



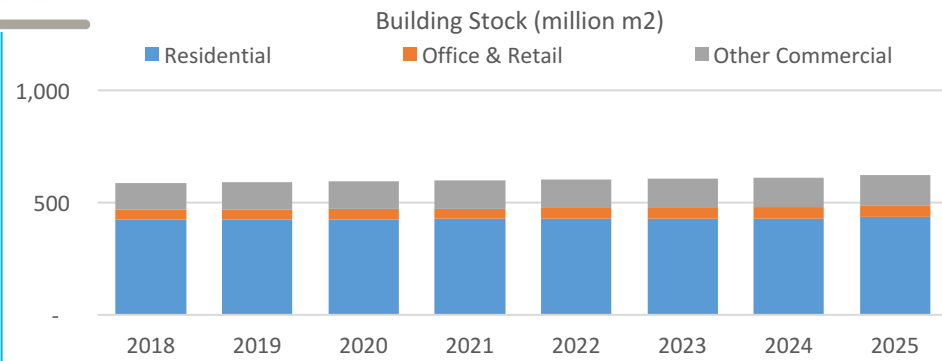
GREEN BUILDINGS MARKET INTELLIGENCE UKRAINE COUNTRY PROFILE



Creating Markets, Creating Opportunities

UKRAINE: COUNTRY SUMMARY

MARKET GROWTH



Market through 2025	Total market	Green market
Commercial	USD 18 B	USD 2B
Residential	USD 12 B	Retrofits lead
Residential units	Retrofits lead	Retrofits lead

CLIMATE POLICIES



- NDC envisions policies for re-construction post conflict.
- Committed to reduce 40% emissions from 1990 levels.

MARKET STATUS



- The country has received monetary help from the EU, primarily by Germany, for modernization and other purposes.
- The government has passed legislation to begin this process formally.
- Along with this the country must maintain standards are met to ensure that a certain percentage are energy efficient projects.

OTHER FACTORS



- The IMF has expressed optimism in the Ukrainian economy.
- China invested \$15B in Ukrainian construction.

GREEN BUILDING PROGRAMS



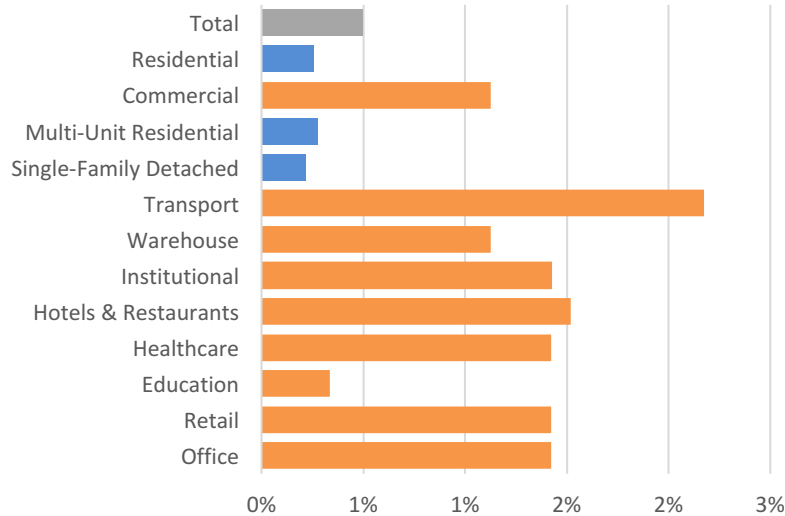
- Ukrainian Green building council was formed in 2012.
- The EU launched a awareness raising campaign in the country to highlight energy efficient construction.
- Green building proliferation is still nascent.

Sources: Navigant Research, World Bank



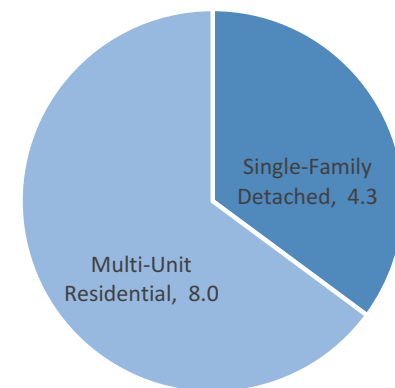
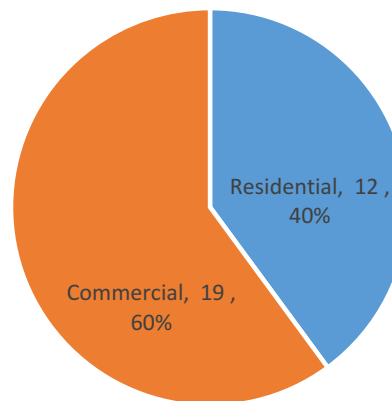
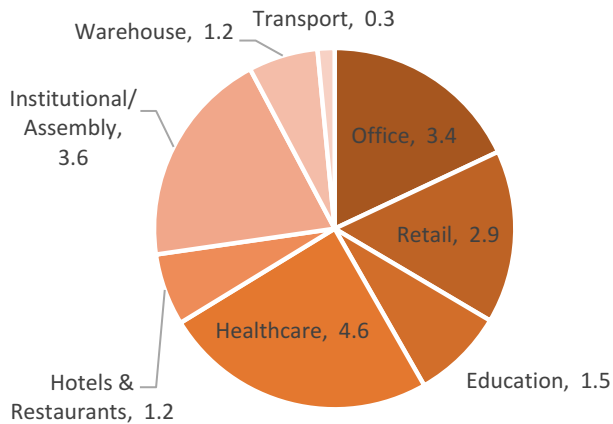
MARKET GROWTH WILL DEPEND ON REGIONAL STABILITY BUT IS EXPECTED ESPECIALLY IN THE **COMMERCIAL** SECTOR

MARKET GROWTH BY SUB-SECTOR (CAGR)



- Unlike most other Eastern European countries, Ukraine's floor space is not contracting.
- Although much of the growth is attributed to transport, the former Soviet Block is making efforts in infrastructure and other commercial building.
- In addition, the tourism is expected to increase in the country, which will increase retail, hotels and other hospitality needs.
- Due to dense urbanization, residential market will grow mostly in multi-unit buildings.

TOTAL MARKET SIZE 2018-25 (USD BILLIONS)





NASCENT GREEN MARKET

Although Ukraine only has six registered green buildings, the country is actively pursuing registration and has committed to pursuing green construction.

Recent projects include:

- Shell Kiev Office
- NOX Kyiv, Ukraine
- BILLA Achmatova Supermarket
- BILLA Anna Achmatova
- L'VIV
- Astarta

- The United Nations Development Program is helping the Ukrainian government integrate Rio convention provisions into policy frameworks.
- There are also efforts to establish the national Energy Efficiency Fund for “financing smart energy efficiency programs and mobilizing national and donor resources to fund the projects aimed at reducing energy consumption in residential heating.”
- Green opportunities are particularly in residential space: as of 2011 55% of multi-family residencies were built prior to 1980, much of which is in need of modernization.
- In partnership with the United Nations Development Program, URE Club, a Ukrainian real estate organization, held a conference to discuss green opportunities within the commercial and residential sectors





MODERATE EXPECTATIONS FOR GREEN GROWTH

- Ukraine has already begun its journey into green building through the support of international organizations, such as the European Union.
- In addition to financial backing from different countries, Ukraine will be able to learn from countries that are more advanced in energy efficiency such as Germany.
- Ukraine sees climate action in context of post-conflict reconstruction.
- An easy-to-use residential tool such as EDGE, especially its refurbishment tool, could further stimulate green buildings in Russia. Given the proportion of the residential market to the overall market, further green penetration into residential will have a large impact on the overall penetration of green.



INVESTMENT IS COMING FROM ALL OVER THE WORLD

- Modernization is a key aspect to the investment that is flowing from all over the world into Ukraine.
- China has openly said that they are investing as much as \$15B in renovating many of the outdated buildings and infrastructure in Ukraine.
- The European Union has also pledged more than \$100M in the efforts to help modernize Ukrainian buildings.
 - In addition, there are mandates that the focus for much of the new construction must be green certified and audited by legitimate organizations.



Ukraine is well poised for growth within the construction sector and has requirements for green initiatives, which is a large opportunity for affordable EDGE certification.



LEARN MORE ABOUT EDGE CERTIFIED PROJECTS IN EUROPE

The EDGE website provides a wealth of resources for developers and investors interested in learning more about the EDGE planning and certification process and calculating the approximate energy and water savings that can be obtained as a result of green construction.

EDGE has also documented construction projects from around the world in a series of case studies. The Kaufland project in Bulgaria is Europe's first case study:






KAUFLAND

Plovdiv, Bulgaria

Building Category: Retail

Predicted Savings of EDGE Certification:

-  37% Energy Savings
-  53% Water Savings
-  30% Less Embodied Energy in Materials

To access this case studies and others, visit <https://www.edgebuildings.com/projects/>



PROJECTS CAN CHOOSE BETWEEN TWO EDGE CERTIFIERS FOR FAST, EASY, AND AFFORDABLE CERTIFICATION



CERTIFICATION	PRICE (PER M ² , EXCLUDING PARKING)	MINIMUM
0-25,000 FLOOR AREA (SQM)	\$0.27	\$2,250
25,000-50,000 FLOOR AREA (SQM)	\$0.22	\$6,750
50,000-75,000 FLOOR AREA (SQM)	\$0.17	\$11,000

*Price per m²; Project appoints an auditor



PROJECT TYPE	CERTIFICATION	DESIGN AUDIT	FINAL AUDIT	TOTAL
Residential (one unit type)	\$1,500	\$3,650	\$4,320	\$9,470
<i>Residential (per additional unit type)</i>	<i>\$490</i>	<i>\$890</i>	<i>\$460</i>	
Commercial (single end use)	\$1,550	\$4,005	\$4,710	\$10,265
<i>Mixed-Use Buildings (per additional end use)</i>	<i>\$990</i>	<i>\$2,670</i>	<i>\$1,560</i>	

*Price per type of project; Auditor fee is included

Details and registration forms can be found on the EDGE program website:
<https://www.edgebuildings.com/certify/other-countries/>



RESEARCH METHODOLOGY

COUNTRY LIST

- IFC chose countries that correspond to the [Climate Investment Opportunity Report](#) (CIO Report) as well as countries of strategic interest for IFC.
- IFC plans to release additional country analysis, pending resources.

TOTAL MARKET OVERVIEW

- Building stock was sourced from the [Global Building Stock Database](#) and confirmed by country experts, if possible.
- The research team found local prices for capital construction expenses, or used global proxies otherwise.
- Market sizing was executed for new construction and did not focus on retrofits.

SNAPSHOT OF THE CURRENT GREEN MARKET

- Main source of information was the [Green Building Information Gateway](#), confirmed by local green building council reports, if such existed.
- The research team focused on properties certified as green.

GOVERNMENT POLICIES

- Main information was sourced from the [World Bank NDC Database](#).
- Additional information was found using various searches as well as government websites.

PROJECTIONS FOR GREEN PENETRATION

- Based on the total market growth, snapshot of the current green market, and the enabling environment of government policies, the research team projected green penetration per each of the sub-sectors.
- Weighted average of combined sector data produced the final penetration number.
- The analysis focused only on new construction, and focused only on certified properties.
- As tools for retrofits take off in the market (including IFC's EDGE product), analysis may be amended to include the retrofit market.
- Market potential may be different from numbers reported in the CIO Report, as a more conservative estimate was used for business planning purposes.

OTHER

- Information for green building councils was sourced from [World GBC website](#).
- Case studies were presented only for IFC's EDGE green building software and certification system.
- However, lists of all green certified projects in a given country can be found through the [Green Building Information Gateway](#).
- Finally, pricing for EDGE certification was included to illustrate that green certification is affordable and achievable in emerging markets.



ACKNOWLEDGEMENTS

DONOR ACKNOWLEDGEMENT

IFC thanks the following national donors for their generous support of the EDGE program: the State Secretariat for Economic Affairs of Switzerland (SECO); the European Union; the Ministry of Finance of Japan; the Hungarian Export Import Bank; 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; and the Ministry of Foreign Affairs of Finland.

In addition, IFC thanks contributors to the GEF-IFC Earth Fund Platform, and the Energy Sector Management Assistance Program (ESMAP) of the World Bank whose support helped seed EDGE.

COLLABORATION ACKNOWLEDGEMENT

IFC thanks the Georgetown University McDonough School of Business for collaborating on developing the market intelligence reports.

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