

FIRST ZERO CARBON EMISSION FILLING STATION IN EUROPE



Next Generation Solar Powered Filling Station
by Europa Studio Ltd.

THE WINNER OF THE EUROPEAN SOLAR PRIZE 2012

"RENEWABLE ENERGY TRANSITIONS;
A LEARNING FACILITY FOR SOLAR MOBILITY"



Sustainable materials



SUSTAINABLE
FLAGSHIP PROJECT



The interior is designed and built using environmental-friendly materials: tailor-made cardboard shop equipment and furniture; recycled vinyl textile flooring, lamps hung from the ceiling made from 512 used wine corks. In the shop the chairs and tables all shop shelving displays and counter tops are made of recycled cardboard. The three decorative balls with green northern lichen takes nourishment from the air and creates a pleasant micro-climate. The exterior walls are covered with 75m² greenwall and recycled wood composite wall cladding.



Energy / Water Efficiency



30kW GREEN ENERGY SOLAR TREES & CANOPY

The building is the first green zero carbon emission filling station in Europe which utilizes solar energy. The building's annual specific needs and consumption per net heated area is lower than a passive building requires less than 15kWh/m²a. Significantly enhanced heat insulation of the building, including special three-layer glass surfaces, greatly reduce the energy required for heating and cooling. For irrigation of the green wall and roof we use harvested rainwater to minimize potable water usage. In the parking area a highly efficient ABB electric car charger is installed. It can fully charge the batteries of an electric car in only 20 mins. The indoor-outdoor LED lighting system with 355 total pieces of lamps saves 12,000 kWh electric energy.



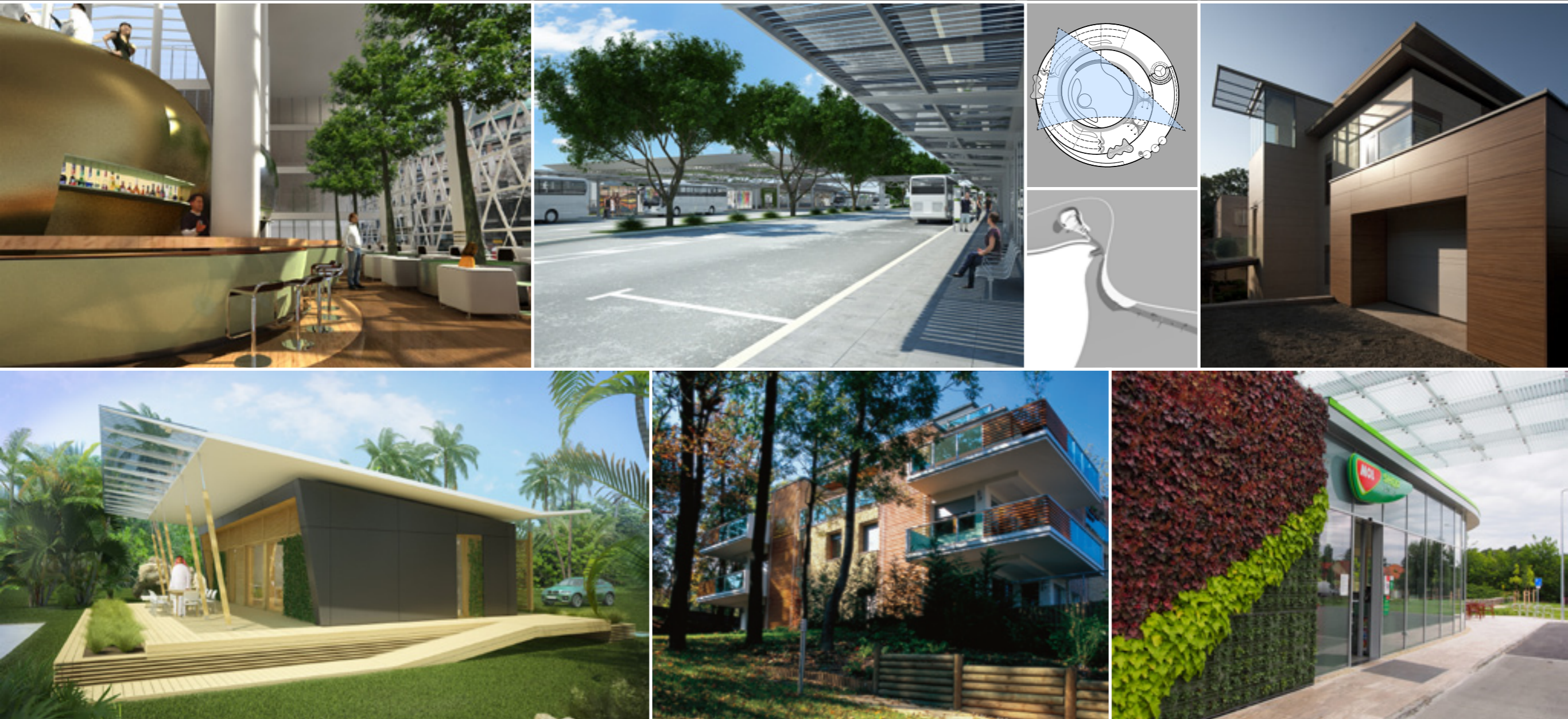
Community Impact / Design



The roof above the forecourt and the branches of the towering tailor-made "solar-trees" provide a total 250m² of integrated solar panels generating nearly 31,000 kWh of energy per annum. During summer days the station is self-sufficient by using solar energy. The custom design resulted no visible junction box or cables and imitating solar tree leaves. The outstanding design combined with sustainable technology can change our preconcept of traditional filling station appearance and show an example to our next generation. Europa Studio's Next Generation Filling Station shows us where the solar energy road can take us.



Company Information



Europa Studio has more than 20 years of experience in architectural and interior design. We have 420.000m² realised project area. We design sustainable and green buildings combined with multifunctional photovoltaic solutions (BIPV) delivering high aesthetic value with functional use. Our latest projects including: green filling stations, A+++ sustainable green office and luxury apartments building, solar powered eco villas, 300kW solar bus station and several concept design including sustainable architecture. Our Mission is helping to create and provide more sustainable building resources with high aesthetic value for all generations around the world.



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