

The PHPP reaches version 8: new calculation methods, renewables and validation for climates worldwide

The Passive House Institute presents the eighth version of its energy planning package, with new calculation methods, integrated renewables and validation for climates worldwide.

The Passive House Institute (PHI) is presenting the eighth version of the Passive House Planning Package, PHPP, at the 17th International Passive House Conference in Frankfurt, under the theme of adjustment to renewable energies and suitability for all climates. The software, developed by the institute itself and accompanied by a detailed manual, has long been a reliable reference for the design of energy-efficient buildings, and has been accepted as a verification tool within Germany's state subsidy programme for high-efficiency buildings.

What version 8 brings

PHPP 8 does more than add new calculation methods and simplify data entry. It incorporates a list of certified Passivhaus components and integrates the electrical yields of photovoltaic systems. With reference to the European Energy Performance of Buildings Directive (EPBD), the combination of the passive house standard with renewable energies is given real weight within the tool.

Alongside solar hot water generation, already covered by earlier versions, the package now calculates the energy contribution of photovoltaic systems, heat pumps and geothermal probes. A procedure for estimating solar heating supply has also been integrated, together with a spreadsheet of certified components that can be updated regularly as new products appear.

Validated beyond Central Europe

Comparative studies using dynamic building simulations have shown that the PHPP algorithms serve not only Central Europe but also deliver reliable results for warm and tropical climates. The package can therefore be applied as a planning and verification tool for passive buildings anywhere in the world, with the option of entering additional values to define passive cooling strategies. In the words of Jan Steiger, a member of the PHI scientific team, the new version addresses the current situation and represents an important step forward.

DesignPH: 3D visualisation in summer 2013

To make data entry even easier, the interface has been redesigned and several control elements expanded. This summer designPH will be integrated, a three-dimensional tool that will allow graphical input and design modelling. During the Passive House Conference, visitors will be able to try this feature at the exhibition accompanying the event.

All calculations remain Excel-based and visible, keeping the content comprehensible and auditable. With PHPP 8, architects, planners and energy consultants can optimise designs and components from clear figures, a way of working that at PAPIK Group we apply to Passivhaus construction and to the energy retrofit of Eskimohaus homes.

Schedule and venue

The German version of the software will be available at the International Passive House Conference in Frankfurt, and the first copies can be purchased at the Passive House Institute stand on 19 and 20 April 2013. The English version of PHPP 8 will follow from summer 2013.

- Conference and trade exhibition: 19 and 20 April
- Workshops and seminars: from 17 April
- Excursions: 21 April

Venue: Congress Center, Ludwig-Erhard-Anlage 1, 60327 Frankfurt, Germany.

A transparent calculation tool validated for every climate is not a technical detail: it is the assurance that a passive house's energy promise can be proven in figures, both before and after construction.