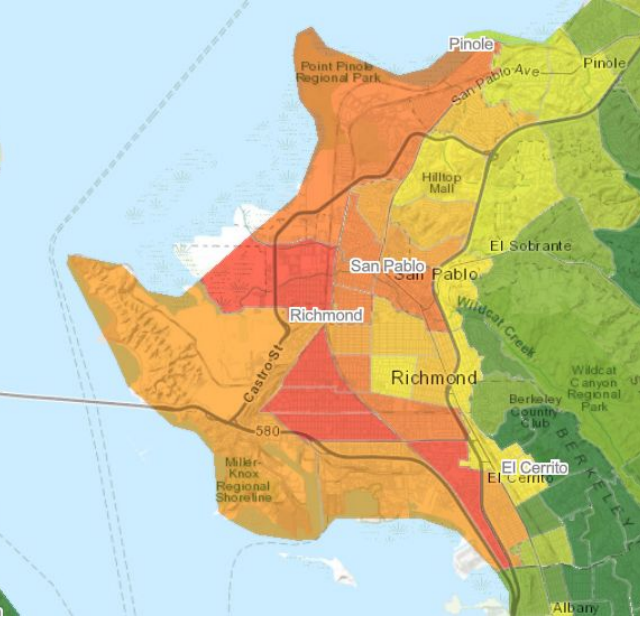




# MCE's Virtual Power Plant

Building a Resilient and Equitable Grid for the Future

# Virtual Power Plants



- 2022: MCE joins CEC grant to build a Virtual Power Plant (VPP) pilot in Richmond with a suite of customer-owned distributed energy resources (DERs) by 2025
  - rooftop solar, heat pump water heaters, smart thermostats, smart plugs, electric vehicles, batteries
- MCE can directly send digital signals to remotely shift & operate DERS for demand response and grid support; participants save money & get bill credits
- Quiet, clean, invisible pockets of power:  
**[www.mceCleanEnergy.org/virtual-power-plant](http://www.mceCleanEnergy.org/virtual-power-plant)**

- Replace need for peaker power plants with green tech
- Wealth creation
- Bypass meter-data bottleneck

# Long-term Vision

Pilot goal: 1.5 MW Flex Load + 1 MW solar + 2 MWh batteries.

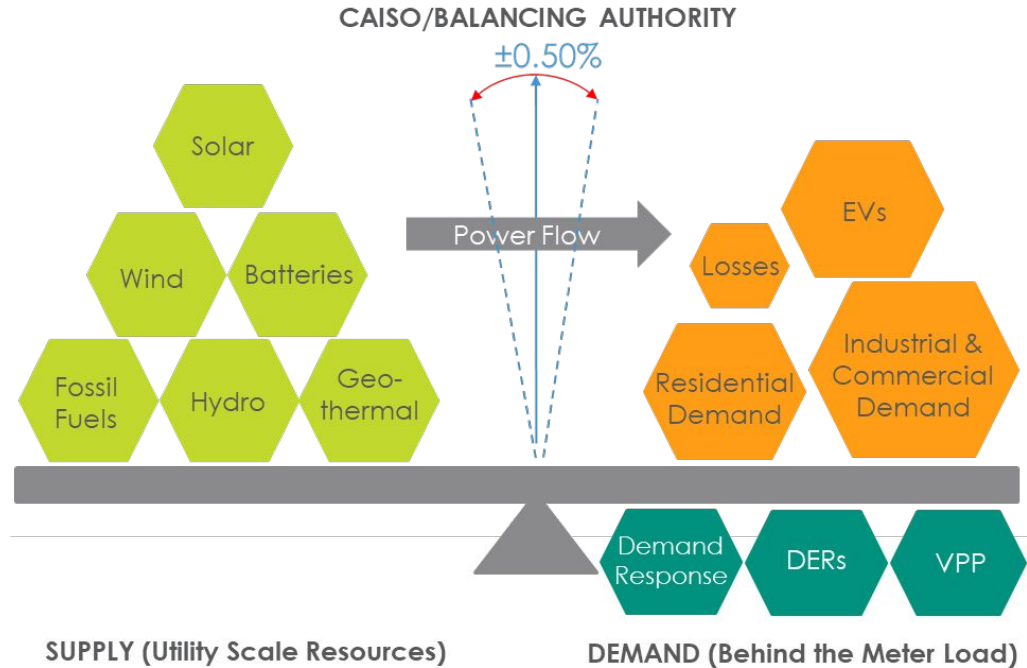
Share the wealth with customers through on-bill credit structures.

Confirm systems respond accurately & consistently.

**Tap into other funds resources, like the IRA to subsidize.**

Expand to all 4 MCE counties: 63,000 solar customers (400MW) and ~7000 battery systems.

Bid load & resources into CAISO.



## Transformational Power

Before



After



# Participants

## 10 first-time homebuyers – fully refurbished

- Social impact bond acquire sites for rehabilitation to build inter-generational wealth
- Homes sold below market; no resale restrictions

## 90 existing homeowners – retrofits

- Homes where GRID installed solar + EV charging
- All are eligible to receive no- to low-cost DERs

## 20 local businesses:

- Overproducing solar, high demand ratio, on time of use (TOU) rates and a peaky load

# How to Help

## Finding funds:

- Excited about VPP expansion? Let me know if your org can provide a letter of support.
- Ask us for letters of support – case by case basis.

## Looking for partners with:

- Municipalities or schools wanting clean fleets/busses
- Bidirectional charging companies
- Ride-share organizations
- HVAC/HPWH manufacturers
- Consultants who can evaluate viability of pre-commercial technologies

## General:

- Ask your Councils about social impact bonds
- Represent an org? Join Community Power

# Thank You

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