

Press Release

Austrian Passive House Group (APG)

With the Austria House, Austria is at the forefront for the 2010 Olympic Games in Canada.

Three companies from Vorarlberg and two Tyrolean companies have built the first Austria House using the passive house building technique.

With the Austria House, Austria is already leading in the 2010 Olympic Games in Canada. The passive house building is already considered a showcase in the matter of energy efficiency. The Austrian Passive House Group, made up of three companies from Vorarlberg and two Tyrolean companies operating in the passive house industry, is constructor of this project.

Temperatures below zero degrees (Celsius) are pretty common at Whistler, the site of the Winter Olympics 2010. During the Games, the organizers expect an average temperature of minus eight degrees. The heating in the town will be turned right up to cater for the many international guests and the oil tank will be well filled. There is only one house where this won't be necessary: the Austria House.

The Austria House is the place where the Austrian Broadcasting studio is situated during the Winter Olympics between 12th and 28th February 2010 and for the Paralympic Games from 12th to 21st March 2010, and it won't be cold at all, as the Austria House has been built in line with the passive house construction standard.

Up to a 90 percent saving in energy

In brief summary this means: extremely good thermal insulation, no thermal bridges between the inside and outside, windows with insulating disc glazing, solid construction that is air- and windproof, controlled ventilation in the living space and heat recovery, as well as use of solar radiation and geothermal energy for heating the living space and for hot water generation.

During the summer an intelligent compact device, aerosmart x², provided by Drexel and Weiss - energieeffiziente Haustechniksysteme, will provide passive cooling for the Austria House. All this offers a saving of up to 90 percent of the energy used in a conventional Canadian house.

"Compared with commonly used air-conditioning, the saving in the Austria House is up to 4000 kWh per year", emphasized the spokesperson of the Austrian Passive House Group (APG), Reinhard Weiss of Drexel and Weiss, at the official presentation of the Austria House. APG is the constructor of the Austria House and is a joint venture between three companies from Vorarlberg, Sohm Holzbautechnik, Drexel und Weiss and the engineering company, DI Erich Reiner, and two

companies from Tyrol, Optiwin and the advertising agency Zweiraum.

The building envelope of this two-storey house and the outdoor installations were fabricated by timber construction company Sohm Holzbautechnik from Alberschwende and constructed at Whistler in collaboration with Canadian construction company Dürfeld Log Construction. The windows are from the Tyrolean window manufacturer Optiwin, and the building environment equipment -including the aerosmart x² - is from Drexel and Weiss – energieeffiziente Haustechniksysteme at Wolfurt. The architect for this house was Treberspurg & Partner in Vienna.

Quick realization

The companies of APG managed to build an energy-efficient showcase project in Canada in just 12 months from planning to completion. "The passive house standard of the Austria House shows the Olympic Games how to handle energy efficiency and how to solve the structural space heating problem", explained APG project coordinator DI Erich Reiner.

It's not by chance that Austrian specialists have built the Austria House as a passive house. No other country has brought this construction technique so close to perfection and nowhere has this type of house been implemented so much as in Austria. There are already 5000 passive houses in Austria, with a surface area of around 300,000 square metres. In Vorarlberg, pioneers in matters of passive housing and also the home state of three members of APG, more than 30 percent of all new buildings were built to passive house standards in 2009. In Tyrol, the home state of the two other members of APG, the percentage is about 24 percent.

Europe as a pioneer

Compared with these percentages, North America has around 50 passive houses. Canada with its 9800 kg oil equivalent has the highest energy use per person per year at the moment. "Europe, and especially Austria, has enormous know-how which needs to be utilized", believes project coordinator DI Reiner. The Canadian government is also interested in this technology transfer. They have recently enacted a program for the development and implementation of energy-saving projects.

"Energy efficiency and environmental protection are future-oriented topics. A clear signal for this is the Winter Olympics 2010, which will be the first Green Olympics", explained Canadian Ambassador Dr. John Barrett at Igls. The aim is to save a total of 300,000 tons of CO₂ during this climate-neutral Winter Olympics. APG is not only thinking about the export of technology, for them this project signifies the starting signal for their entrance into the North American market. "In the long run we would like to work in Canada and therefore we need joint ventures", says APG spokesperson Reinhard Weiss.

Wooden houses have a strong tradition in Canada

The Austria House is a passive house made using a solid wood construction technique with a DD diagonal pallet. This construction technique, developed by Sohm Holzbautechnik, is characterized by the use of solid fir timbers which are connected only by wooden dowels without any binding agents. "Construction with solid wood in the form of block houses has a long tradition in Canada and is very popular", project coordinator Erich Reiner points out.

After all Canada has enormous reserves of wood, a renewable natural resource. Reiner: "Innovative solid wood products as seen in Austria are rarely seen in Canada. Prefabricated solid wood construction systems can build on the long Canadian block house tradition and introduce

modern architecture at the same time, building envelopes fit for passive houses and short construction times."

1.3 Million Euros total project cost

The APG project the Austria House has a floor space of 250 square metres over two floors. The upper floor is a suspended structure. The total project cost 1.3 Million Euros. Significant costs were incurred during the preparation phase, which took more than three years, and included the breaking down of some barriers so that this project could be implemented at all. All elements of this building come from Austria and were delivered to Whistler by train and ship. In addition, the building had to be built to be earthquake resistant due to its geological situation. To avoid vermin from Vorarlberg being shipped to Canada, the wood used had to be fumigated beforehand.

The Austria House is located in the centre of Whistler, just a three-minute walk from the site where the medal ceremonies will take place. The official opening will take place on 11th February 2010. Both during the Olympic (12th to 28th February 2010) and Paralympic (12th to 21st March 2010) Games and afterwards, the Austria House will play host to the international worlds of politics, economics and sport and therefore will also be an effective advertising medium for Austrian tourism and hospitality.

Additionally, the Austrian ORF broadcasting studio is housed on the upper floor during the Games. From there you have a wonderful view to Blackcomb and Whistler Mountain, both sites for the alpine skiing competitions. This is the first time that the Austria House won't be disassembled at the end of the Olympic Games but will stay on the site.

Austrian-Canadian economic forum in March 2010

In March 2010 APG, the Trade Department of the Canadian Embassy, Außenwirtschaft Österreich (Foreign Trade Austria/AWO) and the Canada Green Building Council from Vancouver will host the Austrian-Canadian economic forum "Sustainable Building/Renewable Energy" at the Austria House, providing a networking service and a passive house symposium. "The interest from Austrian companies is huge. More than 40 companies have agreed to take part in this forum", says Erich Reiner. After the economic forum the Austria House will be handed over to the town of Whistler.

Fact box:

Austria House for the 2010 Olympic Winter Games in Canada

- Address: 7390 Fitzsimmons Road South
Whistler, British Columbia, V0N 1B7
Canada
- Built and produced by the Austrian Passive House Group (APG): Sohm Holzbautechnik, Drexel und Weiss, OPTIWIN, engineering office DI Erich Reiner, zweiraum advertising agency
- Architect: Univ. Prof. DI Dr .Martin Treberspurg, Vienna
- Two-storeys, 260 m² floor space
- Solid wood construction with DD diagonaldowel wood elements
- The upper floor is a suspended structure
- Start of construction in Whistler: beginning of September 2009
- End of construction: December 2009

- Official opening of the Austria House: 10 February 2010
- Total project costs: 1.3 million Euros
- Information: www.oesterreichhaus.at

Further inquiry for the editorial staff:

Drexel und Weiss, Reinhard Weiss, phone +43/5574/478950, E-Mail r.weiss@drexel-weiss.at

Engineering office DI Erich Reiner, Erich Reiner, phone +43/5514/4170, E-Mail erich@reiner.at

zweiraum advertising agency, Markus Regensburger, phone +43/5412/20700, E-Mail

m.regensburger@zweiraum.eu

Pzwei.Pressearbeit, Alexandra Stockmeyer, phone +43/5574/44715-22, E-Mail

alexandra.stockmeyer@pzwei.at