

KIOTO  
SOLAR

The visionaries



# Energy for life.

The full range  
of power and heat  
from sustainable resources.

CLEVERNESS, COURAGE  
AND INNOVATIVE CAPACITY  
ARE THE KEYS TO SUCCESS  
FOR ONE OF EUROPE'S  
BIGGEST SYSTEM SUPPLIERS  
FOR SOLAR THERMAL AND  
PHOTOVOLTAIC SYSTEMS.

---





WITH SUN AND WATER  
ON THE PATH TOWARDS  
LIBERTY.  
USING SUSTAINABLE  
ENERGY MEANS  
INDEPENDENCE.  
MEANS LIVING ECOLOGY-  
MINDED WITH LONG-TERM  
COST SAVINGS.

---

We help Europe becoming energy independent.

25

years  
solar industry St. Veit

1 Mio.

households in Europe  
use KIOTO SOLAR  
products

**75%**

yearly  
cost savings

**150 MW**

photovoltaic modules  
annual output

**15.000**

freshwater stations,  
stratified layer stations  
& heat exchangers  
annual output

**Nr.1**

one of Europe's  
leading system suppliers  
for heat and power

**KIOTO  
SOLAR**

# SUN. WE PRODUCE SUSTAINABLE ENERGY.

---



## **Power module**

---

KIOTO SOLAR's high-quality power modules stand out through being maintenance-free and gaining high yields. KIOTO SOLAR modules are extremely solid and highly durable. Nevertheless they have a very light construction.

### **Advantages:**

- High-end-power module thanks to continuous quality control
- Use of anti-reflective glass for higher performance
- Optimized weak light behaviour for higher yields



## **Solar collector**

---

KIOTO SOLAR's solar collectors set new standards in terms of perfect space utilisation and design. Highly automated robot assembly ensure high-performance products with consistent high quality.

### **Advantages:**

- Functional design
- Solar collectors have the same size than the power modules
- Standardized mounting system for solar collectors and power modules with black clamps



## **Hybrid module**

---

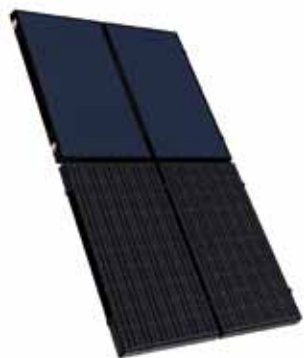
The perfect combination: the hybrid module combines power and heat in one module. The hybrid technology is the perfect solution for low temperature applications, especially in combination with heat pumps or as a pre-heater for pools and large-scale-applications.

### **Advantages:**

- Three-fold solar yields (1 part power, 2 parts thermal)
- Space saving and energy efficient system thanks to the combination of power and heat
- Optimal usage for low-temperature applications

The logo for KIOTO SOLAR, featuring the words "KIOTO" and "SOLAR" stacked vertically in a bold, sans-serif font, enclosed within a thin circular border.

KIOTO  
SOLAR



### **TWIN energy roof**

2 in 1: the best combination!  
Our new TWIN energy roof combines efficient technology with perfect design, thanks to its innovative appearance and standardized mounting system.

#### **Advantages:**

- Standardized mounting system for power modules and heat collectors with black clamps
- Black frames with low height and homogenous design
- 10 serial connections of thermal collectors (harp) with quick connectors (4 connections)



# WATER. WE STORE SUSTAINABLE ENERGY.

---



## **Stratified layer station**

---

Stratified layer stations are developed to gain optimal solar yields and high energy efficiency. The usage of a plate heat exchanger enables, the buffer tank to be charged optimally.

### **Advantages:**

- Maintaining the storage tank's stratification
- Optimal hot water comfort
- Ideal for heating support
- Optional heat quantity measurement



## **Fresh water station**

---

Fresh water stations from KIOTO SOLAR grant permanent fresh and vital hot water thanks to the patented temperature regulation. Without any waiting time. In any required quantity. With constant temperature.

### **Advantages:**

- Prevents the formation of legionella
- Constant hot water temperatures
- Fast reaction time
- Prevention of lime-scale



## **Heating circuit group**

---

The heating circuit group is used to connect a heating circuit to the buffer tank. The necessary heating water is taken from a specific buffer zone and fed back into the appropriate zone after being cooled down.

### **Advantages:**

- Easy plug-in installation - direct mounting on buffer tank
- Nice design with hidden pipe connections
- Applicable for different types of heating controllers
- Integrated gravity brake prevents unwanted circulation





### **Energy storage tank**

The energy storage tank is the ideal energy center for your house. Combined with the TWIN energy roof the energy storage tank enables the perfect combination of hot water and heating support for single- and two-family households.

#### **Advantages:**





- One storage tank for auxiliary heater, hot water and heating
- All components fit together perfectly (storage tank, fresh water station, stratified layer station, heating circuit group)
- Fast and space-saving mounting, minimum piping effort
- Optimum energy yield



# 100% HOT WATER, HEAT AND POWER FROM SUSTAINABLE ENERGY. FOREVER.

With SUN we produce and with WATER we store sustainable energy. That's how we support your way to energy independence step by step.

What is the **average energy consumption** per year for a single family household\*:

 Hot water	3.500 kWh
 Heating	5.500 kWh
 Power	3.500 kWh
 E-Mobility	3.000 kWh
<hr/>	
Yearly energy consumption	15.500 kWh

Yearly energy cost savings

	Savings in kWh	Savings in %	Savings in €*
Self-consumption power	3.920	70	860,-
Feed-in rate power	1.680	30	85,-
Solar fraction	5.700	50	670,-
<hr/>			
	11.300 kWh	75 %	€ 1.615,-

Example: Family "Müller" (low-energy house, 140 sqm, 4 persons) installs a TWIN energy roof with 20 pcs. of TWIN power modules (5.600 kWh / year) and 10 pcs. of TWIN solar collectors (5.700 kWh / year)

\* The earnings (cost savings in kWh) from the solar system, shown in the calculation above are based on evaluations, experiences and system simulations. We made assumptions for the energy price increases during the next years (average price oil 0,12€/kWh, power 0,22 €/kWh), that can't be determined exactly. We do not accept any liabilities for the calculations mentioned above.

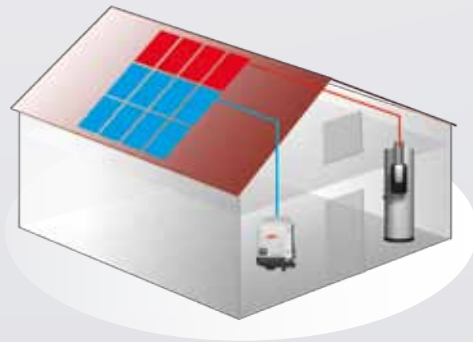


Up to  
**75%**  
energy cost savings

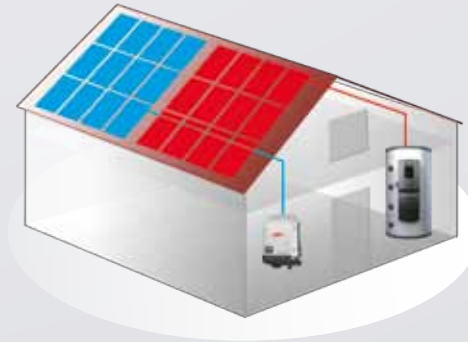
KIOTO  
SOLAR



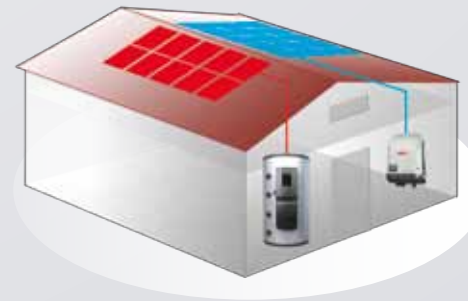
# INSTALLATION AND DIMENSIONING SAMPLES.



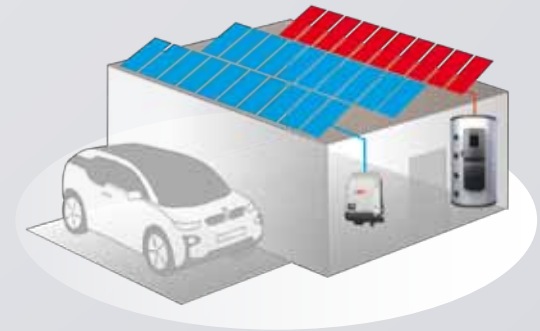
South



South



East/West



Flat roof



**Hot water:** 1 TWIN solar collector per person



**Heating:** 1 TWIN solar collector per 10 sqm low temperature heating



**Power/E-Mobility:** approx. 4 TWIN power modules (4 modules = 1kW) per 1.000 kWh power consumption



KIOTO  
SOLAR

### Energy for life

There are many ways for becoming energy independent. Our installation and dimensioning samples help you with the planning of your solar system.

Up to  
**75%**  
energy cost  
savings

# KIOTO SOLAR XL. HEAT.

---



## Residential construction

There are only some hot water systems and heating systems which are combined with solar collectors on the residential construction sector at the moment. Only two percent of all flats are supplied with solar energy. The potential for solar systems is still very high!



## Tourism

Half of the hotel industry is heated with an oil fired heating system. The costs for heating correspond to nearly four to six percent of the total amount of expenses. Solar systems are the ideal solution for the hotel industry. Half of the hot water required for cooking, washing and showering can be provided free of charge with the power of the sun.



## Industry

Solar systems are the ideal solution for industries that need a lot of hot water. Especially car wash stations, the food industry (dairies, breweries, etc.), the galvanic industry or the timber industry need a lot of hot water and therefore have a high potential for saving money with a solar system.



## District heating

Large solar collector fields feed district heating systems with free hot water from the sun. District heating suppliers, municipal utilities, communities, housing industries or industrial companies are only some target groups that benefit from solar systems.

\* The earnings (cost savings in kWh) from the solar system, shown in the calculation are based on evaluations, experiences and system simulations. We made assumptions for the energy price increases during the next years (average price oil 0,12€/kWh), that can't be determined exactly. We do not accept any liabilities for the calculations.



KIOTO  
SOLAR

**Example:**

---

A 60 bedroom hotel installs  
30 solar collectors

---

Yearly domestic hot  
water demand  
(2.700 l/day) 48.800 kWh

---

Hot water production  
with 30 solar collectors 37.400 kWh

---

Energy cost savings  
hot water  
(37.400 kWh x 0,12 €  
price oil/kWh\*) € 4.488,-

---

Up to  
**80%**  
energy cost  
savings

# KIOTO SOLAR XL. POWER.

---



## Trade firm

More independence for your energy future. The solution: a photovoltaic system. A trade firm needs a lot of electrical power. Therefore the photovoltaic system amortizes within a very short period of time.



## Retail firm

A photovoltaic system also has lots of advantages for retail firms. Depending on the size of the photovoltaic system the system can provide up to 100% green power.



## Industry

Many industrial companies have a high demand for electricity at the same time the sun provides free energy. Therefore a photovoltaic system is the ideal solution for saving energy costs. A major part of the power needed can be covered with the photovoltaic system. This reduces the monthly energy bill significantly.



## Public participation power plants

Public participation power plants become increasingly popular. How does it work: a company builds a photovoltaic power plant. Then they sell the photovoltaic modules to private investors. In return the investor receives a fixed rate of interest. It's the perfect combination between a safe investment and a sustainable way of producing energy.

\* The earnings (cost savings in kWh) from the photovoltaic system, shown in the calculation are based on evaluations, experiences and system simulations. We made assumptions for the energy price increases during the next years (Average price power 0,22 €/kWh), that can't be determined exactly. We do not accept any liabilities for the calculations.





KIOTO  
SOLAR

**Example:**

A trade firm installs a 50 kWp  
photovoltaic system

Yearly production power	<b>50.000 kWh</b>
Self consumption (approx. 70%) (35.000 kWh x 0,22 €/kWh)	<b>€ 7.700,-</b>
Feed in rate (approx. 30%) (15.000 kWh x 0,05 €/kWh)	<b>€ 750,-</b>
Yearly energy cost savings	<b>€ 8.450,-</b>

High  
self consumption  
fast  
amortisation

# ENERGY FOR LIFE. READY FOR THE NEXT GENERATION.

---

We guarantee the highest quality as well as resource-efficient and highly automated production processes. KIOTO SOLAR assigns great importance to quality assurance. Only the best products ensure our long-term success.

KIOTO  
SOLAR



# ENERGY FOR THE WORLD OF TOMORROW.

---

KIOTO SOLAR  
Solarstraße 1  
9300 St. Veit / Glan  
Austria  
T: +43 (0) 4212 28300-0  
E: [office@kiotosolar.com](mailto:office@kiotosolar.com)  
[kiotosolar.com](http://kiotosolar.com)



The visionaries

# KIOTO SOLAR