



Office of the Vice Chancellor
Administrative & Business Services

559 Aldrich Hall
Irvine, CA 92697-1025

February 23, 2015

Dr. Andrew McAllister
California Energy Commission
1516 Ninth Street, MS-31
Sacramento, CA 95814

Dear Commissioner McAllister:

I am writing to express my strong support for using Electric Program Investment Charge (EPIC) funds to support research centers that implement multi-year programs. In particular, I'm writing on behalf of the California Lighting Technology Center (CLTC) at the University of California, Davis. Under the visionary leadership of Dr. Michael Siminovitch, the Center is leading the charge in advancing lighting technologies that move California closer to achieving its energy savings and climate goals. Working closely with industry and policymakers, the Center engages in lighting education, workforce training, research and development, and the adaptation of codes and standards that enable the marketplace.

As Chair of UC's Climate Solutions Steering Group, I worked closely with Dr. Siminovitch to identify strategies in support of the University's climate commitment. As a charter signatory to the American College and University's Climate Commitment, the University of California pledged early on to achieve climate neutrality as soon as feasible and more recently committed to climate neutrality by 2025. In partnership with the CLTC, the Climate Solutions Steering Group in 2011 recommended "deep energy efficiency" – measures that reduce energy consumption and associated carbon emissions by half or more – as the most immediate, cost-feasible strategy to effect a substantial reduction in UC's carbon footprint. The CLTC was instrumental in demonstrating the effectiveness of this approach, having spearheaded the "Smart Lighting Initiative" at UC Davis – a comprehensive set of measures resulting in a 60 percent reduction in the electricity consumed by campus lighting.

Over the years, UC Irvine has partnered with the CLTC in support of the campus's own aggressive energy-savings program and has relied on CLTC expertise to inform decisions about lighting retrofits along pathways; in stairwells, building corridors, and parking structures; and on surface parking lots. Notably, UCI collaborated with CLTC to demonstrate the enormous energy-savings potential of replacing standard street lighting with adaptive lighting that utilizes wireless mesh network controls – a savings of nearly 80 percent! This groundbreaking "on-demand" street lighting utilizes a radar detection system to illuminate the predictive path of travel, incorporating a wireless mesh network that adjusts the lighting so effectively that the traveler does not perceive a change in

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lighting levels as s/he proceeds along the road. (If you are interested, please see UCI's "Intelligent Adaptive Street Lighting" video at <https://vimeo.com/76009714>.)

Our campus's experience with the CLTC is emblematic of the Center's value to the entire state and its benefit to ratepayers. Since the Center's inception in 2004, it has been instrumental in well over 100 demonstrations of energy-efficient lighting installations at University of California, California State University, and California community college campuses, as well as state and federal buildings throughout California. Unquestionably, the CLTC's programmatic approach has proven successful in meeting the overarching goal of the EPIC Investment Plan, which is to assist in the development and market adoption of new and emerging clean energy technologies in California.

The outcomes that I have described here are the result of long-term partnerships and programs that take years to reach fruition. They involve planning, applied research, product development, scaling up, market feasibility testing, and the training of installers, building operators, and energy managers. Sometimes this linear development pattern of collaboration, testing, investments of time and capital, and occasionally backtracking when course corrections are needed, takes years. The "normal" concept-to-market horizon for new energy technologies typically approaches a decade, although the CLTC innovative partnership model has cut this development cycle roughly by half. Nonetheless, years – not months – of sustained effort are required to foster energy innovations and bring them to market acceptance, and this is why multi-year funding is needed for such a program to be successful.

I respectfully urge you to consider these factors in support of the CLTC as you evaluate the 2015-2017 Investment Plan. Thank you for your consideration.

Sincerely,



Wendell Brase
Vice Chancellor, UC Irvine
Co-Chair, University of California President's Global Climate Leadership Council

cc: Dr. Michael Siminovitch, CLTC Director
Dr. Robert B. Weisenmiller, Commission Chair
Commissioner Karen Douglas
Commissioner David Hochschild
Commissioner Janea A. Scott