

The task to change habits of incoming tenants depends on a developer



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In spite of the feeling that stagnation brought deceleration of development down to stoppage, we are a bit farther again. Although in November 2008 the topic idea of the conference was the dilemma whether to consider the crisis be the beginning of collapse or the challenge of the period, this time the need to find the particular solution, the effective tool or the reliable ship for sailing thought all problems of the onerous situation, became the dominant of all the event.

Nordica will not be more expensive than standard



„Energetically saving solutions are much more wider problem than warming up, which only presents a sort of its makeup,“ by these words Štefan Šlachta, the Bratislava main architect, open the topic wittily. The moderator Martin Csurilla (Envi A. o.p.s.) added him by the definition of difference between a low-energy (passive) structure and an environmental structure, which has much wider range and behave friendly to the life environment.

The task to change habits of incoming tenants mainly depends on a developer- it was the main message maybe of all the conference. Václav Matoušek brought it to Bratislava, which introduced Skanska Property CZ as the firm building with respect to the life environment. As an example he indicated the project of 8-storeyed energy saving house Nordica Ostrava, the first with the Green Building certificate for energy saving in Czech Republic. This administrative building built-up on the edge of the historical core of the north-Moravian metropolis offers besides 11 400 m² of office „A“ and technical background also gastronomy and retail spaces. The matter subject of the Green Building program is energy demand of buildings. By using standard materials with sophisticated concept and keeping certain rules it is possible to achieve an effective result and to help in protection of the environment. It comes from the idea of the global community, which is practically developed by the team of environmental specialists utilizing international experiences from other programs.

As Matoušek pointed out, Nordica is not more expensive than standard objects for tenants or owners, because it does not present any further costs for tenants, just in contrary - savings on their checks for energy. From the Skanska group philosophy point of view the standard type of building is concerned in reality, which it has already realized under the titles of Hagaporten and Citykajen at home in Sweden. It reflects shift of an interest of investors and tenants to structures not only energy saving, but also friendly to the life environment in addition.

iDOM = comfort, ecology, health, saving

„Because of donation policy of the state, which would shorten payback of such investment, does not exist in Slovakia, people are not much interesting in projects of low-energy intelligent structures functioning on the principle of renewable sources of energy,“ Mário Lelovský from Media Control complained. As he added, inhabitants and investors as well want to achieve maximal comfort and safety at minimal operational costs besides as low price as possible. Demonstrative iDOM Crestron (finalized in October 2006 in Bratislava) with an integrated control system the goal of which is to offer maximal comfort of housing with emphases to economy, ecology and health sides, connects inside it three aspects - low-energy, intelligent and OZE ones, what ensures absolute light and thermal comfort.

Heating of iDOM without gas bears on two sources: heat pump ground - water (heat of ground is taken through liquid flowing from 4 ground bores to the depth of 85 m, where temperature does not drop under 6 °C either in the heaviest freezes) and solar collectors. Heat is accumulating in the central accumulator, from where floor and wall heating as well is provided without radiators. Cooling without electricity uses two sources: 4 ground bores (cold of ground is taken through liquid flowing from 4 ground bores to the depth of 85 m where temperature does not increase above 10 °C either in the hottest days, and is distributing to roofs) and windows with intelligent controlled jalousie (up to 70-percentage saving of cooling energy). Air conditioning contains two systems: the first serves for air replacement and permanent not draft-vent ventilation and the second for de-moistening the poll hall and air replacement. By recuperation - heat recovery it saves up to 85 % of heat compared with venting through open windows.

The low-energy demonstration iDOM was visited by above 2 000 people till now with professional commentary and was realized in above 40 objects (family, flat, commercial). It shows one of clever ways of housing development in the 3rd chiliad.

Sun radiation against extreme cold



Descriptive answer for the basic question, whether energy passive buildings are up-to-date trend or perspective solution for future, is also the Sun School at Kargyak, introduced by Jan Tilinger from the inhabitants association Surya. Thanks of financial and material help of sponsors and enthusiasm of local volunteers the project of passive ecology structure in the middle of high-mountain desert in the above-sea height of 4 200 m was finalized in autumn 2008. The region has above 300 sunny days a year, but in winter Kargyak is cut off from the rest of the world and temperatures decrease down to - 40 °C here. The nearest

road finishes in the 60 km far village Rar.

The school built-up without using heavy techniques from traditional natural materials- stone, sand, clay, culms, river clay, yakzee bushes, wood and glass is completely warmed up by sun radiation. The principal is easy. A light absorbed on the exposed south facade accumulates heat in winter needed during teaching. Heated air directed by the Trombe wall is distributed all over the building uniformly thanks „solar forced“ circulation. The whole construction of the school is in harmony with the local culture.



Kargyak - the highest situated village in Zaskar chain of mountains (northern part of India Himalayas), where original Tibet culture lives on, had no school facility recently yet. The Sun School enables elementary education and all-year teaching for 60 children from the village and adjacent habitations. From about 200 inhabitants just 10 know writing and reading namely. „The project reacts to insufficient level of elementary education, which is given by isolation and extreme climate conditions. We would like to realize a similar project in Nepal, too,“ Tilinger told at the end. Detailed information and interests on the project of the Sun School at Kargyak can be found on the Internet page www.surya.cz.

Photo - Skanska Property CZ / Surya

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