



AN INNOVATION OF



IFC

**International
Finance Corporation**
World Bank Group

Chapter 5

EDGE Certification Protocol

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1. About this Document

1.1. Scope of this document

This document, the *Chapter 5 EDGE Certification Protocol*, is designed to set out the process which must be followed in order for an EDGE Certificate to be issued. It sets out the roles and responsibilities for the EDGE Client with respect to initial registration, self-assessment and selecting an EDGE Auditor; the roles and responsibilities of the EDGE Auditors in undertaking a Design Audit and a Site Audit; and finally the roles and responsibilities of the EO&M Team in reviewing and approving the EDGE Auditor's Recommendations in order to issue either a Preliminary (design stage) Certificate or a final EDGE (post construction stage) Certificate. For questions regarding the use of the EDGE logo and brand please refer to the two documents: "EDGE Branding and Media Guidelines"; and "EDGE Brand Assets Document" <https://www.edgebuildings.com/contact-us/brand-assets/>.



Figure 1 Components of the Certification Protocol

1.2. Organization of the EDGE Protocols

The *Chapter 1 EDGE Governance Structure Overview* provides a comprehensive overview of the EDGE Protocols, and therefore should be read first.

For the potential EDGE Client, the *Chapter 5 EDGE Certification Protocol* is the most important document of the EDGE Protocols to read and understand, since it is the only document where their roles and responsibilities are set out.

This document should be read in conjunction with the *Chapter 2 EDGE Approval Protocol for Local Partners*, *Chapter 3 EDGE Approval Protocol for Global Partners*, and *Chapter 4 EDGE Approval Protocol for Auditors*, since the *Chapter 5 EDGE Certification Protocol* is a sub-set of activities that each of these parties undertake.

Readers are encouraged to refer to the *EDGE Glossary* to help them understand the key terms which define the EDGE Protocols, which are identified in the text through capitalized nouns (e.g., Local Market).

It is also important that parties involved in the delivery of the EDGE Protocols understand the process for periodically updating the EDGE Protocol documents, and their responsibilities with respect to implementing these changes; this is set out in the *Chapter 7 EDGE Update Protocol*.

This *Chapter 5 EDGE Certification Protocol* document, along with the remainder of the EDGE Protocols, is designed to set the norm for the EDGE Protocols, and therefore sets out in detail requirements to ensure that the EDGE Protocols are implemented consistently around the world. The EDGE Protocols are the base reference and underpin all EDGE training materials and guidance documents.

1.3. Roles and Responsibilities

The operation of the EDGE Certification Programs in Local Markets is contingent on a number of organizations working together to maintain the system and deliver services to Clients. The roles and responsibilities of these organizations, and their interrelationship is provided in an overview in the *Chapter 1 EDGE Governance Structure Overview*, and detailed through the remaining EDGE Protocol documents.

The *Chapter 5 EDGE Certification Protocol* is followed both in the case where the EDGE Certification Program is being operated by a Local Partner, and in the case where it is being operated by a Global Partner.

The first step in the process is for the potential EDGE Client to save their project in the EDGE Software online, which also serves as an initial check to make sure it is one of the building types within the scope of the EDGE Program operating in that Local Market. At this point, the building project is issued an EDGE ID Code, which remains assigned to the project throughout the process.

It is then the responsibility of the EDGE Client to make sure the building project design meets the EDGE Standard at EDGE or EDGE Advanced level, and they can do this at the planning stage by using the EDGE Software to model different scenarios with a variety of measures if they choose. Once they have finalized their design, the details of the energy savings, water savings and embodied energy of material savings are calculated by the EDGE Software. Together, the output of the EDGE Software and the supporting documentary evidence are referred to as the Self-Assessment.

Once the EDGE Client has completed the Self-Assessment, they register the project with the relevant Partner. Next, the Client selects an Auditor. Clients are responsible for paying EDGE Certification Fees to the Partner, and appointing an approved EDGE Auditor. The potential EDGE Client may separately negotiate fees with the Auditor. Clients are also responsible for the factual accuracy of the certification application.

Once appointed, the EDGE Auditor is responsible for undertaking a Design Audit, which includes a desk review of the Self-Assessment and accompanying documentation. If the Auditor is satisfied that the building project design meets the EDGE Standard at EDGE or EDGE Advanced level, they make a Recommendation to the Partner for Preliminary Certification. The Partner then checks to make sure that the Design Audit is complete, and if so, issues a Preliminary Certificate for the building project. Subsequently, after the building project has been completed, an EDGE Auditor must undertake a Site Audit to make sure that the completed building includes the EDGE Measures that were set out in the design. If the Auditor is satisfied that the completed building meets the EDGE Standard at EDGE or EDGE Advanced level, they make a Recommendation to the Partner for EDGE Certification. The Partner then checks to make sure that the Site Audit is complete, and if so, issues an EDGE Certificate for the building project.

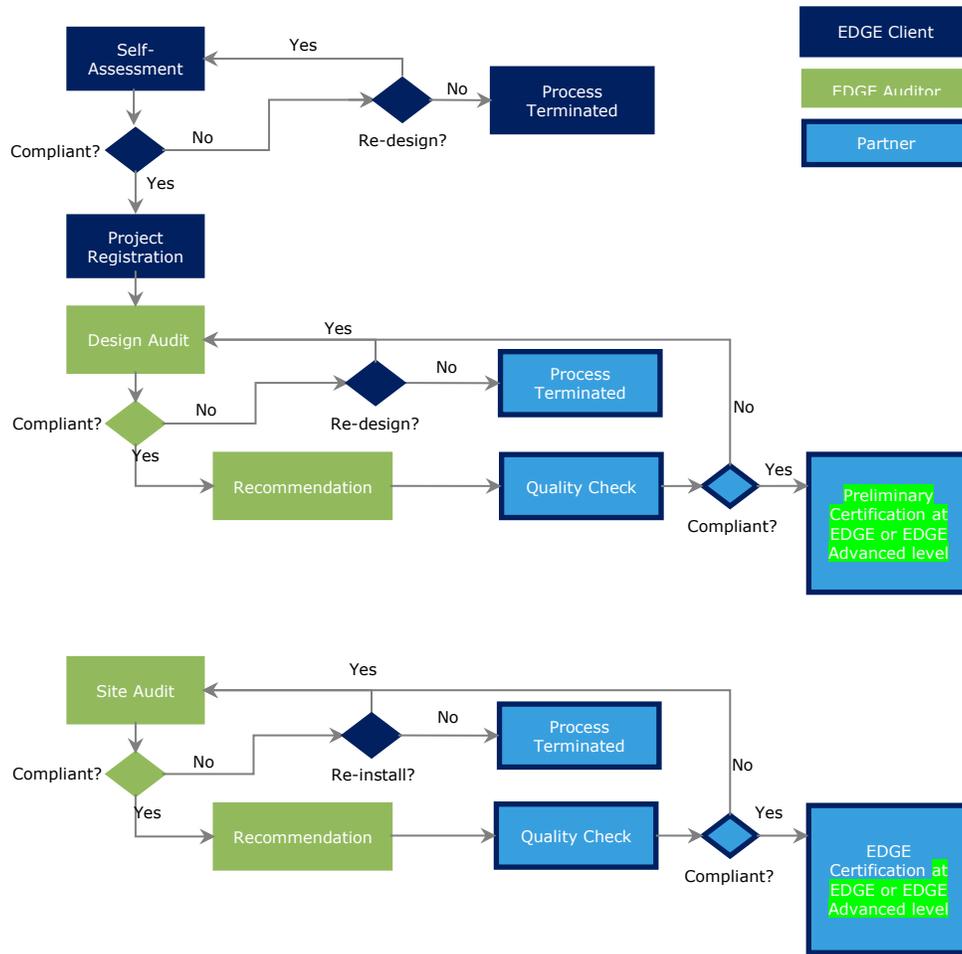


Figure 2 Processes followed for EDGE / EDGE Advanced Certification

2. Purpose of the Certification Protocol

- 2.1. The purpose of the *Chapter 5 EDGE Certification Protocol* is to provide assurance that the EDGE Client's building projects meet EDGE Standard at EDGE or EDGE Advanced level.
- 2.2. The scope of the *Chapter 5 EDGE Certification Protocol* is confirming that the building project design includes measures that should achieve the EDGE Standard at EDGE or EDGE Advanced level confirming that these elements of building project design have been incorporated in the finished build.
- 2.3. EDGE Certification does not include efficacy testing of the measures post-build. However EDGE certified buildings should accept to disclose their monthly energy and water usage to IFC on an annual basis. IFC may publish this information unless it is requested by the EDGE client otherwise, in which case data can be used in aggregate without identification of an individual project's data.
- 2.4. The EDGE Certification process includes a Self-Assessment, to assist the EDGE Client in the design of the building, a third party Design Audit and Site Audit resulting in a Recommendation, undertaken by an approved EDGE Auditor to ensure the independence of the finding, which is checked by the relevant Partner¹, i.e., either the Local Partner or the Global Partner, who has been granted the authority for issuing the EDGE Certificate.

3. EDGE Client Self-Assessment

- 3.1. The EDGE Client shall use the EDGE Software to calculate a building project's expected efficiency savings compared to the Base Case, and determine whether the design achieves EDGE Standard at EDGE or EDGE Advanced level.
 - 3.1.1. The building project details shall be added to the EDGE Software. A full description of the required data is available in the User Guide.
 - 3.1.2. The EDGE Client shall use the information available to improve the accuracy of the Self-Assessment. This may include, but is not limited to the following:
 - i) Thermal performance of the building fabric.
 - ii) Efficiency of building services.
 - iii) Proportion of onsite renewable energy.
 - iv) Flow rates of water fittings.
 - v) Water treatment and recycling options.
 - vi) Materials used in the project.
- 3.2. The EDGE Client shall internally review the EDGE Measures with their design team.
 - 3.2.1. If the EDGE Software shows that the building design has not already been optimized to achieve the EDGE Standard at EDGE or EDGE Advanced level, the design team may review options to improve performance.
- 3.3. The EDGE Client may work with third party consultants (for example, EDGE Experts) to complete the Self-Assessment.
- 3.4. Once the EDGE Client's building project design is Self-Assessed to meet the EDGE Standard at EDGE or EDGE Advanced level, the Client may apply for the relevant certification.

¹ Information about which Partner is operating in a region can be found at www.ifc.org/edge.

4. EDGE Project Registration

- 4.1. A potential EDGE Client shall register a prospective EDGE building project with the relevant Partner, to ensure that the building project is within the scope of EDGE in terms of the location and intended use. If the project is within the scope of EDGE, the Partner may levy a registration fee.
- 4.2. The potential EDGE Client shall provide the following data to the relevant Partner about the building project:
 - i) Building type – office, hotel, home, etc.
 - ii) Project name
 - iii) Project company name
 - iv) Project contact details including name, email, phone number and address
 - v) Project address
 - vi) Project country
 - vii) Expected date for submission of application for Preliminary Certification
 - viii) Expected date for submission of application for post construction EDGE Certification (if known)
 - ix) Appointed Auditor (where available)
- 4.3. If the proposed building project is within the scope of an existing EDGE software version, the project details shall be entered into the EDGE Project Database.
- 4.4. Where the building falls outside the scope of the existing EDGE Software version, the potential EDGE Client shall be notified by the relevant Partner of the reason that the EDGE Certification is not applicable to the building project.
- 4.5. Once the Client has created a project in the EDGE Software the software will generate a unique project ID number.
- 4.6. Refer to Chapter 7, EDGE System Update Protocol, for guidance on how to work with EDGE Software upgrades after a project has been registered and before it has been EDGE Certified post construction.

5. EDGE Certification

- 5.1. In order to initiate the process, the EDGE Client shall apply for certification, and pay a non-refundable Certification Fee to the relevant Partner, i.e. either the Local Partner or the Global Partner, according to the fees set out in the legal agreement with Partner. This fee does not include EDGE Auditor services.
- 5.2. The EDGE Client shall appoint an approved EDGE Auditor, including negotiating the auditing fees, which the EDGE Client is responsible for paying directly to the EDGE Auditor.
 - 5.2.1. The EDGE Client may contract the EDGE Auditor separately for the Design Audit and the Site Audit.
 - 5.2.2. It is recommended that the EDGE Client use the same EDGE Auditor for both the Design Audit and the Site Audit; however this is not a requirement.

Preliminary Certification (design stage)

- 5.3. The EDGE Auditor shall verify through a Design Audit that the building project design meets the EDGE Standard at EDGE or EDGE Advanced level. This must be undertaken before the building project is complete. If a building is complete the Client should proceed directly to the EDGE Certification.

- 5.3.1. The EDGE Client shall provide full access to the Self-Assessment and all supporting documentation prepared by the EDGE Client.
- 5.3.2. Based on the Self-Assessment done by the EDGE Client, the EDGE Client shall send a list of all documentary evidence that will be required by the EDGE Auditor to verify that the building project design meets the EDGE Standard at EDGE or EDGE Advanced level.
- 5.3.3. The EDGE Auditor shall review the Self-Assessment and any supporting documentation provided promptly, and make a judgment on whether or not the EDGE Client has correctly interpreted the requirements of the EDGE Standard at EDGE or EDGE Advanced level, as set out in the User Guide.
- 5.3.4. If the EDGE Auditor finds the documentary evidence to be incomplete or if any of the requirements have been misinterpreted, then they shall prepare a summary report for the EDGE Client which clearly indicates the further information required to demonstrate compliance with the EDGE Measures claimed and design details provided.
- 5.3.5. The EDGE Client shall be given at least one chance to resubmit outstanding information or correct any errors made in the first application. Further iterations may be possible, depending on the agreement between the EDGE Client and the EDGE Auditor, which would likely include payment of additional auditor and certification fees by the EDGE Client.
- 5.3.6. The Design Audit does not require a site visit by the EDGE Auditor.
- 5.4. The Preliminary Certificate will expire and no longer be valid 12 months after the project is practically complete or 36 months after issuance, whichever comes first, unless an exception is granted in writing by the EDGE Partner. Any such exception should be reported by the relevant Partner to the EO&M Team.
- 5.5. If the building project design does not meet the EDGE Standard, this status shall be recorded in the EDGE Project Database, and the certification process shall be terminated.
- 5.6. If the EDGE Auditor determines the building project design meets or exceeds the EDGE Standard, they shall submit a written assessment and Recommendation for Preliminary Certification at EDGE or EDGE Advanced level to the relevant Partner.
- 5.7. The EDGE Auditor's written assessment and Recommendation shall be subject to an independent quality check by the relevant Partner, to ensure it is complete and prepared as per the process set out in this document, the *Chapter 5 EDGE Certification Protocol*.
- 5.8. The Preliminary Certificate shall be issued promptly by the relevant Partner, i.e., either a Local Partner or a Global Partner, and this status shall be recorded promptly in the EDGE Project Database.
 - 5.8.1. The Preliminary Certificate shall include as a schedule or annex all the EDGE Measures included in the building project design, which are taken directly from the EDGE Software as submitted by the EDGE Auditor, as verified by the Partner.
 - 5.8.2. The EDGE Client may publicly refer to the building project design as meeting EDGE Standard at EDGE or EDGE Advanced level for design after the Preliminary Certificate has been issued, for example in marketing materials, however they shall not refer to the building project as EDGE Certified.

EDGE Certification (post-construction stage)

- 5.9. When the building project is complete, the EDGE Auditor shall verify through a Site Audit that the building project meets the EDGE Standard at EDGE or EDGE Advanced level, in line with documentation and design details used

to confirm compliance in the Design Audit. The Site Audit must take place within 12 months of the project practical completion date.

- 5.9.1. The EDGE Client shall provide full access to the building project site and all supporting documentation.
 - 5.9.2. The EDGE Auditor shall verify that the EDGE Measures claimed are physically present in the completed building project.
 - 5.9.3. If amendments to the building project design have been made, the EDGE Client shall provide an updated Self-Assessment, which the EDGE Auditor shall verify as per the project design requirements set out above in Section 5.1 (including 5.1.1 through 5.1.2).
 - 5.9.4. The EDGE Client shall be given at least one opportunity to amend the Self-Assessment based on any non-compliance issues identified by the EDGE Auditor during the site visit. A subsequent Site Audit can be arranged depending on the agreement between the EDGE Client and the EDGE Auditor, but is not required.
- 5.10. If the building project does not meet the EDGE Standard at EDGE or EDGE Advanced level, this status shall be recorded in the EDGE Project Database.
- 5.11. If the EDGE Auditor determines the building project meets or exceeds the EDGE Standard at EDGE or EDGE Advanced level, they shall submit a written assessment and Recommendation for the relevant EDGE Certification to the relevant Partner i.e., either a Local Partner or a Global Partner.
- 5.12. The EDGE Auditor's written assessment and Recommendation shall be subject to an independent quality check by the Partner, i.e., either a Local Partner or a Global Partner, to ensure it is complete and prepared as per the process set out in this document, the *Chapter 5 EDGE Certification Protocol*.
- 5.13. The EDGE Certificate shall be issued by the relevant Partner. i.e., either a Local Partner or a Global Partner, and they shall record this status in the EDGE Project Database.
- 5.13.1. The EDGE Certificate shall include as a schedule or annex all the EDGE Measures included in the building project, which are taken directly from the EDGE Software as submitted by the EDGE Auditor, as verified by the Partner
- 5.14. The EDGE Client may publicly refer to the building project as EDGE Certified after the EDGE Certificate has been issued, for example in marketing materials.

EDGE Zero Carbon Certification

- 5.15. To obtain EDGE Zero Carbon certification for a project for the first time, the EDGE client must provide the information below:
- 5.15.1. Proof of EDGE Advanced certification or EDGE Certification plus 40 percent energy savings.
 - 5.15.2. The start and end dates for the twelve month period for which the project is providing operational data to achieve EDGE Zero Carbon certification.
 - 5.15.3. A signed declaration by the project owner or their authorized representative that the project has been occupied at 75 percent of expected occupancy during the twelve-month period.
 - 5.15.4. Building plans showing the total GIA (Gross Internal Area) – broken down by air-conditioned and un-air-conditioned space – of the building. The GIA does not include balconies and terraces, exterior areas or site area. If the project has achieved EDGE-certified status, then the project's PDF report showing the GIA and the project file number will be sufficient for verification.
 - 5.15.5. Energy bills and meter readings for the twelve-month period for every source of energy used in the building. This must include:

- All fuel used on site
- On-site electricity produced
- Off-site electricity purchased

The bills and meters together must show the total:

- Quantity of energy consumed
- Type of energy consumed

Types of energy include, but are not limited to:

- Fuels
 - Coal
 - Diesel
 - Natural gas
 - Liquefied petroleum gas (LPG)
 - Solar thermal
- Electricity
 - Fossil fuel derived, or of unspecified derivation
 - Derived from solar, wind, hydro, or other unspecified renewable energy sources

Energy bills and metering data must cover the specified twelve-month period. For energy produced on site, documentation may include readings from a meter, for example, the inverter in a solar system. If the system does not include a meter, estimated energy production based on the specifications of the system may be used.

5.15.6. If carbon offsets are used, the client must obtain (a) a certificate from the carbon offset provider that the offset has been “retired” and (b) proof that the offset complies with one of the following standards:

- Climate SEED
- Community Climate Biodiversity Standard (CCBA)
- Gold Standard
- ISO 14064-2
- UNFCCC Clean Development Mechanism (CDM)
- Verified Carbon Standard (VCS)

5.15.7. The Zero Carbon Application shall be submitted to the Local or Global Partner or their Third Party Certifying Body for review and issuance of the certificate.

6. Pilot testing by Local Partners

6.1. Pilot testing shall be initiated by a Local Partner, and occur after the Local Partner has signed a legal agreement with IFC.

6.1.1. Pilot tests may be undertaken concurrently with the development of an Internal Management System by the Local Partner.

6.1.2. Pilot projects shall only be initiated in the first two (2) calendar years after the date the legal agreement is signed between the Local Partner and IFC, after which point the process outlined below in Sections 4, 5 and 6 shall be followed.

- 6.1.3. A Local Partner may undertake a pilot test at the same time as EDGE Clients and EDGE Auditors are following the process outlined below in Sections 4, 5 and 6 are being followed, provided the pilot test is initiated within the two-year window.
- 6.2. The pilot test shall consist of a Design Audit and Site Audit of building projects as set out below in *Article 4. EDGE Certification*.
- 6.3. The Local Partner shall identify a minimum of one (1) candidate building project for pilot testing. Candidate projects are:
- i) Near complete or complete building projects;
 - ii) Projects with full planning and design paperwork available;
 - iii) Projects that have been designed according to principles of green building, and are therefore likely to meet the EDGE Standard at EDGE or EDGE Advanced level;
 - iv) Prepared to participate in the pilot process; and
 - v) Interested in receiving EDGE Certification
- 6.4 The Local Partner shall select at least one building project for pilot testing, with input and advice on selection of projects provided by the EO&M Team. The Local Partner and the pilot project Client shall enter into a memorandum of understanding, setting out the roles and responsibilities of the parties during the pilot phase.
- 6.5 Each pilot Design Audit and Site Audit shall be undertaken by a technical expert with:
- i) An understanding of verification / audit processes.
 - ii) An understanding of quality assurance processes.
 - iii) Knowledge of other green building standards.
 - iv) Knowledge of building modeling.
 - v) An understanding of the environmental impact of the built environment.
 - vi) Knowledge of sustainable construction techniques.
 - vii) An understanding of building services.
- 6.6 The technical expert(s) for the Design Audit and Site Audit shall be selected by the EO&M Team, with input and advice provided by the Local Partner.
- 6.7 The EO&M Team shall provide training to the selected technical expert(s) on the EDGE Software and Certification process.
- 6.8 The technical expert(s) shall provide a written report on the pilot tests, including
- i) Compliance of the pilot project with the EDGE Standard at EDGE or EDGE Advanced level
 - ii) Feedback on the process and use of the EDGE Software
 - iii) Feedback on technical data points in the EDGE Software and the Base Case
 - iv) Any other important lessons learned or recommendations from the experience
- 6.9 The EO&M Team and the Local Partner shall review the technical expert's assessment of the pilot project's compliance with the EDGE Standard at EDGE or EDGE Advanced level and determine whether it is correct. Where the pilot projects meet the EDGE Standard at EDGE or EDGE Advanced level, the pilot project Client shall be eligible to apply for an EDGE Certificate to be issued for their project.
- 6.10 Where the expert's report findings include recommendations for amendments to EDGE Software Local Adaptation, the Local Partner shall consider these as part of the development of the EDGE Software Local Adaptation, as set out in *Chapter 6 EDGE Software Local Adaptation*.

6.11 Where the expert's pilot test report findings are material to the EDGE Protocols requirements, the EO&M Team shall consider these as part of a separate update and review process of the EDGE Protocols, as per the *Chapter 7 EDGE Update Protocol*.