



## Solar Academy Niestetal

### Client

SMA Solar Technology AG

### Architecture

HHS Planer + Architekten AG, Kassel

### Structural engineering

IB Goldmann, Habichtswald-Ehlen

### HVAC

Imtech Deutschland GmbH & Co.KG

### Energy concept consulting

Energydesign, Braunschweig

### Landscape architecture

mann landschaftsarchitekten, Kassel

**Planning and building dates** 12/2007 - 08/2010

**GFA / GV** 1.600 m<sup>2</sup> / 7.775 m<sup>3</sup>

**Service phases** 1 - 8

**Cost** 7,0 Mio. Euro (incl. PV)

A leading player in the world market for inverters, the company SMA Solar Technology AG needed a training facility. This was built as the raised structure over an existing car park area. The construction and design resulted from the site location on the flood plain of the Fulda and the requirements of an energy self-sufficient facility.

Extensive integrated photovoltaic elements work as both roof and façade, enabling the building's shell to combine the technical elements with the aesthetic considerations of a floating, lightweight structure. The building is anchored to the ground by a core of fair-faced concrete containing the access to the building.

The first floor houses the foyer, training rooms, ancillary areas and technical control centre, which also functions as a showroom to demonstrate the building's technical facilities, giving the building the status of a technical showcase.

The building is completely independent of the public networks for its energy requirements and is energy self-sufficient. As an "island solution," it demonstrates one of the technologies developed by the company, which can be used to provide electricity for locations that are remote from the grid. The solution is underpinned by high insulation standards combined with the cooling medium of ground water from a deep bore, and a biogas-fuelled CHP for winter periods when the PV output is insufficient.

