

# EDGE AND THE GREEN BUILDING BUSINESS CASE

Green buildings offer a large and commercially viable decarbonization opportunity for building owners and financial institutions. Today's buildings generate 39 percent of GHG emissions from energy use. By 2060, the built environment is expected to double, mainly driven by construction in emerging markets. However, uptake of green options lags due to lack of awareness of the business case, misperceptions of high costs, lack of experience across the supply chain, and asymmetry of information between sellers who build for efficiency and buyers who do not have the expertise to appraise sellers' claims. The EDGE program addresses these barriers by building capacity with designers, developers, banks, policymakers, and academia, creating a demonstration portfolio, and offering a straightforward, affordable green certification tailored to client needs in each country and climate.

## The Business Case for Green Building

In IFC's experience, the incremental construction cost of green buildings is less than 3% and is generally paid back within two to three years.

Green measures also futureproof buildings against transition risks from potentially stricter environmental regulations and changing owner/occupant preferences. Lower operating costs and lower investment risk from greening buildings translate to a variety of benefits for different stakeholders.

- ▶ Developers benefit from faster sales/leasing and greater market share.
- ▶ Owners enjoy higher value appreciation and rental yields, faster leasing, lower market and regulatory risks.
- ▶ Occupiers save on energy and water bills and are less exposed to energy price volatility.
- ▶ Financial intermediaries can diversify their investor base when they issue green building construction loans or mortgages and finance these through green finance. Demand for green bonds continues to grow, although studies have yet to confirm that this translates into lower funding costs.
- ▶ Governments also benefit from certified green buildings due to: reduced pressure to expand energy and water grids; reduced cost of energy subsidies to low-income households; and validated climate leadership through quantified GHG savings.

## ABOUT EDGE

An innovation of IFC, a member of the World Bank Group, EDGE is a free design software and an affordable certification system that empowers clients to easily determine the most cost-effective ways to build green. EDGE catalyzes green investment pipeline by simplifying design decision-making and streamlines the impact reporting required for green finance. IFC has invested \$7.5 billion in green buildings including mobilization. Since 2015 EDGE has certified about \$35 billion of floorspace in 69 countries and it is growing exponentially. GHG reduction from EDGE buildings is estimated to be 645 thousand tCO<sub>2</sub>e a year.

EDGE is now available worldwide to certify new and existing buildings of all types. It is growing exponentially because it is easy to use and costs a fraction of traditional certifications. It is also an affordable option for investors who want to map and track a path for zero carbon at portfolio level. EDGE serves all market segments, from social housing to grade A offices, hotels, datacenters, warehouses, light industry, retail and transport terminals. During the pandemic EDGE was used to certify rapidly built COVID hospitals.

## The EDGE Standards and Global Certification System

EDGE certification is available worldwide for new and existing buildings of almost every typology, including: social housing to high income residential, multifamily buildings and landed homes; hotels; offices; shops; warehouses; light industry; datacenters; airports and other transport terminals; schools; hospitals; and places of worship. The EDGE system has three performance levels:

### EDGE Standard

- ▶ The EDGE standard which requires 20% energy, 20% water, and 20% embodied energy in materials savings relative to new business as usual construction;

### EDGE Advanced

- ▶ EDGE Advanced which requires an EDGE building to achieve 40% energy savings;

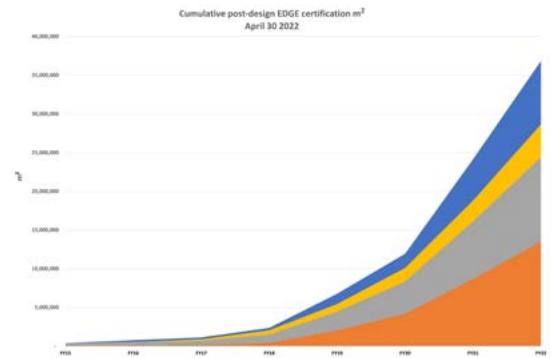
### EDGE Zero Carbon

- ▶ EDGE Zero Carbon which requires an EDGE Advanced building to offset any GHG emissions with carbon credits.

The free EDGE design software helps clients decarbonize by instantaneous energy and cost modelling which minimizes incremental capital costs and accelerates investment decision-making. An EDGE client submits a design in the free EDGE software which is then evaluated by an independent certification provider. EDGE currently has the largest network of certification providers in the world, including the US Green Building Council's GBCI, the SGS-Sintali Consortium and six others. Once a project is certified, IFC helps clients communicate their successes to encourage others in the market. This support includes social media exposure, marketing advice, disseminating press releases, articles, and more.

## EDGE is an Internationally accepted Standard for Green Finance

EDGE provides an affordable route to tap growing demand for green asset finance. For banks and corporates, green finance diversifies sources of funding and green bonds are in ever greater demand from investors. The free EDGE software provides estimated GHG, energy and water savings automatically, reducing the cost of generating quantified GHG impact reports. EDGE is now used by dozen of financial intermediaries and most development banks. It is recognized by the major green finance standard setters (ICMA, GRESB, and the Climate Bonds Initiative) and is aligned with the EU Taxonomy. The EU Taxonomy benchmarks buildings on the basis of kWh/m<sup>2</sup>/year which is also how EDGE works.



Latin America

Asia

Africa

Rest of the world



EDGE is currently funded by the UK Government

## RELATED IFC PRODUCTS

IFC is developing the **Building Resilience Index** to help investors to identify physical climate risks and mitigate them. In addition, IFC has applied the EDGE approach of simplifying complex decision-making into the municipal arena with **APEX**. The APEX application provides cost-impact analysis of city level investment and policies in transport, municipal solid waste, and renewable energy as well as green buildings.

