



Excellence In Design
For Greater Efficiencies

**GREEN BUILDINGS
FOR A SMARTER WORLD**

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 gives true meaning to environmentally-friendly construction."

– Kojo Addo-Kufuor
Chief Operating Officer,
Ghana Home Loans



Creating Markets, Creating Opportunities



thinkstep



EDGE projects in Ghana and Nigeria are certified by thinkstep-SGS, a consortium that sets the global benchmark for quality and integrity as providers of independent oversight for professional credentialing and project certification programs, including EDGE.

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.

DESIGN

CERTIFY

ACHIEVE

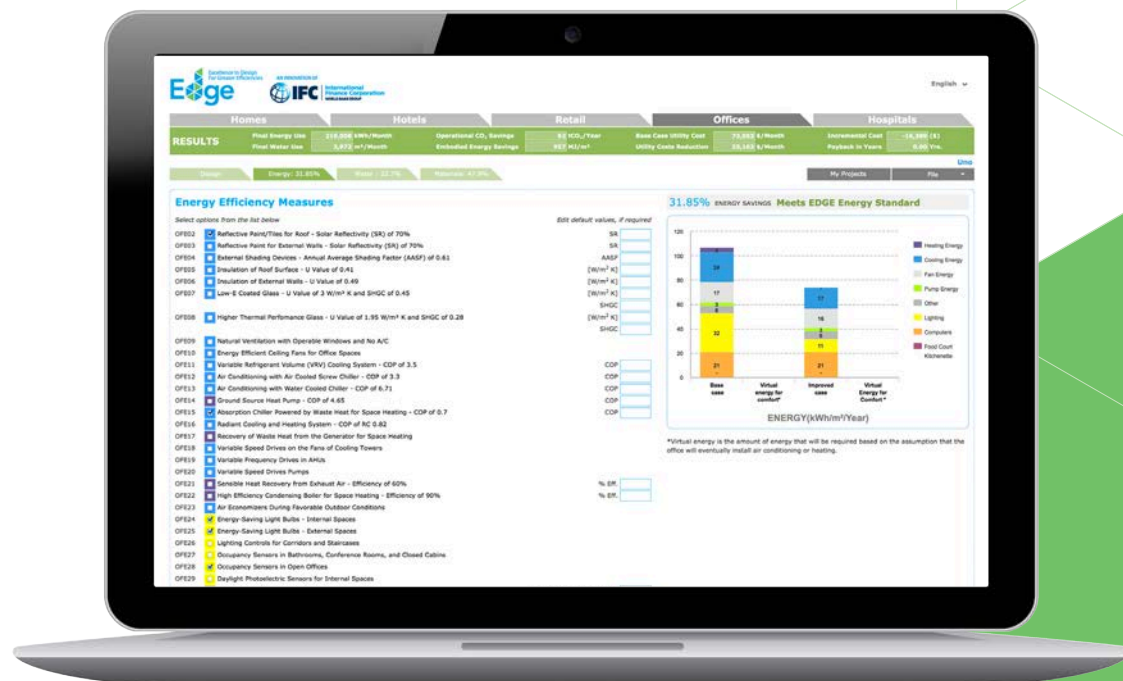
Edge

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.

“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.



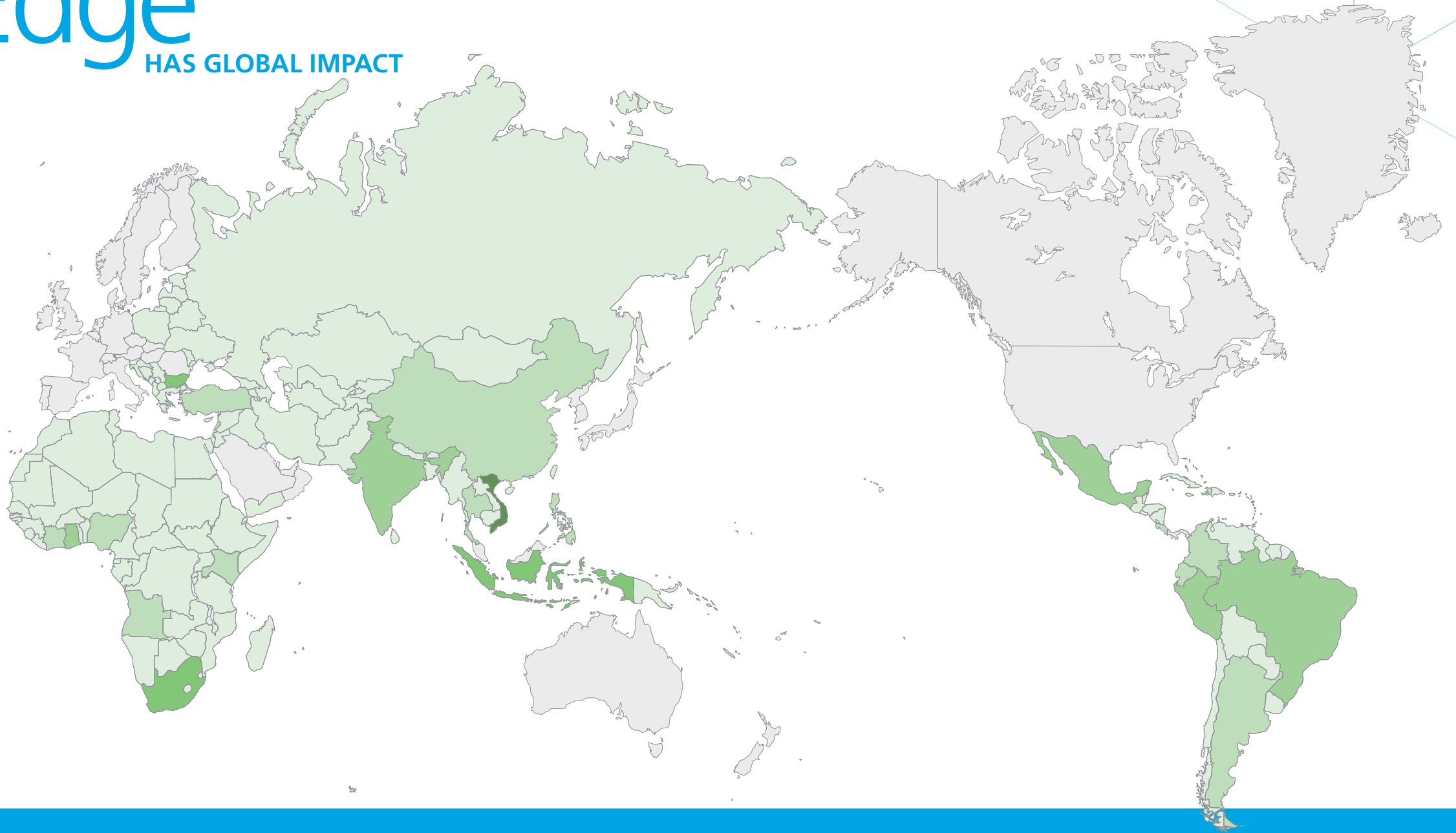
INCLUSIVE

With EDGE, green buildings are suddenly available to all.



Edge

HAS GLOBAL IMPACT



EDGE IN THE MILLIONS

From affordable apartments to high-end residences, from business to luxury hotels, and from commercial properties to healthcare facilities, millions of square meters of floor space have become EDGE certified.

These green buildings dot the landscape in dozens of countries around the world, bringing a higher asset value to their owners with better operational performance and reduced carbon emissions. To view project studies, visit www.edgebuildings.com/projects.

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 Candlewood Crescent by RPP Developments in Johannesburg



RESIDENTIAL CASE STUDY

Affordable Homes in South Africa

International Housing Solutions (IHS)

SOLUTIONS	SAVINGS
Energy  <ul style="list-style-type: none"> ▶ Reduced Window to Wall Ratio ▶ Insulation of Roof ▶ Solar Hot Water Collectors ▶ Smart Meters 	30%
Water  <ul style="list-style-type: none"> ▶ Low-Flow Showerheads ▶ Low-Flow Faucets for Kitchens and Baths ▶ Dual-Flush Toilets 	28%
Materials  <ul style="list-style-type: none"> ▶ Hollow Core Precast Floor Slabs ▶ Steel Sheets on Timber Rafters for Roof ▶ Facing Brick and Solid Concrete Blocks for External Walls ▶ Solid Dense Concrete Blocks for Internal Walls 	36%

"EDGE is most definitely a game-changer. I believe in things that are tangible and have tangible results."

– Jock Seeliger
Managing Director,
RPP Developments

RESULTS	
Extra Costs & Payback Time Green Solutions (ZAR/month/home) Payback (Yrs.)	8,650 2.9
Savings Utility Bills (ZAR/month/home) Energy (kWh/month/home) Water (kL/month/home) Embodied Energy (MJ/home)	246 101 5 15
Environmental Benefits GHG Savings (tCO ₂ /year/home)	1.06

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 "Bruck" Passive House by Landsea is 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.





The EDGE-certified Radisson Blu Hotel, Exchange Development by Mabani Seven Co Ltd in Accra, Ghana.

COMMERCIAL CASE STUDY

Radisson Blu Hotel in Ghana



SOLUTIONS		SAVINGS
Energy  <ul style="list-style-type: none"> ▶ Reduced Window to Wall Ratio ▶ Air Conditioning w/ Air-Cooled Screw Chiller ▶ Low-E Coated Glass ▶ Insulation of Roof ▶ Energy-Efficient Lighting System ▶ High-Efficiency Boiler for Hot Water ▶ Sensible Heat Recovery from Exhaust Air 		22%
Water  <ul style="list-style-type: none"> ▶ Low-Flow Plumbing Fixtures ▶ Rainwater Harvesting System ▶ Dual-Flush Toilets in All Bathrooms ▶ Water-Efficient Landscaping ▶ Condensate Water Recovery ▶ Black Water Treatment & Recycling System 		24%
Materials  <ul style="list-style-type: none"> ▶ Medium-weight Hollow Concrete Blocks for Internal and External Walls ▶ Terrazzo Tile Flooring 		22%

RESULTS	
Extra Costs & Payback Time Green Solutions (\$)	111,000
Payback (Yrs.)	0.6
Savings Utility Bills (\$/month)	14,600
Energy (kWh/month)	88,178
Water (lt./guest/night)	83
Embodied Energy (MJ/m ²)	346
Environmental Benefits GHG Savings (tCO ₂ /year)	202

"The Exchange Complex is a great achievement for our project team, demonstrating how EDGE certification recognizes sustainability measures that reflect the local context and climate"

– Ronak Gawarwala
Sustainable Design
Leader
HOK

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-accredited 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



thinkstep-SGS

**THE EDGE CERTIFICATION PARTNER
IN GHANA AND NIGERIA**

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

The consortium of thinkstep-SGS combines unparalleled expertise in the development and operation of green building standards with the highest level of verification and certification services. thinkstep-SGS is a global certification provider for EDGE and the sole certifying body for EDGE projects in Ghana and Nigeria, offering a one-stop shop for auditing and certification.

For more information, including pricing, visit www.edgebuildings.com/ghana and www.edgebuildings.com/nigeria, or email gh.edge@sgs.com.

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.

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EDGE in Ghana and Nigeria is supported by:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER

State Secretariat for Economic Affairs SECO

Additional support is provided by Austria, Canada, Denmark, ESMAP, the EU, Finland, GEF, Hungary and Japan.