

Bay Area Air Quality Management District
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APPROVED MINUTES

Summary of Board of Directors
Climate Protection Committee
4th Floor Conference Room
Thursday, October 8, 2009, 9:30 a.m.

Call to Order - Roll Call: Chairperson Yoriko Kishimoto called the meeting to order at 9:30 a.m.

Present: Chairperson Yoriko Kishimoto, Vice Chairperson Tom Bates; Susan Garner, Scott Haggerty, Carol Klatt, and Gayle B. Uilkema

Absent: John Gioia, Jennifer Hosterman and Mark Ross

Also Present: Chairperson Pamela Torliatt

Public Comment Period: None

Approval of Minutes of September 10, 2009: Director Uilkema made a motion to approve the minutes of September 10, 2009; seconded by Director Klatt; carried unanimously without objection.

Overview of Electric Vehicle Technologies

Acting Director of Strategic Incentives, Karen Schkolnick, provided an overview of electric vehicle technologies. She noted that the transportation sector accounts for 40% of GHG in the Bay Area, and electric vehicle technology is a promising solution to meeting reductions required to achieve climate goals and mandates.

Ms. Schkolnick presented a breakdown of 2007 transportation sector emissions, stating that since 1955 there has been a doubling of population, a tripling of vehicles, five times more vehicle miles traveled, and significant improvements in the internal combustion engines of vehicles. She described various electric vehicle types and their applications, with future additional types soon to be introduced, which include: Neighborhood Electric Vehicles (NEV), Hybrid Electric Vehicles (HEV), Plug-In Hybrids (PHEV), and Electric Vehicles (EV).

Directors questioned the functionality of electric, plug-in and hybrid vehicles currently on the road. Ms. Schkolnick presented examples, described charging stations, San Francisco's demonstration project which the Air District partially funded and described EV charging levels 1-3 (120V, 240V and 480V) and battery exchange/"switch stations" which she said are currently being tested.

Ms. Schkolnick said some reasons to focus on EVs include urgency to change, mass support from Air District partners, investments by Silicon Valley businesses, and recent technological changes/improvements. Funding opportunities are important in EV technology; approximately \$7 million in TFCA funds has been reserved for alternative fuel vehicle infrastructure, vehicle projects

and advanced demonstration projects. The Air District will work closely with the California Energy Commission (CEC), the California Air Resources Board (CARB), Department of Energy (DOE) and the Metropolitan Transportation Commission (MTC) to financially support projects in the near future and will work to streamline the grant application process to make it easier for applicants to apply.

Ms. Schkolnick said the Air District is positioned to meet challenges and is working with manufacturers of equipment and end users to test vehicle deployment in the Bay Area. Staff will work with state and private funding sources to install high speed charging stations and switch stations along major transportation corridors, and look at testing and charging and challenging environments such as multi-family dwellings and on-street parking situations, helping employers and areas where people congregate, and clean-fleet organizations to provide public education.

She said next steps include supporting EV regional efforts and partnerships, coordinating with CEC and ARB on funding and policies, continuing to ensure TFCA policies and programs support EVs, and leading large scale demonstration projects to accelerate EV deployment.

Public Comments: None

Committee Comments/Discussion:

Director Garner questioned the downside of electric vehicles. Ms. Schkolnick said more work on infrastructure and vehicles needs to be done to drive costs down and make EVs more efficient. Should EVs broadly proliferate, they will have a demand on stationary power sources. As technology is developed in the next few years, sustainable and renewable power sources should also be deployed so as not to incur a negative impact.

Chairperson Kishimoto questioned disposal of batteries. Ms. Schkolnick said manufacturers are switching over to lithium which is less toxic or non-toxic as compared to lead acid batteries of the 1990's. The cost of providing a larger powered battery is reduced, as well.

Director Garner suggested the Air District put significant effort towards mitigating any downsides of EVs. Director Bates discussed barriers of charging at home, voiced the need to develop infrastructure for fast charging, storage and sale back of electricity. Director Haggerty referred to the shelf life for batteries, obstacles for people purchasing EVs, and suggested the Air District pursue a battery buy-back program and partner with utilities.

Chairperson Torliatt acknowledged the diversity of charging stations, and suggested investing in infrastructure as opposed to the actual electric vehicles. Ms. Schkolnick said all jurisdictions are extremely involved in discussions and workshops. There are over 100 first generation Level 2 charging stations in the Bay Area alone which she said is different than what is being rolled out today, but still very much used. The Air District has been reviewing the network of charging sites and whether or not it makes sense to upgrade the most utilized locations. If sites are well-used, consideration can be given to installation of a Level 3 station. However, in moving forward to Level 2 and 3, there are still a variety of vehicles that can only take Level 1 or Level 2 charging from the early 1990's and this should remain while those vehicles still exist.

Director Bates confirmed with Ms. Roggenkamp that one of the JPC's six climate protection strategies is EVs, and work and coordination currently underway amongst agencies.

Chairperson Torliatt questioned development and availability of additional CNG vehicles. Ms. Schkolnick said CNG has been for many years a readily available technology. In recent years, the hybrid technology is competing strongly with CNG, where many high mileage vehicles had gone

toward CNG and have switched to hybrid due to price. In certain applications, CNG continues to expand; however, there will be an entire portfolio of alternative fuels options.

Directors continued discussion of station installations and requirements for building and fire codes, and questioned best technology, building retrofits, comparisons and trade-offs of EV technology. Ms. Schkolnick agreed these could be covered in future presentations. She noted that charging systems are hard-wired at homes and an electrician would often be required. A regional-to-regional government working group is reviewing permitting requirements and sharing information so as to assist local jurisdictions. Auto manufacturers are also working hard to ensure the process is seamless to the consumer, such that those purchasing new automobiles would receive a home charging system with referral to an area electrician. Any time new or remodeled construction is proposed, it could be built for the potential of electrical vehicles, and she said most of it involves electrical wiring of homes or facilities. Chairperson Torliatt suggested the availability of funding for such upgrades to homeowners and commercial operators.

Chairperson Kishimoto acknowledged the significant interest in EV, suggested staff clarify roles of the JPC in terms of a master plan for EV infrastructure, coordinate with the smart grid, forward a link to the web portal on EV or consider hosting a web portal, information on electrical use by freight, rail, ships, and other forms of transportation, points of ensuring zero waste, information on tradeoffs when using electric vehicles, consideration for the next climate summit to focus on EV, and an assessment of what science is showing.

Director Uilkema suggested treating EV like an investment, asked staff to provide information on what infrastructure the Air District should be supporting and to identify the various types of applications, suggesting that the technology could be used by the Air District to address mitigations.

Mr. Broadbent said given current resources, the Air District will start to think about the best technology to invest in and development of infrastructure needs to support electric vehicles, which could return at the end of this year or early next year.

Chairperson Torliatt agreed there are challenges and also suggested measuring EV miles versus gasoline miles. Director Garner also asked staff to present information on how the oil companies are aligning themselves with the issue. Director Uilkema and Bates requested staff include an energy return/exchange presentation.

Committee Action: None; for information only.

Greenhouse Gas Measures in the 2009 Clean Air Plan

Director of Planning and Research, Henry Hilken, presented an update on the 2009 Clean Air Plan, stating that the multi-pollutant plan updates the 2005 Ozone Strategy and is an integrated plan to reduce ozone precursors, particulate matter, air toxics and GHGs.

He reviewed benefits of multi-pollutant planning, stating that the Air District optimizes co-benefits and minimizes trade-off's as staff defines control measures, and has developed a multi-pollutant evaluation methodology (MPEM) using best available tools and data to help analyze control measures. The methodology looks at the health impacts and economic benefits of reduced health impacts from reducing pollutants and the MPEM has shown that reducing particulate matter achieves the greatest public health benefit.

Mr. Hilken reviewed and provided examples of the five different categories in the Control Strategy; stationary sources measures, mobile sources measures, transportation control measures, land use and local impacts measures and energy and climate measures.

Committee Comments/Discussion:

Chairperson Torliatt confirmed that composting would look at controls on green waste composting to control VOC and methane emissions and livestock may include controls or best management practices that look at ways to handle storage of the feedstock and how facilities are maintained.

Mr. Hilken noted that thresholds are being reviewed through the rule development process for smaller dairy and livestock facilities. He reported on new categories of energy and climate measures that would be handled not by District regulation but through incentive programs, partnerships with cities and counties and other entities to encourage energy efficiency, promote renewables, taking measures to encourage lighter colored and reflective roofs and tree planting. He added that land use and local impacts looks at promoting smart growth, infill, and transit-oriented development while being careful not to locate residents in hazardous locations.

Mr. Hilken said next steps include staff responding to comments and making adjustments where necessary, with the draft plan out for review later this month. A CEQA and socio-economic analysis will be done and staff expects to bring something to the Board early 2010.

Committee Action: None; for information only.

Committee Members' Comments: None

Time and Place of Next Meeting: 9:30 a.m. – Thursday, November 12, 2009
939 Ellis Street, San Francisco, CA 94109

Adjournment: The meeting was adjourned at 10:59 a.m.

/S/ Lisa Harper
Lisa Harper
Clerk of the Boards