



# **Local Power Inc.**

## **Proposed Business Plan & Preliminary Results for CleanPowerSF**

Local Power Inc.  
San Francisco Commission on the Environment  
26 March 2013

# Local Power Inc.

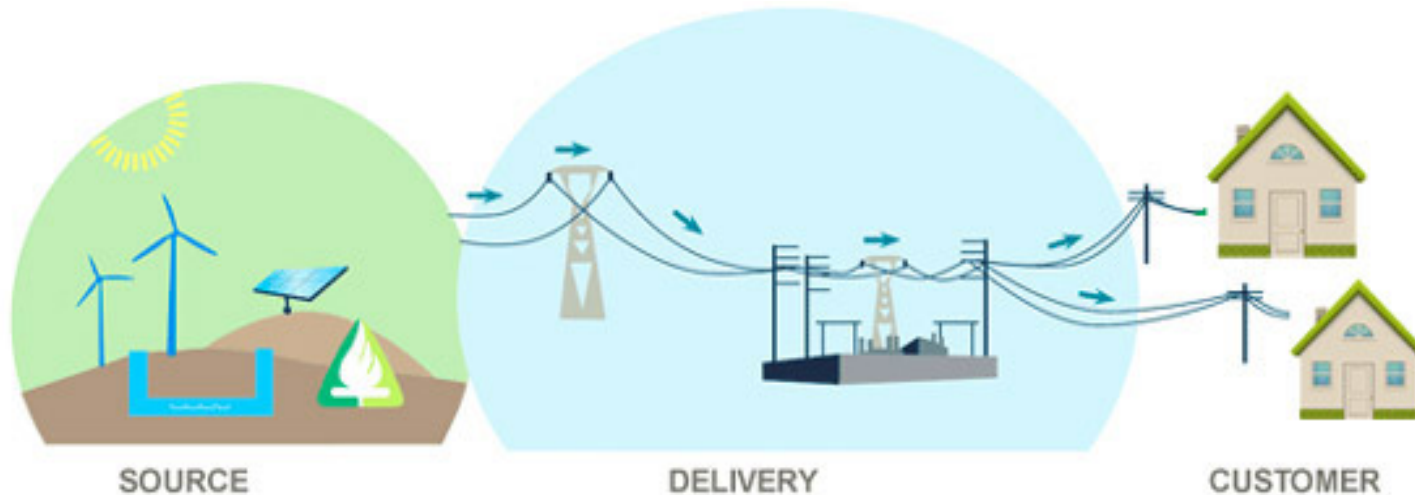
# Local Power's Role in CleanPowerSF

- Drafted original laws for Community Choice Aggregation (MA 1997; CA 2002)
- Drafted San Francisco CCA Resolution (1998)
- Drafted San Francisco's H Bond Authority (2001) - the nation's first municipal revenue bond for renewables and efficiency
- Drafted San Francisco CCA Ordinance (2004)
- Chaired CCA Task Force (2005)
- Created CleanPowerSF Implementation Plan (2007)
- Drafted SF LAFCO CCA Program Report (2009)
- Drafted CCA Lessons Learned Report for SFPUC (2010)
- Currently advising SFPUC on CleanPowerSF program design, preparing financial and site survey modeling, and writing RFPs for issuance for in-City build-out

# The Business Model

# Old Business Model

- Standard utility model: centralized power plants & distant green power



- NOT competitive – achieves no jobs, no security
- Very similar to PG&E proposed 'Deep Green' rate... except more expensive

Original Illustration by Kiki La Porta, [www.descomstudios.com](http://www.descomstudios.com)

# Proposed Business Model

- Invest in homes & businesses: distributed generation & efficiency



- Build distributed power plants, create thousands of jobs for years into the future, community shares offered to all customers, rate discounts, lower bills, lower GHGs
- (That's product differentiation!) **Local Power.**



# Customer Value Proposition

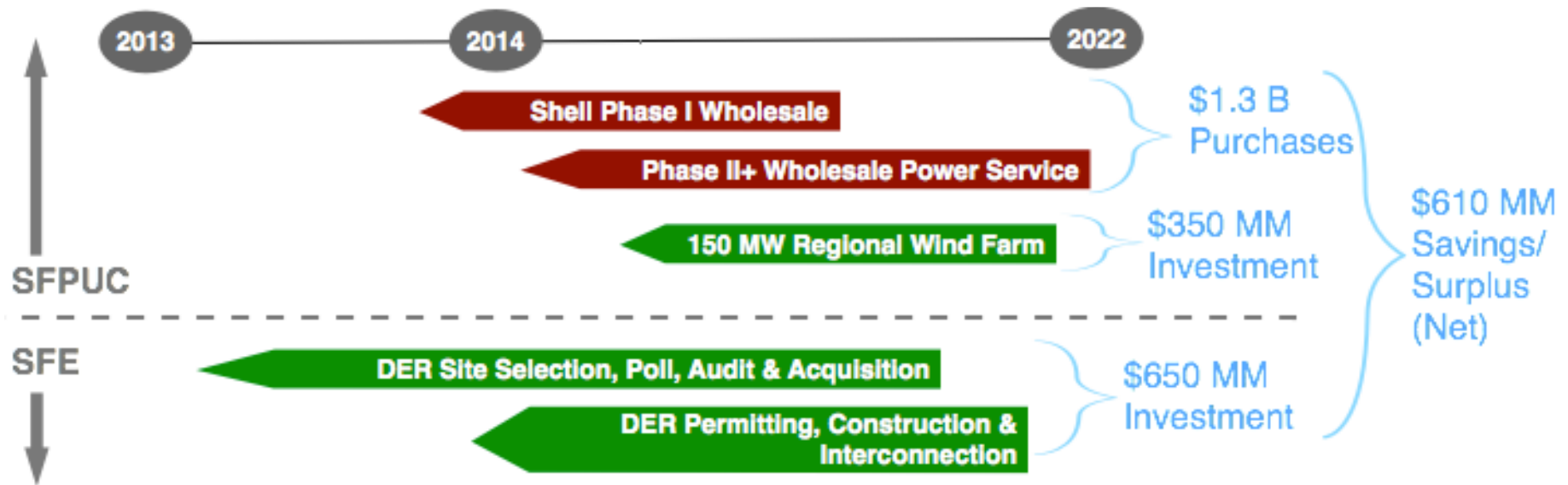
- Customers that host EE/DG enter into voluntary PPA & 'Guaranteed Savings' agreements:
  - Established practice in industry
  - Customer saves money on day 1, without up-front cost or risks
  - Program finances, installs, operates and maintains assets – receives portion of benefits
  - Benefits socialized to ensure overall program cost-competitiveness, achieve policy goals

# Agency Roles & Processes



# Timeline, Finances & Agency Roles

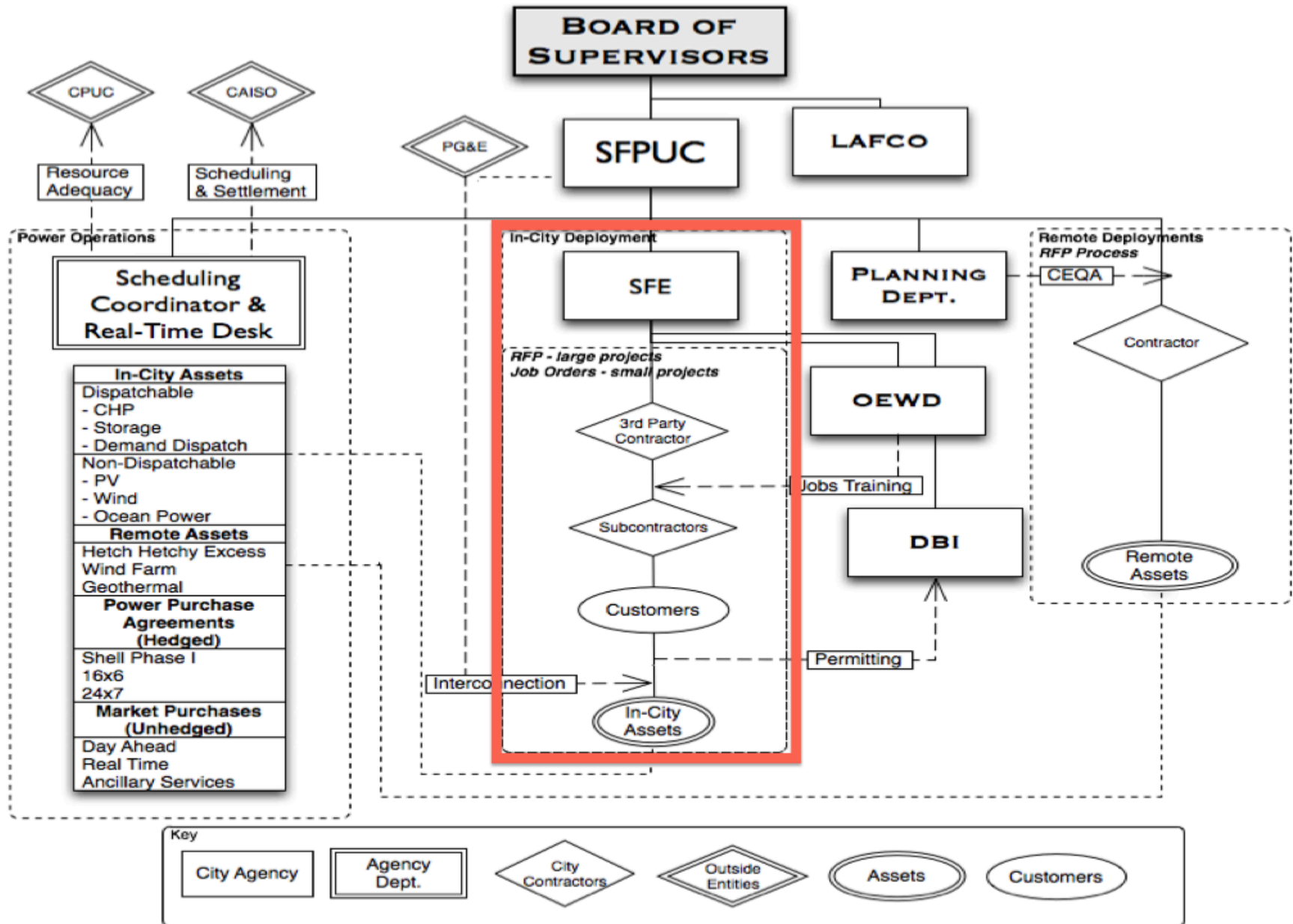
- SFPUC manages wholesale procurement and construction of 150 MW regional wind farm
- SFE manages acquisition and construction of in-City build-out components



# In-City Build-Out Process

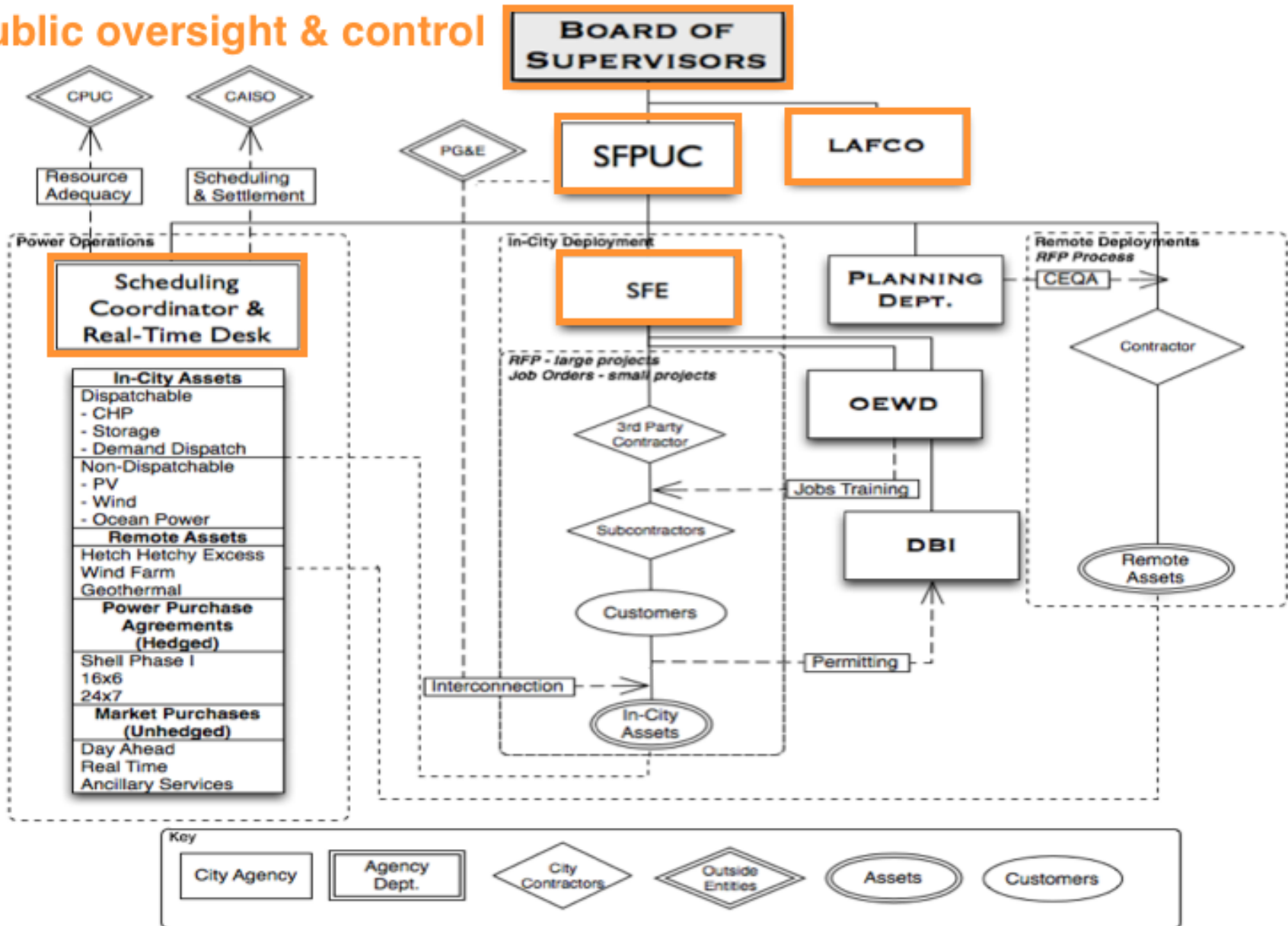
- 1 Target sites based on 'Big Data' analysis
- 2 Poll short list of sites for customer interest
- 3 Conduct detailed modeling of select sites
- 4 Issue RFP for audits of most profitable sites
- 5 Aggregate audited sites into RFPs for build-out (job orders & performance contracting)
- 6 Manage construction process
- 7 Integrate with SFPUC procurement forecast & operations

# CleanPowerSF Organizational Chart



# City Management and Control

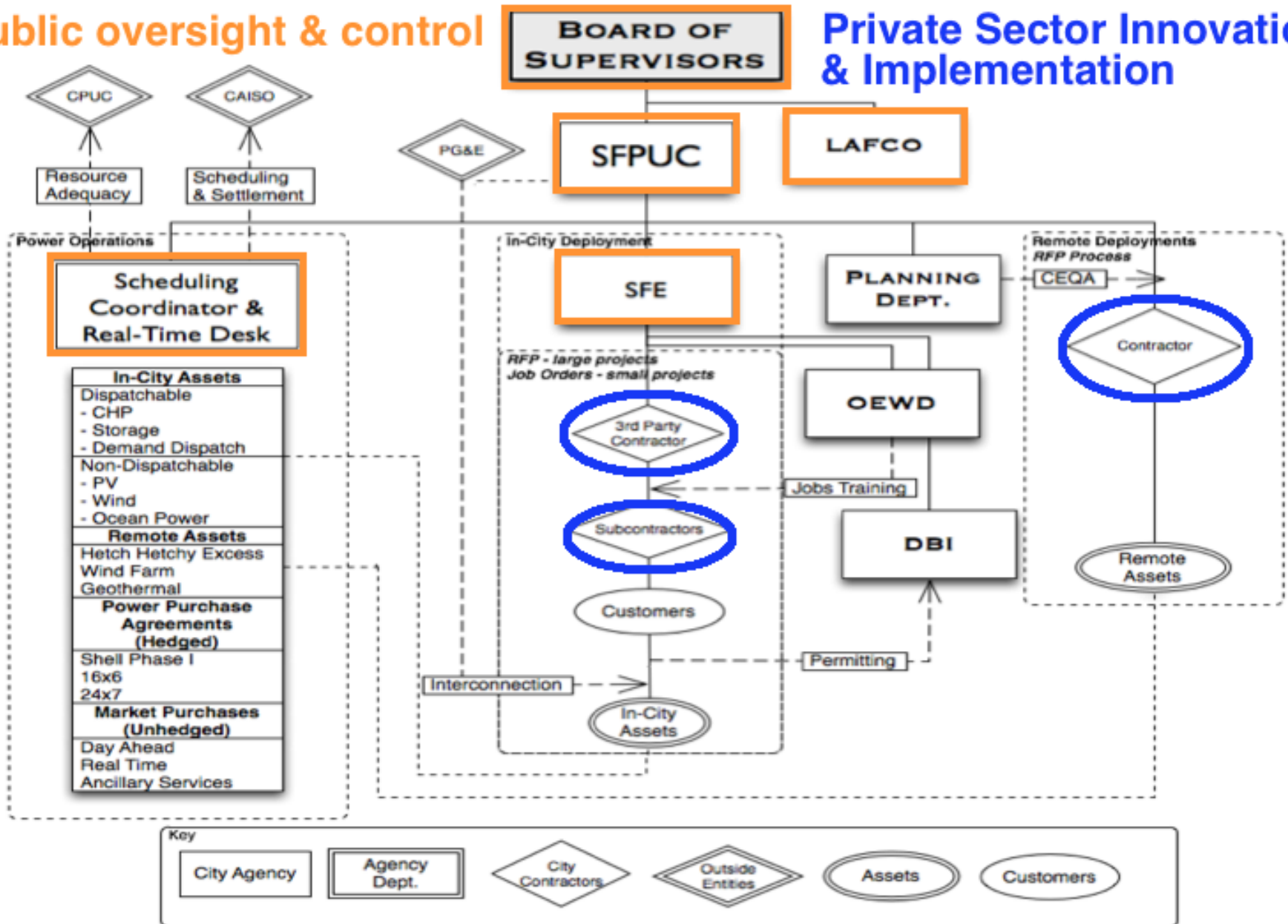
## Public oversight & control



# Private Sector Implementation

Public oversight & control

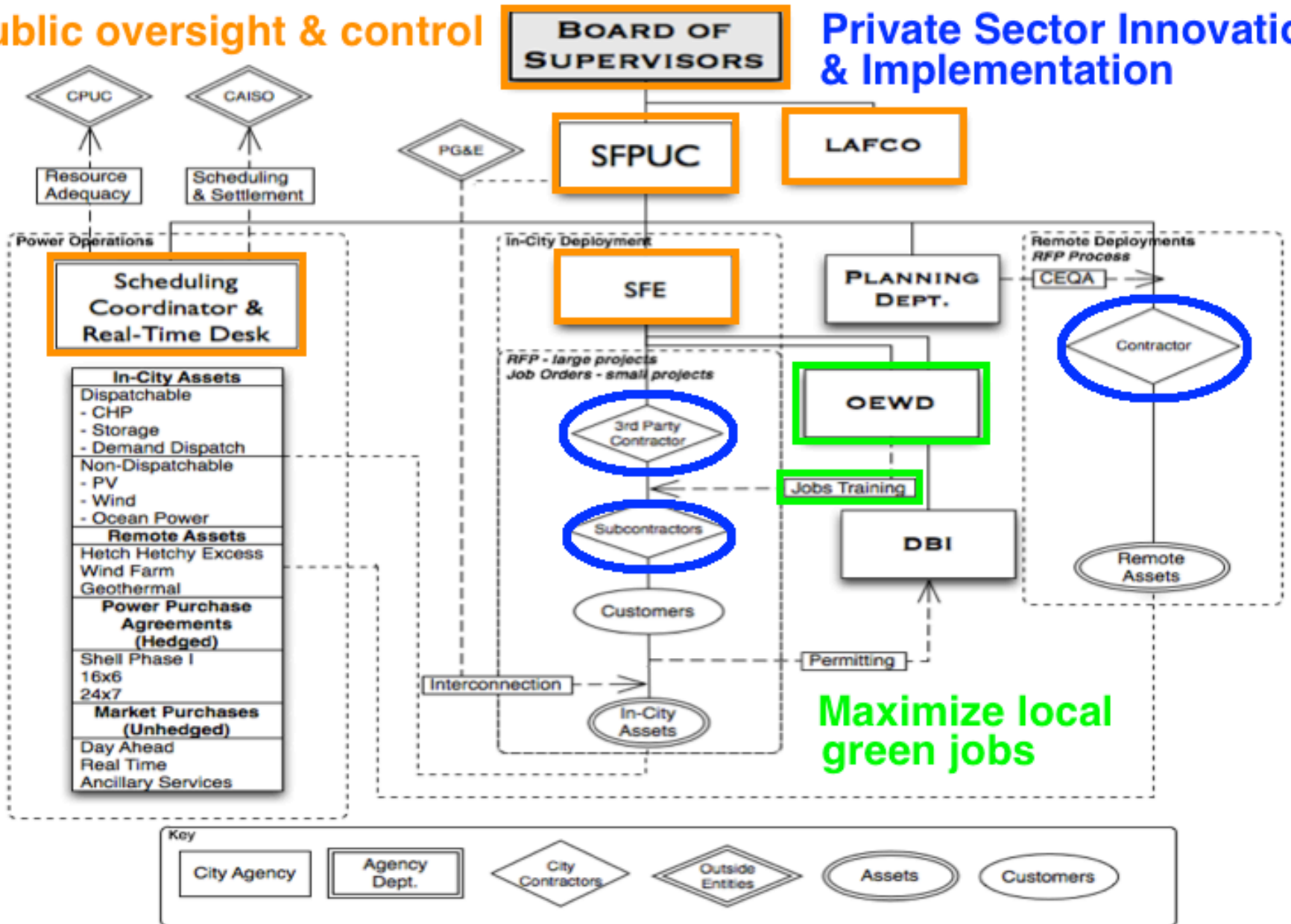
Private Sector Innovation & Implementation



# Program Maximizes Green Jobs

Public oversight & control

Private Sector Innovation & Implementation



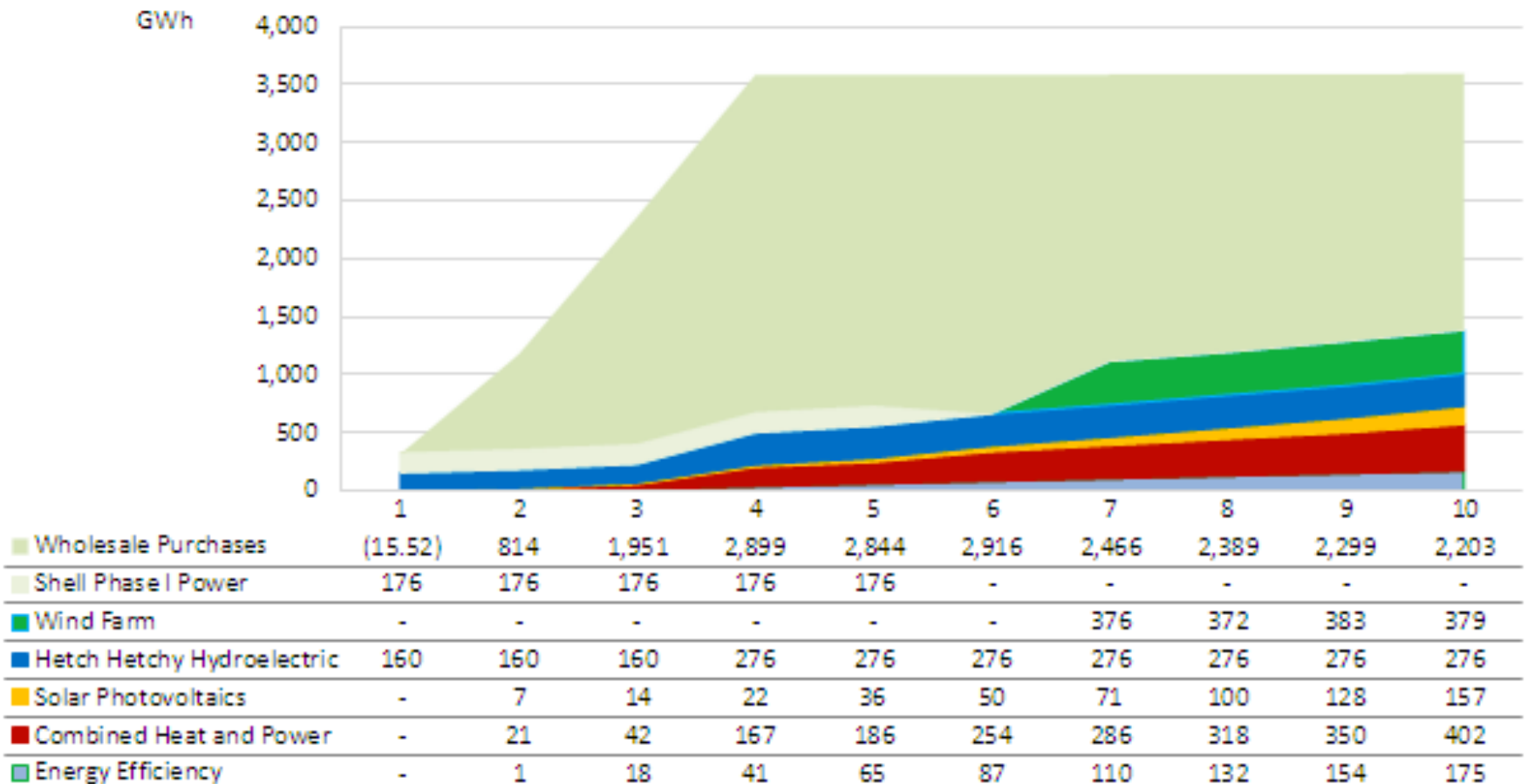
# Preliminary Results



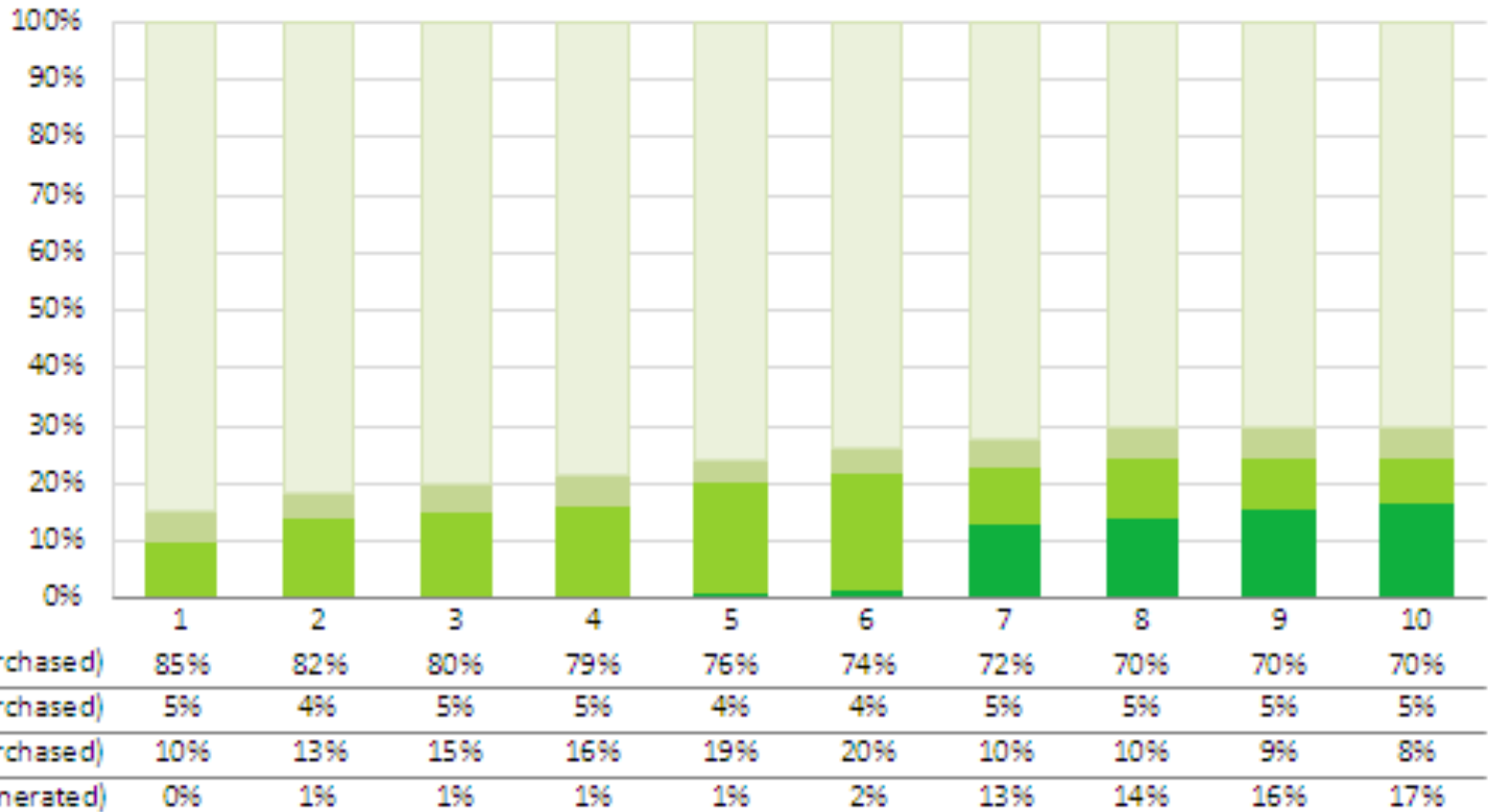
# 10 Year Summary Figures

- Phase in of City-wide enrollment: ~300k accounts, 3,800 GWh (20% opt-out)
- \$1.3 billion in 100% renewable wholesale power purchases
- \$1 billion build-out supplies ~28% of City's electricity requirements through:
  - I. 1 (150 MW) wind farm in region
  - II. 700 distributed solar installations
  - III. 300 distributed CHP installations (boiler replacement)
  - IV. Re-power existing district steam loop with CHP
  - V. ~12k efficiency retrofits (set at historic SFE program penetration)
- NOTE: figures may increase post site selection analysis
- 12,500 job-years (direct/indirect) created
- **\$610MM surplus/savings accrued by year 10**
  - **Equivalent to 18% generation rate decrease**
  - **I.e. Phase II+ beats PG&E's rates**

# Annual Resource Mix

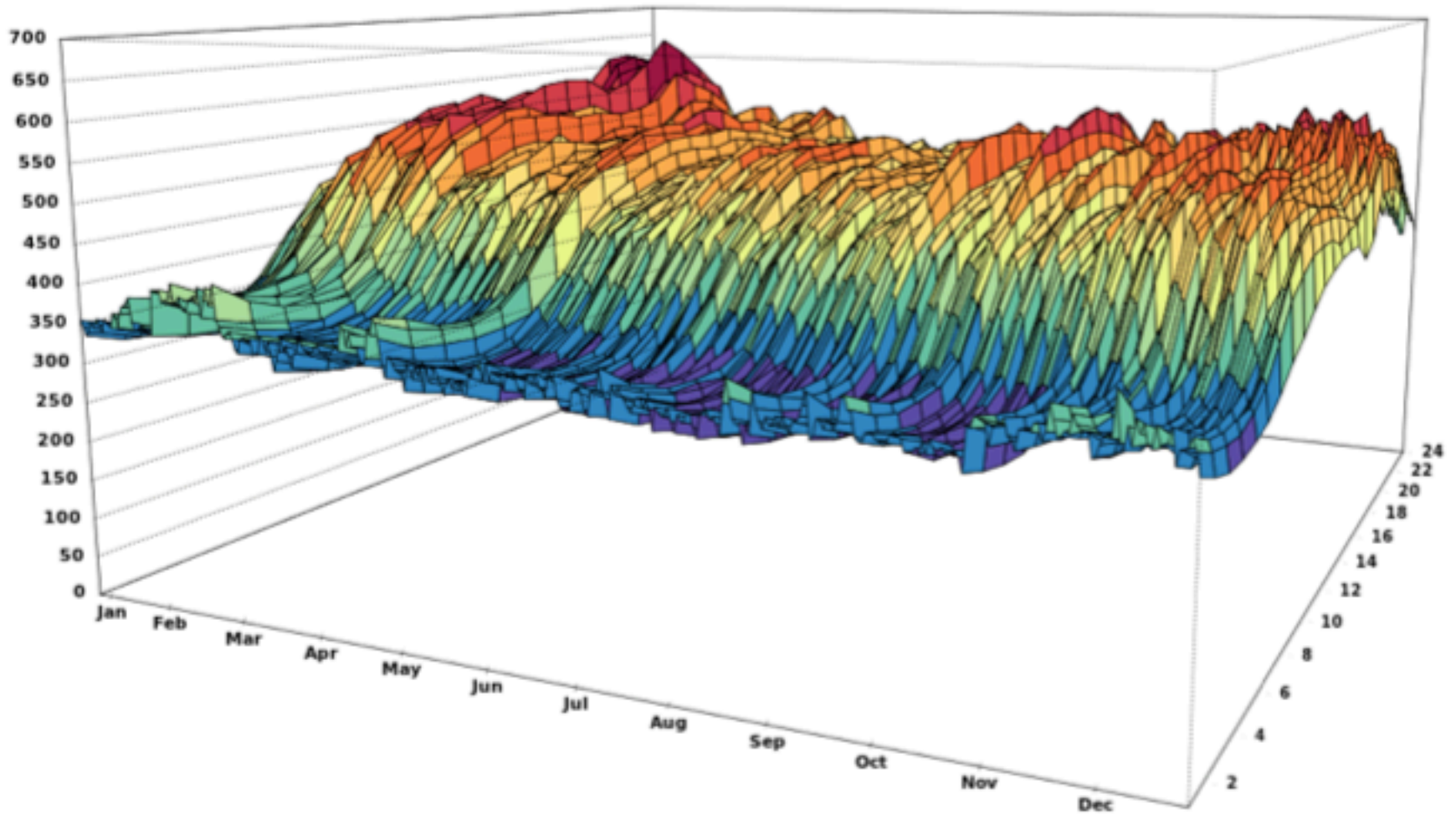


# Wholesale Renewable Content



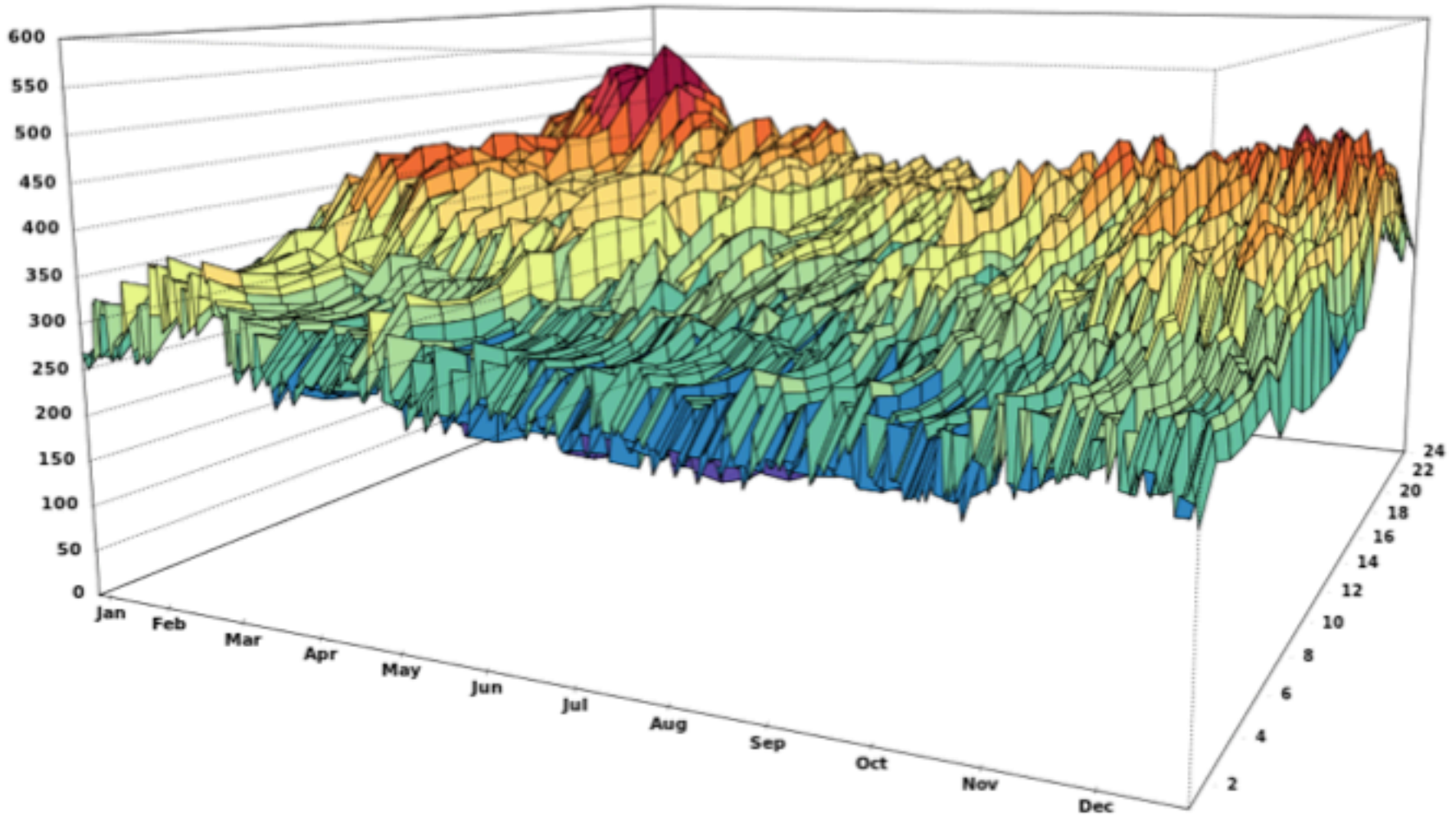
# Initial Load Shape

CleanPowerSF Load Shape (2018) Prior to DG & DSM



# Load Shape After Local Build-Out

Load Shape (2018) After DG & DSM



# Timeline of Financing

- Combination of revenue bonds and private debt/equity funds
- Scaled, multi-year approach:

PROJECT FINANCING (\$MM)										
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Solar Photovoltaics	\$-	\$ 16	\$ 16	\$ 16	\$ 33	\$ 34	\$ 51	\$ 70	\$ 71	\$ 72
Wind	\$-	\$-	\$-	\$-	\$-	\$-	\$356	\$-	\$ 10	\$ -
Combined Heat and Power	\$-	\$ 8	\$ 9	\$ 9	\$ 9	\$ 20	\$ 14	\$ 14	\$ 15	\$ 24
District Heat and Power	\$-	\$-	\$-	\$ 41	\$-	\$-	\$-	\$-	\$-	\$ -
Energy Efficiency	\$-	\$ 1	\$ 9	\$ 13	\$ 14	\$ 14	\$ 15	\$ 16	\$ 16	\$ 16
Site Acquisition Start-Up	\$ 4	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Annual Total	\$ 4	\$ 25	\$ 34	\$ 80	\$ 56	\$ 68	\$437	\$100	\$111	\$ 113
Cumulative Total	\$ 4	\$ 29	\$ 62	\$142	\$198	\$266	\$703	\$803	\$914	\$1,027



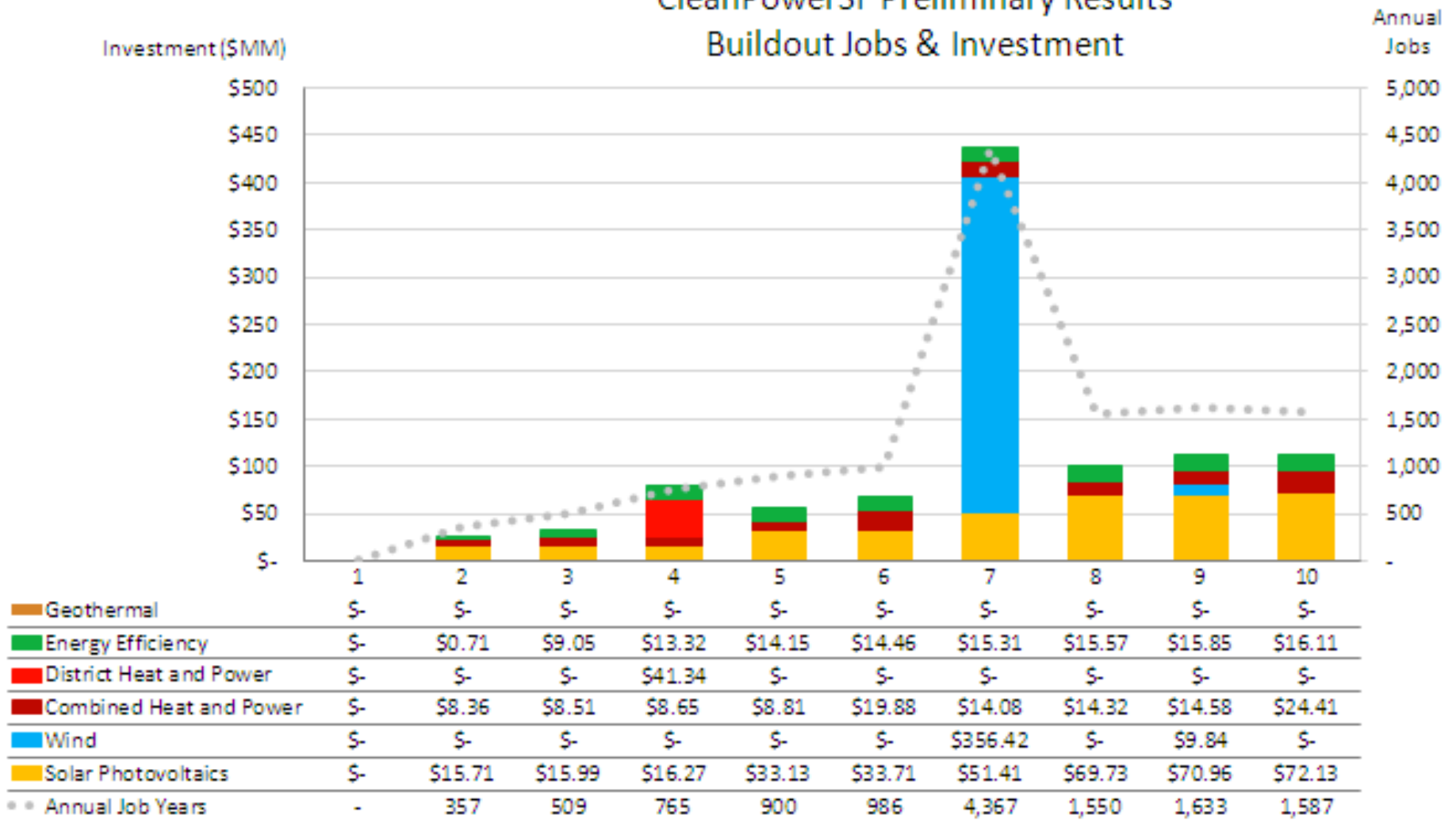
Notes: Color scale indicates lesser (yellow) to greater (green) annual financing by technology.

Sparklines on right indicate trend of each line item



# Jobs & Local Investment

## CleanPowerSF Preliminary Results Buildout Jobs & Investment





# Issues to be Resolved

# SFPUC vs. SFE: Roles in Local Build-Out

- SFPUC staff do not have domain expertise in private-sector EE/DG implementation
- LPI has recommended SFE delegated responsibility for in-City build-out, in line with department skills & achievements
- SFPUC staff has not given indication of acceptance or rejection of this approach

# LPI Contract with SFPUC Not Extended

- SFPUC staff has made managerial decision to not request the SFPUC Board to vote on whether or not to extend LPI contract past 31 March 2013
- SFPUC staff has no plan for Phase II+ or local build-out

# Proposed LPI Work

1. LPI has a proposed 9 month scope of work & budget for:
  - Site selection, customer poll, and detailed modeling
  - Final Cost of Service model results (updated by site selection results & wholesale procurement figures)
  - Drafting of RFP for onsite audits of select sites for local build-out
  
2. The following issues must be resolved prior to the drafting of RFPs for actual construction:
  - Role of SFPUC vs. SFE regarding in-City build-out
  - SFPUC revenue bond issuance approval process
  - Phase II+ wholesale procurement contract language
  - Coordination of various agencies and responsibilities for CleanPowerSF program design (OEWD - jobs training; DBI - permitting; Planning - CEQA; Disaster Planning - site targeting for earthquake resilience, etc.)

# Thank You

Paul Fenn

Local Power Inc.

[paulfenn@localpower.com](mailto:paulfenn@localpower.com)

(510) 451-1727x2