

Mit freundlicher
Unterstützung der

KFW

**EURO
SOLAR**

EUROSOLAR
The European Association
for Renewable Energy

European Solar Prize 2012



EUROSOLAR



Winners of the European Solar Prize 2012

The European Solar Prize - EUROSOLAR, in collaboration with KfW Bankengruppe, presents this annual prize to towns and municipalities, municipal enterprises, societies, organizations, architects and private citizens to celebrate projects, initiatives, and individuals for their excellence in pioneering solar energy. The European Solar Prize 2012 award ceremony will be held in Berlin on 7 December 2012. Representatives of the different embassies will be present to honor the international laureates of their countries.

Recognized and celebrated through the European Solar Prize 2012 in the following categories will be:

Towns/municipalities, council districts, public utilities

- Zagreb, Karlovac, Krapina-Zagorje counties and the city of Zagreb / Croatia

Owners or operators of renewable energy installations

- Umwelt Arena AG / Switzerland

Local or regional associations/organisations

- Som Energia / Spain

Solar Architecture and urban planning

- Architect Silvio d'Ascia / Italy, France
- Int. Building Exhibition IBA Hamburg and research group Professor Dieter D. Genske / Germany

Transport and mobility

- Europa Studio Ltd. / Hungary

Special achievement prize for individual commitment

- Franz Niessler / Austria

An experienced panel of judges selected the winners. The members are:

Prof. Peter Droege, President EUROSOLAR; Gallus Cadonau, Solar Agentur Schweiz; Prof. Manfred Hegger, Architect; Wolfgang Hein, EUROSOLAR Austria; Rosa Hemmers, EUROSOLAR Germany; Preben Maegaard, Nordic Folkecenter; Werner Oerter, KfW Bankengruppe; Dr. Josep Puig, EUROSOLAR Spain; Francesca Sartogo, EUROSOLAR Italy; Prof. Tanay Sidki Uyar, EUROSOLAR Turkey; Olaf Weber, KfW Bankengruppe; Irm Scheer-Pontenagel, EUROSOLAR.

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Zagreb, Karlovac, Krapina-Zagorje counties and the city of Zagreb / Croatia

Towns/municipalities, council districts, public utilities

Successful program dedicated to financing renewables

A sustainable financing model was rolled out in the northwest of Croatia in 2009 to facilitate investment into solar power for the citizens. The program was co-funded by the counties of Zagreb, Karlovac and Krapina-Zagorje and the EU and put into practice by the Regional Energy Agency. The counties and the city of Zagreb had founded the energy agency earlier to promote the use of regenerative sources and energy efficiency.

130 solar thermal systems were installed on the roofs of regional homes in the first year. Households had received funding amounting to 40 % or up to € 1,600 of the investment costs. To bring widespread public attention to the project the energy agency had

run the campaign ‚I can have solar collectors, too!’ Victor, a popular comic book character known all over Croatia, personified the promotional measure as the ‚brand mascot’.

The program has been very successful. Alongside Croatia’s capital Zagreb other counties and towns have adopted the popular campaign. It has meanwhile been extended to include other forms of renewable energy use and small and medium-sized businesses as well.

The project has become an important component of Croatia’s energy policy mix. The potential of solar energy has been understood and has been strengthening the region’s economic vitality. At first applied at the local level only, the program has been taken on throughout Croatia now, and despite favorable local energy prices strongly resonates with the citizenry. Thereby, it is both a spur and example to all countries of Southeast Europe.



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EUROPEAN SOLAR PRIZE 2012

Umwelt Arena AG / Switzerland

Owners or operators of renewable energy installations

**The Umwelt Arena -
more than energy sufficient,
by 203 %**

Renewable building design and environmental showcase technologies and services are perfectly integrated in the new 'Environment Arena' in the Swiss town of Spreitenbach. Since opening in summer 2012 it offers visitors insights into a wide range of energy and environment topics. Sustainable energy and ecological solutions become tangible, as they have been integrated into the building's envelope, systems and controls, using a wide array of innovative technologies.

The building's sweeping forms, energy systems and efficiency captivate the visitor. The architectural design of the roof creates a striking identity. The specially designed photovoltaic solar panels appear arran-

ged like the scales of a reptile, its facets glittering like a crystal. With a peak output of 760 kW the photovoltaic installation generates 540,000 kWh of electricity a year. In addition a CHP unit, a solar thermal system and a biogas digester deliver reliable renewable energy.

In place of conventional refrigeration solar energy provides cooling in summer and heating in winter. Thanks to the integrated photovoltaic installation combined with innovative building technology the Umwelt Arena nearly produces twice the amount of energy than it consumes - equivalent to 203 % energy self-sufficiency.

The Umwelt Arena enables visitors from near and far to gain first hand experience and understanding of the major themes of environment, energy and sustainability. The plus energy building shows in an exemplary way how architecture, aesthetics and ecology can optimally blend. Thereby, it is a reference for the future of CO₂ neutral building operations.



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Som Energia / Spain

Local or regional associations/organisations

Spain's first renewable energy cooperative

Som Energia ('We are energy') is the first energy cooperative in Spain, in Catalonia, founded by 150 citizens in 2010. In only two years this number grew by an astonishing 2500 % to the nearly 4,000 members Som Energia has today.

Most private citizens cannot afford to realize wind, hydro or solar projects. Som Energia offers the possibility to act together in supporting the concept of renewable energy supply drawn from regional sources. The non-profit organization started out with purchasing local green energy from existing sources, so members can buy affordable electricity. Meanwhile,

Som Energia has built its own solar power installations and pursues new renewable production projects. The first citizen-owned 500 kW biogas plant in Spain is under construction. The goal is to produce enough electricity to meet 100 % of the members' consumption.

Consumers of power supplied by Som Energia are not only customers but also co-owners of the cooperative and can vote on decisions how to take it forward. In addition, they can invest directly in the development of renewable energy.

Som Energia combines in an exemplary way the cooperative idea, citizens' commitment and local energy generation from renewable sources. It offers every citizen the chance to participate in the move to renewable energy supply in Spain, expressing a growing grassroots demand.



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Silvio d'Ascia / Italy, France

Solar architecture and urban planning

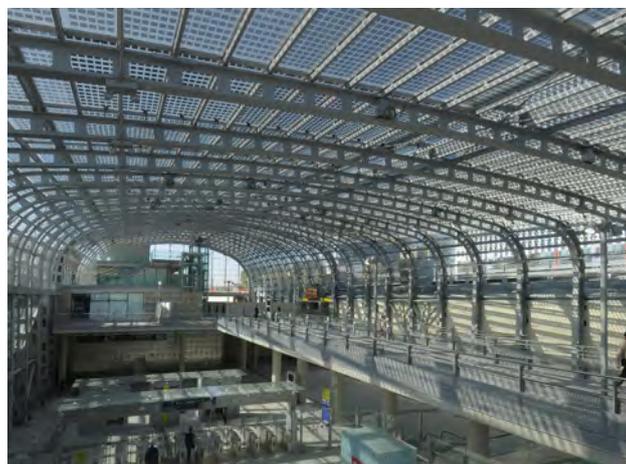
Solar architectural design for the new Porta Susa rail station in Turin

From the early planning stages, it was already clear that Turin's new Porta Susa train station, a central element in an important new urban construction project, had to set a new standard for sustainability and renewable energy. Silvio d'Ascia, the Paris-based project lead Italian architect, together with the AREP architecture firm and Prof. Agostino Magnaghi, designed a modern train station, which also is a power source in the city. Their client was Italy's Rete Ferroviaria Italiana Spa, provider of railway infrastructure management services.

The architects have taken inspiration from the traditional city arcades and 19th-century railway station

architecture for the new construction. The aesthetics of building-integrated photovoltaics is visibly expressed in the solar photovoltaic installation, which is integrated into the glass roof. The vaulted concourse, supported by steel trusses, is two-thirds covered by solar panels. To create the undulating shape and ensure the translucency of the roof each single panel has been specially cut. With an installed capacity of 600 kW the photovoltaic installation spans more than 10,000 m². It not only generates electricity but also provides shading.

The Porta Susa train station is an interchange hub for high-speed rail service between Paris and Rome, links to regional transport and the Turin underground railway. It shows the promise of a completely renewable urban environment. The canopy is a fine example of how public architecture and photovoltaic technology can be combined. The central location strongly reinforces public awareness of the solar potential of cities.



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EUROPEAN SOLAR PRIZE 2012

International Building Exhibition IBA Hamburg and research group Professor Dieter D. Genske / Germany

Solar architecture and urban development

Energy Atlas: Future Concept Renewable Wilhelmsburg

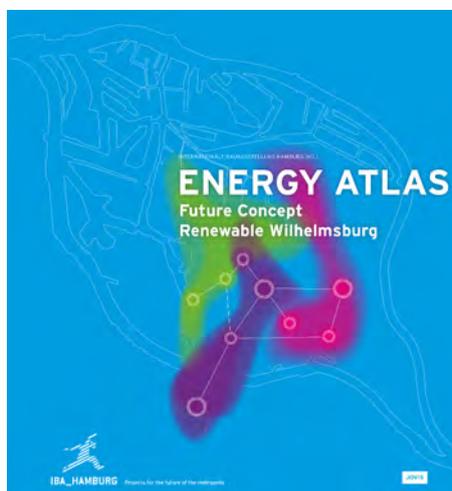
Around the world cities are facing great challenges posed by migration, globalization, demographic change and resource constraints; these are compounded by climate change. As part of the key theme, 'Cities and Climate Change', IBA Hamburg is developing on the Elbe islands sustainable concepts and projects for a future, climate-friendly metropolis.

The energy atlas created by IBA Hamburg documents a spatial development strategy for transforming the way energy is generated for and used by the Wilhelmsburg district. Professor Genske and his team of research scientists have made particularly important strides. In the energy atlas the city is devised as a re-

newable power plant. The electricity needs of all homes, commerce, trade and services should by 2025 be met by local renewable resources. 85 % of the total demand in the heating sector should by 2050 be supplied from renewable generation.

The many projects for energy-efficient redevelopment, refurbishment of existing housing and energy generation are by 2013 the beginning practical steps on the path to implementing the comprehensive concept.

Presented is an overall model of how a section of the city can attain energy independence step-by-step and becomes more attractive to residents, visitors and investors. The aim is to transform into a sustainable urban area provided with renewable energy alone. This is an excellent example to Europe and the world. The Future Concept Renewable Wilhelmsburg impressively shows how the locally carbon-neutral vision can turn reality for a city district.



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Europa Studio Ltd. / Hungary

Transport and mobility

Renewable energy transitions: a learning facility for solar mobility

Creative solutions draw broad public attention to the benefits of a full renewable energy supply - and great costs of delays and compromises. A Budapest filling station, which opened in 2011, shows us where the solar energy road can take us.

In our motorist society filling stations are inevitably in the spotlight. The innovative concept in Hungary demonstrates the oil reliance catastrophe and highlights the necessary move to the age of renewables in a self-critical manner. The contrast of solar technologies of the future and fossil systems of the past is unmistakable. It serves to create awareness and places visible emphasis on the necessary switch towards using electric drives.

An electric car charging point appearing at a conventional service station functions as a spur for the development of solar charging infrastructures extending throughout public space. A building integrated photovoltaic installation raises awareness of the necessity and practical possibility of supplying electric-powered vehicles with renewable electricity. The solar canopy of the forecourt and the branches of the symbolic solar trees generate a total of 31,000 kWh of electricity a year.

The effective heat insulation reduces the energy demand for heating and cooling. A highly efficient heat pump provides heat and cooling. These measures minimize energy consumption by more than 50 % compared to the former building. Environmentally friendly materials like cork or cardboard were used for the shop interior. Plants cover facades, walls and the roof, further highlighting the urgent need to a sustainable and biodiverse, fossil-fuel free world.



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Franz Niessler / Austria

Special achievement prize for individual commitment

A half-century commitment to the shift to renewable energy

For half a century Franz Niessler has been tireless in the fight to achieve his vision of a sustainable energy supply based on regional and renewable resources. He is widely recognized, in Austria and internationally, for his contributions in pioneering solar energy.

The electrical engineer and journalist early on had been actively working with the public. His work includes multiple publications and lectures about renewable energy. The 1973 oil crisis had encouraged him to continue on his path towards completely substituting for fossil and nuclear energies through renewable energies. He developed regional energy strategies for communities and launched renewable energy projects. He has continuously advocated for

energy independence of communities and regions. In 1988 Niessler and some fellow supporters joined in creating the ‚Wiener Solarstammtisch‘ - a well-attended, internationally renowned monthly meeting in Vienna - to explore and share insights and experience into and with solar energy. Moreover, he was the driving force behind the founding of EUROSOLAR Austria in 1989.

Niessler played a significant part in publicizing and introducing the ‚cost covering remuneration‘ in Austria, the feed-in to the grid and purchase of electricity generated from renewable sources at set rates. In addition, he actively engaged in many solar and wind power projects involving local citizen participation. In particular he also championed cogeneration.

Franz Niessler has developed diverse networks and won over many to his conviction over the long years of involvement in the renewable cause. Admired for his stamina and tenacity of purpose he sets an example to many in Austria and beyond.



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