



N O R T H W E S T
ENERGY EFFICIENCY COUNCIL

BOC INFORMATIONAL WEBCAST

Statewide Energy Efficiency Collaborative

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Today's Agenda

- Overview of Building Operator Certification program and credentials
 - Training Content & Learning Outcomes
 - Eligibility & Certification Requirements
- Benefits of BOC training to California city and county governments
- Peers share experience with BOC
- Q&A



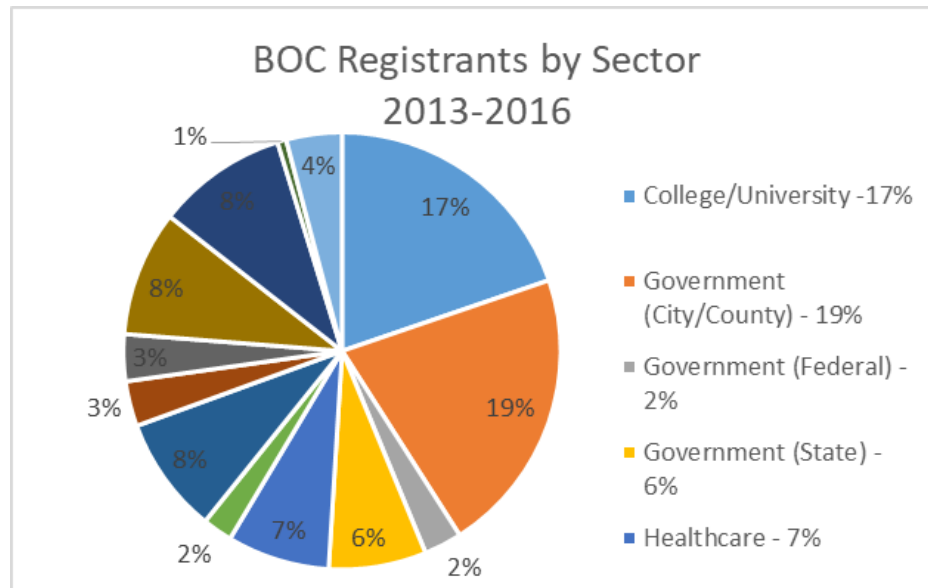
Our “Ask”

- *Introduce BOC to your members
- *Consider hosting a BOC course on site
- *Send personnel to open enrollment courses



Who attends BOC?

- * Maintenance mechanics, building operating engineers, building operating engineers, HVAC technicians, electricians, building managers, and others involved in running the facility. A minimum of 2 years experience in building O&M is required.



Skilled Building Operators

- * Bring value to COG cities- Over 500 city and county facilities staff trained over the past five years
 - * Saves dollars for city-mission activities
 - * Recognition with city councils for having credentialed operators managing city buildings
 - * Reduces energy use, lessening the carbon footprint of building stock and help achieve climate change goals
 - * Improved safety of city buildings



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Meeting Strategic Plan Goals for LGs

- * Goal: Local governments lead by example with their own facilities and energy usage practices.
- * Goal Results: The energy usage footprint of local government buildings is 20 percent below 2003 levels by 2015 and 20% below 1990 levels by 2020. **Supports the strategy to achieve this goal by training operators on benchmarking and commissioning**
- * BOC credentialed operators save their organizations on average \$4,800 a year in utility costs.



Meeting Strategic Plan Goals for LGs

- * Goal: Local Government Energy Efficiency Expertise becomes widespread and typical
- * Goal Results: Many local governments do not have adequate dedicated staff or resources to move proactively
- * Supports statewide effort to facilitate peer-to-peer learning, and increase energy efficiency expertise through training and certification



Local Feedback

“The BOC information is an investment in better maintained buildings, better educated building operators, and gratified customers. The cost of the coursework is worth every penny because the knowledge and quality of the instructors is second to none. The knowledge gleaned from the coursework will only improve a person’s ability to perform building maintenance.”

*John M. Haran, California State University Northridge,
Physical Plant Management Department Safety/Training Coordinator*

“BOC is the type of program that produces real benefits for our communities. City staff who go through this training and certification are well prepared to improve operational efficiencies in municipal facilities.”

Jane Cummins, Senior Staff Associate, League of Oregon Cities



Who is eligible for BOC?

High school diploma or GED, and one of the following:

- 2 or more years work experience in operation and maintenance of commercial facilities, OR
- 1 year work experience in commercial facilities, and 1 year of technical college level education in facility engineering, OR
- 2 or more years work experience in energy management of commercial facilities



Two levels of training demonstrate different job performance outcomes:

Level I: Building Systems Maintenance

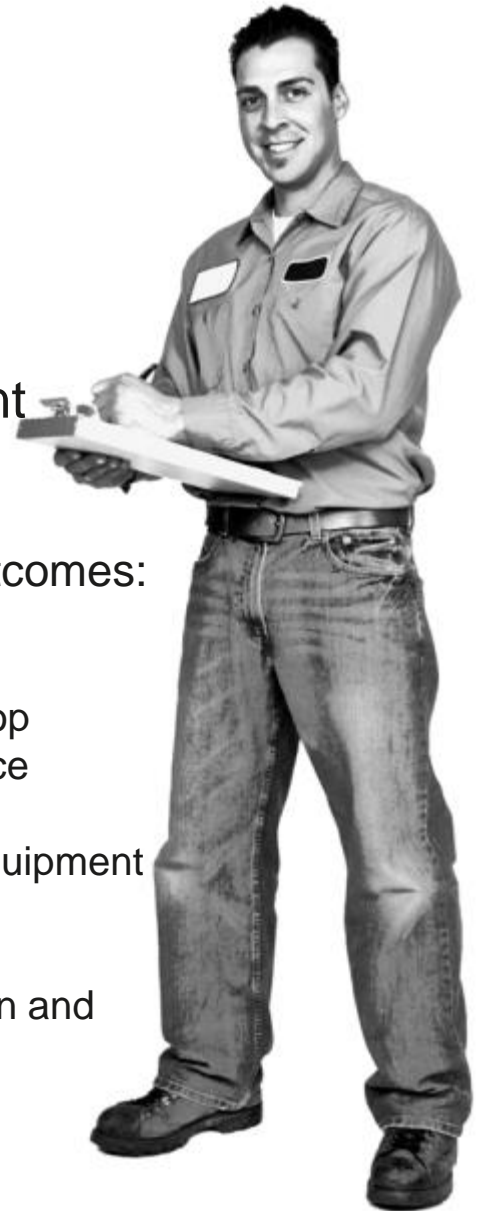
Job Performance Outcomes:

- * Foundational understanding of electrical, HVAC and lighting systems and controls.
- * Benchmark building energy consumption
- * Identify low-cost/no-cost operations improvements
- * With supervision, establish or review preventative maintenance program

Level II: Equipment Troubleshooting

Job Performance Outcomes:

- * Advanced ability to troubleshoot
- * Independently develop preventative maintenance programs
- * Advanced skills in equipment operations
- * Reduce water use
- * Enhanced automation and demand reduction



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Training Format

- Training consists of lecture, group activities, building tours, and demonstrations of relevant tools for facilities professionals
- Tests given at the end of each class day
- Project Assignments



On the Job Project Assignments

- Demonstrate your ability to apply skills covered in BOC classes
- Required to earn the BOC Training Certificate of Completion
 1. HVAC Equipment Floor Plan
 2. Energy Benchmark
 3. HVAC Operations Map
 4. Lighting Surveys
 5. Occupancy Schedule



Training Certificate of Completion Requirements:

<u>Level I</u>	<u>Level II</u>
Attend seven BOC classes	Attend six BOC classes
Earn a passing score of >70% on all eight in-class tests	Earn a passing score of >70% on all seven in-class tests
Complete five in-facility project assignments	Complete three in-facility project assignments



Credential Maintenance

- Annual process for all credentials
- Fee of \$65 and simple application process
- Requires credential holders demonstrate their continued involvement in the profession through employment, education, project implementation, leadership.



Accreditation

- * GSA Schedule
- * FBPTA-Aligned
 - * Federal Buildings Personnel Training Act 2010
- * ANSI/IACET Standard 1-2013 for continuing education & training
 - * Authorized provider of CEU's
- * Certification Program Aligned with ISO 17024 for entities certifying personnel



Registration Options

Option #1: Open enrollment course

Option #2: Closed enrollment course on site at for your organization:

Tuition includes:

- 74 hours of technical training
- 700 page Student Handbook
- 5-part Project Workbook
- Tests
- Credential



Ventura County BOC Experience

- * Kelly Cattanuch- Training Coordination and Support
 - * Ease of coordination
 - * Support from staff
 - * On site program manager
 - * Trainers
 - * Materials
 - * Drew multiple agencies to attend

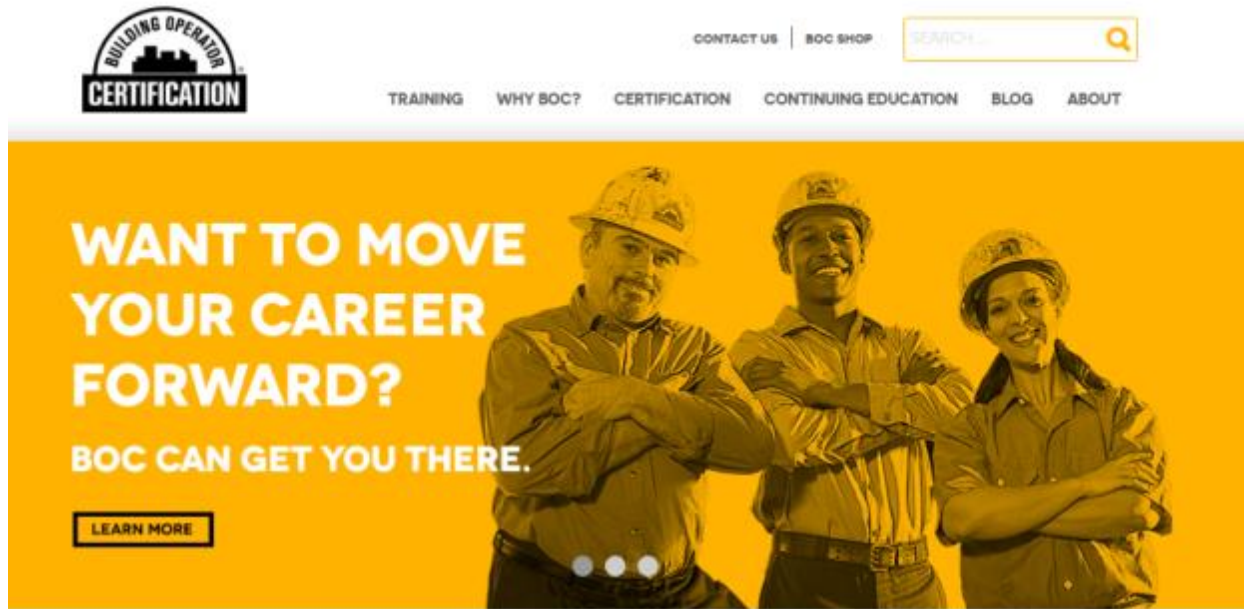


Ventura County BOC Experience

- * Leigh Walker, Attending BOC
 - * Central Locations
 - * Professional advancement
 - * Good Material
 - * Great training staff
 - * Homework level fosters deeper learning
 - * Tests reinforce concepts and is application based



Have you visited the BOC Website?



THE ESSENTIAL CREDENTIAL

Building Operator Certification® (BOC) is the leading training and certification program for building engineers and maintenance personnel. Our graduates make their buildings more comfortable, efficient and environmentally friendly, thanks to skills they master in our classes.

And the BOC credential is just as valuable to building owners as it is to operators. Our graduates help their organizations substantially cut operating costs – as much as \$20,000 per year.

Is BOC for you? [LEARN MORE](#) about what we offer.

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