

## **Position statement**

28 November 2016

Passive House Institute's response to the press release issued by the Wiesbadener Wohnungsbaugesellschaft GWW in June 2016

# Passive House Institute offers troubleshooting assistance

An increasing number of enquiries have been received by the Passive House Institute (PHI) regarding the press release issued by the Wiesbadener Wohnungsbaugesellschaft GWW on 28 June 2016 and the resulting media reports. In these media reports it is suggested that the construction of Passive House buildings does not provide any advantages and is not worthwhile. The reports also mention substantially higher additional costs for the construction of buildings to the Passive House Standard.

## The Passive House Institute therefore wishes to present the facts in this matter:

The results of the measurements carried out by the GWW in their model project in Wiesbaden are not typical of buildings which have been built consistently in accordance with the Passive House Standard. Long-term experiences gained with other Passive House projects do not confirm the values that were measured in Wiesbaden. There are numerous examples of properly functioning apartment complexes built according to the Passive House method, including some in Frankfurt, Giessen, Heidelberg and Hamburg.

"According to currently available information, the planning for the Wiesbaden project using the Passive House planning tool PHPP was correct. However, it later turned out that the ventilation system used too much electricity. With the aid of a competently conducted measurement it would be possible to find out the reason for the high electricity consumption in Wiesbaden and rectify the defect on site, if necessary," explains Dr. Berthold Kaufmann of the Passive House Institute.

The extra costs of 220 Euros per square metre for Passive House construction as cited in the media reports are considered too high by the Passive House Institute. The Research Group for Cost-effective Passive House buildings has calculated additional costs between 80 and 100 Euros per square metre of living space. The benchmark for these costs consider built Passive House buildings and the construction cost index (CCI). "Higher additional costs are possible for first-time projects, but if one examines low-cost construction in detail, then significantly lower costs are possible," says Kaufmann.

The Passive House Institute does not consider it appropriate to call into question an entire technological sector or building physics in general just on the basis of individual faults in a specific project. The PHI has a strong interest in finding and rectifying the errors in the GWW Passive House pilot project in Wiesbaden and offers its assistance with troubleshooting.

### Background:

In 2013, as part of a pilot project, the GWW built four identical apartment blocks, two of which were built in accordance with the stipulations of the German energy saving ordinance EnEV 2009, and the other two according to the Passive House Standard, which is a more stringent energy standard.

In June 2016 press release relating to the second monitoring of the energy consumption, it is stated that there were "significant differences" between the electricity consumptions of the apartment buildings. The electricity consumption in the two Passive House buildings showed a "striking difference" compared to the two EnEV buildings.

According to the press release issued by the GWW, this almost levelled out the energyrelevant advantage of the Passive House buildings in terms of the heating energy consumption. In particular, the electricity consumption of the ventilation system which was recorded via the electricity meter for "general electricity" in the building was extremely high.

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