

## British Columbia, Bradford and Bavaria!

Passive House Open Days worldwide from 5 - 7 November - Energy efficiency is the key

**Darmstadt, Germany.** A 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. Residents around the world are inviting visitors into their Passive House homes from 5 till 7 November 2021. Numerous opportunities for visiting have been entered into the Passive House Institute's project database, ranging from British Columbia in Canada to Bradford in the UK and the German state of Bavaria. Visitors can experience the climate-friendly buildings that provide comfortable and healthy living at the same time. Opportunities for visiting are possible both in person and virtually. The world's first Passive House in Germany celebrates its 30th anniversary this year and takes part with an [online presentation](#).



This Passive House home in the Bavarian town of Rosenheim, Germany, can be visited during the Passive House Open Days. Further information in the project database under the ID 6055.

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Extreme weather events with far-reaching consequences are becoming more frequent and cannot be ignored: The building sector must also make its contribution to effective climate protection and cut emissions significantly. Energy efficient buildings are the key to this as they use very little energy for heating and cooling. During the Passive House Open Days from 5 till 7 November 2021, it will be apparent that these sustainable buildings are already being



This Passive House building in Bradford, UK, can also be visited in person, ID 6447.

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implemented in large numbers all over the world. "The good thing is that residents open their houses to the public or present them in a video in an entirely uncomplicated way. If this high level of energy efficiency in buildings is implemented even more widely for new constructions and retrofits, we will have taken a big step forward in terms of climate protection," explains Sabine Stillfried of the IG Passivhaus, the German affiliate of the international Passive House Association (iPHA).

## Low energy costs

Highly energy efficient houses built to the Passive House standard are valued for their low energy consumption and because they offer advantages in terms of comfort and healthy living: In winter, the heat stays inside the house for a long time, also due to the excellent thermal insulation. In summer,



This Passive House home in British Columbia, Canada, will open its doors to the public, ID 6402. © Tomaž Stich

The heat stays outside for the same reasons. The heat recovery ventilation system provides a constant supply of fresh air. In addition to removing dust particles and microbes, the fresh air filters recommended by the Passive House Institute for the ventilation system can also decrease the infection risk from aerosols.

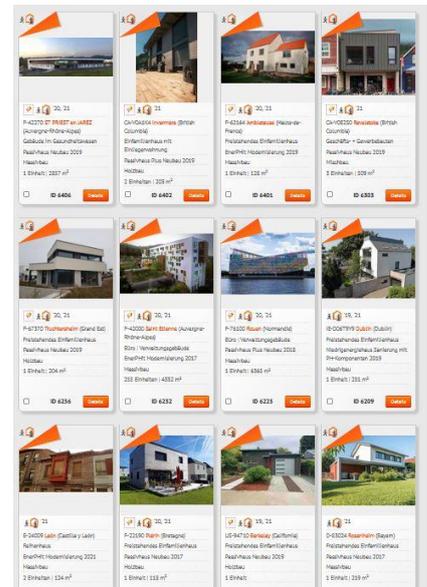
## Building better than current standards

Experts agree that most legal requirements regarding energy use in the building sector are not ambitious enough. Therefore, experts advise those that wish to

build their own home to actually make it fit for the future and to build it better than stipulated in the building codes. During the Passive House Open Days, all interested persons can inform themselves about the advantages of energy efficiency: "Buildings built to the Passive House standard offer a high level of thermal comfort combined with a better quality of indoor air and low energy costs, which is equally pleasing for building owners as well as tenants", says Sabine Stillfried.

## The best quality of retrofits

For the energy transition in the building sector, retrofits must be realised with the best quality available, otherwise the chance to achieve a high level of energy efficiency and the associated reduction in emissions will be lost for decades. Retrofitted buildings will also be open to the public during the Passive House Open Days. All opportunities for viewing, both in person and virtually, are listed on the website [www.passivehouse-database.org](http://www.passivehouse-database.org) and are updated continuously. You can find more information about the event on the **iPHA website**. The Passive house Open Days are organised by the iPHA in cooperation with the networks IG Passivhaus Deutschland as well as Passivhaus Austria and are taking place for the 18th time.



All viewing opportunities are listed on [www.passivehouse-database.org](http://www.passivehouse-database.org).

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## 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 now utilises renewable energy and received the Passive House Plus certificate for this reason.



The world's first Passive House building in Darmstadt, Germany celebrates its 30th anniversary in 2021!  
© Peter 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 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. Interest in Passive House is growing. In view of the consumption of resources in industrialised countries and climate protection, municipalities, businesses and private people are increasingly implementing new constructions or retrofits to the Passive House standard.



Prof Wolfgang Feist  
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### 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 // Hashtag for International Passive House Open Days: #iPHopendays

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