

Photovoltaic Power Plants Construction and Development





# **Ecology**

In order to maintain the sustainable development of civilization, further technical progress can not occur at the expense of increasing production and consumption of electric energy from renewable sources, which are gradually depleted, and are a disproportionate burden on the environment. Perhaps, the entire world understands that the use of renewable energy sources is the only possible way of the development of civilization. One of the most widely known way how to utilize the alternative renewable sources is using of the solar (photovoltaic) energy directly from the Sun.



- Photovoltaic sources contribute significantly to the protection of climate and the environment. Electricity produced by solar sources is environmentally clean, friendly and produces no waste.
- The amount of solar energy hitting the earth's surface is so huge that it would cover the current consumption equal to 6000 times the amount of the energy that we currently use Earth surface is hit by 89 petawats (89 000 terawatts) while our consumption is 15 terawats. Solar energy has also the highest power density (global average is 170 W/m2) among all known sources of renewable energy.
- Reliable technology ensures long life.
- Photovoltaic systems require minimal maintenance after installation. Operating costs are therefore extremely small in comparison with existing technologies.

#### Other benefits

- With a high promotional activities guaranteed by the state, the return on investment in solar power plants is very fast.
- If the photovoltaic system is connected to the power network, the energy can be consumed locally and thus reduce the total loss in the distribution system.
- Photovoltaic systems can show proprietor's responsibility to society and a proactive approach to the environmental protection.
- More intensive use of solar energy allows countries to get greater political and economic independence.
- Unbridled exploitation of natural resources results in wars, conflicts, oppression and poverty in affected countries. Therefore, we should consider whether wider use of solar energy will not create more fair and stable conditions in the affected countries.



## **About FKON ST**

EKON ST is a family construction company which has already been dynamically developing for many years.

The company was founded in 1994 under the name Stanislav Jurášek – EKON. Since February 1st 2004 the company has changed its business form to limited company and the name to EKON ST.

We focus on comprehensive solutions in civil engineering construction and on versatile services by building machinery.

Under the vision of the expansion of the business activities our company has begun focusing on the sphere of solar energy - on the very young industry, fully green with excellent prospects for the future.

We are able to provide investors with a comprehensive construction of photovoltaic power plant on a turnkey basis. We also offer the implementation without delivery of the technologies, or special services related to controlling and maintenance. We have already realized a lot of successful projects from small power plants to the several Megawatt parks.

A team of our staff consists of experienced professionals who keep abreast of new trends and knowledge in building industry and provide a way for their career growth. We appreciate their hard work and devotion to the quality of our employees and our goal is to create an environment that attracts people to where they wish to stay.

Our company is insured against liability for damages resulting from operations and from business relationship for 2 000 000 EUR.

Our company has successfully implemented the quality management system according to ISO 9001: 2009 and system of environmental management according to ISO 14001:2005.

#### Team of EKON ST









# Fotovoltaic systems

Photovoltaic power is a clean form of electricity production, which does not produce harmful emissions, does not create noise, odor, it is not harmful to humans or animals, does not emit radiation to the environment and does not consumes energy.

With the current situation of high prices of any energy, subsidies and government support programs a photovoltaic power plant is a very profitable investment. It provides small and large investors witht an excellent opportunity to evaluate their available financial resources and investments.

EKON ST company provides private individuals and businesses with comprehensive services and advices in the field of photovoltaic power. If you are considering an investment in photovoltaics and own a suitable building or site, please contact us and we will take care of the rest.















# Turnkey photovoltaic power plants construction

We offer comprehensive solutions in photovoltaic systems on a turnkey basis. We focus on the maximization of the customer satisfaction and support the achievement of our common objective: the assurance of the future. We supply and install extremely powerful photovoltaic plants. We are using photovoltaic panels, inventers and another fundamental components made by prominent worldwide manufacturers thereby we are able to offer the highest quality of whole system.

#### We will implement photovoltaic power plants from A to Z:

- We will provide for you a feasibility study
- We will arrange all energy audits
- We will work out the project documentation
- We will prepare complete documentation required for the application for the bank credit
- We will prepare documents necessary for the application for building permit
- We will construct a photovoltaic park
- We will equip your photovoltaic park by electronic security system
- We will provide insurance by your request
- We will handle the license for the sale of electricity at the local Energy Regulatory Office
- We will connect your power plant to the local distribution network
- We will provide the servicing and maintaining of your power plant after its activation to protect the effectiveness of your investment





# Services, technologies and construction of photovoltaic power plant

Do you have already prepared a project, building permit or even purchased technology for the construction of photovoltaic power and you want build, but do not know how to do it? Please contact us and we will construct your power plant.

We carry out regular maintenance checks and inspections of photovoltaic park. For example, visual inspections of electrical equipment, checks the security charts for mandatory equipment for high and low voltage electrical substations. Inspections of the status of contacts, joints, internal parts of electrical equipment, completeness of protections and constraints, imposing control cables for wires. We also offer maintenance of grassland, PV monitoring for operation of the electronic security system.

We provide installation of electronic security system, which detects vibrations of the fence due to mechanical stimuli arising in attempts to overcome it (climb, cutting-through, lifting).

We offer mobile measurements of photovoltaic panels. We have a dedicated mobile chamber for measurement for research system, photoluminescence, e ectroluminescence and thermometry. The facility is located on terrain vehicle chassis, so the measurement can be performed in difficult terrain directly in the power plant.









### Guarantees

As the contractor of your photovoltaic power plant we provide you following quarantees:

- Guarantee on the work as complex unit, on its functionality 60 months
- Guarantee on mechanical parts of photovoltaic panels 72 months by the way of replacement of the new panel
- Guarantee on constructions under the panel and elements of fixation of photovoltaic panels 60 months
- Guarantee on inventers 60 months
- Guarantee on any type of cabling 60 months
- Guarantee on erection works 24 months

Futher we provide the quarantee on the electric output of photovoltaic panels for 25 years in following way:

- Guarantee that for the first 10 years after activation of PVP the electric output of the panel will not be less than 90 % of nominal output declared by the producer of the panel.
- Guarantee that for the all 25 years after activation of PVP the electric output of the panel will not be less than 80 % of nominal output declared by the producer of the panel.









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