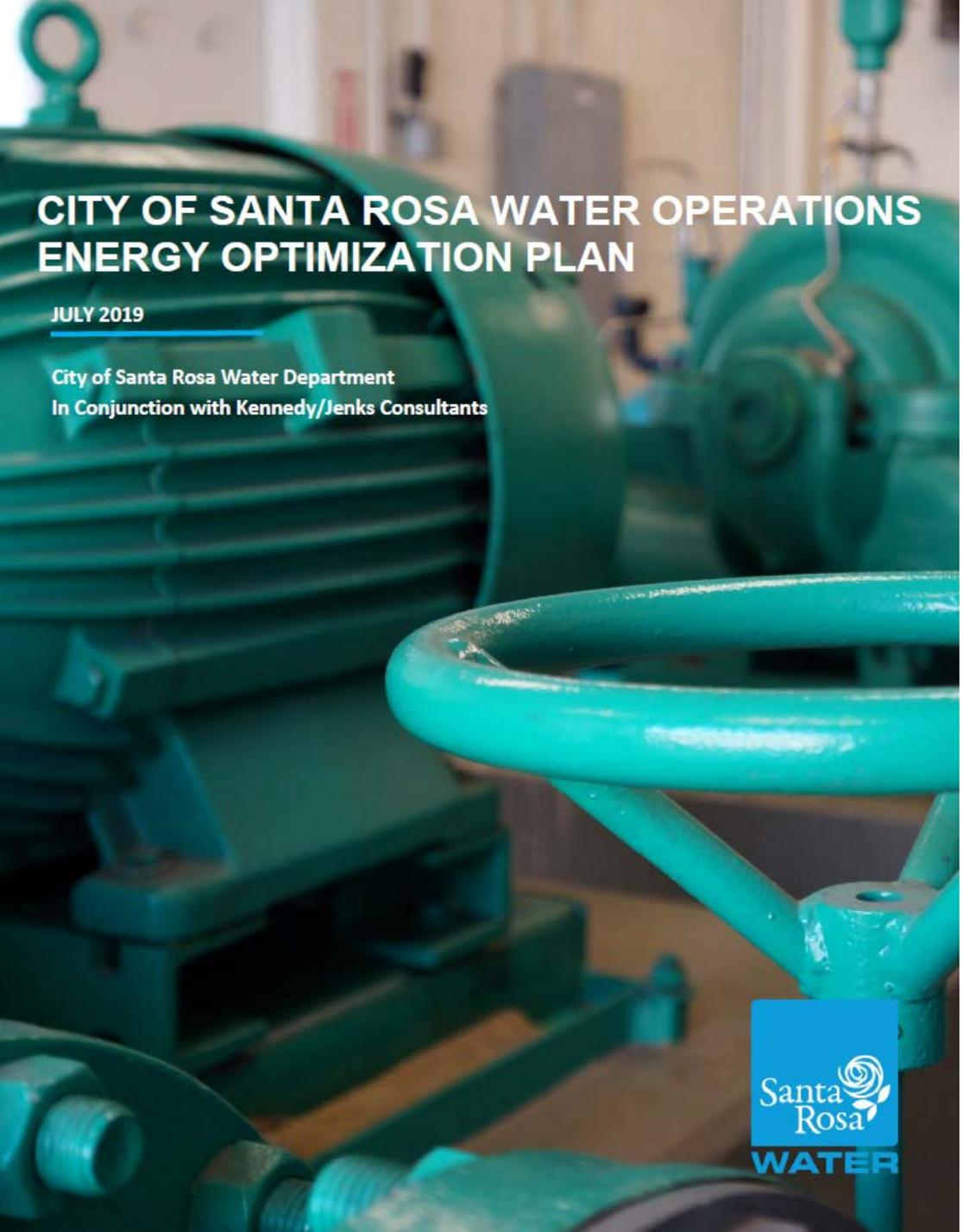


## CITY OF SANTA ROSA REGIONAL WATER REUSE ENERGY OPTIMIZATION PLAN

JULY 2019

City of Santa Rosa Water Department  
In Conjunction with Kennedy/Jenks Consultants





# CITY OF SANTA ROSA WATER OPERATIONS ENERGY OPTIMIZATION PLAN

JULY 2019

City of Santa Rosa Water Department  
In Conjunction with Kennedy/Jenks Consultants



# WATER OPERATIONS

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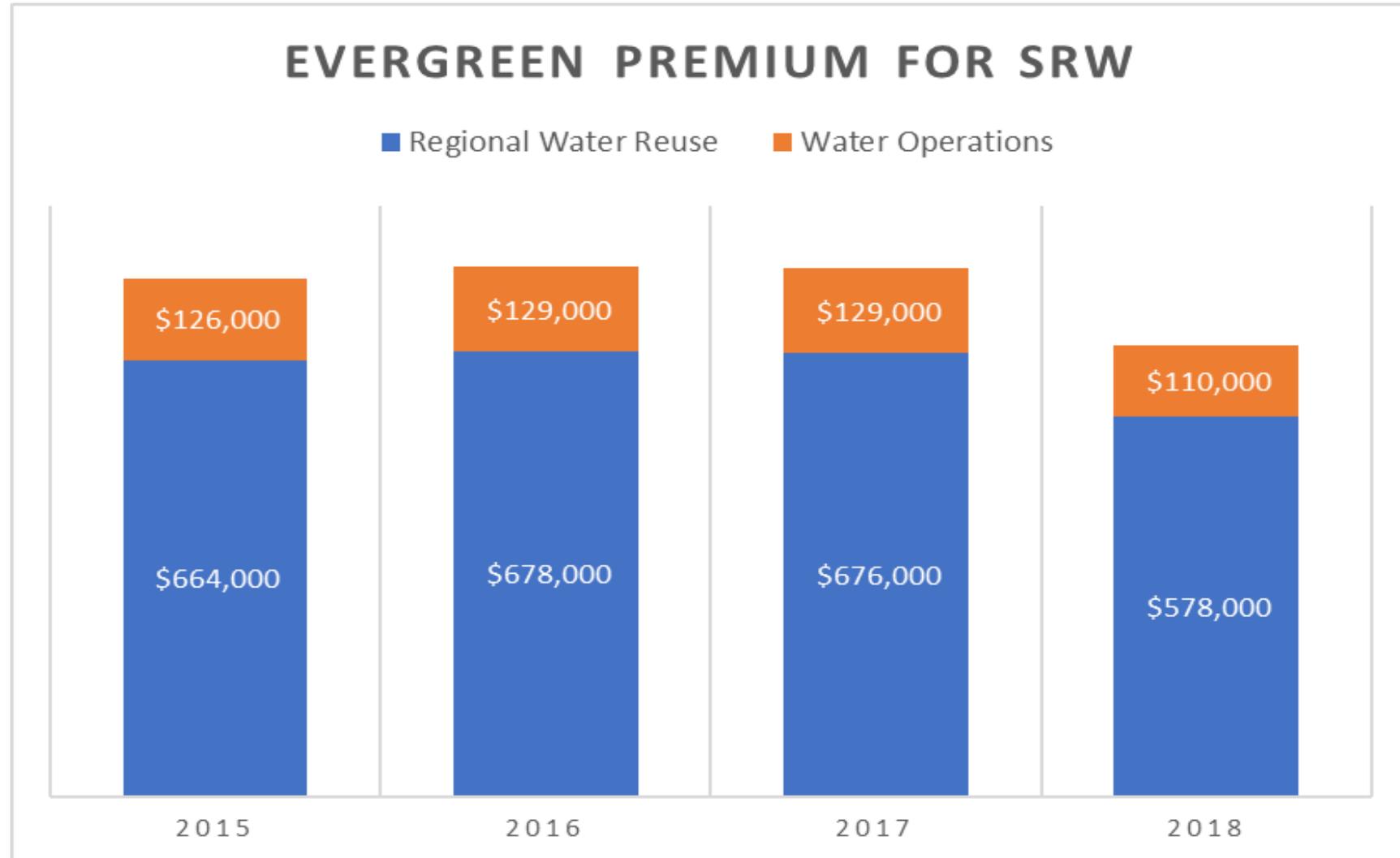
## System Audit

- Water and Wastewater

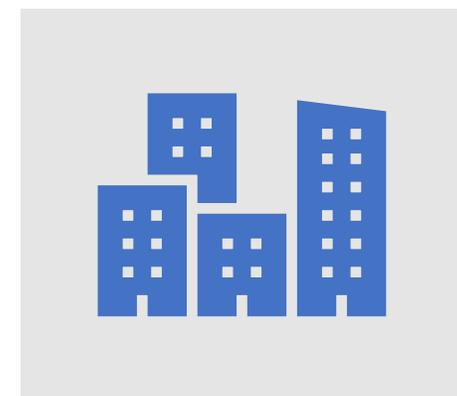
## 7 Investigations

- Utility Management Systems
- Optimizing Pump Sequencing Logic
- Pump Efficiency
- SCADA Programming
- Solar Photovoltaics
- Variable Frequency Drives
- Optimizing Time of Use Rates

# COST IMPACTS TO SANTA ROSA WATER



# FACILITIES





## General Fund Energy Costs

- Facilities – Pools, Recreation Centers, Public Safety Buildings, City Hall (45%)
- Parks – Park and Ball field lighting, Irrigation (10%)
- Street Lights and Traffic Signals (45%)



# General Fund GHG Reduction Strategies

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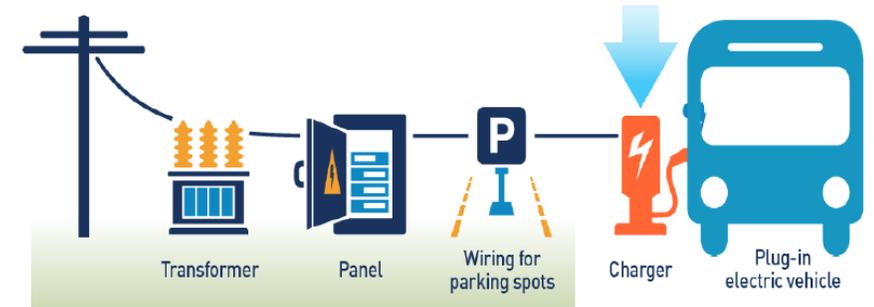
- Facilities Assessment
- Energy Audit - \$200,000 to \$400,000
- Public Private Partnership (P3)
- PG&E on Bill Financing
- Energy Service Companies (ESCO)

# TRANSIT



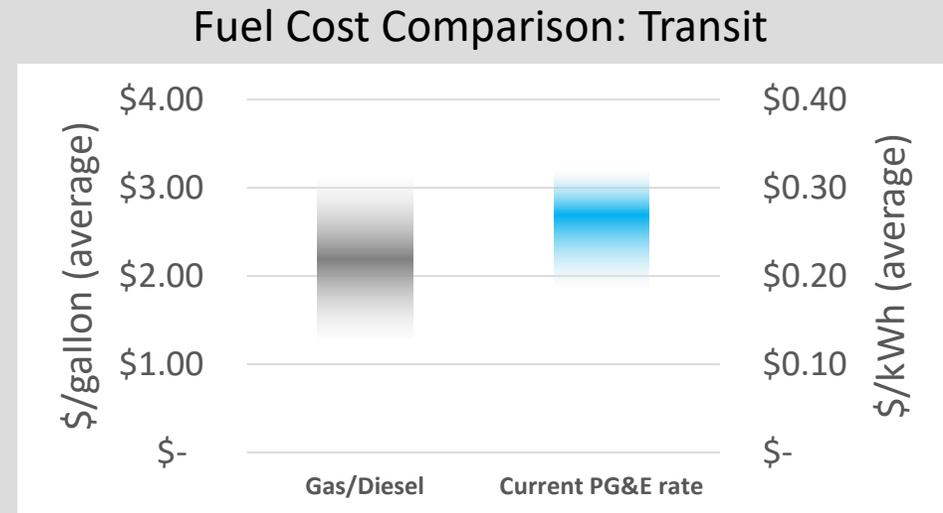
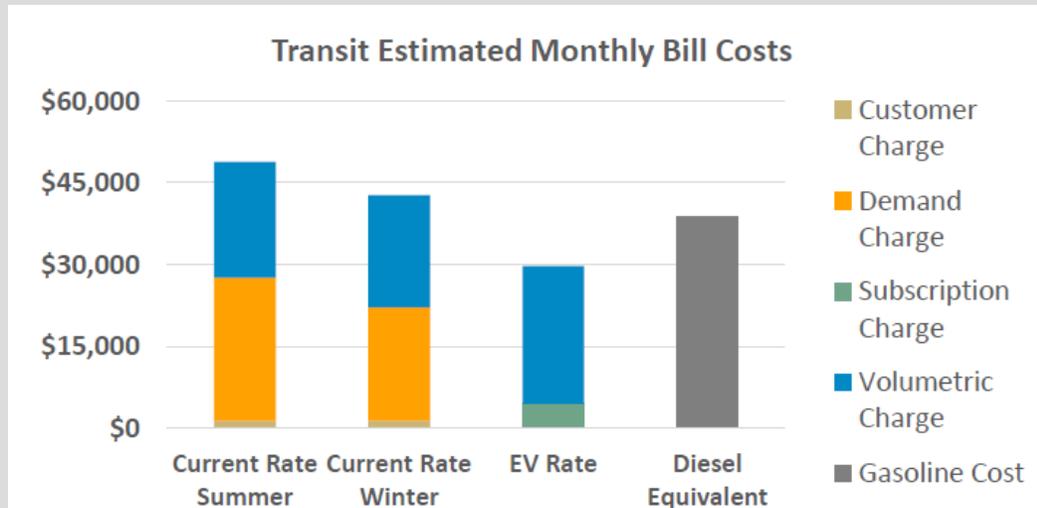
# Future Impacts CityBus Electrification

- City awarded \$2.9 million from Federal Transit Administration's for purchase of four Battery Electric Buses
- CityBus Battery Electric Buses estimated operations start date – 2021
- Participating in Sonoma Clean Power Battery Electric Buses infrastructure assessment study
- Participating in the PG&E FleetReady Program for infrastructure development



# Future Impacts CityBus Electrification

- California Public Utilities Commission (CPUC) reviewing new PG & E Commercial EV Rates



Source: PG&E Commercial Rate Proposal presentation (11/20/18). Modeled for agency with 24 buses operating 150 miles/day and charging mostly overnight.

Source: PG&E Commercial EV Rate Proposal Overview (11/16/18)

# Discussion / Options



Remain on CleanStart



Engage in Facilities Audit



Switch to  
EverGreen

Timing  
Funding  
Energy  
Efficiencies