

Surplus-energy detached home as the smallest unit

Surplus Energy Anywhere

The Surplus-Energy House® offers as many possibilities as there are ideas. It can come as a detached or semi-detached home, as a terraced house or interconnected row of houses. It can be used for groups of houses or for an entire solar housing estate with integrated ecological urban planning. Be it as a solar standalone or as part of a sustainable neighborhood: Surplus-Energy House® is the architectural contribution to protecting the climate.

The sun does not bill you. It shines everywhere, meaning that surplus energy is a possible model for economic common sense: The sun ensures developers are permanently spared rising energy costs. That pays - as do the state subsidies you get.



Semi-detached house

Living and Working with Surplus Energy

Here you can breath freely! There are no toxic emissions in the air. Light-filled rooms ensure a pleasant atmosphere inside the home, and spacious windows provide the right sense of wellbeing, with flowing transitions between rooms and the outside world, the patio and garden, the balconies at the front and back of the house.

Or the Surplus-Energy House® becomes an inspiring workshop - either in its entirety or only part of it, say the grounds floor. After all, we all long since know that beautiful rooms with a pleasant ambient climate unleash creative energies. Surplus energy enables energy-conscious building, sustainable work, and a good life. Ecology that you can enjoy ...

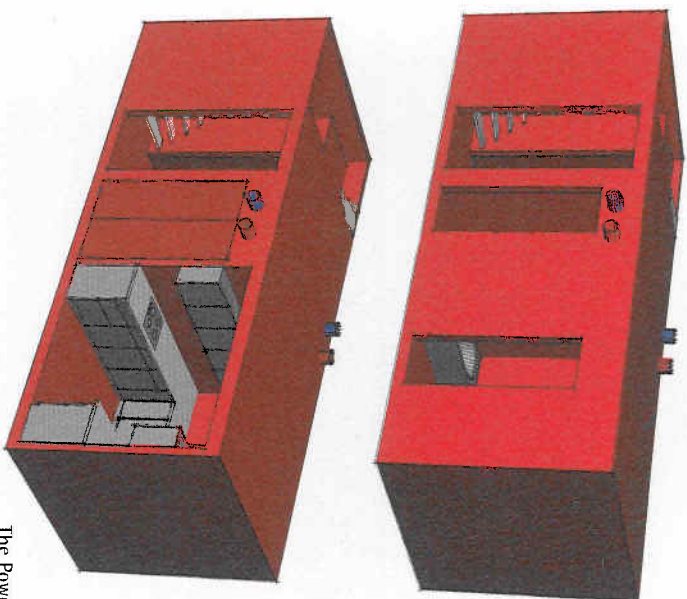
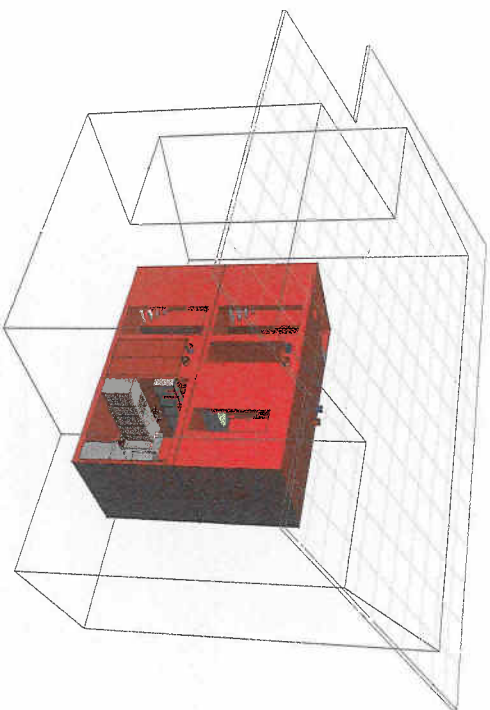


Solar Housing Estate · Project

Surplus Energy and Flexibility

For 15 years now, the Surplus-Energy House® has set the highest of energy efficiency standards. It became a viable market proposition with the globally renowned solar housing estate in Freiburg. And once advanced to the level of a modular system it becomes an appealing product for anyone and everyone.

It enables you to respond flexibly to specific needs, spatial requirements, property sizes, building permit specifications – with different footprint sizes, optional annexes, variable numbers of floors, alternative roof shapes. The groundplan can be subdivided into any manner of rooms, even for separate inhabitants – or for several generations in a single house, with an elevator and no barriers.



The Powerbox

The Powerbox

The Powerbox is the brain, heart and lungs of the Surplus-Energy House, the energy switchboard for the elementary cycles: power and heat, water and air. Functions, systems and access are all brought together here. This focus in a single core module enables greater flexibility in planning all the other rooms.

The Technical Room houses the solar station, heat reservoir, inverter and electrical distributor, as well as the ventilation system (with its highly efficient heat recovery plant). Here, the solar energy generation output can be constantly monitored and consumption regulated. The Box also contains a hall and stairwell, kitchen, WC and bathroom, pantry, and optionally a Wellness section with a sauna and sports equipment.

The Powerbox is completely prefabricated and delivered ready. Once it is in place, the entire house is soon completed. And standardization spells quality assurance: The developer gets optimized surplus-energy technology from a single source, implemented by experienced manufacturers who can of course also provide customized fittings.





Comparison: Primary energy consumption / generation (heating, domestic water heating, power) pursuant to EnEV (status: Jan. 2008)

Surplus Energy

Every home a power plant! A photovoltaic plant and thermal solar collectors on the roof generate power and heat. The façade's large-sized special glazing makes passive use of the sun's power. Insulation free of thermal bridges, efficient seals and heat recovery through ventilation keep the energy generated inside the home.

Solar power is fed into the public grid and paid for under the German Renewable Energy Act. The minor additional investments for the Surplus-Energy House® are thus self-financing.

Rolf Disch

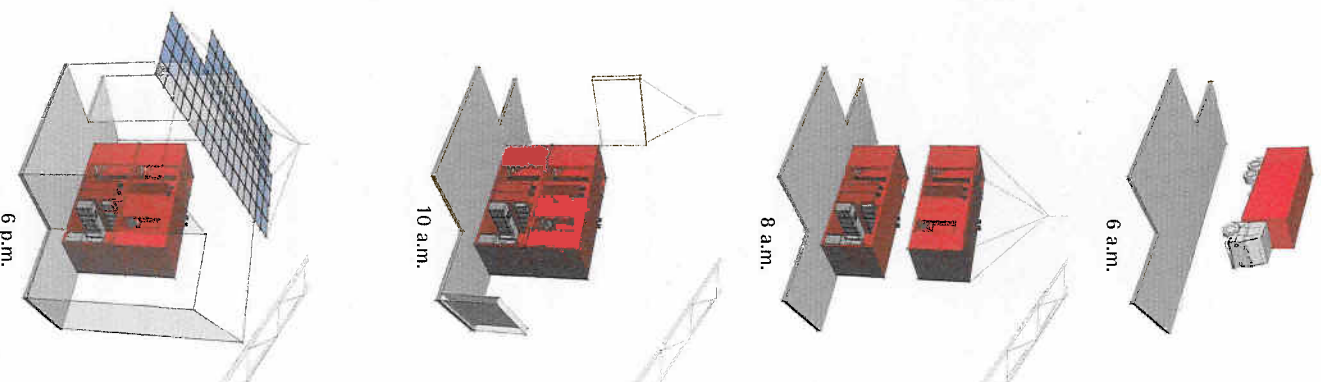
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The energy imperative: Don't waste energy, use it.

Wilhelm Ostwald, German Nobel Prize winner for Chemistry



Construction Sequence