

Commissioner Andrew McAllister
California Energy Commission
Sacramento, CA

March 4, 2015

Dear Commissioner McAllister,

Thank you for the opportunity to provide comments on the implementation of the 2012-14 EPIC Investment Plan.

We want to begin by highlighting the importance of the EPIC program, which is a key part of California's clean energy plan. As detailed in the materials provided at the workshop, program implementation is proceeding well and is already showing significant benefits. The reduced time for solicitations and outreach to diverse applicants have helped to build a strong program. This success is due in large part to competent and committed staff and strong leadership at the Commission.

We have three specific issues we would like to bring to your attention.

1. Research Centers – The Commission has for many years recognized that it is critical to invest in long-term research infrastructure, in order to promote a sustained research agenda. This recognition has resulted in support for a number of research centers at universities and laboratories around the state for well over a decade. Collectively these centers have provided enormous benefits.

In addition to project specific benefits, research centers serve as a resource for unbiased technical information and expertise for public agencies and provide support for training and education for young researchers. The broad, long-term perspective has also helped attract top talent and co-funding and has enabled centers to serve as the nucleus for broad industry partnerships.

Given this array of benefits, the interruption in programmatic funding for the research centers is a significant concern. The uncertainty is resulting in a loss of expertise as talented researchers find other opportunities, diminishing the research infrastructure that has been established over years.

We recognize that this problem is in large part due to the transition from PIER to EPIC funding and the delay in program implementation due to a protracted legal proceeding. And we also recognize that the Commission has a responsibility to ensure accountability to ensure the overall research agenda is consistent with state priorities and strategies. But given the substantial investment in research infrastructure, we think it essential that the Commission move quickly to establish a clear process to provide through which research centers can receive programmatic and/or multi-project funding, in addition to project-specific funding.

2. Funding of plug-load energy efficiency research projects – The 2014 Building energy efficiency solicitation did not make any awards for plug-load energy efficiency research, despite several worthy proposals, such as those from Aggios in partnership with leading industry players in the set-top box industry, the California Plug-Load Research Center at the University of California Irvine, Home Energy Analytics (HEA) on advanced energy efficiency program using smart meter data analytics, and Lawrence Berkeley National Laboratory on a comprehensive strategy to reduce plug-load electricity use.

When including traditional plug-in appliances as well as miscellaneous electrical loads, plug loads (a.k.a. plug-in equipment) are responsible for **73 percent of residential electricity use**, and **77 percent of projected demand growth between 2015 and 2024**, according to the Commission’s 2014 electricity demand forecast. With such a large share of residential demand, and likely an equally substantial share of commercial demand (commercial demand is not estimated by end use in the demand forecast), plug loads warrant a higher focus by the EPIC program.

While there are many additional cost-effective opportunities for energy savings in conventional appliances such as HVAC, water heating and lighting, and we strongly support continued investment in those areas, the state’s energy and climate goals cannot be met cost-effectively by focusing only on less than 30 percent of buildings’ electricity consumption.

The proposals submitted to EPIC in 2014 show considerable promise for large and cost-effective energy savings in plug loads. We encourage the Commission to support a portfolio of research projects that is aligned with the most cost-effective energy savings opportunities in California’s buildings, including plug-loads, whenever proposals allow to do so.

3. Leverage the innovation potential of small private companies – The private sector in general, and small technology companies in particular, are a key factor in the vitality of California’s innovation economy. They are the engine of Silicon Valley and other technology hubs in the state. Leveraging their innovation potential is an important strategy to maximize the effectiveness of the EPIC program.

We encourage the Commission to develop a diversified portfolio of research projects including an appropriate share of public and private institutions, and large and small organizations, based on the merits of submissions received. We also encourage the commission to make a critical assessment of its solicitation process to ensure that administrative requirements do not impose an undue or unfair burden on small private companies. Those do not have dedicated staff to develop funding proposals, which can constitute a de facto barrier to access EPIC funding.

Fully leveraging the innovation potential of small private companies would not only enhance the research outcomes of EPIC grants, it would also unleash the innovation potential of the private sector for energy technology innovation, enhancing California’s leadership in this sector.

Thanks you for the opportunity to provide these comments. We look forward to continuing to work with the Commission on this important program.

Sincerely,

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