

# Accelerating Building electrification part 2

Building electrification Sub-committee:  
B. Delagneau, R. Humayun, L. Teksler



# Table of Content

---

- Update (see backup slides)
- Strategy
- Recommendations
- Other considerations
- Discussion



# Strategy

---

- Partner with an outside organization to accelerate electrification
- Increase outreach and education
- Incentivize electrification with building exceptions
- Disincentivize gas appliances
- Reach codes options



# Recommendation 1

---

- Partner with outside third party to accelerate electrification of single home residences
  - Target start Q1 2025
  - Program should go until at least 2027, extendable to 2029
    - In line with BAAQMD phase out plan
  - Three to four potential partners
    - BlocPower, Onsemble, QuitCarbon and Zero Homes (not evaluated)
  - Request format to be discussed (RFP, RFQ or open call)
    - RFP or RFQ preferred



# Recommendation 1

- Potential third-party partners:

	Blocpower	Onsemble	QuitCarbon
	HQ in NY but presence in Bay Area (-)	Local (++)	Local
	Larger organization (++)	New company (--)	Reasonably experienced (+)
	Most experience (++)	Process improving	Live person in process (+)
	Highest cost to city (--)	Cost to city = only marketing costs (+)	Cost to city = only marketing costs (+)
	Owner has to manage incentives (--)	Manages incentives upfront (++++)	Owner has to manage incentives (--)
	Experience mostly in multi-housing (-)	Currently only does HPWH installs (-)	Can fully electrify home (+)
	Los Altos may not be a priority (-)	Nimble and eager (+)	Flexibility (+)
		Need to install app, upload photos (-)	Large range of estimate (?)



# Recommendation 2

---

- Develop a comprehensive citywide educational/outreach Plan
  - Action 1: Update/improve and maintain sustainability page
    - Easier access, links on city home page
    - links to partner organizations (SVCE, BayRen, BA communities, Acterra etc)
  - Action 2: Continue EV fair and add more building electrification booths
  - Action 3: Have link to sustainability page on planning permit application
  - Action 4: Develop training platform for city groups such as BAT and Resilient Los Altos
  - Action 5: Create a series of lectures/town halls on the benefits of electrification
    - Four per year over two years (to be extended as needed)
    - HVAC heatpumps, HPWH, Solar and batteries, Induction cooktops
  - Action 6: Add building electrification booth at farmers' market
  - Action 7: Advertising/articles in Town Crier (can be in conjunction with 2 and 5)



# Recommendation 3

---

- Add building incentives for all electric new homes or remodels/additions
  - Can be done at the planning stage
  - Example of incentives:
    - Increase lot coverage (5%)
    - Increase FAR
    - Priority review timeline
- Have incentives for new HVACHP, solar inverters and battery equipment
  - Lower setbacks to 4 feet (in line with SB9 and ADU guidelines)
  - Consider lowering further (3 feet) for equipment with an average noise level below 60db



# Recommendation 4

---

- Gas appliances are an environmental and health hazard
  - Emission of nitrogen oxide, carbon monoxide and formaldehyde in homes
    - Increased risks of asthma in children, acute respiratory episodes in seniors with COPD, and chronic pulmonary insufficiency
  - Emission of CO2 and methane outside
    - Contributes to climate change
  - Emission of harmful pollutants has a societal cost
    - Individuals installing new gas appliances should contribute to the city's effort to make the town cleaner, healthier and safer for all
- We propose that the city charges an environmental fee for each new gas appliance
  - Up to an equivalent of 10% of the install cost
  - Proceeds to go into an environmental fund to finance CAAP actions





# Other considerations

---

- Reach Codes:
  - 2023 reach codes not enforced due to 9<sup>th</sup> district court ruling
  - BAAQMD still planning to enforce regulations 9-4 (gas fired furnaces) and 9-6 (gas fired boilers and water heaters)
    - Emissions rule (NOx)
    - Would ban GWH after 2027
    - Would ban gas furnaces after 2029, Large gas furnaces banned after 2031
  - Preference for using emissions-based ordinance similar to Los Altos Hills (NOx) or New York City (GHG) ordinance
  - One-margin or flex-path options not optimal
    - Still mix energy buildings with no option for 0 emission homes
- Recommendation is to wait for new California building codes in 2025 before making a decision



# Discussion

---



# Backup

---



# Update on Partnering

---

- Sub-committee evaluated another potential third-party organization: QuitCarbon
  - Based in San Francisco, has been in operations for several years and has completed 100's of projects
  - Has partnerships with Los Altos Hills, San Jose, San Francisco, Santa Monica (partnership type varies)
  - Website collects basic information, followed by Zoom call to get home evaluation
  - Discounts and rebates taken into account but application by homeowner
  - If homeowner agrees on scope of work, assigns a contractor to bid



# Update on Partnering

---

- Talked to Nik Kaester from the San Francisco Environment department
- Have an Open Call for third party to help electrify low-income housing at \$0 cost to renter or homeowner
- Currently have two providers, 8 installs done, 12 coming. Target 50 installs by end of 2024
- Marketing and management of program by San Francisco
- Staff can also go on site to manage potential issues
- Funding was from TechClean until now. City provides bridge funding until Federal incentives kick in



# Update on Partnering

---

- Talked to Steve Smith from Los Altos Hills
- Had an electrification program going with QuitCarbon and Zero Homes
- Only 12 homes done
  - Lack of traction
  - City was doing outreach and marketing
  - Staff member left
- Positive feedback on QuitCarbon



# Onsemble

---

- New organization (started in January)
- App focused to start the process but follow up through phone calls
  - Need to upload photos, videos
- Incentives/rebates are discounted upfront
  - Customer only pays net cost
- Program can be customized based on income (city or other incentives)
- Expect to install up to 1,000 new HPWH by year end
- Can take a couple weeks to get a final proposal



# BlocPower

---

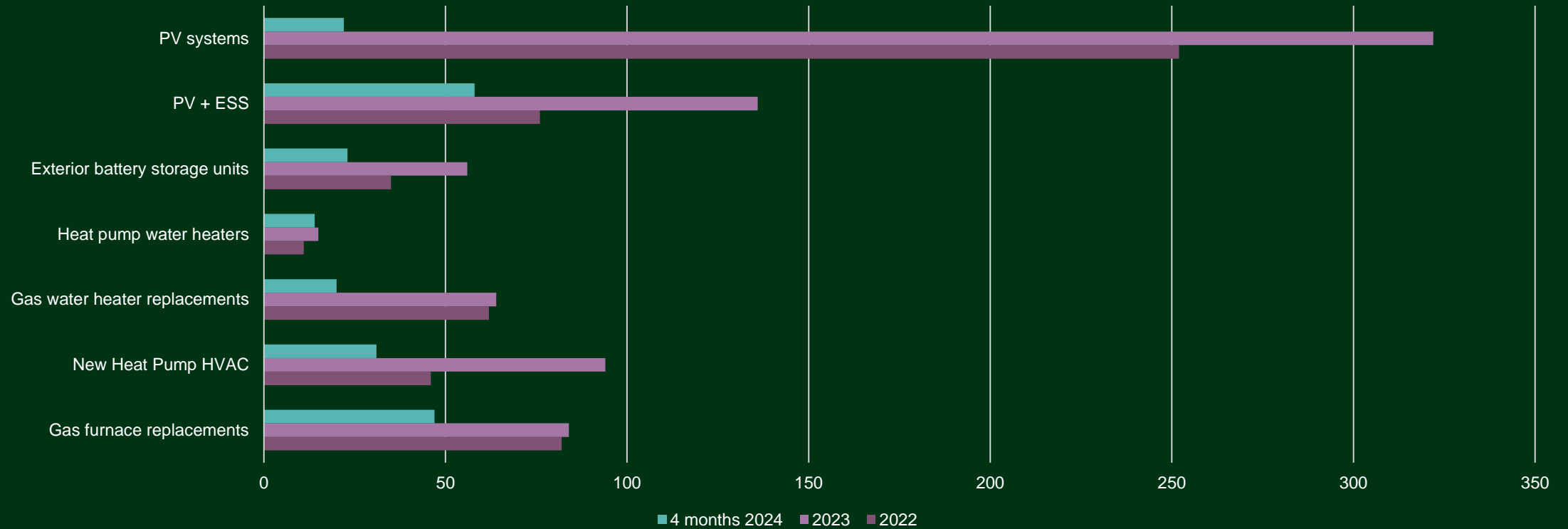
- Larger organization with significant staff support
  - Multiple city partnerships inside and outside Bay Area already
- Requires city investment (yearly fee for program management including marketing/outreach, customized website)
- Program can be tailored from just outreach to concierge service
- Los Altos proposal:
  - Marketing campaign to drive residents to platform
  - Dedicated Los Altos platform which gives a report on suggested scope of work
    - Includes discounts and rebates
  - Access to BlocPower contractors
  - Potential access to Bloc Power construction team





# 2022-2024 Permit Data

## Permits Los Altos



# 2022-2024 Permit Data

	2022	2023	4 months 2024
Gas furnace replacements	82	84	47
New Heat Pump HVAC	46	94	31
Gas water heater replacements	62	64	20
Heat pump water heaters	11	15	14
Exterior battery storage units	35	56	23
PV + ESS	76	136	58
PV systems	252	322	22

