

# **Overview of SFPUC's Energy Efficiency Programs**

*Presented to: Energy Efficiency Coordinating Council*

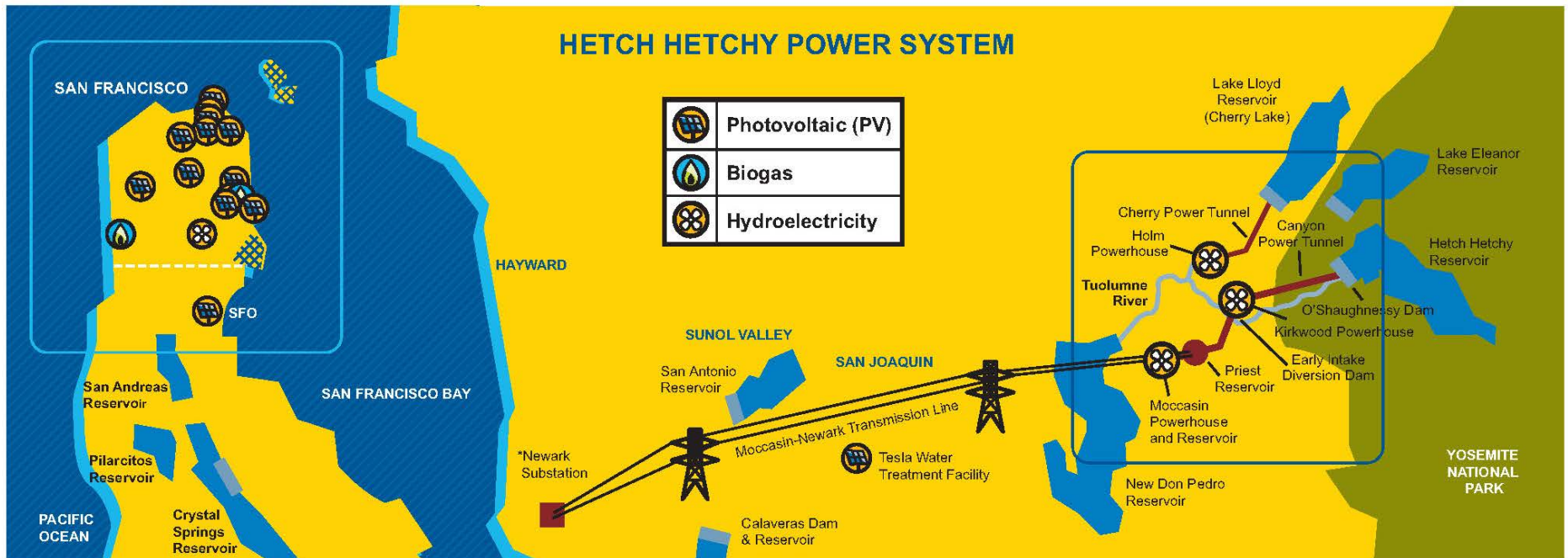
**April 18, 2016**

# Agenda


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- Introduction to SFPUC
- Policy Drivers
- Overview of EE Programs
- Performance
- Data Sources

# Introduction



\*Hetch Hetchy energy enters the electricity grid at the Newark Substation.

 The San Francisco Public Utilities Commission is the exclusive power provider on Treasure Island and in the redeveloped Hunter's Point Shipyard.

- Total generation capacity: ~396 MW
- Approximately 2,600 customers
- Annual electric sales: ~1.5 million MWh/year (17% of SF's total load)
- Annual energy efficiency spending: \$1 million per year

## ***Statewide Targets Set by Assembly Bill 32:***

The “California Global Warming Solutions Act of 2006” mandates reduction in statewide GHG emissions to 1990 levels by 2020.

## ***Statewide Goals for POUs:***

| Bill Number | Effective Year | Impact  |
|-------------|----------------|---|
| SB 1037     | 2005           | Sets loading order for POUs; POUs must report to CEC on its investments in EE programs              |
| AB 2021     | 2006           | POUs must identify cost-effective and feasible EE investments and establish 10-year savings targets |

# EE Services (General Fund)

- ***Direct-Install Program***

- Serves municipal buildings and sites, including Civic Center Sustainability District
- 100% Funding → “Soup to Nuts”
  - 1) Audit, 2) Design, 3) Contracting Services, 4) Project Management, 5) EM&V
- JOC contracting for HVAC and lighting improvements

- ***Green Commissioning and Design Review***

- Serves municipal buildings and sites, including Civic Center Sustainability District
- Fee-for-Service: Municipal new construction, renovations, and retro-commissioning
- Ensures efficient design, construction, and operation of all building systems
- Local Green Building Ordinance – LEED Gold for new construction and major renovations



# EE Services (Retail Rate)

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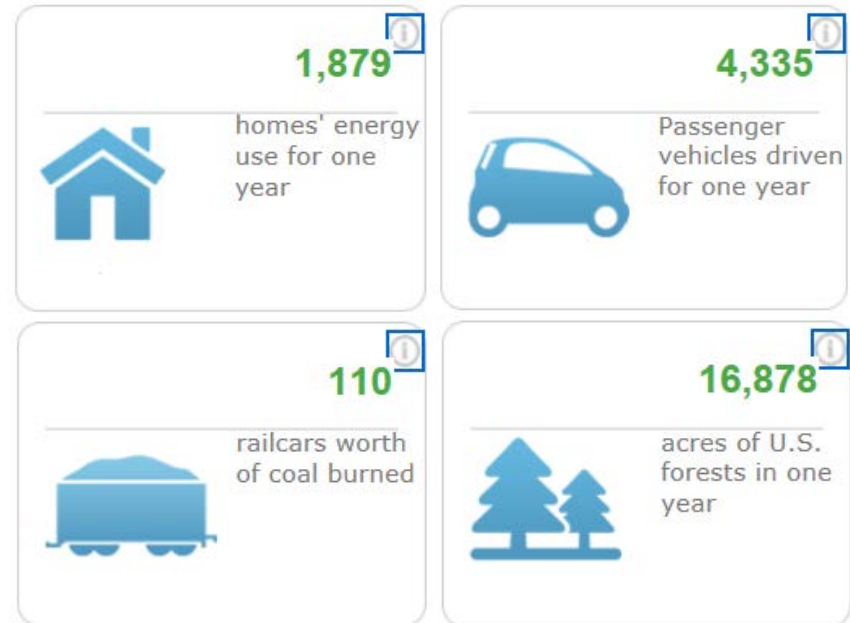
- ***Investment Grade Audits & Technical Assistance***

SFPUC provides services during design and construction: 1) IG Audit, 2a) Assistance in Design/Construction, 2b) Complete Construction & Project Management
- ***Various Programs Being Developed for New Retail Customers***
  - Serves redevelopment areas (e.g. Hunters Point Shipyard, Candlestick, etc)
  - Initial offerings:
    - Energy efficiency “Starter Kits” for residential customers
    - New construction “Savings by Design” program
    - More being considered...
- ***CleanPowerSF***
  - To be developed in summer of 2016 with SFE

## SFPUC energy efficiency programs since 2002....

- Total Sites: 190
- Total Spending: \$20 million
- Annual Electricity Savings: 50,000 MWh
- Annual Gas Savings: 2,000,000 therms
- Annual GHG Savings: 20,500 tons of CO<sub>2</sub>

## Savings equivalent to:



# 170 Otis – Health and Safety Admin.

*Completed in 2015*

**Scope:** Completed a boiler and cooling plant replacement; addressed a variety of building HVAC deficiencies.

**Cost:** \$700,000

**Savings:** 671,000 kWh and 47,000 therms





# City Parking Garages – Rec & Park

## *Currently In Progress*

**Scope:** Installing automatic controls to reduce energy used for ventilation at 4 parking garages around the city.

**Cost:** \$875,000

**Annual Savings:** 2,500,000 kWh



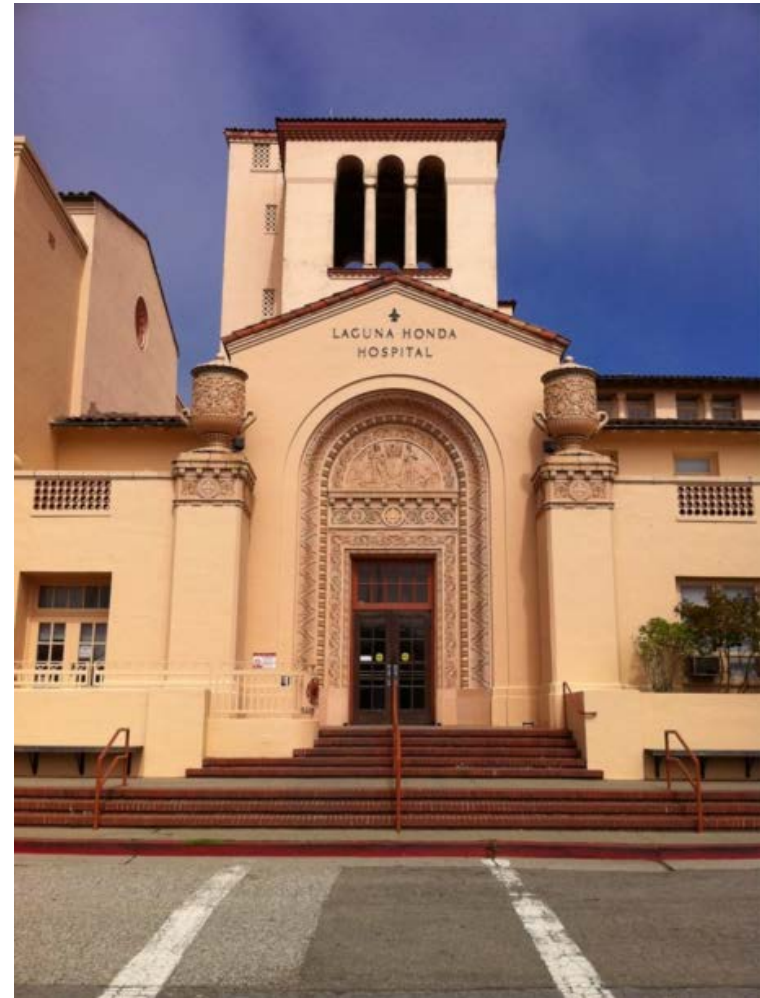
# Laguna Honda Hospital – DPH

*Set to begin Q3 2016*

**Scope:** Plan to install energy efficient boiler; decouple domestic hot water heating from space heating; complete various radiator improvements.

**Cost:** \$760,000

**Annual Savings:** 87,000 kWh  
and 129,000 therms





# Data Sources/More Information

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- SFPUC Website  
<http://www.sfwater.org/>
- Annual Report by California Municipal Utilities Association – SB1037  
<http://cmua.org/wpcmua/wp-content/uploads/2015/03/2015-FINAL-SB-1037-Report.pdf>
- Energy Benchmarking for Municipal Buildings  
<http://sfwater.org/Modules/ShowDocument.aspx?documentID=8587>