

Energy - Docket Optical System

From: Rafael Reyes - BACC [rreyes@baclimate.org]
Sent: Thursday, April 03, 2014 8:52 AM
To: Energy - Docket Optical System
Cc: Gonzalez, Lorraine@Energy; 'Rajiv Mathur'
Subject: EPIC Second Investment Plan (docket 12-EPIC-01)
Attachments: BACC Comments Re EPIC Second Investment Plan (docket 12-EPIC-01) - 04.02.2014.pdf

April 2nd, 2014

Ms. Laurie ten Hope
Deputy Director
California Energy Commission



Re: EPIC Second Investment Plan (docket 12-EPIC-01)

Dear Ms. ten Hope:

We are pleased to offer comment on the draft initiatives for the second EPIC tri-annual plan. The Bay Area Climate Collaborative (BACC) is a non-profit project of the Silicon Valley Leadership Group focused on market acceleration of clean energy implementation in the San Francisco Bay Area. BACC initiatives engage the majority of local governments in the region and include: facilitating the deployment of over 150 electric vehicles and 60,000 LED streetlights with local governments across the region; collaboration with Lawrence Berkeley National Labs on piloting an advanced energy efficiency toolkit; and launching Energize Schools, a PG&E supported program to assist schools with maximizing their clean energy investments.

We offer the following recommendations for your consideration (this letter is attached as pdf as well):

Applied Energy & Development

1. **Transparent PV:** Research on transparent film photovoltaics is rapidly advancing in university and research institutions. While efficiency rates are significantly lower than conventional PV, this technology holds significant potential for reducing deployment cost of generation through use on windows and possibly other building envelope components. Inclusion in the 2015-2017 plan may be appropriate to accelerate progress as the technology may be ready for this phase and this may prove an important element for ZNE goals of commercial buildings.
2. **Natural Gas Replacement:** Achieving net zero emissions will require significant progress on alternatives to natural gas for space and water heating. High efficiency heating and easy to deploy options such as modular "tile" with built-in radiant heating may be important investment opportunities.

Demonstration & Facilitation

3. **Public Sector Market Facilitation:** Support for accelerated deployment of early market solutions to public agencies, especially through regional entities, is highly recommended. Many obstacles exist for private sector deployment which do not exist in public sector contexts including split incentives, lower tolerance for slower payback periods, occupancy turnover, and other factors. As a result of lower public sector barriers, promising solutions can often be deployed more quickly in the public sector, enabling solutions to develop economies of scale that can make entry into the private sector more feasible. However, local governments frequently do not have the technical expertise or bandwidth to support such market facilitation. Regional entities such as non-profits and councils of governments can play critical roles in supporting collective action by public agencies.

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4. **Integrated Pilot, Permitting and Local Codes:** Especially promising strategies may benefit from an integrated approach to demonstration, permitting and local codes. Pilot projects may move more quickly if municipalities have the resources to address permitting requirements of the pilot. This can then be leveraged to engage local building officials in permitting and code development in the context of an actual pilot which can speed model code development for broader adoption. This combination is likely to elicit greater interest and motivation than code and permitting development isolated from a specific local implementation.

5. **Support for Standards and Regulation:** Numerous technology commercialization efforts may require development of associated standards and regulations to enable market introduction. Such development may be most effectively done in the context of scaled pilot testing. As an example, adaptive lighting in streetlights hold promise for significant additional efficiency over conventional LED lights but their commercialization is inhibited in part due to the lack of adopted metering standards and tariffs. Demonstrating the technology together with support for advancing the requisite standards and regulations may speed market introduction.

The EPIC program is tremendously exciting and we applaud the work of the CEC in moving it forward. We appreciate the CEC's close consideration of the above feedback.

Sincerely,

A handwritten signature in blue ink that reads "Rafael Reyes". The signature is fluid and cursive, with the first name being more prominent.

Rafael Reyes
Executive Director
Bay Area Climate Collaborative
rreyes@baclimate.org
408-409-5534

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