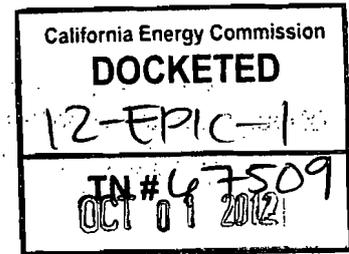




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September 28, 2012

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Docket No. 12-EPIC-01

To the California Energy Commission:

Reference: Response to: Docket # 12-EPIC-01

On behalf of the University of La Verne, I am writing to support the California Energy Commission's draft Triennial EPIC Program Plan specific to water-related renewable energy technologies. Our comments today provide amplification and focus relative to the recommendations of the Triennial Investment Plan.

As stated in the California Energy Commission 2005 Final Draft Report "California's Water-Energy Relationship", CEC 700-2005-011-SF - *"Water-related energy use consumes 19-percent of the State's electricity, 30-percent of its natural gas, and 88 billion gallons of diesel fuel each year – and the demand is growing"*.

The University of La Verne, and its Water Institute, is following this issue very closely. At our 2012 Water Technology Conference, it was a cornerstone topic on our agenda (see attached agenda).

Based on our experience with this issue, and involvement with the largest stakeholders in the water industry, such as Metropolitan Water District, we have the following comments on the Proposed Triennial Investment Plan.

In summary we support funding for the following CEC EPIC initiatives:

- S1 Strategic Objective – Develop next-generation end use energy efficiency technologies and strategies for the building, water and wastewater sectors.
(Page 19)

- S1.5 – Develop and demonstrate prototype gray water reuse technologies and approaches to reduce the need for fresh water in buildings. (Page 31)
- S5.3 Develop analytical tools and technologies to reduce energy stresses on aquatic resources and improve water-energy management (Page 73)
- (S10.2 – Proposed Funding Initiative – Support Demonstration Testing and Verification Centers to Accelerate the Deployment of Pre-Commercial Clean Energy Technologies (Page 104).
- S11.1 – Proposed funding initiative – Identify and develop promising energy efficiency and demand response technologies suitable for commercial and utility rebate programs. (Page 110)
- Strengthen the Clean Economy Workforce (Page 143)
- Leadership of a Water/energy Innovation Cluster (Page 102)

The La Verne Water Institute - Supporting Programs and Resources for the CEC EPIC Program

The La Verne Water Institute is currently being planned to be a clearinghouse on best practices in water and energy policy, and related programs. The Institute has evolved from a planning effort for a major water technology program in La Verne, in association with Metropolitan Water District, Three Valleys Municipal Water District, the Lewis Group of Companies, which is one of the region's largest developers, and some of the world's largest engineering firms. In the paragraphs below, we discuss how the Institute will assist the CEC in implementation of the programs outlined above.

1. Improve Water-Energy Management

The La Verne Water Institute is particularly well suited to help the CEC *design and implement tools and strategies* to Improve Water-Energy Management. Each year, the Institute holds the La Verne Water Technology Conference. At our conference last year, we showcased the issue of water and energy and in January 2013 the conference will focus on conservation and reuse of water.

The La Verne Water Institute has the ability to promote conservation that will reduce the need to pump, treat and dispose of water, resulting in less use of energy. This work would be done through our annual water technology conference, through extensive public education, through the development of model land use and zoning policies that promote low-water use development as well as the utilization of recycled and gray-water for non-potable uses.

In addition, we are focusing on other tools for optimizing water distribution systems to reduce energy consumption. Among these would be economic decision support and forecasting models, remote sensing/GIS/GPS systems, and water system electronic modeling software.

Through our close working relationship with the Lewis Group of Companies and other major developers, the Institute will help orchestrate focused water/energy technology demonstrations at new commercial, industrial and residential development projects.

2. Demonstration, Testing and Verification Centers.

The City of La Verne is the home of Metropolitan Water District's Water Quality Laboratory, one of the top water research facilities in the United States. This facility customarily performs industrial scale water technology testing. The University of La Verne's Water Institute has previously discussed with MWD the possibility of water-related technologies, including those for water/energy management, being tested at the La Verne facility. Therefore, the La Verne Water Institute looks forward to ongoing dialogue with the CEC regarding S10.2 –Support Demonstration Testing and Verification Centers to Accelerate the Deployment of Pre-Commercial Clean Energy Technologies (page 104). This effort can also be undertaken with the Three Valleys Municipal Water District, which is one of the MWD Member Agencies, and a major water supplier. Three Valleys is active in analysis and demonstration of new technologies, and presents updates on those activities each year at the La Verne Water Technology Conference.

3. Identify and Develop Promising Technologies.

Similarly, to "Identify and develop promising energy efficiency and demand response technologies suitable for commercial and utility rebate programs (S11.1)", the La Verne Water Institute would develop the following "market readiness preparation" approach:

- For an initial assessment of the technology, the Institute would use the business analysis capabilities of the University of La Verne Business School, complemented by the engineering expertise of the nearby Harvey Mudd College and the Cal Poly Pomona Engineering School.
- The Institute also has extremely strong relationships with some of the world's top water and energy engineering firms, such as MWH Global, AECOM, and Tetra Tech. MWD's and Three Valleys Municipal Water District technical staff could also be consulted on the viability of the technology, and challenges to bringing the new technology into use.

- For the funding and commercialization analysis standpoint, the Institute would call upon the resources of the Los Angeles County Business Technology Center (BTC) near Caltech/JPL, which is particularly strong in analysis and preparation of new venture companies.

4. Collaborate with Local Jurisdictions and Stakeholder Groups in IOU Territories to Establish Strategies for Enhancing Current Regulatory Assistance and Permit Streamlining Efforts (S14)

The La Verne Water Institute, in collaboration with the Public Administration Program in the College of Business and Public Management of the University of La Verne, has the experience of working with local governments for the review of land use and zoning plans and the development of general plans for city guidance. As part of the region of the San Gabriel Valley, with a population of 1.9 million people and 31 separate cities, the Institute has an association with a consortium of the cities in this region under the San Gabriel Valley Economic Partnership. This association can provide a regional collaboration that could create strategies for regulatory assistance and permit streamlining by utilizing the city management expertise of the Public Administration Program of the University of La Verne. This streamlining would benefit Clean Energy Infrastructure as well as allow for water conservation and water reuse.

5. Leadership of a Water/Energy Innovation Cluster (Page 102).

In the previous comments to the CEC by U.S. Congressman Joe Baca, the subject of Water/Energy Innovation Cluster was discussed in detail. There is considerable potential to make this a success, and manage it through the La Verne Water Institute. The water technology program at the University of La Verne evolved from a previous highly successful technology in Pasadena with Caltech, JPL and global engineering firms. The lessons of management of Innovation Clusters are very strong at La Verne, as many of the people involved there now managed the previous Pasadena program, which yielded 200+ new technology firms.

The University of La Verne, and the La Verne Water Institute, lies squarely in the middle of two of Southern California's largest university concentrations. At least 25 colleges and universities are within 25 miles of La Verne, many with engineering and technology focus. Representatives of many of these institutions have spoken at the La Verne Water Technology Conferences. Working with the CEC, the La Verne Institute will develop a replicable model of university collaborations for technological innovation, and deployment in commercialized, viable engineering solutions.

Summary Comments

The La Verne Water Institute and the University of La Verne look forward to working closely with the California Energy Commission on the implementation of the EPIC Program. We appreciate consideration of these ideas, and will respond with further details upon request.

Sincerely,


T. Gregory Dewey, Ph.D.
Provost

cc: Cynthia Kurtz, San Gabriel Valley Economic Partnership