

## Press Release

4 November 2022



The Lyth family wanted a healthy living atmosphere and a highly energy-efficient home. This Passive House building in Auckland, New Zealand, will be open to visitors during the Passive House Open Days. **ID 6641** © Dan Scott

# Efficiency – when, if not now?

## Advantages of high energy-efficiency – Passive House Open Days 11 - 13 November

**Darmstadt, Germany.** Energy costs are currently at a record high and a cause of great concern for many people. Highly energy-efficient buildings provide advantages: they require much less energy for heating and cooling, saving residents a lot of money on energy costs in this way. Climate protection also benefits from the lower energy consumption of buildings. It is therefore worthwhile, especially now, to focus on a high level of energy-efficiency. Passive House buildings around the world will be open to visitors during the **Passive House Open Days** from 11 to 13 November.



A visit to this house in Christchurch in the UK is also possible during the Passive House Open Days. **ID 7043** © Sabine Ulmer-Lake

The concept is quite simple: residents will open their doors to interested people and invite them into their Passive House homes. Some public institutions will also offer an insight into these buildings. "Both, new builds and buildings that have undergone a deep retrofit can be visited during this event. Additionally, experiencing the indoor air quality helps people understand the level of comfort the Passive House standard delivers", explains Carl Halbach of the International Passive House Association (iPHA). The Passive House Open Days will take place from **11 to 13 November 2022** and are organised for the nineteenth time.

## Many advantages

While heating systems in many buildings are already in operation again in November, those in highly energy-efficient buildings such as Passive Houses are usually still switched off. The rooms are kept warm in two ways during average autumn temperatures: through heat recovery via the ventilation system, and through internal heat gains. These include gains by solar radiation and the waste heat emitted by occupants and appliances. The excellent level of thermal protection ensures that the heat is retained inside the building for long. In the summer this keeps the heat outside. "The worldwide projects of high energy-efficiency show that a lot can be done for climate protection in the building section, especially with deep retrofits at large scale", says Carl Halbach of iPHA. That is why the Open Days this time have partnered up with the [outPHit](#)



Innsbruck: Visitors can view this apartment block retrofitted by the housing association Neue Heimat Tirol to the EnerPHit standard. [ID 5673](#) © PHI

project of the European Union that makes deep retrofits faster, cheaper and more reliable.



This home in Griesheim, Germany, will be open to the public, too. [ID 2122](#) © Holger Dickert

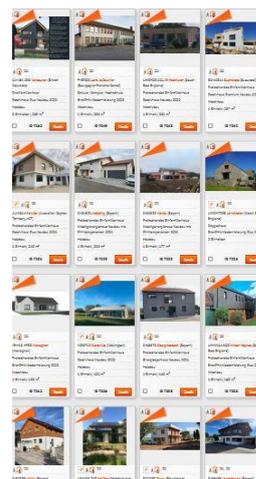
## From Auckland to Griesheim

The Dickert family from the German city of Griesheim will also participate in the Open Days. "The most important step for the energy transition is saving energy. In our home, visitors can experience how a Passive House building functions, and they will be able to perceive that living comfort is higher here, especially due to the ventilation system", explains Holger Dickert. The Passive House

Institute points to another positive aspect of a ventilation system: in addition to reducing dust and microbes, the risk from aerosols can also be decreased.

## Cost-effective and healthy

Around 18,000 kilometres away in Auckland, New Zealand, Joseph Lyth will also be taking part in the Open Days together with his family. The architect had a strong reason for building the new family home as a Passive House: his children suffered from severe respiratory problems. For Lyth, this was clearly due to the damp buildings which are very common in New Zealand. "We completed our Passive House at a lower cost than most buildings that are realised according to the national building standard. Thus, we can also show our visitors that a highly energy efficient and in particular a healthy home can be achieved with a standard budget", explains Joseph Lyth.



A list with all buildings that can be viewed can be found [here](#).

*In its [Project Database](#), the Passive House Institute lists all the buildings that can be visited. This list is continually updated. A [world map](#) with the locations and video tours is also available. iPHA provides information on its [website](#) regarding additional events relating to the Passive House Open Days.*

## General Information

**26th International Passive House Conference:** The #26intPHC will take place from 10 till 12 March 2023 in Wiesbaden. The conference will be supplemented with online events. [www.passivehouseconference.org](http://www.passivehouseconference.org)



**#EfficiencyNOW:** The call of the hour is to save fossil energy. To achieve this, the Passive House Institute has started the #EfficiencyNOW campaign. All information can be found on the platform [Passipedia](https://passipedia.org).

**Passive House buildings:** With the Passive House concept, the heat loss that typically takes place in buildings through the walls, windows and roof is drastically reduced. By applying the five basic principles – 1. excellent thermal insulation, 2. windows with triple glazing, 3. a ventilation system with heat recovery, 4. avoidance of thermal bridges, 5. an airtight building envelope – a Passive House building needs very little energy. For this reason, Passive House buildings can dispense with a *traditional* heating system. 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.



Socially compatible and highly energy efficient: apartment blocks built to the Passive House standard.  
© Neue Heimat Tirol

**Advantages of Passive House buildings:** In a Passive House building, in winter the heat is retained for a very long time. In the summer (and 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 (in Central Europe). Due to the low energy costs in Passive House buildings, the utility costs are predictable. This is fundamental for affordable homes and social housing.

**Pioneer project:** The first Passive House in the world was built in Darmstadt, Germany, 30 years ago by four private homeowners. Professor 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.



The world's first Passive House building in Darmstadt, Germany celebrated its 30th anniversary.  
© P. Cook

**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 Passive House Institute has introduced the building classes *Passive House Plus* and *Passive House Premium* for this purpose. The world's first Passive House building in Darmstadt has also been producing renewable energy since 2015 by means of a subsequently installed photovoltaic system, and received the *Passive House Plus* certificate for this reason.

**Building types:** Passive House 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 to the Passive House standard. The Passive House certificate was recently awarded in Frankfurt for the first Passive House hospital in the world.

**PHPP:** The Passive House Institute has developed the planning tool Passive House Planning Package (PHPP) for calculating the energy balance of highly energy efficient buildings. The energy demand of the planned building can be calculated reliably using this Excel-based tool.

**Passive House Institute:** The Passive House Institute founded by Professor Wolfgang Feist in 1996 as an independent research institute holds a leading position with regard to research and development in the field of energy efficient building construction and deep retrofits.



Prof. Dr. Wolfgang Feist  
© Peter Cook

**iPHA:** The international Passive House Association is an important contact point for all those involved in construction. The aim is to convey knowledge relating to highly energy efficient construction and retrofits, as well as networking.

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