

PHOTOVOLTAIC ENERGY – DIFFERENT TECHNOLOGIES



Przeczytaj tekst ze strony jednej z amerykańskich firm zajmujących się fotowoltaiką.

Solar energy

Solar power is energy from the sun that is converted into thermal or electrical energy. Solar energy is the cleanest and most abundant renewable energy source available, and the U.S. has some of the richest solar resources in the world. Modern technology can harness this energy for a variety of uses, including generating electricity, providing light or a comfortable interior environment, and heating water for domestic, commercial, or industrial use.

There are several ways to harness solar energy: photovoltaic (also called solar electric), solar heating and cooling, concentrating solar power (CSP), and passive solar.

The first three are active solar systems, which use mechanical or electrical devices that convert the sun's heat or light to another form of usable energy. Passive solar buildings are designed and oriented to collect, store, and distribute the heat energy from sunlight to maintain the comfort of the occupants without the use of moving parts or electronics.

Solar energy is a flexible energy technology: solar power plants can be built as distributed generation (located at or near the point of use) or as a central-station, utility-scale solar power plant (similar to traditional power plants). Some utility-scale solar plants can store the energy they produce for use after the sun sets.

Po przeczytaniu dopasuj wyrażenia z tekstu (1-12) do ich znaczeń (a-n). Nie wszystkie polskie tłumaczenia wykorzystasz! Wpisz literkę odpowiadającą tłumaczeniu przy angielskich wyrażeniach.

1 to convert something into something

2 to harness

3 to generate electricity

4 domestic

5 commercial

6 industrial

7 device

8 to orient

9 to store heat

10 to distribute

11 (public) utility company

12 abundant

A firma użyteczności publicznej
 B przekształcić coś w coś innego
 C obfity, zasobny
 D handlowy, komercyjny
 E urządzenie
 F domowy
 G fabryka

H okiełznać, ujarzmić
 I generować prąd
 J rozpowszechniać, rozprowadzać
 K lokator
 L ustawić, ukierunkować
 M przemysłowy
 N magazynować ciepło

Dopasuj technologie wspomniane w tekście do ich opisów.

SHC CSP PV PST

1. technologies collect the thermal energy from the sun and use this heat to provide hot water, space heating, cooling, and pool heating for residential, commercial, and industrial applications.
2. is a technology that converts light into electricity with the help of certain materials that can absorb photons and release electrons.
3. include choosing special building materials that can collect, store and distribute the heat of the sun in the winter, and reject it in the summer. It also means orienting buildings so that they can use the heat and light of the sun in the most efficient way.
4. plants use mirrors and lenses to concentrate the energy of the sunlight and convert it into heat to create steam. This steam drives turbines or engines that create electricity.

Korzystając z informacji z poprzednich zadań, uzupełnij tabelę wpisując „yes” lub „no” tak, aby odpowiadało to faktom o danych technologiach. Niektóre informacje zostały już uzupełnione.

	Active solar system	Passive solar system	Electricity	Heat
Photovoltaic				
Solar heating and cooling				
Concentrating solar power				
Passive solar techniques				