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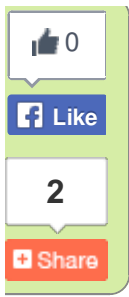


Russian Active House to Incorporate Dynamic Green House Concepts

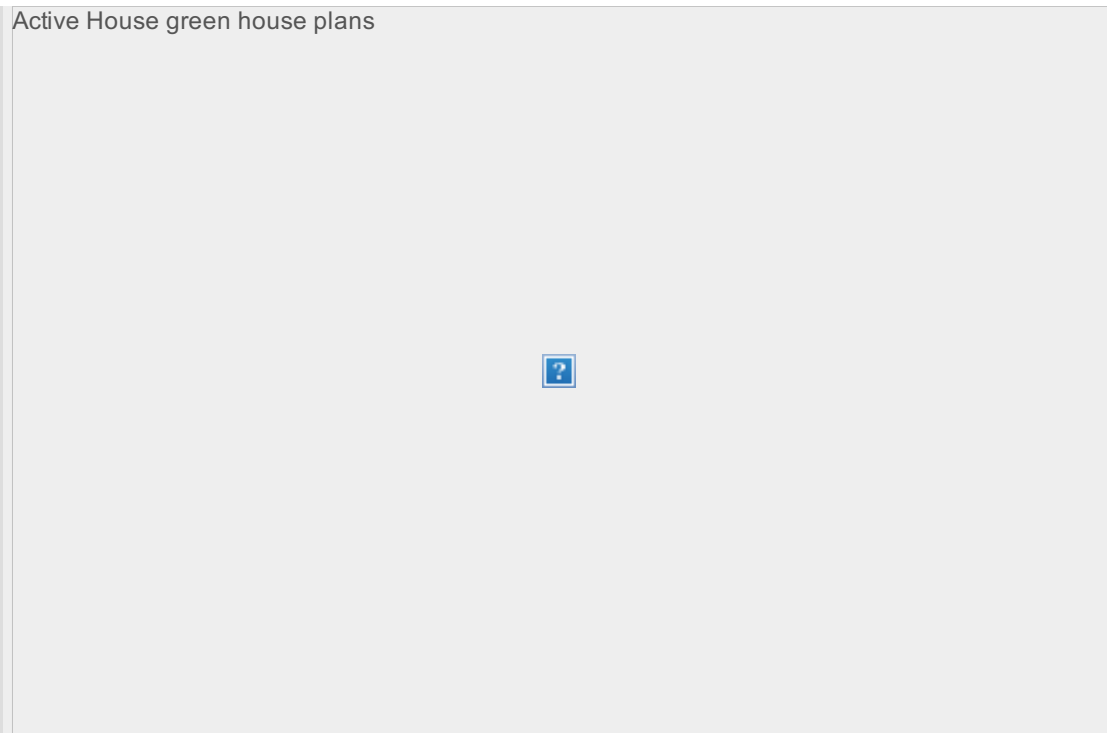
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Active House green house plans



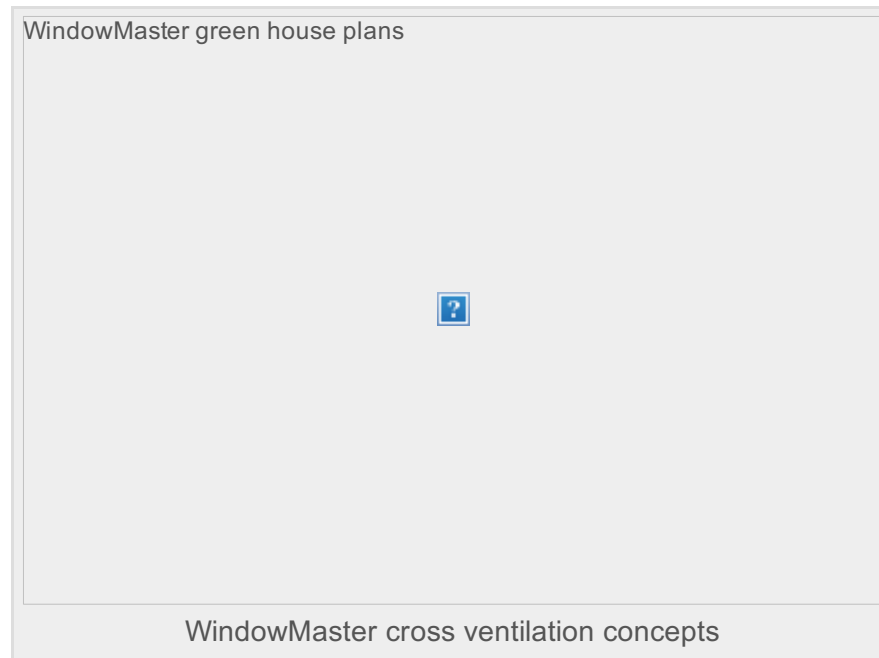
Active Houses are designed with mechanical ventilation, among other features

For those familiar with Passivhaus standards, the concept of an *active* house may conjure up images of a design that guzzles a lot of energy to maintain optimal internal temperatures. Thankfully that couldn't be farther from the truth.

Developed as a pilot project by Velux Group, a Danish-based window and solar specialist, [green house plans](#) they call [Active Houses](#) are designed using many Passivehaus concepts, with a few "active" features that provide additional energy benefits. The aim of an Active House is to bring these houses as close to net zero energy as possible.

The Passivhaus features include things like significant insulation and airtightness, optimal solar exposure, excellent ventilation, and high-efficiency doors and windows. It should be noted, however, that these houses don't necessarily meet Passivhaus standards – that is not their aim. Besides the passive house concepts incorporated into the design, these houses have "active" features that rely on or produce energy, making them less passive and more dynamic than passivhauses. These features include things like the following:

- A [WindowMaster](#) automated system to open and close windows, control blinds, adjust exterior awnings for shading, and regulate interior climate
- A photovoltaic system
- Solar hot water heating system (provided by [Velux](#), of course)
- A geothermal heat pump



All of the Active Houses should be open to the public for a period of time, and then will be tested for 12-month periods by test families with monitoring of energy production and consumption throughout.

The Active House project, which started in 2008 and will include a total of seven houses throughout Europe, is being used to showcase these concepts in a variety of countries and climate conditions in order to test the concepts in real world conditions. For a country like Russia where heating energy costs are extremely high, these energy efficient home designs may be very attractive. The only hitch is the cost: This Russian version of the Active House concept cost about \$1 million to build, which is well beyond what the average Russian can afford. Nevertheless, there are some promising features here.

Images via ActiveHouse.info and WindowMaster.com.

Active House Russia - green house plans



Russian Active House



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We blog about green building practices to help you create energy efficient homes.

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