

Zero Carbon

READY AUDIT

Zero Carbon Ready is the first part of the two-step certification process. The Ready Audit is performed by a third-party and takes place following the completion of construction.

Documentation regarding both Embodied and Operational Carbon requirements must be submitted. Following this audit, the Zero Carbon Ready designation may be used by project teams to highlight their progress towards Zero Carbon Certification.

OPERATIONAL CARBON DOCUMENTATION

Energy Narrative + Schematic Drawing

A narrative drafted by the energy designers or engineers, including a basic schematic of the energy system, and describing the energy systems, is required and must include:

- Descriptions of how energy reductions will be achieved.
- Energy use of a typical building with comparable climate, size, use and occupancy.
- Summary reports from energy models or calculations to support claimed reductions.
- Building's anticipated needs and operational issues.
- Energy production design strategies and schematics.
- A description of any (or the lack of) combustion in or connected to the project.
- Description of meter locations and/or electric drawings.
- All subsystems of the energy-using and energy-producing systems, including all areas listed in the Energy Production and Demand Table.
- Lessons learned from design and construction.

Renewable Energy Generation Information

- Contracts proving durable ownership.
- Photographs and schematics.

EMBODIED CARBON DOCUMENTATION

Embodied Carbon Reduction Narrative

- A one-to-two-page narrative describing actions taken to reduce project embodied carbon, including primary material reduction strategies and the phase(s) in which

the reductions occurred.

- List of interior materials selected, comparing their embodied carbon value to the industry baseline. Due to the ever-evolving nature of online tools, the results of any assessments must be exported with a timestamp.

Embodied Carbon Data

The input assumptions and results from the selected life cycle assessment tool, showing:

- Primary materials project embodied carbon baseline.
- Primary materials project embodied carbon after reductions.
- Embodied carbon of materials + construction (A1-A5) of primary and interior materials.
- Materials documentation supporting reductions in primary materials claimed in narrative, such as:
 - Basis of Design statements.
 - LCA hot spot analyses.
 - Material specifications.
 - Procurement requests or letters.

Carbon Offset Documentation

Documentation of the project's embodied carbon offset, including either:

- Receipt from an approved carbon offset program as proof of purchase, and/or
- Calculations showing how carbon-sequestering materials and/or third-party verified sustainably harvested materials sufficiently account for the project's embodied carbon of sequestered carbon value.

FINAL AUDIT

The Final Audit is the second and final part of the certification process which takes place following a 12-month performance period with continuous occupancy. This audit includes the submission of documentation pertaining to the Operational Carbon impacts of the performance period. This includes information validating net-zero energy was achieved through the submission of energy consumption, production, and procurement data when applicable. Note that no Embodied Carbon data needs to be submitted at the Final Audit.

After this third-party Final Audit is complete, Zero Carbon Certification is awarded.

OPERATIONAL CARBON DOCUMENTATION

Energy Use Data

A brief narrative (one page) regarding the project's energy use over the performance period, including:

- Information and calculations confirming that the energy targets were met.
- Lessons learned from building operations.

Twelve months of performance data in one of the following formats is required:

- Copies of utility bills for a continuous 12-month period, beginning with the designated start date of the performance period.
- Billing data spreadsheet from utility as verification that data is for the project.

If utility data is not available, metered data from a private system such as a building management system may be accepted if it also includes:

- A letter from a project engineer or consultant on letterhead verifying that the provided data is correct.

If the project does not have energy bills (due to no connection to a utility or to being sub-metered from a larger-scale utility meter), also include:

- A letter, signed and stamped by the energy or mechanical engineer and cosigned by the project owner, substantiating that this is the case.

Renewable Energy Generation Information

- Provide generation data into [Energy Production and Demand Table](#) based on 12 months of performance data.
- Documentation proving system's production, including documents such as:
 - Meter data.

- Utility bills.
- Allocation of energy generated when part of larger system.

Photographs

- Photographs of the energy systems, particularly portions that may be hidden from view at the time of the Ready audit, or if they are not easily visible at completion of construction.
- Photographs of any critical and hidden materials for embodied carbon reductions that are not easily visible at completion of construction.

EMBODIED CARBON DOCUMENTATION

No embodied carbon documentation is required for the Final Audit.

Zero Energy

Ready Audit

BASIC DOCUMENTATION

Energy Narrative + Schematic Drawing

A narrative that is written by the energy designers or engineers, includes a basic schematic of the energy system, and describes the energy system, including:

- Descriptions of how energy reductions and zero energy will be achieved.
- Energy use of a typical building with comparable climate, size, use and occupancy.
- Summary reports from energy models or calculations to support claimed energy reductions.
- Building's anticipated needs and operational issues.
- Energy production design strategies and schematics.
- A description of any (or the lack of) combustion in or connected to the project.
- Electric drawings or description of meter locations.
- All subsystems of the energy-using and energy-producing systems, including all areas listed in the Energy Production and Demand Table.
- Lessons learned.

I07-2 Energy Use Data

Twelve months of performance data in one of the following formats is required:

- Copies of utility bills for a continuous 12-month period, beginning with the designated start date of the performance period.
- Billing data spreadsheet from utility as verification that data is for the project. · If utility data is not available, metered data from private system such as a building management system may be accepted if it is accompanied by a letter from project engineer or consultant on their letterhead verifying that the provided data is correct.

If the project does not have energy bills (due to no connection to a utility or to being sub-metered from a larger-scale utility meter), also include:

- A letter, signed and stamped by the energy or mechanical engineer and cosigned by the project owner, substantiating that this is the case.

I07-3 Energy Tracking Tables

- Completed **Energy Production and Demand Table** based on 12 months of performance data.
- Completed **Energy Sub-metering Tracking Table**.

I07-7 Photographs

- Photographs of the energy systems, particularly portions that will be hidden from view at the time of audit due to completion of construction.
- Photographs of any critical and hidden materials for embodied carbon reductions.

Sub-metering Documentation

All projects (except single-family residential) must state sub-metering strategies and complete the **Energy Sub-Metering Tracking Table** based on 12-month performance period.

Single-family residential project teams must provide a narrative stating methods to understand and/or troubleshoot energy use.