

**EDGE** is a green building certification system focused on making buildings more resource efficient. EDGE enables design teams and project owners to assess the most cost effective ways to incorporate energy and water saving options into their buildings. **Green Business Certification Inc. (GBCI)** administers EDGE certification in over 120 countries around the world and is the exclusive certification provider for all EDGE buildings in India. View the full list of countries where GBCI offers EDGE certification at **edge.gbci.org**.

An innovation of IFC, a member of the World Bank Group, EDGE is a fast and easy to use mass market transformation tool. It empowers developers and builders to quickly identify the most cost effective ways to reduce energy use, water use, and embodied energy in materials. The strategies integrated into the project design are verified by an EDGE Auditor and certified by GBCI.

The drivers behind EDGE are financial, but the results are environmental—EDGE helps mitigate climate change by encouraging resource-efficient development.

EDGE is comprised of a web-based software application, a universal standard and a certification system:

- The EDGE software application is free at **edgebuildings.com**. The app quickly predicts savings in energy, water and embodied energy of materials as compared to a localized base case and estimates utility savings, capital costs, and the payback period. Within minutes, a building designer can determine the optimum combination of design strategies for the best return on investment.
- EDGE creates a new global standard by requiring that a green building achieve a projected minimum reduction of 20% in energy and water usage, and embodied energy in materials as benchmarked against a standard building.
- Certification is offered at a modest cost by GBCI in order to validate project achievements for financial and community stakeholders. EDGE certification applies to new construction, existing buildings and major renovations of homes, offices, hotels, retail and hospitals.

GBCI is the premier organization independently recognizing excellence in green business industry performance and practice globally. Through rigorous certification and credentialing standards, GBCI drives adoption of green building and business practices. GBCI is the only certification and credentialing body within the green business and sustainability industry to exclusively administer project certifications and professional credentials of LEED, PEER, WELL, SITES, GRESB, Parksmart and TRUE.

GBCI provides its EDGE customers with trusted, quality certification; award winning customer service; best-inclass marketing and promotion support and comprehensive education services.

#### Learn more at edge.gbci.org.

Escellence In Design For Greater Efficiencies

GREEN BUILDINGS

edgebuildings.com

# Edge is the solution

In today's competitive world, property developers are trying their best to build sustainably. Resource-efficient buildings clearly have impact, from the corporate bottom line to a homeowner's pocket. **But how does a developer confidently capture this value while gaining brand recognition?** 



*An EDGE-certified residential building in Bangalore by VBHC.* 

The solution is EDGE, a green building certification system for emerging markets created by IFC, a member of the World Bank Group. **EDGE is a measurable way for builders to optimize their designs**, leading to a more investment-worthy and marketable product. By keeping certification fast and inexpensive, EDGE keeps pace with the momentum that developers need to stay at the forefront of the green building trend.



The EDGE software shows within minutes how committing to a few practical energy and water-saving options improves building performance at little or no cost. The numbers are brought to the forefront **to reveal the most economically viable path to building green.** 

EDGE focuses the certification process on technical aspects that yield meaningful results. This makes it easier for developers to build a portfolio of innovation that attracts new customers and boosts brand equity.

"EDGE paints sustainability in numbers, forecasting the possibilities of what we can achieve for our customers and the environment."

> – Tulio Botelho Mattos Director, Canopus







International Finance Corporation



# Edge DRIVES RESULTS

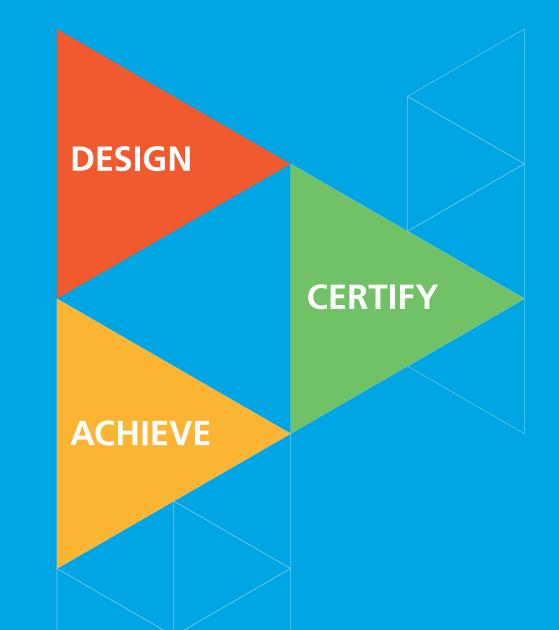
EDGE proves that **the next generation of buildings** can be more profitable while making a lighter carbon footprint. To qualify for certification, a building must achieve a 20% reduction in energy, water, and embodied energy in materials compared to a conventional building. EDGE works for a variety of residential and commercial buildings in nearly 100 countries, including homes and apartments, hotels and resorts, office buildings, health care facilities, and retail establishments.



The EDGE-certified FPT Complex in Danang, Vietnam.

Building design teams **can now adopt a quantitative approach**, as the EDGE software shares localized costs and climate data for site-specific results. The interface enables easy modeling of future performance **without sacrificing design integrity.** EDGE is useful for all stages of a project's life cycle – from the pivotal moment when design is born, straight through to on-site decision-making.

The EDGE-certified Citra Towers Kemayoran in Jakarta by PT Ciputra.

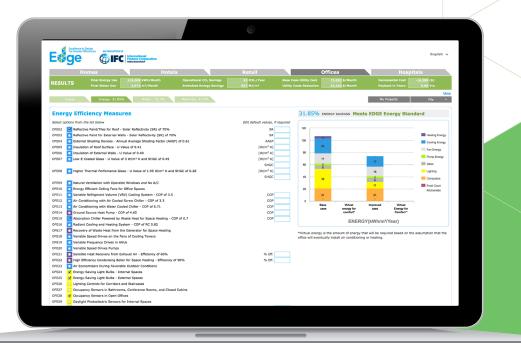


# Edge EMPOWERS DECISION-MAKING

Never before have building design teams been able to quickly and easily choose systems and solutions while immediately viewing the financial and environmental impacts. The EDGE complimentary software is available at edgebuildings.com.

> "EDGE leverages the power of gaming...it only took me 30 minutes to design my first project."

> > DevelopingSmartCities.org



edgebuildings.com









# SMART

Beneath an intuitive interface is a powerful engine that understands local climatic conditions and how the building will be used by occupants.

### FAST

Discover the ideal bundle of measures for the best investment return within minutes.

## AFFORDABLE

The EDGE software is free to everyone with certification available at a modest cost.

## **INCLUSIVE**

With EDGE, green buildings are suddenly available to all.



A selection of companies that have integrated EDGE certification into their business models:





PT Ciputra











Sum







# Edge FOR HOMES

Smart homebuyers understand the tangible benefits that owning a green home brings. Through such sensible solutions as low-energy lighting, thermal glass, and water-conserving fixtures, **developers can meet the expectations of consumers** who want to save money while living in comfortable spaces with good ventilation and abundant daylight.



EDGE-certified homes attract prospective buyers **who understand the long-term value of their investment** in a green residence, with its lower utility bills and higher re-sale price. Homeowners also believe in the sense of fulfillment that comes with making a responsible choice. Developers can capitalize on these advantages and aspirations to win new customers and promote their brand.

#### Why Homebuyers Prefer a Green Home

- Cuts utility, maintenance, and repair costs.
- Commands a higher re-sale price.
- Creates a more comfortable lifestyle.
- Inspires pride of ownership.
- Protects the planet.

#### RESIDENTIAL CASE STUDY Homes in the Philippines

The EDGE-certified Imperial Homes

SOLUTIONS		SAVINGS
Energy	<ul> <li>Reduced Window to Wall Ratio</li> <li>LED Lighting</li> <li>Solar Photovoltaics</li> </ul>	42%
Water	<ul> <li>Low-Flow Showerheads</li> <li>Low-Flow Faucets for Kitchen Sinks</li> <li>Low-Flow Faucets for Washbasins</li> </ul>	20%
Material	<ul> <li>S</li> <li>Corrugated Zinc Sheets for Roof</li> <li>In-Situ Reinforced Wall for External Walls</li> <li>Ferrocement Wall Panel for Internal Walls</li> </ul>	26%
RESULTS		
Savings	Utility Bills (\$/month/home) Energy (kWh/month/home) Water (kL/month/home) Embodied Energy (MJ/home)	11 135 2.4 1,320
<b>Environmental Benefits</b> GHG Reductions (tCO <sub>2</sub> /year/home)		0.4

"Soon everyone will live in a solar-powered home, as they make perfect business sense for builders and buyers. EDGE will make this happen."

– Emma Imperial *Chairman,* Imperial Homes

# Edge For commercial buildings

There are many reasons to opt for a resource-efficient commercial building. **Tenants and guests will appreciate the value proposition** of reduced operational costs. Lower break-even occupancy rates will protect against market variability. And investors will respond well to a strong balance sheet.



The EDGE software provides an opportunity to explore technical options while viewing capital expenses and utility savings. Extra capex of just two percent has been known to produce savings greater than 10 times the initial cost of building green. In addition, **the building itself will command greater market value** due to its ability to deliver on the operational front.

Located in Changxing, the Passive House "Bruck" by Landsea has ambitions to become EDGE-certified.

#### Top Reasons to Own an EDGE-Certified Building

- Sends a positive signal to investors.
- Drives profitability that leads to expansion.
- Increases property valuation.
- Ensures cost control and consistency across properties.
- Complements efficiencies in construction and labor.
- Contributes to a brand of corporate sustainability.

COMMERCIAL CASE STUDY Hotel Property in Mexico

Hoteles City Express plans to EDGE-certify its future portfolio

SOLUTIO	DNS	SAVINGS		
Energy	<ul> <li>Reduced Window to Wall Ratio</li> <li>External Shading</li> <li>Air Conditioning with Water-Cooled Chiller</li> <li>Low-E Coated Glass</li> <li>Energy-efficient Lighting System</li> <li>Insulation of Roof and Wall</li> </ul>	51%	"We have a strong ethos of corporate responsibility. EDGE channels that passio into reality in a way that our investors understand." – Santiago Mayoral Álvarez Director of Corporate	
Water	<ul> <li>Low-Flow Showerheads</li> <li>Dual Flush Water Closets</li> <li>Water-efficient Urinals</li> </ul>	32%		
Material	<ul> <li>Concrete Filler Slab for Floors and Roof</li> <li>Medium-weight Hollow Concrete Blocks</li> <li>Finished Concrete Flooring</li> <li>uPVC Window Frames</li> </ul>	44%		
RESULTS			Finance and Investor	
Extra Co	<b>sts &amp; Payback Time</b> Green Solutions (\$) Payback (Yrs.)	56,000 0.6	<i>Relations</i> Hoteles City Express	
Savings	Utility Bills (\$/month) Energy (kWh/month) Water (lt./room/night) Embodied Energy (MJ/m²)	7,634 90,028 121 744		
Environ	<b>mental Benefits</b> GHG Savings (tCO <sub>2</sub> /year)	497		

# EDGE Certification

Certification is initiated at the early design stage, when details of the project are entered into the EDGE software and green options are selected. The project must reach the EDGE standard of a 20% improvement in energy, water, and materials as measured against local construction practice. When achieved, the project is registered for certification.



SAMHI's corporate leadership at an EDGE certification ceremony.

During the certification process, documentation is submitted by the client and reviewed by EDGE-trained auditors at the design and construction stages, with a site audit performed. Projects that meet the EDGE standard receive a certificate confirming predicted performance.

# EDGE CERTIFICATION PROCESS



# EDGE CERTIFICATION PARTNERS

IFC works with premier partners to scale up green building growth in emerging economies.

IFC's global and local partners deliver EDGE certification in rapidly urbanizing markets around the world. Certification is offered at a nominal price. A list of partners is available at **www.edgebuildings.com.** 

For the opportunity to certify a future portfolio, email **edge@ifc.org.** 

## EDGE

An innovation of IFC, EDGE creates intersections among developers, building owners, banks, governments, and homeowners to deepen the understanding that everyone wins financially by building green. EDGE jumpstarts the mainstreaming of green buildings to help tackle climate change.

## IFC

IFC is a member of the World Bank Group that focuses on private sector development. Working with partners in more than 100 emerging markets, IFC invests, advises, and mobilizes resources from others, creating opportunity for clients in a broad range of industries.

#### **Donor Appreciation**

IFC thanks the following donors for their generous support: the State Secretariat for Economic Affairs of Switzerland (SECO); the European Union; the Hungarian Export Import Bank; the Ministry of Finance of Japan; the Canada Climate Change Program and the Department of Foreign Affairs, Trade and Development Canada; the Royal Ministry of Foreign Affairs of Denmark and the Danish Green Growth Fund; the Federal Ministry of Finance of Austria; the Ministry of Foreign Affairs of Finland; contributors to the GEF-IFC Earth Fund Platform and the Energy Sector Management Assistance Program of the World Bank Group.

edgebuildings.com





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