

The Building Commissioning Provider

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SUMMARY

There are many factors to consider when choosing a building commissioning provider. Below, a few factors are examined in detail.

DEFINING COMMISSIONING SERVICES

Commissioning is a systematic process of ensuring that all building systems perform interactively according to the contract documents, the design intent, and the building's operational needs. The industry consensus is evolving as to the nature and scope of building commissioning services, a relatively new concept in building design and construction. Since 1993, the National Conference on Building Commissioning has served as a forum for experts from private industry, utilities, and government to discuss the most recent trends and developments in the commissioning, operation, and maintenance of buildings. Detailed information about past and future conferences can be obtained by visiting www.peci.org/ncbc/.

In 1998 the Building Commissioning Association (BCA) was founded as the professional organization of building commissioning providers. BCA is dedicated to developing a common industry-wide understanding of what constitutes effective building commissioning. More information about BCA and a list of member commissioning providers are available at www.bcxa.org.

The BCA is developing a meaningful certification program that will define the body of knowledge and task requirements for the practice of building commissioning and recognize those individuals who meet those requirements. While no certification program guarantees professional competence, the Certified Commissioning Professional™ designation will assure that the person who holds the credential has met objective and defined industry standards.

SELECTING A COMMISSIONING PROVIDER

One of the most important commissioning decisions is choice of a provider. Many construction professionals—architects, engineers, and contractors—offer building commissioning services.

Each brings a different perspective and type of professional experience to the work, which should be considered vis-à-vis the complexity and nature of the project.

The emerging consensus is that the building commissioning provider should be an independent party directly accountable to the building owner, not a member of the design and construction team. An independent provider can focus objectively on building performance without regard to liability for design errors and omissions (for which design professionals are typically accountable) or to the goal of maximizing profit (a necessary priority for contractors).

PROVIDER SELECTION METHODS

Building commissioning providers commonly are selected through competitive-bid or qualification-based methods.

A request for qualifications (RFQ) invites the applicant firm to provide detailed information about previous, relevant commissioning experience—in sufficient detail to enable the client to judge whether the applicant firm understands the difference between commissioning and traditional equipment start-up.* It is desirable that the prospective provider's understanding of building commissioning be consistent with the definition described here. The applicant firm should also demonstrate its experience in preparing commissioning specifications for construction bid documents as well as substantial experience and knowledge of the relevant building systems.

A request for proposals (RFP) is sent to prospective providers who have the requisite qualifications. The RFP details exactly what services the construction project will require to be properly commissioned.

ARCHITECT OR ENGINEER AS COMMISSIONING PROVIDER

On large projects, the firms of the design professionals are likely to have qualified field

architects or engineers on staff who are responsible for construction observation services and are not directly involved in the design of the project. If the architecture or engineering firm has the necessary commissioning experience to include rigorous and detailed commissioning requirements in the project specifications, an owner might consider the design architect or engineer as the commissioning provider. One advantage is that the design team is already familiar with the design intent of the project. An owner considering this option should be mindful that commissioning is not included in a design professional's scope of basic services and that commissioning services will likely incur an additional fee.

Owners should require that all findings of the commissioning process be directly reported to both the design architect or engineer and to the owner as they occur, to minimize any potential conflict of interest created by the reporting of the commissioning provider only to the designer. Owners should be mindful that even if an independent third party is employed to provide building commissioning services, the design professionals may require additional compensation for the added coordination with the commissioning provider.

CONTRACTOR AS COMMISSIONING PROVIDER

It was once standard practice for many contractors to conduct performance tests and systematic checkout procedures for equipment they installed. As the profit margin on construction projects has narrowed and systems have become more complex, fewer contractors have continued to provide these services. Although contractors may have the knowledge and capability to test the equipment they install, they may not be skilled at testing or diagnosing system integration problems. In addition, some contend that it is difficult for contractors to objectively test and assess their own work, especially because repairing deficiencies found through commissioning may increase their costs.

For owners who elect to begin the commissioning process only during the construction phase, it may be appropriate to use the installing contractor as the commissioning provider when the following conditions apply:

- The building size is fewer than 20,000 square feet.
- The project specifications clearly detail the commissioning requirements.

- The owner has skilled staff that can review the contractor's commissioning work.

Owners who have a good relationship with a general contractor may elect to require that the general contractor hire a test engineer to commission the equipment.

Many general contractors welcome the opportunity to work with an independent commissioning provider whose objectivity may help to identify a greater number of problems that could result in future callbacks and to compel subcontractors to complete unfinished work or correct defects.

NOTES

"Start-up" refers to the process of starting up equipment to determine whether it operates. Commissioning goes beyond start-up to ensure that the performance of new equipment conforms with design expectations in all modes and conditions of operation.

RESOURCES

More Best Practices

The following AIA Best Practices provide additional information related to this topic:

- 16.01.02 Green Roofs
- 11.08.03 Building Commissioning: Analyzing Costs and Benefits
- 11.08.01 Building Commissioning and Maintenance

For More Information on This Topic

See also "Commissioning," by Larry Lord, FAIA, *The Architect's Handbook of Professional Practice*, 13th edition, Chapter 19, page 663.

See also the 14th edition of the *Handbook*, which can be ordered from the AIA Bookstore by calling 800-242-3837 (option 4) or by email at bookstore@aia.org.

Feedback

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Key Terms

- Building performance
- Sustainability
- Sustainable business practices
- Maintenance

