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California Energy Commission
Dockets Office, MS-4 Re: Docket No. 12-EBP-1
1516 Ninth St.
Sacramento, CA 95814

Dear Commissioners:

Thank you for the opportunity to comment on the Draft Action Plan for the Comprehensive Energy Efficiency Program for Existing Buildings. I represent the national Building Operator Certification (BOC®) program which is a voluntary, industry-recognized training and certification in energy efficiency for commercial building operating engineers and building technicians. BOC is delivered statewide in California with sponsorship from the four investor-owned utilities under the auspices of the California Public Utilities Commission.

I would like to commend the plan's emphasis on workforce training and development as an important element of achieving California's energy efficiency and greenhouse gas emission reduction goals. A skilled energy workforce is essential both to achieving energy efficiency in California buildings and to sustaining energy performance over time. Our comments pertain to the No Regrets strategy for workforce training and development.

Comment #1: Commercial building operators should be explicitly identified as an important target audience of focus for skill enhancement in energy efficiency in addition to those audiences identified in Key Strategy NR 4.2.

Energy used inefficiently or unnecessarily in buildings is estimated to be as much as 30%.¹ Training in energy efficient building operation training can be a critical factor in reducing these losses. Building operator training is particularly important when an owner invests in renewable energy systems or high efficiency equipment, as "even well-constructed buildings experience performance degradation over time" unless building operators perform routine maintenance and commissioning.² Training should address facility electrical and lighting systems, HVAC, indoor air quality, sustainability, and energy conservation, and include a means of validating knowledge and skills through certification. Training and certifying building operators is one of the most cost-effective strategies for reducing energy use and costs in commercial buildings.

Comment #2: Consider evaluating a long term strategy to engage employers to value training and certification of commercial building operators by integrating such training and credentialing requirements into their organization's professional development and hiring practices for personnel in facilities management and to budget for training. The Federal Buildings Personnel Training Act of 2010 is a model for this.¹

¹http://www.theboc.info/pdf/NationalGuidelinesBOCcredentialing_Final_292.pdf

²<http://www.documents.dgs.ca.gov/green/commissionguideexisting.pdf>

Building operator training and certification provides operators with a means to distinguish themselves to employers through improved job skills. In order to maintain certification, operators are required to complete ongoing trainings. These trainings help bring building operators together and create a community of practice where participants can share experiences and lessons learned, which can help them maintain career relevance in a rapidly changing field. In a survey of BOC graduates, over 50% report increases both in job responsibilities and compensation after receiving the certification.³ This is significant because, as a recent California Workforce Education and Training Needs Assessment indicates, the number of workers currently employed in energy efficiency and related occupations far outweighs the number of new workers that are projected to enter these fields through 2020. Some, if not many, of these incumbent workers are likely to require skills upgrade training as new best practices and new technologies are introduced due to new state legislation.⁴

Comment #3: Consider evaluating a long term strategy to require that State-owned and leased buildings have at least one facility operations staff holding a building operations certification. This strategy could leverage existing programs in the market which meet quality assurance standards established by the U.S. Department of Energy in energy efficient workforce training and credentialing.

The California State Employees Trades Council encourages University of California and California State University employers to award a bonus to employees who obtain a BOC certification.⁵ Operator training and credentialing has well-established third-party-verified savings. For example, a 2012 impact evaluation completed by researchers at the City University of New York found that New York City school buildings with BOC trained and certified operators outperformed schools whose operators did not participate in training. Furthermore, one on one interview results showed that BOC certified operators are applying concepts learned during training to the selection and execution of energy saving projects, and on-going operational and maintenance activities. In 2011, an independent auditor reported that through equipment upgrades and operations and maintenance activities, each BOC graduate saves their employer approximately 172,000 kWh⁶ and 1,450 therms annually,⁷ equivalent to \$12,000 annually at national electricity rates.⁸

Thank you for the opportunity to comment. Working together with building owners, operators and training and credential providers, we can make California's commercial and institutional buildings more comfortable and productive workplaces, at reasonable cost.

Sincerely,



Stan Price
Executive Director

¹ <http://www.gpo.gov/fdsys/pkg/BILLS-111s3250enr/pdf/BILLS-111s3250enr.pdf>

³ <http://www.theboc.info/w-value-benefits.html>

⁴ http://www.eesectorstrategy.com/uploads/1/1/2/0/11203347/full_needs_assessment_03.11.pdf

⁵ <http://www.theboc.info/w-recognition.html>

⁶ <http://www.theboc.info/w-value-benefits.html#money>

⁷ http://www.theboc.info/pdf/Eval-Consumers_Energy_BOC_Report_Nov%202011_Final.pdf

⁸ <http://www.theboc.info/w-value-benefits.html#money>