



## Center stage for Passive House at COP26

Energy efficiency is the key for climate protection – Tour in Glasgow on November 8

**Darmstadt, Germany/Glasgow, UK.** Buildings are significant contributors to worldwide greenhouse gas emissions. The UN's climate conference COP26 in Glasgow is an important occasion to present available solutions and enable climate action. The Passive House standard is taking centre stage in Glasgow, featuring in several events and participating in the Global Alliance for Building and Construction's programme. The International Passive House Association (iPHA) is organising a free tour on November 8, visiting highly energy efficient buildings across the city. Additionally, attendees have the opportunity to take part in a Passive House workshop. Many events at COP26 are live streamed.



The Erne Campus in Northern Ireland is a Passive House Premium and will be showcased during COP26 in Glasgow. © South West College

November 11 marks the “Building & cities day” at COP26, a full day dedicated to sustainable transformation of the built environment. High level of energy efficiency is the key to better buildings: climate protection in the building sector will only be successful if buildings use significantly less energy for heating and cooling. The Passive House standard has proven to deliver with successfully completed projects worldwide. The concept and numerous examples will be presented at COP26, encouraging more decision makers to follow suit and to implement Passive House as pathway to achieving climate targets.

## Innovative Campus

The South West College will showcase their Passive House Premium project Erne Campus in Enniskillen, Northern Ireland, in the morning of November 11 as an innovative and tangible solution to drive change in the construction industry. The session is titled “*How buildings will play a role in fighting climate change. The right decision today, means a better tomorrow*”, including a panel discussion with Passive House experts. Passive House Institute’s Edward Lowes is taking part in the panel discussion

as well as Passive House designer Tomas O’Leary and Scott Foster of the UN’s Economic Commission for Europe, UNECE.



The Ice Box Challenge in Glasgow showed the mini Passive House as a clear winner with most of the ice left while Glasgow experienced very hot summer days.  
© Passivhaus Trust, Kirsten Priebe

## Ice boxes in Glasgow and Chile

In the afternoon, the popular Glasgow **Ice Box Challenge** will be featured. This public experiment very effectively and visually demonstrates the benefits of adopting high energy efficiency versus standard practices. At 14:30 (GMT), the organisers, among them the international Passive House Association (iPHA) as well as Passivhaus Trust, will present on the experiences and results of the Ice Box Challenge. The challenge took place in Glasgow this summer. At the same time COP26 is running, the city of Santiago de Chile is hosting an Ice Box Challenge and will present at

17:00 (GMT). Both events will announce future plans for global Ice Box Challenges in 2022, information under [www.iceboxchallenge.org](http://www.iceboxchallenge.org).

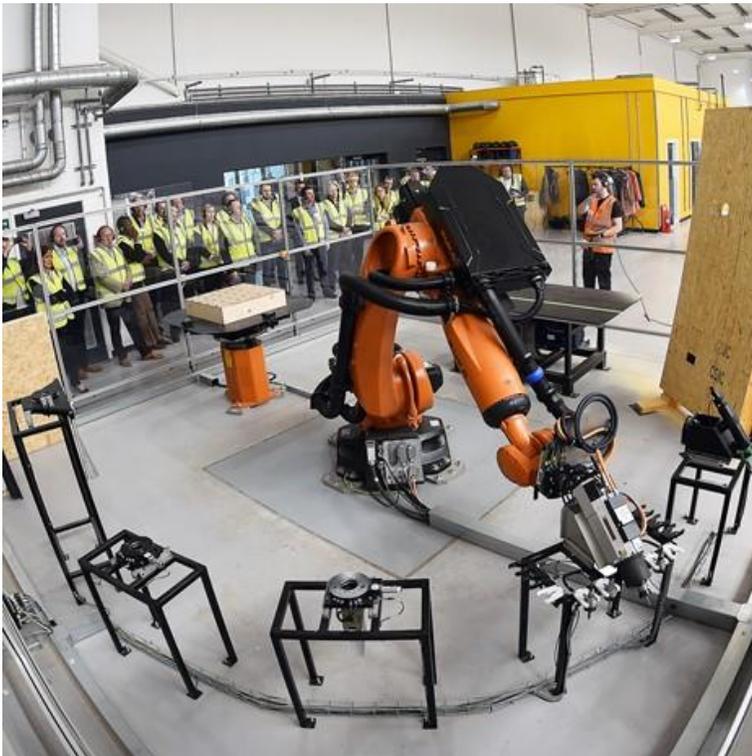
## #EfficiencyFirst

On November 5, the campaign #EfficiencyFirst will be presented in the Digital EU Pavilion from 12:00-13:00 (GMT). The campaign was run by iPHA in partnership with its worldwide affiliate organisations in order to raise awareness about the importance and benefits of highly energy efficient buildings. Joining iPHA's Giorgia Tzar, will be the Affiliates Passivhaus Austria; Passive House California; the US Passive House Network,



COP26 delegates are invited to visit highly energy efficient new build and retrofit social housing across Glasgow city on November 8.

Passzívház Magyarország from Hungary; UK’s Passivhaus Trust as well as the Passive House Association Ireland, the Passive House Institute New Zealand and the Australian Passive House Association. Together they will discuss the achievements of the jointly implemented #EfficiencyFirst campaign and Passive House developments in their respective regions.



## Tour on November 8

At the same time that Passive House owners all over the globe open their doors for visitors during the Passive House Open Days, participants of the COP26 can also personally see and experience Passive House buildings. The tour **Sustainable Buildings of Glasgow** will take place 8 November from 9am until 1:30pm (GMT). The visits include new Passive House social housing units, three retrofitted high-rise towers and an in-depth presentation of an EnerPHit refurbishment of traditional Victorian tenement flats. The EnerPHit standard is the Passive House standard for retrofits.

## From start to finish

The Passive House tour on November 8 includes a visit at the Construction Scotland Innovation Centre where participants can also take part in an interactive Passive House workshop. © CSIC

Participants will receive an in-depth guided tour from architects involved in the project, giving them the opportunity to view the

buildings inside and out and learn how Passive House are constructed from the envelope to the finishing touches. The tour will conclude at the Construction Scotland Innovation Centre (CSIC). There, participants will have the opportunity to network and take part in an interactive Passive House workshop. The bus tour is free of charge, interested persons can register by contacting [info@passivehouse-international.org](mailto:info@passivehouse-international.org) with the subject line "Sustainable buildings of Glasgow tour".

## Case studies at COP26

The Passive House standard will also be represented at further high level events, including the Construction21 Green Solutions Awards Ceremony on November 10. Several Passive House projects are in the running for this international award. Throughout COP26, several Passive House projects will be featured in the virtual pavilion "Build Better Now". On November 4, the Passivhaus Trust is co-hosting the session "*Sustainable city regions: How can we enable zero-carbon living at scale*". During the event "*Climate-neutral housing - Decarbonizing the housing stock in an inclusive & affordable way*", also on November 4, solutions presented in the #Housing2030 report will be discussed. Passive House will be featured as a case study for effective carbon emission reductions.

## Live stream

Many of this year's COP events will be live streamed. To take part in online events, participants can register via the links included in the "Passive House at COP26" schedule published on **IPHA's website**.

## General Information

### Passive House buildings

With the Passive House concept the heat loss that typically takes place in buildings through the walls, roof and windows is drastically reduced due to high-quality thermal insulation, windows with triple glazing, avoidance of thermal bridges, an airtight building envelope, and a ventilation system with heat recovery. This ensures that Passive House buildings can manage without a traditional building heating system. They are called "passive houses" because a major part of their heating demand is met through "passive" sources such as solar radiation or the heat emitted by occupants and technical appliances.

In a Passive House building the heat is retained for a very long time since it escapes very slowly. For this reason, active heating is needed only during extremely cold days. A very small amount of energy is required in total for providing this remaining heating. In the summer (and also in hot climates), a Passive House building also offers advantages: among other things, the excellent level of insulation ensures that the heat stays outside, therefore active cooling usually isn't necessary in residential buildings. Due to the low energy costs in Passive House buildings, the utility costs are foreseeable - a fundamental principle for affordable homes and social housing. A Passive House building consumes around 90 percent less heating energy than an existing building and about 75 percent less than an average new construction.

### Passive House and NZEB

The Passive House standard already meets the EU requirements for Nearly Zero Energy Buildings. According to the European Buildings Directive EPBD, all member states must specify requirements for so-called NZEBs in their national building regulations. These came into effect in January 2019 for public buildings and applies for all other buildings since 2021.

### Pioneer project

The first Passive House in the world was built in Darmstadt, Germany, 30 years ago by four private homeowners. Prof Wolfgang Feist was one of them. Ever since the homeowners moved in with their families in 1991, these terraced houses have been regarded as a pioneer project for the Passive House standard. With its newly installed photovoltaic system, this flagship Passive House received the Passive House Plus certificate for this reason.

### Passive House and renewable energy

The Passive House Standard and generation of renewable energy directly on-site or near the building is a good combination. The building classes "Passive House Plus" and "Passive House Premium" are available for this supply concept.

### Passive House worldwide

Passive Houses buildings for all types of uses now exist everywhere. In addition to residential and office buildings there are also kindergartens and schools, sports halls, swimming pools and factories built as Passive House buildings. The first Passive House hospital in the world is currently being built in Frankfurt am Main, Germany.

### Passive House Institute

The Passive House Institute with its headquarters in Darmstadt (Germany) is an independent research institute for highly efficient use of energy in buildings. The Institute founded by Wolfgang Feist holds a leading position internationally with regard to research and development in the field of energy efficient construction. Among other things, Prof Wolfgang Feist was awarded the DBU Environmental Prize in 2001 for developing the Passive House concept.

**Social Media:** Twitter: @the\_iPHA // Facebook: the International Passive House Association // Hashtags: #COP26 // Passive House Open Days: #iPHopendays

**Contact:** Katrin Krämer / Press Officer / Passive House Institute / [www.passivehouse.com](http://www.passivehouse.com)  
E-mail: [presse@passiv.de](mailto:presse@passiv.de) Tel: +49 (0)6151 / 826 99-25



The world's first Passive House building in Darmstadt, Germany celebrates its 30th anniversary in 2021!  
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Prof Wolfgang Feist  
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