

Power Basics

Updated August 2015

The Power Operation

Revenues

\$106.1 Million

Expenditures

\$105.1 Million

Source: FY 2013-14 CAFR pg. 173-174

Number of Meters: 2,270

Source: A. Lee's CAFR FY 14-15 sheet

Electric Revenues & Customers

Customer Type

Rates

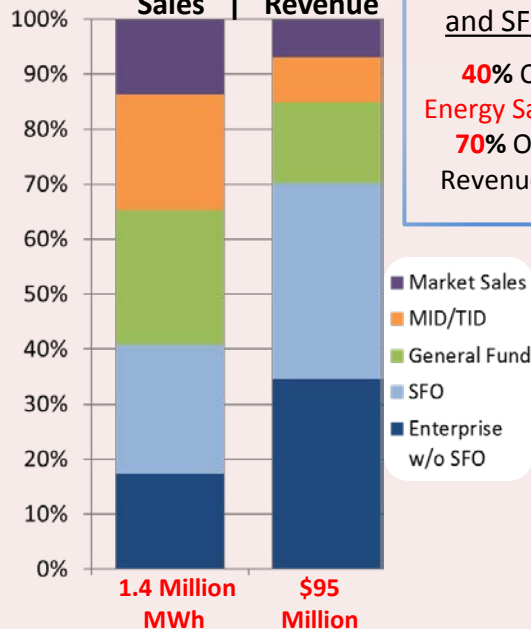
Enterprise and Other Full-Service - - -	12-22 ¢/kWh
General Fund Full-Service - - - - -	5.75 ¢/kWh
Streetlights - - - - -	2 ¢/kWh
Wholesale:	
MID/TID and Market Sales - - - - -	3-5 ¢/kWh

Source: 10 Year Financial Plan, A. Lee FY14-15 WIP

Electric Customers By

FY07-15 Average

Sales | Revenue



Enterprise and SFO

40% Of Energy Sales
70% Of Revenues

Even in a dry year total **Generation** is more than total **Full-Service Demand**.
Wholesale sales vary dramatically from wet to dry

SFPUC Power Generation

TOTAL Capacity ~ 396 MW

Hetchy 380.5 MW (96% of Total)

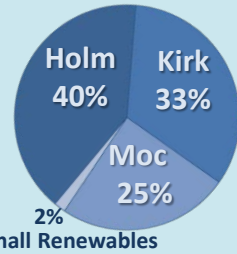
Powerhouse	Holm	Kirkwood	Moccasin
Capacity MW	165	115.5	100
Units	2	3	2

Small Renewables (4% of Total)

Source	Solar	Small Hydro	Biogas
Capacity MW	8	4	3
% of Total	2%	1%	1%

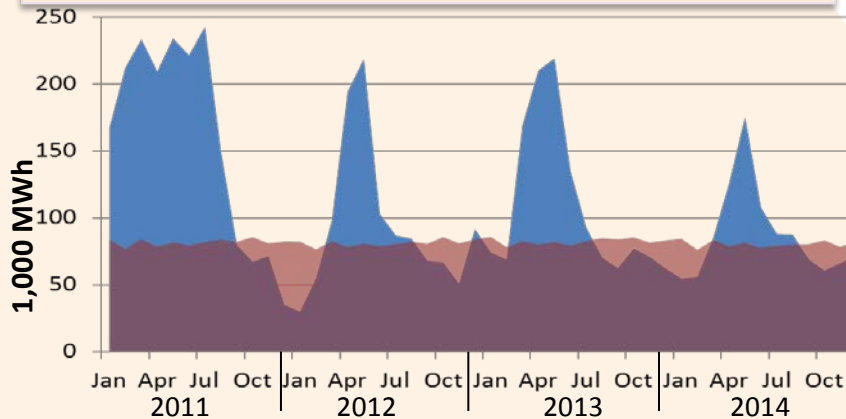
Source: Power Enterprise Overview Sheet

Production Mix (Averages: 2011-2014)



Annual HH Generation ~ 1.6 Million MWh (Average 1921-2013)

Power Supply vs. Full-Service Demand



Source: J. Chiang's Consolidated Annual Summary

Full-Service Demand (the red) is fairly constant. **Power Supply (the blue)** peaks around Spring, and is weather dependent. In Fall/Winter, Generation falls below Demand.

Average FY07-15

1,000 MWh/year

	Average	High	Low
All Generation	1,400	2,000	990
Full-Service Demand	960	980	940
MID/TID Wholesale Sales (Primarily in Spring)	300	550	100
Other Wholesale Sales (Primarily in Spring)	180	580	12

Source: FY 2013-14 CAFR, p.232, A. Lee CAFR FY1415 spreadsheet

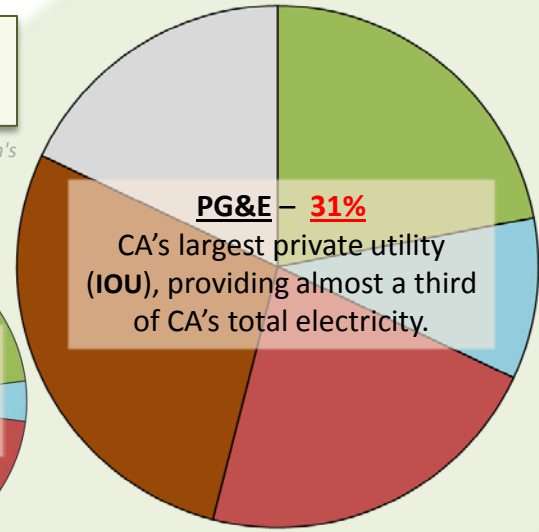
Source: FY 2013-14 CAFR pg. 232, A. Lee's CAFR monthly comparison and CAFR FY1415 spreadsheets

SFPUC's Power Enterprise In Perspective

California Utilities

Size as % of Total 2013 CA Retail Electricity Sales

Source: California Energy Commission's Energy Consumption Data Management System



Resource Mix

- Renewables
- Large Hydro
- Nuclear
- Natural Gas
- Coal
- Unspecified

SFPUC – 0.37%

A mid-sized POU



Resource mix is among the **CLEANEST** of all CA utilities

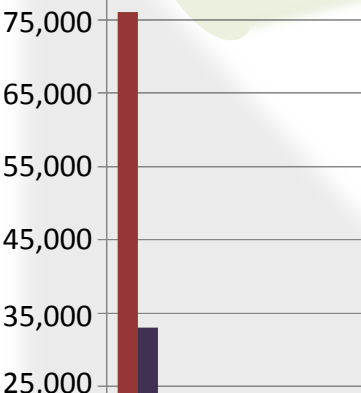
Marin Energy Authority 0.40%



Alameda 0.14%



GWh



Greenhouse Gas Free Generation

PG&E	54%
LADWP	37%
SFPUC	100%
Marin Energy Authority	61%
Alameda	37%

Source: Power Content Labels 2013

2012 Retail Electric Sales
2012 Generation from Utility Owned Facilities

Source: Public Finance Management, 2014

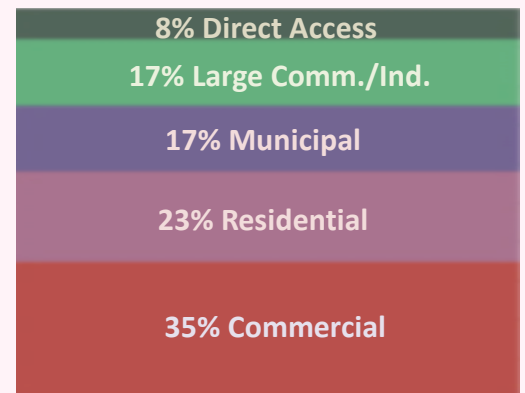
Our surplus generation is unusual. Most utilities purchase significant supplies to meet their full-service demand.

*SFPUC's generation is for 2008-09, considered a "Normal Year"

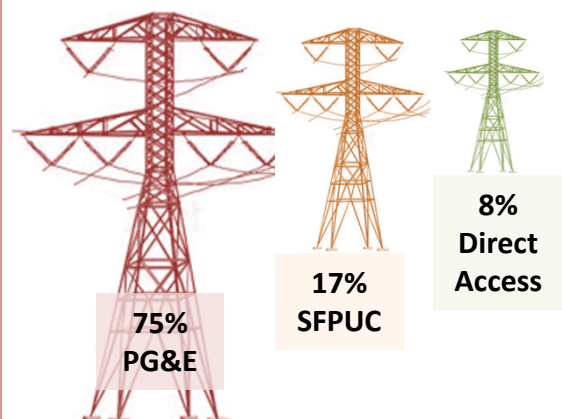
San Francisco's Electricity

→ Total Use in 2012 ~ 5,877 GWh ←
→ Average Peak Demand ~ 930 MW ←
→ Average Demand ~ 670 MW ←
(Averages: 2010-12)

Consumption By Sector



Generation By Provider



Source: CEC ECDMS Consumption by County; 2011 Electric Resource Plan; CleanPowerSF data; California ISO, 2013-2014 Transmission Planning Process.