

The Solar Pioneer Rolf Disch and PlusEnergy

Living in your own energy power plant – the future of living has already begun.

FREIBURG, GERMANY - In 1994, when the global green architecture movement was still in its infancy, Rolf Disch created the PlusEnergy house, the first home world wide to produce more energy than it consumes. 15 years after its creation, Disch's further developed PlusEnergy concept continues to be unmatched in energy efficiency and solar architecture technology. Now, Rolf Disch hopes to expand his concept internationally.

"The nation that leads the world in creating a new clean energy economy will be the nation that leads the 21 Century's global economy. That is our choice."

President Barack Obama - June 31, 2009



The Heliotrope in Freiburg

Rolf Disch Solar Architecture has already made a name for itself beyond Freiburg in the Black Forest of sunny southwest Germany where the PlusEnergy design was born. But **the PlusEnergy house** was hardly Disch's maiden voyage into solar technology: he began building with the sun over 40 years ago. He continued in 1994 with **the Heliotrope**, a private residence that physically rotates itself with the sun to maximize its solar energy generation and natural heat intake. This resulted in one of the first homes world wide to produce more energy than it consumes. Using its 603 ft² photovoltaic roof panel, solar-thermal balcony railings and geo-thermal heat exchanger, the PlusEnergy house is an aesthetic power-plant that generates more than four times its own energy consumption. In addition, the Heliotrope is equipped with triple-glazed windows, built-in natural waste composting, and a grey water recycling system.

In 2004 Disch expanded his solar temple into an entire 59 PlusEnergy home housing community, **the Solar Settlement**, in the internationally renowned car-free Vauban quarter of Freiburg. Incorporating an eco-friendly urban planning concept of carsharing, public transportation, footpaths and bike lanes, the Solar Settlement was the first housing community in the world to have positive energy balances in every house. With photovoltaic-panel roofs, triple-glazed windows, ventilation with heat recovery and built from sustainable regional Black Forest timber, these PlusEnergy houses blazed yet another trail in clean green architecture. Directly next to the Solar Settlement lies the Sun Ship, a PlusEnergy five-story commercial building with nine PlusEnergy penthouses on its roof. Fitted with the innovations of the PlusEnergy homes, **the Sun Ship** demonstrates Disch's ingenuity and versatility in 59,203 ft² of commercial and business space. Aside from winning various national awards, the Solar Settlement and Sun Ship projects also won the 2002 European Solar Prize and the 2003 Global Energy Award.



The Solar Settlement in Freiburg



The Sun Ship in Freiburg

According to the U.S. Energy Information Administration commercial and residential buildings in the United States consume at least 40% of our energy, of which less than 10% is renewable. PlusEnergy buildings could not only help change dependability on oil and expensive non-renewable energy sources, but also could help free occupants of ever-increasing energy prices by creating solar power plants from buildings. The energy surplus generated by PlusEnergy buildings is sold back into the local power grid for a profit – a remuneration supported by the German feed-in tariff (FiT), which guarantees fixed payments for renewable energy production for a fixed time period. Return-on-investment has proved to be the avenue to wider market penetration for solar energy and such FiT policies have already been implemented in some American states. PlusEnergy will thus prove to be an uplifting building opportunity for states like Hawaii, Maine, Fla., Mass., Mich., Wash., Wis., Vt., Calif., and Ore. Rolf Disch Solar Architecture is committed to bringing creative green-building projects to the foreground of solutions to today's energy and economic problems.

PlusEnergy is a dual solution which exceeds the highest ecological standards and puts money back in the pockets of owners. Rolf Disch has proved that ecology and economy, function and form can be happily combined to bring double profits: for investors and the environment.

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We would appreciate press coverage for our innovations. Please contact us for more information, questions and any other media needs you may have.

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(German and English versions)



A Penthouse on the Sun Ship

Prizes & Awards (Selection)



Global Energy Award 2003

- 2009 Utopia Award 2009
- 2008 German Local Sustainability Prize
- 2007 Creativity Award from Japanese PEN-Magazine
- 2006 Germany's Most Beautiful Residential Community
- 2005 Wuppertaler Energy- and Environment Prize for the Sun Ship
- 2003 Global Energy Award
- 2002 European Solar Prize
- 2002 House of the Year from 'Häuser' Magazine, the Reiner Foundation and the German Publishing Institute
- 2002 1st place in the national competition 'Who can build for the future?' led by the Dresden Bauspar Co. and the magazine CAPITAL
- 2001 Photovoltaic Architecture Prize, Baden-Württemberg
- 1997 "Ökomanager des Jahres" (EcoManager of the Year) from CAPITAL Magazine and WWF
- 1996 Special prize in the "Das goldene Haus" competition (The Golden House) for the Heliotrope
- 1995 German Architecture Prize for the Heliotrope
- 1994 European Solar Prize for the "Munzingen Solar Garden" from EUROSOLAR
- 1987 "Tour de Sol" solar automobile World Champion
- 1983 International Architecture Prize in Brussels:
1st Prize for the "Rabekopfstraße Housing Community"
2nd Prize for the "Ziegelei Housing Estate"