



August 17, 2012

EPIC - Docket #12-EPIC-01
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

California Energy Commission

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12-EPIC-01

TN # 66734

AUG 17 2012

RE: EPIC Investment Plan

Dear Commissioners,

CALSTART appreciates the opportunity to provide input on the first Investment Plan for the Electric Program Investment Charge (EPIC). We believe this program will benefit California's ratepayers by helping develop and deploy clean technologies that will reduce GHG emissions, improve air quality, stabilize the grid, and increase energy reliability. Our comments will focus on the role of clean vehicles in helping advance the goals of EPIC and the state's other energy and environmental goals.

CALSTART is a California-based nonprofit organization focused on growing the clean transportation technologies industry with the ultimate goals of cleaning the air, secure our transportation energy future, creating high-quality economic opportunities; and reducing greenhouse gas emissions. CALSTART is fuel- and technology-neutral and works with 150 member companies and organizations from across the clean transportation technology space.

As electricity becomes an increasingly large and important piece of the state's transportation energy portfolio, the challenges and opportunities in this sector will grow. Smooth and successful integration of Plug-in Electric Vehicles (PEVs) into the grid will yield substantial economic and environmental benefits for California businesses and ratepayers. Benefits for the grid include increased reliability, load leveling, energy storage, and other ancillary services. Other economic and environmental benefits for ratepayers include improved air quality, reduced greenhouse gas emissions, and cost savings for consumers and businesses as a result of both system-wide efficiency improvements and reduced petroleum usage.

Targeted investments are needed to address market failures, information gaps, and other barriers that stand in the way of widespread and successful integration of electric vehicles into our transportation system. These investments generally fall into three broad categories: (1) technology development and demonstration, (2) planning, outreach, and education, and (3) market support and facilitation to accelerate deployment.

Technology Development and Demonstration

Public funding has always played an important role in supporting technological innovation, as the private sector tends to under-invest in early stage research, development, and demonstration. Examples of promising investment areas include the following:

- Battery reuse options: Battery reuse can help improve the economics of PEVs while also minimizing environmental impacts. There is a need to better understand the real world feasibility of different options.

**Clean Transportation
Technologies and Solutions**

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1160 Brickyard Cove, Suite 101, POINT RICHMOND, CA 94801 • 510.307.8772 • FAX: 510.307.8706



- Ancillary services: Parked PEVs represent a sizeable energy storage capacity that can be a flexible power source useful to grid operator. We encourage the state to support demonstration projects in the state and evaluate the potential, and we also believe a study or roadmap of the future potential and current barriers for integration of PEVs for ancillary services market and other grid services would be valuable.
- Vehicle, storage, and infrastructure technologies: There is still room for improvement in the core PEV technologies, and there may be targeted applications where public funding can help improve performance and/or drive down costs. Additional research and demonstrations could also help maximize synergies between PEVs and clean distributed generation.

Outreach and Education

There is still a good deal of research and outreach work to be done in order to ensure successful integration of PEVs into our transportation system. This is a very broad category and the needs are quite varied, but some of the key opportunities include the following:

- Fleet and consumer education efforts: Generally speaking, increased outreach can help people better understand the costs and benefits of PEVs and can help overcome a natural hesitation about new technologies. Education efforts can also help encourage off-peak charging and can help people avoid bad experiences.
- Sharing of “Best Practices” information among key stakeholders: The challenges and opportunities created by an increased use of PEVs are new and early adopters are all learning valuable lessons. Facilitating communication on these issues would help to address information gaps and generally improve the experiences of those that choose to enter the PEV market. One particularly promising example of this work is CALSTART’s recently launched EV Employer Initiative, which focuses in part on the issue of workplace charging.
- Capturing synergies between PEVs and clean distributed generation: There is an opportunity to take advantage of synergies between PEVs and clean distributed generation. Some of the barriers here are technical, but simple outreach and education could yield significant benefits.

Market Support and Facilitation

In addition to the outreach efforts mentioned above, there is a definite need to directly support the PEV market to ensure that we are able to move past niche markets and unlock the true potential of PEVs. Greater market success for these technologies will yield much greater economic and environmental benefits for the state. Key needs include the following:

- Vehicle and infrastructure buy-down funding: PEVs remain expensive compared with conventional vehicles, and there is a need for incentive funding in the near term to reduce incremental costs. The AB 118 program currently provides buy-down funding for both cars and trucks, providing one possible avenue for the distribution of these funds. AB 118 has also provided some funding for EV infrastructure. We believe that allowing parties to apply for both vehicle and infrastructure funding simultaneously would be beneficial.
- In-state manufacturing incentives: In some targeted cases, it may make sense to provide funding to support in-state manufacturing of PEV technologies. This would not only lead to California jobs and economic benefits, but would also



reduce the environmental impact of manufacturing by ensuring that products are made in California, rather than in other locations with more relaxed environmental standards and long-distance shipping requirements.

- Addressing permitting and standardization issues: There may be opportunities to reduce barriers posed by permitting and certification requirements through targeted investments in outreach, certification procedures, and standardization. Some of these issues are better handled by the private sector or by local governments, but we recommend maintaining the flexibility to invest in addressing these issues as appropriate.

Generally speaking, we recommend taking advantage of existing programs, efforts, and structures where available. This could mean directing some of the PEV-related funding through AB 118 and related programs. Indeed, the PIER program previously directed \$10 million to the AB 118 program for these purposes. Directing funds to the AB 118 program would allow EPIC dollars to be deployed more quickly than waiting for new programs to be developed. Similarly, it makes sense to support existing outreach efforts in some cases, rather than creating overlapping efforts. CALSTART's Employer EV initiative on workplace charging is one such example.

We appreciate the opportunity to provide input on this important program. Please feel free to contact me anytime should you wish to discuss our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "James Hall".

James Hall
Policy Director