



EV READINESS: CONTEXT & OPPORTUNITIES FOR ACTION

BAYREN LOCAL GOVT RESOURCES FOR ENERGY EFFICIENCY FORUM



November 2014



Bay Area Climate Collaborative

- **Private-public 501c3 partnership**
- **Accelerating the clean energy economy**
- **Scalable market-oriented initiatives**



Bay Area Target: 100,000 by 2020



**Annual Savings
\$150 million**



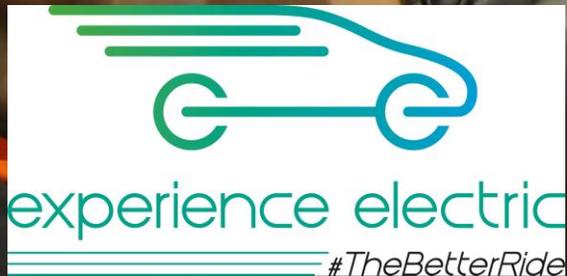
SUSTAINABILITY
plug it in

July 8, 2014
90 all-battery EVs



2013

50 all-battery EVs



5,000 test drives
2.3 million impressions



150+
Charge ports

ELECTRIC VEHICLE - CONTEXT



1983

THE EVOLUTION OF THE CELL PHONE.

2008

Fuel Price Comparison



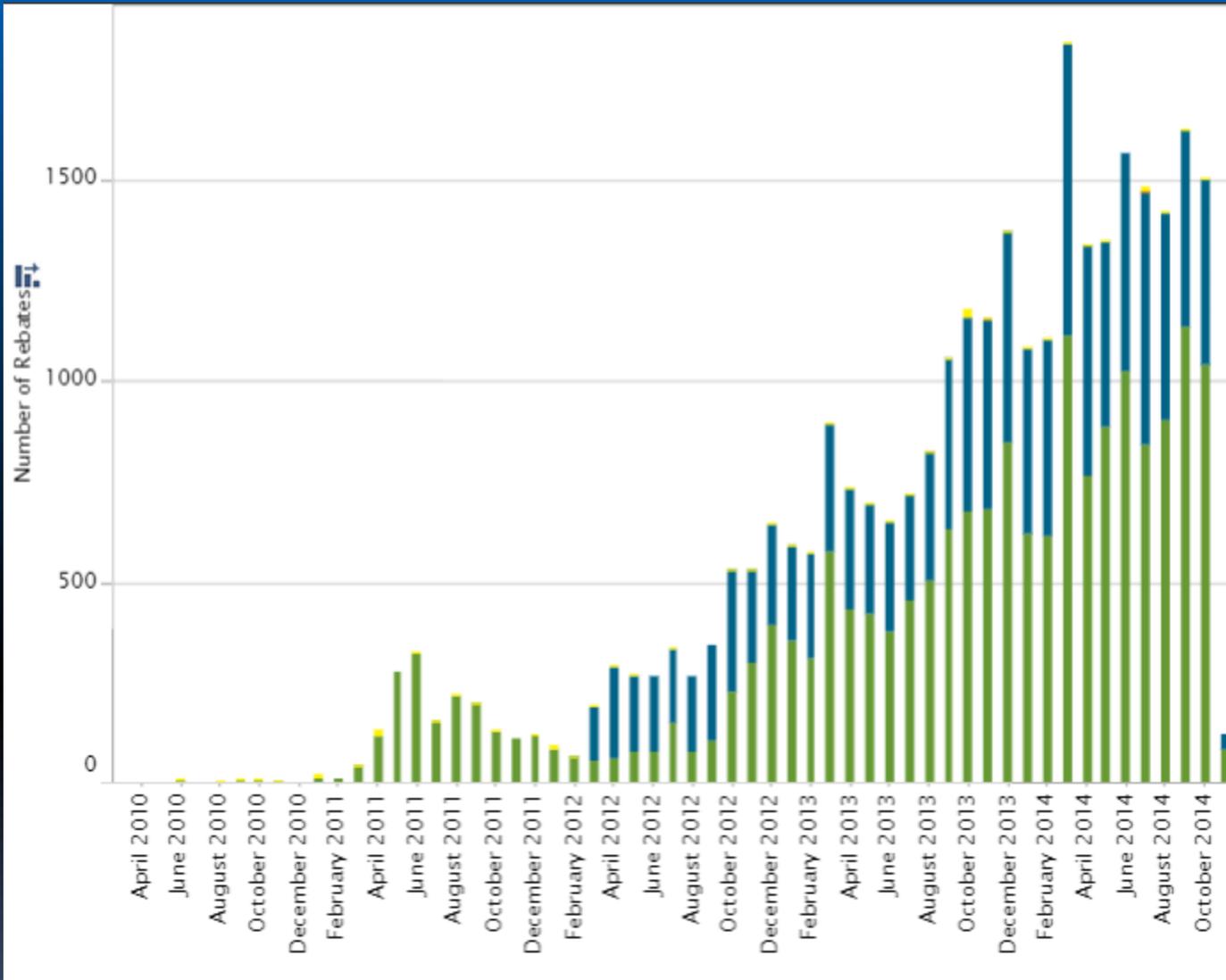
\$0.10-0.15 per mile



\$0.03 per mile

EVs are quiet, quick and have virtually NO MAINTENANCE

EV Adoption in Bay Area



Rebates Issued and Reserved to Date	
BEV	18,702
PHEV	11,661
FCEV	2
Other	177
Grand Total	30,542

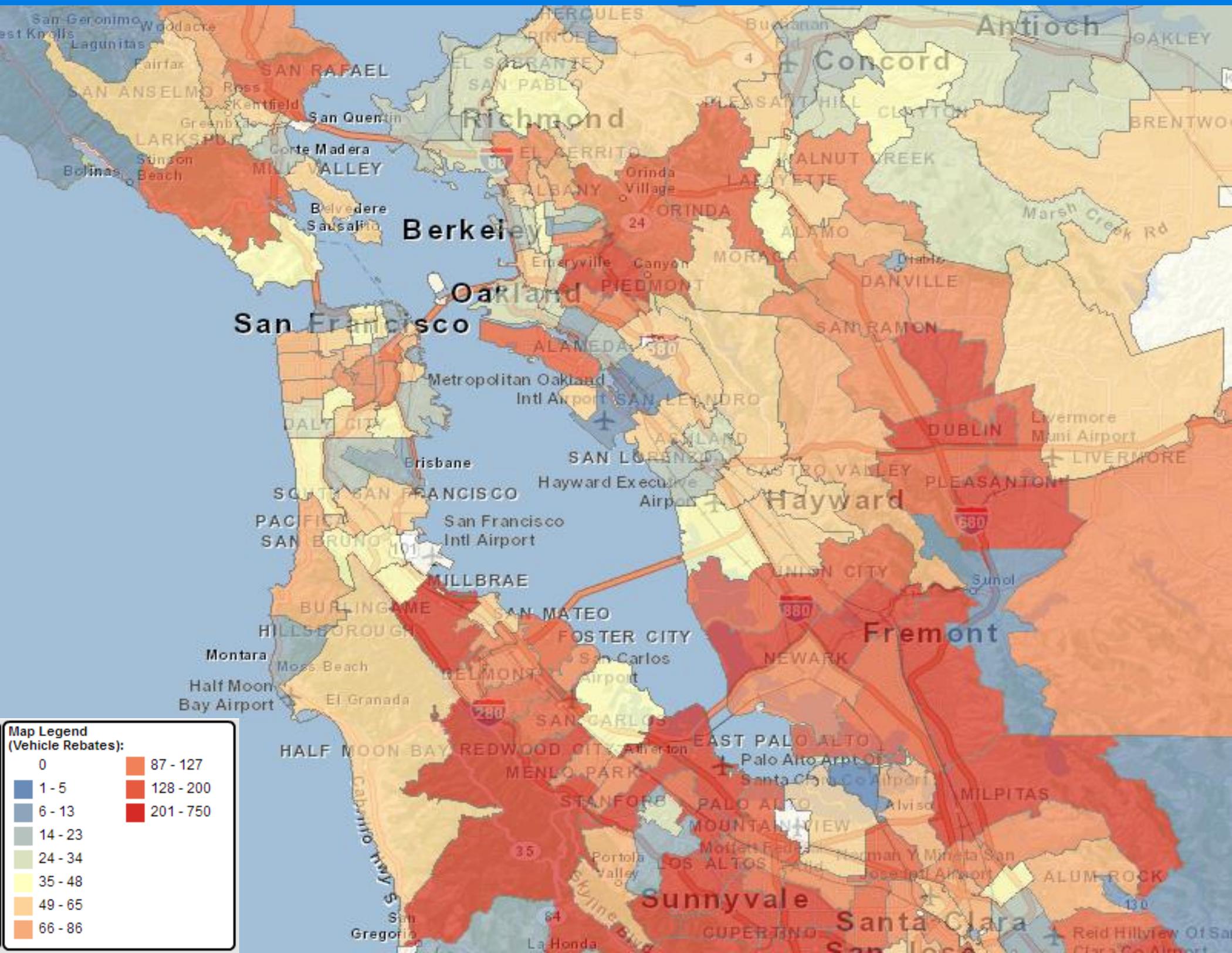
Last updated: Nov. 3

Total Statewide: 82,626

Growth: ~3% car sales

Benefits Delivered

- 30,000 PEVs in Bay Area
- Saves every year
 - 14 million gallons gas
 - \$36 million in fuel
 - 75 million lbs. CO₂



Map Legend (Vehicle Rebates):

0	87 - 127
1 - 5	128 - 200
6 - 13	201 - 750
14 - 23	
24 - 34	
35 - 48	
49 - 65	
66 - 86	

Infrastructure Priorities

Residential (80%)

- Satisfying consumer-driven home installation process
- Permits, electrical contractors, inspections, meters, rates

Workplace

- Corporate
- Municipal parking lots

Public

- High visibility
- Commercial/Retail
- Public education and outreach



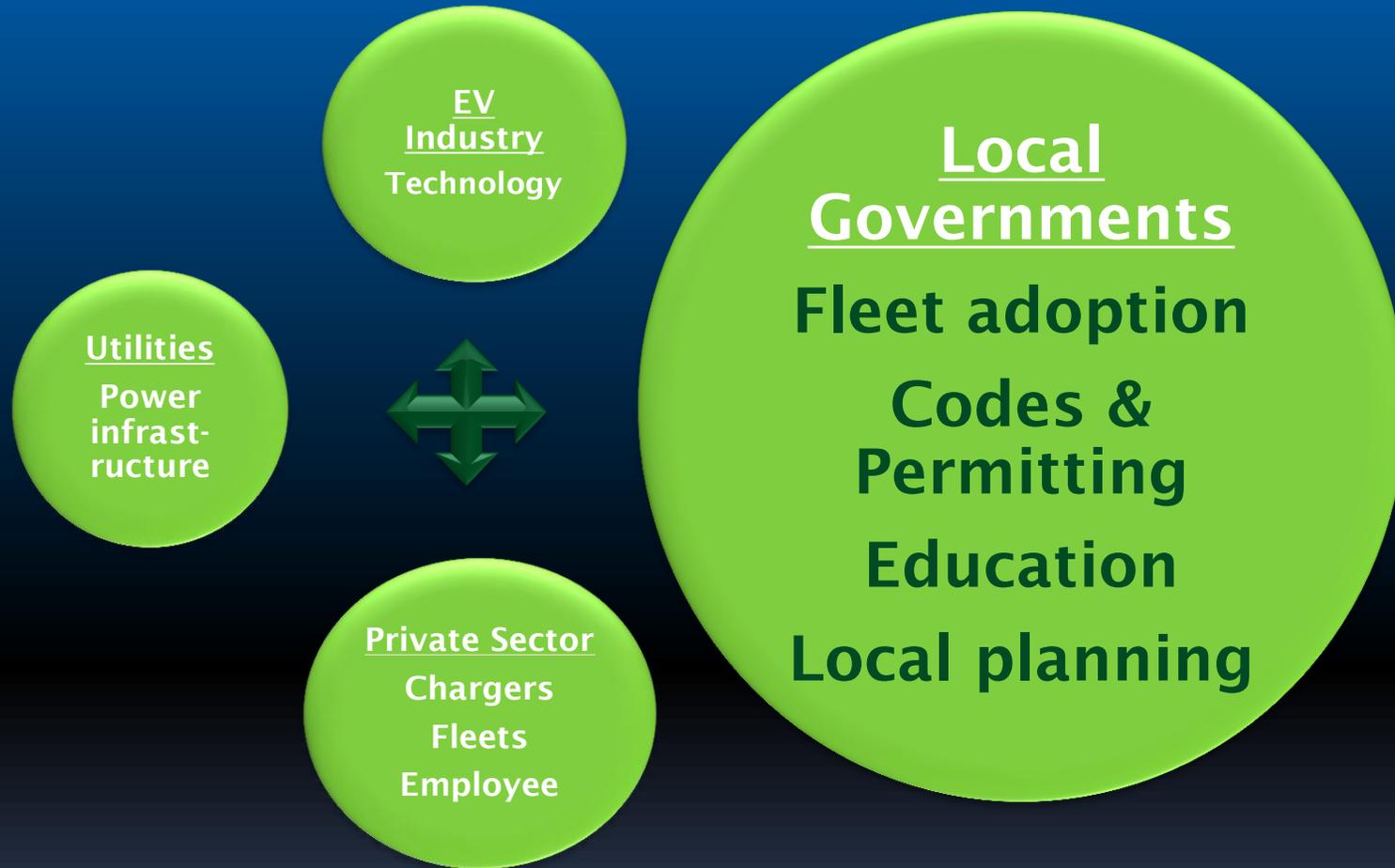
Variables for Future Charging Needs

- Adoption levels of Hybrid vs. Battery EVs
- Battery technology and price > EV range
- Fast charge deployment
- Price of gas

- It is early days yet

LOCAL GOVERNMENT ACTION

Role of Local Governments



EV Fleet Adoption

- Municipal LDV fleets are highly appropriate
- Do a TCO/duty cycle analysis
- Pilot PEV vehicles into high mileage use
- Lease the vehicles
- Consider comprehensive conversion (see Indianapolis plan)
- Starter resource:
http://www.afdc.energy.gov/pdfs/pev_handbook.pdf

Building Codes & Permitting

- Look at leadership code positions above CalGreen
 - New multi-unit dwellings are especially critical to “pre-wire”
 - Consider triggers on existing construction to add panel capacity for EV charging and possibly conduits
- Implement online or over-the-counter permitting
 - Turnaround time for residential EV charging critical
 - Consider simple electrical permits for private garages
- Educate staff on EVs, permitting, ADA
- Resource: <http://www.pevcollaborative.org/pev-readiness>

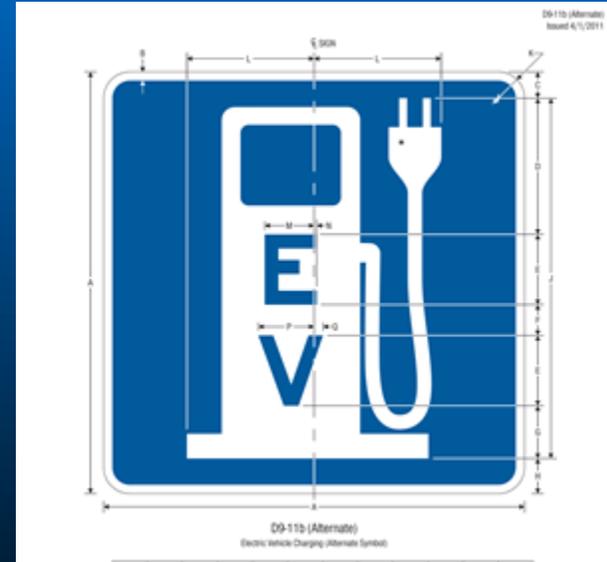
Public Education

- Direct experience of EVs is the #1 interest builder
- “Ride & drive” events are very effective
- Local governments can collaborate with
 - Plug In America
 - Charge Across Town



Local Planning

- Zoning
- Signage
- Enforcement
- Siting
- ***Don't fixate on public infrastructure***
 - ***It is the least important action***
- ***Resource: <http://www.pevcollaborative.org/pev-readiness>***





THANK YOU
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