



Excellence In Design  
For Greater Efficiencies

GREEN BUILDINGS  
FOR A SMARTER WORLD

# 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, India 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 ahead of green building practices.



AN INNOVATION OF  
**IFC**

**International  
Finance Corporation**  
WORLD BANK GROUP



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



EDGE projects in India are certified by GBCI, a third-party organization that provides independent oversight of professional credentialing and project certification programs related to green building. Through their global certification partnership, IFC and GBCI are responding to the need for tomorrow’s buildings to be resource-efficient and future-proof.

# 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 new 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.*

**DESIGN**

**CERTIFY**

**ACHIEVE**

# 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](http://edgebuildings.com).

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

- DevelopingSmartCities.org



[edgebuildings.com](http://edgebuildings.com)



## SMART

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



## FAST

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



## AFFORDABLE

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



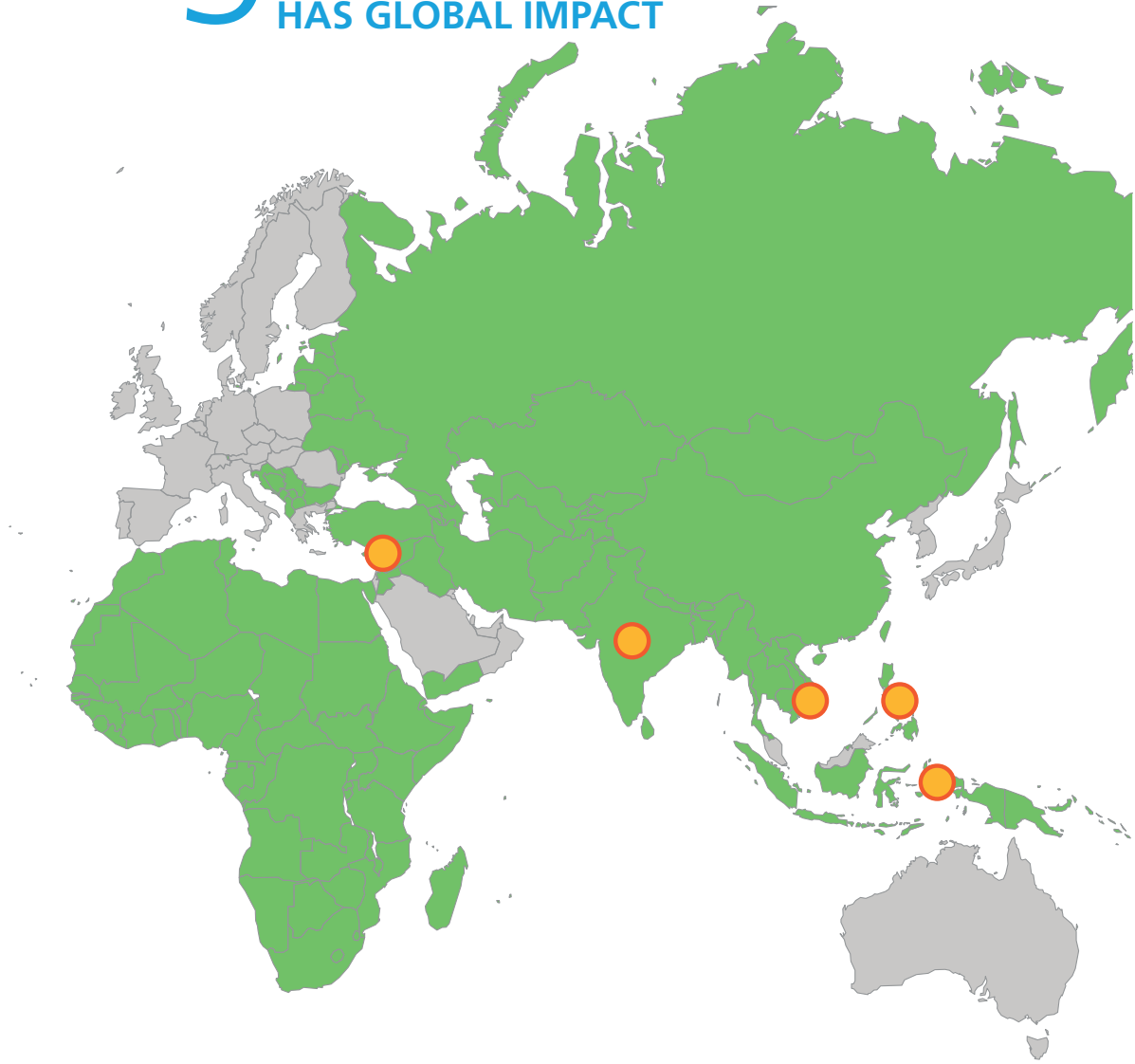
## INCLUSIVE

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With EDGE, green buildings are suddenly available to all.

# Edge

HAS GLOBAL IMPACT



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





**NJ Zinnia**



**Hoteles City Express**



**FPT Urban Company**



**Vinta**



**Nam Long**



**Canopus**

# 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.



The EDGE-certified Imperial Homes near Manila.

## RESIDENTIAL CASE STUDY

### Homes in the Philippines

SOLUTIONS	SAVINGS
<b>Energy</b>  <ul style="list-style-type: none"> <li>▶ Reduced Window to Wall Ratio</li> <li>▶ LED Lighting</li> <li>▶ Solar Photovoltaics</li> </ul>	<b>42%</b>
<b>Water</b>  <ul style="list-style-type: none"> <li>▶ Low-Flow Showerheads</li> <li>▶ Low-Flow Faucets for Kitchen Sinks</li> <li>▶ Low-Flow Faucets for Washbasins</li> </ul>	<b>20%</b>
<b>Materials</b>  <ul style="list-style-type: none"> <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>	<b>26%</b>

RESULTS	
<b>Savings</b> Utility Bills (\$/month/home) <span style="float: right;"><b>11</b></span> Energy (kWh/month/home) <span style="float: right;"><b>135</b></span> Water (kL/month/home) <span style="float: right;"><b>2.4</b></span> Embodied Energy (MJ/home) <span style="float: right;"><b>1,320</b></span>	
<b>Environmental Benefits</b> GHG Reductions (tCO <sub>2</sub> /year/home) <span style="float: right;"><b>0.4</b></span>	

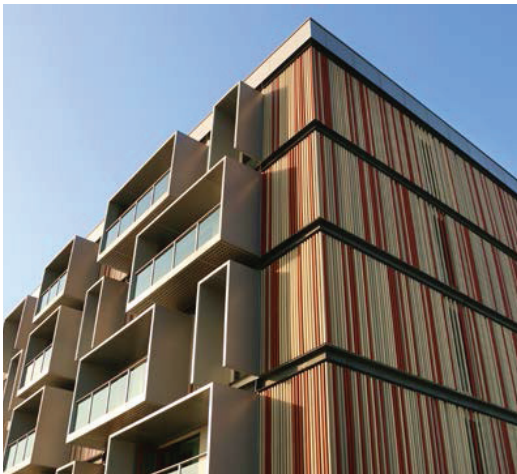
*“Soon everyone will live in a solar-powered home, as they make perfect business sense for builders and buyers. EDGE will make this happen.”*

– 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.



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

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.

### 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.



Hoteles City Express plans to EDGE-certify its future portfolio.

## COMMERCIAL CASE STUDY

### Hotel Property in Mexico

SOLUTIONS		SAVINGS
<b>Energy</b>  <ul style="list-style-type: none"> <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>		<b>51%</b>
<b>Water</b>  <ul style="list-style-type: none"> <li>▶ Low-Flow Showerheads</li> <li>▶ Dual Flush Water Closets</li> <li>▶ Water-efficient Urinals</li> </ul>		<b>32%</b>
<b>Materials</b>  <ul style="list-style-type: none"> <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>		<b>44%</b>
RESULTS		
<b>Extra Costs &amp; Payback Time</b>		
Green Solutions (\$)		<b>56,000</b>
Payback (Yrs.)		<b>0.6</b>
<b>Savings</b>		
Utility Bills (\$/month)		<b>7,634</b>
Energy (kWh/month)		<b>90,028</b>
Water (lt./room/night)		<b>121</b>
Embodied Energy (MJ/m <sup>2</sup> )		<b>744</b>
<b>Environmental Benefits</b>		
GHG Savings (tCO <sub>2</sub> /year)		<b>497</b>

*“We have a strong ethos of corporate responsibility. EDGE channels that passion into reality in a way that our investors understand.”*

– Abelardo Loscos  
 Director of Corporate Finance and Investor Relations  
 Hoteles City Express

# EDGE Certification

## HOW IT WORKS

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.

# GBCI

## THE EDGE CERTIFICATION PARTNER IN INDIA

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

# EDGE CERTIFICATION PROCESS



GBCI is the premier organization independently recognizing excellence in green business industry performance and practice globally. Daily, GBCI certifies 1.8 million square feet of construction space through green building rating systems and standards such as LEED, WELL, GRESB, SITES and PEER. GBCI is a global certification partner for EDGE and the sole certifying body for EDGE projects in India.

For more information, including pricing, please visit [edge.gbc.org](https://edge.gbc.org) or email [edge@gbc.org](mailto:edge@gbc.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. By helping to push the market forward on the regulatory front while pulling on the voluntary side, 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. Standing between the public and private sectors, IFC brings market-based solutions to respond to the challenge of creating low-carbon economic growth.

[edgebuildings.com](http://edgebuildings.com)