

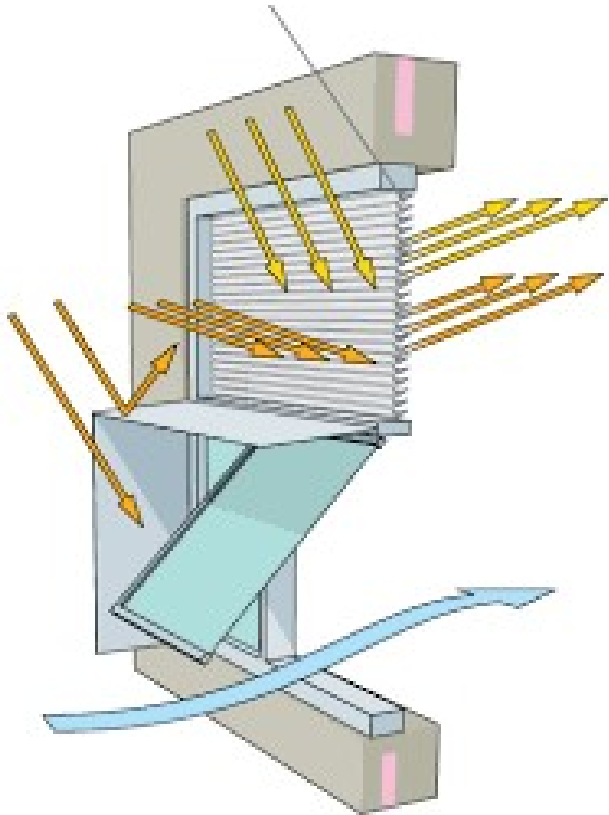


# IFC EDGE **GREEN** BUILDING CHALLENGE

2<sup>ND</sup> JUNE – 7<sup>TH</sup> OCTOBER 2022

## COMPETITION GUIDELINES

# EDGE *GREEN* BUILDING CHALLENGE



## INTRODUCTION

### Excellence in Design for Greater Efficiencies (EDGE)

EDGE is a free software, a green building standard, and an international green building certification system. It is an innovation of IFC, a member of the World Bank Group. It provides market leaders with the opportunity to gain a competitive advantage by differentiating their products and adding value to the lives of their customers. EDGE brings speed, market intelligence and an investment focus to the next generation of green building certification around the world. IFC created EDGE to respond to the need for a measurable and credible solution to prove the business case for building green and unlock financial investment. EDGE includes a cloud-based platform to calculate the cost of going green and utility savings. The state-of-the-art engine has a sophisticated set of city-based climate and cost data, consumption patterns and algorithms for predicting the most accurate performance results

### Designing for Greater Efficiency (DfGE)

In recent times, the IFC has also introduced the DfGE course that seeks to help students and building industry professionals develop skills to support the movement towards a **Net Zero** future.

The **DfGE** course is aimed at advanced design students and practicing built environment professionals (architects, structural engineers, MEP engineers and quantity surveyors). It is offered online and in a university setting.

The **DFGE** course covers the basics of energy and resource efficiency measures in design from the technical and commercial perspective and seeks to encourage and incentivize resource efficiency in the construction sector.

To help promote sustainable building in Ghana, the EDGE program is throwing a challenge for students and professionals under the theme

Towards Net Zero *Ready*



# NET ZERO CARBON *READY*



According to the [World Green Building Council](#), a **zero carbon** building is one that is highly energy efficient and fully powered from on-site and/or off-site renewable energy sources. It is a building that reduces emissions during construction and design so that it can achieve lower emissions when it's up and running. In some countries, GBC's guidelines include that after all the emissions cuts are implemented, any remaining carbon from the construction and operational phases needs to be offset as a final resort using recognized frameworks. By doing so, developers should only offset emissions they cannot cut and ensure those offsets have a real environmental value.

While there is no formal definition of **Net Zero carbon Ready**, it generally describes a building that has been designed and constructed as a **low carbon** building, which is expected to be operationally **Net Zero** when it's completed and the actual operational emissions can be measured for one year.

**Low carbon buildings** are characterized by having low embodied carbon, low energy use, no fossil fuel use on-site, provision of on-site renewables etc. These features are achieved through the use of low carbon materials, energy sources and operations.

**Net Zero carbon Ready** Homes are significantly more energy efficient choices than traditionally built homes. The benefits of include:

### ***Exceptional Value***

Utility bills will fall to an all-time low and stay low all year round. **Net Zero Ready** Homes protect homeowners from future increases in energy prices. And, built to higher standards (an airtight building envelope, improved insulation, high efficiency windows), these homes are more durable.

### ***A Better Living Experience***

Advanced construction methods and superior heating/ cooling and fresh air ventilation systems allow even temperatures throughout the house, better indoor air quality, and less outside noise, providing greater comfort and healthier living.

### ***Environmentally Responsible***

All the features of **Net Zero Ready** Homes work together to significantly minimize the household's environmental footprint by preserving natural resources.





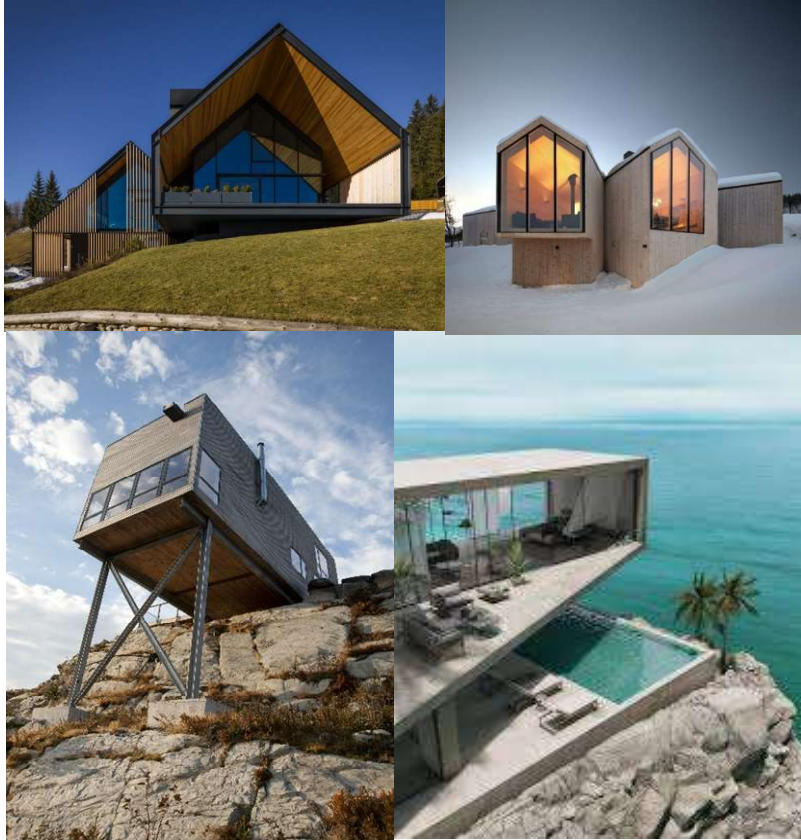
## NET ZERO CARBON *READY*

The new Ghana Building code, sponsored by the IFC, will soon be ratified as law and has a chapter on energy efficient buildings: with the world and Ghana updating regulations to more strongly encourage the construction of green buildings, it is important building professionals understand what it means to design and build green.

The EDGE *Green* building challenge, is intended to encourage interest in low carbon buildings amongst students and building professionals. Through this competition IFC hopes to steer building professionals to do all that they can do at the start of a building project to design towards a zero carbon lifecycle.

# EDGE *GREEN* BUILDING CHALLENGE:

## NET ZERO *READY* DESIGN COMPETITION



### Brief

The student completion part of the challenge seeks to assess the knowledge of student and recent graduates who have completed the DfGE (Design for Greater Efficiencies) course. Student participants are to design a **Net zero Ready** get-away vacation home “**Hill house**” using the EDGE app to support the design decisions and show the savings being made. The budget is 100,000USD or less for a building of 200m<sup>2</sup>.

The **Net zero Ready** vacation home is to be located on an imaginary hillside site in Aburi with steep slopes and expansive views. “Hill house” must fit on a plot size of 30x30m. The site is far away from the municipal water and electricity grid and thus will have to be and off grid or **Net Zero Ready**.

Participants shall be expected to use innovative architectural and engineering principles to take advantage of the steep slopes and views. The home must be aesthetically pleasing and welcoming; a befitting get-away from the hustle and bustle of city life. Indigenous trees must be employed landscaping site and local materials may be used. Points will be given for innovation and creativity, participants must develop at least one innovation in design and construction

Participants are expected to work in groups of a minimum of 2 members and maximum 4 members. At least one of the group members must be either an architectural student or an engineering student. Student from other disciplines in the construction industry who have completed the DfGE course are eligible to participate. Students who have not taken the DFGE course can still register and take the course during the competition period and present their certificates with their submission



# EDGE **GREEN** BUILDING CHALLENGE

## NET ZERO **READY** DESIGN COMPETITION

### Eligibility criteria

- ❑ Students doing built environment and construction related courses in the various Local Tertiary institutions who have taken the DfGE course or can show proof that they have registered to take it.
- ❑ .The DfGE course is a 16-hour course which participants can complete within 2-3 weeks during the competition period completion certificates must be submitted to [akos@orthnerarchitects.com](mailto:akos@orthnerarchitects.com) by **5<sup>th</sup> September 2022** to maintain eligibility.
- ❑ Recent graduates 3 years out of school who have taken the DFGE course or can show proof that they have registered for the DfGE are able to submit their course certificates with the final submission
- ❑ Ghanaian students doing built environment and construction related courses in Tertiary institutions abroad who have taken the DfGE course or show proof that they have registered with the course and are able to submit their course certificates with the final submission
- ❑ Students must participate in groups of a minimum of 2 members and maximum of 4 members
- ❑ Groups shall include student Architects, Engineers, Quantity Surveyors etc.
- ❑ Each group must have at least one student Architect or student Engineer

### Submission Guidelines

1. Downloaded EDGE assessment form (A4)
2. A maximum of four (4) A2 sized drawings including conceptual, floor plans, and at least one section and two elevations to a suitable scale. Submission must be clearly annotated.
3. Rendered 3D drawings
4. A short design report (maximum of 4 pages) indicating design concept, estimated contract sum, estimated construction period, how the net zero ready challenge has been addressed in your project and reasons why the interventions designed into the project are worthy of net zero challenge award
5. Title blocks must be anonymous. Participants will be given a special code to label files in their soft copy which will not be shared with judges.
6. *A Soft copy of all the above.* The soft copy must be single PDF under 8MB with a cover sheet and a register of submission materials listed in the order they are arranged.

A **soft copy** of the entry/entries must be submitted through email with the subject EGBAwards- sent to [admin@GIA.com](mailto:admin@GIA.com) by **4pm on 19<sup>th</sup> September, 2022.**

A hard copy of the entry / entries must submitted to the Secretariat of the Ghana Institute of Architects at *No.3, Abdou Diouf Road, Ridge (next to the ARB Apex Bank)* by **4pm on 19<sup>th</sup> September 2022** . *Closing date is 19<sup>th</sup> September 2022 and adjudication commences thereafter.*



# EDGE GREEN BUILDING CHALLENGE

## NET ZERO *READY* DESIGN COMPETITION

### How to Register

Registration must be carried out according to the online process describe as follows.

1. Click link below to google document and fill in all required fields with complete and truthful information;  
<https://forms.gle/nHmWy4p2zg9g1utN7>
2. You will receive an e-mail with a special code that you will used to label your soft copy files.
3. Reply to the email to confirm receipt and confirm you registration



### AWARD/PRIZE

#### 1<sup>st</sup> Place:

- All expenses paid trip to South Africa to attend Green Building Council South Africa (GBSA) Green Building Convention including registration and Lodging
- Publication in the Media
- Free EDGE Expert Training
- The opportunity to write the Edge exam for free upon graduation.
- Certificate

#### 2<sup>nd</sup> & 3<sup>rd</sup> Place:

- Publication in the Media
- Honourable mentions;
- Free Edge expert training
- The opportunity to write the Edge exam for free upon graduation
- Certificate

#### All participants:

- Free Edge Expert Training
- Participation Certificate

# EDGE **GREEN** BUILDING CHALLENGE

## **GREEN** BUILDING AWARDS



The Professional edition is in the form of a maiden EDGE Green Building Awards (EGBAwards) live at the Kempinsky Hotel on 7th of October 2022. This will be first of its kind in the local building, construction and home improvement industry.

The EGBAwards seek to recognize existing buildings or retrofits completed in the last 7 years who have come as close to Net Zero Ready as possible, whether certified or not. The idea is to encourage architects and allied building professionals who have been working sustainably but haven't necessarily been certifying their buildings to come forward and showcase their efforts and encourage them towards certification. Certified buildings are also being considered.

Nominated buildings may be EDGE certified or not however they all have to demonstrate, using the EDGE App, that the interventions made have led to significant savings in terms of energy and water and reduced GHG emissions. Firms must demonstrate clearly what green interventions they have made and their resulting savings on the EDGE app. There will be three EDGE/DfGE workshops one in June and 2 in July to teach interested participants how input their project data into the EDGE app and to prepare their EDGE assessment forms for their submission. Dates will be communicated to registered participants. Apart from that participants will be able to send Requests for Information (RFI's) up to 19<sup>th</sup> August 2022 to [akos@othnerarchitects.com](mailto:akos@othnerarchitects.com), copy [admin@GIA.com](mailto:admin@GIA.com)





# EDGE **GREEN** BUILDING CHALLENGE

## **GREEN** BUILDING AWARDS



Entries must be submitted in in the following categories:

- 1. Home**
- 2. Apartments**
- 3. Hotels**
- 4. Resorts**
- 5. Retail**
- 6. Industrial**
- 7. Office**
- 8. Healthcare**
- 9. Education**
- 10. Mixed Use**

A firm or individual can submit in more than one category and can make more than one entry per category



# EDGE **GREEN** BUILDING CHALLENGE

## **GREEN** BUILDING AWARDS

### Eligibility criteria

- Architects, Structural/ Civil Engineers, MEP Engineers Surveyors, Planners (Individuals or firms practicing in Ghana)
- If a building has been developed by a consulting team of architects and engineers, the team shall make one submission together
- Buildings completed in the last 7 years (January 2015 to March 2022) both new and retrofit.

### Submission Guidelines

1. Downloaded EDGE assessment form (A4)
2. A maximum of four (4) A2 sized drawings including floor plans, and at least one section and two elevations to a suitable scale. Submission must be clearly annotated.
3. Rendered 3D drawings.
4. A short design report (maximum of 4 pages) indicating the client, the category being submitted for, project team, design concept, contract sum and construction period, challenges peculiar to the project and how they were addressed, and reasons why the project is worthy of a green building award.
5. *A Soft copy of all the above.* The soft copy must be single PDF under 8MB with a cover sheet and a register of submission materials listed in the order they are arranged.

A **soft copy** of the entry/entries must be submitted through email with the subject EGBAwards- sent to [admin@GIA.com](mailto:admin@GIA.com) by 19th September, 2022

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# EDGE **GREEN** BUILDING CHALLENGE

## **GREEN** BUILDING AWARDS

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<https://forms.gle/Z9cvVefxnTlSjar26>
2. You will receive an e-mail with a special code that you will used to label your soft copy files.
3. Reply to the email to confirm receipt and confirm you registration

### AWARD/PRIZE

#### 1<sup>st</sup> Place:

- The winner of each Category will receive a plaque
- Publication in the media
- Free EDGE Expert Training
- The opportunity to write the Edge Expert exam for free

#### All participants:

- Participation Certificate
- Free Edge Expert Training



# EDGE **GREEN** BUILDING CHALLENGE



## **Request for information**

Both students and professional participants may submit Requests for Information (RFI) to obtain clarifications or resolve any ambiguities. RFIs and answers will be distributed to all registered participants as they are received.

Participants must specify whether the RFI is for the student's competition or professional awards in the subject of the email.

RFIs must be submitted via email to

[akos@orhtnerarchitects.com](mailto:akos@orhtnerarchitects.com) copy [admin@GIA.com](mailto:admin@GIA.com).

Deadline for the **submission of RFIs is August 19<sup>th</sup> 2022**

# EDGE **GREEN** BUILDING CHALLENGE

**LAUNCH:** 2<sup>ND</sup> June, 2022

**REGISTRATION DEADLINE:** 4<sup>th</sup> July2022

**SUBMISSION OF DFGE CERTIFICATE:** 5<sup>th</sup> September 2022

**DEADLINE FOR RFIs:** August 19<sup>th</sup> 2022

**SUBMISSION DEADLINE:** 19<sup>th</sup> September, 2022

**AWARDS COCKTAIL:** 7<sup>th</sup> October, 2022



## SUMMARY TIMELINES

# EDGE *GREEN* BUILDING CHALLENGE

## JURY

The jury will comprise of a panel of five judges list below:

### **Head Juror**

Augustus Richardson (Principal Architect, Mobious GIA)

### **Other Jurors**

Kofi Essel (Principal architect, Predios)

Prof Daniel Duah (Associate Professor of Architecture, KNUST)

Paul Ocran, Green building Auditor (HSL Africa)

Philip Dadzie (Principal Architect, Archetype)



# EDGE **GREEN** BUILDING CHALLENGE

## 1. GENERAL RULES

- 1.1. Participants must adhere to the, registration and submission deadlines and general rules;
- 1.2. Participants must follow all the instructions regarding the submission requirements
- 1.3. A technical staff appointed by the Organizer and the Partners of the competition will evaluate the eligibility of the projects: this is not binding for the purpose of the jury's work;
- 1.4. The jury's verdict is incontestable;
- 1.5. It is forbidden for participants to contact jurors for matters related to the competition;
- 1.6. Participants must not disclose the content of their projects before the winners are officially announced;
- 1.7. Participants with business or blood-relations with IFC staff and the jurors of the competition cannot take part in the competition.
- 1.8. Violation of the participation rules by the participant and their teams will lead to them being disqualified from the competition.
- 1.9. The authorship of each project is equally attributed to each member of the Team;
- 1.10. By registering and participating in the competition, participants fully accept all the rules, terms and conditions of the competition. Any exception will be excluded;
- 1.11. The Organizer has the right to change dates or other details in order to improve or fix aspects of the competition. In this case, the contestants will be given reasonable notice via email and on the Organizer's media channels;
- 1.12. The Organizer is not responsible for web malfunctioning, technical difficulties or failure to receive or upload materials; it is highly recommended to complete the registration, and submission procedures in advance of the given deadlines; participants are invited to notify the Organizer via e-mail in case of technical problems;
- 1.13. All the material that is available and useful for the competition's purposes shall be made available to participants via email.

## 2. INELIGIBILITY

- 2.1. Any participant - either participating individually or in a team - can be excluded from the competition. Participants can be disqualified when the submitted material is not written in English;
- 2.2. For the student competition the submission must not show the names or references to the designers. The Team ID is considered a reference to the designers. Therefore, it can only appear in the file name, since jurors will not see it;
- 2.3. Submissions that are incomplete or inconsistent to the criteria included in the "submission guidelines";
- 2.4. Late submissions
- 2.5. Team members who try to contact a juror for matters relating to the competition will be automatically disqualified with their team;
- 2.6. Participants who plagiarize other designers works will be excluded together with their team

## 3. NOTES ON SUBMISSIONS

- 3.1. By taking part in this Competition and accepting the Rules, Participants recognize, from now on, to the Organizer and to the Partner the non-exclusive right to: i) publish the Materials or part of the Materials in any way or form and with any means of communication and/or support, including online platforms, social media channels and printed publications; ii) distribute the Materials or part of the Materials in any way or form and with any means of communication and/or support, including online platforms, social media channels and printed publications.
- 3.2. All the projects that will win a prize and any (available) intellectual property right and/or industrial right on the projects are definitively acquired by the Organizer and by the Partner. The organizer acquires the exclusive right of economic exploitation of the project and the permanent, unlimited, irrevocable, exclusive, internationally-acknowledged right to use, realize, adapt, modify, publish in every media, display, reproduce and distribute the project also for marketing and advertising purposes, review the editorial, create works based on the project or giving the project or parts of it to third parties in any means, way or through any technology also including the freedom of panorama without any limitation in time or place.
- 3.3. By taking part in this Competition and accepting the Rules, the Participants awarded with a prize or with a mention (projects receiving a honorable/finalist mention) undertake, from now on, to provide, if needed, any further digital materials (i.e. 3D models) regarding the project to help the Organizer and the Partner better report the results of the competition.
- 3.4. The Materials must be new and original and the outcome of the intellectual activity of Participants: works and/or materials that do not comply with these features must not be submitted. Therefore, Participants agree to indemnify and hold the Organizer harmless from any cost or damage connected with the infringement of any third-party intellectual property right. By taking part in this Competition and accepting the Rules, Participants declare to be authors (and/or co-author in the event the Team is made of more members) of the uploaded Materials.
- 3.5. The Participants of the Competition guarantees that the submitted Materials do not infringe, in any way, the industrial and intellectual property right of third parties and commit to hold the Organizer and the Partner harmless from any connected request that might arise from third parties.

## 4. PRIVACY AND TREATMENT OF PERSONAL DATA

- 4.1. The processing of Participants' personal will be carried out by the Organizer for the sole purpose of the participation in the Competition and distribution of the Prizes.

- 4.2. Participants will be held accountable for the data - including personal data - they provide. The Organizer does not assume any responsibility for wrong data provided. In any case, according to privacy policies, the Organizer has the right to verify participants' personal data by requesting a copy of an identity document that reports the same data entered for the registration;
- 4.3. The Organizer will share the personal data provided by Participants to the Partner.
- 4.4. The Organizer is not responsible for participants' false data provision.

## 5. NOTES REGARDING PRIZES ADJUDICATION

- 5.1. The publication of the results according to the calendar of the competition has to be considered a provisional publication. It shall be bound by the verification of the requisites defined by the Competition;
- 5.2. Once the results will be published, the Organizer reserves the right to collect and verify a copy of the identity cards of the Winners.
- 5.3. Prizes will be awarded after verifying the identity of the Winners and after they sign a self-declaration certifying that they fully accept the terms of the Competition and the declarations of the transfer of rights regarding the Materials and the indemnification required by the Organizer for the use of the Materials.

## 6. COMPETENT COURT AND APPLICABLE LAW

6. Ghanaian law regulates the rules of this competitions. Any controversy that might arise shall be exclusively resolved through adjudication by the Ghana Institute of Architects