



# LEED 2009 for Existing Buildings: Operations and Maintenance

## EA CREDIT 2.1: EXISTING BUILDING COMMISSIONING INVESTIGATION AND ANALYSIS

All fields and uploads are required unless otherwise noted.

### ALL OPTIONS

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Performance period start:

Performance period end:

Retrocommissioning or ASHRAE Level II investigation and analysis initiation date:

Retrocommissioning or ASHRAE Level II investigation and analysis report completion date:

For the investigation and analysis conducted for EA Credit 2.1:

- ☐ The analysis reflects the impact of each practical measure investigated on energy operating costs, maintenance costs (both preventive and corrective), and any other relevant non-energy operating costs.
- ☐ All energy costs were assessed using actual energy rates as charged by the local energy supplier, including all applicable costs for energy consumption and peak demand.

Select one of the following:

- ☐ Option 1. Commissioning Process
- ☐ Option 2. ASHRAE Level II Energy Audit

### OPTION 1. COMMISSIONING PROCESS

**Upload EAc2.1-1.** Provide the retrocommissioning, recommissioning, or ongoing commissioning plan for the major energy-using systems for the project building and associated grounds. Pricing and/or financial information may be omitted or redacted from the uploaded plan.

The plan includes:

- ☐ A summary of general building information.
- ☐ The goal of the commissioning effort.
- ☐ The commissioning scope.
- ☐ The commissioning schedule.
- ☐ Information regarding project management tools that allow access to relevant building documents (plans, utility bills, etc)..
- ☐ Identification of the members of the commissioning team and their responsibilities.

**Upload EAc2.1-2.** Provide a report or similar documentation summarizing the findings after completion of the investigation and analysis phase of the commissioning plan.

The report must include:

- ☐ A summary of the energy use breakdown for the project building and associated grounds associated with each major system and/or end-use.
- ☐ A table or similar documentation listing any operating problems affecting either occupant comfort or building energy use, and proposed or potential operational changes that will solve them.
- ☐ A table or similar documentation listing capital improvements expected to provide ongoing operational cost savings and the corresponding economic feasibility (payback time, rate of return, or cost/benefit ratio) of each improvement.

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## OPTION 2. ASHRAE LEVEL II ENERGY AUDIT

Anticipated Application Date: Date on which the project team expects to first submit LEED documentation for preliminary review:

*Note: Must correspond to PI Form 4. Schedule and Overview Documents*

- ☐ The project team conducted an ASHRAE Level II Analysis (and all constituent parts) as described on Pages 7-9 of the ASHRAE document titled 'Procedures for Commercial Building Energy Audits.' The audit plan and scope builds on and is fully consistent with the system and operational documentation provided for EA Prerequisite 1.

**Upload EAc2.1-3.** Provide a report or similar documentation summarizing the findings of the Level II Analysis.

The report must include:

- ☐ A summary of the energy use breakdown for the project building and associated grounds associated with each major system and/or end-use. The total annual operating costs of each listed system must be included in the internal report, but providing the cost data to USGBC is optional.
- ☐ A list of capital improvement measures considered but felt to be impractical, with brief reasons for rejecting each.

- ☐ A list of capital improvement measures deemed practical, with the following detail provided for each item on the list:
- a description of the existing situation and why it contributes to excess energy consumption;
  - an outline of the improvement measure, including its affect on occupant health, comfort, and safety;
  - a description of any repairs required for the measure to be effective;
  - the effect on occupant service capabilities, such as ventilation for late occupancy or year-round cooling;
  - an outline of the effect on operating and maintenance procedures;
  - the expected life of new equipment, and the effect on the life of existing equipment;
  - the financial attractiveness (payback time, rate of return, or cost/benefit ratio).

Describe any recommended measurement and verification method(s) that will be required to determine the actual effectiveness of the recommended measures.

## ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of credit compliance with the submittal requirements outlined in this form.

### SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

**Upload EAc2.1-SC.** Provide any additional documentation that supports the claim to special circumstances. (Optional)

- ☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the credit intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

**Upload EAc2.1-ACP.** Provide any additional documents that support the alternative compliance path approach. (Optional)

SUMMARY

EA Credit 2.1: Existing Building Commissioning - Investigation and Analysis  
Points Documented: