



**EUROPEAN COMMISSION**  
DIRECTORATE-GENERAL JRC  
Institute for Environment and Sustainability  
**Renewable Energies Unit**

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**THE EUROPEAN**  
**GREENBUILDING PROGRAMME**  
**PARTNER GUIDELINES**  
**Version 2.2**



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## Introduction

The goal of substantially improving end-use energy efficiency and promoting the use of renewable energy sources is a key component of the EU energy and environmental policies, shared by all EU Member States. The European Commission Directorate General Energy and Transport contributes to this goal through a series of actions under the "**Intelligent Energy - Europe**" Programme. In addition, given the large share of energy consumption in buildings and the large cost effective energy saving potential, special attention has been dedicated to the building sector. To this end a major step forward is represented by the **Directive 2002/91/EC** on the Energy Performance of Buildings.

The **GreenBuilding Programme** (launched in January 2005) is one of these actions, aimed specifically at **private** and **public non-residential buildings**. The present Guidelines define the basic framework and the rules of the Programme. These Guidelines are complemented by technical documents (hereinafter referred as "**Modules**") to assist organisations to implement measures for specific end-use technologies and building components (including on-site generation, and renewable sources), and transversal modules covering **Energy Audit methods, Management Policies and Financing** for all the above building components and systems.

The GreenBuilding Programme is designed to be:

- **flexible and open**, so as to be applicable to the great variety of building types and situation, including building refurbishment and new buildings;
- **sufficiently precise to ensure** that companies that join the programme and carry out the commitment will **achieve a significant part of potential energy savings**;
- adaptable to the large variety of national and regional/local programmes and agencies;
- **effective in disseminating** the Energy Performance of Buildings Directive and stimulating its early implementation.

The GreenBuilding Programme is based on **voluntary commitments**, defined by each participating enterprise and organisation, following a building audit on the basis of recommendations put forward in the "GreenBuilding Module Documents" treating different aspects of Buildings energy efficiency and renewable integration.

## 1. The GreenBuilding Programme Objectives and Scope

The GreenBuilding Programme is a European Commission voluntary programme through which non-residential building owners and occupiers, being private or public organisations, are aided in improving the energy efficiency and to introduce renewable energy sources into their building stock. Any enterprise, company or organisation (hereinafter defined as "organisation") planning to contribute to the GreenBuilding Programme objectives can participate.

Organisations, which occupy on long term lease or own non-residential buildings, can acquire "**Partner**" status. Through the GreenBuilding, Partners will receive:

- aid in defining and carrying out an Action Plan, to reduce energy related operating expenses, while maintaining or improving the building comfort level, indoor air quality and the related services;
- public recognition for their contribution to achieving the objectives of the European Union's energy policy<sup>1</sup>.

This document describes the benefits accruing to Partners, as well as their responsibilities. Note that organisations that wish to assist GreenBuilding Partners in achieving the goals of the GreenBuilding Programme may become GreenBuilding "**Endorsers**"<sup>2</sup>.

## 2. Responsibilities of participants in the GreenBuilding

In order to maintain the credibility of the Partnership, some eligibility criteria have been developed. Though not entailing legally binding obligations, Partner status requires strong commitment and a substantial contribution to the objectives of the GreenBuilding Programme. Partners can withdraw from programme at any time without penalty.

An organisation wishing to join the GreenBuilding programme and to acquire GreenBuilding Partner status will proceed by the following 4 step process.

- 1) Energy **Audit** of the organisation's building(s), which are selected to participate in the GreenBuilding programme (see Scope of the Commitment at page 3).
- 2) Formulation of an **Action Plan**, defining the scope and nature of the organisation's commitment.
- 3) **Approval** of the Action Plan by the Commission in consultation with the National Contact Point; Commission grants Partner status to Organisation.

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<sup>1</sup> By reducing energy use, companies contribute to:

- minimising environmental impact, and in particular reducing CO<sub>2</sub> emissions;
- improving the competitiveness of European economy;
- reducing dependence on imported energy sources, thus improving the security of European energy supplies.

<sup>2</sup> Companies interested in more information on "Endorser" status are invited to check the information on the GreenBuilding "Endorser Programme".

4) **Execution** of the Action Plan, report to the Commission and to the relevant National Contact Point.

A partner could also be a company with only new buildings or buildings already (and recently) refurbished, in this case see page 5 for the relevant criteria.

The process is described in the following paragraphs.

In order to achieve the goals of the GreenBuilding, it is essential that the organisation calls upon qualified personnel. The personnel should be competent in the design and operation of the pertinent types of building systems, and have intimate knowledge of the particular use of the building and the constraints of the organisation's field of activity.

The organisation's engineering and/or maintenance staff may be qualified to carry out the four steps of the GreenBuilding. Alternatively, the organisation may choose to be assisted by a third party, for instance a GreenBuilding Endorser<sup>3</sup>. The Commission and the National Contact Points can provide lists of GreenBuilding Endorsers who offer such a service. In some cases, National Contact Points, National or Local Energy Agencies or National Programmes may offer some type of aid or financial support.

Note that it is not a condition for submitting an application for Partner status that the audit be conducted by a party external to the organisation.

1) Energy Audit of Building(s)<sup>4</sup>.

The GreenBuilding Programme and the National Contact Points (list on last page) will propose specific materials to aid the organisation in:

- establishing the energy use and the current state (hours of operation, climatic data, etc.) of the organisation's building(s);
- evaluating the potential energy savings of building systems and equipment enhancements and replacement, including the introduction of renewable energy sources.

The building audit<sup>5</sup> is a **mandatory** step to start the GreenBuilding Programme participation. The building audit should identify the major energy efficiency/savings opportunities, should prioritise them with regards to their cost-effectiveness (see footnote 10 for more information), and should also indicate interactions between possible measures undertaken in different part of the buildings (e.g. interaction

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<sup>3</sup> Endorsers are public or private organisations sharing the goals of the GreenBuilding Programme and agreeing to help the Commission and the National Contact Points in promoting the programme. Some Endorsers may also offer services, equipment or advice, which may help the Partner in implementing a GreenBuilding "Action Plan". Attention is drawn to the fact the Commission does not endorse or guarantee the quality of services and products offered by Endorsers. Therefore partners are advised to check the quality and competence of any service providers they plan to use for GreenBuilding Programme activities.

<sup>4</sup> This step applies only to existing buildings, and it does not apply to new buildings.

<sup>5</sup> The initial audit of the whole building could be a "light" or walk through audit to understand which systems are most energy-consuming and where are the "best" opportunities to save energy.

between insulation and boiler sizing). If the organisation decides, following the whole building audit, to upgrade only a specific subsystem (i.e. lighting, HVAC, etc.), then it is strongly encouraged to make a more detailed audit for the chosen subsystem(s) to identify the most important and cost-effective efficiency opportunities, as well possible interactions between different measures and/or subsystems.

## 2) Formulation of an Action Plan to achieve energy savings

On the basis of information collected in step 1, the organisation decides on an Action Plan laying out the energy saving measures that correspond to the enterprise's criteria for profitable investments. This plan must define the building(s) or site(s) at which energy efficiency and renewable energy actions will be undertaken. The commitment has to apply to the building's total energy consumption (electricity, WW and heating) (see the list in the box below - indicative and not exhaustive). The organisation will identify, within the chosen building, the types of end-use equipment, systems, and/or services it chooses to upgrade. The scope should in principle include the systems responsible for the major part of the energy consumption. Partners are supposed to select more than one module.

### Technical Modules (list non-exhaustive):

- Building shell (insulation, windows, etc.);
- Lighting;
- Office equipment;
- Electric appliances (commercial refrigeration, washing, cooking, lifts etc.);
- Distribution transformers and UPS;
- Ventilation;
- Air-conditioning and passive cooling;
- Heating and water heating (incl. wood heating);
- Solar hot water and heating;
- Co and tri-generation;
- Energy management (mandatory module see page 5)

A Partner's commitment may be applicable to all European buildings or sites, to some buildings, or may be limited to a single building<sup>6</sup>, and could be a step by step process.

- **Corporate Commitment:** An organisation can achieve the "GreenBuilding Corporate Partner" status if it owns at least 10 buildings and its commitment covers a large proportion of its buildings owned or on long term lease at all of its

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<sup>6</sup> Partner status will apply to the entire corporation, or to the building(s) and site(s) chosen by the company. The scope must be clearly indicated in the proposed commitment. When a company joins the GreenBuilding for a specific building (e.g. an organisation joining only for building XY in city ZZ), this has to be clearly indicated by the organisation in all the communication material relating to the GreenBuilding Programme, e.g. web-site, advertisement, etc. The Commission will also indicate the name of the building(s) in all its communication material e.g. web-site, catalogue, posters, etc. More sites/buildings can be added to the organisation commitment and it is always possible to move from a site/building partnership to a corporate partnership or vice versa.

European buildings or sites<sup>7</sup>. The corporate commitment means that at least 30% of the company's existing buildings and 75% of the new buildings have meet the GreenBuilding requirements.

- **Building/Site Commitment:** An organisation may choose one or several of its buildings or sites..

The commitment has to relate to the overall reduction of the building primary energy consumption

The Action Plan will include **specific actions** that have been evaluated and decided upon (investments to upgrade or replace equipment, improved maintenance, etc.). The Action Plan should take into account the recommendations of the "Module" documents relevant to the "scope" of the commitment. These documents provide guidance on typical actions that are recommended to and/or expected by Partners.

In the case of **New Buildings**, a full description of the expected energy performance of the new building together with the technologies used is required. The *guiding principle* for New Buildings is that the building shall consume **25%** less total primary energy, if economically viable (see footnote 10), of the building standard in force at the time or of a "conventional" new building presently constructed.

In the case of **Existing Buildings** the *guiding principle* is that the building should consume at least **25%** less total primary energy, if economically viable (see footnote 10), after refurbishment compared to before the refurbishment.

**Building already renovated/refurbished** within the last 5 years counted from the date of application are eligible if they satisfy the following conditions: at least **25%** of total primary energy consumption has to have been saved in the refurbishment or building shall demand **25%** less energy (guiding principle), if economically viable (see footnote 10), of the building standard in force at the time or of a "conventional" new building constructed at the time of the refurbishment.

In addition to specific actions, Partners are required to adopt **general principles for energy management**, as described in the "Energy Management" Module. This Module proposes tools which can aid in making energy efficiency an element of management priorities, at every step of the life cycle of the building and its equipment/systems: building/system design; choice of building/system components; building construction and installation of systems; building commissioning, ongoing operation and maintenance; energy and electricity purchase; education & motivation; measurement & verification.

The Commission, the National Contact Points and National/Local Energy Agencies may aid potential partners in defining the scope and nature of their commitment.

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<sup>7</sup> This proportion will be applied in a flexible manner. An enterprise may, for instance, choose to exclude a very large chiller system which represents specific engineering problems for which GreenBuilding tools are inappropriate. The partner should generally include subsidiaries in which the parent enterprise has a controlling share. The partner may choose to include or exclude other partially owned subsidiaries.

In the Action Plan, the organisation should designate the person responsible for assuring execution of the plan and for communication with the European Commission and the National Contact Point<sup>8</sup>. This person (defined as the GreenBuilding Manager) should:

- verify that appropriate management tools, budget and policies are created to implement the programme;
- manage the improvement projects
- report to top management on progress;
- prepare reports to the Commission.

### 3) Approval of commitment by the Commission; Granting of Partner status.

The proposed Action Plan will be submitted to the National Contact Point<sup>9</sup> and the Commission, which will verify that the plan:

- 1) has made a serious commitment to energy savings
  - 2) describes the subsystem(s) selected and indicates the reasons for this choice;
  - 3) retains the major part of economically<sup>10</sup> viable energy savings options identified by the initial audit procedures and has taken into account the recommendations of the relevant Module documents;
- and
- 4) contains a satisfactory reporting procedure. The report may use the proposed Report format. Actions corresponding to specific types of systems may be reported on the formats proposed in the relevant "Module" documents

The Commission (and/or National Contact Point on its behalf) approval is based on the four above criteria and the energy saving *guiding principles* mentioned at page 5. The overarching *guiding principle* is that most of the cost-effective (see footnote 10) measures should be implemented and no major energy savings cost-effective measure would be left out of the plan. Only in the case of specific and well justified constraints (e.g. historic building, operational constraints, etc.) derogation from this principle could be accepted.

In the case of a corporate commitment, the organisation's application to become Partner can be accepted only when a pledge to audit 30% of its existing buildings is

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<sup>8</sup> Where applicable.

<sup>9</sup> In a country where a National Contact point has not been designated, the material shall be forwarded only to the Commission.

<sup>10</sup> For determining if an energy-efficient investment is economic viable, the Partner can choose either to use as criterion (1) an Internal Rate of Return (IRR) of 20% calculated over a period of 15 years or alternatively (2) the least Life Cycle Cost rule over the project's lifetime (minimum 5 years). The Internal Rate of Return is the interest rate that equates the present value of expected future cash flows to the initial cost of the project. Expressed as a percentage, IRR can be easily compared with loan rates to determine an investment's profitability. For a stream of equal cash flows, an IRR of 20% over a 15-year period corresponds to a payback time of 4.7 years. The least Life Cycle Cost rule consists in accepting an energy-efficient investment when the resulting Net Present Value (NPV) of the investment is above or equal to 0. The Net Present Value is the total cash flow that the project generates over its lifetime, including first costs (counted negatively), with discounting applied to cash flows that occur in the future (money savings, counted positively).

made and included in the registration form. A corporate **Commitment for new buildings** is also possible if there is a pledge to use the GreenBuilding Programme requirements for 75% of its new buildings (during the duration of the GreenBuilding Programme). In any case the energy management action plan has to be submitted.

In the case of an organisation committing only for **new buildings**, the application to become Partner can be accepted only when there is a pledge and financial commitment to build at least one new building meeting the GreenBuilding Programme requirements (documentation has to be included) during the duration of the Programme.

#### 4) Partner executes Action Plan, and reports to the Commission

The Partner carries out his Action Plan, and reports at the completion of the actions to the Commission, in accordance with the reporting scheme proposed by the Partner in step 2. The Partner may be aided in reporting by a third party, for instance an Endorser.

Compliance with Community, national and local regulations will be compulsory for any action or project to be undertaken in the framework of the Programme.

The Commission will review the Partner's report, and check whether it corresponds to the Action Plan. If the execution of the organisation's action plan is notably weaker than agreed upon, or if the organisation does not honour its reporting requirements, the Commission reserves the right to terminate the organisation's participation in the GreenBuilding Programme. Prior to this step the Commission will try to discuss the matter with the Partner and to solve it in an amicable manner.

### **3. Benefits of participating in the GreenBuilding**

Organisations wishing to become GreenBuilding Partners will receive aid, advice and technical assistance from the Commission and from participating National Contact Points in formulating and carrying out a building energy saving and renewable "Action Plan"<sup>11</sup>. The GreenBuilding Programme focuses on non-residential buildings, for which it has been demonstrated that large technical and economic potential for energy savings exist. By carrying out the Action Plan, organisations will be able to:

- maintain or improve comfort levels, indoor quality and the quality of the service of the systems concerned;
- realise technically and economically feasible energy savings. The plan must satisfy the criterion of economic efficiency, so that the allocation of scarce financial and human resources is justified from the viewpoint of the organisations.

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<sup>11</sup> There is no EU financial support for the GreenBuilding Partners or potential Partners. In some countries, national programmes (financing of assessments or other decision aids, fiscal mechanisms, voluntary agreements etc.) may complement and facilitate participation in the GreenBuilding programme. Please refer to the GreenBuilding "Resources" and "National Programme" data bases, available on the Internet at <http://re.jrc.ec.europa.eu/energyefficiency/>

Furthermore, Partners will receive public recognition for their efforts, through the Programme's promotion campaign, aimed at raising public awareness of energy issues.

- Partners may use the GreenBuilding Programme logo<sup>12</sup>. Partners may post signs, artwork of which is provided by the European Commission, publicising their energy saving actions and the contribution they are making to the environment.
- The list of GreenBuilding Partners, including a description of their specific contribution to the Programme will be published widely (brochure, Internet, etc.). The Commission will send the list of Partners to the national GreenBuilding representative (see paragraph 4 below) and to the Member State representatives in the IEE Programme Committee.
- Partners will be invited to provide documentation of showcase buildings/systems that the European Commission can publicise, providing details on baseline energy use, what was done, and the resulting energy use after the upgrade. The European Commission will provide estimates of pollution prevented.
- The organisation's relevant activities may be included in GreenBuilding promotional activities, such as Awards and the Catalogue.
- GreenBuilding Programme Awards will be made to outstanding GreenBuilding Partnerships in several categories.

#### 4. Further information

Information on the GreenBuilding Programme is available on the Internet at:

<http://re.jrc.ec.europa.eu/energyefficiency/greenbuilding/index.htm>

and <http://www.eu-greenbuilding.org>

For responses to specific questions, please contact:

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Information on the GreenBuilding Programme is also available from participating National Contact Points (list available on the web at [www.eu-greenbuilding.org](http://www.eu-greenbuilding.org)).

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<sup>12</sup> Use of the logo must respect the limitations defined in "Responsibilities" above. The logo is not building specific but it is related to the organisation. It can be used in printed material, advertisement or in the headquarters. The logo communicates the fact that the organisation is committed to the GreenBuilding programme and has implemented some action. The logo does not indicate that any specific building has a recognised low energy consumption.

## **EUROPEAN GREENBUILDING PROGRAMME PARTNERSHIP COMMITMENT SUBMISSION FORM**

The organisation/company/institution/authority<sup>13</sup>

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declares its willingness to participate in the GreenBuilding Programme and to commit itself to carry out the actions described in the attached Action Plan and to adhere to the general principles described in the GreenBuilding Partner Guidelines.

The organisation will keep the European Commission and the respective National Contact Point informed of the implementation of the Action Plan.

The Name of the GreenBuilding manager appointed by the company is:

Name: \_\_\_\_\_  
 Managerial Function: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Tel. / Fax: \_\_\_\_\_ / \_\_\_\_\_  
 e-mail/ internet: \_\_\_\_\_

Director or person authorised to sign for the organisation:

Name: \_\_\_\_\_  
 Managerial Function: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Tel. / Fax: \_\_\_\_\_ / \_\_\_\_\_  
 e-mail/ internet: \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Date \_\_\_\_\_

- Attachments:             Audit report  
                                Action plan

*Please send copy of the signed submission form to your **National Contact Point** (list available on [www.eu-greenbuilding.org](http://www.eu-greenbuilding.org)).*

*If there is no National Contact Point in your country, will you please send the signed submission form to :*

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<sup>13</sup> In case of building(s) partnership please indicate clearly the name and location of the building(s) entered in the programme