

*Market Progress Evaluation Report* **Executive Summary**  
**Commissioning in Public  
Buildings, No. 2**

*prepared by*  
**Quantum Consulting, Inc.**  
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***NORTHWEST ENERGY EFFICIENCY ALLIANCE  
COMMISSIONING IN PUBLIC BUILDINGS PROJECT  
MARKET PROGRESS EVALUATION REPORT No. 2***

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## **1. EXECUTIVE SUMMARY**

### **1.1 PROJECT BACKGROUND**

This first market progress evaluation report analyzes the planning and implementation of the Northwest Energy Efficiency Alliance's (the Alliance's) Commissioning in Public Building project, which seeks to make commissioning standard practice in public buildings in the Pacific Northwest. The project was initiated in early 1998 and is currently scheduled to run through calendar year 2000. It seeks to overcome market barriers to commissioning through the use of multiple intervention strategies, including demonstration projects/case studies, technical assistance to public agencies, model commissioning policies, education and training, and financial assistance to help cover the cost of commissioning for demonstration projects.

### **1.2 EVALUATION OVERVIEW**

This initial market progress evaluation report focuses on documenting project activities to date and analyzing the effectiveness of project implementation, given current market indicators. Specific areas of inquiry include:

- Project coordination between the Oregon Office of Energy (OOE) and the state subcontractors in project design and execution
- Work plan development; that is, the appropriateness of the work plans set forth for 1998, 1999, and beyond for each of the subcontractor states, as well as for OOE itself
- Case study development, including the selection of demonstration projects for each of the states.

Data collection methods for this project were similar across the above analysis tasks, and relied heavily on document review and qualitative interviews. A total of 20 interviews were conducted with implementation staff, participating agencies, and commissioning providers.

### **1.3 EVALUATION RESULTS AND RECOMMENDATION**

#### ***Key Finding:***

Overall, the Commissioning in Public Buildings Project is moving forward efficiently in providing information and assistance to help make commissioning standard practice in the public sector. The most pressing issue for the implementation of the Commissioning in Public Buildings Project has, from its inception, been time.

- First, the time frame for the project was cut from the 5-year window originally proposed by OOE to the December 31, 2000 end date that the Alliance could commit to, equating to a three-year timeframe that made it difficult to find qualifying candidate buildings for new construction demonstration projects. Similarly, the time frame has made it difficult to conduct retro-commissioning projects, document the results, and adopt the

recommended measures so that a complete case study can be developed before the project end date.

- Delay between the time the original proposal from OOE and its subcontractors was accepted and the actual signing of contracts with the individual states reduced the duration of the project to just over 2 years for Washington and Idaho; less than 2 years for Montana.

*Recommendation::*

To reduce remaining uncertainty regarding the project time frame, time extensions to the OOE contract (and to the subcontracts) should be pursued and formalized as soon as the Alliance's own circumstances allow.

*Key Finding:*

Project communications between the Alliance, OOE, and the states have been effective. A series of team meetings over the past few months have been valuable in allowing a focus on critical project issues, particularly the re-definition of project goals and objectives. It was determined that differences exist in how the terms "policies" and "guidelines" are defined in different states, and that the individual state agencies working on the project have only limited influence over the extent to which commissioning is legally required. It was agreed that the goal of the project is to encourage public agencies to require commissioning as standard practice and to support them with the model policies and guidelines that help make such a requirement possible. Actual setting of policy, on the other hand, is outside the jurisdiction of OOE and the other implementing organizations.

*Recommendation::*

We recommend that agreed upon changes in the language regarding the development of policies and guidelines be finalized and incorporated into the language of the contracts between the Alliance and OOE, and between OOE and the individual states.

*Key Finding:*

As noted above, smaller meetings of key team members have been useful in advancing the project through the resolution of specific issues. While most members have continued to participate in the meetings of the Northwest Building Commissioning Collaborative, there has been less active discussion and resolution of project issues at these meetings, even though the Collaborative was designated as having project oversight responsibility in the initial contract between OOE and the Alliance. There has been no discussion – either at the team meetings or at Collaborative meetings – of a change in the Collaborative's role on the project.

*Recommendation::*

A determination should be made regarding the appropriate role of the Collaborative, both in maintaining an oversight role on the Commissioning in Public Buildings Projects and in serving as the best forum for the project team to stay abreast of developments in the overall commissioning market. If it is determined that an explicit oversight role for the Collaborative is no longer appropriate, the wording of the Alliance's contract with OOE should be modified.

*Key Finding:*

The basic structures of the work plans for all the states are, by design, similar and appear to be consistent with current project activities. There has not, however, been any formal updating of these plans – either in light of findings of the baseline market assessment or to reflect changes made in response to market conditions. While the work plans appear to be effectively addressing the commissioning market in their states, there are program elements identified in the baseline study (notably education and training for architects, design engineers, and contractors) that are considered effective by the market but that have not been explicitly included in any of the work plans.

*Recommendation::*

We recommend that the following specific elements be considered for inclusion in the work plans for the remainder of the project: 1) education and training for architects, 2) education and training for engineers, and 3) education and training for contractors, including both general contractors and mechanical/electrical contractors who will be directly affected by the commissioning process. It should be noted that these education and training components need not be targeted exclusively to these groups and need not be classroom-based. Training offered by BCA or the Association of State Energy Research Technology Transfer Institutions (ASERTI), for example, might be an effective way to reach architects and engineers. Similarly, dissemination of case studies to the above groups might serve to educate them about the benefits of commissioning. We recommend that the project team and the Alliance consider using such opportunities to reach the audience of architects, engineers, and contractors.

*Key Finding:*

While progress has been satisfactory in the identification and signing on of demonstration projects, there still appears to be uncertainty about exactly how the results of those projects will be analyzed and incorporated into case studies.

- All the work plans call for economic analysis, and SBW has designed an approach for OOE – which other states may also choose to implement. The details of the approach have not been discussed among team members, however, and it is not yet clear how non-energy benefits are to be incorporated into the analysis.
- In addition, consistency between the economic analyses of new building commissioning and of retro-commissioning does not appear to have been addressed.

- Similarly, there continue to be different visions of how the information in case studies should be presented (in terms of tone, style, technical content, and length) to serve the needs of a necessarily wide audience.

*Recommendation::*

We recommend that issues of both content and style be addressed and resolved as soon as possible, prior to development of the first case study.