



ENERGEEEN

Guide to the use of
Renewable Energy



photovoltaic system

solar thermal

geothermal

mini-eolic system

integrated solutions

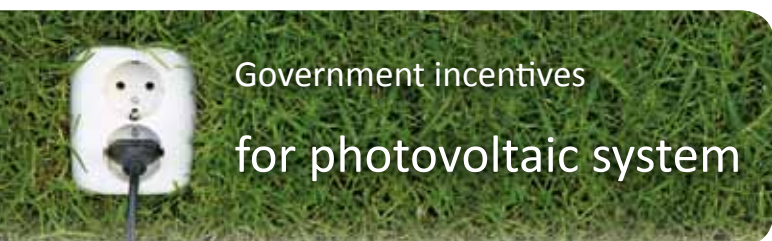
sustainable constructions

energeen S.r.l.



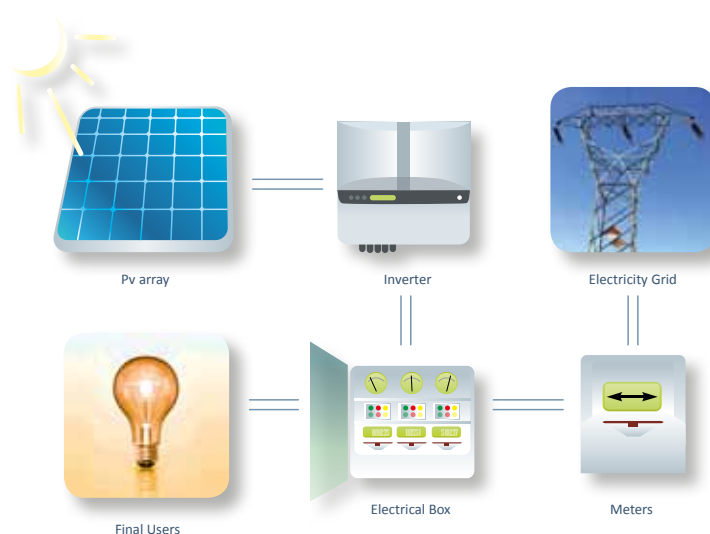
A photovoltaic system is a system of modular elements which is totally adaptable to the needs of any kind of user, from family to industry.

The photovoltaic systems offers a wide range of advantages, first of all the great profitability along with low maintenance costs and a technical life of about 30/40 years, but, above all, it grants the possibility of producing electricity without cost and with zero emissions.



The State recognizes companies and individuals who have made a photovoltaic system a real incentive for the production of electricity. In addition to government incentives, other revenues are represented by the direct use of energy produced and by the sale of production in excess of the direct use.

System diagram





A solar thermal system produces thermal energy collected in the form of hot water using solar energy and without any harmful entry into the atmosphere.

It can be used for domestic hot water and space heating, or in industry, in manufacturing plants of the food sector, in wellness centers and spas, in facilities, in gyms and sports centers.

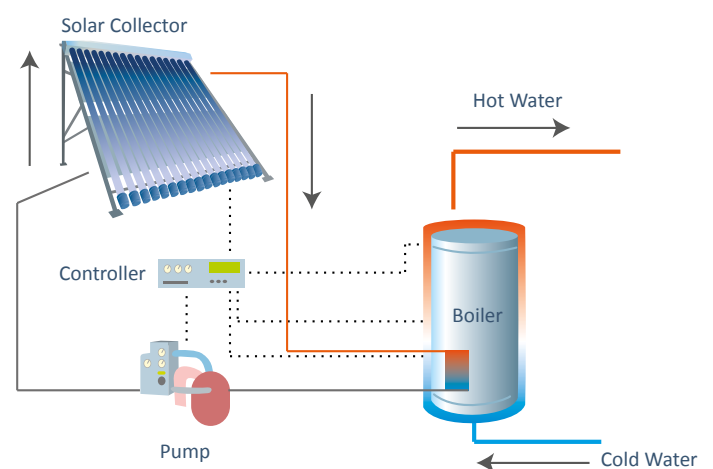


Government incentives

for solar thermal systems

The government incentive plan for solar thermal system provides a tax deduction of 55% up to a maximum of € 60,000.00 in ten years under income tax return. This deduction cannot be combined with any incentives provided by the European Union, Regions and local bodies. The customer must then choose whether to take advantage of the government deduction or incentives provided by European Union, regional or local bodies.

System diagram



Thermal energy CLEAN ENERGY

A geothermal system takes advantage of the energy constantly and naturally produced from the ground for heating or cooling different spaces. The principle on which geothermal systems are based is to move thermal energy, not to create it.

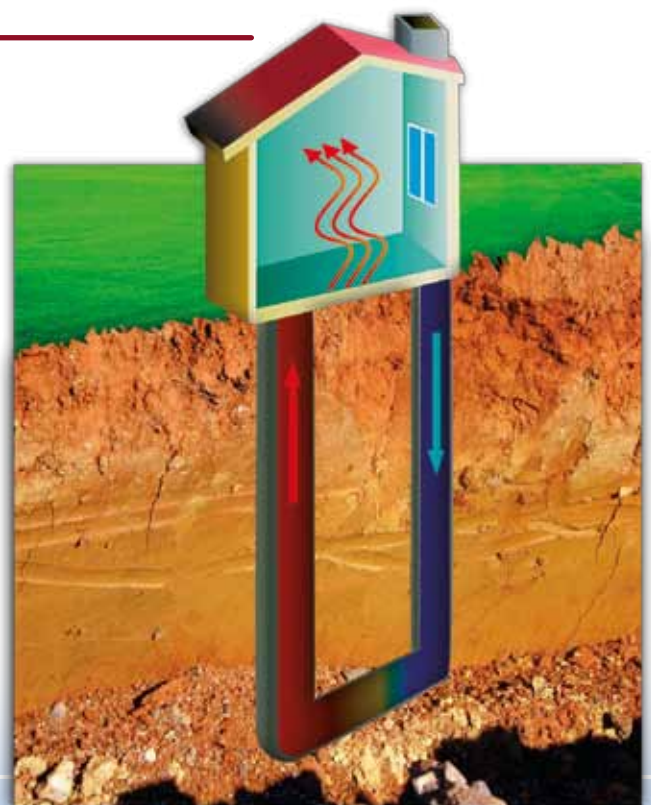
This process - which is realized through the use of electric heat pumps - drastically reduces the demand of gas for heating and of electricity for conditioning during the summer months. Despite the use of electrical energy, the geothermal low environmental impact thanks to the consequent preservation of primary sources that results is considered to be in effect a form of renewable energy.



The advantages of a geothermal system.

Geothermal systems work throughout the year; they extract heat from the ground when they are in heating mode during winter months, they instead transfer heat for the cooling of spaces during summer months. One installation that sees economy and absence of CO2 emissions as special features.

The geothermal has lower operating costs than conventional heating and cooling systems, it offers highly reduced maintenance costs and great comfort.





What is a geothermal system made of

There are three main elements in a geothermal system:

a system of geothermal probes for the uptake of heat

an electric heat pump

a system of heat distribution for heating or air-conditioning the environments.

Government incentives for geothermal system

To replace a traditional heating system with a geothermal probes and heat pumps system, in addition to the aforementioned advantages in terms of energy saving and conservation of natural resources, is entitled to a preferential tax regime with a tax deduction of 55% on the tax return.

The amount of the incentive, up to a maximum of 30,000 Euro, is deducted in 10 equal installments.





wind, a source of energy.

A gift of nature exploited through the use of cutting-edge technologies, becomes 100% sustainable energy



Wind energy has always been used by man for a variety of purposes, nowadays, the installation of a wind generator allows you to use an inexhaustible energy source through a reliable and profitable technology.

Small wind systems, which can serve companies or domestic utilities, are called “mini” to differentiate them from large wind farms. The small size, low annual maintenance costs and ease of installation, are characteristics that allow its use both in residential and in manufacturing or industrial settlements.

The possible applications are virtually endless, its kW power depends on the size of plant; the mini wind power systems are classified according to the type of technology on which they are based on:

- Horizontal axis systems:

They are directly derived from the large wind farms technology, they have vertical rotors whose blades directly follow the wind direction.

- Vertical axis systems:

The rotor in this kind of system is shaped differently from the classic blades, depending on the technical solution chosen at the design stage, it ensures robustness performances and reduced environmental impact.



Harnessing the wind's kinetic energy is a consolidated experience throughout man's history.

What's in a mini eolic system connected to the public grid:

- Supporting structure

A steel pole generally placed on reinforced concrete foundation.

- Turbine.

Consists of rotor, mechanical parts and electrical generator

- The control system.

Inverter and equipments which adapt the production of energy to the characteristics of the plant

Government incentives for mini eolic systems

In order to promote the initiatives of companies and private citizens who wish to install a wind generator, the government recognizes an incentive on the actual production of energy fed into the grid for a period of 15 years, after which one can sell the excess energy consumption through the mechanism of the so called "dedicated withdrawal".

Alternatively, one can choose to obtain benefits from the "exchange in place" mechanism, which provides a contribution on energy produced by the plant and not absorbed by electric utilities, measured by a suitable counter



15 years of incentives on production or repayment of the energy produced in excess.

Sustainable living space



Environmental Sustainability is an often abused term, a concept that can not only be traced back to issues of aesthetics or the use of “natural” materials or modern design.

Environmental sustainability is a philosophy, an ecological ethic to be followed in every project or execution of any implementation, and, above all, in the fruition of the spaces.

It is a positive attitude, a primary attention to man and the environment, whose most important goal is to preserve natural resources through the use of renewable energy sources, the maximum harmonization of building components with landscape that must accommodate them, and, above all, a respectful and attentive new way of life.

Environmental sustainability is the integration of the most advanced technology systems, adapted on the individual needs of all different types of users, both domestic and industrial.

On the next page we offer various types of integrated solutions for energy savings, each of these can be applied to both new buildings and existing ones, or in situations of partial or total renovation / expansion.



3D render of the " Energeen Village " - an example of sustainable constructions



- Replacement of the thermal plant

Replacing a conventional boiler with a geothermal pump allows the use of geothermal energy for heating and summer cooling, while maintaining the use of heating systems already in place, with considerable energy savings.



- Heating, cooling and hot water

In case of new constructions or renovations, it is possible to configure the system in order to offer maximum comfort and energy savings.

A single heat pump is able to replace three different conventional systems, boiler for heating, air conditioner and water heater during summer months, electric or gas water heater for the production of hot water.



- Geothermal / heat pump system integrated with solar thermal

To further reduce consumptions of the system, the geothermal heat pump can be integrated with a solar thermal system. The pump, with the use of solar energy, will limit the action of the compressor.



- Geothermal / heat pump system with integrated photovoltaic

By integrating a PV system to a geothermal heat pump one, there will be a reduction or even a flyback of power consumption necessary for its operation, with huge savings in terms of costs and emissions, to the complete self-sufficiency of the plant.

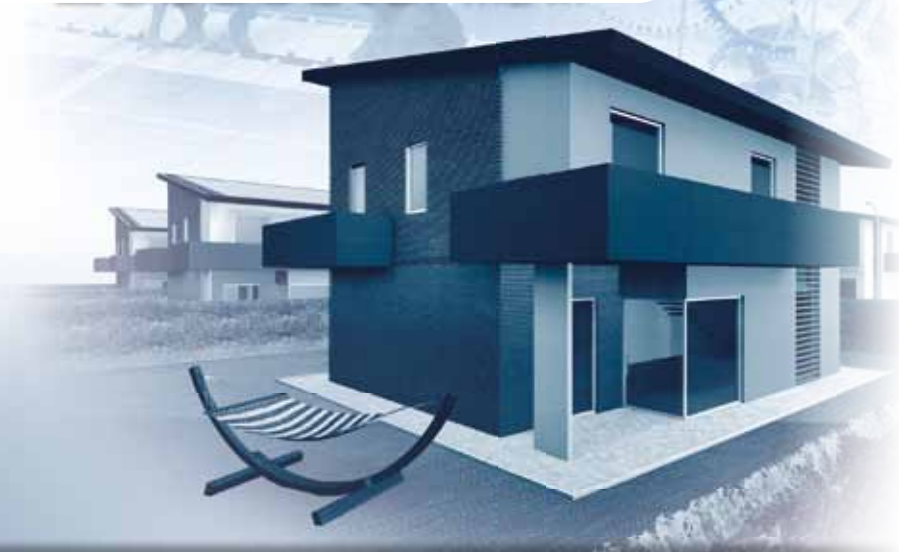


Geothermal / heat pump system with integration of photovoltaic and solar thermal

The most complete solution. It allows the maximum living comfort, with infinite advantages in terms of operating and maintenance costs, creating an energy self-sufficiency condition, without emissions



Sustainable buildings



The idea of creating sustainable buildings is born with the aim of capitalizing on technological know-how developed with previous experiences in Energeen, realizing energy optimized buildings from their design phase, and developing original solutions both in terms of materials and architectures together with new design solutions.



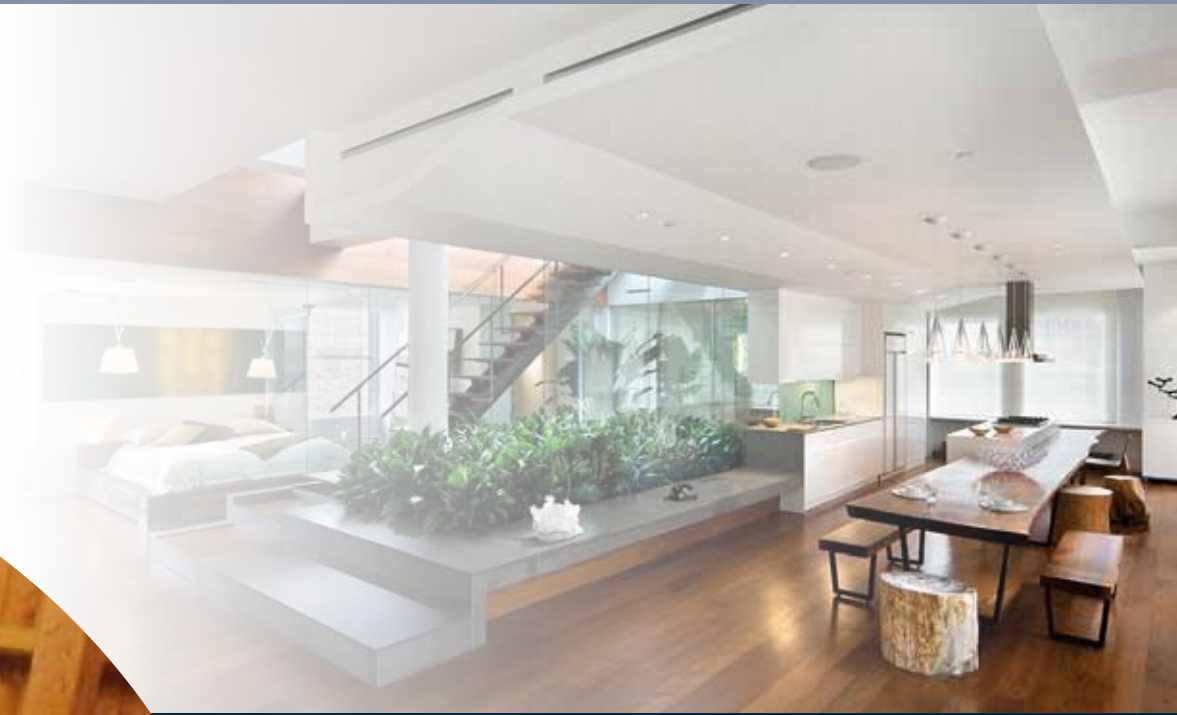
Energeen produces energy buildings or housing and industrial / commercial units with high energy performances, thanks to design, typological and systems features aimed for energy saving and reduction of CO2 emissions.

From the establishment of the technical designs to the implementation of the calculation reports, from the formulation of the estimate to the beginning of the work:

Energeen has a team of architects, engineers and designers who designs the best technical solutions for their customers.

“Turnkey” solutions

Energeen has its point of strength in the “turnkey” approach; it not only offers a “price of the building”, but realizes residential units of which consumptions are well known from the beginning, regarding to its specific use, so granting to customers the awareness of management and operation costs.



Energeen designs and manufactures

residential - commercial - industrial buildings - factories
facades - awnings - curved or angled blankets -
greenhouses - shelter - modular cladding with fully inte-
grated photovoltaic system

interventions that integrate architectures of existing or
planned "turnkey" with the aim to achieve maximum re-
sults in terms of brightness, ventilation and aesthetics.
Energeen is also a qualified partner for renovations, reha-
bilitation of reinforced concrete, sanitation and disposal of
asbestos.





has been operating since 2006, with significant results in the field of renewable energy.

The continuous search for cutting-edge and solutions technologies, and the great attention to human resources, has resulted in significant investments in the most important national projects in the field. The many initiatives - all successful - with the "turnkey" approach and the development of the business plan for energy projects.

The experiences give ENERGEEEN a well-deserved lead role in all types of exploitation of renewable energy sources.

Energy certification

ENERGEEEN is accredited to issue the Certification of Buildings, which is of fundamental importance for the sale or lease of property and for the access to the system of tax deductions on income.

Energy management

The ENERGEEEN is also present in the field of Energy Management; our experts are able to analyze all the exigent circumstances with the rational use of energy creating a planning customized solution for every need.



Constantly updated skills

Our qualified technical staff allows the company to deal with almost any situation, obtaining the best solution for the most complex requirements of our diverse customers.

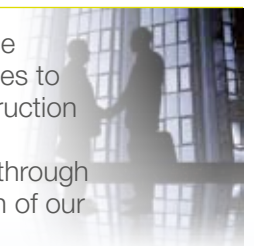
The continuous updating of technologies and skills can address all situations raised in the construction sites, always with the utmost professionalism, aiming to optimize the result always within a high quality standard, without neglecting the safety aspect.



We support your projects

In the end, the financial assistance to the internal development of projects, provides to ENERGEEEN the ability to run any construction with the "turnkey" formula.

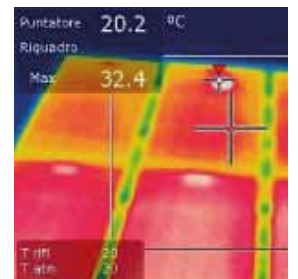
Our results, the achievements reached through the years and, above all, the satisfaction of our customers, are our calling card.





In addition to the already mentioned experiences in the field of photovoltaic, in which Energeen qualifies itself as leader subject at the national level, nowadays the company is able to offer services of design, installation, testing and assistance for:

- power plants Mt / Bt
- civil and industrial electrical systems
- heating and plumbing
- Air conditioning
- domotics
- solar thermal systems
- geothermal
- heat pumps
- LAN networks
- alarm systems and video surveillance
- telephony
- Energy Certifications and Qualifications – Law 10
- Thermographic Analysis
- Removal and disposal of asbestos





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