



Comments

on proposed initiatives and strategic objectives for 2015-17 Electric Program Investment Charge (EPIC) Program Second Triennial Investment Plan

FAFCO, INC. is the oldest and largest solar thermal manufacturer in the U.S., credited with pioneering solar heating technology that accounts for over 90% of the U.S. solar thermal capacity, nearly 50% worldwide (excluding China), and over 10% of renewable energy capacity worldwide (source: IEA 2012). FAFCO has the highest performing and most cost effective solar thermal collector on the market, and has joined forces with the Department of Energy, the U.S. Navy, and the leading U.S. photovoltaic manufacturers in the development of an extraordinary new high performing and cost effective hybrid PV technology.

1. Are critical research initiatives missing? If so, provide examples and explain why.

FAFCO commends the program for these research initiatives and does not see any critical research initiatives that are missing.

2. Can some initiatives be dropped because of progress made to address these issues?

FAFCO does not recommend any initiatives listed specifically be dropped.

3. What issues are deserving of significant funding due to their high potential for ratepayer returns?

FAFCO contends that S3.2 Proposed Funding Initiative: Develop Integrated and Hybrid Photovoltaic Technologies and Strategies to Reduce Costs and Advance Zero-Net Energy Buildings can have the most significant impact of all initiatives due to its high potential for rate payer returns. This assertion is based on a next generation distributed hybrid PV technology that FAFCO has recently developed based on the collaborative efforts with the Department of Energy, the U.S. Navy and the leading U.S. photovoltaic manufacturers. Overall conversion efficiencies have been validated to double, triple, and quadruple in certain applications, while also attaining a significant reduction in total costs of PV technologies in distributed applications. This technology can enable successful deployment of commercial solar systems that are 2-4 times more efficient and substantially more cost effective to rate payers.

FAFCO hopes to submit a proposal for this EPIC program to conduct applied R&D demonstrating this technology for facilities that have a need for both onsite electricity generation and hot water. **A barrier to our submission is the required 1.5% royalty required on future sales (for 10 years) as described in the EPIC terms and conditions.** We cannot submit with these terms as described. Notes from a previous PIER advisory board meeting made this comment about requiring royalties, "Royalties are not critical, and if they present a barrier to future contractors, or a burden to the CEC, then the royalty terms and conditions should be removed from future contracts." FAFCO respectfully supports the removal or modification of these royalty terms as considered during this board meeting.

4. Are there initiatives that should be combined? Please explain why.

FAFCO does not suggest any specific initiatives be combined.

Thank you for your consideration,

Mike Rubio, P.E., LEED AP

Director of Technology

FAFCO, INC.