



# SERVICE PROVIDER GUIDE

## Guidelines for Selecting a Commissioning Provider

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### Intent

This guide will help you learn more about what commissioning is and help ensure you select a qualified commissioning provider that will compliment the project team.

### Background

Building commissioning is a systematic, quality assurance process that helps insure building systems provide performance in accordance with the design intent and satisfy the owner's operational needs. The goals of the project are clearly defined and documented at the beginning of the project and each individual is responsible for the level of quality the owner receives. Quality cannot be dictated or inspected, it can only be verified. Focus is shifted to the life of an item or work, not the first cost, improving quality and reducing the costs over the lifetime of that item.

LEED™ commissioning encompasses the following tasks:

- ❖ Engage a commissioning team that does not include individuals directly responsible for project design or construction management.
- ❖ Review the design intent and the basis of design documentation.
- ❖ Develop and utilize a commissioning plan.
- ❖ Complete independent design review during design development stage.
- ❖ Incorporate commissioning requirements into the construction documents.
- ❖ Complete independent design review during construction documents stage.
- ❖ Complete independent review of contractor submittals.
- ❖ Verify installation, functional performance, training and operation and maintenance documentation.
- ❖ Provide owner with one complete manual that contains information for re-commissioning procedures and requirements.
- ❖ Complete a commissioning report.
- ❖ Have a contract in place to review building operation with O&M staff, including a plan for resolution of outstanding commissioning-related issues within one year after construction completion date.

The Commissioning Authority (CxA) is typically a 3<sup>rd</sup> party advocate for the owner, and LEED™ requires the CxA for the project to be independent of the design team. The CxA should focus on the process and have a strong background encompassing design, construction, operation, and quality process control. A qualified CxA will augment the architect, engineers, and construction team. The CxA will verify that all aspects of the design meet the requirements of the design intent and basis of design throughout the entire process. The CxA also needs to document all changes, issues, and disputes that arise throughout a project design, construction, and operation phases. Issues found early in the design can be changed or resolved much easier and less costly than when discovered during construction. The commissioning report keeps a record of all changes and issues logged during the project, and can help the owner streamline their procurement process on upcoming projects. LEED™ does not require Total Building Commissioning, but this process may be more applicable for some owners.

### Questions to Ask

When selecting a Commissioning Authority, review the general questions for selecting a green design professional. Then review the 10 questions specific to commissioning below. This guide will help you complete a more thorough selection process.

**Q1: How much experience does the firm have with commissioning?**

The Commissioning Authority should have at least 5 years experience in Commissioning work, and should have successfully completed projects of similar size and scope. Experience should include design review, submittal review, and other pre-construction activities, as well as construction and post-occupancy activities. Experience that is limited to “start-up” phase commissioning should not be acceptable.

**Q2: What commissioning standard does the firm use?**

The Commissioning Authority should have an in-depth knowledge of industry standards and models for commissioning. ASHRAE Guideline 1-1996, The HVAC Commissioning Process is a standard recognized across the industry. It is listed as a resource in LEED™-NC 2.1. In fall 2004, ASHRAE Guideline 0, Total Building Commissioning will be released.

**Q3: What is the firm’s experience with indoor air quality (IAQ)?**

The firm should demonstrate their knowledge of IAQ issues related to HVAC design and operations, as well as the control of pollutants during construction.

**Q4: What is the firm’s experience with test, adjust, and balance procedures (TAB)?**

The firm should demonstrate their knowledge of TAB for both air and water systems. The firm should be familiar with industry recognized standards such as AABC or NEBB and the procedures or methods they require.

**Q5: What is the firm’s experience with field operation and troubleshooting of HVAC systems and energy management control systems (EMCS)?**

The firm should have a minimum of 5 years experience in field operation. The firm should demonstrate their knowledge and experience in diagnosing problems related to HVAC, controls, or EMCS system functions.

**Q6: How will the firm develop a team approach to the process?**

The firm should demonstrate strategies employed to get buy-in and support from the owner and design and construction teams, and encourage teamwork throughout the process.

**Q7: How will the firm verify the performance of the systems being commissioned?**

Ask for examples of functional performance tests for review prior to selecting the Commissioning Authority. These test procedures should be flexible enough to be tailored to a specific project. The test procedures should demonstrate how they would verify compliance with the design intent.

**Q8: Who will be the person(s) performing the commissioning tasks?**

Ask to get the personal resume for all people who will be involved in the commissioning as well as description of each person’s core skills and value added to the commissioning process. Meet these people if you will have direct communications with them during the project implementation process.

**Q9: What is the firm’s project management approach (to insure quality of the commissioning process)?**

Be sure you are comfortable with the process used by the firm to ensure quality services and manage risk.

**Q10: Why should you hire this firm to do your project?**

Have them give you their reasons for why they think you should hire them. This will let you know if they understand the needs of your project and how their experience meets those needs. Answering this question may bring to light additional direct and indirect benefits they will bring to the project and help make the final decision.