

Market Progress Evaluation Report

Building Operators Certification Program

prepared by

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report #E98-001

December 1997



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Building Operator Certification Progress Report Summary of Results

In 1996 the Northwest Efficiency Alliance (Alliance) began sponsoring the Building Operators Certification (BOC) venture operated by the Northwest Energy Efficiency Council (NEEC). This Market Progress Report responds to a request by the Alliance to address seven points regarding the progress of the BOC venture as a first step in the evaluation of the program. The purpose of the report is to provide a basis for assessing the success of the program in achieving its interim objectives for market transformation in the building operators market. The seven points the evaluation was asked to address are:

- Number and identification of participants (and enrolled).
- Number of people planning to be certified and when.
- How many people plan to be certified and when?
- Feedback on the program from participants, the advisory board and other interested parties.
- General status of the program and the market that may have implications for the long-term viability of the program.
- To how many instructors, colleges or communities has this curriculum been transferred?
- How many case studies will be available, what lessons might be learned from the studies, how much square footage has been affected by the program, and what is the expected energy savings thus far, based on expected savings per square foot or other easily estimated metric.

Number Of Participants

The program target for 1997 was 100 students enrolled. We reviewed the BOC database as of September 30, 1997. At that time, the database contained 151 people. Enrollment is the primary means by which NEEC tracks program interest. There is no charge for enrollment. Enrollees are recruited through marketing events and announcements. Once enrolled these people are notified when classes are available in their area. As of September 30, 1997, three course series had been offered. One series was the pilot test of a selected set of classes at Boeing. The second series in Kitsap county and the third series in Spokane were both full series, including courses 101 through 107. As of September 30, 1997, 128 people had registered to take the courses.

Number Of People Planning To Be Certified

The program 1997 target for operators to be certified was 12. The Kitsap series concluded in October. According to our survey and NEEC staff comments, most students are planning to be certified. During the first year following the training, NEEC expects 12-15 to be certified from the 31 participants in the Kitsap series. Participants have up to three years to complete their project work, apply for certification and become certified.

One student will be certified in late November. This person took the Boeing series and tested out of one course in the Kitsap series. NEEC expects eight more to be certified within the next three months. It is too early to draw conclusions about the likely number of people to be certified following the Spokane series.

General Program Status And Status Of Market

The program is closely adhering to its market plan and scheduled roll-out for courses. The program strategy is to market the BOC program through trade shows, publications and word-of-mouth in targeted geographical areas. After sufficient interest is generated, a course series is offered. Interest is determined by the number of enrollments in a given geographical area. Once the enrollments are high enough a course series is offered for enrollees to register for and attend. Following the lessons learned from the pilot, the first two course series have been offered on schedule, with the first series offered in Kitsap county and the second series in Spokane. A third series is scheduled to begin in spring 1998 in Snohomish County.

Registration for each of the series reached the maximum (35), suggesting there is significant demand in the market. According to NEEC staff, the curriculum is now fairly stable and efforts are underway to copyright and publish the materials. Work is also underway on the next level of courses (Level 2). These courses will provide both continuing education to Level 1 certified operators and provide a higher level of training to operators. The goal is to offer certification and continuing education classes leading to higher levels of certification.

Implications For Long-Term Viability

It is still too early to judge the long term viability of the BOC program. Three factors suggest that the program is meeting its midterm objectives.

- The first factor is that NEEC is making diligent efforts to reach the building manager as well as the building operator communities in order to enhance credibility. If NEEC can establish sufficient credibility, the probability of long term viability for the BOC venture will increase substantially.
- The second factor is that employers are crucial to program success. Students we have interviewed indicate that their managers are interested in the program. Employers, though feeling this may be early to judge fully, report that the program has been useful. For three of the five employers we spoke with, on-the-job practical benefits had been observed before the course series was completed.
- The third factor is acceptance of the curriculum by other educational organizations with NEEC as certifying agency. As noted below this process has begun, however, we anticipate it will at least three years before this aspect of the program can be fully assessed.

Transfer Of Curriculum To Other Education Providers

The curriculum has been adopted by Renton Technical College and is being offered this fall. One other community college is considering adopting the curriculum (Lower Columbia Community College) and discussions have been initiated with Washington State University.

Survey Findings

We completed seventeen interviews with student participants in the Kitsap series and interview with five employers. The students range of skills varies greatly, some feel the courses are too easy while others feel the courses are over their head. Yet all but one of the seventeen said that they learned something new and useful. The overall comment is that the

teachers are good: “professionals who know what they are doing.” Most think that it is a good idea to get certified and most of them plan to get certified.

All seventeen had to get approval to take the course and indicated that their managers are supportive, some were even told they had to go. Most indicate that the course work is useful to their current job and 2/3rds think that others from their facility will enroll in future, if there is funding. The following summarizes the results from the two surveys.

- Both participants and their employers expressed satisfaction with the program, especially with the courses offered later in the series. By this time, those with some concerns believed that problems had been addressed and the content and delivery had improved.
- There was disagreement among participants on the appropriateness of the level of information provided in the course series. This is a reflection of the wide range of education and experience of participants. Around one-third stated that the courses were too basic (and for three this led to non-completion of the certificate), while another third stated that courses move “too fast and provide too much information.” The middle third thought the series was just right.
- The out-of-class projects require more time than many participants can allow. While most find them very useful, the number reporting past due projects indicate that this could keep participants from completing the certificate program even if they desire to do so.
- Most student participants believe the BOC course series is good value for the current cost, but substantial increases in cost would probably limit participation. Employers, however, expressed greater willingness to pay more for the course. This may reflect their wider knowledge of the range of costs associated with staff training in all levels of their organization or the value they see in the training. At this time, some increase would probably be accepted by participants, with \$650 to \$700 an average maximum acceptable cost.
- NEEC is seen as appropriate sponsor for this type of certification and its independent status is seen as a benefit. Several respondents noted co-sponsorship with other related organizations or agencies improved the acceptance of NEEC.
- The one surprising finding was that we found both employers and student participants to be confused about the length of the certification and the requirements for recertification.

Status Of Case Studies

The case studies process is significantly different from that outlined in the evaluation request for proposals. During this first few months of the evaluation we learned that class projects and homework are structured as learning tools, not for data collection and analysis. Therefore, they generally do not contain sufficient material to develop case studies for measurement of savings. For instance, at the outset of the evaluation there was no means by which to collect information on square footage affected by the program.

The evaluation team worked closely with NEEC to develop an alternative to using the course work. A first step was to make recommendations to enhance the data collected on participants. This was done by making recommendations to enhance BOC information forms on the

participants' facility so that they provide basic information for assessing impact of the program. The second step is just beginning. This involves on-site work with students from four locations. In some cases these locations have multiple students participating in the BOC. Case studies will be developed using a combination of course work, interviews and on-site observation. The course work for these four sites is being reviewed and initial discussions with the students has begun.