



Clean Fuels Program Advisory Group Meeting

Electric Vehicle Charging Infrastructure

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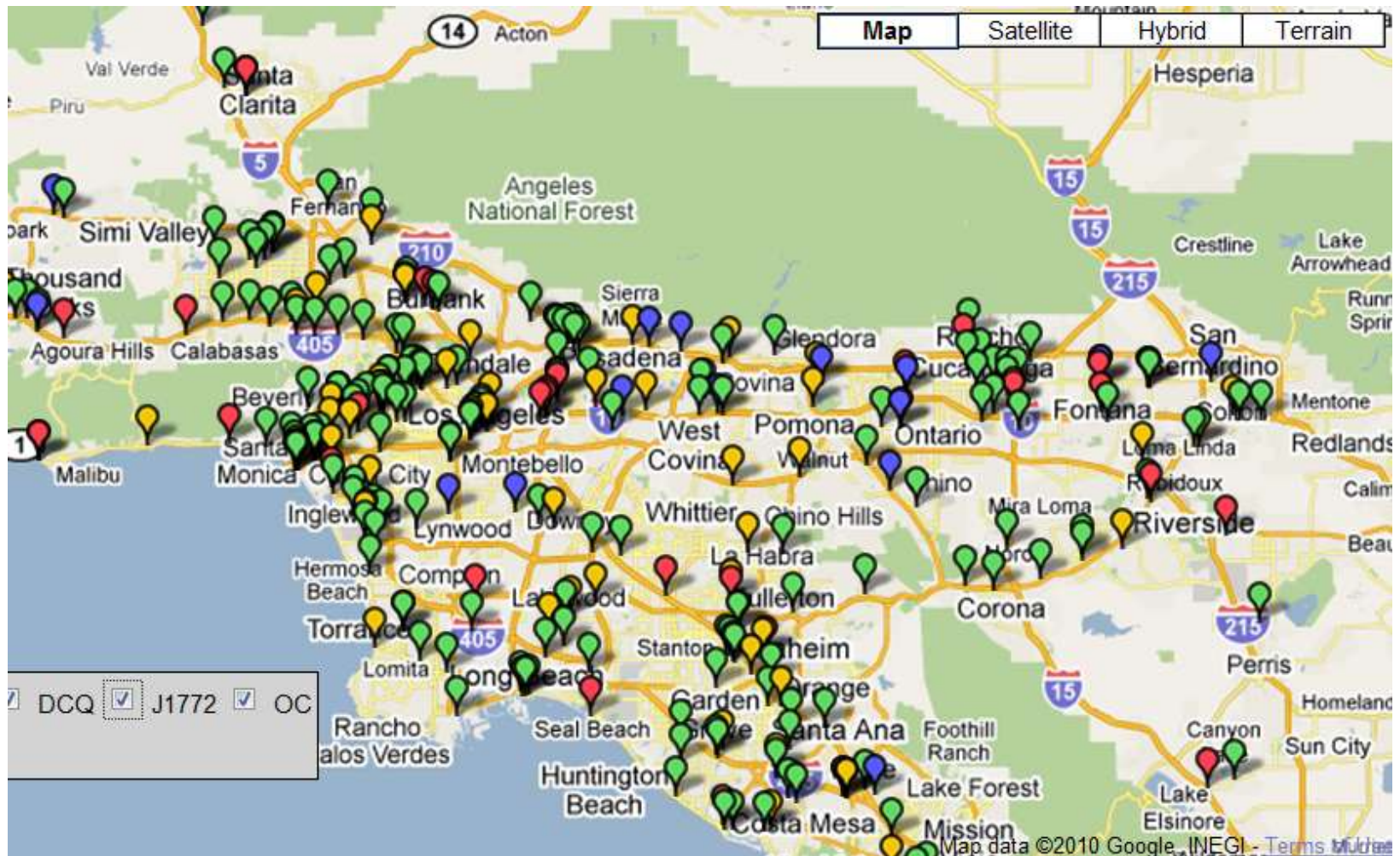
Cleaning the Air That We Breathe...

Electric Charging Infrastructure

- 1996 – 2005
- Approximately 1,800 chargers at about 500 locations in Southern California region
 - Many chargers obsolete
 - Some suitable for upgrade
- Vehicles rolling out soon
- Different infrastructure needs



EV Infrastructure



Plug-in Electric Vehicles in 2011



Charging Equipment Electric Vehicle Supply Equipment (EVSE)

- Level 1 AC (110 - 120 V, 15 Amp)
- Level 2 AC (208 – 240 V, up to 80 Amp)
UL listed to date - Clipper Creek, Coulomb
In process – AeroVironment, ECOtality,
Schneider Electric, Eaton, Leviton, SPX
- Fast DC for Light-duty
400+ V, 80+ Amps Japanese standard
US consensus to be determined
- AeroVironment first UL fast charger



SoCalEV Infrastructure Project

- State and federal funds have been invested in EV and EV infrastructure in Southern California
- AQMD serves as lead agency and administers project
- Received funding of \$840,000
- Project approved by CEC Business Council May 4, 2011
- Contract in process with CEC



Program Details

- Project sites must be exempt from CEQA
- Members to provide ~50% matching funds (in-kind and/or cash)
- Minimum number of chargers to each Collaborative member
- Remaining chargers distributed based on
 - Number of charging locations
 - Greatest cost share
 - Shortest lead time



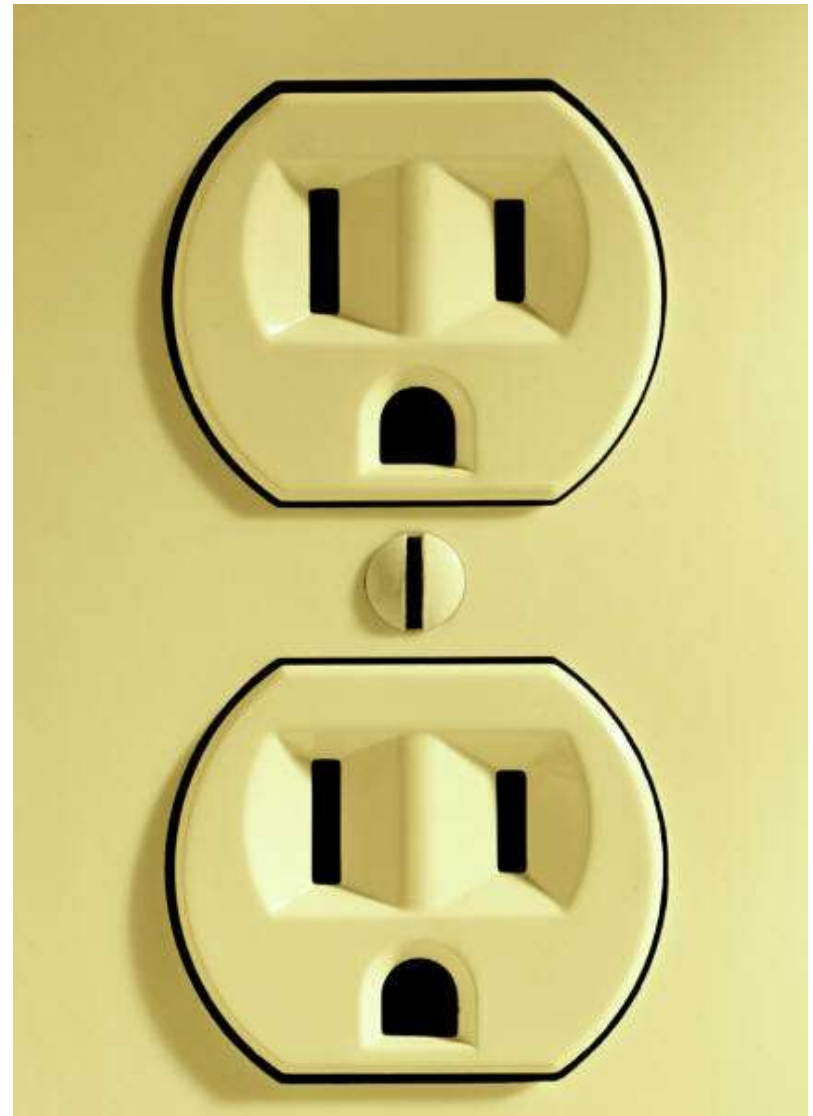
Incentives

- Maximum incentives per charger
 - \$2,500 Level 2 (first charger, \$2000 second charger)
- AQMD to receive 5% administrative fee towards staff labor costs
- Data collection on chargers will identify high usage locations



Next Steps

- Agreement with CEC on administrative duties
- Contracts with Collaborative members
- LA County to release RFP on EV chargers to create list of eligible installers
- Members to choose from eligible list



Upcoming Tasks

- AQMD to work with partners on the following:
 - Identify, prioritize charger sites
 - RFP on charging technologies and installers
 - Installations over 12 months
 - Data collection
 - CEC reporting
 - Tracking progress



South Coast EVSE Implementation

- DOE and/or CEC funding of ECOtality, Coulomb Technologies, and Clipper Creek
- For DOE funding, EVSE must be in contract or installed in South Coast by Dec 31, 2011
- EVSE manufacturers need to identify high priority locations

South Coast EV Infrastructure

Project	Agencies	Funding Source	Amount	Level 2 Chargers
SoCalEV Project	AQMD, SoCalEV	CEC/ SoCalEV	\$840,750	400
ChargeUp LA	City of LA	LADWP	\$2M	500
Install EVSE	Clipper Creek, Coulomb Technologies, ECotality	AQMD	\$210,000	210
Upgrade EVSE	Clipper Creek	CEC	\$760,000	76
ChargePoint America	Coulomb Technologies	DOE/CEC	\$1.4M	300
The EV Project	ECotality	DOE/CEC	\$3.2M	1000 res 400 comm
TOTAL			\$8.4M	2,886

DOE PEV Infrastructure Grant

Received \$1M grant from DOE Clean Cities Program for PEV infrastructure planning, AQMD as lead agency

- Six regional plans (Bay Area, Central Coast, Sacramento, San Diego, San Joaquin, South Coast), statewide guidelines document, education outreach workshops
- Compile regional plans into statewide plan
- DOE agreement going to Oct Board for receiving grant and executing contracts with sub-recipients



Funding

Subrecipient	Amount
BAAQMD	\$300,000
Southern California Association of Governments	\$300,000
California Center for Sustainable Energy	\$100,000
Sacramento Area Council of Governments	\$ 75,000
San Joaquin Valley Air Pollution Control District	\$ 75,000
Central Coast Clean Cities Coalition	\$ 50,000
California Plug-In Electric Vehicle Collaborative	\$100,000
Total	\$1,000,000

CEC PEV Infrastructure Grant

Received \$200,000 from CEC for PEV infrastructure planning, SCAG and AQMD co-lead agencies

- Fund subregional studies that feed into regional PEV infrastructure plan
- Awards announced in September 2011
- Entering into contracting process



Project Objectives

Areas of Focus

- Building Codes
 - Comply with standards and safety regulations
- Permitting
 - Update construction permitting process
- Marketing, Outreach, Training
 - Safe installation, maintenance, operation
- Benefits and Incentives
 - Vehicle rebates, tax credits, infrastructure incentives