

Agenda Date: March 17, 2016  
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Continued Item: No

## Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer

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SUBJECT: Hydrogen Readiness Plan Update

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### RECOMMENDATION:

Receive a presentation on the status of the Tri-Counties Hydrogen Readiness Plan and statewide hydrogen vehicle programs.

### BACKGROUND:

As gasoline and diesel engines have become cleaner and more efficient, vehicle emissions have dropped dramatically and local air quality has improved. However, on-road vehicles still emit approximately 18% of smog-forming pollutants in Santa Barbara County. To continue reducing vehicle emissions statewide, California has established a goal of 1.5 million zero emission vehicles on the road by 2025. To reach that goal, the state is funding investments in research, consumer awareness, vehicle fleets, and planning and infrastructure.

For many years the Santa Barbara County Air Pollution Control District (District) has been participating in projects to facilitate the adoption of zero emission vehicles. We are a member of Plug-in Central Coast, which was formed in 2011 as the regional coordinating council for battery electric vehicles. Through that group we helped develop the Electric Vehicle Readiness Plan for Ventura, Santa Barbara, and San Luis Obispo Counties. Also, since 2011 the District has implemented an Electric Vehicle Charging Station Infrastructure Program to help expand the use of electric vehicles. In the last year, the District has participated in the development of a Central Coast Alternative Fuels Vehicle Readiness Plan, which is a project led by the County of Santa Barbara. The Central Coast Alternative Fuels Vehicle Readiness Plan addresses battery electric vehicles, hydrogen fuel cell vehicles, biofuel vehicles, and natural gas vehicles, as well as the infrastructure necessary to support all of these vehicle types. Both readiness plans are funded through grants from the California Energy Commission.

In the last year we have begun work focusing on hydrogen-powered vehicles. Acting as the lead, the District, in collaboration with the Ventura County and San Luis Obispo County Air Pollution Control Districts, Central Coast Clean Cities Coalition (C5), University of California Irvine Advanced Power and Energy Program, Energy Independence Now, Ivor John Associates, Community Environmental Council, and A-Z Safety applied for a grant from the California Energy Commission to facilitate the adoption of hydrogen-powered vehicles in the Tri-Counties region. The District was awarded the grant and on June 18, 2015 your board authorized the APCO to execute the grant agreement.

The tasks funded by the grant agreement include:

- Preparing a Tri-Counties Hydrogen Infrastructure Plan;
- Preparing a hydrogen station installation manual to streamline permitting of new stations;
- Conducting meetings and workshops for civic leaders and other stakeholders;
- Conducting fire code and permitting training in locations where hydrogen stations are likely to be installed;
- Conducting orientation training for first responders in locations where hydrogen stations are likely to be installed; and
- Assessing the potential for early adoption of hydrogen fuel cell electric vehicles in municipal fleets.

To date, the team members have prepared the work plan and performance evaluation plan for the project. We are reviewing and finalizing the infrastructure plan to identify likely locations for new stations. We have also begun outreach to fleet operators, permitting authorities, and first responders to determine their needs and plan the outreach and training portions of this project.

Separate from the tasks funded by the grant agreement, the District is also exploring the potential to use mitigation funds from land use projects that exceed greenhouse gas thresholds to help accelerate the adoption of hydrogen vehicles and infrastructure in the county. This effort could develop a mechanism to expand the use of zero emission vehicles that could be used by lead agencies and project proponents to mitigate project impacts locally. Currently, projects that must mitigate greenhouse gas emissions can either mitigate on-site or purchase emission reduction credits that are generated either locally or outside the region. We are evaluating how those projects might be able to mitigate their increases locally by helping to fund infrastructure needs inside the county.

This presentation will update your board on statewide activities related to the adoption of hydrogen vehicles, the team's progress to date, our plan for completing the activities funded by the grant agreement, and potential follow-up activities after the grant agreement tasks are complete.