



October 25, 2013

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Sacramento, CA 95814

California Energy Commission  
**DOCKETED**  
**13-CCEJA-01**  
TN 72270  
OCT. 28 2013

Subject: Docket Number 13-CCEJA-1, Prop 39 Comments

Dear Ms. Mathews:

Thank-you for the opportunity to comment on the draft Proposition 39 (Prop 39) Guidelines. This letter elaborates on my testimony at the October 22, 2014, Prop 39 workshop in Sacramento. The Collaborative for High Performance Schools, Inc. (CHPS), is a national 501(c)(3) non-profit organization dedicated to making every school an ideal place to learn. CHPS was founded in 1999 as a challenge from the then Chair of the Energy Commission to the California utilities to work together to build better, high performance schools in anticipation of an impending wave of new school construction.

Now over a decade later, Proposition 39 represents a similar window of opportunity to begin to transform California's existing schools.

### **Non-energy Benefits**

The primary means of recognizing non-energy benefits in the draft Prop 39 Guidelines is through a flat 3 percent adder used to estimate non-energy benefits described in Equation 3 on page 47. The non-energy benefits considered are:

- Improved lighting quality
- Improved acoustics
- Improved indoor air quality
- Improved occupant comfort, and
- Improved health and safety

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CHPS believe that consideration of the non-energy benefits is imperative both in terms of identifying lower performing schools for improvement and for project design.

For example, a recent study by Lawrence Berkeley National Laboratory (LBNL) examined ventilation rates in 162 classrooms in three districts in three climate zones in California over two years. The study found that all three school districts had median ventilation rates below the California standard of 7.1 liters/sec-person and that 95 percent of the all air-conditioned classrooms in the Central Valley district failed to meet the minimum ventilation rates. In addition, the study showed that ventilation rates were worse in portable classrooms than in permanent buildings – less than half of what the state requires. Preliminary findings of the study extrapolate that attendance based funding increases for increasing the ventilation rates would translate into an estimated \$33 million annually statewide with increased energy-related costs of only \$4 million.

Currently, the draft Prop 39 Guidelines do not specify any methods to quantify these benefits or the resulting improvements associated with the energy efficiency projects. CHPS recommends that performance benchmarking tools, including the CHPS Operations Report Card™, be specifically included as eligible expenses for use as Planning Expenses and for the before and after benchmarking. The Operations Report Card or ORC [www.chps.net/orc](http://www.chps.net/orc) is a web-based benchmarking and improvement tool for existing schools. The ORC was developed with support from the California Energy Commission and Department of Energy under Award Number DE-FG26-07NT43333 with additional funding from the California utilities and through Global Green USA.

The ORC utilizes ENERGY STAR Portfolio Manager for Energy Efficiency and benchmarks of four of the five categories of non-energy benefits described in the draft Prop 39 Guidelines. The ORC includes an occupant survey of teachers and staff and classroom measurements. The ORC integrates widely accepted metrics from ASHRAE 62.1, ASHRAE 55, US EPA's Indoor Air Quality Tools for Schools, and ANSI for acoustics [http://www.chps.net/orc/ORC\\_TechSpecs.pdf](http://www.chps.net/orc/ORC_TechSpecs.pdf). The ORC generates a score in each category on a 100 point scale, a summary report, and suggested improvements.

### **High Performance Standards and Best Practices**

CHPS recognizes that there are limitations to what the Energy Commission can require regarding performance standards and best practices that may be required given the enabling language of Prop 39. CHPS can assist school districts in making informed decisions.

- CHPS Best Practices Manuals – The CHPS Best Practices Manuals are the definitive series of manuals on how to plan, design, construct, operate,

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maintain, and commission a healthy, high performance school. In particular, the Planning and Design volumes will be helpful for school district decision makers and facility managers to make informed choices. CHPS requests that the CHPS Best Practices manuals <http://www.chps.net/dev/Drupal/node/288> be added to Chapter 3: Additional Proposition 39 Resources along with the current listed State Resources.

- California CHPS Criteria (CA-CHPS Criteria) – The CA-CHPS Criteria rating system has defined a healthy, high performance school in California since 2002. The 2009 CHPS Criteria <http://www.chps.net/dev/Drupal/node/32> is the basis for the high performance incentive (HPI) grant regulations. The 2014 CHPS Criteria is currently under development to reflect the CHPS National Core Criteria <http://www.chps.net/dev/Drupal/national-core-criteria> and to harmonize in California with the 2013 Title 24 Energy Code and CALGreen revisions.
- High Performance Transition Plan – One of the new features of the 2014 CA-CHPS Criteria will be the High Performance Transition Plan as a pathway to high performance school recognition for existing schools through a series of phased, renovation projects. Leveraging their Prop 39 funds, additional state and local funding, and utility incentives, the High Performance Transition Plan represents a vehicle not only for cost-effective energy efficiency projects, job creation, but transforming California’s existing schools into healthy, high performance schools.

### **Specific Comments:**

**Energy Planning Reservation Option, Allowed Planning Activities, page 8** – add bullet for Performance Benchmarking of non-energy benefits.

**Table 3: Energy Planning Activities, Pre-Expenditure Plan Approved Activities, page 9** – Add Performance Benchmarking and description “Performance benchmarking tools, such as the CHPS Operations Report Card, may be used to establish a baseline and to assist in prioritizing projects considering energy and non-energy benefits.

**Award Funding for Training, page 12** – CHPS supports the allowance of funding for training and suggest that it not be limited to classified staff only. Ultimately, realizing the cost-savings potential of Prop 39 projects will depend on the knowledge and proper use of the systems installed.

**Award Funding for Energy Manager, page 12** – CHPS supports the awarding of funding for a district Energy Manager or the sharing between smaller districts.

**Energy Benchmarking Resources and Tools, page 14** – Add the CHPS Operations Report Card to the list acceptable of Benchmarking Tools and Resources

**Final Reports, page 25** – Add reporting item on health and safety benefits and other non-energy benefits improvements achieved.

**Chapter 3: Additional Proposition 39 (State) Resources, page 32** – Add CHPS Description including the CHPS Best Practices Manuals, CA-CHPS Criteria, and Operations Report Card as free or low cost resources for schools.

**Exhibit B: Typically Cost-effective K-12 School Energy Projects, page 35** – Based on the funding structure of Prop 39 and the draft Guidelines, the types of cost-effective projects will depend in part on district size. CHPS suggests providing additional guidance based on the Tier Levels. For example, CHPS anticipates that there will be a higher dependence on cost-effective opportunities related to lighting and lighting controls for Tier 1-3.

**Title 24 Compliant Products** – In addition, while Title 24 may not be triggered for Prop 39 projects at existing schools, at a very minimum Title 24 compliant products should be required where they are available.

Please let me know if you have any questions on our comments and suggestions. We look forward to working with you over the next several months as the Prop 39 Guidelines are finalized and implementation begins.

Respectfully,



William R. Orr  
Executive Director

cc: Marcia Smith, Specials Projects, CEC  
CHPS Board of Directors