California Energy Commission
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California Energy Commission
Media and Public Communications Office
1516 Ninth Street, MS-29
Sacramento, CA 95814-5512

Subject: 2015-17 EPIC Program Triennial Investment Plan, Staff Final Report

Members of the California Energy Commission:

We commend the Commission and the staff for your work on the 2015-17 EPIC Investment Plan (the "Plan"). The proposed investments in the areas of applied research and development, technology demonstration and deployment, and market facilitation will help accelerate California's transition to a clean, reliable, and cost-effective electric grid.

It is a critical oversight, however, that the staff's final report failed to include a funding strategy to increase the development and adoption of standards for grid-connected devices. The failure to include funding for standards is surprising since the Plan on page 14 proposes a list of guiding principles derived directly from Public Utilities Code Section 8360(i) which states an intention to:

> "Develop standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid."

There is no named strategy that advances this goal and meets the requirement of the California code. A search of the word "standards" in the Plan document reveals forty-four occurrences, almost all of which have to do with energy efficiency standards for buildings and appliances. There is just one mention of standards for grid-connected devices in the context of S6.1, a general funding initiative regarding smart inverters.

This lack of funding for standards development for emerging technologies like smart inverters, energy storage, and micro-grids is surprising given the Commission's historic support for standards development in the PIER program. The PIER 2012 Annual Report notes that the Commission invested $5 million over eight years on research, development and demonstration of AutoDR and OpenADR and concluded that "Without Energy Commission leadership and funding, AutoDR development and dissemination would likely have been delayed around five years, perhaps longer, had it come to market at all. This is in part because product and market research and testing, as well as policy support were needed. Also, ***the lack of a standard communications protocol would have slowed development, raised customer costs, and limited customers' ability to change vendors.***" (emphasis added)

The Commission can and should play the same role in supporting the development of standards for smart inverters, energy storage, and microgrids as it has with demand response.

Given California's ambitious goals for renewables and energy storage, the lack of funding to advance standards for interoperability in the next Plan would represent a serious lost opportunity and risk for the state's electrical grid. One need only look at the consequences of the recent deployments of smart

meters without any common standards to foresee the unnecessary costs and lost benefits from deploying large amounts of energy storage devices without common approaches to interoperability and management.

We represent two trade associations who are working to develop and advance standards for energy storage, smart inverters, and microgrids. Our industry members see the benefits of working together to agree on common interfaces among components and with the grid. Nonetheless, it is often difficult to drive agreements as some industry players seek competitive advantage by developing proprietary systems that ultimately raise costs and stymie broad market adoption of these technologies. The Commission can send an important policy signal for open standards and accelerate industry efforts to reach agreements by creating a new strategic funding initiative under the Market Facilitation heading.

We strongly encourage the Commission to revise the Plan to include this change. The Commission is setting a three year investment framework with the adoption of this Plan and it would be a great disservice to the state's ratepayers if you miss this opportunity to lower costs and increase adoption of promising, clean technologies.

Respectfully,

Tom Melling
Chairman, MESA Standards Alliance

Tom Tansy
Chairman, SunSpec Alliance

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