



The 27th INTERNATIONAL
ELECTRIC VEHICLE
SYMPOSIUM & EXHIBITION.

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GETTING THE SAN FRANCISCO BAY AREA READY FOR ELECTRIC VEHICLES

Jack P. Broadbent, Executive Officer
Bay Area Air Quality Management District

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- **Introducing BAAQMD**
- **Why Electric Vehicles (EV)?**
- **Setting Policy - Promoting EV adoption**
- **Grants - Jumpstarting the EV market**
- **Planning - Getting ready for mass deployment**
- **Coordination – Keeping in step**
- **Results & Recommendations**

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Who is the Bay Area Air Quality Management District (BAAQMD)?

- Established in 1955, oldest air agency in California, USA
- 7 million population
- 9 Counties
- 5,340 square miles
- Mission: To protect and improve public health, air quality, and the global climate



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- 5 million on-road vehicles
- Region has intermittent poor air quality
- On-road vehicles a major contributor to poor air quality/greenhouse gases
- Population, Goods Movement, vehicle ownership expected to grow through 2020
- Zero tailpipe emissions vehicles are the key to clean air



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- **1990s - BAAQMD supported the unsuccessful EV deployment in North America**
- **2010 - Auto manufacturers signal reintroduction of EV in California**
 - **Reintroduction a direct result of robust State and local policy framework**
 - **BAAQMD – adopts Mobile Source Measure (MSM) A-2 - Zero Emission Vehicles (ZEV) and Plug-in Hybrids (MSM A-2) as part of 2010 clean air plan.**
 - **This policy requires BAAQMD to commit incentives funding, establish partnerships with private, local, state and federal agencies to promote the purchase of EV and to expand charging infrastructure**

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In order to achieve policy goals, a multiyear investment plan was required to:

1. Invest in EVSE infrastructure to allay public fears such as range anxiety
 2. Provide subsidies to bridge the gap between early EV adopters and mass-market adoption.
- **\$6.5 million Initial program for public and residential level II (240 V) EVSE:**
 - 200 publicly available Level II EVSE installed by 2012
 - 1,500 residential Level II EVSE installed by 2012 (vehicle purchase required)
 - Funding leveraged federal, state, local and private monies often at ratios of 4 to 1 and higher
 - **BAAQMD has committed a further \$6.25 million in 2013 to invest in:**
 - DC fast-charge EVSE, workplace, and multi-family unit dwelling EVSE
 - 3,000 additional BEV in Bay Area by the end of 2014

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- Several EV and EVSE deployment efforts commenced in the Bay Area at the same time in 2011/12
- Issues – many of the 109 city and County governments in the San Francisco regions needed help preparing new zoning, planning, inspection, permitting and land use guidance for EV and EVSE
- BAAQMD and partners secured a \$1 million planning grant to get the state of California “PEV ready”
- Plan provided for the development of:
 - Best practices guidelines on building codes, permitting and inspection, zoning, parking, and local ordinances for cities and counties
 - Overview of all regional deployment efforts
 - A siting analysis for future EVSE based on vehicle adoption
 - Recommendations on stakeholder training and education and consumer outreach
 - Recommendations on minimization of impacts to utilities
 - Recommendations on policy actions, incentives and coordination

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- **Plan identifies all of the deployment efforts in the Bay Area**
- **BAAQMD and partners establish a regional coordinating council:**
 - EV industry (auto manufacturers and EVSE providers),
 - local and regional governments,
 - Nongovernmental Organizations
 - Utilities.
- **BAAQMD also coordinates with state wide organization – California Plug-in Electric Vehicle Collaborative**
- **BAAQMD acts a nexus between state of California policy and local policies**

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Results:

- 10,000+ EV vehicles in the San Francisco Bay Area – highest per capita adoption rate in United States
- 1,200 publicly installed level II (240 V) EVSE
- EVSE siting guide and EV best practices document are currently available to city and County governments
- EV deployment is now a cornerstone of strategy to reduce greenhouse gases in the Bay Area by 15% per capita by the year 2030.

Lessons learned:

- Plans must have clear, measurable and actionable items with near and long-term goals that can be implemented by local governments
- Coordination and partnership between private and public sector, regional and local governments, community and nongovernmental organizations is essential to supporting EV deployment
- Incentive funding and nonmonetary incentives are key to transforming EV purchasers from early adopters to mass-market consumers
- Strategic location and deployment of EVSE creates public confidence in the technology
- Local governments should invest in training, readiness and planning to further mass adoption of EV
- Education and outreach are key elements to ensuring the public interest and understanding of EV

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QUESTIONS

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