

Special Report - Enhanced Baseline Executive Summary
**Public Building Commissioning in the
Pacific Northwest, No. 1**

prepared by
Quantum Consulting, Inc.
Phil Willems

report #99-032

July 1999



NORTHWEST ENERGY EFFICIENCY ALLIANCE
www.nwalliance.org

529 SW Third Avenue, Suite 600
Portland, Oregon 97204
telephone: 503.827.8416 • 800.411.0834
fax: 503.827.8437

*ENHANCED BASELINE ASSESSMENT OF PUBLIC BUILDING COMMISSIONING
IN THE PACIFIC NORTHWEST*

PREPARED FOR:

THE NORTHWEST ENERGY EFFICIENCY ALLIANCE

PREPARED BY:

QUANTUM CONSULTING, INC.

PRIMARY AUTHOR:

PHIL WILLEMS

JULY 1, 1999

*ENHANCED BASELINE ASSESSMENT OF PUBLIC BUILDING COMMISSIONING
IN THE PACIFIC NORTHWEST*

EXECUTIVE SUMMARY

This report presents the results of an enhanced baseline assessment prepared as part of the evaluation of the Northwest Energy Efficiency Alliance's (NEEA's) Commissioning in Public Buildings Project, which is seeking to transform the market so that commissioning becomes standard practice in the public sector. This enhanced baseline assessment builds upon the public sector results of the October 1998 baseline study by SBW Consulting, Inc., supplementing it with more detailed state and segment-level analysis and with qualitative data collected from other sources and through 33 interviews with project staff, building owner representatives, and commissioning providers. In addition to assessing the structure and status of the market, the enhanced baseline assessment was also designed to analyze barriers that exist to commissioning in the public sector and to evaluate various strategies that might be used to overcome those barriers and attain the goal of market transformation.

KEY FINDINGS

Results of the analysis indicate that there is a high degree of awareness of commissioning among the technically oriented decision makers in the public sector, but that the concept of commissioning as promoted by the Alliance's Commissioning in Public Buildings project is today neither universally practiced nor accepted. A number of public agencies are conducting commissioning activities, and most are planning to expand them. In addition, commissioning for new buildings is on its way to being institutionalized in key market segments. While this institutionalization is independent of the current project, it provides an opportunity to leverage project efforts toward the goal of sustainability.

Significant barriers to commissioning remain, however.

- The greatest barrier remains the concern regarding the added cost of commissioning relative to documented benefits – a barrier that can be addressed by a number of interventions that have been identified by survey respondents as effective.
- Another, related, barrier to true third-party commissioning is the tendency for many agencies to rely on in-house or other staff to perform any functional performance testing and commissioning activities, although there does appear to be a trend toward accepting the concept of an independent commissioning agent.
- Finally, in the course of conducting interviews, we still encountered some respondents who were either unfamiliar with the concept of commissioning or who believed that its benefits had been dramatically overstated. The continuing education and outreach component of the Alliance's Commissioning in Public Buildings Project will help ensure awareness among all key decision makers.

In addition to the above conclusions, there are conclusions that should *not* be drawn from this report. Specifically, it is important to recognize that the findings in this report, while useful in providing guidance to program activities, should not be used to eliminate specific strategies or approaches. For example, the combinations of barriers and interventions perceived to be “very important” by survey respondents do represent high-potential actions that can be taken through the project, but these are by no means the only strategies that can be effectively pursued. Moreover, as the level of awareness regarding commissioning evolves, perceptions of benefits and barriers and the appropriate intervention strategies are also likely to change.

It should also be noted that both the initial SBW baseline survey and subsequent interviews conducted for this report were focused almost exclusively on building owner representatives with a strong technical background and a predisposition to appreciate the benefits of commissioning. Their counterparts with capital budgeting responsibilities in the same organization may well have different perceptions regarding benefits of and barriers to building commissioning.

The findings in this report provide the basis for several recommendations regarding future data collection, analysis, and program implementation actions.

- As noted previously, much of our understanding of this market to date is based on data collected from individuals with operational responsibility within their agency. It will be important to supplement these findings with data collected from funding sources and individuals with responsibility for capital budgets within the agency.
- It appears that much of the progress achieved in the public sector to date has been the result of “bottom-up” activity initiated by individual champions for commissioning. It is important to supplement this bottom-up approach with a top-down approach that involves funding sources, political leaders, and even voters.
- To convert all the above stakeholders, as well as the full range of market actors, into proponents of commissioning will require an even greater emphasis on the non-energy benefits of commissioning. Highlighted non-energy benefits can include positive factors such as improved air quality, productivity, and comfort, as well as mitigation of negative factors, such as fewer contractor call-backs, reduced litigation, and a less contentious design and construction process.
- Project strategies, including case studies, should leverage the positive influence of non-energy benefits in encouraging building owners to make commissioning standard practice.