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April 24, 2014



California Energy Commission Docket Office, MS-4 Re: Docket No. 14-IEP-1B 1516 Ninth Street Sacramento, CA 95814-5512 docket@energy.state.ca.gov

> Re: Southern California Edison Company's Comments on the California Energy Commission Docket No. 14-IEP-1B: Lead Commission Workshop on Transportation Technology over the Next Ten Years

Dear Commissioner Scott:

On April 10, 2014, the California Energy Commission (Energy Commission) held a Lead Commissioner Workshop on Transportation Technology over the Next Ten Years (the Workshop) as part of the 2014 Integrated Energy Policy Report Update (2014 IEPR Update) process. Southern California Edison (Edison) participated in the Workshop and appreciates the opportunity to provide these written comments.

The Workshop focused on engaging stakeholders in the alternative fuel and vehicle technology industry with the purpose of: (1) developing a better understanding of how alternative fuel and vehicle technologies may evolve over the next ten years, and (2) assessing the expected state of these technologies and markets through 2023, and beyond. Edison participated in the Electric Vehicle (EV) Charging Network panel discussion, and noted, among other things, the importance of balancing long-term technological solutions with low-cost, simple solutions in the near-term to stimulate and accelerate the current market for alternative fuel vehicles and technologies. Recognizing that low public awareness continues to pose a significant barrier to advancing the emerging market, Edison also emphasized the importance of market education to create greater customer awareness of existing battery EVs and plug-in hybrid EVs, the cost of electricity as compared to gasoline, and of low-cost charging options.

In this comment letter, Edison elaborates on its Workshop comments and provide recommendations to the Energy Commission on opportunities for accelerating transportation technology and markets over the next decade, and beyond.

A. Balancing Long-Term Advanced Technology Solutions with Near-Term, Low-Cost, Simple Solutions will Support the Overall Success of the Market and Innovation

Edison was very encouraged by the wide range of innovative alternative fuel and advanced technology solutions discussed at the Workshop. Such innovations are essential to achieve the state's long-term energy, climate, and air quality goals. Equally important, however, to realizing those goals are the plethora of simple, low-cost, no-regrets, near-term solutions that are critical to advancing the market. Edison therefore encourages the Energy Commission to pursue a balanced approach that incorporates both near and long-term goals by using a costeffective investment strategy that will also propel innovation. In fact, acceleration of the market's growth in the near term will improve the business case for the long-term advanced technology solutions.

As Edison noted in previously submitted comments,¹ the state should engage in the following effective, low-cost, near-term activities:

- Support light-duty Plug-in Electric Vehicles (PEVs) first, with low-cost and simple, scalable actions that benefit most of the PEV market, such as:
 - Improving the adoption of PEVs through greater market education and outreach;
 - Providing low-cost charging solutions, especially at long-dwell time charging locations such as workplaces, destination centers, and multi-unit dwellings,²
 - Improving future codes and standards in order to support greater adoption and minimize barriers and stranded assets.
- Engage in critical path activities, such as value analysis and data collection, to inform future policy decision-making;
- Identify different PEV market dynamics across the state, as well as the different market needs of plug-in hybrid electric vehicles (PHEVs) versus battery electric vehicles (BEVs).

B. Promotion, Education and Outreach are Critical to the Advancement of the Alternative Fuel Vehicle and Technology Market

Edison and many other industry observers recognize that a significant barrier to advancing the alternative fuel vehicle and technology market is the low level of consumer awareness about and interest in PHEVs, BEVs, and other alternative fuel vehicles. Increased consumer adoption created by strategic investment in market education, promotion, and outreach

Edison's March 27, 2014 Comments on the March 10, 2014 Transportation Workshop available at: http://www.energy.ca.gov/2014_energypolicy/documents/2014-03-27_workshop/comments/Southern_California_Edison_Companys_Comments_on_the_Lead_Commis sion Workshop on Transportation 2014-04-11 TN-72892.pdf

² Examples include finding locations where high costs such as trenching, panel upgrades and networking of stations can be avoided. Using one charging station for four parking spaces is another example.

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will undoubtedly advance the market. Edison therefore recommends a state-supported marketing, education and outreach promotional campaign for commercially available near-zero and zero-emission transportation, including electric transportation. This program should be funded, pursuant to the authority granted in AB 8, at approximately \$10 million per year.³ Examples of potential programs include:

- Engaging with -- and building on the efforts of -- the Go-Electric Drive Foundation, and the Electric Drive Transportation Association (EDTA), which have been developing broad national education campaign to build awareness and understanding of the benefits of the different types of electric drive vehicles, such as creating public service announcements, engaging in efforts to increase traffic to existing websites, enhancing the information available on such websites, such as cost calculators for installing charging stations and cost and emissions calculators for PEVs;
- Conducting Permanent Ride and Drive outreach for PEVs and hydrogen fuel cell vehicles (FCV) at various high traffic locations such as convention centers;
- Conducting other educational outreach at events, such as conferences, symposiums, and workshops, to target the general public and the PEV and FCV stakeholder communities.

Edison looks forward to utilizing its long experience in this area to continue collaborating with the Energy Commission on alternative transportation efforts in support of the Energy Commission in the 2014 IEPR Update. Edison will provide additional comments on topics such as research and development and the need for analytical studies in comments on future workshops.

In conclusion, SCE appreciates the Energy Commission's consideration of these comments and looks forward to its continuing collaboration with the Energy Commission. Please do not hesitate to contact me at (916) 441-2369 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

/s/ Manuel Alvarez

Manuel Alvarez

³ Cal. Health and Safety Code §§ 44272 (e)(7) (" Programs and projects that accelerate the commercialization of vehicles and alternative and renewable fuels"), (e)(11) ("Block grants or incentive programs administered by public entities or not-for-profit technology entities for multiple projects, education and program promotion within California")