



What's Up with LEED-EB and LEED-NC?

My original title was:-
EB & NC; Marriage or Divorce.

What's Up with LEED-EB and LEED-NC?

Energy & Atmosphere

Prerequisite 1

Required

Intent: Reduce the energy and greenhouse gas emissions and provide an energy-efficient and healthy building for occupants.

Requirements:

- 1. The building's energy use shall be measured and reported as follows:
 - a. For buildings with a metered energy system, the energy use shall be reported as follows:
 - 1. Total energy use (kWh) for the building.
 - 2. Total energy use (kWh) for the building's energy system.
 - 3. Total energy use (kWh) for the building's energy system, excluding the energy used for the building's energy system.
 - 4. Total energy use (kWh) for the building's energy system, excluding the energy used for the building's energy system.
 - b. For buildings with an un-metered energy system, the energy use shall be reported as follows:
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What's Up with LEED-EB and LEED-NC?

NC is a 'snapshot' in time.

EB is a continuous living operation.

What's Up with LEED-EB and LEED-NC?

NC.....EA Prerequisite 1 – Intent

Fundamental Commissioning of the Building Energy Systems

Verify that the building's energy related systems...

.....are installed, calibrated and perform...

...according to the owner's project requirements, basis of design, and construction documents.

What's Up with LEED-EB and LEED-NC?

NC.....4. Develop and implement a Commissioning Plan.

- I. Commissioning Program Overview
 - Goals and objectives
 - General project information
 - Systems to be commissioned
- II. Commissioning Team
 - Team members, roles and responsibilities
 - Communication protocol, coordination, meetings and management
- III. Description of Commissioning Process Activities
 - Documenting the Owner's Project Requirements
 - Preparing the Basis of Design
 - Developing systems functional test procedures
 - Verifying systems performance
 - Reporting deficiencies and the resolution process
 - Accepting the building systems
 - Documenting the commissioning review process
 - Reviewing contractor submittals
 - Developing the systems manual
 - Verifying the training of operations personnel
 - **Reviewing building operation after final acceptance**

What's Up with LEED-EB and LEED-NC?

NC.....EA Credit 3 - Requirements

Develop a systems manual that provides future operating staff the information needed to understand and optimally operate the commissioned systems.

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NC.....EA Credit 3 - Requirements

Assure the involvement by the CxA in reviewing building operation within 10 months after substantial completion with O&M staff and occupants. Include a plan for resolution of outstanding commissioning related issues.

What's Up with LEED-EB and LEED-NC?

EB.....EA Prerequisite 1 – Existing Building Commissioning.

Intent; Verify that fundamental building systems and assemblies are performing as intended to meet current needs and sustainability requirements.

What's Up with LEED-EB and LEED-NC?

EB.....EA Prerequisite 1 – Existing Building Commissioning.

Requirements;

- 1. Develop a comprehensive building ops plan.....
- 2. Prepare a commissioning plan.....
- 3. Implement ..plan documenting all the results.
- 4. Repair or upgrade all systems.....
- 5. Re-test all building components....

What's Up with LEED-EB and LEED-NC?

OR

What's Up with LEED-EB and LEED-NC?

EB

Submit a **1-5 year plan** for continuous improvement of these aspects of commissioning requirements.....

What's Up with LEED-EB and LEED-NC?

EB.....Where do you start?

1. **Benchmark/ Baseline Study**
2. **Main metering/Sub metering**
3. **Plan of 'attack'**
 - a. By square footage
 - b. Low hanging fruit
 - c. By system

What's Up with LEED-EB and LEED-NC?



Facility HVAC Assessment, Prepared by KEEN ENGINEERING

What's Up with LEED-EB and LEED-NC?

"Rules" for EB Retro Commissioning.

1. KEEP IT SIMPLE
2. BASELINE
3. 'BATTLE' PLAN
4. ACHIEVE THE TARGETS SET
 - (a) Tied to the appraisal process
 - (b) Reduction of operating costs

What's Up with LEED-EB and LEED-NC?

What's Up with LEED-EB and LEED-NC?

NOTHING


