




GREEN BUILDING MANAGEMENT AND CERTIFICATION
POLICY



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Prepared by:	Vicente Saisó <i>Corporate Sustainability Director</i>
Authorized by:	 Fernando A. González Olivieri <i>Chief Executive Officer</i>

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1. Introduction

1.1 Background

Buildings are one of the heaviest consumers of natural resources and account for a significant portion of the greenhouse gas emissions that affect climate change. Among others, buildings are responsible for:

- 39% of global final energy demand.¹
- 40% of consumption of raw materials globally.²
- 13.6% of all annual fresh water used.³

The Intergovernmental Panel on Climate Change has identified buildings as the greatest impact, least costly way to reduce greenhouse gas emissions and address climate change. Beyond emissions reduction and environmental protection, *green buildings*⁴ have extensive co-benefits, including⁵:

- 14% operating and maintenance cost-savings due to reduced energy consumption, reduced water consumption and less generation of waste.
- 11% increased asset value.
- 6% increased occupancy.
- 6% return higher rents.

Furthermore, green buildings have become a key way for companies to communicate their sustainability efforts to stakeholders, enhancing corporate reputation by demonstrating a commitment to the environment through the use and ownership of high-performance facilities.

In recognition of the potential negative impacts associated with the design, construction and operation of its building inventory, CEMEX's Green Building Management and Certification Policy calls now all CEMEX Business Units and its Corporate Functions:

- To adopt principles of energy efficiency and sustainability in all its facilities to the fullest extent possible, consistent with budgets and regulatory and programming requirements,
- to minimize its facilities' impact on the environment and reduce non-renewable energy use,
- to promote actions that enhances health, wellbeing and productivity in all workplaces and
- to develop and implement this policy for all proposed and existing CEMEX facilities.

¹ WBCSD, EEB.

² U.S. Energy Information Administration.

³ Lenssen and Roodman (1995).

⁴ For the purpose of this policy, the term *green building* refers to any development that promotes reduced energy consumption, utilizes renewable resources, conserves water, promotes the best use of building materials, encourages efficient waste management, conserves natural habitat and focuses on health and environmental quality (Heekin & Meyers, 2001).

⁵ All figures sourced from Graw-Hill Construction.



1.2 Objective

The purpose of CEMEX's Green Building Management and Certification Policy is to ensure all Company-owned and Company-leased facilities' planning, design, construction, management, renovation, operation, and demolition is carried out:

- in a sustainable manner and,
- considering all triple bottom line (social, economical and environmental) impacts,
- while enhancing CEMEX's reputation as a socially and environmentally responsible company and
- addressing the health and well-being of our people who use and occupy CEMEX buildings.

1.3 Scope

This policy applies to all existing and new CEMEX portfolio of industrial space not associated directly to the production processes and office buildings that are Company-owned as well as those rented or leased.

1.4 Definitions

LEED

LEED (Leadership in Energy and Environmental Design) is the most popular and widely used green building rating system globally. It provides third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides a point system to score green building design and construction. The system is categorized in five basic areas: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, and Indoor Environmental Quality. Buildings are awarded points based on the extent various sustainable strategies are achieved. The more points awarded the higher the level of certification achieved from Certified, Silver, Gold, to Platinum.



BREEAM

BREEAM (Building Research Establishment Environmental Assessment Methodology) is one of the most green building certification systems in Europe. It sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognized measures of a building's environmental performance.

First published by the Building Research Establishment (BRE) in United Kingdom, BREEAM encourages designers, clients and others to think about low carbon and low impact design, minimizing the energy demands created by a building. A BREEAM assessment uses recognized measures of performance to evaluate a building's specification, design, construction and use. The measures used include aspects related to energy and water use, the internal environment, pollution, transport, materials, waste, ecology and management processes.

CEMEX Ecooperating Seal

The Ecooperating Certification accredits buildings with notable sustainable features and performance above the market standard. Through this certification, CEMEX recognizes projects that save energy, water and reduce the environmental impact associated to construction and buildings.

Ecooperating Certification distinguishes new and existing buildings, in their design, construction and/or operation phase, which combine energy efficiency measures with strategies for the conservation and responsible use of natural resources, proving to be projects whose performance is above the market standard. The certificate methodology provides a credit system comprised of both mandatory and elective requirements with flexible compliance options including: water consumption reduction, use of local materials, heat island effect reduction and innovative sustainable solutions such as generation of renewable energy and others.

2. Policy

2.1 Existing Buildings

CEMEX encourages the application of sustainable design principles of its current facilities where practical. Through the following actions, CEMEX aims to lead in managing and improving existing facilities to advance economic, environmental and social benefits:

1. Incorporating sustainable operations and maintenance practices.



2. Implementing cost-effective opportunities for increasing sustainability.
3. Strategically making economical upgrades to existing mechanical systems.

Upon request, a preliminary assessment of specific buildings under this category may be developed by Corporate Sustainability to determine the potential of obtaining a green building certification distinction.

2.2 New Buildings and Major Renovations of Existing Buildings

All new company-owned buildings, new company-rented space, and *major renovations*⁶ of existing buildings must incorporate sustainability features and have to comply with the criteria that follow, which is listed according to the decision and order of priority:

1. Be LEED Certified to at least the basic level. On each case it should be assess the possibility to obtain a higher certification level according to the characteristics of each project and the available resources.
2. Be BREEAM Certified. In countries where LEED is not the most appropriate certification to the local market, the equivalent European certification BREEAM may be used.
3. Be certified by CEMEX Ecooperating Seal. When due to the characteristics and progress of the project it turns very difficult to obtain either of LEED and BREEAM certifications, CEMEX Ecooperating Seal must be achieved.

3. Procedures

3.1 Existing Buildings

In each country, the Country Director or whom he designates should:

1. Assess existing conditions and operational procedures of the buildings and major building systems.
2. Identify areas for improvement.
3. Implement upgrades for increasing sustainability.

3.2 New Buildings and Major Renovations of Existing Buildings

The early involvement of all relevant participants helps minimize upfront costs, save time, reduce duplication of efforts and take advantage of synergies and interrelationships; giving the project team the greatest chance of success. Therefore, for these types of projects, Corporate

⁶ For the purpose of this policy, the term *major renovation* refers to major Heating, Ventilation and Air Conditioning (HVAC) renovation, significant envelope modifications, and/or major interior rehabilitations (USGBC, 2009).



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Planning and Corporate Sustainability have to be involved at the very initial stages (before project conceptual design). These areas will support the corresponding Business Unit through the following roles:

A. Planning:

- a. Define the available resources for the project.
- b. Determine the needed new sustainable functionality criteria.

B. Corporate Sustainability:

- a. Issue recommendations regarding key players such as Architect, Building Systems' Engineering and LEED Consultancy. Determine the needed new sustainable functionality criteria.
- b. Determine the appropriate certification system and level for each case.
- c. Assist the Business Unit during the development and execution of the project.

In coordination with these areas, the responsible team of the new project has to:

1. Designate a team responsible for the entire project to coordinate and manage it.
2. Decide the targeted green building certification and level.
3. Determine the best sustainability strategies to obtain the desired certification level.
4. Follow Corporate Planning and Corporate Sustainability recommendations regarding project design and execution.

4. Contacts

For more information on this policy:

CORPORATE PLANNING (All Regions)

Henry Collard

henry.collard@cemex.com

CX NET: 80523 4291

CORPORATE SUSTAINABILITY

In México, USA and SAC&C:

Edgar Rodríguez Dávila

LEED AP BD+C

edgar.rodriquezd@cemex.com

CX NET: 80523 4456

In Northern Europe, Mediterranean & Asia:

Enrique Terrado

LEED AP BD+C & LEED AP ND

enrique.terrado@cemex.com

CX NET : 80410 7809