



Launching a Building Operator Certification (BOC®) Program in Your Region

The Building Operator Certification (BOC®) program has been educating, training and certifying facility operators to perform energy-efficient operations and maintenance since 1996. With more than 13,000 BOC graduates across the country, the program's multi-disciplinary curriculum continues to receive national recognition and approval.

Originating as a market transformation effort, this quick-start program allows organizations to complement their promotion of energy-efficient equipment by offering education and training efforts targeted toward sustaining those savings over time.

Results show that launching a BOC program can take as little as three months. By taking an approach that empowers facility managers to identify retrofit project opportunities in their facilities and learn about available incentive programs, validated savings can be realized within a year. Today, the program is supported by more than 40 utilities and 14 state agencies in 35 states nationally and internationally.

What is the BOC Program?

The BOC program is a national workforce training and credential program targeted to facility operators working in medium to large commercial and institutional buildings.

Developed and maintained by the Northwest Energy Efficiency Council (NEEC), a non-profit business association of the energy-efficiency industry, training is offered at two levels: Level I, Building Systems Maintenance, offers 74 hours of content in energy efficient operation of HVAC, lighting, and building control systems. Level II, Equipment Troubleshooting and Maintenance offers 61 hours. Go to <http://www.theboc.info/h-course-descriptions.html>, for a full description of Level I and II course topics.

Benefits of Offering a BOC Program

The BOC program can help deepen achievable savings and help realize defined goals set by state and/or utilities. With 12 state public utility commissions authorizing investor-owned utilities to claim savings from their Building Operator Certification program offerings, BOC is the only currently available certification program that has been evaluated for energy savings impacts. Several third-party evaluations have shown significant benefits.

1. Proven cost-effectiveness

A cost-benefit study by the Northwest Energy Efficiency Alliance (NEEA) found BOC to be the most cost-effective program in its portfolio with a cost-effectiveness index of 1.5 (Total Resource Perspective) and an estimated levelized cost of 1.21 cents/kWh.

2. Validated energy savings

A 2005 study by Northeast Energy Efficiency Partnerships (NEEP) showed annual energy savings for facilities participating in BOC to be 0.50 kWh/sq. ft. for electricity and 0.74 MMBtu/sq. ft. for natural gas. A 2012 study by NEEA attributed an average electricity savings of 119,000 kWh/year per BOC-certified operator.

3. Increased program participation

A Pacific Gas and Electric study in California revealed that 73 percent of participants and 57 percent of their supervisors reported that BOC training increased the likelihood of their company's participation in utility energy-efficiency programs.

4. High customer satisfaction

A 2012 study by the Illinois Department of Commerce & Economic Opportunity found overall Level 1 program satisfaction was high, with 86% of respondents rating the program "excellent" or "very good". Consistent with a high satisfaction of rating, 81% of all participants had already recommended the BOC training program to colleagues.

Ways to Initiate a BOC Program

BOC is a national program delivered through a network of local administrators, each serving a defined geographic service area. The program can be administered through one of two models: a license agreement or an implementation agreement.

Model #1 – License Agreement

Under a license agreement, the local administrator becomes a partner of the BOC program by entering into an agreement with the national BOC to implement the program in its service area. The license agreement grants the local administrator the right to use the fully developed set of BOC program materials to implement the program. This model is best suited for organizations such as energy-efficiency program administrators, state energy offices, and colleges that have the experience and resources available to administer and deliver the program.

Delivery example: Georgia – The launch of the BOC program was the Governor’s energy challenge of reducing energy consumption by 15% across all sectors by 2020. Responsible for establishing a plan to reach this goal at the state level, the Georgia Environmental Finance Authority (GEFA) identified workforce education and training as an area of focus.

Gwinnett College, was eager to step up as a BOC partner to administer the program for the state through a license agreement with NEEC. With sponsorship support from GEFA, Atlanta Gas Light and Tibs, the program launched in February 2010 with 247 graduates to date. Sponsors support the program through financial subsidies and scholarships.

Model #2 – Implementation agreement

An alternative approach is an implementation agreement, which is best suited for organizations with the resources to contract for BOC services. These organizations – which include utilities, state agencies and large employers – do not have the staffing, experience or time to administer the program directly. The interested organization would contract with the national BOC administrator, NEEC, to serve as the administrator of the local program.

Delivery Example: Maine - Efficiency Maine Trust (EMT) administers the energy-efficiency programs for the State of Maine. EMT offers the BOC program through an implementation agreement with the national BOC administrator; the BOC program is funded by a system benefits charge. The program is offered as a regionally-coordinated Northeast BOC initiative in sponsorship with the region’s utilities and energy-efficiency program providers. As one of the states that claim energy savings from this program, Maine – thanks to the work of trained building operators – realizes 9,827 MWh in annual savings.

Both models offer opportunities for sponsorship in a variety of ways:

- Contributing to the purchase of the license
- Subsidizing tuition, enabling customers to participate
- Providing marketing assistance, site hosting, and contributions of classroom teaching props for demonstrations.

Getting Started, Step-by-Step

There are four basic steps involved with implementing the Building Operator Certification program.

Getting Started – Step by Step	Advanced Energy	Utilities	NEEC
1- Identify Roles	✓	✓	----
2- Implementation Schedule	✓	----	✓
3- Initiate Program Launch	✓	✓	✓
4- Program Implementation			
- One informational meeting (20-30 customers)	✓	✓	✓
- Pilot course delivery	✓	----	✓
- Certify 20-30 operators	----	----	✓
- Post-course evaluation	✓	✓	✓

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