EUROSOLAR
The European Association
for Renewable Energy



EUROPEAN SOLAR PRIZE 2023

Award Ceremony | February 23, 2023

Faculty of Architecture, Rome

and online

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EUROPEAN SOLARPRIZE 2023



THIS YEAR'S EUROPEAN SOLAR PRIZE GOES TO:

Towns, municipalities, council districts, public utilities
Primiero Vanoi energy community project, Italy

Solar architecture and urban planning
Renovation of an apartment building in Fahrwangen with solar roof and façade, Switzerland

Solar architecture and urban planning
Innovative Revitalization of a School Building in Prague into a Smart, Sustainable, Energy and Carbon Negative Building, Czech Republic

Industrial and commercial companies or farmers
Loccioni Leaf Community - the living lab of the ecological transition, Italy

Local or regional associations / organisations
Bath West Community Energy, England

Owners or operators of renewable energy installations
New solar power plant on the site of "En Chardon", Switzerland

Transport and mobility
Self-charging e-cars, Germany

Media
Movie project „Eng Aerd", Luxemburg

Education and vocational training
Dutch students invent solar powered motor home, Netherlands

One World Cooperation
TEA-LP

Special prize for personal achievement
Deepak Gadhia

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Members of the jury

Professor Peter Droege, EUROSOLAR President, Jury Chair

Gallus Cadonau, Director, Solar Agency, Switzerland

Professor Eliana Cangelli, University of Rome, Chair, EUROSOLAR Italy

Stephan Grüger, Vice President, EUROSOLAR

Johannes Hegger, Hegger Hegger Schleiff Architects, Germany

Wolfgang Hein, Chair, EUROSOLAR, Austria

Dr. Panos Mantziaras, Director, Fondation Braillard, Switzerland

Jennifer McIntosh, Executive Secretary, ISES, Germany

Carol Olson, EUROSOLAR The Netherlands

Dr. Josep Puig, Chair, EUROSOLAR Catalonia and Spain

Milanz Smrz, EUROSOLAR Czech Republik

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Primiero Vanoi energy community project

Italy

Towns, municipalities, council districts, public utilities

Successfully transforming an area into a more livable and resilient place in the face of climate change

Primiero Vanoi energy community project is an exemplary case of a successful transformation of an area to a more liveable place and resilient to climate change.

The project is promoted by the utility consortium company ACSM Primiero. From 1902, this multi-utility company has been engaged in the management of the local energy supply chain and in the production of green energy from renewable sources for more than 10.000 citizens in 10 Municipalities of the Province of Trento and produces more energy than it consumes. Through an integrated urban planning policy as a key tool, the Primiero Vanoi energy community project has combined sustainable energy planning with a sustainable mobility program. The plan defines concrete action plans and targeted interventions to respect local common natural resources and unique environmental assets, while ensuring an improvement in the quality of life of the inhabitants.

The Primiero Vanoi energy community project is therefore a great example for a successful transformation of an area towards a more liveable place.



Contact

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38054 Primiero San Martino di Castrozza
Italy

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Giuseppe Fent AG – Architektur im Klimawandel SIA
Switzerland

Solar architecture and urban planning

Renovation of an apartment building in Fahrwangen with solar roof and façade

This energetic renovation sets an example on what is possible by renovating buildings and how not only the climate damage contributions can be minimized but how existing buildings can take an active part in the fight for more energy efficiency.

Not only is the building self-sustainable when it comes to energy consumption but it actively produces energy which is useable for the energy consumption of up to 35 electric cars per year also reducing the climate damages caused by the mobility sector.

With extensive use of solar panels in its facade, it stands out as a so far unique concept for Europe that shows the opportunities for thousands of additional houses that have the ability to make the building sector - which consumes 40% of the whole energy demand in Europe – a more climate friendly sector and lead its way to meeting the climate goals set by the European Union. The energy refurbishment will avoid a total of 125 tons of CO_2 emissions per year and thus makes an important contribution to climate protection.



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ECOTEN s.r.o.
Czech Republic

Solar architecture and urban planning

Innovative Revitalization of a School Building in Prague into a Smart, Sustainable, Energy and Carbon Negative Building

As the first building integrating an innovative wooden curtain wall façade which is 92% based on cellulose surrounding a steel skeleton this project securely lands in energy class A. An innovative control system was implemented where the behaviour for the next day is based on a prediction of the buildings energy consumption, electricity production and spot electricity prices. Circularity is also practiced, by the use of waste water to preheat hot water. The microclimate is meticulously controlled. CO_2 and VOC sensors control the ventilation regenerative heat recovery which is stopped when windows are opened even further saving energy. Additionally the lights are adjusted based on the amount of daylight.

This sets an example for the level of planning that is necessary for maximized energy savings. Saving this much energy allows the building trough such an impressive energy performance to be declared energy and carbon negative.



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Loccioni

Italy

Industrial and commercial companies or farmers

Loccioni Leaf Community – the living lab of the ecological transition

The Loccioni Leaf Community is a living laboratory for ecological change. It includes the entire Loccioni campus with its industrial buildings, some homes, a local public school, and the area's natural resources. In this community, it is possible to live in a carbon-neutral home, get around in electric vehicles, learn in a solar-powered school and work in safe and comfortable buildings.

The entire area is powered by renewable sources with energy coming from the sun, the nearby river, as well as biomass. Photovoltaic roofs, micro-hydroelectric plants, three electricity storage units and a heat storage unit, a fleet of electric vehicles as well as the energy management system make the Loccioni Leaf Community an all-electric smart grid that generates more clean energy than it consumes each year and saves nearly 1,000 tons of CO2. New developments are also being tested, such as a cycle energy project involving the storage of exhaust batteries from cars.

The Loccioni Leaf Community is a complex community project, a living laboratory for ecological transition as well as a new way of planning business development making it a model project for other communities.



Contact

Loccioni
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Bath & West Community Energy

England

Local or regional associations/organizations

Collective installation of photovoltaic systems on municipal roofs

The Bath & West Community Energy collective raises money from members of the local community and uses it to install solar power plants on local buildings. Then it uses the revenues it earns from selling this energy back to the grid to return everyone's money – plus interest. It's a prime example of how communities can take the transition to renewable electricity into their own hands, building a model that's sustainable as well as profitable in terms of both energy and economics.

They have installed 13.2 MW of renewable energy on more than 20 solar projects in fields and on the roofs of local buildings — mostly schools and community centers, enough to power nearly 4,500 homes. This includes solar PV on the roofs of sixteen schools and five other buildings, five ground mounted solar arrays and a modern water wheel.

Bath & West Community Energy offers very promising and innovative solutions to collectively install photovoltaics on municipal roofs with benefits for all parties involved.



Contact

Bath & West Community Energy
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England

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Services Industriels de Genève
Switzerland

Owners or operators of renewable energy installations

New solar power plant on the site of "En Chardon"

With the installation of a new solar power plant on the site of "En Chardon" in April of 2021, the collaboration of "Transport Publics Genevois" (TPG) and "Services Industriels de Genéve" (SIG) managed to build a power plant that generates about 34 % of the total energy needs of the surrounding area. The power plant consists of two parts. The larger part covers the parking spots and spends shade which contributes about 80 % of the produced power. The smaller part is installed on the south-side of the roof.

What makes this system special and unique are the requirements which had to be met. As the power plant lies at the end of an airport-runway from the "Aéroport de Genéve" very specific safety and space conditions had to be fulfilled which limited the potential of the energy production.

Because of the close proximity to a gas-pipeline leakage currents had to be prevented at all costs thus the building had to be isolated from the power plant. The PV system on En Chardon promotes sustainable mobility.

This is a pioneering example for commercial buildings, to use the immense solar power potential of the building park and shows that it is possible to construct high performance solar power plants even with severe limitations.



Contact

Contact:
Services Industriels de Genève
Le Lignon, Vernier
Switzerland

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Sono Motors

Germany

Transport and mobility

Self-charging e-cars

Sono Motors are on a pioneering mission to accelerate the revolution of mobility by making every vehicle solar powered for a world without fossil fuels. With their solar vehicle "Sion" they invented a spacious electric car with a range of up to 305 kilometers that charges itself through the power of the sun.

456 half cells seamlessly integrated into the body of the car can add 112 km, on average (up to 245 km) per week, of driving range to the car's battery, through the power of the sun. This creates full self sufficiency on short distances.

To charge the Sion to 80% takes around 35 minutes at a fast charging station. The Sion can also be recharged at any public charging station in Europe, via your regular home power socket or from another Sion. The vehicle's onboard bidirectional charger enables you to share your Sion's power to recharge other electric vehicles. Their concept of car sharing and production of small and light cars with combination of battery and solar cells represents a good counter concept to the current car industry.



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Centre national de l'audiovisuel

Luxembourg

Media

Movie project „Eng Aerd“

The film "Eng Äerd" presents citizens who come together to imagine new ways to live better and in a more united way by using natural resources without exhausting them. Many different initiatives already exist in Luxemburg, with some attempting to avoid plastic, others produce clean energy, still others grow local organic fruits and vegetables, recycle clothes, repair machinery, invent new ways of building houses or try to reinject some humanity into the economic system.

In this film each initiative is presented by the people who lead it. They tell us why they built their project, what concerns them and what motivates them. Every change starts with a small step. The film aims to encourage viewers to dare to change and to explore new paths, at the private and associative levels as well as at the economic and political levels. It shows that everyone can contribute to building a new society, more just, more peaceful, healthier and more united, in balance with nature.

The movie "Eng Äerd" is a high quality production, which showcases citizens' initiatives that try to implement more sustainable living concepts on a decentralized basis. Such a decentralized approach shows how the energy turnaround can be implemented locally.



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Solar Team Eindhoven

Netherlands

Education and vocational training

Dutch students invent solar powered motor home – a combination of electromobility and self-sufficient cottages

Dutch students from the Technical University of Eindhoven in the Netherlands have created a solar-powered motorhome, shaped like a huge teardrop. Expansive solar panels on the roof and on lateral wings allow the vehicle to travel up to 740 km (460 miles) on a sunny day. The team of inventors hope that their vehicle will inspire car makers and politicians to accelerate the transition toward green energy. The solar panels on the roof and on lateral wings unfold when the vehicle stops allowing the self-sustaining house on wheels to travel up to 740 km on a sunny day, while the battery can also power a fridge, coffee maker and laptop in the two-person cabin.

The team of Dutch students show great commitment as well as creative ideas with the combination of e-mobility and self-sustaining tiny-houses and thus make an important contribution to the mobility transition.



Contact

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Netherlands

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Transforming Energy Access – Learning Partnership

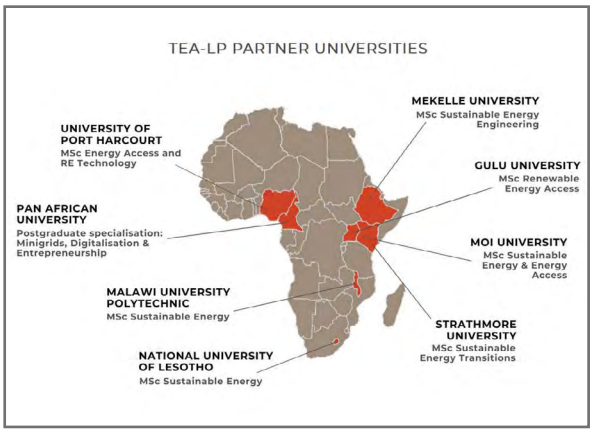
One World Cooperation

TEA-LP - a partnership of African universities aiming for a sustainable energy transition in Africa

TEA-LP is a partnership of African universities that aims to train professional African graduates who can drive the continent's transition to sustainable energy access for all. The TEA-LP is hosted by the African Climate and Development Institute at the University of Cape Town. Its Partner Universities are committed to developing, implementing and evolving new first-of-its-kind postgraduate curricula in Africa, offering students the opportunity to develop skills and expertise sorely needed to advance Africa's sustainable energy transition.

By early 2022, 6 of its partner universities launched their new programmes and over 90 post-graduate students were enrolled in their Masters studies focused on energy access.

With their focus on education the TEA-LP represents an excellent example how to build local renewable energy systems and offers many students new possibilities for their careers.



Contact

Transforming Energy Access - Learning Partnership
TEA-LP
University of Cape Town

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Deepak Gadhia

Special prize for personal achievement

Decades of work and commitment to renewable energy projects in India

For his decade long work and commitment for successful, renewable energy projects in India and his international engagement Deepak Gadhia is recognized with the special prize for personal achievement.

As a leading technocrat and a pioneer in the field of solar and renewable energy as well as bio-gasification Mr. Gadhia has earned international recognition for his accomplishments over the last 40 years of his career which was started with HTT GmbH in Germany but was moved to India where he developed a number of world renowned renewable energy projects. He engineered and helped create large arrays of Scheffler concentrators for institutions, one of which cooks at Tirupati, India 30,000 meals per day using solar power. He now mentors and supports many start-ups and continues to make an important contribution to advancing the energy transition with his commitment.



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Deepak Gadhia
Twitter: @deepakgadhia1

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Heliograph

Heliograph is a current term for a device called sunshine autograph, a meteorological instrument that can be used to determine the duration of sunshine of a day. It works on the principle of a burning glass when its glass ball is hit by direct sunlight. Through the changing angle of the sunshine in the course of a day the burning point moves on. With a special paper stripe you receive a burned line from which you can easily conclude the duration of sunshine.

The Solar Prize sculpture was created by Emil Schult, who had been inspired by this instrument.

